TM 9-2330-246-14

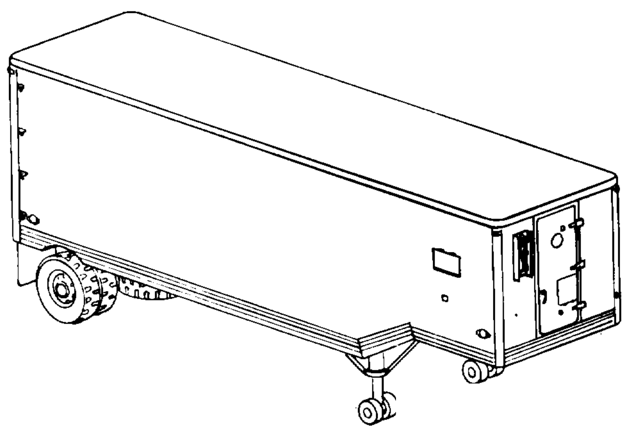
TECHNICAL MANUAL

OPERATOR'S, ORGANIZATIONAL, DIRECT SUPPORT, AND GENERAL SUPPORT MAINTENANCE MANUAL

FOR

SEMITRAILER, VAN: ELECTRONIC, 6-TON, 2-WHEEL

M348A2 (NSN 2330-00-678-3838)
M348A2C (NSN 2330-00-690-7724)
M348A2D (NSN 2330-00-690-7725)
M348A2F (NSN 2330-00-690-7726)
M348A2G (NSN 2330-00-797-7405)
M348A2H (NSN 2330-00-973-1262)
M348A2K (NSN 2330-00-740-2322)
M348A2N (NSN 2330-00-740-2329)
M373A2 (NSN 2330-00-705-8932)
M373A2C (NSN 2330-00-672-7496)
M373A2D (NSN 2330-00-738-5869)
M373A3 (NSN 2330-00-937-4518)
M373A4 (NSN 2330-00-937-4519)
M373A5 (NSN 2330-00-781-7755)
XM1005 (NSN 2330-01-107-5728)
XM1007 (NSN 2330-01-109-5961)



This manual and TM 9-2330-246-24P supersede TM 9-2330-246-14&P, dated 6 June 1983, and all changes.

HEADQUARTERS, DEPARTMENT OF THE ARMY MARCH 1992

FOR INFORMATION ON FIRST AID, REFER TO FM 21-11

WARNING

ASBESTOS HAZARD

- DO NOT handle brakeshoes, brakedrums, or other brake components unless area has been properly cleaned. There may be asbestos dust on these components which can be dangerous if you touch it or breathe it. Wear an approved filter mask and gloves. Never use compressed air or a dry brush to clean brake components. Dust may be removed using an industrial-type vacuum cleaner. Clean dust or mud away from brake components with water and a wet, soft brush or cloth, Failure to follow this warning may result in serious illness or death to personnel.
- Insulation around heater exhaust pipe (M373A2D and M373A5) is made of asbestos. Asbestos can be dangerous if you touch it or breathe it. Wear an approved filter mask and gloves. Failure to follow this warning may result in serious injury or death to personnel.

WARNING

COUPLING AND UNCOUPLING SEMITRAILER

All personnel must stand clear of towing vehicle and semitrailer during coupling and uncoupling operations. Failure to follow this warning may result in serious injury or death to personnel.

WARNING

DRY CLEANING SOLVENT

Dry cleaning solvent, P-D-680, is toxic and flammable. Always wear protective goggles and gloves, and use only in a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point is 100°F-138°F (38°C-59 °C). If you become dizzy while using cleaning solvent, immediately get fresh air and medical help. If solvent contacts eyes, immediately wash your eyes and get medical aid.

WARNING

HANDLING HEAVY COMPONENTS

- When replacing axle or springs, weight of semitrailer must be supported by leveling jacks or by blocking or support stands placed under rear comers of frame. Failure to follow this warning may result in serious injury to personnel.
- Axle is heavy and awkward to handle. Use caution, provide adequate support, and use assistance during removal and installation. Failure to follow this warning may result in serious injury to personnel.

WARNING

HEATING SYSTEM

When working on heater fuel tank, fuel lines, and fuel pump, work area must be well-ventilated. Failure to follow this warning may result in injury to personnel.

TECHNICAL MANUAL

TM 9-2330-246-14

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington D. C., *20 March 1992*

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M373A4 (NSN 2330-00-937-4519)
M373A5 (NSN 2330-00-781-7755)
XM1005 (NSN 2330-01-107-5728)
XM1007 (NSN 2330-01-109-5961)

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know, Mail your letter, DA Form 2028 (Recommended Changes to Pub//cations and Blank Form), or DA Form 2028-2, located in the back of this manual, direct to: Commander, U.S. Army Tank-Automotive Command, ATTN: AMSTA-MB, Warren, MI 48397-5000. A reply will be furnished to you.

TABLE OF CONTENTS

• **This manual and TM 9-2330-246-24P supersede TM 9-2330-246-14&P, dated 6 June 1983, and all changes.**

TABLE OF CONTENTS (Con't)

CHAPTER 1
INTRODUCTION

Section I. GENERAL INFORMATION

1-1. SCOPE.

a. **Type of ManuaL** Operator's, Organizational, DirectSupport, and GeneralSupport Maintenance Manual.

b. **Equipment Name and Model Numbers.** Semitrailer, Van: Electronic, 6-Ton, 2-Wheel, M348A2, M348A2C, M348A2D, M348A2F, M348A2G, M348A2H, M348A2K, M348A2N, M373A2, M373A2C, M373A2D,M373A3, M373A4, M373A5, XM1005, and XMl 007'

c. **Purpose of Equipment.** The semitrailers are designed to transport electronic equipment and other similar delicate items.

1-2. MAINTENANCE FORMS, RECORDS, AND REPORTS.

Department of the Army forms and procedures used for equipment maintenance will be those prescribed by DA Pam 738-750, *The Army Maintenance Management System (TAMMS).*

1-3. DESTRUCTION OF ARMY MATERIEL TO PREVENT ENEMY USE.

For destruction of Army materiel to prevent enemy use, refer to TM 750-244-6.

1-4. PREPARATION FOR STORAGE OR SHIPMENT.

For information on preparing the semitrailers for storage or shipment, refer to Chapter 4, Section XVI.

1-5. REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIRs).

if your semitrailer needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design. Put it on an SF 368 *(Product Quality Deficiency Report).* Mail it to us at: Commander, U.S. Army Tank-Automotive Command, ATTN: AMSTA-MP, Warren, MI 48397-5000. We'll send you a reply.

Section II. EQUIPMENT DESCRIPTION AND DATA

1-6. EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES.

a. The semitrailers are designed to transport electronic equipment and other similar delicate items.

b. The semitrailers are designed to be towed by the M52 5-ton Truck Tractor on either highway or cross-country. Speed is governed by safe driving speed of towing vehicle.

c. The semitrailers are equipped with:

(1) An integral body and frame.

(2) A fully insulated body.

(3) A removable dolly assembly to facilitate air transport.

(4) A 24-volt electrical system capable of operating under standard and blackout modes.

(5) Four-wheel single axle leaf spring suspension system to absorb road shock.

(6) Air/hydraulic brake system, with automatic breakaway protection, that receives air pressure from the towing vehicle.

(7) Manually operated landing gear used to raise or lower front of semitrailer and support front of semitrailer when uncoupled from towing vehicle.

(8) A towing pintle located at the rear of semitrailer for towing puroses.

(9) Wheel chocks used to prevent accidental movement of semitrailer when not coupled to towing vehicle.

(10) Ladder assemblies:

(a) A three-or four-step personnel ladder assembly used for access to semitrailer.

(b) A 12 ft ladder used for access to top of semitrailer.

(11) Leveling jacks with removable support shoe and handle used to stabilize rear of semitrailer.

d. M373A2D and XM1005 are equipped with radio frequency interference (RFI) shielding for improved radio reception,

e. M373A2D and M373A5 are equipped with a 80,000 BTU heater controlled by a thermostatic switch to provide semitrailer temperature control for equipment in transport.

f. M348A2H, M373A2D, M373A3, M373A4, and M373A5 are equipped with 208-volt, three-phase air conditioners to provide semitrailer temperature control for equipment in transport.

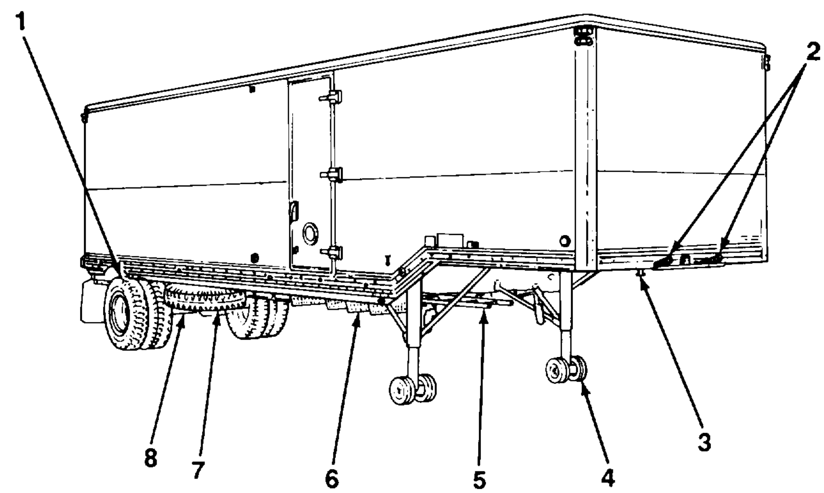
g. M348A2H, M373A3, M373A5, and M373A5 are equipped with a 110-volt electrical system.

1-7. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS.

a. M348A2 Series, M373 Series, M373A3, M373A4, M373A5, XM1005, and XM1007 Series Vans.

NOTE

M348A2 is shown. All others are similar.



Key	Component	Description
1	Wheel Assembly	Consists of offset disk-type split rim and split-type retaining side rim.
2	Air Couplings	Connect emergency and service brake lines of van to towing vehicle.
3	Kingpin	Stand 2 in. kingpin couples van to towing vehicle.
4	Landing Gear	Used to support semitrailer and aid in raising or lowering semitrailer during coupling.
5	Ladder (12 ft)	Provides access to van body not available for M373A2 and M2373A2C vans.
6	Ladder (3 and 4 step)	Provides access to van body interior see paragraph 1-9 for quantities and types for different vans.
7	Spare Wheel Assembly	Used for emergency replacement for damaged wheel.
8	Axle and Bracket Assembly	Connects entire suspension system to frame.

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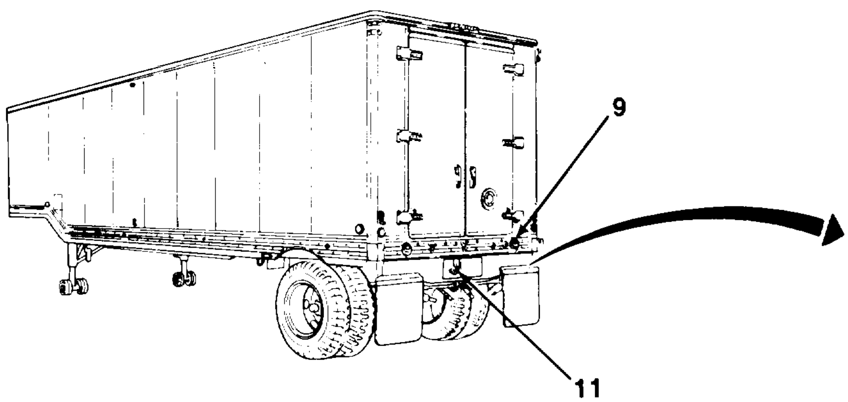
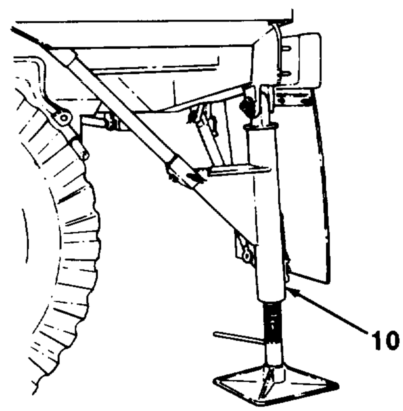
1-7. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (Con't).





Key	Component	Description
9	Service Taillight, Stoplight, and Blackout Stoplight	Indicates presence of semitrailer to van vehicles traveling behind semitrailer.
10	Leveling Jack	Used to level and stabilize the semitrailer.
11	Pintle	Used for towing additional equipment behind van.

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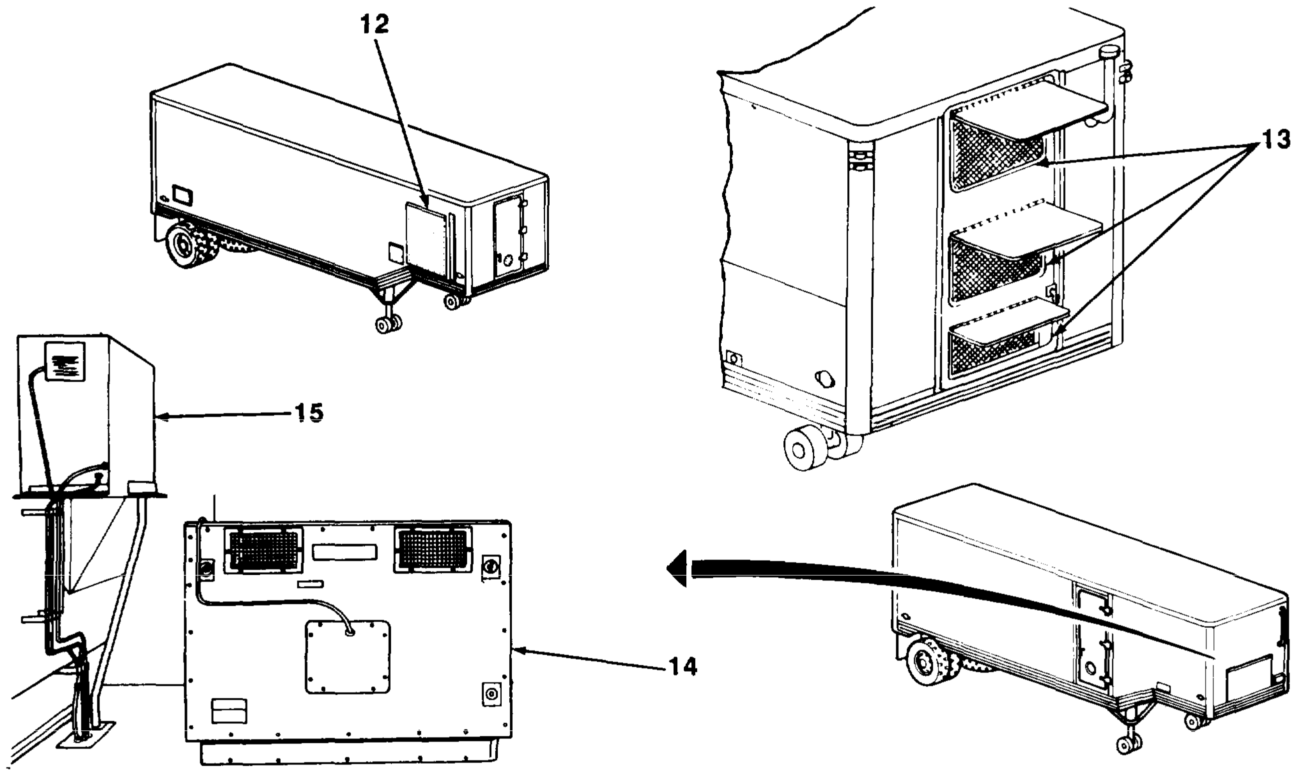
1-7. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (Con't).

b. M348A2H, M373A2D, M373A3. M373A4. and M373A5 Vans.



Key	Component	Description
12	Air Conditioner (M348A2H)	Three 18,000 BTU air conditioners are used to provide a controlled source of cooled and fresh air to van body interior.
13	Air Conditioner (M373A2D)	One 80,000 BTU air conditioner used to proved a controlled source o cooled and fresh air to van body interior.
14	Air Conditioner (M373A3, M373A4, and M373A5)	One 36,000 BTU air conditioner used to proved a controlled source of cooled and fresh air to van body interior.
15	Heater (M373A2D and M373A5)	Used to provide a controlled source of heated air to van body interior.

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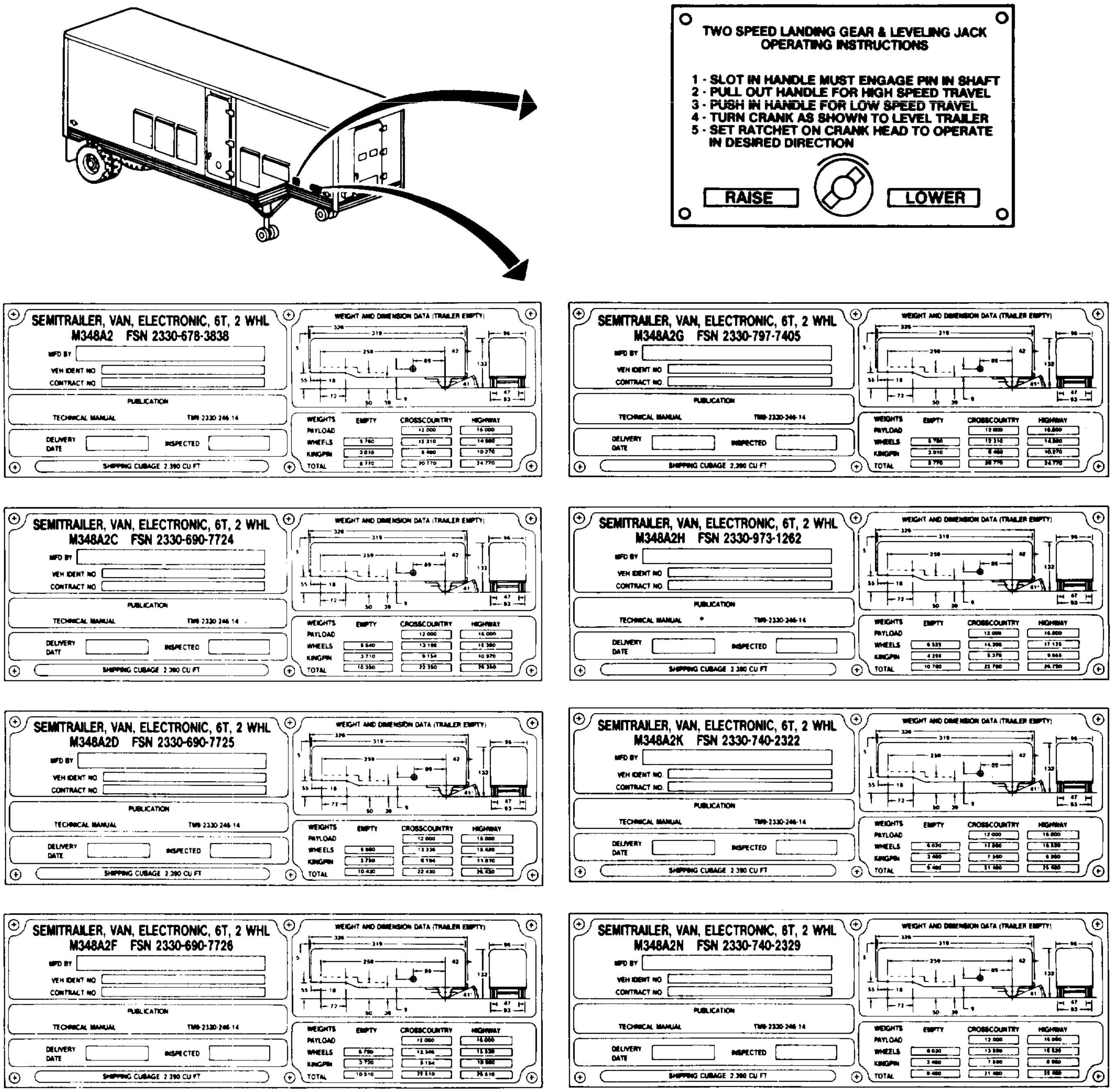
1-8. LOCATION AND CONTENTS OF DATA PLATES.

a. The following illustrations show the location and contents of all semitrailer data plates.

b. Maintain all data plates so that all information remains legible. If any data plate is missing or illegible, notify Organizational Maintenance,

c. M348A2 Series.



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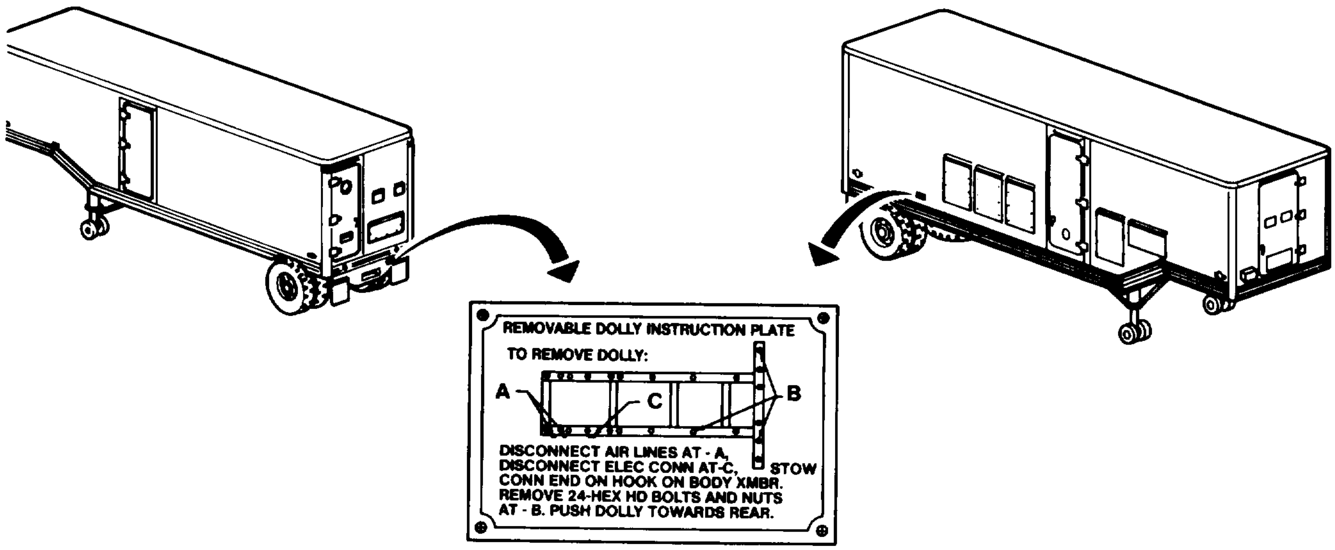
1-8. LOCATION AND CONTENTS OF DATA PLATES (Con't).



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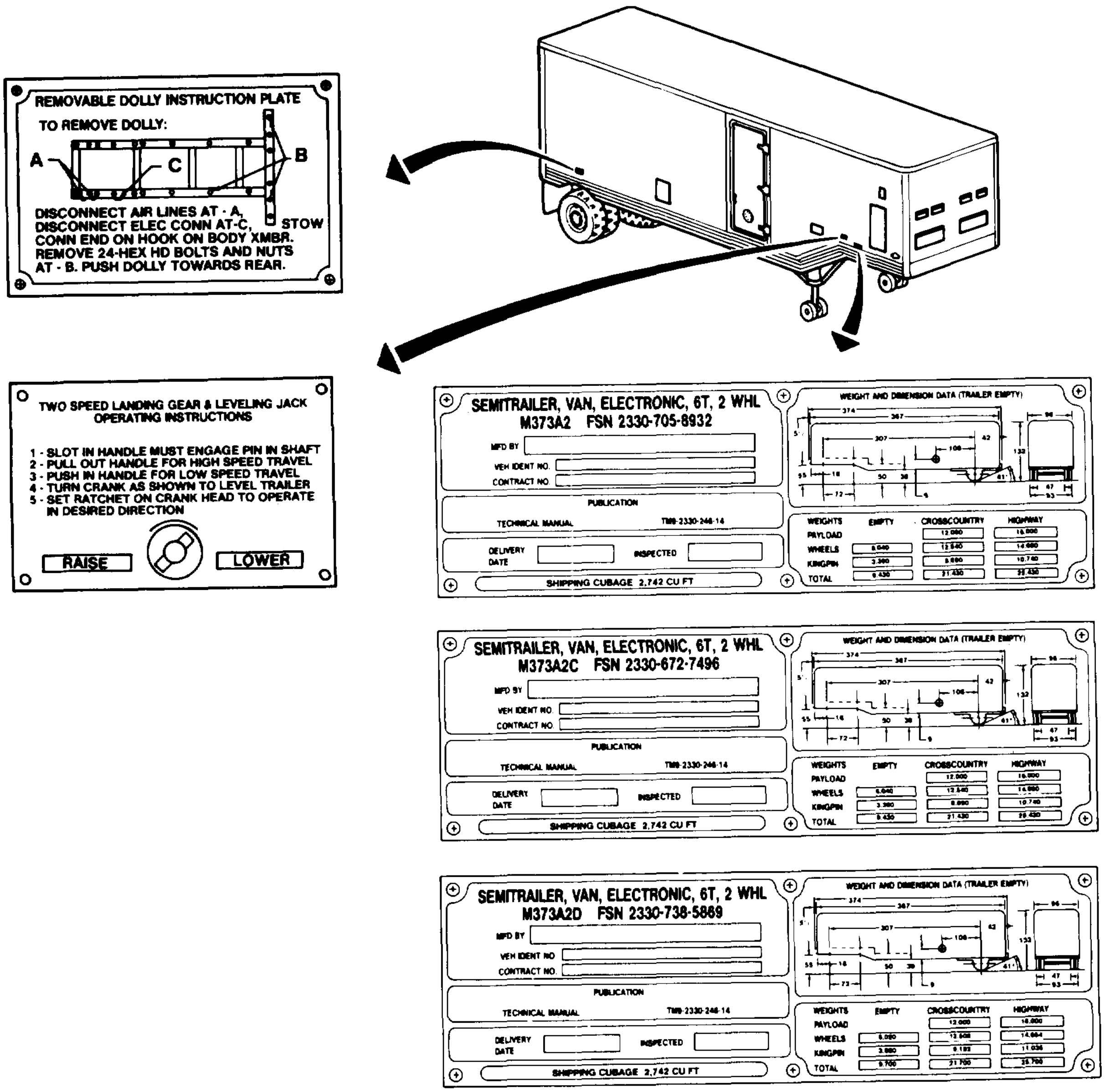
1-8. LOCATION AND CONTENTS OF DATA PLATES (Con't).

d. M373A2, M373A2C, and M373A2D.



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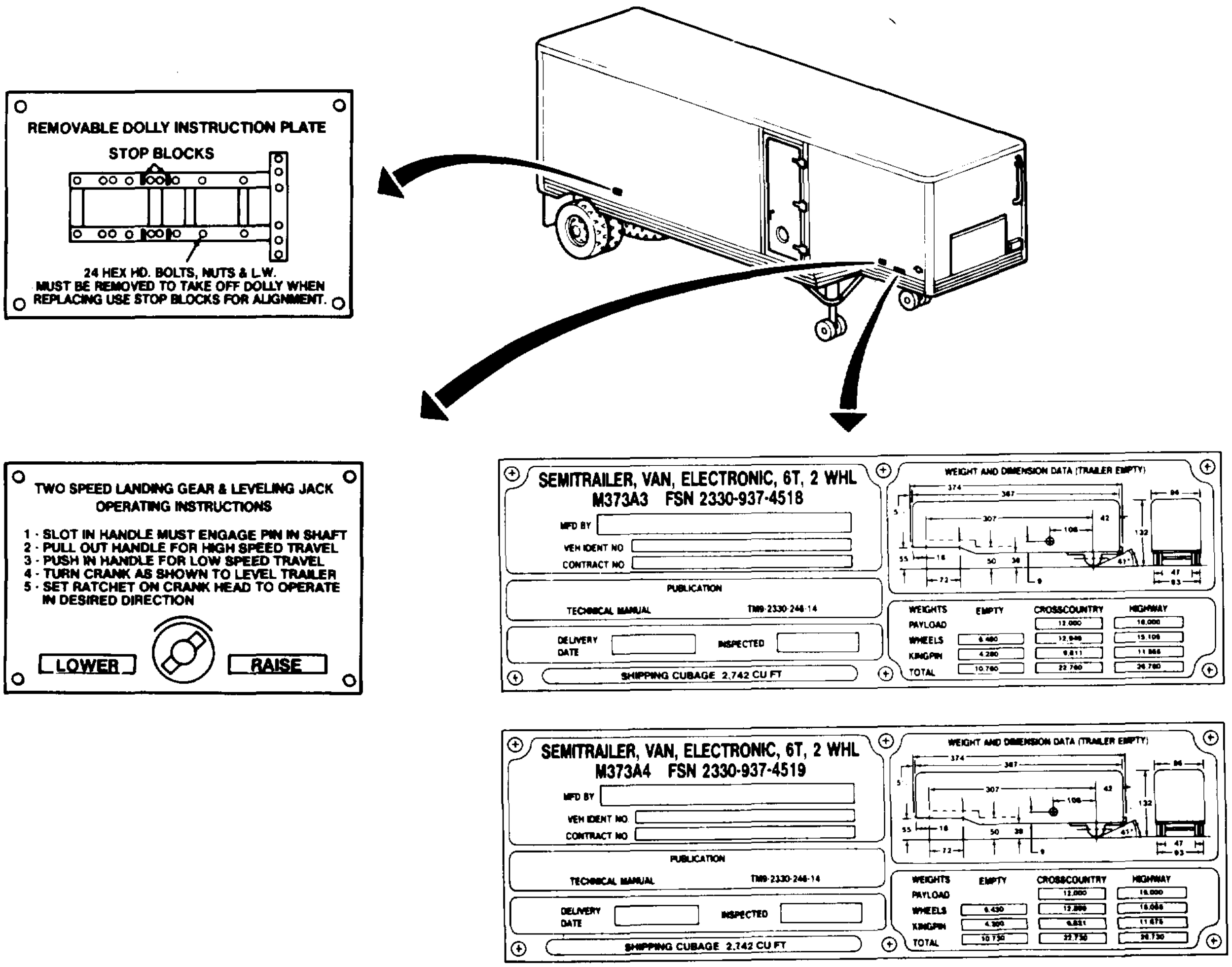
1-8. LOCATION AND CONTENTS OF DATA PLATES (Con't).

e. M373A3 and M373A4.



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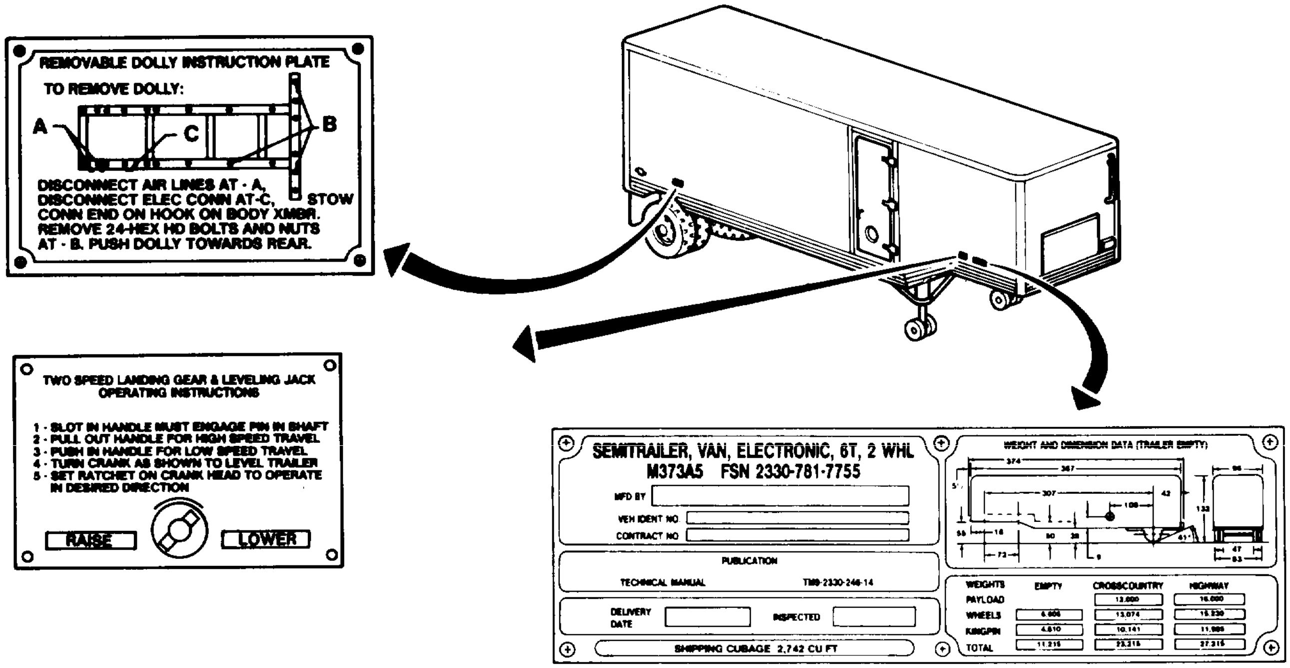
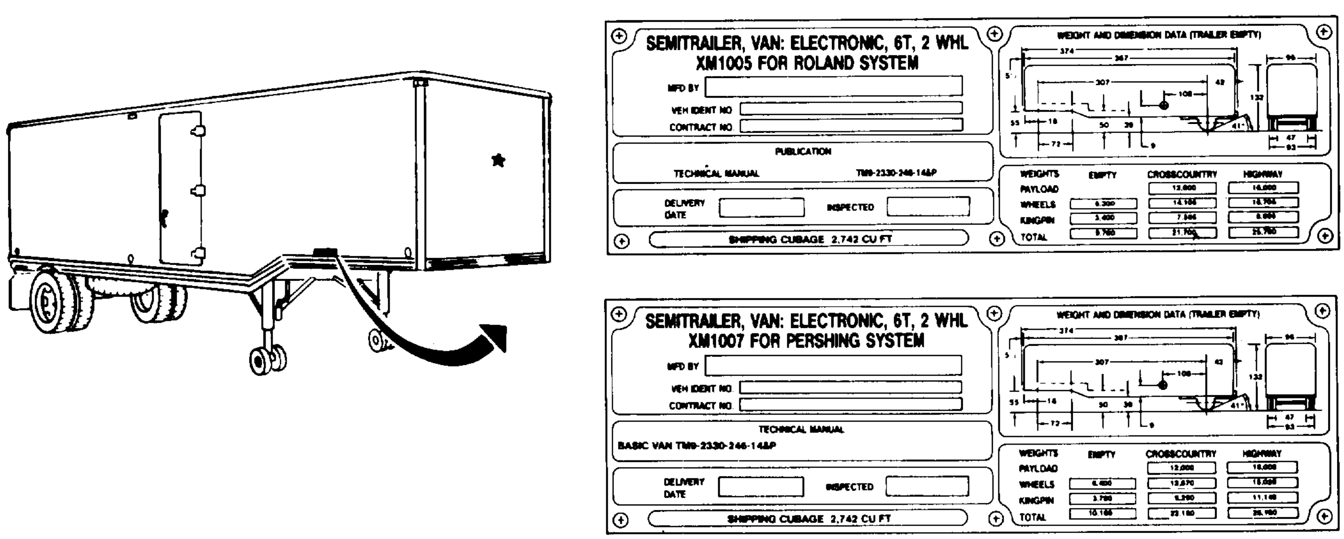
1-8. LOCATION AND CONTENTS OF DATA

f. M373A5.



g. XM1005 and XM1007.



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1-9. DIFFERENCES BETWEEN MODELS.

Table 1-1. Differences Between Models, M348A2 Series Vans.

Component	M348 A2	M348 A2C	M348 A2D	M348 A2F	M348 A2G	M348 A2H	M348 A2K	M348 A2N
Front Door	1	1	1	1	1	1	2	2
Rear Door	2	1	1	2	1	2	1	1
Right Side Door	1		1	1	1		1	1
Left Side Door			1	1			1	
Pioneer Tool Bracket		front upper right	front upper right	front upper right	loose in van		loose in van	loose in van
3-step Ladder	2	1	2	2	2	1	2	2
4-step Ladder		1	1	1	1	1	1	1
12 ft Ladder	1	1	1	1	1	1	1	1
Cable Reel Line Box		x	x	x				
Drop Line Box		x	x	x				
9-leaf Spring Suspension	x	x		x	x	x	x	x
1 l-leaf Spring Suspension			x					
Air Conditioner						x		
Louvers		front door right side	left side/ right rear	3 on left side front door				
Signal Entry		rear	5 on right side	5 on right side			right side	right side
Power Entry		rear	rear	rear		2 on right side	right side	right side
Terminal Entry				right side				
Air Conditioner:								
Intake Duct			front door			right wall	rear wall	
Exhaust Duct			front door			right wall	rear wall	
Fan Vent						right side	right side	
Tarpaulin	x	x	x	x	x	x	x	x

1-9. DIFFERENCES BETWEEN MODELS (Con't).

Table 1-2. Differences Between Models, M373 Series Vans.

Component	M373 A2	M373 A2C	M373 A2D	M373 A3	M373 A4	M373 A5	XM 1005	XM 1007
Front Door			1					
Rear Door	2	2	2	2	2	2	2	2
Right Side Door	1	1	1	1	1	1	1	1
3-step Ladder	2	2	2	2	2	2	2	2
4-step Ladder		1						
12ft Ladder			x	x	x	x	x	x
9-leaf Spring Suspension	x	x	x	x	x	x	x	x
Standard Ordnance Kingpin	x	x	x	x	x	x	x	
Resilient Kingpin								x
Air Conditioner			x	x	x	x		
Heater and Fuel Tank			x			x		
Air Vent	right side door/ right rear door	right side door/ right rear door	right side door/ right rear door	right rear door	right rear door	right rear door		
RFI Shielding			x				x	
Air Intake		6 on front	front door	front wall	front wall	front wall		
Exterior Level				x	x	x		
Tarpaulin			x	x	x	x		

1-10. EQUIPMENT DATA.

Table 1-3. Equipment Data, M348 Series Vans.

	M348A2 M348A2G	M348A2C	M348A2D	M348A2F	M348A2H	M348A2K M348A2N
Dimensions:						
Length	326 in. (828 cm)	326 in. (828 cm)	326 in. (828 cm)	326 in. (828 cm)	326 in. (828 cm)	326 in. (828 cm)
Width	96 in. (243.8 cm)	96 in. (243.8 cm)	96 in. (243.8 cm)	96 in. (243.8 cm)	96 in. (243.8 cm)	96 in. (243.8 cm)

1-10. EQUIPMENT DATA (Con't).

Table 1-3. Equipment Data, M348 Series Vans (Con't).

	M348A2 M348A2G	M348A2C	M348A2D	M348A2F	M348A2H	M348A2K M348A2N
Dimensions (Con't):						
Height:						
Operational	132 in. (335.3 cm)	132 in. (335.3 cm)	132 in. (335.3 cm)	132 in. (335.3 cm)	132 in. (335.3 cm)	132 in. (335.3 cm)
Reduced	93 in. (236.2 cm)	93 in. (236.2 cm)	93 in. (236.2 cm)	93 in. (236.2 cm)	93 in. (236.2 cm)	93 in. (236.2 cm)
Kingpin to:						
Front	18 in. (45.7 cm)	18 in. (45.7 cm)	18 in. (45.7 cm)	18 in. (45.7 cm)	18 in. (45.7 cm)	18 in. (45.7 cm)
Center of Axle	259 in. (657.9 cm)	259 in. (657.9 cm)	259 in. (657.9 cm)	259 in. (657.9 cm)	259 in. (657.9 cm)	259 in. (657.9 cm)
Weights:						
On Kingpin:						
Empty	3010 lb (1366.5 kg)	3710 lb (184.3 kg)	3750 lb (1702.5 kg)	3720 lb (1688.9 kg)	4255 lb (1931 .8 kg)	3460 lb (1570.8 kg)
Cross-country	8460 lb (3840.8 kg)	9154 lb (4155.9 kg)	9194 lb (4174.1 kg)	9164 lb (41 60.4 kg)	8378 lb (3803.6 kg)	7590 lb (3445.9 kg)
Highway	10,270 lb (4662.6 kg)	10,970 lb (4980.4 kg)	11,0101b (4998.5 kg)	10,980 lb (4984.9 kg)	9655 lb (4383.4 kg)	8960 (4067.8 kg)
On Wheels:						
Empty	5760 lb (2615 kg)	6640 lb (3014.6 kg)	6680 lb (3032.7 kg)	6790 lb (3082.7 kg)	6525 lb (2962.4 kg)	6020 lb (2733.1 kg)
Cross-country	12,310 lb (5588.7 kg)	13,196 lb (5991 kg)	13,236 lb (6009.1 kg)	13,346 lb (6059.1 kg)	14,396 lb (6535.8 kg)	13,890 lb (6306.1 kg)
Highway	14,500 lb (6583 kg)	15,380 lb (6982.5 kg)	15,420 lb (7000.7 kg)	15,530 lb (7050.6 kg)	17,125 lb (7774.8 kg)	16,520 lb (7500.1 kg)
Payload:						
Cross-country	12,000 lb (5448 kg)	12,000 lb (5448 kg)	12,000 lb (5448 kg)	12,000 lb (5448 kg)	12,000 lb (5448 kg)	12,000 lb (5448 kg)
Highway	16,000 lb (7264 kg)	16,000 lb (7264 kg)	16,000 lb (7264 kg)	16,000 lb (7264 kg)	16,000 lb (7264 kg)	16,000 lb (7264 kg)
Totals:						
Empty	8770 lb (3981.6 kg)	10,350 lb (4698.9 kg)	10,430 lb (4735.2 kg)	10,510 lb (4771 .5 kg)	10,780 lb (4894.1 kg)	9480 lb (4303.9 kg)
Cross-country	20,770 lb (9429.6)	22,350 lb (10,146.9)	22,430 lb (10,183.2)	22,510 lb (10,219.5)	22,780 lb (10,342.1)	21,480 lb (9751.9)
Highway	24,770 lb (11,699.6)	26,350 lb (11,962.9)	26,430 lb (11,999.2)	26,510 lb (12,035.5)	26,780 lb (12,158.1)	25,480 lb (11,567.9)
Shipping Cubage	2390 cu ft (66.9 cu m)	2390 cu ft (66.9 cu m)	2390 cu ft (66.9 cu m)	2390 cu ft (66.9 cu m)	2390 cu ft (66.9 cu m)	2390 cu ft (66.9 cu m)

1-10. EQUIPMENT DATA (Con't).

Table 1-3. Equipment Data, M348 Series Vans (Con't).

	M348A2 M348A2G	M348A2C	M348A2D	M348A2F	M348A2H	M348A2K M348A2N
Axle Type:						
Tubular Ordnance Standard	14,000 lb (6356 kg)	14,000 lb (6356 kg)	14,000 lb (6356 kg)	14,000 lb (6356 kg)	14,000 lb (6356 kg)	14,000 lb (6356 kg)
Brake System:						
Actuation	air/ hydraulic	air/ hydraulic	air/ hydraulic	air/ hydraulic	air/ hydraulic	air/ hydraulic
Brake Assemblies	expanding cylinder actuation	expanding cylinder actuation	expanding cylinder actuation	expanding cylinder actuation	expanding cylinder actuation	expanding cylinder actuation
Tires:						
Size	9.00 x 20 8 ply	9.00 x 20 8 ply	9.00 x 20 8 ply	9.00 x 20 8 ply	9.00 x 20 8 ply	9.00 x 20 8 ply
inflation Pressure:						
Highway	50 psi (345 kPa)	50 psi (345 kPa)	50 psi (345 kPa)	50 psi (345 kPa)	50 psi (345 kPa)	50 psi (345 kPa)
Cross-country	30 psi (207 kPa)	30 psi (207 kPa)	30 psi (207 kPa)	30 psi (207 kPa)	30 psi (207 kPa)	30 psi (207 kPa)
Sand	20 psi (138 kPa)	20 psi (138 kPa)	20 psi (138 kPa)	20 psi (138 kPa)	20 psi (138 kPa)	20 psi (138 kPa)
Electrical System:						
Voltage	24-volt	24-volt	24-volt	24-volt	24-volt, 110-volt	24-volt
Exterior Lights:						
Blackout Stoplight (Early Model)	1	1	1	1	1	1
Stoplight-taillights (Early Model)	2	2	2	2	2	2
Composite Lights (Late Model)	2	2	2	2	2	2
Clearance Lights (Early Model)	7	7	7	7	7	7
Clearance Lights (Late Model)	11	11	11	11	11	11
Interior Lights:						
24-volt	3	3	5	3		3
11O-volt,Fluorescent				6		
Air Conditioner:						
3-CE20VAL6,208-volt, 3-phase, 60 Hz	3	3	3	3	3	3

1-10. EQUIPMENT DATA (Con't).

Table 1-4. Equipment Data, M373 Series Vans.

	M373A2 M373A2C	M373A2D	M373A3	M373A4	M373A5
Dimensions:					
Length	374 in. (950 cm)	374 in. (950 cm)	374 in. (950 cm)	374 in. (950 cm)	374 in. (950 cm)
Width	96 in. (243.8 cm)	96 in. (243.8 cm)	96 in. (243.8 cm)	96 in. (243.8 cm)	96 in. (243.8 cm)
Height:					
Operational	132 in. (335.3 cm)	132 in. (335.3 cm)	132 in. (335.3 cm)	132 in. (335.3 cm)	132 in. (335.3 cm)
Reduced	93 in. (236.2 cm)	93 in. (236.2 cm)	93 in. (236.2 cm)	93 in. (236.2 cm)	93 in. (236.2 cm)
Kingpin to:					
Front	18 in. (45.7 cm)	18 in. (45.7 cm)	18 in. (45.7 cm)	18 in. (45.7 cm)	18 in. (45.7 cm)
Center of Axle	307 in. (779.8 cm)	307 in. (779.8 cm)	307 in. (779.8 cm)	307 in. (779.8 cm)	307 in. (779.8 cm)
Weights:					
On Kingpin:					
Empty	3390 lb (1539.1 kg)	3680 lb (1670.7 kg)	4280 lb (1943.1 kg)	4300 lb (1952.2 kg)	4610 lb (2092.9 kg)
Cross-country	8890 lb (4036.1 kg)	9192 lb (4173.2 kg)	9811 lb (4454.2 kg)	9831 lb (4463.3 kg)	10,141 lb (4604 kg)
Highway	10,740 lb (4876 kg)	11,036 lb (5010.3 kg)	11,655 lb (5291 .4 kg)	11,675 lb (5300.5 kg)	11,985 lb (5441 .2 kg)
On Wheels:					
Empty	6040 lb (2742.2 kg)	6020 lb (2733.1 kg)	6480 lb (2941.9 kg)	6430 lb (2919..2 kg)	6605 lb (2998.7 kg)
Cross-country	12,540 lb (5693.2 kg)	12,508 lb (5678.6 kg)	12,949 lb (5878.9 kg)	12,899 lb (5856.2 kg)	13,074 lb (5935.6 kg
Highway	4690 lb (2129.3 kg)	14664 lb (6657.5 kg)	14665 lb (6657.9 kg)	15055 lb (6835 kg)	15230 lb (691 4.4 kg)
Payload:					
Cross-country	12,000 lb (5448 kg)	12,000 lb (5448 kg)	12,000 lb (5448 kg)	12,000 lb (5448 kg)	12,000 lb (5448 kg)
Highway	16,000 lb (7264 kg)	16,000 lb (7264 kg)	16,000 lb (7264 kg)	16,000 lb (7264 kg)	16,000 lb (7264 kg)
Totals:					
Empty	9430 lb (4281..2 kg)	9700 lb (4403.8 kg)	10,760 lb (4885 kg)	10,730 lb (4871.4 kg)	11,215lb (5091.6 kg)
Cross-country	21,430 lb (9729.2 kg)	21,700 lb (9851.8 kg)	22,760 lb (10,333 kg)	22,730 lb (10,319.4 kg)	23,215 lb (10,539.6 kg)
Highway	24,530 lb (11,136.6 kg)	25,700 lb (11,667.8 kg)	26,760 lb (12,149 kg)	26,730 lb (12,135.4 kg)	27,215 lb (12,355.6 kg)

1-10. EQUIPMENT DATA (Con't).

Table 1-4. Equipment Data, M373 Series Vans (Con't).

	M373A2 M373A2C	M373A2D	M373A3	M373A4	M373A5
Shipping Cubage	2742 CU ft (76.8 cum)	2742 CU ft (76.8 cum)	2742 CU ft (76.8 cum)	2742 CU ft (76.8 cum)	2742 CU ft (76.8 cum)
Axle Type:					
Tubular Ordnance Standard	14,000 lb (6356 kg)	14,000 lb (6356 kg)	14,000 lb (6356 kg)	14,000 lb (6356 kg)	14,000 lb (6356 kg)
Brake System:					
Actuation	air/ hydraulic	air/ hydraulic	air/ hydraulic	air/ hydraulic	air/ hydraulic
Brake Assemblies	expanding cylinder actuation	expanding cylinder actuation	expanding cylinder actuation	expanding cylinder actuation	expanding cylinder actuation
Tires:					
Size (All Models)	9.00 x 20 8 ply	9.00 x 20 8 ply	9.00 x 20 8 ply	9.00 x 20 8 ply	9.00 x 20 8 ply
Inflation Pressure:					
Highway	50 psi (345 kPa)	50 psi (345 kPa)	50 psi (345 kPa)	50 psi (345 kPa)	50 psi (345 kPa)
Cross-country	30 psi (207 kPa)	30 psi (207 kPa)	30 psi (207 kPa)	30 psi (207 kPa)	30 psi (207 kPa)
Sand	20 psi (138 kPa)	20 psi (138 kPa)	20 psi (138 kPaO	20 psi (138 kPa)	20 psi (138 kPa)
Electrical System:					
Voltage	24-volt	24-volt , 11o-volt	24-volt, 11o-volt	24-volt, 11o-volt	24-volt, 11o-volt
Exterior Lights:					
Blackout Stoplight (Early Model)	1	1	1	1	1
Stoplight-taillights (Early Model)	2	2	2	2	2
Composite Lights (Late Model)	2	2			2
Clearance Lights (Early Model)	13	13	13	13	
Clearance Lights (Late Model)	9	9			9
Interior Lights:					
24-volt	3	3	3	3	3
110-volt,Incandescent			1	1	1
Telephone Outlets			2	2	2

1-10. EQUIPMENT DATA (Con't).

Table 1-4, Equipment Data, M373 Series Vans (Con't).

	M373A2 M373A2C	M373A2D	M373A3	M373A4	M373A5
Air Conditioner (208-volt Wiring Installed by Using Organization):					
CE60-C-60 or CE60-D-60, 208-volt, 3-phase, 60HZ		1			
MA3-F23A, 208-volt, 3-phase, 60 Hz			1	1	1
Heater:					
UH68D, 110-volt, Single-phase, 60 Hz		1			
UH68F, 110-volt, Single-phase, 60 Hz					1

Table 1-5. Equipment Data, XM1005 and XM1007 Vans.

	XM1005	XM1007
Dimensions:		
Length	374 in. (950 cm)	374 in. (950 cm)
Width	96 in. (243.8 cm)	96 in. (243.8 cm)
Kingpin to:		
Front	18 in. (45.7 cm)	18 in. (45,7 cm)
Center of Axle	307 in. (779.8 cm)	307 in. (779.8 cm)
Height:		
Operational	132 in. (335.3 cm)	132 in. (335.3 cm)
Reduced	93 in. (236.2 cm)	93 in. (236.2 cm)
Weights:		
On Kingpin:		
Empty	3400 lb (1543.6 kg)	3760 lb (1707 kg)
Cross-country	7595 lb (3448.1 kg)	9290 lb (4217.7 kg)
Highway	8995 lb (4083.7 kg)	11,140 lb (5057.6 kg)

1-10. EQUIPMENT DATA (Con't).

Table 1-5. Equipment Data, XM1005 and XM1007 Vans (Con't).

	XM1005	XM1OO7
Weights		
On Wheels:		
Empty	6300 lb (2860.2 kg)	6400 lb (2905.6 kg)
Cross-country	14,105 lb (6403.7 kg)	12,870 lb (5843 kg)
Highway	16,705 lb (7584.1 kg)	15,020 lb (6819.1 kg)
Payload:		
Cross-country	12,000 lb (5448 kg)	12,000 lb (5448 kg)
Highway	16,000 lb (7264 kg)	16,000 lb (7284 kg)
Totals:		
Empty	9700 lb (4403.8 kg)	10,160 lb (461 2.6 kg)
Cross-country	21,700 lb (9851 .8 kg)	22,160 lb (10,060.6 kg)
Highway	25,700 lb (1 1,667.8 kg)	26,160 lb (1 1,876.6 kg)
Shipping Cubage:	2742 cu ft (76.8 cu m)	2742 cu ft (76.8 cu m)
Axle Type:		
Tubular Ordnance, Standard	14,000 lb (8356 kg)	14,000 lb (6356 kg)
Brake System:		
Actuation	air/hydraulic	air/hydraulic
Brake Assemblies	expanding cylinder actuation	expanding cylinder actuation
Tires:		
Size	9.00 X 20,8 Ply	*9.00* X 20,8 *ply*
Inflation Pressure:		
Highway	50 psi (345 kPa)	50 psi (345 kPa)
Cross-country	30 psi (207 kPa)	30 psi (207 kPa)
Sand	20 psi (138 kPa)	20 psi (138 kPa)

1-10. EQUIPMENT DATA (Con't).

Table 1-5. Equipment Data, XM1005 and XM1007 Vans (Con't).

	XM1OO5	XM1007
Electrical System:		
Voltage	24-volt	24-volt
Exterior Lights:		
Composite Lights	2	2
Clearance Lights	9	9

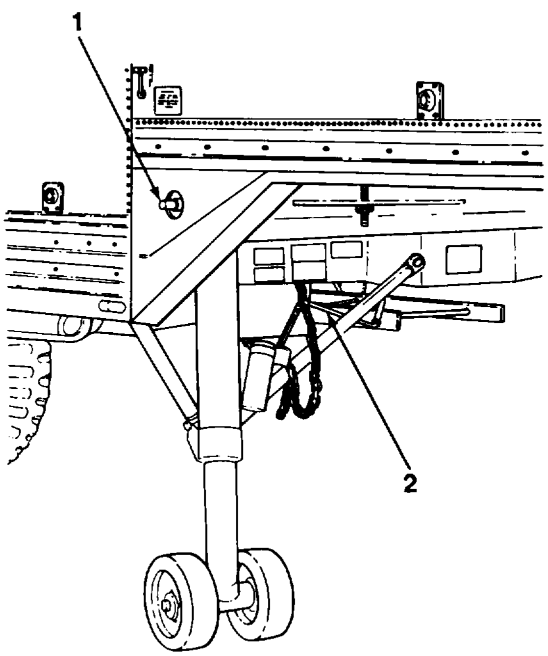
CHAPTER 2
OPERATING INSTRUCTIONS

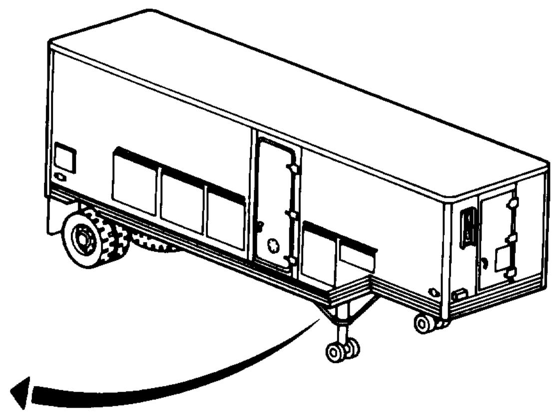
Section 1. DESCRIPTION AND USE OF OPERATOR'S CONTROLS AND INDICATORS

2-1. GENERAL.

This section locates and describes all operator's controls and indicators on the semitrailers. Review this section before operating the semitrailers.

2-2. CONTROLS AND INDICATORS.





NOTE

M348A2D is illustrated. Other models are similar.

Key	Control or Indicator	Description
1	Crankshaft	Handcrank mounts on crankshaft for raising and lowering landing gear.
2	Handcrank (shown stowed)	Turns to raise and to lower landing gear.

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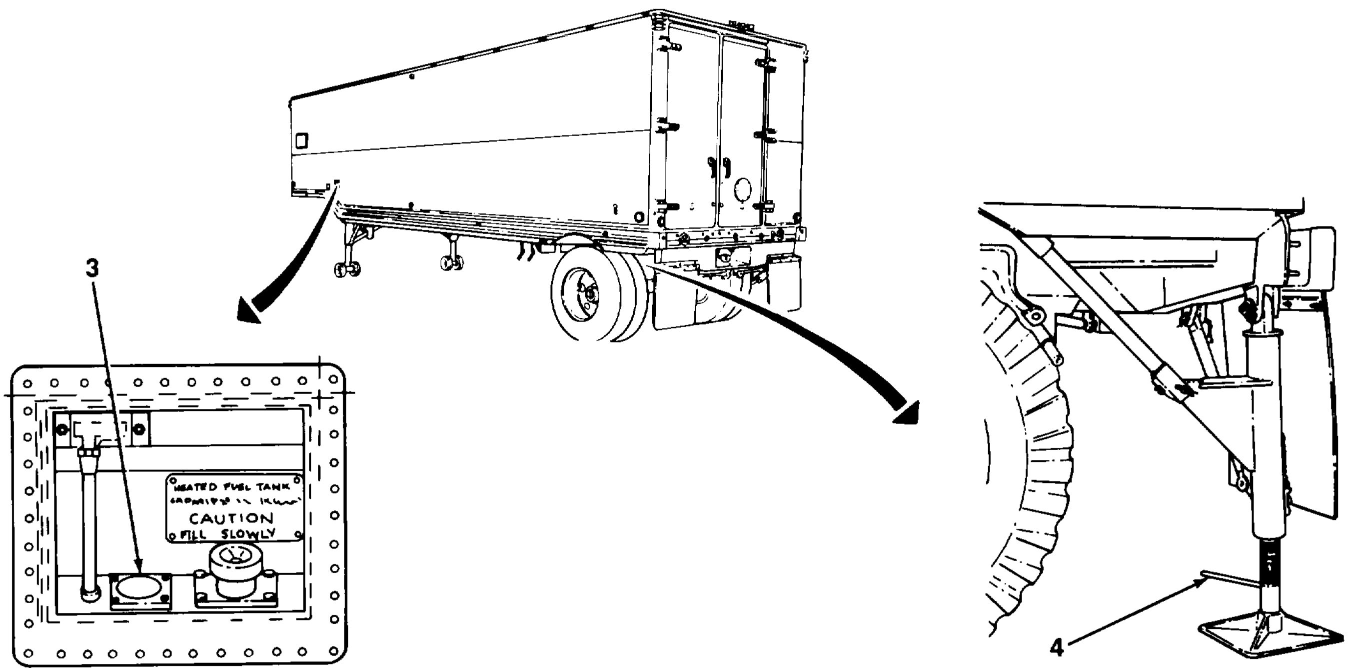
2-2. CONTROLS AND INDICATORS (Con't).



NOTE

M373A2D is illustrated. Other models are similar.

Key	Control or Indicator	Description
3	Fuel Level Gage (M373A2D and M373A5)	Shows remaining fuel in heater fuel tank.
4	Handle	Operates leveling jack.

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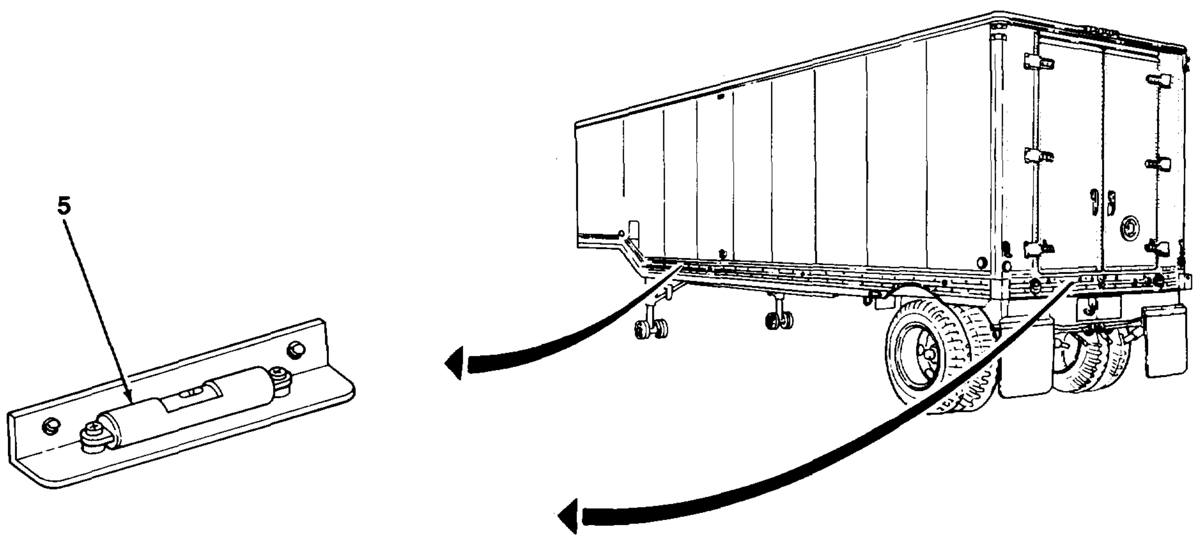
2-2. CONTROLS AND INDICATORS (Con't).



NOTE

M373A5 Is illustrated. M373A3 and M373A4 are similar.

Key	Control or indicator	Description
5	Level Vial M373A3, M373A4, and M373A5)	Indicates whether semitrailer is level, Level vials are mounted front rear, roadside, and curbside.

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Section II. OPERATOR/CREW PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)

2-3. GENERAL.

a. To ensure that the M348 and M373 Series, XM1005, and xm1007 Semitrailers are ready for operation at all times, they must be inspected on a regular basis so that defects may be found before they result unserious damage, equipment failure, or injury to personnel. This section contains systematic instructions on inspections, adjustments, and corrections to be performed by the operator/crew.

b. While performing PMCS,read and follow all safety instructions found in the Waming Summary at the front of this manual. Keep in mind all WARNINGs and Cautions.

2-4. SERVICE INTERVALS.

Perform PMCS, found in Table 2-1, at the following intervals:

a. Perform *Before* (B) PMCS before operating the semitrailer.

b. Perform During(D) PMCS while operating the semitrailer.

c. Perform *After* (A) PMCS right after operating the semitrailer.

d. Perform Weekly (W) PMCS one each week.

e. Perform Monthly (M) PMCS one each month.

2-5. REPORTING REPAIRS.

All defects that the operator cannot fix must be reported on a DA Form 2404, *Equipment Inspection and Maintenance Worksheet,* immediately after completing PMCS. If a serious problem is found, IMMEDIATELY report it to your supervisor.

2-6. GENERAL PMCS PROCEDURES.

WARNING

Dry cleaning solvent, P-D-680, is toxic and flammable. Always wear protective goggles and gloves, and use only In a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point is 100°F-138°F (38°C-59°C). If you become dizzy while using cleaning solvent, Immediately get fresh air and medical help. If solvent contacts eyes, immediately wash your eyes and get medical aid.

a. Keep equipment clean. Dirt, oil, and debris may cover up a serious problem. Clean as you work and as needed. Use dry cleaning solvent (Item 13, Appendix E) on all metal surfaces. Use detergent (Item 12, Appendix E) and water on rubber, plastic, and painted surfaces.

2-6. GENERAL PMCS PROCEDURES (Con't).

b. While performing specific PMCS procedures, inspect the following components:

(1) Bolts, Nuts, and Screws. Ensure that they are not loose, missing, bent, or broken, Report loose or missing bolts, nuts, and screws to Organizational Maintenance.

(2) Welds. Inspect for gaps where parts are welded together. Check for loose or chipped paint, rust, and cracks. Report bad welds to Organizational Maintenance.

(3) Electric Conduit, Wires, or Connectors. inspect for cracked or broken conduit insulation, bare wires, and loose or broken connectors. Report loose connections and faulty wiring to Organizational Maintenance.

(4) Hoses, Lines, and Fittings. Inspect for wear, damage, and leaks. Ensure that clamps and fittings are tight. Report any damage, leaks, or loose fittings and clamps to Organizational Maintenance.

c. Check that components are adequately lubricated in accordance with Chapter 3, Section 1.

2-7. SPECIFIC PMCS PROCEDURES.

a. Operator/crew PMCS are provided in Table 2-1. Always perform PMCS in the order listed. Once it becomes a habit, anything that is not right can be spotted **in a minute.**

b. Before performing PMCS, read all the checks required for the applicable interval and prepare all the tools needed. Have several rags (Item 20, Appendix E) handy. Perform ALL inspections at the applicable interval.

c. If anything wrong is discovered through PMCS, perform the appropriate troubleshooting task in Chapter 3, Section Il. If any component or system is not serviceable, or if a given service does not correct the problem, notify your supervisor.

d. The columns in Table 2-1 are defined as follows:

(1) **item No.** Provides a logical sequence for PMCS to be performed and is used as a source of item numbers for the "TM ITEM NO" column when recording PMCS results on DA Form 2404.

(2) **Interval,** Specifies the interval at which PMCS is to be performed.

(3) **Item To Be Inspected.** Lists the system and common name of items that are to be inspected. Included in this column are specific servicing, inspection, replacement, or adjustment procedures to be followed.

NOTE

The terms "ready/available" and "mlsslon-capable" refer to the same status: Equipment is on hand and is able to perform its combat missions (AR 700-138).

(4) **Equipment Is Not Ready/Available If:** Explains when the semitrailer is nonmission-capable.

2-8. LEAKAGE DEFINITIONS.

a. It is important to know how fluid leakage affects the status of the semitrailer. Following are types/classes of leakage an operator must know to determine whether the semitrailer is mission-capable. Learn these leakage definitions. When in doubt, notify your supervisor.

Leakage Definitions for Operator/Crew PMCS:

Class I	Seepage of fluid (as indicated by wetness or discoloration) not great enough to form drops.
Class II	Leakage of fluid great enough to form drops, but not great enough to cause drops to drip from item being inspected.
Class Ill	Leakage of fluid great enough to form drops that fall from the item being inspected.

2-8. LEAKAGE DEFINITIONS (Con't).

CAUTION

When operating with Class I or II leaks, continue to check fluid levels In addition to that required in PMCS. Parts without fluid will stop working or may be damaged.

b. Equipment operation is allowed with minor (Class I or II) leakage. Fluid levels in an item/system affected with such leakage must be checked more frequently than required in PMCS. When in doubt, notify your supervisor.

c. Report Class Ill leaks IMMEDIATELY to your supervisor.

Table 2-1. Operator/Crew Preventive Maintenance Checks and Services (PMCS).

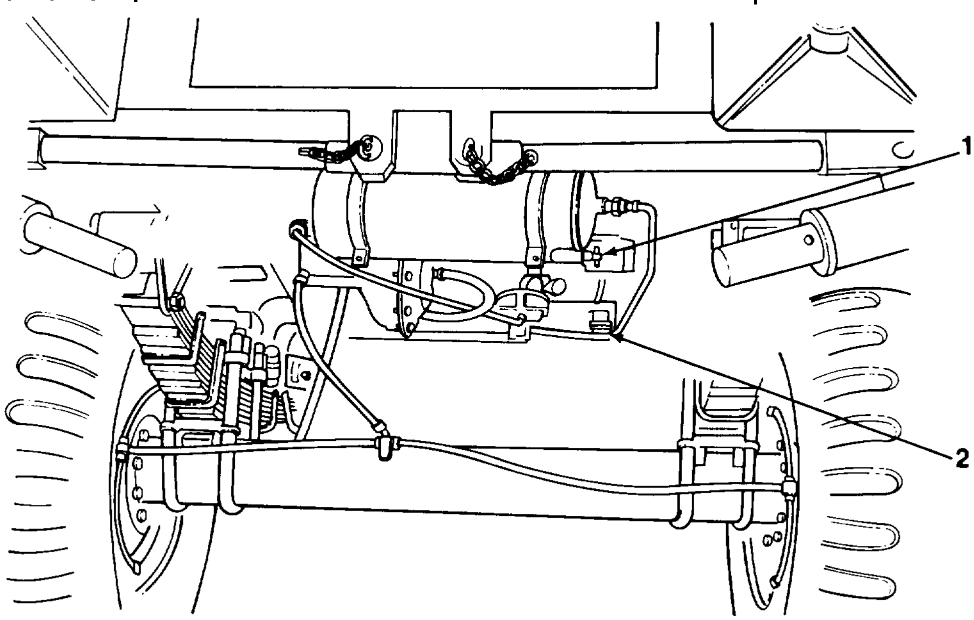
B-Before D-During A–After W-Weekly M-Monthly

ITEM NO.	INTERVAL					ITEM TO BE INSPECTED PROCEDURE: Check for and have repaired, filled, or adjusted as needed.	Equipment is Not Ready/ Available If:
	B	D	A	w	M		
						NOTE Perform weekly as well as before PMCS if: a. You are the assigned operator but have not operated the semitrailer since the last weekly. b. You are operating the semitrailer for the first time. Make the following walkaround checks:	
1						**EXTERIOR OF SEMITRAILER**	
	•					a. Check tires for unusual or extreme wear, cuts, cracks, and imbedded foreign objects.	Tires have cuts or abrasions that would result in tire failure during operation. One or more tires missing or unserviceable.
				•		b. Gage tires for correct pressure (para 1-10).	
	•					c. Visually check for loose, missing, or damaged parts.	
	•					d. Check for evidence of oil or brake fluid leaks on or under semitrailer.	Class Ill leaks evident.
2						**WHEELS**	
					•	Inspect wheel stud nuts and hub cap bolts to ensure that they are secured. If loose, notify Organizational Maintenance.	
3						**BRAKE AIR HOSES**	
	•					Check air hoses for obvious damage.	Air hose missing or damaged.
4						**ELECTRICAL WIRING**	
	•					Visually inspect electrical wiring for cuts, breaks, or other damage.	

Table 2-1. Operator/Crew Preventive Maintenance Checks and Services (PMCS) (Con't).

B – Before D–During A–After W – Weekly M – Monthly

ITEM NO.	INTERVAL B	D	A	W	M	ITEM TO BE INSPECTED PROCEDURE Check for and have repaired, filled, or adjusted as needed.	Equipment is Not Ready/ Available If:
5						**LIGHTS AND REFLECTORS**	
	●					a. With semitrailer coupled to towing vehicle, check operation of lights. Ensure that all lights work.	
				●		b. Visually inspect reflectors for damage.	
6						**PRESSURE TANK**	
			●			Open draincock (1) to drain accumulated moisture.	
7						**AIR FILTER (IF PROVIDED)**	
			●			Remove pipe plug (2) and drain accumulated moisture. Install pipe plug.	



ITEM NO.	B	D	A	W	M	ITEM TO BE INSPECTED	Equipment is Not Ready/ Available If:
8						**SPRINGS**	
	●					Visually inspect springs for abnormal sag, broken or shifted leaves, loose or missing rebound clips, pins, U-bolts, safety nuts, or bolts.	Spring assemblies damaged Or missing parts,
9						**GENERAL OPERATIONS**	
		●				Be alert for unusual noises or abnormal conditions that might indicate load shifting or defective performance.	

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Table 2-1. Operator/Crew Preventive Maintenance Checks and Services (PMCS) (Con't.)

B- Before D- Durina A-After W - Weekly M-Monthly

ITEM NO.	INTERVAL B	D	A	W	M	ITEM TO BE INSPECTED PROCEDURE: Check for and have repaired, filled, or adjusted as needed.	Equipment Is Not Ready/ Available If:
10						**BRAKES**	
		●				Apply semitrailer brakes several times and check for any unusual conditions or unsatisfactory performance (grabbing, pulling, or slow application).	
11						**TRACKING**	
		●				Pull semitrailer straight ahead and check for any side pull, wander, shimmy, or slack between kingpin and fifth wheel lock.	
12						**BRAKEDRUM AND HUB**	
						WARNING ● **Overheated brakedrums and hubs can cause severe burns to personnel when touched.** ● **Cautiously feel each wheel hub and brakedrum. Wheel hubs or brakedrums may be hot. Failure to follow this warning may result in burns.**	
			●			Cautiously feel brakedrums and hubs for excessive heat. Overheating could indicate improperly adjusted or defective wheel bearings, or a locked-up brake.	
13						**LANDING GEAR**	
		●				Check landing gear for proper operation and obvious damage.	
14						**AIR PRESSURE**	
		●				Inspect airbrake system by stopping engine of towing vehicle when air is at maximum operating pressure. Apply semitrailer brakes and listen for air leaks.	Leaks are present.
15						**BODY**	
					●	a. Visually inspect body parts, such as doors and spare wheel carrier, for damage.	
		●				b. Open and close doors to check that hinges operate properly.	
		●				c. Check operation of door lock.	

Table 2-1. Operator/Crew Preventive Maintenance Checks and Services (PMCS) (Con't).

B-Before D–During A-After W-Weekly M-Monthly

ITEM NO.	INTERVAL					ITEM TO BE INSPECTED PROCEDURE: Check for and have repaired, filled, or adjusted as needed.	Equipment Is Not Ready/ Available If:
	B	D	A	W	M		
16						**FRAME AND ASSOCIATED PARTS**	
				●		a. Perform general inspection of body, ladders, and landing gear shoe.	
				●		b. Visually inspect front and rear platforms. Ensure that clamps are in good working order.	
17						**RADIO FREQUENCY INTERFERENCE (RFI) SHIELDING (M373A2D AND XM1005)**	
					●	Check RFI shielding to ensure that it is clean. RFI shielding must be kept clean at all times to provide a good bond.	

Section III. OPERATION UNDER USUAL CONDITIONS

2-9. GENERAL.

This section contains instructions for safely operating the semitrailers under usual conditions. Unusual operating conditions are defined and described infection IV of this chapter.

2-10. COUPLING SEMITRAILER TO TOWING VEHICLE.

WARNING

All personnel must stand clear of towing vehicle and semitrailer during coupling operation. Failure to follow this warning may result in serious injury or death to personnel.

NOTE

M373A2 Is Illustrated. Other models are similar.

a. Using landing gear (5), raise or lower front end of semitrailer until kingpin (4) is slightly higher than rear of fifth wheel plate on towing vehicle (para 2-13).

CAUTION

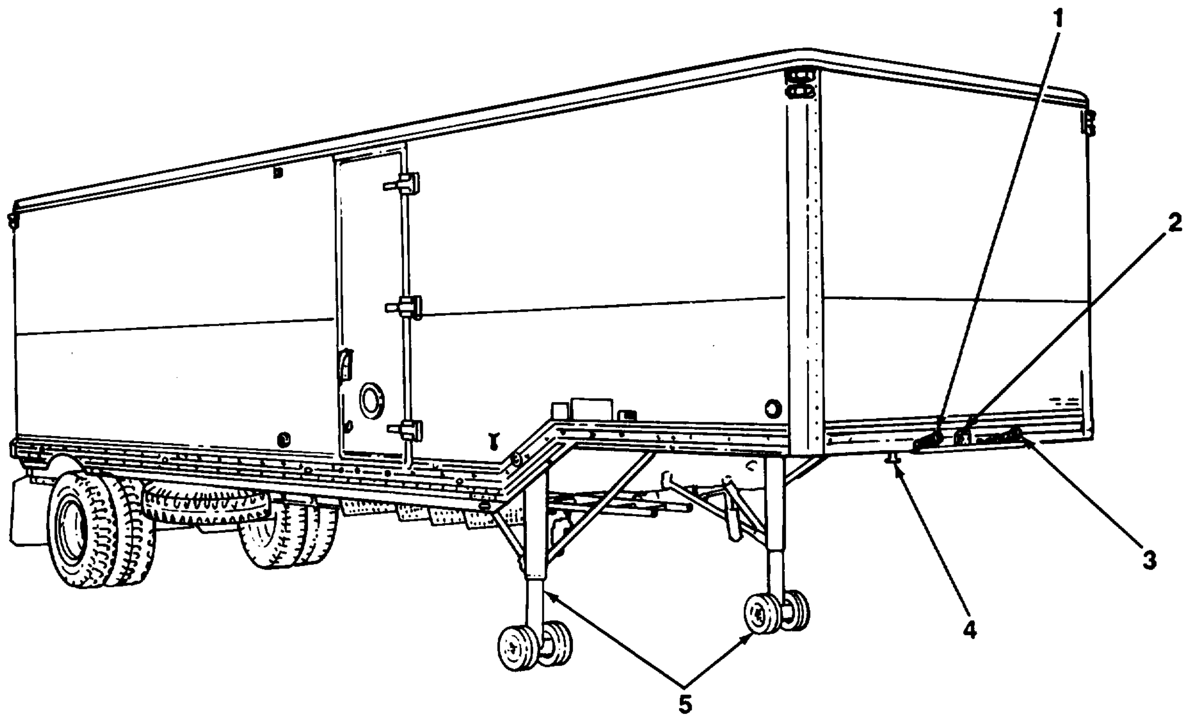
Have assistant direct you during backing operations. Damage to equlpment may result If cautlon Is not followed.

b. Connect kingpin (4)to fifth wheel plate by slowly backing towing vehicle until kingpin slides into notch on fifth wheel plate and locks into catch.

c. Connect towing vehicle service air hose to semitrailer service air coupling (1). Connect towing vehicle emergency air hose to semitrailer emergency air coupling (3).

d. Connect towing vehicle intervehicular cable into receptacle (2) on semitrailer. Ensure that all lights are working properly.

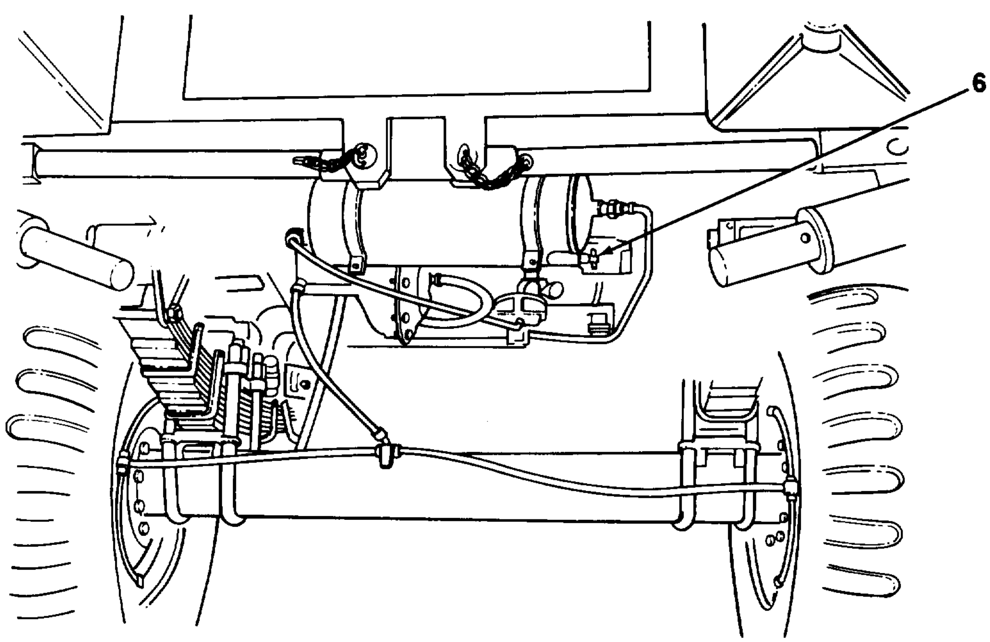
2-10. COUPLING SEMITRAILER TO TOWING VEHICLE (Con't).



e. Ensure that pressure tank draincock (6) is closed. Turn on two towing vehicle air line shut-off valves to supply air pressure.

f. Remove wheel chocks.

g. Raise landing gear (5) fully before towing (para 2-13).



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2-11. PREPARING SEMITRAILER FOR OPERATION.

a. Uncouple semitrailer from towing vehicle (para 2-20).

b. Operate leveling jacks to level semitrailer (para 2-1 2).

c. Open and close all doors to check operation of hinges and latching mechanisms.

d. Install ladders (para 2-14).

e. On models M348A2H and M373A5, ground semitrailer with ground rod.

f. Use power cable to connect external power source to the semitrailer through the power entrance receptacle. Turn switch and circuit breakers to ON position and ensure that all lights, switches, and receptacles operate.

g. On models M348A2H, M373A2D, M373A3, M373A4, and M373A5, start air conditioner and check operation of thermostat and controls (para 2-15, 2-16, or 2-17).

h. On models M373A2D and M373A5 start heaters and check operation of thermostats, fuel pumps, and controls (para 2-18).

2-12. OPERATING LEVELING JACK.

a. Pull out two retaining pins at rear and allow leveling jack (3) to swing down into vertical position.

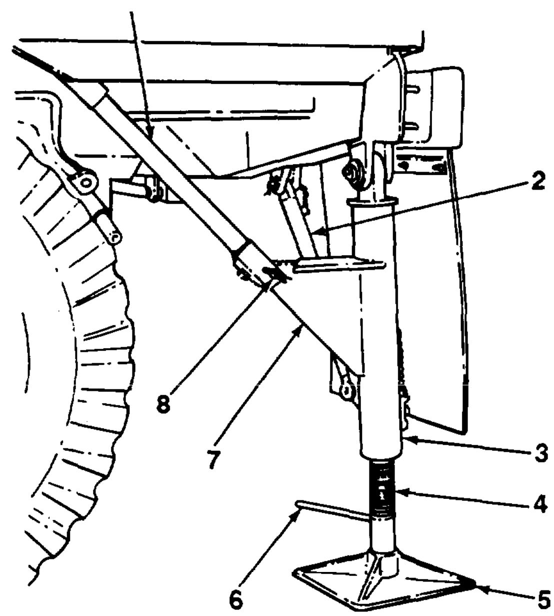
b. Pullout retaining pin *(8)* from side brace(l). Pin side brace to gusset (7) on side of leveling jack (3).

c. Swing rear brace (2) up Into position and pin in place.

d. Remove jack pad (5) from clamp on front of dolly assembly. Place jack pad under jack screw (4).

e. Remove handle (6) from clamp In pintle well. Install handle through hole in jack screw (4).

f. Turn jack screw (4) with handle (6) until leveling jack (3) reaches the desired length to level the semitrailer.



2-13. OPERATING LANDING GEAR.

a. **Early Model.**

(1) Remove handcrank (3) from stowage on right-hand landing gear brace (2).

(2) Connect handcrank (3) to crankshaft (1) on right-hand landing gear leg. Turn handcrank clockwise to lower landing gear and raise front of semitrailer. Turn handcrank counterclockwise to raise landing gear and lower front of semitrailer.

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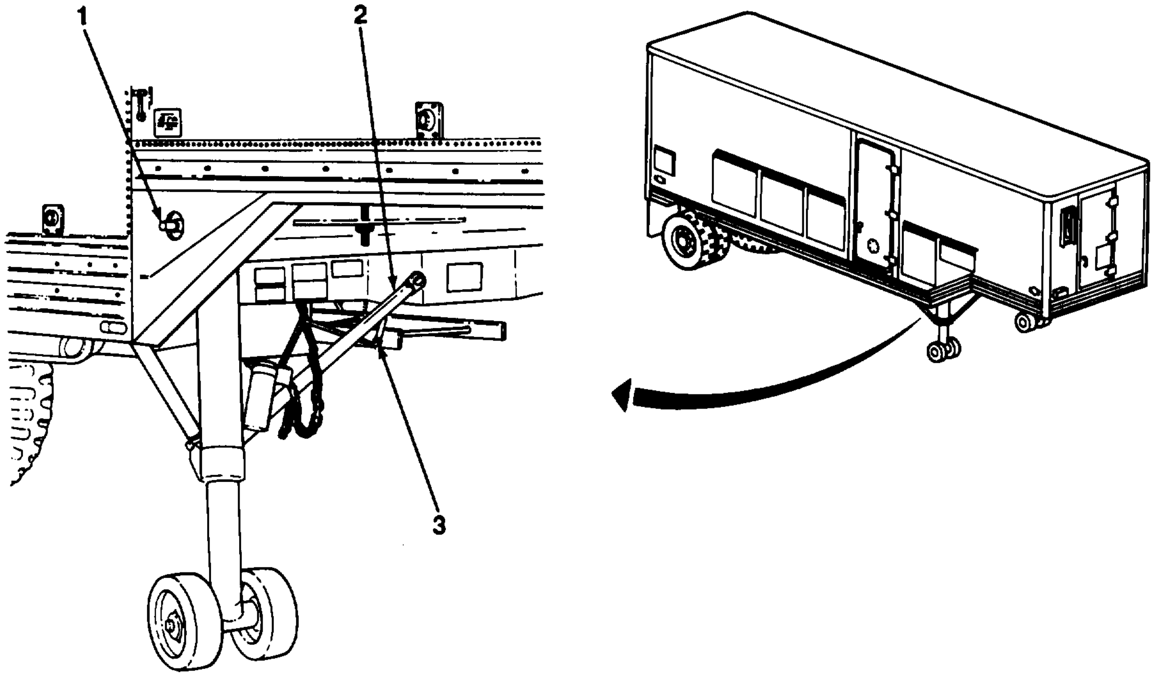
2-13. OPERATING LANDING GEAR (CON'T).



(3) Connect handcrank (3) to crankshaft (1) on left-hand landing gear leg. Turn handcrank counterclockwise to lower landing gear leg and raise front of semitrailer. Turn handcrank clockwise to raise landing gear leg and lower front of semitrailer.

(4) Push handcrank (3) in to provide low-speed action. Pull handcrank out to provide high-speed action. Use high-speed action when there is no load on the chassis. Use low-speed action when the load on the chassis is too great to turn the handcrank in the high-speed position.

(5) When finished, remove handcrank (3) from crankshaft(1) and stow on right-hand landing gear brace (2).

b. Late Model.

(1) Remove handcrank (3) from stowage on landing gear brace (2) next to drive unit.

(2) Connect handcrank (3) to crankshaft (l).

NOTE

Each landing gear operates Independently of the other.

(3) Turn the handcrank (3) on the right-hand landing gear clockwise and the handcrank on the left-hand landing gear counterclockwise to lower landing gear and raise front of semitrailer. Turn the handcrank on the right-hand landing gear counterclockwise and the handcrank on the left-hand landing gear clockwise to raise landing gear and lower front of semitrailer.

(4) Each landing gear contains a two-speed drive unit, Push handcrank (3) in all the way to provide high-speed action. Push handcrank in part way to provides low-speed action.

(5) When finished, remove handcrank (3) from crankshaft (1) and stow on landing gear brace (2).

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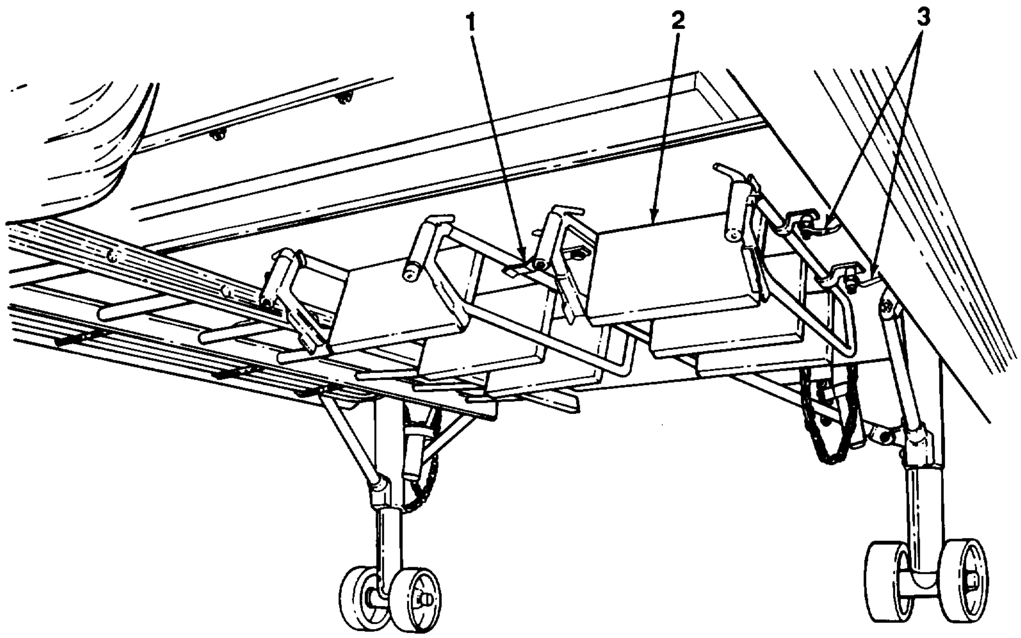
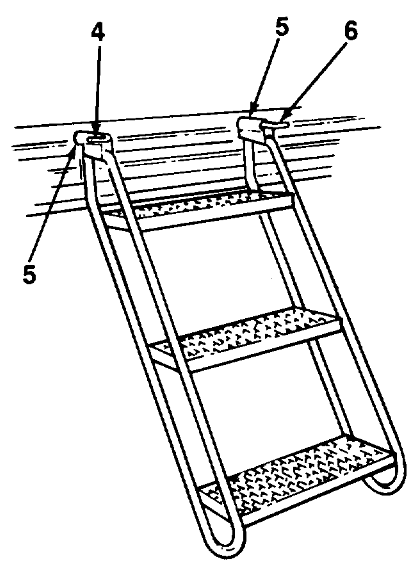
2-14. INSTALLING LADDERS.

a. Turn handles (3) to release brackets(1). Turn left handles clockwise and right handles counterclockwise. Remove two ladders (2) from brackets under semitrailer.



b. Insert latches (5) into holes under semitrailer entrance doors.

c. Lock latches by turning left handle (4) counterclockwise and right handle (6) clockwise.



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2-15. OPERATING AIR CONDITIONER (M348A2H).

a. General. Three model CE20VAL6, 208-volt, three-phase, 60 Hz, 18,000 BTU air conditioners are mounted in the front-hand side of the M348A2H semitrailer. An intake grille is located at the upper section of the air conditioner and is operated by a lever. The damper door is located beneath the intake grille and is operated by a chain. A condensate drain is incorporated at the bottom of each air conditioner. Refer to TM 5-4120-222-14 for operation, service, and maintenance instructions for the air conditioner.

b. **Operating Air Conditioner for Ventilation or Air Circulation.**

(1) Set selector switch to VENTILATE.

(2) Open damper door and close intake grille damper.

c. Operating Air Conditioner for Cooling.

(1) Position thermostatic switch for desired temperature.

(2) Set selector switch to COOL.

(3) For cooling with 100 percent recirculated air, close damper door and open intake grille damper.

(4) For cooling with fresh air, open damper door and partially close intake grille damper.

(5) For cooling with fresh air drawn through chemical-biological filter unit, when outdoor air is contaminated, close damper door and partially close intake grille damper.

(6) To stop air conditioner, set selector switch to OFF.

d. Operating Air Conditioner for Heating.

(1) Set thermostatic switch for desired temperature.

(2) Set selector switch to LO HEAT or HI HEAT.

(3) For heating with 100 percent recirculated air, close damper door and open intake grille damper.

(4) For heating with fresh air, open damper door and partially close intake grille damper.

(5) For heating with fresh air drawn through chemical-biological filter unit, when outdoor air is contaminated, close damper door and partially close intake grille damper.

(6) To stop air conditioner, set selector switch to OFF.

2-16. OPERATING AIR CONDITIONER (M373A2D).

a. General. One air conditioner is mounted in front of the semitrailer, directly to the rear of the front door. Three differenet air conditioners may be used on the M373A2D semitrailer: Carrier CE60-D-60, Airflow CE60-C-60, or Ellis and Watts CE60-C-60. All are 208-volt, three-phase, 60 Hz, 60,000 BTU. Adjustable mounts are provided at the top of the semitrailer to accommodate the air conditioner. The remote control panel is mounted on a parlition to the rear of the air conditioner unit.

b. Operating Air Conditioner for Ventilation.

(1) Open hinged panels on front door of semitrailer.

(2) Open fresh air damper by positioning handle for desired opening and allow a small quantity of fresh air to mix with circulating air.

(3) open filter panel to desired position to admit fresh filtered air.

2-16. OPERATING AIR CONDITIONER (M373A2D) (Con't).

(4) Place circuit breaker on remote control panel to ON position.

(5) Place selector knob on remote control panel to VENTILATION position.

(6) To stop ventilating action, turn selector knob and circuit breaker to OFF positions and close air damper, filter panel, and front door panels.

c. Operating Air Conditioner for Cooling.

(1) Open hinged panels on front door of semitrailer.

(2) Place selector knob on remote control panel to COOLING position.

(3) Place circuit breaker on remote control panel to ON position.

(4) To stop cooling action, place selector knob and circuit breaker to OFF positions and close front door panels.

2-17. OPERATING AIR CONDITIONER (M373A3, M373A4, AND M373A5).

a. General. The M373A3, M373A4, and M373A5 semitrailers are equipped with one model MA3-F23A, 208-volt, three-phase 60 Hz, 36,000 BTU air conditioner, mounted in the front of the semitrailer. The thermostatic switch *on* the M373A5 semitrailer is mounted on the left sidewall, adjacent to the heater thermostatic switch. A check valve is located in the drain line to prevent water from backing up into the unit during fording operation. Refer to TM 5-4120-259-15 for operation, service, and maintenance instructions for the air conditioner.

b. **Operating Air Conditioner for Ventilation.**

(1) Open front panel.

(2) Open both air discharge opening covers located on each side of kingpin.

(3) Turn rotary control switch to FAN position.

(4) Adjust damper to admit fresh air as desired.

(5) To stop ventilating action, turn rotary control switch to OFF position and close damper, air discharge opening covers, and front panel.

c. **Operating Air Conditioner for Cooling.**

(1) Open front panel.

(2) Open both air discharge opening covers located on each side of kingpin.

(3) Set thermostatic switch for desired temperature and turn rotary control switch to COOL position.

NOTE

For maximum cooling capacity when outside temperature is high, set damper controls at full MIN position.

(4) Turn damper control knobs to desired position, from MIN (100 percent return air) to **MAX** (100 percent fresh air).

(5) To stop cooling action, turn rotary control switch to OFF position and close air discharge opening covers and front panel.

2-18. OPERATING HEATER (M373A2D AND M373A5).

a. **Operating Heater for Ventilation.**

(1) Open air inlet opening cover on outside of semitrailer, adjacent to heater.

(2) Place control switch to VENT position.

(3) To stop ventilating action, place control switch to OFF position and close air inlet opening cover.

b. Operating Heater for Heat.

(1) Open air inlet opening cover on outside of semitrailer, adjacent to heater.

NOTE

A white pilot light indicates normal operation of heater. A glowing red pilot light Indicates a heater malfunction.

(2) Set thermostatic switch to desired setting and place control switch to HEAT position.

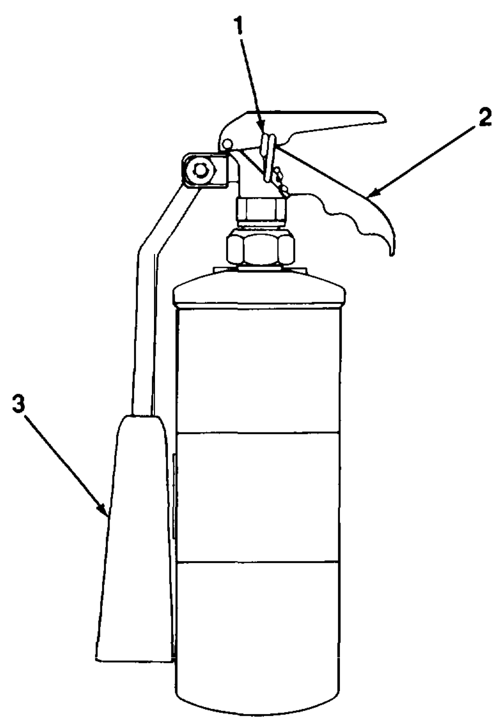
(3) To shut off heater, place control switch to OFF position and close air inlet opening cover.

2-19. OPERATING FIRE EXTINGUISHER (M348A2G, M348A2H, M348A2K, AND M348A2N).

a. Remove fire extinguisher from mounting bracket by releasing clamp.

b. Rotate horn (3) to an UP position. Break safety wire and remove safety pin (1).

c. Squeeze trigger (2) and aim horn (3) at the base of the flame.



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2-20. UNCOUPLING SEMITRAILER FROM TOWING VEHICLE.

WARNING

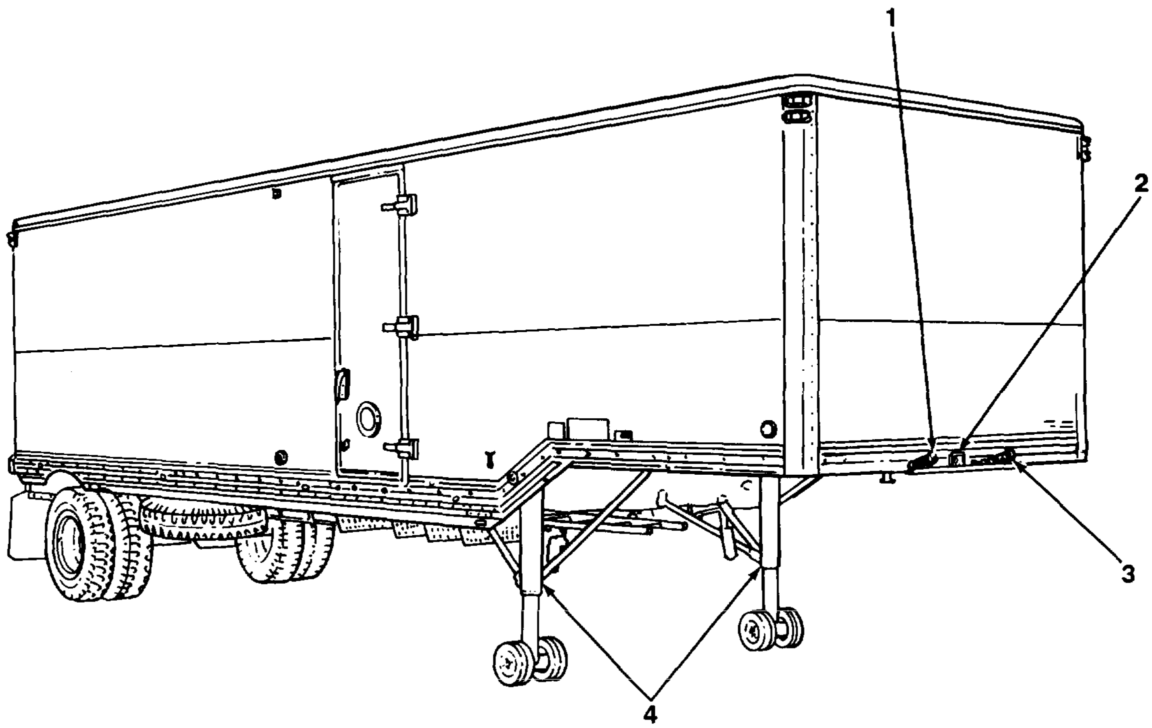
All personnel must stand clear of towing vehicle and semitrailer during uncoupling operation. Failure to follow this warning may result in serious Injury or death to personnel.

a. Chock semitrailer wheels and raise front of semitrailer using landing gear (4) (para 2-13).

b. Disconnect towing vehicle emergency air hose from semitrailer emergency air coupling (3). Disconnect towing vehicle service air hose from semitrailer service air coupling (1)

c. Disconnect towing vehicle intervehicular cable from semitrailer receptacle (2).

d. Release kingpin lock on fifth wheel of towing vehicle and drive towing vehicle a safe distance from semitrailer.



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Section IV OPERATION UNDER UNUSUAL CONDITIONS

2-21. GENERAL.

a. This section contains instructions for safely operating the semitrailers under unusual conditions. In addition to normal preventive maintenance service, speciai care must be taken to keep the semitrailers operational in extreme temperatures and humidity.

b. Refer to FM 55-30 for information on driver selection, training, and supervision.

c. Refer to FM 21-305 for information on special driving instructions for operating wheeled vehicles under unusual conditions.

2-22. OPERATION IN EXTREME COLD.

a. Special care must be taken when operating semitrailers in extreme cold weather. Refer to FM 9-207 for information on operation in cold weather.

b. Refer to Chapter 3, Section i for proper lubrication during extreme cold weather.

c. Generally, extreme cold causes lubricants to thicken or freeze and various semitrailer materials to become hard and brittle, and easily damaged or broken. Extreme cold weather also can cause insulation on electrical wire to crack, causing short circuits. The operator must be alert to effects of extreme cold on semitrailers.

d. When parking for any period of time in temperatures below 0°F (-18°C), park in a sheltered area out of the wind and clean off any buildup of ice or snow. Place a footing of planks or brush under tires to prevent them from freezing to the ground. Ensure that tires are properly inflated (para 1-10). Underinflated tires will freeze, resulting in flat spots.

e. Use caution when placing semitrailer in motion after a shutdown. Thickened lubricants may cause component failure. Free frozen brakeshoes, or tires frozen to ground, with care.

2-23. OPERATION IN EXTREME HEAT.

a. Refer to Chapter 3, Section i for proper lubrication during extreme heat.

b. Do not park semitrailer in sunlight for long periods of time. Heat and sunlight shorten tire life.

CAUTION

DO NOT use gasoline or dry cleaning solvent to remove oil or grease spots from tarpaulin. Use only water and a scrub brush. Failure to follow this caution will damage tarpaulin.

c. Cover inactive semitrailer with tarpaulins if no other shelter is available. Tarpaulins are subject to deterioration from mildew and attacks by insects or animals. Shake out and air tarpaulins for several hours weekly. Clean mildewed tarpaulin with a dry scrub brush. DO NOT clean with water until mildew is removed. If mildew is found, examine tapaulin to determine if it is rotted or weakened. Replace tarpaulin if damaged. If tarpaulin is not damaged, treat as outlined in FM 10-16.

2-23. OPERATION IN EXTREME HEAT (Con't).

d. Semitrailers, inactive for long periods in hot, humid weather, are subject to rusting and accumulation of fungi growth. Frequently inspect, clean, and lubricate to prevent deterioration.

2-24. OPERATION IN SANDY OR DUSTY AREAS.

a. Clean, inspect, and lubricate semitrailer more often in sandy or dusty areas (Chapter 3, Section l).

b. Maintain proper tire pressure:

(1) Reduce tire pressure to 20 psi (138 kPa) for operation in soft sand.

(2) Reduce tire pressure to 30psi (207 kPa) for operatiorton cross-country terrain. Tire pressure must be returned to 50 psi (345 kPa) when operation resumes on hard-surface roads if tactical situation permits.

c. When uncoupling semitrailer in sandy areas, use ground boards to prevent landing gear from sinking in.

2-25. OPERATION IN HIGH HUMIDITY, HEAVY RAIN, AND SALTWATER AREAS.

a. Dampness increases chances of corrosion. Inspect all surfaces and electrical connections for signs of corrosion. Remove all signs of corrosion. Apply corrosion preventive compound (Item 11, Appendix E) to all electrical connections.

b. Protect semitrailer from direct rainfall whenever possible. During dry periods, open semitrailer to air to facilitate drying process.

c. Wash semitrailer thoroughly with clear water if it comes in contact with saltwater.

2-26. OPERATION IN MUD.

a. Immediately after operation in mud, thoroughly clean, inspect, and lubricate if tactical situation permits (Chapter 3, Section I).

b. Pack wheel bearings as required (Chapter 3, Section l).

2-27. OPERATION IN SNOW.

a. Refer to FM 21-305 for special instructions on driving hazards in snow.

b. After each operation, remove ice and snow from underneath semitrailer and from hoses, lines, tubes, and electrical connections.

2-28. FORDING.

a. Refer to the towing vehicle operating instructions for information on fording. Towing vehicle instructions are also applicable to the semitrailer.

b. Pack wheel bearings after each submersion (Chapter 3, Section l).

CHAPTER 3
OPERATOR MAINTENANCE

Section 1. LUBRICATION INSTRUCTIONS

3-1. GENERAL.

NOTE

These Instructions are MANDATORY

a. The semitrailers must receive lubrication with approved lubricants at recommended Intervals in order to be mission-ready at all times.

b. The KEY lists lubricants to be used in all temperature ranges and shows the intervals.

c. The lubrication chart shows lubrication points, names items to relubricated, the required lubricant, and recommended intervals for lubrication. Any special lubricating instructions required for specific components are contained in the NOTES section of the chart.

d. Recommended intervals are based on norma lconditions of operation, temperature,and humidity.when operating under extreme conditions, Iubricants should always be changed more frequently. When In doubt, notify your supervisor.

3-2. SPECIFIC LUBRICATION INSTRUCTIONS.

a. Keep all lubricants in a closed container and store in a clean, dry place away from extreme heat. Keep container covers clean and do not allow dust, dirt, or other foreign material to mix with lubricants. Keep all lubrication equipment clean and ready for use.

b. Maintain a record of lubrication performed and report any problems noted during lubrication. Refer to DA Pam 738-750 for maintenance forms and procedures to record and report any findings.

WARNING

Dry cleaning solvent, P-D-680, is toxic and flammable. Always wear protective goggles and gloves, and use only In a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point is 100°F-138°F (38°C-590C). If you become dizzy while using cleaning solvent, immediately get fresh air and medical help. If solvent contacts eyes, immediately wash your eyes and get medical aid.

c. Use dry cleaning solvent (Item 13, Appendix E) to clean grease fittings, lubrication points, and surrounding areas before lubricating.

d. When lubricating at a grease fitting, apply enough grease to purge old grease from the lubricated area. When old grease oozes from the fitting, purging and lubrication are adequate.

3-2. SPECIFIC LUBRICATION INSTRUCTIONS (Con't).

WARNING

Wipe excess lubricant from area of brakeshoe linings to avoid grease soaking the linings. If brakeshoe linings become soaked, have Organlzatlonal Maintenance replace brakeshoe. Failure to follow this warning may cause brakes to malfunction, resulting in serious injury or death to personnel.

e. Keep all extemal parts of equipment not requiring lubrication free of lubricants. After lubrication, wipe off excess oil or grease to prevent accumulation of foreign matter.

3-3. LUBRICATION INSTRUCTIONS UNDER UNUSUAL CONDITIONS.

a. Lubricate more frequently to compensate for normal or extreme conditions such as high or low temperatures, prolonged periods of high-speed operations, continued operation in sand or dust, immersion in water, or exposure to moisture. Any one of these conditions may cause contamination and quickly destroy protective qualities of lubricants.

b. Intervals maybe extended during inactive periods commensurate with adequate preservation.

c. For lubrication instructions during continued operation below 0°F (-18°C), refer to FM 9-207.

d. After operation in muddy, sandy, or dusty conditions, clean and inspect all lubrication points for fouled lubricants. Change lubricants as required.

LUBRICATION CHART

SEMITRAILER, VAN: ELECTRONIC, 6-TON, 2-WHEEL

M348A2 (NSN 2330-00-678-3838)
M348A2C (NSN 2330-00-690-7724)
M348A2D (NSN 2330-00-690-7725)
M348A2F (NSN 2330-00-690-7726)
M348A2G (NSN 2330-00-797-7405)
M348A2H (NSN 2330-00-973-1262)
M348A2K (NSN 2330-00-740-2322)
M348A2N (NSN 2330-00-740-2329)
M373A2 (NSN 2330-00-705-8932)
M373A2C (NSN 2330-00-672-7496)
M373A2D (NSN 2330-00-738-5869)
M373A3 (NSN 2330-00-937-4518)
M373A4 (NSN 2330-00-937-4519)
M373A5 (NSN 2330-00-781-7755)
XMI005 (NSN 2330-01-107-5728)
XM1007 (NSN 2330-01-109-5961)

Intervals (on-condition or hard time) and related man-hour times are based on normal operation. The man-hour time specified is the time you need to do all services prescribed for a particular interval. Decrease the intervals if your lubricants are contaminated, or if you are operating equipment under adverse conditions, including longer-than-usual opcrating hours. The intervals may be extended during periods of low activity. If extended, adequate preservation precautions must be taken,

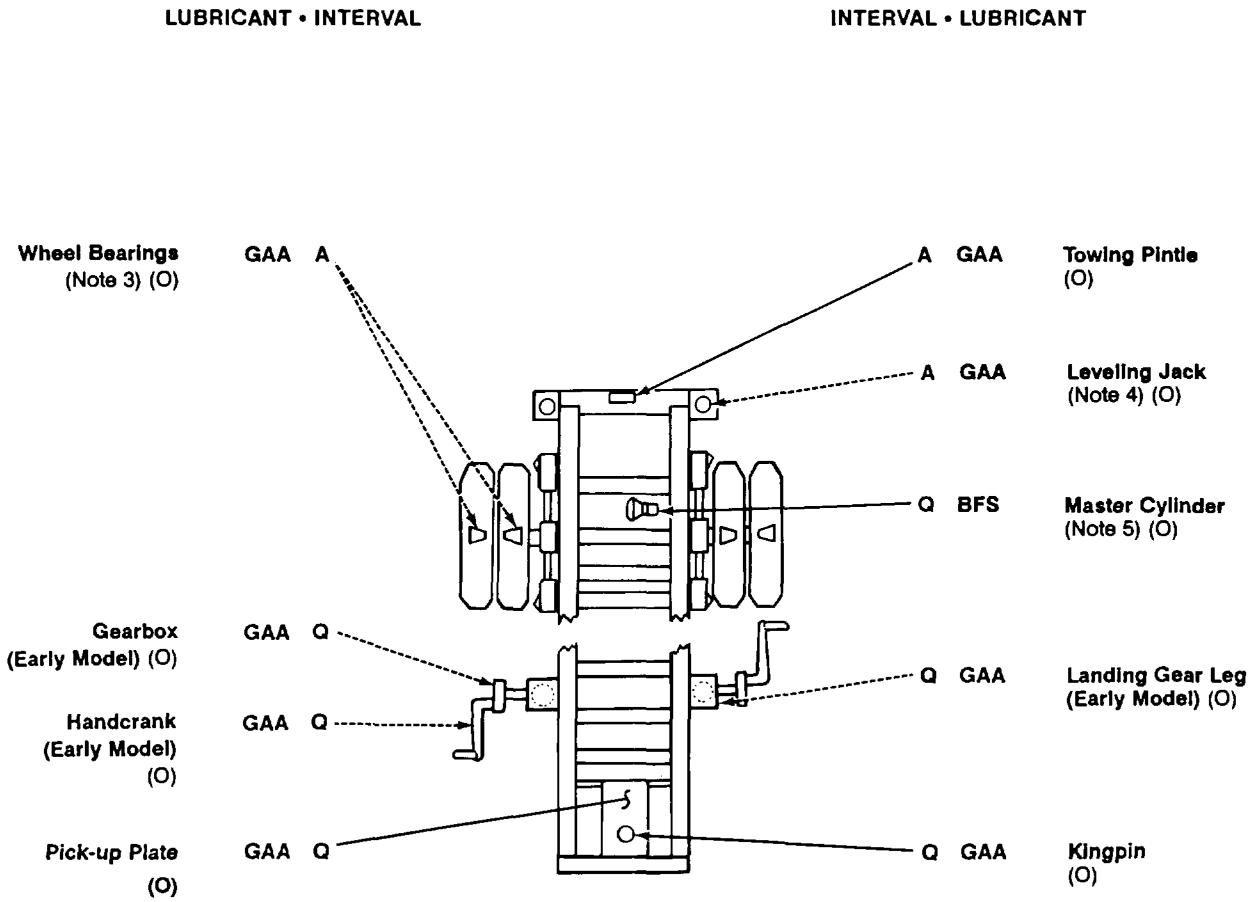
Dotted leader lines indicate lubrication is required on both sides of the equipment.

WARNING

Dry cleaning solvent, P-D-680, Is toxic and flammable. Always wear protective goggles and gloves, and use only in a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point is 100°F-l38°F (38°C-59°C). If you become dizzy while using cleaning solvent, immediately get fresh air and medical help. If solvent contacts eyes, Immediately wash your eyes and get medical aid.

Clean all fittings and area around lubrication points with dry cleaning solvent (Item 13, Appendix E) or equivalent before lubricating equipment. After lubrication, wipe off excess oil or grease to prevent accumulation of foreign matter.

The lowest level of maintenance authorized to lubricate a point is indicated in parentheses by use of the following: (C) Operator/Crew; or (0) Organizational Maintenance.



TOTAL MAN-HOURS*

INTERVAL	MAN-HOUR
Q	7.0
A	12.0

* The man-hour time specified is the time you need to do all services prescribed for a particular interval.

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- KEY -

LUBRICANTS	EXPECTED TEMPERATURES				INTERVALS
	ABOVE + 32°F (ABOVE 0°C)	+40°F to -10°F (+4°C to -23°C)	0°F to -65°F (-18°C to -54°C)	FOR ARCTIC OPERATIONS, REFER TO FM 9-207.	
BFS (MIL-B-46167) Brake Fluid Silicone, Automotive	All Temperatures				*Q* – Quarterly A–Annual
GAA (MIL-G-10924) Grease, Automotive and Artillery	All Temperatures				
OE/HDO (MIL-L-2104) Lubricating Oil, Internal Combustion Engine, Tactical Service	OE/HDO-30	OE/HDO-I0			
OEA (MIL-L-46167) Lubricating Oil, Internal Combustion Engine, Arctic		—	OEA		

NOTES:

1. FOR OPERATION OF EQUIPMENT IN PROTRACTED COLD TEMPERATURES BELOW 15°F (-26°C). Remove lubricants prescribed in the key for temperatures above 15°F (-26°C). Lubricate with lubricants specified in the key for temperatures below 15°F (-26°C). If OEA lubricant is required to meet the temperature changes prescribed in the key, OEA lubricant is to be used in place of OE/HDO-10 lubricant for all temperature ranges where OE/HDO-10 lubricant is specified in the key.

2. OIL CAN POINTS. Quarterly, lubricate all door hinges, latches, jack screws, and landing gear crankshaft with OE.

3. WHEEL BEARINGS. Every 12,000 mi (19,308 km) or annually, remove, clean, dry, and pack (TM 9-214).

4. LEVELING JACK. Before assembly, clean, dry, and pack.

5. MASTER CYLINDER. Fill to within ½ in. (13 mm) of top. DO NOT use petroleum base hydraulic fluid. Petroleum base hydraulic fluid will render brakes inoperative.

6. DO NOT LUBRICATE leaf springs.

Section II. OPERATOR/CREW TROUBLESHOOTING PROCEDURES

3-4. GENERAL.

a. This section provides information for identifying and correcting malfunctions which may develop while operating your semitrailer.

b. The Troubleshooting Symptom Index in paragraph 3-6 1ists common malfunctions that may occur and refers you to the proper page in Table 3-1 for a troubleshooting procedure.

c. If you are unsure of the location of an item mentioned in troubleshooting, refer to paragraphs 1-7 or 2-2 to the maintenance task where the item is replaced.

d. Before performing troubleshooting, read and follow all safety instructions found in the Waming Summary at the front of this manual.

e. This section cannot list all malfunctions that may occur, nor all tests or inspections and corrective actions. If a malfunction is not listed, or is not corrected by the listed corrective actions, notify your supervisor.

f. When troubleshooting a malfunction:

(1) Locate the symptom or symptoms in paragraph 3-6 that best describes the malfunction.

(2) Turn to the page in Table 3-1 where the troubleshooting procedures for the malfunction in question are described. Headings at top of each page show how each troubleshooting procedure is organized: MALFUNCTION, TEST OR INSPECTION (in step number order), and CORRECTIVE ACTION.

(3) Perform each step in the order listed until the malfunction is corrected. DO NOT perform any maintenance task unless the troubleshooting procedure tells you to do so.

3-5. EXPLANATION OF COLUMNS.

The columns in Table 3-1 are defined as follows:

(1) MALFUNCTION. A visual or operational indication that something is wrong with the semitrailer.

(2) TEST OR INSPECTION. A procedure to isolate the problem in a component or system.

(3) CORRECTIVE ACTION. A procedure to correct the problem.

3-6. TROUBLESHOOTING SYMPTOM INDEX.

	Troubleshooting Procedure Page
BRAKE SYSTEM	
Brakes are Slow to Engage or Release	3-9
Brakes Do Not Engage	3-8

3-6. TROUBLESHOOTING SYMPTOM INDEX (Con't).

Table 3-1. Operator/Crew Troubleshootlng.

MALFUNCTION
TEST OR INSPECTION
CORRECTIVE ACTION

ELECTRICAL SYSTEM

1. ALL 24-VOLT LAMPS FAIL TO LIGHT.

Step 1. Check that towing vehicle lights are turned on.

Refer to towing vehicle technical manual for instructions.

Step 2. Check intervehicular cable for proper connection.

Connect intervehicular cable (para 2-10).

Step 3. Check for dirty or corroded terminals on intervehicular cable.

Clean connectors, receptacle, and plug.

Table 3-1. Operator/Crew Troubleshooting (Con't).

MALFUNCTION
TEST OR INSPECTION
CORRECTIVE ACTION

Step 4. Check for proper ground connections at light assemblies.

Tighten ground connections as required.

2. ALL CHASSIS LIGHTS ARE ON BUT VAN CLEARANCE LIGHTS ARE OFF.

Check for loose 24-volt connection at receptacle.

Remove, clean, and insert plug, ensuring that proper connection is made.

3. DIRECTIONAL SIGNALS INOPERATIVE...

Check for dirty or corroded cable socket and contacts.

Notify Organizational Maintenance.

4.. ONE OR MORE 24-VOLT LAMPS (BUT NOT ALL) FAIL TO LIGHT.

Step 1. Check for loose plug connectors at affected light assemblies.

Connect loose plug connector.

Step 2. Check for dirty or corroded terminals on intervehicular cable.

Clean connectors, receptacle, and plug.

Step 3. Check to see if rear junction connector is loose if van and forward chassis lights are ON, but all rear lights are OFF.

Remove and install connector, ensuring that socket and contacts are clean.

5. ALL 11O-VOLT LAMPS FAIL TO LIGHT.

Check power cable connection.

Remove plug and reinsert fully (para 2-11).

BRAKE SYSTEM

6. BRAKES DO NOT ENGAGE..

Step 1. Check intervehicular air hoses for proper connections.

Connect air hoses properly (para 2-10).

Step 2. Check for closed air valve on towing vehicle.

Open air valve. Refer to towing vehicle technical manual for instructions.

Table 3-1. Operator/Crew TroubleshootIng (Con't).

MALFUNCTION
TEST OR INSPECTION
CORRECTIVE ACTION

Step 3. Check for brake fluid leaks.

I.f brake fluid is leaking, notify Organizational Maintenance.

7. BRAKES DO NOT RELEASE.

Step 1. Check to see if relay valve is in applied position.

If semitrailer is coupled, wait until air pressure on towing vehicle reaches normal operating pressure. If semitrailer is uncoupled, open pressure tank draincock.

Step 2. Check intervehicular air hoses for loose connections.

Connect air hose(s) properly (para 2-10).

Step 3. Check to see if pressure tank draincock is open.

Close pressure tank draincock.

Step 4. Check to see if shut-off valves on towing vehicle are closed.

Open shut-off valves on towing vehicle.

Step 5. Check intervehicular air hoses for restrictions.

Straighten or remove any kinks, bends, or restrictions from intervehicular air hoses.

8. BRAKES GRAB.

Check air system for moisture.

Open draincock on pressure tank and drain moisture from system.

9. BRAKES ARE SLOW TO ENGAGE OR RELEASE.

Notify Organizational Maintenance.

10. NO BRAKES OR WEAK BRAKES.

Step 1. Check intervehicular air hoses for proper connection.

Connect air hoses properly (para 2-10).

Step 2. Check that shut-off valves on towing vehicle are closed.

Open shut-off valves on towing vehicle.

Step 3. Check to see that pressure tank draincock is open.

Close pressure tank draincock.

Table 3-1. Operator/Crew Troubleshooting (Con't).

MALFUNCTION
TEST OR INSPECTION
CORRECTIVE ACTION

WHEELS AND TIRES

11. AIR LEAKAGE FROM TIRES.

Step 1. Check valve core for damage or looseness.

Notify Organizational Maintenance.

Step 2. Check tire for puncture.

Notify Organizational Maintenance.

12. TIRES EXCESSIVELY WORN, SCUFFED, OR CUPPED.

Step 1. Check tires for proper inflation.

Inflate tires to proper pressure (para 1-10).

Step 2. Check wheels for looseness.

Tighten wheel stud nuts. Notify Organizational Maintenance to apply proper torque.

13. WHEEL(S) NOISY OR WOBBLING.

Check wheels for looseness.

Tighten wheel nuts. Notify Organizational Maintenance to apply proper torque.

LEVELING JACKS

14. ERRATIC OPERATION.

Check leveling jacks for adequate lubrication.

Notify Organizational Maintenance.

LANDING GEAR

15. HANDCRANK WILL NOT TURN OR WILL NOT TURN FREELY.

Step 1. Check for adequate lubrication.

Notify Organizational Maintenance.

Table 3-1. Operator/Crew Troubleshooting (Con't).

MALFUNCTION
TEST OR INSPECTION
CORRECTIVE ACTION

Step 2. Check for indication of damaged parts (such as grinding sound)

If damage is indicated, notify Organizational Maintenance,

SUSPENSION SYSTEM

16. SEMITRAILER SAGS TO ONE SIDE..

Step 1. Check tires on low side to see if air pressure is low or uneven.

Inflate tires to proper pressure (para 1-10).

Step 2. Check load for uneven distribution.

Distribute load evenly.

CHAPTER 4
ORGANIZATIONAL MAINTENANCE

Section 1. REPAIR PARTS; SPECIAL TOOLS; TEST, MEASUREMENT, AND DIAGNOSTIC EQUIPMENT (TMDE); AND SUPPORT EQUIPMENT

4-1. COMMON TOOLS AND EQUIPMENT.

Refer to the Modified Table of Organization and Equipment (MTOE) for authorized common tools and equipment applicable to your unit.

4-2. SPECIAL TOOLS; TEST, MEASUREMENT AND DIAGNOSTIC EQUIPMENT (TMDE); AND SUPPORT EQUIPMENT.

No special tools, TMDE, or support equipment are required to maintain the semitrailers.

4-3. REPAIR PARTS.

Repair parts are listed and illustrated in TM 9-2330-246-24P.

Section II. SERVICE UPON RECEIPT

4-4. GENERAL.

When anew, used, or reconditioned semitrailer is first received, determine whether it has been properly prepared for service and is in condition to perform its mission. Perform the preliminary inspections and services listed in paragraph 4-5.

4-5. PRELIMINARY INSPECTIONS AND SERVICES.

a. Refer to DD Form 1397 for procedures on unpacking the semitrailer.

b. Remove any protective materials used on the trailer during shipment. Unpack and properly stow all Basic Issue Items (Bll).

WARNING

Dry cleaning solvent, P-D-680, is toxic and flammable. Always wear protective goggles and gloves, and use only In a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point Is 100°F-138°F (38°C-59”C). If you become dizzy while using cleaning solvent, immediately get fresh air and medical help. If solvent contacts eyes, immediately wash your eyes and get medical aid.

c. Use dry cleaning solvent (Item 13, Appendix E) and rags (Item 20, Appendix E) to clean all exterior surfaces coated with rust preventative compounds. Refer to DD Form 1397 and follow all instructions carefully.

d. Make a complete visual check of the semitrailer to ensure that there was no damage during shipment and that all accessories and required publications are present. Check also to see if the equipment has been modified.

e. Perform Quarferly (Q) PMCS as shown in Table 4-1. Correct any deficiency if authorized by the Maintenance Allocation Chart (MAC) in Appendix B. If not authorized, notify your supervisor. Schedule the next PMCS on DD Form 314.

f. Lubricate all lubrication points regardless of interval (Chapter 3, Section 1).

g. Perform a break-in road test of 25 mi (40 km) at a maximum speed of 50 mi/h (80 km/h).

Section III. ORGANIZATIONAL PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)

4-6. GENERAL.

To ensure that the M348 and M373 Series, XM1005, and XM1007 Semitrailers are ready for operation stall times, they must be inspected on a regular basis so that defects may be found before they result unserious damage, equipment failure, or injury to,personnel. This section contains systematic instructions on inspections, adjustments, and corrections to be performed by Organizational Maintenance.

4-7. SERVICE INTERVALS.

Perform PMCS, found in Table 4-1, at the following intervals:

a. Perform Quarterly (Q) PMCS once every three months.

b. Perform Semiannual (S) PMCSonce every six months.

c. Perform Annual (A) PMCS on each year.

4-8. REPORTING REPAIRS.

Report all defects and corrective actions on DA Form 2404. If a serious problem is found, report it to your supervisor immediately.

4-9. GENERAL PMCS PROCEDURES.

WARNING

Dry cleaning solvent, P-D-680, is toxic and flammable. Always wear protective goggles and gloves, and use only in a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point is 10O°F-138°F (38°C-59°C). If you become dizzy while using cleaning solvent, immediately get fresh air and medical help. If solvent contacts eyes, Immediately wash your eyes and get medical aid.

a. Keep equipment clean. Dirt, oil, and debris may cover up a serious problem. Clean as you work and as needed. Use dry cleaning solvent (Item 13, Appendix E) on all metal surfaces. Use detergent (Item 12, Appendix E) and water on rubber, plastic, and painted surfaces.

b. While performing PMCS, inspect the following components:

(1) Bolts, Nuts, and Screws. Ensure that they are not loose, missing, bent, or broken. Tighten any that are loose.

4-9. GENERAL PMCS PROCEDURES (Con't).

(2) Welds. Inspect for gaps where parts are welded together. Report bad welds to your supervisor.

(3) Electric Wires or Connectors. Inspect for cracked or broken insulation, bare wires, and loose or broken connectors. Make repairs or replace as required.

(4) Hoses, Lines, and Fittings. Inspect for wear, damage, and leaks. Ensure that clamps and fittings are tight. if a leak originates from a loose fitting or connector, tighten If, If a component is broken or worn, correct problem if authorized by the Maintenance Allocation Chart (MAC) (Appendix B), if not authorized, report it to your supervisor.

4-10. SPECIFIC PMCS PROCEDURES.

a. Organizational PMCS are provided in Table 4-1. Always perform PMCS in the order listed. Once it becomes a habit, anything that is not right can be spotted in a minute. if anything wrong is discovered through PMCS, perform the appropriate troubleshooting task in Section IV of this chapter. if any component or system is not serviceable, or if a given service does not correct the problem, notify your supervisor.

b. Before performing preventive maintenance, read all the checks required for the applicable interval and prepare tools needed to make all checks. Have several clean rags (Item 20, Appendix E) handy. Perform ALL inspections at the applicable interval.

c. The columns in Table 4-1 are defined as follows:

(1) **Item No.** Provides a logical sequence for PMCS to be performed and is used as a source of item numbers for the "TM ITEM NO" column on DA Form 2404 in recording PMCS results.

(2) **Interval.** Specifies interval at which PMCS is to be performed.

(3) **Item To Be Inspected.** Lists the system and common name of items that are to be inspected.

(4) **Procedures,** Tells you how to do the required check or service.

Table 4-1. Organizational Preventive Maintenance Checks and Services (PMCS).

Q-Quarterly **S-Semiannual** **A-Annual**

ITEM NO.	INTERVAL			ITEM TO BE INSPECTED	PROCEDURES
	Q	S	A		
					N O T E **Perform Operator/Crew PMCS prior to or along with Organizational PMCS if:** a. There is a delay between the daily operation of the equipment and the organizational PMCS. b. The regular operator is not assisting/participating.
1				PRESSURE TANK AND AIR LINES	
	•				Check air reservoirs and air lines for damage and tight connections.
2				HYDRAULIC LINES AND FITTINGS	
		Ž			a. Check all hydraulic lines for leaks, kinks, bends, cracks, and presence of mounting clamps.

Table 4-1. Organizational Preventive Maintenance Checks and Services (PMCS) (Con't).

Q-Quarterly S-Semiannual **A-Annual**

ITEM NO.	INTERVAL Q	S	A	ITEM TO BE INSPECTED	PROCEDURES
2				HYDRAULIC LINES AND FITTINGS (Con't)	
		●			b. Check master cylinder for security of mounting, serviceable vent hose, and leaks,
3				WHEELS, HUBS, AND BRAKEDRUMS	
		●			a. Check brakes. Replace damaged or worn parts (para 4-56 or 4-57).
		•			b. Rotate and match dual tires according to degree of wear (TM 9-2610-200-14).
4				**SPRINGS**	
		•			a. Check springs, suspension, and radius rods for any evidence of damage.
		•			b. Check for shifted leaves. If evidence of shifting, sagging, or damage exists, replace spring assembly (para 4-79).
	•				c, Torque spring U-bolts to 350 Ib.-ft. (475 N•m).
5				**DATA PLATES**	
		●			Assure legibility and condition of data plates. Replace damaged or disfigured plates (para 4-116).
6				**BODY**	
		●			Check overall body for evidence for gouges and other damage. Repair as necessary.
7				**FRAME**	
		•			Look for cracks, bent members, and broken welds. If frame damage is seen, immediately notify Direct Support Maintenance.

Table 4-1. Organizational Preventive Maintenance Checks and Services (PMCS) (Con't).

O- Quarterly | S-Semiannual | A-Annual

ITEM NO.	INTERVAL Q	S	A	ITEM TO BE INSPECTED	PROCEDURES
8				ROAD TEST	
		●			a. Perform road test. Give special attention to items that were repaired or adjusted.
		•			b. Be alert during road tests for any unusual noises. **WARNING** A hot brake can cause serious burns. Exercise extreme caution before attempting to touch brakedrum after use. Slowly move hand toward brakedrum. If brakedrum Is overheated, radiated heat will be felt before actually touching drum. **NOTE** An overheated brakedrum and hub indicates an improperly adjusted or defective brake or wheel bearing. An abnormally cool condition Indicates an inoperative brake.
		•			c. Immediately after road test, cautiously feel brakedrums and hubs for abnormal heat.
9				RADIO FREQUENCY INTERFERENCE (RFI) SHIELDING (M373A2D AND XM1005)	**WARNING** Dry cleaning solvent, P-D-680, is toxic and flammable. Always wear protective goggles and gloves, and use only in a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point is 100°F-138°F (38°C-59°C). If you become dizzy while using cleaning solvent, immediately get fresh air and medical help. If solvent contacts eyes, immediately wash your eyes and get medical aid.
	•				Check RFI shielding in door openings and RFI gaskets on removable door post. This shielding must be kept clean at all times to provide a good bond. Ensure that jambs and thresholds are free of dust, dirt, and grease. Use fine steel wool (Item 30, Appendix E) to remove accumulated grease and grime, then wash with dry cleaning solvent (Item 13, Appendix E) and wipe clean.

Section IV ORGANIZATIONAL TROUBLESHOOTING PROCEDURES

4-11. GENERAL.

a. This section provides information for identifying and correcting malfunctions which may develop when operating or maintaining the semitrailer.

b. The Troubleshooting Symptom Index in paragraph 4-13 lists common malfunctions that may occur and refers you to the proper page in Table 4-2 for a troubleshooting procedure.

c. This section cannot list all malfunctions that may occur, nor all tests or inspections and corrective actions. If a malfunction is not listed, or is not corrected by the listed corrective actions, notify your supervisor.

d. When troubleshooting a malfunction:

(1) Question the operator to obtain any information that might help deterrnine the cause of the problem. Before continuing, ensure that all applicable operator/crew troubleshooting was performed.

(2) Locate the symptom(s) in paragraph 4-13 that best describes the malfunctlon. lf the appropriate system is not listed, notify your supervisor.

(3) Turn to the page in Table 4-2 where the troubleshooting procedures for the malfunction in question are described. Headings at top of each page show how each troubleshooting procedure is organized: MALFUNCTION, TEST OR INSPECTION (in step number order), and CORRECTIVE ACTION.

(4) Perform each step in the order listed until the malfunction is corrected. DO NOT perform any maintenance task unless the troubleshooting procedure tells you to do so.

4-12. EXPLANATION OF COLUMNS.

The columns in Table 4-2 are defined as follows:

(1) MALFUNCTION. A visual or operational indication that something is wrong with the semitrailer.

(2) TEST OR INSPECTION. A procedure to isolate the problem in a component or system.

(3) CORRECTIVE ACTION. A procedure to correct the problem.

4-13. TROUBLESHOOTING SYMPTOM INDEX.

	Troubleshooting Procedure Page
BRAKE SYSTEM	
Brakes Grab	4-12
Brakes Do Not Release	4-11
Brakedrum Running Hot	4-13

4-13. TROUBLESHOOTING SYMPTOM INDEX (Con't).

Table 4-2. Organizational Troubleshooting.

MALFUNCTION
TEST OR INSPECTION
CORRECTIVE ACTION

ELECTRICAL SYSTEM

1. ALL 24-VOLT LAMPS FAIL TO LIGHT.

Step 1. Check intervehicular cable receptacle for good ground connection.

Tighten ground (para 4-14).

Step 2. Check wiring harness for short circuit.

Check cable for bare spots. Repair if necessary.

Step 3. Check to see that current is flowing from towing vehicle.

Check towing vehicle cables and circuit breakers. Refer to towing vehicle technical manual.

Step 4. Perform 24-volt voltage test of all circuits with a multimeter. Refer to wiring diagrams (para 4-52).

2. ONE OR MORE 24-VOLT LAMPS (BUT NOT ALL) FAIL TO LIGHT.

Step 1. Check for burned out lamp.

Replace burned out lamp (para 4-29, 4-30, 4-31, 4-32, 4-33, or 4-34).

Step 2. Check for dirty or corroded cable contacts in sleeves or lamp sockets.

Remove lamps and clean contacts.

Step 3. Check for broken or loose connections.

Tighten, repair, or replace as necessary.

Step 4. Check to see if light assembly is defective.

Replace defective light assembly (para 4-29, 4-30, 4-31, 4-32, 4-33, or 4-34).

3. DIM OR FLICKERING 24-VOLT LAMPS.

Step 1. Check to see if lamp is defective.

Replace lamp (para 4-29, 4-30, 4-31, 4-32, 4-33, or 4-34).

Step 2. Check for dirty or corroded lamp sockets, cable connectors, or harness contacts.

Clean as necessary.

Step 3. Check for poor or loose ground connections.

Clean ground cable terminal and tighten connections.

Step 4. Check for loose, dirty, or corroded terminals.

Clean and tighten terminals.

Table 4-2. Organizational Troubleshooting (Con't).

MALFUNCTION
TEST OR INSPECTION
CORRECTIVE ACTION

4. DIRECTIONAL SIGNALS INOPERATIVE..

Step 1. Check for defective flasher or switch in towing vehicle.

Replace defective part. Refer to towing vehicle technical manual.

Step 2. Check to see if lamp is defective.

Replace lamp (para 4-31 or 4-32).

Step 3. Check for dirty or corroded lamp sockets or contacts.

Clean socket and contacts.

Step 4. Check light assembly.

Replace light assembly (para 4-31 or 4-32).

5. ALL 110-VOLT LAMPS FAIL TO LIGHT.

Step 1. Check to see if current is available from power source.

Check power source for failure.

Step 2. Check 110-volt fuse box for defective fuses.

Replace fuses (para 4-17).

6. ONE OR MORE 11O-VOLT LAMPS (BUT NOT ALL) FAIL TO LIGHT.

Step 1. Check to see if lamp is defective.

Replace lamp (para 4-35).

Step 2. Check for dirty or corroded lamp socket or contacts.

Remove lamp and clean contacts.

Step 3. Check for broken wire or loose connections.

Tighten, repair, or replace wire.

Step 4. Check for defective light assembly.

Replace light assembly (para 4-35).

7. ONE OR MORE FLUORESCENT LAMPS FAIL TO LIGHT.

Step 1. Check to see if lamp is defective.

Replace lamp (para 4-36).

Table 4-2. Organizational Troubleshooting (Con't).

MALFUNCTION
TEST OR INSPECTION
CORRECTIVE ACTION

Step 2. Check to see if ballast is defective.

Replace ballast (para 4-36).

Step 3. Check to see if fixture is defective.

Replace fixture (para 4-36).

BRAKE SYSTEM

8. BRAKES DO NOT RELEASE.

Check for weak or broken brakeshoe return spring(s).

Replace brakeshoe return spring(s) (para 4-55 or 4-56).

9. NO BRAKES OR WEAK BRAKES.

Step 1. Check to see if air pressure is low.

Check air pressure gage on towing vehicle. Remove any restrictions in air lines. Perform leakage test (para 4-68).

Step 2. Check for defective relay valve.

Perform operating test. Replace if necessary (para 4-65).

Step 3. Check to see if air filter is clogged (if installed).

Replace air filter if clogged (para 4-66).

Step 4. Check for leaks in hydraulic brake system (para 4-62).

Tighten connections.

Step 5. Check brake fluid level in master cylinder (Chapter 3, Section I).

Fill master cylinder with brake fluid.

Step 6. Check for defective master cylinder.

Replace master cylinder (para 4-61).

Step 7. Check for air in hydraulic brake system.

Bleed brakes (para 4-57).

Step 8. Check for grease or brake fluid on brakeshoe linings.

Replace brakeshoes (para 4-55 or 4-56). Replace seal if necessary (para 4-69). Replace wheel cylinder(s) if necessary (para 4-59 or 4-60).

Table 4-2. Organizational Troubleshooting (Con't).

MALFUNCTION
TEST OR INSPECTION
CORRECTIVE ACTION

Step 9. Check brake adjustment.

Adjust brakes (para 4-58 or 4-54).

Step 10. Check for loose or worn brakeshoe linings.

Replace brakeshoes (para 4-55 or 4-56).

Step 11. Check for defective wheel cylinder.

Replace wheel cylinder (para 4-59 or 4-60).

10. SLOW BRAKE APPLICATION OR SLOW RELEASE..

Step 1. Check to see if air pressure is low.

Check air pressure gage on towing vehicle. Remove any restrictions in air lines. Perform leakage test (para 4-68).

Step 2. Check to see if air filter is clogged (if installed).

Replace air filter if clogged (para 4-66).

Step 3. Check for defective relay valve.

Perform operating test. Replace if necessary (para 4-65).

Step 4. Check brake fluid level in master cylinder (Chapter 3, Section l).

Fill master cylinder with brake fluid.

Step 5. Check for air in hydraulic brake system.

Bleed brakes (para 4-57).

Step 6. Check for defective master cylinder.

Replace master cylinder (para 4-61).

Step 7. Check for defective wheel cylinder(s).

Replace wheel cylinder(s) (para 4-59 or 4-60).

Step 8. Check for weak or broken brakeshoe return spring(s).

Replace brakeshoe return spring(s) (para 4-55 or 4-56).

11. BRAKES GRAB.

Step 1. Check for moisture in air filters (if installed) and pressure tank.

Drain air filters (if Installed) and pressure tank.

Table 4-2. Organizational Troubleshooting (Con't).

MALFUNCTION
TEST OR INSPECTION
CORRECTIVE ACTION

Step 2. Check for defective relay valve.

Perform operating test. Replace if necessary (para 4-65).

Step 3. Check brake adjustment.

Adjust brakes (para 4-58 or 4-54).

Step 4. Check for cracked, scored, or deformed brakedrum.

Replace brakedrum (para 4-69).

Step 5. Check for grease or brake fluid on brakeshoe linings.

Replace brakeshoes (para 4-55 or 4-56). Replace seal if necessary (para 4-69). Replace wheel cylinder(s) if necessary (para 4-59 or 4-60).

Step 6. Check for loose or worn brakeshoe linings.

Replace brakeshoes (para 4-55 or 4-56).

12. BRAKEDRUM RUNNING HOT.

Step 1. Check brake adjustment.

Adjust brakes (para 4-58 or 4-54).

Step 2. Check for weak or worn brakeshoe return spring(s).

Replace brakeshoe return spring(s) (para 4-55 or 4-56).

Step 3. Check for deformed brakedrum.

Replace brakedrum (para 4-69).

Step 4. Check for dry or worn wheel bearings.

Lubricate or replace wheel bearings (para 4-69).

13. UNEVEN BRAKING.

Step 1. Check brake adjustment.

Adjust brakes (para 4-58 or 4-54).

Step 2. Check for grease or brake fluid on brakeshoe linings.

Replace brakeshoes (para 4-55 or 4-56). Replace seal if necessary (para 4-69).

Step 3. Check for defective wheel cylinder(s).

Replace wheel cylinder(s) (para 4-59 or 4-60).

Table 4-2. Organizational Troubleshooting (Con't).

MALFUNCTION
TEST OR INSPECTION
CORRECTIVE ACTION

14. NOISY BRAKES.

Step 1. Check for road grit, rust, or metal particles in brakedrum.

Clean brakedrum and brake components.

Step 2. Check for cracked, scored, or deformed brakedrum.

Replace brakedrum (para 4-69).

Step 3. Check for loose rivets or loose brakeshoe lining(s).

Replace brakeshoes (para 4-55 or 4-56).

WHEELS, BEARINGS, AND HUBS

15. WHEEL NOISE.

Step 1. Check wheel bearing adjustment.

Adjust wheel bearings (para 4-69).

Step 2. Check for worn wheel bearings.

Replace wheel bearings (para 4-69).

Step 3. Check for worn brakeshoe linings or linings that are too tight against brakedrum.

Adjust brakes (para 4-58 or 4-54) or replace brakeshoes (para 4-55 or 4-56).

15. WHEEL WOBBLE.

Step 1. Check wheel bearing adjustment.

Adjust wheel bearings (para 4-69).

Step 2. Check for worn wheel bearings.

Replace wheel bearings (para 4-69).

LANDING GEAR (EARLY MODEL)

17. DIFFICULTY IN LOWERING OR RAISING.

Step 1. Check for grit and dirt on working parts.

