TO 1300i-2-12JG-35-1

TECHNICAL MANUAL

JOB GUIDE
ORGANIZATIONAL MAINTENANCE

SERVICING OXYGEN
(12-35-00 THROUGH 12-35-04)

USAF SERIES
300i
AIRCRAFT

MCDONNELL DOUGLAS CORPORATION
MILITARY TRANSPORT AIRCRAFT
F33657-81-C-2108
FA8526-21-D-0001

THIS MANUAL SUPERSEDES TO 1300i-2-12JG-35-1 DATED 1 FEBRUARY 2024.

Basic and all changes have been merged to make this a complete publication.
Published under authority of the Secretary of the Air Force

1 OCTOBER 2024

TO 1300i-2-12JG-35-1

HANDLING AND DESTRUCTION NOTICE - Comply with distribution statement and destroy by any method that will prevent disclosure of the contents or reconstruction of the document.

Published under authority of the Secretary of the Air Force

T-2 **1 OCTOBER 2024**

INSERT LATEST CHANGED PAGES. DESTROY SUPERSEDED PAGES.

LIST OF EFFECTIVE PAGES

NOTE: The portion of the text affected by the changes is indicated by a vertical line in the outer margins of the page. Changes to illustrations are indicated by miniature pointing hands.

Dates of issue for original and changed pages are:

Original . . . . . 0 . . . . . 1 Oct 24

TOTAL NUMBER OF PAGES IN THIS PUBLICATION IS 162 CONSISTING OF THE FOLLOWING:

Page No.	* Change No.	Page No.	* Change No.
Title thru T-2	0		
A.	0		
B blank	0		
i	0		
ii blank	0		
iii thru iv	0		
1-1.	0		
1-2 blank	0		
2-1 thru 2-4	0		
2-5 blank	0		
2-6 thru 2-12	0		
2-13 blank	0		
2-14 thru 2-22	0		
2-23 blank	0		
2-24 thru 2-55	0		
2-56 blank	0		
2-57 thru 2-73	0		
2-74 blank	0		
2-75 thru 2-78	0		
2-79 blank	0		
2-80	0		
2-81 blank	0		
2-82 thru 2-104	0		
2-105 blank	0		
2-106 thru 2-151.	0		
2-152 blank	0		

*Zero in this column indicates an original page.

TABLE OF CONTENTS

INTRODUCTION

SCOPE.

This manual contains maintenance procedures for servicing, draining, and purging of the oxygen system.

MODEL(S) COVERED.

All

ABBREVIATIONS.

The following is a list of non-standard abbreviations used throughout this manual:

PLCS	Places
SDS	Safety Data Sheet

CHANGE REQUEST.

Recommended changes to this manual shall be submitted in accordance with TO 00-5-1.

300i TO INFORMATION.

General 300i TO/eTO, TO Manager, Supplement and finalized Recommended Change (RC) information can be found in the Enhanced Technical Information Management System (ETIMS), System of Record.

LIST OF TIME COMPLIANCE TECHNICAL ORDERS (TCTO).

This list of TCTO's contains all current TCTO's that affect the technical content of text or illustrations found in this manual.

TCTO NUMBER	TITLE	TCTO DATE	APPLICABILITY

SECTION 1

GENERAL INFORMATION (12-35-00)

1-1. GENERAL INFORMATION.

1-2. This section provides general information that is essential for ensuring complete and safe maintenance procedures contained throughout this manual.

1-3. GENERAL WARNINGS, CAUTIONS, AND NOTES.

WARNING

Servicing personnel shall be familiar with AFMAN 91-203, TO 00-25-172, TO 15X-1-1, TO 37C2-8-25-1, TO 37C2-8-42-1, and TO 1300i-2-00GV-00-1, Chapter 12 for specific limitations and safety precautions for Liquid Oxygen (LOX) servicing operations. Failure to comply may cause death or injury to personnel and damage to aircraft.

SECTION 2

LIQUID OXYGEN CONVERTER SERVICING CHECKLIST (12-35-01)

GENERAL MAINTENANCE INPUT CONDITIONS:

Applicability:

	Task
All	All

Additional information:

	Task
The accomplishment of this procedure shall be followed in exact step-by-step **CHECKLIST** sequence to prevent damage to equipment or injury to personnel.	All
This procedure consists of the following tasks: 01-1. Preparation. 01-2. Service. 01-3. Follow-on maintenance.	

NOTE	Task
• This is a typical Liquid Oxygen (LOX) converter servicing task for all oxygen systems.	All
• For LOX storage tank valve locations, refer to TO 37C2-8-25-1, TO 37C2-8-42-1, or storage tank specific TO.	All

Additional data:

	Task
TO 1300i-2-10JG-30-1	01-1
TO 1300i-2-52JG-40-1	01-1, 01-3

Personnel recommended:

	Task
One	All

Safety conditions:

	Task
WARNING The use of personal protective equipment is mandatory to perform this procedure. The applicable Safety Data Sheet (SDS) will identify special protection information. Failure to comply may cause injury to personnel.	All

Support equipment:

Nomenclature	PN	Specification	Qty	Task
Cap, Vent	50C-0020-1	--	1	01-2
Container, LOX Recovery	17G470079-1	--	AR	01-1
Cover, Nose Landing Gear Door Protective	17M1A1203-501	--	1	01-1
Drip, Liquid Oxygen Pan	17G470001-1	--	2	01-1
Trailer, Liquid Oxygen Storage Tank	103780	--	1	All
Transfer Unit, Liquid Oxygen - 500 Gallon	50C-0115-1	--	1	All

Supplies:

Nomenclature	PN	Specification	Qty	Task
Cleaning Compound, Solvent	Novec Contact Cleaner	--	AR	01-2

Nomenclature	PN	Specification	Qty	Task
Cleaning Compound, Solvent	Novec 7100	A-A-59150	AR	01-2
Cleaning Compound, Solvent	Solstice PF-HP	--	AR	01-2
Cleaning Compound, Solvent	Sur-Prep 123	--	AR	01-2
Cloth, Cleaning	Rymple Cloth-301-Purified	--	AR	01-2

01-1. PREPARATION.

WARNING

Do not apply external power during non-concurrent Liquid Oxygen (LOX) servicing. Failure to comply may cause death or injury to personnel and damage to aircraft.

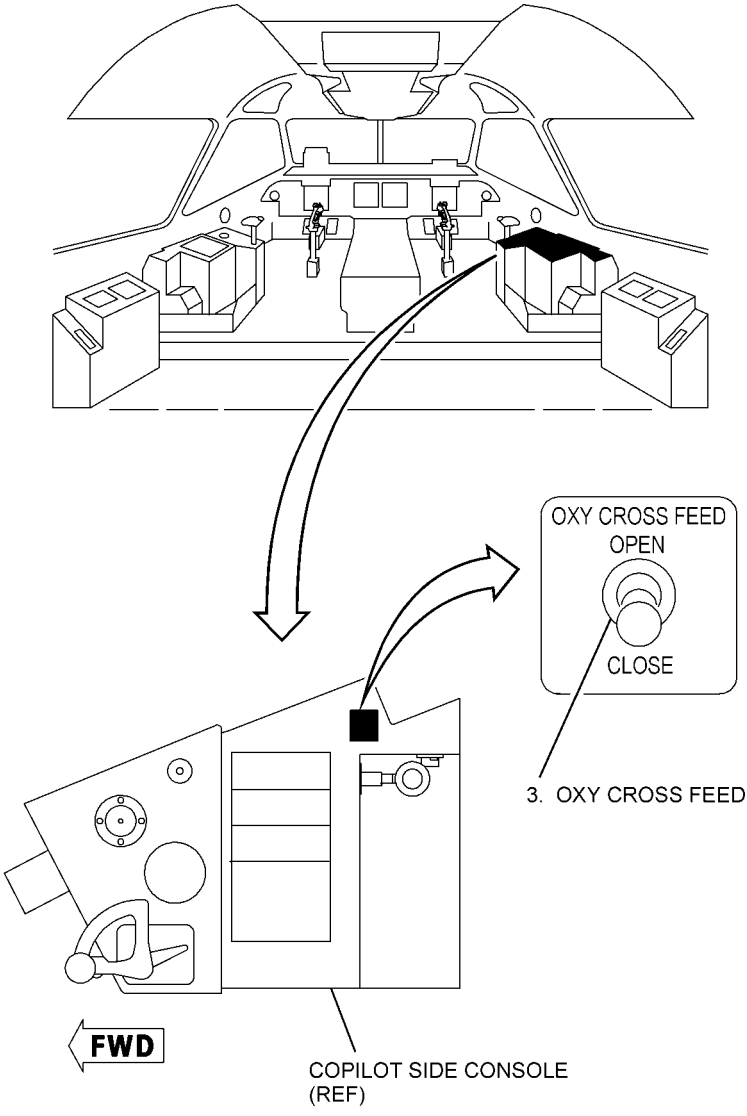
NOTE

When electrical power is required for concurrent LOX servicing operations, see TO 1300i-2-10JG-30-1, para 1-6.

1. Review ″Section 1 (General Information)″ of this TO for system general warnings, cautions, and notes.

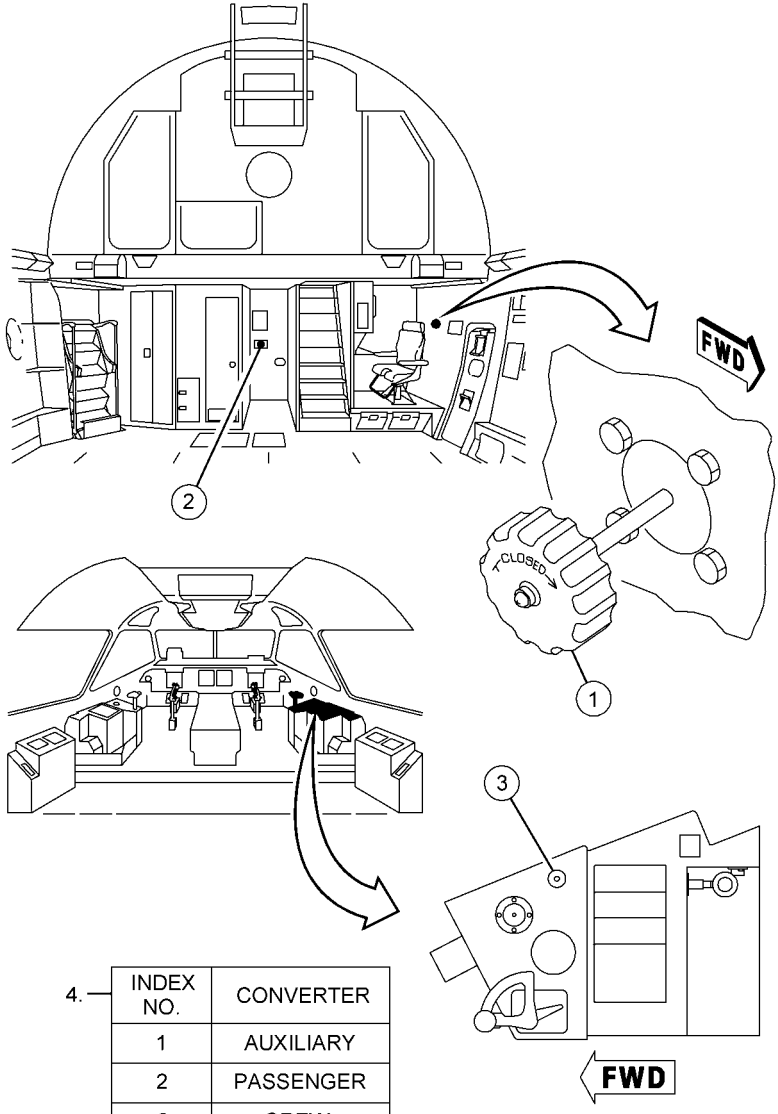
2. Review task ″General Maintenance Input Conditions″ page for task specific safety conditions.

3. Ensure **OXY CROSS FEED** lever is **CLOSED** on copilot side console.



ICN-88277-G1235046-003-01

4. Close applicable LOX manual shutoff valve(s) for converters to be serviced.



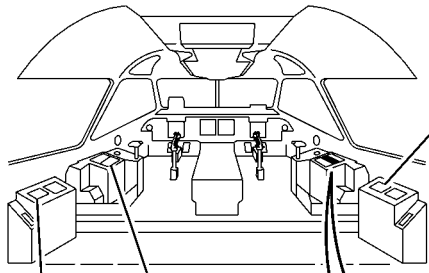
4.

INDEX NO.	CONVERTER
1	AUXILIARY
2	PASSENGER
3	CREW

ICN-88277-G1235047-003-01

5. Ensure **SUPPLY** lever is **OFF** on **OXYGEN REGULATOR PRESSURE DEMAND** panels.

6. Ensure emergency toggle lever is positioned to **NORMAL**.

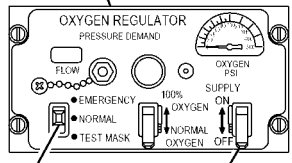


OXYGEN REGULATOR PRESSURE DEMAND PANEL (REF)

OXYGEN REGULATOR PRESSURE DEMAND PANEL (REF)

OXYGEN REGULATOR PRESSURE DEMAND PANEL (REF)

OXYGEN REGULATOR PRESSURE DEMAND PANEL (10 PLCS) (REF)

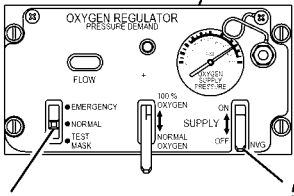


6. EMERGENCY TOGGLE LEVER

5. SUPPLY

PN 17B1N8023-501

OXYGEN REGULATOR PRESSURE DEMAND PANEL (10 PLCS) (REF)

