A. File the attached Temporary Revision/Alerts in the Manual Supplement in ATA Chapter/Section/Subject/Page sequence

B. File this Control Page in front of the Chapter TRs/Alerts.

C. The following list shows active TRs/Alerts together with TRs/Alerts added by this control page.

Chapter Section Subject	Page	TR/Alert No.
38-32-00	201	38-501
38-32-03	403	* 38-508

D. Remove and Destroy the following TRs/Alerts:

* Indicates TRs/Alerts issued with this control page

MAINTENANCE MANUAL

TEMPORARY REVISION No. 38-501

THIS TEMPORARY REVISION IS ISSUED BY BRITISH AIRWAYS ENGINEERING (TECHNICAL INFORMATION SERVICES, G2, TBA, S401, P. O. BOX 10, HEATHROW AIRPORT, HOUNSLOW, MIDDLESEX TW6 2JA).
CAA DESIGN APPROVAL No. DAI/8566/78.

Manual Reference 38-32-00 Page 201

REASON FOR REVISION

Introduction of new task:
Carry out hot-soak of toilets using VESTERGAARD Toilet Flushing Rig.

ACTION

Read the following in conjunction with and additional to existing text.

TOILET SYSTEM MAINTENANCE PRACTICES

6. Toilet System Cleaning

ADD:

B. Consumable Materials

(3) B00639 Cleaner - Honey Bee 76
OR
Ardrox 1862.

E. Procedure

ADD:

NOTE: Procedure existing in Boeing text is to be identified as Procedure A.

Subtask

(3) Procedure B (Hot soak cleansing using the VESTERGAARD Toilet Flushing Rig)

Do these steps to clean the toilet tanks.

(a) Ensure that the aircraft toilets have been dumped and left empty.

(b) Open as many main aircraft doors as practicable, to establish good ventilation.

←

CAUTION: IN VIEW OF THE CHEMICALS USED AND THE TEMPERATURE INVOLVED, CARE SHOULD BE TAKEN TO SATISFY ALL APPROPRIATE HEALTH AND SAFETY CRITERIA WHEN PERFORMING THIS TASK.

(c) Ensure the flushing rig is full to the maximum capacity (400 litres).

(d) Current mixture is Honey Bee 76 in a 50/50 ratio with water, or Ardrox 1862 in a ratio 1:10 with water.

(e) Set temperature, and heat mixture to 45 degrees Celsius.

(f) Establish headset communication between the rig operator and the observer inside the aircraft.

NOTE: This communication link is vital, to enable the rig operator and the internal observer to establish and maintain a constant level of cleaning fluid by the opening and closing of the dump valves.
The internal observer, however, has an emergency cut-out button fitted to a hand control, which will shut everything down instantly.

Operation:

(a) Connect the flushing rig to the toilet fill point and the dump line to the dump connector.

NOTE: If sufficient manpower is available, or two toilet bowls are readily visible by one operative, both flush hoses can be connected to two of the flush points.

(b) Prepare toilet tank for flushing iaw AMM Task 38-32-01-04-038 Sub-paragraphs 864-063/003/006; 014-009; and 034-010(b).

(c) Whilst the internal observer keeps a close vigil and is in headset contact with the rig operator, operate the rig pump(s) to fill the toilet tank(s) up to one third of the capacity of the bowl.

(d) Allow the hot fluid to soak in the tanks for half an hour, flushing the toilet every five minutes during that time.

(e) Repeat the process until all four toilets on the aircraft are filled as described.

CAUTION: CLOSE LIAISON BETWEEN THE INTERNAL AND RIG OPERATIVES IS ESSENTIAL DURING THIS FLUSH PERIOD, AS THE ONLY FEEDBACK REGARDING FLUID LEVELS IN THE SYSTEM IS FROM THE OBSERVATIONS AND INSTRUCTIONS OF THE INTERNAL OPERATOR. THE INTERNAL OBSERVER HOWEVER DOES HAVE AN EMERGENCY BUTTON ON A HAND CONTROLLER THAT SHUTS EVERYTHING DOWN INSTANTLY.

(f) Return to the first tank after the half hour soak time, and reconnect the rig. Activate the pump(s) and crack the dump valve away from its seat. Following instructions from the internal operative regarding fluid levels within the toilet system, establish a flow of chemical around the tank.

(g) Continue the circulating wash for a further 30 minutes, then dump the contents of the tank into the rig. Refill the rig to the same level as for the initial soak. Allow th soak for a further half hour, flushing the toilet every 5 minutes.

(h) Repeat items (f) and (g) for all four toilets.

(j) On completion of flush, return the toilet to a serviceable condition iaw AMM Task 38-32-01-404-037, Subparagraphs 4.4-025(g), 864-026/029/032, 414-066.

MAINTENANCE MANUAL

TEMPORARY REVISION No. 38-508

THIS TEMPORARY REVISION IS ISSUED BY BRITISH AIRWAYS ENGINEERING (TECHNICAL INFORMATION SERVICES, G2, TBA, S401, P. O. BOX 10, HEATHROW AIRPORT, HOUNSLOW, MIDDLESEX TW6 2JA).
CAA DESIGN APPROVAL No. DAI/8566/78.

Manual Reference 38-32-03 Page 403

REASON FOR REVISION

To add torque loading figure to installation instructions for the toilet water fill shutoff valve.

ACTION

Read the following in ADDITION to existing Maintenance Manual text.

TASK 38-32-03-404-011
3. Install the Shutoff Valve

D. Procedure

S424-015
(4) i Install the nuts and the washers

WARNING: THE RETAINING STUDS ARE ALLOY AND EASILY DAMAGED. ENSURE TORQUE LOADING IS NOT EXCEEDED.

ii Torque load nuts to 10 to 12 inch/lbs

NOTE: If it is necessary to replace the Adaptor (Part Number 16202-003-1; IPC 38-03-05 refers), torque lad retaining nuts to 6 to 8 inch/lbs.