Clean and lubricate working parts (Chapter 3, Section I),

Table 4-2. Organizational Troubleshooting (Con't).

MALFUNCTION
TEST OR INSPECTION
CORRECTIVE ACTION

Step 2. Check operation for additional binding.

Replace landing gear if binding persists (para 4-77).

LANDING GEAR (LATE MODEL)

18. DIFFICULTY IN LOWERING OR RAISING.

Step 1. Check for grit and dirt on working parts.

Clean working parts.

Step 2. Check operation for additional binding.

Replace landing gear and drive unit if binding persists (para 4-78).

LEVELING JACKS

19. LEVELING JACK IS HARD TO OPERATE.

Step 1. Check lubrication.

Lubricate leveling jack (Chapter 3, Section l).

Step 2. Check for bent jack screw.

Replace leveling jack housing assembly if jack screw is bent (para 4-75 or 4-76).

Step 3. Check for bent or dented housing.

Replace leveling jack housing assembly if housing is bent or dented (para 4-75 or 4-76).

20. LEVELING JACK SUPPORT SHOE WILL NOT SET ON BASE..

Check support shoe for damage.

SUSPENSION SYSTEM

21. PULLING TO LEFT OR RIGHT.

Step 1. Check brake adjustment.

Adjust brakes (para 4-58 or 4-54).

Table 4-2. Organizational Troubleshooting (Con't).

MALFUNCTION
TEST OR INSPECTION
CORRECTIVE ACTION

Step 2. Check wheel bearing adjustment.

Adjust wheel bearings (para 4-69).

Step 3. Check for loose springs.

Tighten U-bolts (para 4-79).

Step 4. Check radius rod adjustment.

Adjust radius rod (para 4-80).

22. EXCESSIVELY WORN, SCUFFED, OR CUPPED TIRES.

Step 1. Check wheels for looseness.

Tighten wheel nuts to 450-500 lb.-ft. (610-678 N*m).

Step 2. Check for deformed wheel or rim.

If wheel or rim is damaged, replace (para 4-72).

Step 3. Check wheel bearing adjustment.

Adjust wheel bearings (para 4-69).

Step 4. Check for deformed brakedrum.

Replace brakedrum (para 4-69).

DOORS

23. DIFFICULTY IN LOCKING OR UNLOCKING DOORS,.

Step 1. Check center lock, flush bolts, and striker plates for rust or corrosion.

Clean and lubricate (Chapter 3, Section I).

Step 2. Check if door is hard to lock.

Add shim stock as required under center lock and (or) flush bolt guides.

Step 3. Check for a good weather tight seal when door is in closed and locked position.

Add shim stock as required under striker plate at flush bolts. Replace defective lock assembly (para 4-88).

24. DOOR HINGES DO NOT OPERATE PROPERLY.

Step 1. Check for rust on hinge pin.

Remove rust and lubricate (Chapter 3, Section I).

Step 2. Check for cracked or broken hinge.

Replace hinge (para 4-90).

Table 4-2. Organizational Troubleshooting (Con't).

MALFUNCTION
TEST OR INSPECTION
CORRECTIVE ACTION

25. DECONTAMINATION PORT AND AIR VENTS DO NOT SEAL.

Step 1. Check gaskets for serviceability.

Remove gasket, clean area, and install new gasket (para 4-92).

Step 2. Check condition of air vent screen.

Replace screen (para 4-92).

ENTRANCE PANELS AND LOUVERS

***26.* COVER DOES NOT SEAL OPENING.**

Step 1. Check cover for warpage or distortion.

Straighten cover. Replace cover if defective (para 4-103).

Step 2. Check cover seals or gaskets.

Replace cover seals or gaskets (para 4-103).

Step 3. Check cover hinge for defects or binds.

Straighten bent hinge. Replace defective hinge (para 4-103).

27. COVER SHIELDS DO NOT OPERATE PROPERLY.

Step 1. Check shields for proper alinement.

Straighten shields as necessary. Replace defective shield (para 4-105).

Step 2. Check shield hinge for warpage or bind.

Straighten bent hinge. Replace defective hinge.

Step 3. Check brace for misalinement.

Straighten brace (para 4-105).

Step 4. Check shield seals.

Replace seals (para 4-105).

28. LOCKING DEVICES DO NOT OPERATE PROPERLY.

Step 1. Check captive screws and thumbscrews.

Replace screws (para 4-87).

Step 2. Check captive screw receptacles and nuts.

Replace receptacles and nuts (para 4-87).

Section V. ELECTRICAL SYSTEM MAINTENANCE

4-14. INTERVEHICULAR CABLE RECEPTACLE REPLACEMENT

This Task Covers:

a. Removal
b. Cleaning and Inspection
c. Installation

Initial Setup:

Equipment Conditions:

- Intervehicular cable disconnected from semitrailer (para 2-20).

Tools/Test Equipment:

- General mechanic's tool kit
- Multimeter
- Soldering iron

Materials/Parts:

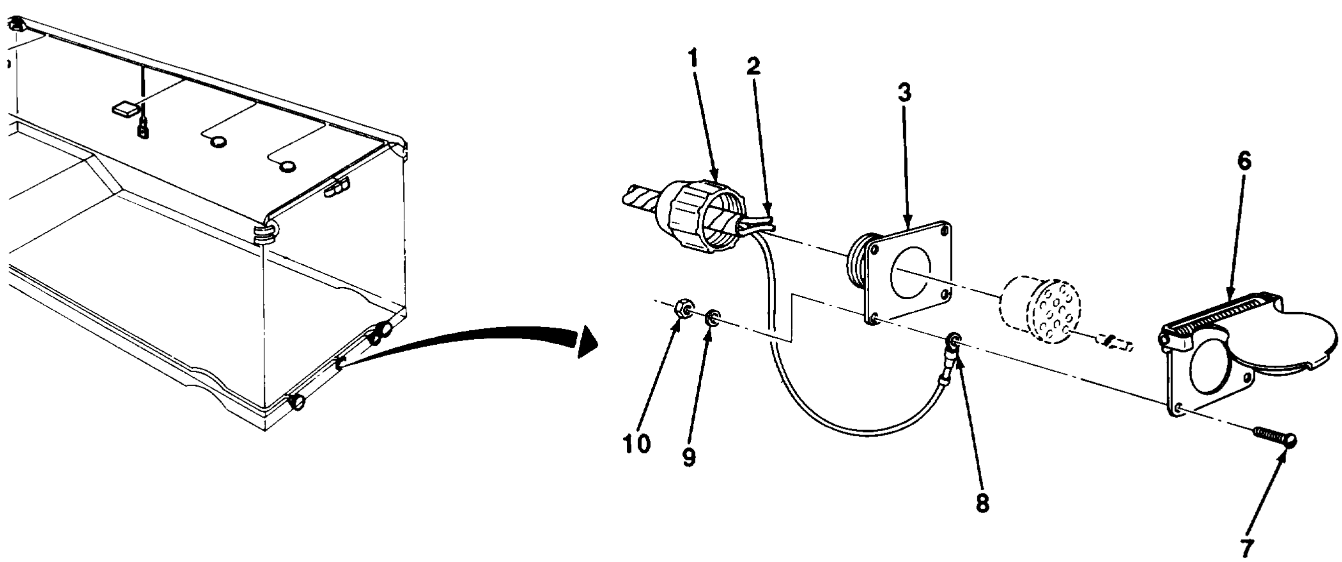
- Dry cleaning solvent (item 13, Appendix E)
- Solder (item 23, Appendix E)
- Marker tags iItem 24, Appendix E)
- Electrical tape (item 28, Appendix E)
- Four Iockwashers

a. REMOVAL.

NOTE

This procedure can be used for either front or rear intervehicular cable receptacle. Rear is illustrated.

1. Tag wires if identification bands are missing or illegible.
2. Remove four nuts (10), Iockwashers (9), and screws (7) securing cover (6) and receptacle (3) to chassis frame. Remove cover and receptacle and disconnect ground wire (8). Discard Iockwashers.
3. Remove tape from nut (1) and wires (2).
4. Remove nut (1) from receptacle (3) and slide back over wires (2).



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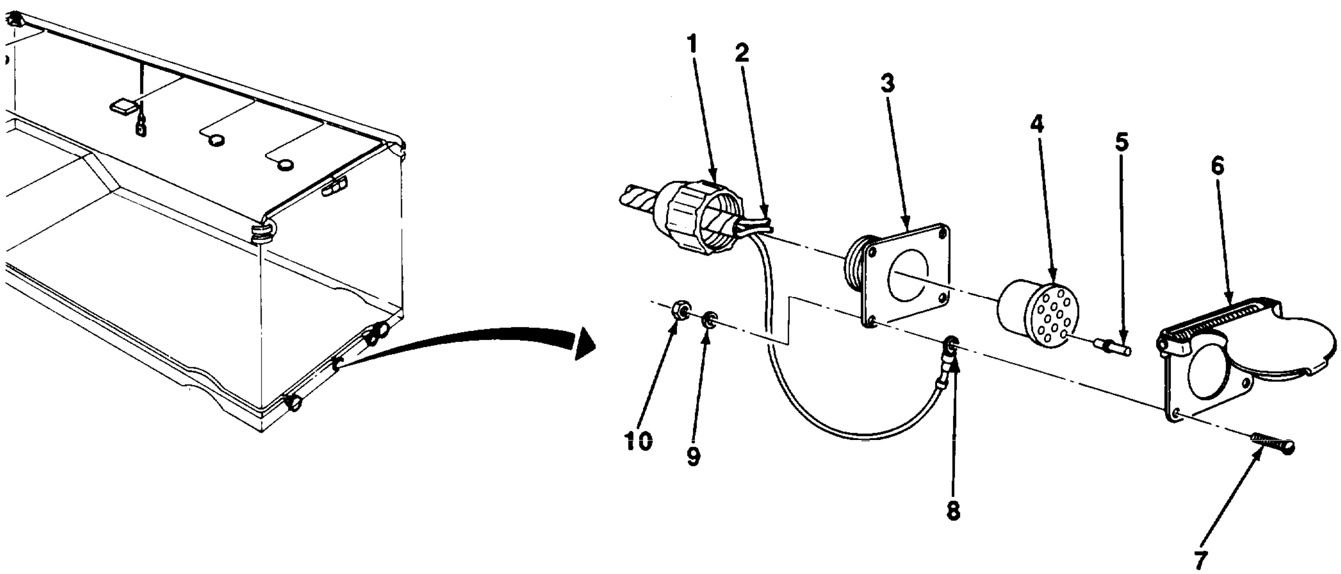
4-14. INTERVEHICULAR CABLE RECEPTACLE REPLACEMENT (Con't).

5. Remove rubber bushing (4) from receptacle (3). Slide rubber bushing back over wires (2) to expose solder connections.
6. Unsolder wires (2) from terminals (5).



b. CLEANING AND INSPECTION

WARNING

Dry cleaning solvent, P-D-680, is toxic and flammable. Always wear protective goggles and gloves, and use only in a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point is 100°F-138°F (38°C-59°C). If you become dizzy while using cleaning solvent, immediately get fresh air and medical help. If solvent contacts eyes, immediately wash your eyes and get medical aid.

1. Clean all parts with dry cleaning solvent. Dry thoroughly.
2. Inspect parts for cracks, breaks, or other damage.
3. Replace defective parts.

c. INSTALLATION

1. Slide nut (1) and receptacle (3) over wires (2).
2. Push wires (2) through rubber bushing (4).
3. Solder wires (2) to terminals (5).
4. Pull wires (2) and terminals (5) into rubber bushing (4).

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4-14. INTERVEHICULAR CABLE RECEPTACLE REPLACEMENT (Con't).

5. Slide receptacle (3) over wires (2) and rubber bushing (4).
6. Slide nut (1) over wires (2), robber bushing (4), and receptacle (3). Tighten nut.
7. Perform a continuity check of receptacle (3).
8. Wrap exposed wires and nut (1) with electrical tape, leaving ground wire (8) exposed.
9. Insert ground wire (8) and receptacle (3) into hole in chassis frame. Place cover (6) over receptacle with keyway of receptacle against cover hinge.
10. Aline holes in cover (6) and receptacle (3) with holes in chassis. Install four screws (7), ground wire (8), four new Iockwashers (9), and nuts (10) to chassis frame.

FOLLOW-ON TASKS:

- Connect intetvehicular cable to semitrailer (para 2-10).
- Check operation of lights.

4-15. RADIO FREQUENCY INTERFERENCE (RFI) FILTER AND RECEPTACLE COVER REPLACEMENT (M373A2D).

This Task Covers:

a. Removal

b. Installation

Initial Setup:

Materials/Parts:

- Adhesive Iitem 1, Appendix E)
- Dry cleaning solvent (Item 13, Appendix E)
- One RFI filter
- Four lockwashers

Tools/Test Equipment:

- General mechanic's tool kit

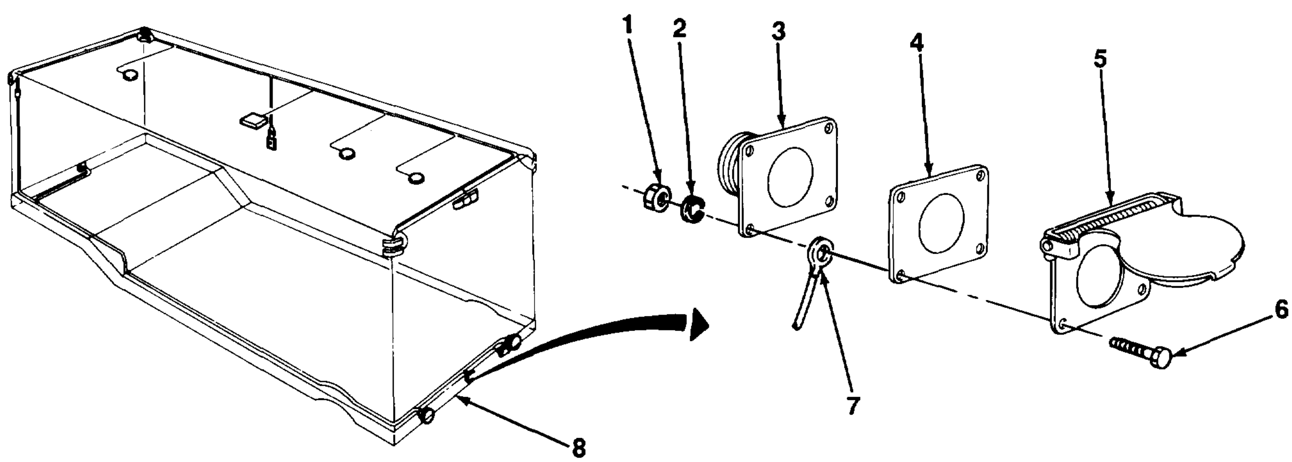
a. REMOVAL.

1. Remove four nuts (1), lockwashers (2), screws (6), ground wire (7), and cover (5) from receptacle (3) and frame (8). Discard lockwashers.
2. Remove RFI filter (4) from cover (5). Discard filter.

WARNING

Dry cleaning solvent, P-D-680, is toxic and flammable. Always wear protective goggles and gloves, and use only in a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point is 100° F-138°F (38°C-59°C). If you become dizzy while using cleaning solvent, immediately get fresh air and medical help. If solvent contacts eyes, immediately wash your eyes and get medical aid.

3. Clean mating surface of cover (5) and outer surface of receptacle (3) with dry cleaning solvent. Dry thoroughly,



b. INSTALLATION

1. Apply adhesive to cover (5) and install new RFI filter (4).
2. Install cover (5) and ground wire (7) to receptacle (3) and frame (8) with four screws (6), new lockwashers (2), and nuts (1).

TA700157

4-16. CIRCUIT BREAKER BOX, CONDUIT, AND FITTINGS REPLACEMENT (M348A2H).

This Task Covers:

a. Removal

b. Installation

Initial Setup:

Equipment Conditions:

- 110-volt power disconnected from semitrailer.

Tools/Test Equipment:

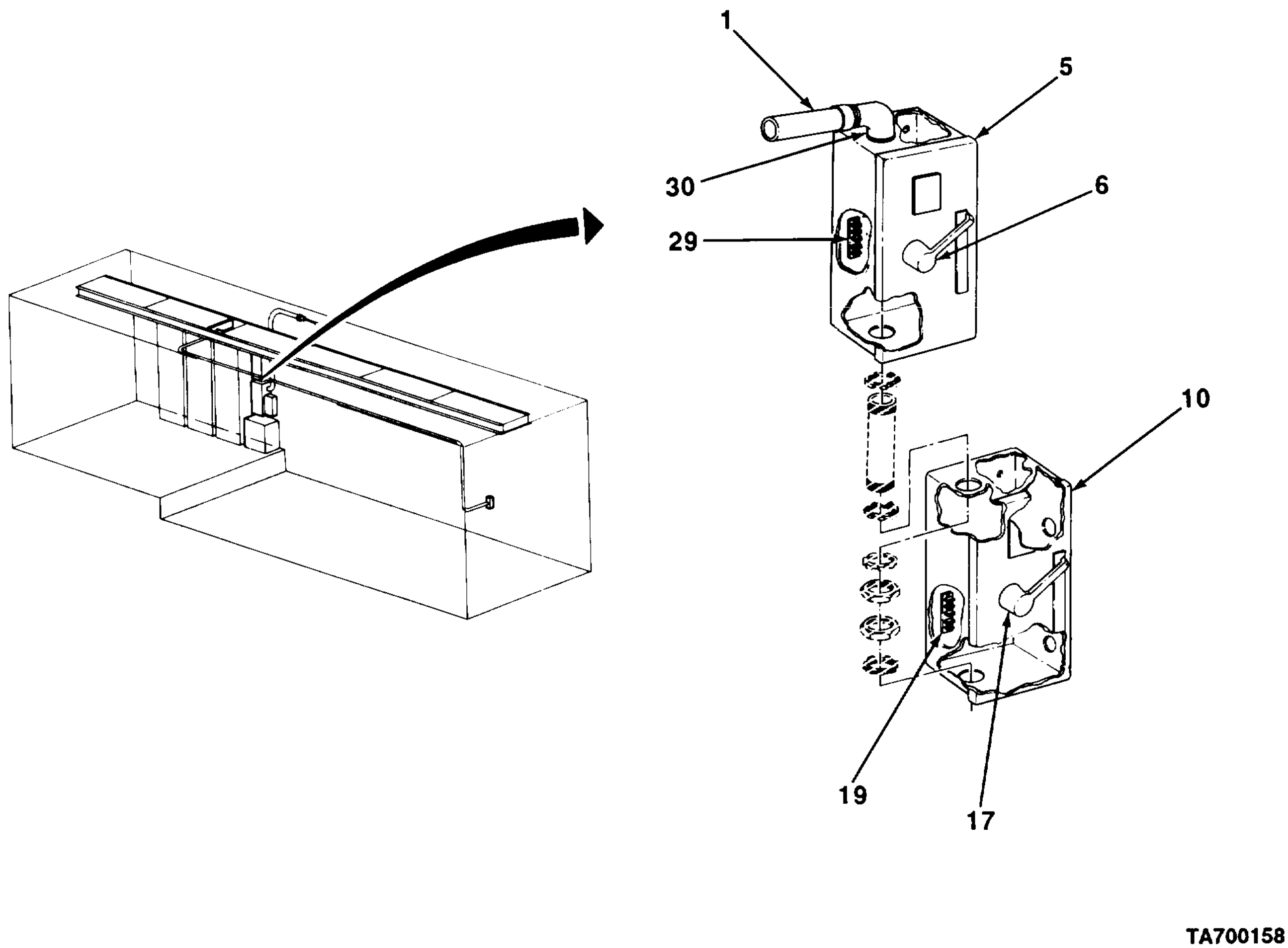
- General mechanic's tool kit

Materials/Parts:

- Marker tags (Item 24, Appendix E)
- Eight locknuts

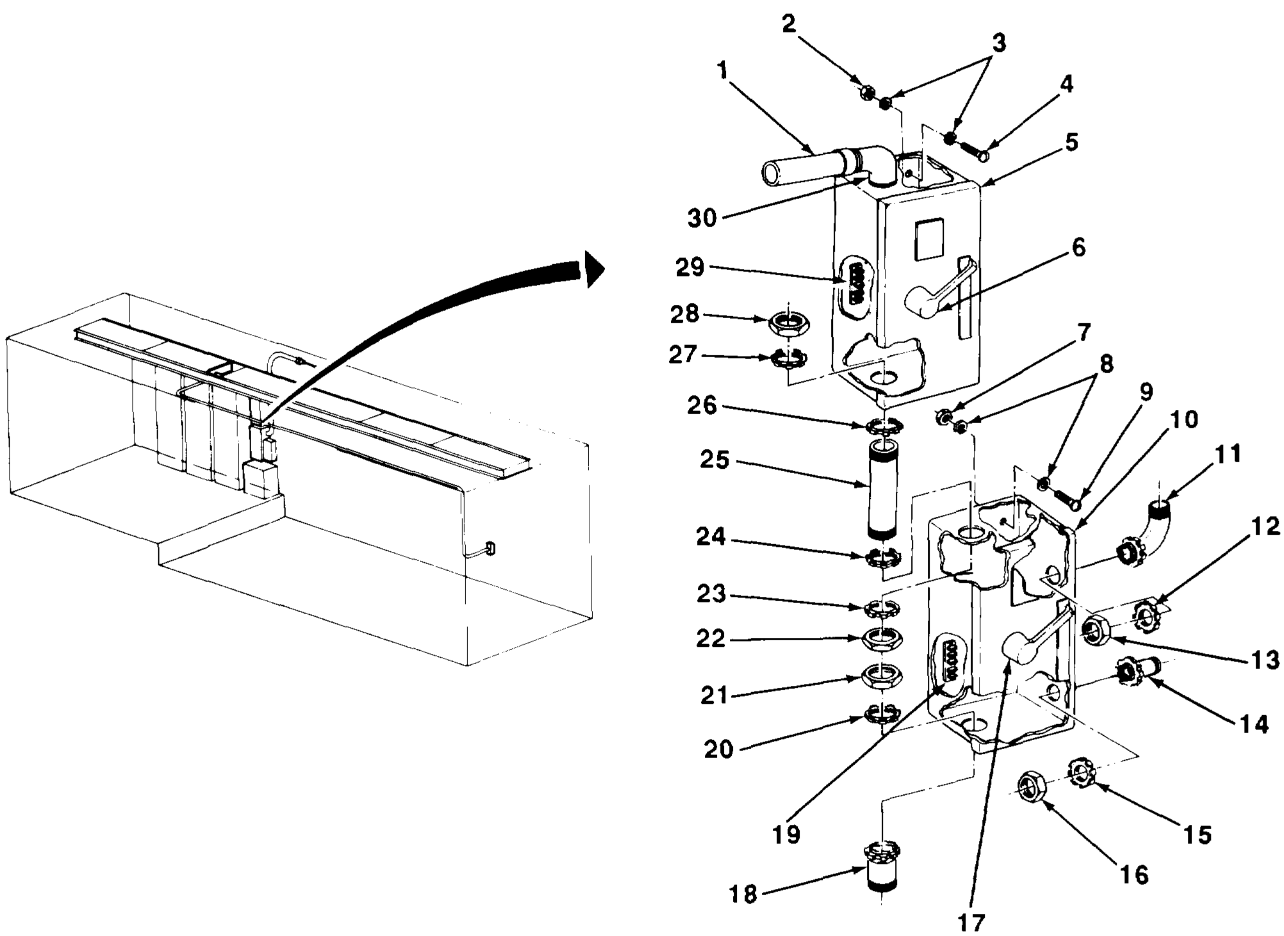
a. REMOVAL

1. Disconnect conduit (1) from elbow (30).
2. Open hinged door of upper circuit breaker box (5). Tag and disconnect wires from circuit breaker (6) and terminal board (29).
3. Open hinged door of lower circuit breaker box (10). Tag and disconnect wires from circuit breaker (17) and terminal board (19).



4-16. CIRCUIT BREAKER BOX, CONDUIT AND FITTINGS REPLACEMENT (M348A2H) (Con't).

4. Pull wiring through conduit and nipples and remove from upper and lower circuit breaker boxes (5 and 10).
5. Remove nut (28) and inner bondnut (27) from upper circuit breaker box (5) and nipple (25).
6. Remove four screws (4), eight flatwashers (3), and four locknuts (2) from upper circuit breaker box (5). Remove upper circuit breaker box. Discard locknuts.
7. Remove elbow (30) from upper circuit breaker box (5).
8. Remove nut (13) and inner bondnut (12) from elbow (11), Pull elbow out of lower circuit breaker box (10).
9. Remove nut (16) and inner bondnut (15) from nipple (14). Pull nipple out of lower circuit breaker box (10).
10. Remove nut (21) and inner bondnut (20) from nipple (18), Pull nipple out of lower circuit breaker box (10).
11. Remove nut (22) and inner bondnut (23) from nipple (25). Remove nipple from lower circuit breaker box (10).
12. Remove four screws (9), eight flatwashers (8), and four iocknuts (7) from lower circuit breaker box (10). Remove lower circuit breaker box. Discard locknuts.
13. Remove two outer bondnuts (24 and 26) from nipple (25).



TA700159

4-16. CIRCUIT BREAKER BOX, CONDUIT, AND FITTINGS REPLACEMENT (M348A2H) (Con't).

b. INSTALLATION

1. Position lower circuit breaker box (10) with nipples (14 and 18) and elbow (11) through holes in box. Install lower circuit breaker box using four screws (9), eight flatwashers (8), and new locknuts (7).
2. Install inner bondnut (20) and nut (21) on nipple (18).
3. Install inner bondnut (15) and nut (16) on nipple (14).
4. Install inner bondnut (12) and nut (13) on elbow (11).
5. Install two outer bondnuts (24 and 26) on nipple (25).
6. Install nipple (25) in top of lower circuit breaker box (10). Secure with inner bondnut (23) and nut (22).
7. Install elbow (30) in upper circuit breaker box (5).
8. Position upper circuit breaker box (5) with nipple (25) through hoe in bottom of box. Install upper circuit breaker box using four screws (4), eight flatwashers (3), and new locknuts (2).
9. Install inner bondnut (27) and nut (28) on nipple (25).
10. Pull wiring through conduit and nipples and into upper and lower circuit breaker boxes (5 and 10).
11. Connect wires to circuit breaker (17) and terminal board (19). Remove tags. Close hinged door of lower circuit breaker box (10).
12. Connect wires to circuit breaker (6) and terminal board (29). Remove tags. Close hinged door of upper circuit breaker box (5).
13. Connect conduit (1) to elbow (30).

FOLLOW-ON TASKS:

- Connect 110-volt power to semitrailer.
- Check operation of air conditioner and lighting.

4-17. FUSE BOX MAINTENANCE (M348A2H).

This Task Covers:

a. Fuse Replacement
b. Fuse Box Removal
c. Fuse Box Installation
d. Fuse Holder Replacement

Initial Setup:

Equipment Conditions:

- 110-volt power disconnected from semitrailer.

Tools/Test Equipment:

- General mechanic's tool kit

Materials/Parts:

- Marker tags (item 24, Appendix E)
- Two lockwashers (if replacing fuse holder)
- Four locknuts (if replacing fuse box)

a. FUSE REPLACEMENT

1. Open hinged door of fuse box (3) and remove fuse (5) from fuse holder (10).
2. Install fuse (5) in fuse holder (10) and close hinged door of fuse box (3).

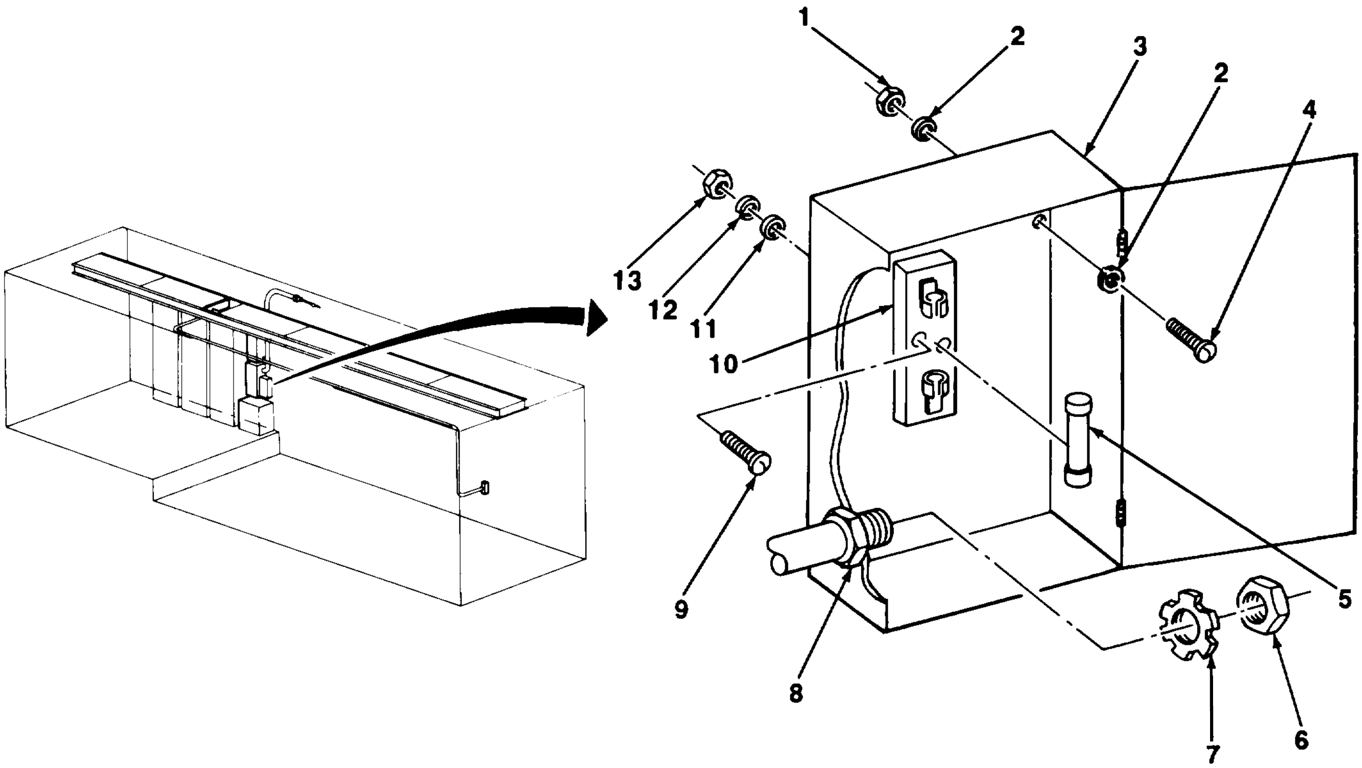
b. FUSE BOX REMOVAL

1. Open hinged door of fuse box (3). Tag and disconnect wires from fuse holder (10).
2. Pull wires through nipple (8) and out of fuse box (3).
3. Remove nut (6) and bondnut (7) from nipple (8). Pull nipple out of fuse box (3).
4. Remove four locknuts (1), eight flatwashers (2), and screws (4) securing fuse box (3) to semitrailer. Remove fuse box. Discard locknuts.

c. FUSE BOX INSTALLATION

1. Position fuse box (3) and push nipple (8) through hole in fuse box. Install fuse box to semitrailer using four screws (4), eight flatwashers (2), and four new locknuts (1).
2. install bondnut (7) and nut (8) on nipple (9).
3. Pull wires through nipple (8) and connect to fuse holder (10). Remove tags.
4. Close hinged door of fuse box (3).

4-17. FUSE BOX MAINTENANCE (M348A2H) (CON'T).



d. FUSE HOLDER REPLACEMENT

1. Remove fuse box (3) from semitrailer (subpara b).
2. Remove fuse (5) from fuse holder (10).
3. Remove two nuts (13), lockwashers (12), flatwashers (11), and screws (9) securing fuse holder (10) to fuse box (3). Remove fuse holder. Discard lockwashers.
4. Install fuse holder (10) in fuse box (3) using two screws (9), flatwashers (11), new lockwashers (12), and nuts (13).
5. Install fuse (5) in fuse holder (10).
6. Install fuse box on semitrailer (subpara c).

FOLLOW-ON TASKS:

- Connect 110-volt power to semitrailer.
- Check operation of air conditioner and lighting.

TA700160

4-18. 24-VOLT DOMELIGHT SWITCH REPLACEMENT (M348A2, M348A2G, M373A2, M373A2C, M373A2D, M373A3, AND M373A4).

This Task Covers:

a. Removal
b. Installation

Initial Setup:

Equipment Conditions:

- Intervehicular cable disconnected from semitrailer (para 2-20).

Tools/Test Equipment:

- General mechanic's tool kit

Materials/Parts:

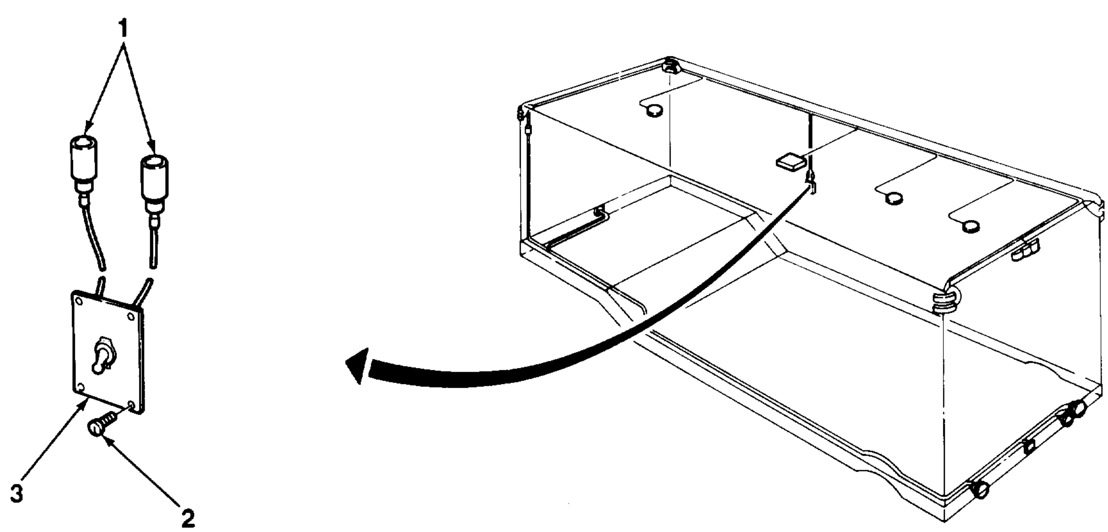
- Marker tags (Item 24, Appendix E)

a. REMOVAL

1. Remove four screws (2) from switch (3) and wall. Pull switch away from wall.
2. Tag and disconnect two wires (1) from wiring harness.

b. INSTALLATION

1. Connect two wires (1) to wiring harness and remove tags.
2. Position switch (3) on wall and secure with four screws (2).



FOLLOW-ON TASKS:

- Connect intervehicular cable to towing vehicle (para 2-1O).
- Check operation of domelights.

TA700161

4-19. 24-VOLT DOMELIGHT SWITCH AND JUNCTION BOX REPLACEMENT (M373A5).

This Task Covers:

a. Removal

b, Installation

Initial Setup:

Equipment Conditions:

- Intervehicular cable disconnected from semitrailer (para 2-20).

Tools/Test Equipment:

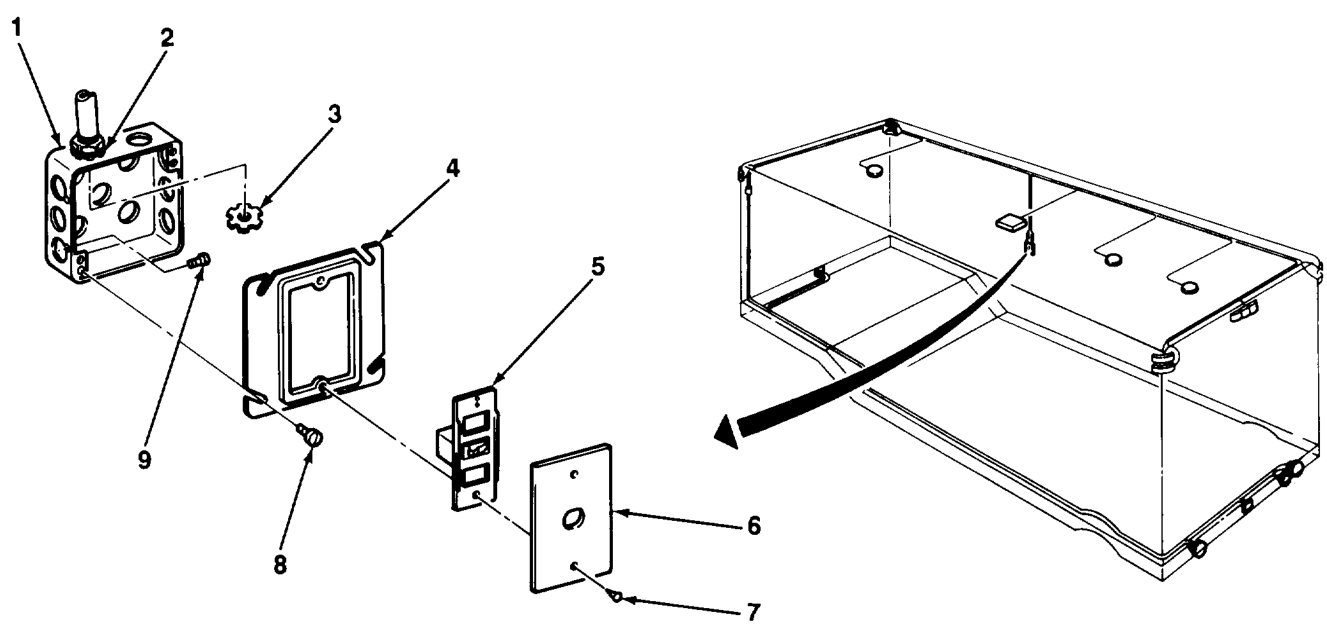
- General mechanic's tool kit

Materials/Parts:

- Marker tags (Item 24, Appendix E)

a. REMOVAL

1. Remove two screws (7) and wall plate (6) from junction box (1).
2. Pull switch (5) out of cover (4) and junction box (1).
3. Tag and disconnect wires from switch (5). Remove switch.
4. Remove two screws (8) and cover (4).
5. Remove nut (3) from connector (2).
6. Remove two screws (9) and junction box (1).

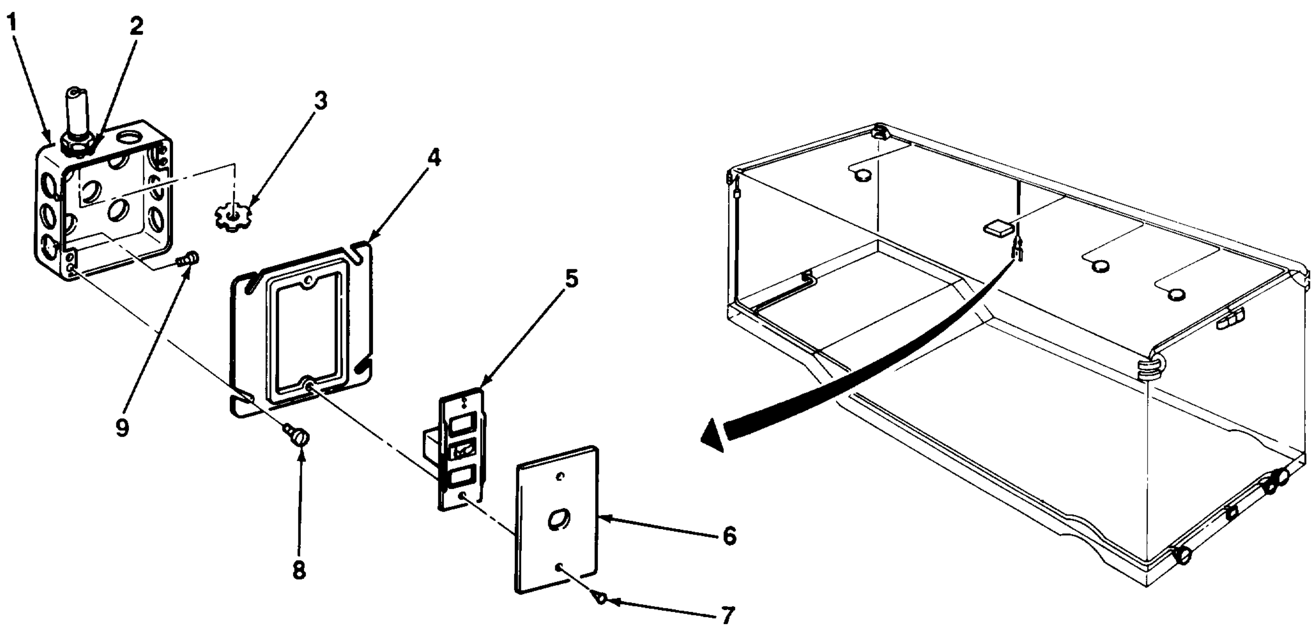


TA700162

4-19. 24-VOLT DOMELIGHT SWITCH AND JUNCTION BOX REPLACEMENT (M373A5) (Con't).

b. INSTALLATION

1. Install junction box (1) using two screws (9).
2. Install nut (3) on connector (2).
3. Install cover (4) using two screws (8).
4. Connect wires to switch (5) and remove tags.
5. Position switch (5) in cover (4) and junction box (1).
6. Install wall plate (6) on junction box (1) with two screws (7).



FOLLOW-ON TASKS:

- Connect intervehicular cable to semitrailer (para 2-10).
- Check operation of domelights.

TA700163

4-20. 110-VOLT DOMELIGHT SWITCH AND JUNCTION BOX REPLACEMENT (M373A3, M373A4, AND M373A5).

This Task Covers:

a. Removal b. Installation

Initial Setup:

Equipment Conditions:

- 110-volt power disconnected from semitrailer.

Tools/Test Equipment:

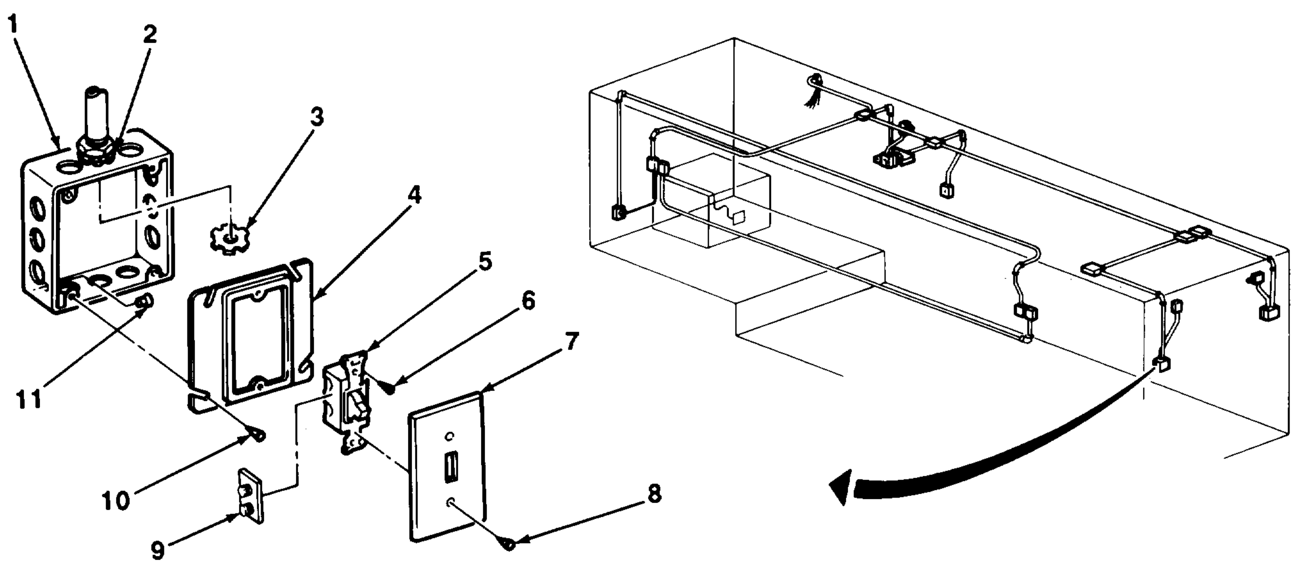
- General mechanic's tool kit

Materials/Parts:

- Marker tags (Item 24, Appendix E)

a. REMOVAL

1. Remove two screws (8) and wall plate (7) from switch (5).
2. Remove two screws (6) from switch (5) and cover (4). Pull switch away from cover to expose wires.
3. Tag wires. Loosen screws (9) and disconnect wires from switch (5). Remove switch.
4. Remove four screws (10) and cover (4).
5. Remove nut (3) from connector (2).
6. Remove four screws (11) and junction box (1).



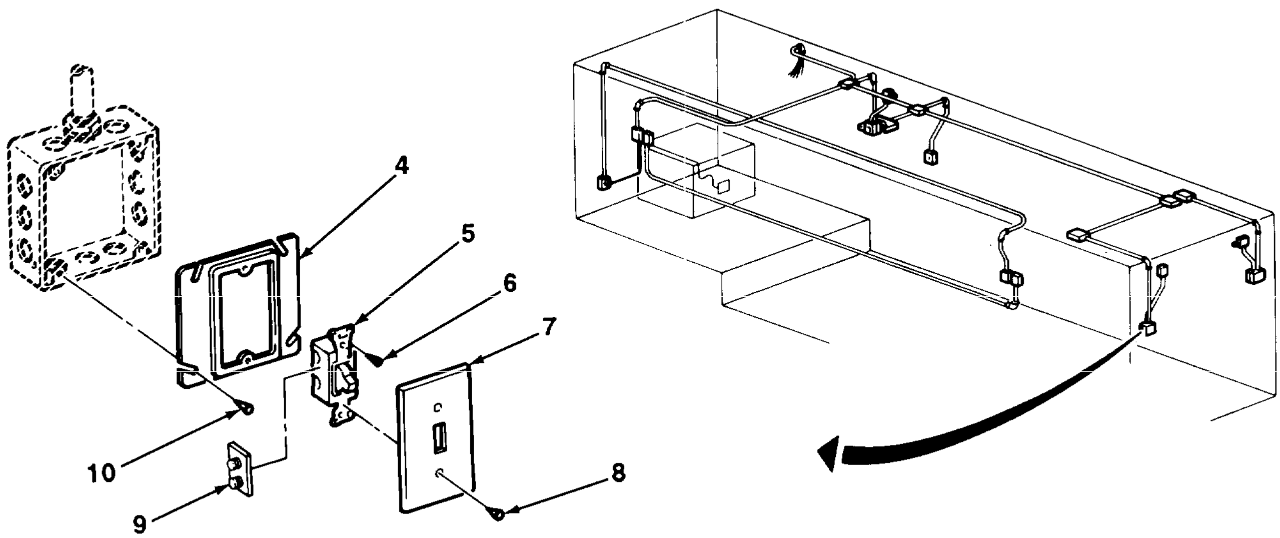
b. INSTALLATION

1. Install junction box (1) using four screws (11).
2. Install nut (3) on connector (2).

TA700164

4-20. 110-VOLT DOMELIGHT SWITCH AND JUNCTION BOX REPLACEMENT (M373A3, M373A4, M373A5) (Con't).

3. Install cover (4) using four screws (10).
4. Connect wires to switch (5) and tighten screws (9). Remove tags.
5. Position switch (5) on cover (4) and install two screws (6).
6. Install wall plate (7) on switch (5) using two screws (8).



FOLLOW-ON TASKS:

- Connect 110-volt power to semitrailer.
- Check operation of domelights.

TA700165

4-21. 110-VOLT DOMELIGHT SWITCH AND JUNCTION BOX REPLACEMENT (M348A2H).

This Task Covers:

a. Removal

b. Installation

Initial Setup:

Equipment Conditions:

- 110-volt power disconnected from semitrailer.

Tools/Test Equipment:

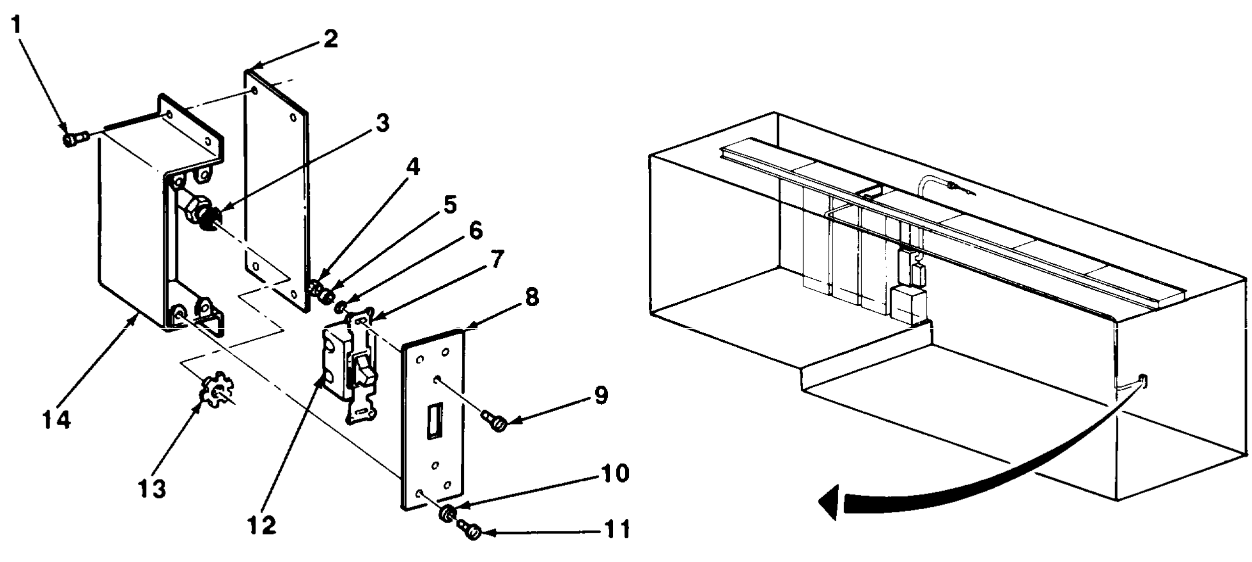
- General mechanic's tool kit

Materials/Parts:

- Marker tags (Item 24, Appendix E)
- Two lockwashers

a. REMOVAL

1. Remove four screws (11) and flatwashers (10) from wall plate (8).
2. Pull wall plate (8) and switch (7) from junction box (14).
3. Remove two nuts (4), lockwashers (5), flatwashers (6), screws (9), and switch (7) from wall plate (8). Discard lockwashers.
4. Tag wires. Loosen screws (12) and disconnect wires from switch (7).
5. Remove nut (13) from connector (3).
6. Remove four screws (1), junction box (14), and access cover (2).

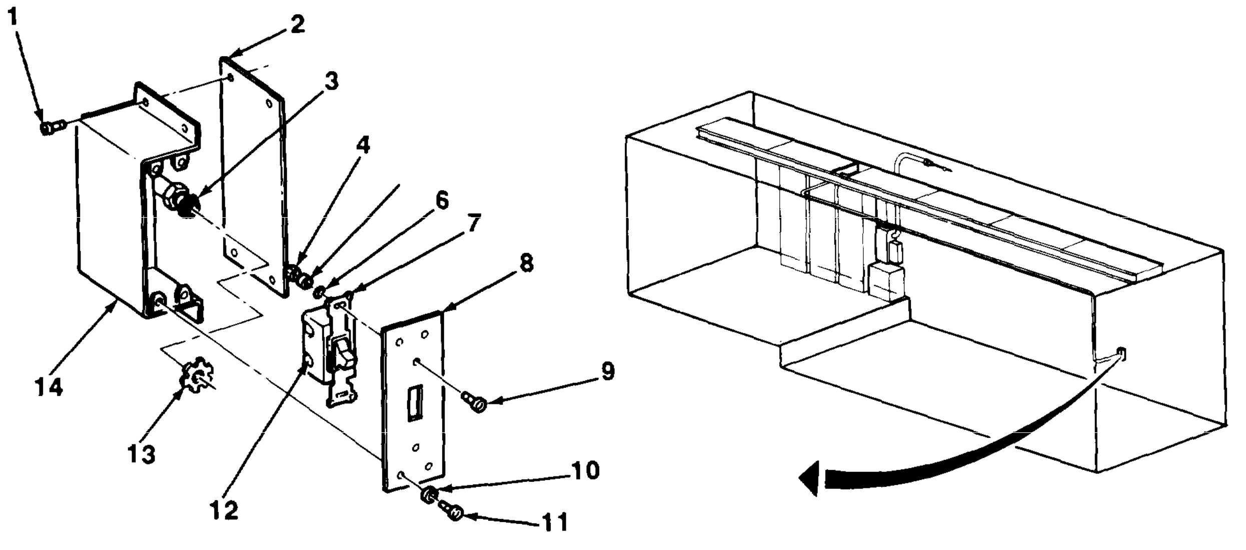


TA700166

4-21. 110-VOLT DOMELIGHT SWITCH AND JUNCTION BOX REPLACEMENT (M348A2H) (Con't).

b. INSTALLATION

1. Install access cover (2) and junction box (14) using four screws (1).
2. Install nut (13) on connector (3).
3. Install switch (7) on wall plate (8) using two screws (9), flatwashers (6), new lockwashers (5), and nuts (4).
4. Connect wires to switch (7) and tighten screws (12). Remove tags.
5. Position switch (7) and wall plate (8) in junction box (14) and install four screws (11) and flatwashers (10).



FOLLOW-ON TASKS:

- Connect 110-volt power to semitrailer.
- Check operation of domelights.

TA700167

4-22. 110-VOLT BLACKOUT OVERRIDE SWITCH AND JUNCTION BOX REPLACEMENT (M373A3, M373A4, AND M373A5).

This Task Covers:

a. Removal b. Installation

Initial Setup:

Equipment Conditions:

- 110-volt power disconnected from semitrailer.

Tools/Test Equipment:

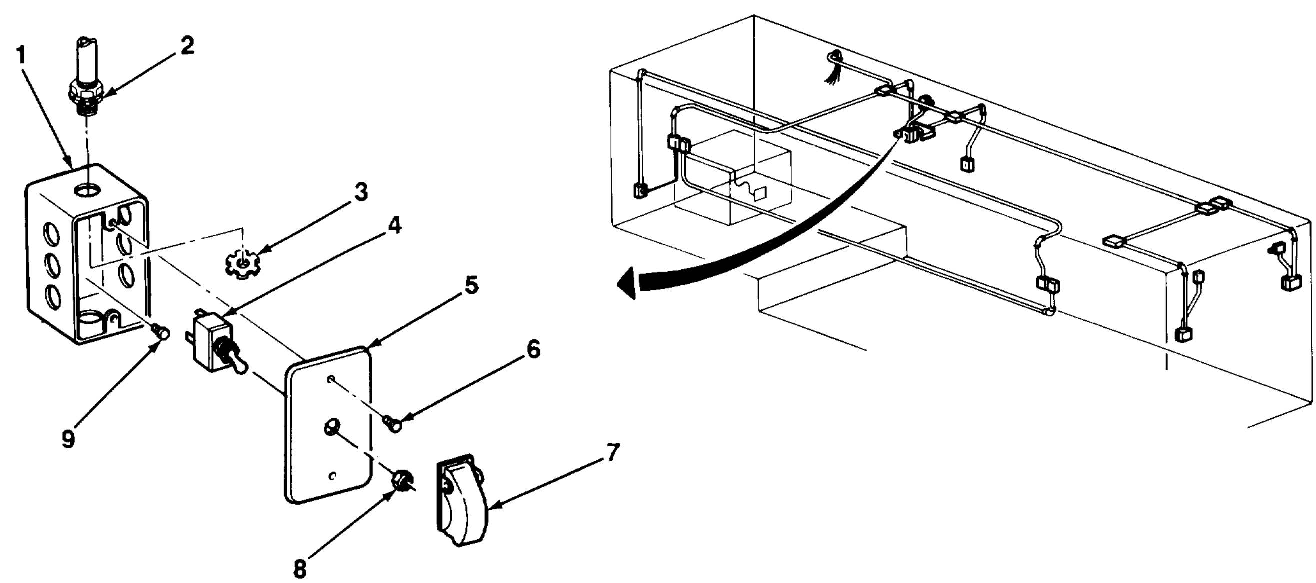
- General mechanic's tool kit

Materials/Parts:

Marker tags (Item 24, Appendix E)

a. REMOVAL

1. Remove two screws (6), wall plate (5), and switch (4) with guard (7) from junction box (1).
2. Remove nut (8). Remove switch (4) and guard (7) from wall plate (5).
3. Tag and disconnect wires from switch (4).
4. Remove nut (3) from connector (2).
5. Remove four screws (9) and junction box (1).



b. INSTALLATION

1. Install junction box (1) using four screws (9).
2. Install nut (3) on connector (2).

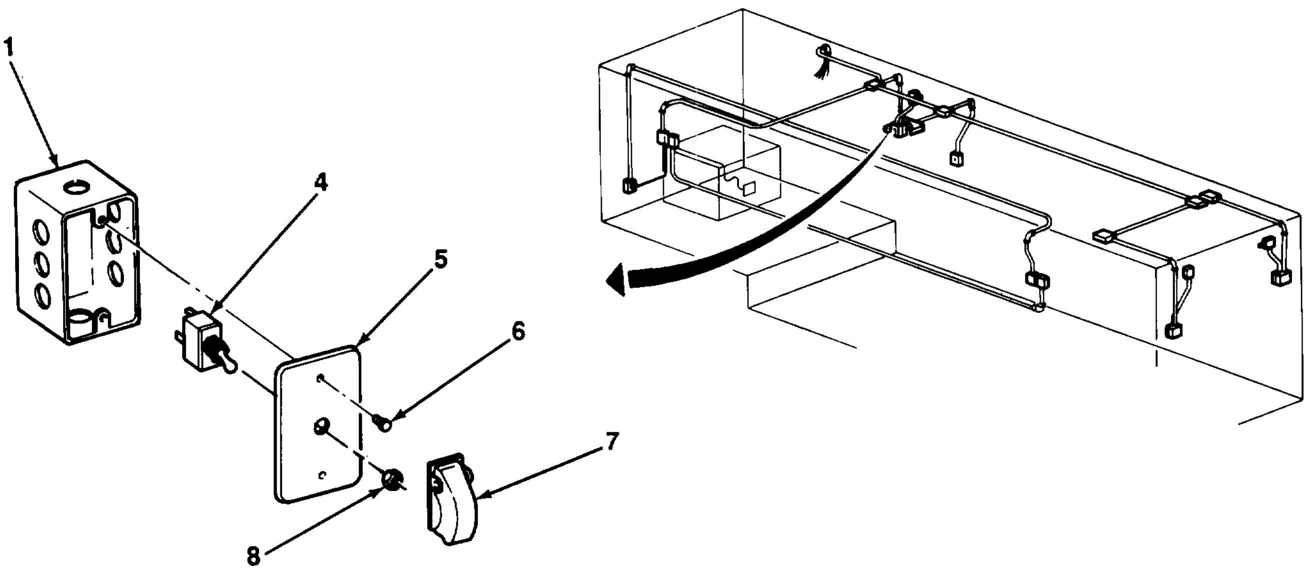
TA700168

4-22. 110-VOLT BLACKOUT OVERRIDE SWITCH AND JUNCTION BOX REPLACEMENT (M373A3, M373A4, M373A5) (Con't).

3. Connect wires to switch (4). Remove tags.

4. Position switch (4) and guard (7) on wall plate (5) and install nut (8).

5. Install wall plate (5) and switch (4) on junction box (1) using two screws (6).



FOLLOW-ON TASKS:

- Connect 110-volt power to semitrailer.
- Check operation of blackout override switch.

TA700169

4-23. DOOR-OPERATED BLACKOUT SWITCH REPLACEMENT (M373A3, M373A4, AND M373A5).

This Task Covers:

a. Removal
b, Installation

Initial Setup:

Equipment Conditions:

- 110-volt power disconnected from semitrailer.

Tools/Test Equipment:

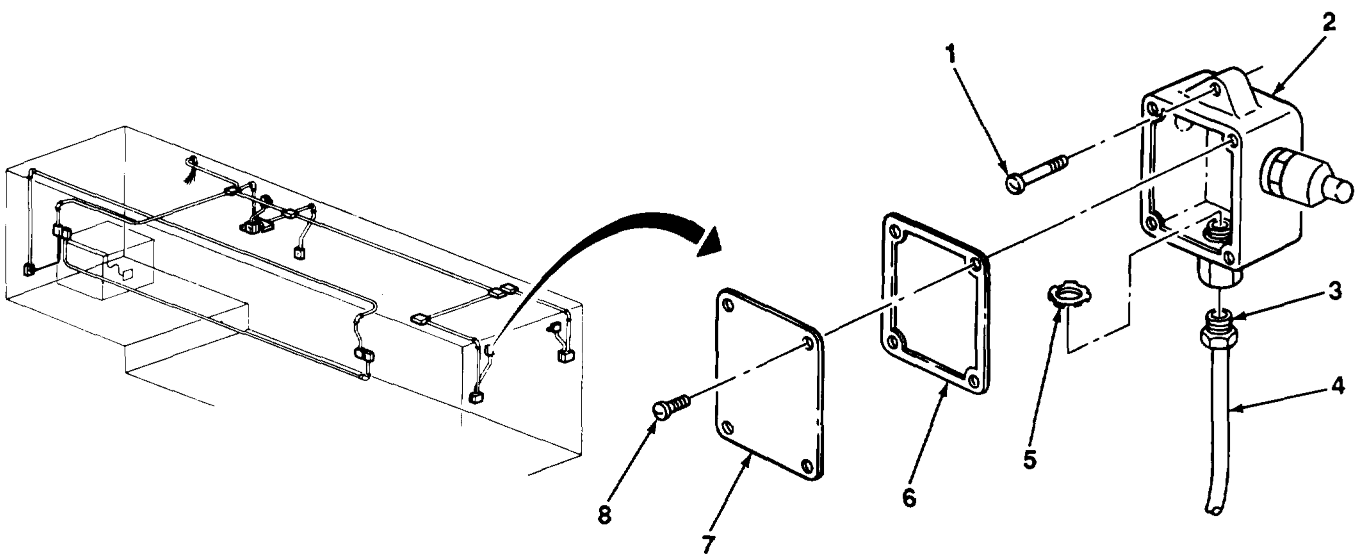
- General mechanic's tool kit

Materials/Parts:

- Marker tags (Item 24, Appendix E)

a. REMOVAL

1. Remove four screws (8), cover (7), and seal (6) from switch (2).
2. Tag and disconnect wires from switch (2).
3. Remove nut (5) from connector (3).
4. Remove three screws (1) and switch (2) from semitrailer wall and conduit (4).



109-25

b. INSTALLATION

1. Install switch (2) on conduit (4) and semitrailer wall using three screws (1).
2. Install nut (5) on connector (3).
3. Connect wires to switch (2). Remove tags.
4. Install seal (6) and cover (7) on switch (2) using four screws (8).

FOLLOW-ON TASKS:

- Connect 110-volt power to semitrailer.
- Check operation of door-operated blackout switch.

TA700170

4-24. 208-VOLT POWER ENTRY PANEL CONNECTOR REPLACEMENT (M348A2H).

This Task Covers:

a. Removal
b. Cleaning and Inspection
c. Installation

Initial Setup:

Equipment Conditions:

• 208-volt power disconnected from semitrailer.

Tools/Test Equipment

• General mechanic's tool kit
• Soldering iron

Personnel Required: Two

Materials/Parts:

Adhesive (Item 1, Appendix E)
• Dry cleaning solvent (Item 13, Appendix E)
• Solder (Item 23, Appendix E)
• Marker tags (Item 24, Appendix E)
• One gasket
• Five lockwashers

NOTE

Three connectors on panel assembly are replaced the same way.

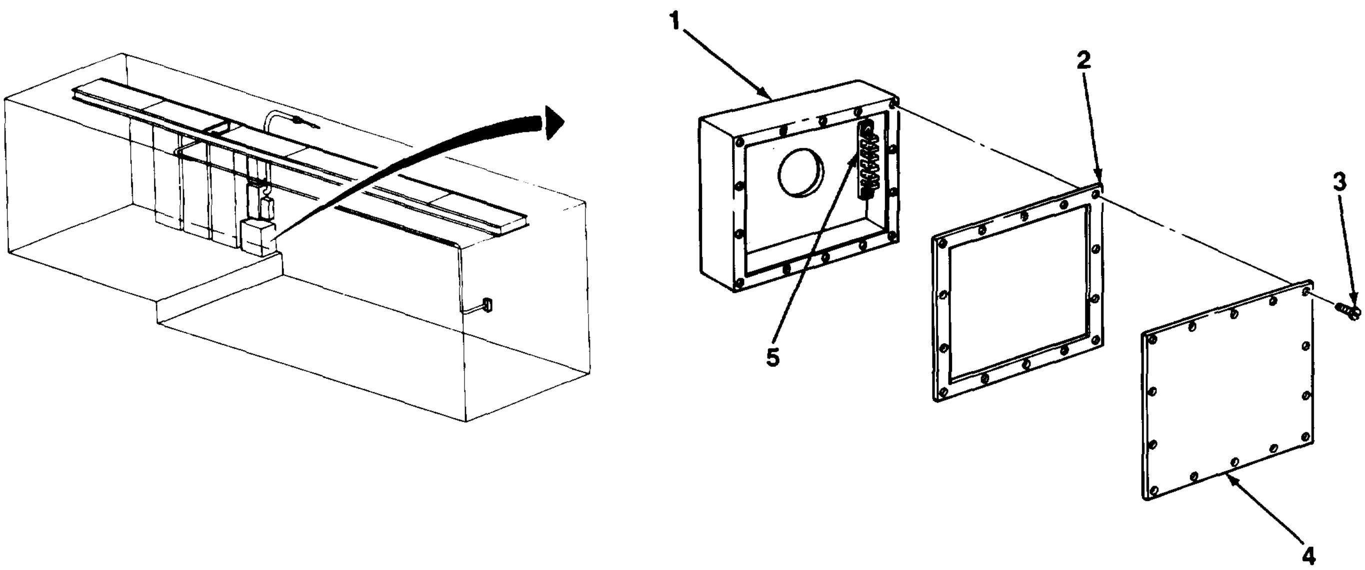
a. REMOVAL

1. From inside semitrailer, remove 14 screws (3) and cover plate (4) from cover assembly (1).
2. Remove gasket (2) from cover plate (4). Discard gasket.

NOTE

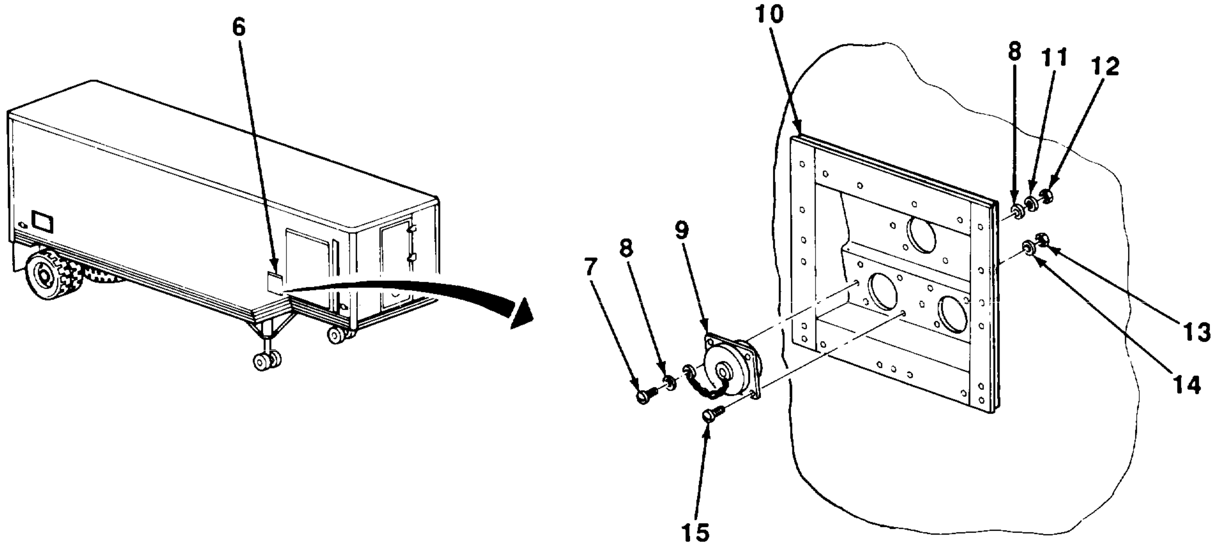
Check terminal boards and wires for proper circuit markers.

3. Tag wires from connector (9) to be removed. Loosen screws on terminal board (5) and disconnect wires.



TA700171

4-24. 208-VOLT POWER ENTRY PANEL CONNECTOR REPLACEMENT (M348A2H) (Con't).



4. From outside semitrailer, open power entry cover plate (6) and secure in open position.

5. Remove nut (12), lockwasher (11), two flatwashers (8), and screw (7) securing connector cover to panel assembly (10). Discard lockwasher.

6. Remove four nuts (13), lockwashers (14), and screws (15) from connector (9). Remove connector from panel assembly (10). Discard lockwashers.

7. Pull insulator back over wires to expose soldered wire connections. Tag and unsolder wires from connector (9).

b. CLEANING AND INSPECTION

WARNING

Dry cleaning solvent, P-D-680, is toxic and flammable. Always wear protective goggles and gloves, and use only in a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point is 100°F-138°F (38°C-590C). If you become dizzy while using cleaning solvent, immediately get fresh air and medical help. If solvent contacts eyes, immediately wash your eyes and get medical aid.

1. Clean all parts with dry cleaning solvent. Dry thoroughly.

2. Inspect parts for cracks, breaks, or other damage. Replace defective parts.

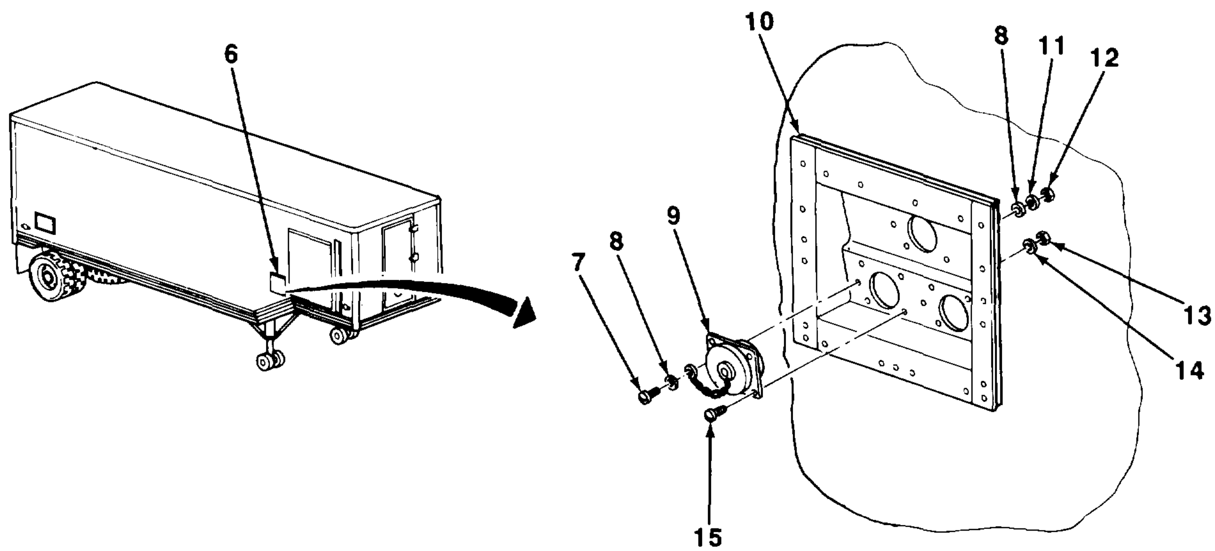
3. Ensure that gasket mating surface of junction box cover plate is clean, dry, and free of residue.

TA700172

4-24. 208-VOLT POWER ENTRY PANEL CONNECTOR REPLACEMENT (M348A2H) (Con't).

c. INSTALLATION

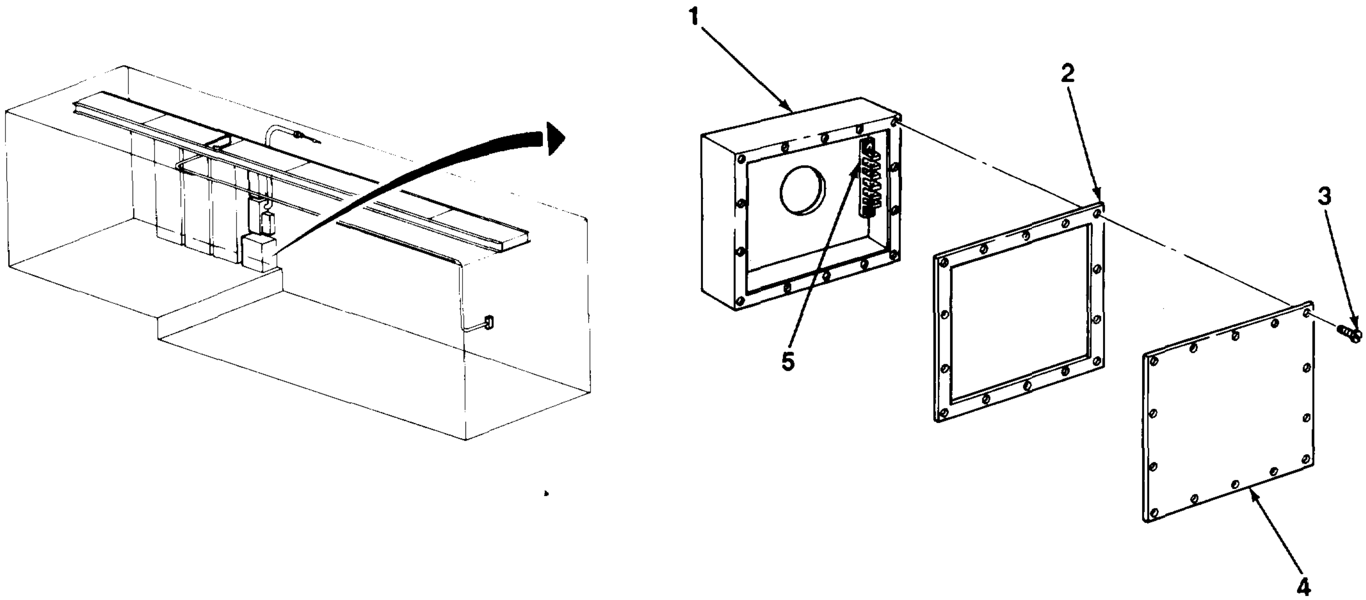
1. Solder wires to back of connector (9). Remove tags. Position insulator over wires and connector.
2. Install connector (9) in panel assembly (10) using four screws (15), new lockwashers (14), and nuts (13).
3. Secure connector cover to panel assembly (10) using screw (7), two flatwashers (8), new lockwasher (11), and nut (12).
4. Close and secure power entry cover plate (6).



5. From inside semitrailer, connect wires from connector (9) to terminal board (5) and tighten screws. Remove tags.
6. Install new gasket (2) on cover plate (4) using adhesive.
7. Install cover plate (4) on cover assembly (1) using 14 screws (3).

TA700173

4-24. 208-VOLT POWER ENTRY PANEL CONNECTOR REPLACEMENT (M348A2H) (Con't).



FOLLOW-ON TASKS:

- Connect 208-volt power to semitrailer.
- Check operation of 208-volt connector.

TA700174

4-25. 208-VOLT POWER ENTRY PANEL AND COVER REPLACEMENT (M348A2H).

This Task Covers:

a. Removal
b. Cleaning and Inspection
c. Installation

Initial Setup:

Equipment Conditions:

- 208-volt power entry panel connectors removed (para 4-24).
- Power entry panel terminal boards removed from junction box (para 4-27).

Tools/Test Equipment:

- General mechanic's tool kit
- Drill bit set
- Electric drill
- Rivet gun

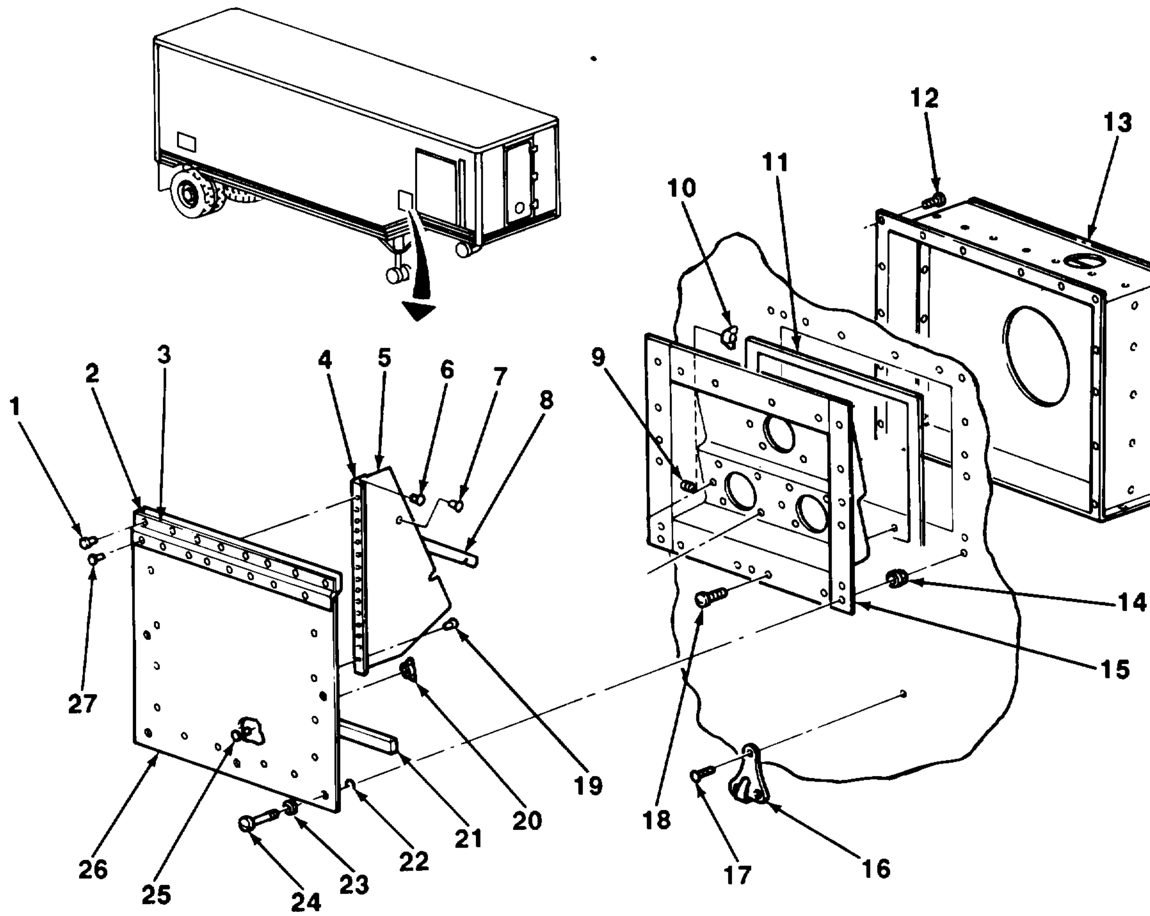
Materials/Parts:

- Adhesive Iitem 1, Appendix E)
- Dry cleaning solvent (Item 13, Appendix E)
- One gasket
- Two weatherstrips
- Five retaining rings
- Fifty-five rivets

a. REMOVAL

1. Remove five cover-locking screws (24) and flatwashers (23) from cover plate (26) and panel assembly (15).
2. Remove eight rivets (1) securing hinge (2) to panel assembly(15). Remove hinge and cover plate (26). Discard rivets.
3. Remove weatherstrip (3) from hinge (2). Discard weatherstrip.
4. Remove eight rivets (27) securing hinge (2) to cover plate (26). Remove hinge. Discard rivets.
5. Remove eight rivets (19) securing each hinge (4) to cover plate (26). Remove hinges and shields (5) from cover. Discard rivets.
6. Remove rivet (7) securing brace (8) to each shield (5). Discard rivets.
7. Remove seven rivets (6) securing each hinge (4) to shield (5). Remove hinges from shields. Discard rivets.
8. Remove gasket (21) from cover plate (26). Discard gasket.
9. Remove wingnut (20) from bolt (25). Remove bolt from cover plate (26).
10. Remove 16 screws (18) and panel assembly (15) from semitrailer.
11. Remove weatherstrip (11) from panel assembly (15). Discard weatherstrip.
12. Remove wingnut (10) from each bolt (9). Remove two bolts from panel assembly (15).
13. Remove five retaining rings (22) and nuts (14) from panel assembly (15). Discard retaining rings.
14. Remove three screws (17) from each hook (16). Remove three hooks from semitrailer.
15. From inside semitrailer, remove 26 screws (12) and cover assembly (13).

4-25. 208-VOLT POWER ENTRY PANEL AND COVER REPLACEMENT (M348A2H) (Con't).



b. CLEANING AND INSPECTION

WARNING

Dry cleaning solvent, P-D-680, is toxic and flammable. Always wear protective goggles and gloves, and use only in a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point is 100°F-138°F (38°C-59°C). If you become dizzy while using cleaning solvent, immediately get fresh air and medical help. If solvent contacts eyes, immediately wash your eyes and get medical aid.

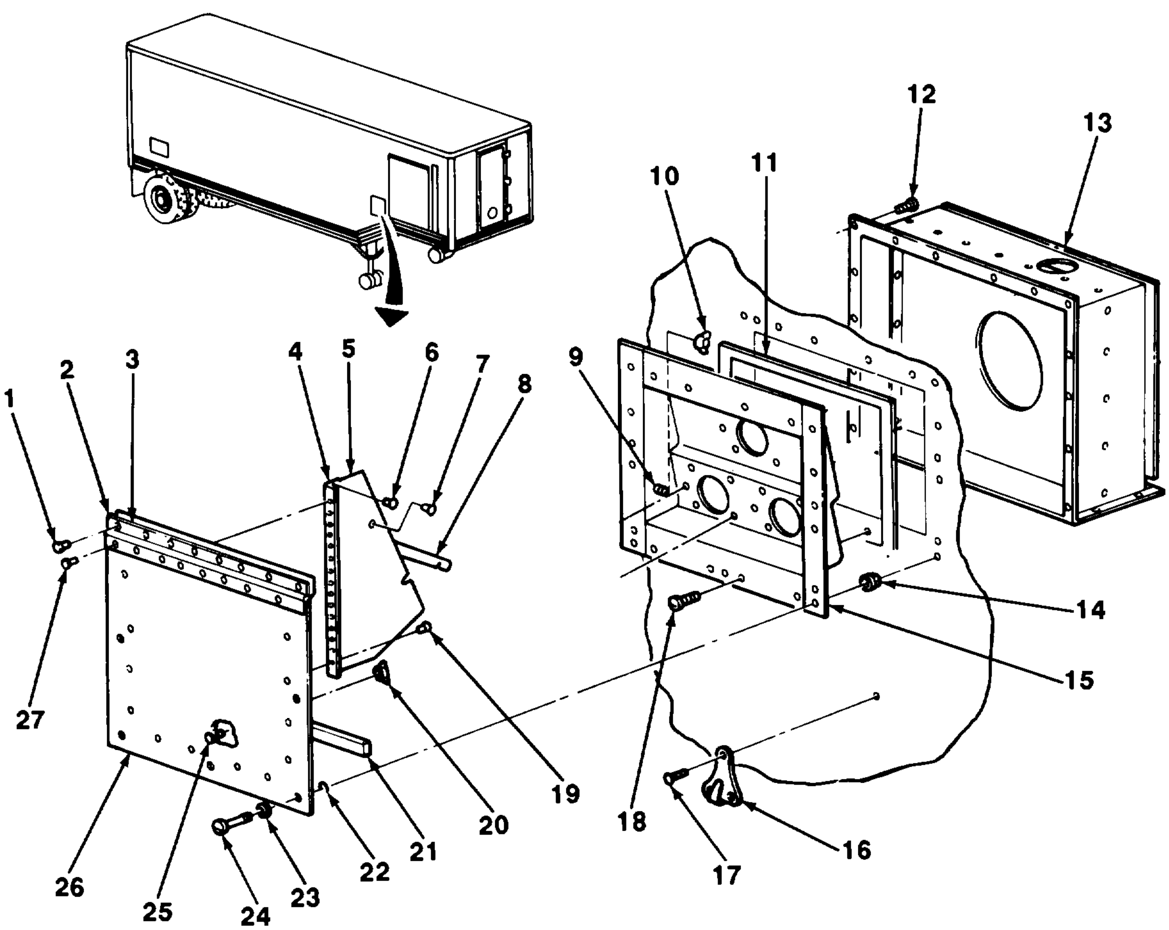
1. Clean all parts with dry cleaning solvent and dry thoroughly. Ensure that all gasket and weatherstrip mounting surfaces are clean and dry.
2. Inspect cover plate, panel assembly, and cover assembly for warpage and distortion. Straighten if necessary.
3. Inspect cover plate hinge and shield hinges for straightness and deterioration. Replace defective hinges.
4. Inspect all other parts for defects and damage. Replace defective and damaged parts.

TA700175

4-25. 208-VOLT POWER ENTRY PANEL AND COVER REPLACEMENT (M348A2H) (Con't).

c. INSTALLATION

1. From inside semitrailer, install cover assembly (13) using 26 screws (12).
2. Install each hook (16) on semitrailer using three screws (17).
3. Install five nuts (14) in panel assembly (15) with five new retaining rings (22).
4. Install two bolts (9) in panel assembly (15). Install wingnut (10) on each bolt.
5. Install new weatherstrip (11) on panel assembly (15) using adhesive.
6. Install panel assembly (15) on semitrailer using 16 screws (18).
7. Install bolt (25) in cover plate (26). Install wingnut (20) on bolt.



TA700176

4-25. 208-VOLT POWER ENTRY PANEL AND COVER REPLACEMENT (M348A2H) (Con't).

8. Install new gasket (21) on cover plate (26) using adhesive.
9. Install hinge (4) on each shield (5) using seven new rivets (6).
10. Install brace (8) on each shield (5) using new rivet (7).
11. Install each hinge (4) and shield (5) on cover plate (26) using eight new rivets (19).
12. Install hinge (2) on cover plate (26) using eight new rivets (27).
13. Install new weatherstrip (3) on hinge (2) using adhesive.
14. Install hinge (2) and cover plate (26) on panel assembly (15) using eight new rivets (1).
15. Install five cover-locking screws (24) and flatwashers (23) in cover plate (26) and panel assembly (15).

FOLLOW-ON TASKS:

- Install power entry panel terminal boards in junction box (para 4-27).
- Install 208-volt power entry panel connectors (para 4-24).

4-26. 110-VOLT SERVICE RECEPTACLE AND JUNCTION BOX REPLACEMENT (M373A5).

This Task Covers:

a. Removal

b. Installation

Initial Setup:

Equipment Conditions:

- 110-volt power disconnected from semitrailer.

Tools/Test Equipment:

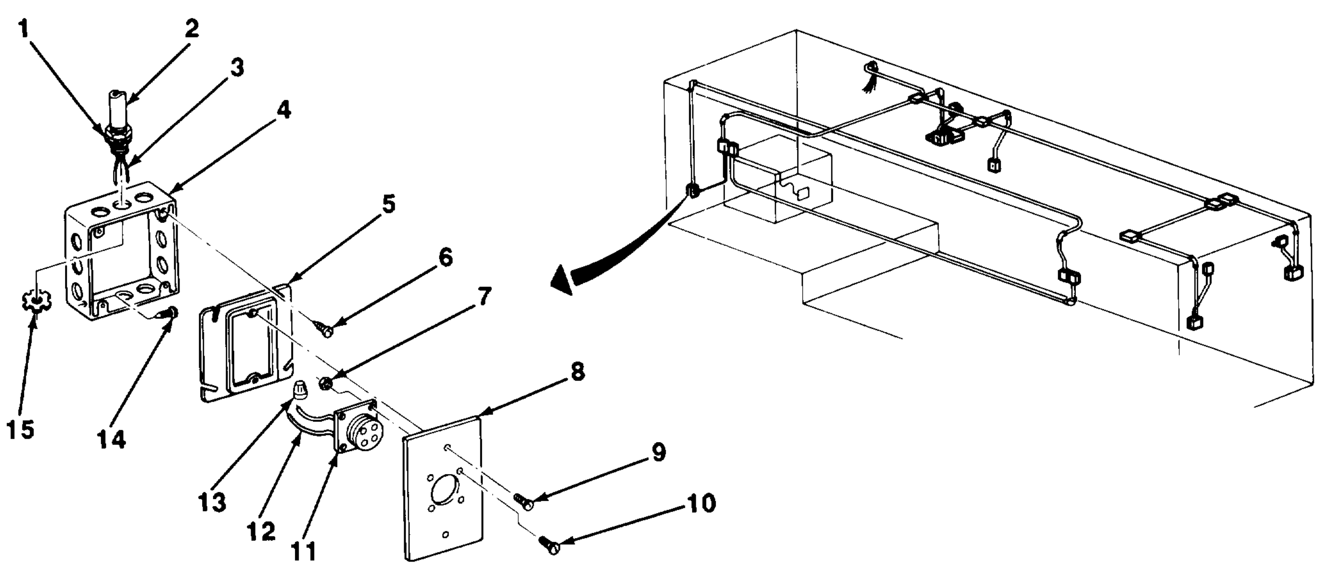
- General mechanic's tool kit

Materials/Parts:

- Marker tags (Item 24, Appendix E)
- Four locknuts

a. REMOVAL

1. Remove two screws (9), plate (8), and receptacle (11) with wires (3 and 12) from cover (5).
2. Tag wires (3 and 12). Remove wirenuts (13) and disconnect wires.
3. Remove four screws (10), locknuts (7), and receptacle (11) from plate (8). Discard locknuts.
4. Remove two screws (6) and cover (5) from junction box (4).
5. Remove nut (15) from connector (1).
6. Remove two screws (14) and junction box (4).



TA700177

4-26. 110-VOLT SERVICE RECEPTACLE AND JUNCTION BOX REPLACEMENT (M373A5) (Con't).

b. INSTALLATION

1. Install junction box (4) using two screws (14).
2. Install nut (15) on connector (1).
3. Install cover (5) on junction box (4) using two screws (6).
4. Install receptacle (11) on plate (8) using four screws (10) and new locknuts (7).
5. Twist together wires (3) coming out of conduit (2) and wires (12) connected to receptacle (11). Remove tags and secure wires using wirenuts (13).
6. Install plate (8) on cover (5) using two screws (9).

FOLLOW-ON TASKS:

- Connect 110-volt power to semitrailer.
- Check operation of 110-volt service receptacle.

4-27. TERMINAL BOARD REPLACEMENT (M348A2H).

This Task Covers:

a. Circuit Breaker Box Terminal Board Removal
b. Circuit Breaker Box Terminal Board Installation
c. 110-volt Circuit Terminal Board Removal
d. 110-volt Circuit Terminal Board Installation
e. Power Entry Panel Terminal Board Removal
f. Power Entry Panel Terminal Board Installation

Initial Setup:

Equipment Conditions:

- 110-volt power disconnected from semitrailer.

Tools/Test Equipment:

- General mechanic's tool kit

Materials/Parts:

- Marker tags (Item 24, Appendix E)
- Five lockwashers (if replacing power entry panel terminal board)
- Eight lockwashers (if replacing circuit breaker box terminal board)
- Twelve lockwashers (if replacing 110-volt circuit terminal board)

a. CIRCUIT BREAKER BOX TERMINAL BOARD REMOVAL

NOTE

This procedure can be used for either circuit breaker box.

1. Open hinged door of circuit breaker box (9). Tag and disconnect wires from terminal board (11).
2. Remove eight nuts (7), lockwashers (8), screws (10), and terminal board (11) from circuit breaker box (9). Discard lockwashers.
3. Remove nuts from studs on terminal board (11).

b. CIRCUIT BREAKER BOX TERMINAL BOARD INSTALLATION

1. Install nuts on studs of terminal board (11).
2. Install terminal board (11) in circuit breaker box (9) using eight screws (10), new lockwashers (8), and nuts (7).
3. Connect wires to terminal board (11). Remove tags,
4. Close hinged door of circuit breaker box (9).

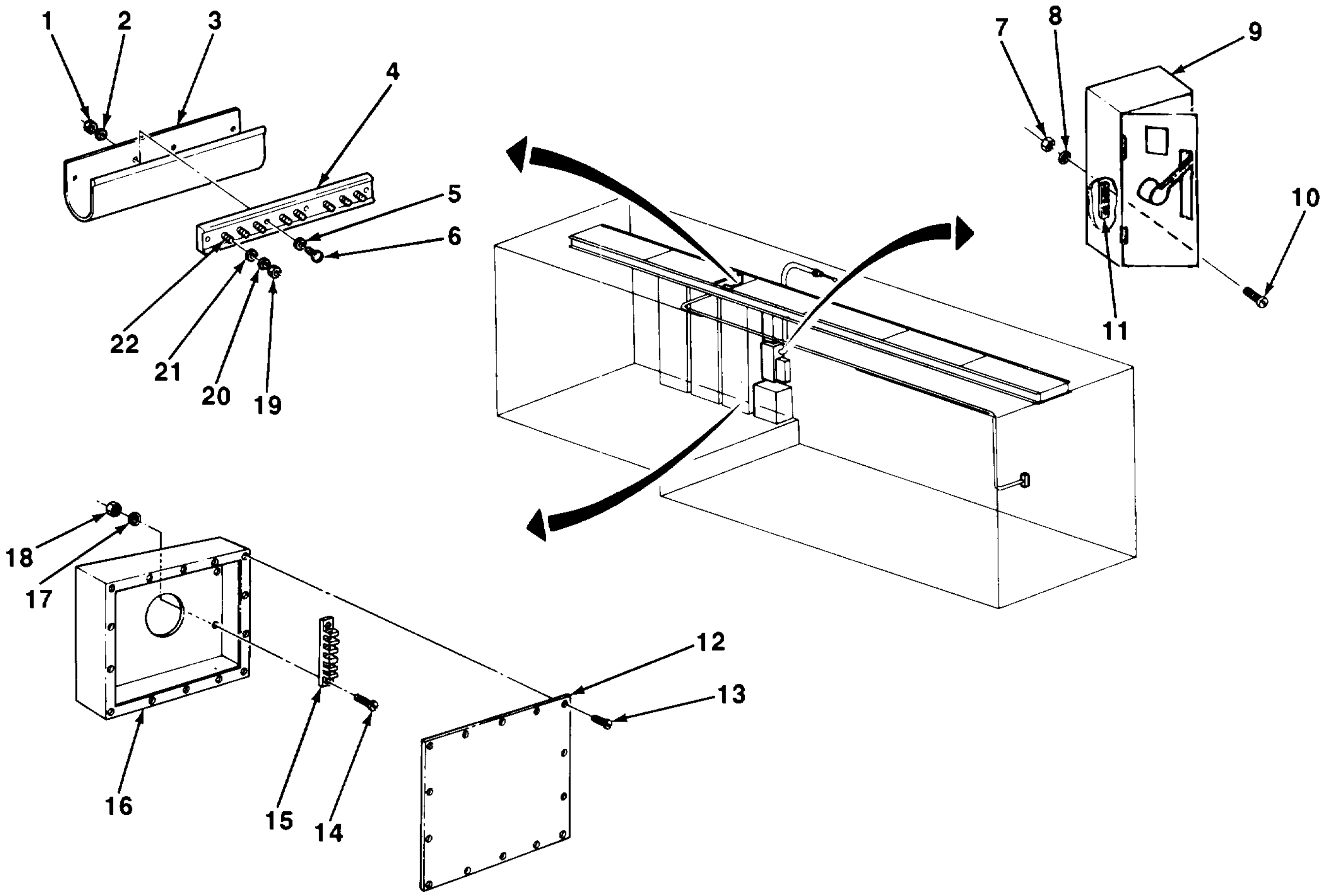
c. 110-VOLT CIRCUIT TERMINAL BOARD REMOVAL.

1. Tag and disconnect wires from terminal board (4).
2. Remove four nuts (1), lockwashers (2), screws (6), and flatwashers (5) securing terminal board (4) and cover (3) to semitrailer wall. Remove terminal board and cover. Discard lockwashers.
3. Remove eight nuts (19), lockwashers (20), and flatwashers (21) from studs (22) on terminal board (4). Discard lockwashers.

d. 11O-VOLT CIRCUIT TERMINAL BOARD INSTALLATION

1. Install eight flatwashers (21), new lockwashers (20), and nuts (19) on studs (22) on terminal board (4).

4-27. TERMINAL BOARD REPLACEMENT (M348A2H) (Con't).



2. Install terminal board (4) and cover (3) on semitrailer wall using four screws (6), flatwashers (5), new lockwashers (2), and nuts (1).

3. Connect wires to terminal board (4). Remove tags.

e. POWER ENTRY PANEL TERMINAL BOARD REMOVAL

NOTE

This procedure can be used for any of the terminal boards in the power entry panel cover assembly.

1. Remove 14 screws (13) and cover plate (12) from power entry panel cover assembly (16).

2. Tag and disconnect wires from terminal board (15).

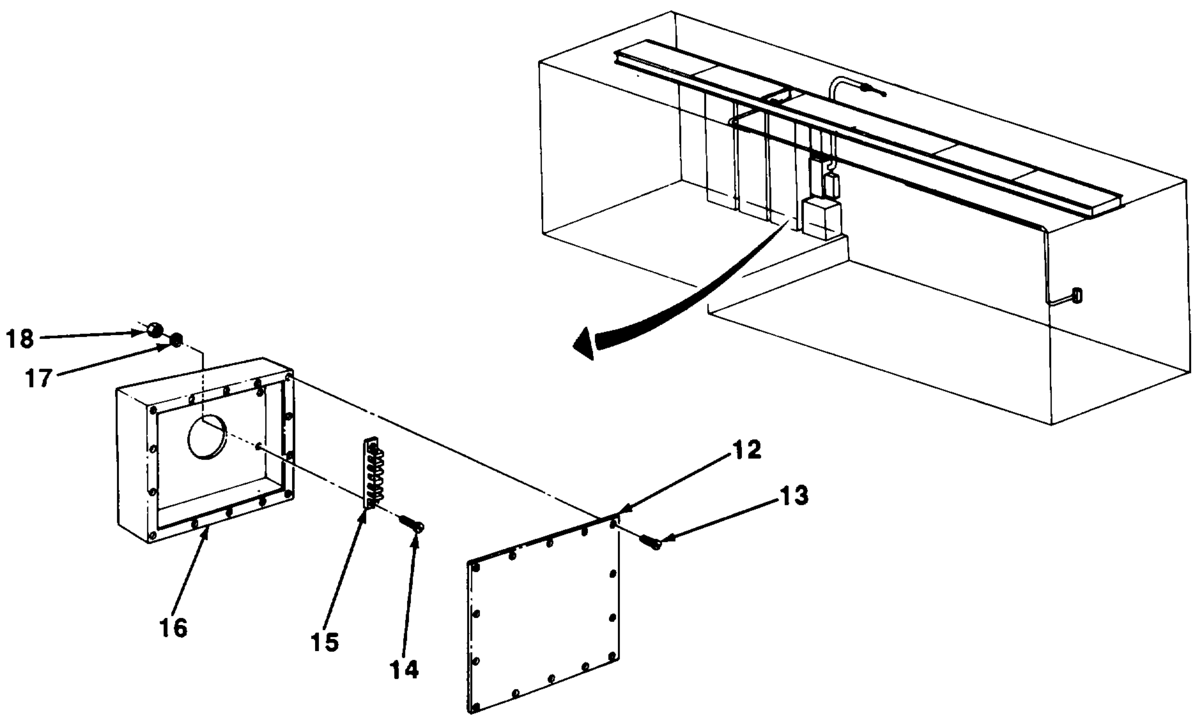
3. Remove five nuts (18), lockwashers (17), screws (14), and terminal board (15) from power entry panel cover assembly (16). Discard lockwashers.

TA700178

4-27. TERMINAL BOARD REPLACEMENT (M348A2H) (Con't).

f. POWER ENTRY PANEL TERMINAL BOARD INSTALLATION

1. Install terminal board (15) on power entry panel cover assembly (16) using five screws (14), new lockwashers (17), and nuts (18).
2. Connect wires to terminal board (15). Remove tags.
3. Install cover plate (12) on power entry panel cover assembly (16) using 14 screws (13).



FOLLOW-ON TASKS:

- Connect 110-volt power to semitrailer.
- Check operation of air conditioner and lighting.

TA700179

4-28. CONDUIT AND FITTINGS REPLACEMENT.

This Task Covers:

a. Removal

b. Installation

Initial Setup:

Equipment Conditions:

- Intervehicular cable disconnected from semitrailer (para 2-20) or external power disconnected from semitrailer.

Tools/Test Equipment:

- General mechanic's tool kit
- Hacksaw
- Tube bender set

a. REMOVAL

NOTE

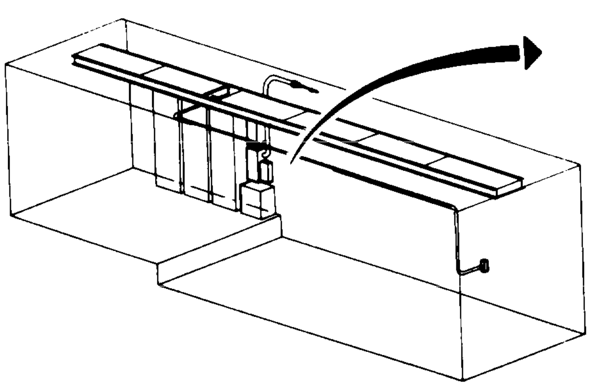
Roadside interior wall of M3073A5 is illustrated. Other sections of M373A5 and other models are similar.

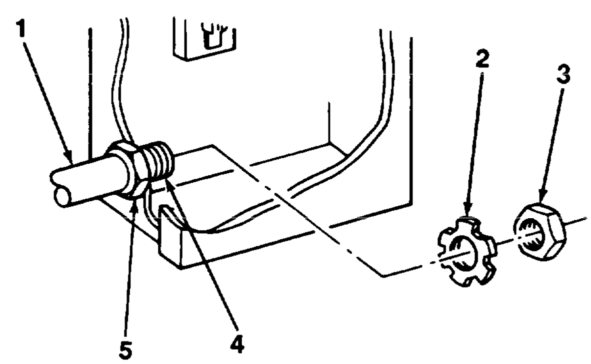
1. Disconnect electrical wires from electrical components where conduit is being replaced.

NOTE

Bondnuts are not used on all conduit connections.

2. Remove nuts (3) and bondnuts (2) from connectors (4) on both ends of conduit (1).
3. Remove conduit (1) and connectors (4) from electrical components at both ends.
4. Pull wiring through conduit (1) and remove conduit.
5. Remove nuts (5) and connectors (4) from both ends of conduit (1).



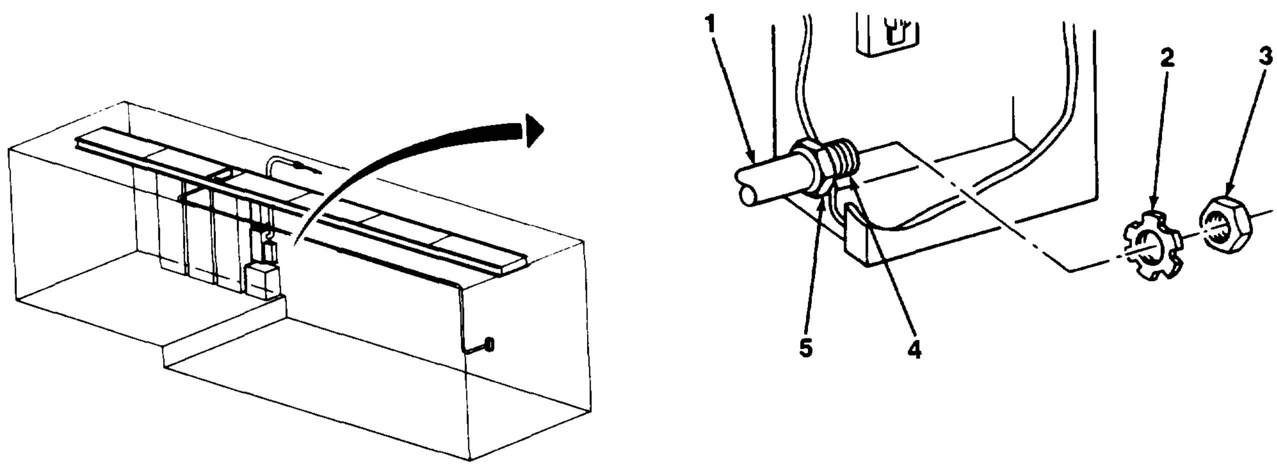


TA700180

4-28. CONDUIT AND FITTINGS REPLACEMENT (Con't).

b. INSTALLATION

1. Cut and bend conduit (1) as required for installation. Remove all metal shavings and sharp edges from conduit.
2. Install nuts (5) and connectors (4) on both ends of conduit (1). Tighten nuts.
3. Thread wiring through conduit (1) and position conduit for installation.
4. Install connectors (4) into electrical components at both ends.
5. Install bondnuts (2) and nuts (3) from connectors (4) on both ends of conduit (1).
6. Connect electrical wires to electrical components.



FOLLOW-ON TASKS:

- Connect intervehicular cable to semitrailer (para 2-10) or connect external power source to semitrailer.
- Check operation of all circuits running through conduit that was replaced.

TA700181

4-29. MARKER CLEARANCE LIGHT MAINTENANCE.

This Task Covers:

a. Lamp Replacement
b. Removal
c. Installation

Initial Setup:

Equipment Conditions:

- Intervehicular cable disconnected from semitrailer (para 2-20).

Tools/Test Equipment:

- General mechanic's tool kit

Materials/Parts:

- Four lockwashers

a. LAMP REPLACEMENT

NOTE

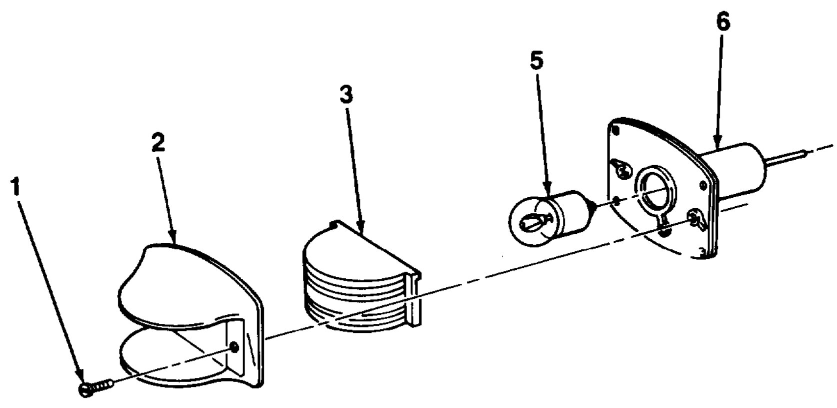
All marker clearance lamps are replaced the same way.

1. Remove two screws (1), retainer (2), and lens (3) from plate (6).
2. Push in and turn lamp (5) counterclockwise and remove from plate (6).
3. Install lamp (5) in plate (6) and turn clockwise,

NOTE

The word BOTTOM is printed on blackout marker clearance light lens. Ensure that lens is positioned properly when Installed.

4. Install lens (3) and retainer (2) on plate (6) using two screws (1).

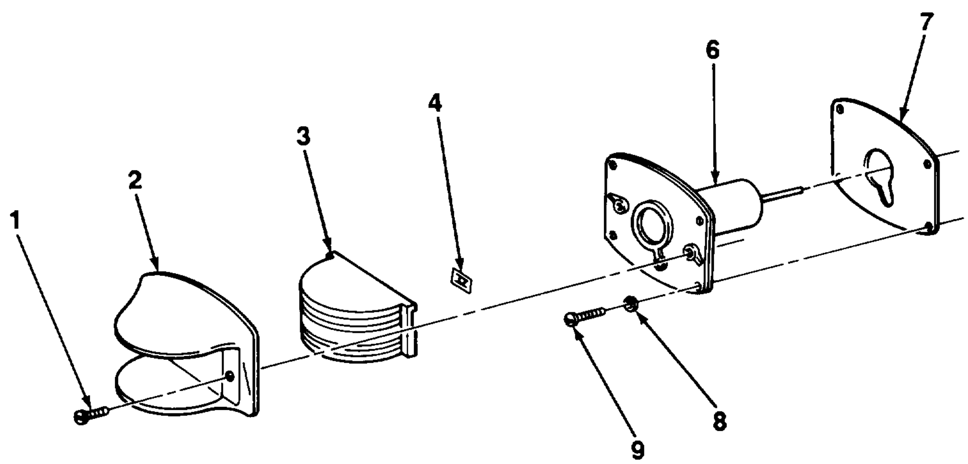


TA700182

4-29. MARKER CLEARANCE LIGHT MAINTENANCE (Con't).

b. REMOVAL

1. Remove two screws (1), retainer (2), and lens (3) from plate (6).
2. Iff lens (3) is damaged, remove two nuts (4) and lens (3) from studs on retainer (2).
3. Remove four screws (9), lockwashers (8), plate (6), and preformed felt (7) from semitrailer. Inspect preformed felt for damage. If damaged, remove and replace. Discard lockwashers.
4. Disconnect connector shell on marker clearance light wire from wiring harness.



c. INSTALLATION]

1. Install preformed felt (7) on plate (6).
2. Connect connector shell on marker clearance light wire to wiring harness.
3. Install preformed felt (7) and plate (6) on semitrailer using four screws (9) and new lockwashers (8).

NOTE

Marker clearance lights can have one of four types of lenses: red service, amber service, red blackout, or amber blackout.

4. If removed, install lens (3) on studs of retainer (2) with two nuts (4).
5. Install retainer (2) and lens (3) on plate (6) using two screws (1).

FOLLOW-ON TASKS:

- Connect intervehicular cable to semitrailer (para 2-10).
- Check operation of light.

TA700183

4-30. BLACKOUT STOPLIGHT MAINTENANCE (EARLY MODEL).

This Task Covers:

a. Lamp Replacement
b. Removal
c. Installation

Initial Setup:

Equipment Conditions:

- Intervehicular cable disconnected from semitrailer (para 2-20).

Tools/Test Equipment

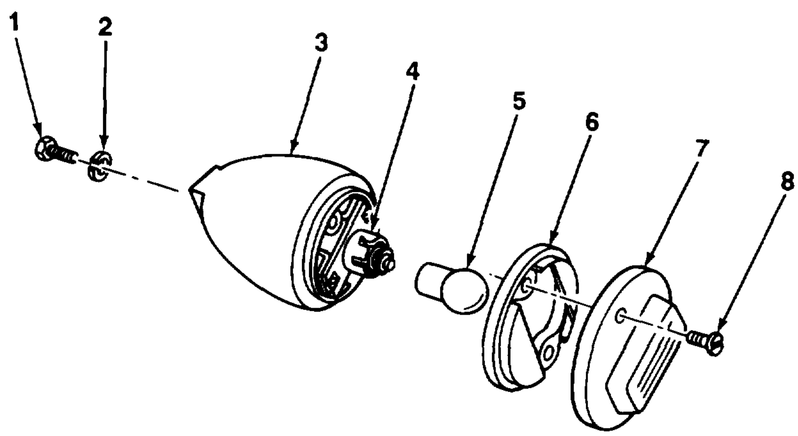
- General mechanic's tool kit

Materials/Parts:

- One lockwasher

a. LAMP REPLACEMENT

1. Remove two screws (8) and door (7) from housing (3).
2. Inspect gasket (6) for damage. If damaged, remove and discard.
3. Push in on lamp (5), turn counterclockwise, and remove from lampholder (4).
4. Install lamp (5) in lampholder (4), push in, and turn clockwise.
5. If removed, install new gasket (6) on door (7).
6. Install door (7) on housing (3) using two screws (8).



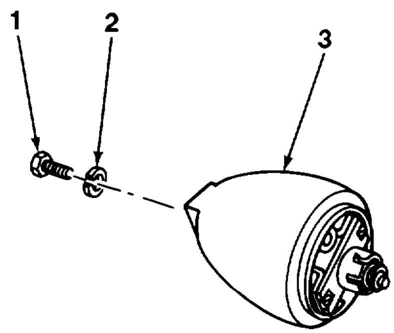
1. Disconnect wiring harness connector from housing (3).
2. Remove screw (1), lockwasher (2), and blackout stoplight from rear crossmember of chassis frame. Discard lockwasher.

TA700184

4-30. BLACKOUT STOPLIGHT MAINTENANCE (EARLY MODEL) (Con't).

c. INSTALLATION

1. Install blackout stoplight on rear crossmember of chassis frame using screw (1) and new lockwasher (2).
2. Connect wiring harness connector to housing (3).



FOLLOW-ON TASKS:

- Connect intervehicular cable to semitrailer (para 2-10).
- Check operation of light.

TA700185

4-31. STOPLIGHT-TAILLIGHT MAINTENANCE (EARLY MODEL).

This Task Covers:

a. Lamp Replacement
b. Removal
c. Installation

initial Setup:

Equipment Conditions:

- Intervehicular cable disconnected from semitrailer (para 2-20).

Tools/Test Equipment:

- General mechanic's tool kit

Materials/Parts:

- Marker tags (Item 24, Appendix E)
- Two lockwashers

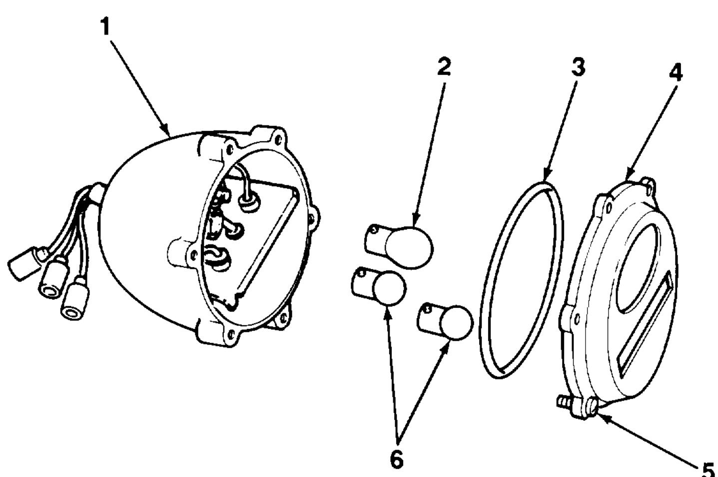
a. LAMP REPLACEMENT

1. Loosen six captive screws (5) and remove lens retainer (4) and preformed packing (3) from body (1). Inspect preformed packing for damage. If damaged, remove and replace.

NOTE

All stoplight-taillight lamps are three candlepower, 24- to 28-volts, except for service stop lamp (5), which Is 32 candlepower, 24- to 28-volts.

2. Push in on lamps *(2* or *6),* turn counterclockwise, and remove from sockets.
3. Install lamps (2 or 6) in sockets, push in, and turn clockwise.
4. Install lens retainer (4) and preformed packing (3) on body (1) and tighten six captive screws (5).

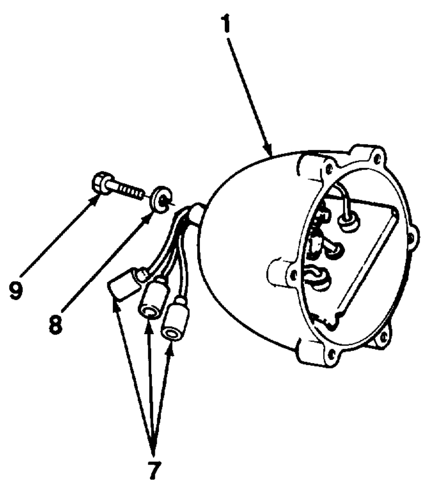


TA700186

4-31. STOPLIGHT-TAILLIGHT MAINTENANCE (EARLY MODEL) (Con't).

b. REMOVAL

1. Tag and disconnect three connectors (7) from wiring harness.
2. Remove two screws (9), lockwashers (8), and stoplight-taillight from mounting bracket. Discard lockwashers.



c. INSTALLATION

1. Position stoplight-taillight on mounting bracket with three connectors (7) pulled through hole in mounting bracket.
2. Install two screws (9) and new lockwashers (8) in body (1) and mounting bracket.
3. Connect three connectors (7) to wiring harness connectors. Remove tags.

FOLLOW-ON TASKS:

- Connect intervehicular cable to semitrailer (para 2-10).
- Check operation of light.

TA700187

4-32. COMPOSITE STOPLIGHT-TAILLIGHT MAINTENANCE (LATE MODEL) (ALL EXCEPT M373A3 AND M373A4).

This Task Covers:

a. Lamp Replacement
b. Removal
c. Installation

Initial Setup:

Equipment Conditions:

- Intervehicular cable disconnected from semitrailer (para 2-20).

Tools/Test Equipment:

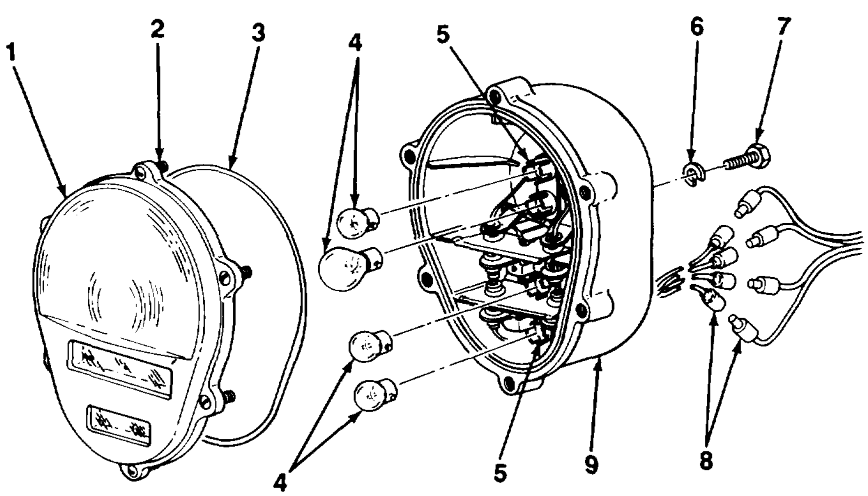
- General mechanic's tool kit

Materials/Parts:

- Marker tags (Item 24, Appendix E)
- Two lockwashers

a. LAMP REPLACEMENT

1. Loosen six captive screws (2) and remove lens (1) from body (9). Inspect preformed packing (3) for damage. If damaged, remove and replace.
2. Push in on lamps (4), turn counterclockwise, and remove from sockets (5).
3. Install lamps (4) in sockets (5) and turn clockwise.
4. Install lens (1) and preformed packing (3) on body (9). Tighten six captive screws (2).



b. REMOVAL

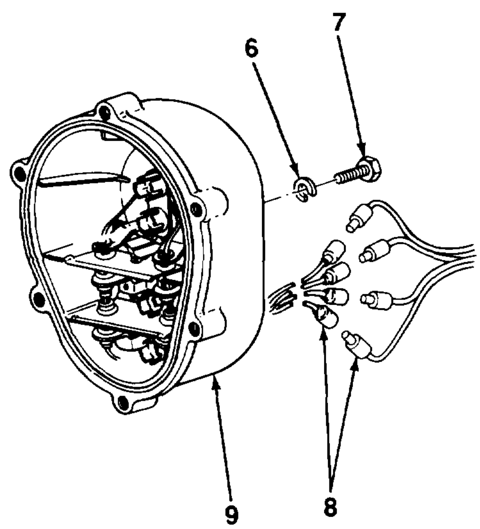
1. Tag and disconnect four connectors (8) from wiring harness.
2. Remove two screws (1), lockwashers (6), and body (9) from mounting bracket. Discard lockwashers.

TA700188

4-32. COMPOSITE STOPLIGHT-TAILLIGHT MAINTENANCE (LATE MODEL) (ALL MODELS EXCEPT M373A3 AND M373A4) (Con't).

c. INSTALLATION

1. Install body (9) on mounting bracket using two screws (7) and new lockwashers (6).
2. Connect four connectors (8) to wiring harness connectors. Remove tags.



FOLLOW-ON TASKS:

- Connect intervehicular cable to semitrailer (para 2-10).
- Check operation of light.

TA700189

4-33. 24-VOLT DOMELIGHT MAINTENANCE (ALL EXCEPT M348A2H, M373A3, M373A4, M373A5, XM1005, AND XM1007).

This Task Covers:

a. Lamp Replacement
b. Removal
c. Clearing and Inspection
d. Installation

initial Setup:

Equipment Conditions:

- Intervehicular cable disconnected from semitrailer (para 2-20).

Tools/est Equipment:

- General mechanic's tool kit

Materials/Parts:

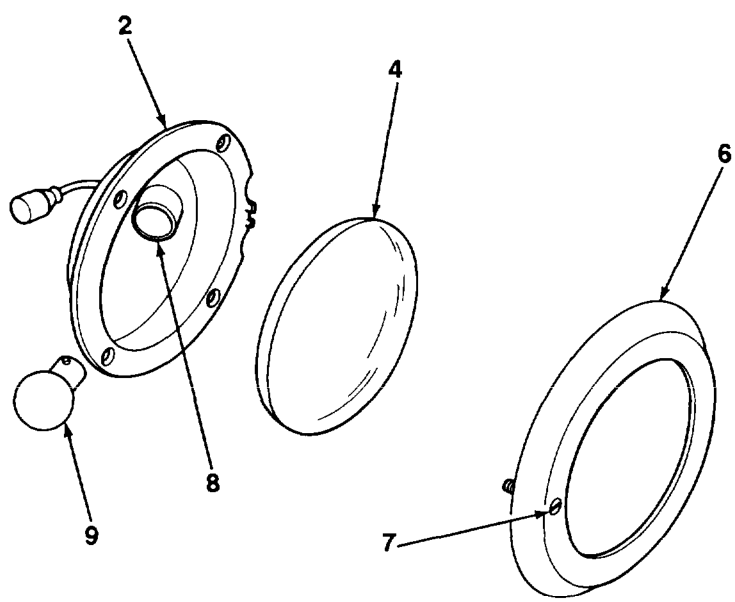
- Adhesive (Item 1, Appendix E)
- Dry cleaning solvent (Item 13, Appendix E)
- Rags (item 20, Appendix E)
- Marker tags (item 24, Appendix E)

NOTE

All domelight lamps and domelights are replaced the same way. Number of lamps and domelight electrical leads may vary.

a. LAMP REPLACEMENT

1. Loosen captive screw (7), open cover (6), and remove lens (4) from cover.
2. Push in on lamp (9), turn counterclockwise, and remove from socket (8).
3. Install lamp (9) in socket (8), push in, and turn clockwise,
4. Install lens (4) in cover (6). Close and secure cover to body (2) with captive screw (7).

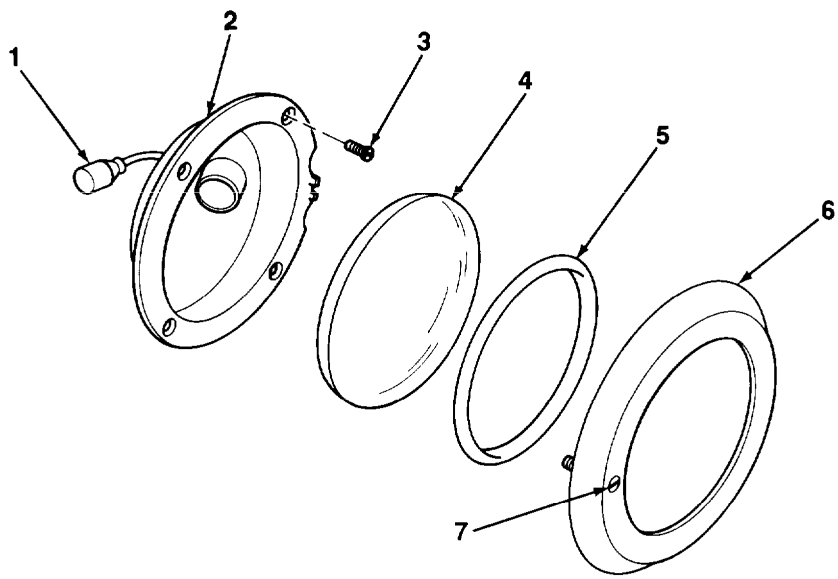


TA700190

4-33. 24-VOLT DOMELIGHT MAINTENANCE (ALL EXCEPT M348A2H, M373A3, M373A4, M373A5, XM1005, AND XM1007) (Con't).

b. REMOVAL

1. Loosen captive screw (7), open cover (6), and remove lens (4) from cover.
2. Remove four screws (3) and body (2) from ceiling.
3. Tag wires if identification bands are missing or illegible. Disconnect electrical lead(s) (1) from wiring harness.



c. CLEANING AND INSPECTION

1. Clean all parts with clean, dry cloth.
2. Inspect lens for cracks or breaks. Replace if damaged.
3. Inspect body for cracks, dents, and warpage. Replace entire domelight if body is damaged.

WARNING

Dry cleaning solvent, P-D-680, is toxic and flammable. Always wear protective goggles and gloves, and use only in a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point is 100°F-138°F (38°C-59°C). If you become dizzy while using cleaning solvent, immediately get fresh air and medical help. If solvent contacts eyes, immediately wash your eyes and get medical aid.

4. Inspect seal (5). If damaged, remove from cover. Clean bonding surface with dry cleaning solvent to remove old adhesive. Dry thoroughly. Apply adhesive to bonding surface and install new seal.

TA700191

4-33. 24-VOLT DOMELIGHT MAINTENANCE (ALL EXCEPT M348A2H, M373A3, M373A4, M373A5, XM1005, AND XM1007) (Con't).

d. INSTALLATION

1. Connect electrical lead(s) (1) to wiring harness. Remove tags.
2. Install body (2) on ceiling with four screws (3).
3. Install lens (4) in cover (6). Close and secure cover to body (2) with captive screw (7).

FOLLOW-ON TASKS:

- Connect intervehicular cable to semitrailer (para 2-10).
- Check operation of light.

4-34. 24-VOLT DOMELIGHT MAINTENANCE (M373A3, M373A4, AND M373A5).

This Task Covers:

a. Lamp Replacement
b. Disassembly
c. Cleaning and Inspection
d. Assembly

Initial Setup:

Equipment Conditions:

- Intervehicular cable disconnected from semitrailer (para 2-20).

Tools/Test Equipment:

- General mechanic's tool kit

Materials/Parts:

- Rags (Item 20, Appendix E)
- Marker tags (Item 24, Appendix E)
- One locknut
- One preformed packing
- One seal
- Two grommets
- Three gaskets
- Fifteen lockwashers

a. LAMP REPLACEMENT

CAUTION

Bezel mounts domelight to semitrailer roof. After removing bezel, support domelight to keep it from falling and becoming damaged.

1. Remove four screws (16), lockwashers (15), and bezel (14). Discard lockwashers.
2. Loosen eight screws (10) and remove lens retainer (9) from body (33) to the limit allowed by length of electrical lead (29).
3. Push in on lamp (3 or 43) and turn counterclockwise to remove from lamp holder (46 or 44).
4. Insert lamp (3 or 43) in lamp holder (46 or 44) and turn clockwise.
5. Install lens retainer (9) on body (33) and tighten eight screws (10).
6. Install bezel (14) using four screws (16) and new lockwashers (15).

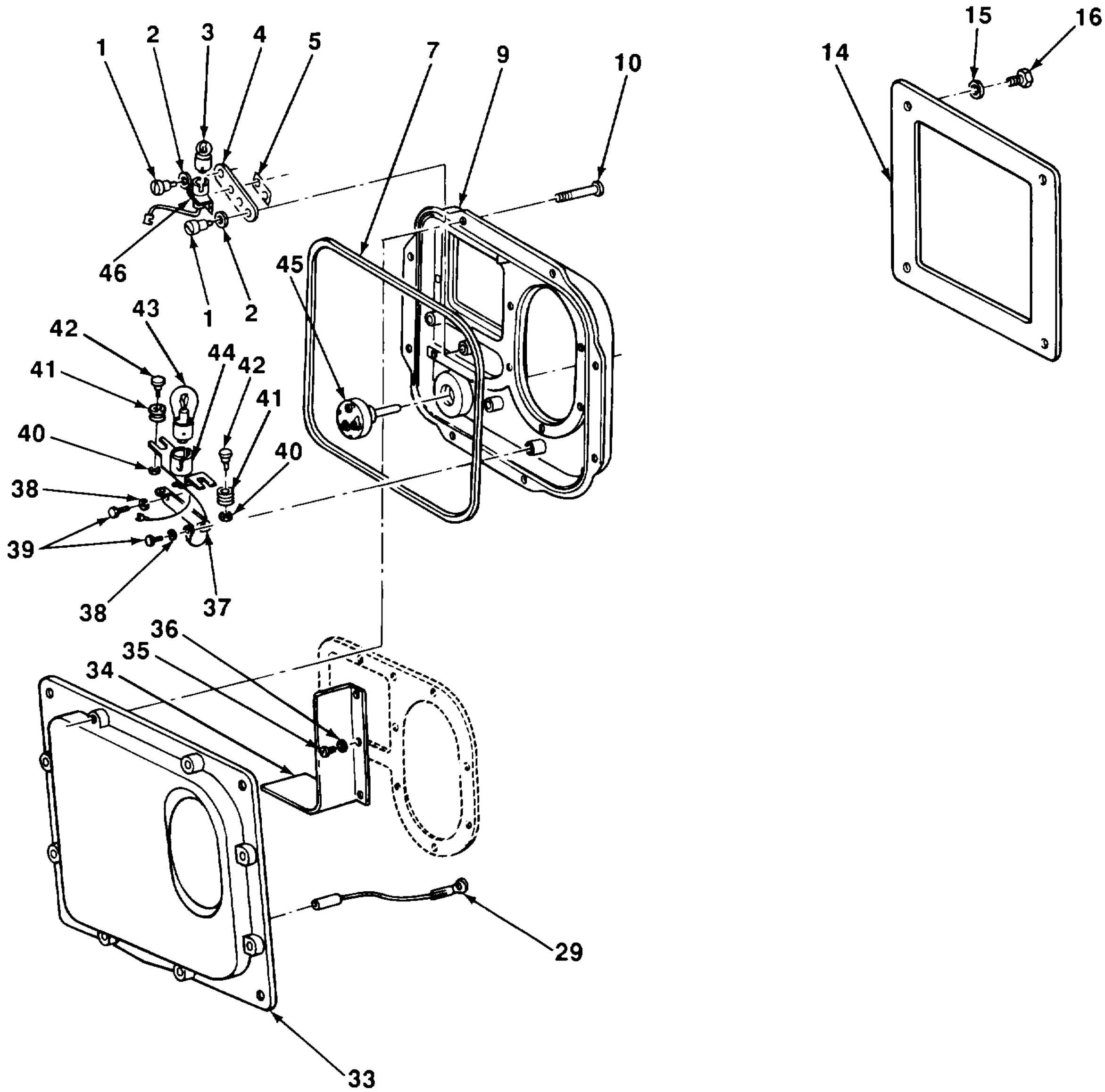
b. DISASSEMBLY

NOTE

Bezel mounts domelight to semitrailer roof. After removing bezel, support domelight to keep it from falling and becoming damaged.

1. Remove four screws (16), lockwashers (15), and bezel (14). Discard lockwashers.
2. Loosen eight screws (10) and remove lens retainer (9) from body (33) to the limit allowed by length of electrical lead (29).
3. Tag electrical leads connected to switch (45). Loosen screws on switch and disconnect electrical leads. Remove lens retainer (9) and seal (7) from body (33). Discard seal.

4-34. 24-VOLT DOMELIGHT MAINTENANCE (M373A3, M373A4, AND M373A5) (Con't).



4. Remove four screws (35), lockwashers (36), and blackout light patition (34) from lens retainer (9). Discard lockwashers.

5. Remove two screws (39) and lockwashers (38). Remove white light ground wire and plate (37) from lens retainer (9). Discard lockwashers.

6. Remove two screws (42), grommets (41), and lockwashers (40). Remove white light lampholder (44) from plate (37). Discard lockwashers and grommets.

7. Remove two screws (1) and lockwashers (2), Remove blackout light lampholder (46), gasket (4), and metal plate (5) from lens retainer (9). Discard lockwashers.

TA700192

4-34. 24-VOLT DOMELIGHT MAINTENANCE (M373A3, M373A4, AND M373A5) (Con't).

8. Remove two screws (6). Remove metal plate (5) and gasket (4) from blackout light lampholder (46).
9. Remove seven screws (28). Remove lens retainer (27), white lens (26) and gasket (25), and blackout lens (23) and gasket (24) from lens retainer (9). Discard gaskets.
10. Remove screw (17) and lockwasher (18). Remove knob (19) from switch (45). Discard lockwasher.
11. Remove locknut (20), flatwasher (21), gasket (22), and switch (45) from lens retainer (9). Discard locknut and gasket.
12. Remove setscrew (11), push button (12), and spring (13) from knob (19).
13. Disconnect electrical lead (29) from connector (31).
14. Remove two screws (32). Remove connector (31) and preformed packing (30) from body (33). Discard preformed packing.
15. If damaged, remove eight retaining rings (8) and screws (10) from lens retainer (9), Discard retaining rings.

c. CLEANING AND INSPECTION

1. Clean all parts with a clean, dry cloth.
2. Inspect electrical lead, lampholders, and wiring for broken insulation or bare wires.
3. Inspect lenses for cracks, breaks, or chips.
4. Replace all defective parts.

d. ASSEMBLY

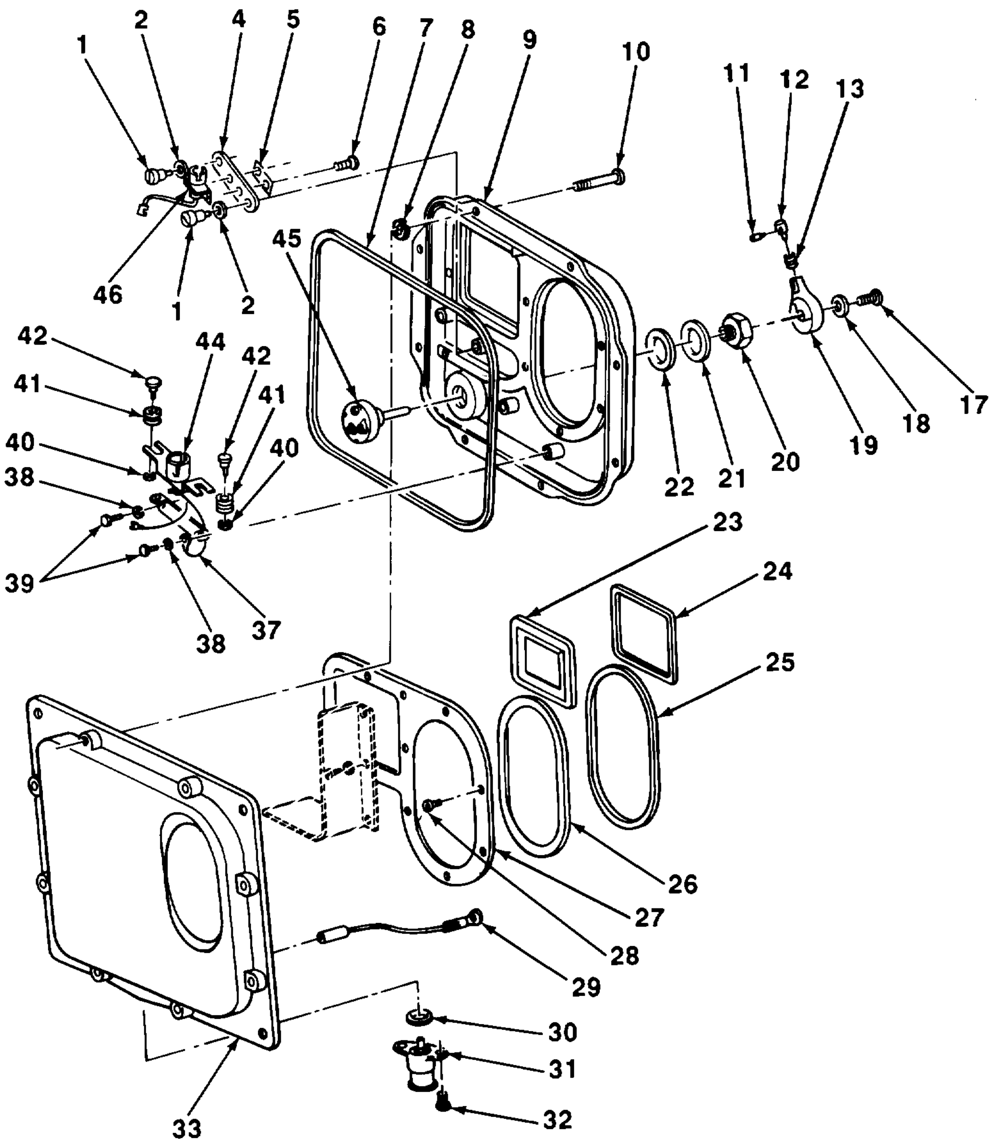
1. If removed, install eight screws (10) in lens retainer (9) and secure with new retaining rings (8).
2. Install new preformed packing (30) and connector (31) on body (33) using two screws (32).
3. Connect electrical lead (29) to connector (31).
4. Install spring (13) and push button (12) in knob (19). Hole in push button must be alined with slot in knob. Install setscrew (11) to secure spring and push button.
5. Aline notch in face of switch (45) with pin in lens retainer (9) and insert switch shaft through hole in lens retainer.
6. Install new gasket (22), flatwasher (21), and new locknut (20) on shaft of switch (45).
7. Install knob (19) on switch (45) using screw (17) and new lockwasher (18).

NOTE

Screw holes between white lens and blackout lens are used when Installing blackout light partition. Do not use these holes when installing lens retainer (27).

8. Install two new gaskets (24 and 25) and blackout and white lenses (23 and 26) in lens retainer (9) using lens retainer (27) and seven screws (28).
9. Install gasket (4) and metal plate (5) on blackout light lampholder (46) using two screws (6).

4-34. 24-VOLT DOMELIGHT MAINTENANCE (M373A3, M373A4, AND M373A5) (Con't).



10, Install blackout light lampholder (46) and ground wire on lens retainer (9) using two screws (1) and new lockwashers (2).

11. Connect blackout light lampholder (46) power wire to switch (45) terminal R and tighten screw.

12. Install white light lampholder (44) and two new grommets (41) on plate (37) using two screws (42) and new lockwashers (40).

13. Install plate (37) and white light lampholder (44) and ground wire on lens retainer (9) using two screws (39) and new lockwashers (38).

14. Connect white light lampholder (44) power wire to switch (45) terminal W and tighten screw.

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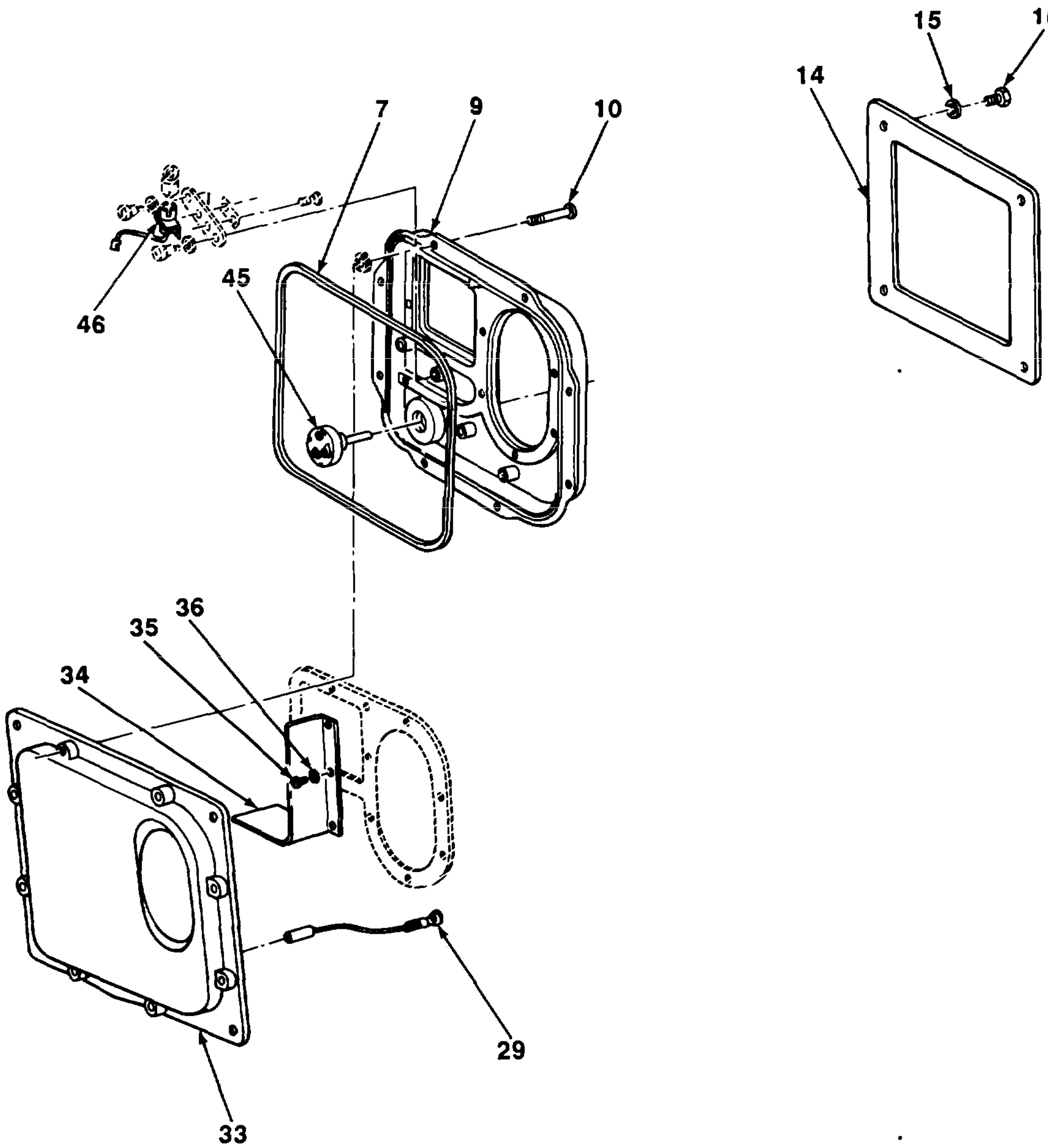
4-34. 24-VOLT DOMELIGHT MAINTENANCE (M373A3, M373A4, AND M373A5) (Con't).