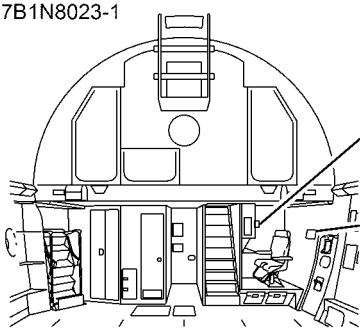


6. EMERGENCY TOGGLE LEVER

5. SUPPLY

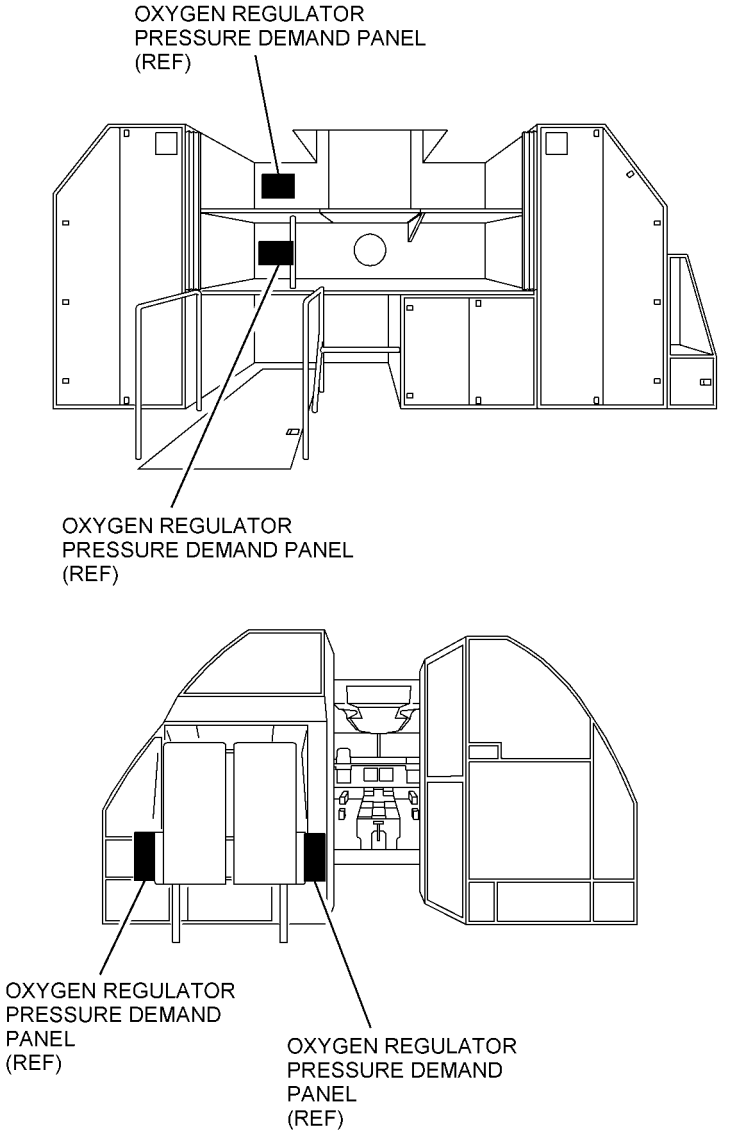
PN 17B1N8023-1

OXYGEN REGULATOR PRESSURE DEMAND PANEL (REF)



OXYGEN REGULATOR PRESSURE DEMAND PANEL (REF)

ICN-88277-G1235048-009-01

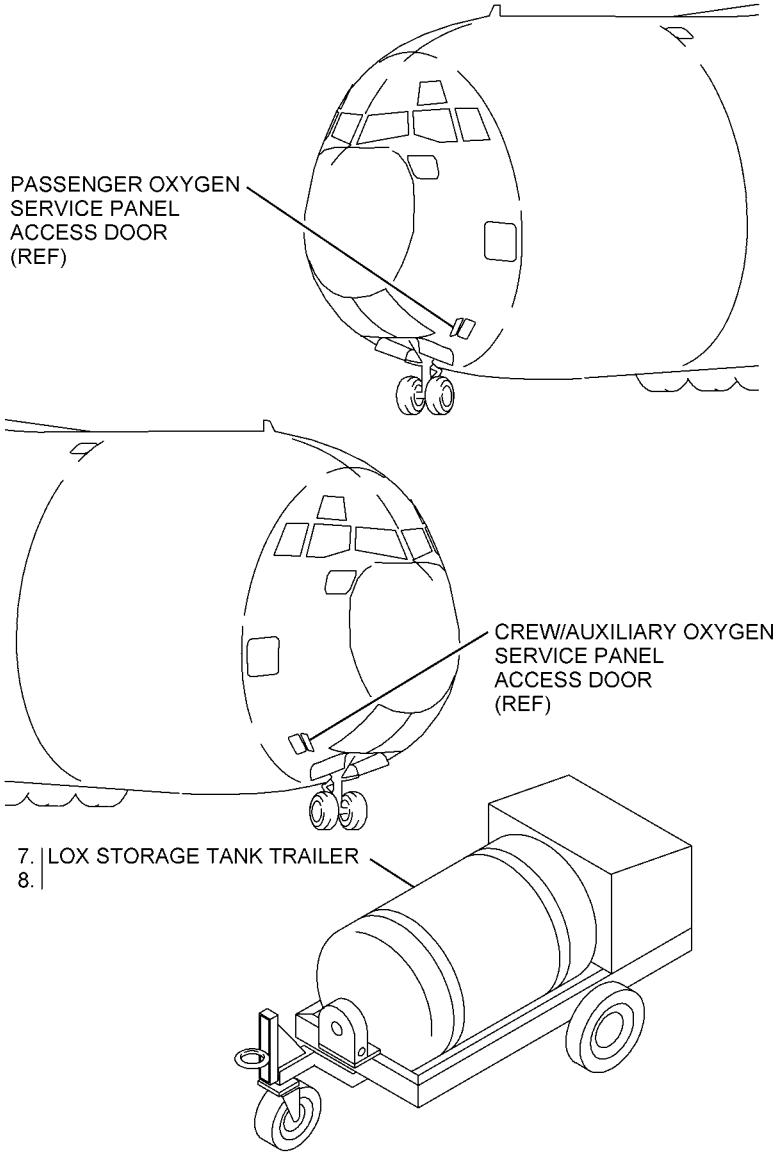


ICN-88277-G1235069-001-01

7. Close LOX storage tank trailer vent line shutoff valve.

8. Position LOX storage tank trailer near oxygen service panel access door as follows:

SYSTEM	ACCESS DOOR
Passenger	113CLD
Crew	114BRD
Auxiliary	114BRD



ICN-88277-G1235001-006-01

9. Ensure forward and aft aircraft static ground wires are connected to earth ground.

10. Position fire extinguisher within 50 feet of servicing area.

WARNING

LOX servicing supply hose does not sufficiently provide a stable ground. Statically ground LOX storage tank trailer to an earth ground before connecting servicing supply hose. Failure to comply may cause injury to personnel and damage to aircraft.

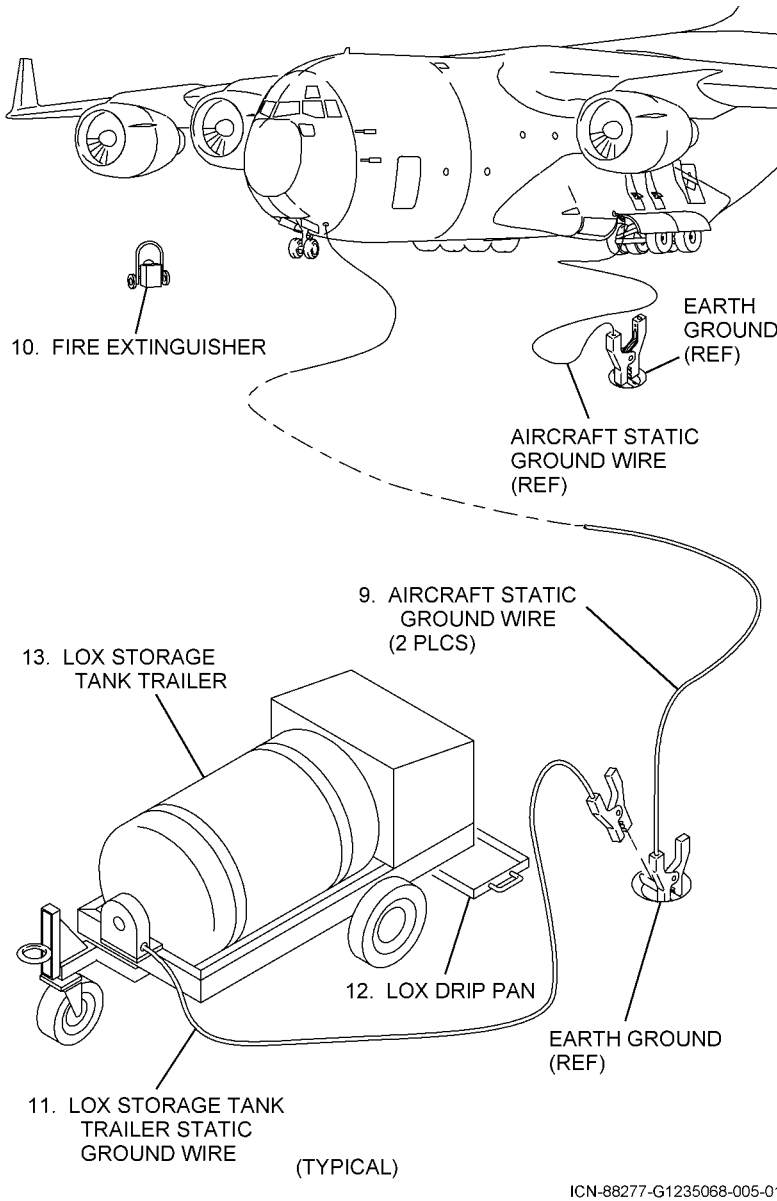
11. Connect LOX storage tank trailer static ground wire to common earth ground with aircraft.

WARNING

Drip pans shall be clean and not be utilized for any purpose other than LOX servicing. Any residual LOX in drip pan(s) should be allowed to boil off and not be poured off. Failure to comply may cause injury to personnel and damage to aircraft.

12. Place clean and serviceable LOX drip pan under LOX storage tank trailer.

13. Open LOX storage tank trailer vent line shutoff valve.



ICN-88277-G1235068-005-01

14. Place clean and serviceable nose landing gear door protective cover over nose landing gear door.

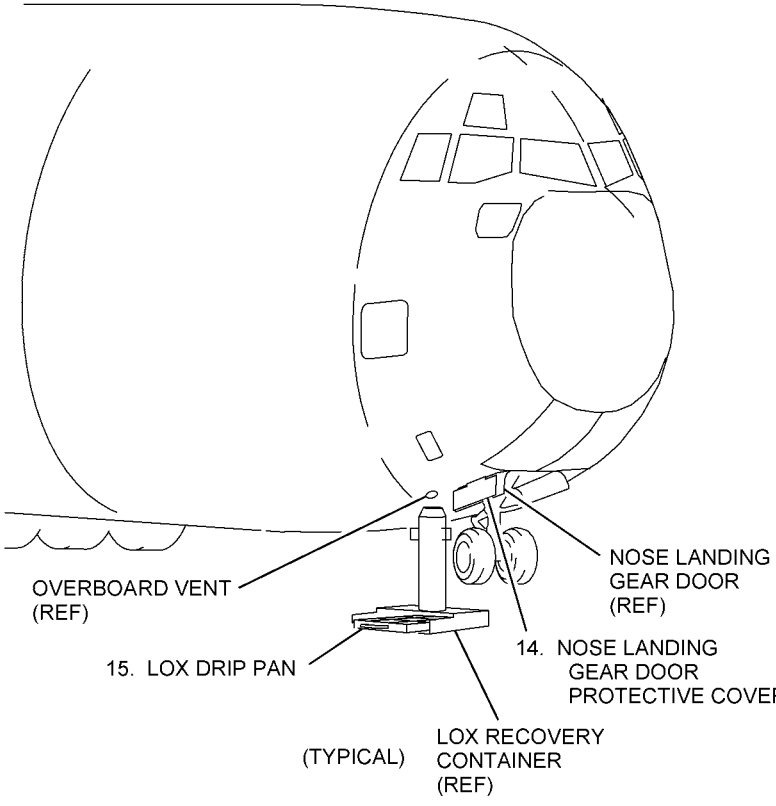
WARNING

During LOX servicing, if wind conditions are such that LOX coming from LOX converter vent port cannot be contained in LOX drip pan, LOX recovery container (PN 17G470079-1) shall be used to prevent possible mixing of LOX and petroleum based products. Failure to comply may cause injury to personnel or damage to aircraft.

NOTE

When using recovery container (PN 17G470079-1), it must be placed inside LOX drip pan.

15. Place clean and serviceable LOX drip pan under overboard vent.



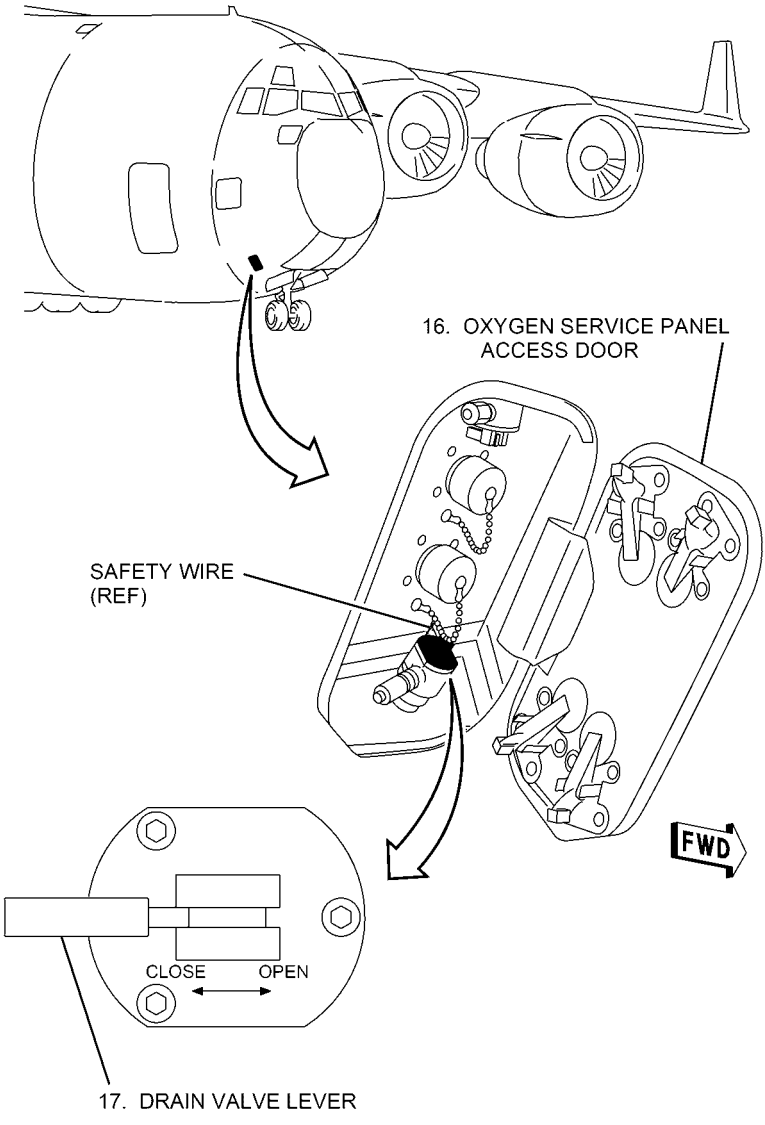
ICN-88277-G1235041-014-01

NOTE

When clearance is not sufficient to access fill valve, oxygen service panel access door removal (52-41-10) may be required.

16. Unlatch and open oxygen service panel access door.

17. Ensure drain valve lever is set to CLOSE and secured with safety wire.



ICN-88277-G1235040-009-01

01-2. SERVICE.

1. Remove cap from auxiliary, crew, or passenger fill valve.

WARNING

Novec 7100, Sur-Prep 123, Solstice PF-HP, and Novec Contact Cleaner solvents are toxic to skin, eyes, and respiratory tract. Personnel shall wear skin and eye protection. Use only in well ventilated areas. Failure to comply may cause injury to personnel.

2. Clean external surface of fill valve with lint-free cloth dampened with Novec 7100, Sur-Prep 123, Solstice PF-HP, or Novec Contact Cleaner solvent.

NOTE

Sufficient time shall pass to allow complete evaporation of solvent.

3. Dry external surface of fill valve with clean dry lint-free cloth.

WARNING

Gaseous oxygen is vented to atmosphere when vent cap is installed. Personnel shall wear protective equipment. Failure to comply may cause injury to personnel.