GPA Group plc

PAGE	DATE	CODE
CHAPTER 38 TAB		
WATER AND WASTE		
EFFECTIVE PAGES		
SEE LAST PAGE OF LIST FOR		
NUMBER OF PAGES		
38-CONTENTS		
R 1	JAN 20/09	GUI.1
R 2	JAN 20/09	GUI.1
3	SEP 28/06	GUI
4	SEP 28/02	GUI
5	SEP 28/02	GUI
6	BLANK	
38-10-00 CONFIG 1		
1	MAY 28/01	02
2	MAY 28/01	12
3	MAY 28/01	01
4	MAY 28/01	04
5	MAY 28/01	01
6	JAN 28/02	01
7	JAN 28/02	01
R 8	JAN 20/09	01.101
D 9	DELETED	19
D 10	DELETED	01
38-10-00 CONFIG 2		
1	MAY 28/01	01N
2	BLANK	
38-10-00		
101	MAR 20/91	19
102	JUN 15/87	09
103	SEP 15/86	01
104	BLANK	
38-10-00		
201	SEP 28/06	02
202	SEP 28/06	02
203	SEP 28/06	02
204	SEP 28/07	02
205	DEC 20/94	01
206	SEP 28/07	01
207	SEP 28/05	01
208	SEP 28/05	08
209	SEP 28/07	06
210	SEP 28/04	01
38-11-00 CONFIG 1		
501	MAY 28/01	01
502	MAY 28/06	01
503	JAN 28/02	01
504	JAN 28/02	01
505	MAY 28/03	01
506	JAN 28/02	10
38-11-00 CONFIG 1		CONT.
507	MAY 28/01	03
508	MAY 28/03	03
509	MAY 28/03	03
510	MAY 28/03	02
511	MAY 28/03	03
512	MAY 28/03	03
513	MAY 28/01	03
514	BLANK	
38-11-00 CONFIG 2		
501	MAY 28/01	01N
502	BLANK	
38-11-01 CONFIG 1		
401	SEP 28/07	01
402	JAN 28/00	01
403	JAN 28/00	01
404	SEP 28/07	01
405	MAY 28/03	01
406	MAY 28/03	01
38-11-02		
401	MAY 28/03	12
402	MAR 20/90	01
403	MAY 28/03	14
404	MAY 28/03	01
38-11-04 CONFIG 1		
401	SEP 28/02	01
402	SEP 28/02	01
403	SEP 28/02	01
404	SEP 28/02	01
405	SEP 28/02	01
406	SEP 28/02	01
407	SEP 28/02	01
408	BLANK	
38-11-04 CONFIG 2		
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402	BLANK	
38-11-05		
401	MAY 28/03	01
402	MAY 28/03	01
403	MAY 28/03	01
404	BLANK	
38-11-15		
201	MAY 20/98	01
202	MAY 20/98	01
203	MAY 20/98	01
204	BLANK	
38-13-51		
401	MAY 28/99	01
402	MAY 28/99	01
403	MAY 28/99	01
404	MAR 20/96	01
38-13-51		CONT.
405	MAY 28/99	01
406	BLANK	
38-14-01		
401	MAY 28/03	01
402	MAY 28/03	01
403	MAY 28/03	01
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38-14-03		
401	MAY 28/03	01
402	MAY 28/03	01
403	MAY 28/03	01
404	MAY 28/03	01
38-14-03		
501	MAY 28/03	01
502	JUN 20/90	01
503	DEC 20/92	01
504	MAY 28/03	03
505	MAY 28/03	01
506	BLANK	
38-14-06		
401	MAY 28/03	01
402	JAN 28/02	01
403	JAN 28/02	01
404	MAY 28/03	01
405	MAY 28/03	01
406	MAY 28/03	01
38-15-01		
R 401	JAN 20/09	01.101
402	SEP 20/95	04
R 403	JAN 20/09	05.101
404	SEP 28/05	04
405	SEP 28/05	04
406	SEP 28/05	05
407	SEP 28/05	05
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38-15-02		
401	MAY 28/03	07
402	JUN 20/95	01
403	JUN 20/95	03
404	MAY 28/03	08
405	SEP 28/04	05
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38-15-03		
401	MAY 28/03	01
402	JUN 20/90	02
403	MAY 28/04	08
404	MAY 28/03	01

GPA Group plc

PAGE	DATE	CODE
38-15-04		
R 201	JAN 20/09	01.1
R 202	JAN 20/09	01.1
203	DEC 20/93	01
R 204	JAN 20/09	01.1
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R 206	JAN 20/09	01.1
R 207	JAN 20/09	02.101
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402	DEC 20/89	03
403	MAY 28/03	03
404	MAY 28/03	03
405	JAN 28/04	02
406	JAN 28/04	03
38-15-10		
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402	SEP 20/98	01
403	MAY 28/04	08
404	MAY 28/04	07
38-30-00		
1	MAY 28/00	01
2	DEC 15/84	02
R 3	JAN 20/09	02.1
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38-30-00		
101	SEP 20/92	23
102	DEC 20/91	02
103	SEP 20/92	05
104	SEP 20/92	01
38-31-00		
1	MAY 28/07	01
2	SEP 28/00	01
3	SEP 28/00	01
4	SEP 28/00	01
5	SEP 28/00	01
6	SEP 28/00	01
7	SEP 28/00	01
8	SEP 28/00	01
9	SEP 28/00	01
10	SEP 28/00	01
38-31-00		
201	MAY 20/08	01
202	JUN 20/90	01
203	MAY 20/08	02
204	MAY 20/08	02
R 205	JAN 20/09	02.1
206	MAY 28/06	02

PAGE	DATE	CODE
38-31-01		
401	SEP 28/02	05
402	JUN 20/90	01
403	MAY 20/08	05
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407	MAY 28/99	01
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409	SEP 20/98	02
410	MAY 20/98	01
411	MAY 28/99	01
412	SEP 28/99	01
38-32-00		
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202	MAY 28/06	01
203	SEP 28/00	01
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205	SEP 28/00	06
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502	JUN 20/90	01
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505	JAN 28/07	06
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402	DEC 20/89	02
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38-32-02		
401	MAY 28/99	01
402	MAY 28/99	02
403	MAY 28/04	14
404	MAY 28/04	14