15. Install blackout light partition (34) on lens retainer(9) using four screws (35) and new lockwashers (36). Ensure that blackout light lampholder (46) power wire passes through channel in lens retainer under blackout light partition.
16. Connect electrical lead (29) to switch (45) terminal B and tighten screw.
17. Install new seal (7) and lens retainer (9) on body (33) and tighten eight screws (10).
18. Install bezel (14) using four screws (16) and new lockwashers (15).



FOLLOW-ON TASKS:

- Connect intervehicular cable to semitrailer (para 2-10).
- Check operation of light.

TA700194

4-35. 110-VOLT DOMELIGHT MAINTENANCE (M373A3, M373A4, AND M373A5).

This Task Covers:

a. Lamp Replacement
b. Removal
c. Cleaning and Inspection
d. Installation

initial Setup:

Equipment Conditions:

- 110-volt power disconnected from semitrailer.

Tools/Test Equipment:

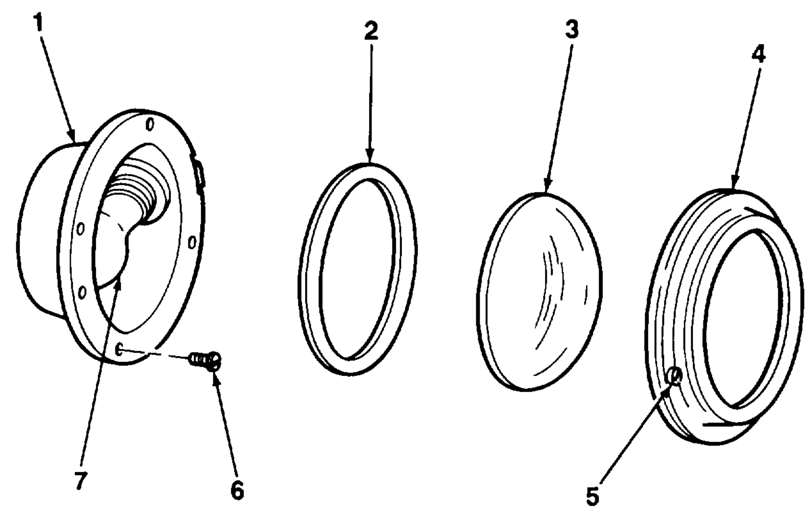
- General mechanic's tool kit

Materials/Parts:

- l Rags (Item 20, Appendix E)
- l Marker tags (Item 24, Appendix E)

a. LAMP REPLACEMENT

1. Loosen captive screw (5) and allow hinged cover (4) to swing down.
2. Turn lamp (7) counterclockwise and remove from dome light (1).
3. Insert lamp (7) in domelight (1) and turn clockwise.
4. Swing hinged cover (4) up and tighten captive screw (5).



b. REMOVAL

1. Loosen captive screw (5) and allow hinged cover (4) to swing down.
2. Remove lens (3) and preformed felt (2) from hinged cover (4).
3. Remove four screws (6) and domelight (1) from ceiling.
4. Tag and disconnect wires from dome light (1).

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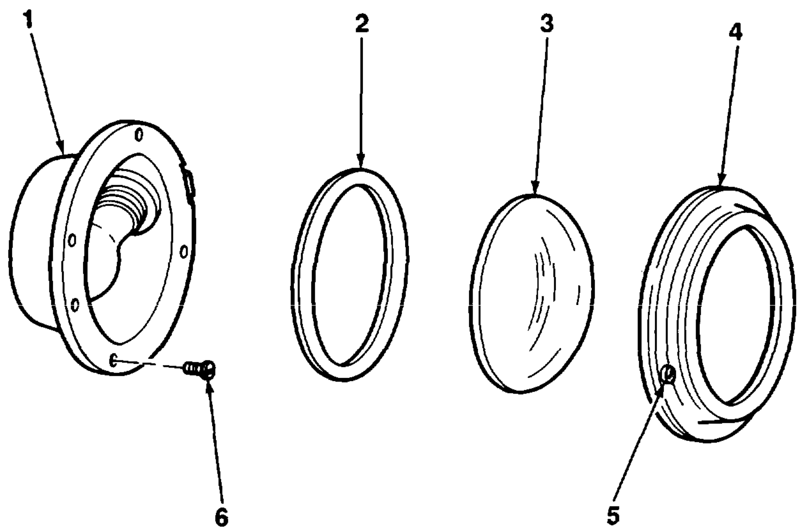
4-35. 110-VOLT DOMELIGHT MAINTENANCE (M373A3, M373A4, AND M373A5) (Con't).

c. CLEANING AND INSPECTION

1. Clean all parts with a clean, dry cloth.
2. Inspect domelight for dents in reflector and broken or chipped porcelain socket and socket retainer.
3. Inspect hinged cover for warpage, cracks, and damage.
4. Replace lens and preformed felt if damaged.



d. INSTALLATION

1. Connect wires to domelight (1). Remove tags.
2. Install domelight (1) on ceiling using four screws (6).
3. Install lens (3) and preformed felt (2) in hinged cover (4).
4. Swing hinged cover (4) up and tighten captive screw (5).

FOLLOW-ON TASKS:

- Connect 110-volt power to semitrailer.
- Check operation of light.

TA700196

4-36. FLUORESCENT LIGHTING FIXTURE MAINTENANCE (M348A2H).

This Task Covers:

a. Lamp Replacement
b. Removal
c. Cleaning and Inspection
d. Ballast Replacement
e. Installation

Initial Setup:

Equipment Conditions:

- 110-volt power disconnected from semitrailer.

Tools/Test Equipment:

- General mechanic's tool kit

Materials/Parts:

- Rags (Item 20, Appendix E)
- Marker tags (Item 24, Appendix E)
- Electrical tape (item 28, Appendix E)
- Ten lockwashers

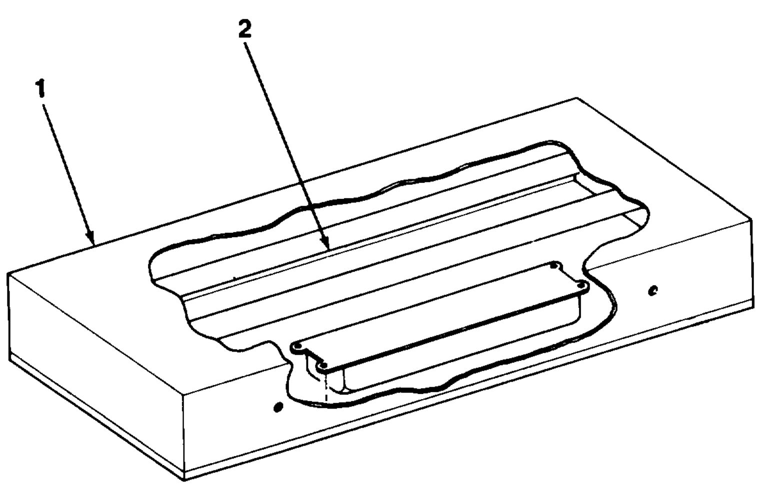
Personnel Required: Two

a. LAMP REPLACEMENT

WARNING

When handling fluorescent lamp, use care to prevent breakage and possible injury to personnel.

1. Release cover fasteners and open fixture cover (1).
2. Rotate two lamps (2) ¼ turn, then remove lamps from sockets.
3. Insert two lamps (2) in sockets and rotate ¼ turn.
4. Close fixture cover (1) and latch cover fasteners.



TA700197

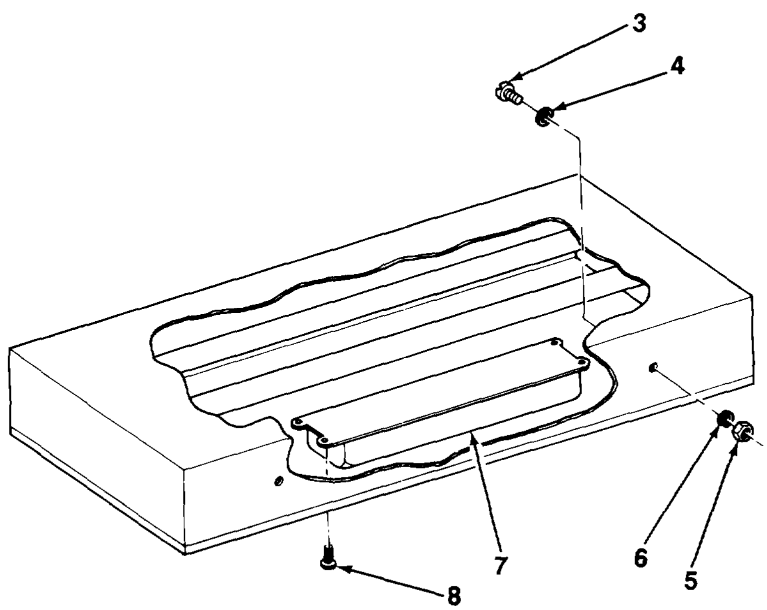
4-36. FLUORESCENT LIGHTING FIXTURE MAINTENANCE (M348A2H) (Con't).

b. REMOVAL

1. Remove two tamps (subpara a).
2. Remove ten nuts (5), lockwashers (6), screws (3),20 flatwashers (4), and fluorescent lighting fixture from ceiling. Discard Iockwashers,
3. Tag and disconnect wires and remove fluorescent lighting fixture.

c. CLEANING AND INSPECTION

1. Clean fluorescent lighting fixture with a clean dry cloth.
2. Inspect reflector box for warpage, dents, scratches, or chipped enamel.
3. Inspect for defective lamp sockets.
4. Replace all defective components.



d. BALLAST REPLACEMENT

1. Remove four screws (8) holding ballast (7) to fluorescent lighting fixture.
2. Tag and cut wires on line and load sides of ballast (7) as close as possible to splices. Remove ballast.
3. Install ballast (7) on fluorescent lighting fixture using four screws (8).
4. Splice wires together between ballast (7) and fluorescent lighting fixture. Remove tags. Wrap splices with electrical tape.

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4-36. FLUORESCENT LIGHTING FIXTURE MAINTENANCE (M348A2H) (Con't).

e. INSTALLATION

1. Connect wires to fluorescent lighting fixture. Remove tags.
2. Install fluorescent lighting fixture on ceiling using ten screws (3), 20 flatwashers (4), ten new lockwashers (6), and nuts (5).
3. Install two lamps (subpara).

FOLLOW-ON TASKS:

- Connect 110-volt power to semitrailer.
- Check operation of light.

4-37. MAIN WIRING HARNESS REPLACEMENT

This Task Covers:

a. Removal

b. Installation

initial Setup:

Equipment Conditions:

- Intervehicular cable disconnected from semitrailer (para 2-20).

Materials/Parts:

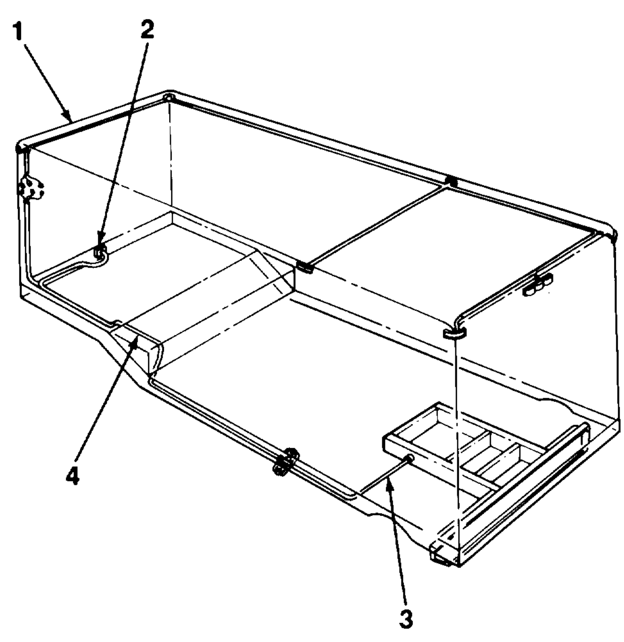
- Marker tags (Item 24, Appendix E)

Tools/Test Equipment:

General mechanic's tool kit

a. REMOVAL

1. Disconnect roof wiring harness (1) from main wiring harness (4).
2. Disconnect main wiring harness (4) from receptacle and cover assembly (2).
3. Tag wires and disconnect main wiring harness (4) from interconnecting cable assembly (3).
4. Pull main wiring harness (4) through grommets and remove from semitrailer.
5. If damaged, remove grommets from frame and discard.



TA700199

4-37. MAIN WIRING HARNESS REPLACEMENT (Con't).

b. INSTALLATION

1. If removed, install new grommets in frame.
2. Feed main wiring harness (4) through grommets and position for installation.
3. Connect main wiring harness (4) to interconnecting cable (3). Remove tags.
4. Connect main wiring harness (4) to receptacle and cover assembly (2).
5. Connect roof wiring harness (1) to main wiring harness (4).

FOLLOW-ON TASKS:

- Connect intervehicular cable to semitrailer (para 2-10).
- Check operation of lights.

4-38. INTERCONNECTING CABLE ASSEMBLY REPLACEMENT

This Task Covers:

a. Removal b. Installation

initial Setup:

Equipment Conditions:

- Intervehicular cable disconnected from semitrailer (para 2-20).

Tools/Test Equipment

- General mechanic's tool kit

Materials/Parts:

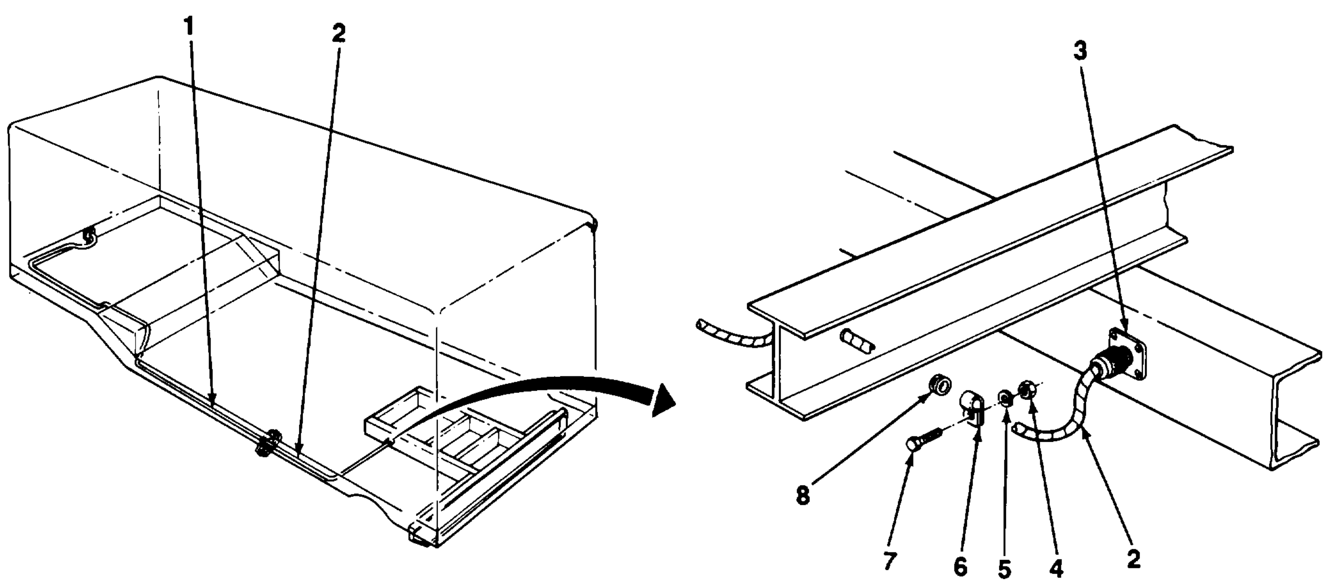
- Marker tags (Item 24, Appendix E)
- Two lockwashers

1. Tag and disconnect interconnecting cable (2) from main wiring harness (1).
2. Disconnect Interconnecting cable (2) from receptacle (3).

NOTE

Clamp mounting hardware may vary from what is Illustrated.

3. Remove nut (4), lockwasher (5), and screw (7) from each clamp (6). Spread open and remove two clamps from Interconnecting cable (2). Discard lockwashers.
4. Pull Interconnecting cable (2) through grommets (8) and remove.
5. If damaged, remove two grommets (8) from frame. Discard grommets.



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4-38. INTERCONNECTING CABLE ASSEMBLY REPLACEMENT (Con't).

b. INSTALLATION

1. If removed, install two new grommets (8) in frame.
2. Thread interconnecting cable (2) through two grommets (8) and position for installation.
3. Install clamp (6) on each side of rear most grommet (8) using screw (7), new lockwasher (5), and nut (4).
4. Connect interconnecting cable (2) to main wiring harness (1). Remove tags.
5. Connect interconnecting cable (2) to receptacle (3).

FOLLOW-ON TASKS:

- Connect intervehicular cable to semitrailer (para 2-10).
- Check operation of dolly lights.

4-39. DOLLY MAIN WIRING HARNESS AND BRANCHED WIRING HARNESS REPLACEMENT.

This Task Covers:

a. Removal
b. Installation

Initial Setup:

Equipment Conditions

- Intervehicular cable disconnected from semitrailer (para 2-20).

Tools/Test Equipment

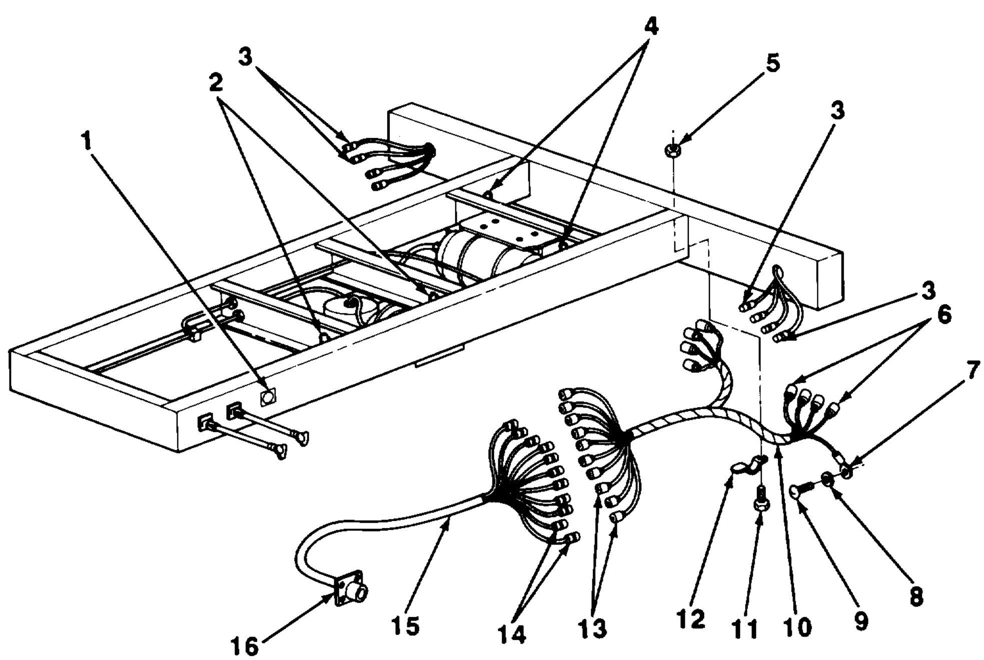
- General mechanic's tool kit

Materials/Parts:

- Marker tags (Item 24, Appendix E)
- One lockwasher

a. REMOVAL

1. Tag and disconnect main wiring harness connectors (14) from branched wiring harness connectors (13).
2. Disconnect main wiring harness connector (16) from cover assembly (1).
3. Pull main wiring harness (15) through grommets (2) and remove from dolly.
4. Tag and disconnect branched wiring harness connectors (6) from taillight connectors (3).
5. Remove screw (9) and lockwasher (8) securing ground terminal (7) to dolly. Discard lockwasher,
6. Remove two nuts (5), screws (11), and clamp (12) securing branched wiring harness (10) to dolly.
7. Pull branched wiring harness (10) through grommets (4) and remove from dolly.
8. Inspect grommets (2 and 4) for damage or corrosion. If damaged, remove grommets and discard.



TA700201

4-39. DOLLY MAIN WIRING HARNESS AND BRANCHED WIRING HARNESS REPLACEMENT (Con't).

b. INSTALLATION

1. If removed, install new grommets (2 and 4) in dolly.
2. Feed branched wiring harness (10) through grommets (4) and position for installation.
3. Secure branched wiring harness (10) to dolly using two screws (11), clamp (12), and nuts (5).
4. Connect branched wiring harness connectors (6) to taillight connectors (3). Remove tags.
5. Secure ground terminal (7) to dolly using screw (9) and new lockwasher (8).
6. Feed main wiring harness (15) through grommets (2).
7. Connect main wiring harness connectors (14) to branched wiring harness connectors (13). Remove tags.
8. Connect main wiring harness connector (16) to cover assembly (1).

FOLLOW-ON TASKS:

- Connect intervehicular cable to semitrailer (para 2-10).
- Check operation of dolly lights.

4-40. ROOF WIRING HARNESS REPLACEMENT

This Task Covers:

a. Removal b. Installation

Initial Setup:

Equipment Conditions:

- Intervehicular cable disconnected from semitrailer (para 2-20).

Tools/Test Equipment:

- General mechanic's tool kit

Materials/Parts:

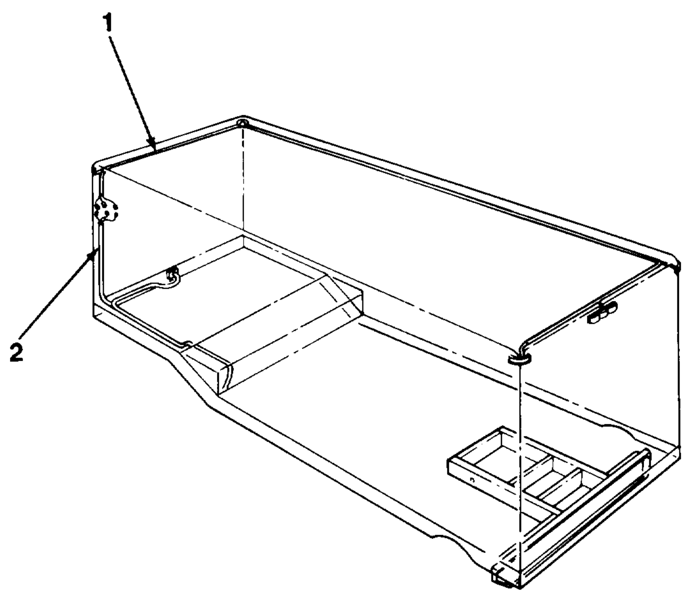
- Marker tags (Item 24, Appendix E)

a. REMOVAL

NOTE

Remove ceiling panels as required to access roof wiring harness.

1. Tag and disconnect roof wiring harness (1) from branched wiring harness (2).
2. Tag and disconnect wiring to all lights and switches connected to roof wiring harness (1). Refer to wiring diagrams (para 4-52) and applicable maintenance paragraphs in this section.
3. Pull roof wiring harness (1) through grommets and remove from semitrailer.
4. If damaged, remove grommets and discard.



TA700202

4-40. ROOF HARNESS REPLACEMENT (Con't).

b. INSTALLATION

1. If removed, install new grommets.
2. Pull roof wiring harness (1) through grommets.
3. Connect wiring to all lights and switches connected to roof wiring harness (1). Refer to wiring diagrams (para 4-52) and applicable maintenance paragraphs in this section. Remove tags.
4. Connect roof wiring harness (1) to branched wiring harness (2). Remove tags.

FOLLOW-ON TASKS:

- Connect intervehicular cable to semitrailer (para 2-10).
- Check operation of lights.

4-41. 11O-VOLT WIRING HARNESS REPLACEMENT (M348A2H).

This Task Covers:

a. Removal

b. Installation

Initial Setup:

Equipment Conditions:

- 110-volt power disconnected from semitrailer.

Tools/Test Equipment:

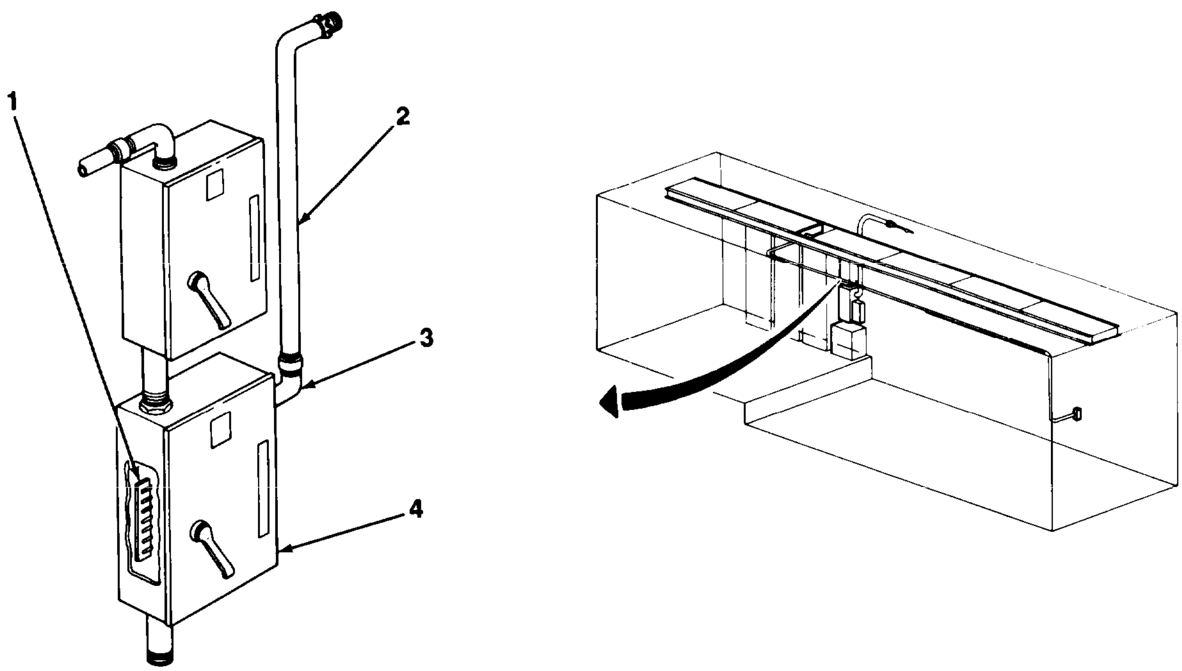
- General mechanic's tool kit

Materials/Parts:

- Marker tags (item 24, Appendix E)

a. REMOVAL

1. Open hinged door of lower circuit breaker box (4). Tag and disconnect wiring harness from terminai board (1).
2. Tag and disconnect wiring harness from equipment mounted in semitrailer.
3. Pull wiring harness through conduit (2) and elbow (3) and remove.



TA700203

4-41. 110-VOLT WIRING HARNESS REPLACEMENT (M348A2H) (CON'T).

b. INSTALLATION

1. Feed wiring harness through conduit (2) and elbow (3) and into lower circuit breaker box (4).
2. Connect wiring harness to terminal board (1). Remove tags.
3. Connect wiring harness to equipment mounted in semitrailer. Remove tags.
4. Close hinged door of lower circuit breaker box (4).

FOLLOW-ON TASKS:

- Connect 110-volt power to semitrailer.
- Check operation of equipment mounted in semitrailer.

4-42. 11 O-VOLT FLUORESCENT LIGHTING FIXTURE AND DOMELIGHT SWITCH WIRING REPLACEMENT (M348A2H).

This Task Covers:

a. Circuit Breaker to Terminal Board Wire Removal
b. Circuit Breaker to Terminal Board Wire installation
c. 110-volt Domelight Switch Wiring Removal
d. 110-volt Domelight Switch Wiring Installation
e. Fluorescent Lighting Fixture Wiring Removal
f. Fluorescent Lighting Fixture Wiring Installation

Initial Setup:

Equipment Conditions:

- 110-volt power disconnected from semitrailer.

Tools/Test Equipment:

- General mechanic's tool kit

Materials/Parts:

- Marker tags (Item 24, Appendix E)
- Electrical tape (Item 28, Appendix E)
- LockWashers (as required)

a. CIRCUIT BREAKER TO TERMINAL BOARD WIRE REMOVAL

1. Open hinged door of lower circuit breaker box (1 5). Tag and disconnect wire being replaced from terminal board (16). Refer to wiring diagrams (para 4-52).
2. Tag other end of wire being replaced. Remove nut (6), Iockwasher (5), flatwasher (4), and wire from terminal board (3). Discard Iockwasher.
3. Pull wire through elbow (14) and conduit (13) and remove.

b. CIRCUIT BREAKER TO TERMINAL BOARD WIRE INSTALLATION

1. Feed wire through conduit (13) and elbow (14) and into lower circuit breaker box (15).
2. Connect wire to terminal board (1 6). Remove tag. Close hinged door of lower circuit breaker box (15).
3. Connect wire to terminal board (3) using flatwasher (4), new Iockwasher (5), and nut (6). Remove tag.

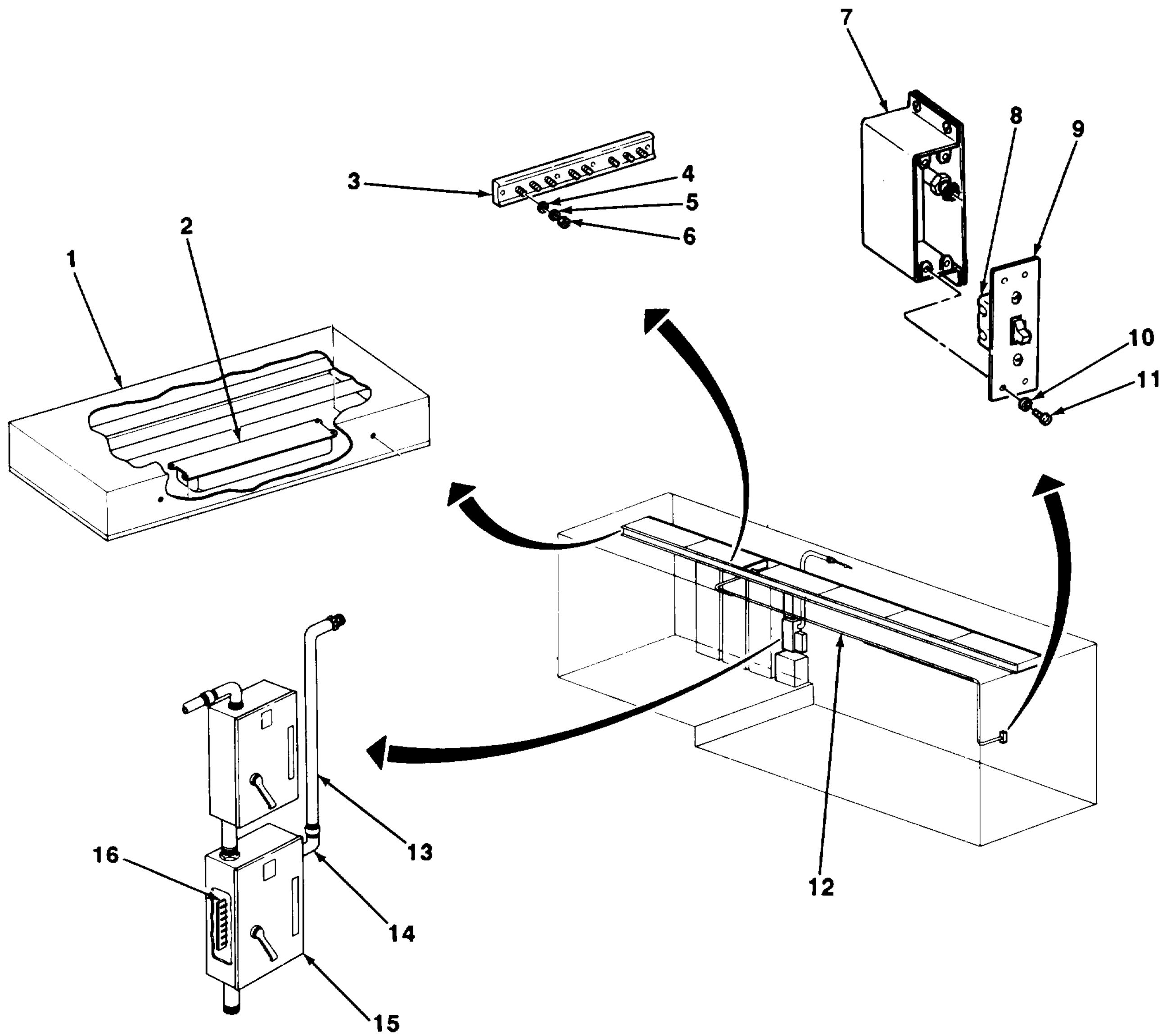
c. 110-VOLT DOMELIGHT SWITCH WIRING REMOVAL

1. Remove four screws (11) and flatwashers (10) from plate (9). Remove plate and switch (8) from junction box (7).
2. Tag and disconnect wires from switch (8).
3. Tag wires connected to terminal board (3). Refer to wiring diagrams (para 4-52). Remove nuts (6), Iockwashers (5), and flatwashers (4) securing wires to terminal board. Discard Iockwashers.
4. Pull wires through conduit (12) and remove.

d. 110-VOLT DOMELIGHT SWITCH WIRING INSTALLATION

1. Feed wires through conduit (12).
2. Connect wires to switch (8). Remove tags.
3. Install switch (8) and plate (9) on junction box (7) using four screws (11) and flatwashers (10).
4. Connect wires to terminal board (3) using flatwashers (4), new Iockwashers (5), and nuts (6). Remove tags.

4-42. 110-VOLT FLUORESCENT LIGHT FIXTURE AND DOMELIGHT SWITCH WIRING REPLACEMENT (M348A2H) (Con't).



e. FLUORESCENT LIGHTING FIXTURE WIRING REMOVAL

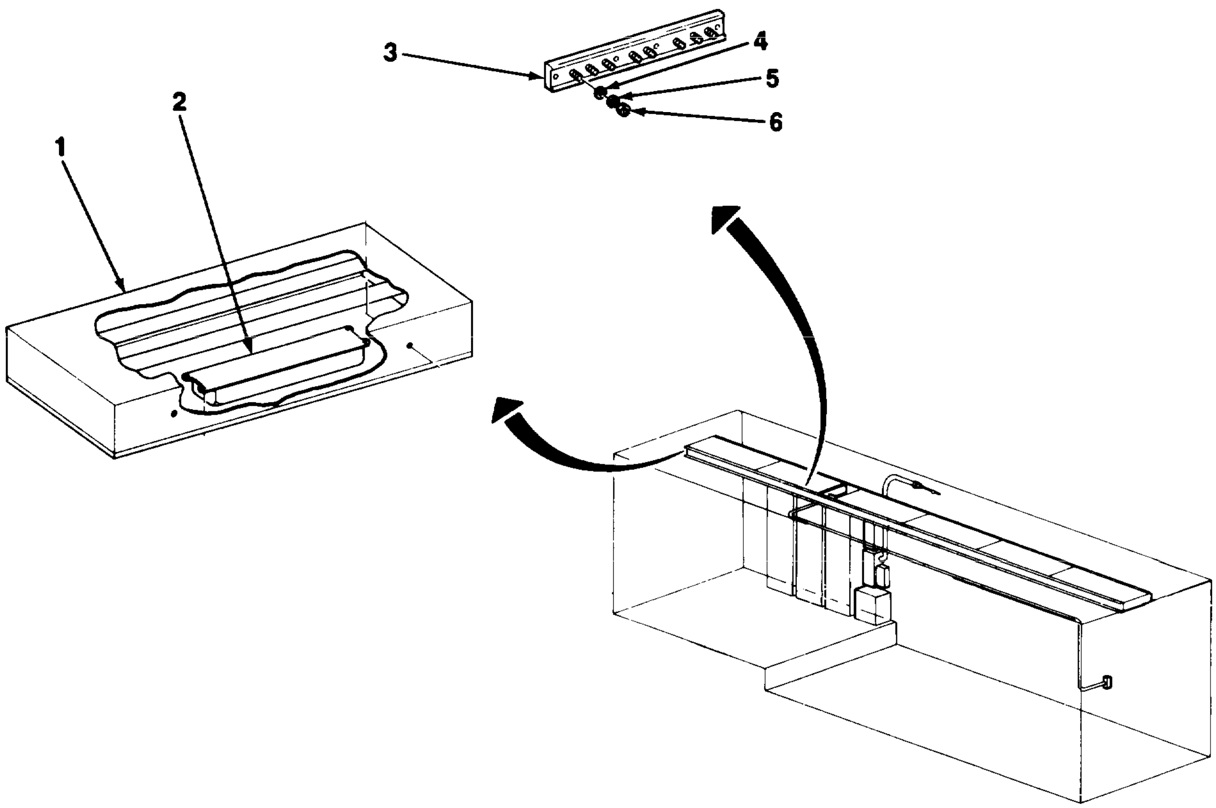
1. Tag wires connected to terminal board (3). Remove nuts (6), lockwashers (5), and flatwashers (4) securing wires to terminal board. Refer to wiring diagrams (para 4-52). Discard lockwashers.
2. Release cover fasteners and open fluorescent light fixture (l).
3. Tag and cut wires on line and load sides of ballast (2) as close as possible to splices. Remove wires.

TA700204

4-42. 110-VOLT FLUORESCENT LIGHT FIXTURE AND DOMELIGHT SWITCH WIRING REPLACEMENT (M348A2H) (Con't).

If. FLUORESCENT LIGHTING FIXTURE WIRING INSTALLATION 1

1. Splice new wires to line and load sides of ballast (2). Wrap splices with electrical tape. Remove tags.
2. Close fluorescent light fixture (1) and latch cover fasteners.
3. Connect wires to terminal board (3) using flatwashers (4), new lockwashers (5), and nuts (6). Remove tags.



FOLLOW-ON TASKS:

- Connect 110-volt power to semitrailer.
- Check operation of all components connected to replaced wiring.

TA700205

4-43. AIR CONDITIONER WIRING HARNESS REPLACEMENT (M348A2H).

This Task Covers:

a. Removal

b. Installation

Initial Setup:

Equipment Conditions:

- 110-volt power disconnected from semitrailer.

Tools/Test Equipment

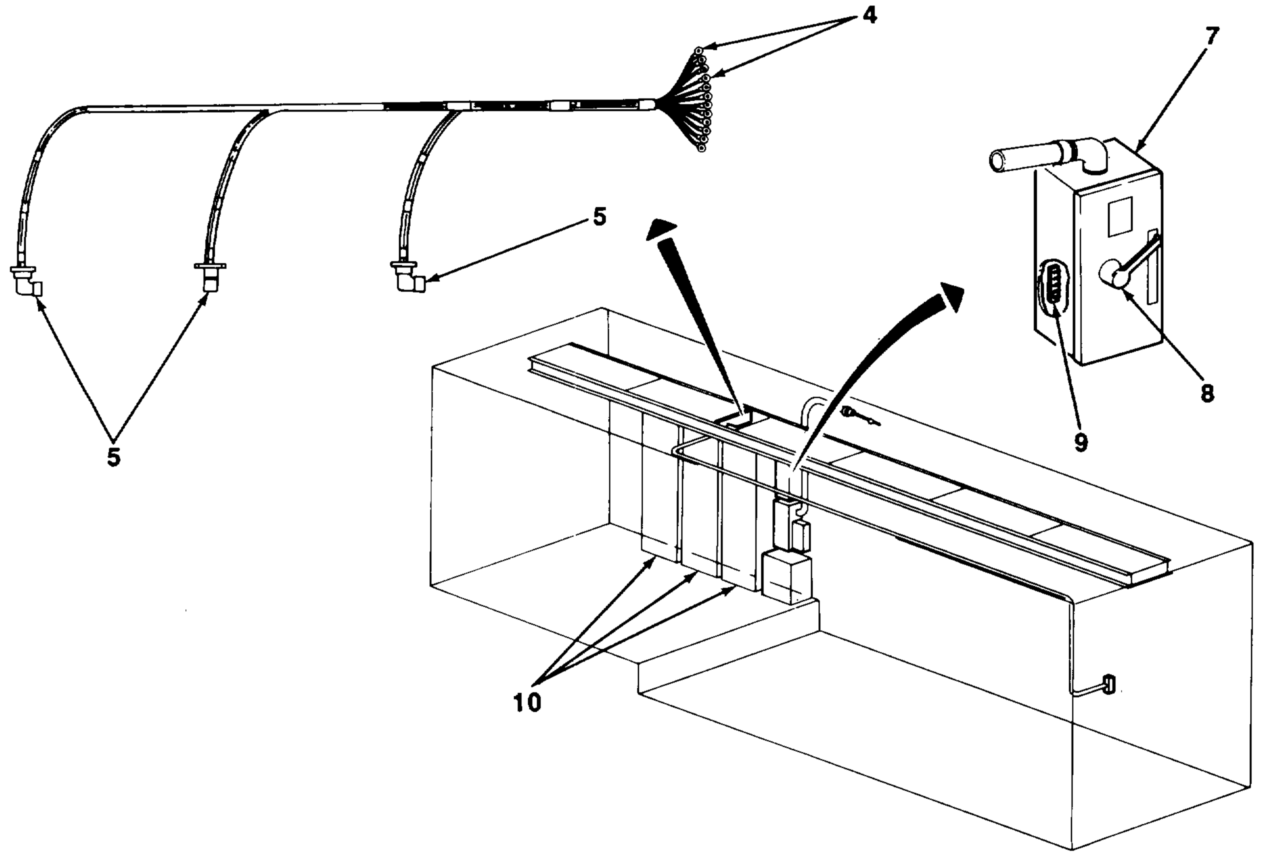
- General mechanic's tool kit

Materials/Parts:

- Marker tags (Item 24, Appendix E)

a. REMOVAL

1. Disconnect connector (5) from each air conditioner (10).
2. Open hinged door of upper circuit breaker box (7).
3. Tag and disconnect 12 terminal lugs (4) from circuit breaker (8) and terminal board #1 (9).



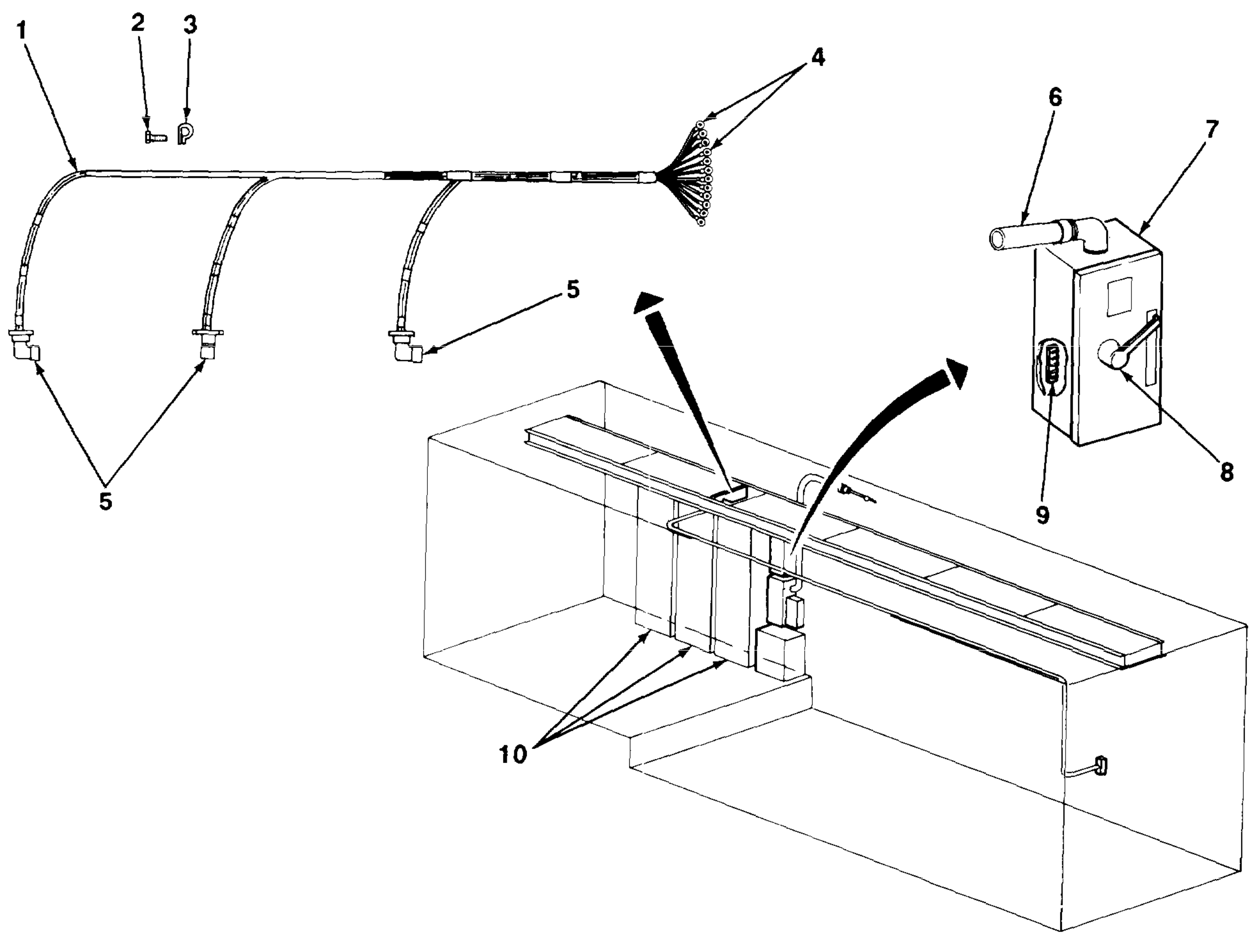
TA700206

4-43. AIR CONDITIONER WIRING HARNESS REPLACEMENT (M348A2H) (Con't).

4. Remove six screws (2) and clamps (3) securing wiring harness (1) to semitrailer wall. Pull wiring harness through conduit (6) on upper circuit breaker box (7) and remove.
5. Remove six clamps (3) from wiring harness (1).

b. INSTALLATION

1. Install six clamps (3) on wiring harness (1).
2. Feed wiring harness (1) through conduit (6) and into upper circuit breaker box (7).
3. Connect 12 terminal lugs (4) to circuit breaker (8) and terminal board #1 (9). Remove tags. Close hinged door of upper circuit breaker box (7).
4. Secure clamps (3) to semitrailer wall using six screws (2),
5. Connect connector (5) to each air conditioner (10).



FOLLOW-ON TASKS:

- Connect 110-volt power to semitrailer.
- Check operation of air conditioner (para 2-15).

TA700207

4-44. 110-VOLT WIRING REPLACEMENT (M373A5).

This Task Covers:

a. Removal

b. Installation

initial Setup:

Equipment Conditions:

- 110-volt power disconnected from semitrailer.

Tools/Test Equipment:

- General mechanic's tool kit

Materials/Parts:

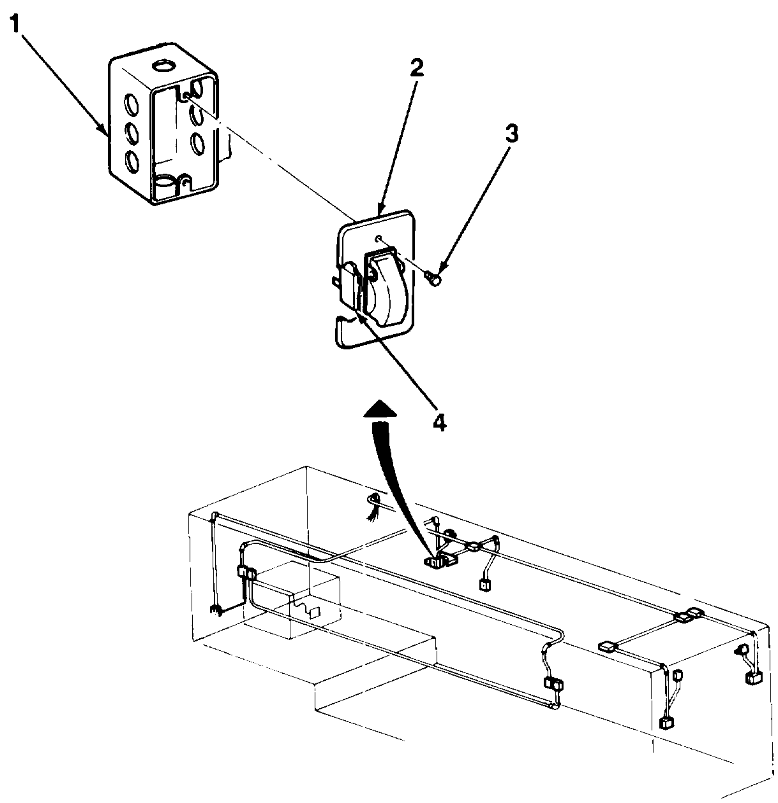
- Marker tags (Item 24, Appendix E)
- One gasket

a. REMOVAL

NOTE

Refer to wiring diagrams (para 4-52) before performing this procedure. Disconnect wiring only from the required switches or receptacles.

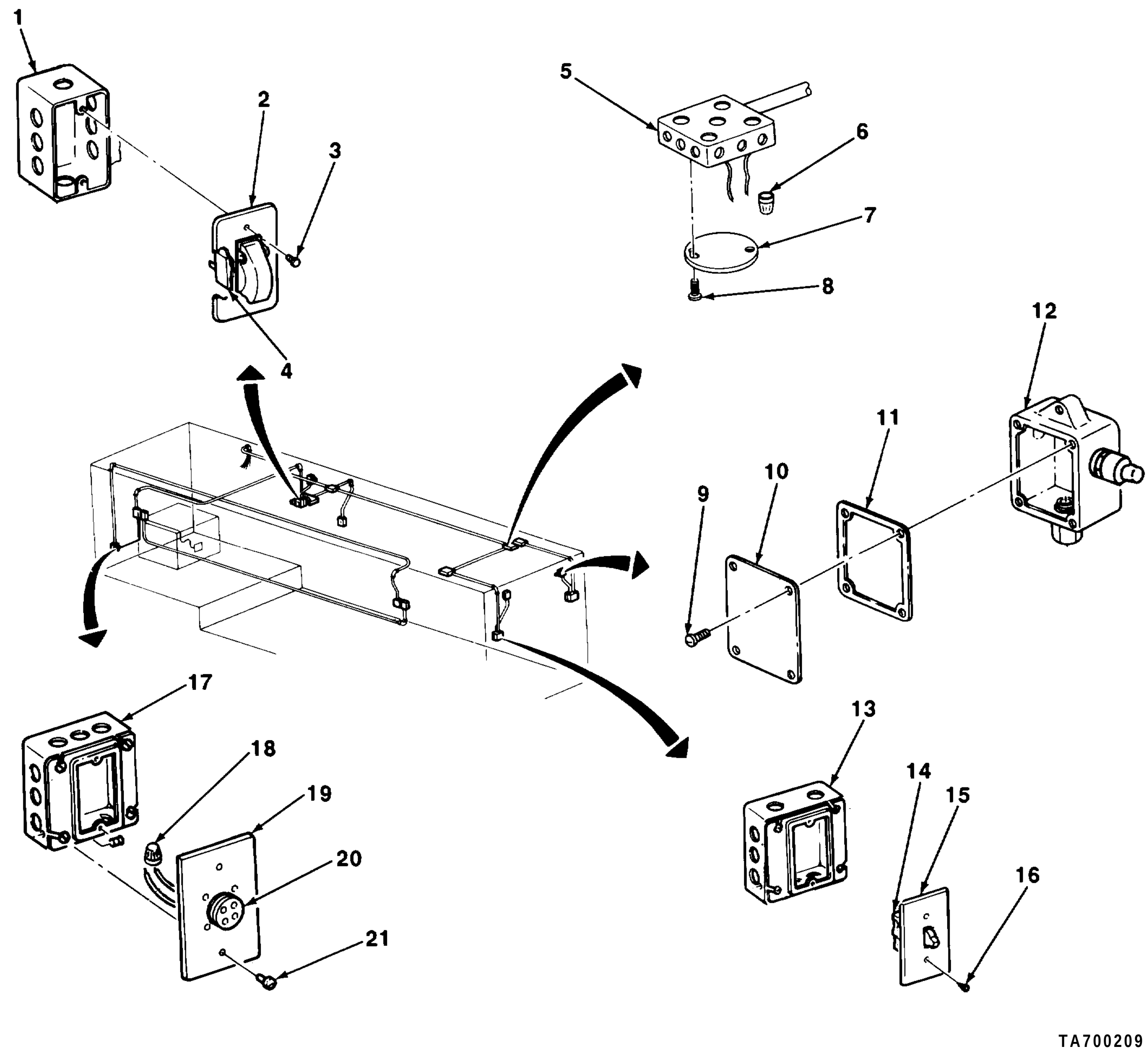
1. Remove two screws (3) from plate (2) and junction box (1). Remove plate and blackout override switch (4) from junction box.



TA700208

4-44. 110-VOLT WIRING REPLACEMENT (M373A5) (Con't).

2. Tag and disconnect wires from blackout override switch (4).
3. Remove two screws (21) from plate (19) and cover (17). Remove plate and service receptacle (20) from cover.
4. Tag wires connected to service receptacle (20). Remove wirenuts (18) and disconnect wires from service receptacle.
5. Remove two screws (16) from cover (15) and junction box (13). Remove cover and domelight switch (14) from junction box.
6. Tag and disconnect wires connected to domelight switch (14).
7. Remove four screws (9), cover (10), and gasket (11) from door-operated blackout switch (1 2). Discard gasket.



4-44. 110-VOLT WIRING REPLACEMENT (M373A5) (Con't).

8. Tag and disconnect wires connected to door-operated blackout switch (12).
9. Remove two screws (8) and cover (7) from each junction box (5).
10. Tag all wires inside junction boxes. Remove wirenuts (6) and disconnect wires.
11. Pull wires through conduit and remove.

b. INSTALLATION

1. Thread wires through conduit.
2. Inside junction boxes (5), twist wires together and secure with wirenuts (6). Remove tags.
3. Install cover (7) on each junction box (5) using two screws (8).
4. Connect wires to door-operated blackout switch (12). Remove tags.
5. Install cover (10) and new gasket (11) on door-operated blackout switch (12) using four screws (9).
6. Connect wires to dome light switch (14). Remove tags.
7. Install domelight switch (14) and cover (15) in junction box (13) using two screws (16).
8. Connect wires to service receptacle (20) and secure with wirenuts (18). Remove tags.
9. Install service receptacle (20) and plate (19) on cover (17) using two screws (21).
10. Connect wires to blackout override switch (4). Remove tags.
11. Install blackout override switch (4) and plate (2) on junction box (1) using two screws (3).

FOLLOW-ON TASKS:

- Connect 110-volt power to semitrailer.
- Check operation of all components connected to replaced wiring.

4-45. AIR CONDITIONER THERMOSTAT EXTENSION CABLE ASSEMBLY REPLACEMENT (M373A5).

This Task Covers:

a. Removal   b. Installation

Initial Setup:

Equipment Conditions:

- 110-volt power disconnected from semitrailer.

Tools/Test Equipment:

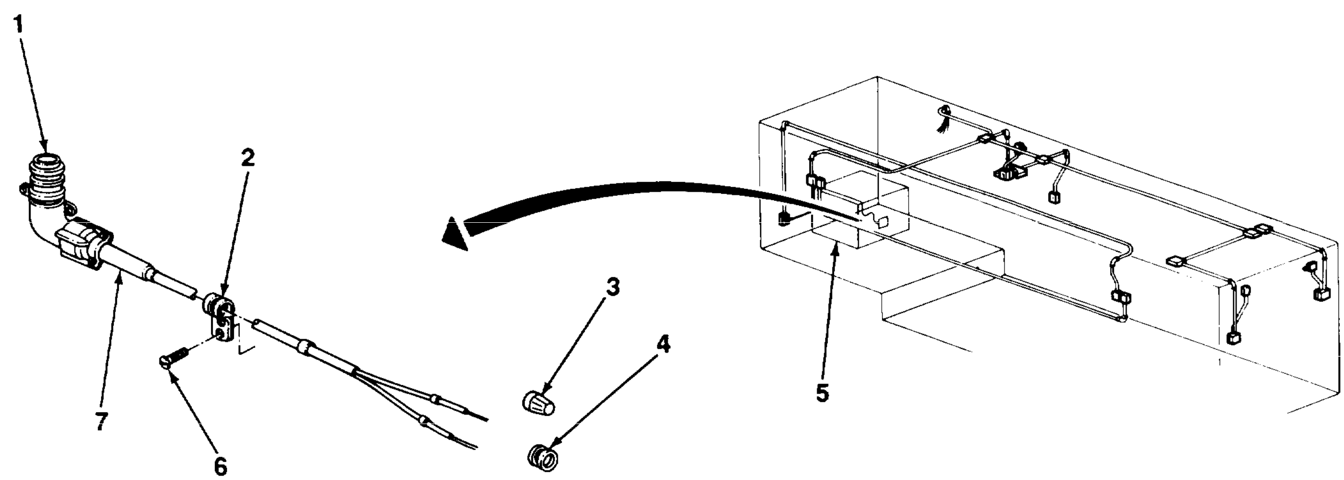
- General mechanic's tool kit

Materials/Parts:

- Marker tags (Item 24, Appendix E)

a. REMOVAL

1. Tag wiring inside air conditioner (5), Remove two wirenuts (3) and disconnect cable assembly (7) from air conditioner.
2. Remove ten screws (6) and clamps (2) from cable assembly (7).
3. Unplug cable assembly connector plug (1) from service receptacle.
4. Pull cable assembly (7) through grommet (4) in air conditioner (5) and remove.
5. If damaged, remove grommet (4) from air conditioner (5) and discard.



TA700210

4-45. AIR CONDITIONER THERMOSTAT EXTENSION CABLE ASSEMBLY REPLACEMENT (M373A5) (Con't).

b. INSTALLATION

1. If removed, install new grommet (4) in air conditioner (5),
2. Pull cable assembly (7) through grommet (4) and position for installation.
3. Twist together air conditioner wiring and cable assembly wiring. Secure with two wirenuts (3). Remove tags.
4. Plug cable assembly connector plug (1) into service receptacle.
5. Install ten clamps (2) around cable assembly (7) and secure with screws (6).

FOLLOW-ON TASKS:

- Connect 110-volt power to semitrailer.
- Check operation of air conditioner (para 2-17).

4-46. AIR CONDITIONER CABLE ASSEMBLY REPLACEMENT (M373A5 AND M373A2D).

This Task Covers:

a. Removal

b. Installation

Initial Setup:

Equipment Conditions:

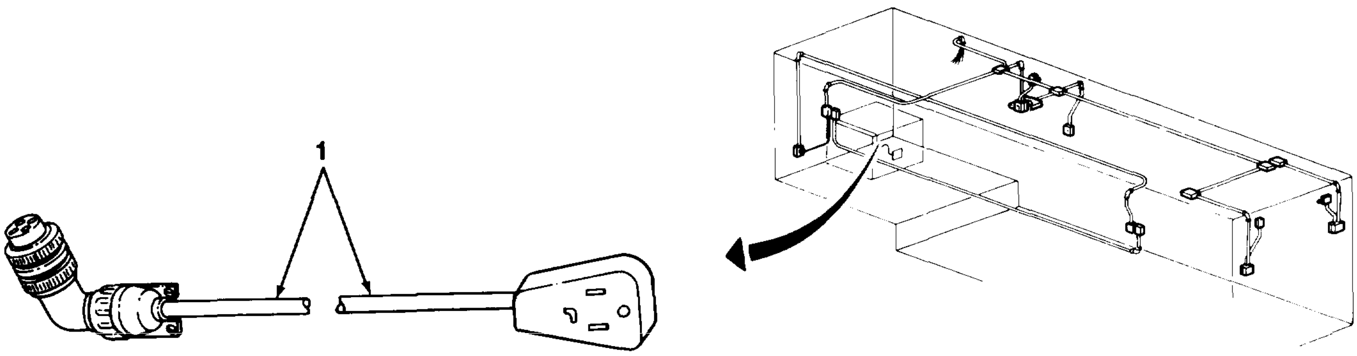
- 110-volt power disconnected from semitrailer.

Tools/Test Equipment:

- General mechanic's tool kit

a. REMOVAL

Unplug both ends of cable assembly (l). Remove cable assembly.



b. INSTALLATION

Plug in both ends of cable assembly (l).

FOLLOW-ON TASKS:

- Connect 110-volt power to semitrailer.
- Check operation of air conditioner (para 2-16 or 2-17).

TA700211

4-47. HEATER POWER CABLE AND THERMOSTAT CABLE REPLACEMENT (M373A5).

This Task Covers:

a. Removal
b. Installation

Initial Setup:

Equipment Conditions:

- 110-volt power disconnected from semitrailer.

Tools/Test Equipment:

- General mechanic's tool kit

Materials/Parts:

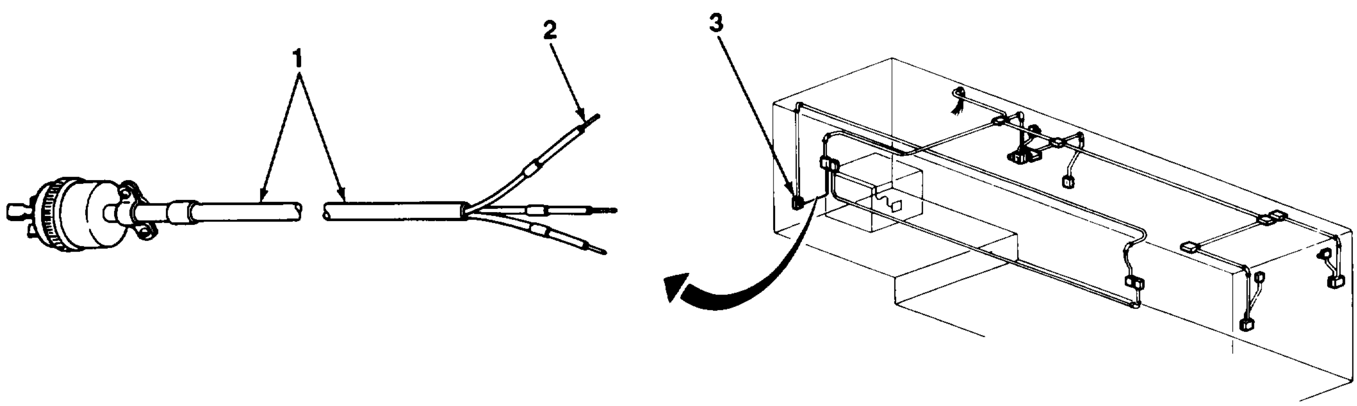
- Marker tags (Item 24, Appendix E)

NOTE

The heater power cable and thermostat cable are replaced the same way. This task can be used for either cable.

a. REMOVAL

1. Unplug cable (1) from service receptacle (3) and heater.
2. Tag wires (2) and remove plug from wires. Plug is furnished with heater and must be retained for installation.



b. INSTALLATION

1. install plug on wires (2) and remove tags.
2. Plug cable (1) into service receptacle (3) and heater.

FOLLOW-ON TASKS:

- Connect 110-volt power to semitrailer.
- Check operation of heater (para 2-18).

TA700212

4-48. TELEPHONE WIRING, JUNCTION BOX, AND PLUG REPLACEMENT (M373A3, M373A4 AND M373A5).

This Task Covers:

a. Removal
b. Installation

Initial Setup:

Equipment Conditions:

- External power disconnected from semitrailer.
- Telephones removed (refer to applicable technical manual).

Tools/Test Equipment:

- General mechanic's tool kit

Materials/Parts:

- Marker tags (Item 24, Appendix E)
- Two locknuts

Personnel Required: Two

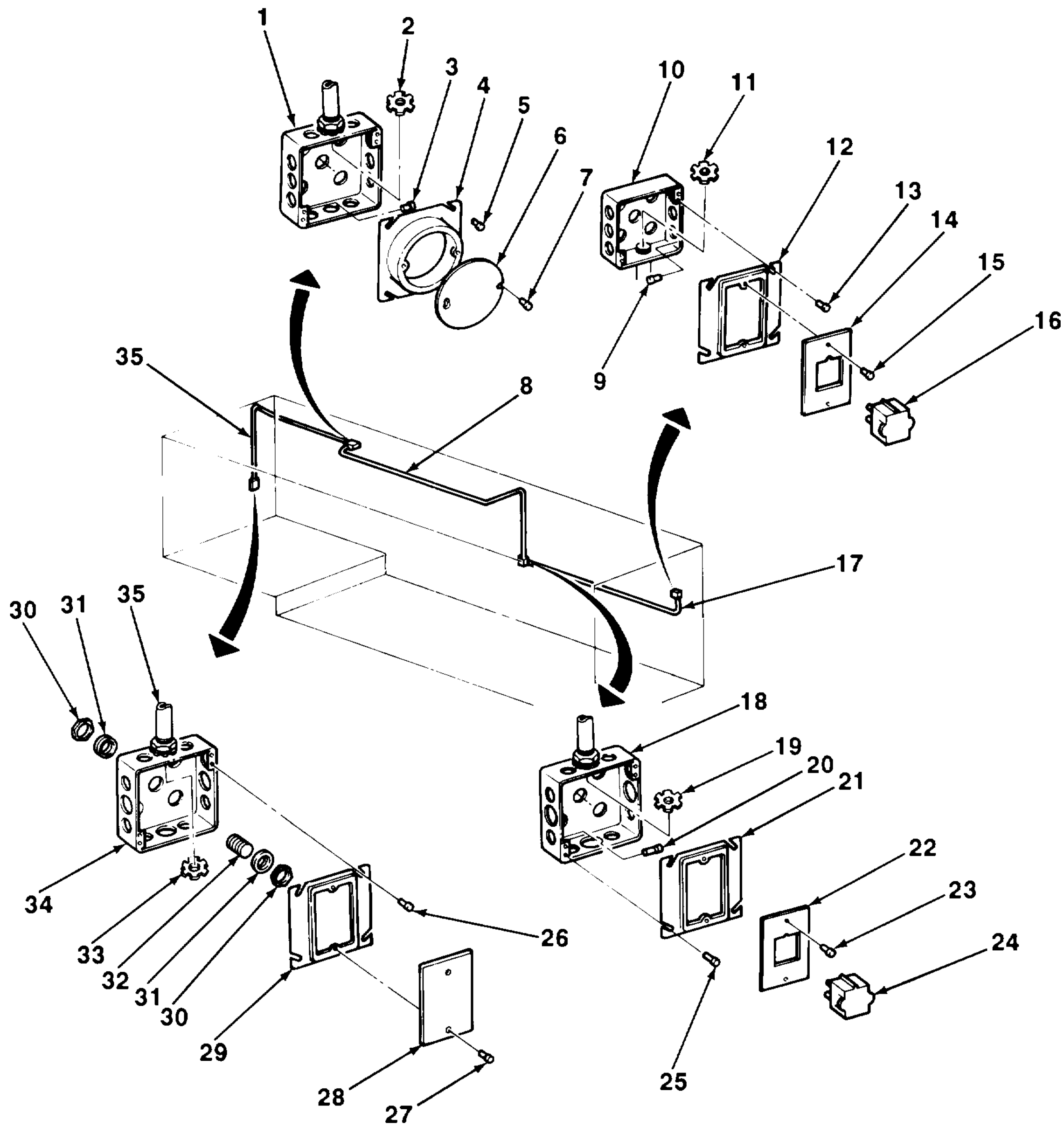
a. REMOVAL

NOTE

M373A5 is illustrated. M373A3 and M373A4 are similar.

1. Remove two screws (15) and plate (14) from cover (1 2).
2. Tag and disconnect wires from plug (16). Remove plug from plate (14).
3. Remove two screws (13) and cover (12) from junction box (10).
4. Remove nut (11) from inside junction box (10),
5. Remove two screws (9) and junction box (10).
6. Remove two screws (23) and plate (22) from cover (21).
7. Tag and disconnect wires from plug (24). Remove plug from plate (22).
8. Remove two screws (25) and cover (21) from junction box (18).
9. Remove two nuts (19) from inside junction box (18),
10. Pull wiring from rear plug (16) forward through conduit (17) and out of junction box (1 8).
11. Remove two screws (20) and junction box (18).
12. Remove two screws (7) and cover (6) from cover (4).
13. Remove two screws (5) and cover (4) from junction box (1).
14. Tag and disconnect wires inside junction box (l). Pull wiring from two plugs (16 and 24) forward through conduit (8) and out of junction box.
15. Remove two nuts (2) from inside junction box (l).
16. Remove two screws (3) and junction box (1).
17. Remove two screws (27) and plate (28) from cover *(29).*

4-48. TELEPHONE WIRING, JUNCTION BOX, AND PLUG REPLACEMENT (M373A3, M373A4, AND M373A5) (Con't).



18. Remove two screws (26) and cover (29) from junction box (34). Pull wiring from junction box (1) forward through conduit (35) and out of junction box.

19. Remove nut (33) from inside junction box (34)

20. With one person working inside semitrailer and one person working outside semitrailer, remove two locknuts (30) and bushings (31) from nipple (32). Discard locknuts.

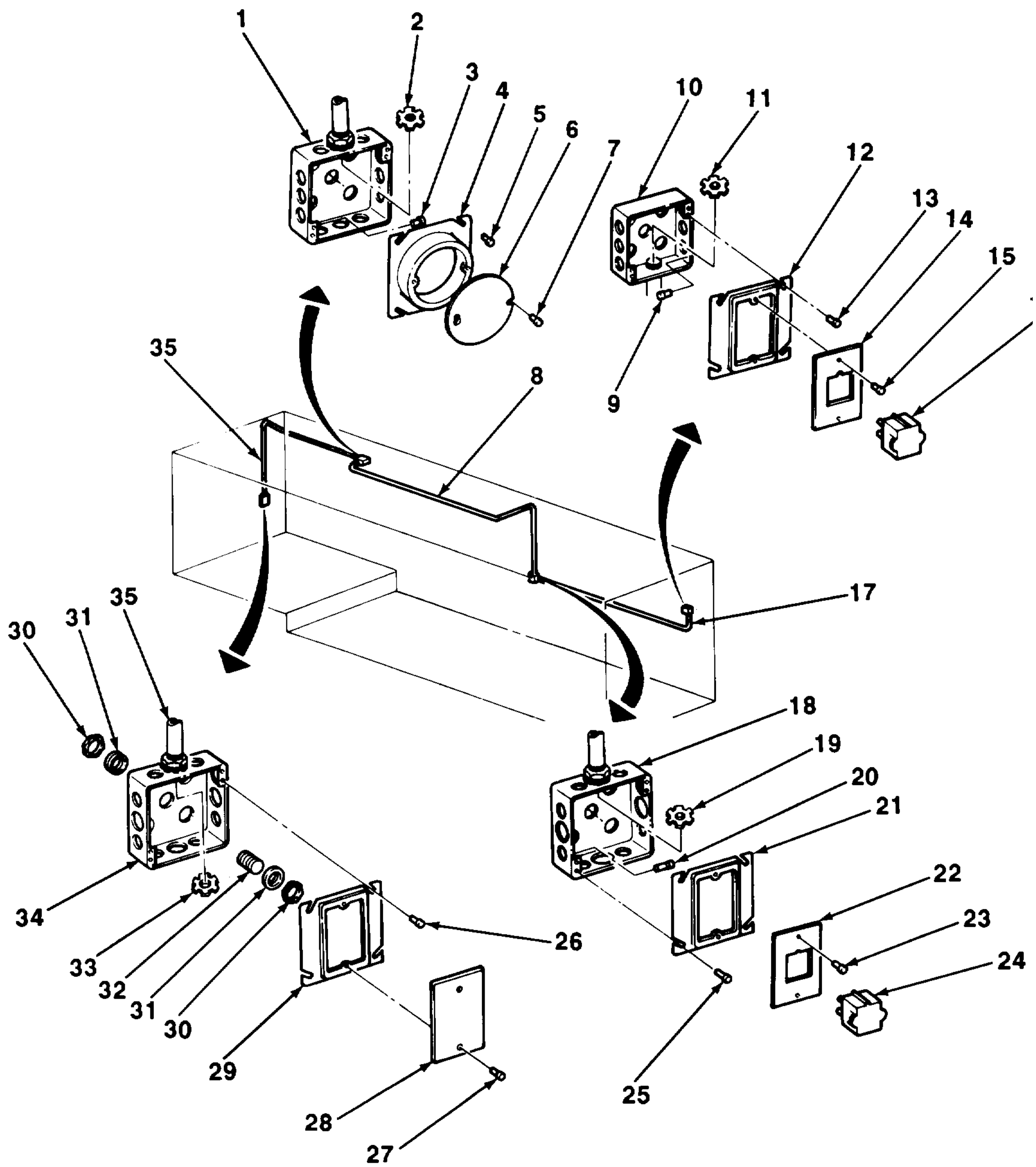
21. Remove junction box (34) and nipple (32).

TA700213

4-48. TELEPHONE WIRING, JUNCTION BOX, AND PLUG REPLACEMENT (M373A3, M373A4, AND M373A5) (Con't).

b. INSTALLATION

1. With one person working inside semitrailer and one person working outside semitrailer, install junction box (34) and nipple (32) using two bushings (31) and new locknuts (30).
2. Install nut (33) on conduit (35) entering junction box (34).
3. Feed wiring rearward through conduit (35) until it reaches junction box (1).
4. Install cover (29) on junction box (34) using two screws (26).



TA700214

4-48. TELEPHONE WIRING, JUNCTION BOX, AND PLUG REPLACEMENT (M373A3, M373A4, AND M373A5) (Con't).

5. Install plate (28) on cover (29) using two screws (27).
6. Install junction box (1) using two screws (3).
7. Install two nuts (2) on conduit (8 and 35) entering junction box (l).
8. Feed wiring for two plugs (16 and 24) rearward through conduit (17).
9. Connect wires inside junction box (l). Remove tags.
10. Install cover (4) on junction box (1) using two screws (5).
11. Install cover (6) on cover (4) using two screws (7).
12. Install junction box (18) using two screws (20).
13. Install two nuts (19) on conduit (8 and 17) entering junction box (18).
14. Feed wiring to rear plug (16) rearward through conduit (17).
15. install cover (21) on junction box (18) using two screws (25).
16. Install plug (24) in plate (22).
17. Connect wires to plug (24). Remove tags.
18. Position plug (24) and plate (22) on cover (21) with keyway of plate pointing up. Install two screws *(23).*
19. Install junction box (10) using two screws (9).
20. Install nut (11) on conduit (17) entering junction box (10).
21. Install cover (12) on junction box (10) using two screws (13).
22. Install plug (16) in plate (14).
23. Connect wires to plug (16). Remove tags.
24. Position plug (16) and plate (14) on cover (12) with keyway of plate pointing up. Install two screws (15).

FOLLOW-ON TASKS:

- Install telephones (refer to applicable technical manual).
- Connect external power to semitrailer.
- Check operation of telephones.

4-49. MAIN WIRING HARNESS REPAIR.

This Task Covers:

a. Receptacle Connector Repair
b. Terminal Lug Replacement
c. Terminal Assembly Replacement
d. Marker Band Replacement

initial Setup:

Equipment Conditions:

- Main wiring harness removed (para 4-37).

Tools/Test Equipment:

- General mechanic's tool kit
- Electric etcher
- Soldering iron

Materials/Parts

- Solder (Item 23, Appendix E)
- Inserts (as required)
- Marker bands (as required)
- Terminals (as required)

a. RECEPTACLE CONNECTOR REPAIR

1. Remove receptacle connector (3) from grommet retaining nut (1).
2. Remove grommet (4) from receptacle connector (3). Cut insert (5) from wire (2). Discard insert.
3. Remove grommet (4), receptacle connector (3), and grommet retaining nut (1) from wire (2).
4. Strip insulation off wire (2) equal to depth of new insert (5).
5. Thread wire (2) through grommet retaining nut (l), receptacle connector (3), and grommet (4).
6. Solder new insert (5) onto wire (2).
7. Press grommet (4) into receptacle connector (3) until seated.
8. Tighten grommet retaining nut (1) on receptacle connector (3).

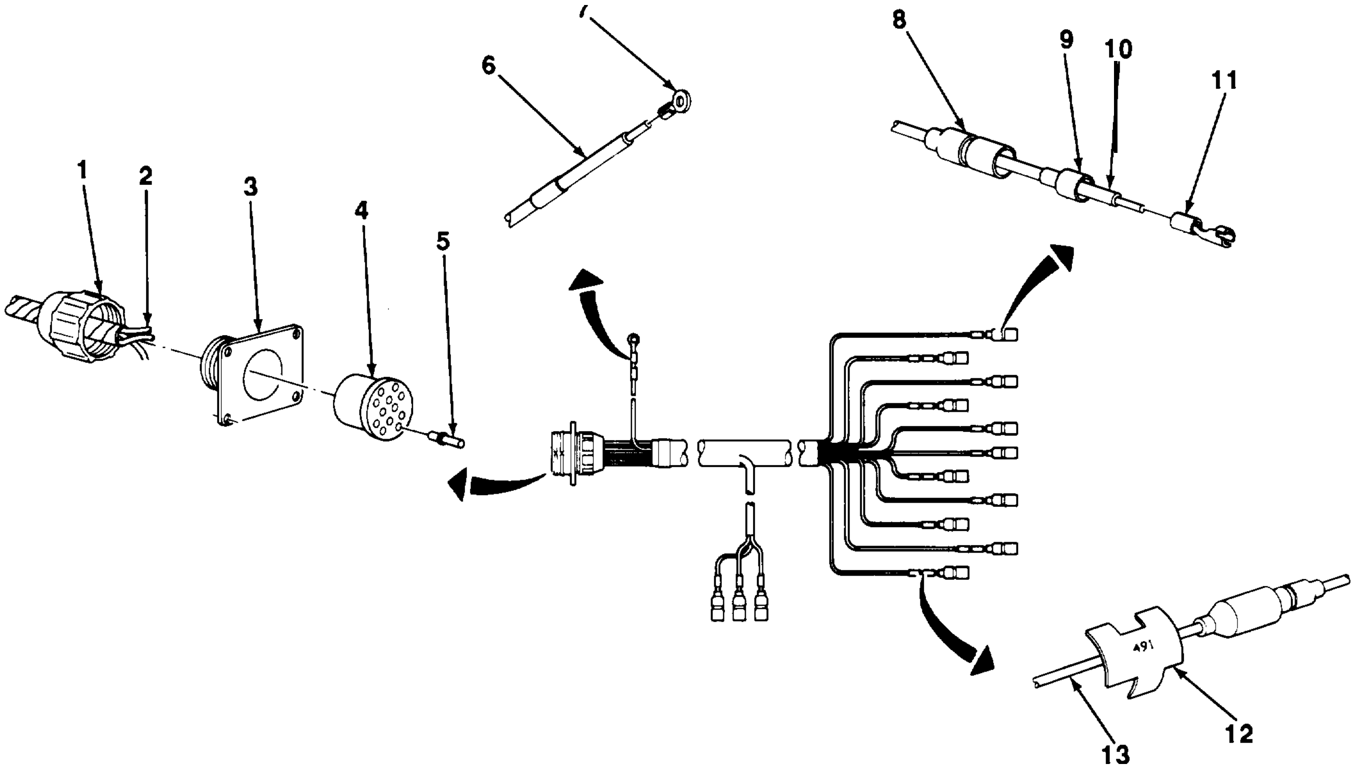
b. TERMINAL LUG REPLACEMENT

1, Cut off and discard terminal lug (7).
2, Strip wire (6) to depth of new terminal lug (7).
3. Crimp new terminal lug (7) onto wire (6).

c. TERMINAL ASSEMBLY REPLACEMENT

1. Slide shell (8) and insulator (9) back.
2. Cut off and discard terminal assembly (11).
3. Slide insulator (9) and shell (8) off wire (1 O). Discard shell and Insulator if unserviceable.
4. Strip wire (10) to depth of new terminal assembly (1 1).
5. Slide shell (8) and insulator (9) over wire (10).

4-49. MAIN WIRING HARNESS REPAIR (Con't).



6. Crimp new terminal assembly (11) onto wire (10).
7. Slide Insulator (9) and shell (8) over terminal assembly (11).

d. MARKER BAND REPLACEMENT

1. Open tabs and remove marker band (12) from wire (13). Discard marker band.
2. Etch circuit number on new marker band (12). Refer to wiring diagrams (para 4-52).
3. Position new identification band (12) over wire (13) and bend over tabs.

FOLLOW-ON TASKS:

- Install main wiring harness (para 4-37).

TA700215

4-50. ROOF WIRING HARNESS REPAIR.

This Task Covers:

a. Pin Replacement
b. Terminal Lug Replacement
c. Marker Band Replacement
d. Terminal Replacement
e. Plug Replacement

Initial Setup:

Equipment Conditions:

- Roof wiring harness removed (para 4-40).

Tools/Test Equipment:

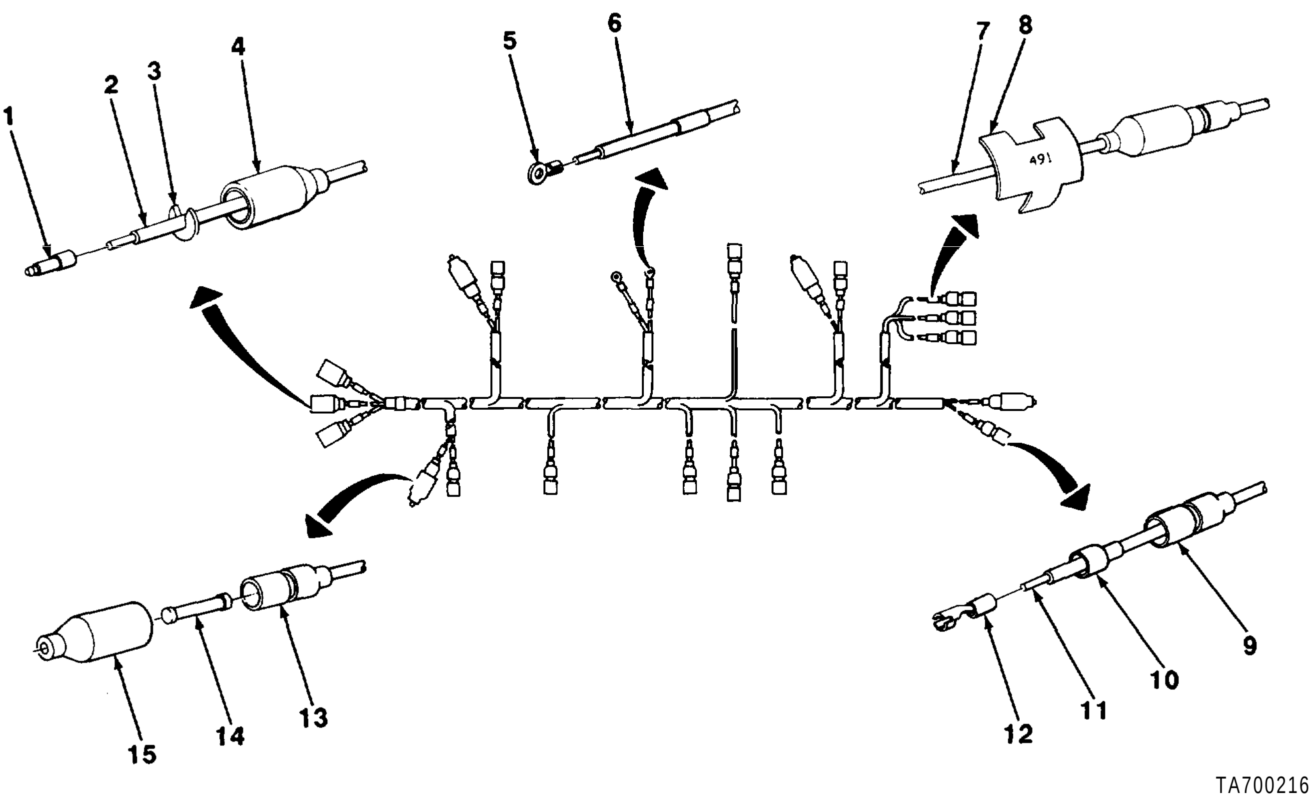
- General mechanic's tool kit
- Electric etcher

Materials/Parts:

- Marker bands (as required)
- Pins (as required)
- Plugs (as required)
- Terminals (as required)
- Terminal lugs (as required)

a. PIN REPLACEMENT

1. Slide shell (4) back and remove washer (3) from wire (2). Cut pin (1) from wire and discard. Remove shell.
2. Strip wire (2) to depth of new pin (1).
3. Slide shell (4) over wire (2).
4. Crimp new pin (1) onto wire (2).
5. Install washer (3) on wire (2). Slide shell (4) over wire (2).



4-50. ROOF HARNESS REPAIR (Con't).

b. TERMINAL LUG REPLACEMENT

1. Cut terminal (5) from wire (6) and discard.
2. Strip wire (6) to depth of new terminal (5).
3. Crimp new terminal (5) onto wire (6).

c. MARKER BAND REPLACEMENT

1. Remove marker band (8) from wire (7) and discard.
2. Etch circuit number on new marker band (8). Refer to wiring diagrams (para 4-52).
3. Position new marker band (8) on wire (7) and bend tabs over wire.

d. TERMINAL REPLACEMENT I

1. Slide shell (9) and sleeve (1 O) back and cut terminal (12) from wire (11). Discard terminal.
2. Remove sleeve (10) and shell (9) from wire (11).
3. Strip wire (11) to depth of new terminal (12).
4. Slide shell (9) and sleeve (10) over wire (1 1).
5. Crimp new terminal (12) on wire (1 1).
6. Slide sleeve (10) and shell (9) over terminal (12).

e. PLUG REPLACEMENT I

1. Remove shell (15) from shell (13).
2. Remove plug (14) from shell (15). Discard plug.
3. Install new plug (14) in shell (15).
4. Install shell (15) on shell (13).

FOLLOW-ON TASKS:

. Install roof wiring harness (para 4-40).

4-51. AIR CONDITIONER WIRING HARNESS REPAIR (M348A2H).

This Task Covers:

a. Connector Replacement
b. Terminal Lug Replacement

Initial Setup:

Equipment Conditions:

- Air conditioner wiring harness removed (para 4-43).

Tools/Test Equipment:

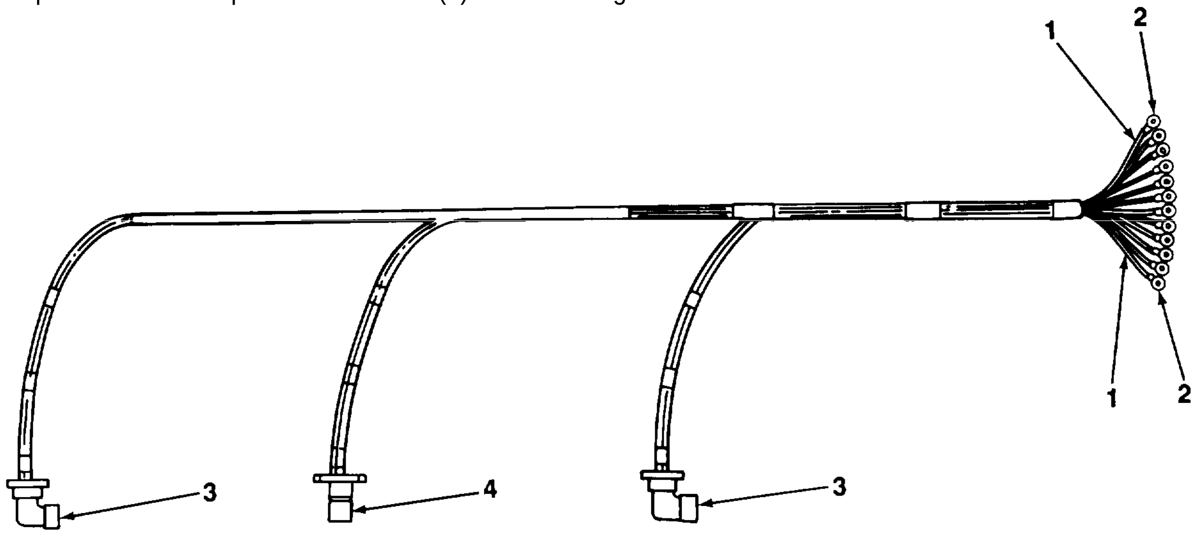
- General mechanic's tool kit
- Soldering iron

Materials/Parts:

- Solder (Item 23, Appendix E)
- Marker tags (Item 24, Appendix E)
- Connectors (as required)
- Terminals (as required)

a. CONNECTOR REPLACEMENT

1. Tag wires soldered to two connectors (3). Desolder wires and remove connectors.
2. Tag wires crimped on connector (4). Cut wires and remove connector.
3. Solder wires to two connectors (3). Remove tags.
4. Strip wires and crimp onto connector (4). Remove tags.



b. TERMINAL LUG REPLACEMENT

1. Cut terminal (2) off wire (1) and discard.
2. Strip wire (1) to depth of new terminal (2).
3. Crimp new terminal (2) onto wire (l).

FOLLOW-ON TASKS:

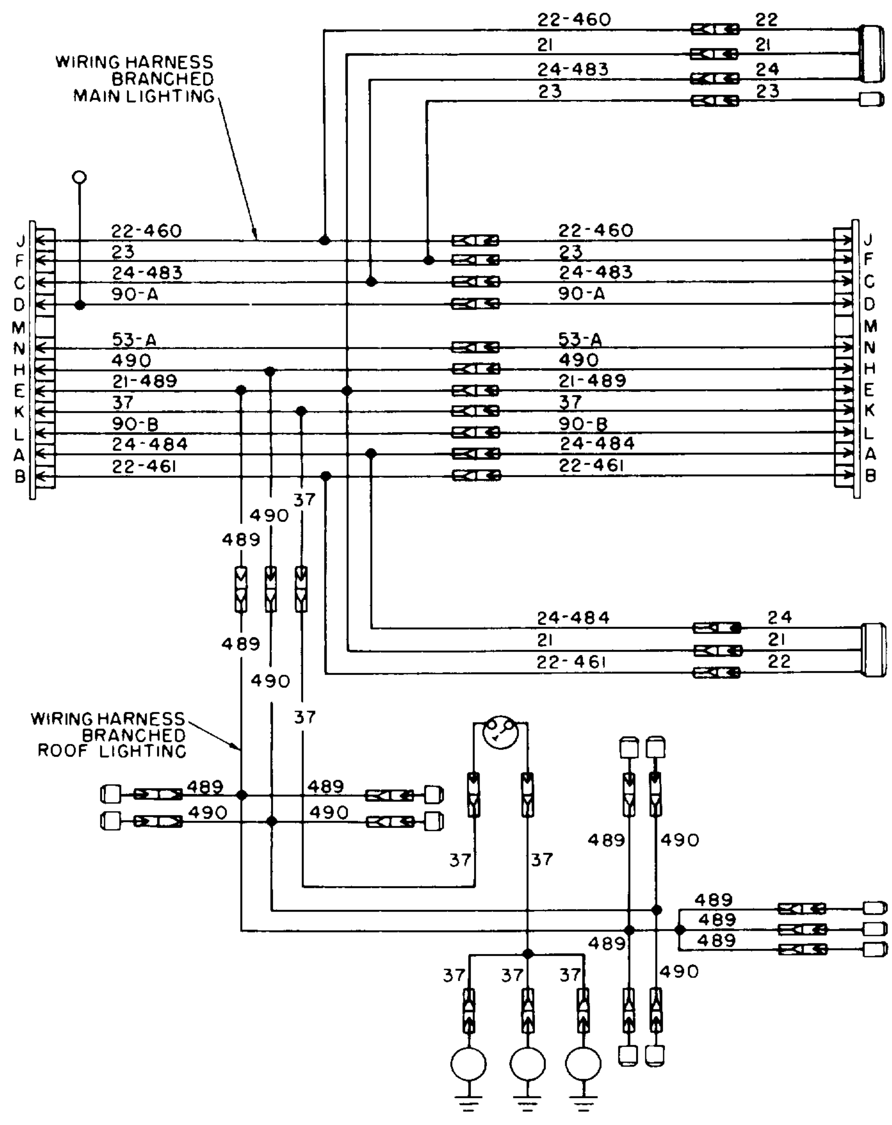
- Install air conditioner wiring harness (para 4-43).

TA700217

4-52. WIRING DIAGRAMS.

NOTE

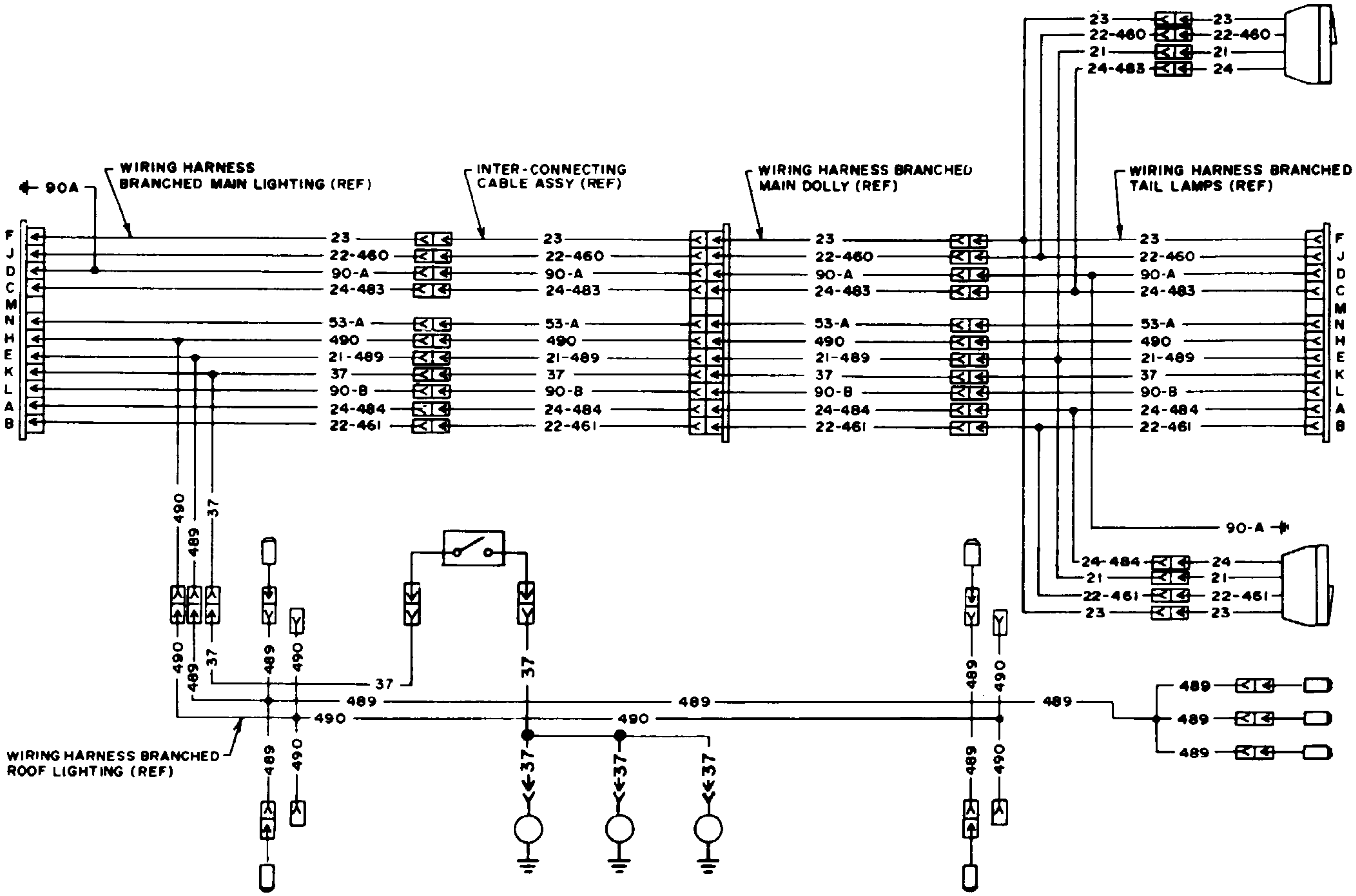
- **This paragraph contains the semitrailer wiring diagrams. Refer to these diagrams when performing electrical troubleshooting and when performing electrical repair and maintenance.**
- **For information on manufacturing wiring harnesses, refer to Appendix F.**



24-VOLT M348A2 AND M348A2G {EARLY MODEL)

TA700218

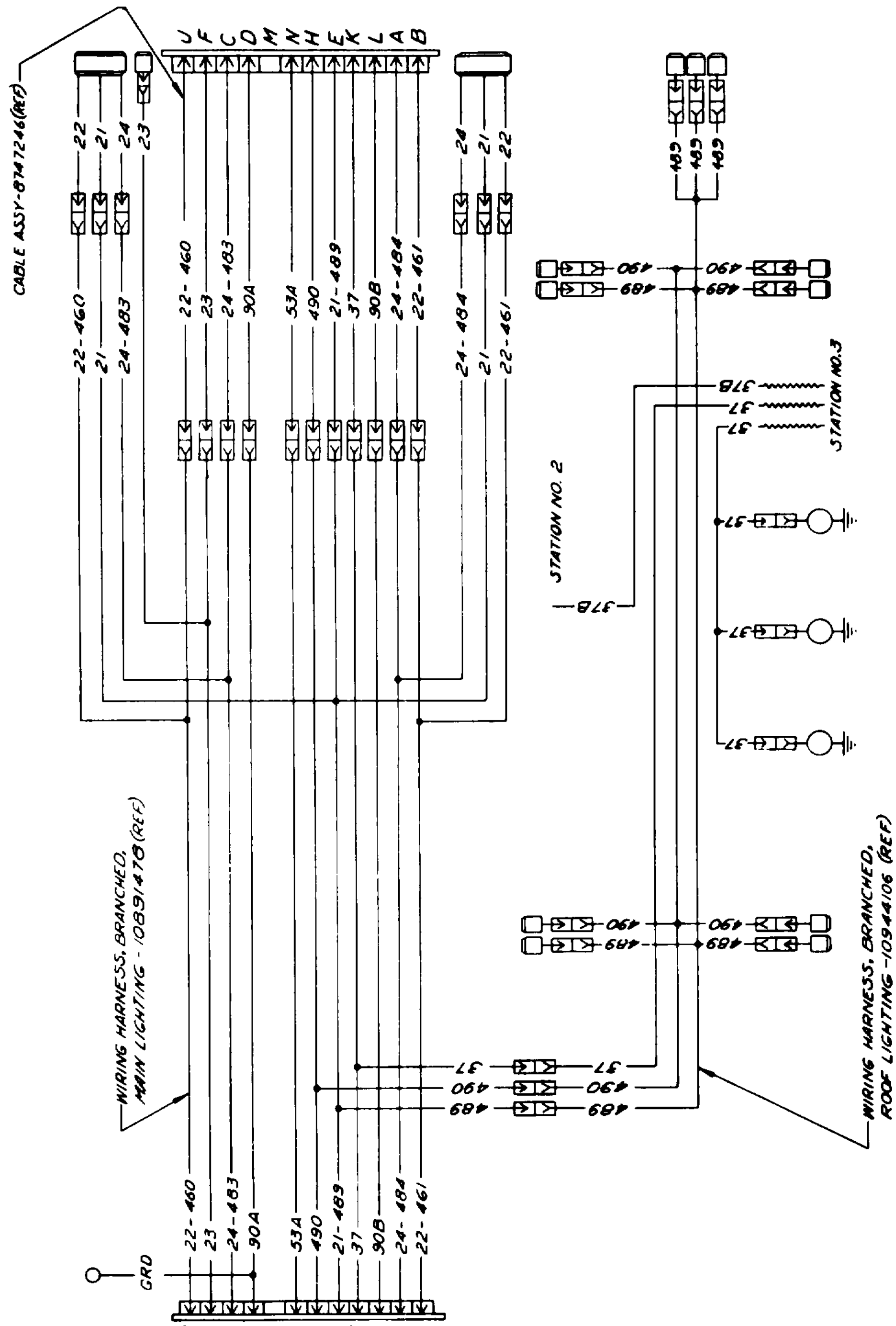
4-52. WIRING DIAGRAMS (Con't).



TA700219

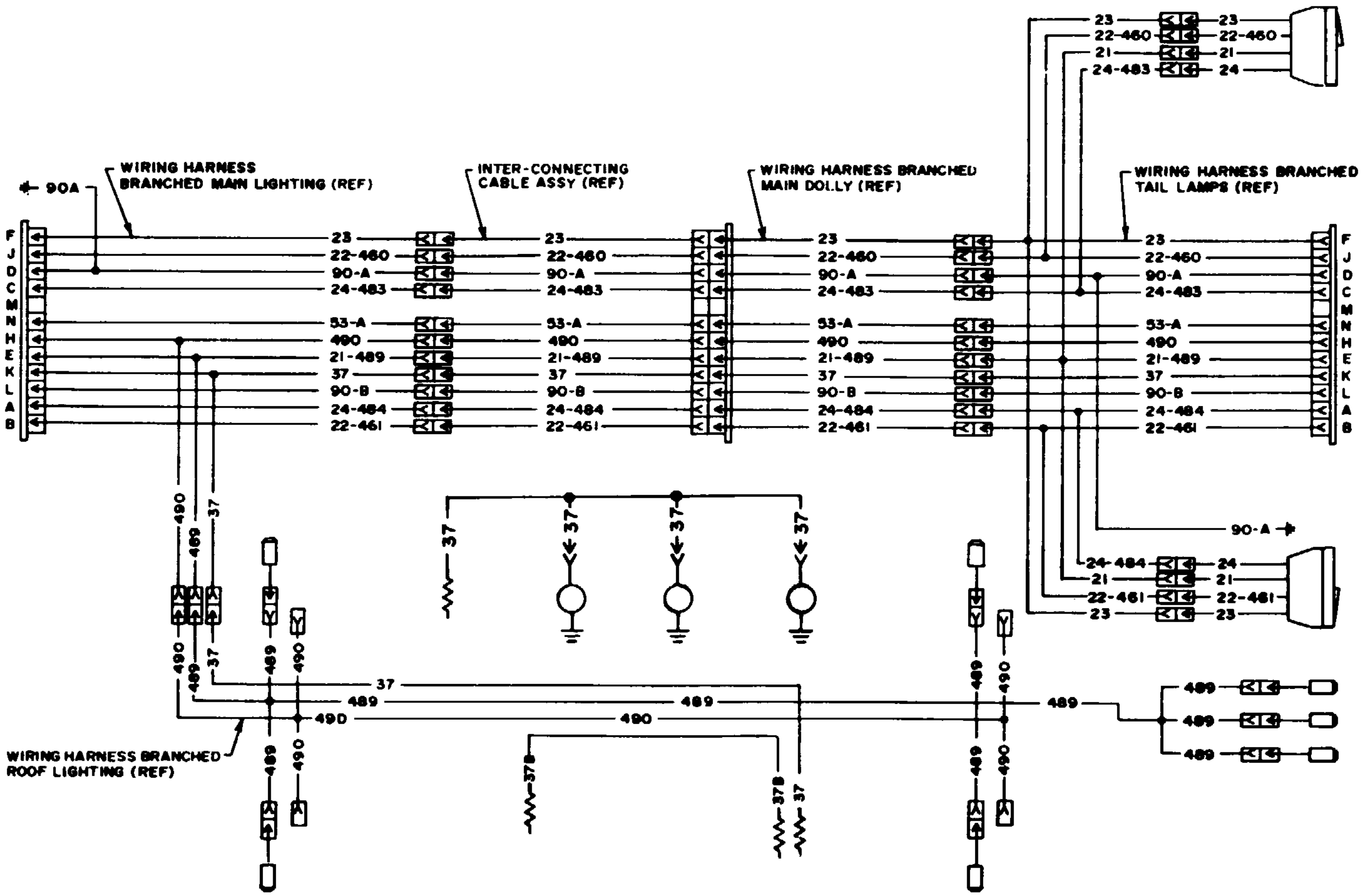
24-VOLT, M348A2 AND M348A2G (LATE MODEL)

4-52. WIRING DIAGRAMS (Con't).



TA700220

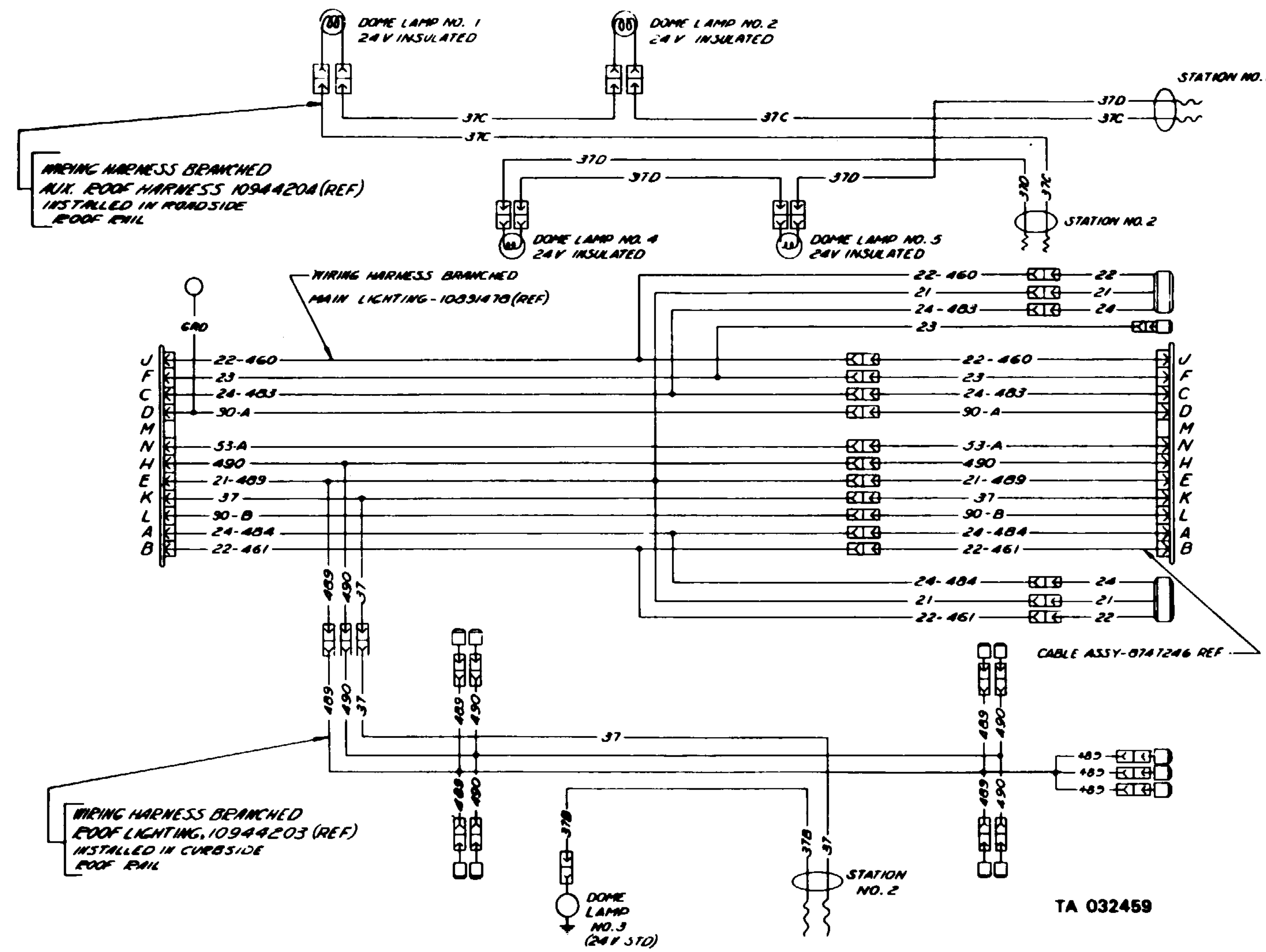
4-52. WIRING DIAGRAMS (Con't).



24-VOLT, M348A2C (LATE MODEL)

TA700221

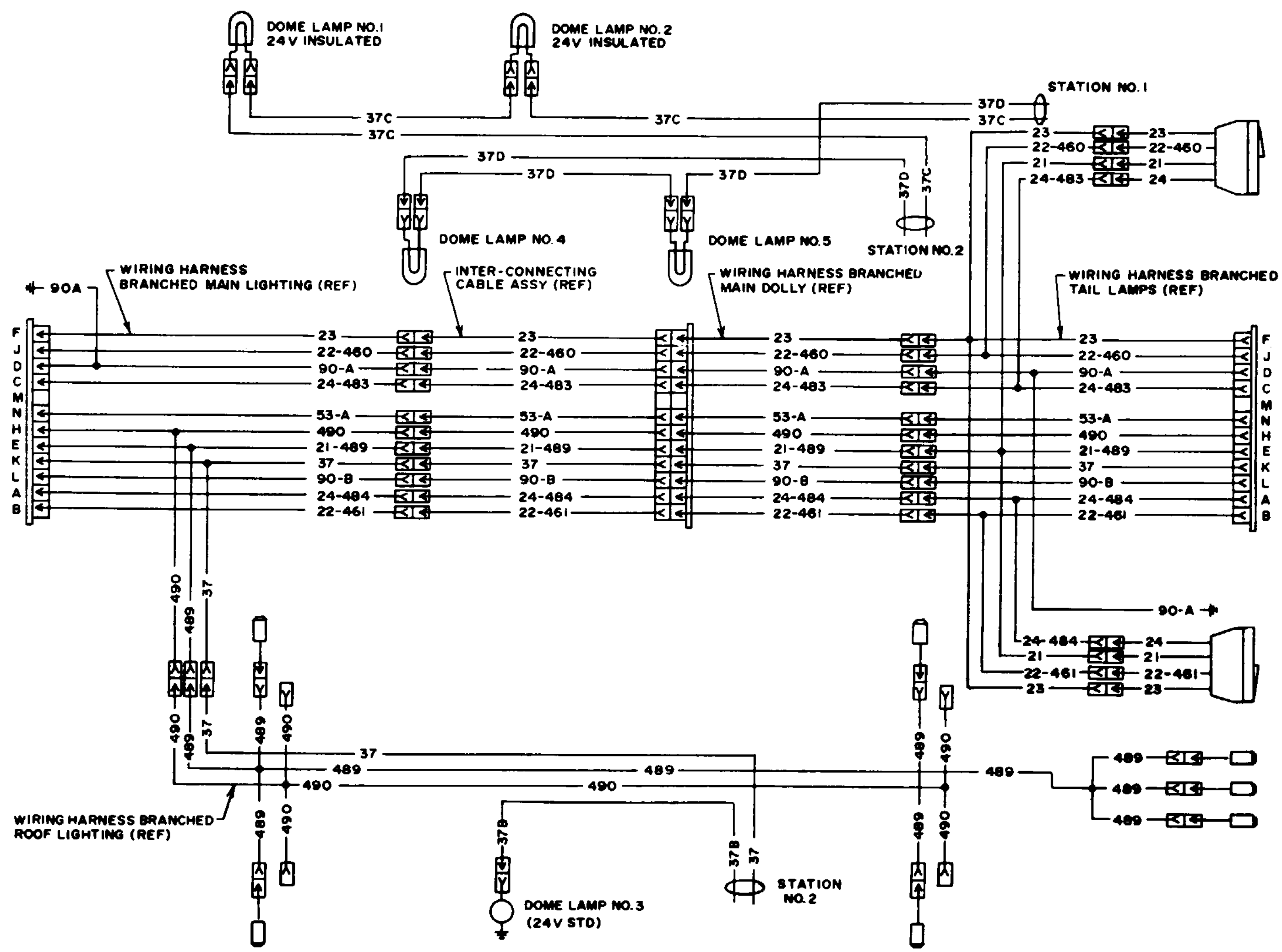
4-52. WIRING DIAGRAMS (Con't).



24-VOLT, M348A2D (EARLY MODEL)

TA700222

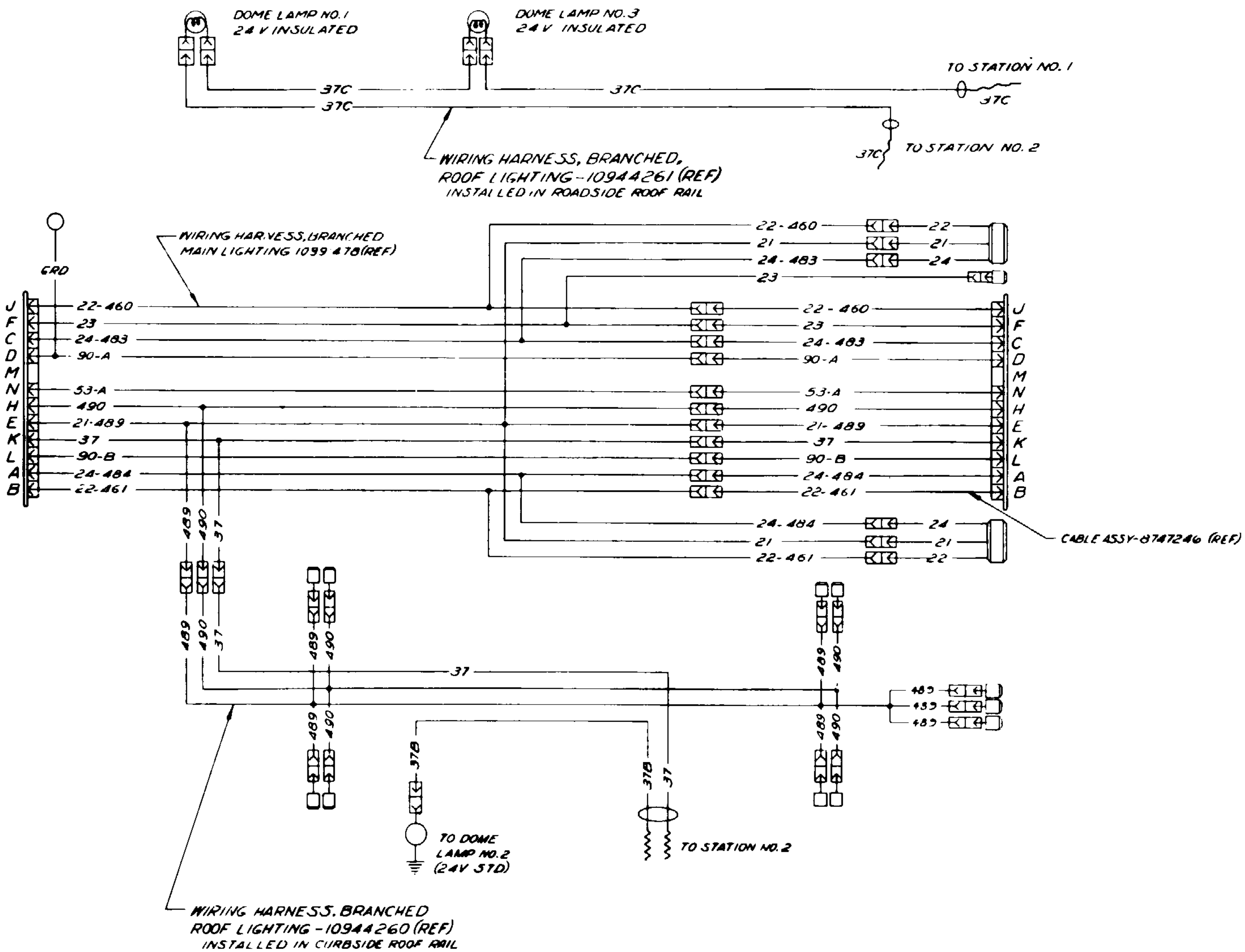
4-52. WIRING DIAGRAMS (Con't).



TA700223

24-VOLT, M348A2D (LATE MODEL)

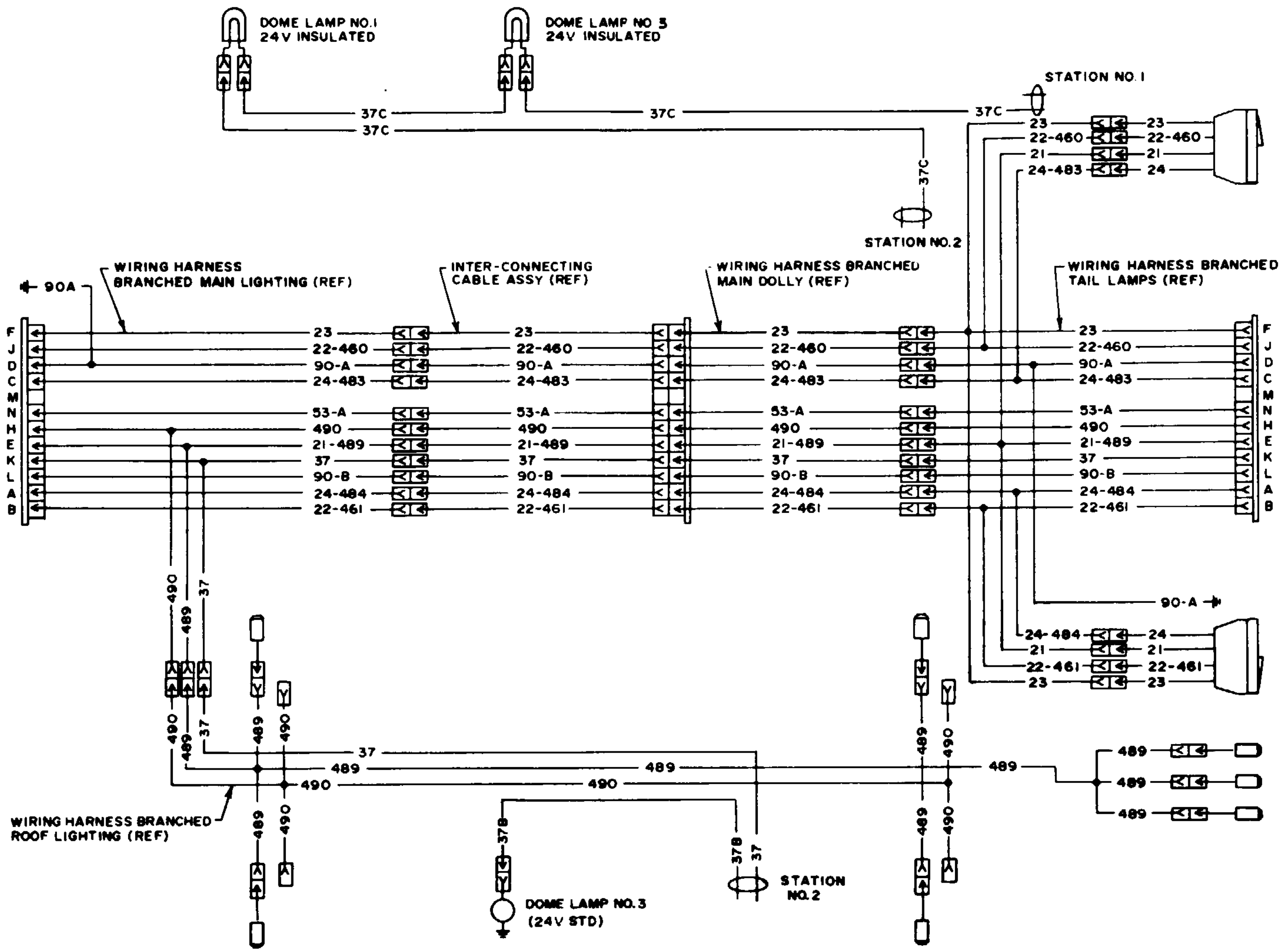
4-52. WIRING DIAGRAMS (Con't).



24-VOLT, M348A2F (EARLY MODEL)

TA700224

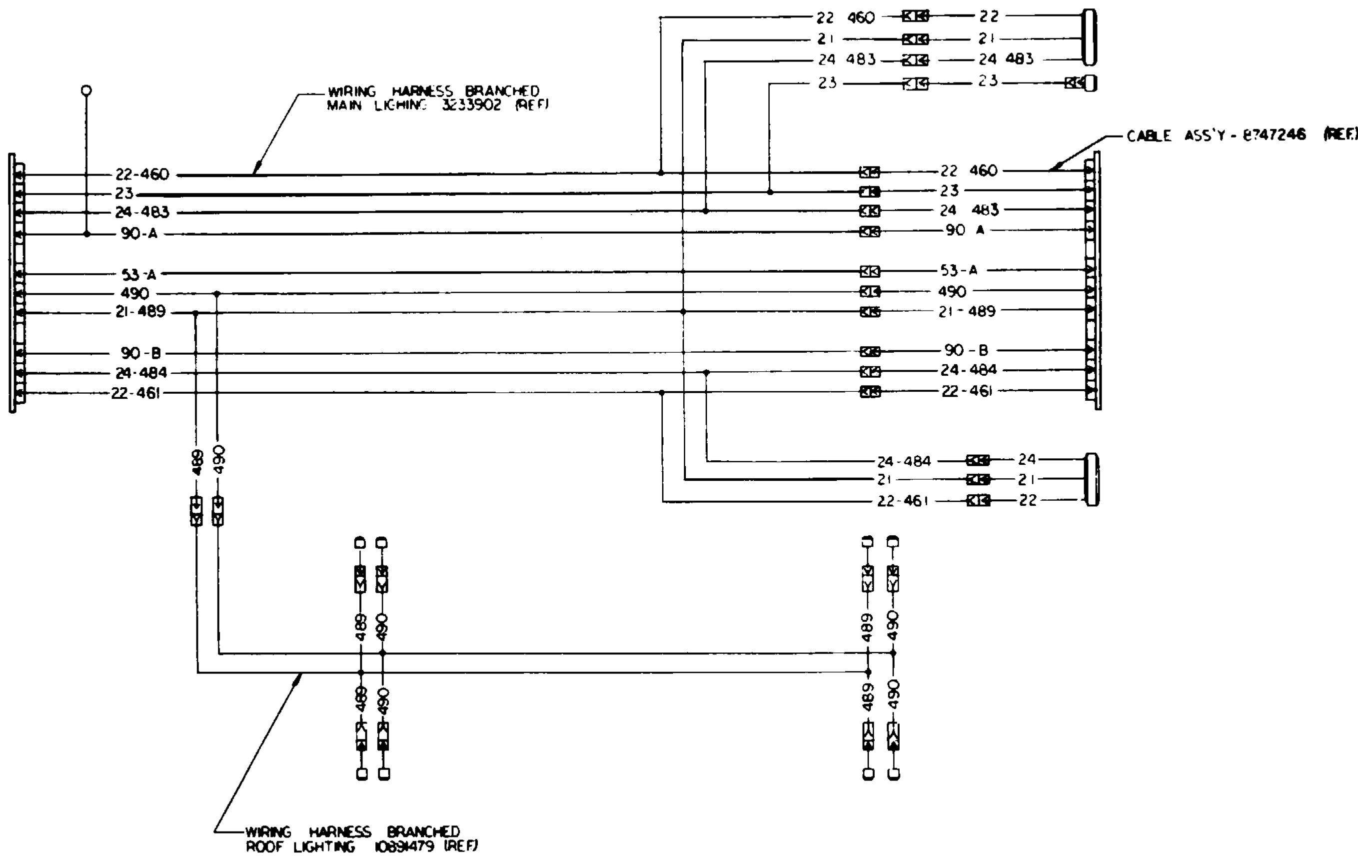
4-52. WIRING DIAGRAMS (Con't).



TA700255

24-VOLT, M348A2F (LATE MODEL)

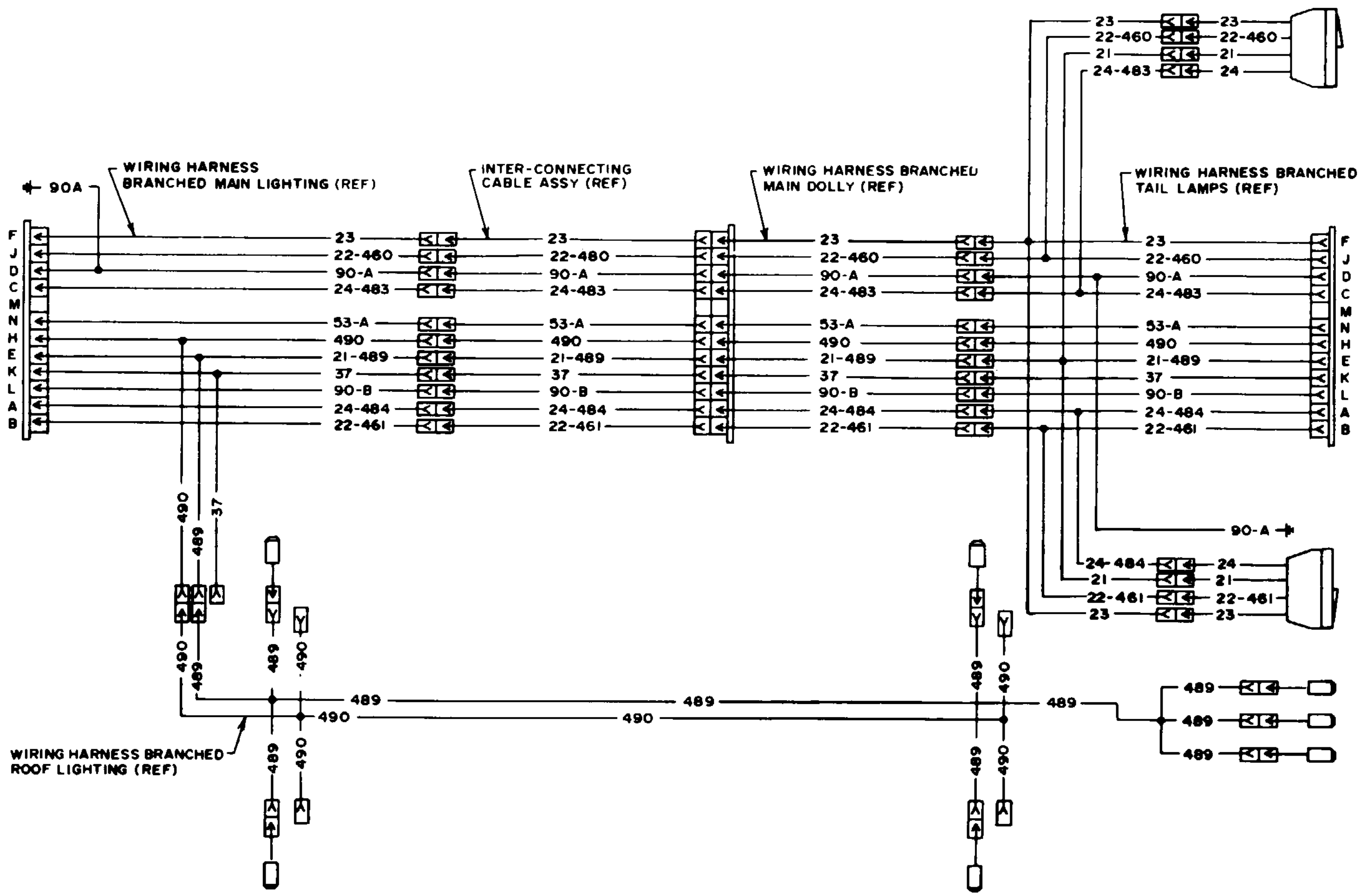
4-52. WIRING DIAGRAMS (Con't).



TA700226

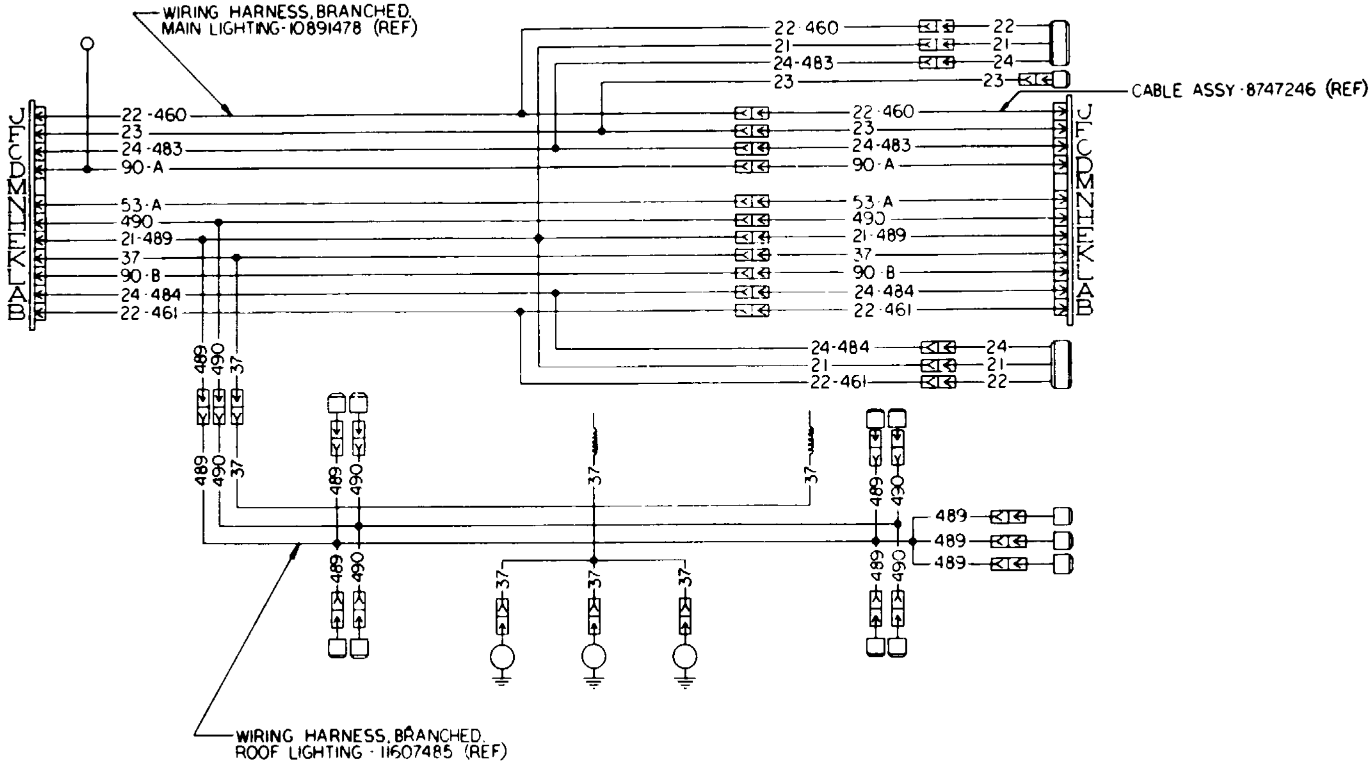
24-VOLT, M348A2H (EARLY MODEL)

4-52. WIRING DIAGRAMS (Con't).



TA700227

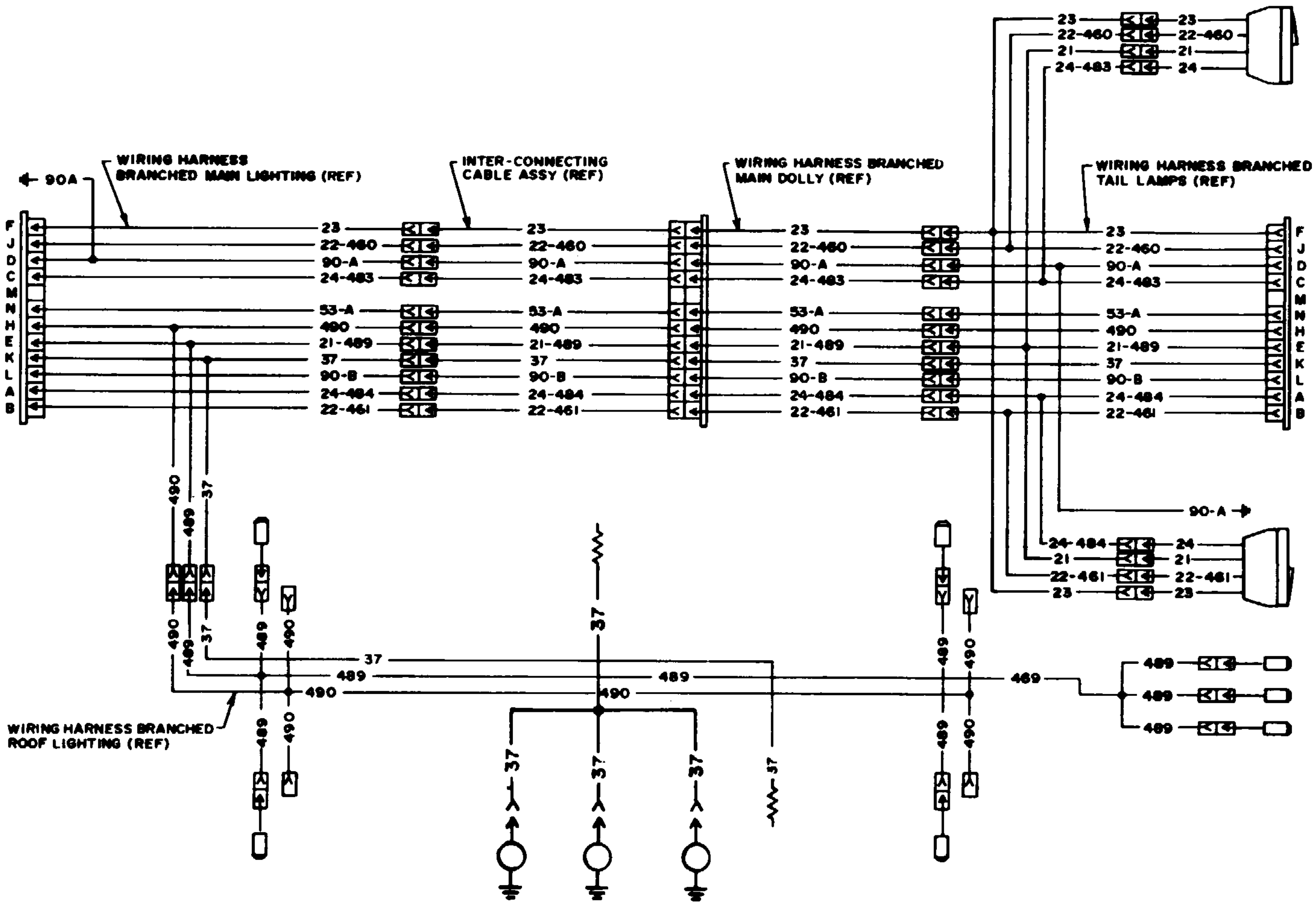
4-52. WIRING DIAGRAMS (Con't).



TA700228

24-VOLT, M348A2K AND M348A2N (EARLY MODEL)

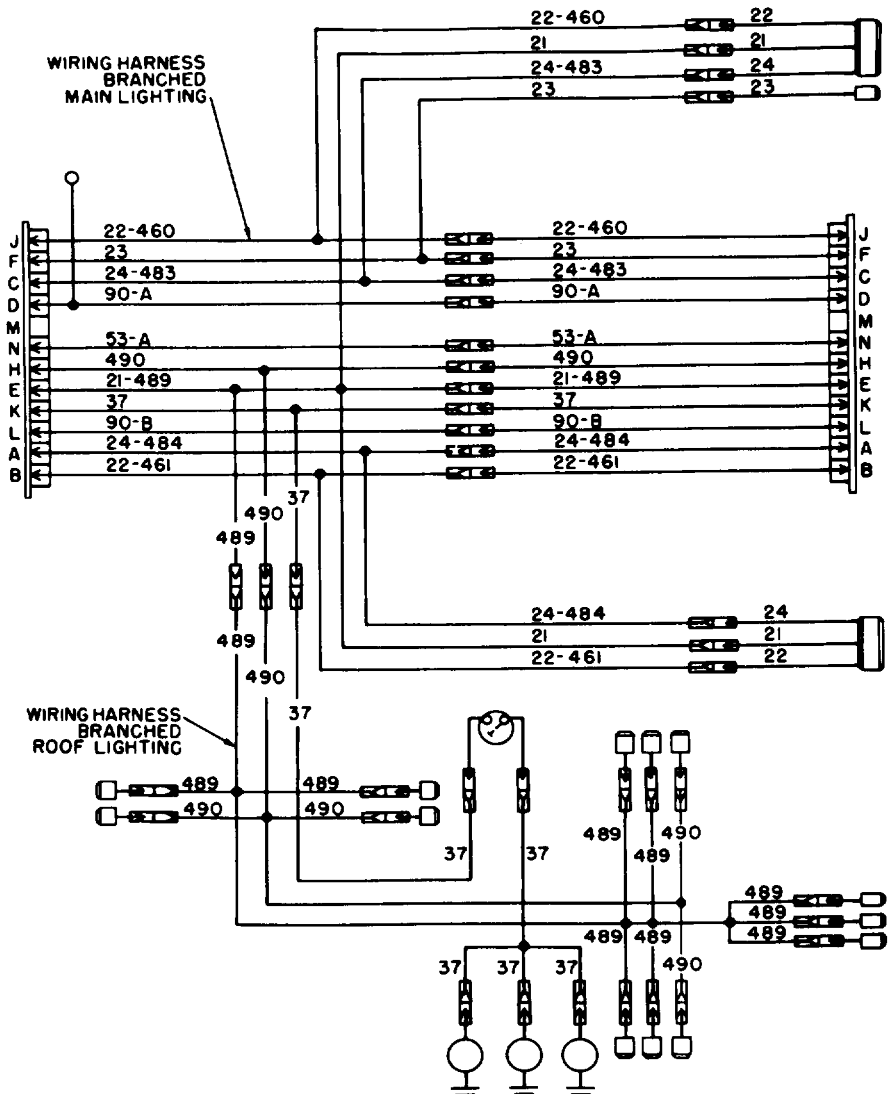
4-52. WIRING DIAGRAMS (Con't).



24-VOLT, M348A2K AND M348A2N (LATE MODEL)

TA700229

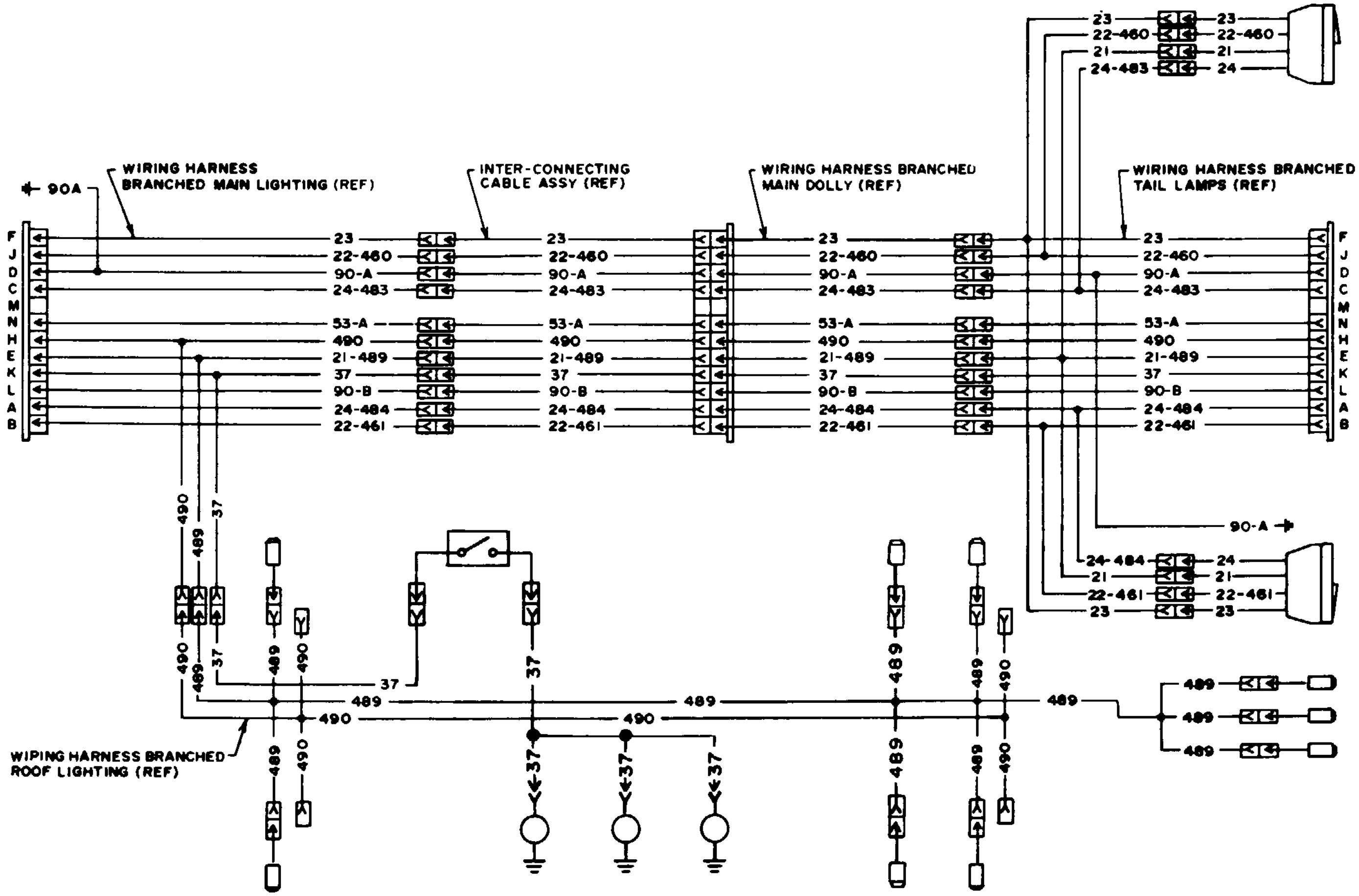
4-52. WIRING DIAGRAMS (Con't).