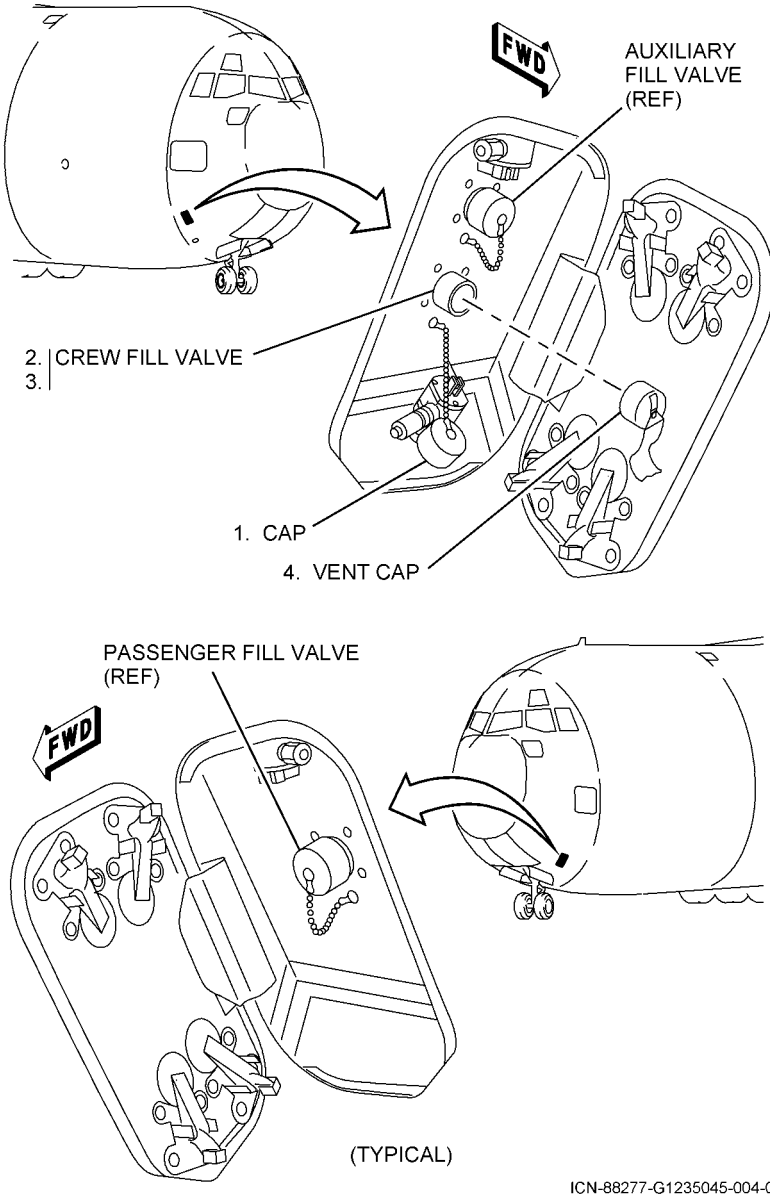
CAUTION

A converter depleted to zero pressure for more than two hours shall be purged before servicing. Failure to comply may cause damage to aircraft.

NOTE

- When purged, the Liquid Oxygen (LOX) converter will be pressurized to approximately 380 psi immediately after purging.
- Servicing of the converter can be conducted at anytime as long as the converter contains positive pressure. Positive pressure is noted with an obvious venting sound when the vent cap is installed.
- Converter positive pressure shall be determined by installing vent cap on aircraft auxiliary, crew, or passenger fill valve for one second and listening for venting sound.

4. Install vent cap on aircraft auxiliary, crew, or passenger fill valve.



ICN-88277-G1235045-004-01

5. Close LOX storage tank trailer vent line shutoff valve.

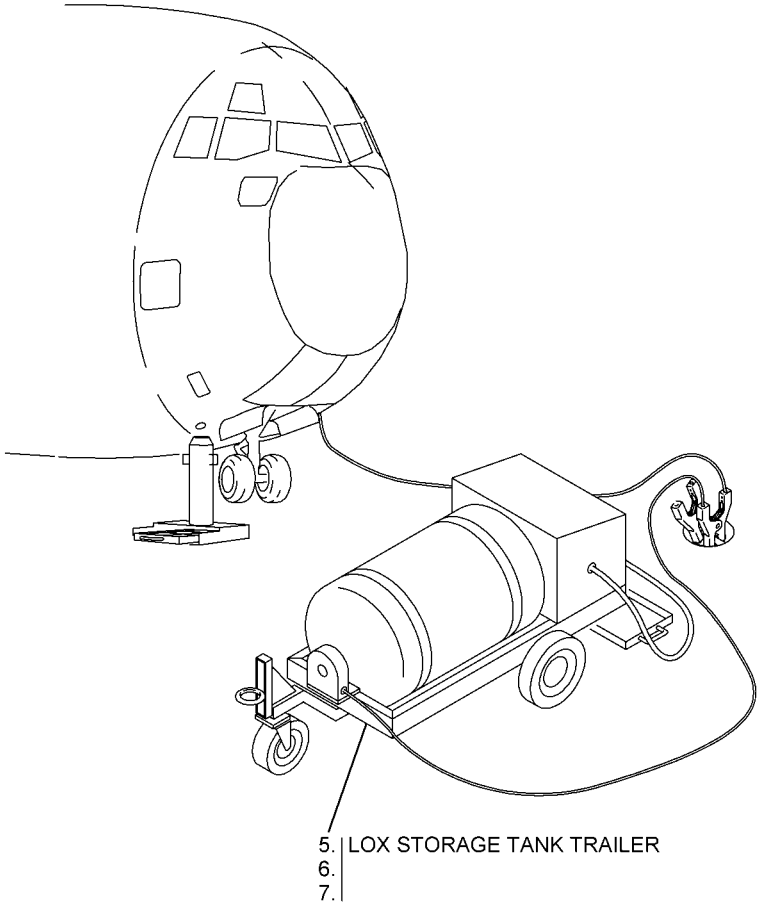
6. Open LOX storage tank trailer buildup valve.

NOTE

- LOX storage tank trailer vent line shutoff valve and buildup valve shall be operated as necessary to maintain required service pressure.

- Initial pressures up to 50 psig may be necessary for higher ambient temperatures. For best results, pressure should gradually be reduced as converter is filled.

7. Pressurize LOX storage tank trailer to 30-50 psig.



(TYPICAL)

ICN-88277-G1235002-018-01

WARNING

Novec 7100, Sur-Prep 123, Solstice PF-HP, and Novec Contact Cleaner solvents are toxic to skin, eyes, and respiratory tract. Personnel shall wear skin and eye protection. Use only in well ventilated areas. Failure to comply may cause injury to personnel.

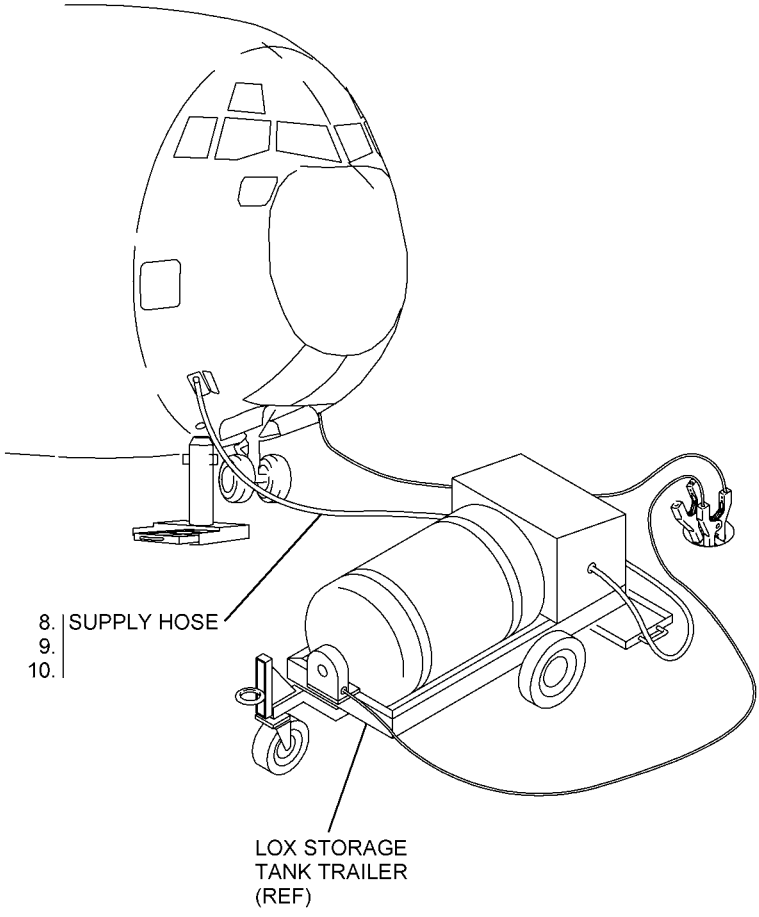
8. Clean external surface of supply hose nozzle and LOX storage tank trailer purge adapter with lint-free cloth dampened with Novec 7100, Sur-Prep 123, Solstice PF-HP, or Novec Contact Cleaner solvent.

NOTE

Sufficient time shall pass to allow complete evaporation of solvent.

9. Dry external surface of supply hose nozzle and LOX storage tank trailer purge adapter with clean dry lint-free cloth.

10. Remove LOX storage tank trailer supply hose cap; connect supply hose nozzle firmly to LOX storage trailer purge adapter by fully engaging J slots and twisting mating mechanism into final fill position.



(TYPICAL)

ICN-88277-G1235072-002-01

WARNING

LOX will flow from LOX storage tank trailer filler valve into drip pan. In addition to use of required protective equipment, stand clear of purge area to avoid contact with LOX. Failure to comply may cause injury to personnel and damage to equipment.

11. Open LOX storage tank trailer servicing line shutoff valve and purge supply hose until a steady stream of LOX flows from supply hose.

    - Steady stream of LOX flows from hose.

12. Close LOX storage tank trailer servicing line shutoff valve.

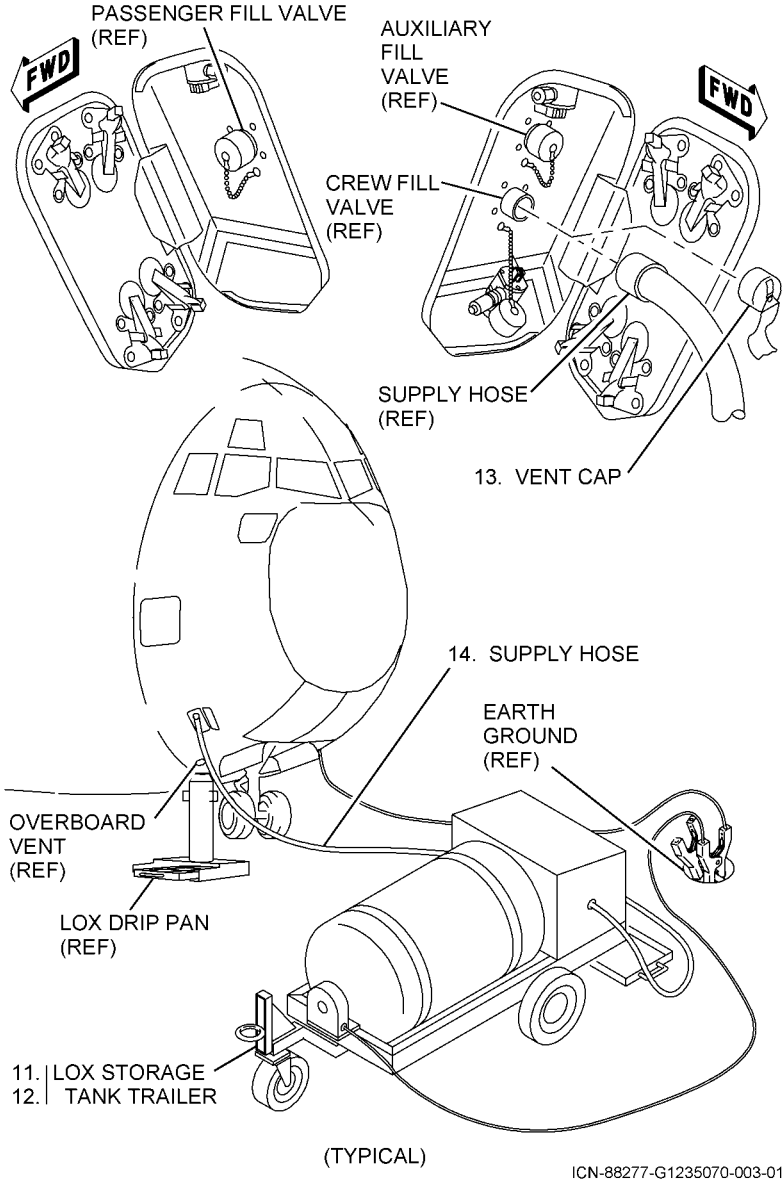
13. Remove vent cap from aircraft auxiliary, crew, or passenger fill valve after flow ceases at overboard vent.

WARNING

- LOX will flow from overboard vent when LOX converter is full. In addition to use of required protective equipment, stand clear of vent to avoid contact with LOX. Failure to comply may cause injury to personnel and damage to equipment.

- LOX storage tank trailer and aircraft shall be statically grounded to an earth ground before connecting LOX supply hose to aircraft. Failure to comply may cause injury to personnel and damage to aircraft.

14. Connect supply hose to aircraft auxiliary, crew, or passenger fill valve by fully engaging J slots and twisting mating mechanism into final fill position.



ICN-88277-G1235070-003-01

NOTE

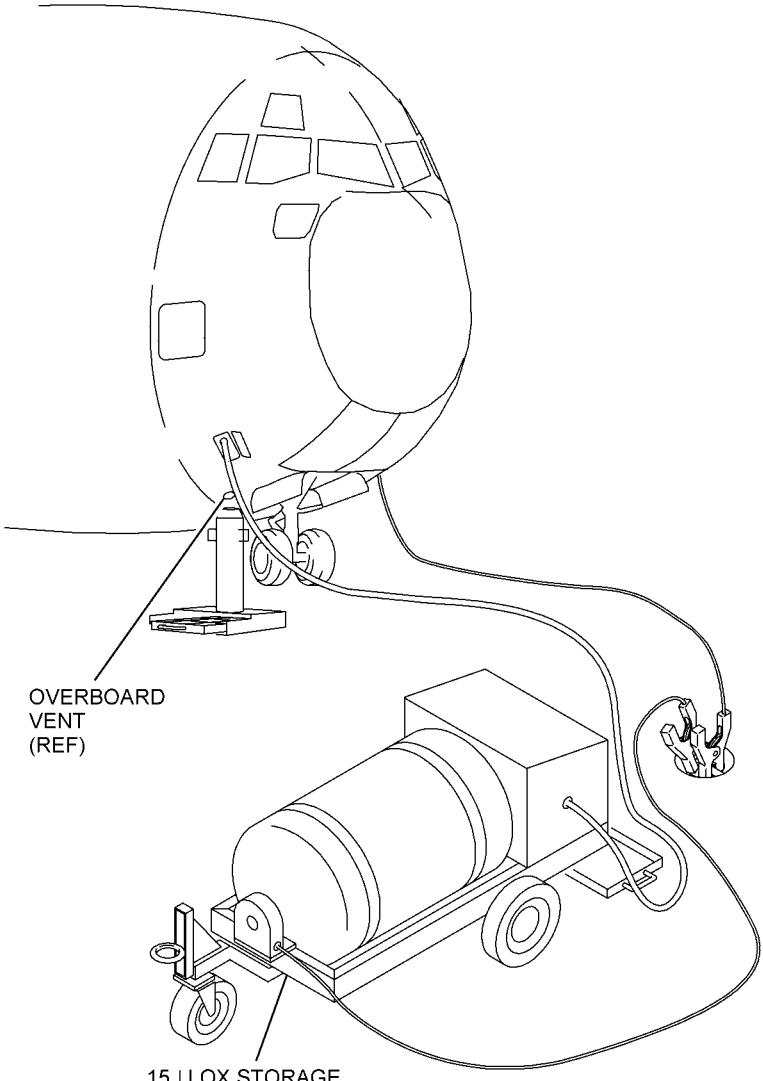
- LOX converter may be slow to fill or may not fill completely.
- LOX storage tank trailer vent line shutoff valve and buildup valve shall be operated as necessary to maintain storage tank pressure.
- Initial pressures up to 50 psig may be necessary for higher ambient temperatures. For best results, pressure should gradually be reduced as converter is filled.