PAGE	DATE	CODE
38-32-03		
401	SEP 20/98	02
402	JUN 20/90	02
403	SEP 20/98	02
404	DEC 20/96	02
38-32-04		
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404	JAN 28/04	01
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38-32-10		
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403	DEC 20/92	08
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404	MAY 28/01	03
405	MAY 28/01	03
406	MAY 28/01	03
38-32-16		
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402	SEP 28/05	01
403	MAY 28/01	04
404	MAY 28/01	04
405	MAY 28/01	17
406	SEP 28/05	19
407	MAY 28/03	20
408	BLANK	

CHAPTER 38 - WATER AND WASTE

TABLE OF CONTENTS

CHAPTER 38 - WATER AND WASTE

TABLE OF CONTENTS

CHAPTER 38 – WATER AND WASTE

TABLE OF CONTENTS

CHAPTER 38 - WATER AND WASTE

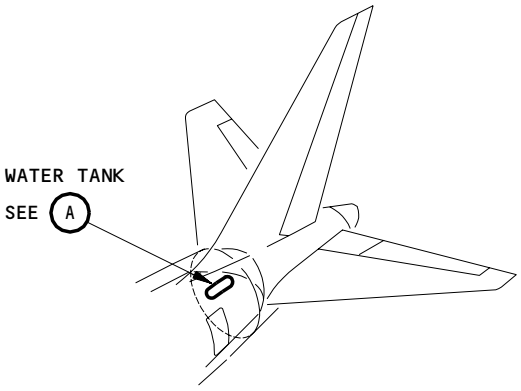
TABLE OF CONTENTS

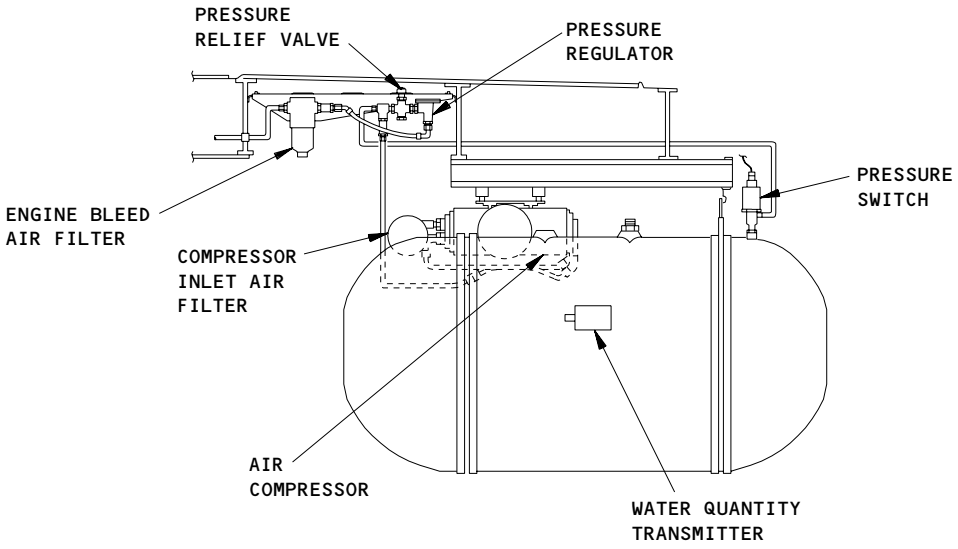
CHAPTER 38 – WATER AND WASTE

TABLE OF CONTENTS

POTABLE WATER SYSTEM - DESCRIPTION AND OPERATION

1. General
   A. The standard capacity potable water system is used on airplanes with the recirculating toilet systems. The standard capacity potable water system has a 60 gallon water tank which stores fresh water. The system supplies water to the galley units and lavatory wash basins.
   B. The storage and distribution components of the potable water system, store, distribute, and drain fresh water. The potable water tank is in the compartment aft of the bulk cargo compartment.
   C. Each galley and lavatory has water shutoff valves above the floor. The valves allow any one unit or combination of units, to be isolated while the rest of the units remain operating. The lavatory wash basins each have a faucet with hot and cold water. The faucets are self venting. This allows automatic bleeding of air from the system, and allows draining the system without opening the faucet.
   D. Most of the water distribution system is flexible teflon hose with a reinforced fiber covering. Metal fittings and connectors are used at junctions and line replaceable units. Distribution lines route from below the water tank to above the cabin ceiling. The lines enter galleys and lavatories from above at Doors 1, 2, and 3, and from below at Door 4.
   E. The water heaters provide hot water to the wash basins in each lavatory. Each lavatory has a water heater in the supply line to the wash basin faucet.
   F. Potable water quantity indicators show ground service personnel and the flight crew how much water is in the potable water tank. The water quantity sensing system sends quantity signals to the water quantity indicators.
   G. The potable water tank is pressurized to force water from the tank to the lavatories and galleys. The pressurization system includes an air compressor, air filters, pressure relief valve, and pressure switch. Bleed air from the pneumatic system provides additional pressurization (AMM 36-00-00/001).
2. Component Details
   A. Water Tank (Fig. 1)
      (1) The water tank is in the lower lobe, aft of the bulk cargo compartment. The tank is on the right side of the airplane with its longitudinal axis running forward and aft. Vertical support rods attach the tank to floor beams. A diagonal brace attaches to the aft end of the tank to prevent swaying.
      (2) The water tank is cylindrical with rounded ends. The tank is nonmetallic monofilament spun fiberglass. Two metal bands go around the tank for reinforcement and mounting support. The tank has a capacity of 60 gallons.





WATER TANK

A

Potable Water System Components
Figure 1

(3) On the inboard side of the water tank is a mounting pad for the water quantity transmitter. A water quantity sensor is molded inside the water tank wall. An air line enters the top of the tank for tank pressurization. The tank has fittings on the upper side. One fitting connects to the water fill line; the other to the tank overflow line. A hose attaches to the bottom of the tank for water distribution and draining.

B. Water Quantity Transmitter (Fig. 1)
(1) The water quantity transmitter attaches to the mounting pad on the side of the water tank. The transmitter plugs into the mounting pad sensor outlets and fastens to the pad with screws. The water quantity transmitter receives a signal from a sensor molded inside the water tank. The transmitter output is 0 to 10v dc. The transmitter receives 28v dc power from the APU/EXT power panel, P34, and the overhead circuit breaker panel, P11.