24-VOLT M373A2, M373A2C, M373A2D, M373A3, M373A4, AND M373A5 (EARLY MODEL)

TA700230

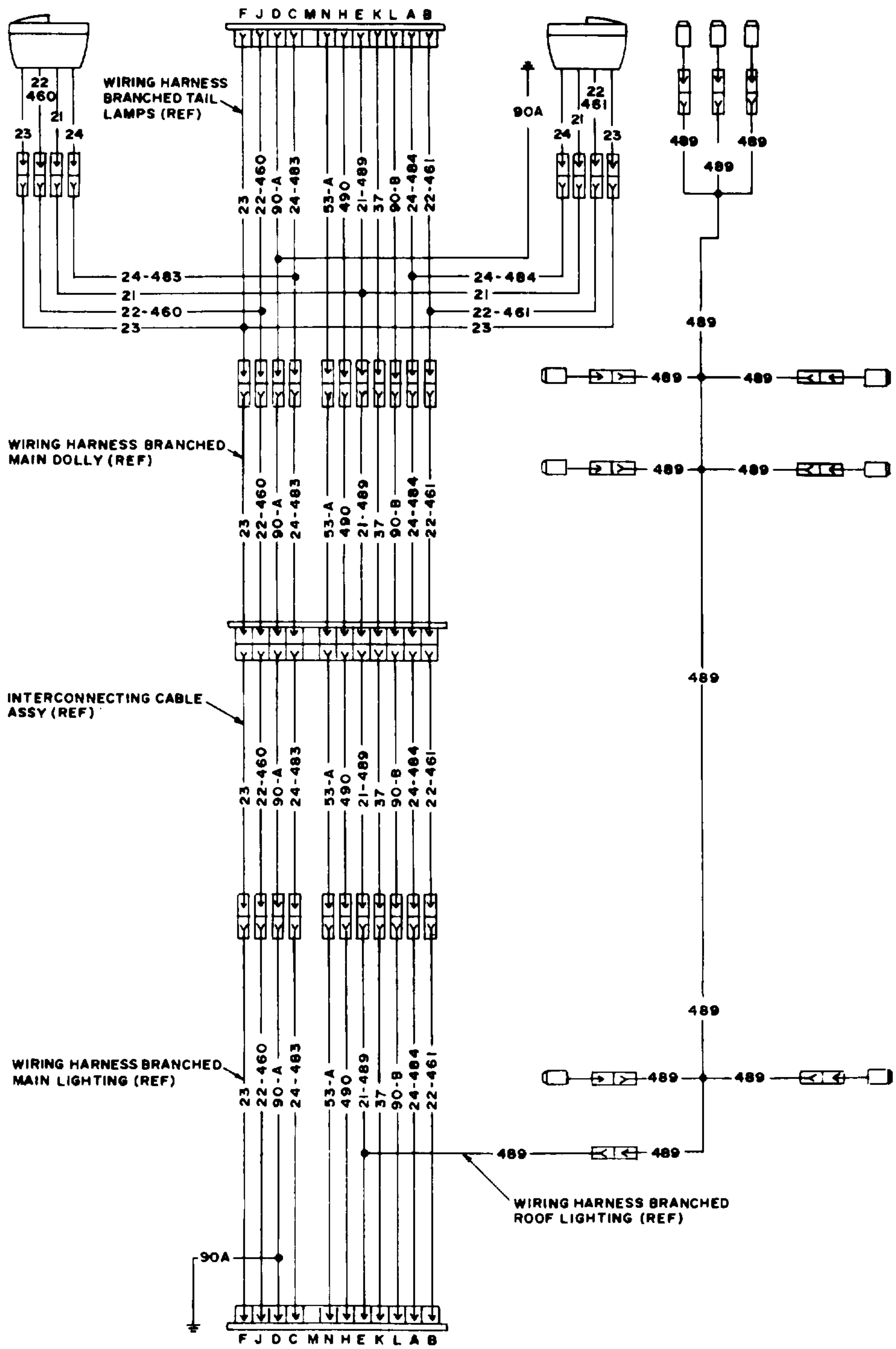
4-52. WIRING DIAGRAMS (Con't).



24-VOLT, LATE MODEL M373 SERIES SEMITRAILERS (ALL EXCEPT M373A3 AND M373A4)

TA700231

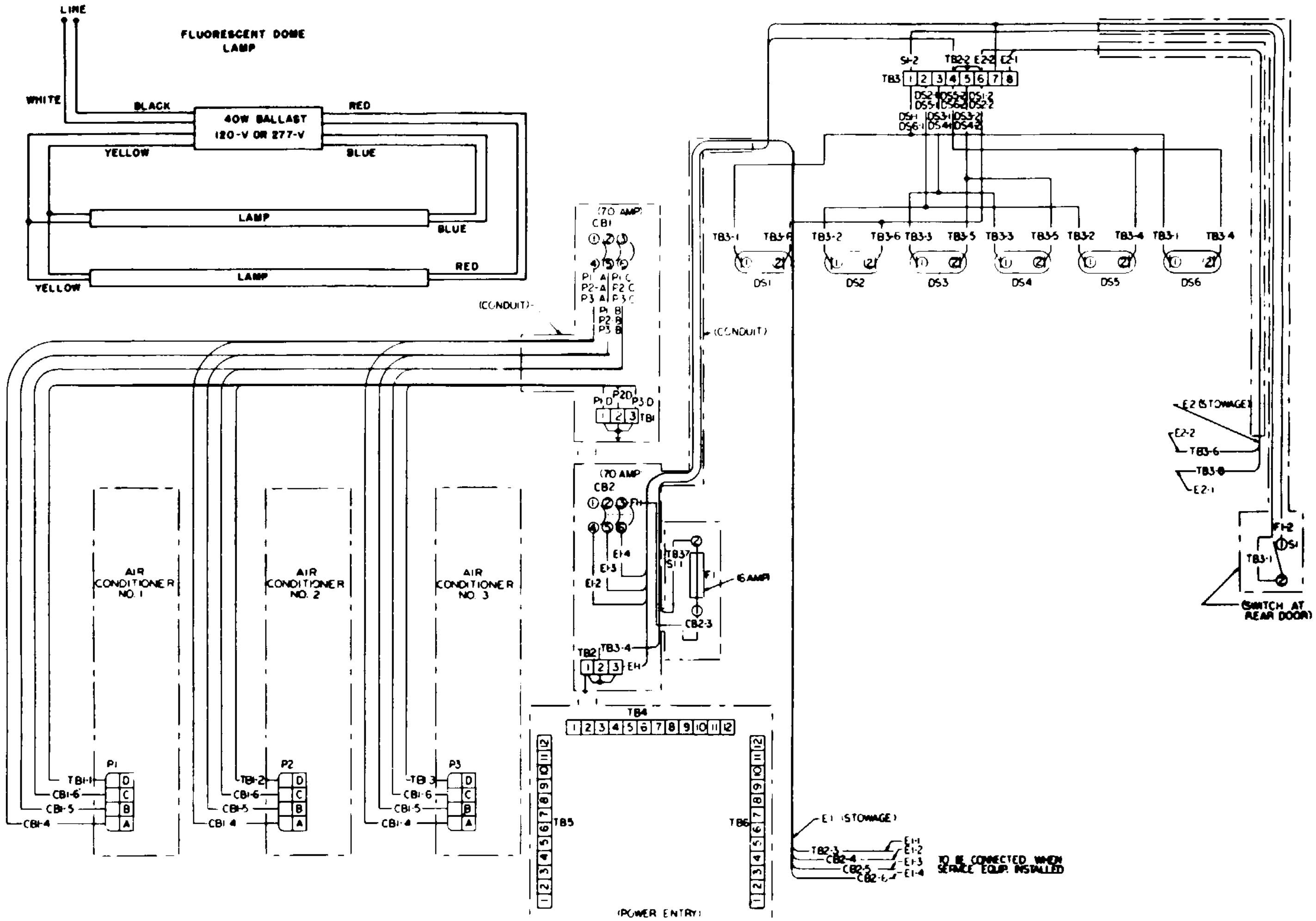
4-52. WIRING DIAGRAMS (Con't).



24-VOLT, XM1005 AND XM1007

TA700232 .

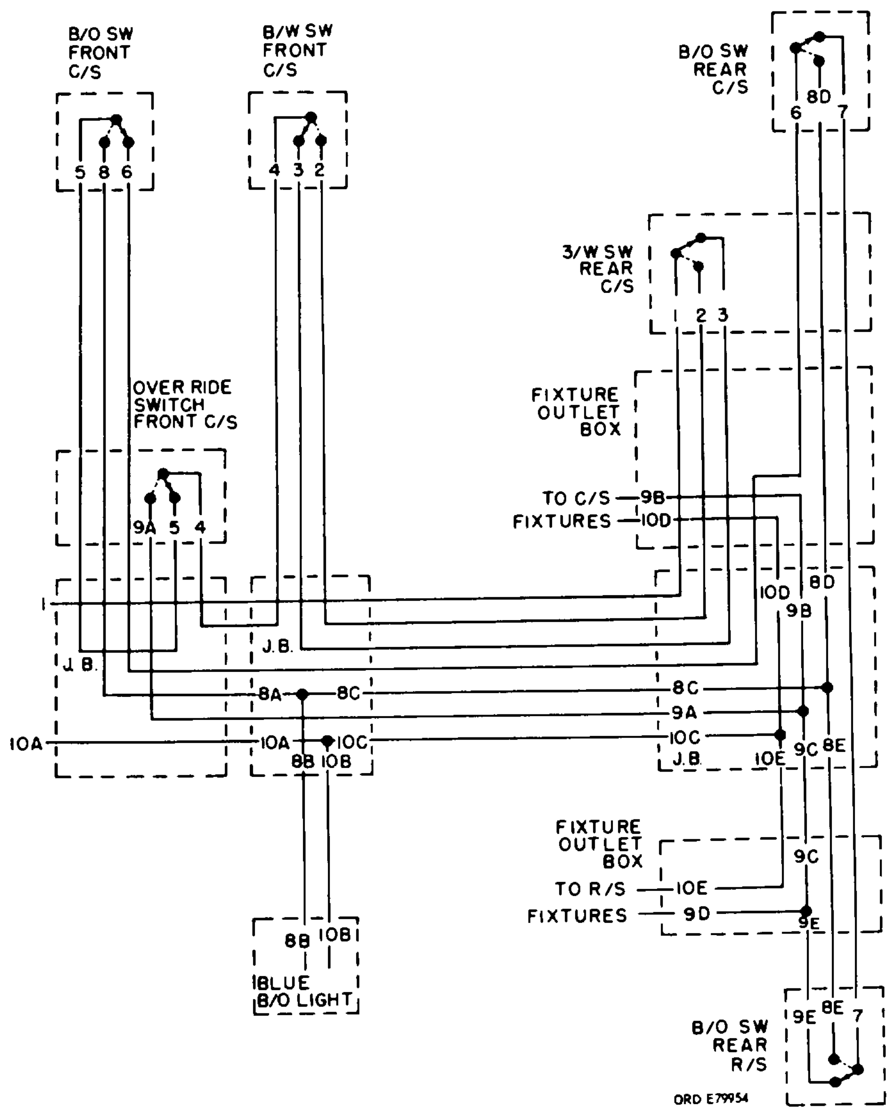
4-52. WIRING DIAGRAMS (Con't).



110-VOLT, M348A2H

TA700233

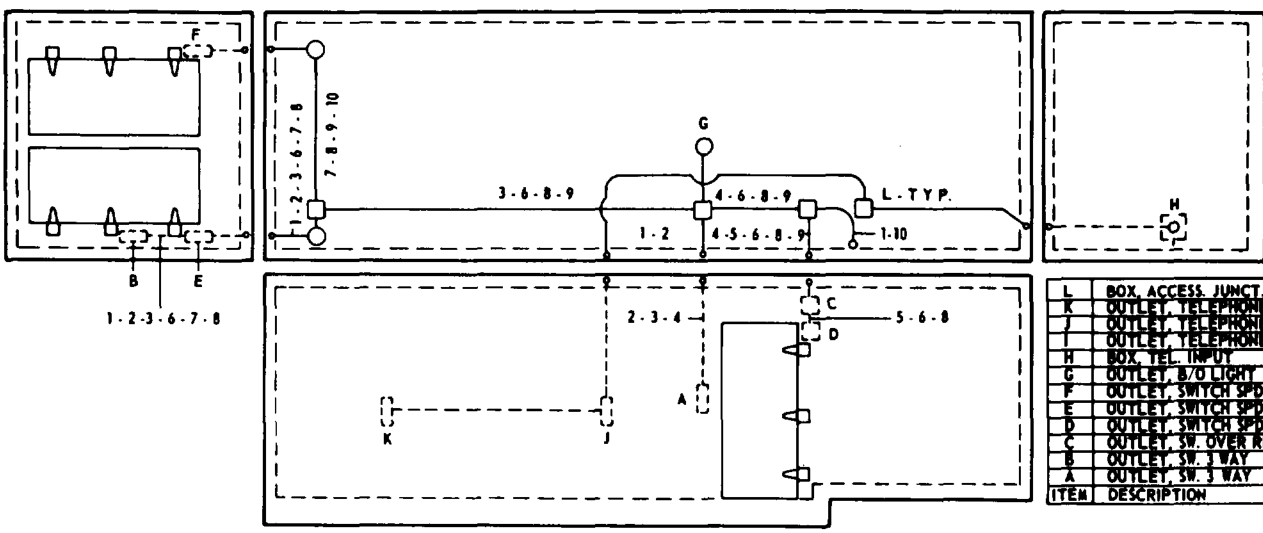
4-52. WIRING DIAGRAMS (Con't).



110-VOLT AND TELEPHONE, M373A3 AND M373A4 (SHEET 1 OF 2)

TA700234

4-52. WIRING DIAGRAMS (Con't).

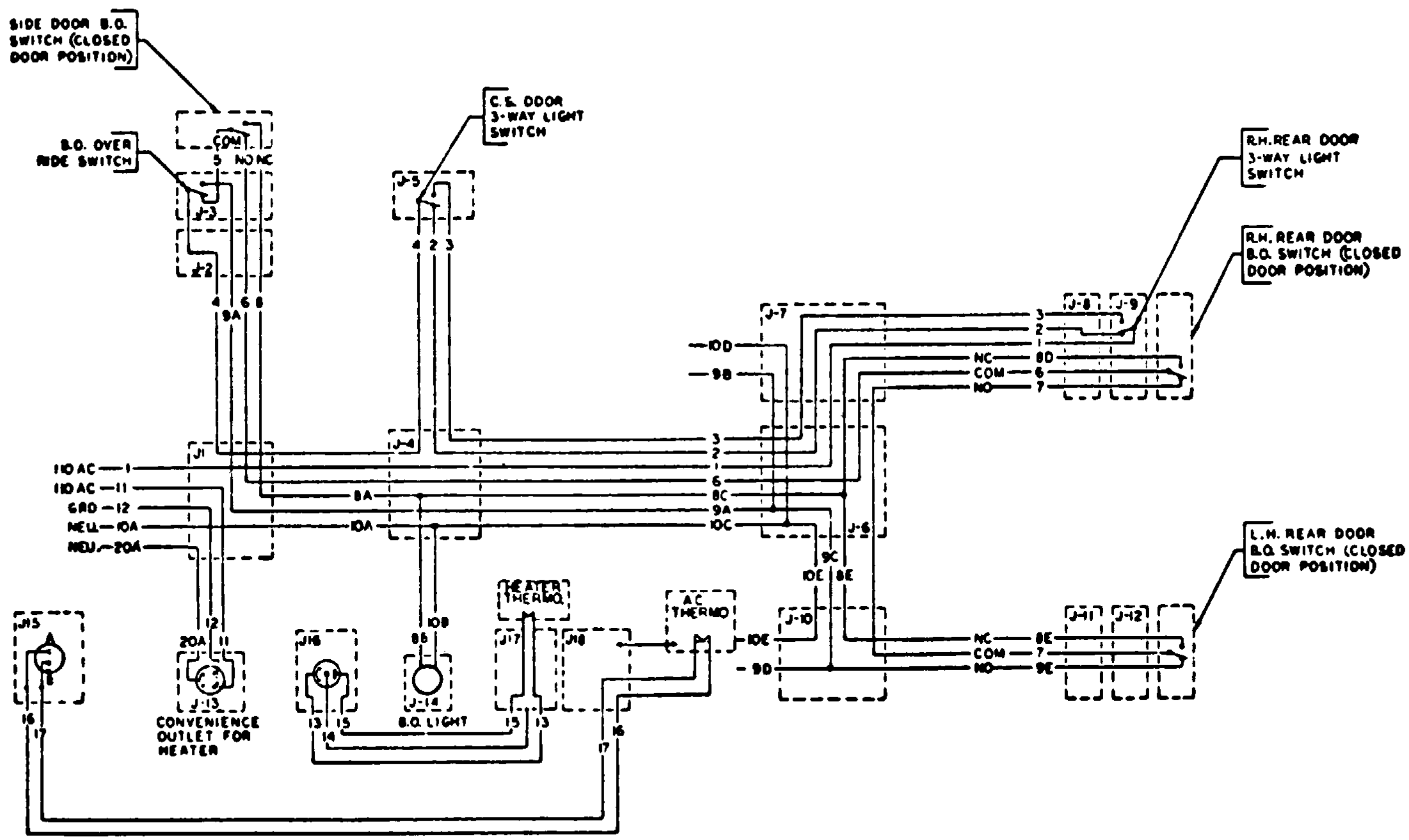


ITEM	DESCRIPTION
L	BOX, ACCESS, JUNCT.
K	OUTLET, TELEPHONE
J	OUTLET, TELEPHONE
I	OUTLET, TELEPHONE
H	BOX, TEL. INPUT
G	OUTLET, B/O LIGHT
F	OUTLET, SWITCH SPDT
E	OUTLET, SWITCH SPDT
D	OUTLET, SWITCH SPDT
C	OUTLET, SW. OVER RIDE
B	OUTLET, SW. 3 WAY
A	OUTLET, SW. 3 WAY

11O-VOLT AND TELEPHONE, M373A3 AND M373A4 (SHEET 2 OF 2)

TA700235

4-52. WIRING DIAGRAMS (Con't).



110-VOLT, M373A5

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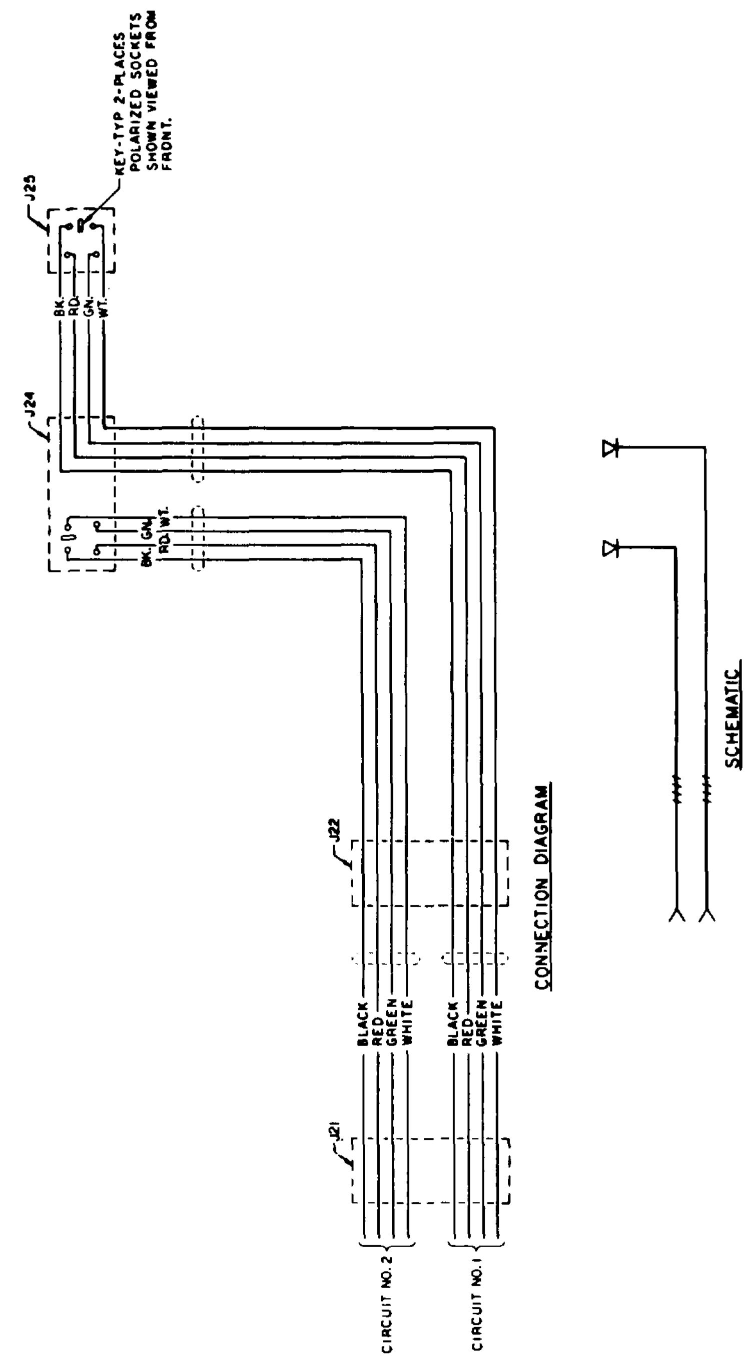
4-52. WIRING DIAGRAMS (Con't).



TA700237

Section VI. REAR AXLE MAINTENANCE

4-53. REAR AXLE REPLACEMENT.

This Task Covers:

a. Removal
b. Cleaning and Inspection
c. Installation

Initial Setup:

Materials/Parts:

- Dry cleaning solvent (Item 13, Appendix E)
- Rags (Item 20, Appendix E)
- Eight lockwashers
- Twenty locknuts

Personnel Required: Two

Tools/Test Equipment

- General mechanic's tool kit
- Drain pan
- Torque wrench
- Two floor jacks
- Two jackstands
- Wiper ring replacer

References:

- TM 9-237

a. REMOVALI

1. Position semitrailer on level surface with front end resting on landing gear legs.

WARNING

Weight of semitrailer must be supported by leveling jacks and Jackstands placed under rear corners of frame throughout axle replacement procedure. Failure to follow this warning may result in serious injury to personnel.

2. Extend leveling jacks enough to relieve tires of ground contact. Support semitrailer with jackstands placed under rear comers of frame.

4-53. REAR AXLE REPLACEMENT (Con't).

3. Open pressure tank draincock (4) to relieve air pressure.
4. Remove hubs and brakedrums (para 4-69).

NOTE

Use a drain pan to catch any draining brake fluid. Cleanup all spills.

5. Disconnect hydraulic brake hose (3) from multiple connector (11).
6. Disconnect each tube assembly (9) from multiple connector (11) and tee (6) on backing plate (5),
7. Remove ten locknuts (8) and screws (7) securing each backing plate (5) to axle (1 O). Remove backing plates. Discard locknuts.
8. Remove two wiper rings (16) from axle if they are badly worn or damaged.

WARNING

Axle is heavy and awkward to handle. Use caution, provide adequate support, and use assistance during removal. Failure to follow this warning may result in serious injury to personnel.

9. Support axle (10) at each end with a floor jack.
10. Remove eight nuts (2), Iockwashers (l), and four U-bolts (12). Discard Iockwashers.
11. Lower axle (1 O) and remove from under semitrailer.

b. CLEANING AND INSPECTION

1. Remove mud and dirt from all exposed surfaces using water.

WARNING

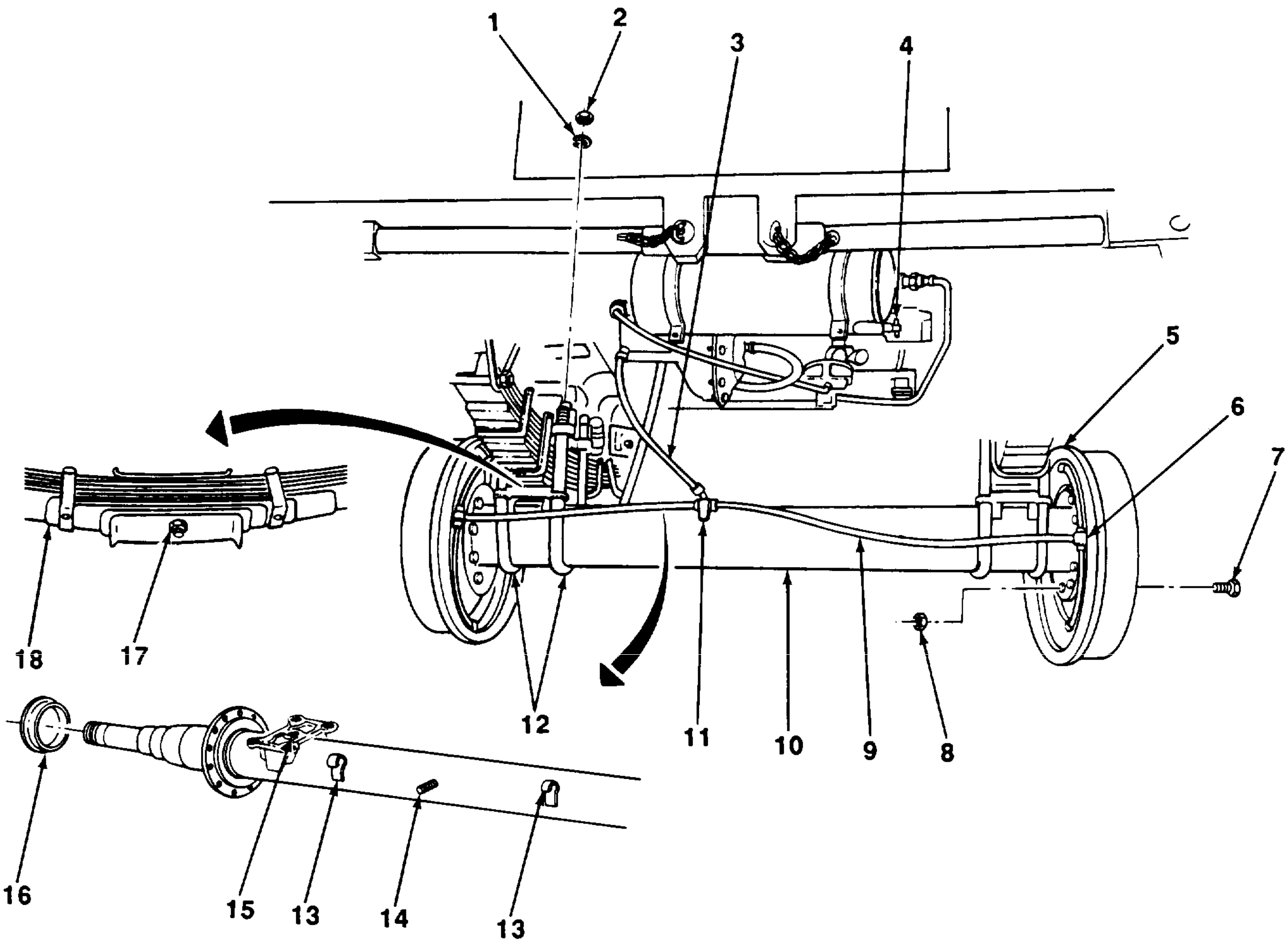
Dry cleaning solvent, P-D-680, is toxic and flammable. Always wear protective goggles and gloves, and use only in a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point Is 100°F-138°F (38°C-59°C). If you become dizzy while using cleaning solvent, Immediately get fresh air and medical help. If solvent contacts eyes, immediately wash your eyes and get medical aid.

2. Remove grease from spindles and wheel retaining parts using dry cleaning solvent.
3. Check bearing seats for roughness or damage. File any spots, burrs, or roughness.
4. Check threads of axle spindles for wear, cross threads, or damage. Remove burrs or hand chase threads using a fine file.
5. Check axle spindles for bends. Indication of a bent axle spindle is binding bearings that cannot be adjusted properly and that cause extremely uneven wear of brakeshoe linings.
6. If axle is bent, cracked, or otherwise unserviceable, replace with a new axle.

c. INSTALLATION

1. If installing new axle, use old axle as a guide and weld screw (14) and two straps (13) to axle.

4-53. REAR AXLE REPLACEMENT (Con't).



WARNING

Axle is heavy and awkward to handle. Use caution, provide adequate support, and use assistance during Installation. Failure to follow this warning may result In serious injury to personnel.

2. Raise axle (1 O) with floor jacks to proper position. Nuts (17) of spring center bolts must seat in recess (15) of axle spring seats.

NOTE

On M348A2D only, install spacer block between the curbside axle spring seat and spring.

3. Secure axle (10) to springs (18) using four U-bolts (12), eight new lockwashers (1), and nuts (2), Torque nuts to 500 lb.-ft. (678 N•m).
4. Install each backing plate (5) on axle (1 O) with ten screws (7) and new locknuts (8).
5. If removed, install two new wiper rings (16) on axle (10) using wiper ring replacer.
6. Connect each tube assembly (9) to tee (6) on backing plate (5) and multiple connector (1 1).

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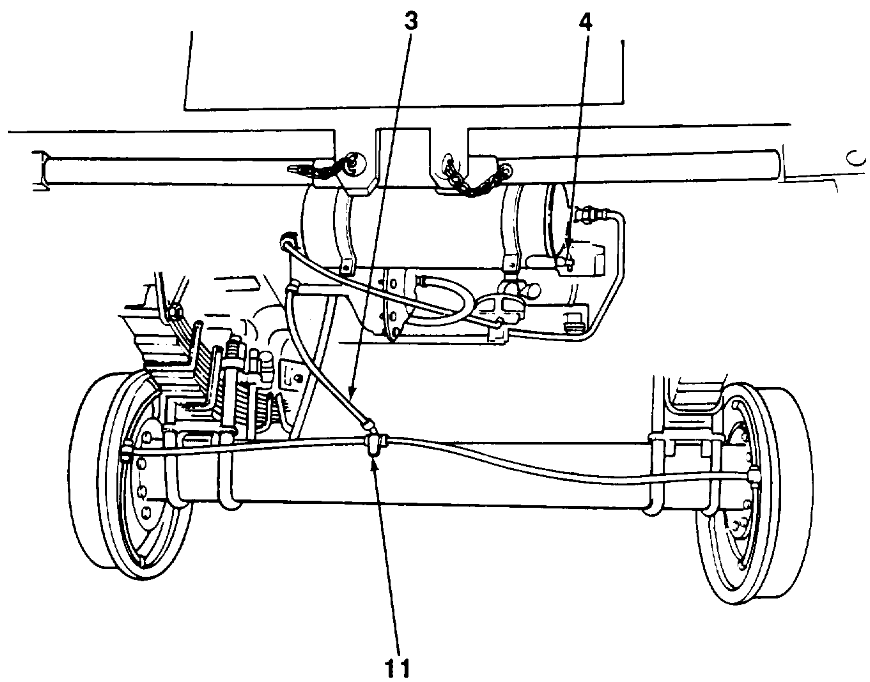
4-53. REAR AXLE REPLACEMENT (Con't).

7. Connect hydraulic brake hose (3) to multiple connector (1 1).
8. Install hubs and brakedrums (para 4-69).
9. Remove jackstands from semitrailer frame. Stow leveling jacks.
10. Close pressure tank draincock (4).



FOLLOW-ON TASKS:

- Bleed brakes (para 4-57).
- Adjust radius rod (para 4-80).

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Section VII. BRAKE SYSTEM MAINTENANCE

4-54. SERVICE BRAKE ADJUSTMENT (DUAL WHEEL CYLINDERS).

This Task Covers: Adjustment

Initial Setup:

Equipment Conditions:

- Wheels removed (para 4-70).
- Pressure tank drained (Table 2-1).

Tools/Test Equipment:

- General mechanic's tool kit

Materials/Parts:

- Two lockwashers

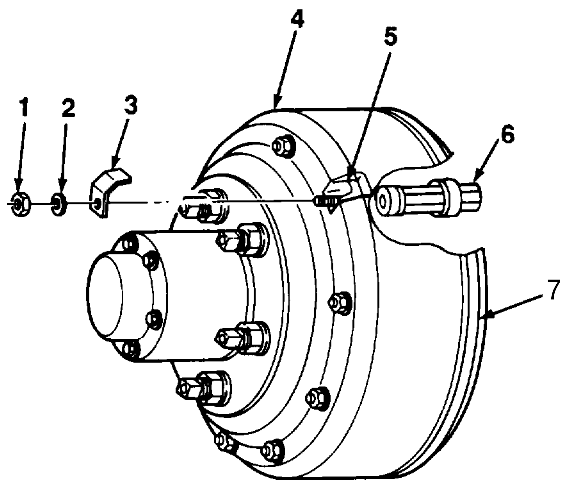
4-54. SERVICE BRAKE ADJUSTMENT (DUAL WHEEL CYLINDERS) (Con't).

ADJUSTMENT

NOTE

- **Always check wheel bearing adjustment (para 4-69) before adjusting service brakes. Brakes cannot be properly adjusted unless wheel bearings are properly adjusted.**
- **Do not adjust brakes when brakedrums are hot.**

1. Adjust wheel bearings at both wheels (para 4-69).
2. Remove nut (1), lockwasher (2), and access cover (3) from brakedrum (4). Discard lockwasher.
3. Rotate brakedrum (4) until inspection hole (5) is alined with one of the brake adjusting studs (6) on back of the backing plate (7). Insert a 0.010 in. (0.25 mm) feeler gage between brakedrum and brakeshoe lining. Turn adjusting stud until a slight drag on feeler gage is obtained. Repeat for other brakeshoe.
4. Install access cover (3) and secure with new lockwasher (2) and nut (1).
5. Repeat steps 2 through 4 for other wheel, making adjustments as uniform as possible.



FOLLOW-ON TASKS:

- Install wheels (para 4-70),

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4-55. SERVICE BRAKE ADJUSTMENT (SINGLE WHEEL CYLINDER).

This Task Covers:

a. **Minor Adjustment** b. **Major Adjustment**

Initial Setup:

Equipment Conditions:

- Wheels removed (para 4-70).
- Pressure tank drained (Table 2-l).

Tools/Test Equipment:

- General mechanic's tool kit

Materials/Parts:

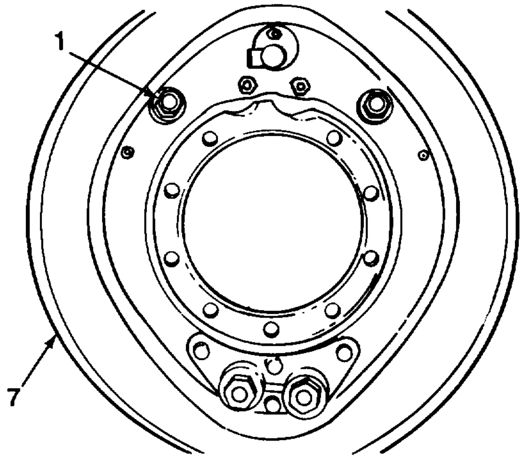
- Two lockwashers (major adjustment)

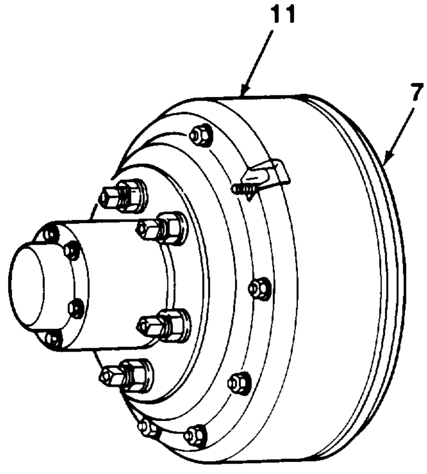
a. MINOR ADJUSTMENT

NOTE

- **Always check wheel bearing adjustment (para 4-69) before adjusting service brakes. Brakes cannot be properly adjusted unless wheel bearings are properly adjusted.**
- **Do not adjust brakes when brakedrums are hot.**

1. Adjust wheel bearings at both wheels (para 4-69).
2. Turn rear brakeshoe adjusting cam (1) on backside of backing plate (7) counterclockwise until brakedrum(11) drags slightly when hub and brakedrum are turned by hand. Turn adjusting cam clockwise just enough to allow hub and brakedrum to rotate freely.





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4-55. SERVICE BRAKE ADJUSTMENT (SINGLE WHEEL CYLINDER) (Con't).

3. Turn front brakeshoe adjusting cam (2) clockwise until brakedrum (11) drags slightly when hub and brakedrum are turned by hand. Turn adjusting cam counterclockwise just enough to allow hub and brakedrum to rotate freely, Make adjustment of both cams as uniform as possible.

4. Repeat steps 2 and 3 for other wheel, making adjustments as uniform as possible.

b. MAJOR ADJUSTMENT

1. Remove nut (8), Iockwasher (9), and access cover (1 O) from brakedrum (1 1).

2. Rotate brakedrum (11) until inspection hole (12) is 1½ in. (3.8 cm) above lower end of rear brakeshoe. Insert feeler gage in inspection hole to determine clearance between brakeshoe and brakedrum. Clearance should be 0.010 in. (0.25 cm).

3. To adjust clearance between brakeshoe and brakedrum (11), loosen rear anchor pin nut (5) on backside of backing plate (7). Hold nut and turn anchor pin (6) until 0.010 in. (0.25 cm) clearance is obtained. To reduce clearance, turn anchor pin clockwise. To increase clearance, turn anchor pin counterclockwise.

4. Rotate brakedrum (11) until inspection hole (12) is 1½ in. (3.8 cm) below upper end of rear brakeshoe. Insert feeler gage in inspection hole to determine clearance between brakeshoe and brakedrum. Clearance should be 0.020 in. (0.05 cm).

5. To adjust clearance between brakeshoe and brakedrum (11), turn rear brakeshoe adjusting cam (1) until clearance between brakeshoe and brakedrum is 0,020 in. (0.51 cm). To reduce clearance, turn adjusting cam counterclockwise. To increase clearance, turn adjusting cam clockwise. Check to ensure that 0.010 in. (0.25 mm) clearance is maintained at lower end of rear brakeshoe.

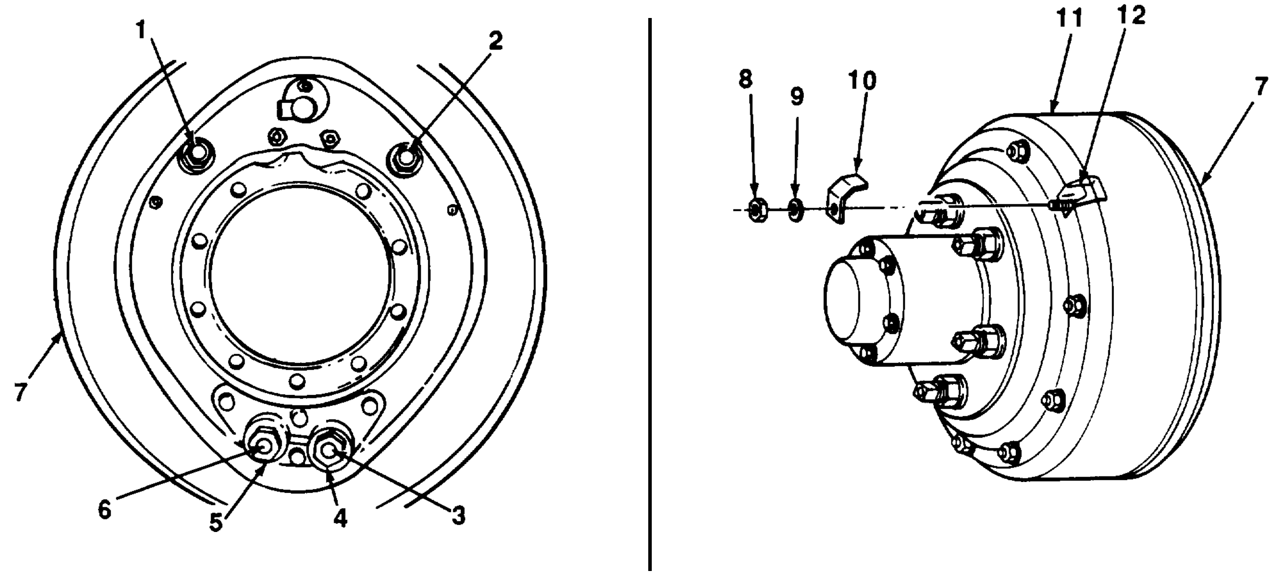
6. Adjust clearance between lower and upper ends of front brakeshoe and brakedrum (11) as described above. Clearance between lower end of front brakeshoe and brakedrum is decreased by turning front anchor pin (3) counterclockwise and increased by turning anchor pin clockwise. Clearance between upper end **of** front brakeshoe and brakedrum is increased by turning front brakeshoe adjusting cam (2) counterclockwise and decreased by turning adjusting cam counterclockwise.

7. Hold anchor pins (3 and 6) and tighten nuts (4 and 5). Check brakeshoe clearance.

8. Install access cover (1 O) on brakedrum (11) using new Iockwasher (9) and nut (8).

9. Repeat steps 1 through 8 from other wheel, making adjustments as uniform as possible.

4-55. SERVICE BRAKE ADJUSTMENT (SINGLE WHEEL CYLINDER) (Con't).



FOLLOW-ON TASKS:

- Install wheels (para 4-70).

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4-56. SERVICE BRAKE MAINTENANCE (DUAL WHEEL CYLINDERS).

This Task Covers:

a. Disassembly
b. Cleaning and Inspection
c. Assembly

Initial Setup:

Equipment Conditions:

- Pressure tank drained (Table 2-1).
- Hub and brakedrum removed (para 4-69).

Tools/Test Equlpment

- General mechanic's tool kit
- Floor jack
- Jackstand
- Retaining ring pliers

Materials/Parts:

- Dry cleaning solvent (Item 13, Appendix E)
- Rags (Item 20, Appendix E)
- Two keywashers
- Two lockwashers
- Two retaining rings
- Ten locknuts

a. DISASSEMBLY

WARNING

DO NOT handle brakeshoes, brakedrums, or other brake components unless area has been properly cleaned. There may be asbestos dust on these components which can be dangerous If you touch It or breathe It. Wear an approved filter mask and gloves. Never use compressed air or a dry brush to clean brake components. Dust may be removed using an industrial-type vacuum cleaner. Clean dust or mud away from brake components with water and a wet, soft brush or cloth. Failure to follow this warning may result In serious Illness or death to personnel.

NOTE

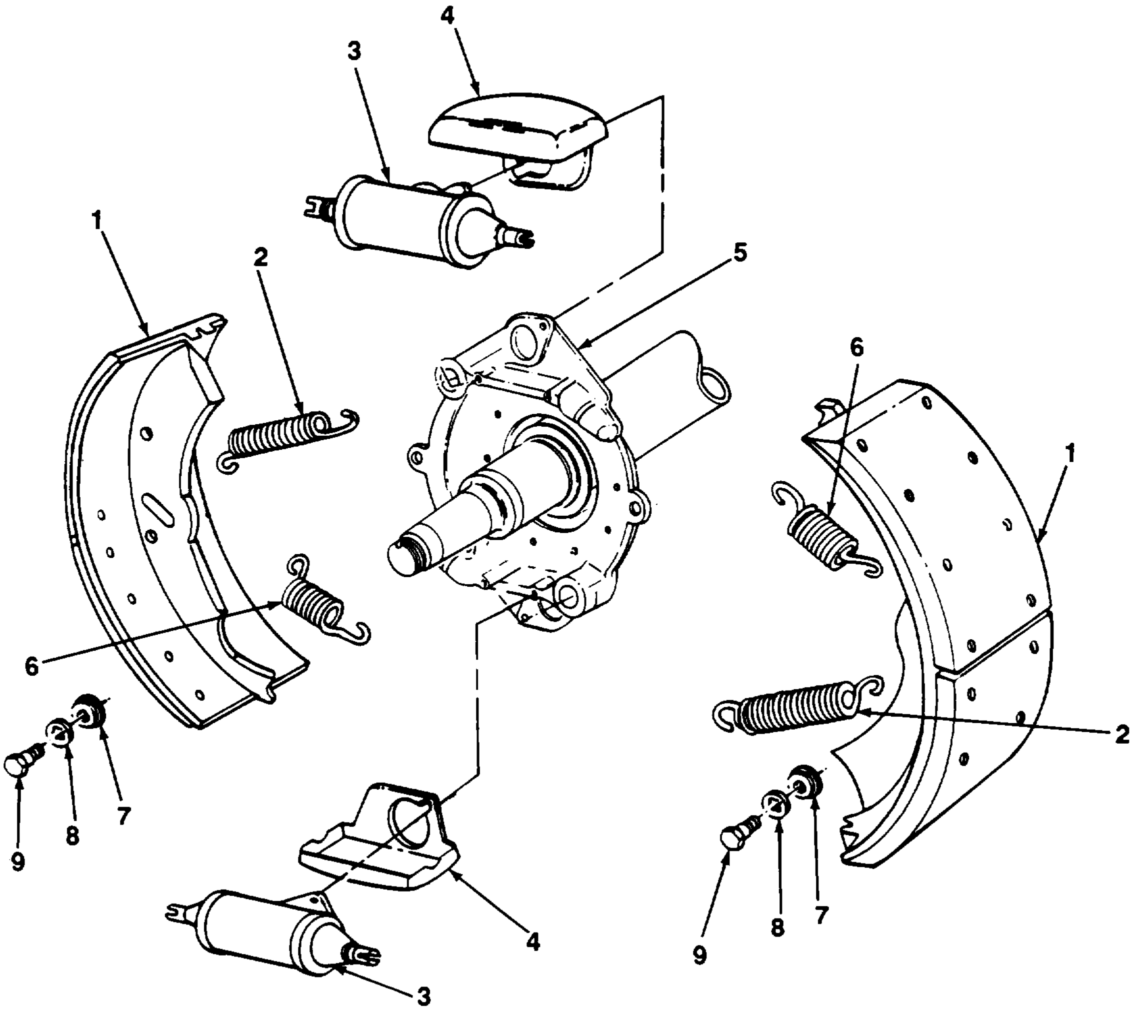
- If replacing brakeshoes only, perform steps 1 and 2.
- Note size and location of springs to ensure proper assembly.

1. Remove four springs (2 and 6).

2. Remove two bolts (9), lockwashers (8), flatwashers (7), and brakeshoes (1) from backing plate (5). Discard lockwashers.

3. Remove wheel cylinders (3) and shields (4) (para 4-59).

4-56. SERVICE BRAKE MAINTENANCE (DUAL WHEEL CYLINDERS) (Con't).



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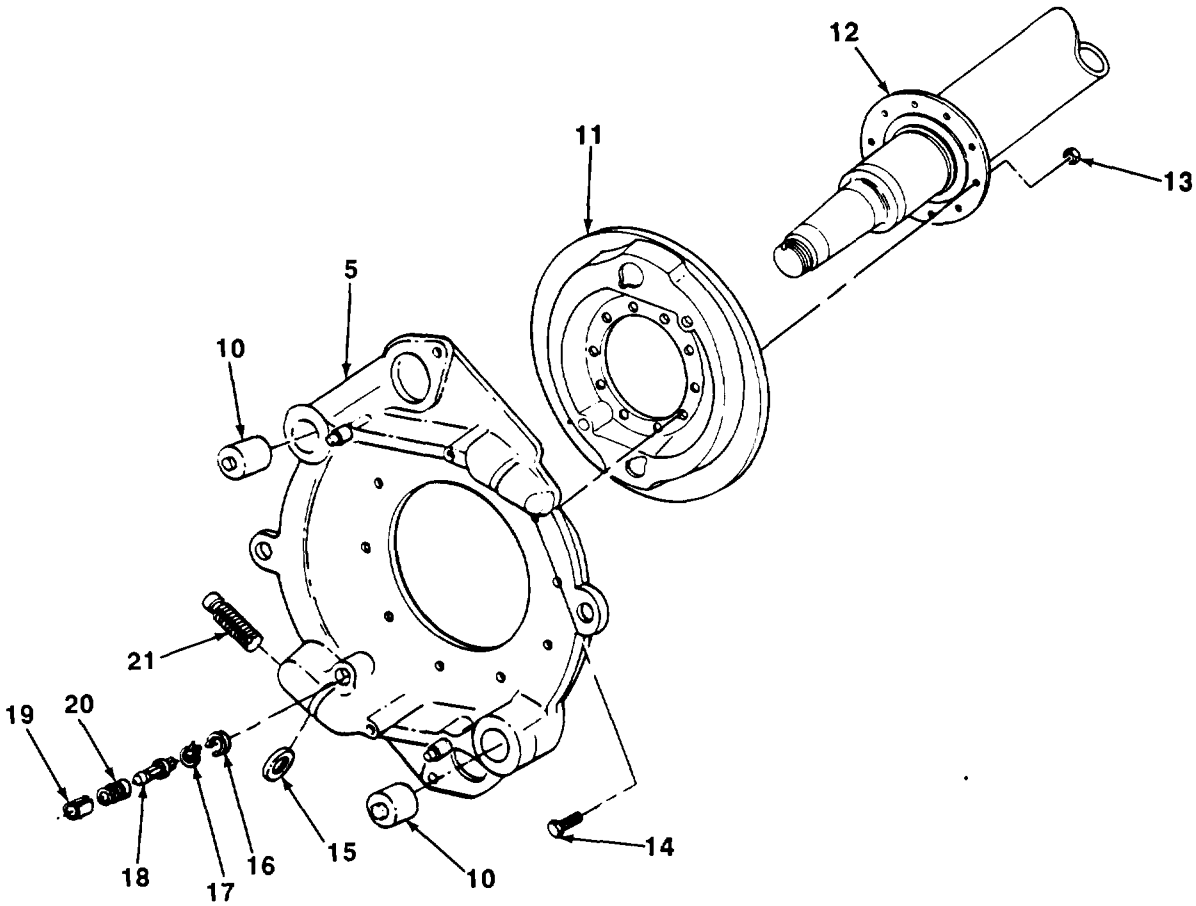
4-56. SERVICE BRAKE MAINTENANCE (DUAL WHEEL CYLINDERS) (Con't).

4. Remove two retaining rings (16). Remove two sleeve bushings (19), worm gears (20), studs (18), and keywashers (17) from backing plate (5). Discard keywashers and retaining rings.

5. Remove two adjusting screws (21) and gears (15) from backing plate (5).

6. Remove two anchor pins (1 O) from backing plate (5).

7. Remove ten screws (14) and locknuts (13). Remove backing plate (5) and dust shield (11) from axle (12). Discard locknuts.



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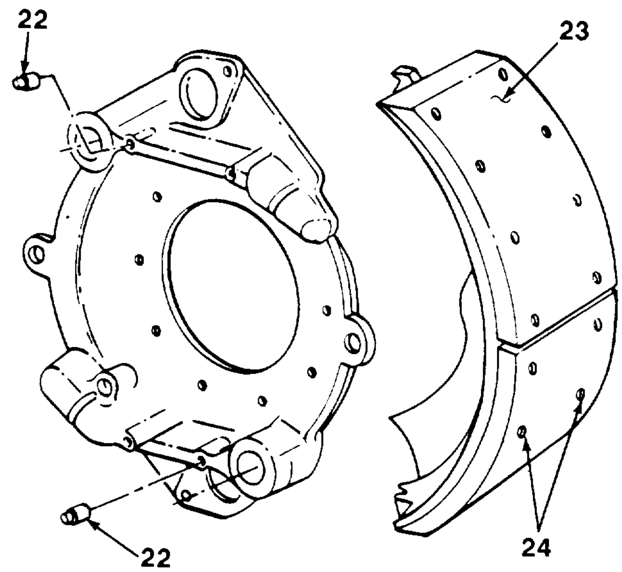
4-56. SERVICE BRAKE MAINTENANCE (DUAL WHEEL CYLINDERS) (Con't).

b. CLEANING AND INSPECTION I

WARNING

- **DO NOT handle brakeshoes, brakedrums, or other brake components unless area has been properly cleaned. There may be asbestos dust on these components which can be dangerous if you touch it or breathe It. Wear an approved filter mask and gloves. Never use compressed air or a dry brush to clean brake components. Dust may be removed using an industrial-type vacuum cleaner. Clean dust or mud away from brake components with water and a wet, soft brush or cloth. Failure to follow this warning may result in serious illness or death to personnel.**
- **Dry cleaning solvent, P-D-680, is toxic and flammable. Always wear protective goggles and gloves, and use only in a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point Is 100 °F-138°F (38° C-59°C). If you become dizzy while using cleaning solvent, immediately get fresh air and medical help. If solvent contacts eyes, immediately wash your eyes and get medical aid.**

1. Clean all parts with dry cleaning solvent and dry thoroughly.
2. Inspect all parts for cracks, breaks, corrosion, or other damage. Replace all damaged parts.
3. Inspect pins (22) for damage. Replace if damaged.
4. Inspect brakeshoe linings (23) for cracks, distortion, and excessive wear. Replace brakeshoes if damaged or worn.
5. Measure depth of rivets (24) below brakeshoe lining (23). Replace brakeshoe if depth of rivets is less than 3/32 in. (2.38 mm) below brakeshoe lining.
6. Inspect braking surface for grease or hydraulic fluid. If grease or hydraulic fluid is present, replace brakeshoes.



c. ASSEMBLY

NOTE

If replacing brakeshoes only, perform steps 6 and 7.

1. Install dust shield (11) and backing plate (5) on axle (12) using ten screws (14) and new locknuts (13).
2. Install two anchor pins (10) in backing plate (5).
3. Install two adjusting screws (21) and gears (15) in backing plate (5).
4. Install new keywasher (17) on each stud (18). Install two studs, worm gears (20), and sleeve bushings (19) in backing plate (5). Secure with two new retaining rings (1 6).

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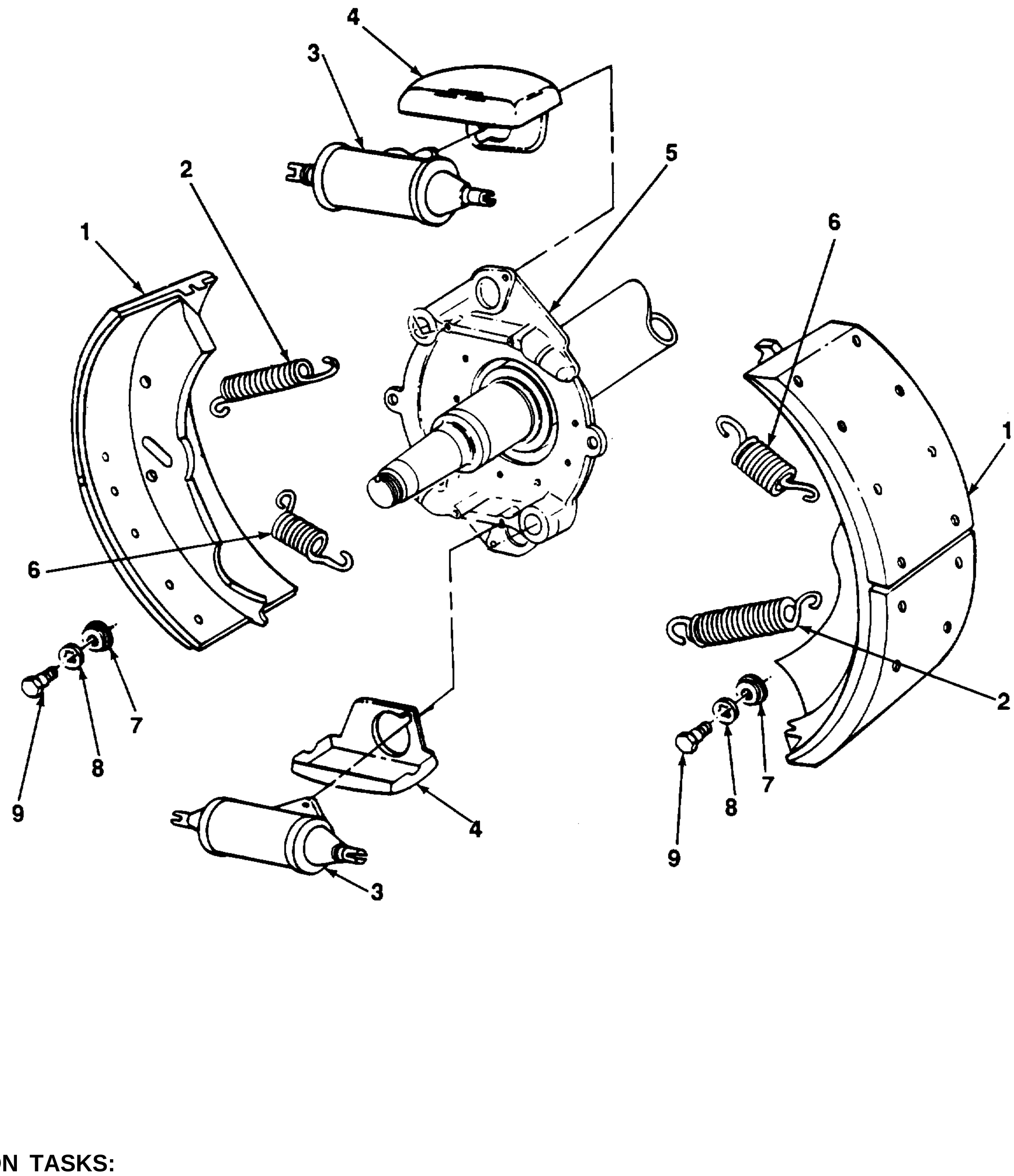
4-56. SERVICE BRAKE MAINTENANCE (DUAL WHEEL CYLINDERS) (Con't).

5. Install wheel cylinders (3) and shields (4) (para 4-59).
6. Install brakeshoes (1) on backing plate (5) using two bolts (9), new lockwashers (8), and flatwashers (7).
7. Install four springs (2 and 6) in location noted at disassembly.



FOLLOW-ON TASKS:

- Install hub and brakedrum (para 4-69).
- Bleed brakes (para 4-58).
- Adjust brakes (para 4-54).
- Install wheels (para 4-70).

TA700246

4-57. SERVICE BRAKE MAINTENANCE (SINGLE WHEEL CYLINDER).

This Task Covers:

a. Disassembly
b. Cleaning and Inspection
c. Assembly

Initial Setup:

Equipment Conditions:

- Pressure tank drained (Table 2-1).
- Hub and brakedrum removed (para 4-69).

Tools/Test Equipment:

- General mechanic's tool kit
- Brake spring pliers
- Drill bit set
- Electric drill
- Retaining ring pliers
- Rivet gun
- Torque wrench

Materials/Parts:

- Dry cleaning solvent (Item 13, Appendix E)
- Rags (Item 20, Appendix E)
- Four cotter pins
- Four lockwashers
- Twelve locknuts

a. DISASSEMBLY

WARNING

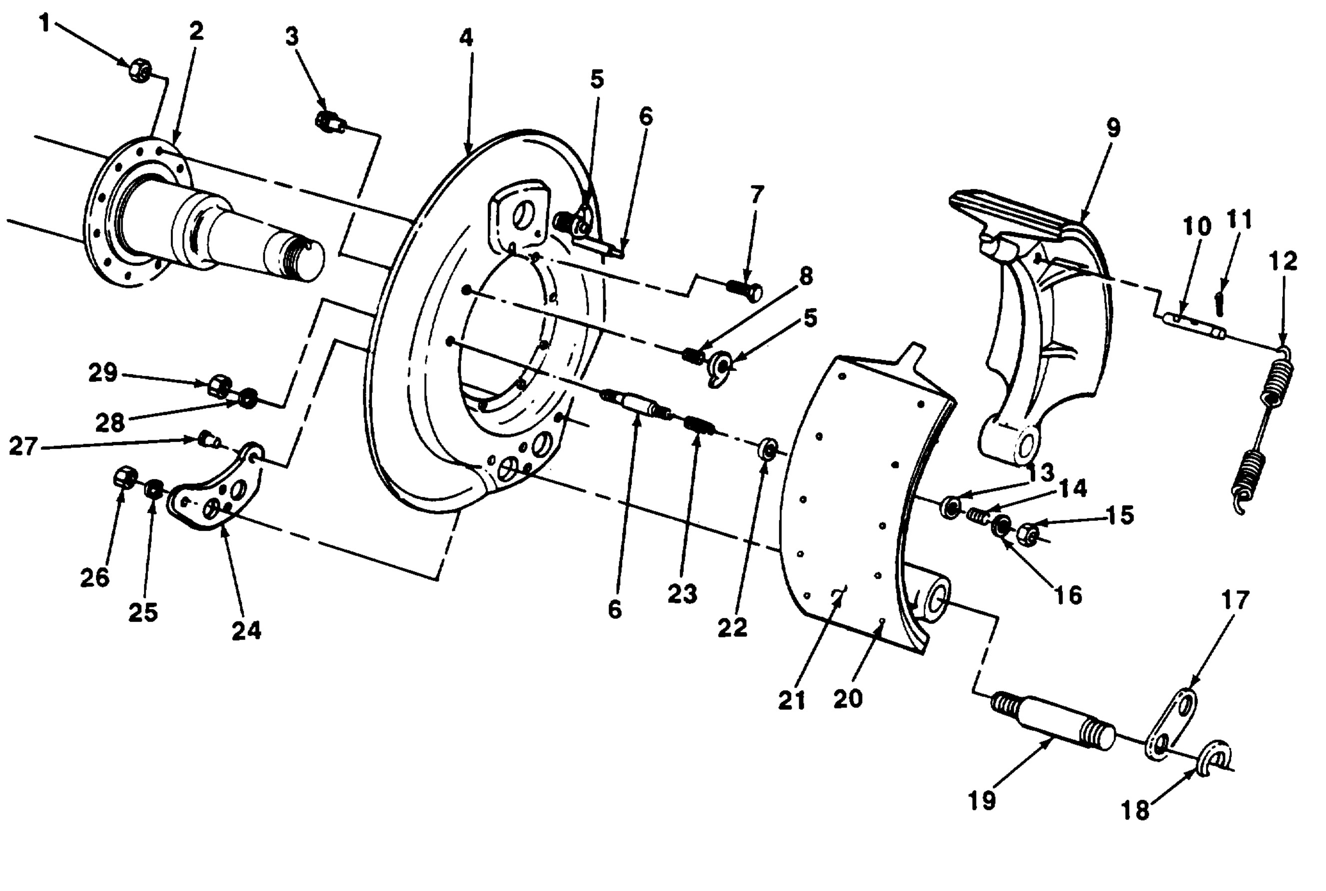
DO NOT handle brakeshoes, brakedrums, or other brake components unless area has been properly cleaned. There may be asbestos dust on these components which can be dangerous if you touch It or breathe It, Wear an approved filter mask and gloves. Never use compressed air or a dry brush to clean brake components. Dust may be removed using an Industrial-type vacuum cleaner, Clean dust or mud away from brake components with water and a wet, soft brush or cloth. Failure to follow this warning may result in serious illness or death to personnel.

4-57. SERVICE BRAKE MAINTENANCE (SINGLE WHEEL CYLINDER) (Con't).

NOTE

If replacing brakeshoes only, perform steps 1 through 4.

1. Remove return spring (12) from two grooved pins (1 O) at upper ends of brakeshoes (9).
2. Remove locknut (15), recessed washer (16), spring (14), and recessed washer (13) securing each brakeshoe (9) to guide pin (6). Discard locknuts.
3. Remove two slotted washers (18) and link (17) from two anchor pins (19) and brakeshoes (9).
4. Remove brakeshoes (9) from two anchor pins (19) and backing plate (4).
5. Remove two cotter pins (11) and grooved pin (1 O) from each brakeshoe (9). Discard cotter pins.
6. Remove wheel cylinder and shield (para 4-60).
7. Remove ten locknuts (l), screws (7), and backing plate (4) and assembled parts from axle (2). Discard locknuts.



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4-57. SERVICE BRAKE MAINTENANCE (SINGLE WHEEL CYLINDER) (Con't).

8. If present, remove peened ends from two pins (3). Remove two cams (5), springs (8), and pins from backing plate (4).

9. Remove recessed washer (22) and spring (23) from each guide pin (6). Remove two nuts (29), Iockwashers (28), and guide pins from backing plate (4). Discard Iockwashers.

10. Remove two nuts (26), Iockwashers (25), and anchor pins (19) from backing plate (4) and anchor pin bracket (24). Discard Iockwashers.

11. If damaged, remove four rivets (27) and anchor pin bracket (24) from backing plate (4). Discard rivets.

b. CLEANING AND INSPECTION

WARNING

- **DC) NOT handle brakeshoes, brakedrums, or other brake components Unless area has been properly cleaned. There maybe asbestos dust on these components which can be dangerous If you touch it or breathe it. Wear an approved filter mask and gloves. Never use compressed air or a dry brush to clean brake components. Dust may be removed using an industrial-type vacuum cieaner. Ciean dust or mud away from brake components with water and a wet, soft brush or cloth. Failure to follow this warning may result in serious illness or death to personnel.**

- **Dry cleaning solvent, P-D-680, is toxic and fiammable. Always wear protective goggles and gloves, and use only in a we!i-ventilated area, Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open frame or excessive heat. The solvent's flash point is 100°F-138°F (38°C-59°C). if you become dizzy while using cleaning solvent, immediately get fresh air and medical help. if solvent contacts eyes, Immediately wash your eyes and get medical aid.**

1. Clean all parts with dry cleaning solvent and dry thoroughly.

2. inspect ail parts for cracks, breaks, corrosion, or other damage. Replace all damaged parts.

3. inspect brakeshoe linino (21) for cracks, distortion, and excessive wear. Replace brakeshoes if damaged or worn.

4. Measure depth of rivets (20) below brakeshoe lining (21), Replace brakeshoe if depth of rivets is not at least 3/32 in. (2.38 mm) below brakeshoe lining.

5. inspect braking surface for grease or hydraulic fluid, If grease or hydraulic fluid is present, replace brakeshoes.

c. ASSEMBLY

NOTE

If replacing brakeshoes only, perform steps 8 through 11.

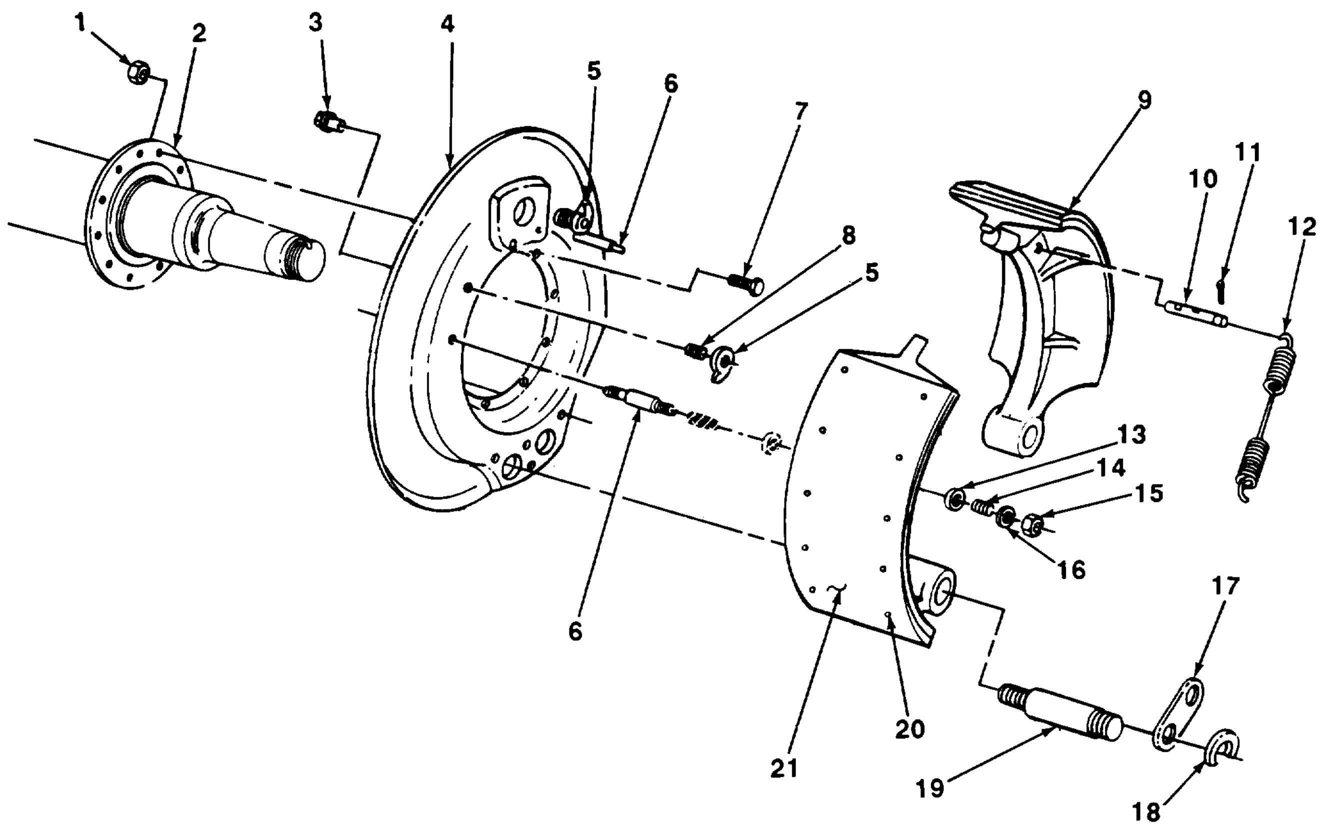
1. if removed, install anchor pin bracket (24) on backing plate (4) with four new rivets (27).

2. install two anchor pins (19) in backing plate (4) and anchor pin bracket (24) with two new Iockwashers (25) and nuts (26).

3. Install two guide pins (6) in backing plate (4) with two new lockwashers (28) and nuts (29). Torque nuts to 25 lb.-ft. (34 Nom). install spring (23) and recessed washer (22) on each guide pin.

4-57. SERVICE BRAKE MAINTENANCE (SINGLE WHEEL CYLINDER) (Con't).

4. Install two pins (3), springs (8), and cams (5) on backing plate (4). Peen ends of pins.
5. Install backing plate (4) with assembled parts on axle (2) using ten screws (7) and new locknuts (l).
6. Install wheel cylinder and shield (para 4-60).
7. Position grooved pin (10) in each brakeshoe (9) with grooved end facing outward. Install two new cotter pins (11) in each grooved pin.
8. Position two brakeshoes (9) on two anchor pins(19) and backing plate (4). Ensure that wheel cylinder pushrods engage slots in upper ends of brakeshoes and two guide pins (6) are fitted through slots in brakeshoes.
9. Install link (17) and two slotted washers (18) on two anchor pins (19).
10. Install recessed washer (13), spring (14), recessed washer (16), and new locknut (15) on each guide pin (6).
11. Install return spring (12) on two grooved pins (10) at upper ends of brakeshoes (9).



FOLLOW-ON TASKS:

- Install hub and brakedrum (para 4-69).
- Bleed brakes (para 4-58).
- Adjust brakes (major adjustment) (para 4-55).
- Install wheels (para 4-70).

TA700248

4-58. HYDRAULIC BRAKE SYSTEM BLEEDING.

This Task Covers:

a. Manual Bleeding

b. Pressure Feed Filler Bleeding

Initial Setup:

Equipment Conditions:

- Semitrailer coupled to towing vehicle (manual bleeding) (para 2-10).

Tools/Test Equipment:

- General mechanic's tool kit
- Drain pan
- Pneumatic brake bleeder

Materials/Parts:

- Brake fluid (Item 6, Appendix E)
- Rags (Item 20, Appendix E)
- Plastic tubing

Personnel Required: Two

a. MANUAL BLEEDING

NOTE

Use a drain pan to catch any draining brake fluid. Clean up all spills.

1. Clean bleeder valve (l). Connect plastic tubing (3) to bleeder valve.

NOTE

Ensure that end of plastic tubing remains submerged In brake fluid.

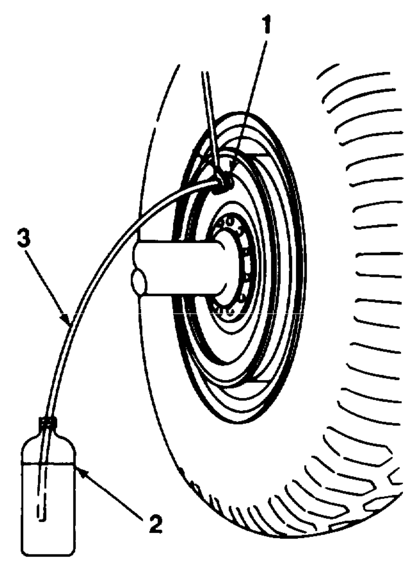
2. Submerge free end of plastic tubing (3) in approximately 3 in. (7.6 cm) of clean brake fluid. Use a clean, clear jar (2) or bottle to hold brake fluid.

NOTE

Master cylinder must be kept full during bleeding to prevent air from entering hydraulic brake system.

3. Remove filler plug from master cylinder. Fill master cylinder with brake fluid to within ½ in. (13 mm) of top.

4. Open bleeder valve (1) by turning counterclockwise ¾ turn.



NOTE

Do not pump brake pedal during step 5.

5. Have assistant press and hold brake pedal on towing vehicle. Fluid will be forced through tubing to expel air, which will show as air bubbles in fluid coming out of plastic tubing (3). Continue holding brake pedal until air bubbles no longer appear. Ensure that plastic tubing remains submerged in brake fluid.

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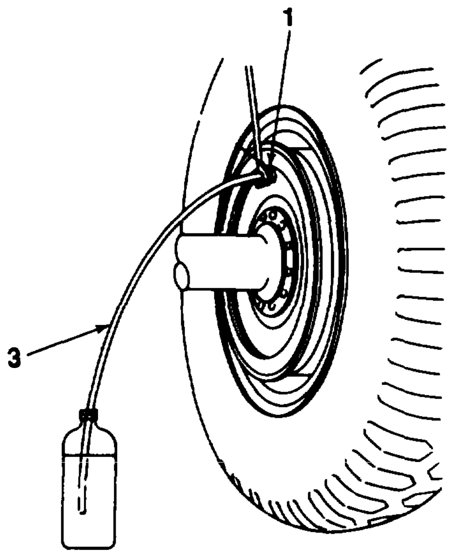
4-58. HYDRAULIC BRAKE SYSTEM BLEEDING (Con't).

6. When air bubbles no Ionger appear, close bleeder valve (l). Remove plastic tubing (3).
7. Replenish brake fluid in master cylinder.
8. Repeat steps 1 through 7 for remaining wheel cylinders.
9. Replenish brake fluid in master cylinder then install filler plug.



b. PRESSURE FEED FILLER BLEEDING

1. Install pressure feed adapter in master cylinder filler plug hole and connect pressure feed hose to adapter. Fluid pressure in master cylinder should be 10-20 psi (69-138 kPa). Pressure feed reservoir should contain sufficient fluid to maintain a constant fluid level in the system during bleeding.
2. Bleed the system as in manual bleeding (subpara a). Manual operation of brake pedal and replenishment of brake fluid are not required.

FOLLOW-ON TASKS:

. Uncouple semitrailer form towing vehicle (para 2-20).

TA700250

4-59. WHEEL CYLINDER REPLACEMENT (DUAL WHEEL CYLINDERS).

This Task Covers:

a. Removal

b. Installation

Initial Setup:

Equipment Conditions:

- Pressure tank drained (Table 2-1).
- Brakeshoes removed (para 4-55).

Tools/Test Equipment:

- General mechanic's tool kit
- Drain pan

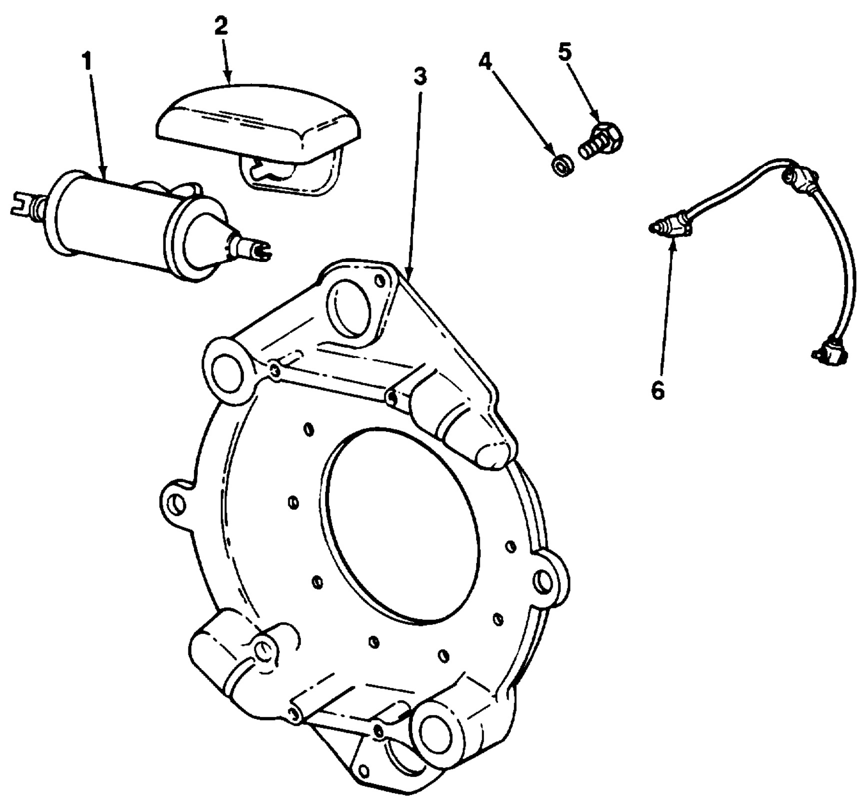
Materials/Parts:

- Rags (Item 20, Appendix E)
- Two lockwashers

NOTE

Use a drain pan to catch any draining brake fluid. Clean up all spills.

1. Disconnect fluid passage bolt (6) from wheel cylinder (1) at rear of backing plate (3).
2. Remove two screws (5) and lockwashers (4) from wheel cylinder(l). Remove wheel cylinder and shield (2) from backing plate (3). Discard lockwashers.

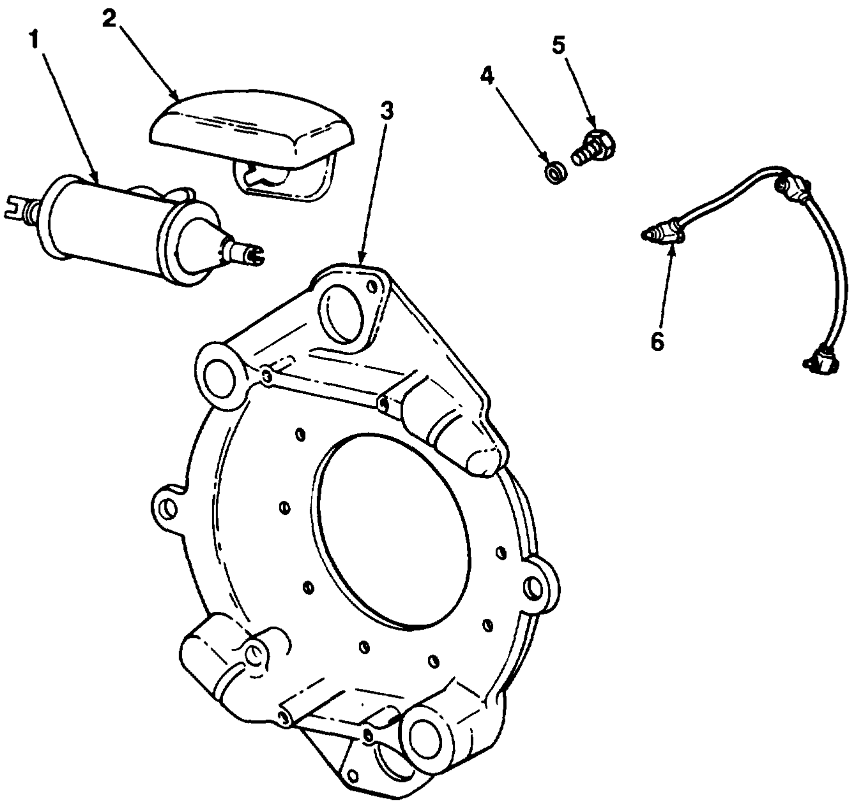


TA700251

4-59. WHEEL CYLINDER REPLACEMENT (DUAL WHEEL CYLINDERS) (Con't).

b. INSTALLATION

1. Install wheel cylinder (1) and shield (2) on backing plate (3) using two screws (5) and new lockwashers (4).
2. Connect fluid passage bolt (6) to wheel cylinder (1) at rear of backing plate (3).



FOLLOW-ON TASKS:

- Install brakeshoes (para 4-56).
- Bleed brakes (para 4-54).

TA700252

4-60. WHEEL CYLINDER REPLACEMENT (SINGLE WHEEL CYLINDER).

This Task Covers:

a. Removal

b. Installation

Initial Setup:

Equipment Conditions:

- Pressure tank drained (Table 2-1).
- Hub and brakedrum removed (para 4-69).

Tools/Test Equipment:

- General mechanic's tool kit
- Brake spring pliers
- Drain pan

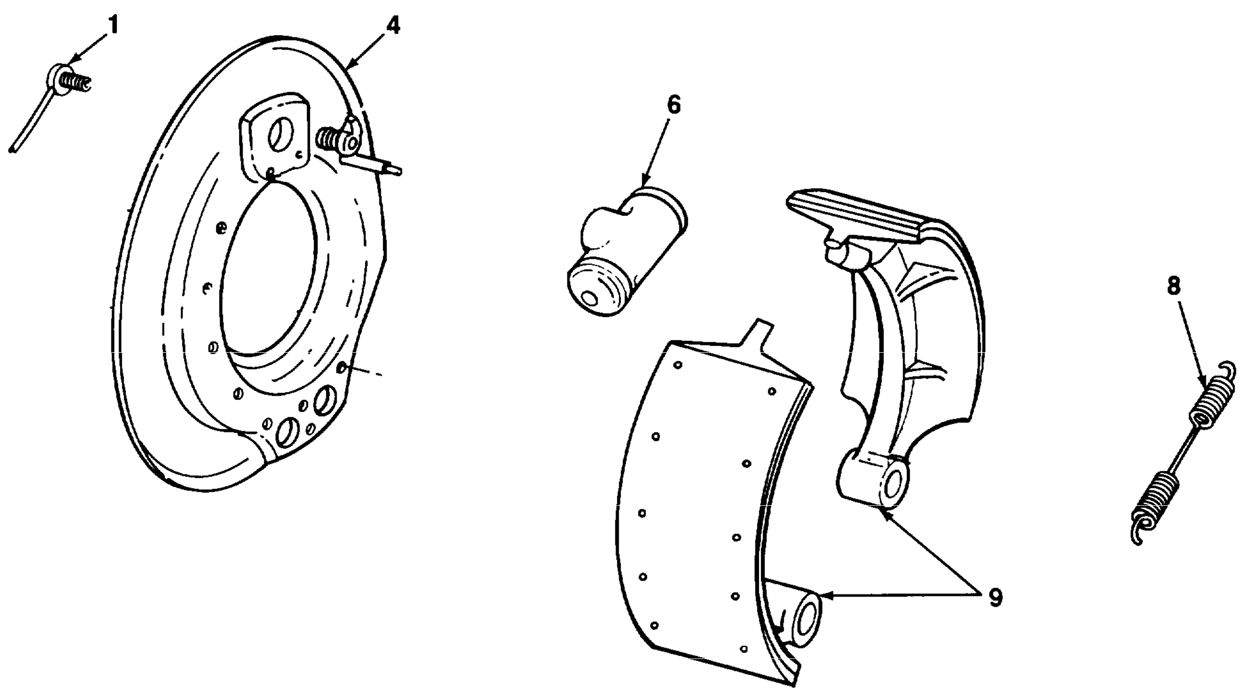
Materials/Parts:

- Rags (Item 20, Appendix E)
- Two lockwashers

NOTE

Use a drain pan to catch any draining brake fluid. Clean up ail spills.

1. Disconnect fluid passage bolt (1) from wheel cylinder (6) at rear of backing plate (4).
2. Unhook return spring (8) from one brakeshoe (9).



TA700253

4-60. WHEEL CYLINDER REPLACEMENT (SINGLE WHEEL CYLINDER) (Con't).

3. Remove two screws (2) and lockwashers (3) from wheel cylinder (6). Separate brakeshoes and remove wheel cylinder and shield (5) from backing plate (4). Discard lockwashers.

4. Remove two links (7) from wheel cylinder (6).

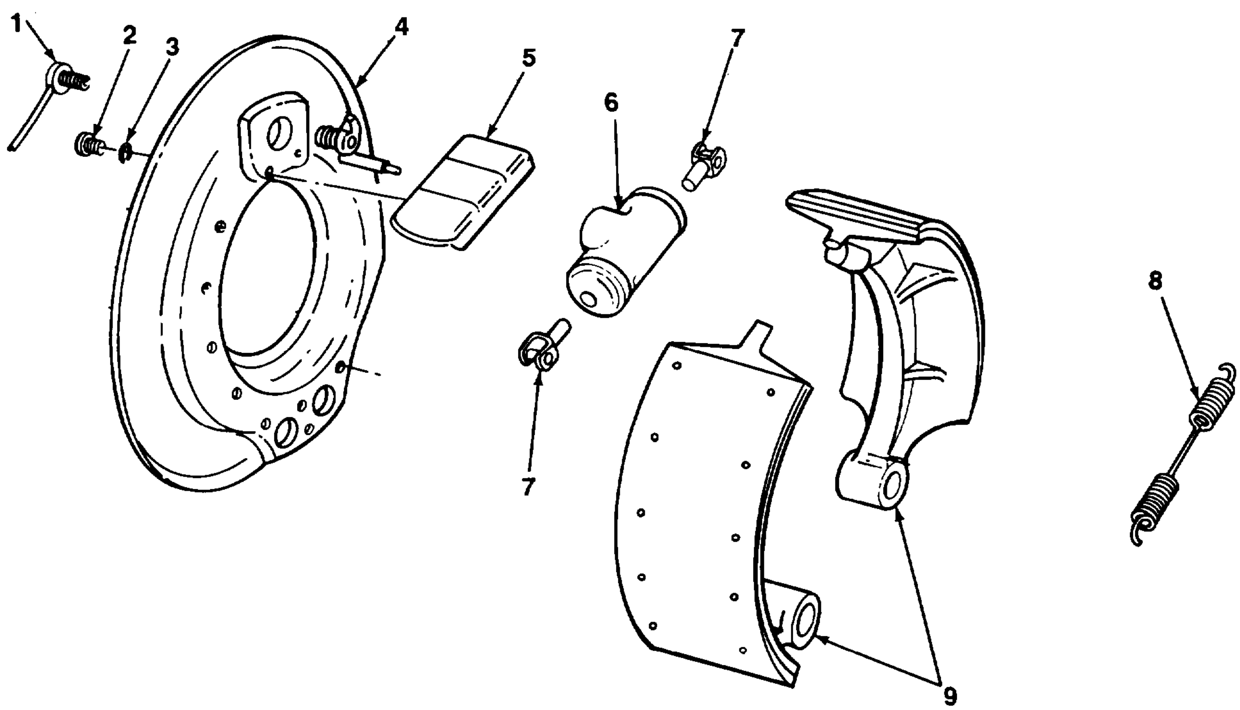
b. INSTALLATION

1. Install two links (7) in wheel cylinder (6).

2. Install wheel cylinder (6) and shield (5) on backing plate (4) using two screws (2) and new lockwashers (3).

3. Connect return spring (8) to brakeshoe (9).

4. Connect fluid passage bolt (1) to wheel cylinder (6) at rear of backing plate (4).



FOLLOW-ON TASKS:

- Install hub and brakedrum (para 4-69).
- Bleed brakes (para 4-58).
- Adjust brakes (para 4-55).

TA700254

4-61. MASTER CYLINDER REPLACEMENT.

This Task Covers:

a. Removal b. Installation

Initial Setup:

Equipment Conditions:

- Pressure tank drained (Table 2-l).

Tools/Test Equipment:

- General mechanic's tool kit
- Drain pan

Materials/Parts:

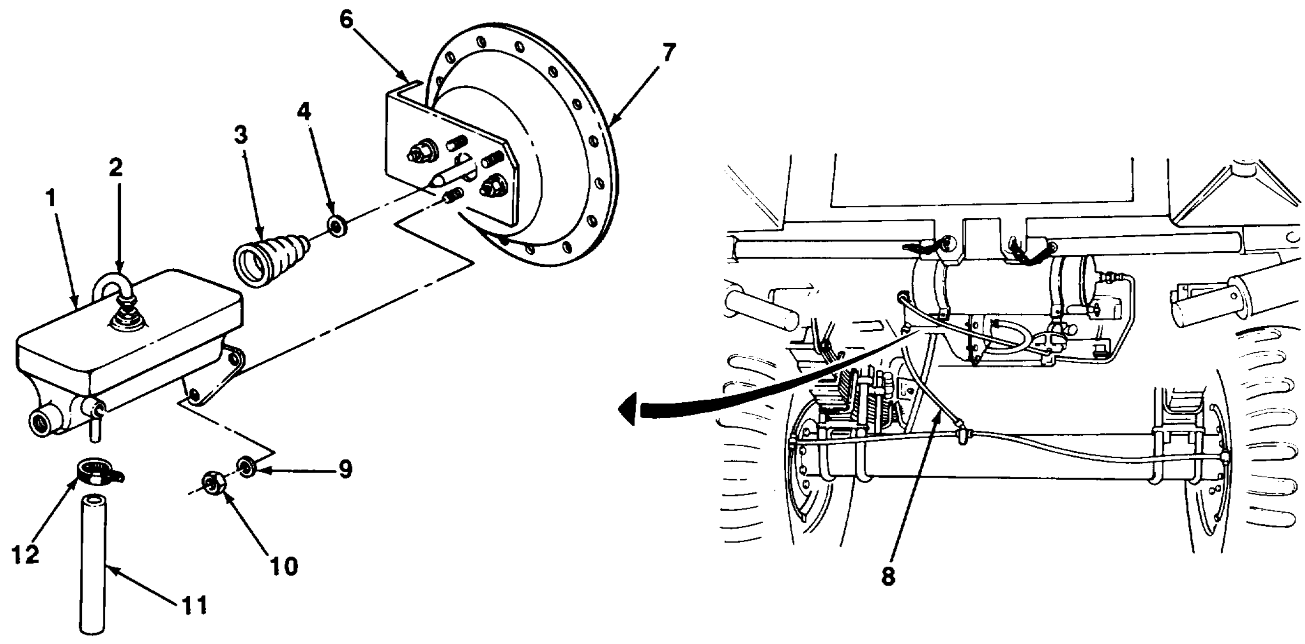
- Rags (Item 20, Appendix E)
- Three lockwashers

a. REMOVAL

NOTE

Use a drain pan to catch any draining brake fluid. Clean up all spills.

1. Disconnect hydraulic line (8) from rear of master cylinder(1).
2. Remove three nuts (1 O) and lockwashers (9) securing master cylinder (1) to studs on bracket (6) and to air chamber (7). Move master cylinder to one side sufficiently to detach rubber bellows (3) and retaining ring (4). Remove master cylinder from air chamber and bracket. Discard lockwashers.
3. Loosen screw in hose clamp (12). Remove hose clamp and hose (11) from tube (2).
4. Remove tube (2) from master cylinder (1).

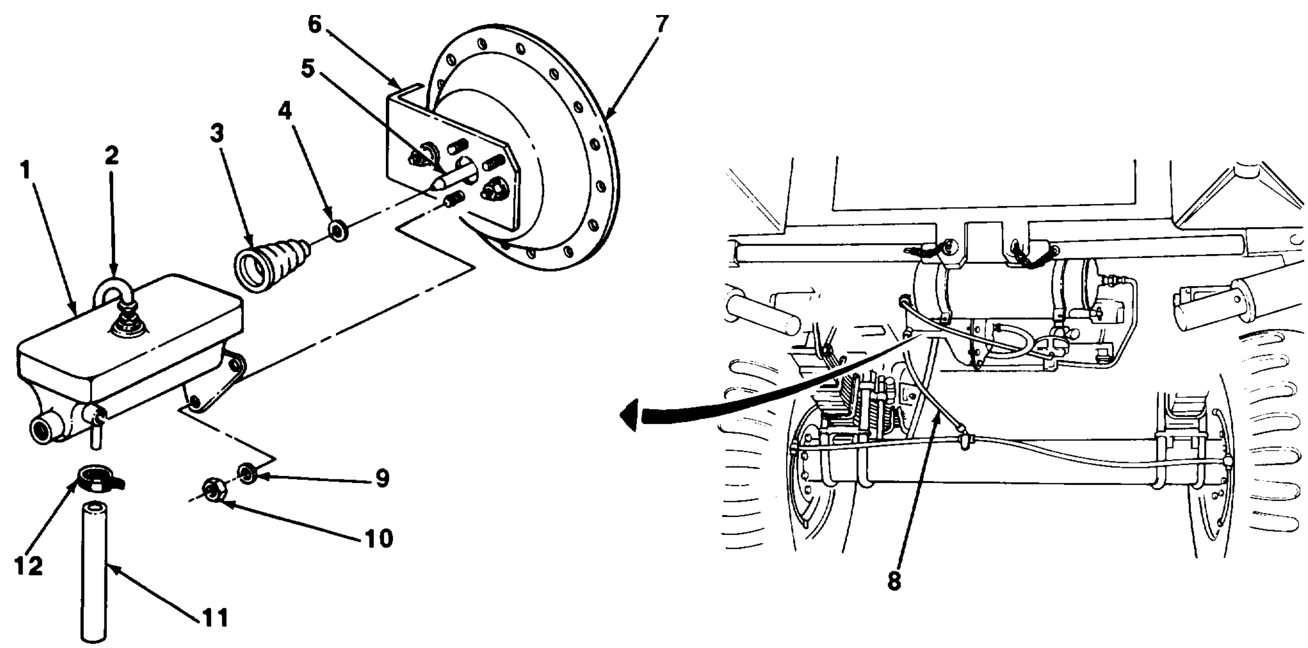


TA700255

4-61. MASTER CYLINDER REPLACEMENT (Con't).

b. INSTALLATION

1. install tube (2) in master cylinder (1),
2. Install hose clamp (12) and hose (11) on tube (2). Tighten screw in hose clamp.
3. Install rubber bellows (3) over lip on master cylinder (1). Install retaining ring (4) over rubber bellows.
4. Install master cylinder (1) on three studs on bracket (6) and on air chamber (7) using three new Iockwashers (9) and nuts (1 O). Ensure that air chamber pushrod (5) is properly seated in master cylinder piston.
5. Connect hydraulic line (8) to rear of master cylinder (1).



FOLLOW-ON TASKS:

- Bleed brakes (para 4-58).

TA700256

4-62. HYDRAULIC LINES AND FITTINGS REPLACEMENT

This Task Covers:

a. Removal

b. Installation

Initial Setup:

Equipment Conditions:

- Pressure tank drained (Table 2-1).

Tools/Test Equipment:

- General mechanic's tool kit
- Drain pan

Materials/Parts:

- Rags (Item 20, Appendix E)
- One gasket
- One lockwasher

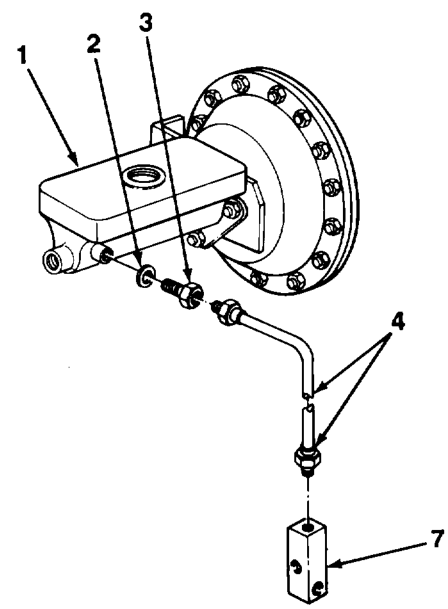
a. REMOVAL

NOTE

Use a drain pan to catch any draining brake fluid. Clean up all spills.

1. Remove hose assembly (4), reducer (3), and gasket (2) from master cylinder (1). Discard gasket.

2. Remove hose assembly (4) from multiple connector (7).



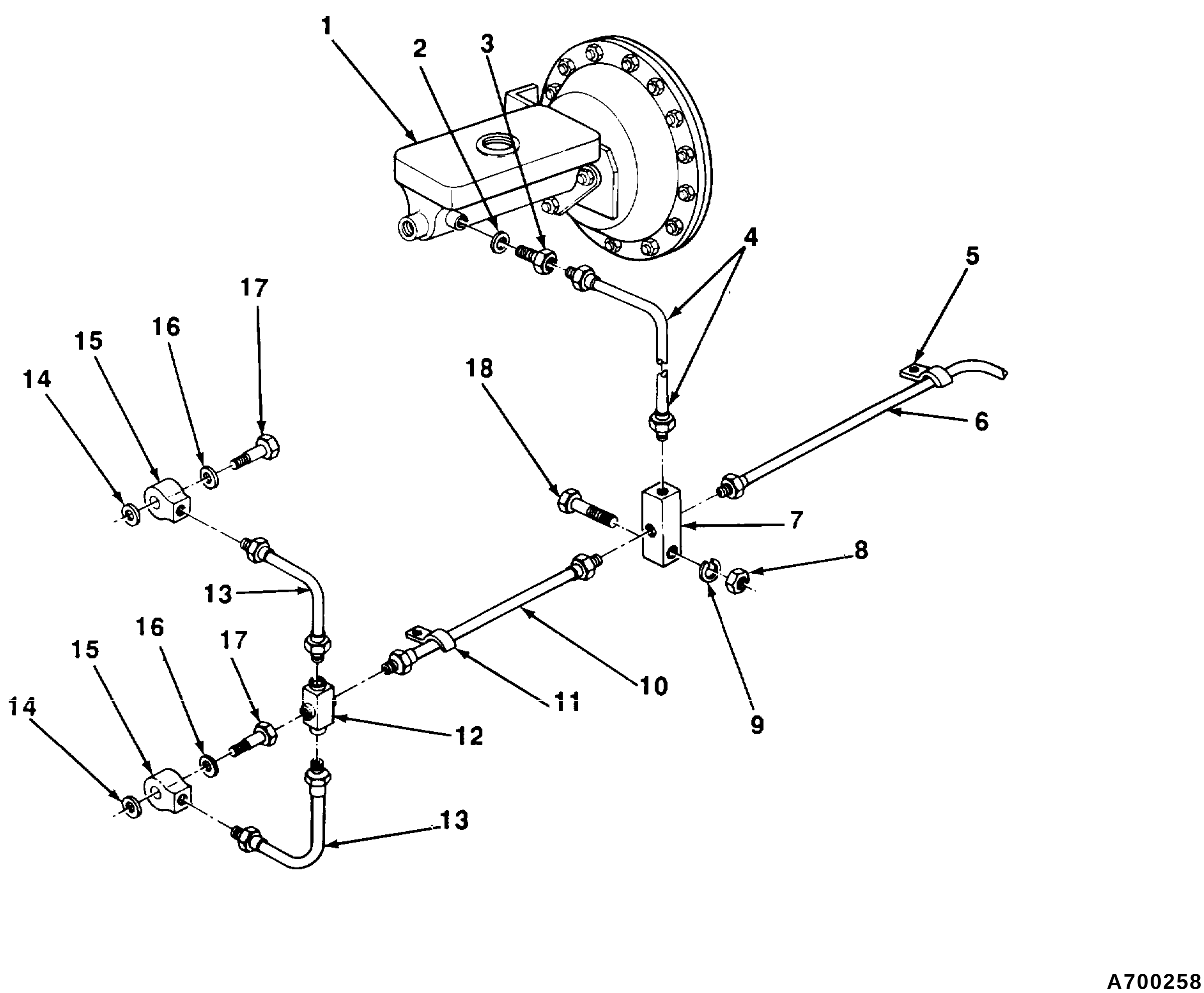
TA700257

4-62. HYDRAULIC LINES AND FITTINGS REPLACEMENT (Con't).

3. Loosen understraps (5 and 11). Remove two tube assemblies (6 and 10) from multiple connector (7).
4. Remove nut (8), Iockwasher (9), and multiple connector (7) from screw (18). Discard Iockwasher.
5. Remove tube assembly (1 O) from connector (1 2). Remove tube assembly.
6. Remove two tube assemblies (13) from connector (12) and each tee (15).
7. Remove two fluid passage bolts (17), spacers (16), tees (15), and washers (14),
8. Repeat steps 5 through 7 on opposite side.

b. INSTALLATION

1. Install tube assembly (13) in tee (15). Repeat for other tube assembly.
2. Install two washers (14), tees (15), spacers (1 6), and fluid passage bolts (17).
3. Connect each tube assembly (13) to connector (1 2).



4-62. HYDRAULIC LINES AND FITTINGS REPLACEMENT (Con't).

4. Connect tube assembly (10) to connector (12).
5. Repeat steps 1 through 4 on opposite side.
6. Install multiple connector (7) on screw (18) using nut (8) and new lockwasher (9).
7. Connect two tube assemblies (6 and 10) to multiple connector (7) and secure understraps (5 and 11).
8. Connect hose assembly (4) to multiple connector (7).
9. Install new gasket (2) and reducer (3) in master cylinder (1). Connect hose assembly (4) to master cylinder.
10. Bleed brakes (para 4-58).
11. Inspect hydraulic lines and fittings for leaks.

4-63. AIR CHAMBER MAINTENANCE.

This Task Covers:

a. Removal
b. Installation
c. Leakage Test
d. Pushrod Travel Test

Initial Setup:

Materials/Parts:

- Detergent (Item 12, Appendix E)
- Antiseizing tape (Item 26, Appendix E)
- Two lockwashers

Tools/Test Equipment:

- General mechanic's tool kit

Personnel Required: Two

a. REMOVAL

1. Open pressure tank draincock (6) to release pressure in brake system.

2. Disconnect air line (5) from air chamber (2).

CAUTION

When removing air chamber, use caution not to damage master cylinder bellows.

3. Remove two nuts (9), Iockwashers (8), and air chamber (2) from bracket (1). Discard Iockwashers.

b. INSTALLATION

1. Install air chamber (2) on bracket (1) using two nuts (9) and new iockwashers (8). Ensure that air chamber pushrod (3) is properly seated in master cylinder piston.

2. Apply antiseizing tape to male threads and connect air line (5) to air chamber (2).

3. Close pressure tank draincock (6).

4, Perform leakage test (subpara c).

5. Perform pushrod travel test (subpara d).

c. LEAKAGE TEST

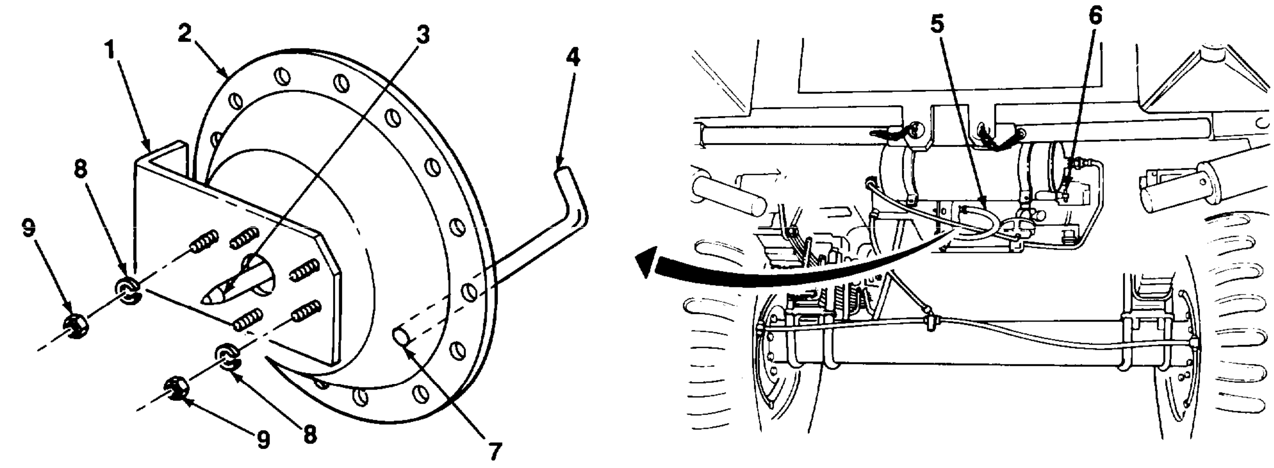
NOTE

Semitrailer must be coupled to towing vehicle (para 2-1O).

1. With semitrailer brake system fully charged and brakes applied, coat flange of air chamber (2) with detergent and water solution and inspect for leakage. No leakage is permissible. if leakage is detected, tighten flange nuts evenly and sufficiently,

2. Check nonpressure side of air chamber (2) for leakage by applying detergent and water solution to holes in air chamber body. If leakage exists, replace air chamber.

4-63. AIR CHAMBER MAINTENANCE (Con't).



MASTER CYLINDER
REMOVED FOR CLARITY

d. PUSHROD TRAVEL TEST

NOTE

Semitrailer must be coupled to towing vehicle (para 2-1O).

1. With brakes released, insert a small rod (4) through one of two inspection holes (7) in left side of air chamber (2). Mark rod, indicating depth of penetration when contacting pushrod.

2. Apply brakes, insert rod (4) fully, and mark rod again.

3. Withdraw rod (4) and measure distance between marks. Distance between marks indicates the amount of travel of pushrod (3).

4. Pushrod (3) travel requirements are as follows:

   (a) Old style air chamber. Pushrod travel not less than ½ in. (12.7 mm) and not greater than 7/8 in. (22.2 mm).

   (b) New style air chamber. Pushrod travel not less than ½ in. (12.7 mm) and not greater than 1½ in. (3.8 cm).

5. If pushrod (3) travel is correct, adjust brakes (para 4-55 or 4-56).

6. If pushrod (3) travel is not correct, replace air chamber.

TA700259

4-64. PRESSURE TANK REPLACEMENT.

This Task Covers:

a. Removal
b. Installation
c. Leakage Test
d. Draincock Replacement

Initial Setup:

Materials/Parts:

- Detergent (Item 12, Appendix E)
- Dry cleaning solvent (Item 13, Appendix E)
- Antiseizing tape (Item 26, Appendix E)
- Six lockwashers

Tools/Test Equipment:

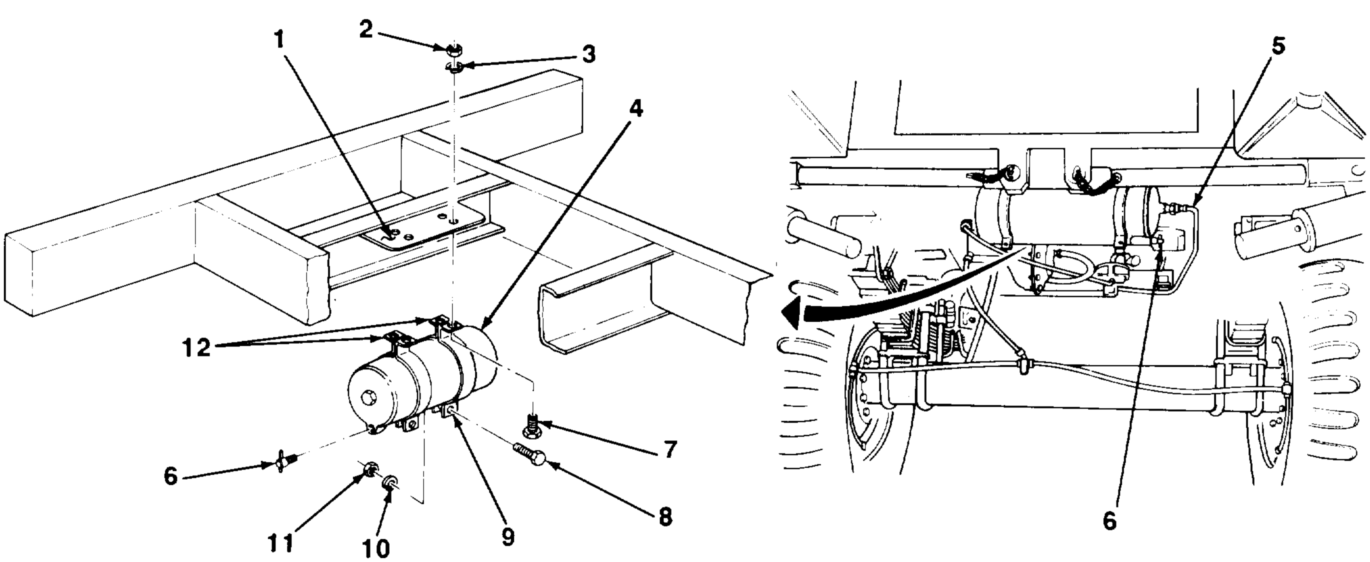
- General mechanic's tool kit

a. REMOVAL

1. Open pressure tank draincock (6) to release air from brake system.
2. Disconnect air tube (5) from relay valve to pressure tank (4).
3. Remove four nuts (2), lockwashers (3), screws (7), and pressure tank (4) from mounting bracket (l). Discard lockwashers.
4. Remove two nuts (11), lockwashers (10), and screws (8). Remove two brackets (9) and two brackets (12) from pressure tank (4). Discard lockwashers.

b. INSTALLATION

1. Install two brackets (9) and two brackets (12) on pressure tank (4) using two screws (8), new lockwashers (10), and nuts (11).



TA700260

4-64. PRESSURE TANK REPLACEMENT (Con't).

2. Install pressure tank (4) on mounting bracket (1) using four screws (7), new lockwashers (3), and nuts (2). Ensure that pressure tank is installed with draincock (6) on bottom.
3. Apply antiseizing tape to male threads and connect air tube (5) from relay valve to pressure tank (4).
4. Close pressure tank draincock (6)
5. Perform leakage test (subpara c).

c. LEAKAGE TEST

NOTE

- **Draincock leakage caused by dirt can be corrected by cleaning the valve before installation. Leakage caused by a damaged valve or body assembly requires replacement of the draincock.**
- **Semitrailer must be coupled to towing vehicle (para 2-1O).**

1. With semitrailer brake system fully charged, coat draincock (6) and outside of pressure tank (4) with detergent and water solution and inspect for leakage. No leakage is permissible.
2. Tighten any leaking air line connection.
3. Inspect for damage or corrosion.
4. Replace pressure tank (4) if it leaks or if any damage or corrosion is found that would weaken pressure tank.

d. DRAINCOCK REPLACEMENT

1. Open draincock (6) to release air from brake system.
2. Remove draincock (6) from pressure tank (4).

WARNING

Dry cleaning solvent, P-D-680, Is toxic and flammable. Always wear protective goggles and gloves, and use only In a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point is 100°F-138°F (38°C-59°C). If you become dizzy while using cleaning solvent, Immediately get fresh air and medical help. If solvent contacts eyes, Immediately wash your eyes and get medical aid.

3. Clean draincock (6) with dry cleaning solvent and dry thoroughly.
4. Inspect draincock (6) for damage or wear. Replace if damaged or worn.
5. Wrap threads on draincock (6) with antiseizing tape.

CAUTION

Use caution not to bend the valve or damage draincock body.

6. Install draincock (6) into pressure tank (4).
7. Close draincock (6).
8. Perform leakage test (subpara c).

4-65. RELAY VALVE REPLACEMENT.

This Task Covers:

a. Removal
b. Installation
c. Operating Test
d, Leakage Test

Initial Setup:

Materials/Parts:

- Detergent (Item 12, Appendix E)
- Marker tags (Item 24, Appendix E)
- Antiseizing tape (Item 26, Appendix E)
- Three Iockwashers

Tools/Test Equipment:

- General mechanic's tool kit

Personnel Required: Two (if performing operating test and leakage test)

a. REMOVAL

1. Open pressure tank draincock (1) to release pressure in brake system.
2. Tag and disconnect emergency, service, pressure tank, and airbrake chamber tubes from relay valve (5)
3. Remove three nuts (2), Iockwashers (3), and screws (4). Remove relay valve (5) from mounting bracket. Discard Iockwashers,

b. INSTALLATION

1. Install relay valve (5) on mounting bracket using three screws (4), new Iockwashers (3), and nuts (2).
2. Apply antiseizing taping to all male threads of tubes.
3. Connect airbrake chamber, pressure tank, emergency, and service air tubes to relay valve (5). Remove tags.
4. Close pressure tank draincock (l).
5. Perform operating test (subpara c).
6. Perform leakage test (subpara d).

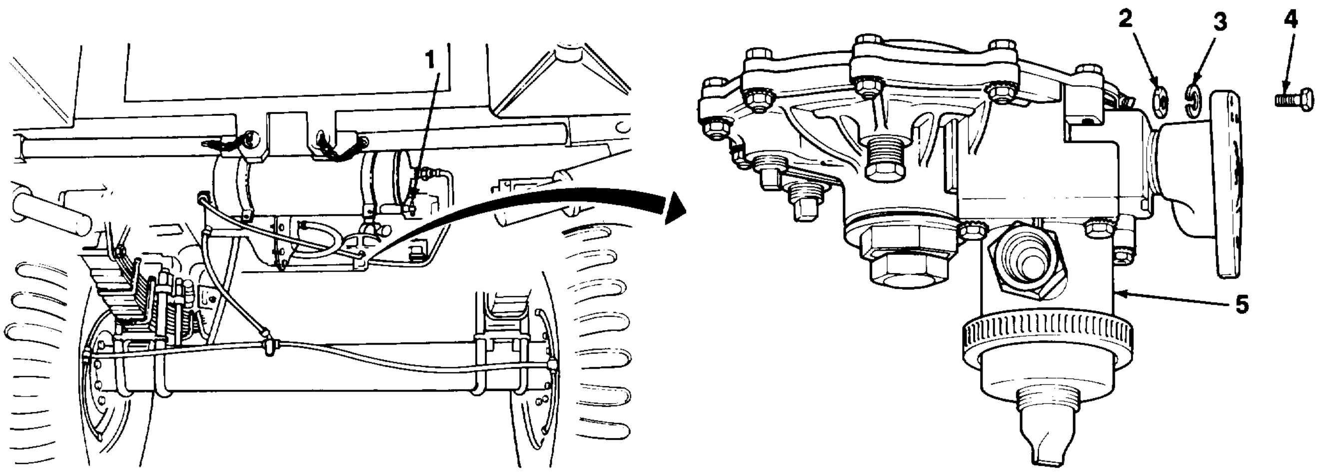
c. OPERATING TEST

NOTE

Semitrailer must be coupled to towing vehicle (para 2-1O).

1. With semitrailer brake system fully charged, check whether brakes apply properly.
2. Release brakes and check whether air pressure is being exhausted promptly.
3. With semitrailer brake system fully charged, close shut-off valve in emergency line tube on towing vehicle. Disconnect towing vehicle emergency air hose from semitrailer air coupling tagged EMERGENCY Check whether semitrailer brakes apply automatically.
4. Connect towing vehicle emergency air hose to semitrailer air coupling tagged EMERGENCY Open shut-off valve on towing vehicle and check that semitrailer brakes release automatically.

4-65. RELAY VALVE REPLACEMENT (Con't).



d. LEAKAGE TEST

NOTE

Semitrailer must be coupled to towing vehicle (para 2-1O).

1. Coat exhaust port with detergent and water solution. Apply brakes and check for leaks
2. Release brakes and apply detergent and water solution to exhaust port and check for leaks.
3. With semitrailer brake system fully charged, close shut-off valve in emergency line tube on towing vehicle. Disconnect towing vehicle air hose from semitrailer coupling tagged EMERGENCY Coat exhaust port with detergent and water solution and check for leaks.
4. Leakage in steps 1 through 3 should not exceed a 1 in. (2.54 cm) bubble in two seconds. If excess leakage is found, replace relay valve.

TA700261

4-66. AIR FILTER REPLACEMENT.

This Task Covers:

a. Removal

b. Installation

initia/ Setup:

Equipment Conditions:

- Semitrailer uncoupled from towing vehicle (para 2-20) .
- Pressure tank drained (Table 2-1).

Tools/Test Equipment:

- General mechanic's tool kit

Materials/Parts:

- Dry cleaning solvent (Item 13, Appendix E)
- Antiseizing tape (Item 26, Appendix E)
- Two lockwashers

a. REMOVAL

NOTE

Late model semitrailers, except for M373A3 and M373A4, do not have air filters.

1, Disconnect two air tubes (2) from air filter fittings.

2. Remove two nuts (5) and lockwashers (4) from U-bolt (l). Discard lockwashers. Remove U-bolt and air filter (3).

b. INSTALLATION

1. Install air filter (3) using U-bolt (1), two nuts (5), and new lockwashers (4).
2. Apply antiseizing tape to male threads of air filter fittings.
3. Connect two air tubes (2) to air filter fittings

FOLLOW-ON TASKS:

- Couple semitrailer to towing vehicle (para 2-10).
- Perform leakage test (para 4-68).

TA700262

4-67. AIR COUPLING REPLACEMENT.

This Task Covers:

a. Removal
b. Cleaning and Inspection
c. Installation

Initial Setup:

Equipment Conditions:

- Semitrailer uncoupled from towing vehicle (para 2-20) .
- Pressure tank drained (Table 2-l).

Tools/Test Equipment:

- General mechanic's tool kit

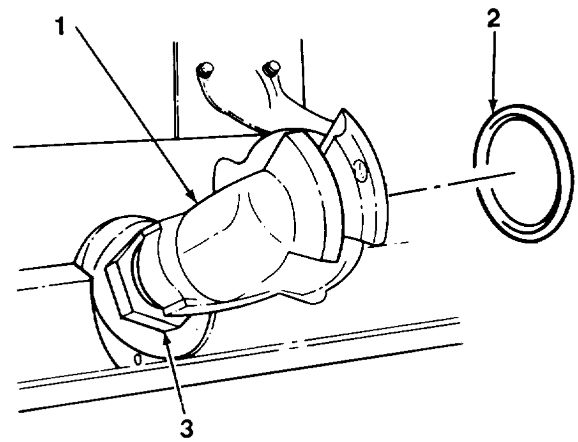
Materials/Parts:

- Dry cleaning solvent (Item 13, Appendix E)
- Antiseizing tape (Item 26, Appendix E)
- One preformed packing

a. REMOVAL

1. Hold fitting (3) stationary and remove air coupling (1),

2. Work preformed packing (2) out of air coupling (1). Discard preformed packing.



b. CLEANING AND INSPECTION

1. Clean mud and dirt from all exposed surfaces.

WARNING

Dry cleaning solvent, P-D-680, is toxic and flammable. Always wear protective goggles and gloves, and use only in a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point is 1OO°F-138°F (38°C-59°C). If you become dizzy while using cleaning solvent, immediately get fresh air and medical help. If solvent contacts eyes, immediately wash your eyes and get medical aid.

2. Remove grease with dry cleaning solvent and dry thoroughly

3. Inspect air coupling body for damaged threads or cracks. Replace air coupling if damaged.

TA700263

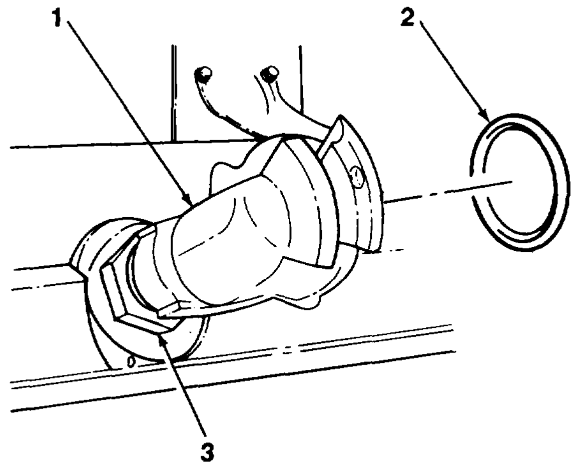
4-67. AIR COUPLING REPLACEMENT (Con't).

c. INSTALLATION

1, Install new preformed packing (2) in air coupling (l).

2. Apply antiseizing tape to male threads. Install air coupling (1) to fitting (3).

3. Ensure that face of air coupling is vertical and facing centerline of semitrailer.



FOLLOW-ON TASKS:

- Couple semitrailer to towing vehicle (para 2-10).
- Perform leakage test (para 4-68).

TA700264

4-68. AIR LINES AND FITTINGS MAINTENANCE.

This Task Covers:

a. Removal
b. Installation
c. Leakage Test

Materials/Parts:

- Detergent (Item 12, Appendix E)
- Antiseizing tape (Item 26, Appendix E)
- Compression sleeves (as required)
- Lockwashers (as required)

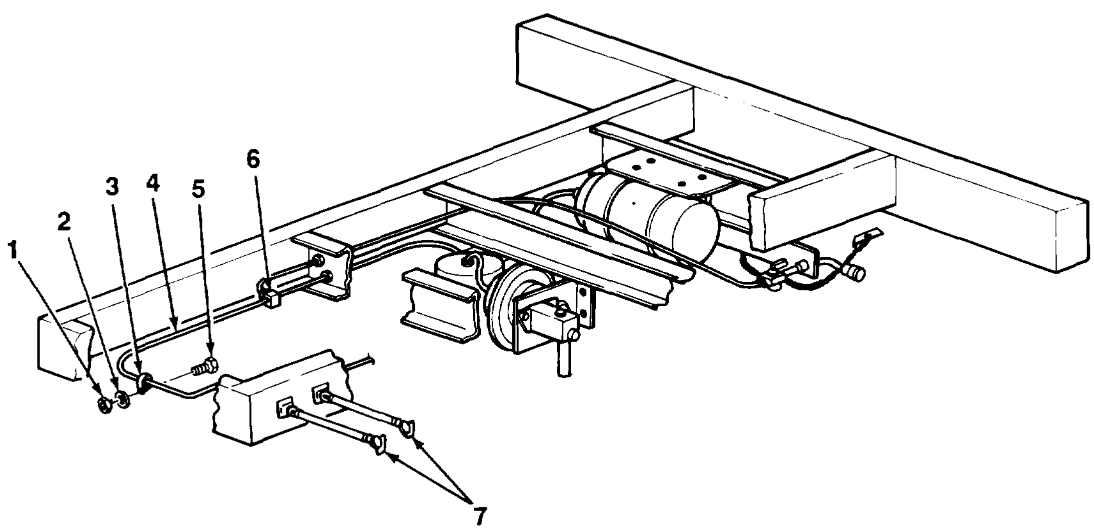
Tools/Test Equipment:

- General mechanic's tool kit
- Tube cutter

Personnel Required: Two (if performing leakage test)

a. REMOVAL

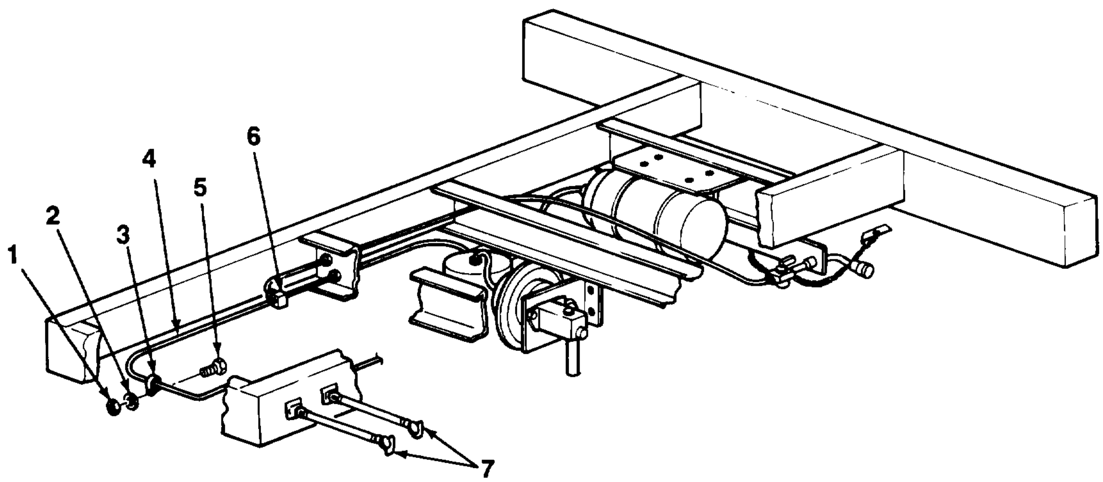
1. Drain pressure tank (Table 2-l).
2. Remove air couplings (7) from air tube (4) being replaced (para 4-67).
3. Disconnect each end of air tube (4).
4. Remove nuts (1), lockwashers (2), screws (5), and any clamps (3) or straps securing air tube (4) to chassis or dolly. Discard lockwashers.

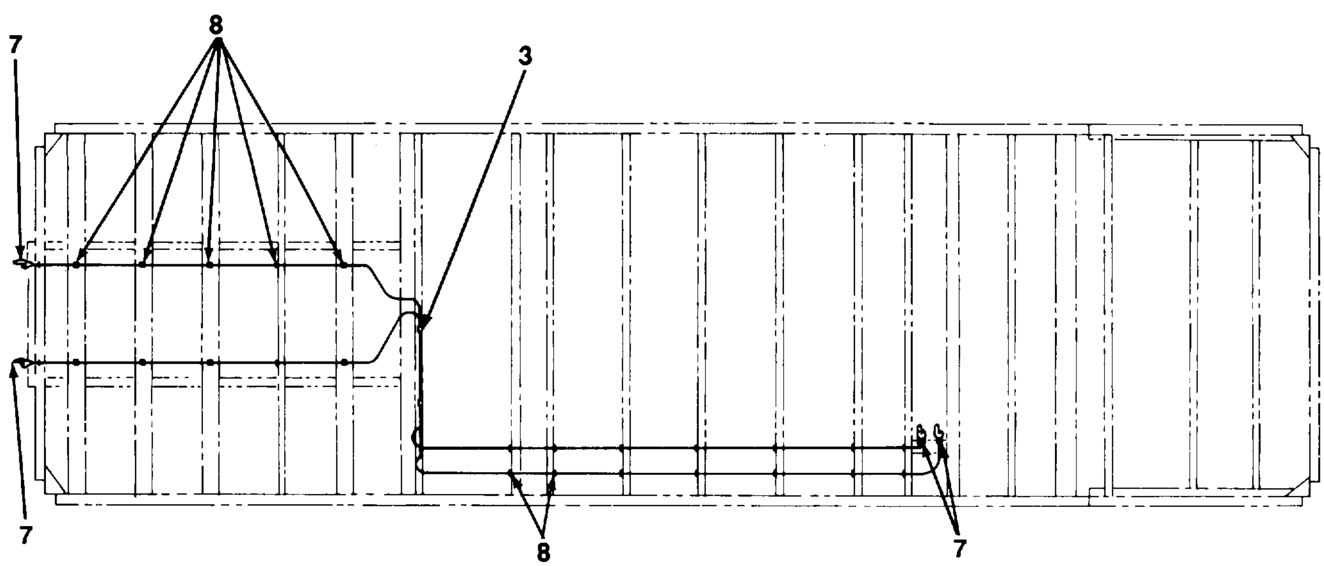


TA700265

4-68. AIR LINES AND FITTINGS MAINTENANCE (Con't).

5. Pull air tube (4) through grommets (8) and remove from chassis or dolly.
6. Inspect grommets (8) for damage or corrosion. Replace grommets if damaged or corroded.
7. Inspect all tee fittings (6), elbows, nipples, and other parts for damage. Replace if damaged.
8. Unscrew and remove tube nut from tube fitting.
9. Remove tube fitting and compression sleeve from tube. Discard compression sleeve. Tube nuts and fittings may be reused, but compression sleeve must be replaced.





TA700266

4-68. AIR LINES AND FITTINGS MAINTENANCE (Con't).

b. INSTALLATION

1. Cut tubing with hacksaw or tube cutter, ensuring that end is smooth and cut squarely with tubing wall. Do not crimp or partially close ends. Ream and file tubing end to remove burrs. Remove cuttings or filings.
2. Place nut and new compression sleeve on tube and insert end of tube in recess in fitting body.
3. Hold tube at bottom of recess and tighten tube nut until sufficient pressure is placed on sleeve to prevent leakage. Do not cross thread.
4. Thread air tube (4) through grommets (8) and position for installation.
5. Install any clamps (3) or straps removed using screws (5), new lockwashers (2), and nuts (l).
6. Connect each end of air tube (4).
7. Install air coupling (7) on air tube (4) (para 4-67).
8. Perform leakage test (subpara c).

c. LEAKAGE TEST

NOTE

Semitrailer must be coupled to towing vehicle (para 2-1O).

1. With brake air couplings connected and brakes applied, coat air couplings, connectors, fittings, and tubes with detergent and water solution and check for leaks. No leakage is permissible.
2. Tighten or replace fittings, air couplings, and connectors to stop leaks. Replace leaking tubes.

Saection VIII. WHEELS, HUBS, AND BRAKEDRUMS MAINTENANCE

4-69. HUB, WHEEL BEARINGS, AND BRAKEDRUM MAINTENANCE.

This Task Covers:

a. Removal
b. Disassembly
c. Cleaning and Inspection
d. Assembly
e. **Installation**

Initial Setup:

Equipment Conditions:

- Wheels removed (para 4-70).
- Pressure tank drained (Table 2-1).

Tools/Test Equipment:

- General mechanic's tool kit
- Jackstand
- Wheel bearing wrench
- Wiper ring replacer

Materials/Parts:

- Dry cleaning solvent (Item 13, Appendix E)
- Grease (Item 14, Appendix E)
- 0ne gasket
- 0ne seal
- Sixteen lockwashers

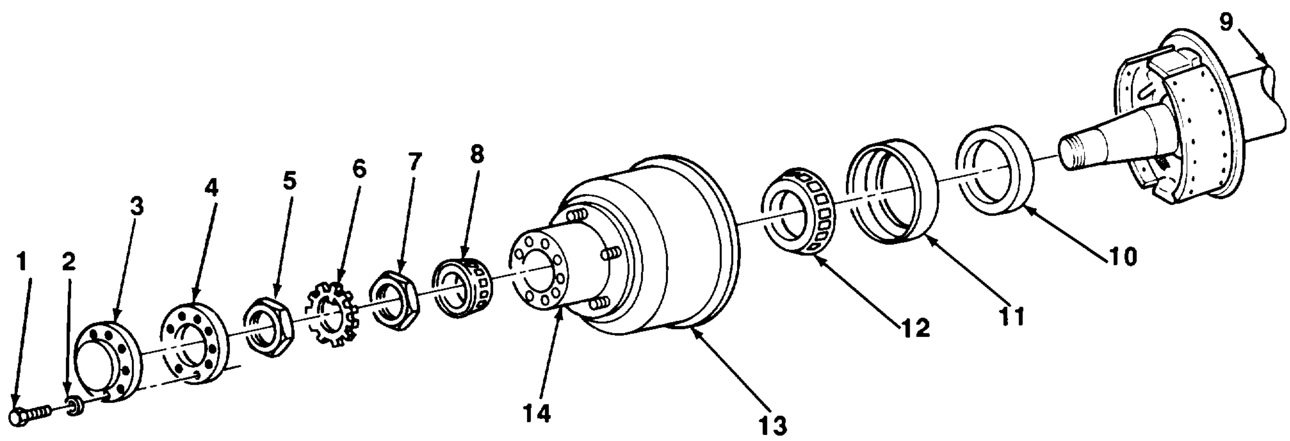
References:

- TM 9-214

a. REMOVAL

1. Place jackstand under axle (9) and remove floor jack.
2. Remove six bolts (l), lockwashers (2) ,access cover (3) ,and gasket (4)from hub (14).Discard lockwashers and gasket.
3. Remove outer adjusting nut (5), keywasher (6), and inner adjusting nut (7) from hub (14) and axle (9).

4-69. HUB, WHEEL BEARINGS, AND BRAKEDRUM MAINTENANCE (Con't).



WARNING

DO NOT handle brakeshoes, brakedrums, or other brake components unless area has been properly cleaned. There may be asbestos dust on these components which can be dangerous if you touch it or breathe it. Wear an approved filter mask and gloves. Never use compressed air or a dry brush to clean brake components. Dust may be removed using an industrial-type vacuum cleaner. Clean dust or mud away from brake components with water and a wet, soft brush or cloth. Failure to follow this warning may result in serious Illness or death to personnel.

4. Pull hub (14) and brakedrum (13) assembly out slightly on axle (9) to loosen outer roller bearing (8). Remove outer roller bearing.

5. Carefully remove hub (14) and brakedrum (13) assembly from axle (9), taking care that inner roller bearing (12) and seal (11) do not fall out if removed with hub.

6. Remove inner roller bearing (12) and seal (11) from hub (14) or axle (9). Discard seal.

7. If damaged, remove wiper ring (1 O) from axle (9).

b. DISASSEMBLY

WARNING

DO NOT handle brakeshoes, brakedrums, or other brake components unless area has been properly cleaned. There may be asbestos dust on these components which can be dangerous if you touch it or breathe it. Wear an approved filter mask and gloves. Never use compressed air or a dry brush to clean brake components. Dust may be removed using an Industrial-type vacuum cleaner. Clean dust or mud away from brake components with water and a wet, soft brush or cloth. Failure to follow this warning may result In serious illness or death to personnel.

TA700267

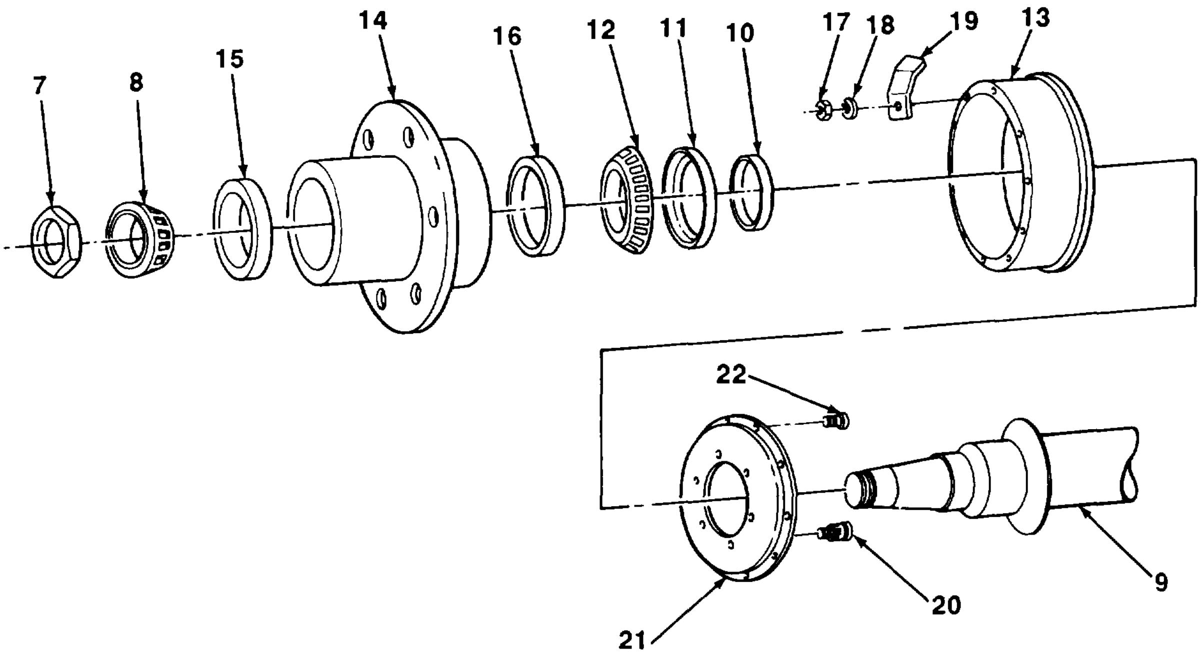
4-69. HUB, WHEEL BEARINGS, AND BRAKEDRUM MAINTENANCE (Con't).

1. Remove ten nuts (11'), Iockwashers (18), bolts (22), access cover (19), and brakedrum (13) from adapter (21). Discard Iockwashers.
2. Remove six bolts (20) and adapter (21) from hub (14).

NOTE

Perform step 3 only if bearing cups are being replaced. Bearing cups should always be replaced when outer and inner roller bearings are replaced.

3. Remove two bearing cups (15 and 16) from hub (14).



C. CLEANING AND INSPECTION

WARNING

Dry cleaning solvent, P-D-680, is toxic and flammable. Always wear protective goggles and gloves, and use only In a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point is 100°F-I38°F (38°C-59°C). If you become dizzy while using cleaning solvent, immediately get fresh air and medical help. If solvent contacts eyes, immediately wash your eyes and get medical aid.

1. Clean all parts with dry cleaning solvent and dry thoroughly,

NOTE

If outer and Inner roller bearings are replaced, bearing cups must also be replaced.

2. Clean and inspect outer and inner roller bearings in accordance with TM 9-214. Replace if damaged.

TA700268

4-69. HUB, WHEEL BEARINGS, AND BRAKEDRUM MAINTENANCE (Con't).

3. Visually inspect for excessive scoring. Replace if defective.

4. Inspect all parts for damage. Replace all damaged parts.

d. ASSEMBLY

1. If removed, tap two bearing cups (15 and 16), with large end up, into position in hub (14). Ensure that cup is fully seated against shoulder in hub.

2. Install adapter (21) on hub (14) with six bolts (20).

3. Position brakedrum (13) on adapter (21) and install ten bolts (22), access cover (1 9), ten new lockwashers (18), and nuts (17).

e. INSTALLATION

1. If removed, install new wiper ring (1 O) on axle (9).

2. Install new seal (11) on axle (9).

NOTE

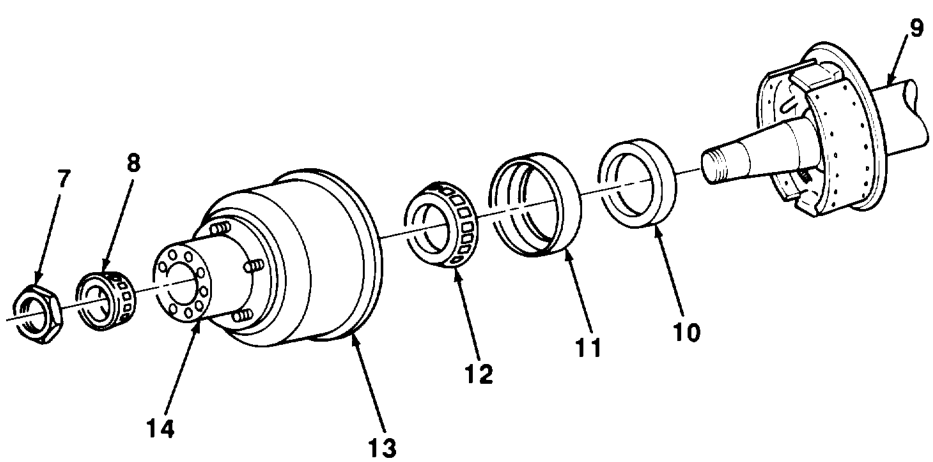
Instructions on packing outer and inner roller bearings (8 and 12) can be found in TM 9-214.

3. Pack inner roller bearing (12) with grease and install on axle (9), next to seal (11), with large end toward seal,

4. Install hub (14) and brakedrum (13) assembly on axle (9) using care not to damage seal (1 1).

5. Pack outer roller bearing (8) with grease. Position on axle (9) and loosely install inner adjusting nut (7).

6. Tighten inner adjusting nut (7) while turning hub (14) and brakedrum (13) assembly until hub binds on axle (9), then back off inner adjusting nut 1/8 turn.



TA700269

4-69. HUB, WHEEL BEARINGS, AND BRAKEDRUM MAINTENANCE (Con't).

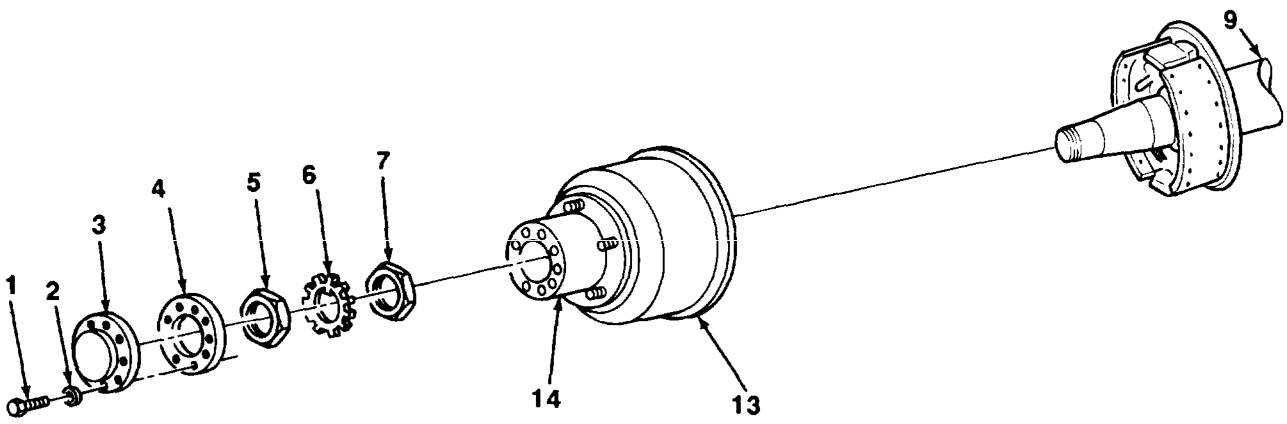
7. Rock hub (14) and brakedrum (13) assembly back and forth and check that play does not exceed 1/32 in. (0.8 mm). If movement exceeds 1/32 in. (0.8 mm), repeat step 6,

8. Install keywasher (6) and outer adjusting nut (5) on axle (9). Bend one or two tabs of keywasher over flats of outer and inner adjusting nuts (5 and 7),

9. Repeat step 7.

10. Install new gasket (4) and access cover (3) on hub (14) with six bolts (1) and new lockwashers (2).

11. Close pressure tank draincock.



FOLLOW-ON TASKS:

- Adjust brakes (para 4-54 or 4-55).
- Install wheels (para 4-70).