15. Ensure LOX storage tank trailer pressure is maintained at 30-50 psig.

NOTE

Discontinue LOX servicing when LOX storage tank trailer quantity gauge reaches 5 gallons. Depletion of LOX storage tank trailer can lead to tank contaminant buildup, rendering LOX storage tank unserviceable for use and requiring LOX storage tank purging.

16. Open LOX storage tank trailer servicing line shutoff valve to service LOX system.
    - LOX system is full or desired quantity is reached.
    - Constant stream of LOX flows from overboard vent when converter is full.
17. Close LOX storage tank trailer buildup valve.
18. Close LOX storage tank trailer servicing line shutoff valve.



ICN-88277-G1235043-011-01

19. Open LOX storage tank trailer vent line shutoff valve to release pressure in LOX storage tank.

20. Open LOX storage tank trailer servicing line drain valve to relieve pressure from servicing hose.

WARNING

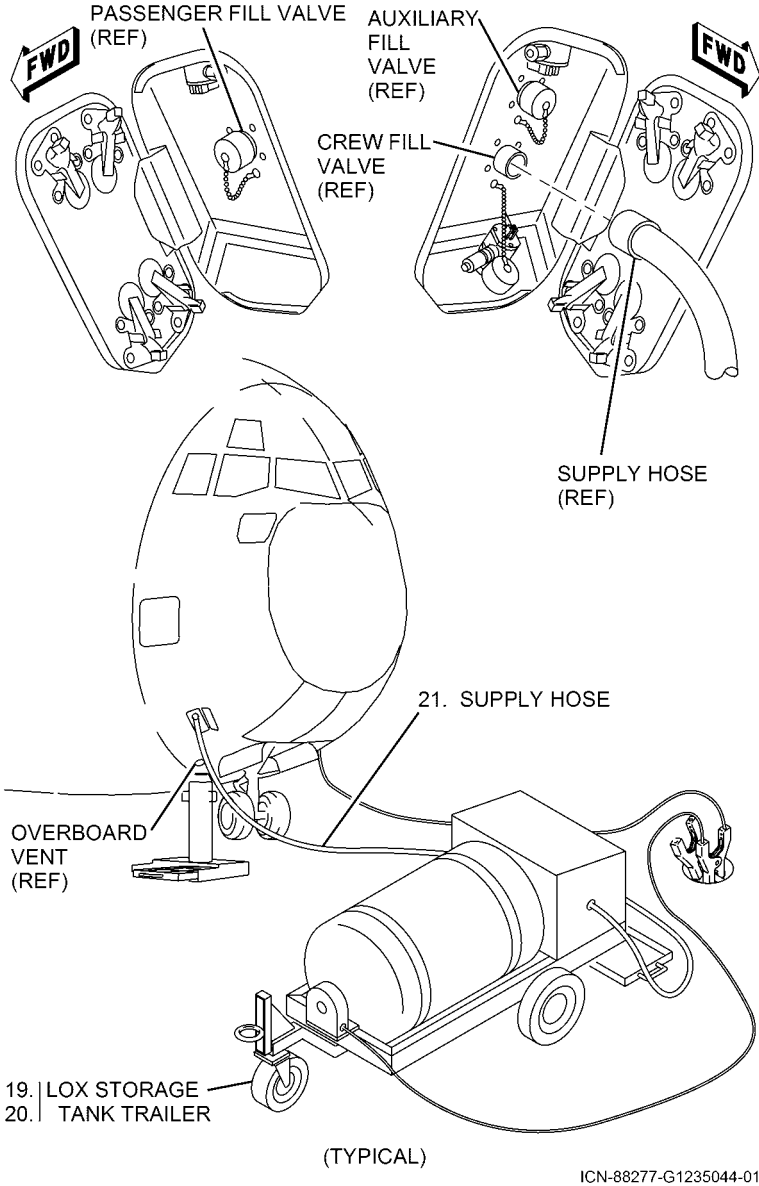
- Supply hose may freeze to fill valve. When the hose cannot easily be removed, allow connections to thaw for 5-15 minutes. Hot water can be used immediately to help thawing process. Failure to comply may cause injury to personnel and damage to aircraft.

- Fill valve may freeze in open position while converter is being filled and LOX may spill from valve when servicing hose is disconnected. Stand to one side when removing hose to avoid contact with LOX. Failure to comply may cause injury to personnel and damage to equipment.

CAUTION

If hose nozzle twisting mating mechanism is frozen, allow time to thaw and ensure LOX storage tank supply hose nozzle twisting mating mechanism is fully extended. Failure to comply will result in hose cap not properly securing to hose nozzle.

21. Disconnect supply hose from auxiliary, crew, or passenger fill valve; install cap on LOX storage tank trailer supply hose.



ICN-88277-G1235044-012-01

WARNING

Never pressurize the converter system immediately after filling. Allow sufficient time in the vented condition for stabilization to occur prior to placing the system in build-up or attempting to accurately read the quantity gauge. LOX is very unstable and boils violently after being transferred. Failure to allow adequate stabilization time by open venting after filling can result in valve blockage and subsequent explosion where the system has been contaminated with moisture. On other occasions, pressurizing an unstable system will cause fill check leakage of the combination fill-buildup-vent valve resulting in continuous overboard venting and permanent damage to all valves and the container by vibration from erratic pressures. Failure to comply may cause injury to personnel and damage to equipment.

22. Install vent cap on aircraft auxiliary, crew, or passenger fill valve. Allow system to remain in vent mode for 30 minutes.

NOTE

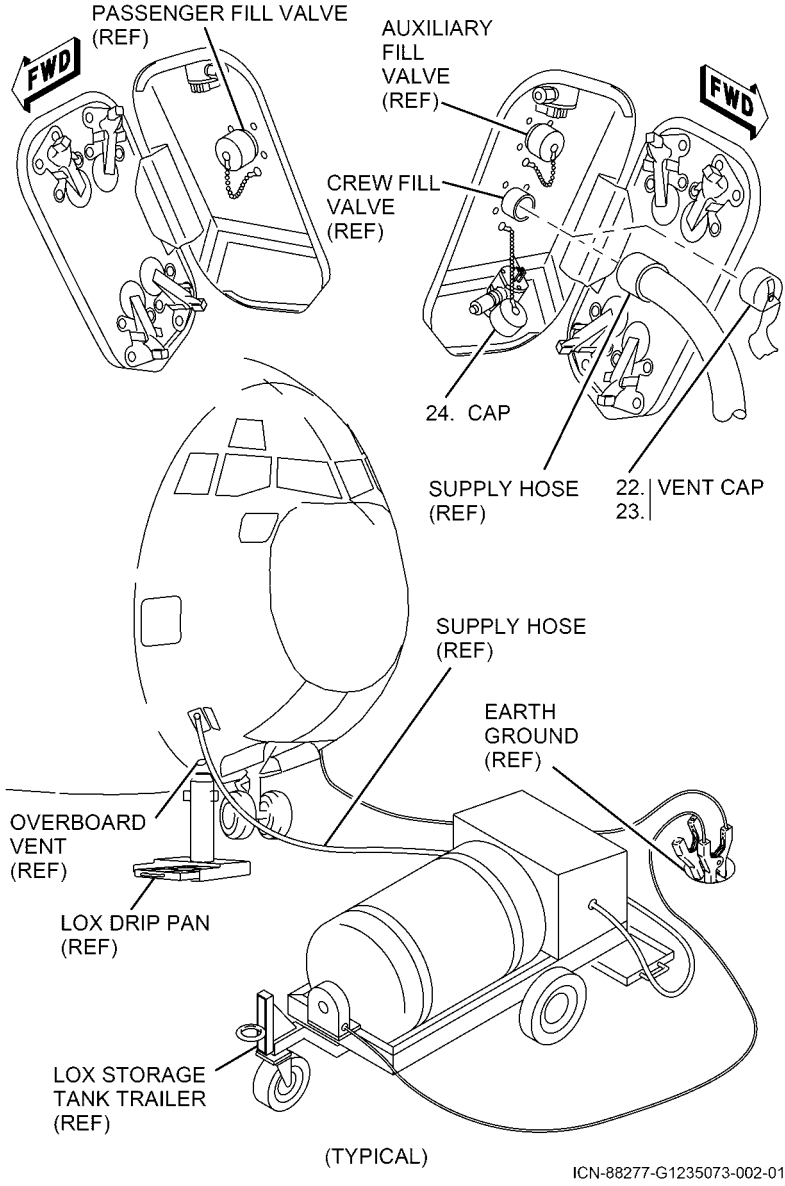
Fill valve can get stuck in venting mode, causing the converter to be prematurely emptied over time. Vent cap can be momentarily installed for 2 seconds to reset the fill valve.

23. Remove vent cap and ensure no venting is coming out of fill valve or overboard vent.

NOTE

After completion of step 24, other LOX converters may be serviced, by repeating task 01-1, steps 7 thru 16 and task 01-2, steps 7 thru 16.

24. Place cap on auxiliary, crew, or passenger fill valve.



ICN-88277-G1235073-002-01

01-3. FOLLOW-ON MAINTENANCE.

NOTE

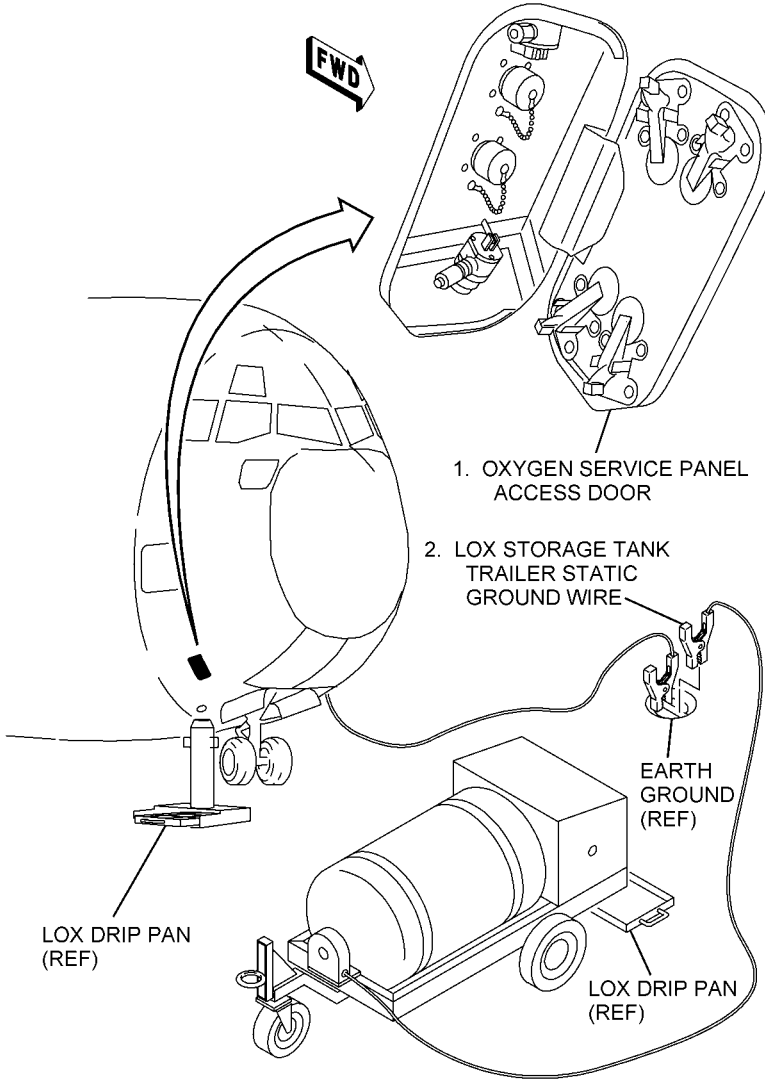
Install oxygen service panel access door (52-41-10) if previously removed due to inadequate clearance.

1. Position and latch oxygen service panel access door.

WARNING

Allow Liquid Oxygen (LOX) to evaporate from LOX drip pans before disconnecting LOX storage tank trailer static ground wire from earth ground. Any residual LOX in drip pan(s) should be allowed to boil off and not be poured off. Failure to comply may cause injury to personnel and damage to aircraft.

2. Disconnect LOX storage tank trailer static ground wire from earth ground.



(TYPICAL)

ICN-88277-G1235042-007-01

3. Close LOX storage tank trailer vent line shutoff valve.

4. Close LOX storage tank trailer servicing line drain valve.

5. Move LOX storage tank trailer and LOX drip pan away from aircraft.

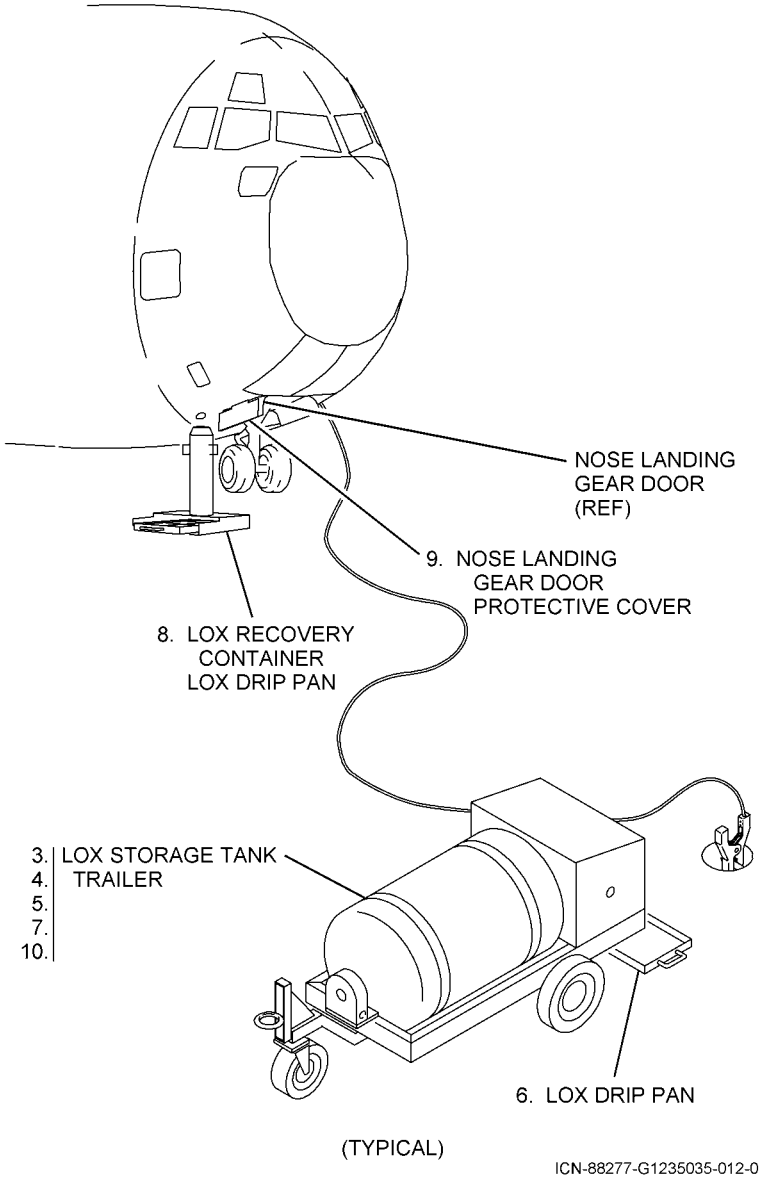
6. Place LOX drip pan under LOX storage tank trailer.