C. Air Compressor (Fig. 1)
(1) An electric motor-driven air compressor is mounted to the right of the potable water tank. The air compressor is the main source of pressurization for the potable water tank. Compressor operation is controlled by a pressure switch and a water pressure system relay.

D. Air Filters (Fig. 1)
(1) All air entering the potable water tank passes through an air filter. One filter is in the engine bleed air line to the water tank. The other filter is in the inlet line to the air compressor. Both filters have removable elements for easy servicing.

E. Pressure Switch (Fig. 1)
(1) The pressure switch provides a ground to control the water pressure system relay. The switch closes, when pressure in the water tank drops below the setpoint, allowing the air compressor to operate. At a pressure above the setpoint the switch opens stopping compressor operation.

F. Pressure Relief Valve (Fig. 1)
(1) A pressure relief valve protects the potable water tank from being overpressurized. The valve is in the air pressure line to the water tank so it protects against a malfunction in either the air compressor or the pneumatic system.

G. Pressure Regulator (Fig. 1)
(1) The pressure regulator receives air from the engine bleed air pneumatic system and reduces the pressure to a maximum of 40±3 psi.

H. Pressurization Line Check Valves (Fig. 4)
(1) Check valves are installed in the air pressure lines to the water tank to prevent reverse flow of pressure from the tank to the pneumatic system or air compressor.

(2) The check valve in the outlet line from the air compressor includes an unloader valve to vent pressure from the outlet line when the compressor is not operating. This reduces the starting load on the air compressor.

I. Lavatory and Galley Shutoff and drain Valves (Fig. 2)

(1) A two-port manually operated shutoff valve is installed in the fresh water supply line inside each lavatory and each galley. The lavatory valve is about ten inches above the floor inside the lavatory sink cabinet. Location of the valve in the galleys varies with galley location and are identified by placards. The valves allow any one unit, or combination of units, to be isolated while the rest of the system remains in operation. The valve is a component of the galley or lavatory unit and remains in the unit if the unit is removed.

(2) At Doors No. 1, 2, or 3, another two-port manually operated drain valve is installed in the fresh water drain line inside each lavatory and each galley. The lavatory valve is located in the drain line at floor level inside the lavatory sink cabinet. Location of the valves in the galleys varies with galley location and are identified by placards. The valves allow the faucets and potable water supply lines to be drained after the water has been shutoff to the lavatory or galley. The valve is a component of the galley or lavatory unit and remains in the unit if the unit is removed.

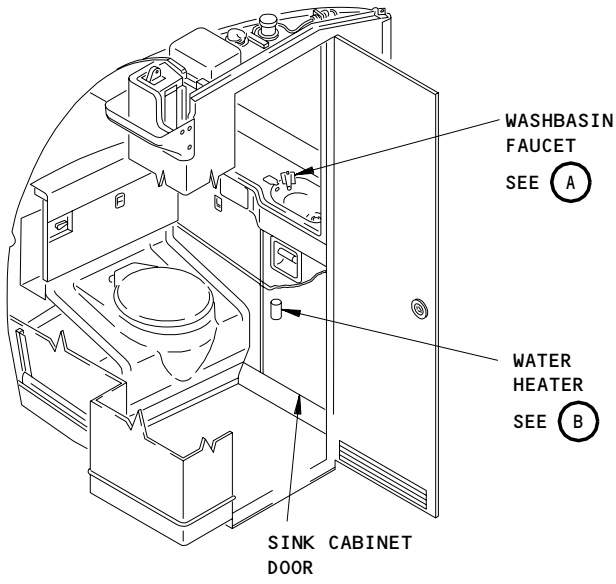
(3) At Door No. 4, the supply shutoff valve also operates as the fresh water drain line valve. The valve allows the faucets and potable water supply lines to be drained after the water has been shutoff to the lavatory.

J. Lavatory Wash Basin Faucet (Fig. 2)

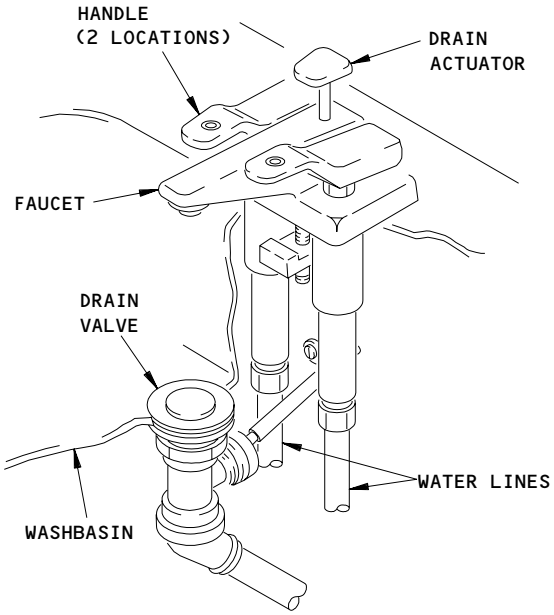
(1) Each lavatory wash basin has a water faucet. Each faucet has a hot and cold water valve with a common mixing spigot. The faucets are self venting so they need not be opened to drain the potable water system. The wash basin stopper is spring loaded closed. The stopper control lever must be held open until the basin is empty. The basin overflow drain is not stoppered. A muffler in the overflow line quiets the sound of differential pressure escaping.