TA700270

4-70. WHEEL REPLACEMENT.

This Task Covers:

a. Removal

b. Installation

Initial Setup:

Equipment Conditions:

- Brakes applied.
- Wheels chocked.

References:

- TM 9-2610-200-14

Tools/Test Equipment:

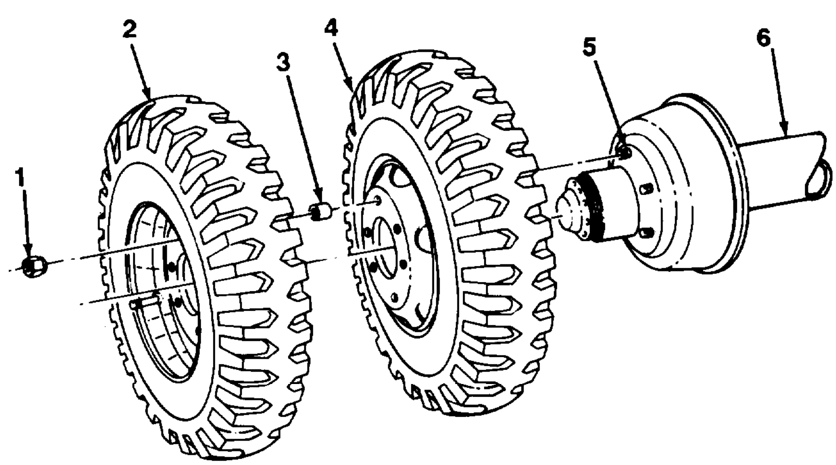
- General mechanic's tool kit
- Floor jack
- Torque wrench

a. REMOVAL

NOTE

Hub studs and wheel nuts are marked Ron right wheel and L on left wheel. Nuts must be turned in opposite direction of normal forward rotation of wheel to be loosened or removed.

1. Loosen, but do not remove, six wheel nuts (1),
2. Position floor jack under axle (6) near wheels (2 and 4) to be removed and raise semitrailer until wheels are off ground.
3. Remove six wheel nuts (1) and outer wheel (2) from wheel studs (5).
4. Remove six capnuts (3) and inner wheel (4) from wheel studs (5).
5. Refer to TM 9-2610-200-14 for instructions on tire maintenance.



TA700271

4-70. WHEEL REPLACEMENT (Con't).

b. INSTALLATION

NOTE

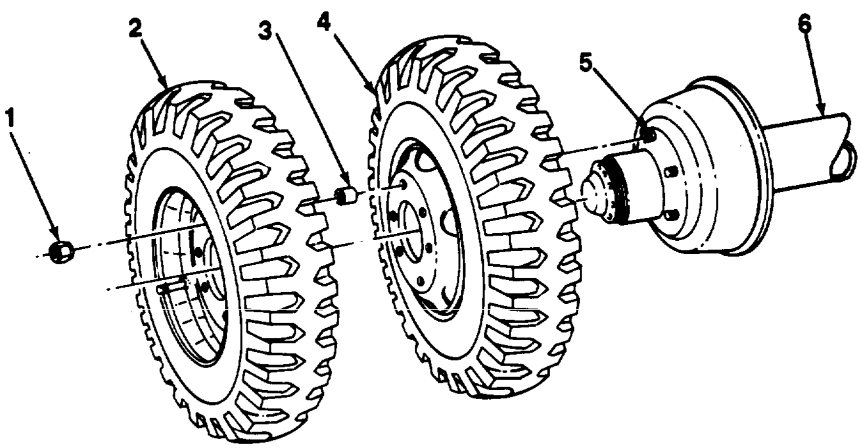
Hub studs and wheel nuts are marked R on right wheel and L on left wheel.

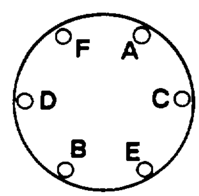
1. Position inner wheel (4) on wheel studs (5), convex side facing out. Install six capnuts (3) on wheel studs. Torque capnuts, using tightening sequence shown, to 450-500 Ib.-ft, (610-678 N•m).

NOTE

Ensure that outer and Inner wheel valve stems are 180° apart and Inner valve stem Is accessible through outer rim.

2. Position outer wheel (2) on six studs (5), convex side facing in, Install SIX wheel nuts (1) on studs. Lower floor jack and remove.
3. Torque SIX wheel nuts (1), using tightening sequence shown, to 450-500 Ib.-ft, (610-678 N•m).





TIGHTENING SEQUENCE

TA700272

4-71. SPARE WHEEL REPLACEMENT.

This Task Covers:

a. Removal

b. Installation

Initial Setup:

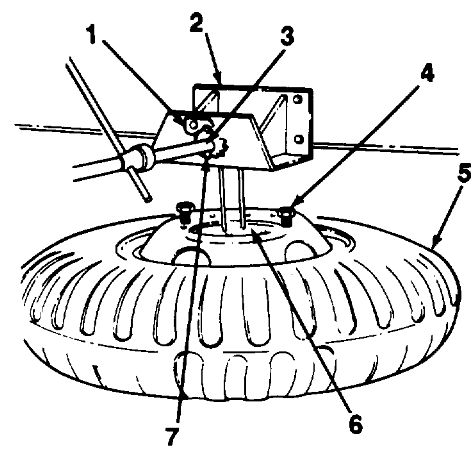
Tools/Test Equipment:

- Wheel nut wrench
- Slide handle

a. REMOVAL

1, Loosen two wheel nuts (4) securing spare wheel (5) to upper member (2) of spare wheel carrier,

2. Rotate spare wheel (5) counterclockwise until wheel nuts (4) aline with large holes in upper member (2),



WARNING

Spare wheel Is heavy. Do not place body under spare wheel when lowering. Failure to follow this warning may result In serious Injury to personnel.

3. Position wheel nut wrench on shaft (3), release pawl (1), and turn wrench counterclockwise to lower spare wheel (5) to the ground.

4. Remove two wheel nuts (4) from studs on pick-up member (6). Remove pick-up member from spare wheel (5) through center hole in wheel.

b. INSTALLATION

1. Place spare wheel (5) on ground under spare wheel carrier with raised portion of wheel facing up. Install pick-up member (6) through center hole in wheel.

2. Aline studs on pick-up member (6) with any two mounting holes in spare wheel (5), Install, but do not tighten, two wheel nuts (4) on studs.

WARNING

Spare wheel Is heavy. Do not place body under spare wheel when raising. Failure to follow this warning may result In serious injury to personnel.

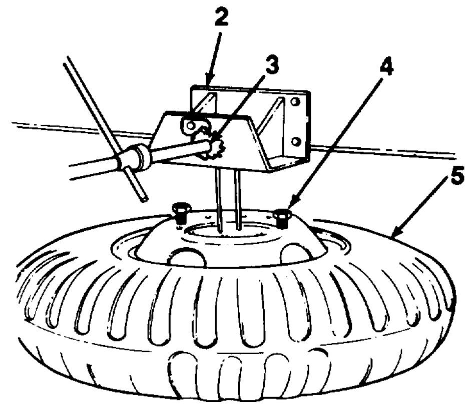
3. Set paw] (1) in contact with ratchet (7) on shaft (3). Turn shaft clockwise with wheel nut wrench until spare wheel (5) raises off the ground and is just under upper member (2).

TA700273

4-71. SPARE WHEEL REPLACEMENT (Con't).

4. Aline two wheel nuts (4) with large holes in upper member (2). Turn shaft (3) until spare wheel (5) is tight against upper member.

   Rotate spare wheel (5) clockwise and tighten two wheel nuts (4).



4-72. TIRE AND TUBE MAINTENANCE.

Refer to TM 9-2610-200-14 for instructions on tire and tube maintenance.

TA700274

Section IX. FRAME AND TOWING ATTACHMENTS MAINTENANCE

Paragraph Title	page Number

4-73. TOWING PINTLE REPLACEMENT.

This Task Covers:

a. Removal
b. inspection
c. Installation

Initial Setup:

Materials/Parts:

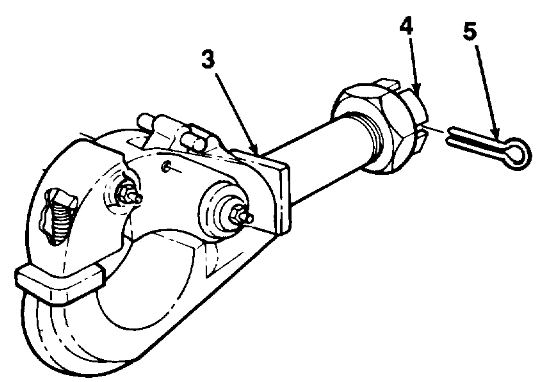
- One cotter pin

Tools/Test Equipment:

- General mechanic's tool kit

a. REMOVAL

Remove cotter pin (5) and slotted nut (4). Remove towing pintle (3) from dolly rear crossmember. Discard cotter pin.

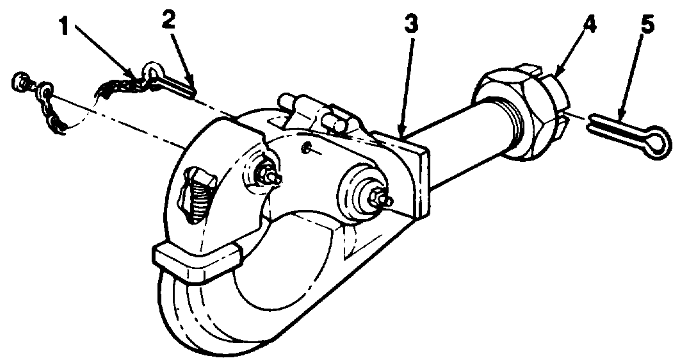


TA700275

4-73. TOWING PINTLE REPLACEMENT (Con't).

b. INSPECTION

1. Inspect towing pintle for ease of operation.
2. Check for cracks or damaged parts.
3. Replace worn or damaged towing pintle.
4. Inspect S-hook (1) and cotter pin (2) for damage. Replace if damaged.
5. Lubricate in accordance with Lubrication Chart (Chapter 3, Section I).



c. INSTALLATION

Install towing pintle (3) on dolly rear crossmember using slotted nut (4). Do not overlighten slotted nut. Towing pintle must be free to turn. Secure slotted nut with new cotter pin (5).

TA700276

4-74. SPARE WHEEL CARRIER MAINTENANCE.

This Task Covers:

a. Removal
b. Disassembly
c. Cleaning and Inspection
d. Assembly
e. Installation

Initial Setup:

Equipment Conditions:

- Spare wheel removed from spare wheel carrier (para 4-71).

Tools/Test Equipment:

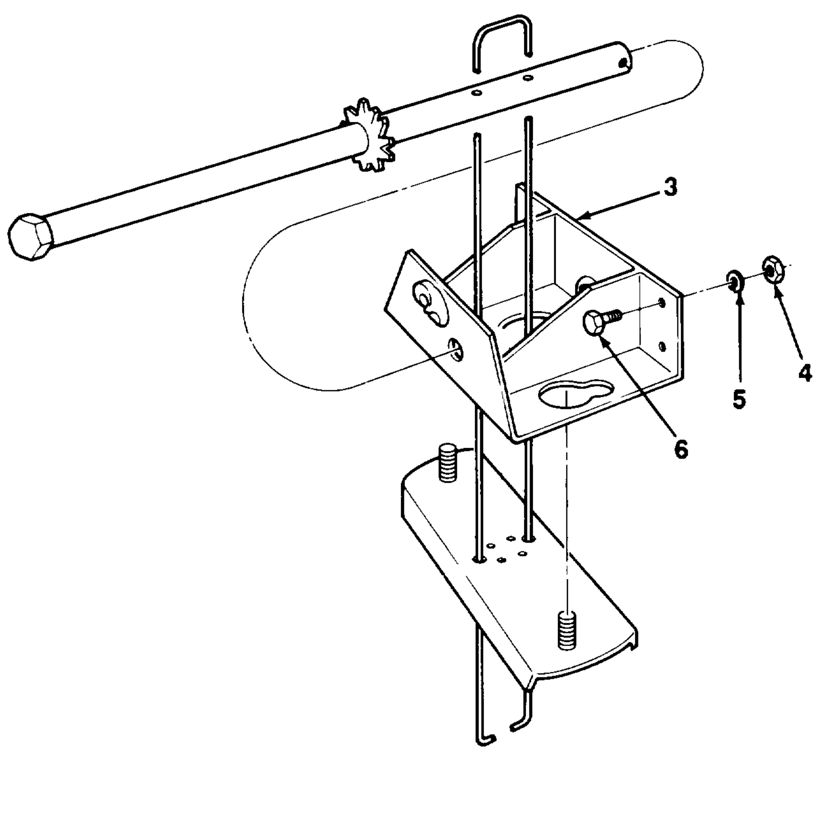
- General mechanic's tool kit

Materials/Parts:

- Brush (Item 7, Appendix E)
- One cotter pin
- Eight lockwashers

a. REMOVAL

Remove four nuts (4), lockwashers (5), and screws (6). Remove upper member (3) of spare wheel carrier from dolly frame. Discard lockwashers.

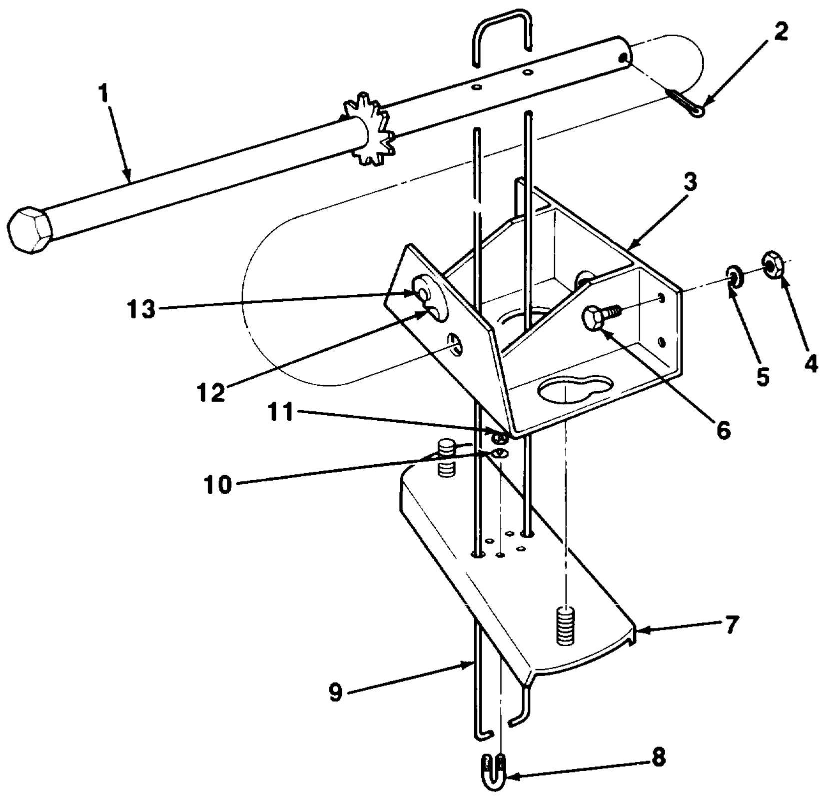


TA700277

4-74. SPARE WHEEL CARRIER MAINTENANCE (Con't).

b. DISASSEMBLY

1. Remove two nuts (11) and Iockwashers (10) from each U-bolt (8). Discard Iockwashers.
2. Remove wire rope (9) from holes in shaft (l), lower member (7), and upper member (3).
3. Remove cotter pin (2) from shaft (1). Remove shaft from upper member (3). Discard cotter pin.



c. CLEANING AND INSPECTION

1. Remove all surface dirt with water and a stiff brush.
2. Inspect upper member and lower member for cracks or breaks in welds. Replace any part showing breaks in welds.
3. Inspect ratchet wheel on shaft for wear and alinement. Check weld of ratchet and nut on shaft. Replace if necessary.
4. Check pawl (12) for wear and looseness of rivet (13). Replace pawl or rivet as necessary
5. Check U-bolts for stripped threads. Replace if necessary.
6. Check wire rope for frayed wire or undue wear. Replace if necessary.

TA700278

4-74. SPARE WHEEL CARRIER MAINTENANCE (Con't).

d. ASSEMBLY

1. Install shaft (1) in upper member (3) and secure with new cotter pin (2).

2. Thread wire rope (9) through holes in lower member (7), upper member (3), and shaft (1) until both ends are of equal length. Cross ends of wire rope under lower member. Twist ends in loose, single knot across lower member in such a manner that both ends maybe clamped with both U-bolts (8).

3. Install two U-bolts (8) in lower member (7) using four new Iockwashers (10) and nuts (1 1).

e. INSTALLATION

Install upper member (3) of spare wheel carrier on dolly frame using four screws (6), new Iockwashers (5), and nuts (4).

FOLLOW-ON TASKS:

- Install spare wheel in space wheel carrier (para 4-71).

4-75. LEVELING JACK REPLACEMENT (ALL MODELS EXCEPT XM1005 AND XM1007),

This Task Covers;

a, Removal
b. Cleaning and Inspection
c. Installation

initial Setup:

Materials/Parts:

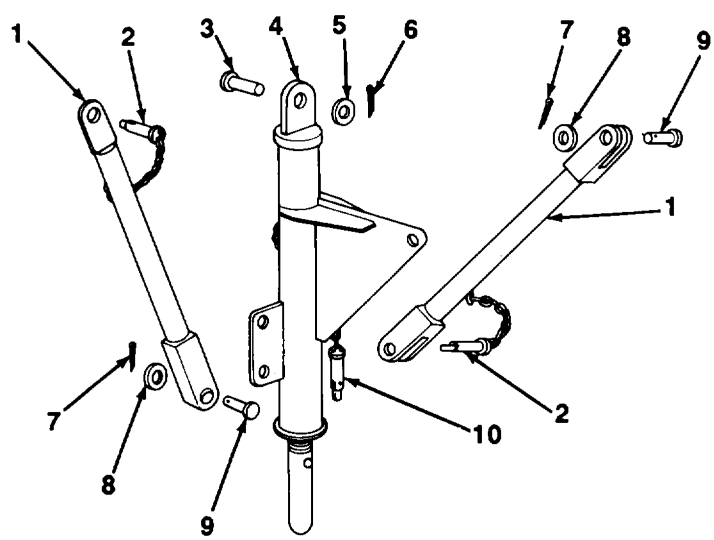
- •Brush (Item 7, Appendix E)
- • Three cotter pins

Tools/Test Equipment:

- • General mechanic's tool kit

a. REMOVAL

1. Remove two cotter pins (7), washers (8), and headed pins (9). Discard cotter pins.
2. Release two pin and chain assemblies (2) and remove two braces (l).
3. Remove cotter pin (6), washer (5), and headed pin (3). Discard cotter pin.
4. Release pin and chain assembly (1 O) and remove housing (4) from dolly rear crossmember.



b. CLEANING AND INSPECTION

1. Clean mud and dirt from all exposed surfaces using water and a stiff brush.
2. Inspect housing for damage. Replace leveling jack if housing is damaged.
3. Check operation of jack screw. Lubricate as required (Chapter 3, Section l). Replace leveling jack if jack screw is defective.
4. Inspect pin and chain assemblies for wear and damage. Replace defective parts.

TA700279

4-75. LEVELING JACK REPLACEMENT (ALL MODELS EXCEPT XM1005 AND XM1007) (Con't).

c. INSTALLATION

1. Install housing (4) under dolly rear crossmember using headed pin (3), washer (5), and new cotter pin (6).
2. Secure housing with pin and chain assembly (10).
3. Install two braces (1) using two headed pins (9), washers (8), and new cotter pins (7).
4. Secure braces (1) with two pin and chain assemblies (2).

FOLLOW-ON TASKS:

- Check operation of leveling jack (para 2-12).

4-76. LEVELING JACK REPLACEMENT (XM1005 AND XM1007).

This Task Covers:

a. Removal
b. Cleaning and Inspection
c. Installation

initia/ Setup:

Materials/Parts:

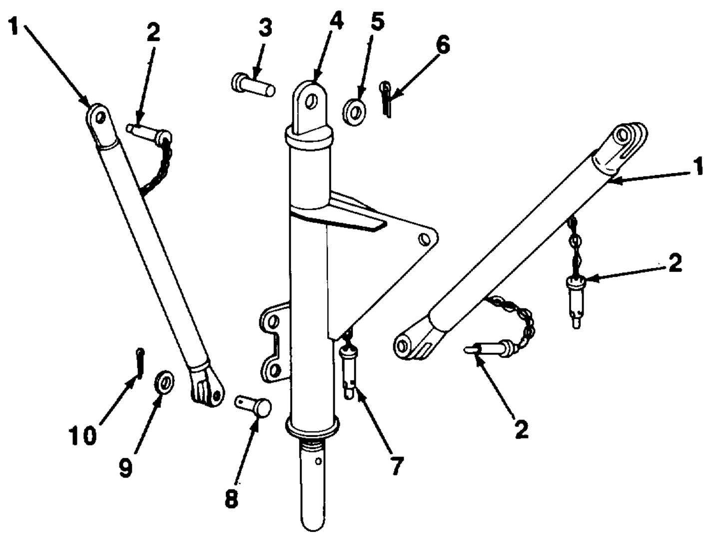
- Brush (Item 7, Appendix E)
- Two cotter pins

Tools/Test Equipment:

- General mechanic's tool kit

a. REMOVAL

1. Remove cotter pin (10), washer (9), and headed pin (8). Discard cotter pin.
2. Release three pin and chain assemblies (2) and remove two braces (l).
3. Remove cotter pin (6), washer (5), and headed pin (3). Discard cotter pin.
4. Release pin and chain assembly (7) and remove housing (4) from dolly rear crossmember,



b. CLEANING AND INSPECTION

1. Clean mud and dirt from all exposed surfaces using water and a stiff brush.
2. Inspect housing for damage. Replace leveling jack if housing is damaged.
3. Check operation of jackscrew. Lubricate as required (Chapter 3, Section l). Replace leveling jack if jackscrew is defective.
4. Inspect pin and chain assemblies for wear and damage. Replace defective parts.

TA700280

4-76. LEVELING JACK REPLACEMENT (XM1005 AND XM1007) (Con't).

c. INSTALLATION

1. Install housing (4) on dolly rear crossmember using headed pin (3), washer (5), and new cotter pin (6).
2. Secure housing (4) with pin and chain assembly (7).
3. Secure two braces (1) using three pin and chain assemblies (2).
4. Install headed pin (8), washer (9), and new cotter pin (1 O).

FOLLOW-ON TASKS:

- Check operation of leveling jack (para 2-12).

4-77. LANDING GEAR REPLACEMENT (EARLY MODEL).

This Task *Covers:*

a. Removal
b. Cleaning and Inspection
c. Installation

Initial Setup:

Equipment Conditions:

- Semitrailer coupled to towing vehicle with landing gear raised (para 2-10).

Tools/Test Equipment:

- General mechanic's tool kit

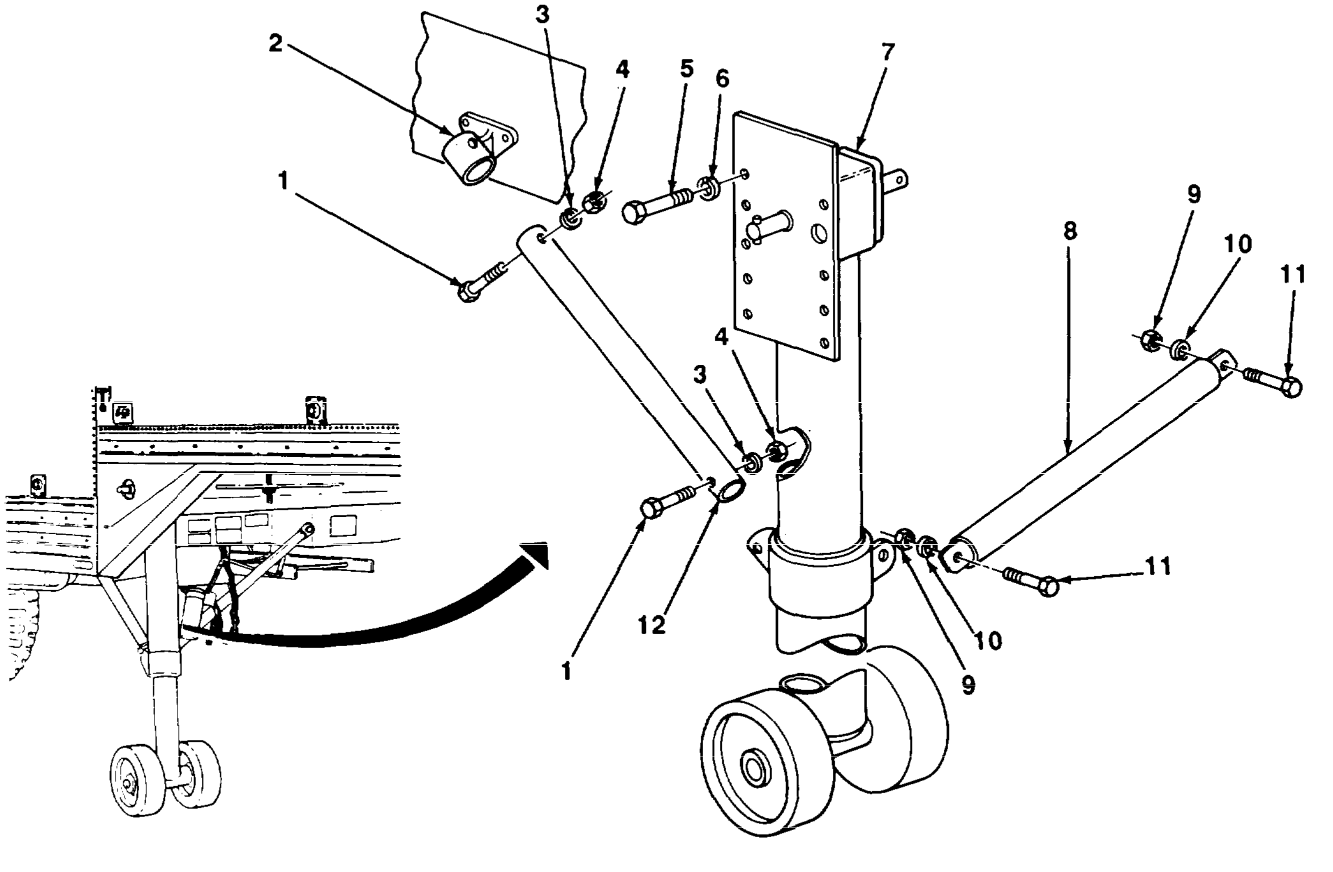
Materials/Parts:

- Brush (Item 7, Appendix E)
- Thirteen lockwashers

a. REMOVAL

1. Remove two nuts (4), lockwashers (3), and screws (1). Remove side brace (12) from mounting bracket (2) and leg assembly (7). Discard lockwashers.

2. Remove two nuts (9), lockwashers (10), and screws (11), Remove diagonal brace (8) from chassis and leg assembly (7). Discard lockwashers.



TA700281

4-77. LANDING GEAR REPLACEMENT (EARLY MODEL) (Con't).

3. Remove nine screws (5) and lockwashers (6) securing leg assembly (7) to chassis. Discard lockwashers.
4. Withdraw leg assembly (7) toward center of semitrailer until crankshaft clears chassis. Remove landing gear leg assembly.

b. CLEANING AND INSPECTION

1. Clean mud and dirt from all exposed surfaces with water and a stiff brush.
2. Check for loose, missing, or damaged parts.

c. INSTALLATION

1. Install leg assembly (7) on chassis using nine screws (5) and new lockwashers (6).
2. Install diagonal brace (8) on chassis and leg assembly (7) using two screws (1 1), new lockwashers (10), and nuts (9).
3. Install side brace (12) on mounting bracket (2) and leg assembly (7) using two screws (1), new lockwashers (3), and nuts (4).
4. Check operation of landing gear (para 2-13), Lubricate as required (Chapter 3 Section I).

FOLLOW-ON TASKS:

- Lower landing gear and uncouple semitrailer from towing vehicle (para 2-20).

4-78. LANDING GEAR AND DRIVE UNIT REPLACEMENT (LATE MODEL).

This Task Covers:

Removal
Cleaning and Inspection
c. Installation

Initial Setup:

Equipment Conditions:

•Semitrailer coupled to towing vehicle with landing gear raised (para 2-10).

Tools/Test Equipment:

Ž General mechanic's tool kit

Materials/Parts:

• Brush (Item 7, Appendix E)
• Grease (Item 14, Appendix E)
• One locknut
• Two spring pins
• Fourteen lockwashers

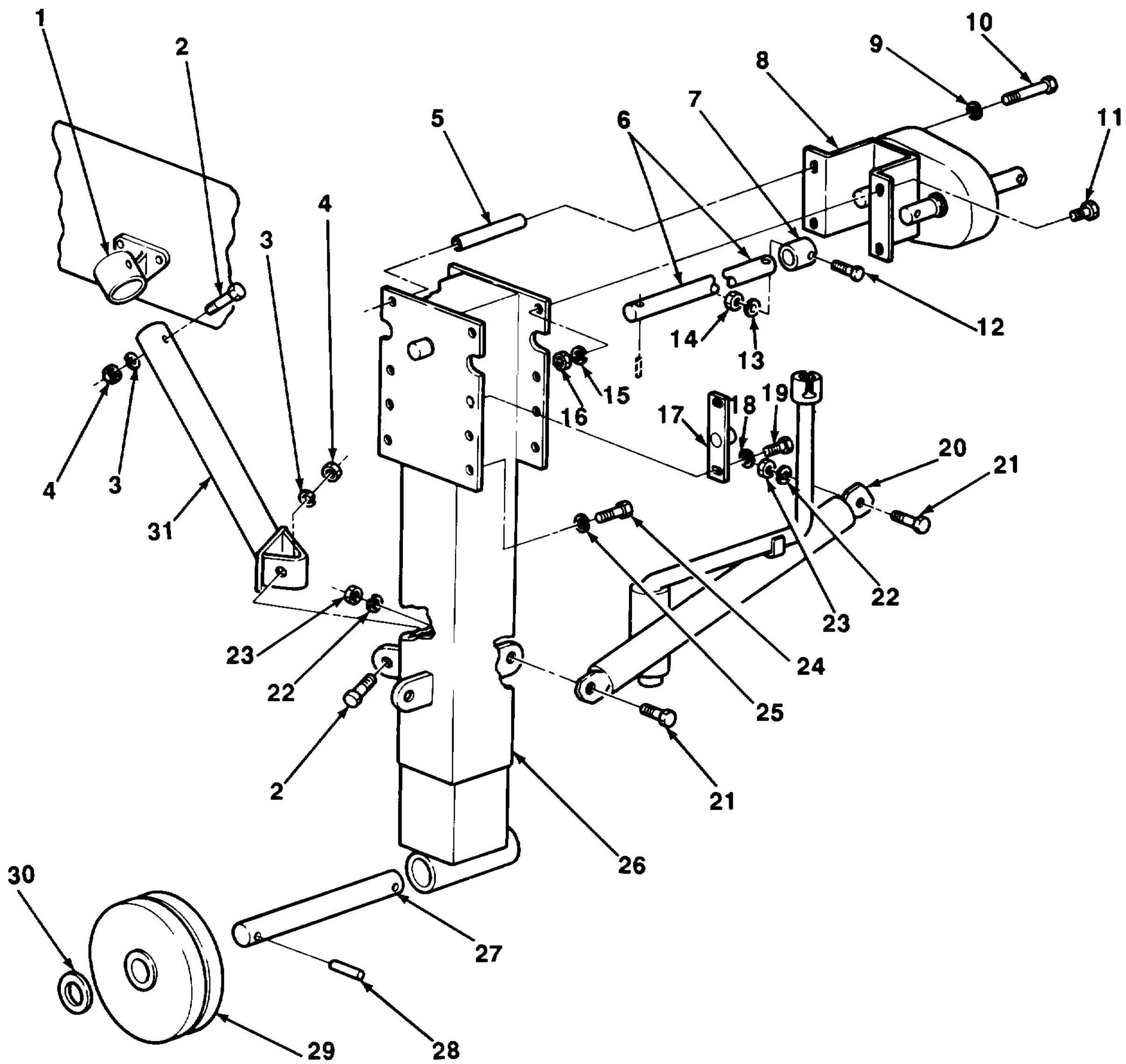
a. REMOVAL

1. Remove two nuts (4), lockwashers (3), and screws (2). Remove brace (31) from mounting bracket (1) and leg assembly (26). Discard lockwashers.
2. Remove two nuts (23), lockwashers (22), and screws (21). Remove diagonal brace (20) from chassis and leg assembly (26). Discard lockwashers.
3. Remove four screws (10), lockwashers (9), and sleeves (5) securing leg assembly (26) to chassis. Discard lockwashers.
4. From front position of leg assembly (26), remove two screws (19) and lockwashers (18) securing trunnion assembly (17) to chassis. Discard lockwashers.
5. Remove lower two screws (24) and lockwashers (25). Withdraw leg assembly (26) toward center of semitrailer until crankshaft (6) clears chassis. Remove leg assembly. Discard lockwashers.
6. Remove two nuts (16), lockwashers (15), and screws (11). Remove drive unit (8) from leg assembly (26). Discard lockwashers.
7. .Remove locknut (14), flatwasher (1 3), and screw (1 2). Remove coupling (7) and crankshaft (6) from drive unit shaft. Discard locknut.
8. Remove two spring pins (28) and washers (30). Remove two wheels (29) and axle (27) from leg assembly (26). Discard spring pins,

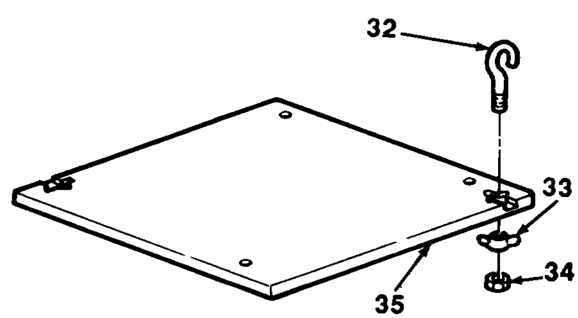
b. CLEANING AND INSPECTION

1. Clean mud and dirt from all exposed surfaces with water and a stiff brush.
2. Check operation of gears. If defective, replace entire drive unit.
3. Check all parts for cracks, chipped edges, or breaks. Replace all defective parts.

4-78. LANDING GEAR AND DRIVE UNIT REPLACEMENT (LATE MODEL) (Con't).



4. Inspect two plates (35) and four eyebolts (32) for damage. If damaged, remove nut (34) and wingnut (33) from each eyebolt. Remove eyebolts and plate. Install plate using eyebolt, wingnut, and nut.

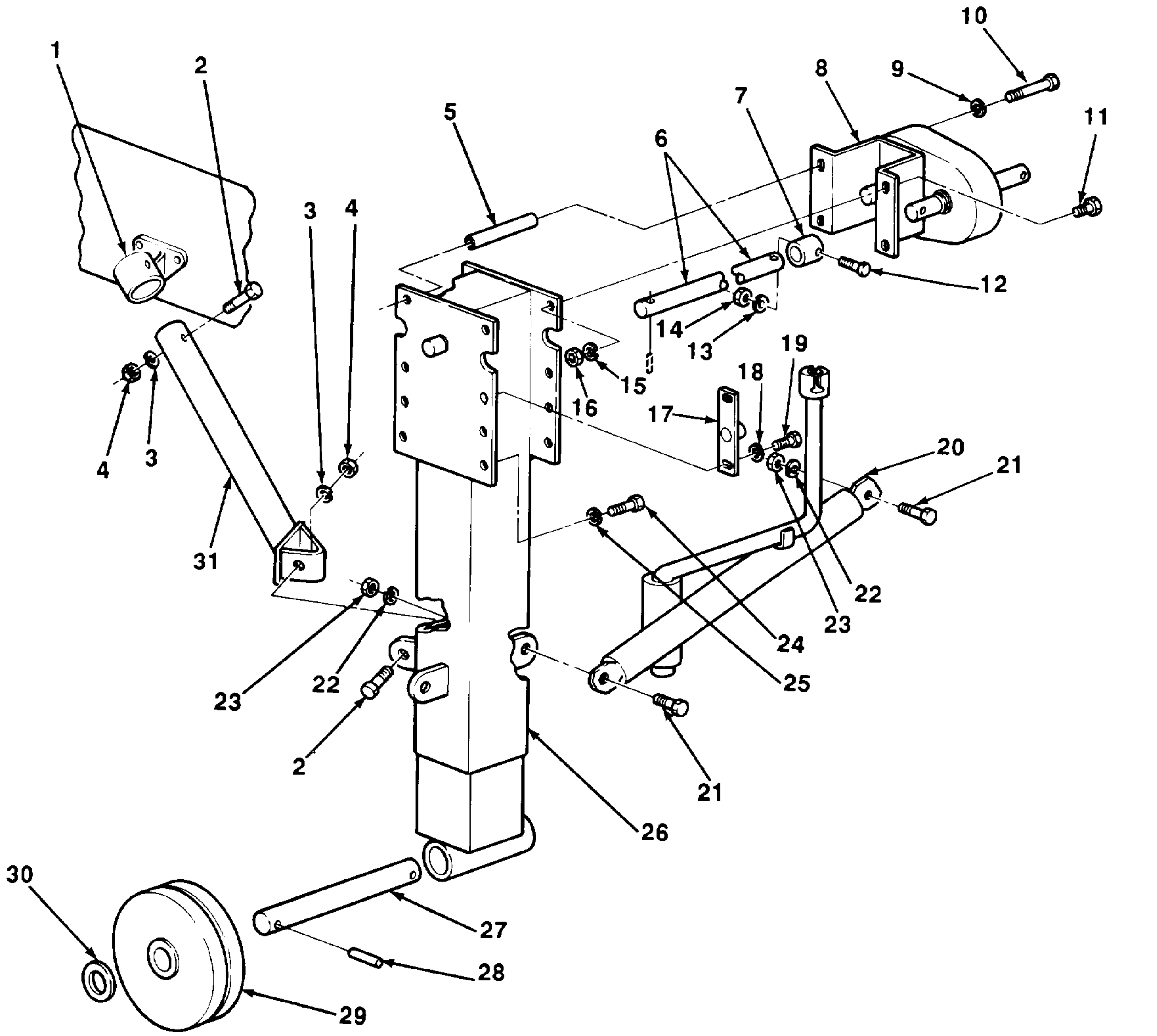


TA700282

4-78. LANDING GEAR AND DRIVE UNIT REPLACEMENT (LATE MODEL) (Con't).

c. INSTALLATION

1. Lubricate axle (27) and wheels (29) with grease.
2. Install axle (27), two wheels (29), and washers (30) on leg assembly (26) using two new spring pins (28).
3. Install crankshaft (6) and coupling (7) on drive unit shaft using screw (1 2), flatwasher (1 3), and new locknut (14).
4. Install drive unit (8) on leg assembly (26) using two screws (11), new lockwashers (15), and nuts (16).
5. Position leg assembly (26) under semitrailer and install lower two screws (24) and new lockwashers (25).



4-78. LANDING GEAR AND DRIVE UNIT REPLACEMENT (LATE MODEL) (Con't).

CAUTION

Use care when Installing trunnion assembly. Trunnion assembly should not cause crankshaft to bind.

6. Install trunnion assembly (17) on upper two mounting holes on front portion of leg assembly mounting flange using two screws (19) and new lockwashers (18).

7. Secure side of drive unit (8) and leg assembly (26) to chassis with four screws (10), new lockwashers (9), and sleeves (5).

8. Install diagonal brace (20) on chassis and leg assembly (26) using two screws (21), new lockwashers (22), and nuts (23).

9. Install brace (31) in mounting bracket (1) and leg assembly (26) using two screws (2), new lockwashers (3), and nuts (4).

10. Check operation of landing gear (para 2-1 3).

FOLLOW-ON TASKS:

- Lower landing gear and uncouple semitrailer from towing vehicle (para 2-20),

Section X. SPRINGS AND RADIUS RODS MAINTENANCE

Paragraph Title	Page Number

4-79. SPRING ASSEMBLY REPLACEMENT.

This Task Covers:

a. Removal
b. Installation

Initial Setup:

Materials/Parts:

- TWO cotter pins

Personnel Required: Two

Tools/Test Equipment:

- General mechanic's tool kit
- Floor jack
- Torque wrench

a. REMOVAL

1. Position semitrailer on level surface with front end resting on landing gear,

WARNING

When replacing springs, weight of semltrailer must be supported by leveiing jacks or by blocking or placing jackstands under rear corners of frame. Failure to follow this warning may result in serious injury to personnel.

2. Extend leveling jacks enough to relieve tires of ground contact and provide support during spring assembly removal and installation.

3. Open pressure tank draincock (5).

4. Support axle (6) with a floor jack.

5. Disconnect hydraulic line *(8)* from multiple connector (7) on rear of axle (6).

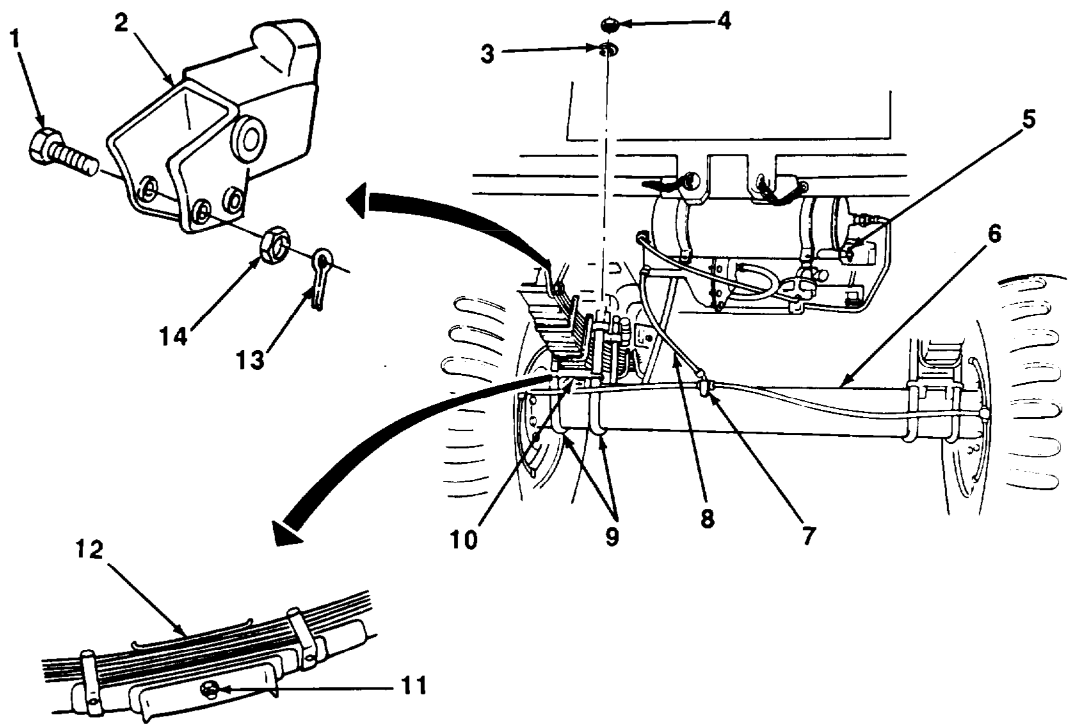
6. Remove four nuts (4), flatwashers (3), and two U-bolts (9) from spring assembly (12).

7. Lower axle (6) from spring assembly (12).

8. Remove cotter pin (13), nut (14), and screw (1) from spring holder (2) at front and rear of spring assembly (1 2). Discard cotter pins.

9. Remove spring assembly (12) from spring mounting bracket (10) on axle (6).

4-79. SPRING ASSEMBLY REPLACEMENT (Con't).



b. INSTALLATION

WARNING

When replacing springs, weight of semitrailer must be supported by leveling jacks or by blocking or placing jackstands under rear corners of frame. Failure to follow this warning may result in serious injury to personnel.

1. With rear of semitrailer raised and axle and wheel assembly properly located, install spring assembly (12) on axle mounting bracket (10). Nut (11) of spring assembly center bolt should rest in recess on mounting bracket.
2. install two U-bolts (9), four flatwashers (3), and nuts (4) in spring assembly (12). Torque nuts to 350 ft.-lb. (475 N•m).
3. Raise axle (6) and spring assembly (12) into position. Ends of spring assembly should be fitted into front and rear spring holders (2).
4. install screw (1) in each spring holder (2). Secure each screw with nut (14) and new cotter pin (13).
5. Connect hydraulic line (8) to multiple connector (7) on rear of axle (6).
6. Close pressure tank draincock (5).
7. Bleed brakes (para 4-58).
8. Raise rear of semitrailer to relieve weight from leveling jacks. Place leveling jacks in stowed position under dolly frame.
9. Lower rear of semitrailer.

TA700284

4-80. RADIUS RODS MAINTENANCE.

This Task Covers:

a. Removal
b. Disassembly
c. Cleaning and Inspection
d. Assembly
e, Installation
f. Adjustment

Initial Setup:

Materials/Parts:

- Brush (Item 7, Appendix E)
- Dry cleaning solvent (Item 13, Appendix E)
- Two lockwashers (adjustable radius rod)

Tools/Test Equipment:

- General mechanic's tool kit

Personnel Required: Two (if performing adjustment)

NOTE

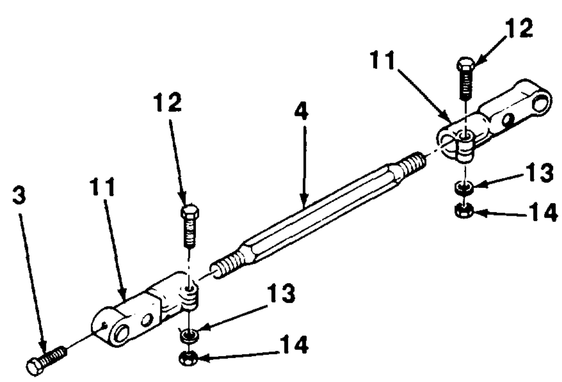
- **Roadside adjustable radius rod is illustrated.**
- **Curbside radius rod is not adjustable and cannot be disassembled.**

a. REMOVAL

1. Loosen setscrew (3) in each end of radius rod (4).
2. Remove two nuts (8) from screw (1) at each end of radius rod (4).
3. Remove screw (l), two outer retainers (7), two bushings (6), sleeve bearing (10), and two flatwashers (5) from each end of radius rod (4).
4. Remove radius rod (4) from radius rod bracket (9) and spring holder (2).

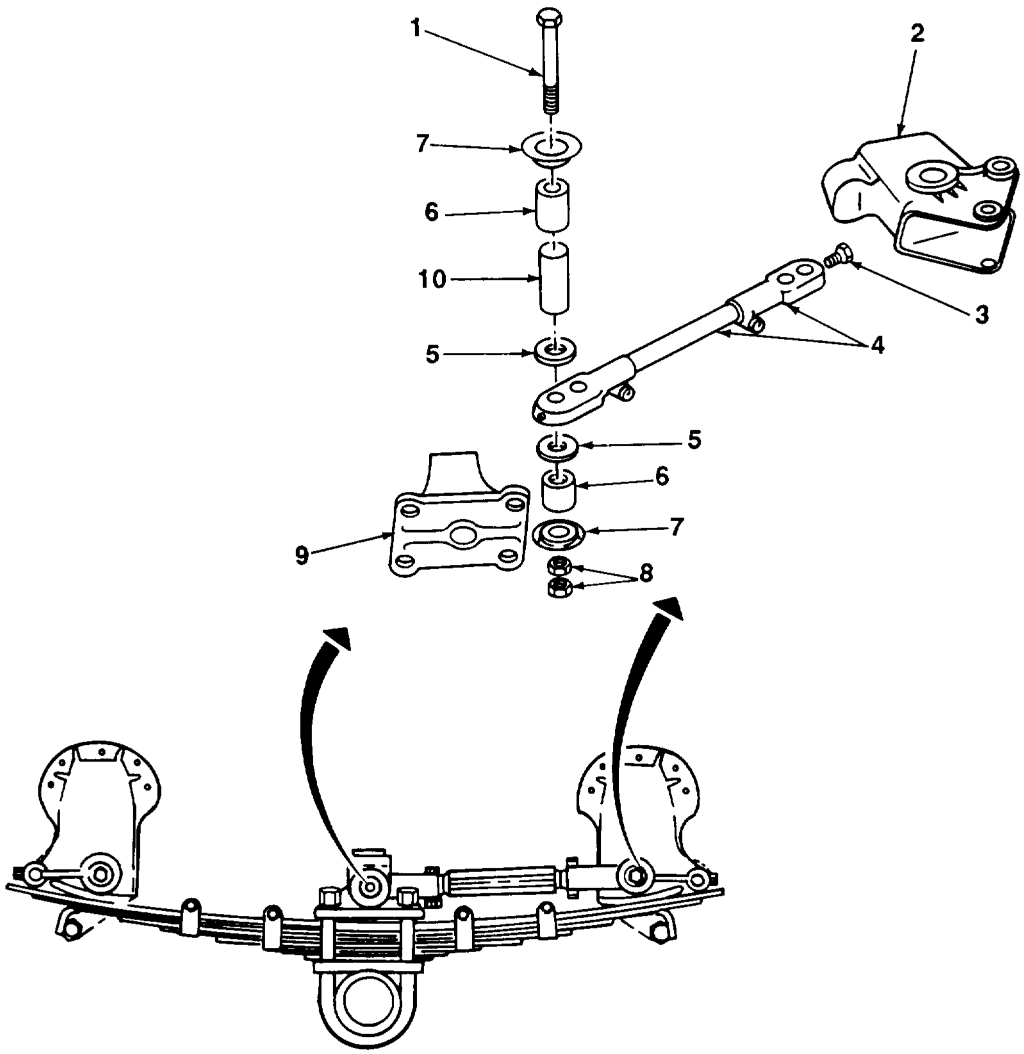
b. DISASSEMBLY

1. *Remove* two screws (12), nuts (14), lockwashers (13), and connectors (11) from radius rod (4), Discard lockwashers.
2. Remove two setscrews (3) from connectors (11).



TA700285

4-80. RADIUS RODS MAINTENANCE (Con't).



c. CLEANING AND INSPECTION

WARNING

Dry cleaning solvent, P-D-680, is toxic and flammable. Always wear protective goggles and gloves, and use only in a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point is 1OO°F-138°F (38°C-59°C). If you become dizzy while using cleaning solvent, immediately get fresh air and medical help. If solvent contacts eyes, immediately wash your eyes and get medical aid.

1. Clean metal parts with dry cleaning solvent and dry thoroughly.

2. Inspect for bent, badly worn, deteriorated, or damaged parts. Replace all damaged parts.

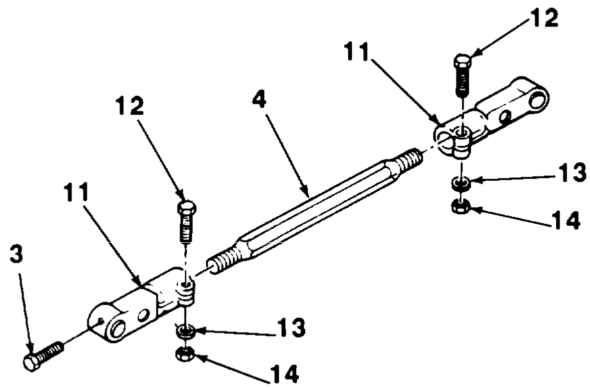
TA700286

4-80. RADIUS RODS MAINTENANCE (Con't).

d. ASSEMBLY

1. Install two setscrews (3) in connectors (11). Do not tighten setscrews.

2. Install two connectors (11) on radius rod (4) using two screws (12), new lockwashers (13), and nuts (14).



e. INSTALLATION

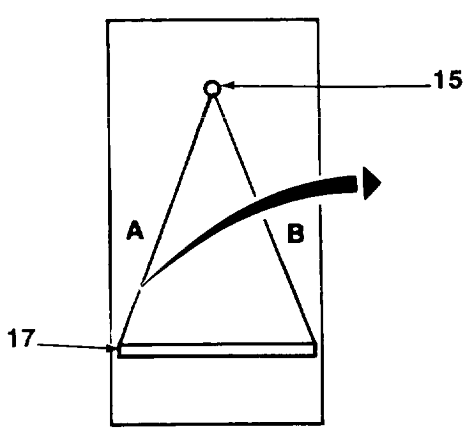
1. Position radius rod (4) in spring holder (2) and radius rod bracket (9)
2. At each end, position one flatwasher (5) on each side of radius rod (4) and slide sleeve bearing (10) into place. Rotate sleeve bearings so that setscrews (3) enter cross holes in sides of sleeve bearings. Tighten setscrews.
3. Install bushing (6) and outer retainer (7) on each end of sleeve bearings (10).
4. Secure each end of radius rod (4) with screw (1) and two nuts (8).

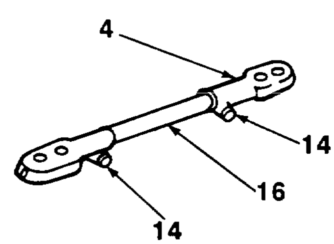
f. ADJUSTMENT

NOTE

Roadside radius rod is the only adjustable one.

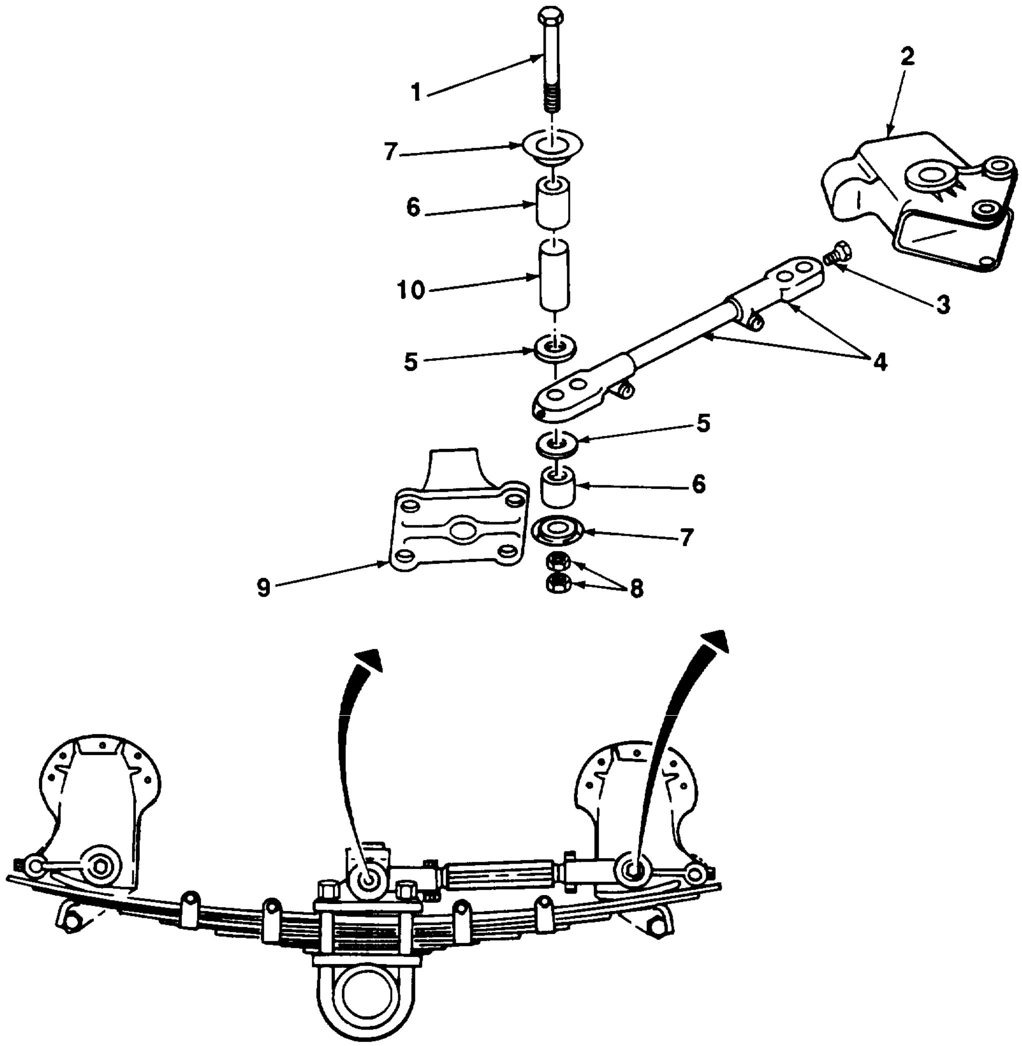
1. Remove outer wheels (para 4-70). Remove access cover from each hub so that center mark on end of axle spindle (17) can be seen (para 4-69).





TA700287

4-80. RADIUS RODS MAINTENANCE (Con't).



2. Level semitrailer (para 2-12).

3. Form a small, rigid S-hook from ¼ in. (6.4 mm) bar stock. Attach a steel tape to one end of the S-hook.

4. Attach S-hook and steel tape around kingpin (15). S-hook must rotate freely around kingpin.

5. Measure distances "A" and "B" between kingpin (15) and center mark of each end of axle spindle (17). Measurements must be within 1/16 in. (1.6 mm) of each other.

6. If measurements are not within 1/16 in. (1.6 mm) of each other, loosen nut (14) at each end of radius rod (4) on roadside. Turn middle portion (16) of radius rod right or left as necessary to 0aline axle, then tighten nuts.

7. Install access cover on each hub (para 4-69). Install outer wheels (para 4-70).

TA700288

4-81. RADIUS ROD BRACKET AND BUMPER REPLACEMENT

This Task Covers:

a. Removal b. Installation

/n/f/a/ Setup:

Equipment Conditions:

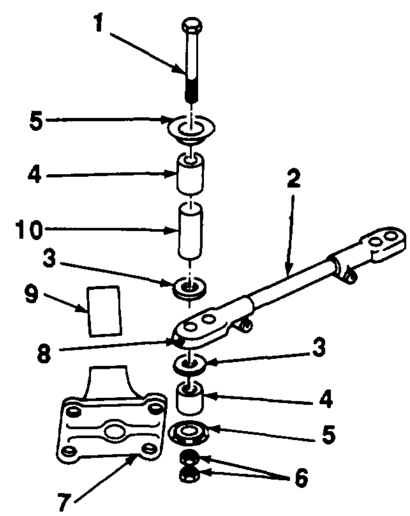
- Spring assembly removed (para 4-79).

Tools/Test Equipment:

- General mechanic's tool kit

a. REMOVAL

1. Loosen setscrew (8) in radius rod (2).
2. Remove two nuts (6) from screw (1),
3. Remove screw (l), two outer retainers (5), two bushings (4), sleeve bearing (10), and two flatwashers (3).
4. Remove radius rod bracket (7),
5. Remove bumper (9) from radius rod bracket (7).



b, INSTALLATION

1. Install bumper (9) in radius rod bracket (7).
2. Position radius rod bracket (7) for installation.
3. Position one flatwasher (3) on each side of radius rod (2) and slide sleeve bearing (10) into place. Rotate sleeve bearing so that setscrew (8) will enter cross hole in side of sleeve bearing, Tighten setscrew.
4. Install bushing (4) and outer retainer (5) on each end of sleeve bearing (10).
5. Secure radius rod (2) to radius rod bracket (7) with screw (1) and two nuts (6).

FOLLOW-ON TASKS:

- Install spring assembly (para 4-79).
- If roadside radius rod bracket was replaced, adjust roadside radius rod (para 4-80).

TA700289

4-82. SPRING HOLDER MAINTENANCE.

This Task Covers:

a. Removal
b. Disassembly
c. Cleaning and Inspection
d. Assembly
e. Installation

Initial Setup:

Equipment Condltlons:

- Spring assembly removed (para 4-79).
- Radius rod removed (para 4-80),

Tools/Test Equipment:

- General mechanic's tool kit
- Drill bit set
- Electric drill
- Rivet gun
- Torque wrench

Materials/Parts:

- Dry cleaning solvent (item 13, Appendix E)
- One lockwasher
- Two locknuts
- Seven rivets (as required)

a. REMOVAL

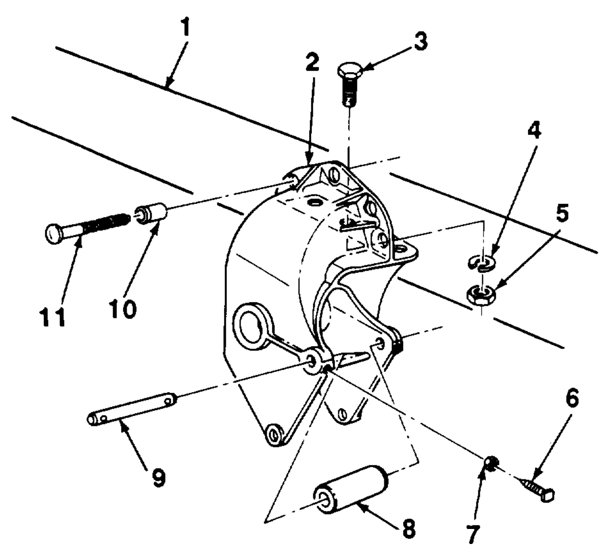
NOTE

Spring holders may be mounted with rivets or pins and collars. Pins and collars are illustrated.

1. Remove seven rivets or pins (11) and collars (10) from spring holder (2) and dolly (l). Discard rivets, if removed.
2. Remove nut (5), lockwasher (4), and bolt (3) from spring holder (2) and dolly (1). Remove' spring holder from dolly, Discard lockwasher.

b. DISASSEMBLY

1. Remove two setscrews (6) and locknuts (7) from pin (9). Discard locknuts.
2. Remove pin (9) and bearing (8) from spring holder (2).



TA700290

4-82. SPRING HOLDER MAINTENANCE (Con't).

c. CLEANING AND INSPECTION

WARNING

Dry cleaning solvent, P-D-680, is toxic and flammable. Always wear protective goggles and gloves, and use only in a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point is 10O°F-138°F (38°C-59°C). If you become dizzy while using cleaning solvent, immediately get fresh air and medical help. If solvent contacts eyes, immediately wash your eyes and get medical aid.

1. Clean all metal parts with dry cleaning solvent and dry thoroughly.

2. Inspect for bent, badly worn, deteriorated, or damaged parts. Replace all damaged parts.

a. ASSEMBLY

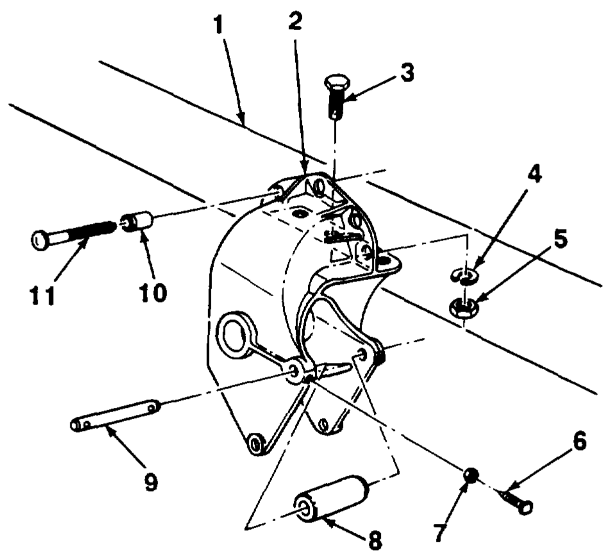
1. Position bearing (8) in spring holder (2) and install pin (9).

2. Install two setscrews (6) and new locknuts (7). Torque setscrews to 15-25 Ib.-ft. (20-34 N•m).

e. INSTALLATION

1. Position spring holder (2) on dolly (1) and install bolt (3), new lockwasher (4), and nut (5).

2. Install seven collars (10) and pins (11) or new rivets to secure spring holder (2) to dolly (l).



FOLLOW-ON TASKS:

- Install spring assembly (para 4-79).
- Install radius rod (para 4-80).

TA700291

Section XI. BODY MAINTENANCE

4-83. REAR BUMPER REPLACEMENT.

This Task Covers:

a. Removal

b. Installation

Initial Setup:

Tools/Test Equipment:

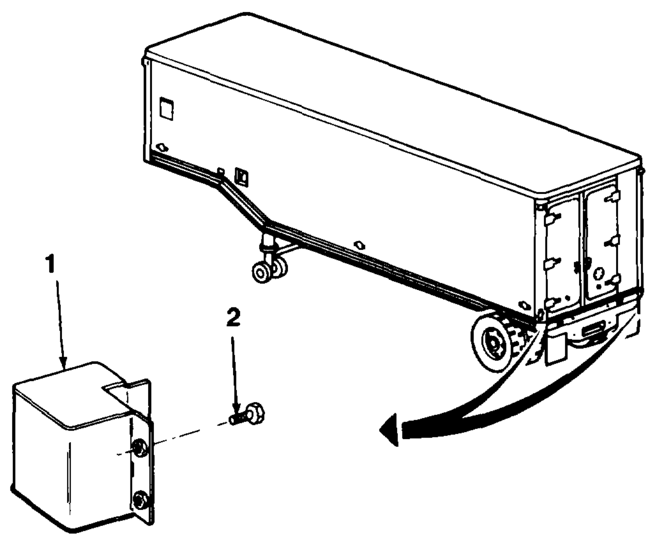
Ž General mechanic's tool kit

a. REMOVAL

Working under inside corner of chassis, remove four screws (2) and bumper (l).

b. INSTALLATION

Install bumper (1) on chassis using four screws (2).



TA700292

4-84. SPLASHGUARD REPLACEMENT.

This Task Covers:

a. Removal

b. Installation

Initial Setup:

Materials/Parts:

- Eight lockwashers

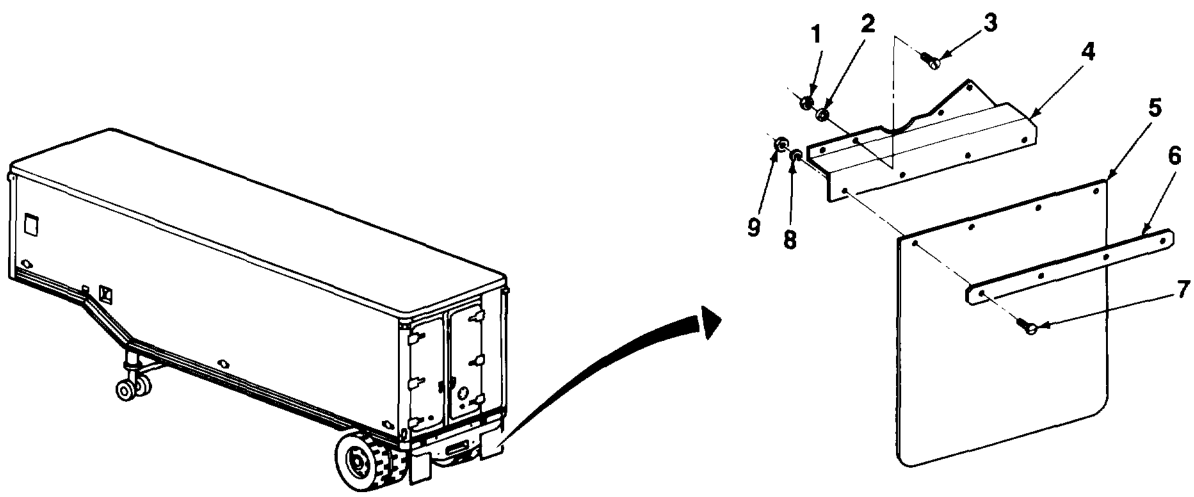
Tools/Test Equipment:

- General mechanic's tool kit

a. REMOVAL

1. Remove four nuts (1), lockwashers (2), and screws (3). Remove bracket (4) and splashguard (5) assembly from rear crossmember. Discard lockwashers.

2. Remove four nuts (9), lockwashers (8), and screws (7). Remove support plate (6) and splashguard (5) from bracket (4). Discard lockwashers.



b. INSTALLATION

1. Install splashguard (5) and supporl plate (6) on bracket (4) using four screws (7), new lockwashers (8), and nuts (9).

2. Install bracket (4) and splashguard (5) assembly on rear crossmember using four screws (3), new lockwashers (2), and nuts (l).

TA700293

4-85. PIONEER TOOL BRACKET REPLACEMENT (M348A2C, M348A2D, AND M348A2F).

This Task Covers:

a. Removal　　　　b, Installation

Initial Setup:

Tools/Test Equipment:

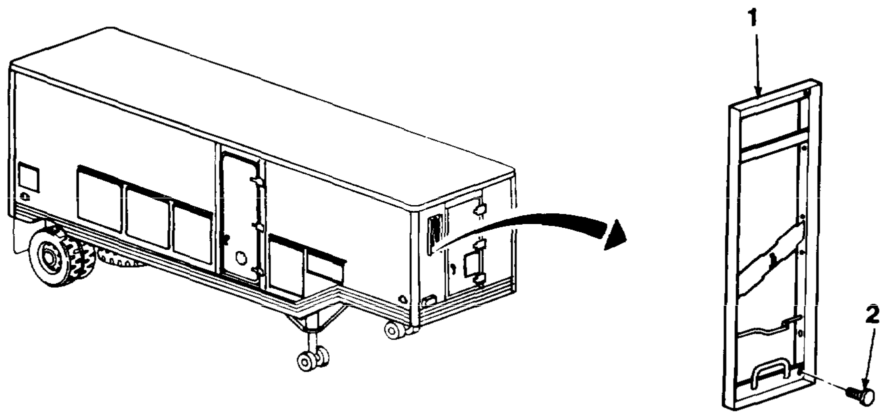
Ž General mechanic's tool kit

a. REMOVAL

Remove four screws (2) and pioneer tool bracket (1) from semitrailer.

b. INSTALLATION

Install pioneer tool bracket (1) on semitrailer using four screws (2).



TA700294

4-86. DOOR REPLACEMENT.

This Task Covers:

a. Removal
b. Cleaning and Inspection
c. Installation

Initial Setup:

Materials/Parts:

. Brush (Item 7, Appendix E)
• Dry cleaning solvent (Item 13, Appendix E)

Tools/Test Equipment:

• General mechanic's tool kit

Personnel Required: Two

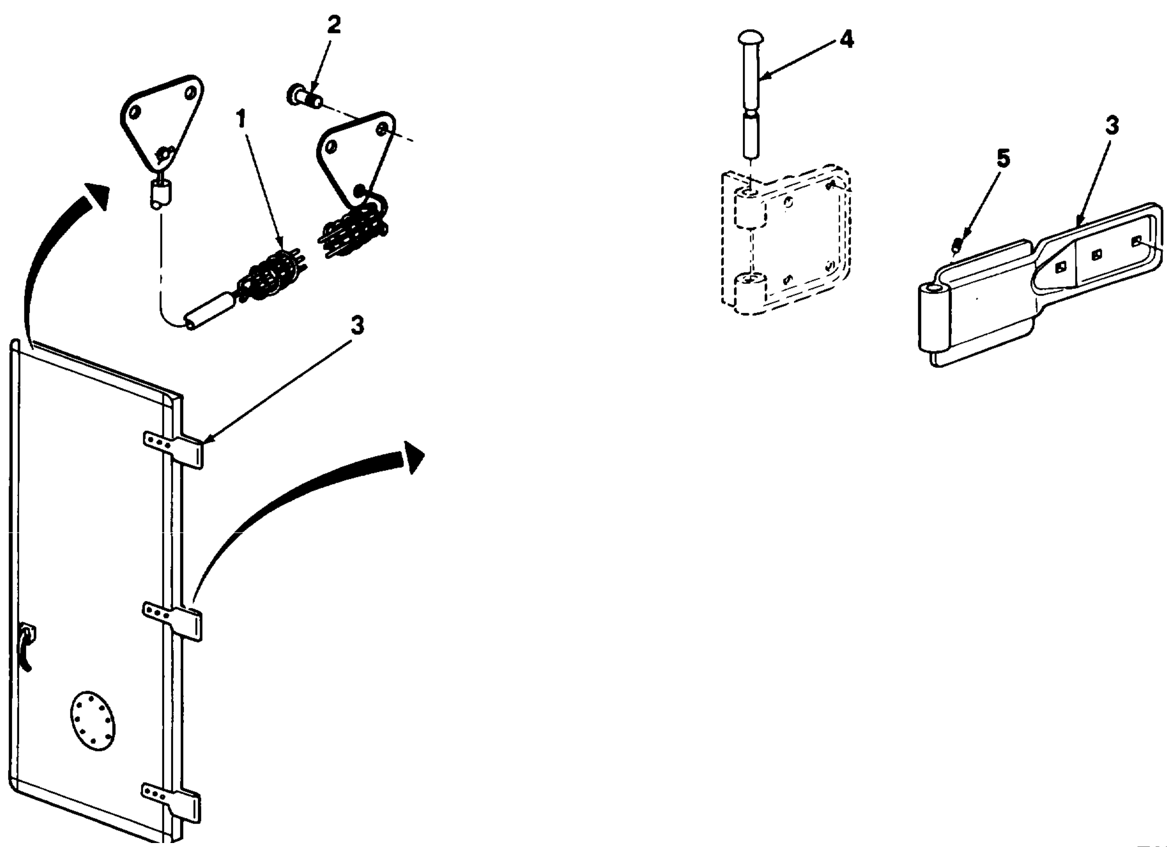
a. REMOVAL

1. Some doors are provided with a door closer (1) at top of door. If present, remove four screws (2) and door closer.

NOTE

On M373A2D side and rear doors, hinge pins are secured with flatwashers and self-locking nuts.

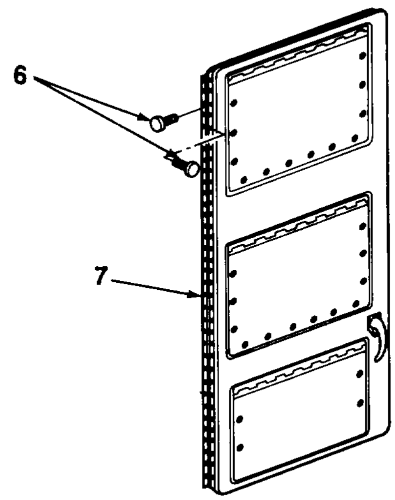
2. To remove doors attached with butt hinges (3), remove setscrew (5) securing hinge pin (4) and drive out hinge pin. Repeat for all butt hinges. Remove door.



TA700295

4-86. DOOR REPLACEMENT (Con't).

3. To remove doors attached with piano hinges (7), open door and remove 33 screws (6) from portion of piano hinge attached to door jamb, leaving hinge attached to door. Remove door.



b. CLEANING AND INSPECTION

1. Use water and a stiff brush to remove dirt.

WARNING

Dry cleaning solvent, P-D-680, is toxic and flammable. Always wear protective goggles and gloves, and use only in a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point is 100°F-138°F (38°C-59°C. If you become dizzy while using cleaning solvent, immediately get fresh air and medical help. If solvent contacts eyes, immediately wash your eyes and get medical aid.

2. Use dry cleaning solvent to remove grease and oil.
3. Inspect for dents and cracks.
4. Visually check all hardware for defects.
5. Straighten bent metal parts if possible. Replace door if cracked or broken.

c. INSTALLATION

1. Install doors with piano hinges (7) using 33 screws (6) to secure piano hinge to door jamb.

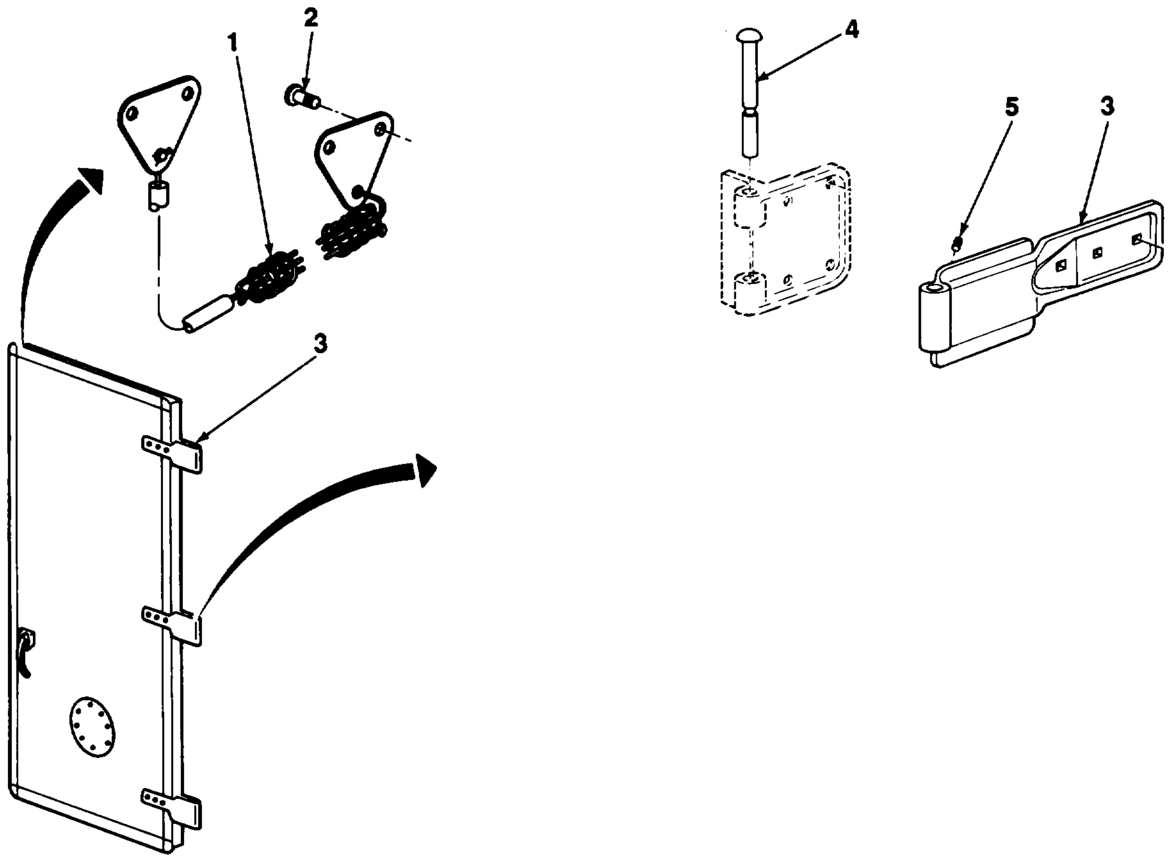
NOTE

On M373A2D side and rear doors, hinge pins are secured with flatwashers and self-locking nuts.

2. Install doors with butt hinges (3) by installing hinge pins (4) and setscrews (5).
3. If present, install door closer 1) with four screws (2).

A700296

4-86. DOOR REPLACEMENT (Con't).



T700297

4-87. DOOR BUMPER REPLACEMENT.

This Task Covers:

a. Removal
b. Installation

Initial Setup:

Materials/Parts:

- One lockwasher

Tools/Test Equipment

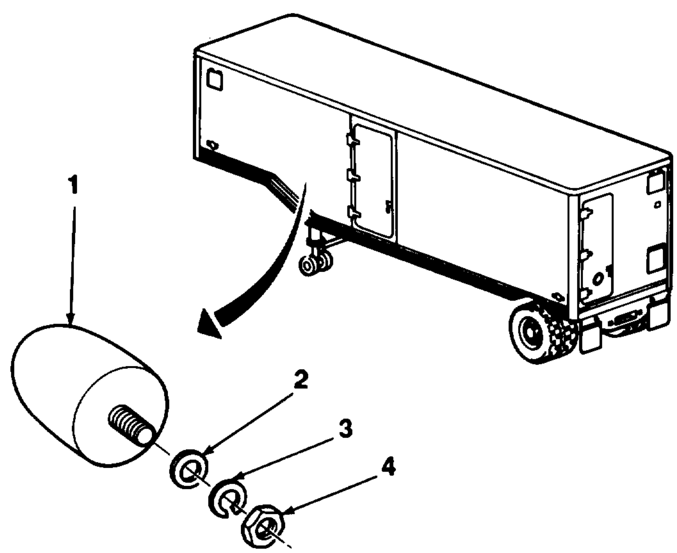
- General mechanic's tool kit

a. REMOVAL

Remove door bumper (1), flatwasher *(2),* lockwasher (3), and nut (4). Discard lockwasher.

b. INSTALLATION

1. Install flatwasher (2), new lockwasher (3), and nut (4) on door bumper (l).
2. Install door bumper (1) into side of semitrailer. Tighten nut (4) against side of semitrailer.



TA700298

4-88. LOCK ASSEMBLY REPLACEMENT.

This Task Covers:

a. Removal b. Installation

Initial Setup:

Materials/Parts:
- Six lockwashers

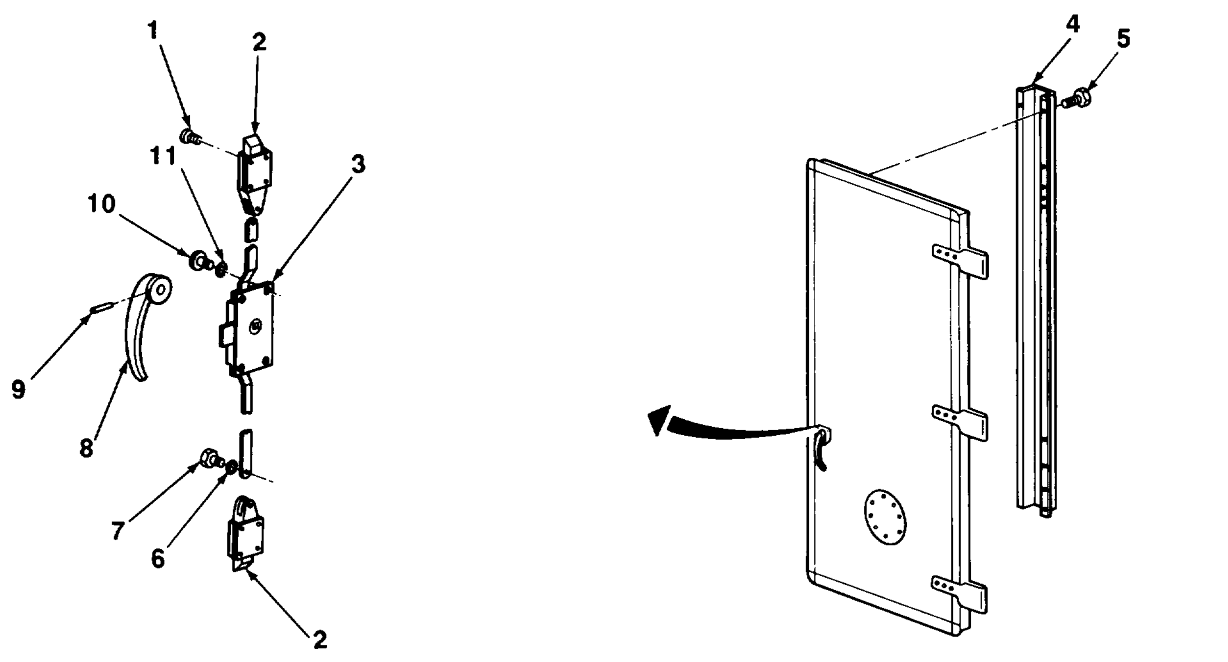
Tools/Test Equipment:
- General mechanic's tool kit

1. Drive out pin (9) and remove inner handle (8).

NOTE

Quantity of screws securing lock guard varies by model.

2. Remove screws (5) and lock guard (4) from door.
3. Remove four screws (10) and lockwashers (11) securing lock assembly (3) to door. Discard lockwashers.
4. Remove four screws (1) securing each flush bolt (2) to door. Remove lock assembly (3) and flush bolts as a unit.
5. Remove screw (7), lockwasher (6), and flush bolt (2) from each end of lock assembly (3). Discard lockwashers.

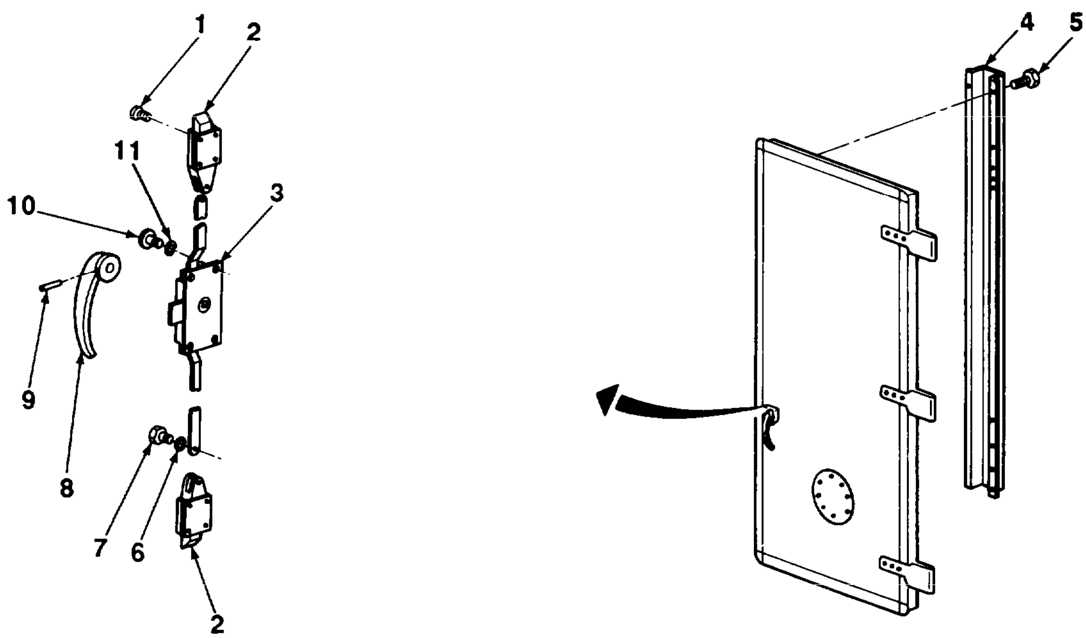


TA700299

4-88. LOCK ASSEMBLY REPLACEMENT (Con't).

b. INSTALLATION

1. Using screw (7) and new lockwasher (6), install flush bolt (2) on each end of lock assembly (3).
2. Install lock assembly (3) on door using four screws (10) and new lockwashers (11).
3. Secure each flush bolt (2) to door using four screws (1).
4. Install lock guard (4) on door using screws (5).
5. Install inner handle (8) using pin (9).



TA700300

4-89. SIDE DOOR HANDLE CLUTCH AND SPRING REPLACEMENT (ALL EXCEPT M348A2H, M348A2K, M348A2N, AND M373A2D).

This Task Covers:

a. Removal
b. Installation

init/a/ Setup:

Materials/Parts:

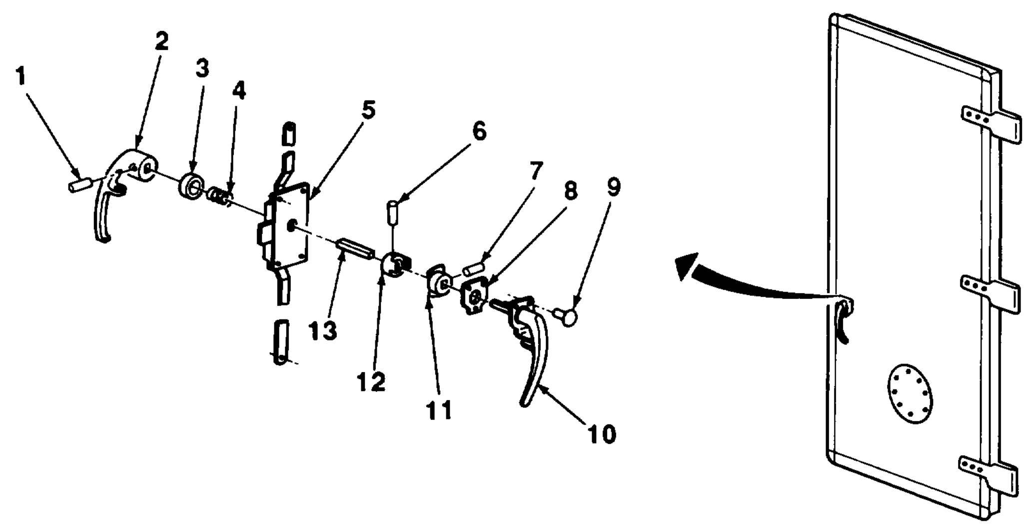
- Three rivets

Tools/Test Equipment:

- General mechanic's tool kit
- Drill bit set
- Electric drill
- Rivet gun

a. REMOVAL

1. Remove pin (1) from inner handle (2), Remove inner handle, retainer (3), and spring (4) from lock assembly (5) and straight pin (13).
2. Remove pin (6) securing inner clutch (12) to straight pin (13). Remove inner clutch.
3. Remove three rivets (9) securing outer handle (1 O) to door. Remove outer handle and gasket (8). Discard rivets.
4. Remove pin (7) securing outer clutch (11) to straight pin (13). Remove outer clutch.



b. INSTALLATION

1. Install outer clutch (11) on straight pin (13) using pin (7).
2. Install gasket (8) and outer handle (1 O) on door using three new rivets (9).
3. Install inner clutch (12) on straight pin (13) using pin (6).
4. Install spring (4), retainer (3), and inner handle (2) on lock assembly (5) and straight pin (13) using pin (l).

TA700301

4-90. HINGE ASSEMBLY REPLACEMENT

This Task Covers:

a. Removal

b. Installation

Initial Setup:

Equipment Conditions:

- Door removed (para 4-86).
- Lock assembly removed (late models) (para 4-88).

Tools/Test Equipment:

- General mechanic's tool kit
- Drill bit set
- Electric drill
- Rivet gun

Materials/Parts:

- Three Iockwashers (late models)
- Thirty rivets

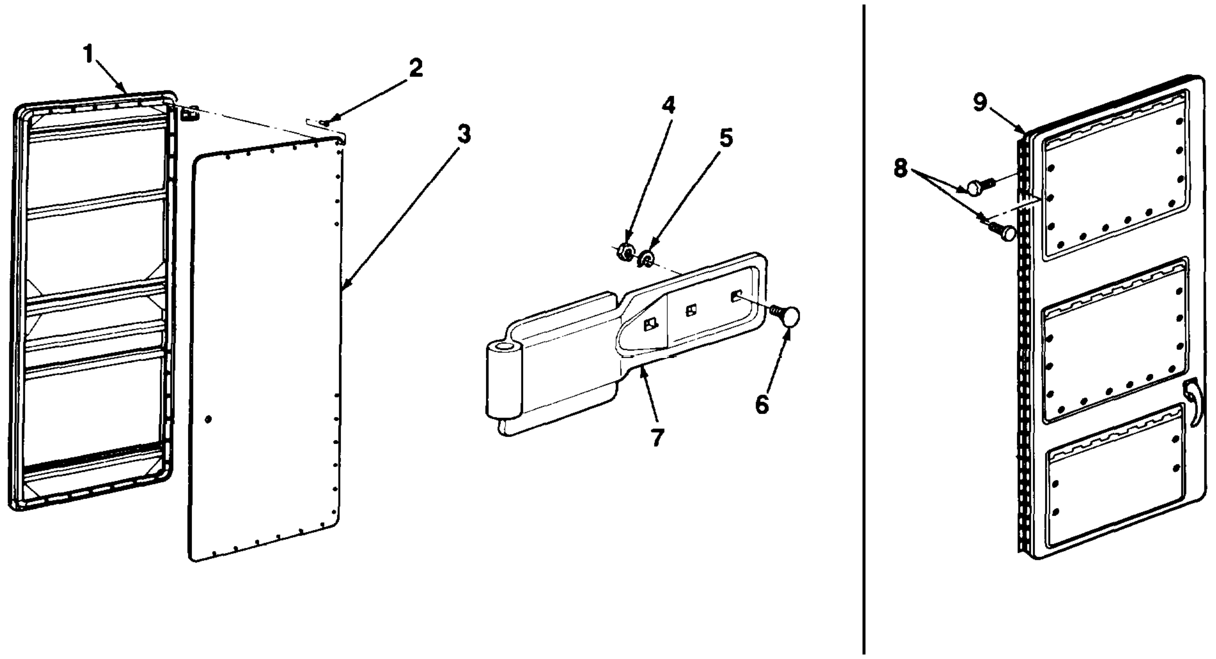
a. REMOVAL

NOTE

M373A5 is illustrated. Other models are similar,

1. Remove 30 rivets (2) and inner panel (3) from door frame (1) Remove three nuts (4), Iockwashers (5), bolts (6), and hinge (7) from door frame. Discard Iockwashers and rivets.

2. On models with a piano hinge (9), remove 34 screws (8) and hinge from door.



T700302

4-90. HINGE ASSEMBLY REPLACEMENT (Con't).

b. INSTALLATION

1. On models with a piano hinge (9), install hinge on door using 34 screws (8).
2. On other models, install hinge (7) on doorframe (1) using three bolts (6), new lockwashers (5), and nuts (4). Install inner panel (3) on door frame using 30 new rivets (2).

FOLLOW-ON TASKS:

- Install lock assembly (late model) (para 4-88),
- Install door (para 4-86).

4-91. DOOR SEALS AND GASKETS REPLACEMENT.

This Task Covers:

a. Removal
b. Cleaning and Inspection
c. Installation

Initial Setup:

Materials/Parts:

- Adhesive (Item 1, Appendix E)
- Dry cleaning solvent (Item 13, Appendix E)
- Steel wool (Item 30, Appendix E)
- Three rivets
- Four Iockwashers (XM1005)
- Fifty rivets (M373A2D)

Tools/Test Equipment:

- General mechanic's tool kit
- Drill bit set
- Electric drill
- Rivet gun

a. REMOVAL

1. On all semitrailers except M373A2D, open door (2) and remove seal (1) from groove in door frame.
2. On M373A2D semitrailers, open door (6) and remove 50 rivets (9) securing top and bottom retainers (10) and side retainers (8) and remove retainers. Remove RFI seal (7) from groove in doorframe, Discard rivets.
3. Outer handles (4) are provided with a gasket (5). To remove gasket, remove three rivets (3) securing outer handle to door (2) and remove outer handle and gasket. Discard rivets.
4. On XM1005 semitrailers, remove four screws (14) and Iockwashers (13). Remove door post (12) and RFI gasket (11). Discard Iockwashers.

b. CLEANING AND INSPECTION

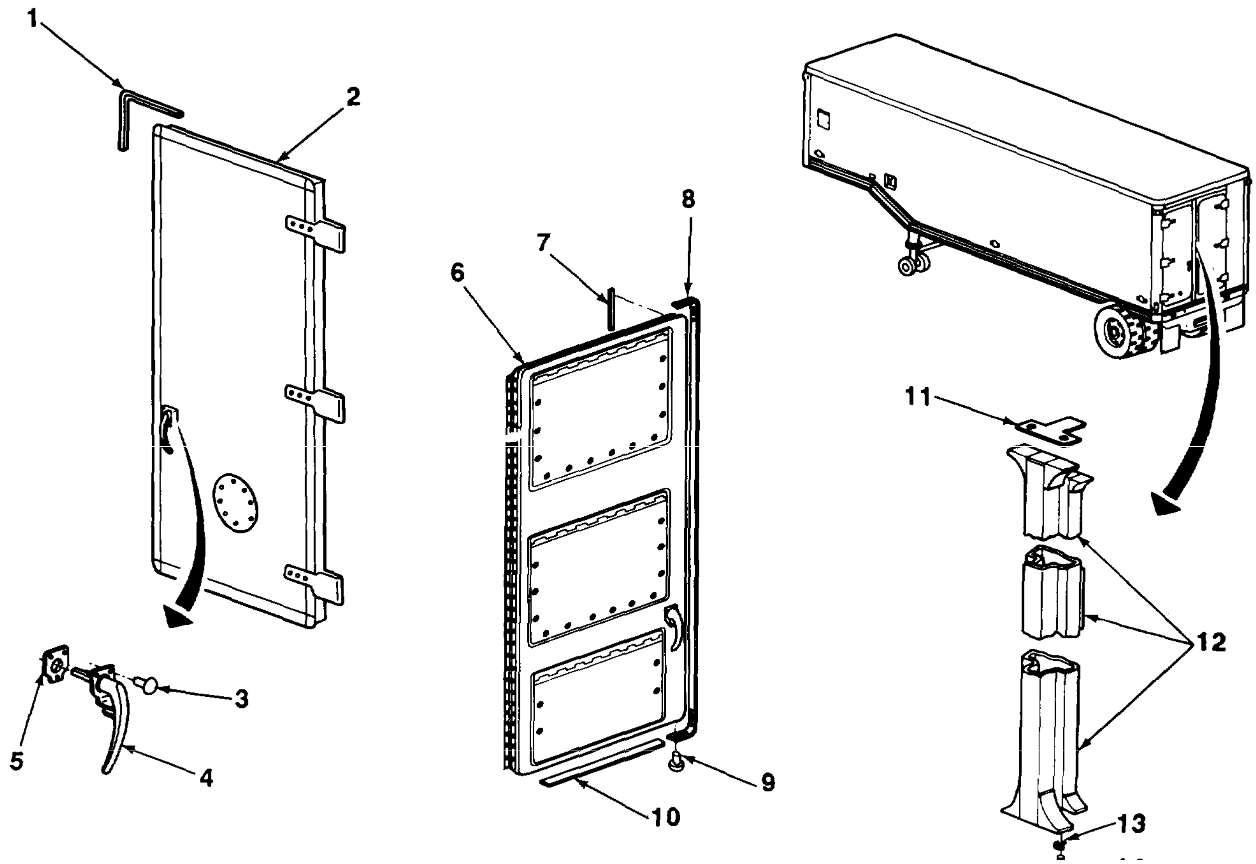
1. Ensure that door opening is free of dust, dirt, grease, and old adhesive.

WARNING

Dry cleaning solvent, P-D-680, is toxic and flammable, Always wear protective goggles and gloves, and use only In a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point is 100°F-138°F (38°C-59°C). If you become dizzy while using cleaning solvent, immediately get fresh air and medical help. If solvent contacts eyes, Immediately wash your eyes and get medical aid.

2. On M373A2D and XM1005 semitrailers with RFI shielding, use fine steel wool to remove any accumulated grease and grime. Clean with dry cleaning solvent and dry thoroughly. Wipe clean to bare metal for good contact with RFI shielding.

4-91. DOOR SEALS AND GASKETS REPLACEMENT (Con't).



C. INSTALLATION

1. On XM1005 semitrailer, install RFI gasket (11) on doorpost (12). Install doorpost using four screws (14) and new lockwashers (13).
2. Install outer handle (4) and gasket (5) on door (2) using three new rivets (3).
3. On M373A2D semitrailers, install RFI seal (7) in groove of door frame. Install top and bottom retainers (10) and side retainers (8) using 50 new rivets (9).
4. On all semitrailers except M373A2D, secure seal (1) in groove of door frame using adhesive.

TA700303

4-92. DECONTAMINATION PORT REPLACEMENT (ALL EXCEPT XM1005 AND XM1007).

This Task Covers:

a. Removal b. Installation

Initial Setup:

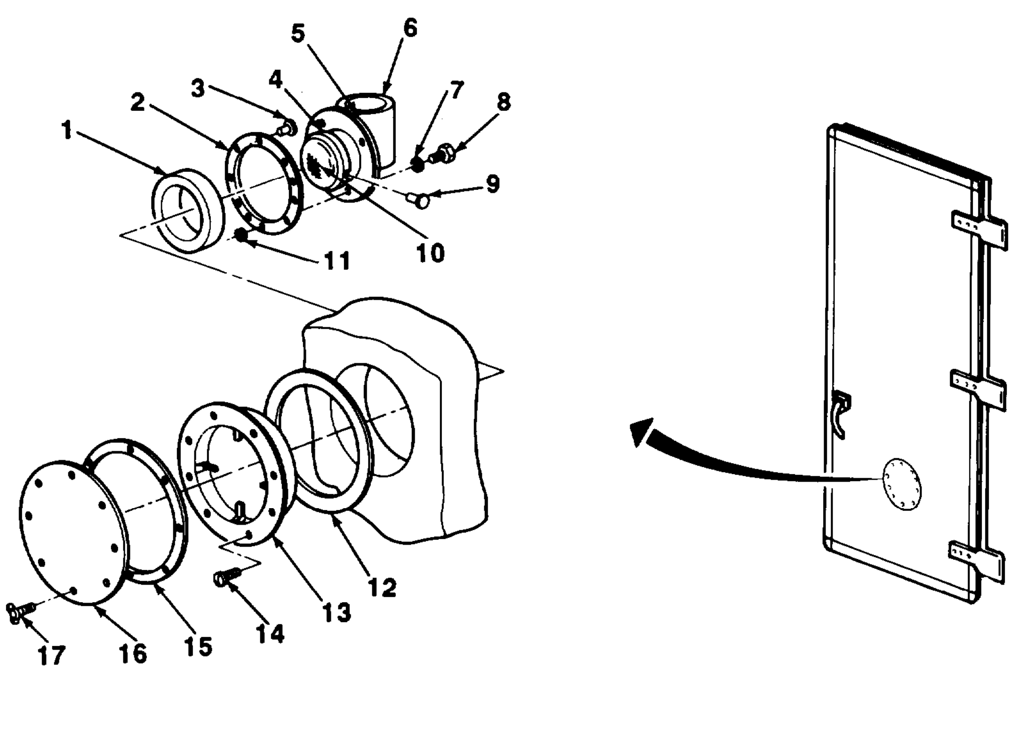
Materials/Parts:

- Adhesive (Item 1, Appendix E)
- Dry cleaning solvent (Item 13, Appendix E)
- One gasket
- Three lockwashers
- Seventeen rivets

Tools/Test Equipment:

- General mechanic's tool kit
- Drill bit set
- Electric drill
- Rivet gun

1. Remove eight thumbscrews (17), cover (16), and gasket (15) from decontamination port housing (13).
2. Remove eight screws (14). Remove decontamination port housing (13) and gasket (12).
3. From inside semitrailer, remove eight rivets (3) from retainer (2). Remove retainer and air vent housing (6) from door. Discard rivets.
4. Remove sleeve spacer (1) from door.
5. Remove three nuts (1 1), screws (8), and lockwashers (7). Remove air vent housing (6) from retainer (2). Discard lockwashers.



TA700304

4-92. DECONTAMINATION PORT REPLACEMENT (ALL EXCEPT XM1005 AND XM1007) (Con't).

6. Remove gasket (5) from air vent housing (6). Discard gasket.

7. Remove nine rivets (9). Remove clamp (4) and screen (1 O) from air vent housing (6). Discard rivets.

b. INSTALLATION

1. Install screen (10) and clamp (4) on air vent housing (6) using nine new rivets (9).

WARNING

Dry cleaning solvent, P-D-680, is toxic and flammable. Always wear protective goggles and gloves, and use only in a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point Is 100°F-138°F (38°C-59°C). If you become dizzy while using cleaning solvent, Immediately get fresh ah' and medical help. If solvent contacts eyes, immediately wash your eyes and get medical aid.

2. Clean air vent housing (6) with dry cleaning solvent to remove any old adhesive. Install new gasket (5) on air vent housing using adhesive.

3. Install air vent housing (6) on retainer (2) using three screws (8), new Iockwashers (7), and nuts (11).

4. Install sleeve spacer (1) in door.

5. Install retainer (2) and air vent housing (6) on door using eight new rivets (3).

6. Install decontamination port housing (13) and gasket (12) on door using eight screws (14).

7. Install cover (16) and gasket (15) on decontamination port housing (13) using eight thumbscrews (17).

4-93. MAILBOX CHUTE AND COVER REPLACEMENT (M348A2K AND M348A2N).

This Task Covers:

a. Removal
b. Cleaning and Inspection
c. Installation

Initial Setup:

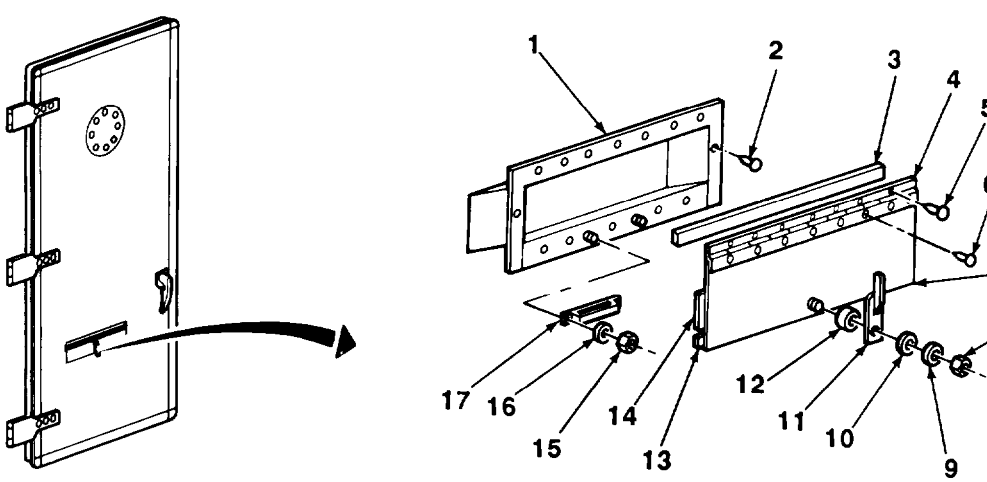
Materials/Parts:

- Adhesive (Item 4, Appendix E)
- Caulking compound (Item 8, Appendix E)
- Dry cleaning solvent (Item 13, Appendix E)
- Ž Two gaskets
- Three locknuts
- Twenty-one rivets

Tools/Test Equipment:

- General mechanic's tool kit
- Drill bit set
- Electric drill
- Rivet gun

1. Remove seven rivets (5) securing hinge (4) and spacer (3) to chute (1). Remove hinge with cover (7) and spacer. Discard rivets.
2. Remove seven rivets (6) securing hinge (4) to cover (7). Discard rivets.
3. Remove locknut (8), spring washer (9), flatwasher (10), latch (1 1), and bushing (12) from cover (7). Discard locknut.
4. Remove seven rivets (2) securing chute (1) to door. Remove chute from door. Discard rivets.
5. Remove two locknuts (15), flatwashers (16), and keeper (17) from chute (1). Discard locknuts.
6. Remove two gaskets (13 and 14) from cover (7). Discard gaskets.



TA700305

4-93. MAILBOX CHUTE AND COVER REPLACEMENT (M348A2K AND M348A2N) (Con't).

b. CLEANING AND INSPECTION

WARNING

Dry cleaning solvent, P-D-680, Is toxic and flammable. Always wear protective goggles and gloves, and use only in a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point is 100°F-138°F (38°C-59°C). If you become dizzy while using cleaning solvent, Immediately get fresh air and medical help. If solvent contacts eyes, Immediately wash your eyes and get medical aid.

1. Clean all parts with dry cleaning solvent and dry thoroughly. Ensure that all traces of old adhesive and caulking compound are removed and mating surfaces are clean and dry.
2. Inspect cover for warpage and distortion. Straighten as necessary.
3. Inspect hinge for straightness and deterioration. Replace defective hinge.
4. Inspect chute for bends, dents, and distortion. Straighten as necessary.
5. Inspect all other parts for defects and damage. Replace defective and damaged parts.

c. INSTALLATION

1. Use adhesive to install two new gaskets (13 and 14) on cover (7).
2. Apply caulking compound to chute flange. Install chute (1) on door using seven new rivets (2).
3. Install keeper (17) on chute (1) using two flatwashers (16) and new locknuts (15).
4. Install hinge (4) on cover (7) using seven new rivets (6).
5. Install hinge (4) with cover (7) and spacer (3) on chute (1) using seven new rivets (5).
6. Install bushing (12), latch (1 1), flatwasher (10), spring washer (9), and new locknut (8) on cover (7).

4-94. EXHAUST DUCT AND COVER REPLACEMENT (M348A2K AND M348A2N).

This Task Covers:

a. Removal
b. Cleaning and Inspection
c. Installation

Initial Setup:

Materials/Parts:

- Adhesive (Item 2, Appendix E)
- Adhesive (Item 4, Appendix E)
- Dry cleaning solvent (Item 13, Appendix E)
- Four Iockwashers
- Eight gaskets
- Twenty-seven rivets

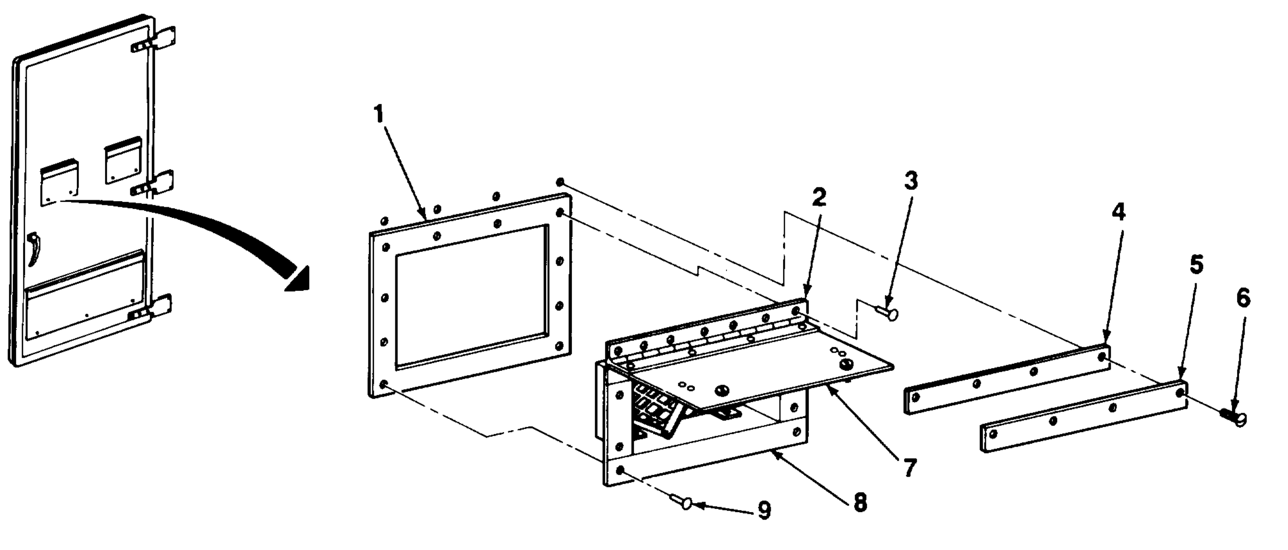
Tools/Test Equipment:

- General mechanic's tool kit
- Drill bit set
- Electric drill
- Rivet gun

NOTE

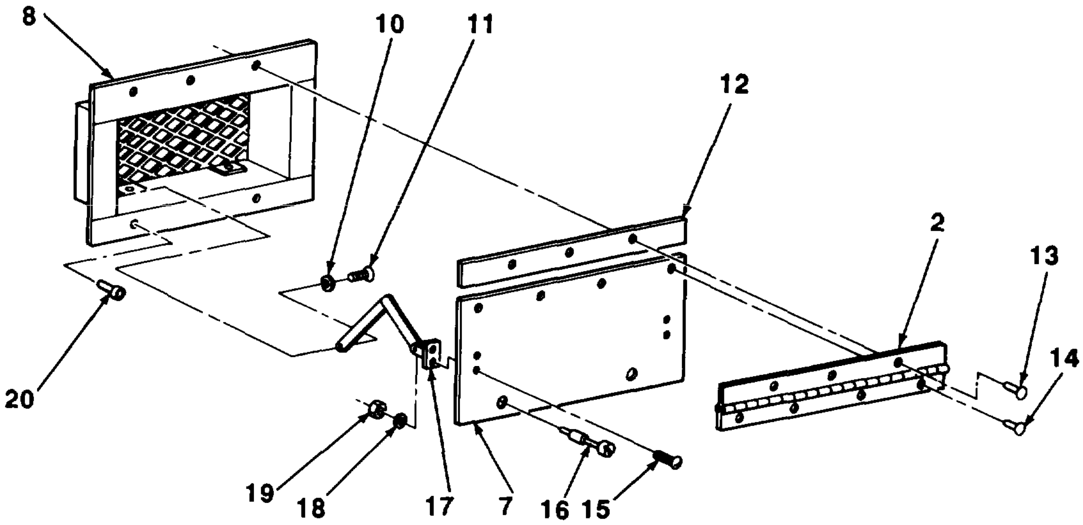
This procedure can be used for the two exhaust ducts mounted on the M348A2K and M348A2N front doors and the two exhaust ducts mounted on the M348A2K rear panel.

1. Remove four screws (6), plate (5), and shield (4) from door.
2. Remove four rivets (3) securing hinge (2) to adapter (l). Discard rivets.
3. Open cover (7) and remove eight rivets (9) securing frame (8) to adapter (1). Remove frame with cover (7) and hinge (2) from door. Discard rivets.

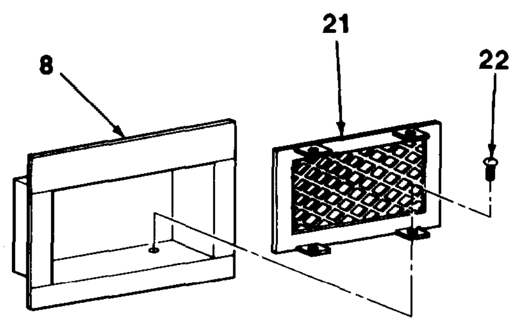


4-94. EXHAUST DUCT AND COVER REPLACEMENT (M348A2K AND M348A2N) (Con't).

4. Remove screw (11) and flatwasher (10) securing each stay (17) to frame (8).
5. Remove three rivets (13) securing hinge (2) and spacer (12) to frame (8). Remove hinge, cover (7), **and spacer** from frame. Discard rivets.
6. Remove four rivets (14) securing hinge (2) to cover (7). Discard rivets.
7. Remove two nuts (19), lockwashers (18), and screws (15) securing each stay (17) to cover (7). Discard lockwashers.
8. If stripped or damaged, remove two captive screws (16) from cover (7).
9. Remove two nuts (20) from frame (8).



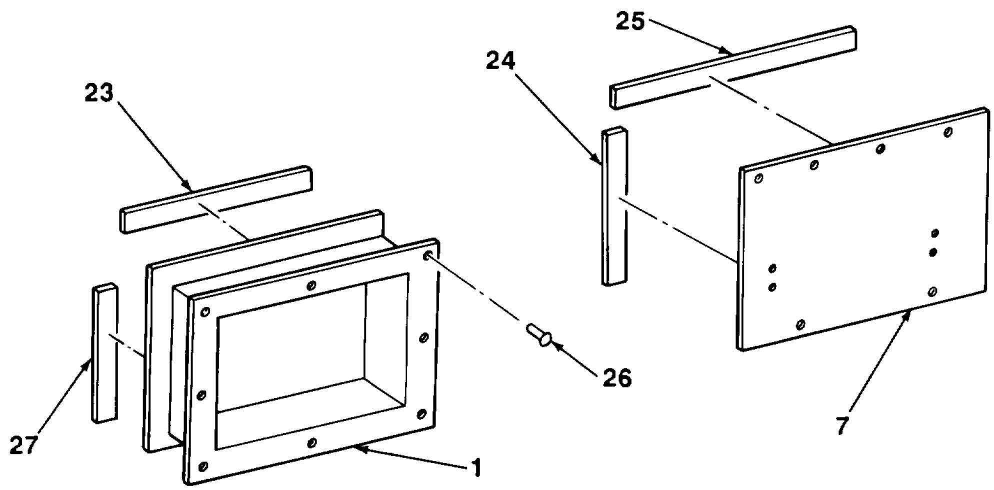
10. Remove four screws (22) and metal grille (21) from frame (8).



TA700307

4-94. EXHAUST DUCT AND COVER REPLACEMENT (M348A2K AND M348A2N) (Con't).

11. Remove top and bottom gaskets (25) and two side gaskets (24) from cover (7). Discard gaskets.
12. From inside semitrailer, remove eight rivets (26) and adapter (1) from door. Discard rivets.
13. Remove top and bottom gaskets (23) and two side gaskets (27) from adapter (l). Discard gaskets.



b. CLEANING AND INSPECTION

WARNING

Dry cleaning solvent, P-D-680, Is toxic and flammable. Always wear protective goggles and gloves, and use only in a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point is 100°F-138°F(38°C-59°C). If you become dizzy while using cleaning solvent, immediately get fresh air and medical help. If solvent contacts eyes, immediately wash your eyes and get medical aid.

1. Clean all parts with dry cleaning solvent and dry thoroughly. Ensure that all traces of old adhesive are removed and mating surfaces are clean and dry.
2. Inspect cover for warpage and distortion. Straighten as necessary.
3. Inspect hinge for straightness and deterioration. Replace defective hinge.
4. Inspect frame for bends, dents, and distortion. Straighten as necessary.
5. Inspect adapter for warpage, distortion, or other damage. Replace door if adapter is damaged.
6. Inspect all other parts for defects and damage. Replace defective and damaged parts.

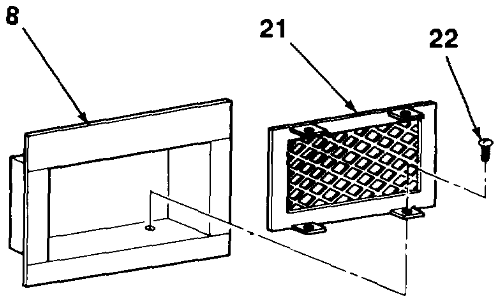
c. INSTALLATION

1. Install new top and bottom gaskets (25) and two new side gaskets (24) on cover (7) using adhesive (Item 4, Appendix E).

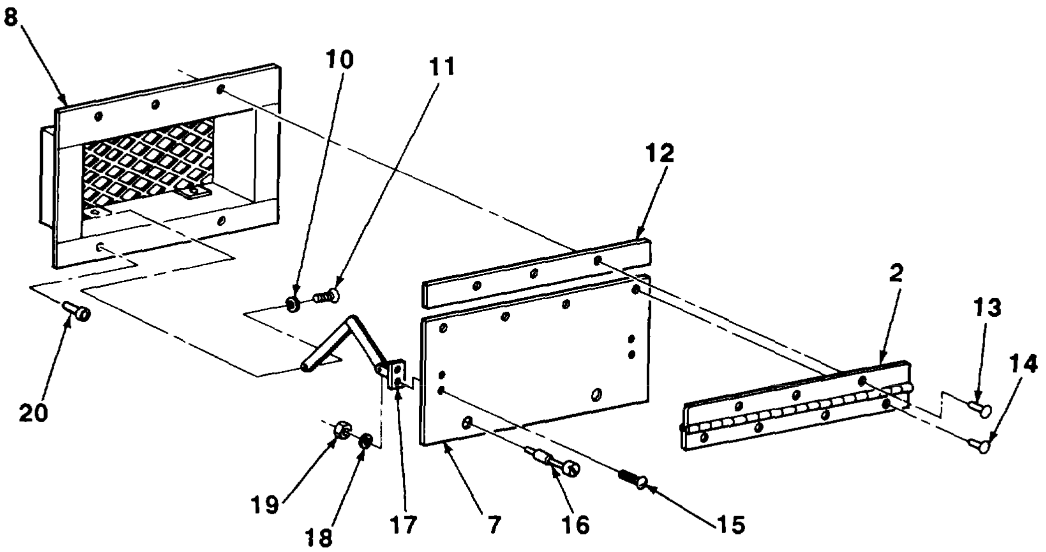
TA700308

4-94. EXHAUST DUCT AND COVER REPLACEMENT (M348A2K AND M348A2N) (Con't).

2. Install new top and bottom gaskets (23) and two new side gaskets (27) on adapter (1) using adhesive (Item 4, Appendix E).
3. Install adapter (1) on door using eight new rivets (26).
4. Install metal grille (21) in frame (8) using four screws (22).



5. Install hinge (2) on cover (7) using four new rivets (14).
6. If removed, install two captive screws (16) in cover (7).
7. Install each stay (17) on cover (7) using two screws (15), new lockwashers (18), and nuts (19).
8. Install two nuts (20) in frame (8).
9. Install hinge (2) with cover (7) and spacer (12) on frame (8) using three new rivets (13).
10. Secure each stay (17) to frame (8) using screw (11) and flatwasher (10).



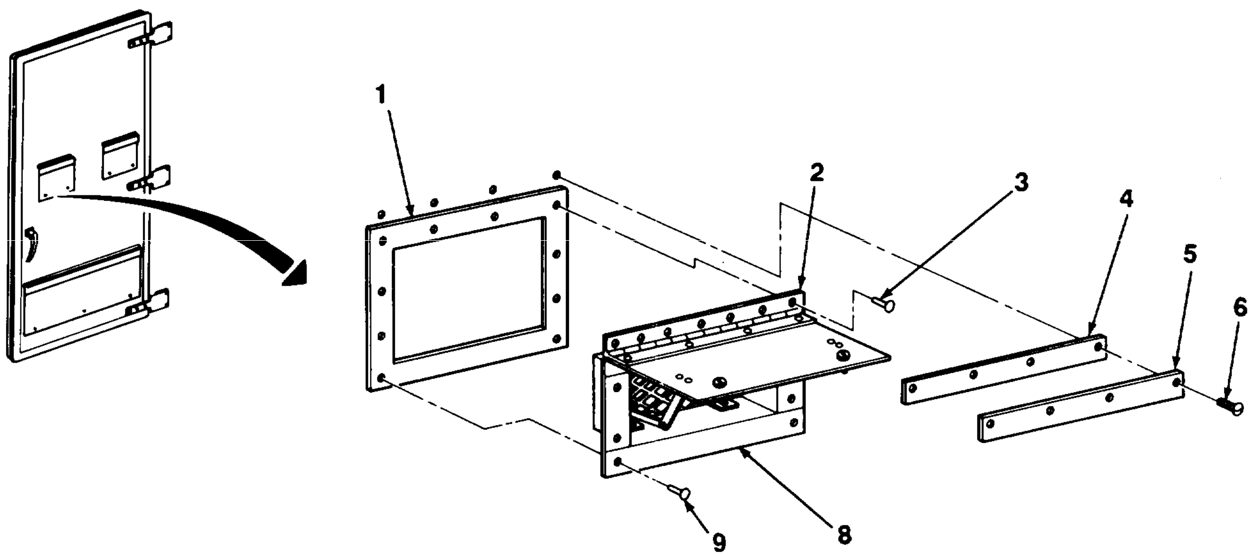
TA700309

4-94. EXHAUST DUCT AND COVER REPLACEMENT (M348A2K AND M348A2N) (Con't).

11. Apply adhesive (Item 2, Appendix E) around flanges on frame (8). Install frame on adapter (1) using eight new rivets (9).

12. Secure hinge (2) to adapter (1) using four new rivets (3).

13. Install shield (4) and plate (5) on door using four screws (6).



TA700310

4-95. INTAKE DUCT AND COVER REPLACEMENT (M348A2K AND M348A2N).

This Task Covers:

a. Removal
b. Cleaning and Inspection
c. Installation

Initial Setup:

Materials/Parts:

• Adhesive (Item 2, Appendix E)
• Adhesive (Item 4, Appendix E)
• Dry cleaning solvent (Item 13, Appendix E)
• Four gaskets
ž Four Iockwashers
Ž Thirty-one rivets

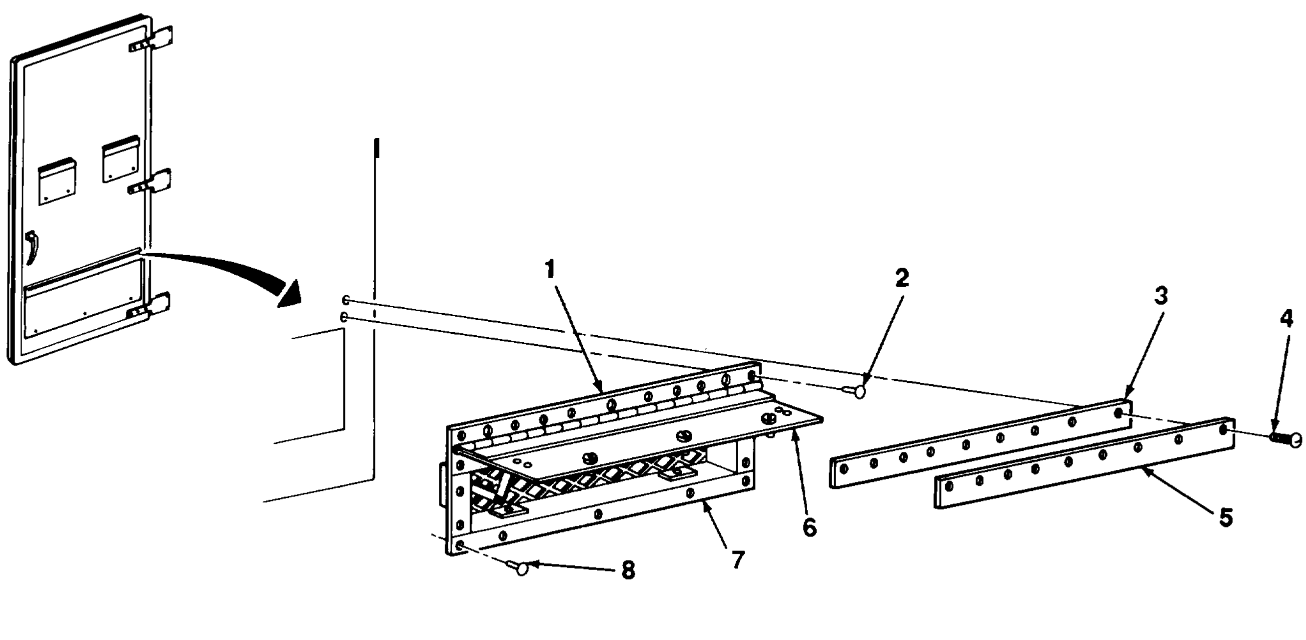
Tools/Test Equipment:

• General mechanic's tool kit
• Drill bit set
• Electric drill
• Rivet gun

NOTE

This procedure can be used for the intake duct mounted on the M348A2K and M348A2N front doors and the Intake duct mounted on the M348A2K rear panel.

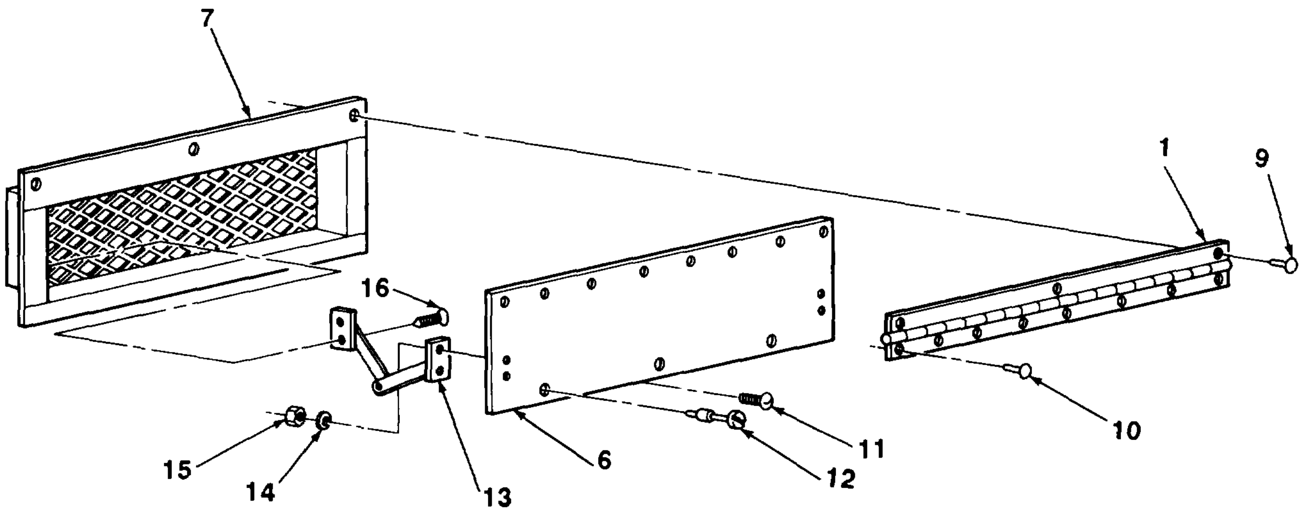
1. Remove 11 screws (4), plate (5) and shield *(3)* from door.
2. Remove eight rivets (2) securing hinge (1) to door. Discard rivets.
3. Open cover (6) and remove 12 rivets (8) securing frame (7) to door. Remove frame with cover and hinge (1) from door. Discard rivets.



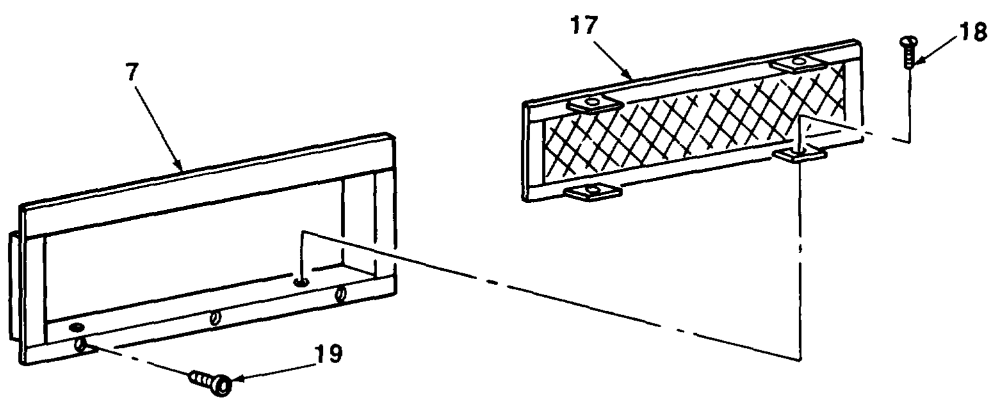
TA700311

4-95. INTAKE DUCT AND COVER REPLACEMENT (M348A2K AND M348A2N) (Con't).

4. Remove two screws (16) securing each stay (13) to frame (7).
5. Remove two nuts (15), Iockwashers (14), and screws (11) securing each stay (13) to cover (6). Discard Iockwashers.
6. Remove three rivets (9) securing hinge (1) to frame (7). Remove hinge and cover (6) from frame. Discard rivets.
7. Remove eight rivets (1 O) securing hinge (1) to cover (6). Discard rivets.
8. If stripped or damaged, remove three captive screws (12) from *cover* (6).



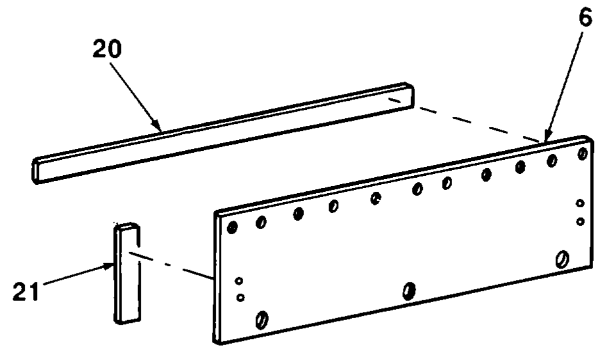
9. Remove four screws (18) and screen (17) from frame (7).
10. Remove three nuts (19) from frame (7).



TA700312

4-95. INTAKE DUCT AND COVER REPLACEMENT (M348A2K AND M348A2N) (Con't).

11. Remove top and bottom gaskets (20) and two side gaskets (21) from cover (6). Discard gaskets.



b. CLEANING AND INSPECTION

WARNING

Dry cleaning solvent, P-D-680, is toxic and flammable. Always wear protective goggles and gloves, and use only in a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point is 100°F-138°F (38°C-59°C). If you become dizzy while using cleaning solvent, immediately get fresh air and medical help. If solvent contacts eyes, immediately wash your eyes and get medical aid.

1. Clean all parts with dry cleaning solvent and dry thoroughly. Ensure that all traces of old adhesive are removed and mating surfaces are clean and dry.
2. Inspect cover for warpage and distortion. Straighten as necessary.
3. Inspect hinge for straightness and deterioration. Replace defective hinge.
4. Inspect frame for bends, dents, and distortion. Straighten as necessary.
5. Inspect all other parts for defects and damage, Replace defective and damaged parts.

c. INSTALLATION

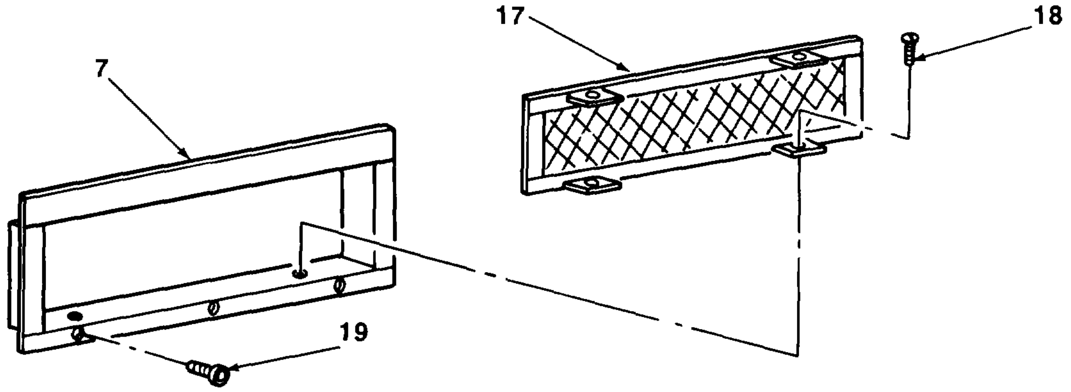
1. Install new top and bottom gaskets (20) and two new side gaskets (21) on cover (6) using adhesive (Item 4, Appendix E).

TA700313

4-95. INTAKE DUCT AND COVER REPLACEMENT (M348A2K AND M348A2N) (Con't).

2. install screen (17) in frame (7) using four screws (18).

3. Install three nuts (19) in frame (7).



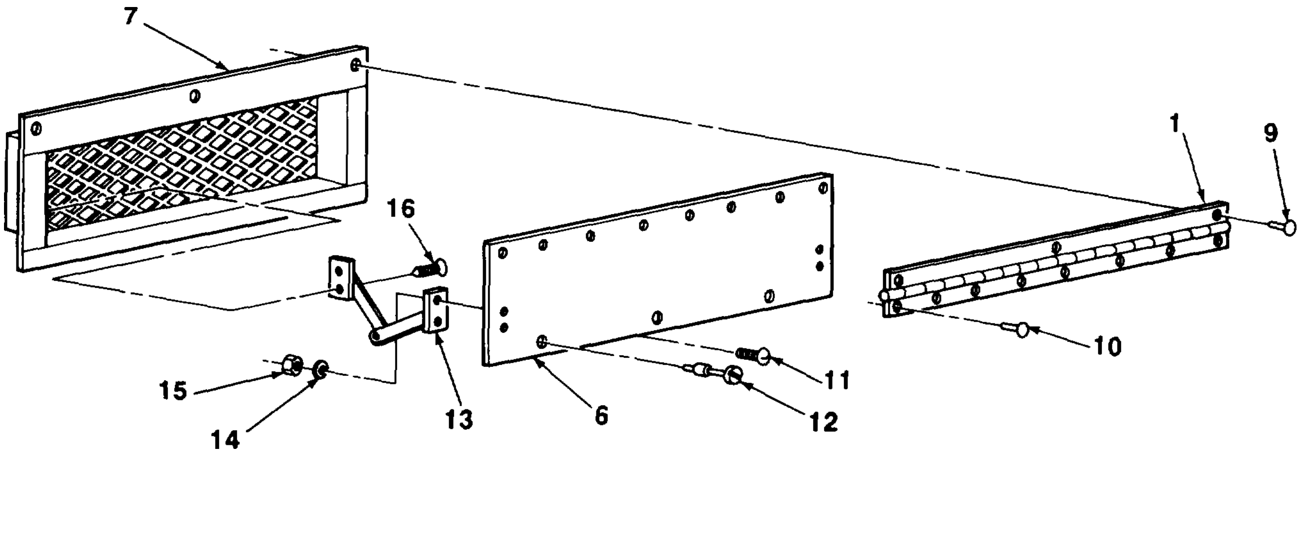
4. Install hinge (1) on cover (6) using eight new rivets (1 O).

5. [f removed, install three captive screws (12) in cover (6).

6. Install hinge (1) with cover (6) on frame (7) using three new rivets (9),

7. Install each stay (13) on cover (6) using two screws (1 1), new lockwashers (14), and nuts (15).

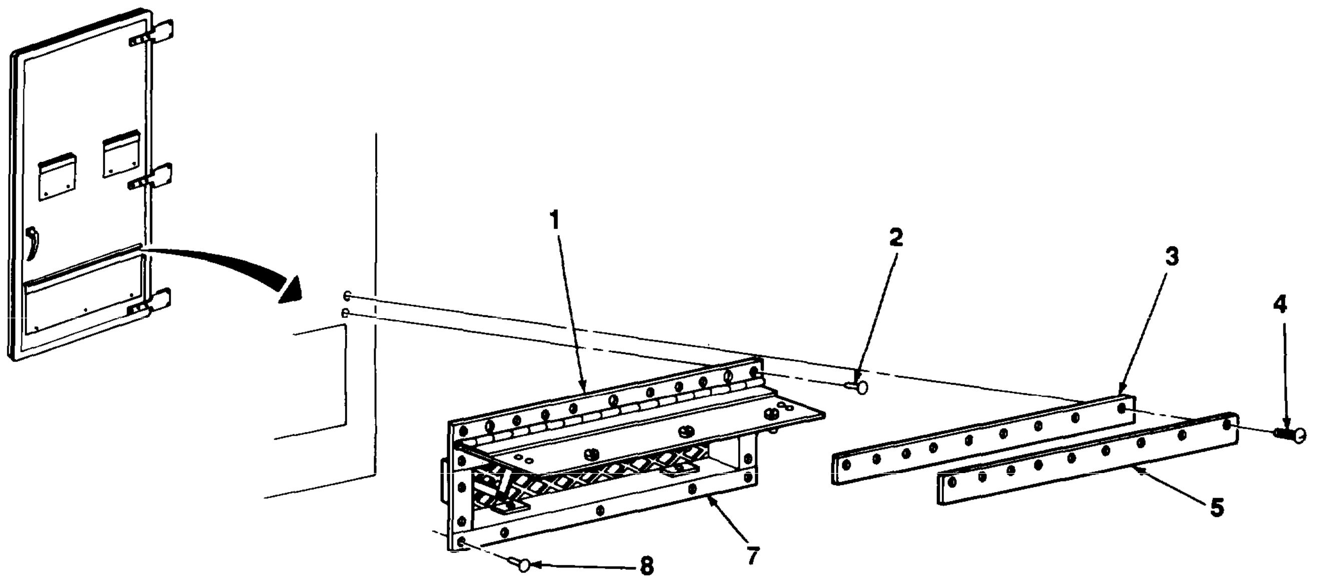
8. Secure each stay (13) to frame (7) using two screws (1 6).



TA700314

4-95. INTAKE DUCT AND COVER REPLACEMENT (M348A2K AND M348A2N) (Con't).

9. Apply adhesive (Item 2, Appendix E) around flanges on frame (7'). Install frame on door using 12 new rivets (8).
10. Secure hinge (1) to door using eight new rivets (2).
11. Install shield (3) and plate (5) on door using 11 *screws* (4).



TA700315

4-96. POWER ENTRY PANEL AND COVER REPLACEMENT (M348A2H).

This Task Covers:

a. Removal
b. Cleaning and Inspection
c. Installation

Initial Setup:

Equipment Conditions:

- External power disconnected from semitrailer.
- Incoming power cables removed.

Tools/Test Equipment:

- General mechanic's tool kit
- Drill bit set
- Electric drill
- Rivet gun

Materials/Parts:

- Adhesive (Item 1, Appendix E)
- Dry cleaning solvent (Item 13, Appendix E)
- Two rubber strips
- Seventy-one rivets

a. REMOVAL

1. Open cover (12) and remove screw (5) securing each stay (3) to frame (4).
2. Remove 12 rivets (1) securing hinge (2) to frame (4). Remove hinge and cover (12). Discard rivets.
3. Remove four rivets (11) securing two stays (3) to cover (12). Discard rivets.
4. Remove 12 rivets (13) securing hinge (2) to cover (1 2). Discard rivets.
5. Remove ten studs (1 O) and eyelets (9) from cover (12).
6. Remove 20 rivets (7) and ten receptacles (6) from frame (4). Discard rivets.
7. Remove 29 rivets securing frame (4) to semitrailer. Remove frame. Discard rivets.
8. Remove two rubber strips (8) from cover (12). Discard rubber strips.