7. Open LOX storage tank trailer vent line shutoff valve.

8. Move LOX recovery container, if used, and LOX drip pan away from aircraft.

9. Remove nose landing gear door protective cover from nose landing gear door.

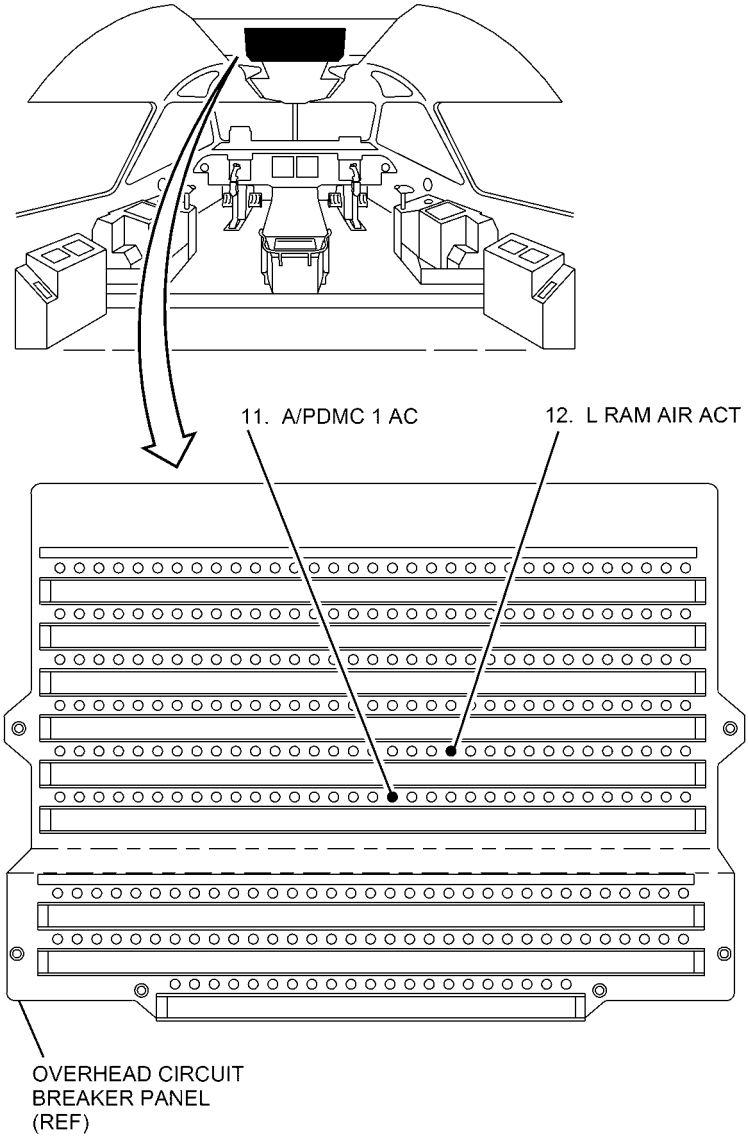
10. Ensure LOX storage tank trailer Form 134 is properly annotated with required servicing entries.


NOSE LANDING GEAR DOOR (REF)
9. NOSE LANDING GEAR DOOR PROTECTIVE COVER
8. LOX RECOVERY CONTAINER LOX DRIP PAN
3. LOX STORAGE TANK TRAILER
4.
5.
7.
10.
6. LOX DRIP PAN
(TYPICAL)
ICN-88277-G1235035-012-01

11. Open **A/PDMC 1 AC** circuit breaker on overhead panel, row **F**, column **18**.

Verify the RAM air inlet doors are closed prior to removing aircraft power. Failure to comply may cause damage to equipment.

12. Open **L RAM AIR ACT** circuit breaker on overhead panel, row **E**, column **21**.



ICN-88277-G1235080-002-01

CAUTION

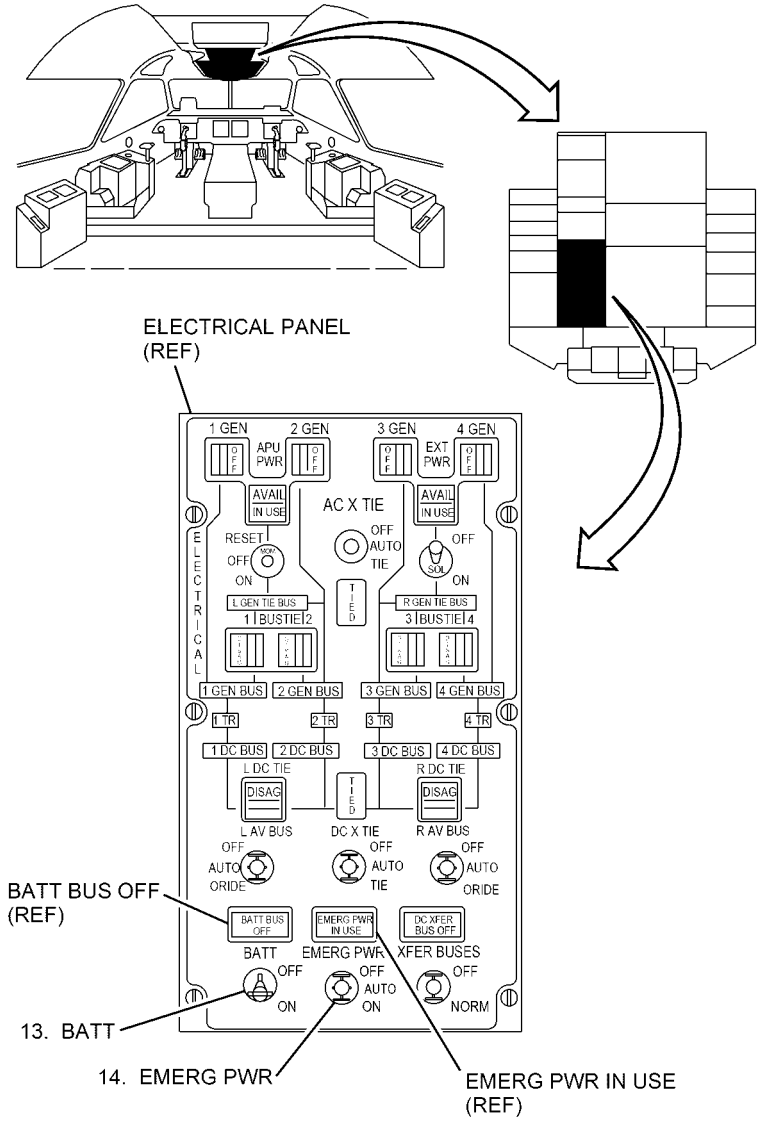
Battery power shall not be applied for a longer duration needed to check quantity. Failure to comply may cause draining of aircraft batteries.

13. Set **BATT** switch on **ELECTRICAL** panel to **ON**.

    - **BATT BUS OFF** light stays off.

14. Set **EMERG PWR** switch to **ON**.

    - **EMERG PWR IN USE** light comes on.



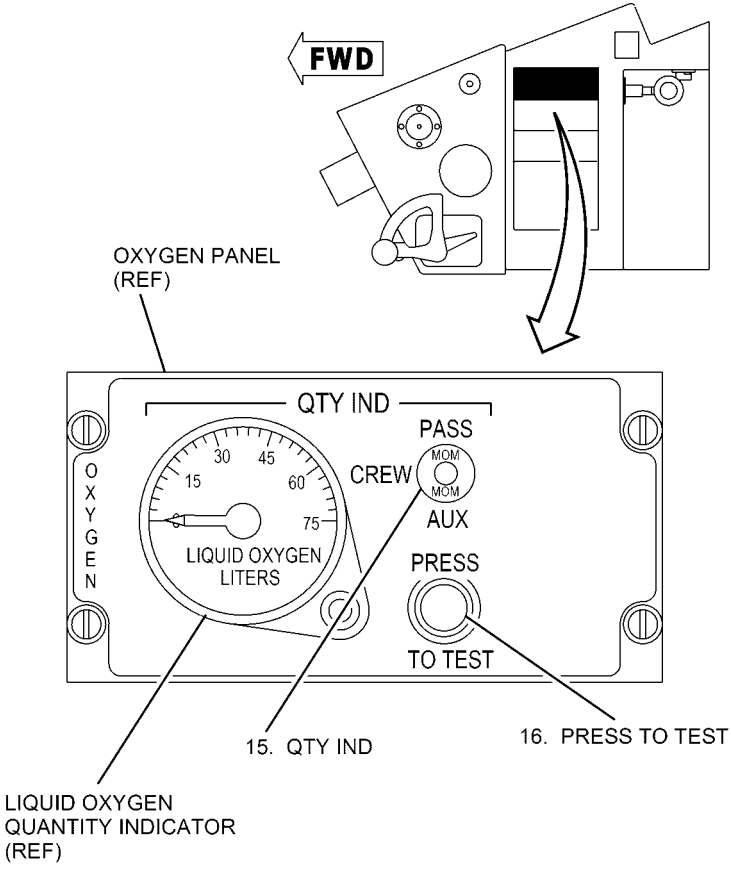
ICN-88277-G1235081-002-01

15. Set **QTY IND** switch on **OXYGEN** panel to view LOX quantity.

CONVERTER	SWITCH POSITION
AUXILIARY	AUX
PASSENGER	PASS
CREW	CREW

16. Press **PRESS TO TEST** until approximately 2.5 L read on gauge then release button.

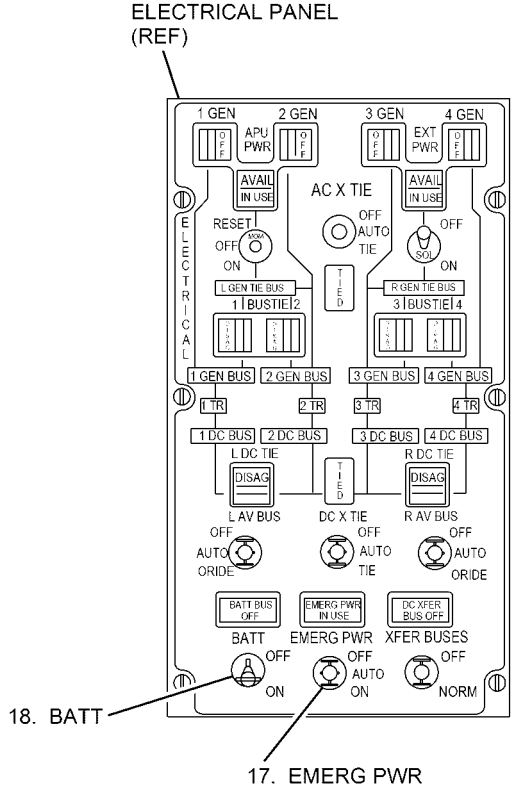
    - LOX quantity indicator and gauge returns to read current quantity for applicable converter selected. Repeat steps 15 and 16 as required.



ICN-88277-G1235082-002-01

17. Set **EMERG PWR** switch on **ELECTRICAL** panel to **OFF**.

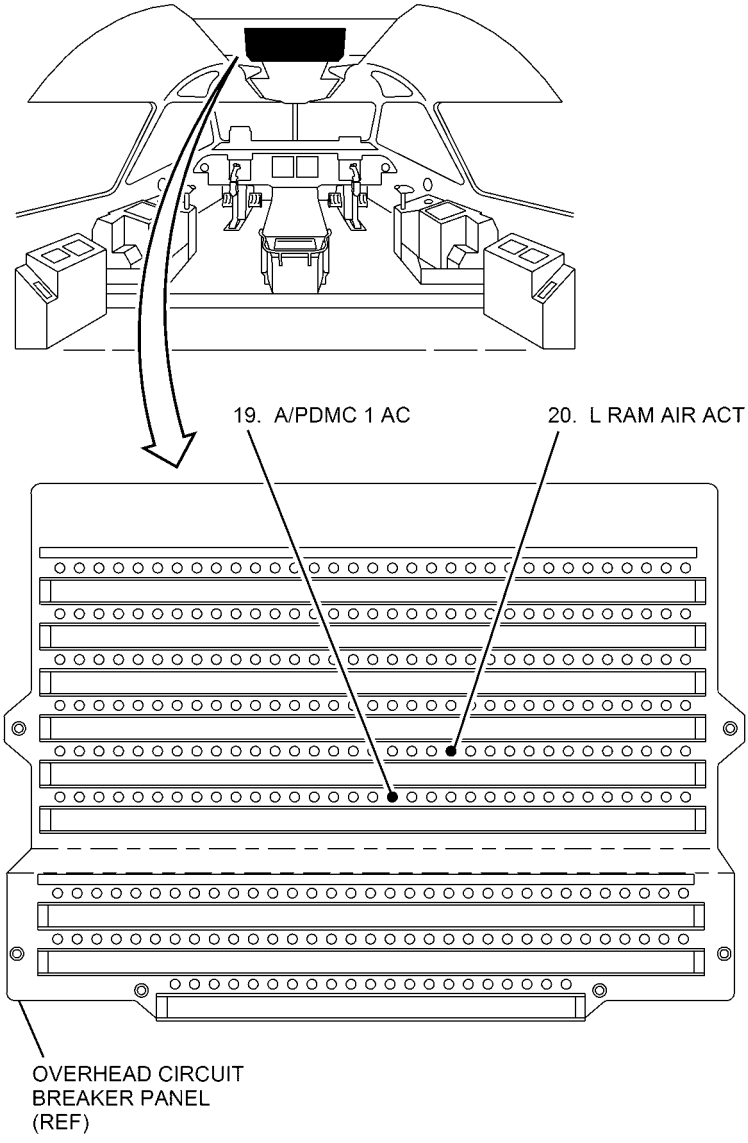
18. Set **BATT** switch to **OFF**.