K. Water Heaters (Fig. 2)

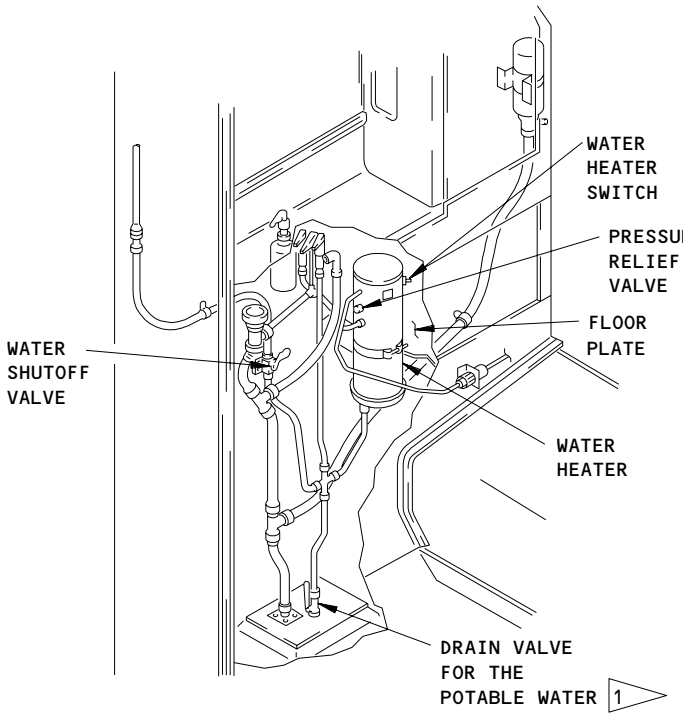
(1) Each water heater is a three-pint tank with three 140 watt heating elements. Each heater has two thermal switches, an ON-OFF switch and indicator light, and a pressure relief valve.



LAVATORY
(EXAMPLE)



WASHBASIN FAUCET
A



WATER HEATER
B

1 DOOR NO. 1, 2 AND 3 LAVATORIES ONLY

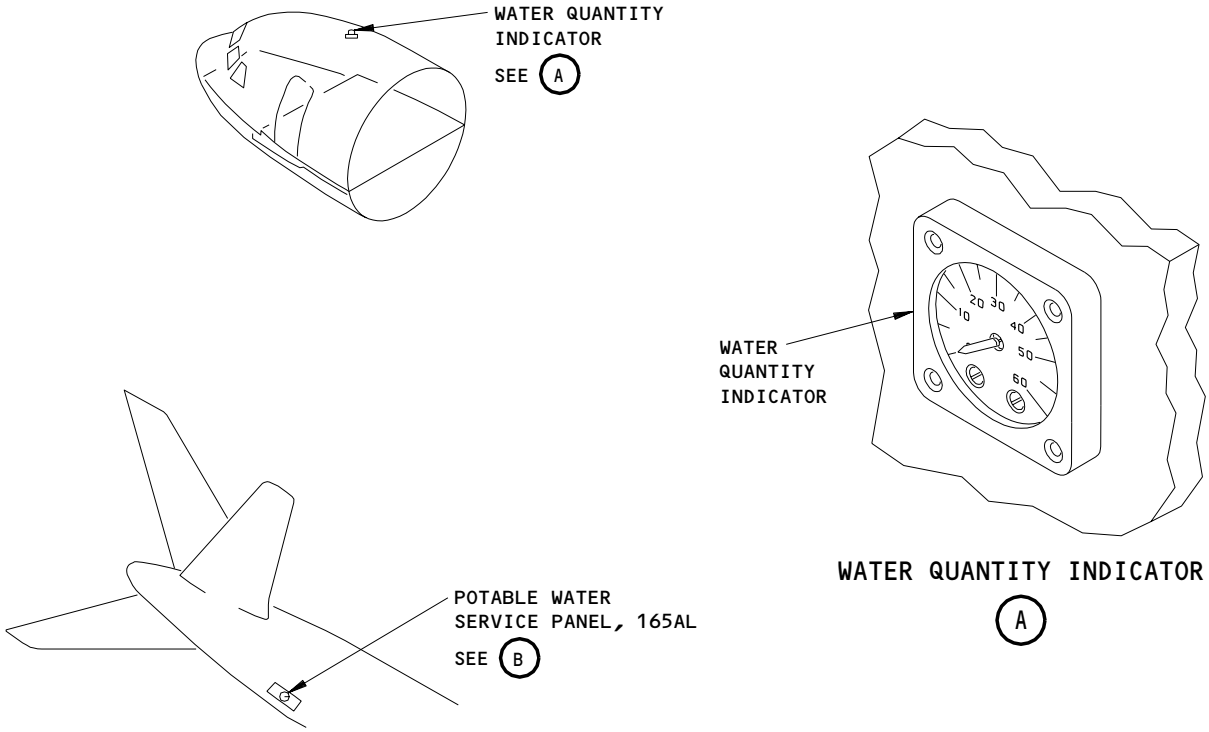
Lavatory Potable Water System Components
Figure 2

L. Service Panel (Fig. 3)
(1) The potable water service panel is on the bottom centerline of the fuselage below the aft service door. The service panel has both inlet and outlet ports for the fill/overflow valve. Also on the service panel is a water quantity indicator and a control handle for the fill/overflow valve. The service panel has a drain handle to operate the potable water drain valve.

M. Fill/Overflow Valve
(1) The fill/overflow valve is a four-port valve used to fill the potable water tank. The handle to operate the fill/overflow valve is on the potable water service panel. In the open or service position, the fill/overflow valve allows the potable water tank to be filled. In the closed or flight ready position, the fill/overflow valve seals the potable water tank so it can be pressurized.
(a) On 4DR airplanes, the fill/overflow valve attaches to a floor beam to the right of the potable water tank.

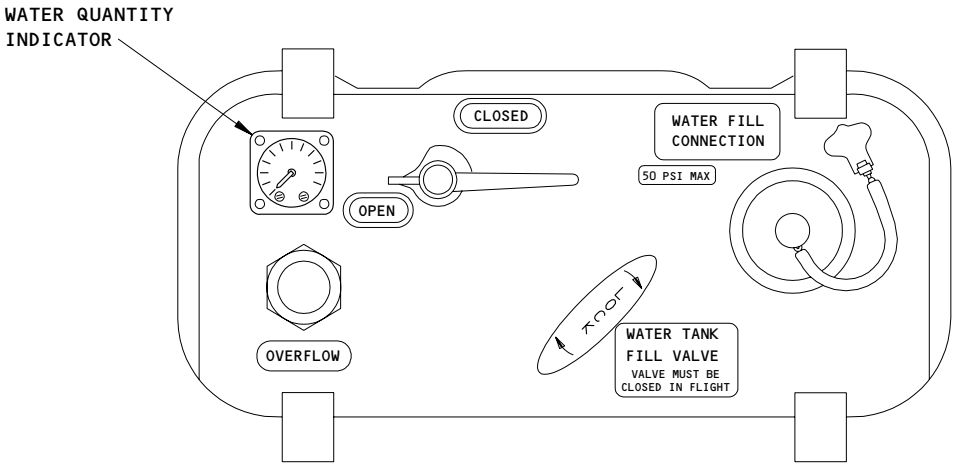
N. Water Quantity Indicators (Fig. 3)
(1) There are two water quantity indicators. One is on the potable water service panel; the other on the forward galley sidewall. The indicators are 1.35 inch diameter gages with a scale of 0 to 60 gallons. The indicators receive electrical signals from the water quantity transmitter.