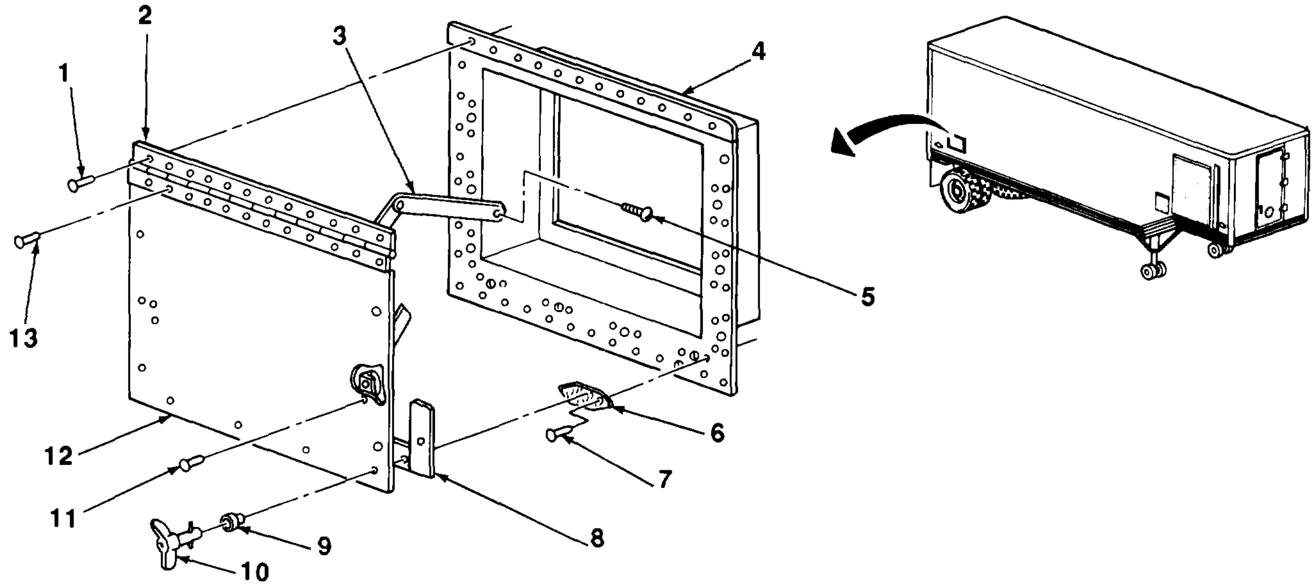
b. CLEANING AND INSPECTION

WARNING

Dry cleaning solvent, P-D-680, is toxic and flammable. Always wear protective goggles and gloves, and use only In a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open frame or excessive heat. The solvent's flash point is 100°F-I 38°F (38°C-59°C). if you become dizzy while using cleaning solvent, immediately get fresh air and medical help. if solvent contacts eyes, immediately wash your eyes and get medical aid.

1. Clean all parts with dry cleaning solvent and dry thoroughly. Ensure that bonding surfaces on cover for rubber strip are clean and dry.
2. inspect cover for warpage and distortion. Straighten if necessary.
3. inspect hinge for straightness and deterioration. Replace defective hinge.
4. Inspect all other parts for defects and damage. Replace defective and damaged parts. If frame is damaged, replace entire assembly.

4-96. POWER ENTRY PANEL AND COVER REPLACEMENT (M348A2H) (Con't).



c. INSTALLATION

1. Use adhesive to install two new rubber strips (8) on cover (12).
2. Install hinge (2) on cover (12) using 12 new rivets (13).
3. Install ten eyelets (9) and studs (10) in cover (12).
4. Install two stays (3) on cover (12) using four new rivets (1 1).
5. Install ten receptacles (6) on frame (4) using 20 new rivets (7).
6. Install frame (4) on semitrailer using 29 new rivets.
7. install hinge (2) on frame (4) using 12 new rivets (l).
8. Open cover (12) and secure each stay (3) to frame (4) using screw (5).

FOLLOW-ON TASKS:

- Install incoming power cables.
- Connect external power to semitrailer.
- Check operation of equipment installed in semitrailer.

TA700316

4-97. FORDING PLATE REPLACEMENT (M348A2H).

This Task Covers:

a. Removal
b. Cleaning and Inspection
c. Installation

Initial Setup:

Materials/Parts:

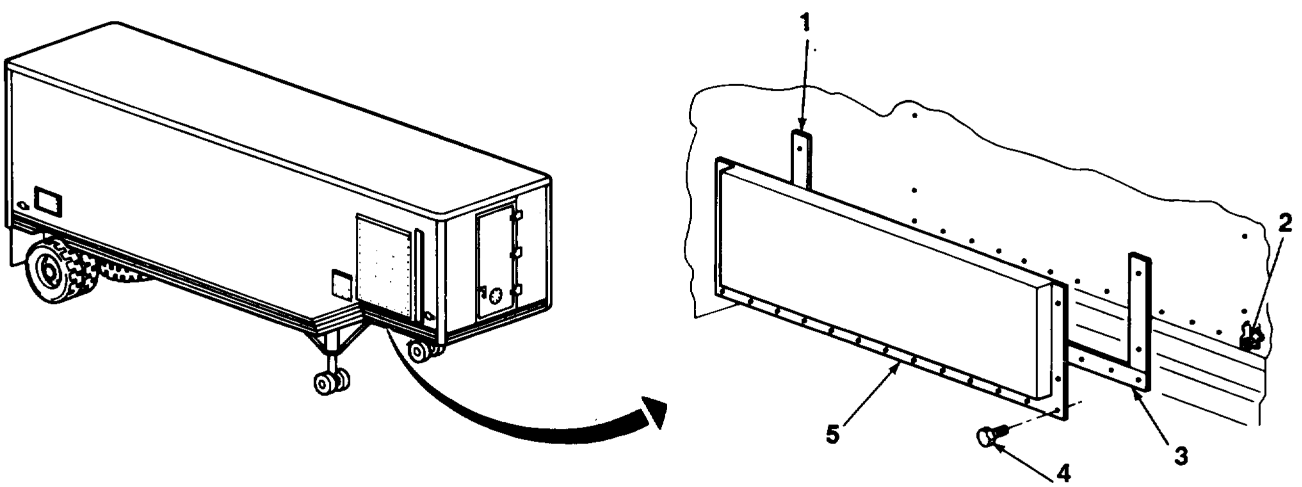
- Adhesive (Item 1, Appendix
- Dry cleaning solvent (Item 13, Appendix E)
- Three gaskets

Tools/Test Equipment:

- General mechanic's tool kit

a. REMOVAL

1. Remove 17 screws (4) and nuts (2) securing fording plate (5) to semitrailer.
2. Remove bottom gasket (3) and two side gaskets (1) from fording plate (5). Discard gaskets.



TA700317

4-97. FORDING PLATE REPLACEMENT (M348A2H) (Con't).

b. CLEANING AND INSPECTION

WARNING

Dry cleaning solvent, P-D-680, is toxic and flammable. Always wear protective goggles and gloves, and use only in a well-ventiiated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point is 100°F-138°F (38°C-59°C). if you become dizzy while using cleaning solvent, immediately get fresh air and medical help. if solvent contacts eyes, immediately wash your eyes and get medical aid.

1. Clean all parts with dry cleaning solvent and dry thoroughly. Ensure that bonding surfaces on fording plate for gaskets are clean and dry.

2. Inspect fording plate for warpage and distortion. Straighten if necessary.

3. Inspect all other parts for defects and damage. Replace defective and damaged parts.

c. INSTALLATION

1. Use adhesive to install new bottom gasket (3) and two new side gaskets (1) on fording plate (5).

2. install fording plate (5) on semitrailer using 17 screws (4) and nuts (2).

4-98. ACCESS COVER, AIR VENT FRAME AND SHIELD ASSEMBLY, AND RADIO FREQUENCY INTERFERENCE (RFI) PANEL REPLACEMENT (M373A2D).

This Task Covers:

a. Removal
b. Cleaning and Inspection
c. Installation

Initial Setup:

Materials/Parts:

- Adhesive (Item 1, Appendix E)
- Coated cloth (Item 10, Appendix E)
- Dry cleaning solvent (Item 13, Appendix E)
- Two rubber strips
- Forty-two lockwashers (lower door access cover)
- Forty-nine lockwashers (upper and intermediate door access covers)
- Fifty lockwashers (air vent frame and shield assembly)
- 112 rivets (air vent frame and shield assembly)
- 154 rivets (lower door access cover)
- 164 rivets (intermediate door access cover)
- 190 rivets (upper door access cover)

Tools/Test Equipment:

- General mechanic's tool kit
- Drill bit set
- Electric drill
- Rivet gun

a. REMOVAL

NOTE

This procedure is typical of the three door-mounted access covers and the access cover mounted on the left side of the semitrailer. Lower door access cover is illustrated. Quantity of rivets and other attaching hardware varies and is not specified within the procedure.

1. Remove coated cloth (11) covering hinge (6). Discard coated cloth.

2. Remove rivets (7) securing hinge (6) to frame (3) and door. Remove hinge and access cover (8) from door. Discard rivets.

3. Remove rivets (18) securing frame (3) to door. Remove frame. Discard rivets.

4. Remove two rivets (16) securing each receptacle (17) to frame (3). Discard rivets.

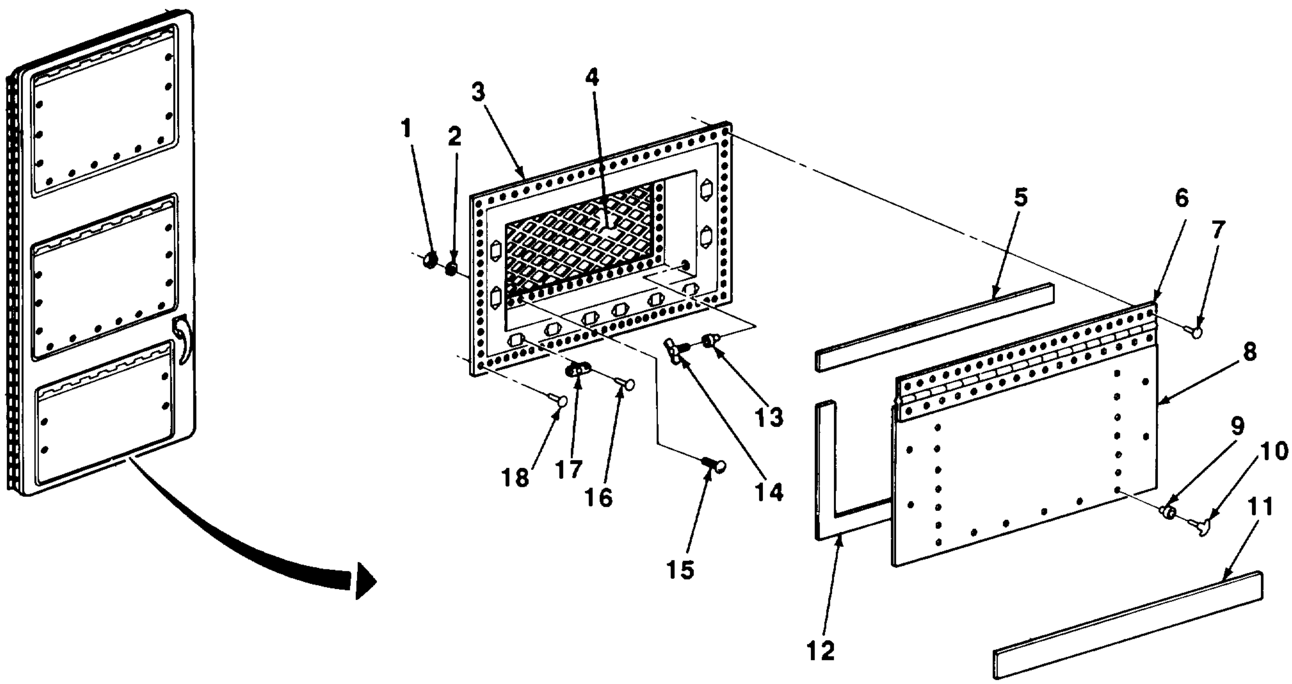
5. Remove two thumbscrews (14) and nuts (13) from frame (3).

6. Remove nuts (1), lockwashers (2), and screws (15) securing RFI panel (4) to frame (3). Remove RFI panel. Discard lockwashers.

7. If damaged, remove studs (10) and eyelets (9) from access cover (8).

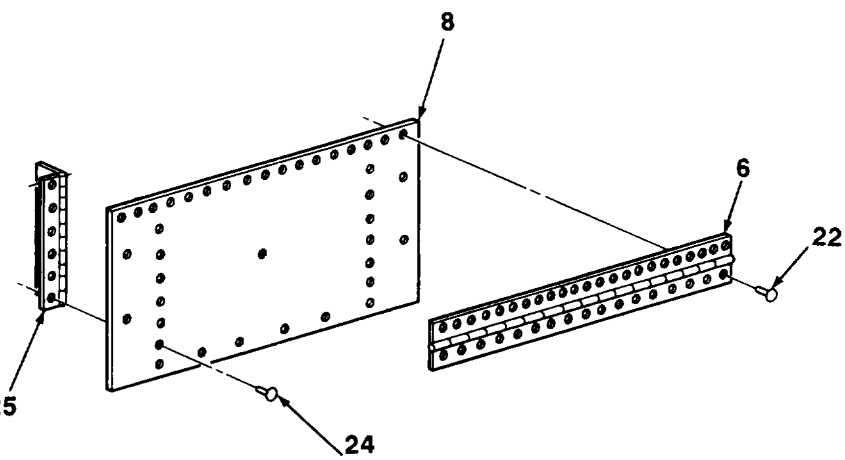
8. Remove two rubber strips (5 and 12) from access cover (8). Discard rubber strips.

4-98. ACCESS COVER, AIR VENT FRAME AND SHIELD ASSEMBLY, AND RADIO FREQUENCY INTERFERENCE (RFI) PANEL REPLACEMENT (M373A2D) (Con't).



9. Remove rivets (22) securing hinge (6) to access cover (8). Discard rivets.

10. Remove rivets (24) securing each shield hinge (25) to access cover (8). Discard rivets.

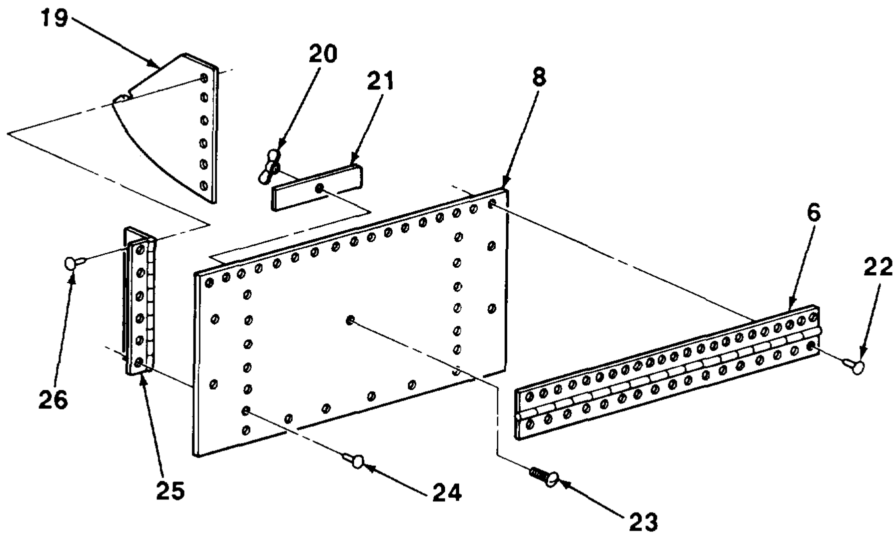


TA700318

4-98. ACCESS COVER, AIR VENT FRAME AND SHIELD ASSEMBLY, AND RADIO FREQUENCY INTERFERENCE (RFI) PANEL REPLACEMENT (M373A2D) (Con't).

11. Remove rivets (26) securing each shield (19) to shield hinge (25). Discard rivets.

12. Remove wingnut (20), retainer (21), and stud (23) from access cover (8).



b. CLEANING AND INSPECTION

WARNING

Dry cleaning solvent, P-D-680, is toxic and flammable. Always wear protective goggles and gloves, and use only in a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point is 10O°F-138°F (38°C-59°C). If you become dizzy while using cleaning solvent, immediately get fresh air and medical help. If solvent contacts eyes, immediately wash your eyes and get medical aid.

1. Clean all .parts with dry cleaning solvent and dry thoroughly. Ensure that bonding surfaces on cover for rubber strips are clean and dry.
2. Inspect access cover for warpage and distortion. Straighten if necessary.
3. Inspect hinges for straightness and deterioration. Replace defective hinges.
4. Inspect shields for bends, dents, and distortion. Straighten as necessary.
5. Inspect all other parts for defects and damage, Replace defective and damaged parts.

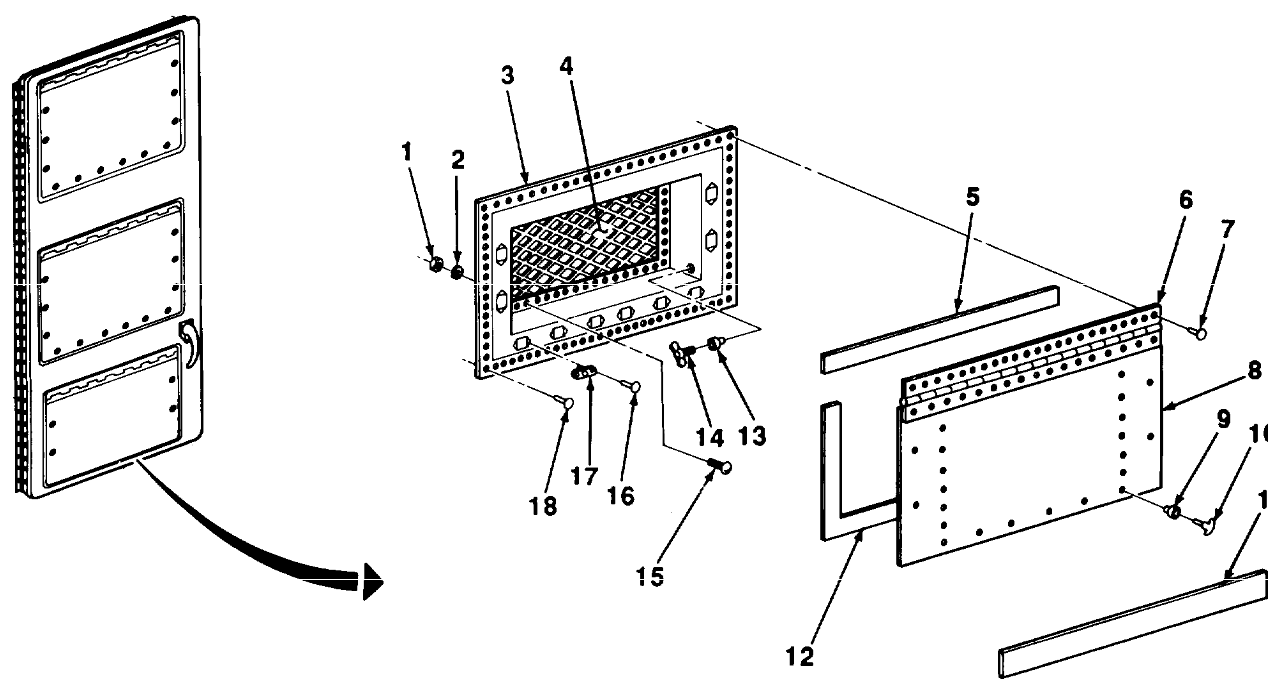
c. INSTALLATION

1. Install each shield (19) on shield hinge (25) using new rivets (26).
2. Install each shield hinge (25) on access cover (8) using new rivets (24).

TA700319

4-98. ACCESS COVER, AIR VENT FRAME AND SHIELD ASSEMBLY, AND RADIO FREQUENCY INTERFERENCE (RFI) PANEL REPLACEMENT (M373A2D) (Con't).

3. Install hinge (6) on access cover (8) using, new rivets (22).
4. Install stud (23), retainer (21), and wingnut (20) on access cover (8).
5. Use adhesive to install two new rubber strips (5 and 12) on access cover (8).
6. If removed, install studs (1 O) and eyelets (9) in access cover (8).
7. Install two nuts (13) and thumbscrews (14) in frame (3).
8. Install each receptacle (17) on frame (3) using two new rivets (16).
9. Install RFI panel (4) on frame (3) using screws (15), new Iockwashers *(2),* and nuts (l).
10. Install frame (3) on door using new rivets (18).
11. Install hinge (6) and access cover (8) on door using new rivets (7).
12. Cover hinge (6) with new coated cloth (11).



TA700320

4-99. FRAME AND COVER ASSEMBLY REPLACEMENT (M348A2D).

This Task Covers:

a. Removal
b. Cleaning and Inspection
c. Installation

Initial Setup:

Materials/Parts:

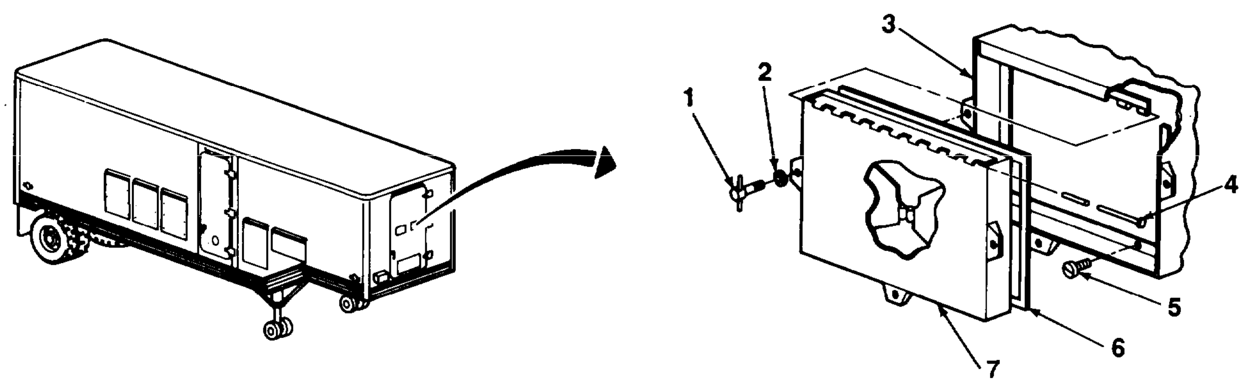
- Adhesive (Item 1, Appendix E)
- Dry cleaning solvent (Item 13, Appendix E)
- Metal seam sealing tape (Item 27, Appendix E)
- One gasket

Tools/Test Equipment:

- General mechanic's tool kit

a. REMOVAL

1. Remove three thumbscrews (1) and flatwashers (2) from cover (7) and frame (3).
2. Remove hinge pin (4). Remove cover (7) from frame (3).
3. Remove gasket (6) from cover (7). Discard gasket.
4. Remove 12 screws (5) securing frame (3) to door. Remove frame.
5. Remove metal seam sealing tape from around door opening.



TA700321

4-99. FRAME AND COVER ASSEMBLY REPLACEMENT (M348A2D) (Con't).

b. CLEANING AND INSPECTION

WARNING

Dry cleaning solvent, P-D-680, Is toxic and flammable. Always wear protective goggles and gloves, and use only In a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point is 10O°F-138°F (38°C-59°C). If you become dizzy while using cleaning solvent, immediately get fresh air and medical help. If solvent contacts eyes, Immediately wash your eyes and get medical aid.

1. Clean all parts with dry cleaning solvent and dry thoroughly. Ensure that bonding surfaces on door and cover for frame and gasket are clean and dry.
2. Inspect cover and frame for warpage and distortion. Straighten and repaint if necessary.
3. Inspect hinges for straightness and deterioration. Replace cover or frame if hinge is damaged.
4. Inspect hinge pin for straightness, Straighten or replace if damaged.
5. Inspect shields inside cover for bends, dents, and distortion. Straighten as necessary.
6. Inspect all other parts for defects and damage. Replace defective and damaged parts.

c. INSTALLATION

1. Apply metal seam sealing tape around opening in door where frame installs.
2. Using 12 screws (5), install frame (3) in door.
3. Use adhesive to install new gasket (6) on cover (7).
4. Install *cover (7) on* frame (3) using hinge pin (4).
5. Install three flatwashers (2) and thumbscrews (1) in cover (7) and frame (3).

4-100. AIR CONDITIONER INTAKE REPLACEMENT (M348A2D).

This Task Covers:

a. Removal
b. Cleaning and Inspection
c. Installation

Initial Setup:

Materials/Parts:

- Adhesive (Item 1, Appendix E)
- Coated cloth (Item 10, Appendix E)
- Dry cleaning solvent (Item 13, Appendix E)
- Metal seam sealing tape (Item 27, Appendix E)
- Four gaskets
- Eighteen rivets

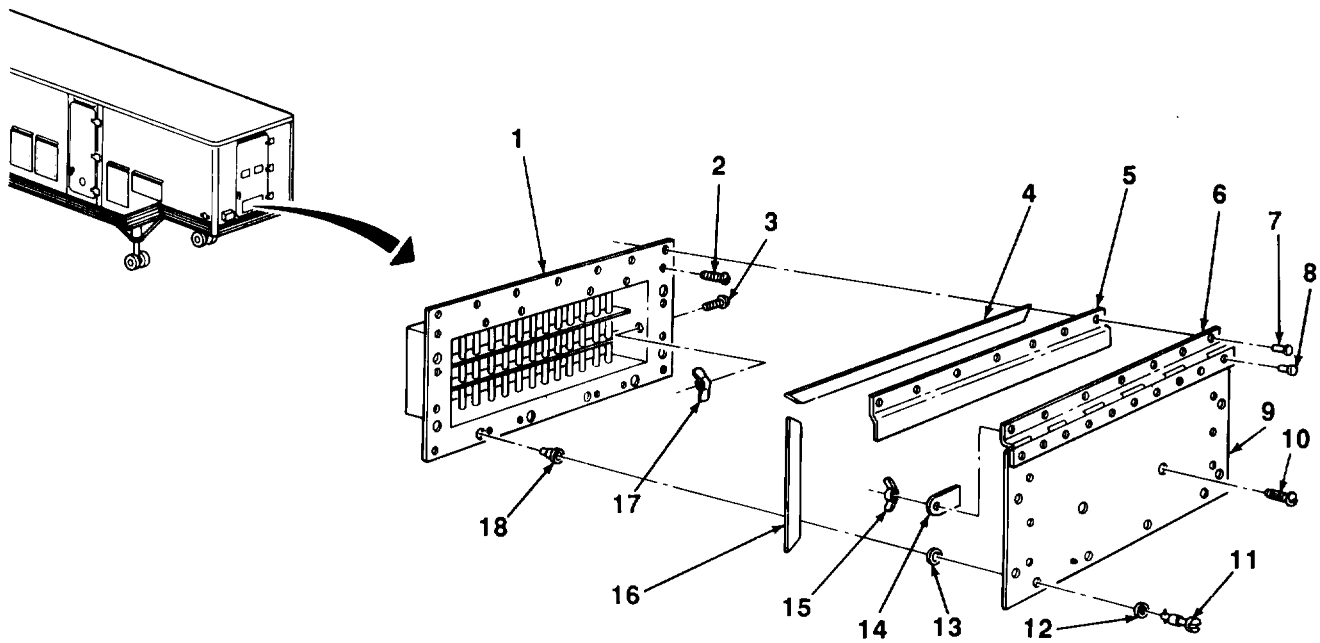
Tools/Test Equipment:

- General mechanic's tool kit
- Drill bit set
- Electric drill
- Rivet gun

a. REMOVAL

1. Remove seven rivets (7) securing hinge (6) to frame (l). Remove hinge and cover (9) from frame. Discard rivets.
2. Remove 18 screws (2) securing frame (1) to door. Remove frame
3. Remove two screws (3) and wingnuts (17) from frame (l).
4. Remove eight nuts (18) from frame (l).
5. Remove two wingnuts (15) and retainers (14) from cover (9).
6. If damaged, press two screws (10) out of cover (9). Discard screws.
7. If captive screws (11) are damaged, remove retaining ring (13) from each captive screw. Remove captive screws and flatwashers (12) from cover (9). Discard retaining rings.
8. Remove 11 rivets (8) securing hinge (6) to cover (9). Remove hinge. Discard rivets.
9. Remove coated cloth (5) from hinge (6). Discard coated cloth,
10. Remove top and bottom gaskets (4) and two side gaskets (16) from cover (9). Discard gaskets.
11. Remove metal seam sealing tape from door opening where frame installs.

4-100. AIR CONDITIONER INTAKE REPLACEMENT (M348A2D) (Con't).



b. CLEANING AND INSPECTION

WARNING

Dry cleaning solvent, P-D-680, is toxic and flammable. Always wear protective goggles and gloves, and use only in a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point is 100°F-138°F (38°C-59 °C). If you become dizzy while using cleaning solvent, immediately get fresh air and medical help. If solvent contacts eyes, immediately wash your eyes and get medical aid.

1. Clean all parts with dry cleaning solvent and dry thoroughly. Ensure that bonding surfaces on door, cover, and hinge surfaces for gaskets, sealing tape, and coated cloth are clean and dry.
2. Inspect cover and frame for warpage and distortion. Straighten if necessary.
3. Inspect hinge for straightness and deterioration. Replace hinge if damaged.
4. Inspect shields inside cover for bends, dents, and distortion. Straighten as necessary.
5. Inspect all other parts for defects and damage. Replace defective and damaged parts.

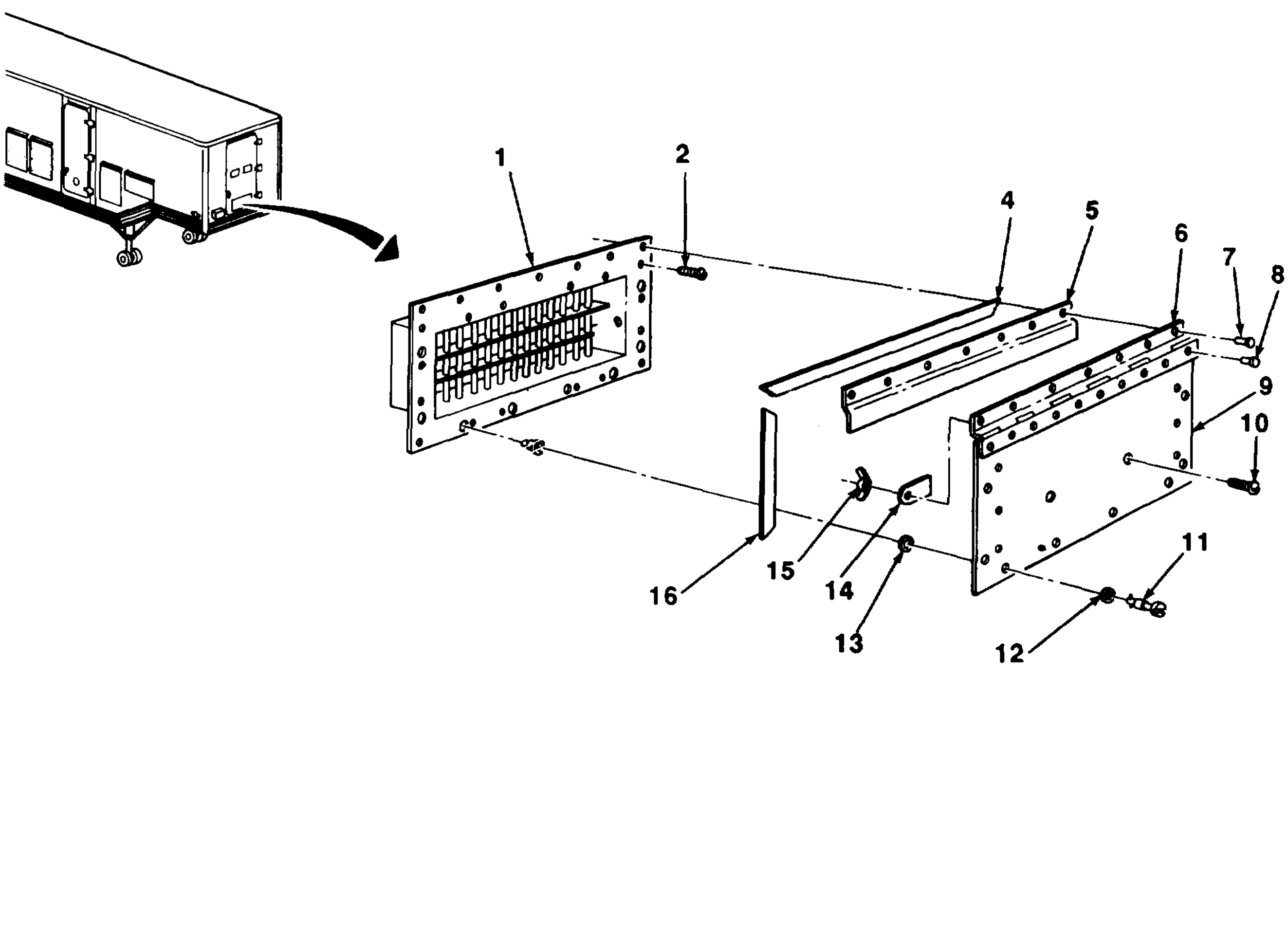
c. INSTALLATION

1. Install two screws (3) and wingnuts (17) on frame (1).
2. Install eight nuts (18) in frame (l).
3. Apply metal seam sealing tape around opening in door where frame installs.

TA700322

4-100. AIR CONDITIONER INTAKE REPLACEMENT (M348A2D) (Con't).

4. Install frame (1) in door using 18 screws (2).
5. Use adhesive to install new top and bottom gaskets (4) and two new side gaskets (16) on cover (9).
6. If removed press two new screws (10) into cover (9).
7. Install retainer (14) and wingnut (15) on each screw (10). Stake scraws to secure wingnuts.
8. If removed, install eight captive screws (11) and flatwashers (12) in cover (9). Secure with new retaining rings (13).
9. Install new coated cloth (5) on hinge (6).
10. Install hinge (6) on cover (9) using 11 new rivets (8).
11. Install hinge (6) and cover (9) on frame (1) using seven new rivets (7).



TA700323

4-101. FRONT DOOR AIR FILTER REPLACEMENT (M348A2C AND M348A2F).

This Task Covers:

a. Removal

b. Installation

Initial Setup:

Tools/Test Equipment:

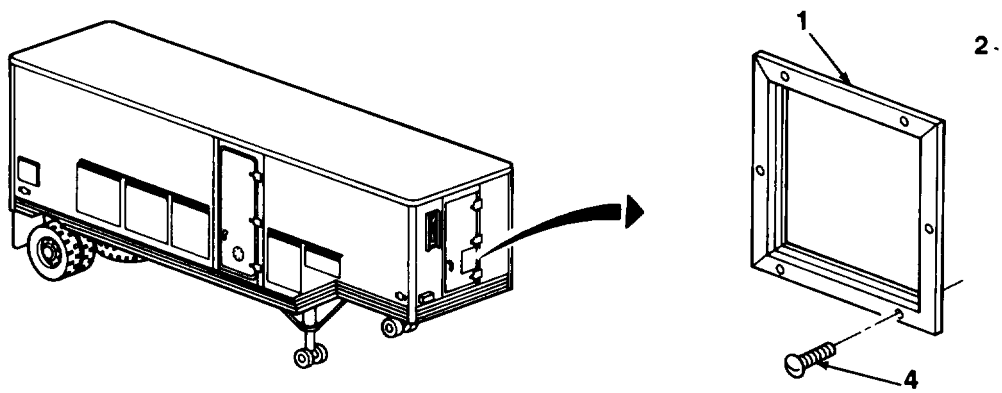
ŽGeneral mechanic's tool kit

a. REMOVAL

1. From inside semitrailer, remove six screws (4) securing frame (1) to door.
2. Remove frame (1), guard (3), and filter (2) from door.

b. INSTALLATION

Install filter (2), guard (3), and frame (1) on door using six screws (4).



TA700324

4-102. LOUVER ASSEMBLY REPLACEMENT (M348A2C, M348A2D, AND M348A2F).

This Task Covers:

a. Removal
b. Cleaning and Inspection
c. Installation

Initial Setup:

Materials/Parts:

- Adhesive (Item 1, Appendix E)
- Dry cleaning solvent (Item 13, Appendix E)
- Metal seam sealing tape (Item 27, Appendix E)
- One gasket

Tools/Test Equipment:

- General mechanic's tool kit

a. REMOVAL

NOTE

This procedure is typical for all of the louver assemblies installed on the M348A2C, M348A2D, and M348A2F semitrailers. Exact configuration may vary from what is illustrated. Quantity of captive screws and other attaching hardware varies and Is not specified within the procedure.

1. Release thumbscrews (6) and open access door (4).
2. If thumbscrew (6) is damaged, remove thumbscrew and flatwasher (5) from access door (4).
3. Remove hinge pin (2) from access door (4) and frame (l). Remove access door from frame.
4. Remove gasket (3) from frame (1). Discard gasket.
5. Remove screws (7) and frame (1) from semitrailer.
6. Remove metal seam sealing tape from surface where frame installs.

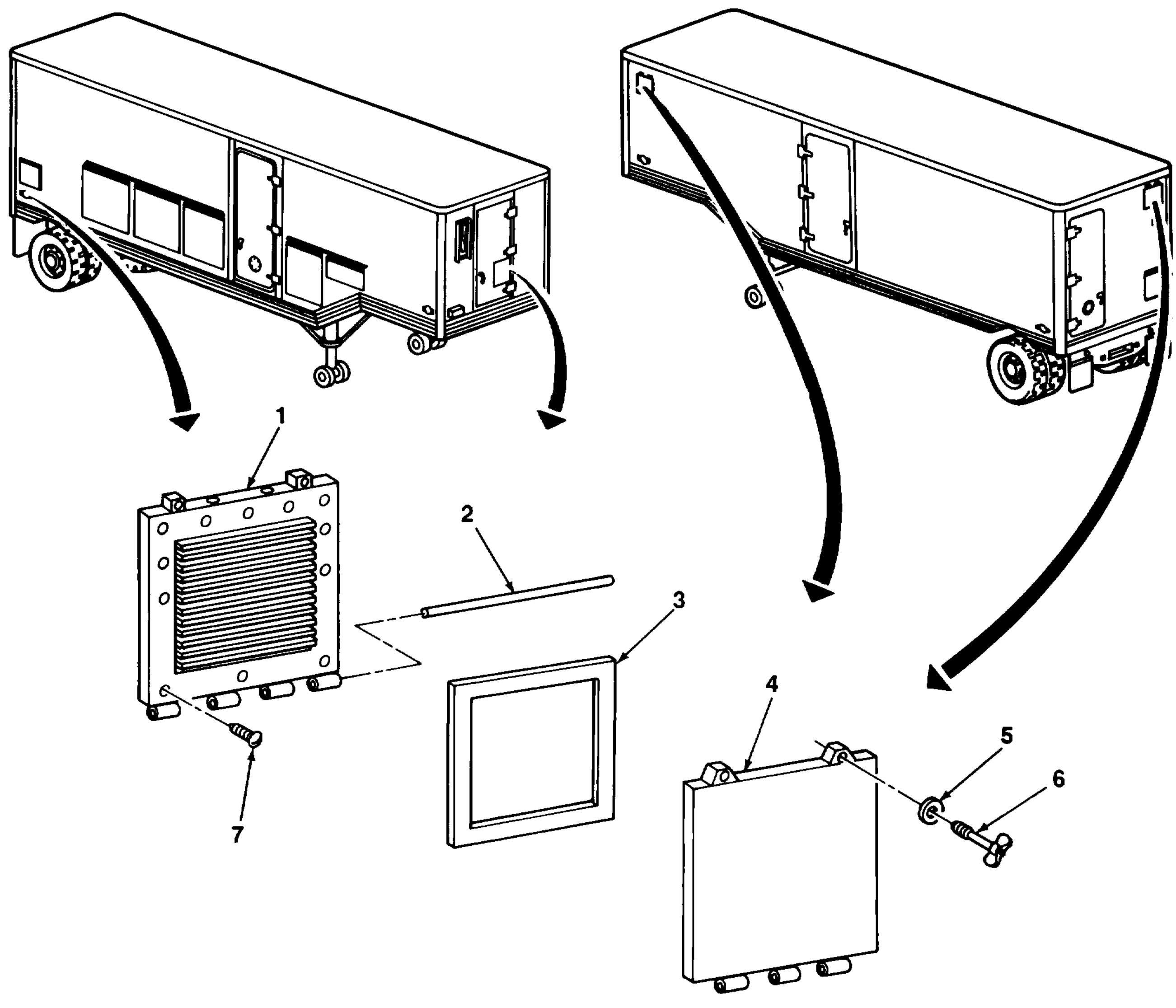
b. CLEANING AND INSPECTION

WARNING

Dry cleaning solvent, P-D-680, is toxic and flammable. Always wear protective goggles and gloves, and use only in a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point is 100°F-138°F (38°C-59°C). If you become dizzy while using cleaning solvent, immediately get fresh air and medical help. If solvent contacts eyes, immediately wash your eyes and get medical aid.

1. Clean all parts with dry cleaning solvent and dry thoroughly. Ensure that bonding surfaces on frame for gasket and metal seam sealing tape are clean and dry.
2. Inspect access door and frame for warpage and distortion. Straighten if necessary.
3. Inspect hinge for straightness and deterioration, Replace access door or frame if hinge is damaged.

4-102. LOUVER ASSEMBLY REPLACEMENT (M348A2C, M348A2D, AND M348A2F) (Con't).



4. Inspect louvers inside frame for bends, dents, distortion, or damage. Replace frame if louvers are damaged.

5. Inspect all other parts for defects and damage. Replace defective and damaged parts.

c. INSTALLATION

1. Apply metal seam sealing tape around opening where frame (1) installs.
2. Use adhesive to install new gasket (3) on frame (l).
3. Install frame (1) on semitrailer using screws (7).

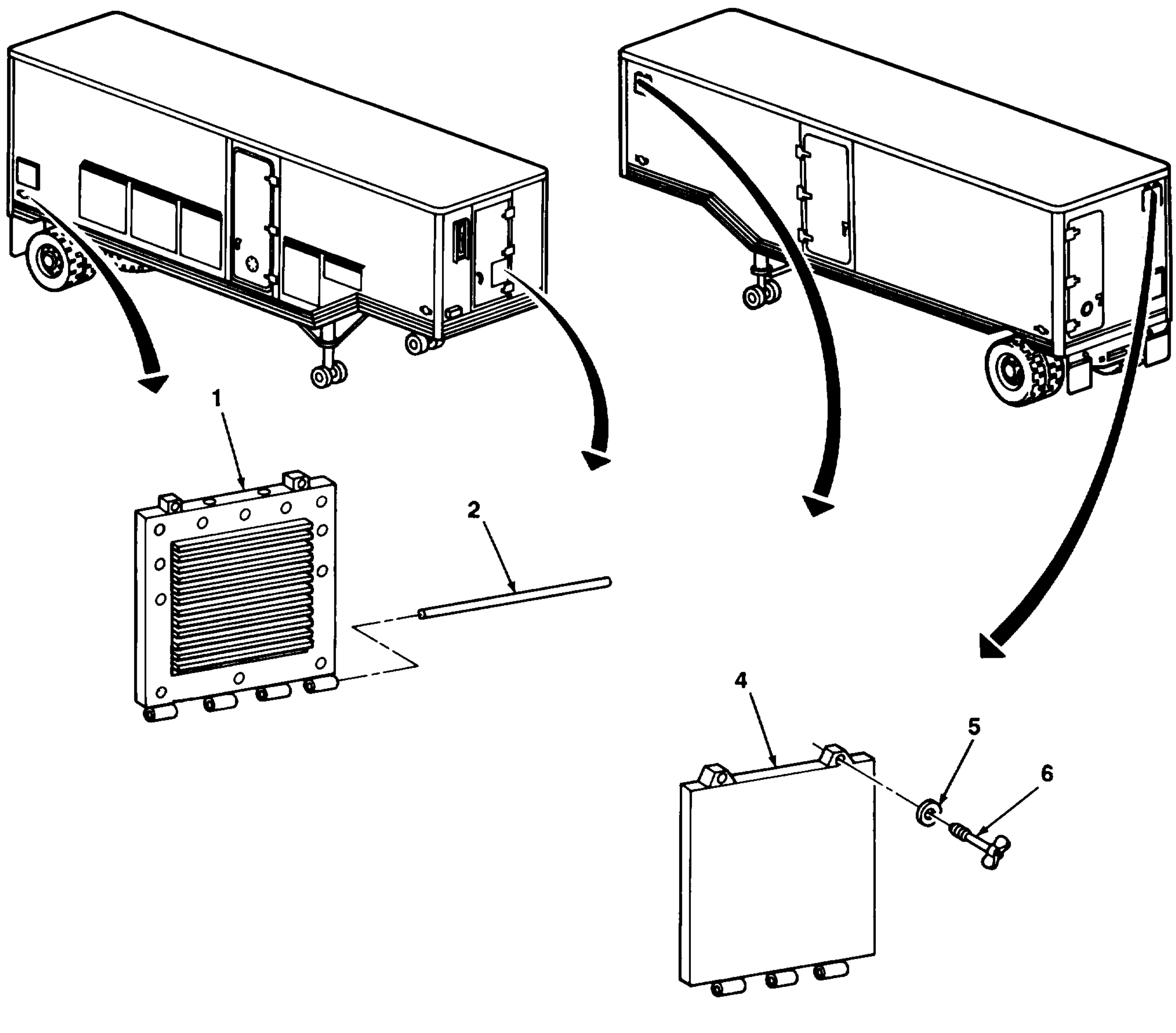
TA700325

4-102. LOUVER ASSEMBLY REPLACEMENT (M348A2C, M348A2D, AND M348A2F) (Con't).

4. Install access door (4) on frame (1) using hinge pin (2).

5. If removed, install thumbscrew (6) and flatwasher (5) on access door (4).

6. Close access door (4) and secure with thumbscrews (6).



TA700326

4-103. POWER ENTRANCE PANEL AND SIGNAL ENTRANCE PANEL REPLACEMENT (M348A2C, M348A2D, AND M348A2F).

This Task Covers:

a. Removal
b. Cleaning and Inspection
c. Installation

Initial Setup:

Equipment Conditions:

- Incoming power and signal cables removed,

Tools/Test Equipment:

- General mechanic's tool kit
- Drill bit set
- Electric drill
- Rivet gun

Materials/Parts:

- Adhesive (Item 1, Appendix E)
- Coated cloth (Item 10, Appendix E)
- Dry cleaning solvent (Item 13, Appendix E)
- Metal seam sealing tape (Item 27, Appendix E)
- Four gaskets
- Rivets (as required)

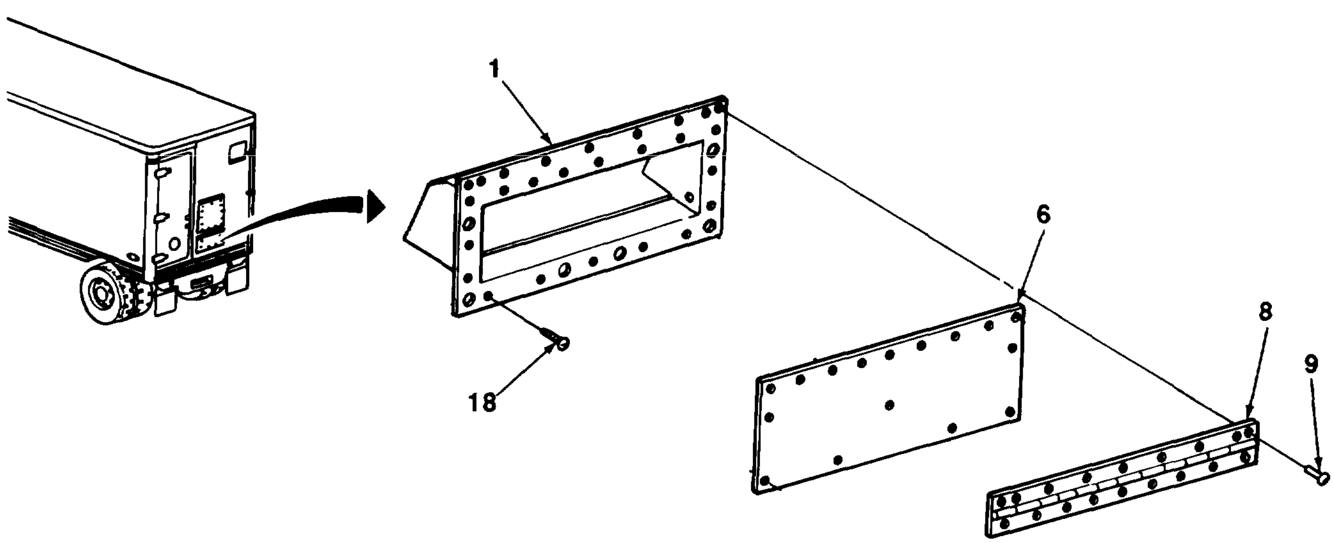
a. REMOVAL

NOTE

This procedure Is typical for the power and signal entrance panels Installed on the M348A2C, M348A2D, and M348A2F semitrailers. Exact configuration may vary from what is illustrated. Quantity of captive screws and other attaching hardware varies and Is not specified within the procedure. M348A2C Is illustrated.

1. Remove rivets (9) securing hinge (8) to frame (l). Remove hinge and cover (6) from frame. Discard rivets.

2. Remove screws (18) securing frame (1) to semitrailer. Remove frame.



TA700327

4-103. POWER ENTRANCE PANEL AND SIGNAL ENTRANCE PANEL REPLACEMENT (M348A2C, M348A2D, AND M348A2F) (Con't).

3. If damaged, remove retaining rings (14) from captive screws (1 2). Remove captive screws and flatwashers (13) from cover (6). Discard retaining rings.

4. Remove rivets (1 O) securing hinge (8) to cover (6). Remove hinge. Discard rivets.

NOTE

Signal entrance panel does not have a retainer.

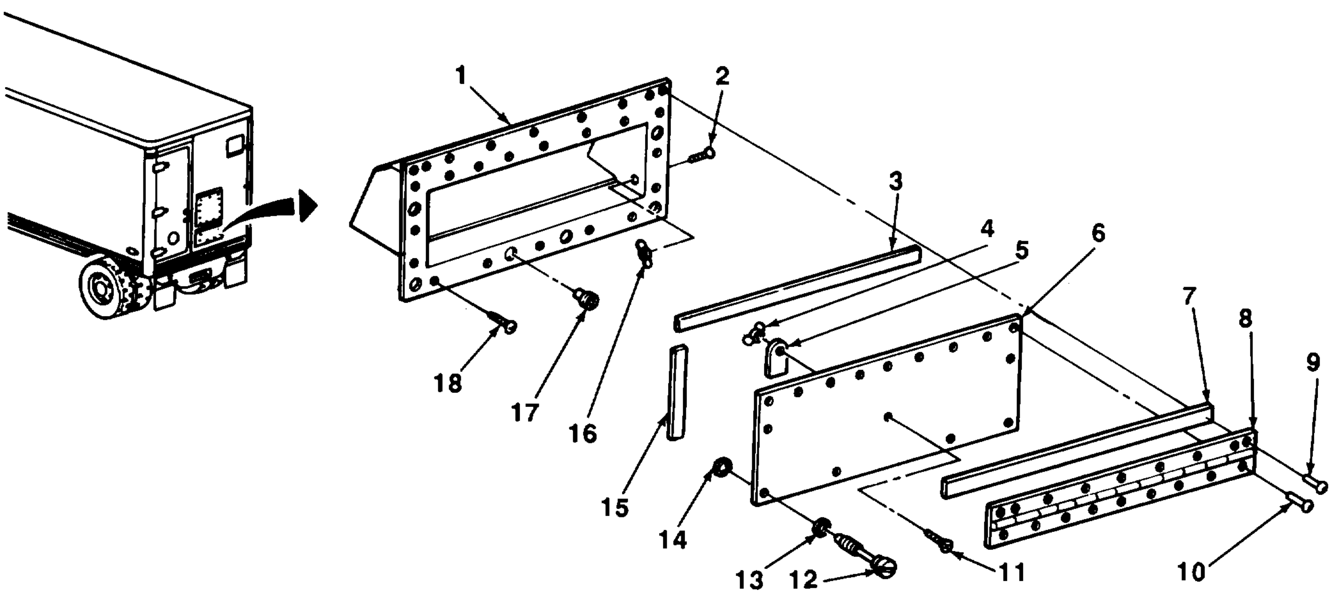
5. If bolt (11) is damaged, remove wingnut (4) and retainer (5) from bolt. Press bolt out of cover (6) and remove.

6. If bolts (2) are damaged, remove wingnuts (16) from bolts. Press bolts out of frame (1) and remove.

7. Remove nuts (17) from frame (l).

8. Remove top and bottom gaskets (3) and two side gaskets (15) from cover (6). Discard gaskets.

9. Remove coated cloth (7) from hinge (8). Discard coated cloth,



TA700328

4-103. POWER ENTRANCE PANEL AND SIGNAL ENTRANCE PANEL REPLACEMENT (M348A2C, M348A2D, AND M348A2F) (Con't).

b. CLEANING AND INSPECTION

WARNING

Dry cleaning solvent, P-D-680, is toxic and flammable. Always wear protective goggles and gloves, and use only in a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point is 100°F-138°F (38°C-59°C). If you become dizzy while using cleaning solvent, immediately get fresh air and medical help. If solvent contacts eyes, immediately wash your eyes and get medical aid.

1. Clean all parts with dry cleaning solvent and dry thoroughly. Ensure that bonding surfaces on semitrailer, cover, and hinge for frame, gasket, and coated cloth are clean and dry.
2. Inspect cover and frame for warpage and distortion. Straighten if necessary.
3. Inspect hinge for straightness and deterioration. Replace hinge if damaged.
4. Inspect shields mounted on cover for warpage and distortion. If shields cannot be straightened, replace cover.
5. Inspect all other parts for defects and damage. Replace defective and damaged parts.

c. INSTALLATION

1. If removed, press bolts (2) into frame (l). Install wingnuts (16) on bolts. Stake bolts to secure wingnuts.
2. Install nuts (17) in frame (l).

NOTE

Signal entrance panel does not have a retainer.

3. If removed, press bolt (11) into cover (6). Install retainer (5) and wingnut (4) on bolt. Stake bolt to secure wingnut and retainer.
4. If removed, install captive screws (12) and flatwashers (13) in cover (6) and secure with new retaining rings (14).
5. Apply metal seam sealing tape around opening where frame installs, Install frame (1) on semitrailer using screws (18).
6. Use adhesive to install new top and bottom gaskets (3) and two new side gaskets (15) on cover (6).
7. Install new coated cloth (7) on hinge (8).
8. Install hinge (8) on cover (6) using new rivets (10).
9. Install hinge (8) and cover (6) on frame (1) using new rivets (9).

FOLLOW-ON TASKS:

- Install incoming power and signal cables.

4-104. LOUVER COVER HOLDER REPLACEMENT (M348A2C, M348A2D, AND M348A2F).

This Task Covers:

a. Removal
b. Installation

Initial Setup:

Tools/Test Equipment:

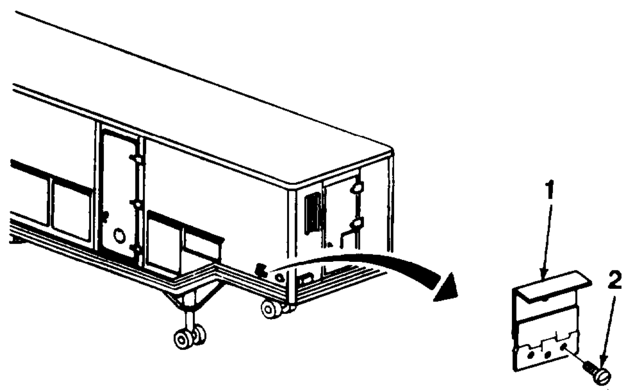
• General mechanic's tool kit

a. REMOVAL

Remove three screws (2) securing holder (1) to semitrailer. Remove holder.

b. INSTALLATION

Install holder (1) on semitrailer using three screws (2).



TA700329

4-105. TERMINAL ENTRANCE ASSEMBLY REPLACEMENT (M348A2F).

This Task Covers:

a. Removal
b. Cleaning and Inspection
c. Installation

initia/ Setup:

Equipment Conditions:

- Incoming power cables removed.

Tools/Test Equipment:

- General mechanic's tool kit
- Drill bit set
- Electric drill
- Rivet gun

Materials/Parts:

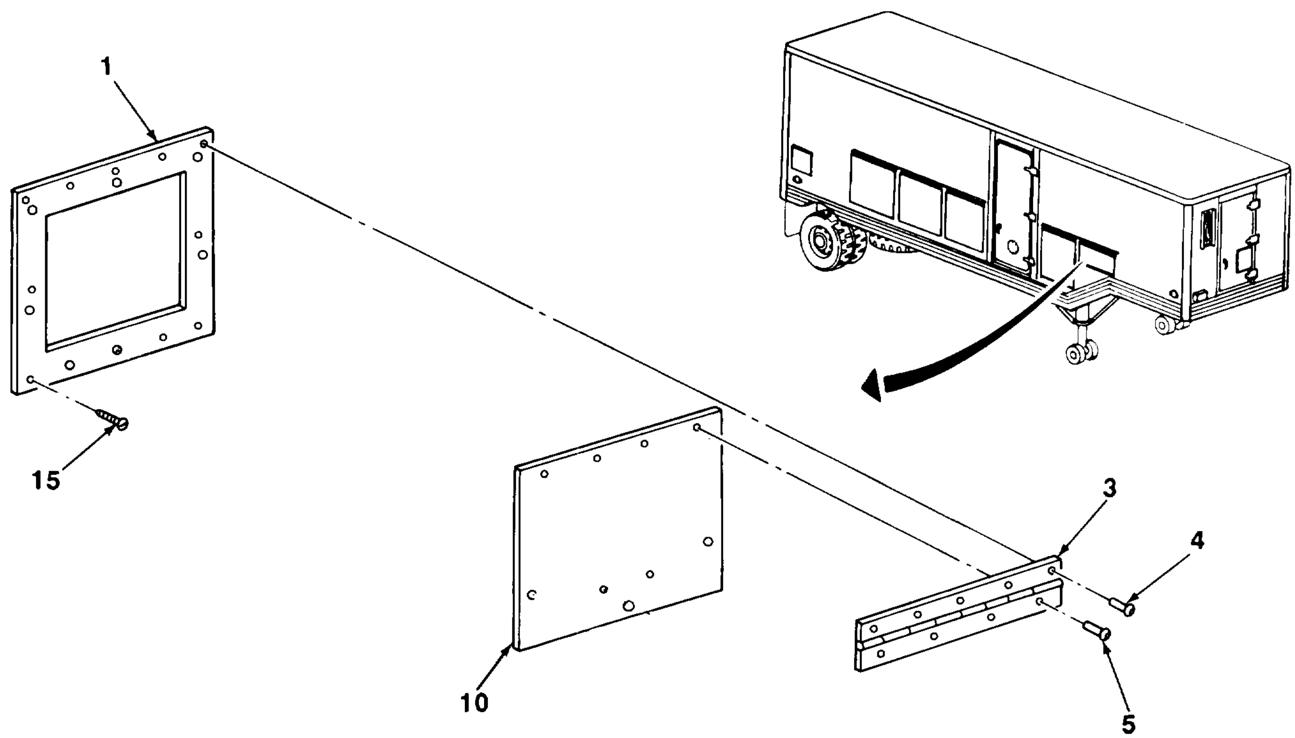
- Adhesive (Item 1, Appendix E)
- Coated cloth (Item 10, Appendix E)
- Dry cleaning solvent (Item 13, Appendix E)
- Metal seam sealing tape (Item 27, Appendix E)
- Four gaskets
- Eleven rivets

a. REMOVAL

1. Remove five rivets (4) securing hinge (3) to frame (1). Remove hinge and cover (1 O) from frame. Discard rivets.

2. Remove nine screws (15) securing frame (1) to semitrailer. Remove frame. Remove metal seal sealing tape from around opening in semitrailer.

3. Remove four rivets (5) securing hinge (3) to cover (10). Remove hinge from cover. Discard rivets.



TA700330

4-105. TERMINAL ENTRANCE ASSEMBLY REPLACEMENT (M348A2F) (Con't).

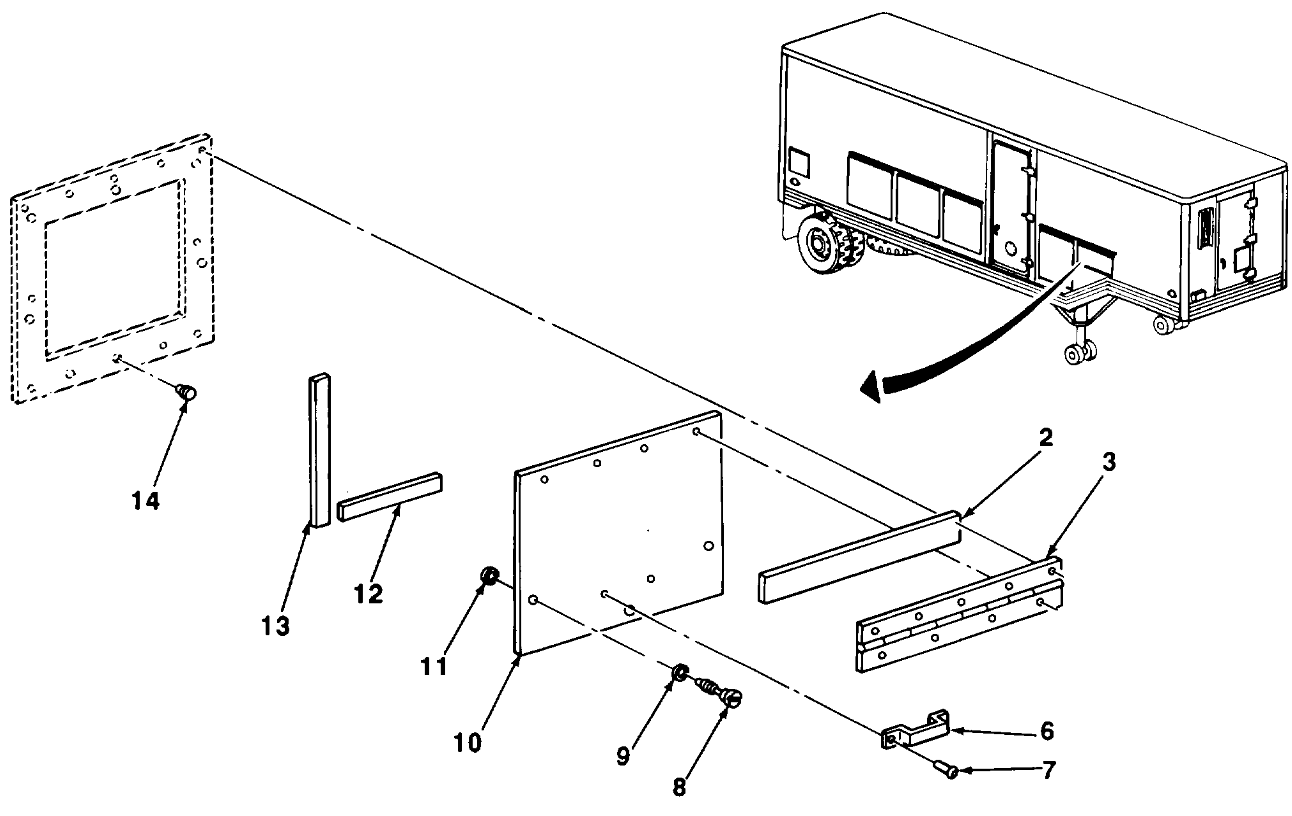
4. Remove coated cloth (2) from hinge (3), Discard coated cloth.

5. If captive screw (8) is damaged, remove retaining ring (11) from captive screw. Remove captive screw and flatwasher (9) from cover (10). Discard retaining ring.

6. Remove two rivets (7) and clip (6) from cover (10). Discard rivets.

7. Remove three nuts (14) from frame (1).

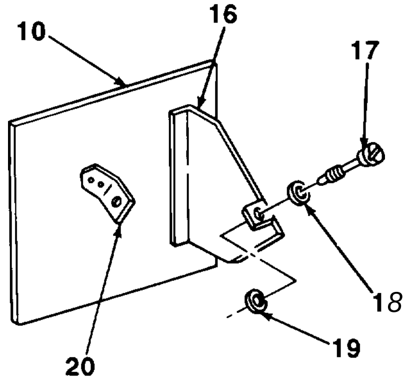
8. Remove top and bottom gaskets (12) and two side gaskets (13) from cover (10), Discard gaskets.



TA700331

4-105. TERMINAL ENTRANCE ASSEMBLY REPLACEMENT (M348A2F) (Con't).

9. If captive screw (17) is damaged, remove retaining ring (19) from captive screw mounted on shields (16). Remove captive screw and flatwasher (18). Discard retaining ring.



b. CLEANING AND INSPECTION

WARNING

Dry cleaning solvent, P-D-680, is toxic and flammable. Always wear protective goggles and gloves, and use only in a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point is 10O°F-138°F (38°C-59°C). If you become dizzy while using cleaning solvent, immediately get fresh air and medical help. If solvent contacts eyes, immediately wash your eyes and get medical aid.

1. Clean all parts with dry cleaning solvent and dry thoroughly. Ensure that bonding surfaces on cover, hinge, and semitrailer for gaskets, coated cloth, and frame are clean and dry.
2. Inspect cover and frame for warpage and distortion. Straighten if necessary.
3. Inspect hinge for straightness and deterioration. Replace hinge if damaged.
4. Inspect shields mounted on cover for warpage and distortion, If shields cannot be straightened, replace cover.
5. Inspect bracket (20) mounted on cover (10) for warpage and distortion. If bracket cannot be straightened, replace cover.
6. Inspect all other parts for defects and damage. Replace defective and damaged parts.

c. INSTALLATION

1. If removed, install captive screw (17) and flatwasher (18) in shields (1 6) and secure with new retaining ring (19).
2. If removed, install captive screw (8) and flatwasher (9) in cover (10) and secure with new retaining ring (11).
3. Install clip (6) on cover (10) using two new rivets (7). From inside of cover, peen rivets so that they are flush.
4. Install three nuts (14) in frame (l).

TA700332

4-105. TERMINAL ENTRANCE ASSEMBLY REPLACEMENT (M348A2F) (Con't).

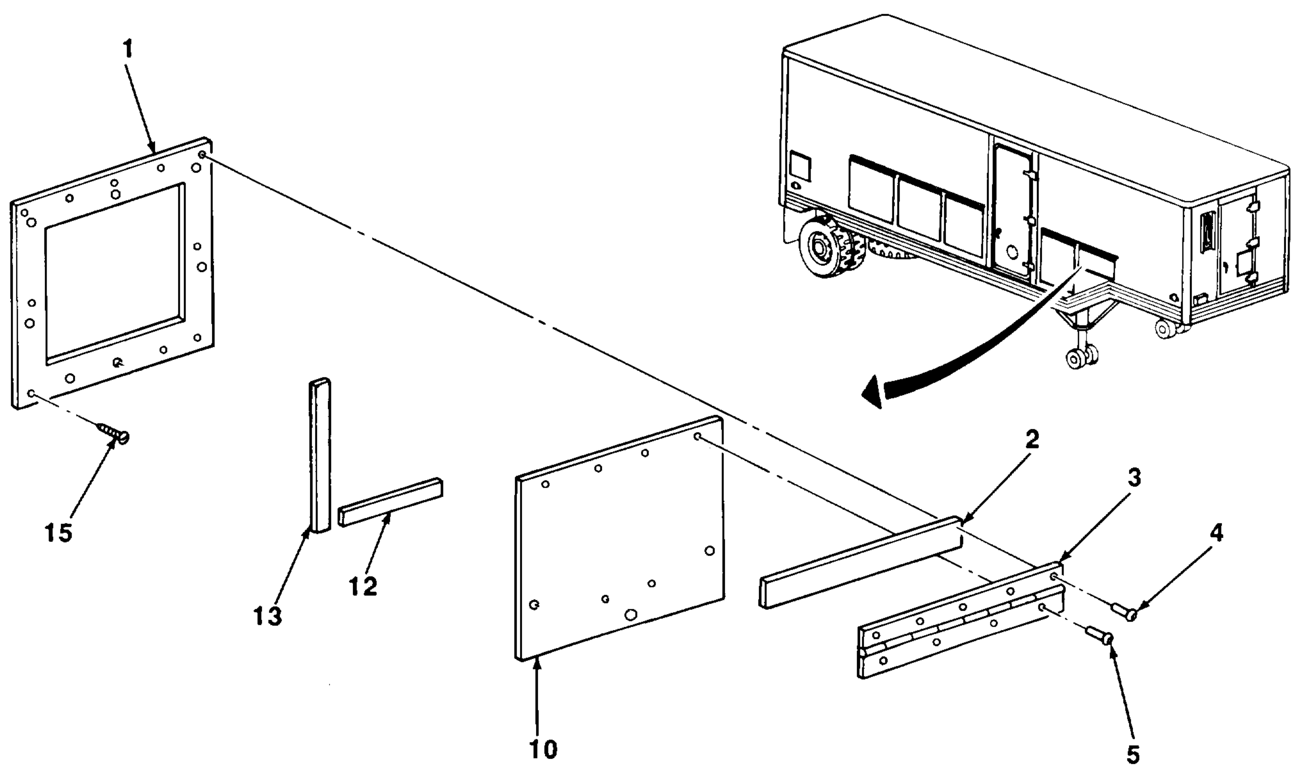
5. Use adhesive to install new top and bottom gaskets (12) and two new side gaskets (13) on cover (10) using adhesive.

6. Install new coated cloth (2) on hinge (3).

7. Install hinge (3) on cover (10) using four new rivets (5). From inside of cover, peen rivets so that they are flush.

8. Install hinge (3) and cover (1 O) on frame (1) using five new rivets (4). From interior side of frame, peen rivets so that they are flush.

9. Apply metal seam sealing tape around opening where frame installs. Install frame (1) on semitrailer using nine screws (15).



FOLLOW-ON TASKS:

•Install incoming power cables.

TA700333

4-106. FAN VENT ASSEMBLY REPLACEMENT (M348A2K AND M348A2N).

This Task Covers:

a. Removal
b. Cleaning and Inspection
c. Installation

Initial Setup:

Materials/Parts:

- Adhesive (Item 2, Appendix E)
- Adhesive (Item 4, Appendix E)
- Dry cleaning solvent (Item 13, Appendix E)
- Four gaskets

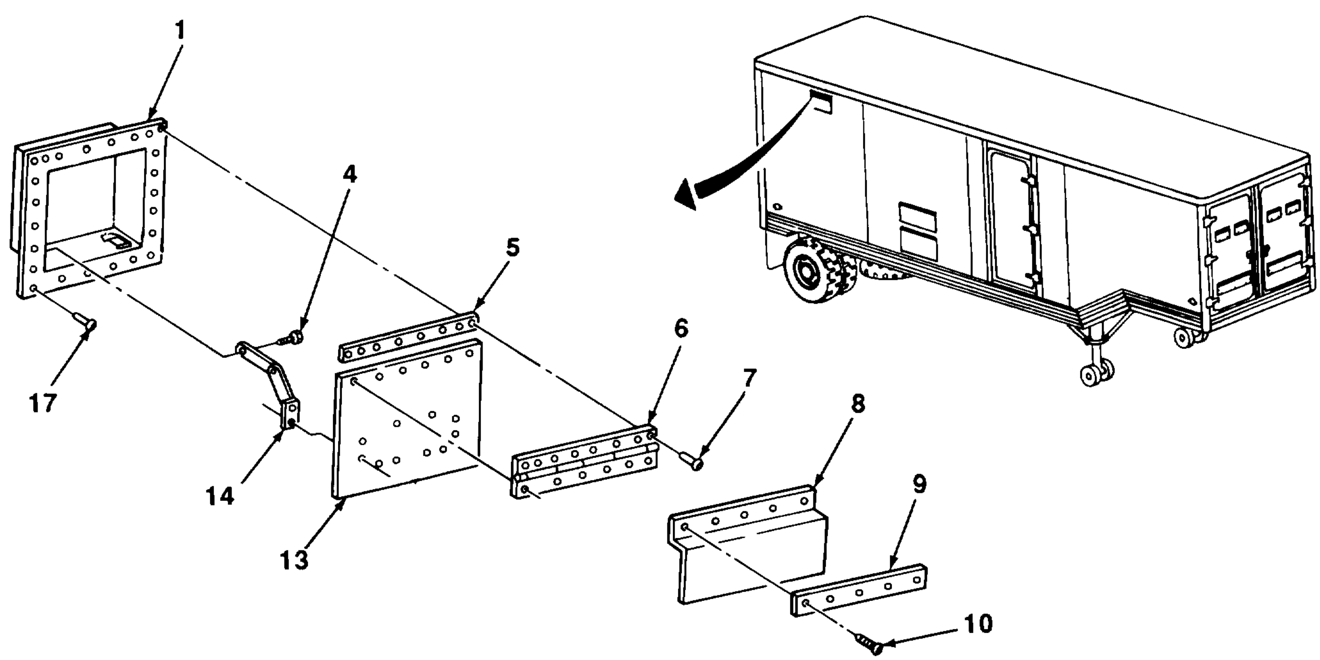
Ž Eight Iockwashers
Ž Thirty-four rivets

Tools/Test Equipment:

- General mechanic's tool kit
- Drill bit set
- Electric drill
- Rivet gun

a. REMOVAL

1. Remove five screws (1 O) securing plate (9) and shield (8) to semitrailer. Remove plate and shield.
2. Open cover (13) and remove screw (4) securing each stay (14) to frame (1).
3. Remove eight rivets (7) securing hinge (6) and spacer (5) to frame (1). Remove hinge with cover (13) attached and spacer. Discard rivets.
4. Remove 16 rivets (17) securing frame (1) to semitrailer. Remove frame.



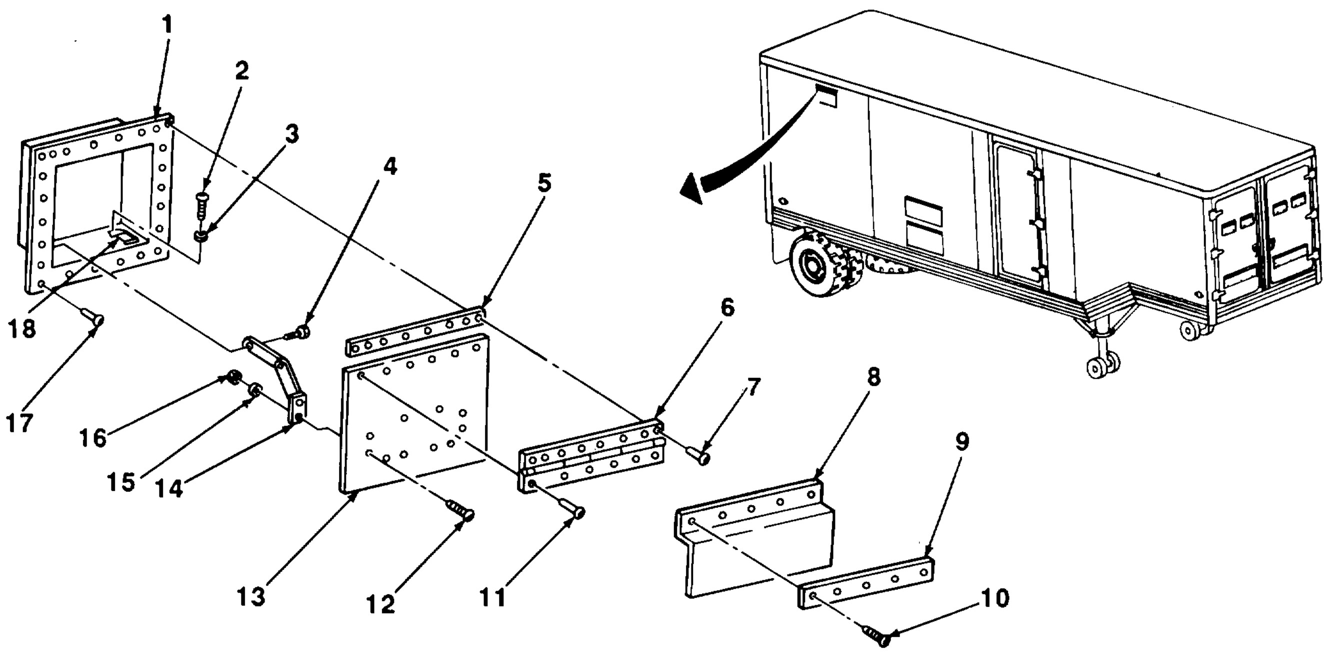
TA700334

4-106. FAN VENT ASSEMBLY REPLACEMENT (M348A2K AND M348A2N) (Con't).

5. Remove two screws (2) and lockwashers (3) securing each fastener (18) to frame (1). Remove fasteners. Discard lockwashers.

6. Remove two nuts (16), lockwashers (15), and screws (12) securing each stay (14) to cover (13). Remove stays. Discard lockwashers.

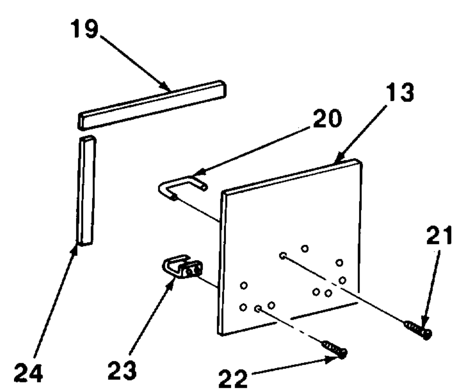
7. Remove six rivets (11) securing hinge (6) to cover (13), Remove hinge. Discard rivets.



8. Remove two rivets (22) securing each catch (23) to cover (13). Remove catches. Discard rivets.

9. Remove two screws (21) securing handle (20) to cover (13). Remove handle.

10. Remove top and bottom gaskets (19) and two side gaskets (24) from cover (13). Discard gaskets.



TA700335

4-106. FAN VENT ASSEMBLY REPLACEMENT (M348A2K AND M348A2N) (Con't).

b. CLEANING AND INSPECTION

WARNING

Dry cleaning solvent, P-D-680, is toxic and flammable. Always wear protective goggles and gloves, and use only in a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point is 10O°F-138°F (38°C-59°C). If you become dizzy while using cleaning solvent, immediately get fresh air and medical help. If solvent contacts eyes, immediately wash your eyes and get medical aid.

1. Clean all parts with dry cleaning solvent and dry thoroughly. Ensure that bonding surfaces on cover and semitrailer for gaskets and frame are clean and dry
2. Inspect cover and frame for warpage and distortion. Straighten if necessary.
3. Inspect hinge for straightness and deterioration. Replace hinge if damaged.
4. Inspect all other parts for defects and damage. Replace defective and damaged parts.

c. INSTALLATION

1. Use adhesive (Item 4, Appendix E) to install new top and bottom gaskets (1 9) and two new side gaskets (24) on cover (13).
2. Install each catch (23) on cover (13) using two new rivets (22),
3. Install handle (20) on cover (13) using two screws (21).
4. Install each stay (14) on cover (13) using two screws (12), new Iockwashers (15), and nuts (16).
5. Install hinge (6) on cover (13) using six new rivets (11).
6. Install each fastener (18) in frame (1) using two screws (2) and new Iockwashers (3).
7. Install hinge (6) and spacer (5) on frame (1) using eight new rivets (7).

a. Open cover (13) and secure each stay (14) to frame (1) using screw (4).

9. Apply adhesive (Item 2, Appendix E) around frame flange. Open cover (13) and install frame (1) on semitrailer using 16 new rivets (17).
10. Install shield (8) and plate (9) on semitrailer using five screws (10).

4-107. SIGNAL ENTRY BOX AND POWER ENTRY BOX REPLACEMENT (M348A2K AND M348A2N).

This Task Covers:

a. Removal
b. Cleaning and Inspection
c. Installation

Initial Setup:

Equipment Conditions:

- Incoming signal and power cables removed.

Tools/Test Equipment:

- General mechanic's tool kit
- Drill bit set
- Electric drill
- Rivet gun

Materials/Parts:

- Adhesive (Item 2, Appendix E)
- Adhesive (Item 4, Appendix E)
- Dry cleaning solvent (Item 13, Appendix E)
- Four gaskets
- Ten locknuts (signal entry box)
- Twenty-four locknuts (power entry box)
- Seventy-four rivets (signal entry box)
- Ninety-six rivets (power entry box)

a. REMOVAL

NOTE

This procedure is typical for the signal entry box and power entry box installed on the M348A2K and M348A2N semitrailers. M348A2K signal entry box is illustrated.

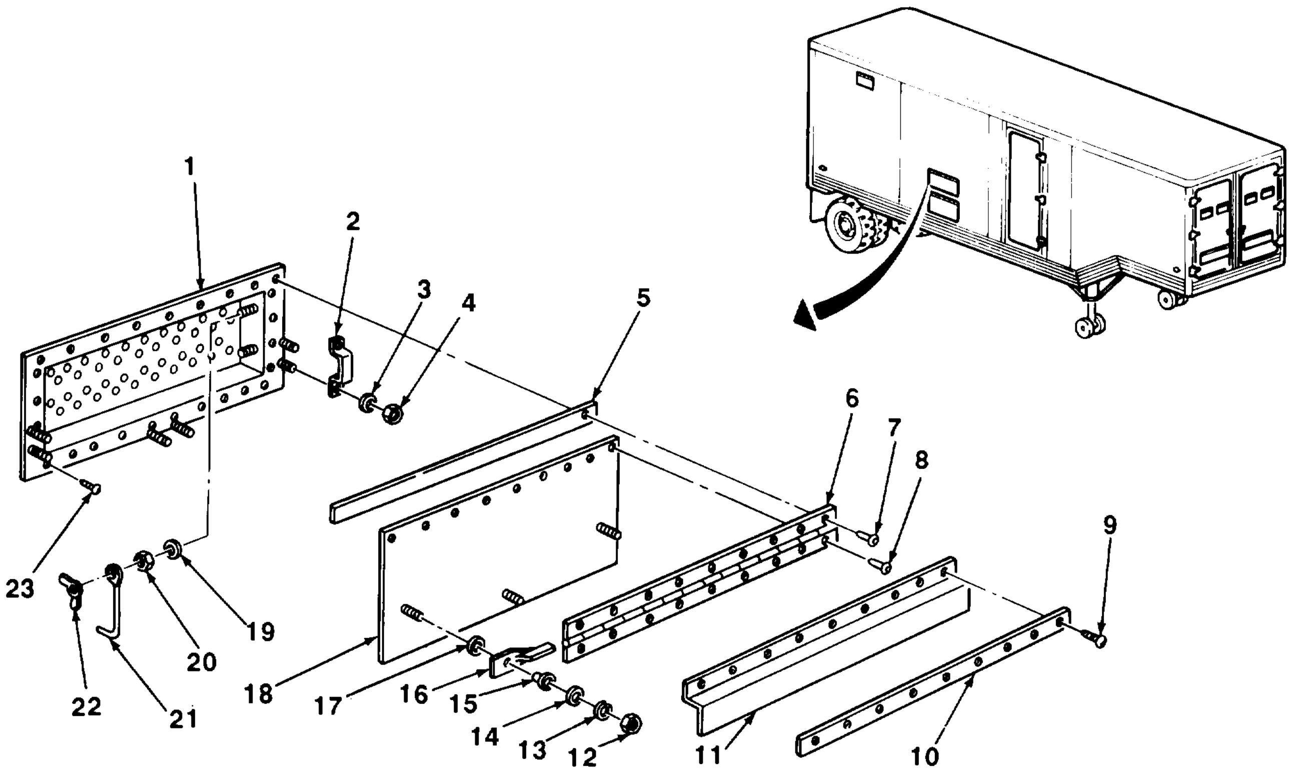
1. Remove nine screws (9) securing plate (10) and shield (11) to semitrailer. Remove plate and shield.
2. Remove nine rivets (7) securing hinge (6) and spacer (5) to frame (1). Remove hinge with cover (18) attached and spacer from frame. Discard rivets.

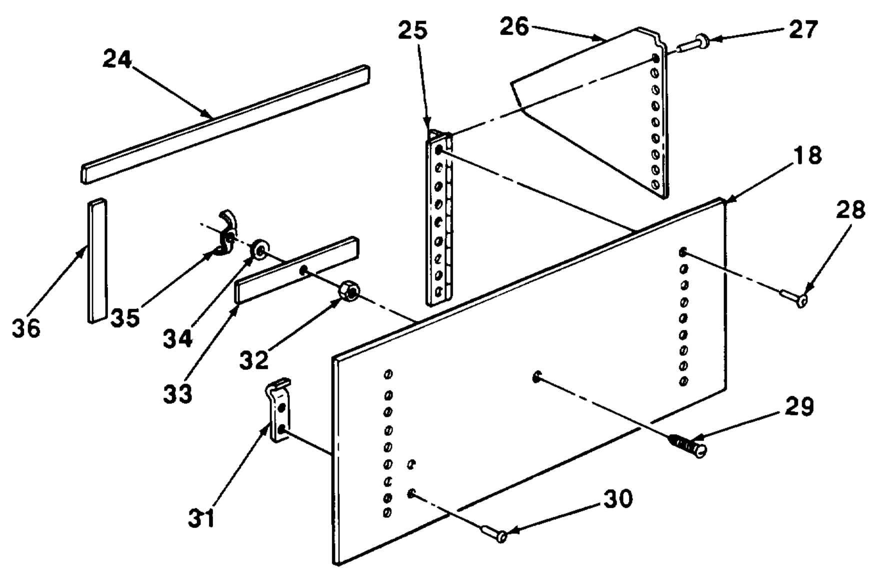
NOTE

Signal entry box frame is mounted with 18 rivets. Power entry box frame is mounted with 40 rivets.

3. Remove rivets (23) securing frame (1) to semitrailer. Remove frame. Discard rivets.
4. Remove nine rivets (8) securing hinge (6) to cover (18). Remove hinge. Discard rivets.
5. Remove locknut (12), flatwasher (1 3), spring washer (14), bushing (1 5), latch (1 6), and flatwasher (17) from each stud on cover (18). Discard locknuts.
6. Remove two locknuts (4) and flatwashers (3) securing each keeper (2) to frame (1). Remove keepers. Discard locknuts.
7. Remove wingnut (22), rod (21), nut (20), and flatwasher (19) from each stud in frame (1).
8. Remove nine rivets (28) securing each shield hinge (25) to cover (1 8). Remove hinges and shields (26). Discard rivets.
9. Remove nine rivets (27) securing shields (26) to shield hinges (25). Remove shields from hinges. Discard rivets.
10. Remove wingnut (35), flatwasher (34), plate (33), and locknut (32) from stud (29). Press stud out of cover (18). Discard locknut.
11. Remove two rivets (30) securing strap (31) to cover (18). Remove strap. Discard rivets.
12. Remove top and bottom gaskets (24) and two side gaskets (36) from cover (18). Discard gaskets.

4-107. SIGNAL ENTRY BOX AND POWER ENTRY BOX REPLACEMENT (M348A2K AND M348A2N) (Con't).





TA700336

4-107. SIGNAL ENTRY BOX AND POWER ENTRY BOX REPLACEMENT (M348A2K AND M348A2N) (Con't).

b. CLEANING AND INSPECTION

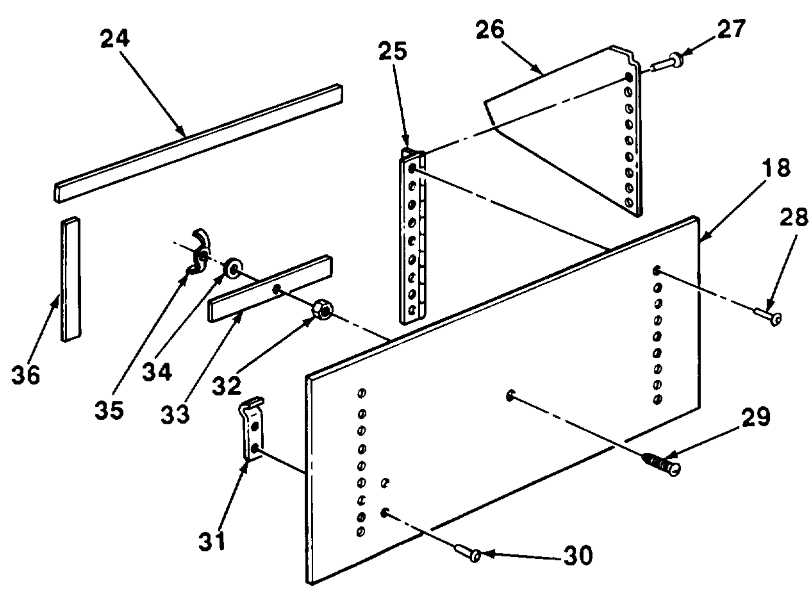
WARNING

Dry cleaning solvent, P-D-680, Is toxic and flammable. Always wear protective goggles and gloves, and use only in a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point is 100°F-138°F (38°C-59°C). If you become dizzy while using cleaning solvent, immediately get fresh air and medical help. If solvent contacts eyes, immediately wash your eyes and get medical aid.

1. Clean all parts with dry cleaning solvent and dry thoroughly. Ensure that bonding surfaces on cover and semitrailer for gaskets and frame are clean and dry.
2. Inspect cover and frame for warpage and distortion. Straighten if necessary.
3. Inspect hinges for straightness and deterioration. Replace if damaged.
4. Inspect shields for warpage and distortion. Straighten if necessary.
5. Inspect all other parts for defects and damage. Replace defective and damaged parts.

c. INSTALLATION

1. Press stud (29) into cover (18). Install new locknut (32), plate (33), flatwasher (34), and wingnut (35) on stud.
2. Install strap (31) on cover (18) using two new rivets (30).
3. Install shield hinge (25) on each shield (26) using nine new rivets (27).
4. Install each shield hinge (25) on cover (18) using nine new rivets (28).



TA700337

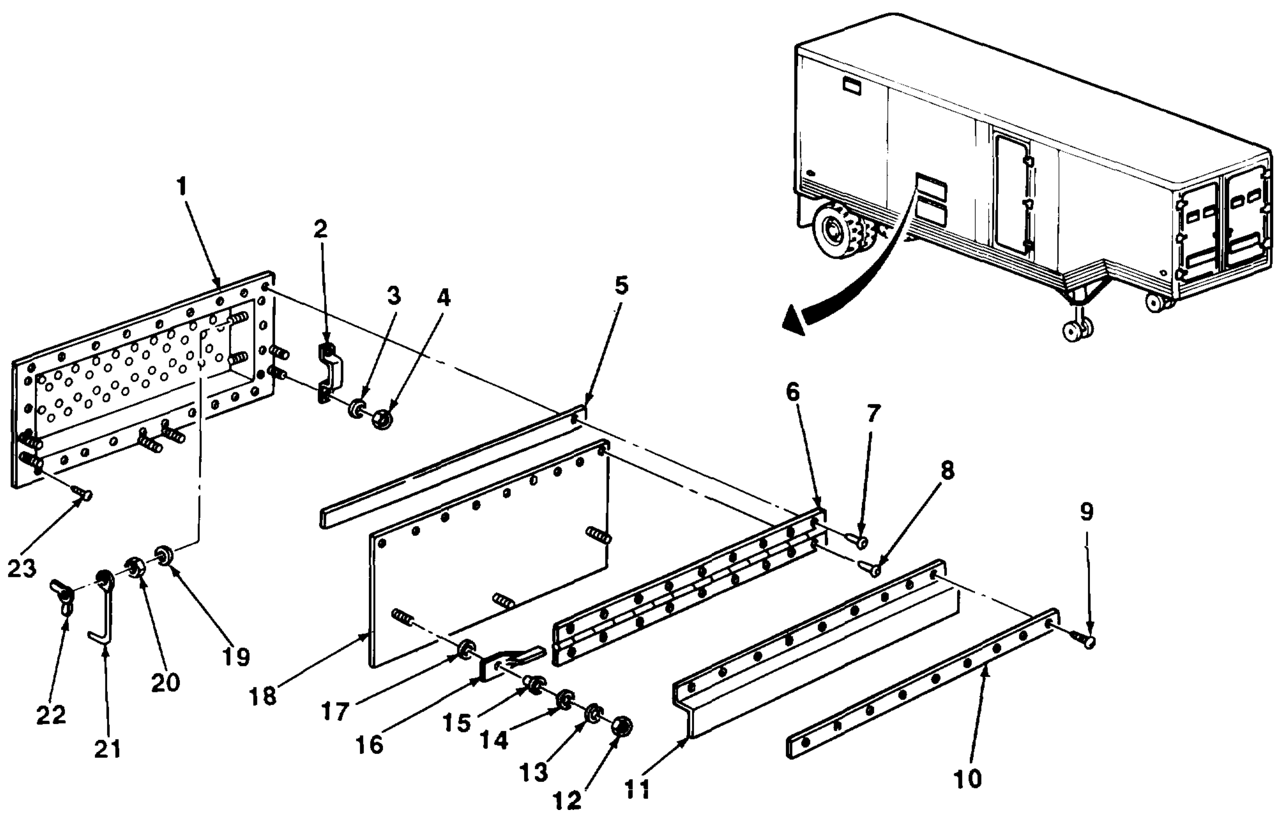
4-107. SIGNAL ENTRY BOX AND POWER ENTRY BOX REPLACEMENT (M348A2K AND M348A2N) (Con't).

5. Use adhesive (Item 4, Appendix E) to install new top and bottom gaskets (24) and two new side gaskets (36) on cover (18).
6. Install flatwasher (17), latch (16), bushing (1 5), spring washer (1 4), flatwasher (1 3), and new locknut (12) on each stud on cover (18).
7. Install hinge (6) on cover (18) using nine new rivets (8).
8. Install each keeper (2) on frame (1) using two new locknuts (4) and flatwashers (3).
9. Install flatwashers (19), nuts (20), rods (21), and wingnuts (22) on studs in frame (l).
10. Install hinge (6) with cover attached and spacer (5) on frame (1) using nine new rivets (7).

NOTE

Signal entry box frame is mounted with 18 rivets. Power entry box frame is mounted with 40 rivets.

11. Apply adhesive (Item 2, Appendix E) around flange on frame (l). Install frame on semitrailer using new rivets (23).
12. Install shield (11) and plate (10) on semitrailer using nine screws (9).



FOLLOW-ON TASKS:

Ž Install incoming signal and power cables.

TA700338

4-108. SMALL AIR INTAKE REPLACEMENT (M373A2C).

This Task Covers:

a. Removal
b. Cleaning and Inspection
c. Installation

initia/ Setup:

Materials/Parts:

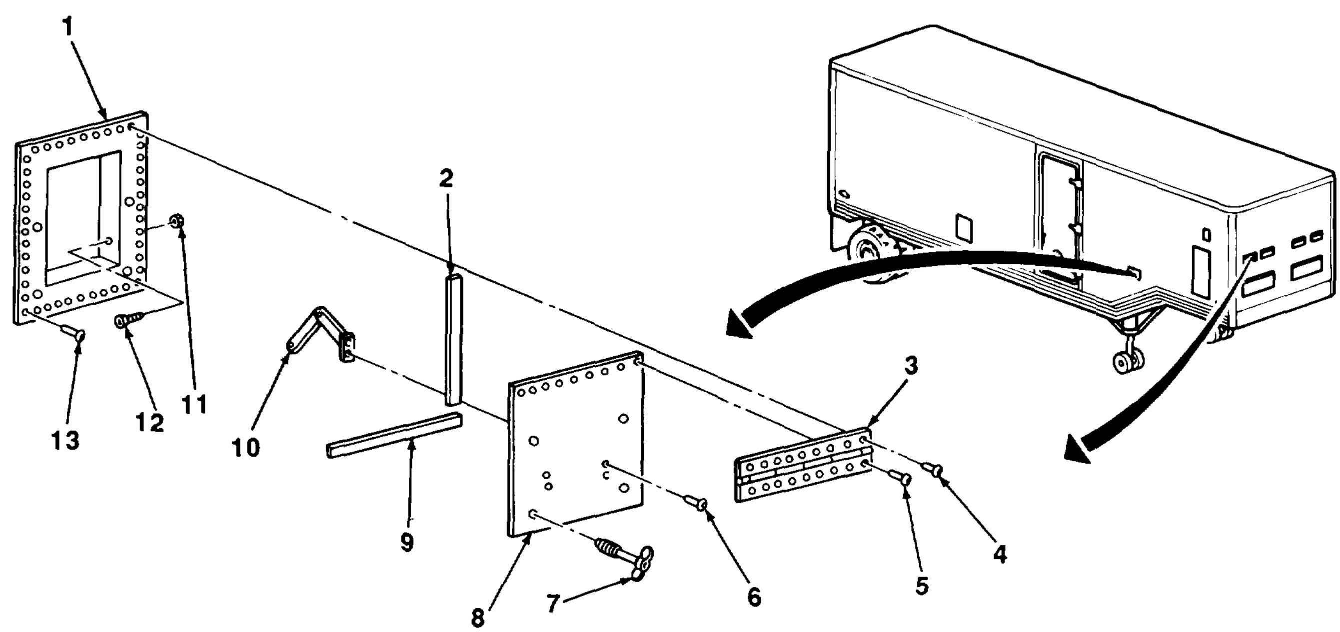
Ž Adhesive (Item 2, Appendix E)
Adhesive (Item 3, Appendix E)
ŽDry cleaning solvent (Item 13, Appendix E)
• Two locknuts
Ž Four gaskets
• Fifty-seven rivets

Tools/Test Equipment:

Ž General mechanic's tool kit
• Drill bit set
• Electric drill
• Rivet gun

a. REMOVAL

1. Remove nine rivets (4) securing hinge (3) to semitrailer. Discard rivets.
2. Open cover (8) and remove 35 rivets (13) securing frame (1) to semitrailer. Remove frame. Discard rivets.
3. Remove locknut (11) and screw (12) securing each stay (1 O) to frame (1). Remove cover (8) and hinge (3) from frame. Discard locknuts.
4. Remove nine rivets (5) securing hinge (3) to cover (8), Remove hinge. Discard rivets,



TA700339

4-108. SMALL AIR INTAKE REPLACEMENT (M373A2C) (Con't).

5. Remove two rivets (6) securing each stay (10) to cover (8). Remove stays. Discard rivets.
6. Remove four thumbscrews (7) from cover (8).
7. Remove top and bottom gaskets (9) and two side gaskets (2) from cover (8). Discard gaskets.

b. CLEANING AND INSPECTION

WARNING

Dry cleaning solvent, P-D-680, Is toxic and flammable. Always wear protective goggles and gloves, and use only in a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors, DO NOT use near open flame or excessive heat. The solvent's flash point is 100°F-138°F (38°C-59°C). If you become dizzy while using cleaning solvent, immediately get fresh air and medical help. If solvent contacts eyes, Immediately wash your eyes and get medical aid.

1. Clean all parts with dry cleaning solvent and dry thoroughly. Ensure that bonding surfaces on cover, hinge, and semitrailer for gaskets, cover, and frame are clean and dry.
2. Inspect cover and frame for warpage and distortion. Straighten if necessary.
3. Inspect hinge for straightness and deterioration. Replace if damaged.
4. Inspect all other parts for defects and damage. Replace defective and damaged parts.

c. INSTALLATION

1. Use adhesive (Item 3, Appendix E) to install new top and bottom gaskets (9) and two new side gaskets (2) on cover (8).
2. Ensure that surface of hinge that mates with cover is clean and dry. Apply adhesive (Item 2, Appendix E) to surface of hinge that mates with cover. Install hinge (3) on cover (8) using nine new rivets (5).
3. Install each stay (10) on cover (8) using two new rivets (6).
4. Install four thumbscrews (7) in cover (8)
5. Secure each stay (10) to frame (1) using screw (12) and new locknut (1 1).
6. Apply adhesive (Item 2, Appendix E) around flange on frame (1). Install frame on semitrailer Wing 35 new rivets (13).
7. Secure hinge (3) and frame (1) to semitrailer using nine new rivets (4).

4-109. LARGE AIR INTAKE REPLACEMENT (M373A2C).

This Task Covers:

a. Removal
b. Cleaning and Inspection
c. Installation

Initial Setup:

Materials/Parts:

- Adhesive (Item 2, Appendix E)
- Adhesive (Item 3, Appendix E)
- Dry cleaning solvent (Item 13, Appendix E)
- Two locknuts
- Four gaskets
- 105 rivets

Tools/Test Equipment:

- General mechanic's tool kit
- Drill bit set
- Electric drill
- Rivet gun

a. REMOVAL

1. Remove 20 rivets (9) securing hinge (8) to semitrailer. Discard rivets.
2. Open cover (12) and remove 61 rivets (3) securing frame (1) to semitrailer. Remove frame. Discard rivets.
3. Remove locknut (2) and screw (4) securing each stay (5) to frame (1). Remove cover (12) and hinge (8) from frame. Discard locknuts.
4. Remove 20 rivets (10) securing hinge (8) to cover (1 2). Remove hinge. Discard rivets.
5. Remove two rivets (7) securing each stay (5) to cover (1 2). Remove stays. Discard rivets.
6. Remove six thumbscrews (11) from cover (1 2).
7. Remove top and bottom gaskets (6) and two side gaskets (13) from cover (12). Discard gaskets.
8. Remove eight screws (14) securing each grille (15) to frame (1). Remove grilles.

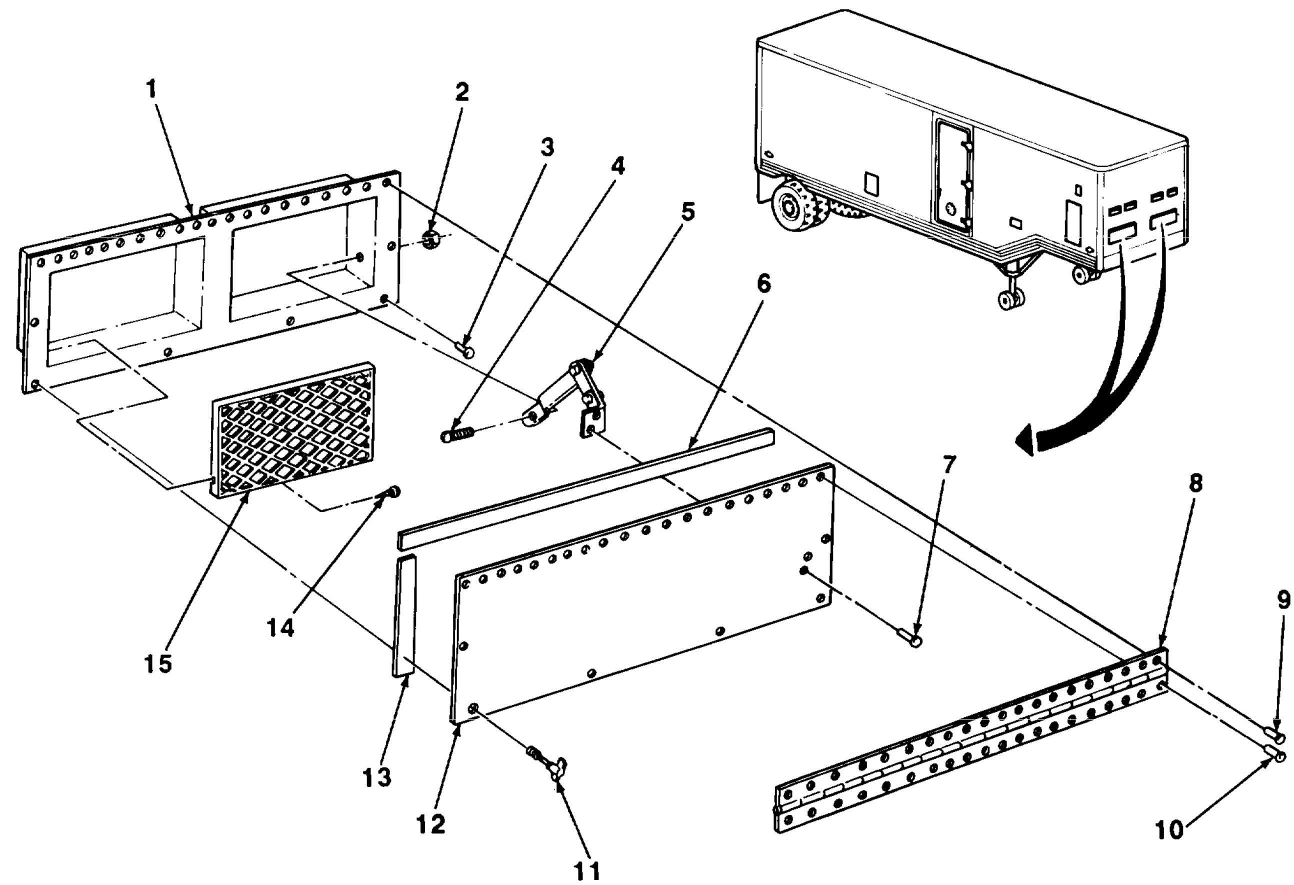
b. CLEANING AND INSPECTION

WARNING

Dry cleaning solvent, P-D-680, is toxic and flammable. Always wear protective goggles and gloves, and use only in a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point is 100°F-138°F (38°C-59°C). If you become dizzy while using cleaning solvent, immediately get fresh air and medical help. If solvent contacts eyes, Immediately wash your eyes and get medical aid.

1. Clean all parts with dry cleaning solvent and dry thoroughly. Ensure that bonding surfaces on cover, hinge, and semitrailer for gaskets, cover, and frame are clean and dry.
2. Inspect cover and frame for warpage and distortion. Straighten if necessary.
3. Inspect hinge for straightness and deterioration. Replace if damaged.
4. Inspect all other parts for defects and damage. Replace defective and damaged parts.

4-109. LARGE AIR INTAKE REPLACEMENT (M373A2C) (Con't).



C. INSTALLATION

1. Use adhesive (Item 3, Appendix E) to install new top and bottom gaskets (6) and two new side gaskets (1 3) on cover (12).
2. Apply adhesive (item 2, Appendix E) to surface of hinge that mates with cover. Install hinge (8) on cover (1 2) using 20 new rivets (1 O).
3. install each stay (5) on cover (12) using two new rivets (7).
4. Install six thumbscrews (11) in cover (12).
5. install each grille (15) in frame (1) using eight screws (14).
6. Secure each stay (5) to frame (1) using screw (4) and new locknut (2).
7. Apply adhesive (item 2, Appendix E) around flange on frame (1). Install frame on semitrailer using 61 new rivets (3).
8. Secure hinge (8) and frame (1) to semitrailer using 20 new rivets (9).

TA700340

4-110. HEATER AIR VENT FRAME REPLACEMENT (M373A3, M373A4, AND M373A5).

This Task Covers:

a. Removal
b. Cleaning and Inspection
c. Installation

Initial Setup:

Materials/Parts:

Adhesive (Item 3, Appendix E)
ŽCoated cloth (item 10, Appendix E)
Ž Dry cleaning solvent (Item 13, Appendix E)
• Two locknuts
• Four rubber strips
• Seventy-nine rivets

Tools/Test Equipment:

• General mechanic's tool kit
žDrill bit set
• Electric drill
Ž Rivet gun

a. REMOVAL

1. Open cover (9) and remove three screws (5) and retainers (4) securing grille (3) to frame (1). Remove grille.
2. Remove 12 screws (2) securing frame (1) to heater duct.
3. Remove nine rivets (11) securing hinge (1 O) to semitrailer. Remove hinge with cover (9) from frame (l). Remove coated cloth from hinge. Discard rivets and coated cloth.
4. Remove 35 rivets (23) securing frame (1) to semitrailer. Remove frame. Discard rivets.
5. Remove nine rivets (12) securing hinge (1 O) to cover (9). Remove hinge. Discard rivets.
6. Remove five studs (15) from cover (9).
7. Remove four rivets (14) securing each shield hinge (18) to cover (9). Remove shields (17) and shield hinges. Discard rivets.
8. Remove four rivets (19) securing each shield hinge (18) to shield (17). Remove shield hinges from shields. Discard rivets.
9. Remove wingnut (7) and retainer (8) from screw (13). Remove screw from cover (9).
10. Remove rubber strips (6 and 16) from cover (9). Discard rubber strips.
11, Remove two locknuts (24) and thumbscrews (20) from frame (l). Discard locknuts.
12. Remove two rivets (21) securing each receptacle (22) to frame (1). Remove receptacles from frame. Discard rivets.

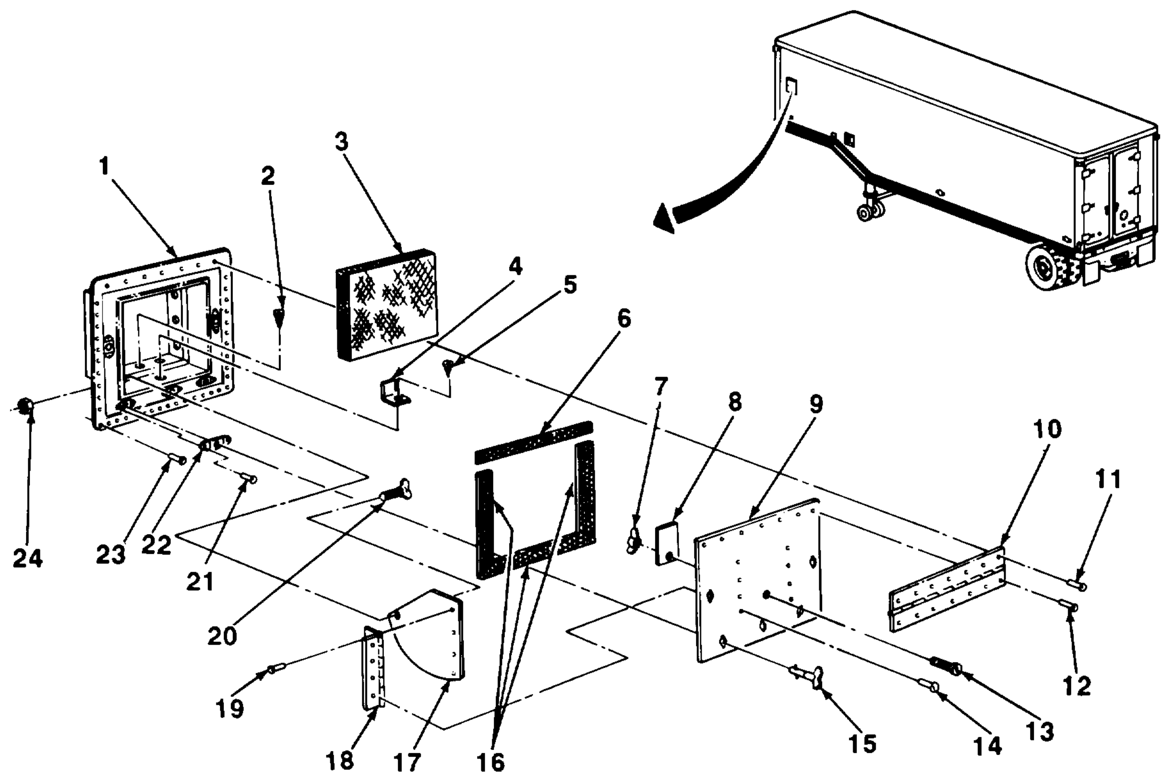
b. CLEANING AND INSPECTION

WARNING

Dry cleaning solvent, P-D-680, is toxic and flammable. Always wear protective goggles and gloves, and use only in a well-ventiiated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open frame or excessive heat. The solvent's flash point is 100°F-138°F (38°C-59°C). if you become dizzy while using cleaning solvent, immediately get fresh air and medical help. If solvent contacts eyes, immediately wash your eyes and get medical aid.

1. Clean all parts with dry cleaning solvent and dry thoroughly. Ensure that bonding surfaces on cover for rubber strips are clean and dry.

4-110. HEATER AIR VENT FRAME REPLACEMENT (M373A3, M373A4, AND M373A5) (Con't).



2. Inspect cover and frame for warpage and distortion. Straighten if necessary.
3. Inspect hinges for straightness and deterioration. Replace damaged hinges.
4. Inspect shields for warpage and distortion. Straighten if necessary.
5. Inspect all other parts for defects and damage. Replace defective and damaged parts.

c. INSTALLATION

1. Use adhesive to install new rubber strips (6 and 16) on cover (9).
2. Install hinge (1 O) on cover (9) using nine new rivets (12).
3. Install shield hinge (18) on each shield (17) using four new rivets (19).
4. Install each shield hinge (18) on cover (9) using four new rivets (1 4).
5. Install five studs (15) in cover (9).
6. Install screw (13) in cover (9). Install retainer (8) and wingnut (7) on screw.
7. Install each receptacle (22) on frame (1) using two new rivets (21).

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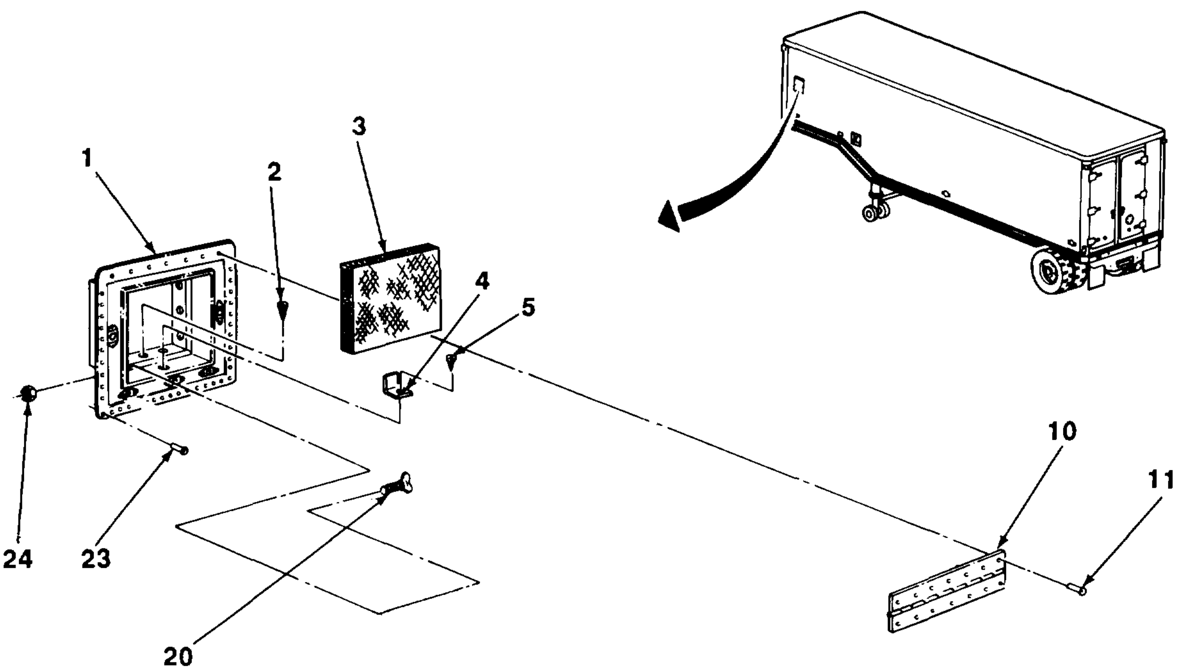
4-110. HEATER AIR VENT FRAME REPLACEMENT (M373A3, M373A4, AND M373A5) (con't).

8. Install two thumbscrews (20) in frame (1) and secure with new locknuts (24).
9. Install frame (1) on semitrailer using 35 new rivets (23).
10. Install 12 screws (2) to secure frame (1) to heater duct.
11. Install grille (3) in frame (1) using three retainers (4) and screws (5).
12. Cover hinge (10) with new coated cloth. Install hinge on frame (1) and semitrailer using nine new rivets (1 1).



TA700342

4-111. FRONT WALL SHIELD AND FRAME ASSEMBLY REPLACEMENT (M373A3, M373A4, AND M373A5).

This Task Covers:

a. Removal
b. Cleaning and Inspection
c. Installation

Initial Setup:

Materials/Parts:

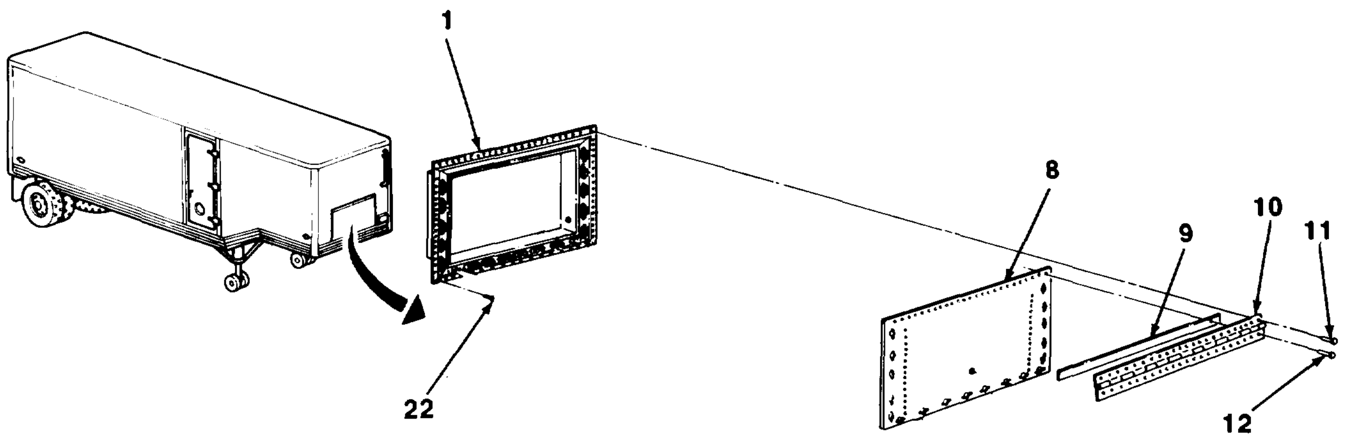
- Adhesive (Item 3, Appendix E)
- Coated cloth (Item 10, Appendix E)
- Dry cleaning solvent (Item 13, Appendix E)
- Two locknuts
- Four gaskets
- 205 rivets

Tools/Test Equipment:

- General mechanic's tool kit
- Drill bit set
- Electric drill
- Rivet gun

a. REMOVAL

1. Remove 25 rivets (11) securing hinge (10) to semitrailer. Remove hinge and cover (8) from frame (l). Discard rivets.
2. Remove 59 rivets (22) securing frame (1) to semitrailer. Remove frame. Discard rivets,
3. Remove 25 rivets (12) securing hinge (10) to cover (8). Remove hinge. Discard rivets.
4. Remove coated cloth (9) from hinge (10). Discard coated cloth.



TA700343

4-111. FRONT WALLSHIELD AND FRAME ASSEMBLY REPLACEMENT (M373A3, M373A4, AND M373A5) (Con't).

5. Remove 18 studs (13) and eyelets (14) from cover (8).

6. Remove 15 rivets (16) securing each shield hinge (18) to cover (8). Remove shields (17) and shield hinges, Discard rivets.

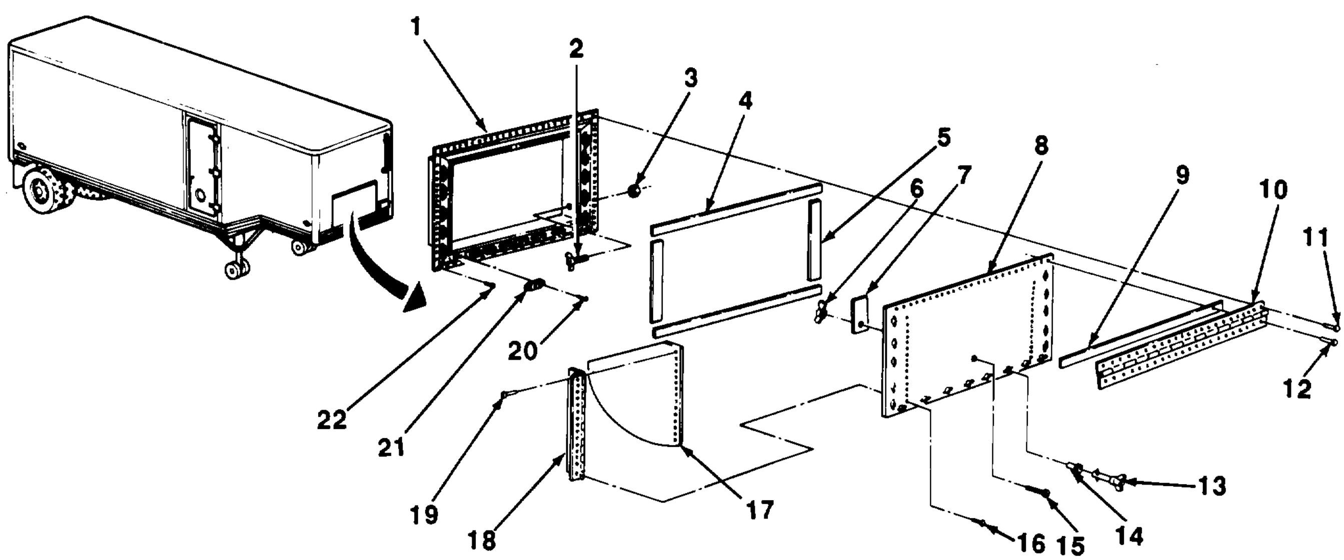
7. Remove 15 rivets (19) securing each shield hinge (18) to shield (17). Remove shield hinges from shields. Discard rivets.

8. Remove wingnut (6) and retainer (7) from screw (1 5). Remove screw from cover (8).

9. Remove top and bottom gaskets (4) and two side gaskets (5) from cover (8). Discard gaskets.

10. Remove two locknuts (3) and thumbscrews (2) from frame (1), Discard locknuts.

11. Remove two rivets (20) securing each receptacle (21) to frame (1). Remove receptacles from frame. Discard rivets.



TA700344

4-111. FRONT WALL SHIELD AND FRAME ASSEMBLY REPLACEMENT (M373A3, M373A4, AND M373A5) (Con't).

b. CLEANING AND INSPECTION

WARNING

Dry cleaning solvent, P-D-680, Is toxic and flammable. Always wear protective goggles and gloves, and use only In a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point Is 100°F-138°F (38°C-59° C). If you become dizzy while using cleaning solvent, immediately get fresh air and medical help. If solvent contacts eyes, Immediately wash your eyes and get medical aid.

1. Clean all parts with dry cleaning solvent and dry thoroughly. Ensure that bonding surfaces on cover and hinge for gaskets and cover are clean and dry.
2. inspect cover and frame for warpage and distortion, Straighten If necessary.
3. Inspect hinges for straightness and deterioration. Replace damaged hinges.
4. Inspect shields for warpage and distortion. Straighten if necessary
5. Inspect all other parts for defects and damage. Replace defective and damaged parts.

c. INSTALLATION

1. Use adhesive to Install new top and bottom gaskets (4) and two new side gaskets (5) on cover (8).
2. Install new coated cloth (9) on hinge (10).
3. Install hinge (10) on cover (8) using 25 new rivets (1 2).
4. Install shield hinge (18) on each shield (17) using 15 new rivets (19).
5. Install each shield hinge (18) on cover (8) using 15 new rivets (16).
6. Install 18 eyelets (14) and studs (13) in cover (8).
7. Install screw (15) in cover (8). Install retainer (7) and wingnut (6) on screw.
8. Install each receptacle (21) on frame (1) using two new rivets (20).
9. Install two thumbscrews (2) in frame (1) and secure with new locknuts (3).
10. Install frame (1) on semitrailer using 59 new rivets (22).
11. Install hinge (10) on frame (1) and semitrailer using 25 new rivets (11).

4-112. AIR CONDITIONER FILTER AND COVER REPLACEMENT (M373A3, M373A4, AND M373A5).

This Task Covers:

a. Removal
b. Cleaning and Inspection
c. Installation

Initial Setup:

Materials/Parts:

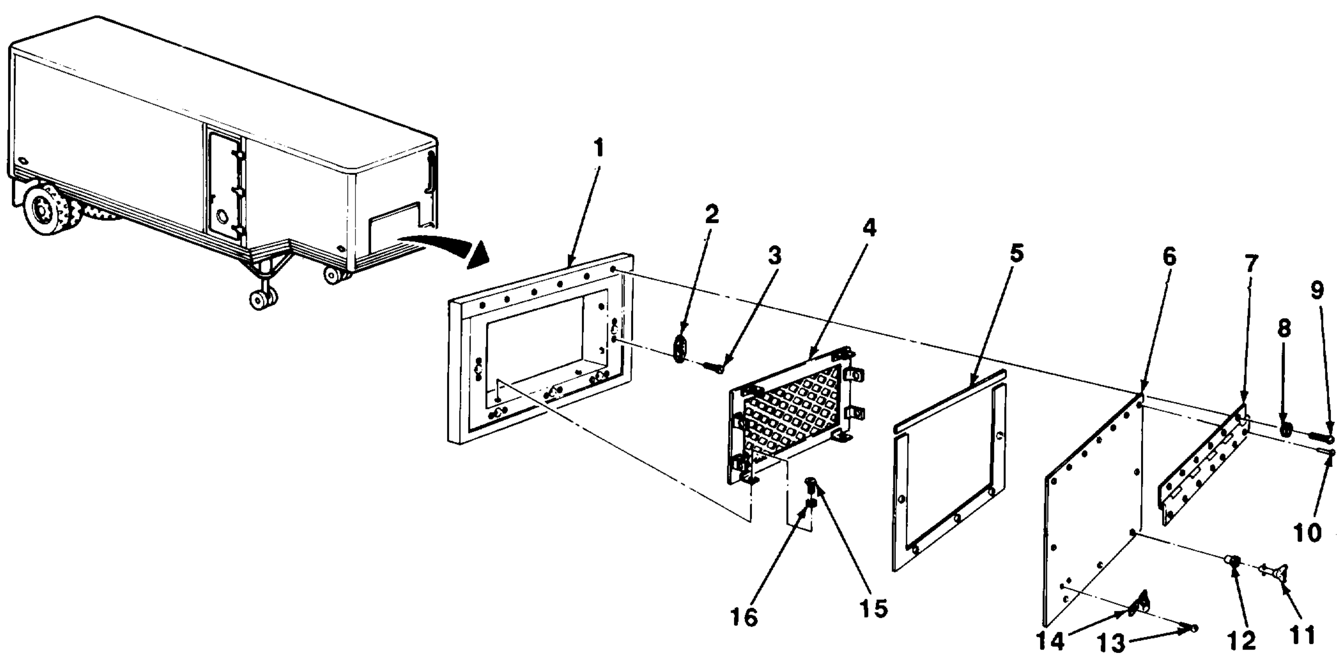
- Adhesive (Item 1, Appendix E)
- Dry cleaning solvent (Item 13, Appendix E)
- One gasket
- Thirteen rivets
- Fourteen Iockwashers

Tool/Test Equipment:

- General mechanic's tool kit
- Drill bit set
- Electric drill
- Rivet gun

a. REMOVAL

1. Open cover (6). Remove eight screws (15) and Iockwashers (16) securing filter (4) to frame (1). Remove filter. Discard Iockwashers.
2. Remove six screws (9) and Iockwashers (8) securing hinge (7) to frame (l). Remove hinge with cover (6) attached. Discard Iockwashers.
3. Remove seven rivets (1 O) securing hinge (7) to cover (6). Remove hinge. Discard rivets.
4. Remove two rivets (13) securing each strike (14) to cover (6). Remove strikes. Discard rivets.



TA700345

4-112. AIR CONDITIONER FILTER AND COVER REPLACEMENT (M373A3, M373A4, AND M373A5) (Con't).

5. Remove each stud (11) and eyelet (12) from cover (6).
6. Remove gasket (5) from frame (1). Discard gasket.
7. Remove two screws (3) securing each receptacle (2) to frame (l). Remove receptacles.

b. CLEANING AND INSPECTION

WARNING

Dry cleaning solvent, P-D-680, is toxic and flammable. Always wear protective goggles and gloves, and use only in a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point is 100°F-138°F (38°C-59°C). If you become dizzy while using cleaning solvent, Immediately get fresh air and medical help. If solvent contacts eyes, immediately wash your eyes and get medical aid.

1. Clean all parts with dry cleaning solvent and dry thoroughly. Ensure that bonding surfaces on frame for gasket is clean and dry.
2. Inspect cover for warpage and distortion. Straighten if necessary.
3. Inspect hinge for straightness and deterioration. Replace damaged hinge.
4. Inspect all other parts for defects and damage. Replace defective and damaged parts.

c. INSTALLATION

1. Use adhesive to install new gasket (5) on frame (l).
2. Install each receptacle (2) on frame (1) using two screws (3).
3. Install each strike (14) on cover (6) using two new rivets (13).
4. Install eyelets (12) and studs (11) in cover (6).
5. Install hinge (7) on cover (6) using seven new rivets (1 O).
6. Install filter (4) in frame (1) using eight screw (15) and new Iockwashers (16).
7. Install hinge (7) on frame (1) using six screws (9) and new Iockwashers (8).

4-113. EXTERIOR BODY REPAIR.

This Task Covers:

a. Inspection b. Repair

Initial Setup:

References:

Ž TM 43-0139

a. INSPECTION

1. Inspect walls and top panels for dents, creases, and wrinkled metal.
2. Inspect top, bottom, and corner body moldings for dents, creases, and bends.
3. Check rivets, screws, nuts, and welds at the walls, top panels, and body molding for presence, tightness, and separation.

b. REPAIR

1. Minor dents, creases, and wrinkles that do not produce holes or metal splinters maybe repaired by sanding damaged area to remove damaged paint and sharp edges, Repaint after sanding (TM 43-0139).
2. Damage that results in holes and metal splinters will be repaired by support maintenance.
3. Damage that is large enough to suspect that inside metal wall parts maybe damaged will be evaluated by support maintenance.

Section XII. BODY ACCESSORY ITEMS MAINTENANCE

4-114. LEVEL ASSEMBLY REPLACEMENT (M373A3, M373A4, AND M373A5).

This Task Covers:

a. Removal

b. Installation

initia/ *Setup:*

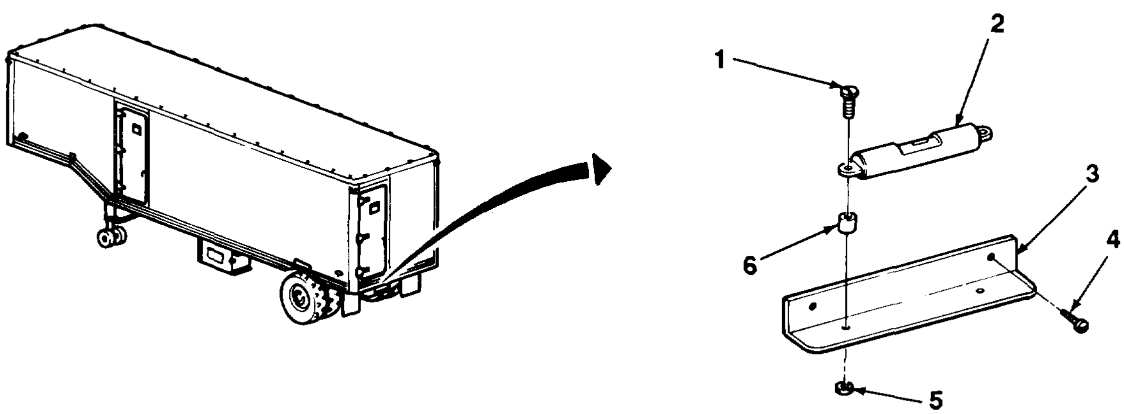
Materials/Parts:

Ž TWO locknuts

Tools/Test Equipment:

• General mechanic's tool kit

1. Remove two screws (4). Remove bracket (3) with level vial (2) from semitrailer.
2. Remove two locknuts (5) and screws (1). Remove level vial (2) and two spacers (6) from bracket (3). Discard locknuts.



b. INSTALLATION

1. Using two screws (1) and new locknuts (5), install level vial (2) and two spacers (6) on bracket (3).
2. Install bracket (3) with level vial (2) on semitrailer using two screws (4).

TA700346

4-115. REFLECTOR REPLACEMENT.

This *Task Covers:* Replacement

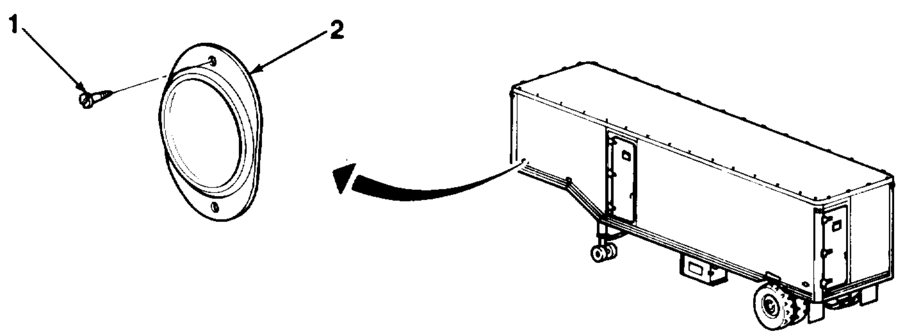
Initial Setup:

Tools/Test Equipment:

Ž General mechanic's tool kit

REPLACEMENT

1. Remove two screws (1) and reflector (2) from semitrailer.
2. Install reflector (2) on semitrailer with two screws (1).



TA700347

4-116. IDENTIFICATION PLATES AND DECALS REPLACEMENT.

This Task Covers:

a. Removal

b. Installation

Initial Setup:

Materials/Parts:

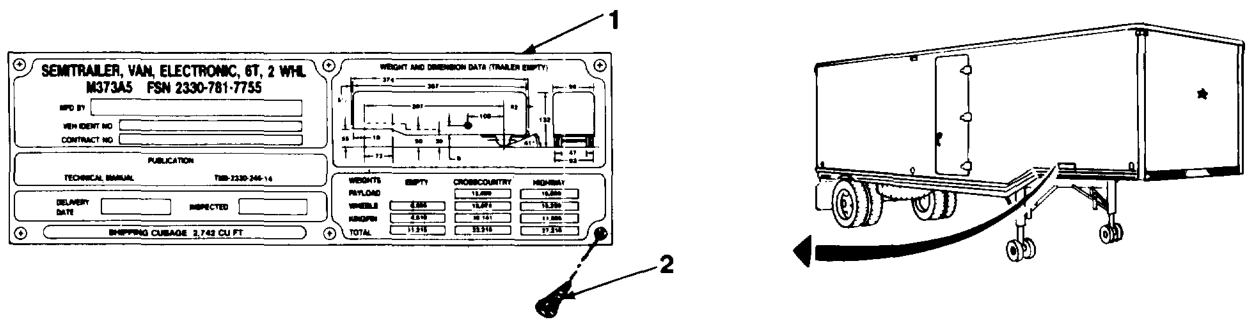
- Dry cleaning solvent (Item 13, Appendix E)

Tools/Test Equipment:

- General mechanic's tool kit

a. REMOVAL

1. Remove identification and instruction plates (1) by removing screws (2).
2. Remove decals by scraping off.



b. INSTALLATION

1. Install identification and instruction plates (1) using screws (2).

WARNING

Dry cleaning solvent, P-D-680, Is toxic and flammable. Always wear protective goggles and gloves, and use only In a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point is 10O°F-138°F (38°C-59°C). If you become dizzy while using cleaning solvent, immediately get fresh air and medical help. If solvent contacts eyes, Immediately wash your eyes and get medical aid.

2. Clean surface where decal mounts with dry cleaning solvent and dry thoroughly, Apply decal to surface.

TA700348

Section XIII. AIR CONDITIONER MAINTENANCE

4-117. AIR CONDITIONER REPLACEMENT (M348A2H).

This Task Covers:

a. Removal

b. Installation

Initial Setup:

Equipment Conditions:

- 208-volt power disconnected from semitrailer.

Tools/Test Equipment:

- General mechanic's tool kit

Materials/Parts:

- Forty-nine lockwashers
- Weatherstripping

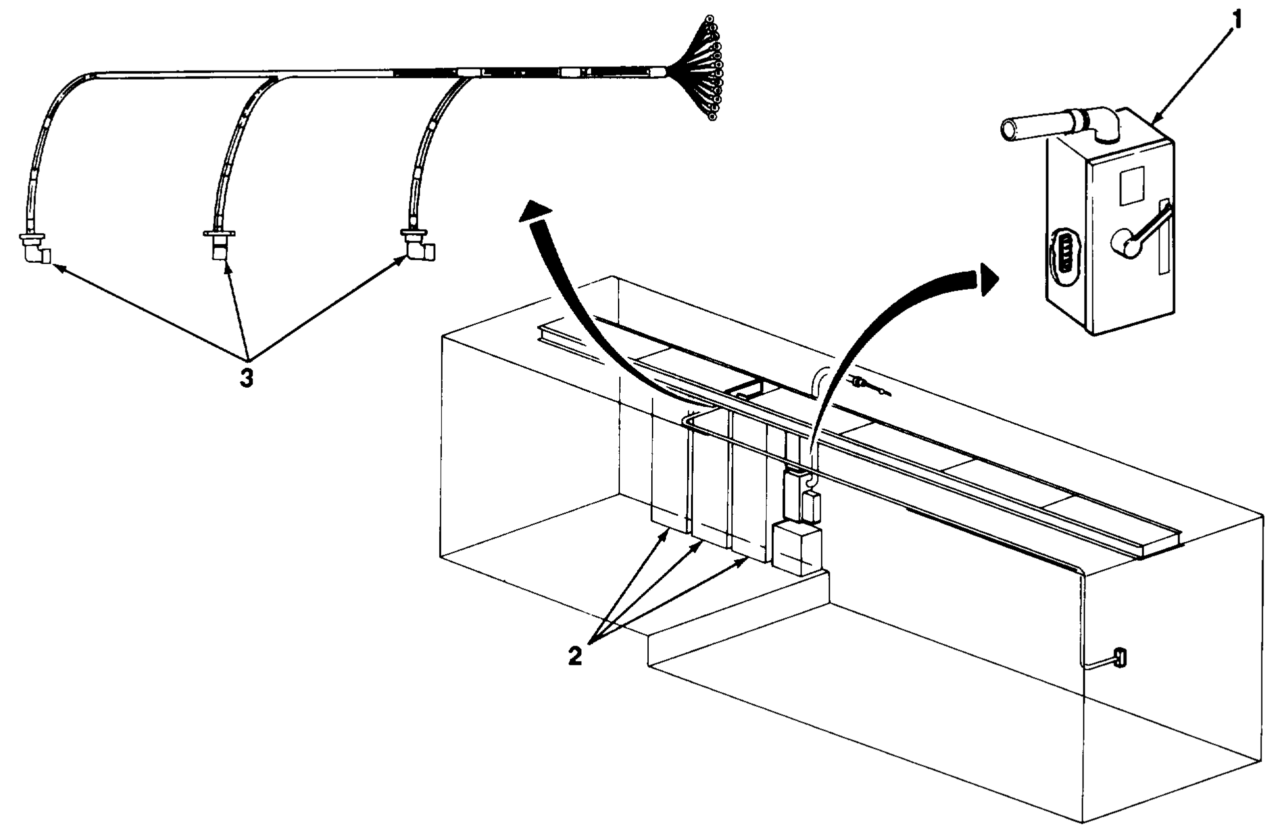
References:

- TM 5-4120-222-14

a. REMOVAL

1. Shut off power to air conditioner at circuit breaker box (1).
2. Disconnect remote control cable assembly from air conditioner (TM 5-4120-222-1 4).
3. Disconnect power cable connector (3) from air conditioner (2) being replaced,

4-117. AIR CONDITIONER REPLACEMENT (M348A2H) (Con't).



TA700349

4-117. AIR CONDITIONER REPLACEMENT (M348A2H) (Con't).

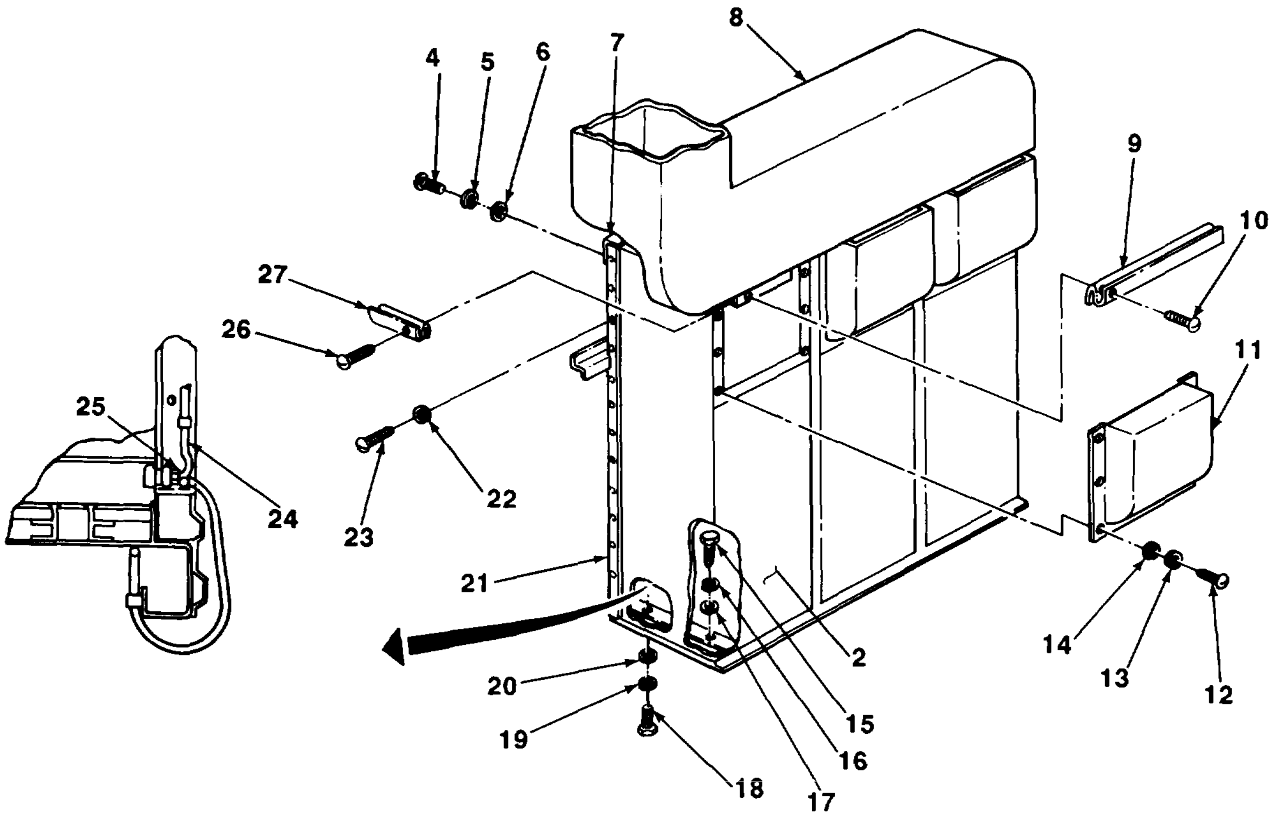
4. Remove six screws (12), flatwashers (13), and lockwashers (14) from duct cap (11). Discard lockwashers.