ICN-88277-G1235083-002-01

19. Close **A/PDMC 1 AC** circuit breaker on overhead panel row **F**, column **18**.

20. Close **L RAM AIR ACT** circuit breaker on overhead panel, row **E**, column **21**.



ICN-88277-G1235084-002-01

21. ⟨LK⟩ ⟨LQ⟩ ⟨LR⟩ ⟨LT⟩ → ⟨LV⟩ ⟨LX⟩ ⟨LZ⟩ → ⟨MB⟩ ⟨ME⟩ No action required.

CAUTION

⟨AA⟩ → ⟨LJ⟩ ⟨LL⟩ → ⟨LP⟩ ⟨LS⟩ ⟨LW⟩ ⟨LY⟩ ⟨MC⟩ ⟨MD⟩ ⟨MF⟩ → Wait 60 seconds prior performing the subsequent steps to ensure the NVRAM writing has been successfully accomplished and Core Integrated Processors (CIP) do not lock up in the event a nuisance BIT fault occurred when **EMERG PWR** is switched to **OFF**. Failure to comply may cause damage to aircraft.

21. ⟨AA⟩ → ⟨LJ⟩ ⟨LL⟩ → ⟨LP⟩ ⟨LS⟩ ⟨LW⟩ ⟨LY⟩ ⟨MC⟩ ⟨MD⟩ ⟨MF⟩ → Open **CIP 1 SECONDARY** circuit breaker on overhead circuit breaker panel, row **D**, column **2**.

22. ⟨LK⟩ ⟨LQ⟩ ⟨LR⟩ ⟨LT⟩ → ⟨LV⟩ ⟨LX⟩ ⟨LZ⟩ → ⟨MB⟩ ⟨ME⟩ No action required.

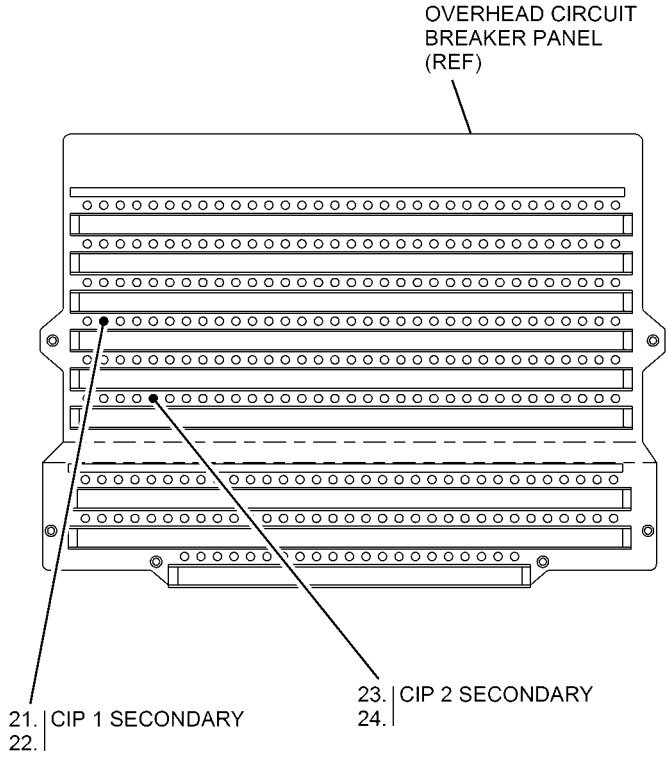
22. ⟨AA⟩ → ⟨LJ⟩ ⟨LL⟩ → ⟨LP⟩ ⟨LS⟩ ⟨LW⟩ ⟨LY⟩ ⟨MC⟩ ⟨MD⟩ ⟨MF⟩ → Close **CIP 1 SECONDARY** circuit breaker on overhead circuit breaker panel, row **D**, column **2**.

23. ⟨LK⟩ ⟨LQ⟩ ⟨LR⟩ ⟨LT⟩ → ⟨LV⟩ ⟨LX⟩ ⟨LZ⟩ → ⟨MB⟩ ⟨ME⟩ No action required.

23. ⟨AA⟩ → ⟨LJ⟩ ⟨LL⟩ → ⟨LP⟩ ⟨LS⟩ ⟨LW⟩ ⟨LY⟩ ⟨MC⟩ ⟨MD⟩ ⟨MF⟩ → Open **CIP 2 SECONDARY** circuit breaker on overhead circuit breaker panel, row **F**, column **5**.

24. ⟨LK⟩ ⟨LQ⟩ ⟨LR⟩ ⟨LT⟩ → ⟨LV⟩ ⟨LX⟩ ⟨LZ⟩ → ⟨MB⟩ ⟨ME⟩ No action required.

24. ⟨AA⟩ → ⟨LJ⟩ ⟨LL⟩ → ⟨LP⟩ ⟨LS⟩ ⟨LW⟩ ⟨LY⟩ ⟨MC⟩ ⟨MD⟩ ⟨MF⟩ → Close **CIP 2 SECONDARY** circuit breaker on overhead circuit breaker panel, row **F**, column **5**.

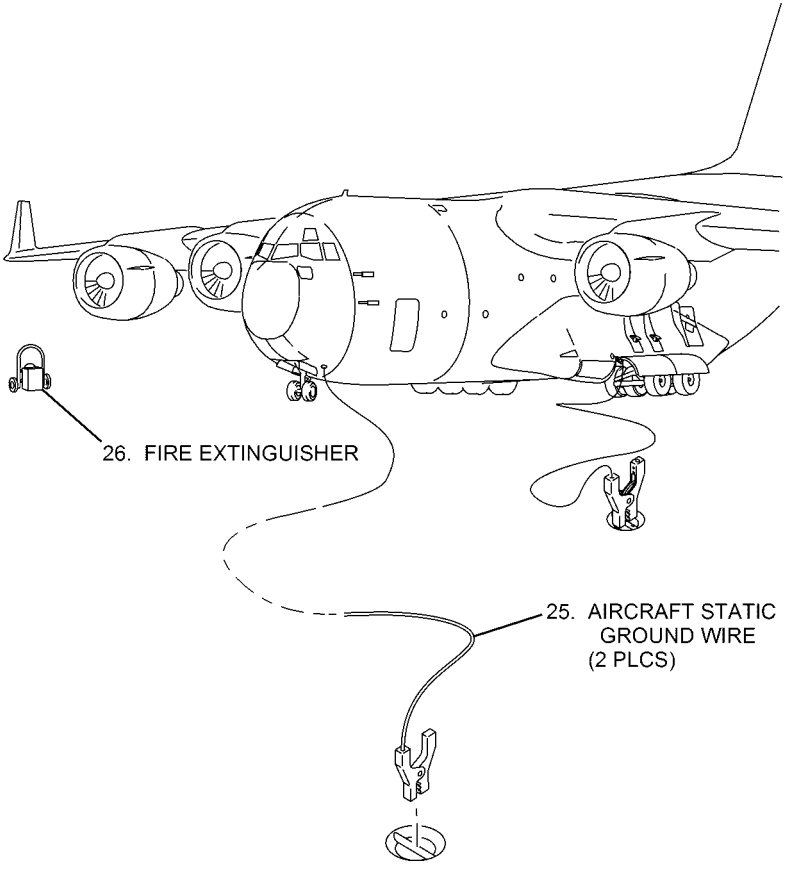


AA → LJ LL → LP LS
LW LY MC MD MF → MM

ICN-88277-G1235086-001-01

25. Remove forward and aft aircraft static ground wires as required.

26. Position fire extinguisher off right wing tip.



(TYPICAL)

ICN-88277-G1235071-004-01

LIQUID OXYGEN CONVERTER DRAINING CHECKLIST (12-35-02)

GENERAL MAINTENANCE INPUT CONDITIONS:

Applicability:

	Task
All	All

Additional information:

	Task
The accomplishment of this procedure shall be followed in exact step-by-step **CHECKLIST** sequence to prevent damage to equipment or injury to personnel.	All
This procedure consists of the following tasks: 02-1. Preparation. 02-2. Drain. 02-3. Follow-on maintenance.	

NOTE	**Task**
This is a typical Liquid Oxygen (LOX) converter draining task for all oxygen systems.	All

Additional data:

	Task
NA	--

Personnel recommended:

	Task
One	All

Safety conditions:

	Task
WARNING	
The use of personal protective equipment is mandatory to perform this procedure. The applicable Safety Data Sheet (SDS) will identify special protection information. Failure to comply may cause injury to personnel.	All

Support equipment:

Nomenclature	PN	Specification	Qty	Task
Kit, Liquid Oxygen Drain	4S80017-101A	--	1	02-2

Supplies:

Nomenclature	PN	Specification	Qty	Task
Tag, Warning	--	--	1	02-1
Wire, Safety	MS20995C32	--	AR	02-3

02-1. PREPARATION.

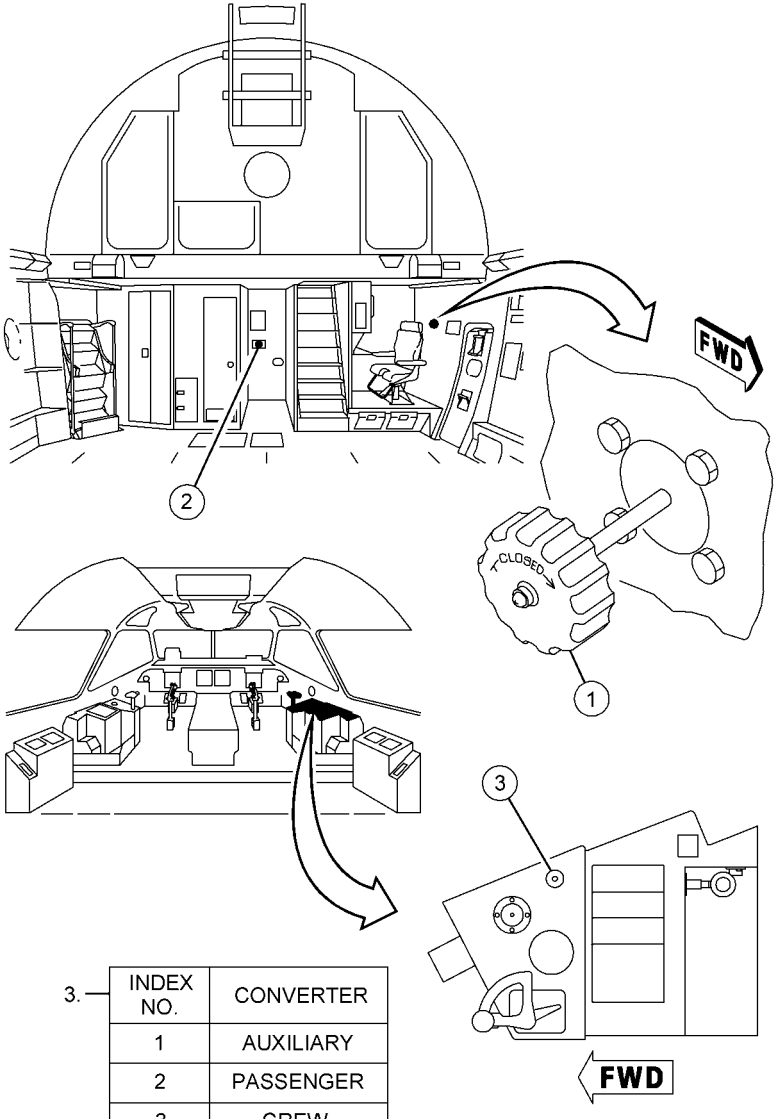
1. Review ″Section 1 (General Information)″ of this TO for system general warnings, cautions, and notes.

2. Review task ″General Maintenance Input Conditions″ page for task specific safety conditions.

WARNING

The shutoff valve shall be fully closed to prevent a possible pressure build-up in the system after venting. Failure to comply may cause injury to personnel and damage to aircraft.

3. Close shutoff valve and attach warning tag.

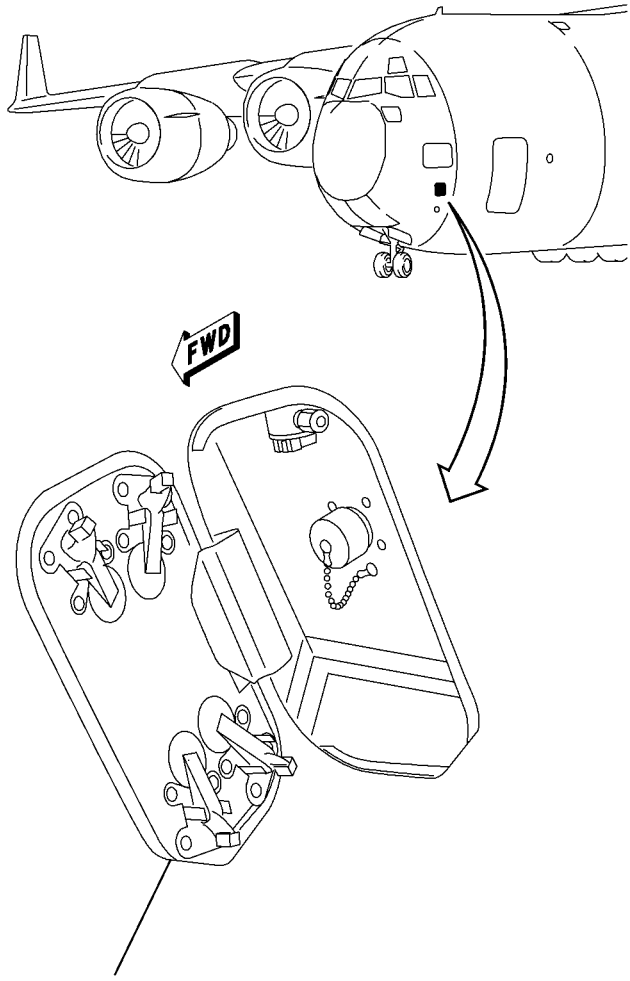


3.