3. Operation (Fig. 4, 5)
A. Functional Description
(1) Water Heaters
(a) The ON-OFF switch is normally ON. This lights the indicator light and lets the water heater cycle on and off automatically until the switch is turned OFF.
(b) WATER HEATERS WITH THE TEMPERATURE SELECT SWITCH;
The temperature select switch is on the bottom of the water heater. The temperature select switch adjusts the control thermostat to give water that can be heated to one of these temperature ranges. The ranges are; 101°F to 109°F (LOW), 111°F to 119°F (MED) and 121°F to 129°F (HIGH). If the control thermostat fails in the closed position, the overheat switch will cut power to the heater circuit when the temperature reaches approximately 170°F.



WATER QUANTITY INDICATOR

A



POTABLE WATER SERVICE PANEL, 165AL

B

Potable Water System Components
Figure 3

(c) WATER HEATERS WITHOUT THE TEMPERATURE SELECT SWITCH;
The water heater will automatically heat the water to the temperature of approximately 125°F. The control thermostat opens the heater circuit when the temperature goes above 125°F and closes when the temperature goes below 125°F. If the control thermostat does not open at 125°F, the overheat switch will cut power to the heater circuit when the temperature reaches approximately 195°F.

(d) An overheat condition requires manually resetting the overheat switch. The overheat switch is beneath the water heater top cover. If the pressure in the heater reaches 140 psi, a pressure relief valve opens. The relief valve closes again at about 130 psi.

(2) Pressurization System

(a) The potable water system is normally pressurized by the air compressor. Bleed air from the pneumatic system provides additional pressurization. The bleed air pressure is automatically regulated by the pressure regulator. If the pressure in the water tank falls below the setpoint, the pressure switch closes providing 28 volts dc to the water pressure system relay. When the water pressure system relay closes, 115 volts ac goes to the air compressor. When the pressure in the water tank builds to the setpoint, the pressure switch opens and the compressor stops running. If a malfunction in the pressurization system occurs, and the pressure in the water tank builds to 60 psi, a pressure relief valve opens allowing air to escape. The relief valve automatically resets at 55 psi.

B. Control

(1) The potable water system operation is automatic. No action is required by the crew except to reset the heater overheat switches.

POTABLE WATER SYSTEM - DESCRIPTION AND OPERATION

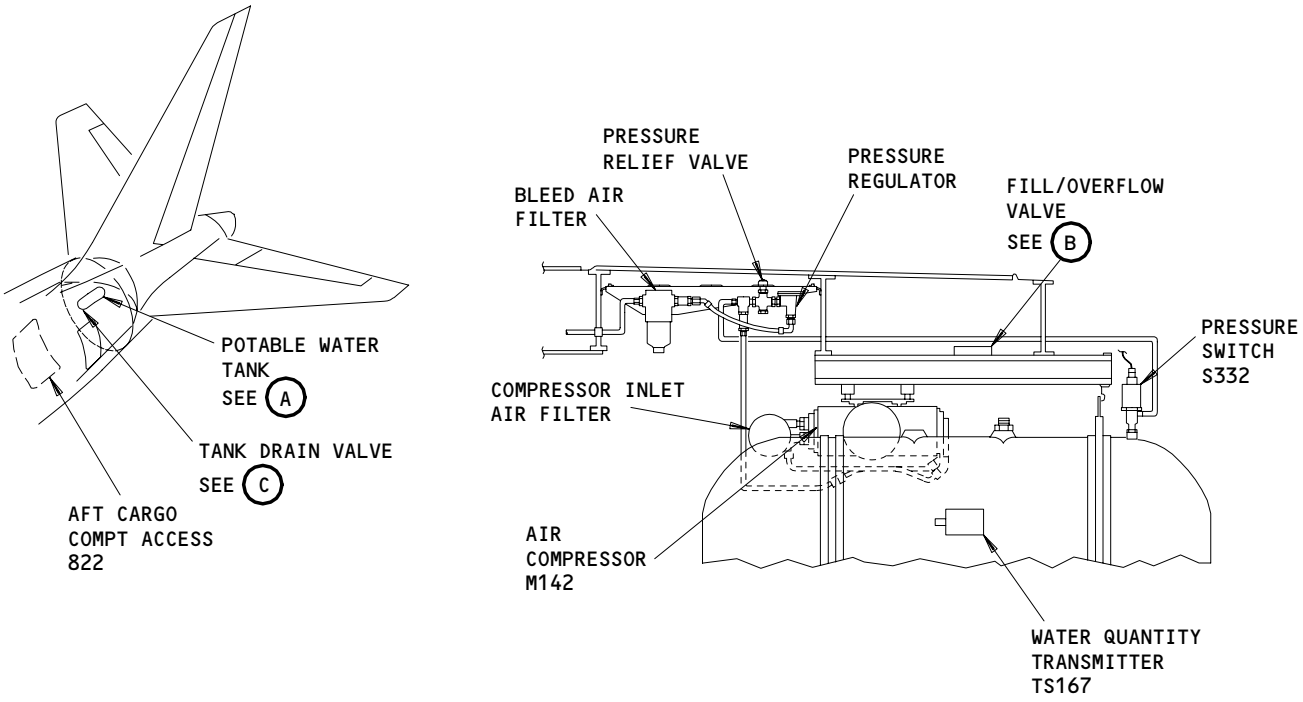
1. Potable Water System - Increased Capacity Tank (120 Gallon)
   A. General
      (1) This CONFIGURATION is NOT USED.