5. Remove screw (26) and side S-lock (27) from each side of duct cap (11).

6. Remove screw (10) and front S-lock (9) from front of duct cap (11).

7. Free duct cap (11) and remove from duct (8) and front of air conditioner (2).

8. Loosen clamp (25) and remove drain hose (24).



9. From underneath semitrailer, remove pipe plug (28) to gain access to screws (18).

10. Remove two screws (18), lockwashers (19), and flatwashers (20). Discard lockwashers.

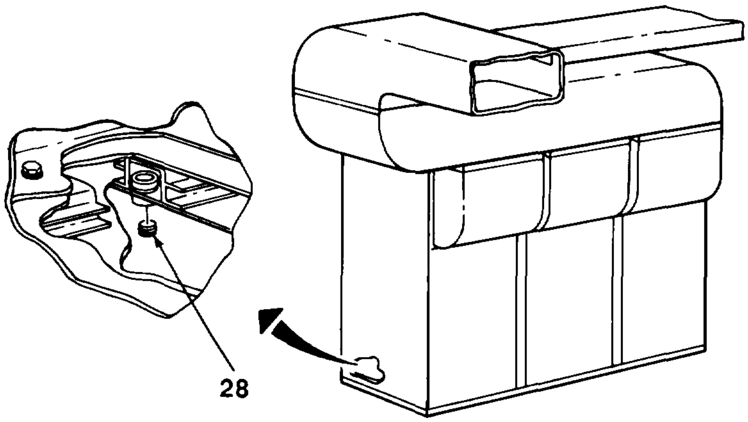
11. Remove two screws (15), lockwashers (16), and flatwashers (17). Discard lockwashers.

12. Remove screw (4), lockwasher (5), and flatwasher (6). Slide air conditioner (2) forward and remove. Discard lockwasher.

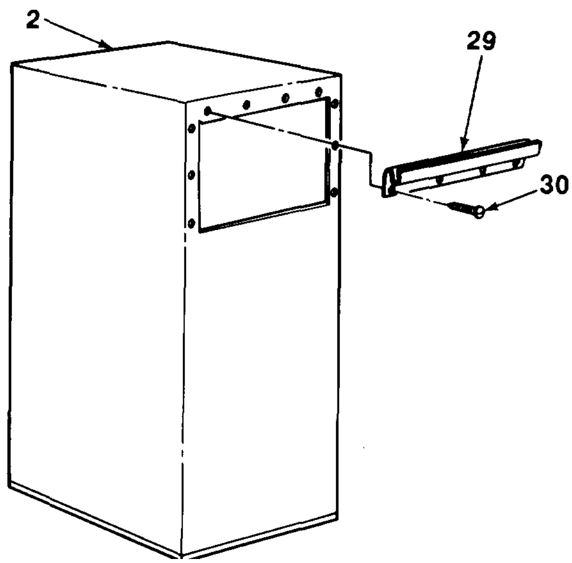
13. Remove 38 screws (23) and lockwashers (22). Remove two retainers (21) and weatherstripping (7). Discard weatherstripping and lockwashers.

TA700350

4-117. AIR CONDITIONER REPLACEMENT (M348A2H) (Con't).



14. Remove four screws (30) and S-lock (29) from front of air conditioner (2).



b. INSTALLATION

1. Install S-lock (29) on front of air conditioner (2) using four screws (30).
2. Install new weatherstripping (7) and two retainers (21) using 38 screws (23) and new lockwashers (22).
3. Install air conditioner (2) in semitrailer.
4. Install screw (4), new lockwasher (5), and flatwasher (6).
5. Install two screws (15), new lockwashers (16), and flatwashers (17).
6. Underneath semitrailer, install two screws (18), new lockwashers (19), and flatwashers (20).
7. Install pipe plug (28).
8. Attach drain hose (24) to drain and secure with clamp (25).
9. Position front and two side S-locks (9 and 27) on duct cap (11). Position duct cap for installation.

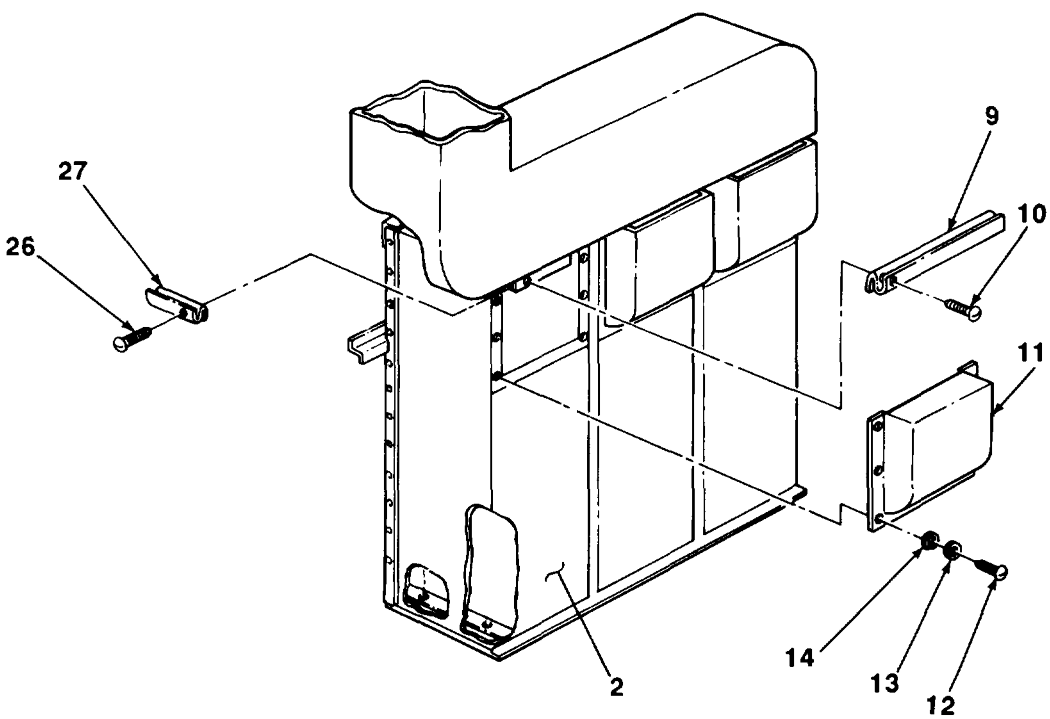
TA700351

4-117. AIR CONDITIONER REPLACEMENT (M348A2H) (Con't).

10. Install duct cap (11) on duct (8) and front of air conditioner (2) using six screws (12), flatwashers(13), and new lockwashers (14).

11. Secure each side S-lock (27) using screw (26).

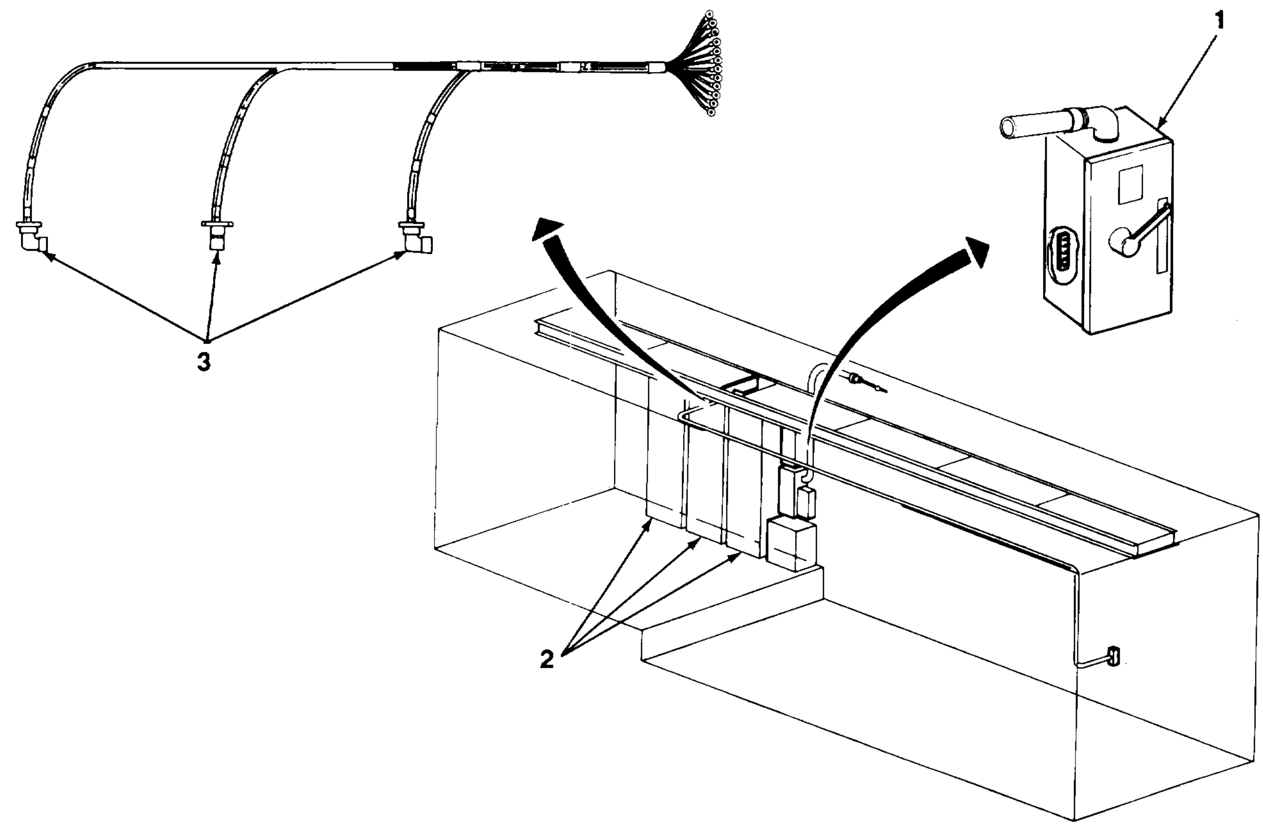
12. Secure front S-lock (9) using screw (10).



TA700352

4-117. AIR CONDITIONER REPLACEMENT (M348A2H) (Con't).

13. Connect power cable connector (3) to air conditioner (2).
14. Connect remote control cable assembly to air conditioner TM 5-41 20-222-14).
15. Turn power to air conditioner on at circuit breaker box (l).



FOLLOW-ON TASKS:

Ž Connect 208-volt power to semitrailer.
Ž Check operation of air conditioner (para 2-15).

TA700353

4-118. AIR CONDITIONER REPLACEMENT (M373A2D).

This Task Covers:

a. Removal
b. Installation

Initial Setup:

Equipment Conditions:

- 110-volt power disconnected from semitrailer.
- Air conditioner cable assembly removed (para 4-46).

Tools/Test Equipment:

- General mechanic's tool kit
- Drili bit set
- Electric drill
- Fork lift
- Rivet gun

Materials/Parts:

- Fourteen Iockwashers
- Twenty-one rivets

Personnel Required: Two

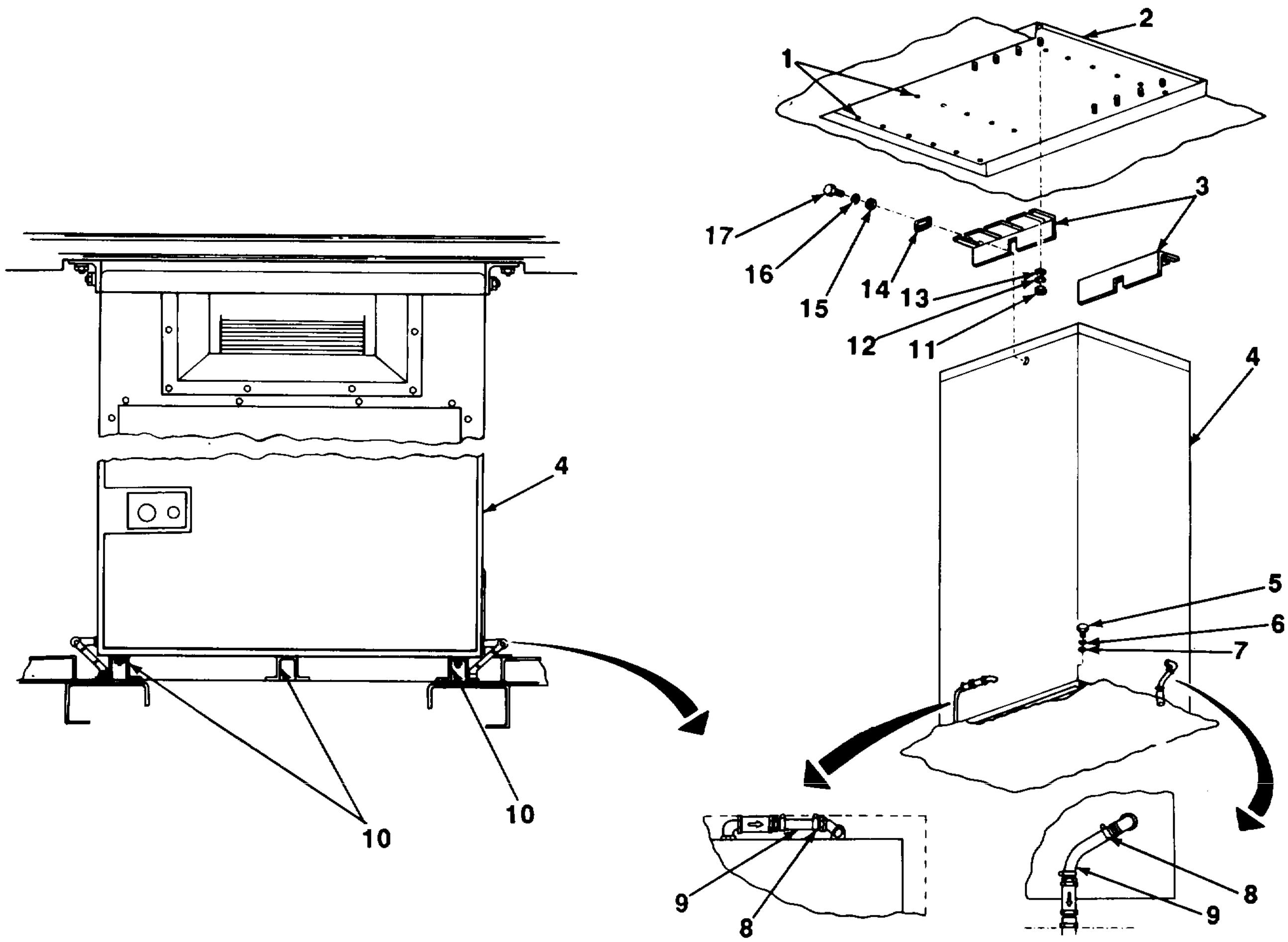
a. REMOVAL

1. Open semitrailer front door and latch in place.
2. Loosen three hose clamps (8) and disconnect three condensate hoses (9).
3. Remove four screws (5), lockwashers (6), and flatwashers (7) securing air conditioner (4) to semitrailer floor, Discard Iockwashers.
4. Remove four nuts (11), lockwashers (12), and flatwashers (13) securing each angle bracket (3) to alinement plate (2) in semitrailer ceiling. Discard Iockwashers.
5. Remove screw (17), Iockwasher (1 6), and flatwasher (15) from side of each angle bracket (3) and remove bolt slide locks (14). Discard lockwashers.
6. Raise air conditioner (4) to clear drain coupling in floor at front of unit. Slide air conditioner forward out of door opening, being careful to support it.
7. Use a fork lift and lift air conditioner (4) from semitrailer.
8. Remove 21 rivets (1) and alinement plate (2) from semitrailer ceiling. Discard rivets.

b. INSTALLATION

1. install alinement plate (2) in semitrailer ceiling using 21 new rivets (l).
2. Using a fork lift, carefully pi ace air conditioner (4) in semitrailer. There is about 3/4 in. (1.9 cm) clearance between top of air conditioner and bottom of alinement plate (2).
3. Position air conditioner (4) on mounting channels (10).
4. Secure air conditioner (4) to floor with four screws (5), new Iockwashers (6), and flatwashers (7).
5. Place angle bracket (3) on each side of air conditioner (4). install each bolts slide lock (14) using screw (1 7), new Iockwasher (16), and flatwasher (15). Tighten screws fingertight.

4-118. AIR CONDITIONER REPLACEMENT (M373A2D) (Con't).



6. Aline each angle bracket (3) so that slots in bracket mate with proper captive bolts in alinement plate (2).
7. Install flatwasher (13), new lockwasher (12), and nut (11) on each captive bolt. Secure nuts fingertight.
8. Check alinement of air conditioner (4) and adjust as necessary. Securely tighten eight nuts (11) and screws (1 7).
9. Connect three condensate hoses (9) and secure with three hose clamps (8).
10. Close semitrailer front door.

FOLLOW-ON TASKS:

- Install air conditioner cable assembly (para 4-46).
- Connect 110-volt power to semitrailer.
- Check operation of air conditioner (para 2-16).

TA700354

4-119. AIR CONDITIONER REPLACEMENT (M373A3, M373A4, AND M373A5).

This Task Covers:

a. Removal

b. Installation

Initial Setup:

Equipment Conditions:

Ž 110-volt power disconnected from semitrailer.

Tools/Test Equipment:

• General mechanic's tool kit
• Drill bit set
• Electric drill
Ž Fork lift
•Rivet gun

Materials/Parts:

Ž Dry cleaning solvent (Item 13, Appendix E)
Ž Adhesive rubber tape (Item 25, Appendix E)
• Six rivets
• Seventy lockwashers

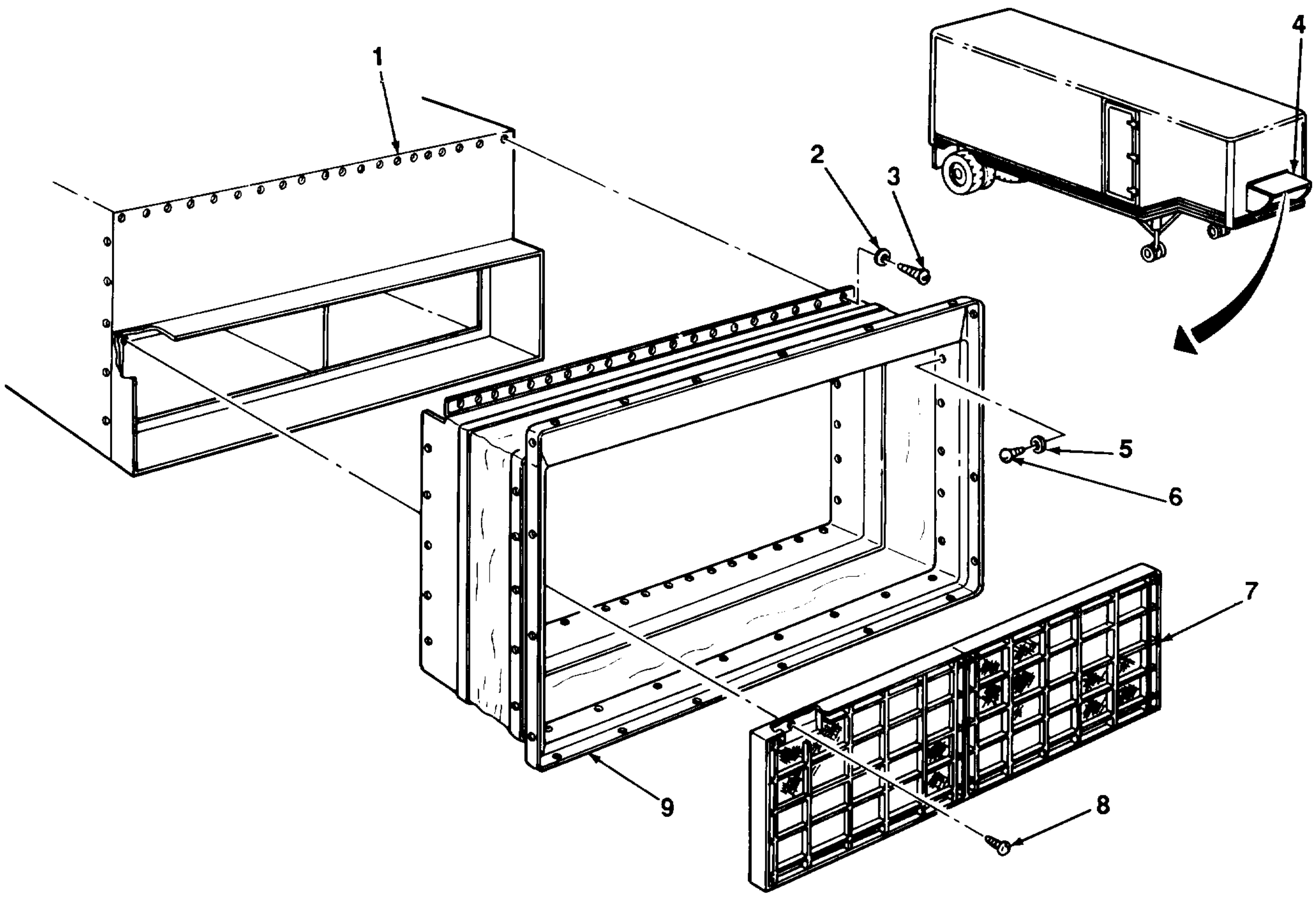
References:

• TM 5-4120-259-15

a. REMOVAL

1. Open and secure access panel (4).
2. Remove six rivets (8) and two filter assemblies (7) from air conditioner (l). Discard rivets.
3. Remove 20 screws (6) and lockwashers (5) securing boot and frame assembly (9) to access opening. Discard lockwashers.
4. Remove 50 screws (3) and lockwashers (2) securing boot and frame assembly (9) to front of air conditioner(l). Remove boot and frame assembly. Discard lockwashers.

4-119. AIR CONDITIONER REPLACEMENT (M373A3, M373A4, AND M373A5) (Con't).



TA700355

4-119. AIR CONDITIONER REPLACEMENT (M373A3, M373A4, AND M373A5) (Con't).

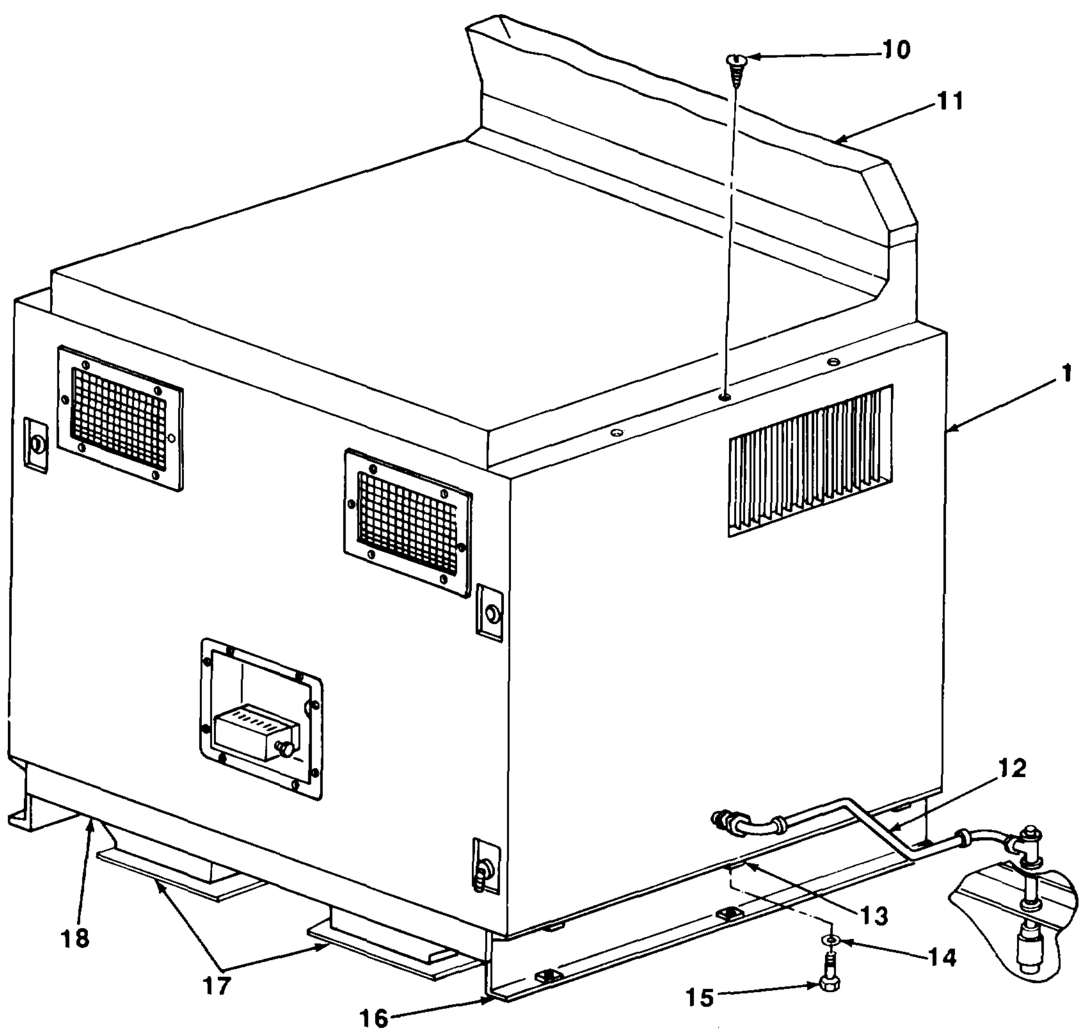
5. Working inside semitrailer, disconnect power cable (TM 5-4120-259-1 5) and drain tube (12) from air conditioner (l).

6. Remove six screws (10) securing duct assembly (11) to top of air conditioner (1) and remove lower portion of duct assembly.

7. Remove six screws (15), flatwashers (1 4), and bevel washers (13) securing air conditioner (1) to floor mounting channels (16).

8. Lift up rear portion of air conditioner (1) with fork lift to break seal between face of air discharge baffle assemblv (18) and air discharge openings (17) in floor.

9. Slide air conditioner (1) onto forks of fork lift. Remove air conditioner from semitrailer.



TA700356

4-119. AIR CONDITIONER REPLACEMENT (M373A3, M373A4, AND M373A5) (Con't).

b. INSTALLATION

WARNING

Dry cleaning solvent, P-D-680, Is toxic and flammable. Always wear protective goggles and gloves, and use only in a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point Is 100°F-138°F (38°C-59°C). If you become dizzy while using cleaning solvent, immediately get fresh air and medical help. If solvent contacts eyes, immediately wash your eyes and get medical aid.

1. Ensure that old adhesive tape is removed from mating surfaces. Clean mating surfaces with dry cleaning solvent and dry thoroughly.
2. Apply adhesive tape around edges of two air discharge openings (17) in floor.
3. Use a fork lift to position air conditioner (1) in semitrailer. Slide air conditioner into position. Ensure that any movement of the air conditioner does not disturb adhesive tape.
4. Install six screws (15), flatwashers (1 4), and bevel washers (13) to secure air conditioner (1) to floor mounting channels (16).
5. Install lower portion of duct assembly (11) on air conditioner (1) using six screws (10).
6. Connect power cable (TM 5-4120-259-1 5) and drain tube (12) to air conditioner (1).

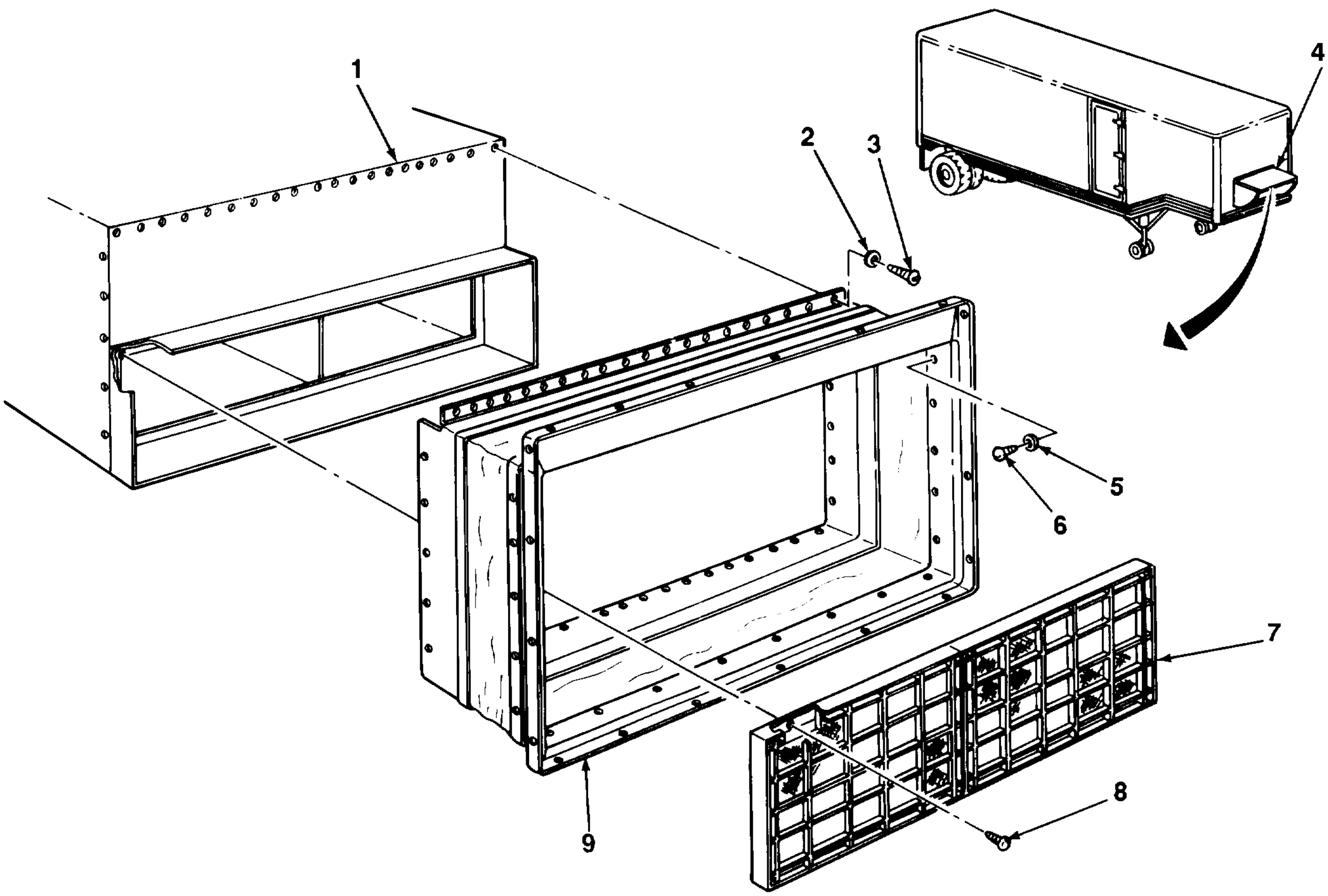
4-119. AIR CONDITIONER REPLACEMENT (M373A3, M373A4, AND M373A5) (Con't).

7. Working from outside of semitrailer, install boot and frame assembly (9) on front of air conditioner (1) using **50** screws (3) and new Iockwashers (2).

8. Secure boot and frame assembly (9) to access opening using 20 screws (6) and new Iockwashers (5).

9. Install two filter assemblies (7) on front of air conditioner (1) using six new rivets (8).

10. Close access panel (4).



FOLLOW-ON TASKS:

- Connect 110-volt power to semitrailer.
- Check operation of air conditioner (para 2-17).

TA700357

4-120. AIR CONDITIONER DRAIN HOSE REPLACEMENT (M348A2H).

This Task Covers:

a. Removal   b. Installation

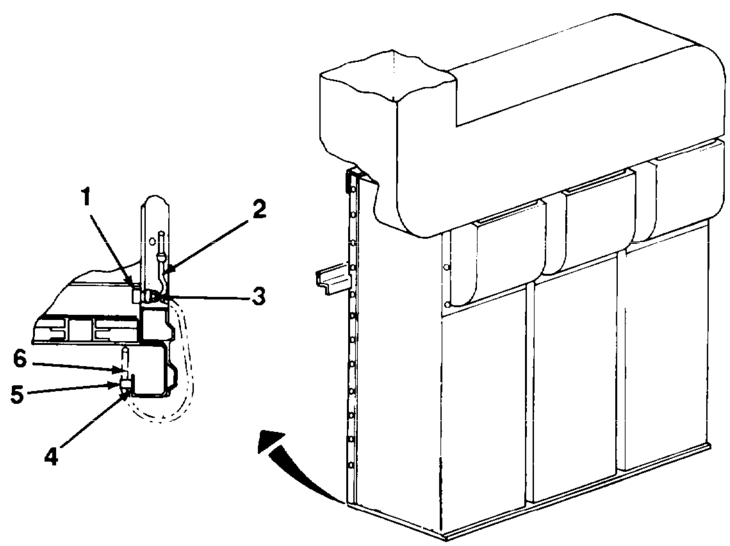
Initial Setup:

Tools/Test Equipment:

- General mechanic's tool kit

a. REMOVAL

1. Remove screw (4) and clip (5) from mounting plate (6). Remove drain hose (2) from clip.
2. Loosen hose clamp (3) and remove drain hose (2) from adapter (l).



b. INSTALLATION

1. Install drain hose (2) on adapter (1) and tighten hose clamp (3).
2. Feed drain hose (2) through clip (5). Secure clip to mounting plate (6) using screw (4).

TA700358

4-121. AIR CONDITIONER DRAIN HOSE REPLACEMENT (M373A2D).

This Task Covers:

a. Removal
b. Cleaning and Inspection
c. Installation

Initial Setup:

Materials/Parts:

- Dry cleaning solvent (item 13, Appendix E)
- Sealing compound (item 22, Appendix E)
- Solder (item 23, Appendix E)

Tools/Test Equipment:

- General mechanic's tool kit
- Soldering torch kit

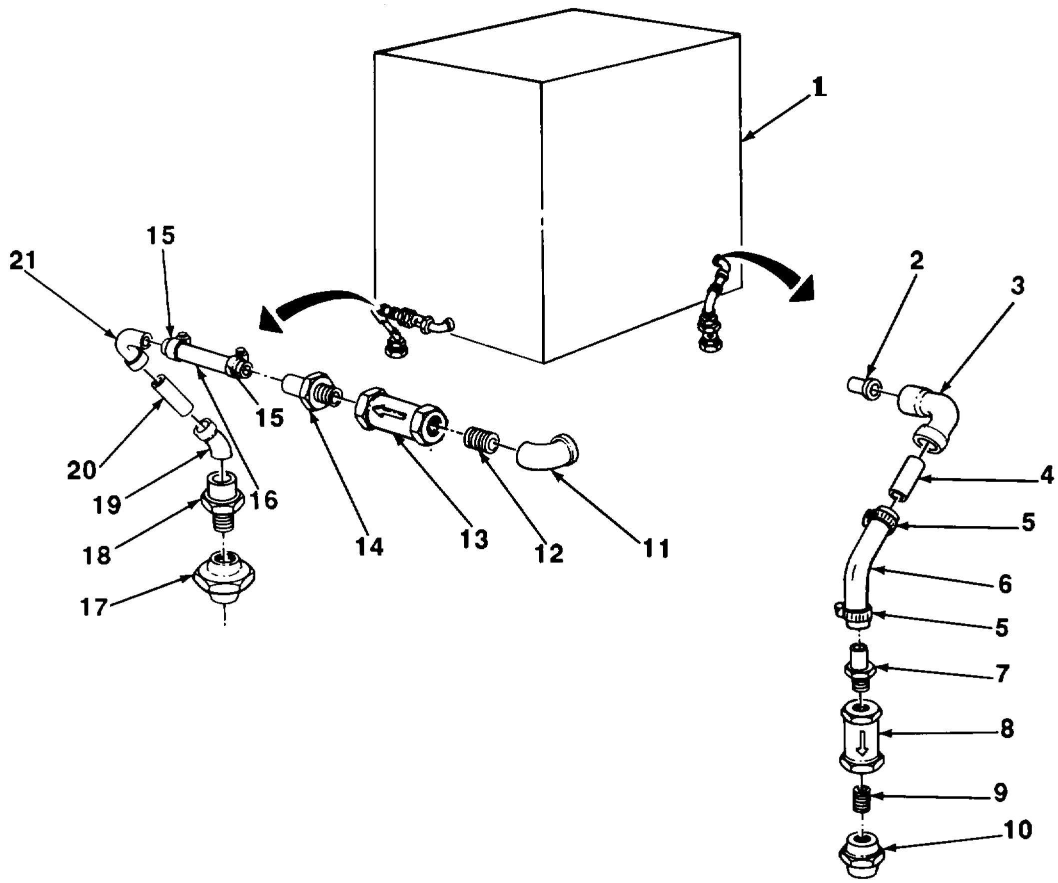
References:

- TB SIG 222

a. REMOVAL

1. Loosen two clamps (5) and remove hose (6) from copper tube (4) and adapter (7).
2. Remove adapter (7) from check valve (8).
3. Remove check valve (8) from nipple (9).
4. Remove nipple (9) from coupling (10) welded to floor.
5. Heat bushing (2) and elbow (3) until they can be removed from air conditioner (1). Remove bushing and elbow from air conditioner.
6. Heat elbow (3) until copper tube (4) can be removed. Remove copper tube.
7. Loosen two clamps (15) and remove hose (16) from adapter (14) and elbow (21).
8. Remove adapter (14) from check valve (13).
9. Remove check valve (13) from nipple (12).
10. Remove nipple (12) from elbow (1 1).
11. Remove elbow (11) from air conditioner (1).
12. Remove adapter (18) from coupling (17) welded to floor.
13. Heat two elbows (19 and 21) until copper tube (20) can be removed. Remove two elbows from copper tube.
14. Heat adapter (18) until elbow (19) can be removed. Remove elbow from adapter.

4-121. AIR CONDITIONER DRAIN HOSE REPLACEMENT (M373A2D) (Con't).



b. CLEANING AND INSPECTION I

WARNING

Dry cleaning solvent, P-D-680, is toxic and flammable. Always wear protective goggles and gloves, and use only in a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point Is 100°F-138°F (38°C-59°C). If you become dizzy while using cleaning solvent, Immediately get fresh air and medical help. If solvent contacts eyes, immediately wash your eyes and get medical aid.

1. Clean all metal park with dry cleaning solvent and dry thoroughly.
2. Inspect all parts for defects and damage. Replace defective and damaged parts.

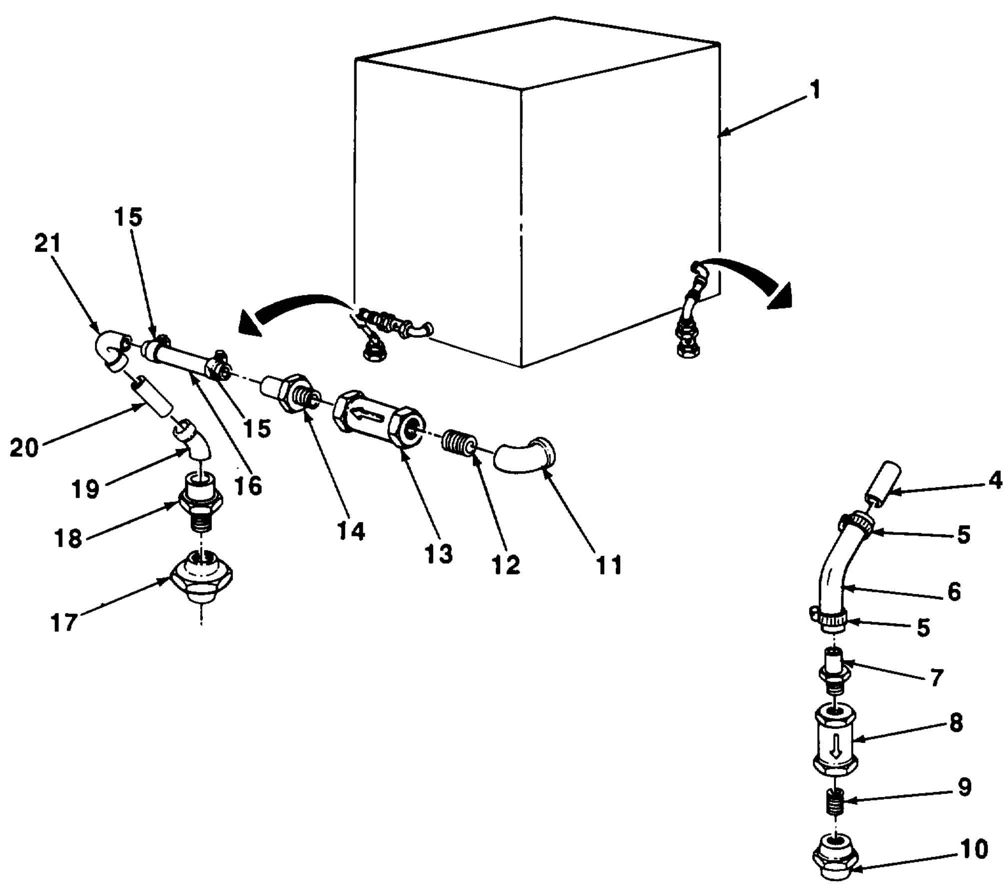
c. INSTALLATION

1. Solder copper tube (4) and bushing (2) to elbow (3) in accordance with TB SIG 222.
2. Solder elbow (3) and bushing (2) to air conditioner (1) in accordance with TB SIG 222.

TA700359

4-121. AIR CONDITIONER DRAIN HOSE REPLACEMENT (M373A2D) (Con't).

3. Apply sealing compound to nipple (9). Install nipple in coupling (10).
4. Install check valve (8) on nipple (9), Ensure that arrow on check valve points down.
5. Install adapter (7) in check valve (8).
6. install hose (6) over adapter (7) and copper tube (4). Tighten two clamps (5).
7, Solder copper tube (20) to two elbows (19 and 21) in accordance with TB SIG 222.
6. Solder elbow (19) to adapter (18) in accordance with TB SIG 222,
9. Apply sealing compound to adapter (1 8). Install adapter in coupling (17).
10. Install elbow (11) on air conditioner (1).
11. install nipple (12) in elbow (11).
12. Install check valve (13) on nipple (12). Ensure that arrow on check valve points to rear
13. install adapter (14) in check valve(13).
14. Install hose (16) on elbow (21) and adapter (14), Tighten two clamps (1 5).



TA700360

4-122. AIR CONDITIONER DRAIN HOSE REPLACEMENT (M373A3, M373A4, AND M373A5).

This Task Covers:

a.. Removal
b. Cleaning and Inspection
c. Installation

Initial Setup:

Materials/Parts:

- Dry cleaning solvent (Item 13, Appendix E)
- Solder (Item 23, Appendix E)

References:

- TB SIG 222

Tools/Test Equipment:

- General mechanic's tool kit
- Soldering torch kit

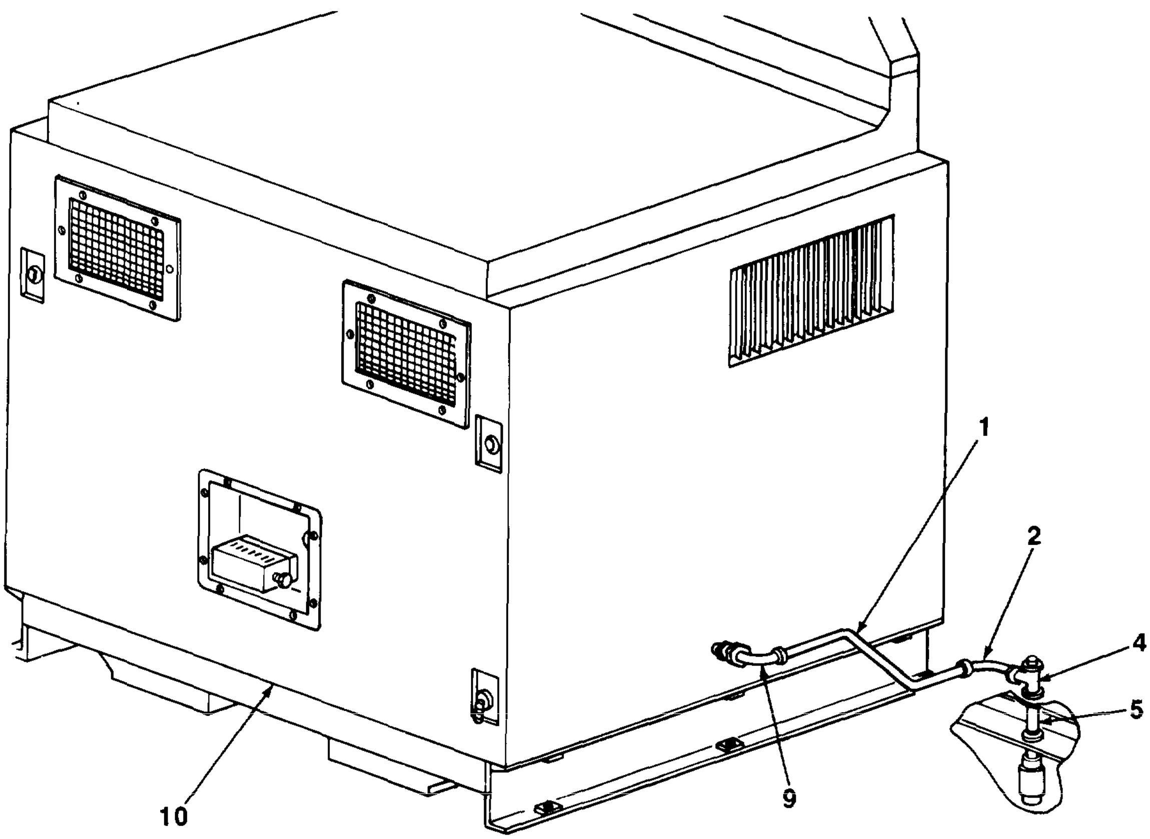
a. REMOVAL

1, Heat tube (1) until it can be removed from two unions (2 and 9). Remove tube.

2. Remove union (9) from air conditioner (10).

3. Remove union (2) from tee (4).

4, Remove tee (4) from nipple (5),



TA700361

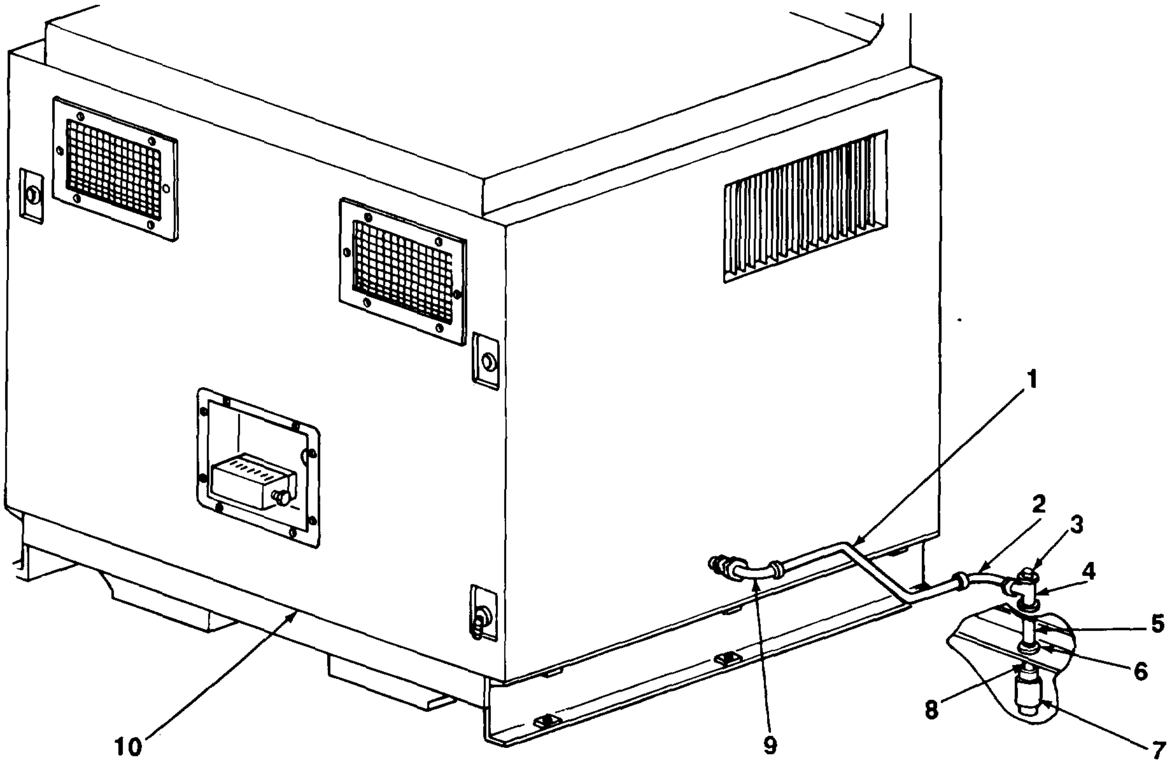
4-122. AIR CONDITIONER DRAIN HOSE REPLACEMENT (M373A3, M373A4, AND M373A5) (Con't).

5. Remove nipple (5) from coupling (6) welded to floor.

NOTE

Note position of check valve for Installation.

6. Remove check valve (7) from nipple (8).
7. Remove nipple (8) from coupling (6) welded to floor.
8. Remove pipe plug (3) from tee (4).



b. CLEANING AND INSPECTION

WARNING

Dry cleaning solvent, P-D-680, is toxic and flammable. Always wear protective goggles and gloves, and use only in a well-ventiiated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open frame or excessive heat. The solvent's flash point is 100°F-138°F (38°C-59°C). if you become dizzy while using cleaning solvent, immediately get fresh air and medical help. If solvent contacts eyes, immediately wash your eyes and get medical aid.

1. Clean all metal parts with dry cleaning solvent and dry thoroughly.
2. inspect ail parts for defects and damage. Replace defective and damaged parts. .

TA700362

4-122. AIR CONDITIONER DRAIN HOSE REPLACEMENT (M373A3, M373A4, AND M373A5) (Con't).

c. INSTALLATION

1. Install nipple (8) on coupling (6) welded to floor.
2. Install check valve (7) on nipple (8).
3. Install nipple (5) on coupling (6) welded to floor.
4. Install pipe plug (3) in tee (4).
5. Install tee (4) on nipple (5).
6. Install union (2) in tee (4).
7. Install union (9) in air conditioner (10).
8. Solder tube (1) to two unions (2 and 9) in accordance with TB SIG 222.

Section XIV. HEATING SYSTEM MAINTENANCE

4-123. HEATER EXHAUST PIPE REPLACEMENT (M373A2D AND M373A5).

This Task Covers:

a. Removal
b. Cleaning and Inspection
c. Installation

Initial Setup:

Materials/Parts:

- Dry cleaning solvent (Item 13, Appendix E)
- Two gaskets
- Twelve lockwashers (M373A2D)
- Thirteen lockwashers (M373A5)

Tools/Test Equipment:

- General mechanic's tool kit
- Drill bit set
- Electric drill
- Rivet gun

a. REMOVAL

WARNING

Exhaust pipe may be hot. Allow exhaust pipe to cool before performing this procedure. Failure to follow this warning may result in burns.

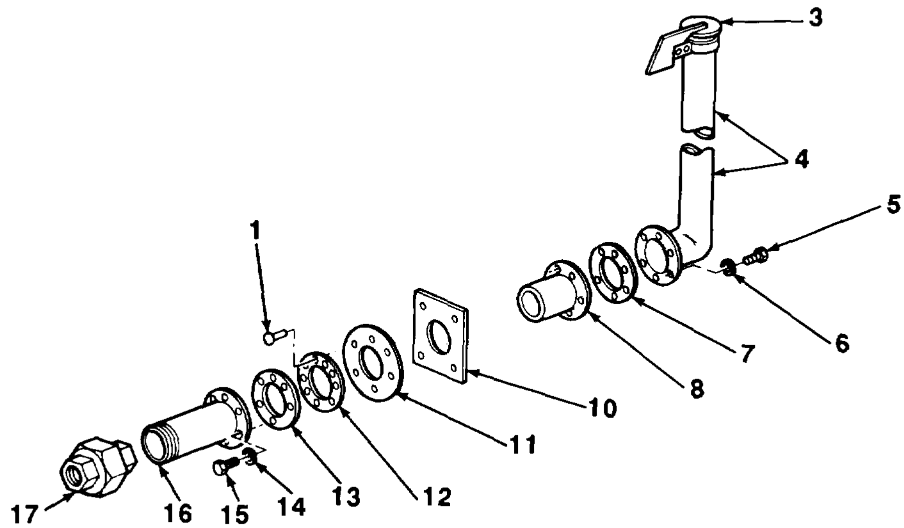
1. Remove exhaust pipe cap (3) from upper exhaust pipe (4) or exhaust pipe extension (21).

NOTE

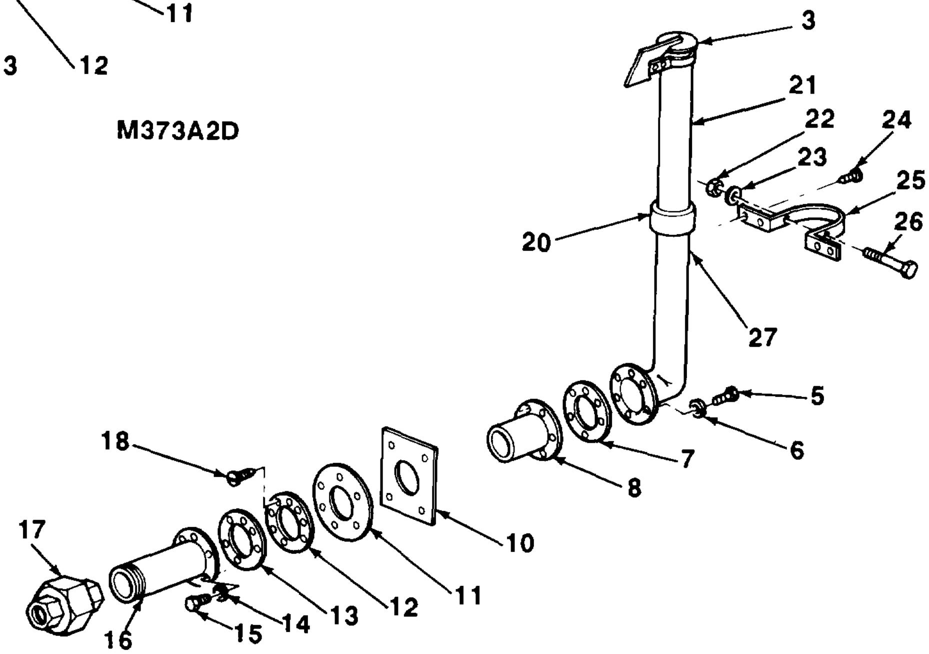
Steps 2 through 4 are for M373A5 only.

2. Loosen coupling (20) and remove exhaust pipe extension (21) from upper exhaust pipe (27).
3. Remove nut (22), lockwasher (23), and screw (26) securing upper exhaust pipe (27) to clamp (25). Discard lockwasher.
4. Remove four screws (24) securing clamp (25) to wall of semitrailer.

4-123. HEATER EXHAUST PIPE REPLACEMENT (M373A2D AND M373A5) (Con't).



M373A2D



M373A5

5. Remove six bolts (5) and Iockwashers (6) securing upper exhaust pipe (4 or 27) and gasket (7) to lower exhaust pipe (8). Remove upper exhaust pipe and gasket. Discard gasket and Iockwashers.
6. Working inside semitrailer, disconnect union (17) connecting exhaust pipe (16) to heater.
7. Remove six bolts (15) and Iockwashers (14) securing exhaust pipe (16) and gasket (13) to mounted pipe flange (12). Remove exhaust pipe and gasket. Discard gasket and Iockwashers.

NOTE

Perform steps 8 through 10 only if parts still mounted to semitrailer wall are damaged.

8. Remove four rivets (1) [screws (18) on M373A5] securing cover plate (1 O) to semitrailer front wall. Remove cover plate, gasket (1 1), and pipe flange (12) as a unit. Separate parts and discard gasket and rivets.

TA700363

4-123. HEATER EXHAUST PIPE REPLACEMENT (M373A2D AND M373A5) (Con't).

WARNING

Insulation around heater exhaust pipe is made of asbestos. Asbestos can be dangerous If you touch it or breathe it. Wear an approved filter mask and gloves. Failure to follow this warning may result In serious injury or death to personnel.

9. Remove asbestos rope around exhaust pipe (8). Discard if defective.
10. Working outside of semitrailer, remove six rivets (2) [screws (19) on M373A5] securing exhaust pipe (8) and gasket (9) to front wall. Remove exhaust pipe and gasket. Discard gasket and rivets.

b. CLEANING AND INSPECTION

WARNING

Dry cleaning solvent, P-D-680, is toxic and flammable. Always wear protective goggles and gloves, and use only in a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point is 100°F-138°F (38°C-59°C). If you become dizzy while using cleaning solvent, immediately get fresh air and medical help. If solvent contacts eyes, immediately wash your eyes and get medical aid.

1. Clean all parts with dry cleaning solvent and dry thoroughly.
2. Inspect exhaust pipes for cracks and holes caused by rust, broken welds, and other damage.
3. If exhaust pipes are defective, replace,
4. Ensure that drain hole at bottom of upper exhaust pipe is not clogged.
5. Check exhaust pipe cap for proper operation.
6. Inspect all other parts for defects and damage. Replace defective and damaged parts.

c. INSTALLATION

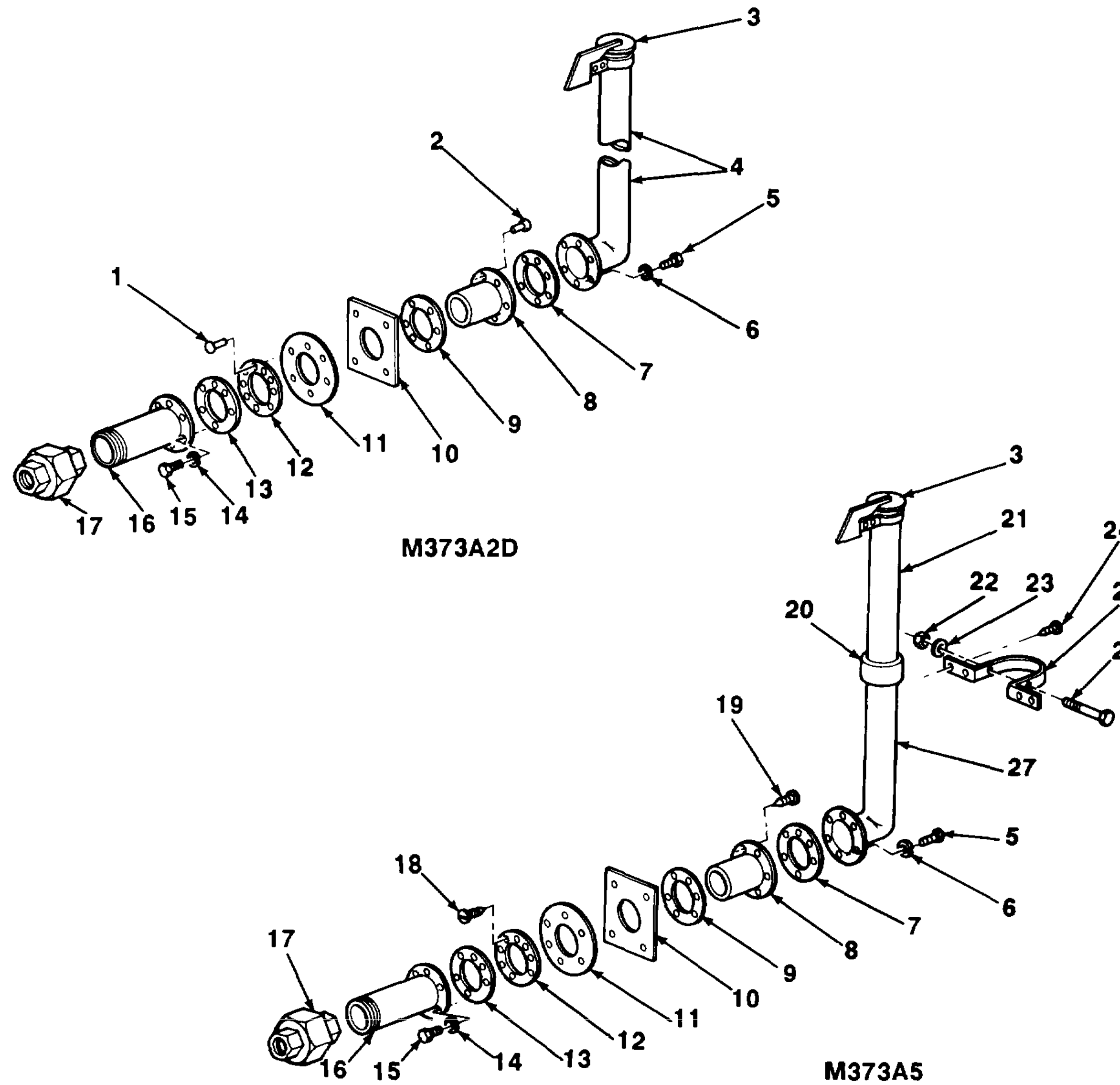
1. If removed, work outside of semitrailer to install exhaust pipe (8) and new gasket (9) on front wall using six new rivets (2) [screws (19) on M373A5].

WARNING

Insulation around heater exhaust pipe Is made of asbestos. Asbestos can be dangerous If you touch it or breathe It. Wear an approved filter mask and gloves. Failure to follow this warning may result in serious injury or death to personnel.

2. If removed, install asbestos rope around exhaust pipe (8).
3. If removed, work inside semitrailer to install cover plate (10), new gasket (1 1), and pipe flange (12) on semitrailer front wall using four new rivets (1) [screws (18) on M373A5],
4. Install exhaust pipe (16) and new gasket (13) on mounted pipe flange (12) using six bolts (15) and new lockwashers (14).
5. Connect union (17) to exhaust pipe (16) and heater.

4-123. HEATER EXHAUST PIPE REPLACEMENT (M373A2D AND M373A5) (Con't).



6. Install upper exhaust pipe (4 or 27) and new gasket (7) on lower exhaust pipe (8) using six bolts (5) and new lockwashers (6).

NOTE

Steps 7 through 9 are for M373A5 only.

7. Install clamp (25) around upper exhaust pipe (27) and secure to wall of semitrailer using four screws (24).
8. Install screw (26), new lockwasher (23), and nut (22) to secure upper exhaust pipe (27) to clamp (25).
9. Install exhaust pipe extension (21) on upper exhaust pipe (27) and tighten coupling (20).
10. install exhaust pipe cap (3) on upper exhaust pipe (4) or exhaust pipe extension (21).

TA700364

4-124. HEATER FUEL FILTER REPLACEMENT (M373A2D).

This Task Covers:

a. Removal
b. Cleaning and Inspection
c. Installation

Initial Setup:

Equipment Conditions:

- Power disconnected from heater (TM 5-4520-233-1 4).

Tools/Test Equipment:

- General mechanic's tool kit
- Drain pan

Materials/Parts:

- Dry cleaning solvent (Item 13, Appendix E)
- One gasket

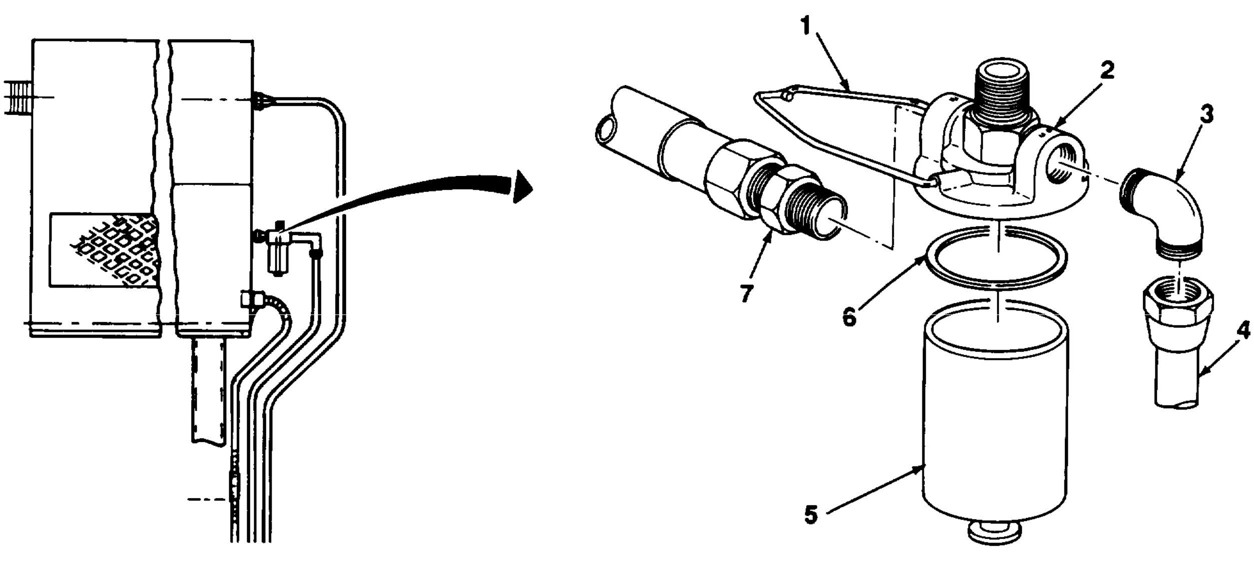
WARNING

When working on heater fuel filter, the work area must be well-ventilated. Failure to follow this warning may result in Injury to personnel.

NOTE

Use a drain pan to catch any draining fuel. Clean up all spills.

1. Disconnect tube assembly (4) from elbow (3).
2. Remove elbow (3) from cover (2).
3. Remove cover (2), gasket (6), and bowl (5) as an assembly from adapter (7).
4. Release clamp (1) and remove cover (2) and gasket (6) from bowl (5). Discard gasket.



TA700365

4-124. HEATER FUEL FILTER REPLACEMENT (M373A2D) (Con't).

b. CLEANING AND INSPECTION

WARNING

Dry cleaning solvent, P-D-680, Is toxic and flammable. Always wear protective goggles and gloves, and use only In a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point is 100°F-138°F (38°C-59°C). If you become dizzy while using cleaning solvent, Immediately get fresh air and medical help. If solvent contacts eyes, Immediately wash your eyes and get medical aid.

1. Clean all parts with dry cleaning solvent and dry thoroughly.
2. Inspect all parts for cracks or other damage. Replace all damaged parts.

c. INSTALLATION

1. Install new gasket (6) in bowl (5). Install cover (2) on bowl and secure with clamp (l).
2. Install cover (2), new gasket (6), and bowl (5) as an assembly on adapter (7).
3. Install elbow (3) on cover (2).
4. Connect tube assembly (4) to elbow (3).

FOLLOW-ON TASKS:

- Connect power to heater (TM 5-4520-233-14).
- Check operation of heater (para 2-18).

4-125. HEATER FUEL PUMP REPLACEMENT (M373A2D AND M373A5).

This Task Covers:

a. Removal

b. Installation

Initial Setup:

Equipment Conditions:

- Power disconnected from heater (TM 5-4520-233-14 or TM 5-4520-241-1 4).

Tools/Test Equipment:

- General mechanic's tool kit
- Ž Drain pan

Materials/Parts:

- Marker tags (Item 24, Appendix E)
- Ž Two lockwashers

a. REMOVAL

WARNING

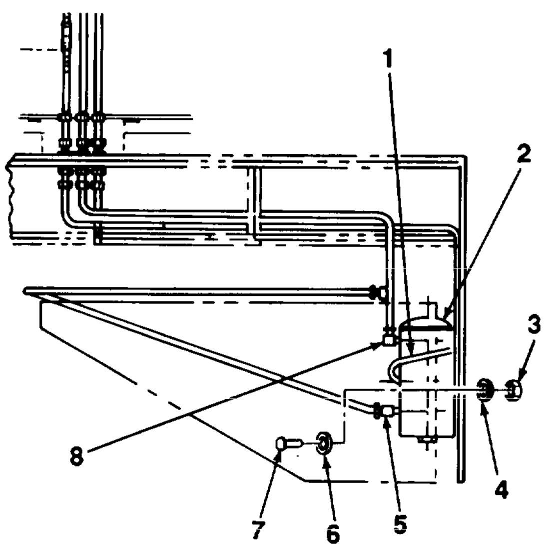
When working on heater fuel pump, the work area must be well-ventilated. Failure to follow this warning may result in injury to personnel.

1. Disconnect power cable (1) from fuel pump (2).

NOTE

Use a drain pan to catch any draining fuel. Clean up all spills.

2. Tag and disconnect fuel lines from fuel pump inlet (5) and outlet (8).
3. Remove two nuts (3), lockwashers (4), flatwashers (6), and screws (7). Remove fuel pump (2). Discard lockwashers.



b. INSTALLATION

1. Install fuel pump (2) using two screws (7), flatwashers (6), new lockwashers (4), and nuts (3).
2. Connect fuel lines to fuel pump inlet (5) and outlet (8). Remove tags.
3. Connect power cable (1) to fuel pump (2).

FOLLOW-ON TASKS:

- Connect power to heater (TM 5-4520-233-14 or TM 5-4520-241-1 4).
- Check operation of heater (para 2-18).

TA700366

4-126. HEATER FUEL TANK REPLACEMENT (M373A2D AND M373A5).

This Task Covers:

a. Removal

b. Installation

Initial Setup:

Equipment Conditions:

Ž Power disconnected from heater (TM 5-4520-233-14 or TM 5-4520-241-1 4).

Tools/Test Equipment:

Ž General mechanic's tool kit
Ž Drain pan

Materials/Parts:

- Five gaskets
- Twenty-four lockwashers

Personnel Required: Two

a. REMOVAL

WARNING

When working on heater fuel tank, the work area must be well-ventilated. Failure to follow this warning may result In Injury to personnel.

NOTE

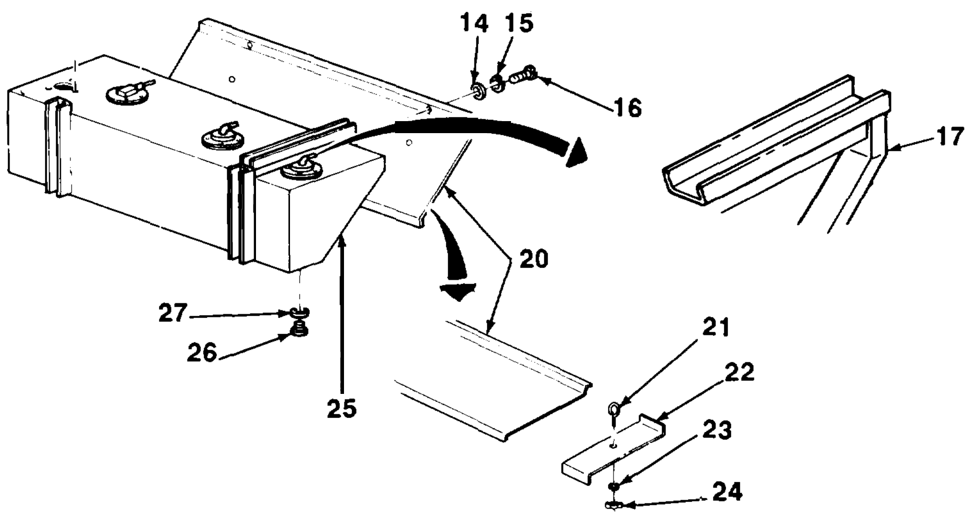
Use a drain pan to catch any draining fuel. Clean up all spills.

1. Remove drain plug (26) and gasket (27). Drain fuel from tank (25). Discard gasket.

2. Remove wingnut (24) and lockwasher (23) from each eyebolt (21). Remove two brackets (22) from tank guard (20). Discard lockwashers.

3. Remove six screws (16), lockwashers (1 5), and flatwashers (14) securing tank guard (20) to mounting supports (17) and remove tank guard. Discard lockwashers.

4. On early M373A2D semitrailers, remove screws and flatwashers securing center tank support to chassis and remove support.



TA700367

4-126. HEATER FUEL TANK REPLACEMENT (M373A2D AND M373A5) (Con't).

5. Loosen two clamps (1) securing filler neck hose (2) and move hose assembly until filler neck hose disengages from elbow (3). Replace filler neck hose if defective.

6. Support fuel tank (25). Remove four screws (19) and flatwashers (18) securing mounting supports (17) to chassis and remove mounting supports.

7. Lower fuel tank (25) far enough to gain access to tube and wire connections at top of tank.

8. Remove five screws (6) and lockwashers (7). Remove transmitter (8) and gasket (9) from fuel tank (25). Discard Iockwashers and gasket.

9. Remove four screws (10) and Iockwashers (11). Remove flange and tube (12) and gasket (13) from fuel tank (25). Discard Iockwashers and gasket.

10. Remove four screws (31) and Iockwashers (30). Remove flange (28) and gasket (29) from fuel tank (25). Discard Iockwashers and gasket.

11. Remove three screws (4) and Iockwashers (5). Remove elbow (3) and gasket (32) from fuel tank (25). Discard Iockwashers and gasket.

12. Lower fuel tank (25) and remove from under semitrailer.

b. INSTALLATION

1. Position fuel tank (25) for installation.

2. Install elbow (3) and new gasket (32) on fuel tank (25) using three screws (4) and new Iockwashers (5).

3. Install flange (28) and new gasket (29) on fuel tank (25) using four screws (31) and new Iockwashers (30).

4. Install flange and tube (12) and new gasket (13) on fuel tank (25) using four screws (10) and new Iockwashers (11).

5. Install transmitter (8) and new gasket (9) on fuel tank (25) using five screws (6) and new Iockwashers (7).

6. Raise fuel tank (25) into mounting position. Install two mounting supports (17) using four screws (19) and flatwashers (18) to secure fuel tank to chassis.

7. Install filler neck hose (2) over elbow (3) and tighten two clamps (l).

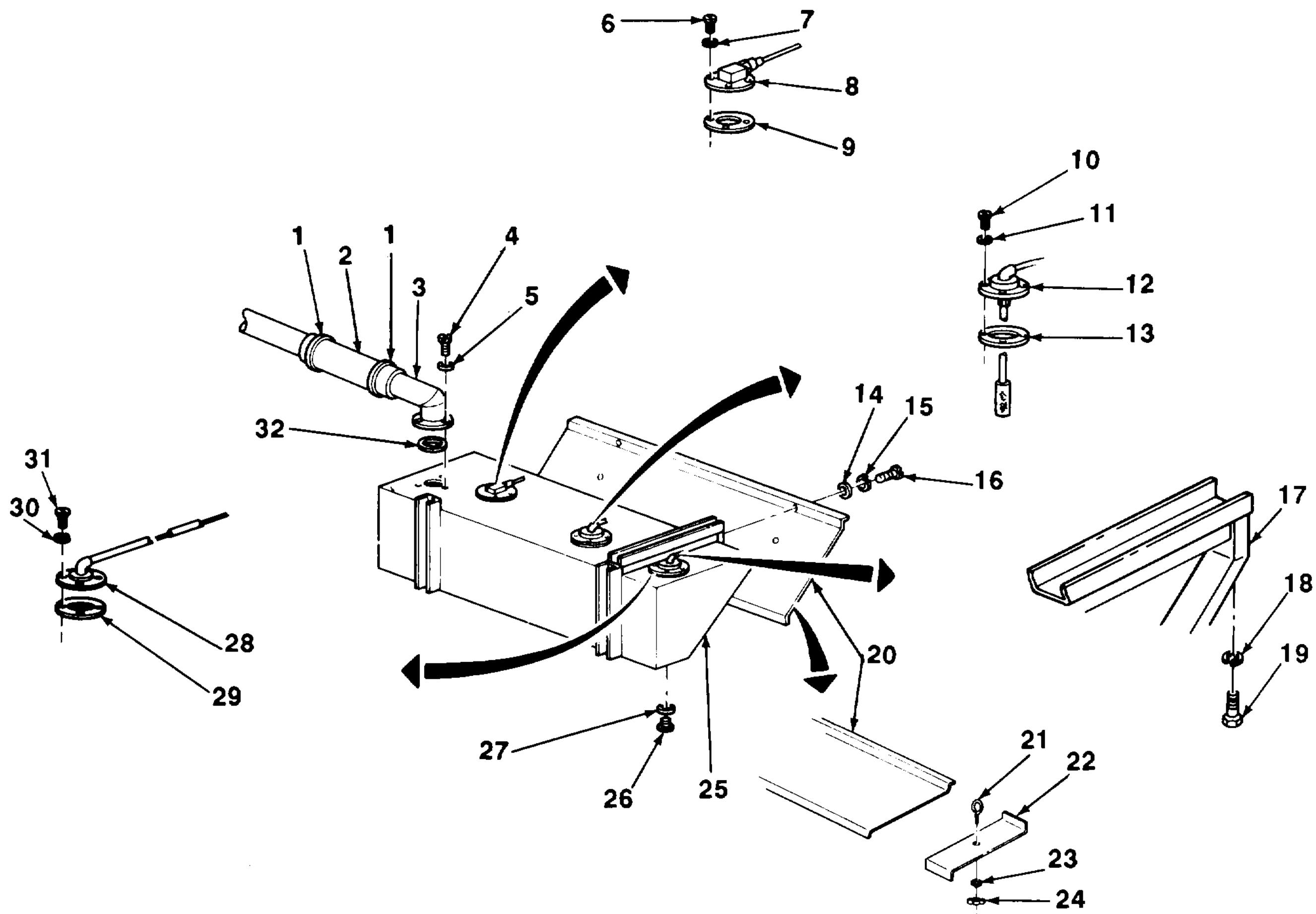
8. On early M373A2D semitrailers, install screws and flatwashers to secure center tank support to chassis.

9. Install tank guard (20) on mounting supports (17) using six screws (1 6), new lockwashers(15), and flatwashers (14).

10. Install each bracket (22) on tank guard (20) using eyebolt (21), new Iockwasher (23), and wingnut (24).

11. Install drain plug (26) and new gasket (27) in fuel tank (25).

4-126. HEATER FUEL TANK REPLACEMENT (M373A2D AND M373A5) (Con't).



FOLLOW-ON TASKS:

- Connect power to heater TM 5-4520-233-14 or TM 5-4520-241-1 4).
- Fill fuel tank.
- Check for leaks and proper operation of heater (para 2-18).

TA700368

4-127. HEATER FUEL INDICATOR REPLACEMENT (M373A2D AND M373A5).

This Task Covers:

a. Removal
b. Installation

Initial Setup:

Materials/Parts:

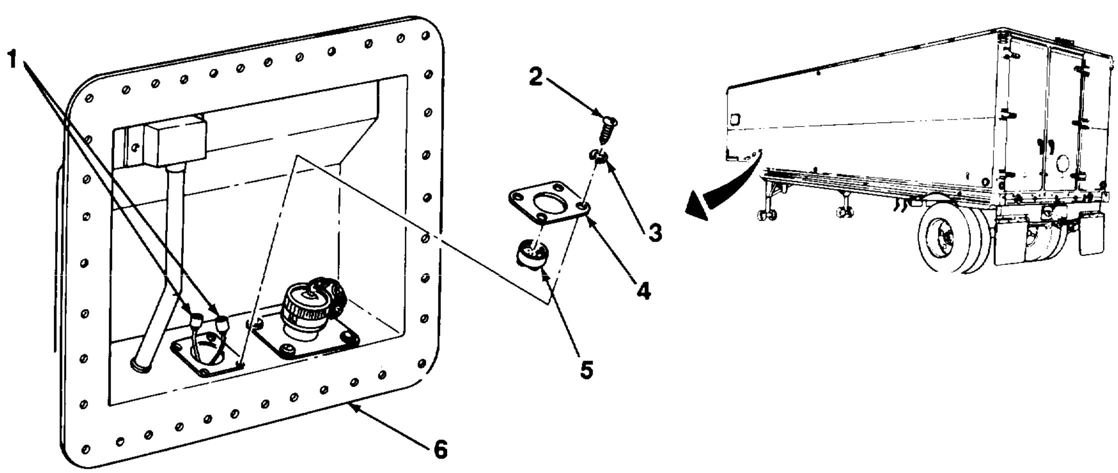
- Marker tags (Item 24, Appendix E)
- Four Iockwashers

Tools/Test Equipment:

- General mechanic's tool kit

a. REMOVAL

1. Remove four screws (2) and Iockwashers (3). Remove mounting plate (4) and partially withdraw fuel indicator (5) from frame (6). Discard Iockwashers.
2. Tag and disconnect wires (1) from fuel indicator (5). Remove fuel indicator,



b. INSTALLATION

1. Connect wires (1) to fuel indicator (5). Remove tags.
2. Install fuel indicator (5) in frame (6).
3. Install mounting plate (4) using four screws (2) and new Iockwashers (3).

TA700369

4-128. HEATER FUEL TANK VENT ASSEMBLY AND TUBE REPLACEMENT (M373A2D AND M373A5).

This Task Covers:

a. Vent Assembly Removal
b. Vent Assembly Installation
c. Tube Removal
d. Tube Installation

Initial Setup:

Equipment Conditions:

- Fuel tank removed (tube assembly replacement only) (para 4-126).

Tools/Test Equipment:

- General mechanic's tool kit

Materials/Parts:

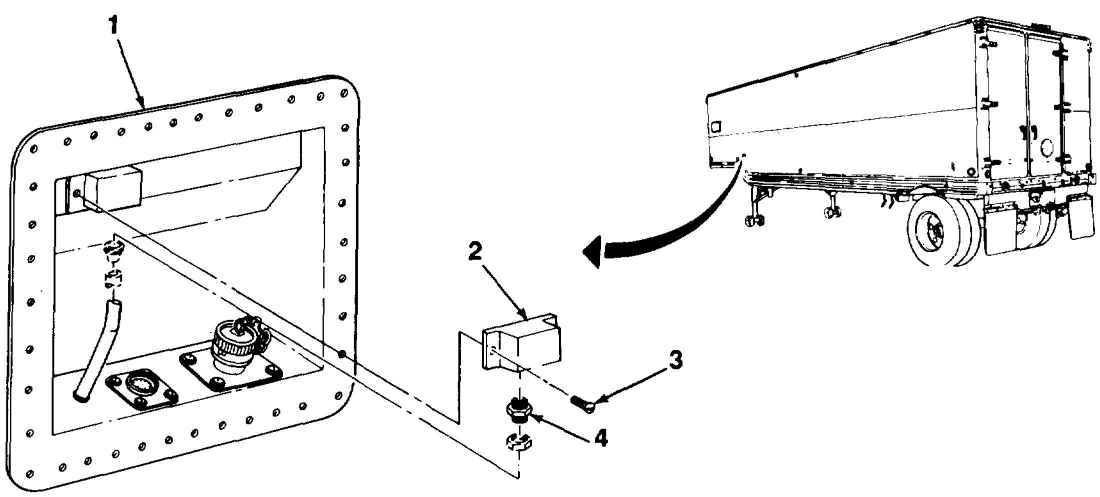
- One grommet
- Four lockwashers

a. VENT ASSEMBLY REMOVAL

1. Remove adapter body (4) from vent assembly (2)
2. Remove two screws *(3)* and vent assembly (2).

b. VENT ASSEMBLY INSTALLATION

1. Install vent assembly (2) on frame (1) using two screws (3).
2. Install adapter body (4) in vent assembly (2).



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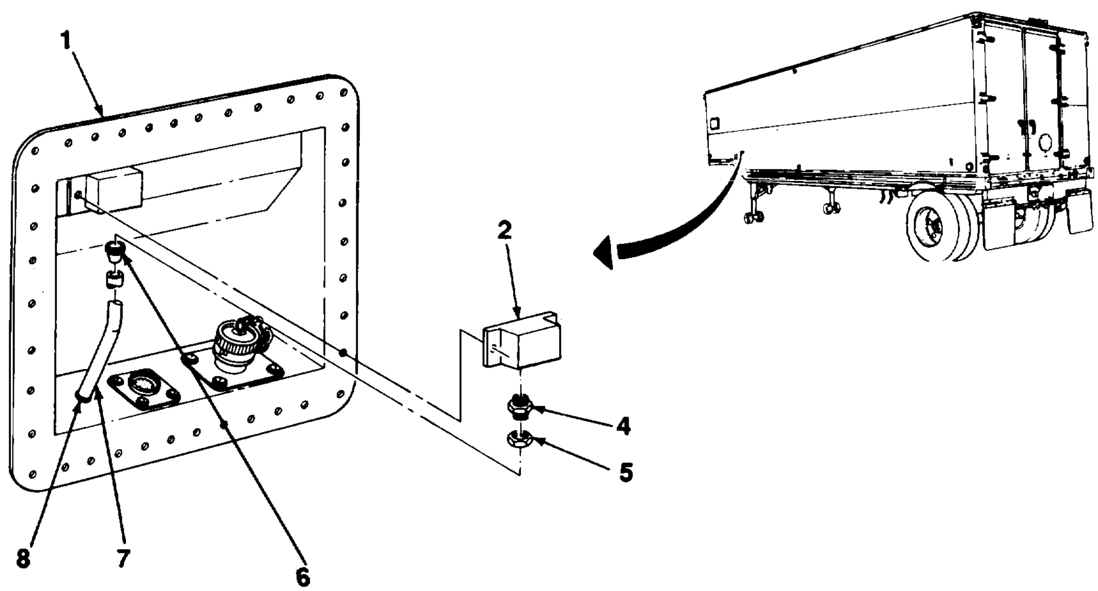
4-128. HEATER FUEL TANK VENT ASSEMBLY AND TUBE REPLACEMENT (M373A2D AND M373A5) (Con't).

c. TUBE REMOVAL

1. Remove adapter body (4) from vent assembly (2).
2. Remove adapter body (4) from nut (5).
3. Remove nut (5) and sleeve (6) from tube (7).
4. Remove grommet (8) from tube (7). Discard grommet.
5. Pull tube (7) through frame (1) and chassis.



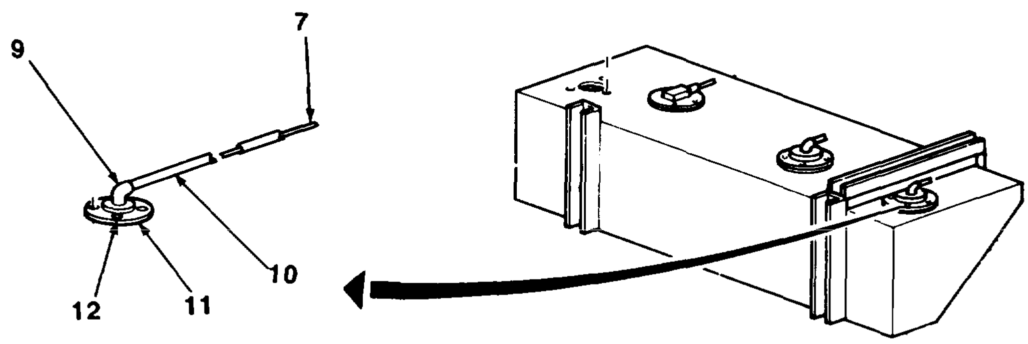
6. At opposite end of tube (7), remove four screws (12) and lockwashers and remove flange (11) from fuel tank and from elbow (9). Discard lockwashers.
7. Remove elbow (9) and tube (7) from conduit (10).

d. TUBE INSTALLATION

1. Install tube (7) in conduit (1O).
2. Install elbow (9) on conduit (10).
3. Install flange (11) on elbow (9). Install flange on fuel tank with four screws (12) and new lockwashers.

TA700371

4-128. HEATER FUEL TANK VENT ASSEMBLY AND TUBE REPLACEMENT (M373A2D AND M373A5) (Con't).



4. Feed tube (7) through chassis and frame (l).
5. Install new grommet (8) on tube (7) and seat grommet in frame (l).
6. Install sleeve (6) and nut (5) on tube (7).
7. Install adapter body (4) into nut (5) and vent assembly (2).

FOLLOW-ON TASKS:

- Install fuel tank (if vent tube was replaced) (para 4-126),

TA700372

4-129. HEATER FUEL TANK FILLER NECK REPLACEMENT (M373A2D AND M373A5).

This Task Covers:

a. **Removal**

b. **Installation**

Initial Setup:

Materials/Parts:

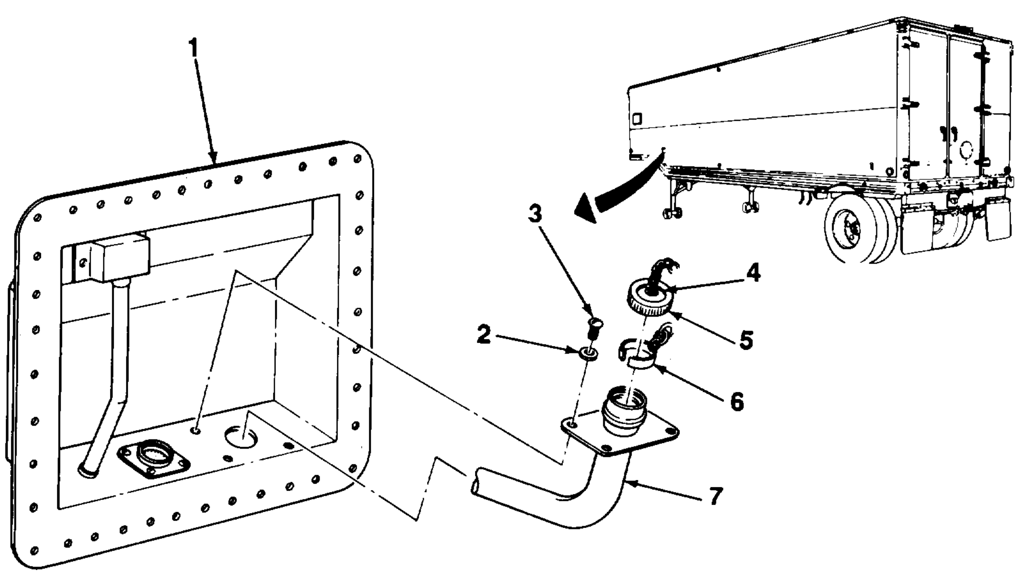
- One retaining ring
- Four lockwashers

Tools/Test Equipment:

- General mechanic's tool kit

a. REMOVAL

1. From underneath semitrailer, loosen clamp and disconnect hose at fuel tank from filler neck (7).
2. Remove four screws (3) and lockwashers (2). Discard lockwashers.
3. Pull filler neck (7) through opening in frame (1) and remove from semitrailer.
4. Remove cap (5) from filler neck (7).
5. Remove retaining ring (4) securing cap (5) to retainer (6). Discard retaining ring.
6. Remove retainer (6) from inside filler neck (7).



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4-129. HEATER FUEL TANK FILLER NECK REPLACEMENT (M373A2D AND M373A5) (Con't).

b. INSTALLATION

1. Install retainer (6) in filler neck (7).
2. Secure cap (5) to retainer (6) using new retaining ring (4).
3. Install cap (5) onto filler neck (7).
4. Feed filler neck (7) through opening in frame (1) and position for installation.
5. Secure filler neck (7) to frame (1) using four screws (3) and new Iockwashers (2).
6. Underneath semitrailer, connect hose at fuel tank to filler neck (7) and tighten clamp.

4-130. HEATER FUEL INDICATOR ELECTRICAL LEAD AND TRANSMITTER REPLACEMENT (M373A2D AND M373A5).

This Task Covers:

a. Removal
b. Installation

initial Setup:

Equipment Conditions:

ŽFuel tank removed (para 4-126).
Fuel indicator removed (para 4-127).

Tools/Test Equipment:

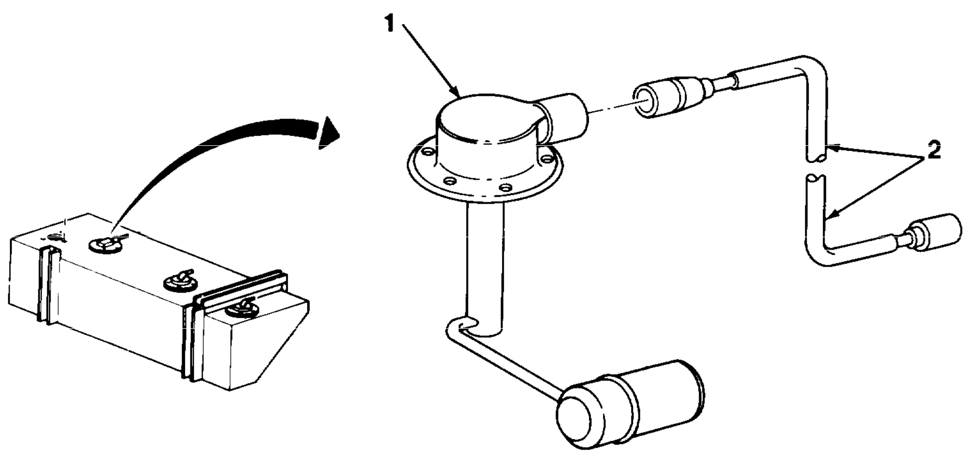
• General mechanic's tool kit

a. REMOVAL

NOTE

Transmitter is removed as part of fuel tank removal.

Disconnect electrical lead (2) from transmitter (1) and remove from semitrailer.



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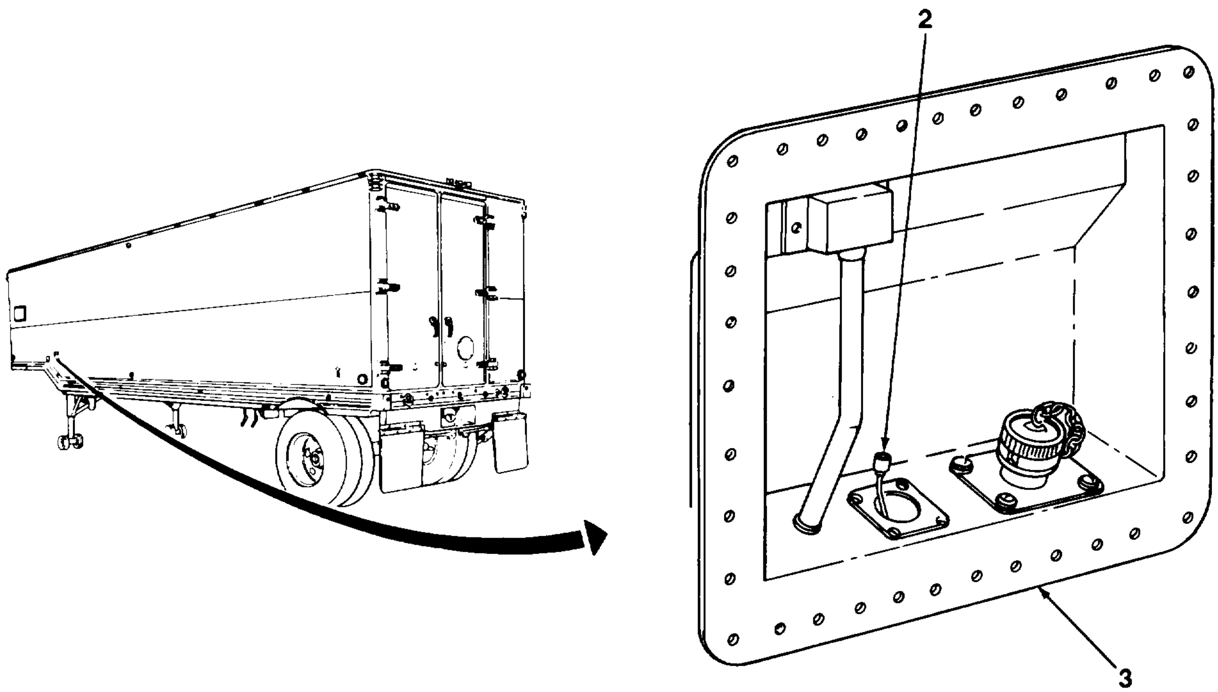
4-130. HEATER FUEL INDICATOR ELECTRICAL LEAD AND TRANSMITTER REPLACEMENT (M373A2D AND M373A5) (Con't).

b. INSTALLATION

1. Connect electrical lead (2) to transmitter (1).
2. Feed electrical lead (2) through opening in frame (3).



FOLLOW-ON TASKS:

- Install fuel tank (para 4-126).
- Install fuel indicator (para 4-127),

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4-131. HEATER FUEL LINES AND FITTINGS REPLACEMENT (M373A2D AND M373A5).

This Task *Covers:*

a. Fuel Line Removal
b. Fuel Line Installation
c. Bulkhead Connector Removal
d. Bulkhead Connector Installation
Fuel Pump Line Removal
e. Fuel Pump Line Installation
9. Fuel Tank Line Removal
h. Fuel Tank Line Installation

Initial Setup:

Equipment Conditions:

Ž Power disconnected from heater (TM 5-4520-233-14 or TM 5-4520-241-1 4).

Tools/Test Equipment:

• General mechanic's tool kit
Ž Drain pan

Materials/Parts:

ŽFuel line replacement:
- One grommet
- Ten lockwashers

Ž Bulkhead connector replacement:
- Two gaskets

• Fuel pump line replacement:
- Two grommets

• Fuel tank line replacement:
- One gasket
- Four lockwashers

WARNING

When working on heater fuel lines, the work area must be well-ventilated. Failure to follow this warning may result in injury to personnel.

NOTE

Use a drain pan to catch draining fuel. Clean up all spills.

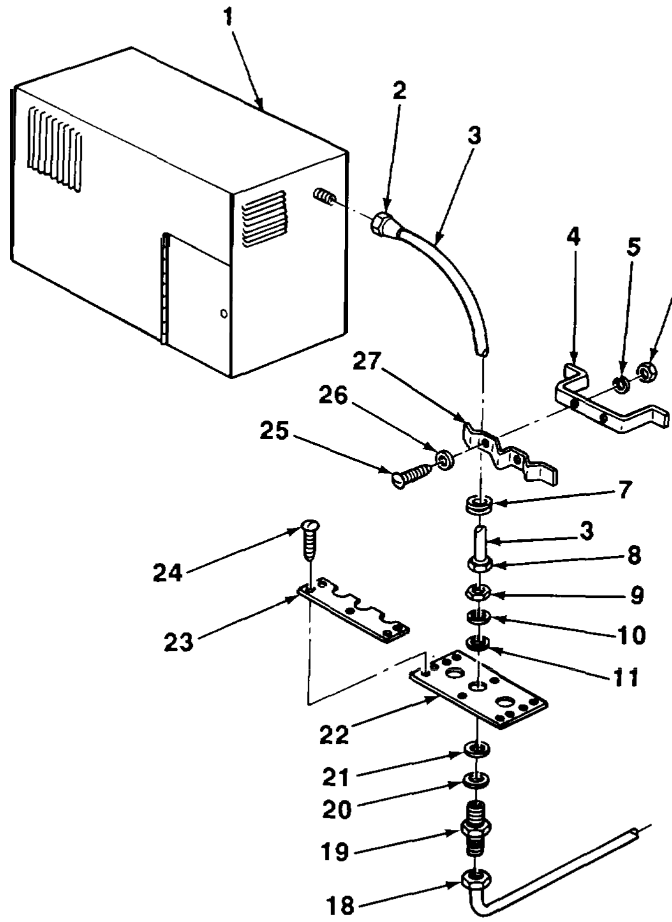
a. FUEL LINE REMOVAL

1. From underneath semitrailer, disconnect fitting (18) from bulkhead connector (19) and allow fuel to drain.
2. Inside semitrailer remove nuts (6), lockwashers (5), bolts (25), and flatwashers (26) from each of three clamps (27) mounted on brackets (4). Remove fasteners. Discard lockwashers.
3. Remove five screws (24) from each plate (23). Remove plates from semitrailer floor (22).
4. Disconnect fitting (8) from bulkhead connector (19).
5. Disconnect fitting (2) from heater (1) and remove fuel line (3).
6. Remove grommet (7) from lower end of fuel line (3). Discard grommet.

b. FUEL LINE INSTALLATION

1. Install new grommet (7) on lower end of fuel line (3).
2. Position fuel line (3) for installation and connect fitting (2) to heater (1).

4-131. HEATER FUEL LINES AND FITTINGS REPLACEMENT (M373A2D AND M373A5) (Con't).



3. Connect fitting (8) to bulkhead connector (19)
4. Install each plate (23) on semitrailer floor (22) using five screws (24). Ensure that grommet (7) is properly seated between plates.
5. Install each of three clamps (27) on brackets (4) using bolts (25), flatwashers (26), new lockwashers (5), and nuts (6).
6. Underneath semitrailer, connect fitting (18) to bulkhead connector (19).

c. BULKHEAD CONNECTOR REMOVAL

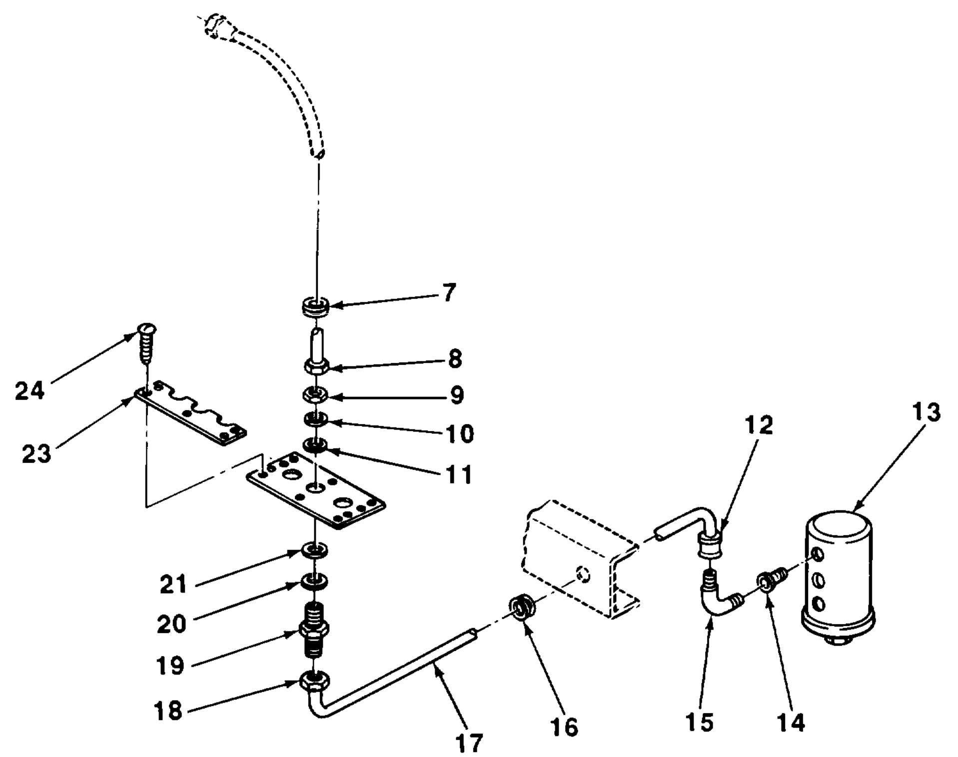
1. From underneath semitrailer, disconnect fitting (18) from bulkhead connector (19) and allow fuel to drain.
2. Inside semitrailer, remove five screws (24) from each plate (23). Remove plates.
3. Disconnect fitting (8) from bulkhead connector (19).
4. Remove nut (9), flatwasher (10), and gasket (11) from bulkhead connector (1 9). Discard gasket.
5. Remove bulkhead connector (19), flatwasher (20), and gasket (21) from underneath semitrailer. Discard gasket.

TA700376

4-131. HEATER FUEL LINES AND FITTINGS REPLACEMENT (M373A2D AND M373A5) (Con't).

d. BULKHEAD CONNECTOR INSTALLATION

1. Underneath semitrailer, install bulkhead connector (19), flatwasher (20), and new gasket (21).
2. Connect fitting (18) to bulkhead connector (19).
3. Inside semitrailer install new gasket (11), flatwasher (10), and nut (9) on bulkhead connector (19).
4. Connect fitting (8) to bulkhead connector (19).
5. Install each plate (23) using five screws (24). Ensure that grommet (7) is properly seated between plates,



e. FUEL PUMP LINE REMOVAL

1. Disconnect fitting (18) from bulkhead connector (19) and allow fuel to drain.
2. Disconnect fitting/(l 2) from elbow (15) installed on fuel pump (13).

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4-131. HEATER FUEL LINES AND FITTINGS REPLACEMENT (M373A2D AND M373A5) (Con't).

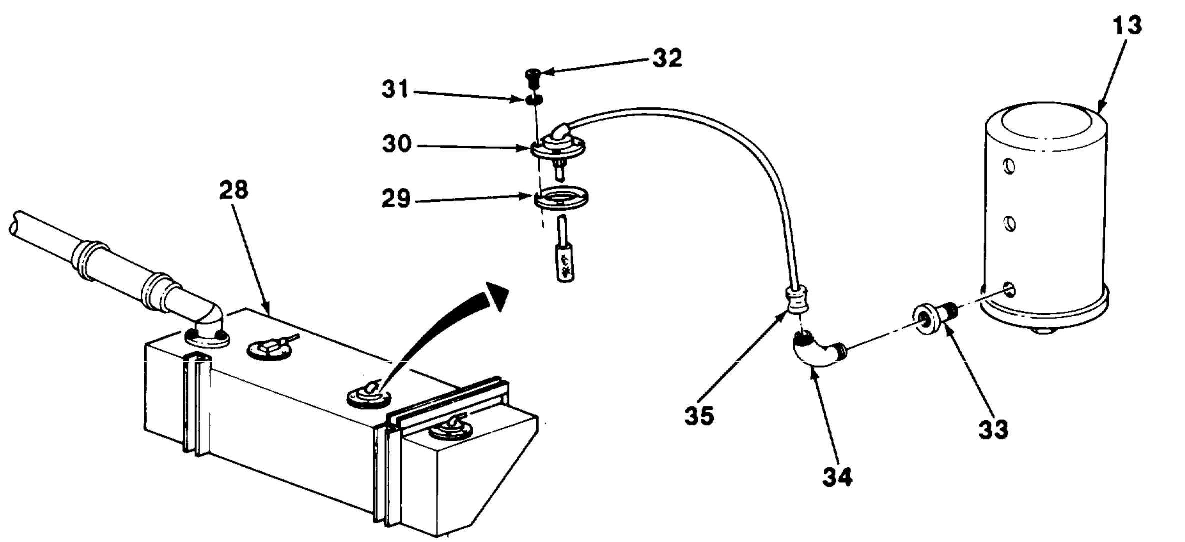
3. Remove fuel pump line (17) from semitrailer. Remove and discard two grommets (16).
4. Remove elbow (15) and sleeve (14) from fuel pump (13).

f. FUEL PUMP LINE INSTALLATION

1. Install sleeve (14) and elbow (15) in fuel pump (13).
2. Install two new grommets (16) in semitrailer frame.
3. Feed fuel pump line (17) through semitrailer frame and grommets (16).
4. Connect fitting (12) to elbow (1 5).
5. Connect fitting (18) to bulkhead connector (1 9).

g. FUEL TANK LINE REMOVAL

1. Remove fuel tank (28) (para 4-126).
2. Disconnect fitting (35) from elbow (34) and allow fuel to drain.
3. Remove four screws (32) and lockwashers (31). Remove flange and tube assembly (30) and gasket (28) from fuel tank (28). Discard gasket and lockwashers.
4. Remove elbow (34) and sleeve (33) from fuel pump (13).



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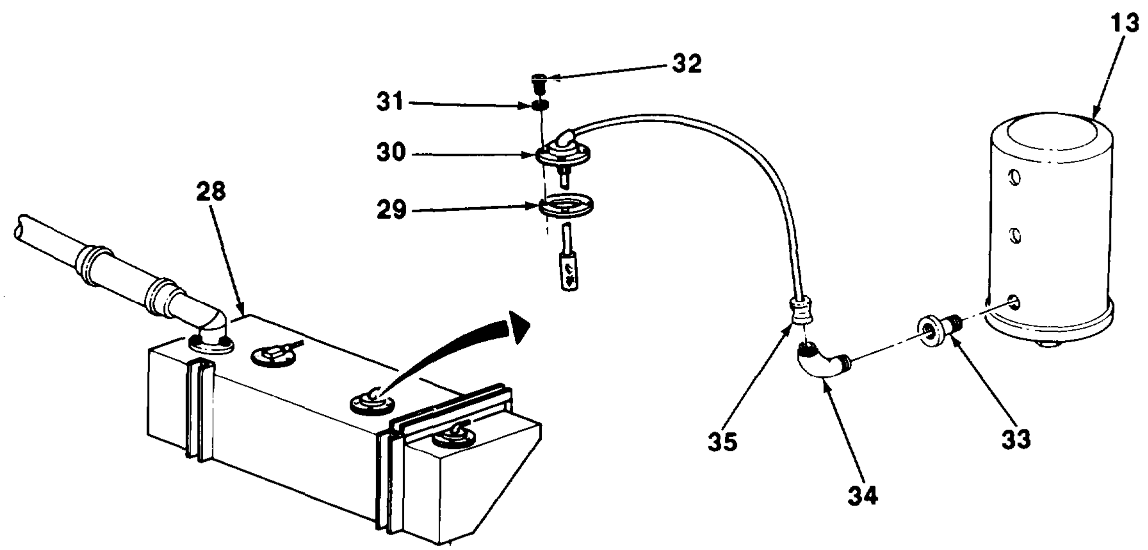
4-131. HEATER FUEL LINES AND FITTINGS REPLACEMENT (M373A2D AND M373A5) (Con't).

h. FUEL TANK LINE INSTALLATION

1. Install sleeve (33) and elbow (34) in fuel pump (13).
2. Install new gasket (29) and flange and tube assembly (30) on fuel tank (28) using four screws (32) and new lockwashers (31).
3. Connect fitting (35) to elbow (34).
4. Install fuel tank (28) (para 4-126).



FOLLOW-ON TASKS:

- Connect power to heater (TM 5-4520-233-14 or TM 5-4520-241-1 4).
- Start heater (para 2-18) and check for leaks.

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4-132. HEATER REPLACEMENT (M373A2D).

This Task Covers:

a. Removal b. Installation

Initial Setup:

Materials/Parts:

- Marker tags (Item 24, Appendix E)
- Fifteen rivets
- Eighteen lockwashers

Personnel Required: Two

Tools/Test Equipment:

- General mechanic's tool kit
- Drain pan
- Drill bit set
- Electric drill
- Rivet gun

a. REMOVAL

WARNING

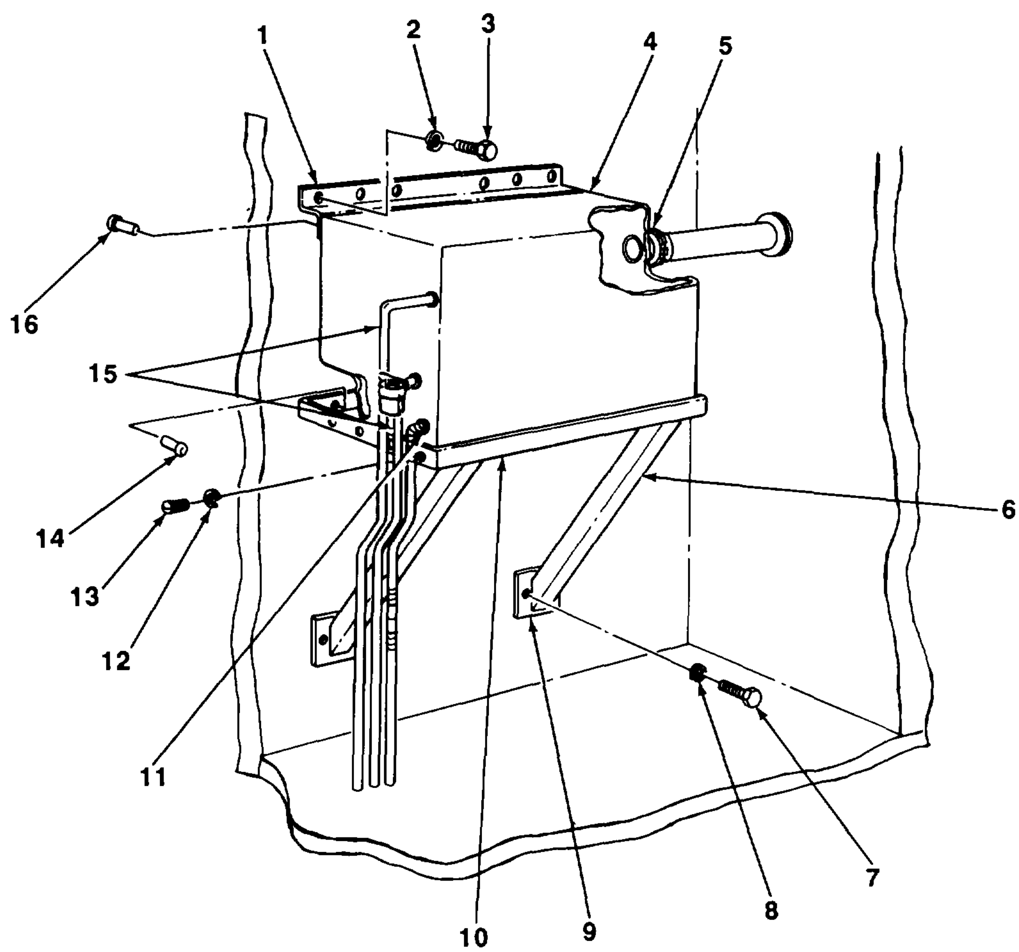
When working on heater and fuel lines and fittings, the work area must be well-ventilated. Failure to follow this warning may result in Injury to personnel.

NOTE

Use a drain pan to catch any draining fuel. Clean up all spills.

4-132. HEATER REPLACEMENT (M373A2D) (Con't).

1. Tag and disconnect fuel lines (15) from heater (4) and allow fuel to drain.
2. Disconnect electrical lead (11) from heater (4).
3. Remove six screws (3) and lockwashers (2) securing rail (1) to semitrailer wall. Discard lockwashers,
4. Remove eight screws (13) and lockwashers (12) securing heater (4) to frame (10). Discard lockwashers.
5. Disconnect union (5) from heater (4).
6. With aid of an assistant, lift heater (4) and remove from frame (10).
7. Remove three rivets (16) securing rail (1) to heater (4). Remove rail. Discard rivets.
8. Remove 12 rivets (14) securing frame (10) to semitrailer wall. Discard rivets,
9. Remove four screws (7) and lockwashers (8) securing plates (9) to semitrailer wall. Remove frame (1 O) with braces (6) and plates attached. Discard lockwashers.



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4-132. HEATER REPLACEMENT (M373A2D) (Con't).

b. INSTALLATION

1. Install frame (10) on semitrailer wall using 12 new rivets (14).
2. Secure braces (6) and plates (9) to semitrailer wall using four screws (7) and new Iockwashers (8).
3. Install rail (1) on heater (4) using three new rivets (16).
4. With aid of an assistant, lift heater (4) and position in frame (10).
5. Connect union (5) to heater (4).
6. Secure heater (4) to frame (10) using eight screws (13) and new Iockwashers(12).
7. Secure rail (1) to semitrailer wall using six screws (3) and new Iockwashers (2).
8. Connect fuel lines (15) to heater (4). Remove tags.
9. Connect electrical lead (11) to heater (4).

FOLLOW-ON TASKS:

- Check operation of heater (para 2-18).

4-133. HEATER REPLACEMENT (M373A5).

This Task Covers:

a. Removal b. Installation

Initial Setup:

Materials/Parts:

- Marker tags (Item 24, Appendix E)
- Twenty-eight Iockwashers

Tools/Test Equipment:

- General mechanic's tool kit
- Drain pan

Personnel Required: Two

a. REMOVAL

WARNING

When working on heater and fuel lines and fittings, the work are must be well-ventilated. Failure to follow this warning may result in injury to personnel.

NOTE

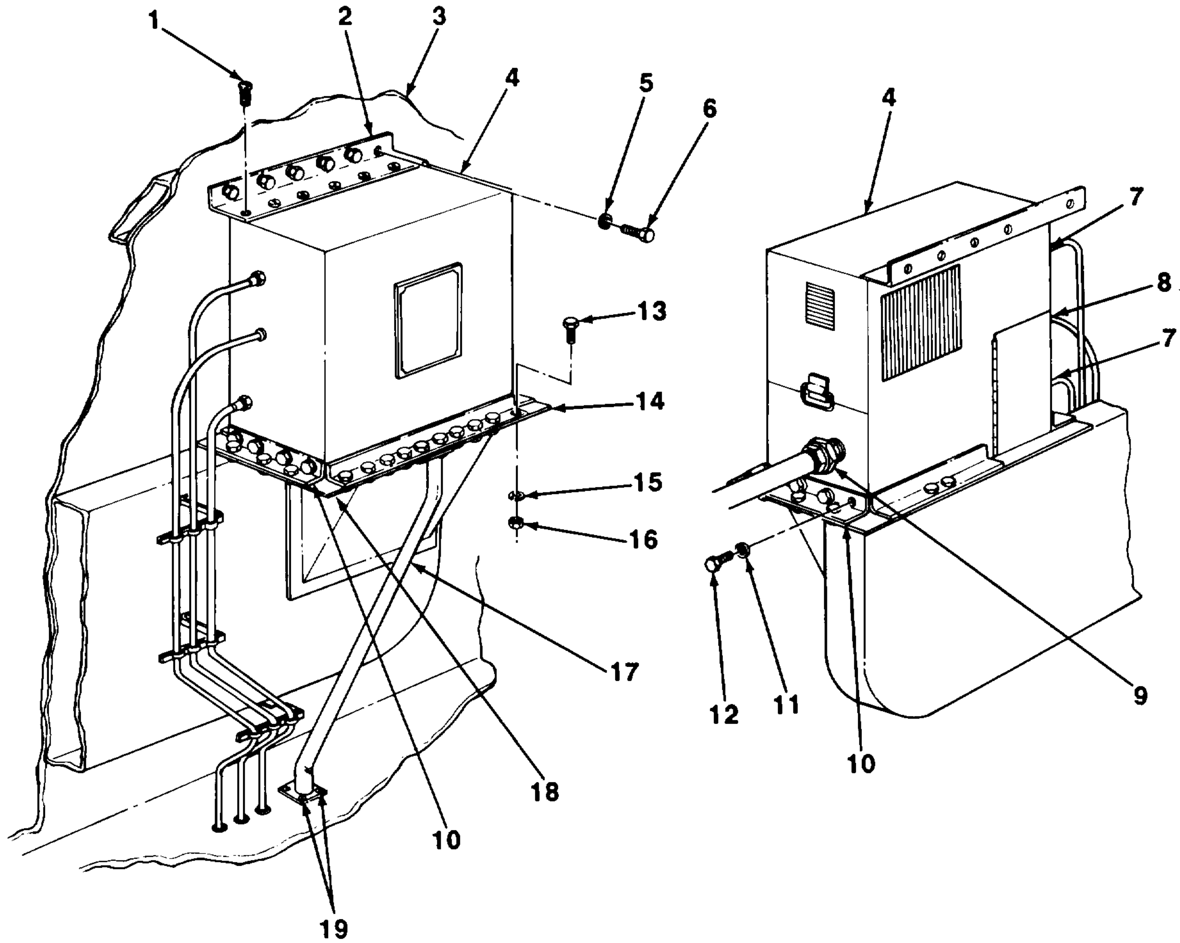
Use a drain pan to catch any draining fuel. Clean up all spills.

1. Tag and disconnect two fuel lines (7) from heater (4) and allow fuel to drain.
2. Disconnect electrical connector (8) from heater (4).
3. Remove six screws (6) and Iockwashers (5) securing rail (2) to semitrailer wall (3). Discard Iockwashers.
4. Remove six screws (1) securing rail (2) to heater (4).
5. Remove eight bolts (12) and Iockwashers (11) securing two angles (10) to heater (4). Discard Iockwashers.
6. Remove 14 nuts (1 6), Iockwashers (1 5), and bolts (13) securing two angles (10) and two angles (1 4) to support plate (18). Discard Iockwashers.
7. Disconnect union (9) from heater (4).
8. With aid of an assistant, remove heater (4) from semitrailer.
9. Remove support plate (18) from brace (17).
10. Remove four screws (19) brace (17).

b. INSTALLATION

1. Install brace (17) using four screws (19).
2. Install support plate (18) on brace (17).
3. With aid of an assistant, position heater (4) for installation and connect union (9).
4. Install two angles (10) and two angles (14) on plate (18) using 14 bolts (13), new Iockwashers (15), and nuts (1 6).

4-133. HEATER REPLACEMENT (M373A5) (Con't).



5. Secure two angles (10) to heater (4) using eight bolts (12) and new Iockwashers (11).

6. Install rail (2) on heater (4) using six screws (l).

7. Secure rall (2) to semitrailer wall (3) using six screws (6) and new Iockwashers (5).

a. Connect two fuel lines (7) to heater (4). Remove tags.

9. Connect electrical connector (8) to heater (4).

FOLLOW-ON TASKS:

Ž Check operation of heater (para 2-18).

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Section XV. PAINTING AND identification MARKING

4-134. PAINTING.

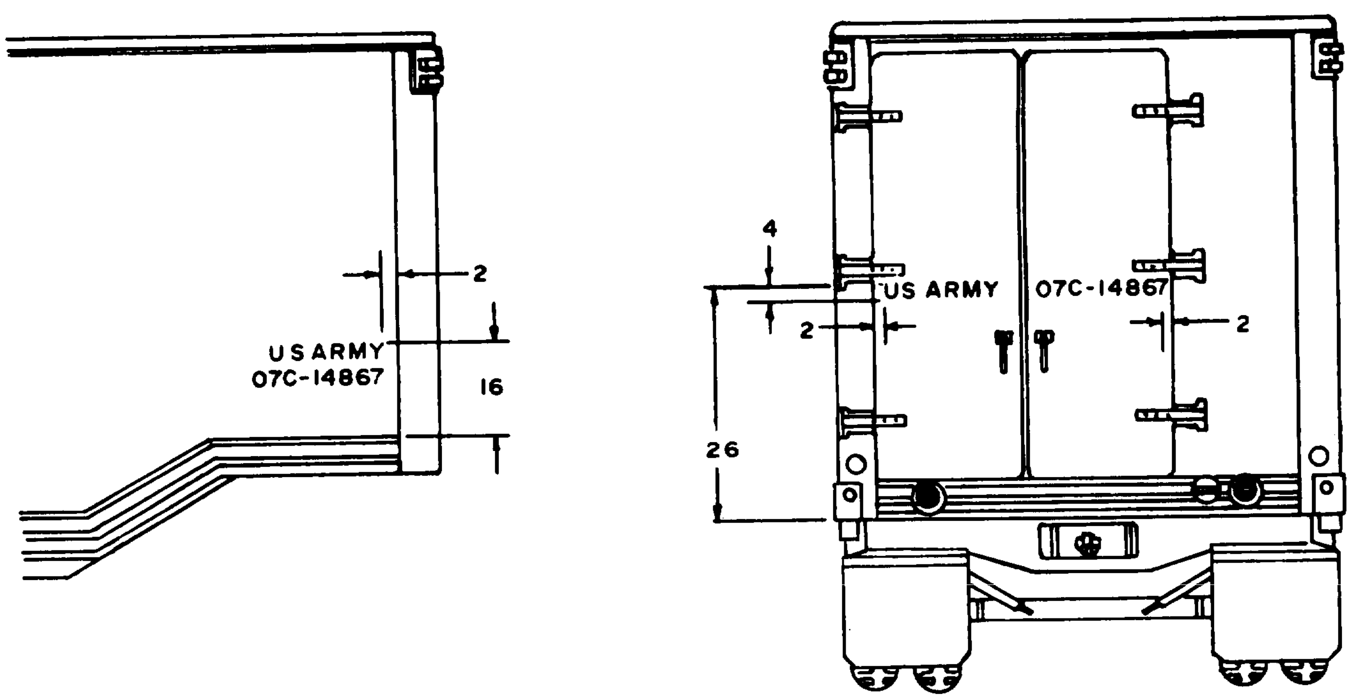
This Task *Covers:* Painting

PAINTING

a. Instructions for preparation of the materiel for painting, methods of painting, and materials to be used are contained in TM 43-0139.

b. Instructions for camouflage painting are contained in TB 43-0209.

c. Identification marking should be applied in accordance with illustration provided.



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Section XVI. PREPARATION FOR STORAGE OR SHIPMENT

4-135. GENERAL.

a. This section contains requirements and procedures for administrative storage of equipment that is issued to and in use by Army activities worldwide.

b. The requirements specified herein are necessary to maintain equipment in administrative storage in such away as to achieve the maximum readiness condition.

c. Equipment that is placed in administrative storage should be capable of being readied to perform its mission within a 24-hour period, or as otherwise maybe prescribed by the approving authority. Before equipments placed in administrative storage, a current Preventive Maintenance Checks and Services (PMCS) should be completed and deficiencies corrected.

d. Report equipment in administrative storage as prescribed for all reportable equipment.

e. Perform inspections, maintenance services, and lubrication as specified herein.

f. Records and reports to be maintained for equipment in administrative storage are those prescribed by DA Pam 738-750 for equipment in use.

g. A 10% variance is acceptable on time, running hours, or mileage used to determine the required maintenance actions.

h. Accomplishment of applicable PMCS, as mentioned throughout this section, will be on a quarterly basis.

4-136. DEFINITION OF ADMINISTRATIVE STORAGE.

The placement of equipment in administrative storage can be for short periods of time when a shortage of maintenance effort exists. Items should be ready for use within the time factors as determined by the directing authority. During the storage period, appropriate maintenance records will be kept.

4-137. PREPARATION OF EQUIPMENT FOR ADMINISTRATIVE STORAGE.

a. Storage Site.

(1) Select the best available site for administrative storage, Separate stored equipment from equipment in use. Conspicuously mark the area “Administrative Storage”.

(2) Covered space is preferred.

(3) Open sites should be improved hardstand, if available, Unimproved sites should be firm, well-drained, and kept free of excessive vegetation.

4-137. PREPARATION OF EQUIPMENT FOR ADMINISTRATIVE STORAGE (Con't).

b. Storage Plan.

(1) Store equipment so as to provide maximum protection from the elements and to provide access for Inspection, maintenance, and exercising. Anticipate removal or deployment problems and take suitable precautions.

(2) Take into consideration environmental conditions, such as extreme heat or cold; high humidity; blowing sand, dust, or loose debris; soft ground; mud; heavy snows; or combinations thereof, and take adequate precautions.

(3) Establish a fire plan and provide for adequate fire fighting equipment and personnel.

c. Maintenance Services and Inspection.

(1) Maintenance Services. Prior to storage, perform the next scheduled organizational PMCS.

(2) Inspection. Inspect and approve the equipment prior to storage. Do not place equipment in storage in a nonmission-capable condition.

d. **Auxiliary Equipment and Basic Issue Items.**

(1) Process auxiliary equipment and basic issue items simultaneously with the major item to which they are assigned.

(2) If possible, store auxiliary equipment and basic issue items with the major item.

(3) If stored apart from the major item, mark auxiliary equipment and basic issue items with tags indicating the major item, its registration or serial number and location, and store in protective type closures. In addition, place a tag or list indicating the location of the removed items in a conspicuous place on the major item.

e. Correction of Shortcomings and Deficiencies. Correct all shortcomings and deficiencies prior to storage, or obtain a deferment from the approving authority.

f. **Lubrication.** Lubricate equipment in accordance with instructions in Chapter 3, Section 1.

g. General Cleaning, Painting, and Preservation.

CAUTION

Do not direct water or steam, under pressure, against unsealed electrical systems or any exterior opening. Failure to follow this caution may result in damage to equipment.

(1) Cleaning. Clean the equipment of dirt, grease, and other contaminants, but do not use vapor decreasing.

(2) **Painting.** Remove rust and damaged paint by scraping, wire brushing, sanding, or buffing. Sand to a smooth finish and spot paint as necessary (TB 43-0209).

(3) **Preservation.** After cleaning and drying, immediately coat unpainted metal surfaces with oil or grease, as appropriate (Chapter 3, Section l).

CAUTION

Place a piece of barrier material (Item 5, Appendix E) between desiccant bags and metal surfaces to prevent corrosion.

NOTE

Air circulation under draped covers reduces deterioration from moisture and heat.

(4) Weatherproofing. Sunlight, heat, moisture (humidity), and dirt tend to accelerate deterioration. Install all covers (including vehicle protective closures) authorized for the equipment. Close and secure all openings except those required for venting and draining. Seal openings to prevent the entry of rain, snow, or dust. Insert desiccant when complete seal is required. Place equipment and provide blocking or framing to allow for ventilation and water drainage. Support cover away from item surfaces that may rust, rot, or mildew.

4-138. CARE OF EQUIPMENT IN ADMINISTRATIVE STORAGE.

a. **Maintenance Services.** After equipment has been placed in administrative storage, inspect, service, and exercise as specified herein

b. **Inspection. Inspection** will usually be visual and must consist of at least a walk-around examination of all equipment to detect any deficiencies. Inspect equipment in open storage weekly and equipment in covered storage monthly. Inspect all equipment immediately after any severe storm or environmental change. The following are examples of things to look for during a visual inspection:

(1) Low or flat tires.

(2) Condition of preservatives, seals, and wraps.

(3) Corrosion or other deterioration.

(4) Missing or damaged parts.

(5) Water in compartments.

(6) Any other readily recognizable shortcomings or deficiencies.

c. Repair During Administrative Storage. Keep equipment in an optimum state of readiness. Accomplish the required services and repairs as expeditiously as possible. Whenever possible, perform all maintenance on-site.

d. **Exercising.** Exercise equipment in accordance with Table 4-3, *Exercise Schedule,* and the following instructions.

(1) **Vehicle Major Exercise.** Depreserve equipment by removing only that material restricting exercise. Close all drains, remove blocks, and perform all before-operation checks. Couple semitrailer to towing vehicle, and drive for at least 25 mi (40 km). Make several right and left 90° turns. Make several hard braking stops without skidding. Do the following during exercising when it is convenient and safe: operate all other functional components and perform all during- and after-operation checks.

(2) **Scheduled Services.** Scheduled services will include inspection per subparagraph b above, and will be conducted in accordance with Table 4-3. Lubricate in accordance with instructions in Chapter 3, Section 1.

(3) **Corrective Action.** Immediately take action to correct shortcomings and deficiencies noted. Record inspection and exercise results on DA Form 2404, Record and report all maintenance actions on DA Form 2407. After exercising, restore the preservation to the original condition. Replenish lubricants used during exercising, and note the amount on DA Form 2408.

Table 4-3. Exercise Schedule.

Weeks	2	4	6	8	10	12	14	16	18	20	22	24
PMCS						x						x
Scheduled Services		x		x		x		x		x		
Major Exercise												x

e. Rotation. Rotate items in accordance with any rotational plan that will keep the equipment in an operational condition and reduce the maintenance effort.

4-139. PROCEDURES FOR COMMON COMPONENTS AND MISCELLANEOUS ITEMS.

a. Tires. Visually inspect tires during each walk-around inspection. This inspection includes checking tires with a tire gage. Inflate, repair, or replace as necessary those found to be low, damaged, or excessively worn. Mark inflated and repaired tires with a chalk for checking at the next inspection.

b. **Air Lines and Pressure Tank.** Drain air lines and pressure tank of condensation, and leave draincock open. Attach a caution tag, annotated to provide for closing of draincock when the equipment is exercised. Place tags in a conspicuous location.

4-139. PROCEDURES FOR COMMON COMPONENTS AND MISCELLANEOUS ITEMS (Con't).

c. Seals. Seals may develop leaks during storage, or shortly thereafter. If leaking persists, refer to the applicable maintenance section in this manual for corrective maintenance procedures.

4-140. REMOVAL OF EQUIPMENT FROM ADMINISTRATIVE STORAGE.

a. **Activation.** Restore the equipment to normal operating condition in accordance with the instructions contained in Chapter 4, Section II.

b. **Servicing.** Resume the maintenance service schedule in effect at the commencement of storage, or service the equipment before the scheduled dates in order to produce a staggered maintenance workload.

4-141. PREPARATION OF EQUIPMENT FOR SHIPMENT.

a. Refer to, TM 55-601, and TM 743-200-1, and FM 55-21 for additional instructions on processing, storage, and shipment of materiel.

b. Semitrailers that have been removed from storage for shipment do not have to be reprocessed if they will reach their destination within the administrative storage period. Reprocess only if inspection reveals any corrosion, or if anticipated in-transit weather conditions make it necessary.

c. When a semitrailer is received and has already been processed for domestic shipment, as indicated on DD Form 1397, the semitrailer does not have to be reprocessed for storage unless corrosion and deterioration are found during the inspection upon receipt. List on SF 364 all discrepancies found because of poor preservation, packaging, packing, marking, handling, loading, storage, or excessive preservation. Repairs that cannot be handled by the receiving unit must have tags attached listing needed repairs. A report of these conditions will be submitted by the unit commander for action by an ordnance maintenance unit.

4-142. PREPARATION OF SEMITRAILER FOR AIRCRAFT LOADING.

This Task Covers:

a. Dolly Removal
b. Dolly Installation

Initial Setup:

Materials/Parts:

Ž Pressure sensitive tape (item 29, Appendix E)
Ž Twenty-four lockwashers

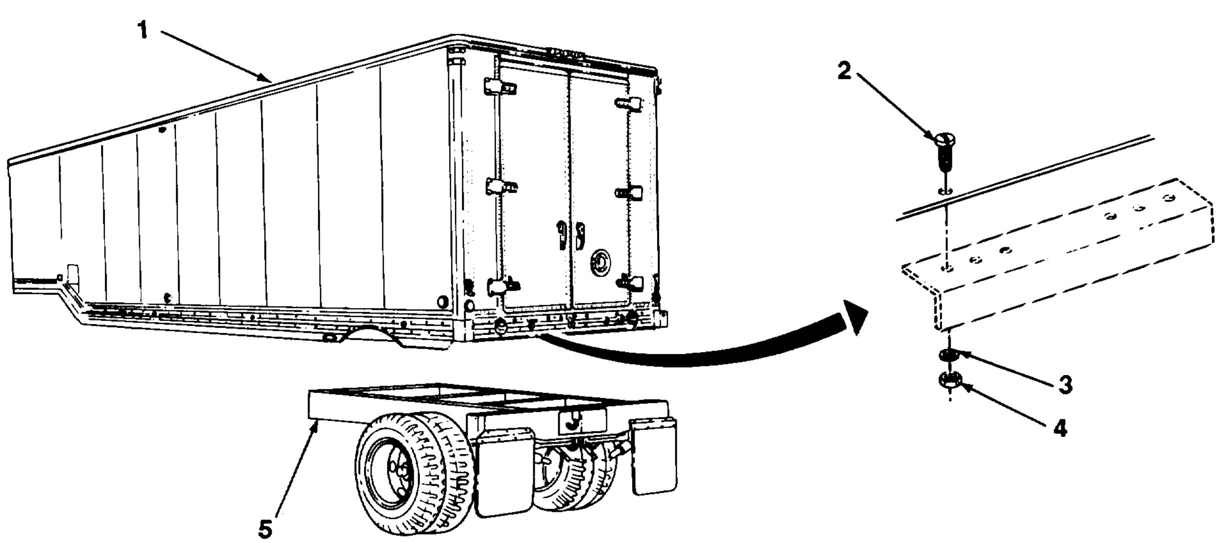
Personnel Required: Three

Tools/Test Equipment:

• General mechanic's tool kit
Ž Hoist equipped with van width spreader bars, cables, and hooks
. Torque wrench

a. DOLLY REMOVAL

1. Open draincock and drain pressure tank.
2. Place one chock block in front of one wheel and the other chock block at the rear of the wheel on the other side.
3. Remove 12 ft access iadder, personnel boarding ladders, and any attaching hardware such as ladder brackets and equipment stowage compartments that may extend below chassis siderails.
4. Uncouple two airlines from their connection under semitrailer chassis and connect to dummy coupling bracket under front of left dolly siderail. Ensure that the dummy couplings are installed on service and emergency air couplings at front of semitrailer.
5. Disconnect electrical wiring harness from receptacle adjacent to dolly air couplings. Hooks are provided on chassis crossmember for stowage of free end of harness. Cover end of harness plug and doily receptacle with pressure sensitive tape to keep out moisture.
6. With adequate means of support under front of semitrailer, remove landing gear and braces (para 4-77 or 4-78).
7. Remove 24 nuts (4), Iockwashers (3), and bolts (2) securing semitrailer body (1) to dolly (5). Discard lock-washers.



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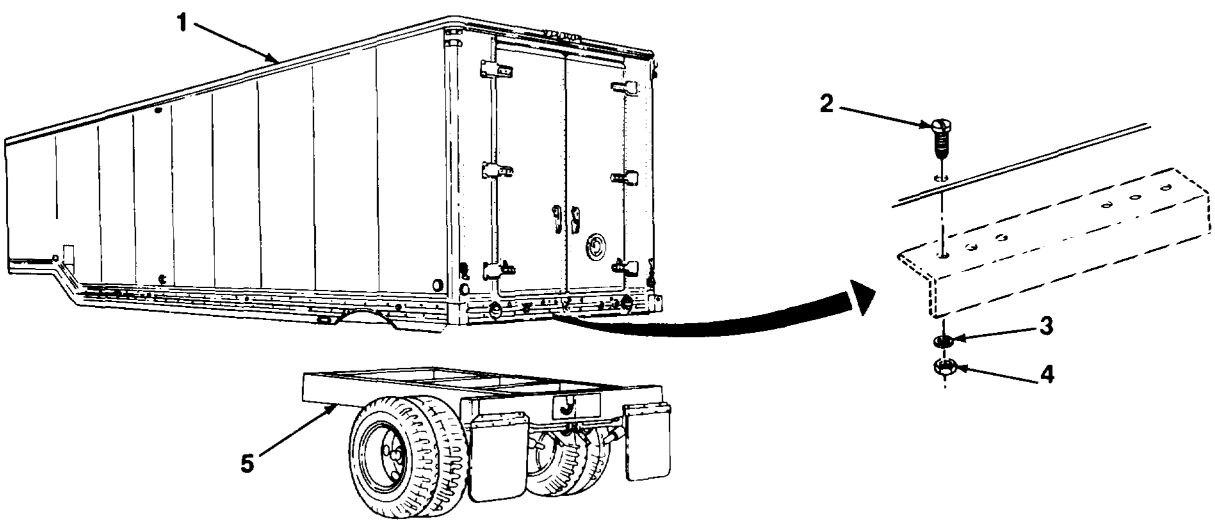
4-142. PREPARATION OF SEMITRAILER FOR AIRCRAFT LOADING (Con't).

8. Fully extend lifting eyes on both sides of semitrailer body (l).

CAUTION

Provide support under front of dolly to keep If from tilting forward when body Is removed.

9. Using a hoist, securely connect hooks to extended lifting eyes and lift semitrailer body (1) from dolly (5).
10. Move dolly (5) back and away from semitrailer body (1).
11. Ensure that no parts extend below chassis siderails. Lower semitrailer body (1) to blocks or rollers on the ground and remove hooks.



b. DOLLY INSTALLATION

1. Roll dolly (5) into position. Support front end of dolly to prevent it from tilting forward. Place one chock block in front of one wheel and the other chock block at the rear of the wheel on the other side.
2. Fully extend lifting eyes on both sides of semitrailer body (l).
3. Using a hoist, securely connect hooks to extended lifting eyes and lift semitrailer body (1) into position over dolly (5).
4. Lower semitrailer body (1) onto dolly (5). Install semitrailer body on dolly using 24 bolts (2), new Iockwashers (3), and nuts (4). Continue to support semitrailer body with hoist. Torque nuts to 150 Ib.-ft. (203 N•m).
5. Install landing gear and braces (para 4-77 or 4-78). Lower landing gear to support front of semitrailer. Remove hooks and hoist from semitrailer body.
6. Remove pressure sensitive tape from wiring harness plug and dolly receptacle. Connect electrical wiring harness to receptacle adjacent to dolly air couplings.

TA700384

4-142. PREPARATION OF SEMITRAILER FOR AIRCRAFT LOADING (Con't).

7. Remove dummy couplings from service and emergency air couplings at front of semitrailer. Remove two air lines from dummy coupling bracket under front of left dolly siderail and connect to proper air couplings under semitrailer chassis.

8. Install 12 ft access ladder, personnel boarding ladders, and any attaching hardware such as ladder brackets and equipment stowage compartments that were removed.

9. Close draincock on pressure tank.

CHAPTER 5
DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE

Section 1. BRAKEDRUMS MAINTENANCE

5-1. BRAKEDRUM REPAIR.

This Task Covers:

a. Inspcection

b. Repair

Initial Setup:

Equipment Conditions:

- Hub and brakedrum removed (para 4-69).