INDEX NO.	CONVERTER
1	AUXILIARY
2	PASSENGER
3	CREW

ICN-88277-G1235004-005-01

4. Unlatch and open oxygen service panel access door.

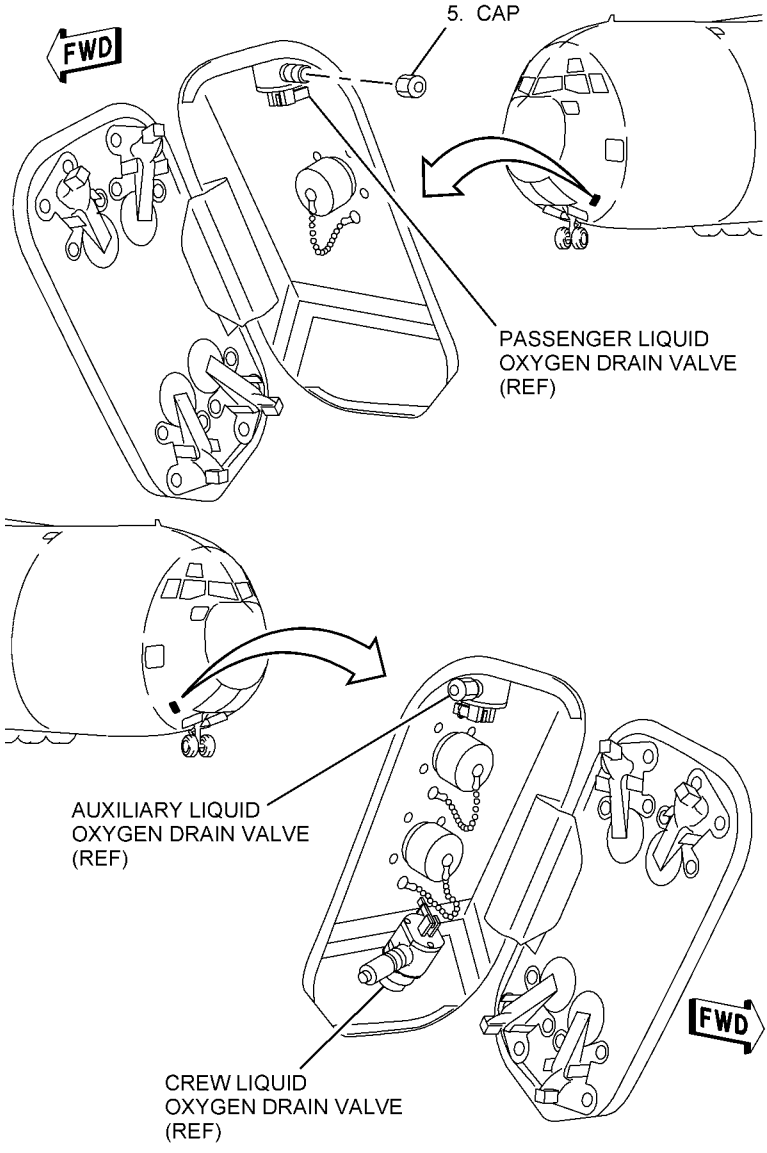


4. OXYGEN SERVICE PANEL ACCESS DOOR

(TYPICAL)

ICN-88277-G1235036-005-01

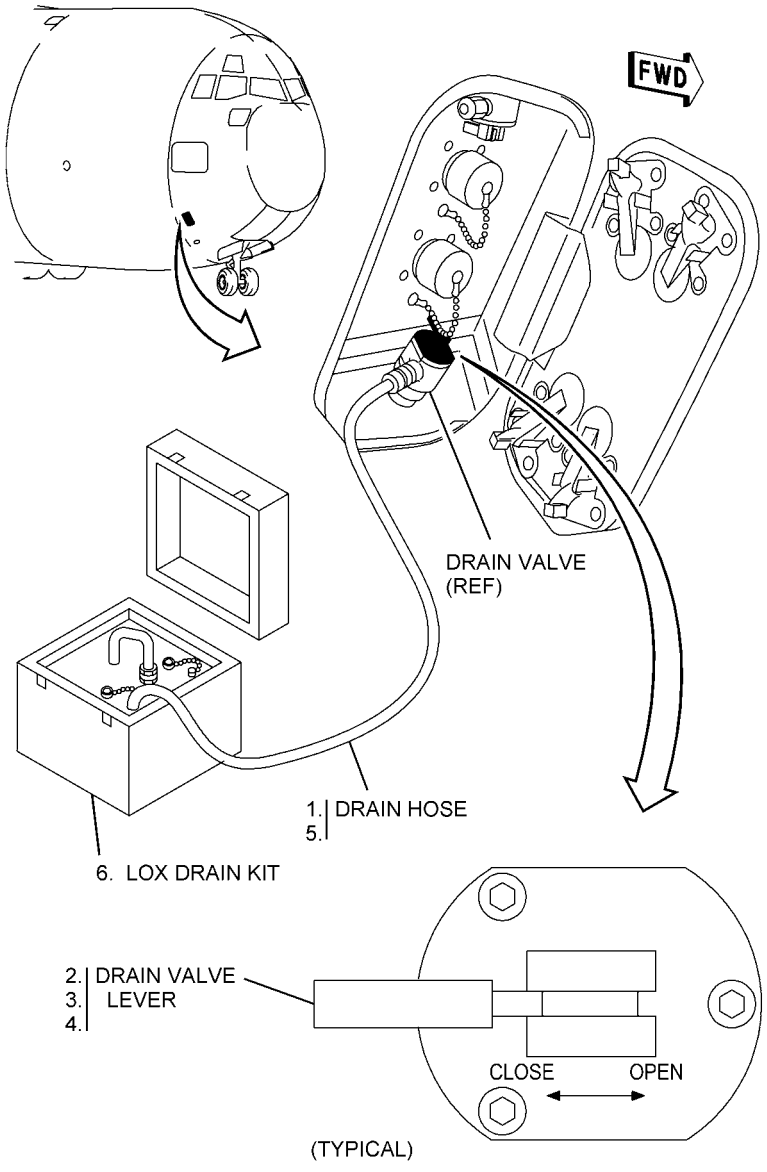
5. Remove cap from Liquid Oxygen (LOX) drain valve.



ICN-88277-G1235037-005-01

02-2. DRAIN.

1. Connect drain hose from Liquid Oxygen (LOX) drain kit to drain valve.
2. Remove safety wire and slowly rotate drain valve lever to **OPEN**.
3. Leave drain valve lever in **OPEN** until LOX flow stops.
4. Set drain valve lever to **CLOSE** after LOX flow stops.
5. Disconnect drain hose from drain valve.
6. Allow LOX to evaporate, move LOX drain kit away from aircraft.



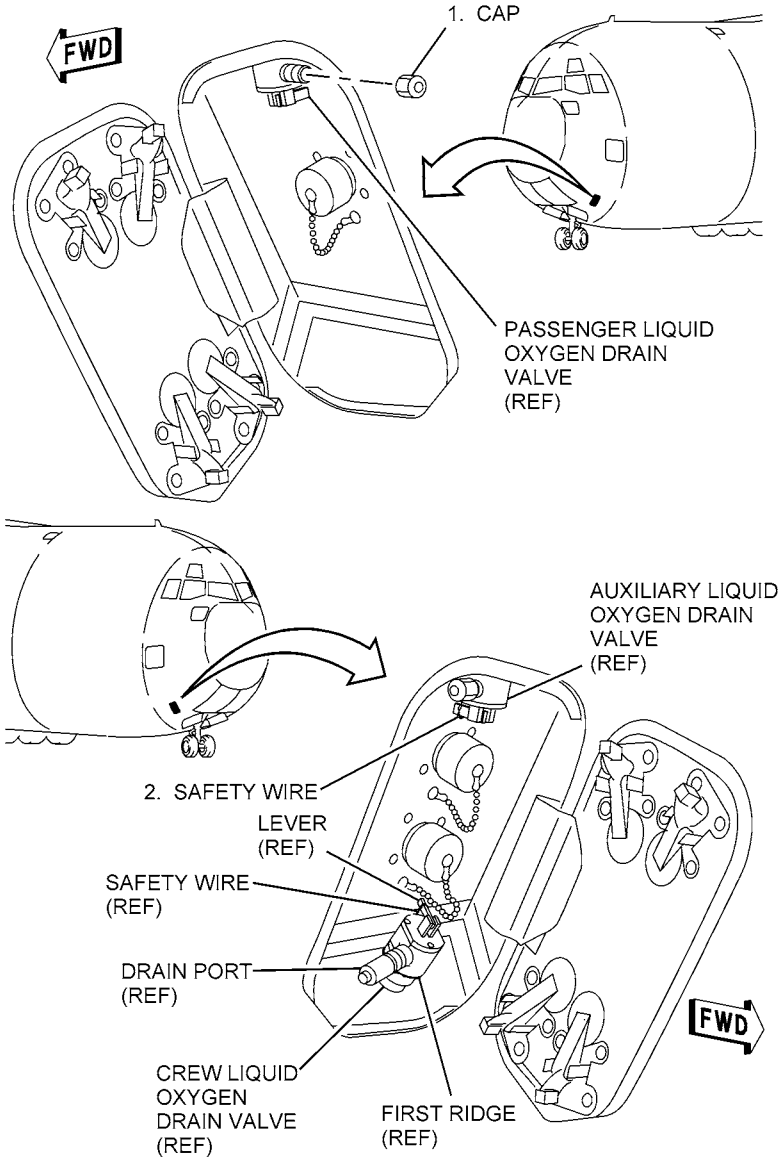
ICN-88277-G1235010-006-01

02-3. FOLLOW-ON MAINTENANCE.

1. Install cap on Liquid Oxygen (LOX) drain valve.

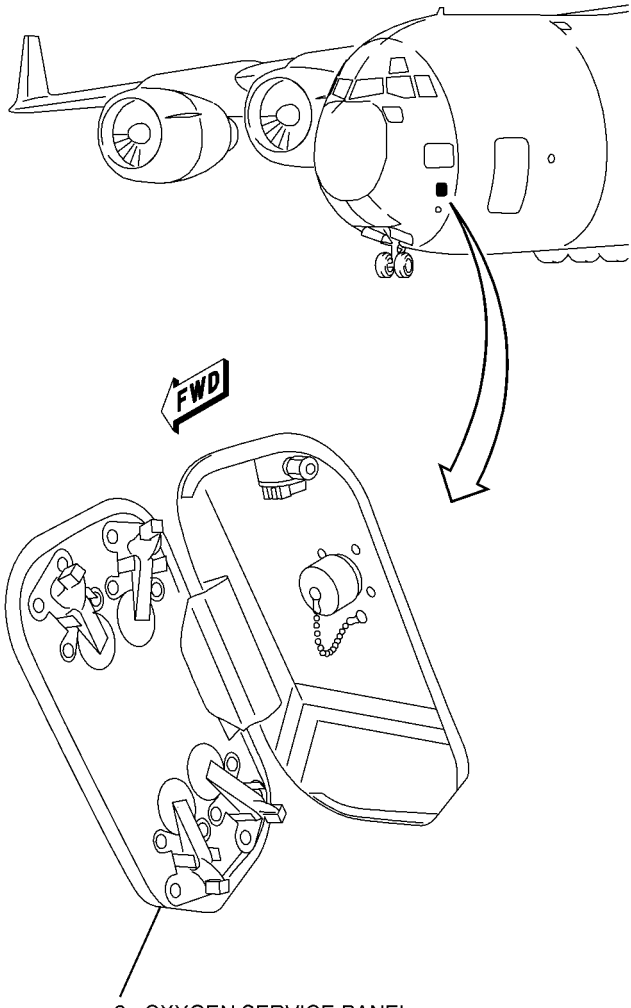
2. Secure drain valve with safety wire.

   SPECIAL INSTRUCTION. Safety wire must begin at drain valve lever and immediately be twisted five times. Safety wire must be stretched along valve past drain port to first ridge. Safety wire must be twisted two times before being wrapped around valve at first ridge. Safety wire must be twisted five times before cutting.



ICN-88277-G1235038-004-01

3. Position and latch oxygen service panel access door.

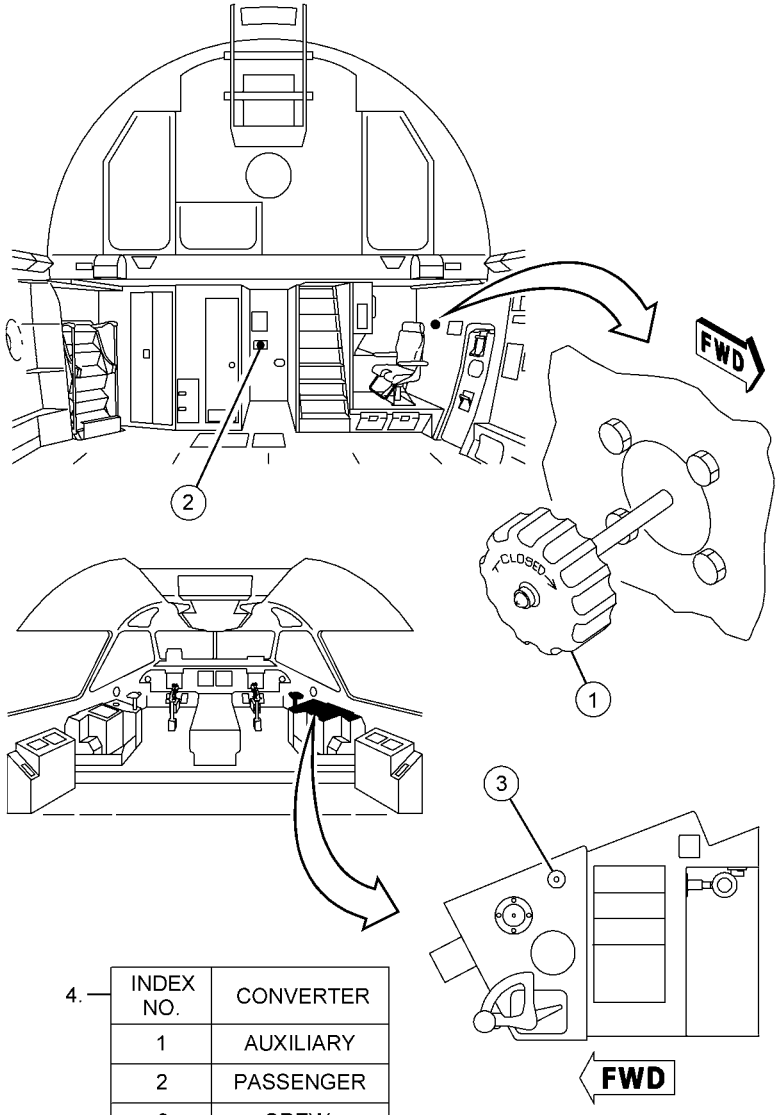


3. OXYGEN SERVICE PANEL ACCESS DOOR

(TYPICAL)

ICN-88277-G1235039-004-01

4. Remove warning tag and open shutoff valve.



4.

INDEX NO.	CONVERTER
1	AUXILIARY
2	PASSENGER
3	CREW

ICN-88277-G1235012-005-01

LIQUID OXYGEN CONVERTER PURGING CHECKLIST (12-35-03)

GENERAL MAINTENANCE INPUT CONDITIONS:

Applicability:

	Task
All	All

Additional information:

	Task
The accomplishment of this procedure shall be followed in exact step-by-step **CHECKLIST** sequence to prevent damage to equipment or injury to personnel.	All
This procedure consists of the following tasks: 03-1. Preparation. 03-2. Purge. 03-3. Follow-on maintenance.	

	Task
NOTE This is a typical Liquid Oxygen (LOX) converter purging task for all oxygen systems.	All

Additional data:

	Task
NA	--

Personnel recommended:

	Task
One	All

Safety conditions:

	Task
WARNING	
The use of personal protective equipment is mandatory to perform this procedure. The applicable Safety Data Sheet (SDS) will identify special protection information. Failure to comply may cause injury to personnel.	All

Support equipment:

Nomenclature	PN	Specification	Qty	Task
Cable Assembly, Power, Electrical	J-C-1270	--	1	03-2
Kit, Liquid Oxygen Purging	F137-1015-3	--	1	03-2
Set, Diesel Generator	8126369-90	--	1	03-2
Trailer, Compressed Gas Oxygen	0440C-Z001	--	1	03-2

Supplies:

Nomenclature	PN	Specification	Qty	Task
Cleaning Compound, Solvent	Novec Contact Cleaner	--	AR	03-2
Cleaning Compound, Solvent	Novec 7100	A-A-59150	AR	03-2
Cleaning Compound, Solvent	Solstice PF-HP	--	AR	03-2

Nomenclature	PN	Specification	Qty	Task
Cleaning Compound, Solvent	Sur-Prep 123	--	AR	03-2
Cloth, Cleaning Rymple	Cloth-301-Purified	--	AR	03-2

03-1. PREPARATION.