POTABLE WATER

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	REFERENCE
CARTRIDGE - POTABLE WATER FAUCET	2	8	IN POTABLE WATER FAUCET	38-11-04
CIRCUIT BREAKER			FLT COMPT, P6	
POT WATER CPRSR, C397		1	6K21	*
CIRCUIT BREAKER			FLT COMPT, P11	
POTABLE WATER, C1355		1	11S30	*
CIRCUIT BREAKER			119BL, MAIN EQUIP CTR, P34	
POTW CONT GND, C1356		1	34A4	*
CIRCUIT BREAKER			119BL, MAIN EQUIP CTR, P37	
HEATER LAV WATER C, C4134		1	37F1	*
HEATER LAV WATER D, C4135		1	37F2	*
CIRCUIT BREAKER			119BL, MAIN EQUIP CTR, P70	
HEATER LAV WATER S, C4341		1	70A2	*
HEATER LAV WATER A, C4001		1	70A1	*
COMPRESSOR - AIR, M142	1	1	822, AFT OF AFT CARGO COMPT	38-15-01
FAUCET - POTABLE WATER	2	4	ON LAV WASHBASIN	38-11-04
FILTER - BLEED AIR	1	1	822, AFT OF AFT CARGO COMPT	38-15-02
FILTER - COMPRESSOR INLET AIR	1	1	822, AFT OF AFT CARGO COMPT	38-15-02
HEATER - WATER, H1	2	4	BELOW LAV WASHBASIN	38-13-51
INDICATOR WATER QUANTITY, N10005	2	1	FWD GALLEY SIDEWALL	38-14-01
INDICATOR WATER QUANTITY, N10006		1	POT WATER SERVICE PANEL, P25	38-14-01
REGULATOR - PRESSURE	1	1	822, AFT OF AFT CARGO COMPT	38-11-03
RELAY - (REF 31-01-34, FIG. 101)				
LAVATORIES POWER, K5				
RELAY - (REF 31-01-86, FIG. 101)				
WATER PRESSURE SYSTEM, K6				
RESTRICTOR	2	1	193HL,194ER, ECS BAY	38-11-00
SWITCH - PRESSURE, S332	1	1	822, AFT OF AFT CARGO COMPT	38-15-07
TANK - POTABLE WATER	1	1	822, AFT OF AFT CARGO COMPT	38-11-01
TRANSMITTER, WATER QUANTITY, TS167	1	1	822, AFT OF AFT CARGO COMPT	38-14-03
VALVE - FILL/OVERFLOW	1	1	822, AFT OF AFT CARGO COMPT	38-11-02
VALVE - PRESSURE RELIEF	1	1	822, AFT OF AFT CARGO COMPT	38-15-04
VALVE - TANK DRAIN	1	1	822, AFT OF AFT CARGO COMPT	38-11-05