Tools/Test Equipment:

- General mechanic's tool kit
- Field automotive shop set
- Brakedrum lathe
- Dial indicator
- Inside micrometer, with extension

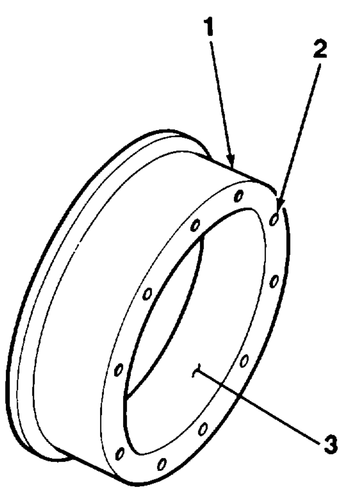
5-1. BRAKEDRUM REPAIR (Con't).

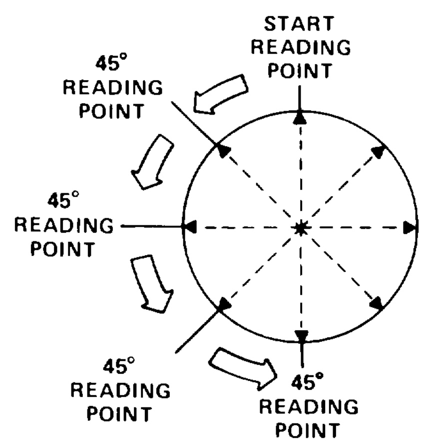
a. INSPECTION

WARNING

DO NOT handle brakeshoes, brakedrums, or other brake components unless area has been properly cleaned. There may be asbestos dust on these components which can be dangerous if you touch It or breathe It. Wear an approved filter mask and gloves. Never use compressed air or a dry brush to clean brake components. Dust may be removed using an industrial-type vacuum cleaner. Clean dust or mud away from brake components with water and a wet, soft brush or cloth. Failure to follow this warning may result in serious illness or death to personnel.

1. Inspect brakedrum (1) for cracks, particularly around stud holes (2). Discard brakedrum if cracked.
2. Inspect braking surface (3) for cracks, heat checking, and scoring. Reface braking surface if damaged (subpara b).
3. Inspect braking surface (3) for out-of-round condition at 45° intervals. Out-of-round should not exceed 0.006 in. (0.1 5 mm). If runout exceeds 0.006 in. (0.15 mm), reface braking surface (subpara b).
4. Measure inside diameter of brakedrum (l). Discard brakedrum if inside diameter exceeds 16.505 in. (41 .92 cm).





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5-1. BRAKEDRUM REPAIR (Con't).

b. REPAIR

1. Reface braking surface (3) using a brakedrum lathe. Remove a maximum of 0.01 in. (0.25 mm) per cut.
2. If finishing requires removal of more than 1/16 in. (15.86 mm) of material 1/8 in. (31.75 mm) in diameter], replace brakedrum (1).
3. Replace brakedrum (1) if inside diameter exceeds 16.505 in. (41.92 cm) after refacing.

FOLLOW-ON TASKS:

- Install hub and brakedrum (para 4-69),

5-2. TIRE REPAIR.

Refer to TM 9-2610200-14 for instructions on tire repair.

Section II. FRAME AND TOWING ATTACHMENTS MAINTENANCE

5-3. KINGPIN REPLACEMENT (ALL EXCEPT XM1007).

This Task Covers:

a. Removal

b. Installation

Initial Setup:

Materials/Parts:

- Primer coating (Item 19, Appendix E)

References:

- TB SIG 222
- TM 43-0139

Tools/Test Equipment:

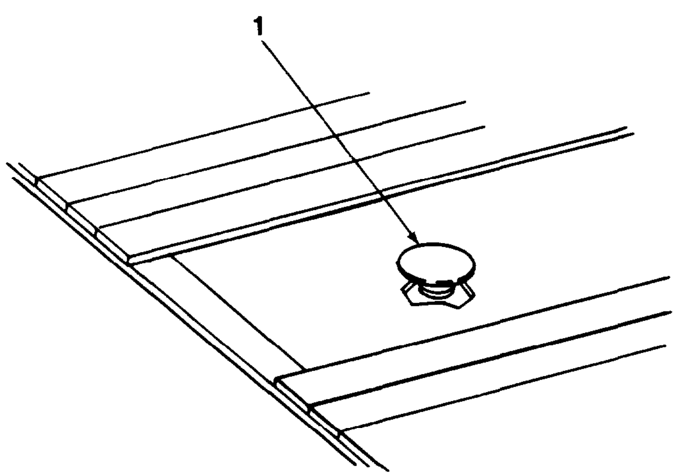
- General mechanic's tool kit
- 300 amp arc welder
- 90 psi (621 kPa) air supply

WARNING

Wear welding mask, gloves, and apron when welding or using cutting torch. Failure to wear adequate protective clothing may result In serious injury.

a. REMOVAL

1. Remove semitrailer flooring, deck, and middle metal plate as required to gain access to top surface of kingpin (l).



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5-3. KINGPIN REPLACEMENT (ALL EXCEPT XM1007) (Con't).

WARNING

Compressed air used for cleaning or drying purposes, or for clearing restrictions, should never exceed 30 psi (207 kPa). Wear protective clothing (goggles/shieid, gloves, etc.) and use caution to avoid injury to personnel.

2. Using air-arc process, remove welds securing upper surface of kingpin (1) and plug welds from kingpin '[mushroom." Care must be taken to minimize damage to bolster plate.

3. Remove kingpin (l).

b. INSTALLATION

1. Grind area of the bolster plate under kingpin "mushroom" flush so that new kingpin (1) will lie flat on bolster plate.

2. install kingpin (l). Locate holes in kingpin top in the same manner as the one removed.

3. Preheat kingpin (1) and bolster plate to 150°F(66°C) and maintain temperature throughout welding process.

4. Weld kingpin "mushroom" to bolster plate with ¼ in. (6.35 mm) fillet weld 2 in. (5.1 cm) long at four equally spaced points on edge of flange and plug weld the holes in the "mushroom." Welds are to be in accordance with TB SIG 222. Use 100,000 psi (689,500 kPa) electrode.

5. inspect weld with dye penetrant or magnetic particle inspection, No cracks are allowed. Any cracks found must be repaired.

6. Prime and paint top of kingpin (1) and bolster plate (TM 43-0139).

7. Replace semitrailer middle metal plate, deck, and flooring as required.

5-4. RESILIENT KINGPIN REPLACEMENT (XM1007).

This Task Covers:

a. Removal

b. Installation

Initial Setup:

Equipment Conditions:

Ž Semitrailer uncoupled from towing vehicle (para 2-20).

Tools/Test Equipment:

- General mechanic's tool kit
- Fork lift

Materials/Parts:

- Thirty-six lockwashers

Personnel Required: Two

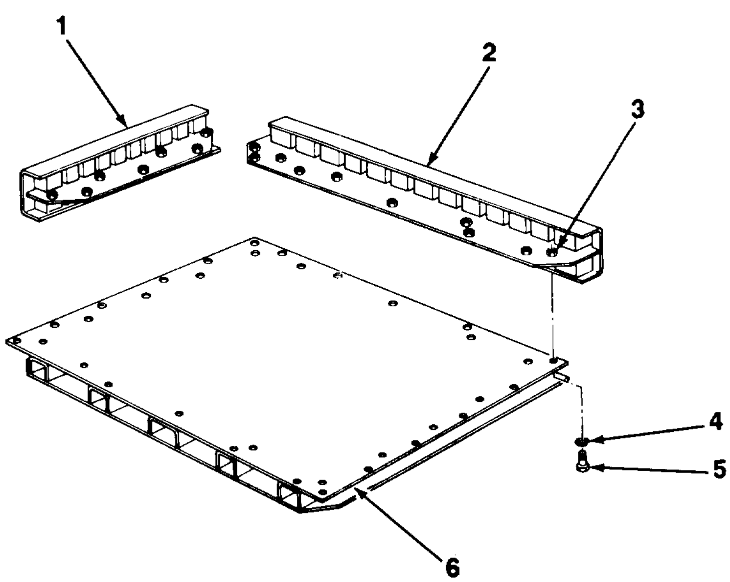
WARNING

Use extreme caution, provide adequate support, and use assistance when handling heavy parts. Keep clear of heavy parts supported only by lifting device. Failure to follow this warning may cause serious injury or death to personnel.

a. REMOVAL

1. Use a suitable support to remove weight from fifth wheel plate (6).

2. Remove 36 screws (5), lockwashers (4), and nuts (3). Remove and lower fifth wheel plate (6) from four shock absorbers (1 and 2). Discard lockwashers.



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5-4. RESILIENT KINGPIN REPLACEMENT (XM1007) (Con't).

b. INSTALLATION

1. Position fifth wheel plate (6) for installation under four shock absorbers (1 and 2).
2. Secure fifth wheel plate (6) to four shock absorbers (1 and 2) using 36 screws (5), new lockwashers (4), and *nuts* (3).

FOLLOW-ON TASKS:

- Couple semitrailer to towing vehicle (para 2-10).

5-5. LANDING GEAR REPAIR (EARLY MODEL).

This Task Covers:

a. Disassembly
b. Cleaning and Inspection
c. Assembly

Initial Setup:

Equipment Conditions:

- Landing gear removed (para 4-77).

Tools/Test Equipment:

- General mechanic's tool kit
- Arbor press
- Drill bit set
- Electric drill

Materials/Parts:

- Abrasive cloth (Item 9, Appendix E)
- Dry cleaning solvent (Item 13, Appendix E)
- Grease (Item 14, Appendix E)
- Primer coating (Item 19, Appendix E)
- One gasket
- One locknut
- Two spring pins

References:

- TM 43-0139

a. Disassembly

1. Remove nut (28) and bolt (25) securing wheel (24) to axle (27). Remove two wheels and wheel caps (26) from axle.

2. Remove axle (27) from lower leg (29).

3. Use adrift pin inserted through hole in landing gear shaft (11) to turn shaft until lower leg (29) is in fully retracted position.

4. Remove four screws (1). Remove cover (2), gasket (3), spring (9), and ball bearing (1 O) from gearbox (37). Discard gasket.

5. Drive out pin (12) and spring pin (14) securing bevel gear (5) to shaft (1 1). Remove shaft and bevel gear from gearbox (37). Discard spring pin.

6. Drive out pin (18) securing gear cluster (38) to shaft (17).

7. Drive out spring pin (19) securing gear cluster (8) to shaft (1 7). Remove shaft, woodruff key (1 3), flatwasher (6), gear clusters (8 and 38) from gearbox (37). Discard spring pin.

8. Remove locknut (4) and retaining band (40). Discard locknut.

NOTE

Removal of tapered roller bearing from left-hand landing gear leg gearbox includes removing bearing cup.

9. Using brass drift, drive landing gear screw (23) down until bevel gear (39), machine key (22), and tapered roller bearing (7) with cup can be removed from gearbox (37).

10. Remove plug (32), spring clip (33), and gib (34) from upper leg (20).

11. Remove lower leg (29), including screw (23) and roller bearing (21), from upper leg (20).

5-5. LANDING GEAR REPAIR (EARLY MODEL) (Con't).

12. Remove roller bearing (21) from screw (23).

13. Remove machine key (22) from nut (30) in lower leg (29).

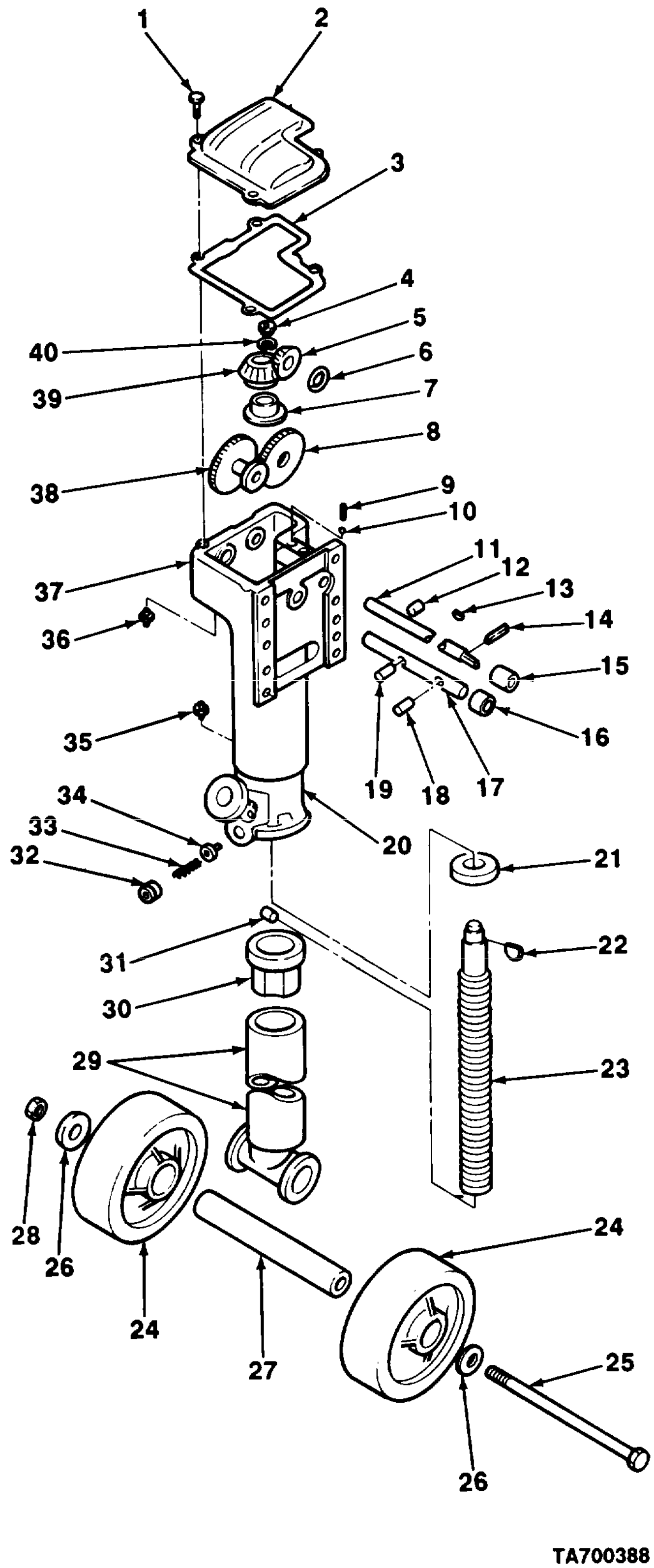
NOTE

Do not perform steps 14 through 16 unless inspection indicates that parts are unserviceable.

14. **Drive** out two pins (31) securing nut (30) to lower leg (29). Remove nut.

15. Using arbor press (or equivalent), remove sleeve bearings (15 and 16) from gearbox (37).

16. Remove two lubrication fittings (35 and 36) from upper leg (20).



b. CLEANING AND INSPECTION

1. Wipe all park clean.

WARNING

Dry cleaning solvent, P-D-680, is toxic and flammable. Always wear protective goggles and gloves, and use only In a well-ventilated area. Avoid contact with skin, eyes, and clothes, and DO NOT breathe vapors. DO NOT use near open flame or excessive heat. The solvent's flash point Is 100°F-138°F (38°C-59°C). If you become dizzy while using cleaning solvent, immediately get fresh air and medical help. If solvent contacts eyes, immediately wash your eyes and get medical aid.

2. Remove old lubricant using dry cleaning solvent.

3. Clean roller bearings, gears, and screw threads thoroughly.

4. Inspect all parts for wear, distortion, and cracks. Replace all unserviceable parts.

5. Check gears for worn, cracked, or broken teeth. Remove burrs with fine file or abrasive cloth.

6. Check bearings, bearing cup, and sleeve bearings for excessive wear.

7. Check landing gear screw, crank, and gearshafts for wear and straightness. Roll screw and shafts on flat surface to check straightness.

5-5. LANDING GEAR REPAIR (EARLY MODEL) (Con't).

8. Screw nut onto screw and check full length of screw for ease of operation or wear. Remove nut after inspection.

9. Check gib and its contacting grooved surface in lower leg for burrs and wear. Remove burrs with fine file and finish with fine abrasive cloth.

10. Insert lower leg in upper leg and simulate full retraction and extension. Check for ease of operation.

11. Check wheels and axl for ease of operation and alinement.

12. Allparts found serviceable after inspection and repair must be rust and corrosion free. Use fine file or abrasive cloth to clean affected areas.

13. inspect all exterior surfaces for chipped paint, Scrape loose paint, clean and dry area, and prime coat (TM 43-01 39).

c. ASSEMBLY

1. if sleeve bearings (15 and 16) were removed, position new sleeve bearings in gearbox (37). Press in place using an arbor press or equivalent. Match drll from gearbox a 27/84 in. (1 .07 cm) diameter hole through top of new sleeve bearing (16) to allowball bearing (10) to contact shaf t(11). Remove burrs and loose chips.

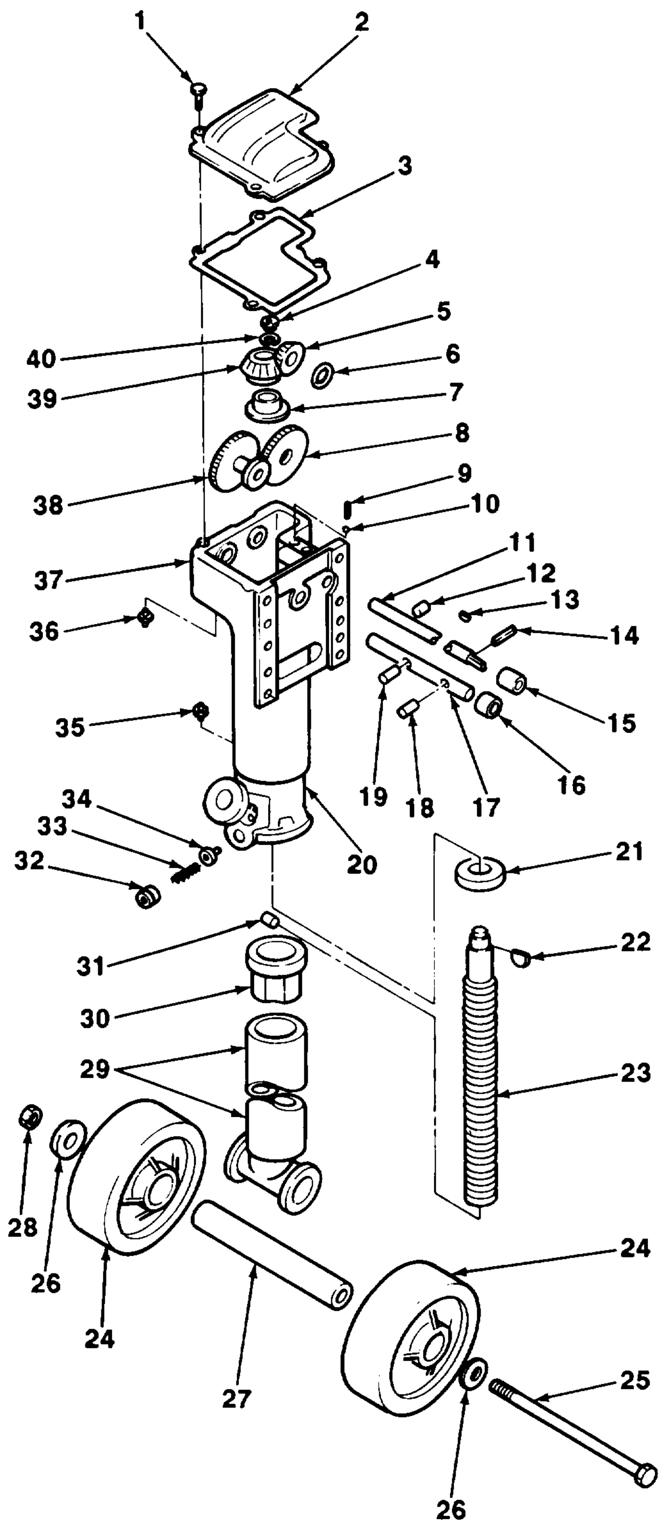
2. if removed, install nut (30) in lower leg (29) using arbor press or equivalent. Ensure that holes for pins (31) are in perfect alinement.

3. If removed, install two pins (31) to secure nut (30) to lower leg (29). Ensure that pins are fully seated to prevent binding on screw (23).

4. Lubricate screw (23) with grease. install screw in nut (30). Engage screw about half its total length.

5. Lubricate roller bearing (21) with grease. install roller bearing on screw (23) and insert entire lower leg (29) into upper leg (20) until roller bearing contacts underside of gearbox (37).

6. Lubricate bevel gear (39) with grease. Assemble machine key (22), bevel gear, and retaining band (40) to top of screw (23) and secure with new locknut (4).



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5-5. LANDING GEAR REPAIR (EARLY MODEL) (Con't).

7. Rotate lower leg (29) to aline gib (34) with contact groove in upper leg (20). Lubricate gib contact groove with grease. Install gib, spring clip (33), and plug (32).
8. Install shaft (17), gear cluster (38), woodruff key (13), gear cluster (8), and flatwasher (6) in gearbox (37).
9. Install pin (18) to secure gear cluster (38) to shaft (17).
10. Install new spring pin (19) to secure gear cluster (8) to shaft (17).
11. Install shaft (11) and bevel gear (5) in gearbox (37).
12. Install pin (12) and new spring pin (14) to secure bevel gear (5) to shaft (1 1).
13. Make a preliminary operation check by turning shaft (11) to retract and extend lower leg (29).
14. If removed, install two lubrication fittings (35 and 36) in upper leg (20).
15. Install ball bearing (1 O) and spring (9) in gearbox (37).
16. Pack gearbox (37) with grease.
17. Install new gasket (3) and cover (2) on gearbox (37) using four screws (l).
18. Lubricate axle (27) with grease. Install axle through lower leg (29).
19. Install two wheels (24) and wheel caps (26) on axle (27) using bolt (25) and nut (28).
20. Make final operational check. Ensure that crankshaft maintains its setting during high and low speed operation.

FOLLOW-ON TASKS:

- Install landing leg (para 4-77).

Section III. UNIT HEATER MAINTENANCE

5-6. UNIT HEATER REPAIR.

For information on repair of unit heater refer to TM5-4520-233-14 for the M373A2D and TM 5-4520-241-14 for the M373A5.

APPENDIX A
REFERENCES

A-1. SCOPE.

This appendix lists forms, field manuals, technical manuals, and other publications referenced in this manual and which apply to operation, organizational maintenance, and direct and general support maintenance of M348 and M373 series semitrailers and XM1005 and XM1007 semitrailers.

A-2. PUBLICATION INDEX.

DA Pam 25-30, *Consolidated index of Arrny Publications and Blank Forrns,* should be consulted frequently for latest changes or revisions and for new publications relating to materiel covered in this technical manual.

A-3. FORMS.

Refer to DA Pam 738-750 *The Army Maintenance Management System (TAMMS)* for instructions on the use of Maintenance Forms.

Equipment Inspection and Maintenance Worksheet . . . . DA Form 2404
Equipment Log Assembly (Records) . . . . DA Form 2408
Maintenance Request Form . . . . DA Form 2407
Organizational Control Record for Equipment . . . . DA Form 2401
Preventive Maintenance Schedule and Record . . . . DD Form 314
Processing and Reprocessing Record for Shipment, Storage and Issue of Vehicles and Spare Engines . . . . DD Form 1397
Product Quality Deficiency Report. . . . . SF 368
Recommended Changes to Equipment Technical Publications . . . . DA Form 2028-2
Recommended Changes to Publications and Blank Forms . . . . DA Form 2028

A-4. FIELD MANUALS.

Army Motor Transport Units and Operations . . . . FM 55-30
Field Hygiene and Sanitation . . . . FM 21-10
First Aid for Soldiers . . . . FM 21-11
General Fabric Repair . . . . FM 10-16
Manual for the Wheeled Vehicle Driver . . . . FM 21-305
NBC Contamination Avoidance . . . . FM 3-3
NBC Decontamination . . . .FM 3-5
NBC Protection . . . .FM 3-4
Operation and Maintenance of Ordnance Material in Cold Weather (0°to-65°F) . . . . .FM 9-207

A-5. SUPPLY BULLETINS.

Storage Serviceability Standard: Tracked Vehicles, Wheeled Vehicles, and Component Parts . . . . .SB 740-98-1

A-6. TECHNICAL BULLETINS.

Color, Marking, and Camouflage Painting of Military Vehicles, Construction Equipment, and Materials Handling Equipment . . . . TB 43-209

A-6. TECHNICAL BULLETINS (Con't).

Equipment Improvement Report and Maintenance Digest
(U.S. Army Tank-Automotive Command) Tank Automotive Equipment Series . . . . TB 43-0001-39

Maintenance in the Desert . . . . TB 43-0239

Tactical Wheeled Vehicles: Repair of Frames . . . . TB 9-2300-247-40

Soldering Methods and Equipment . . . . TB SIG 222

A-7. TECHNICAL MANUALS.

Inspection, Care, and Maintenance of Antifriction Bearings . . . . TM 9-214

Materials Used for Cleaning, Preserving, Abrading, and Cementing
Ordnance Materiel and Related Items Including Chemicals . . . . TM 9-247

Operator, Organizational, Direct and General Support, and Depot
Maintenance Manual Air Conditioner: Base Mounted, Air Cooled,
208 volt, 3-phase, 60 Cycle, AC, Single Package, 36,000 BTU/HR . . . . TM 5-4120-259-15

Operator's, Organizational, Direct Support and General Support Maintenance
Manual: Air Conditioner, Compact Vertical, 208 v, 3 Phase,
8,000 BTUH Cooling, 12,000 BTUH Heating (Trane Models);
50/60 HZ (Model CE20VAL6) and 40 HZ (Model CE20VAL4) . . . . TM 5-4120-222-14

Operator's, Organizational, Direct and General Support Maintenance Manual:
Heater, Space, Multi-fuel w/Blower, 60,000 BTU/HR (Hunter Models UH68D
and UH68E) . . . . TM 5-4520-233-14

Operator's, Organizational, Direct Support and General Support
Maintenance Manual: Heater, Space, Multi-fuel w/Blower,
60,000 BTU/HR (Hunter Model UH68F) . . . . TM 5-4520-241-14

Operator's Manual for Welding Theory and Application . . . . TM 9-237

Operator's, Unit, Direct Support, and General Support Maintenance Manual
for Care, Maintenance, Repair, and Inspection of Pneumatic Tires and
Inner Tubes . . . . TM 9-2610-200-14

Painting instructions for Army Materiel . . . . TM 43-0139

Procedures for Destruction of Tank-Automotive Equipment to Prevent Enemy Use . . . . TM 750-244-6

Railcar Loading Procedures . . . . FM 55-601

Railway Operating and Safety Rules FM55-21

Storage and Materials Handling . . . . TM 743-200-1

Unit, Direct Support, and General Support Maintenance Repair Paris and
Special Tools Lists for Semitrailer, Van: Electronic, 6-ton, 2-wheel; M348A
Series, M373A Series, XM1005, and XM1007 . . . . TM 9-2330-246-24p

Welding Theory and Application . . . . TM 9-237

A-8. OTHER PUBLICATIONS.

Army Logistics Readiness and Sustainability . . . . AR 700-138

Army Medical Department Expendable/Durable Items . . . . CTA *8-100*

Expendable/Durable items (Except Medical, Class V,
Repair Paris, and Heraldic items)... . . . . CTA 50-970

APPENDIX B
MAINTENANCE ALLOCATION CHART

Section 1. INTRODUCTION

B-1. GENERAL.

a. This section provides a general explanation of all maintenance and repair functions authorized at the various maintenance levels.

b. The Maintenance Allocation Chart (MAC) In Section II designates overall authority and responsibility for the performance of maintenance functions on the identified end item or component. The application of the maintenance functions to the end item or component will be consistent with the capacities and capabilities of the designated maintenance levels.

c. Section Ill lists the tools and test equipment (both special tools and common tool sets) required for each maintenance function as referenced from Section II.

d. Section B/contains supplemental instructions and explanatory notes for a parlicular maintenance function.

B-2. MAINTENANCE FUNCTIONS.

Maintenance functions will be limited to and defined as follows:

a. Inspect. To determine the serviceability of an item by comparing its physical, mechanical, and/or electrical characteristics with established standards through examination (e.g., by sight, sound, or feel).

b. Test. To verify serviceability by measuring the mechanical, pneumatic, hydraulic, or electrical characteristics of an item and comparing those characteristics with prescribed standards.

c. Service. Operations required periodically to keep an item in proper operating condition, i.e., to clean (includes decontaminate, when required), to preserve, to drain, to paint, or to replenish fuel, lubricants, chemical fluids, or gases.

d. Adjust. To maintain or regulate, within prescribed limits, by bringing into proper or exact position, or by setting the operating characteristics to specified parameters.

e. Aline. To adjust specified variable elements of an item to bring about optimum or desired performance.

f. Calibrate. To determine and cause corrections to be made or to be adjusted on instruments or test, measuring, and dianostic equipments used in precision measurement. Consists of comparisons of two instruments, one of which is a certified standard of known accuracy, to detect and adjust any discrepancy in the accuracy of the instrument being compared.

g. Remove/Install. To remove and install the same item when required to perform service or other maintenance functions. install may be the act of emplacing, seating, or fixing into position a spare, repair part, or module (component or assembly) in a manner to allow the proper functioning of an equipment or system.

h. Replace. To remove an unserviceable item and install a serviceable counterpart in its place. “Replace” Is authorized by the MAC and is shown as the third position of the SMR code.

i. Repair. me application of maintenance services, including fault location/troubleshooting, removal/installation, and disassembly/assembly procedures, and maintenance actions to identify troubles and restore serviceability to an item by correcting specific damage, fault, malfunction, or failure in a part, subassembly, module (component or assembly), end item, or system.

B-2. MAINTENANCE FUNCTIONS (Con't).

j. Overhaul. That maintenance effort (service/action) prescribed to restore an item to a completely serviceable/operational condition as required by maintenance standards in appropriate technical publications (i.e., DMWR). Overhaul is normally the highest degree of maintenance performed by the Army. Overhaul does not normally return an item to like new condition.

k. Rebuild. Consists of those services/actions necessary for the restoration of unserviceable equipment to a like new condition accordance with original manufacturing standards. Rebuild is the highest degree of materiel maintenance applied to Army equipment. The rebuild operation includes the act of returning to zero those age measurements (hours/miles, etc.) considered in classifying Army equipment/components.

B-3. EXPLANATION OF COLUMNS IN THE MAC, SECTION II.

a. Column 1, Group Number. Column 1 lists functional group code numbers, the purpose of which is to identify maintenance significant components, assemblies, subassemblies, and modules with the next higher assembly. End item group number shall be "00."

b. Column 2, Component/Assembly. Column 2 contains the names of components, assemblies, subassemblies, and modules for which maintenance is authorized.

c. Column 3, Maintenance Function. Column 3 lists the functions to be performed on the item listed in Column 2. For a detailed explanation of these functions, refer to paragraph B-2.)

d. Column 4, Maintenance Level, Column 4 specifies, by the listing of a work time figure in the appropriate subcolumn(s), the level of maintenance authorized to perform the function listed in Column 3. This figure represents the active time required to perform that maintenance function at the indicated level of maintenance. If the number or complexity of the tasks within the listed maintenance function vary at different maintenance levels, appropriate work time figures will be shown for each level. The work time figure represents the average time required to restore an item (assembly, subassembly, component, module, end item, or system) to a serviceable condition under typical field operating conditions. This time includes preparation time (including any necessary disassembly/assembly time), troubleshooting/fault location time, and quality assurance/quality control time in addition to the time required to perform the specific tasks identified for the maintenance functions authorized in the Maintenance Allocation Chart. The symbol designations for the various maintenance levels are as follows:

c .... *Unit (Operator or Crew)*
0 .... *Unit (Organizational) Maintenance*
F .... *Direct Support Maintenance*
H .... *General Support Maintenance*
D .... *Depot Maintenance*

e. Column 5, Tools and Equipment. Column 5 specifies, by code, those common tool sets (not individual tools) and special tools, TMDE, and support equipment required to perform the designated function.

f. Column 6, Remarks. This column shall, when applicable, contain a letter code, in alphabetic order, which shall be keyed to the remarks contained in Section IV.

B-4. EXPLANATION OF COLUMNS IN TOOL AND TEST EQUIPMENT REQUIREMENTS, SECTION III.

a. Column 1, Tool or Test Equipment Reference Code. The tool and test equipment reference code correlates with a code used in the MAC, Section II, Column 5.

b. Column 2, Maintenance Level. The lowest level of maintenance authorized to use the tool or test equipment.

B-4. EXPLANATION OF COLUMNS IN TOOL AND TEST EQUIPMENT REQUIREMENTS, SECTION III (Con't).

c. Column 3, Nomenclature. Name or identification of the tool or test equipment.

d. Column 4, National/NATO Stock Number. The National or NATO Stock Number *of* the tool or test equipment.

e. Column 5, Tool Number, The manufacturer's part number.

Section II. MAINTENANCE ALLOCATION CHART

(1) Group Number	(2) Component/Assembly	(3) Maintenance Function	(4) Maintenance Level Unit C	Unit O	DS F	GS H	Depot D	(5) Tools and Equipment	(6) Remarks
06	ELECTRICAL SYSTEM								
0608	*Miscellaneous Items*								
	intervehicular Receptacle	inspect Replace		0.1 0.5					
	Circuit Breaker Box	inspect Test Replace		0.1 0.2 0.5					
	Switches	inspect Replace		0.1 0.1					
	Connectors	Inspect Replace		0.1 0.5					
	Receptacles	Inspect Replace		0.1 0.2					
	Terminal Boards	inspect Replace		0.1 0.3					
0609	*Lights*	Inspect Replace		0.1 0.1					
	Lamps	Inspect Replace	0.1	 0.1					
	Ballast	inspect Replace		0.1 0.2					
0813	*Hull or Chassis Wiring Harness*								
	Branched Wiring Harness	inspect Test Replace Repair		0.1 0.3 2.0 3.5					

Section II. MAINTENANCE ALLOCATION CHART (Con't)

(1) Group Number	(2) Component/AssemblY	(3) Maintenance Function	(4) Maintenance Level Unit C	O	DS F	GS H	DEPOT D	(5) Tools and Equipment	6 R m
0613	*Hull or Chassis Wiring Harness (Con'T)*								
	Roof Wiring Harness	Inspect		0.1					
		Test		0.3					
		Replace		3.0					
		Repair		4.0					
	Cable Assembly	Inspect		0.1					
		Test		0.2					
		Replace		0.5					
		Repair		1.0					
11	REAR AXLE								
1100	Rear *Axle Assembly*	Inspect		0.5					
		Replace		5.0					
		Repair		7.0					
12	BRAKES								
1202	*Service Brakes*								
	Brake Assemblies	Service		0.3					
		Adjust		0.2					
		Replace		2.0					
	Brakeshoes	Inspect		0.5					
		Adjust		0.5					
		Replace		2.5					
1204	*Hydraulic Brake System*								
	Wheel Cylinder	Inspect		0.5					
		Replace		2.5					
	Master Cylinder	Inspect		0.2					
		Replace		0.3					
	Hydraulic Lines	Inspect		0.1					
		Replace		2.0					
1208	*Airbrake System*								
	Air Chamber	Inspect		0.1					
		Test		0.5					
		Replace		0.5					
	Pressure Tank	Inspect		0.1					
		Replace		0.2					

Section II. MAINTENANCE ALLOCATION CHART (Con't)

(1) Group Number	(2) Component/Assembly	(3) Maintenance Function	(4) Maintenance Level: Unit C	Unit O	DS F	GS H	Depot D	(5) Tools and Equipment	(6) Remarks
1208	*Airbrake System (Con'T)*								
	Relay Valve	Test		0.5					
		Replace		0.5					
	Air Tubes	Inspect		0.2					
		Test		0.2					
		Replace		1.0					
		Repair		2.0					
13	WHEELS & TRACKS								
1311	*Wheel Assembly*								
	Brakedrum	Inspect		0.5					
		Replace		1.0					
		Repair			2.0				
	Hub Bearing	Inspect		0.3					
		Adjust		0.2					
		Replace		1.0					
	Wheel	Inspect	0.1						
		Replace		0.3					
1313	*Tires, Tubes, Tire Chains*								
	Tire	Inspect	0.1						
		Replace		0.5					
		Repair			1.0				
	Tube	Replace		0.7					
		Repair		1.0					
15	FRAME, TOWING AT-TACHMENTS, DRAW-BARS, AND ARTICULA-TION SYSTEMS								
1503	*Pint/es and Towing Attachments*								
	Pintle Assembly	Replace		0.1					
1504	*Spare Wheel Carrier and Tire Lock*								
	Spare Wheel Carrier	Inspect		0.1					
		Replace		0.2					
1506	*Fifth Wheel*								
	Kingpin	Replace			4.0				

Section II. MAINTENANCE ALLOCATION CHART (Con't)

(1)	(2)	(3)	(4) Maintenance Level					(5)	(6)
			Unit		DS	GS	Depot		
Number	Component/Assembly	Function	c	o	F	H	D	Equipment	Remarks
1507	*Landing Gear Leveling Jacks*								
	Leveling Jack	Inspect Replace		0.2 0.5					
	Landing Gear (Early Model)	Inspect Replace Repair		0.2 1.0	 5.0				
	Landing Gear (Late Model)	Inspect Replace		0.2 1.0					
16	SPRINGS AND SHOCK ABSORBERS								
1601	*Springs*	Inspect Replace		0.2 2.0					
1605	*Torque, Radius, and Stabilizer Rods*								
	Radius Rods	Adjust Replace Repair		0.3 1.0 0.5					
18	BODY CAB, HOOD, AND HULL								
1807	Body, *Cab, Hood and Hull Assemblies*								
	Splashguard	Inspect Replace		0.1 0.2					
	Doors	Inspect Replace		0.1 0.5					
	Door Handle Spring	Inspect Replace		0.2 0.5					
	Lock Assembly	Inspect Replace		0.3 0.2					
	Clutch	Inspect Replace		0.3 0.5					
	Hinge Assembly	Inspect Replace		0.1 0.2					
	Door Seals	Inspect Replace		0.2 1.0					

Section II. MAINTENANCE ALLOCATION CHART (Con't)

(1) Group Number	(2) Component/Assembly	(3) Maintenance Function	(4) Maintenance Level Unit c	Unit o	DS F	GS H	Depot D	(5) Tools and Equipment	(6) Remarks
1812	*Special Purpose Bodies*								
	Air Filter	Inspect Replace		0.2 0.2					
	RFI Filter Panel	Inspect Replace		0.1 0.2					
	Cover Hinge	Inspect Replace		0.1 0.2					
	Screen Assembly	Inspect Replace		0.1 0.2					
	Shield Assembly	Inspect Replace		0.1 0.3					
	Van Exterior	Inspect Repair		0.1 1.0					
22	BODY, CHASSIS, AND HULL ACCESSORY ITEMS								
2202	*Accessory Items*								
	Level Assembly	Replace		0,1					
	Reflector	Inspect Replace		0.1 0.1					
2210	*Data Plates and Instruction Holders*								
	Identification Plates	Replace		0.1					
52	REFRIGERATION, AIR CONDITIONER HEATER, AND AIR CONDITIONING COMPONENTS								
5200	*Air Conditioner/Heater Assembly and Gas Compressor Assembly*								
	Air Conditioner	Replace		1.0					
	Drain Hose	Inspect Replace		0.1 0.1					

Section II. MAINTENANCE ALLOCATION CHART (Con't)

(1) Group Number	(2) Component/Assembly	(3) Maintenance Function	(4) Maintenance Level Unit C	Unit O	DS F	GS H	Depot D	(5) Tools and Equipment	(6) Remarks
60	STEAM BOILERS, WATER HEATERS, HEATING UNITS, BURNERS								
6004	*Fuel System*								
	Fuel Pumps	Replace		0.2					
	Fuel Lines	Replace		0.5					
6007	*Fuel Tank*								
	Fuel Gage	Replace		0.1					
	Fuel Tank	Replace		0.5					
6010	*Exhaust System*								
	Exhaust Pipe	Replace Repair		0.2 1.0					
6014	*Unit Heater*								
	Heater	Replace Repair		0.5	 2.0				

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS

(1) Tool or Test Equipment Reference Code	(2) Maintenance Level	(3) Nomenclature	(4) National/NATO Stock Number	(5) Tool Number
1	0	Tool Kit, General Mechanic's Automotive	5180-00-177-7033	
2	0	Shop Equipment, Automotive Maintenance and Repair: Organizational Maintenance Common No. 1, Less Power	4910-00-754-0654	
3	F	Shop Equipment, Automotive Maintenance and Repair: Field Maintenance, Supplemental No. 1	4910-00-754-0706	
4	F	Tool Kit, Welder's	5180-00-754-0661	
5	F	Shop Equipment, Welding, Field Maintenance	3470-00-357-7268	
6	0	Socket Set, Socket Wrench	5120-00-169-4586	A-A-534
7	0	Remover, Bearing, and Bushing	5120-01-094-9003	7950186

Section IV. REMARKS

Not Applicable.

APPENDIX C
COMPONENTS OF END ITEM AND BASIC ISSUE ITEMS LISTS

Section 1. INTRODUCTION

C-1. SCOPE.

This appendix lists Components of End Item and Basic Issue Items for the semitrailers to help you Inventory items required for safe and efficient operation.

C-2. GENERAL.

The Components of End Item and Basic Issue Items Lists are divided into the following sections:

a. Section Il. Components of End Item (COEI) List. This listing is for informational purposes only, and is not authority to requisition replacements, These items are part of the end Item, but are removed and separately packaged for transportation or shipment, As part of the end Item, these Items must be with the end Item whenever it is issued or transferred between property accounts. Illustrations are furnished to assist you in identifying the items.

b. Section Ill, Basic Issue Items (Bll) List. These are the minimum essential items required to place the semitrailer in operation, to operate it, and to perform emergency repairs, Although shipped separately packaged, Bll must be with the semitrailer during operation and whenever it is transferred between property accounts. The illustrations will assist you with hard-to-identify items. This manual is your authority to request/requisition replacement Bll, based upon TOE/MTOE authorizations of the end item.

C-3. EXPLANATION OF COLUMNS.

The following provides an explanation of columns found in the tabular listing:

a. Column(1)- Illustration Number (Illus Number). This column indicates the number of the illustration in which the item is shown.

b. Column (2) – National Stock Number. Indicates the National Stock Number (NSN) assigned to the item and will be used for requisitioning purposes.

c. Column (3)-Description. Indicates the Federal Item Name and, if required, a description to identify and locate the item. The last line for each item indicates the Commercial and Government Entity (CAGE) in parentheses, followed by the part number. If item needed differs for different models of this equipment, the model is shown under the "Usable On Code" heading in this column. These codes are identified as:

Code	*Used On*	*Code*	*Used On*
928	XM1007	940	M373A4
931	XM1005	941	M348A2
934	M348A2C	942	M348A2G
935	M348A2D	947	M373A2
936	M348A2F	948	M373A2C
937	M348A2H	949	M348A2K
938	M373A2D	950	M348A2N
939	M373A3	951	M373A5

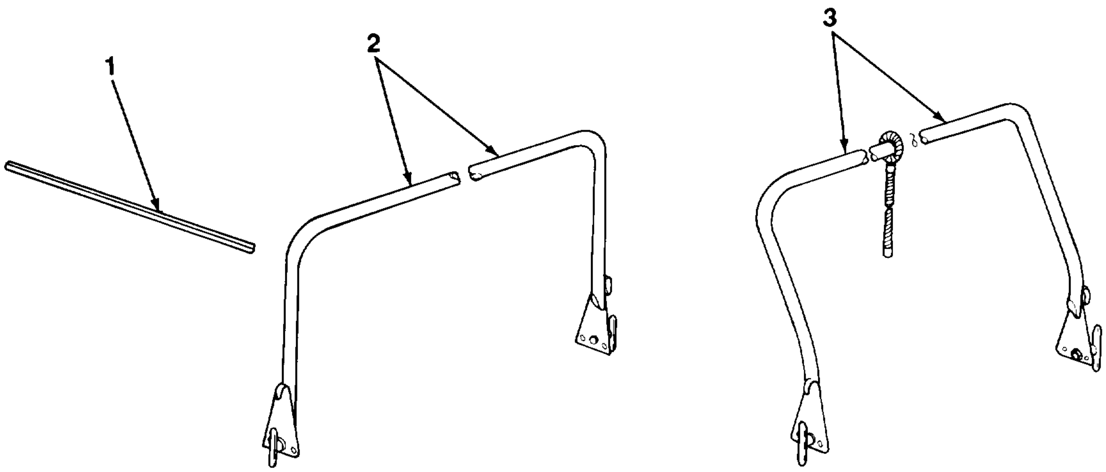
d. Column (4) – Unit of Measure (U/M). Indicates the measure used in performing the actual operational/maintenance function. This measure is expressed by a two-character alphabetical abbreviation (e.g., ea, in., pr).

e. Column (5)-Quantity Required (Qty Rqrd). Indicates the quantity of the item authorized to be used with/on the equipment.

Section II. COMPONENTS OF END ITEM LIST

The Electronic Semitrailer Vans currently do not have a Components of End Item List assigned.

Section III. BASIC ISSUE ITEMS LIST



(1) Illus Number	(2) National Stock Number	(3) Description CAGE and Part Number	(3) Usable on Code	(4) U/M	(5) Qty Reqd
1	5120-00-243-2419	Bar, Socket Wrench Handle (561 61) 10510972	928, 931, 934, 935, 936, 937, 938, 939, 940, 941, 942, 947, 948, 949, 950, 951	ea	2
2	2540-00-856-1954	Bow, Vehicular Top (1 9207) 8747250	934, 935, 936, 937, 941, 942, 949, 950	ea	9
2	2540-00-856-1954	Bow, Vehicular Top (1 9207) 8747250	938, 939, 940, 951	ea	11
3	2540-00-856-1955	Bow, Vehicular Top (1 9207) 8747249	934, 935, 936, 939, 940, 941, 942, 949, 950, 951	ea	2

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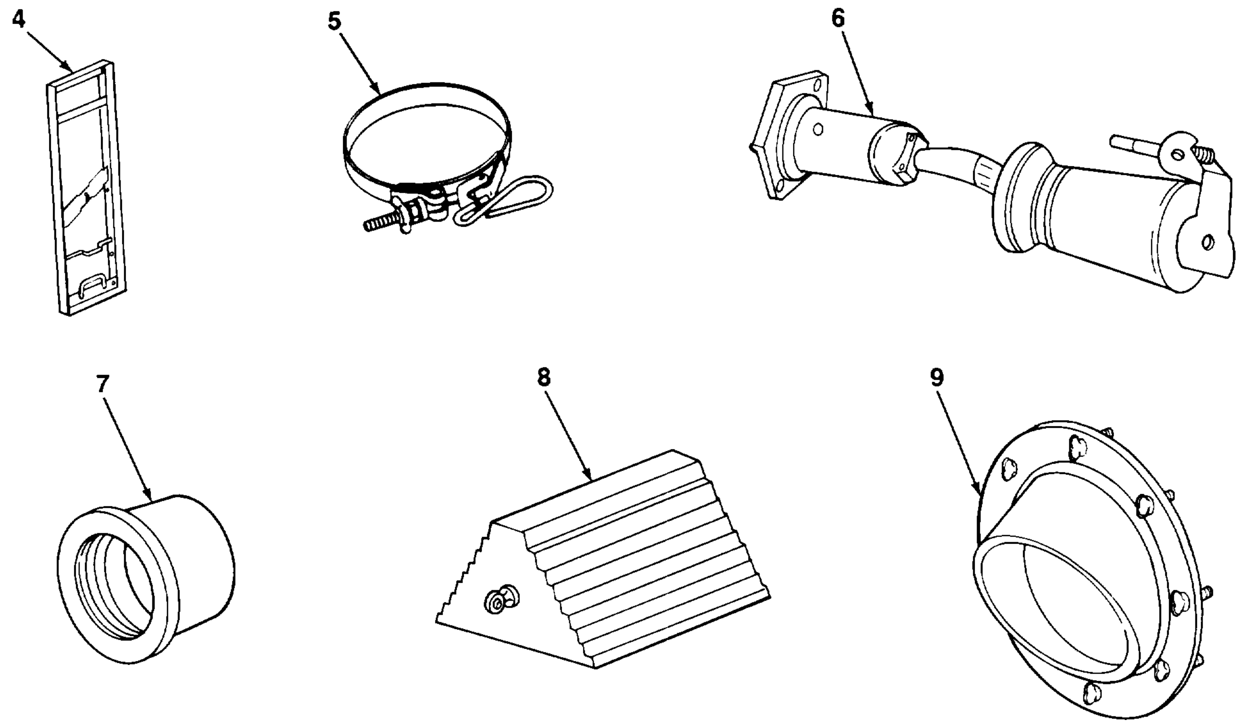
Section III. BASIC ISSUE ITEMS LIST (Con't)



(1) Illus Number	(2) National Stock Number	(3) Description CAGE and Part Number	Usable on Code	(4) U/M	(5) Qty Reqd
4	2540-00-357-5494	Bracket Assembly, Tool (19200) 7346922	934,935, 936, 942, 949	ea	1
5	4210-00-933-2929	Bracket, Fire Extinguisher (19207) 10924916	942, 949, 950	ea	1
5	4210-00-933-2929	Bracket, Fire Extinguisher (19207) 10924916	937	ea	2
6	5995-00-435-2498	Cable Assembly, Special Purpose Electrical (19207) 11638024	928,931, 939, 940, 951	ea	1
7	4730-00-231-2416	Cap, Pipe (84849) 22P521	951	ea	1
8	2540-01-052-6234	Chock, Wheel-track (96906) MS52127-2		ea	2
9	2540-01-117-3028	Cover Assembly, Vent (1 9207) 11607654	934, 935, 936,937, 938, 941, 942, 949,	ea	1

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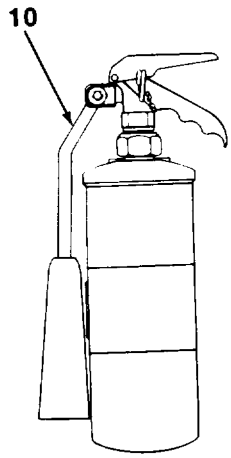
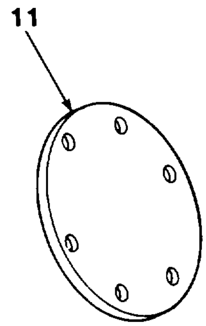
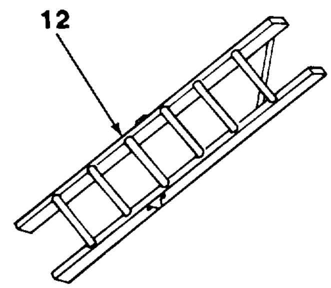
Section III. BASIC ISSUE ITEMS LIST (Con't)







(1) Illus Number	(2) National Stock Number	(3) Description CAGE and Part Number	Usable on Code	(4) U/M	(5) Qty Reqd
10	4210-00-555-8837	Extinguisher, Fire, Vaporizing Liquid (19207) 10916537	942, 949 950	ea	1
10	4210-00-555-8837	Extinguisher, Fire, Vaporizing Liquid (19207) 10916537	937	ea	2
11	4730-01-050-2510	Flange, Pipe (19207) 11592491	938	ea	1
12		Ladder, Fol700ding, 12 Foot (19207) 11684409	928, 931	ea	1
12	2540-00-964-6034	Ladder, Vehicle Boarding (19207) 10891462	934,935, 936, 937, 938, 939, 940, 941, 942,949, 950,951	ea	1

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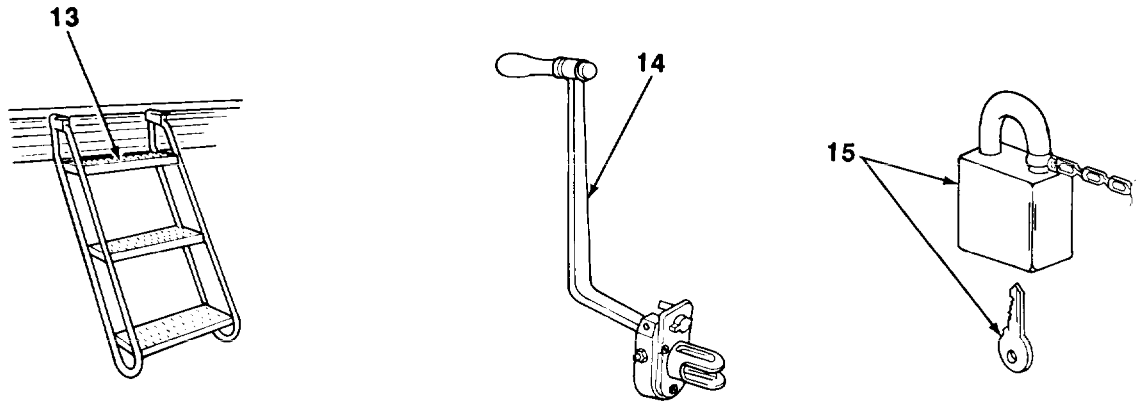
Section III. BASIC ISSUE ITEMS LIST (Con't)



(1) Illus Number	(2) National Stock Number	(3) Description CAGE and Part Number	(3) Usable on Code	(4) U/M	(5) Qty Reqd
13	2540-00-868-5680	Ladder, Vehicle Boarding (19207) 8389462-1	934, 935, 936,937, 942,948, 949, 950	ea	1
13	2540-00-868-5661	Ladder, Vehicle Boarding (19207) 10882157-1	938, 941, 942, 947, 948, 949, 950, 951	ea	2
13	2540-00-868-5661	Ladder, Vehicle Boarding (1 9207) 10882157-1	934, 937	ea	1
13	2540-01-087-6980	Ladder, Vehicle Boarding (1 9207) 11684408	928, 931	ea	2
14	3040-00-856-1950	Lever, Manual Control (1 9207) 10882198		ea	2
15	5340-00-912-4086	Padlock Set (96906) MS21313-160	934	ea	1
15	5340-00-912-4087	Padlock Set (96906) MS21313-161	928,931, 935,939, 940, 941, 942, 947, 948, 949, 950, 951	ea	1
15	5340-00-912-4088	Padlock Set (96906) MS21313-162	938	ea	1
15	5340-01-050-7059	Padlock Set (96906) MS21313-50	936	ea	1

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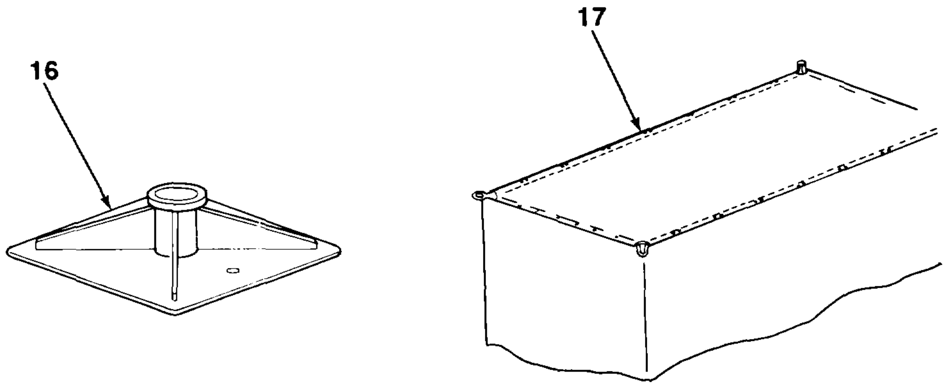
Section III. BASIC ISSUE ITEMS LIST (Con't)



(1) Illus Number	(2) National Stock Number	(3) Description CAGE and Part Number	Usable on Code	(4) U/M	(5) Qty Reqd
16	2590-00-856-1952	Shoe, Jack-support (19207) 8747207		ea	2
17	2540-00-417-2742	Tarpaulin (19207) 11637832	949,950	ea	1
17	2540-00-436-3218	Tarpaulin (19207) ER1 16377779	938,939, 940, 951	ea	1
17	2540-00-678-4088	Tarpaulin (19207) 8747206	934,935, 936, 942	ea	1
17	2540-01-016-2769	Tarpaulin (19207) 11646240-1	937,941	ea	1

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APPENDIX D
ADDITIONAL AUTHORIZATION LIST

The Electronic Semitrailer Vans currently do not have an Additional Authorization List assigned.

APPENDIX E
EXPENDABLE/DURABLE SUPPLIES AND MATERIALS LIST

Section 1. INTRODUCTION

E-1. SCOPE.

This appendix lists expendable/durable supplies and materials you will need to operate and maintain the semitrailers. This listing is for informational purposes only and is not authority to requisition the listed items. These items are authorized to you by CTA 50-970, *Expendable/Durable Items (Except Medical, Class V Repair Parts, and Heraldic Items),* or CTA 8-100, *Army Medical Department Expendable/Durable Items.*

E-2. EXPLANATION OF COLUMNS.

a. Column (1)-Item Number. This number is assigned to the entry in the listing and is referenced in the "Initial Setup" of maintenance paragraphs or narrative instructions to identify the material needed (e.g., Dry cleaning solvent, Item 13, Appendix E).

b. Column (2)-Level. This column identifies the lowest level of maintenance that requires the listed item.

C - Operator/Crew
O - Organizational Maintenance
F - Direct Support Maintenance
H - General Support Maintenance

c. Column (3)-National Stock Number. This is the National Stock Number assigned to the item. Use it to request or requisition the item.

d. Column (4)-Description. Indicates the Federal item name and, if required, a description to identify the item. The last line for each item indicates the Commercial and Government Entity (CAGE) Code in parentheses followed by the part number, if applicable.

e. Column (5)-Unit of Measure (U/M). Indicates the measure used in performing the actual maintenance function. This measure is expressed by a two-character alphabetical abbreviation (e.g., ea, in., pr). If the unit of measure differs from the unit of issue, requisition the lowest unit of issue that will satisfy your requirements.

Section II. EXPENDABLE/DURABLE SUPPLIES AND MATERIALS LIST

(1) Item Number	(2) Level	(3) National Stock Number	(4) Description (CAGE) Part Number	(5) U/M
1	0		Adhesive (55974) Q76072-3	
		8040-00-290-4301	1 Quart Can	qt
2	0		Adhesive (1 9200) 10542199	
		8040-00-225-4548	12 Ounce Cartridge	Oz
3	0		Adhesive (04963) EC221O	
		8040-00-809-8252	4 Ounce Bottle	Oz
4	0		Adhesive (10138) 10555-002	
		8040-00-86!5-8991	12 Ounce Cartridge	Oz
5	0		Barrier Material, Greaseproofed- Waterproofed ; Flexible (81349) MIL-B-121	
		8135-00-171-0930	100 Yard Roll	yd
6	0		Brake Fluid, Automotive (81349) MIL-B-46176	
		9150-01-102-9455 9150-01-123-3152 9150-01-072-8379	1 Gallon Can 5 Gallon Can 55 Gallon Drum	gl gl gl
7	0	7920-00-061-0038	Brush, Scrub (83421) 7920-00-061-0038	ea
8	0		Caulking Compound (25472) Plas1KON	
		8030-00-297-0600	1 Quart Can	qt
9	F		Cloth, Abrasive (58536) A-A-1049	
		5350-00-584-4654	50 Sheets	ea

Section II. EXPENDABLE/DURABLE SUPPLIES AND MATERIALS LIST (Con't)

(1) Item Number	(2) Level	(3) National Stock Number	(4) Description (CAGE) Part Number	(5) U/M
10	0		Cloth, Coated (81 349) MIL-C-20696	
		8305-00-205-1163	36x 41 Inch	yd
11	c		Corrosion Preventive Compound (81355) TEClYL511M	
		8030-00-137-1671	5 Gallon Can	gl
12	c		Detergent, General Purpose, Liquid (81349) MIL-D-16791	
		7930-00-282-9699	1 Gallon Can	gl
13	c		Dry Cleaning Solvent (81348) P-D-680	
		6850-00-664-5685 6850-00-281-1985 6850-00-285-8011	1 Quart Can 1 Gallon Can 55 Gallon Drum	qt gl gl
14	0		Grease, Automotive and Artillery (81 349) MIL-G-10924	
		9150-00-935-1017 9150-00-190-0904 9150-00-190-0905	14 Ounce Cartridge 1.75 Pound Can 6.5 Pound Can	Oz lb lb
15	0		Lubricating Oil, Engine OE/HDO-l0 (81 349) MIL-L-2104	
		9150-00-189-6727 9150-00-186-6668 9150-00-191-2772	1 Quart Can 5 Gallon Can 55 Gallon Drum	qt gl gl
16	0		Lubricating Oil, Engine OE/HDO-30 (81 349) MIL-L-2104	
		9150-00-186-6681 9150-00-188-9858 9150-00-189-6729	1 Quart Can 5 Gallon Can 55 Gallon Drum	qt gl gl

Section II. EXPENDABLE/DURABLE SUPPLIES AND MATERIALS LIST (Con't)

(1) Item Number	(2) Level	(3) National Stock Number	(4) Description (CAGE) Part Number	(5) U/M
17	0		Lubricating Oil, Engine OEA (81349) MIL-L-46167	
		9150-00-402-4478 9150-00-402-2372 9150-00-491-7197	1 Quart Can 5 Gallon Can 55 Gallon Drum	qt gl gl
18	0		Polyurethane Coating (80244) MIL-C-53039 BLACK	
		8010-01-229-7540	1 Quart Can	qt
19	F		Primer Coating (81348) TT-P-636	
		8010-00-161-5718	5 Gallon Can	gl
20	c		Rag, Wiping (58536) A-A-531	
		7920-00-205-1711	50 Pound Bale	lb
21	0		Rubber Sheet, Solid (1 9204) 8426910	
		9320-00-070-9156	8 x 14 x 0.121nch Sheet	sh
22	0		Sealing Compound (81349) MIL-S-7916	
		8030-00-088-7818	8 Ounce Can	Oz
23	0		Solder, Lead Alloy (81348) QQ-S-571	
		3439-00-247-6921	1 Pound Bar	lb
24	0		Tag, Marker (64067) 9905-00-537-8954	
		9905-00-537-8954	Bundle of 50	ea
25	0		Tape, Adhesive Rubber (10001) 2856598	
		9320-00-433-5885	100 Foot ROII	ft

Section II. EXPENDABLE/DURABLE SUPPLIES AND MATERIALS LIST (Con't)

(1) Item Number	(2) Level	(3) National Stock Number	(4) Description (CAGE) Part Number	(5) U/M
26	0		Tape, Antiseize:	
		8030-00-067-7368	(71 643) TEMPRTH ¼ Inch Wide, 54 Foot Long	ft
		8030-00-889-3535	(76381) 4B ½ Inch Wide, 260 Inch Long	in
27	0		Tape, Cloth, Metal Seam Sealing (04963) EC120211-21N	
		5330-00-965-0796	600 Inch	in
28	0		Tape, Electrical (78381) 1194	
		5970-01-144-8969	180 Foot Roll	fl
29	F		Tape, Pressure Sensitive Adhesive (26066) 481	
		7510-00-117-5520	2 Inch Roll, Black	ea
30	0		Wool, Steel (21519) G22455	
		5350-00-920-6954		ea

APPENDIX F
ILLUSTRATED LIST OF MANUFACTURED ITEMS

Section 1. INTRODUCTION

F-1. SCOPE.

a. This appendix includes complete instructions for making Items authorized to be manufactured or fabricated.

b. Apart number index in alphanumeric order is provided for cross-referencing the part number of the Item to be manufactured to the figure which covers fabrication criteria.

c. All bulk materiels needed for manufacture of an item are listed by National Stock Number (NSN), part number, or specification number in the manufacturing instructions.

Table F-1. Manufactured Items Part Number Cross-reference Index.

Part Number	Figure Number	Figure Title	Model Used On
10882274	F-13	Wiring Harness	Early model M348A2, M348A2G, M348A2K, M348A2N, M373A2, M373A2C, M373A2D, M373A3, M373A4, and M373A5
10882275-1	F-9	Roof Wiring Harness	XM0115 and XM1007
10891478	F-13	Wiring Harness	Early model M348A2C, M348A2D, M348A2F, and M348A2H
10891479	F-3	Roof Wiring Harness	M348A2 and M348A2G
10944106	F-1 4	Roof Wiring Harness	M348A2C
10944203	F-10	Right-hand Roof Wiring Harness	M348A2D
10944204	F-1 2	Left-hand Roof Wiring Harness	M348A2D
10944260	F-1O	Right-hand Roof Wiring Harness	M348A2F
10844261	F-4	Left-hand Roof Wiring Harness	M348A2F
11588641	F-11	Roof Wiring Harness	M348A2H
11588645	F-2	Air Conditioner Wiring Harness	M348A2H
10882275	F-9	Roof Wiring Harness	M373A2, M373A2C, and M373A2D
11607485	F-7	Roof Wiring Harness	M348A2K, M348A2N
11637811	F-8	Roof Wiring Harness	M373A3, M373A4, and M373A5
11646256-1	F-1	Main Wiring Harness	Late model M348A2C and M348A2D

Table F-1. Manufactured Items Part Number Cross-reference Index (Con't).

Part Number	Figure Number	Figure Title	Model Used On
11646256-2	F-1	Main Wiring Harness	Late model M373A2, M373A2C, M373A2D, and M373A5
11646256-4	F-1	Main Wiring Harness	XM1005 and XM1007
11646258	F-6	Main Dolly Wiring Harness	Late model M348A2, M348A2G, M348A2K M348A2N, M373A2, M373A2C, M373A2D, and M373A5
11646258-1	F-6	Main Dolly Wiring Harness	XM1005 and XM1007
11646259	F-5	Interconnecting Wiring Harness	Late model M348A2N and M373A5
11646259-1	F-5	Interconnecting Wiring Harness	XM1005 and XM1007
11646278	F-15	Dolly Wiring Harness	Late model M348A2, M348A2C, M348A2D M348A2F, M348A2H , M348A2G , M348A2K M348A2N, M373A2, M373A2C, M373A2D, and M373A5
11646278-1	F-15	Dolly Wiring Harness	XM1005 and XM1007
MILT35201YPEl	F-16	Bulkhead to Fuel Pump Tube	M373A2D
M3520-A10C02B	F-17	Bulkhead to Fuel Pump Tube	M373A5
MILT3520TYPE1	F-18	Fuel Filter to Bulkhead Tube	M373A2D
	F-19	Heater to Bulkhead Tube	M373A2D and M373A5
MLT3520TYPE1	F-20	Heater to Fuel Filter Tube	M373A2D
M3520-A10C02B	F-21	Vent Tube	M373A2D and M373A5

Section II. MANUFACTURING INSTRUCTIONS

1. Assembly Instructions.

   a. Binding. Cables shall be bound together with one-half overlapping turns of electrical insulation tape (Item 28, Appendix E).

   NOTE

   Do not distort skirts of pin contacts (MS27148) when crimping to conductors.

   b. Crimping. Crimp pin contacts (ferrules), terminals, and splicing connectors to cables (conductors and/or insulation).

   c. Soldering. Solder conductors to pin and socket contacts and solder-type terminals and terminal assemblies in accordance with TM 9-237.

   d. Splicing.

   (1) Spliced conductors must be adequately insulated and the insulation must be sealed to each cable's insulation.

   (2) Vulcanize splices using solid rubber sheet (Item 21, Appendix E). Thickness of rubber over exposed conductors will be 1/8-5/32 in. (3.18 to 3.97 mm) and is to overlap adjacent insulation for a distance of at least 3/16 in. (4.76 mm) and a minimum thickness of 1/32 in. (0.79 mm).

   e. Plugging. Plug all spare grommet holes with rod of diameter and length as required.

2. Circuit 490 and associated parts used with part numbers 11646256-1 and 11646256-2 only.

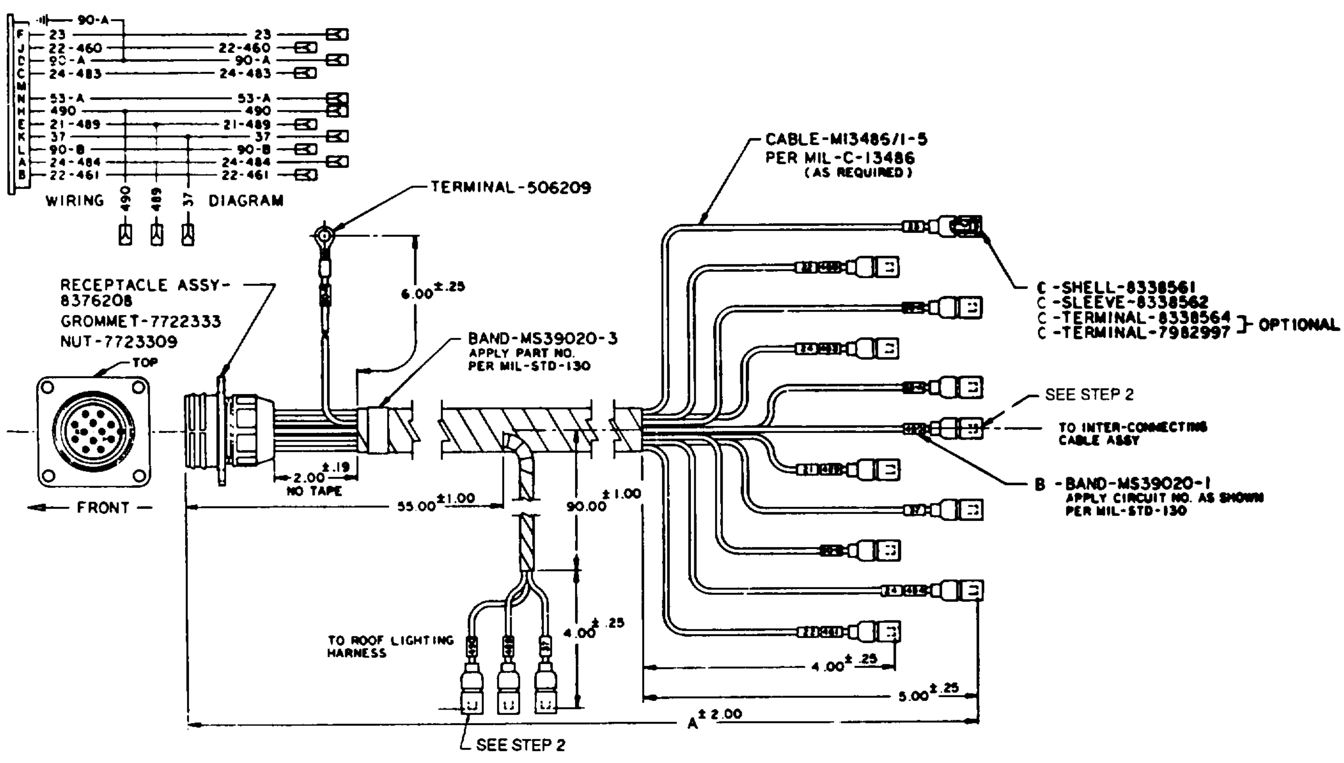


Figure F-1. Main Wiring Harness.

TA700395

Section II. MANUFACTURING INSTRUCTIONS (Con't)

1. Assembly Instructions.

a. **Binding.** Cables shall be bound together with one-half overlapping turns of electrical insulation tape (item 28, Appendix E).

NOTE

Do not distort skirts of pin contacts (MS27148) when crimping to conductors.

b. **Crimping.** Crimp pin contacts (ferrules), terminals, and splicing connectors to cables (conductors and/or insulation).

c. **Soldering.** Solder conductors to pin and socket contacts and solder-type terminals and terminal assemblies in accordance with TM 9-237.

d. **Splicing.**

(1) Spliced conductors must be adequately insulated and the insulation must be sealed to each cable's insulation.

(2) Vulcanize splices using solid rubber sheet (item 21, Appendix E). Thickness of rubber over exposed conductors will be 1/8-5/32 in. (3.18 to 3.97 mm) and is to overlap adjacent insulation for a distance of at least 3/16 in. *(4.76* mm) and a minimum thickness of 1/32 in. (0.79 mm).

e. **Plugging.** Plug all spare grommet holes with rod of diameter and length as required.

2. Cables to be wrapped with electrical insulation tape (Item 28, Appendix E). Wrap 4 times around approximately every 12 in. (30.48 cm).

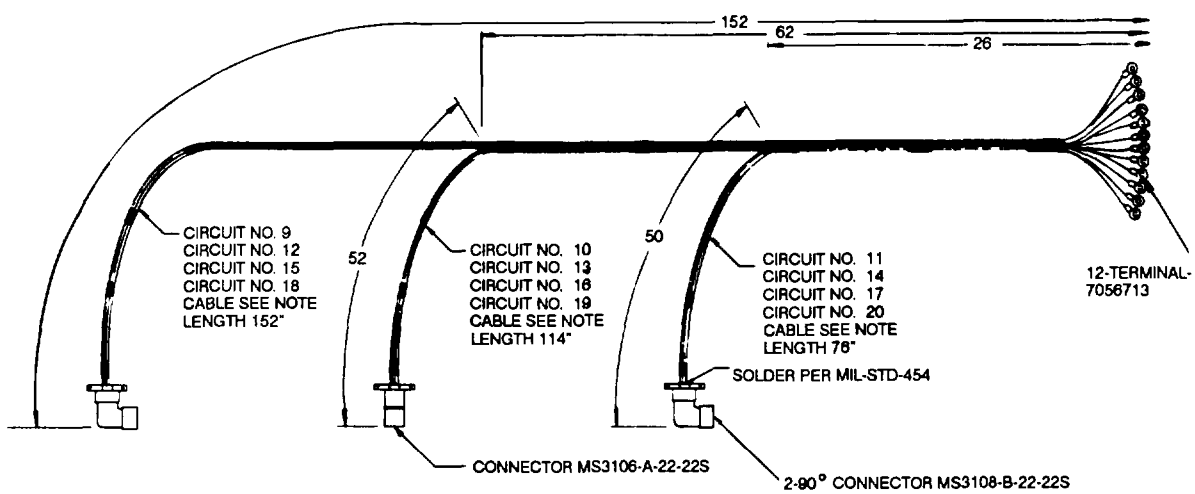


Figure F-2. Air Conditioner Wiring Harness.

TA700396

Section II. MANUFACTURING INSTRUCTIONS (Con't)

1. Assembly Instructions.

   a. **Binding.** Cables shall be bound together with one-half overlapping turns of electrical insulation tape (Item 28, Appendix E).

   NOTE

   Do not distort skirts of pin contacts (MS27148) when crimping to conductors.

   b. **Crimping.** Crimp pin contacts (ferrules), terminals, and splicing connectors to cables (conductors and/or insulation).

   c. **Soldering.** Solder conductors to pin and socket contacts and solder-type terminals and terminal assemblies in accordance with TM 9-237.

   d. Splicing.

   (1) Spliced conductors must be adequately insulated and the insulation must be sealed to each cable's insulation.

   (2) Vulcanize splices using solid rubber sheet (Item 21, Appendix E). Thickness of rubber over exposed conductors will be 1/8-5/32 in. (3.18 to 3.97 mm) and is to overlap adjacent insulation for a distance of at least 3/16 in. *(4.76* mm) and a minimum thickness of 1/32 in. (0.79 mm).

   e. **Plugging.** Plug all spare grommet holes with rod of diameter and length as required.

2. Circuit 490 and associated parts used with part number 10891479 only.

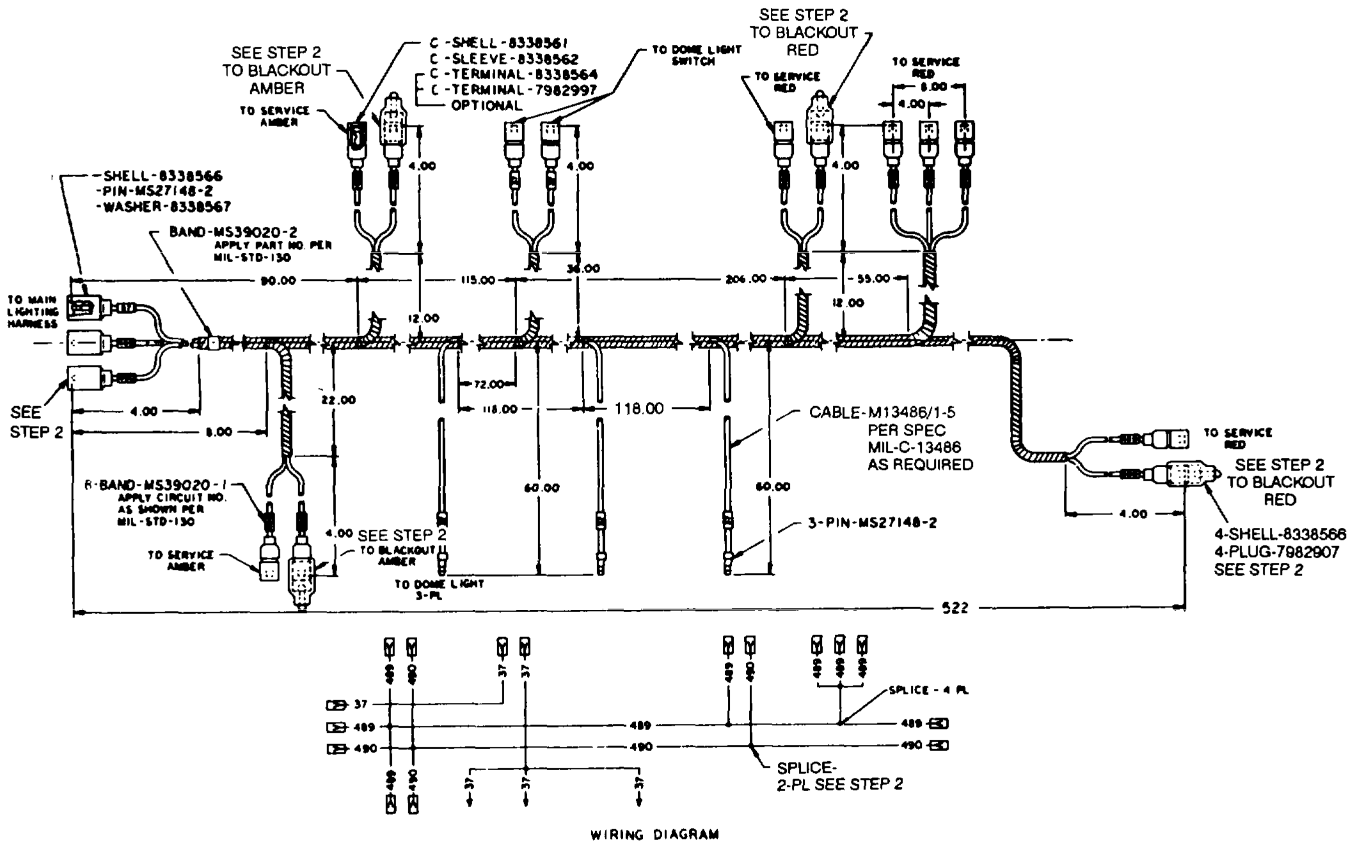


Figure F-3. Roof Wiring Harness.

TA700397

Section II. MANUFACTURING INSTRUCTIONS (Con't)

1. **Binding.** Cables shall be bound together with one-half overlapping turns of electrical insulation tape (Item 28, Appendix E).

NOTE

Do not distort skirts of pin contacts (MS271 48) when crimping to conductors.

2. **Crimping.** Crimp pin contacts (ferrules), terminals, and splicing connectors to cables (conductors and/or insulation).
3. Soldering. Solder conductors to pin and socket contacts and solder-type terminals and terminal assemblies in accordance with TM 9-237.
4. **Splicing.**

   a. Spliced conductors must be adequately insulated and the insulation must be sealed to each cable's insulation.

   b. Vulcanize splices using solid rubber sheet (Item 21, Appendix E). Thickness of rubber over exposed conductors will be 1/8-5/32 in. (3.18 to 3,97 mm) and is to overlap adjacent insulation for a distance of at least 3.16 in. (4.76 mm) and a minimum thickness of 1/32 in. (0.79 mm).
5. **Plugging.** Plug all spare grommet holes with rod of diameter and length as required.

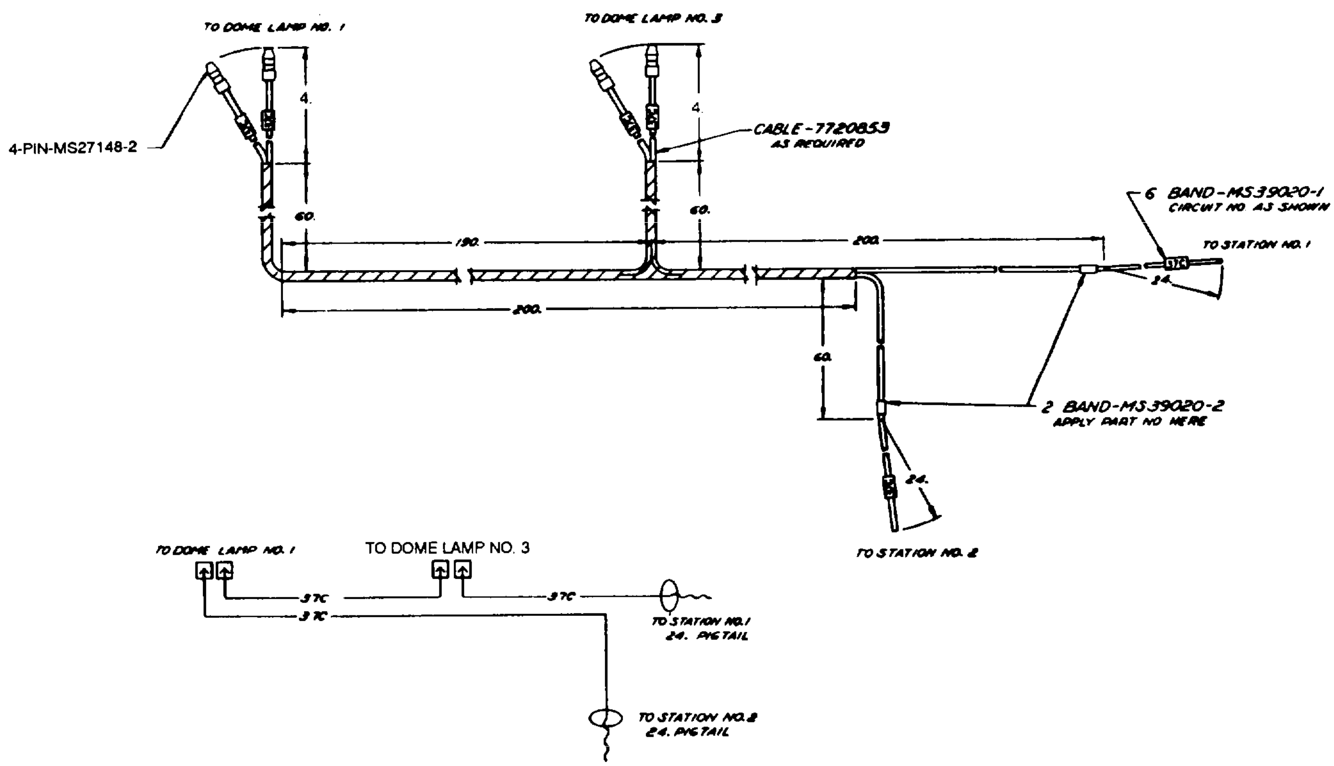


Figure F-4. Left-hand Roof Wiring Harness.

TA700398

Section II. MANUFACTURING INSTRUCTIONS (Con't)

1. Assembly Instructions.

   a. **Binding.** Cables shall be bound together with one-half overlapping turns of electrical insulation tape (Item 28, Appendix E).

   NOTE

   Do not distort skirts of pin contacts (MS27148) when crimping to conductors.

   b. **Crimping.** Crimp pin contacts (ferrules), terminals, and splicing connectors to cables (conductors and/or insulation).

   c. **Soldering.** Solder conductors to pin and socket contacts and solder-type terminals and terminal assemblies in accordance with TM 9-237.

   d. **splicing.**

   (1) Spliced conductors must be adequately insulated and the insulation must be sealed to each cable's insulation,

   (2) Vulcanize splices using solid rubber sheet (Item 21, Appendix E). Thickness of rubber over exposed conductors will be 1/8-5/32 in. (3.18 to 3.97 mm) and is to overlap adjacent insulation for a distance of at least 3/16 in. (4.76 mm) and a minimum thickness of 1/32 in. (0.79 mm).

   e. **Plugging.** Plug all spare grommet holes with rod of diameter and length as required.

2. Circuit 490 and associated parts used with part number 11646259 only.

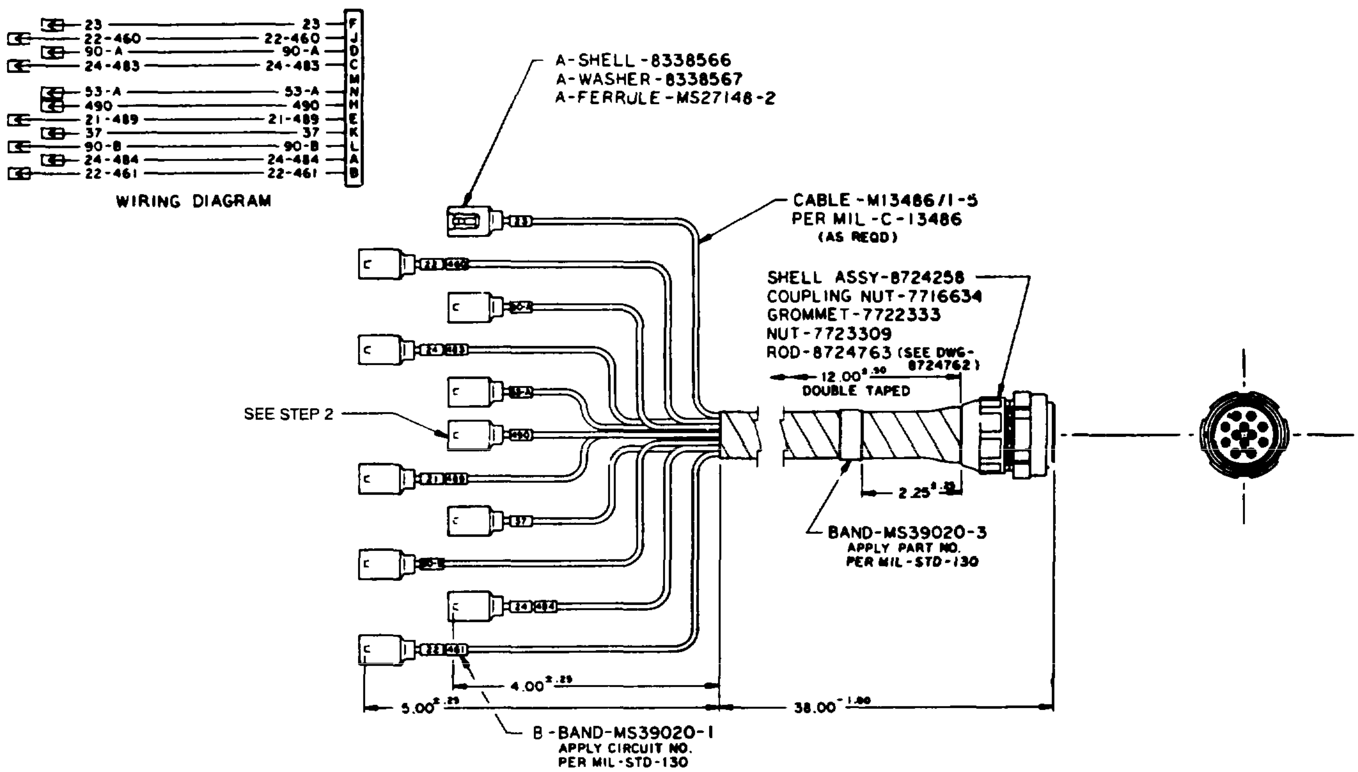


Figure F-5. Interconnecting Wiring Harness.

TA700399

Section II. MANUFACTURING INSTRUCTIONS (Con't)

1. Assembly Instructions.

   a. Binding. Cables shall be bound together with one-half overlapping turns of electrical insulation tape (Item 28, Appendix E).

   NOTE

   Do not distort skirts of pln contacts (MS27148) when crimping to conductors.

   b. **Crimping.** Crimp pin contacts (ferrules), terminals, and splicing connectors to cables (conductors and/or insulation).

   c. **Soldering.** Solder conductors to pin and socket contacts and solder-type terminals and terminal assemblies in accordance with TM 9-237.

   d. **Splicing.**

   (1) Spliced conductors must be adequately insulated and the insulation must be sealed to each cable's insulation.

   (2) Vulcanize splices using solid rubber sheet (Item 21, Appendix E). Thickness of rubber over exposed conductors will be1/8-5/32 in. (3.18 to 3,97 mm) and is to overlap adjacent insulation for a distance of at least 3/18 in. *(4.76* mm) and a minimum thickness of 1/32 in. (0.79 mm).

   e. Plugging. Plug all spare grommet holes with rod of diameter and length as required.

2. Circuit 490 and associated parts used with part number 11646258 only.

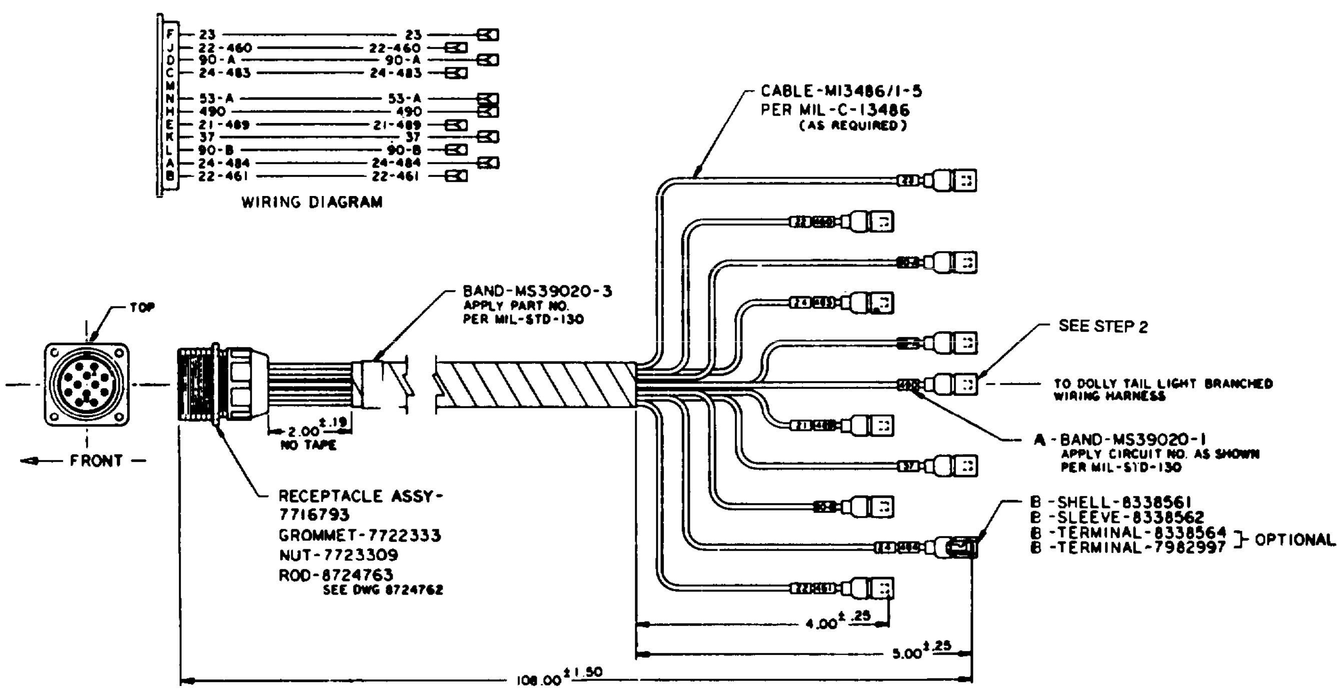


Figure F-6. Main Dolly Wiring Harness.

TA700400

Section II. MANUFACTURING INSTRUCTIONS (Con't)

1. **Binding.** Cables shall be bound together with one-half overlapping turns of electrical insulation tape (Item 28, Appendix E).

NOTE

Do not distort skirts of pin contacts (MS27148) when crimping to conductors.

2. Crimping. Crimp pin contacts (ferrules), terminals, and splicing connectors to cables (conductors and/or insulation).
3. Soldering. Solder conductors to pin and socket contacts and solder-type terminals and terminal assemblies in accordance with TM 9-237.
4. Splicing.

   a. Spliced conductors must be adequately insulated and the insulation must be sealed to each cable's insulation.

   b. Vulcanize splices using solid rubber sheet (Item 21, Appendix E). Thickness of rubber over exposed conductors will be 1/8-5/32 in. (3.18 to 3.97 mm) and is to overlap adjacent insulation for a distance of at least 3/16 in. (4.76 mm) and a minimum thickness of 1/32 in. (0.79 mm).
5. Plugging. Plug all spare grommet holes with rod of diameter and length as required.

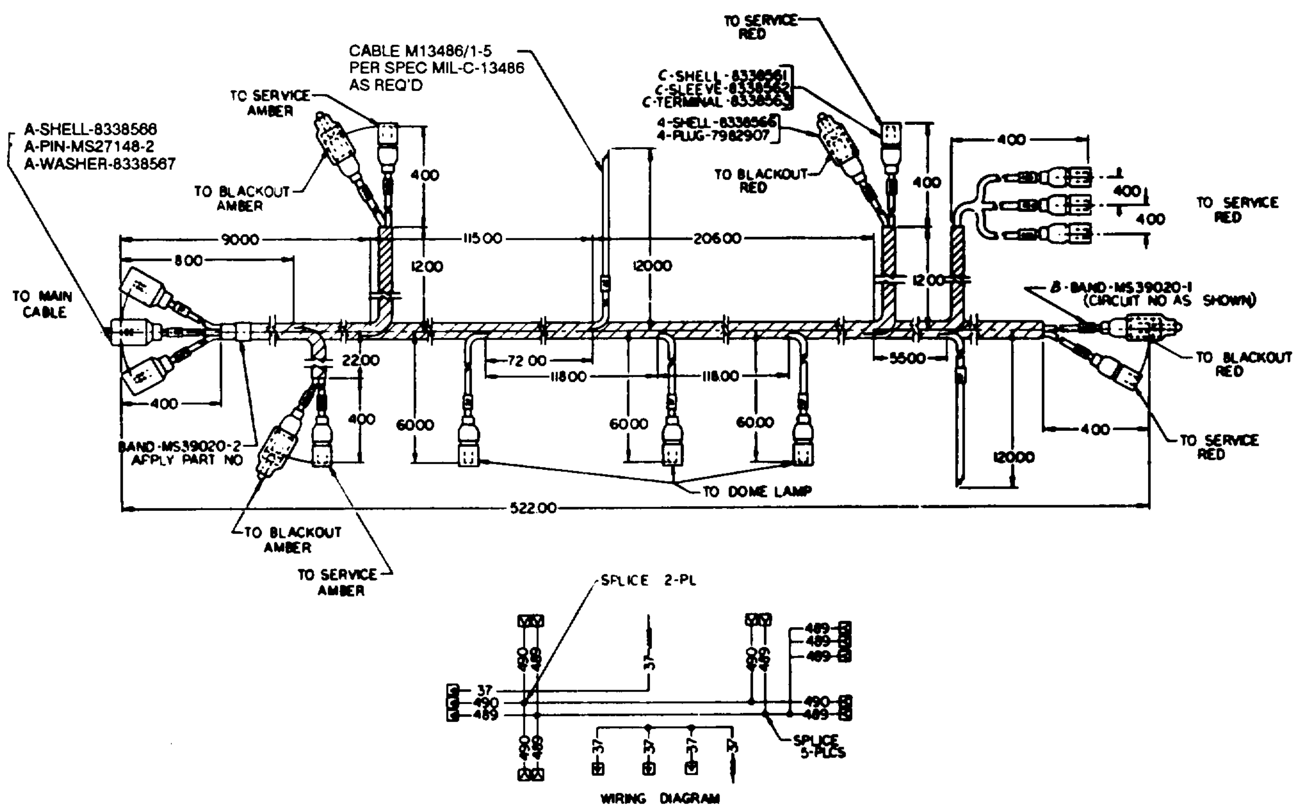


Figure F-7. Roof Wiring Harness.

TA700401

Section II. MANUFACTURING INSTRUCTIONS (Con't)

1. **Binding.** Cables shall be bound together with one-half overlapping turns of electrical insulation tape (Item 28, Appendix E).

NOTE

Do not distort skirts of pin contacts (MS27148) when crimping to conductors.

2. **Crimping.** Crimp pin contacts (ferrules), terminals, and splicing connectors to cables (conductors and/or insulation).

3. **Soldering.** Solder conductors to pin and socket contacts and solder-type terminals and terminal assemblies in accordance with TM 9-237.

4. **Splicing.**

   a. Spliced conductors must be adequately insulated and the insulation must be sealed to each cable's insulation.

   b. Vulcanize splices using solid rubber sheet (Item 21, Appendix E). Thickness of rubber over exposed conductors will be 1/8-5/32 in. (3,18 to 3.97 mm) and is to overlap adjacent insulation for a distance of at least 3/16 in. (4.76 mm) and a minimum thickness of 1/32 in. (0.79 mm).

5. **Plugging.** Plug all spare grommet holes with rod of diameter and length as required.

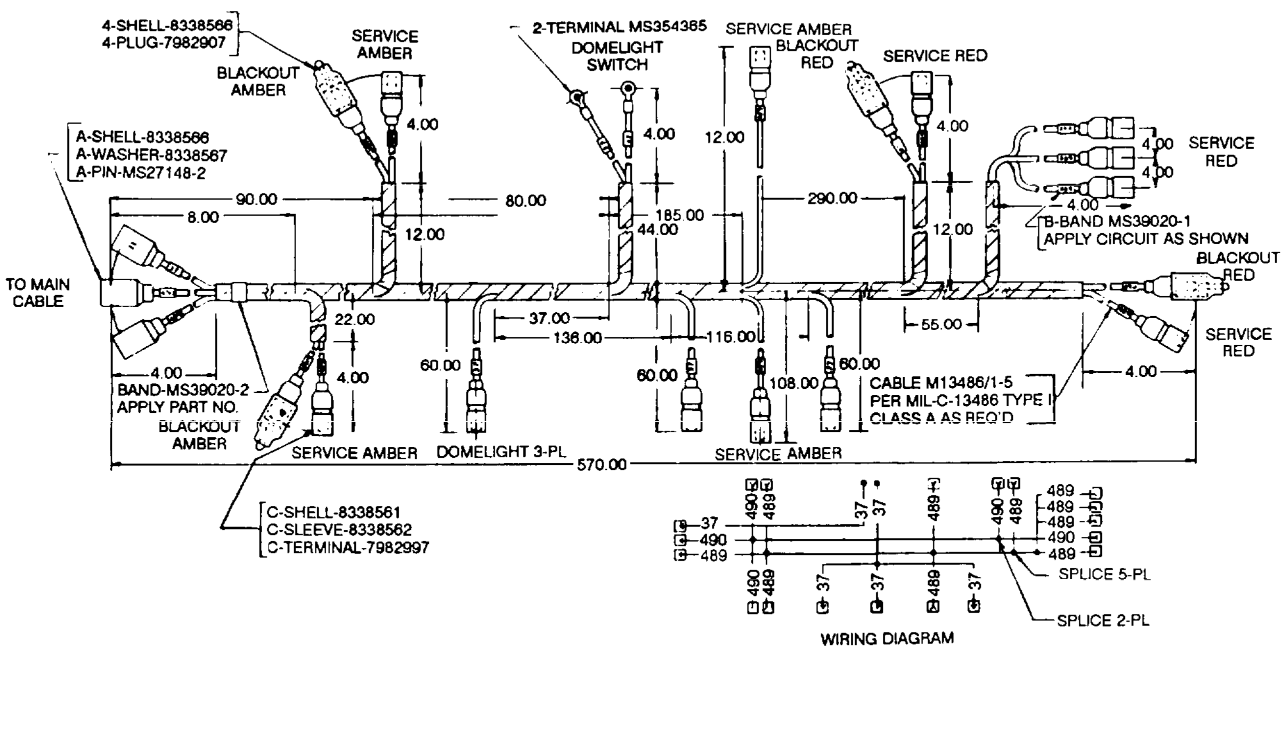


Figure F-8. Roof Wiring Harness.

TA700400

Section II. MANUFACTURING INSTRUCTIONS (Con't)

1. Assembly Instructions.

a. **Binding.** Cables shall be bound together with one-half overlapping turns of electrical insulation tape (Item 28, Appendix E).

NOTE

Do not distort skirts of pin contacts (MS27148) when crimping to conductors.

b. **Crimping.** Crimp pin contacts (ferrules), terminals, and splicing connectors to cables (conductors and/or insulation).

c. **Soldering.** Solder conductors to pin and socket contacts and solder-type terminals and terminal assemblies in accordance with TM 9-237.

d. **Splicing.**

(1) Spliced conductors must be adequately insulated and the insulation must be sealed to each cable's insulation.

(2) Vulcanize splices using solid rubber sheet (Item 21, Appendix E). Thickness of rubber over exposed conductors will be 1/8-5/32 in. (3.18 to 3.97 mm) and is to overlap adjacent insulation for a distance of at least 3/16 in. *(4.76 mm)* and a minimum thickness of 1/32 in. (0.79 mm).

e. **Plugging.** Plug all spare grommet holes with rod of diameter and length as required.

2. Circuit 490 and associated parts used with part number 10882275 only.

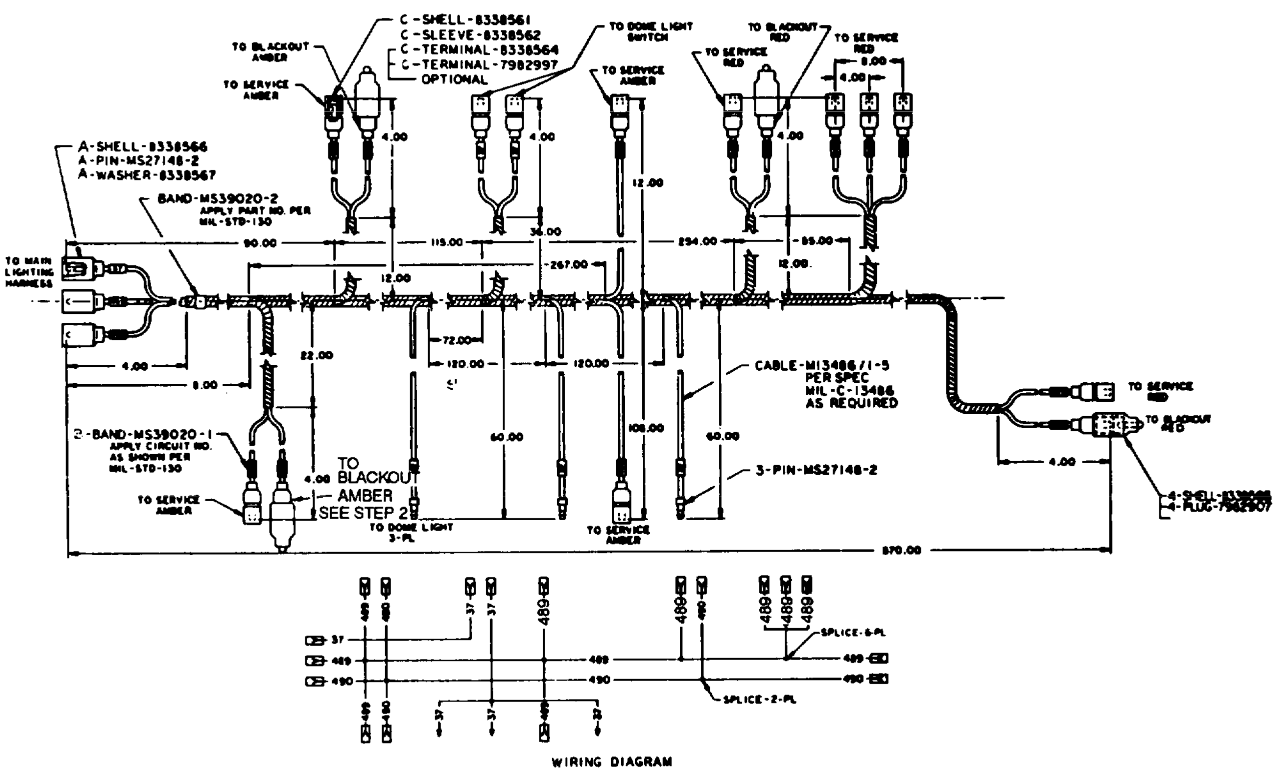


Figure F-9. Roof Wiring Harness.

TA700403

Section II. MANUFACTURING INSTRUCTIONS (Con't)

1. **Binding.** Cables shall be bound together with one-half overlapping turns of electrical insulation tape (Item 28, Appendix E).

NOTE

Do not distort skirts of pin contacts (MS27148) when crimping to conductors.

2. **Crimping.** Crimp pin contacts (ferrules), terminals, and splicing connectors to cables (conductors and/or insulation).
3. **Soldering.** Solder conductors to pin and socket contacts and solder-type terminals and terminal assemblies in accordance with TM 9-237.
4. **Splicing.**

   a. Spliced conductors must be adequately insulated and the insulation must be sealed to each cable's insulation.

   b. Vulcanize splices using solid rubber sheet (Item 21, Appendix E). Thickness of rubber over exposed conductors will be 1/8-5/32 in. (3.18 to 3.97 mm) and is to overlap adjacent insulation for a distance of at least 3/16 in. (4.76 mm) and a minimum thickness of 1/32 in. (0.79 mm).
5. **Plugging.** Plug all spare grommet holes with rod of diameter and length as required.

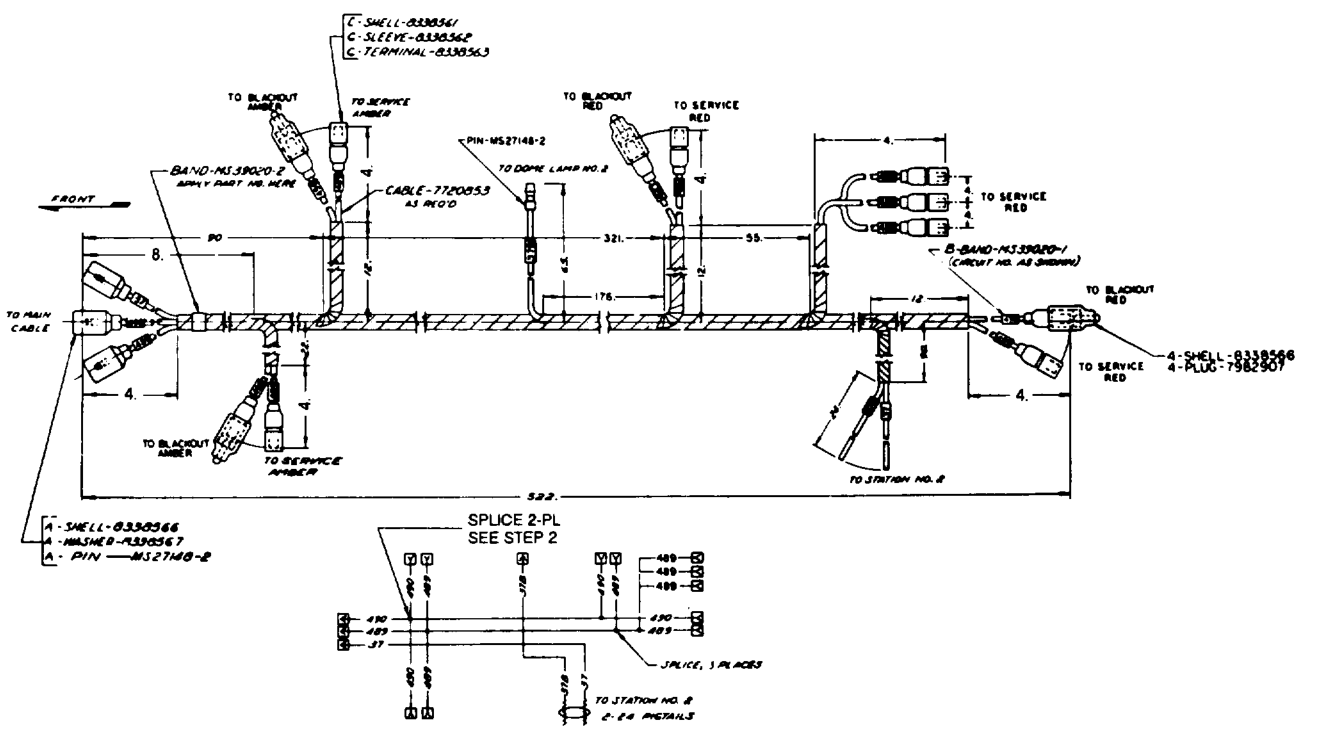


Figure F-10. Right-hand Roof Wiring Harness.

TA700404

Section II. MANUFACTURING INSTRUCTIONS (Con't)

1. **Binding.** Cables shall be bound together with one-half overlapping turns of electrical insulation tape (Item 28, Appendix E).

NOTE

Do not distort skirts of pin contacts (MS27148) when crimping to conductors.

2. **Crimping.** Crimp pin contacts (ferrules), terminals, and splicing connectors to cables (conductors and/or insulation).
3. **Soldering.** Solder conductors to pin and socket contacts and solder-type terminals and terminal assemblies in accordance with TM 9-237.
4. **Splicing.**

   a. Spliced conductors must be adequately insulated and the insulation must be sealed to each cable's insulation.

   b. Vulcanize splices using solid rubber sheet (Item 21, Appendix E). Thickness of rubber over exposed conductors will be 1/8-5/32 in. (3.18 to 3.97 mm) and is to overlap adjacent insulation for a distance of at least 3/16 in. (4.76 mm) and a minimum thickness of 1/32 in. (0.79 mm).
5. **Plugging.** Plug all spare grommet holes with rod of diameter and length as required.

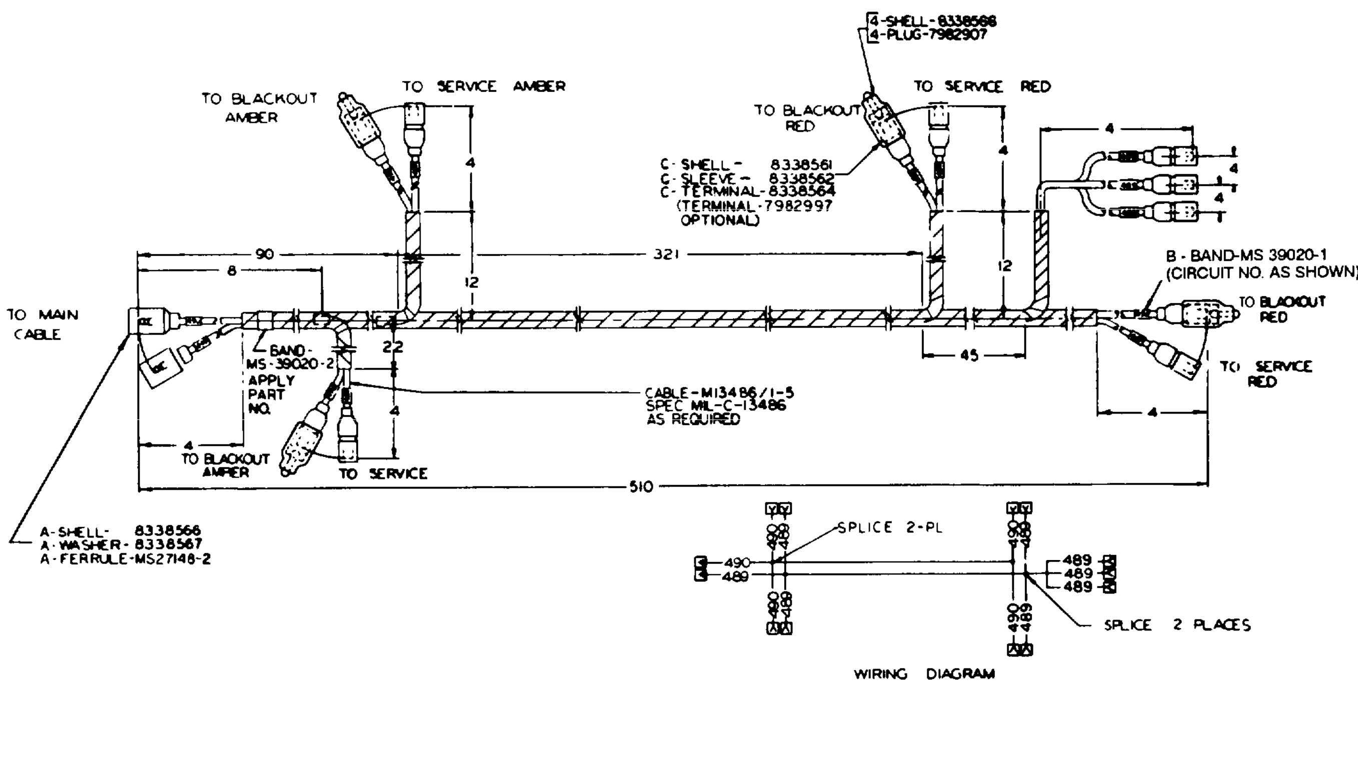


Figure F-11 Roof Wiring Harness.

TA700405

Section IL MANUFACTURING INSTRUCTIONS (Con't)

1. **Binding.** Cables shall be bound together with one-half overlapping turns of electrical insulation (Item 28, Appendix E).

NOTE

Do not distort skirts of pin contacts (MS27148) when crimping to conductors.

2. **Crimping.** Crimp pin contacts (ferrules), terminals, and splicing connectors to cables (conductors and/or insulation).

3. **Soldering.** Solder conductors to pin and socket contacts and solder-type terminals and terminal assemblies in accordance with TM 9-237.

4. **Splicing.**

   a. Spliced conductors must be adequately insulated and the insulation must be sealed to each cable's insulation.

   b. Vulcanize splices using solid rubber sheet (Item 21, Appendix E). Thickness of rubber over exposed conductors will be 1/8-5/32 in. (3.18 to 3.97 mm) and is to overlap adjacent insulation for a distance of at least 3/16 in. (4.76 mm) and a minimum thickness of 1/32 in. (0.79 mm).

5. Plugging. Plug all spare grommet holes with rod of diameter and length as required.

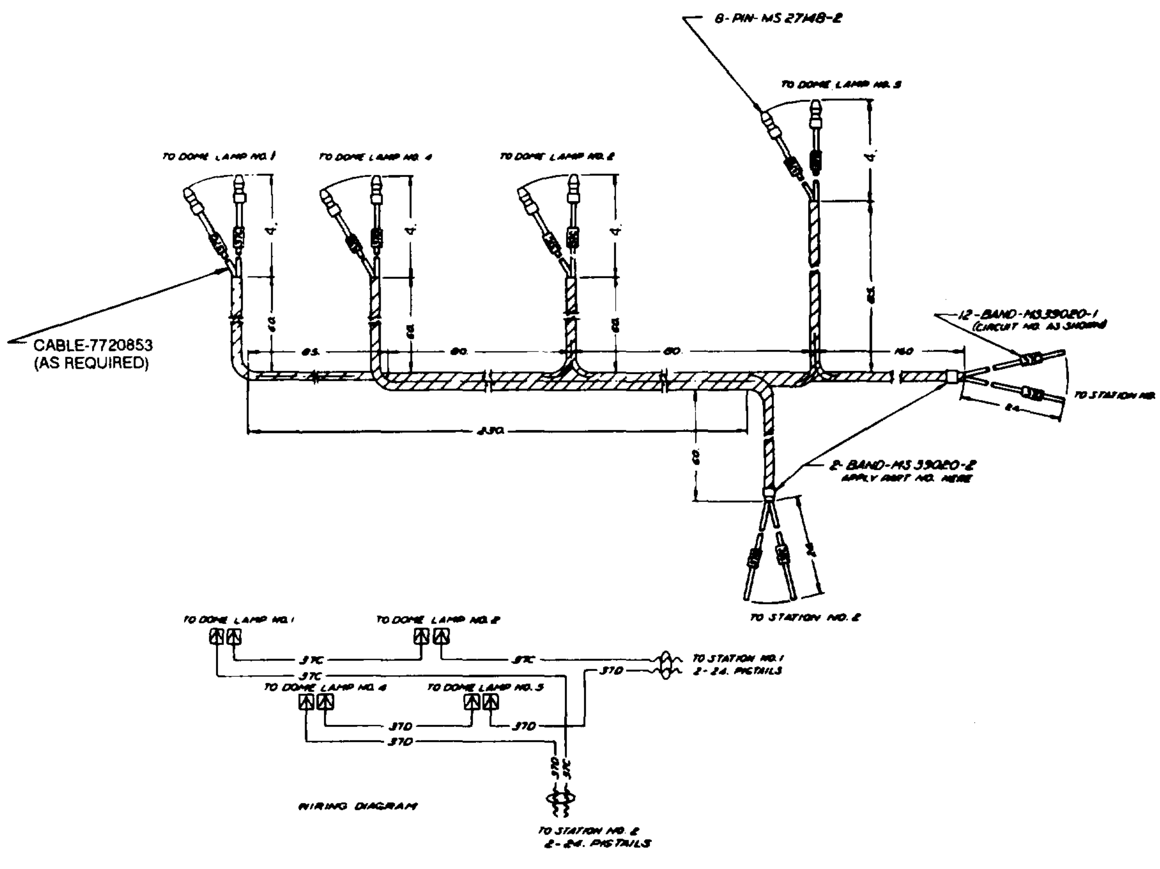


Figure F-12. Left-hand Roof Wiring Harness.

TA700406

Section II. MANUFACTURING INSTRUCTIONS (Con't)

1. **Binding.** Cables shall be bound together with one-half overlapping turns of electrical insulation tape (Item 28, Appendix E).

NOTE

Do not distort skirts of pin contacts (MS27148) when crimping to conductors.

2. **Crimping.** Crimp pin contacts (ferrules), terminals, and splicing connectors to cables (conductors and/or insulation).
3. **Soldering.** Solder conductors to pin and socket contacts and solder-type terminals and terminal assemblies in accordance with TM 9-237.
4. **Splicing.**

   a. Spliced conductors must be adequately insulated and the insulation must be sealed to each cable's insulation.

   b. Vulcanize splices using solid rubber sheet (Item 21, Appendix E). Thickness of rubber over exposed conductors will be 1/8-5/32 in. (3.18 to 3.97 mm) and is to overlap adjacent insulation for a distance of at least 3/16 in. *(4.76* mm) and a minimum thickness of 1/32 in. (0.79 mm).

5. **Plugging.** Plug all spare grommet holes with rod of diameter and length as required.

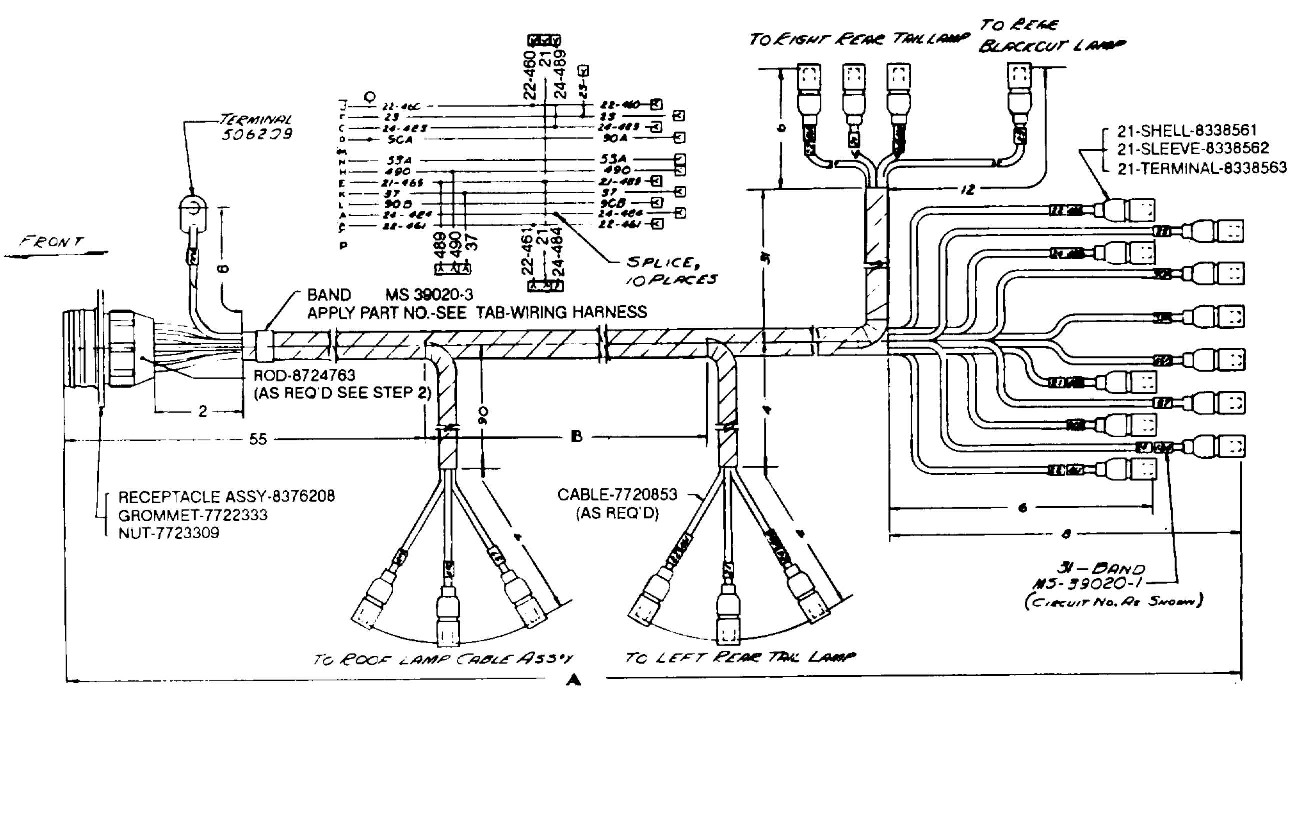


Figure F-13. Wiring Harness.

TA700407

Section II. MANUFACTURING INSTRUCTIONS (Con't)

1. **Binding.** Cables shall be bound together with one-half overlapping turns of electrical insulation tape (Item 28, Appendix E).

NOTE

Do not distort skirts of pin contacts (MS27148) when crimping to conductors.

2. **Crimping.** Crimp pin contacts (ferrules), terminals, and splicing connectors to cables (conductor and/or insulation).

3. **Soldering.** Solder conductors to pin and socket contacts and solder-type terminals and terminal assemblies in accordance with TM 9-237.

4. **Splicing.**

   a. Spliced conductors must be adequately insulated and the insulation must be sealed to each cable's insulation.

   b. Vulcanize splices using solid rubber sheet (Item 21, Appendix E). Thickness of rubber over exposed conductors will be 1/8-5/32 in. (3,18 to 3.97 mm) and is to overlap adjacent insulation for a distance of at least 3/16 in. (4.76 mm) and a minimum thickness of 1/32 in. (0.79 mm).

5. **Plugging.** Plug all spare grommet holes with rod of diameter and length as required.

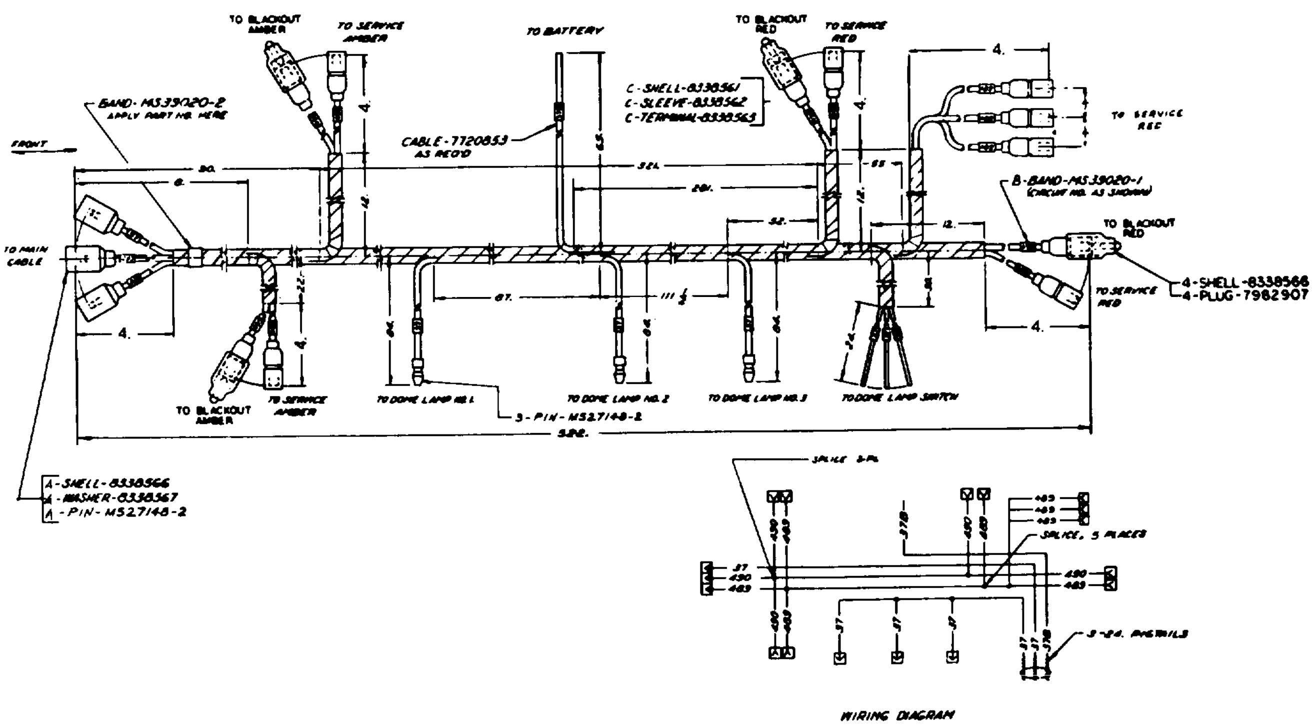


Figure F-14. Roof Wiring Harness.

TA700408

Section II. MANUFACTURING INSTRUCTIONS (Con't)

1. Assembly Instructions.

   a. **Binding.** Cables shall be bound together with one-half overlapping turns of electrical insulation tape (Item 28, Appendix E).

   NOTE

   Do not distort skirts of pin contacts (MS27148) when crimping to conductors.

   b. **Crimping.** Crimp pin contacts (ferrules), terminals, and splicing connectors to cables (conductors and/or insulation).

   c. **Soldering.** Solder conductors to pin and socket contacts and solder-type terminals and terminal assemblies in accordance with TM 9-237.

   d. **Splicing.**

   (1) Spliced conductors must be adequately insulated and the insulation must be sealed to each cable's insulation.

   (2) Vulcanize splices using solid rubber sheet (Item 21, Appendix E). Thickness of rubber over exposed conductors will be 1/8-5/32 in. (3.18 to 3,97 mm) and is to overlap adjacent insulation for a distance of at least 3/16 in. (4.76 mm) and a minimum thickness of 1/32 in. (0.79 mm).

   e. **Plugging.** Plug all spare grommet holes with rod of diameter and length as required.

2. Circuit 490 and associated parts used with part number 11646278 only,

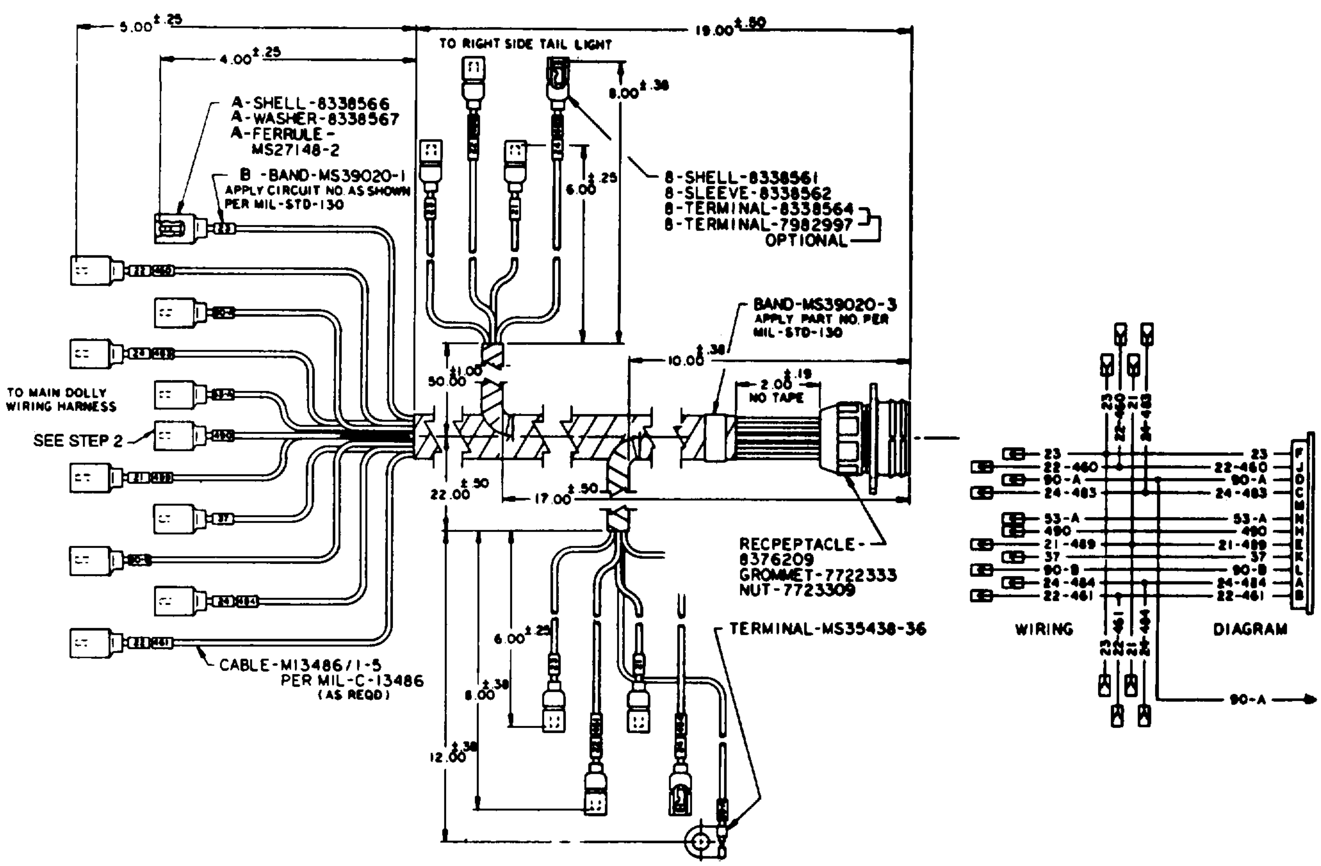


Figure F-15. Dolly Wiring Harness.

TA700409

Section II. MANUFACTURING INSTRUCTIONS (Con't)

1. Fabricated from stock metallic tubing NSN 4710-00-200-0285.
2. Cut to 16 ft before bending.
3. Use damaged tubing as guide and bend to fit.

Figure F-16. Bulkhead to Fuel Pump Tube.

---

1. Fabricate from stock metallic tubing NSN 4710-00-595-1824.
2. Cut to 20 ft before bending.
3. Use damaged tubing as guide and bend to fit.

Figure F-17. Bulkhead to Fuel Pump Tube.

---

1. Fabricate from stock metallic tubing NSN 4710-00-200-0285.
2. Cut to 16 ft before bending.
3. Use damaged tubing as guide and bend to fit.

Figure F-18. Fuel Filter to Bulkhead Tube.

---

1. Dimension A: M373A2D lower fuel tube: as required
   M373A5 upper fuel tube: 60 in. (152.4 cm)
   M373A5 lower fuel tube: 48 in. (121 .92 cm)
2. Use damaged tubing as guide and bend to fit.

Figure F-19. Heater to Bulkhead Tube.

---

1. Fabricate from stock metallic tubing NSN 4710-00-200-0285.
2. Cut to 16 ft long before bending.
3. Use damaged tubing as guide and bend to fit.

Figure F-20, Heater to Fuel Filter Tube.

---

1. Fabricate from stock metallic tubing NSN 4710-00-595-1824.
2. Cut to 8 ft long before bending.
3. Use damaged tubing as guide and bend to fit.

Figure F-21. Vent Tube.

APPENDIX G
TORQUE LIMITS

G-1. SCOPE.

a. This appendix lists standard torque values, as shown in Table G-1, and provides general information for applying torque.

b. Special torque values and tightening sequences are indicated in the maintenance procedures for applicable components.

G-2. GENERAL.

a. Always use the torque values listed in Table G-1 when the maintenance procedure does not give a specific torque value.

b. Unless otherwise indicated, standard torque tolerance shall be ±10%.

c. Torque values listed are based on clean, dry threads. Reduce torque by 10% when engine oil is used as a lubricant.

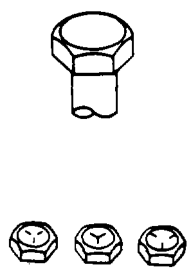
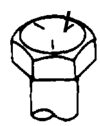
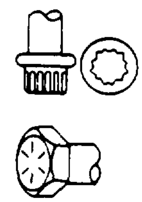
d. Reduce torque by 20% if new plated capscrews are used.

e. Capscrews threaded into aluminum may require reductions in torque of 30% or more of Grade 5 capscrews torque. Capscrew threaded into aluminum must also attain two capscrew diameters of thread engagement.

CAUTION

If replacement capscrews are of higher grade than originally supplied, use torque specifications for the original. This will prevent equipment damage due to overtorqulng.

Table G-1. Torque Limits.

Current Usage	Much Used	Much Used	Used at Times	Used at Times
Quality of Material	Indeterminate	Minimum Commercial	Medium Commercial	Best Commercial
SAE Grade Number	1or2	.	6or7	8
Capscrew Head Markings Manufacturer's marks may vary These are all SAE Grade 5 (3 line)				
Capscrew Body Size Inches - Thread	Torque lb.-ft. (Nom)	Torque lb.-ft. (NŽm)	Torque lb.-ft. (N•m)	Torque lb.-ft. (N•m)
¼ 20	5 (7)	8 (11)	10 (14)	12 (16)
28	6 (8)	10 (14)		14 (19)
5/16 18	11 (15)	17 (23)	19 (26)	24 (33)
24	13 (18)	19 (26)		27 (37)
3/8 16	18 (24)	31 (42)	34 (46)	44 (60)
24	20 (27)	35 (47)		49 (66)
7/16 14	28 (38)	49 (66)	55 (75)	70 (95)
20	30 (41)	55 (75)		78 (106)
½ 13	39 (53)	75 (102)	85 (1 15)	105 (142)
20	41 (56)	85 (1 15)		120 (1 63)
9/16 12	51 (69)	110 (1 49)	120 (1 63)	155 (210)
18	55 (75)	120 (1 63)		170 (231)
5/8 11	83 (113)	150 (203)	167 (226)	210 (285)
18	95 (129)	170 (231)		240 (325)
3/4 10	105 (142)	270 (366)	280 (380)	375 (508)
16	115 (1 56)	295 (400)		420 (569)
7/8 9	160 (217)	395 (536)	440 (597)	605 (820)
14	175 (237)	435 (590)		675 (915)
1 8	235 (319)	590 (800)	660 (895)	910 (1234)
14	250 (339)	660 (895)		990 (1 342)

TA700410

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By Order of the Secretary of the Army

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Chief of Staff

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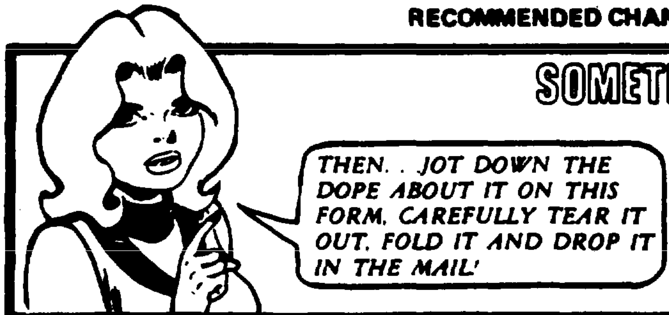

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John Doe

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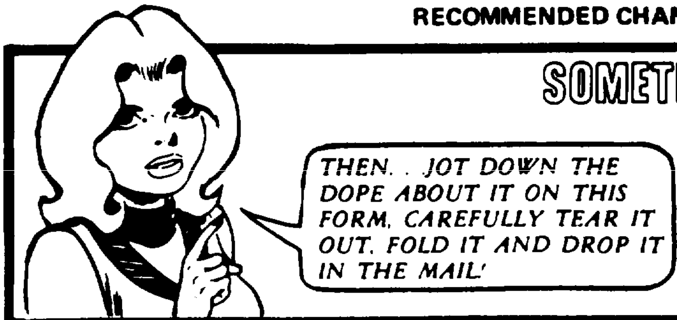

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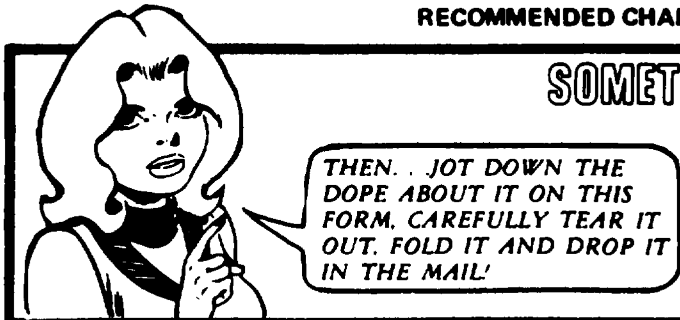

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TM 9-2330-246-14	20 Mar 92	Opr's, Org, DS/GS Maintenance Manual for Electronic Semitrailer Van Model Series M348, M373, XM1005, and XM1007

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US Army Tank-Automotive Command
ATTN: AMSTA-MB
Warren, Michigan 48397-5000

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THE METRIC SYSTEM AND EQUIVALENTS

LINEAR MEASURE

1 Centimeter=10 Millimeters=0.01 Meters=0.3937 Inches
1 Meter=100 Centimeters=1000 Millimeters=39.37 Inches
1 Kilometer=1000 Meters=0.621 Miles

WEIGHTS

1 Gram=0.001 Kilograms=1000 Milligrams=0.035 Ounces
1 Kilogram=1000 Grams=2.2 Lb
1 Metric Ton=1000 Kilograms=1 Megagram=1.1 Short Tons

LIQUID MEASURE

1 Milliliter=0.001 Liters=0.0338 Fluid Ounces
1 Liter=1000 Milliliters=33.82 Fluid Ounces

SQUARE MEASURE

1 Sq Centimeter=100 Sq Millimeters=0.155 Sq Inches
1 Sq Meter=10,000 Sq Centimeters=10.76 Sq Feet
1 Sq Kilometer=1,000,000 Sq Meters=0.0386 Sq Miles

CUBIC MEASURE

1 Cu Centimeter=1000 Cu Millimeters=0.06 Cu Inches
1 Cu Meter=1,000,000 Cu Centimeters=35.31 Cu Feet

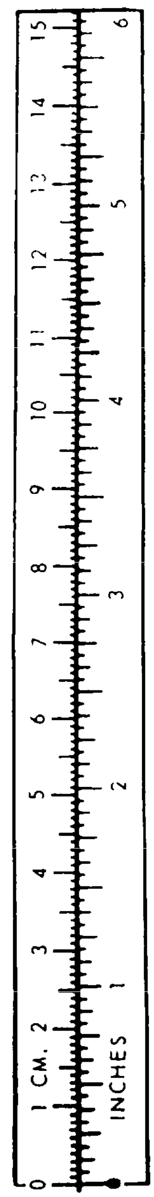
TEMPERATURE

5/9 (°F - 32) = °C
212° Fahrenheit is equivalent to 100° Celsius
90° Fahrenheit is equivalent to 32.2° Celsius
32° Fahrenheit is equivalent to 0° Celsius
9/5 C° +32=F°

APPROXIMATE CONVERSION FACTORS

TO CHANGE	TO	MULTIPLY BY
Inches	Centimeters	2.540
Feet	Meters	0.305
Yards	Meters	0.914
Miles	Kilometers	1.609
Square Inches	Square Centimeters	6.451
Square Feet	Square Meters	0.093
Square Yards	Square Meters	0.836
Square Miles	Square Kilometers	2.590
Acres	Square Hectometers	0.405
Cubic Feet	Cubic Meters	0.028
Cubic Yards	Cubic Meters	0.765
Fluid Ounces	Milliliters	29.573
Pints	Liters	0.473
Quarts	Liters	0.946
Gallons	Liters	3.785
Ounces	Grams	28.349
Pounds	Kilograms	0.454
Short Tons	Metric Tons	0.907
Pound-Feet	Newton-Meters	1.356
Pounds per Square Inch	Kilopascals	6.895
Miles per Gallon	Kilometers per Liter	0.425
Miles per Hour	Kilometers per Hour	1.609

TO CHANGE	TO	MULTIPLY BY
Centimeters	Inches	0.394
Meters	Feet	3.280
Meters	Yards	1.094
Kilometers	Miles	0.621
Square Centimeters	Square Inches	0.155
Square Meters	Square Feet	10.764
Square Meters	Square Yards	1.196
Square Kilometers	Square Miles	0.386
Square Hectometers	Acres	2.471
Cubic Meters	Cubic Feet	35.315
Cubic Meters	Cubic Yards	1.308
Milliliters	Fluid Ounces	0.034
Liters	Pints	2.113
Liters	Quarts	1.057
Liters	Gallons	0.264
Grams	Ounces	0.035
Kilograms	Pounds	2.205
Metric Tons	Short Tons	1.102
Newton-Meters	Pound-Feet	0.738
Kilopascals	Pounds per Square Inch	0.145
Kilometers per Liter	Miles per Gallon	2.354
Kilometers per Hour	Miles per Hour	0.621



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