1. Review ″Section 1 (General Information)″ of this TO for system general warnings, cautions, and notes.

2. Review task ″General Maintenance Input Conditions″ page for task specific safety conditions.

3. Drain Liquid Oxygen (LOX) converter (12-35-02, tasks 02-1 and 02-2).

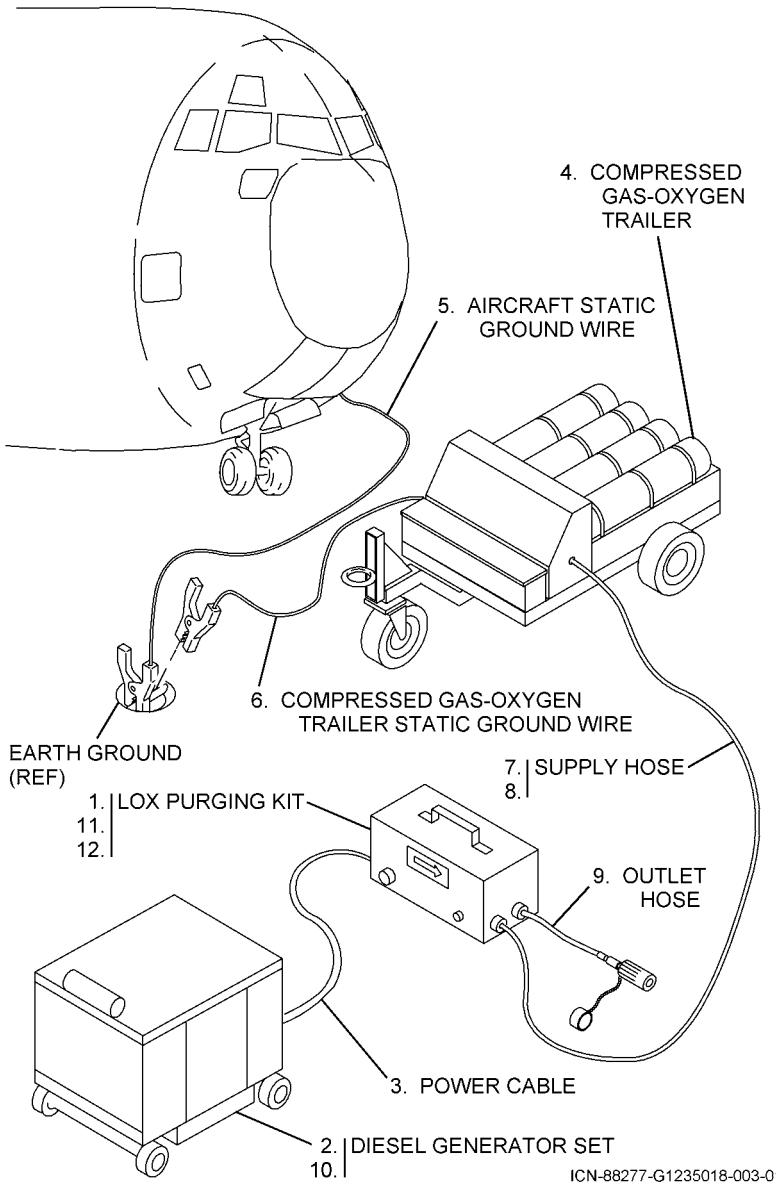
03-2. PURGE.

1. Position Liquid Oxygen (LOX) purging kit.
2. Position diesel generator set at least 50 feet away from purging kit.
3. Connect power cable to purging kit from generator set.
4. Position compressed gas-oxygen trailer.
5. Ensure aircraft static ground wire is connected to earth ground.

WARNING

Gas-oxygen supply hose does not sufficiently provide a stable ground. Statically ground the compressed gas-oxygen trailer to an earth ground before connecting supply hose. Failure to comply may cause injury to personnel and damage to aircraft.

6. Connect compressed gas-oxygen trailer static ground wire to earth ground.
7. Purge supply hose.
8. Connect supply hose to purging kit.
9. Connect outlet hose to purging kit.
10. Start generator.
11. Operate purging kit until oxygen flows from outlet hose for one minute.
12. Shut down purging kit.


4. COMPRESSED GAS-OXYGEN TRAILER
5. AIRCRAFT STATIC GROUND WIRE
6. COMPRESSED GAS-OXYGEN TRAILER STATIC GROUND WIRE
EARTH GROUND (REF)
7. SUPPLY HOSE
8.
1. LOX PURGING KIT
11.
12.
9. OUTLET HOSE
3. POWER CABLE
2. DIESEL GENERATOR SET
10.
ICN-88277-G1235018-003-01

13. Remove cap from fill valve.

WARNING

Novec 7100, Sur-Prep 123, Solstice PF-HP, and Novec Contact Cleaner solvents are toxic to skin, eyes, and respiratory tract. Personnel shall wear skin and eye protection. Use only in well ventilated areas. Failure to comply may cause injury to personnel.

14. Clean external surface of fill valve with lint-free cloth dampened with Novec 7100, Sur-Prep 123, Solstice PF-HP, or Novec Contact Cleaner solvent.

NOTE

Sufficient time shall pass to allow complete evaporation of solvent.

15. Dry external surface of fill valve with clean dry lint-free cloth.

16. Connect adapter to outlet hose.

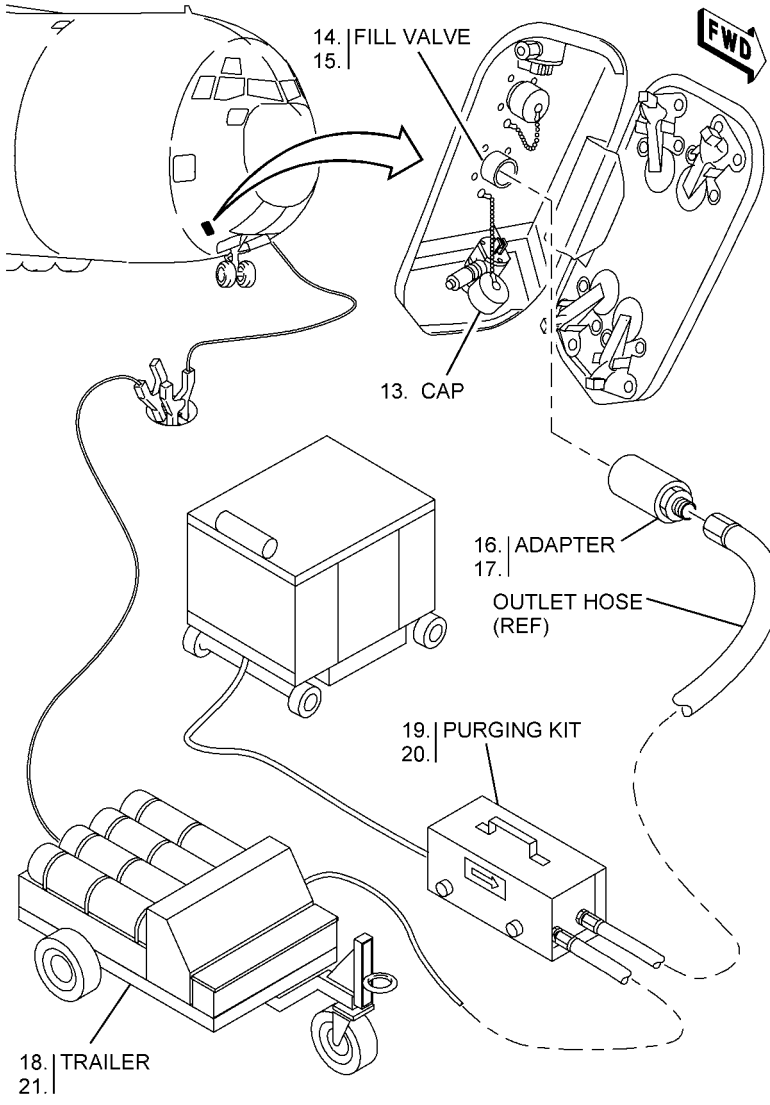
17. Connect adapter to fill valve.

18. Operate trailer to supply 80-100 psi to purging kit.

19. Set purging kit heater switch to **ON** and continue purging for 45 minutes minimum.

20. Set purging kit heater switch to **OFF** and continue purging for 15 minutes.

21. Depressurize trailer.



ICN-88277-G1235020-006-01

22. Disconnect adapter from fill valve.

23. Disconnect adapter from outlet hose.

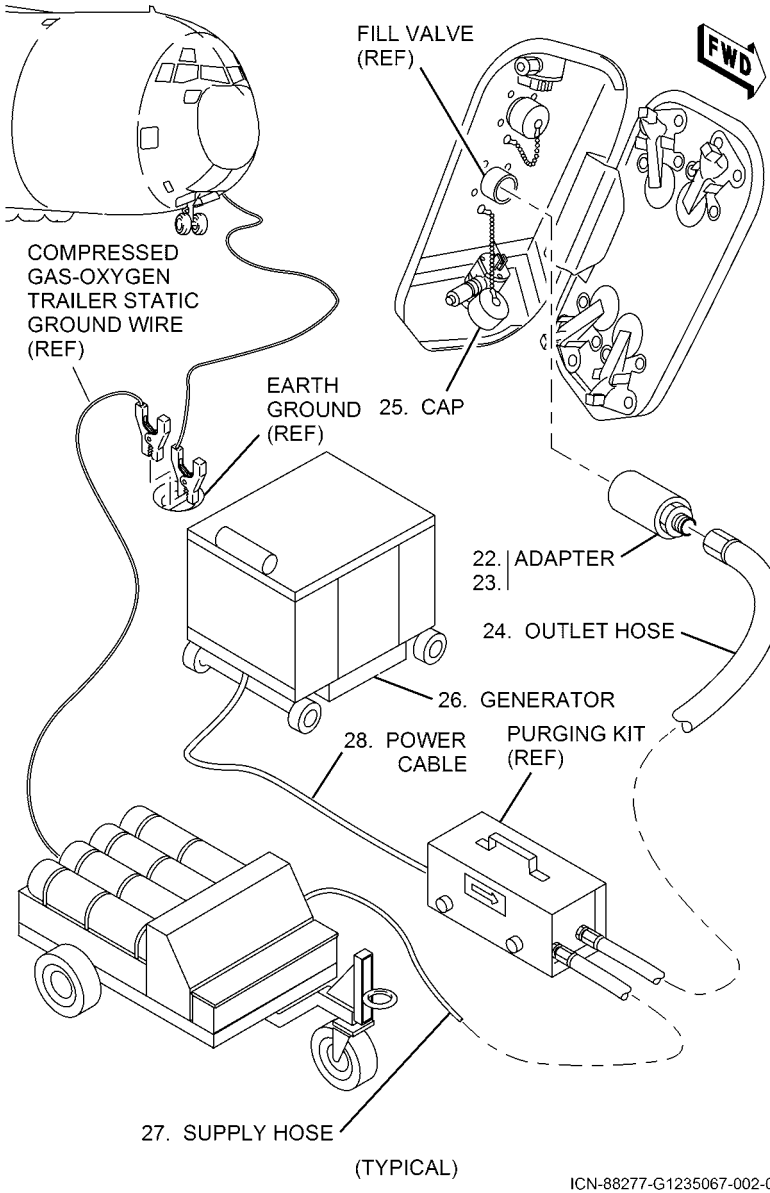
24. Disconnect outlet hose from purging kit.

25. Install cap to fill valve.

26. Shut down generator.

27. Disconnect supply hose from purging kit.

28. Disconnect power cable from purging kit.



ICN-88277-G1235067-002-01

29. Remove cap from drain valve.

WARNING

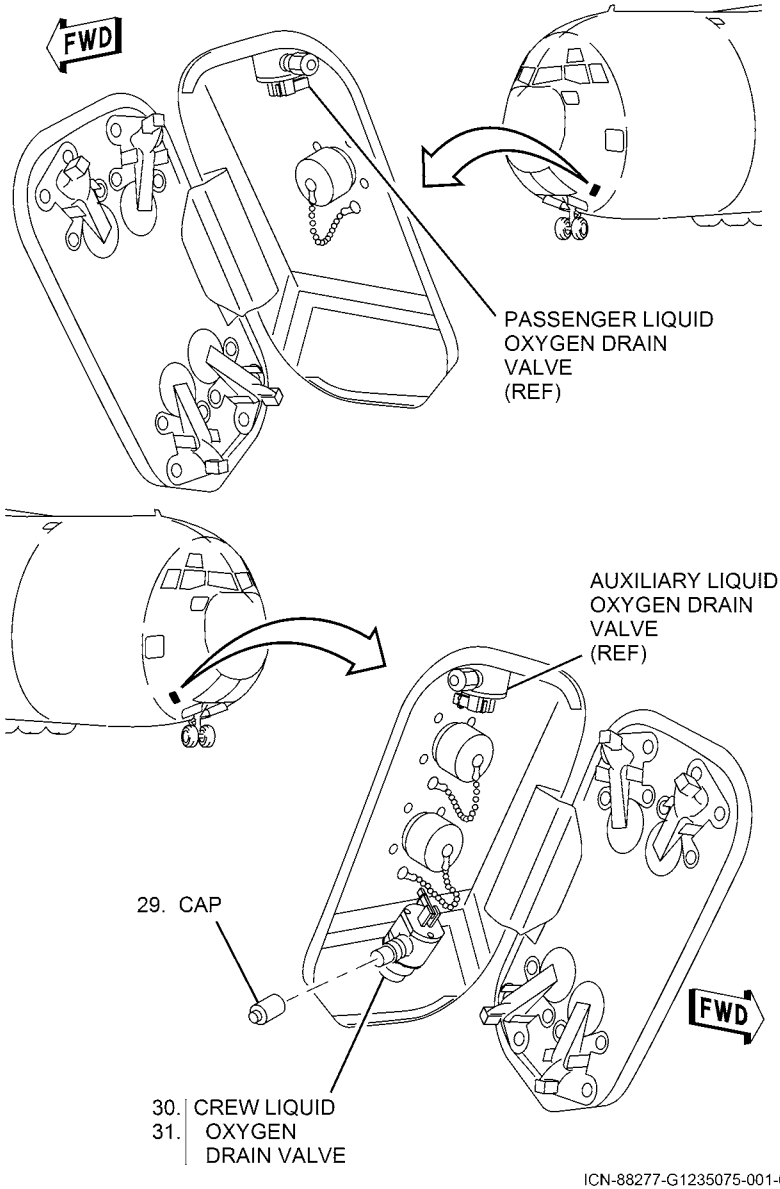
Novec 7100, Sur-Prep 123, Solstice PF-HP, and Novec Contact Cleaner solvents are toxic to skin, eyes, and respiratory tract. Personnel shall wear skin and eye protection. Use only in well ventilated areas. Failure to comply may cause injury to personnel.

30. Clean external surface of drain valve with lint-free cloth dampened with Novec 7100, Sur-Prep 123, Solstice PFHP, or Novec Contact Cleaner solvent.

NOTE

Sufficient time shall pass to allow complete evaporation of solvent.

31. Dry external surface of drain valve with clean dry lint-free cloth.



ICN-88277-G1235075-001-01

32. Connect supply hose to drain valve.

33. Remove safety wire and slowly rotate drain valve lever to **OPEN**.