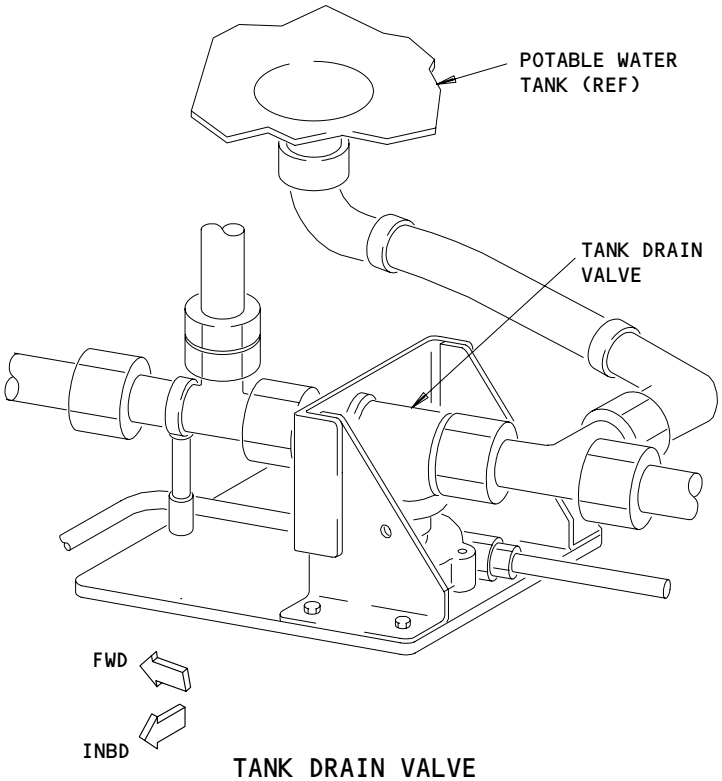
* SEE THE WDM EQUIPMENT LIST

Potable Water - Component Index
Figure 101



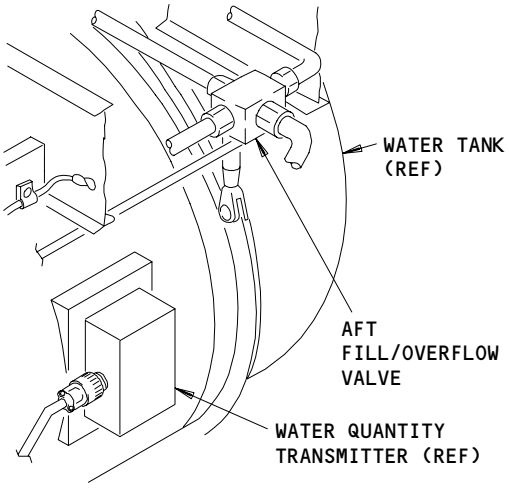
POTABLE WATER TANK

A



TANK DRAIN VALVE

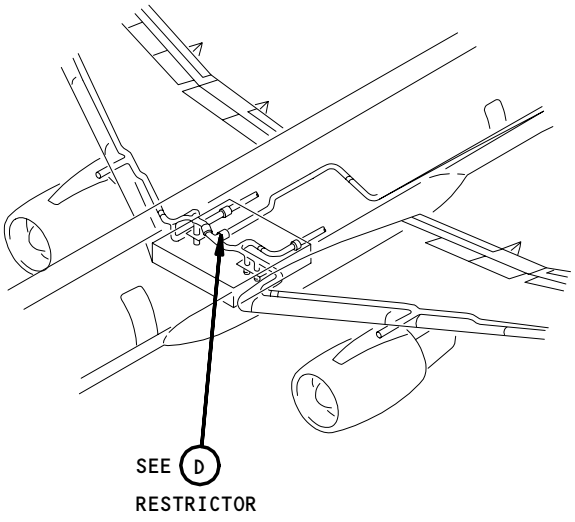
C

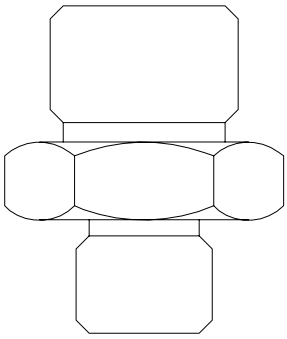


FILL/OVERFLOW VALVE

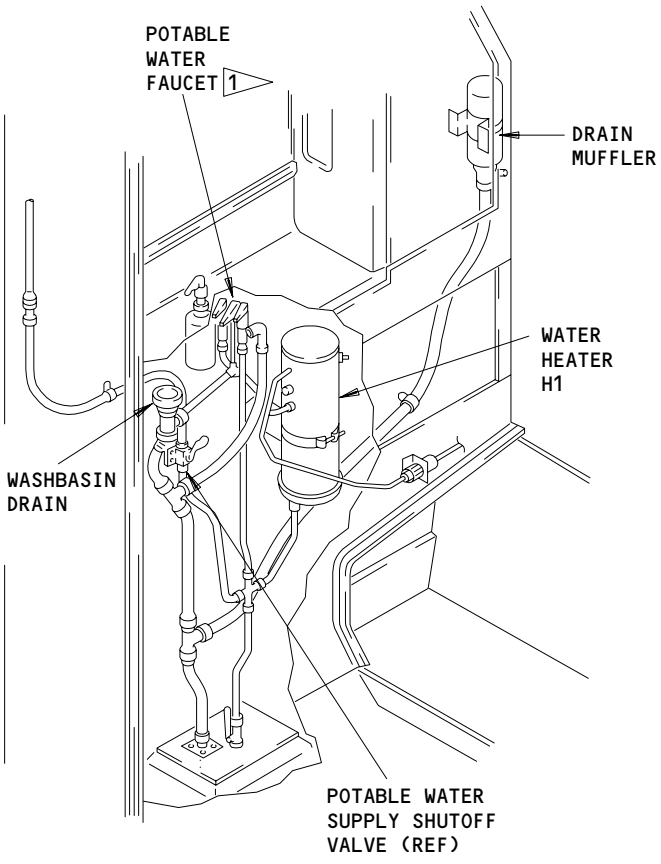
B

Component Location
Figure 102 (Sheet 1)

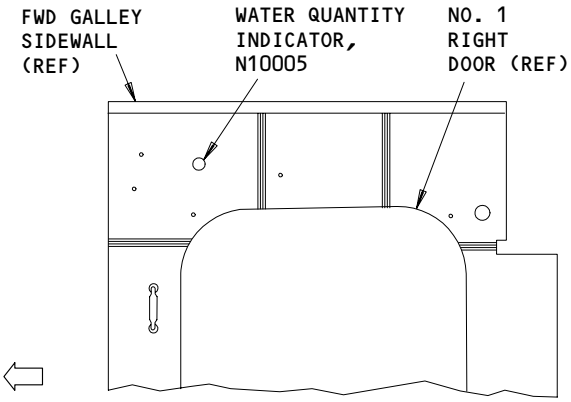




RESTRICTOR
D



TYPICAL LAVATORY



1 FAUCET CARTRIDGE INSIDE WATER FAUCET

Component Location
Figure 102 (Sheet 2)

POTABLE WATER SYSTEM - MAINTENANCE PRACTICES

1. General
   A. This procedure has these tasks:
      (1) The first task is used to clean and disinfect the potable water system.
      (2) The second task is used to manually clean the potable water tank.
      (3) The third task is used to release the pressure from the potable water system.
      (4) The fourth task is used to restore the pressure to the potable water system.

TASK 38-10-00-672-002

2. Use a Disinfectant to Clean the Potable Water System
   A. General
      (1) The intent of this task is to provide a solution of disinfectant to the potable water system that achieves a concentration of 100 ppm (parts per million). When preparing the disinfectant solution, the stablized chlorine dioxide (Purogene) and the citric acid are both measured by volume (fluid ounces or liters).
   B. Equipment
      (1) Water Service cart
   C. Consumable Materials
      (1) G00022 Chemical, Water purifying Chlorine Dioxide (stabilized 2% solution) - Purogene or Oxine
      (Recommended)
      (2) B00637 Acid, Citric (crystals or powder) or 50% (liquid), Commercially Available - A-A-59147
      (Recomended)

   D. References
      (1) AMM 12-14-01/301, Potable Water System
      (2) AMM 38-11-15/201, Water Filter Installation (Opt)
   E. Access
      (1) Location Zones
          163 Area below bulk cargo compartment (Left)
          164 Area below bulk cargo compartment (Right)
          200 Upper Half of Fuselage

      (2) Access Panel
          165AL Potable Water Service Panel (757-200 4DR Airplanes)
          165BL Potable Water Service Panel (757-200 0WX Airplanes)
          165BL Potable Water Service Panel (757-300 Airplanes)

   F. Procedure

      S 682-073
      (1) Drain the potable water system (AMM 12-14-01/301).

S 022-009

(2) AIRPLANES WITH CHARCOAL WATER FILTERS;
Remove and discard the water filter cartridge(s) in the potable water system (if installed, in the lavatory, in the galley, in the drinking fountain areas - refer to the lavatory or galley manufacturers instructions).

NOTE: Replace the gasket, cover and clamp WITHOUT the filter cartridge installed. The water system must be water-tight for the disinfection process. All the water filter cartridges must be removed prior to the water disinfection process so that the disinfectant does not remain in the water system.

S 672-038

WARNING: DRAIN OR USE THE POTABLE WATER SYSTEM A MINIMUM OF ONE TIME EACH THREE DAYS. IF YOU DO NOT DRAIN, OR USE THE WATER SYSTEM FREQUENTLY, BACTERIA CAN GROW IN THE WATER. IF YOU DRINK WATER WITH BACTERIA IN IT, ILLNESS CAN OCCUR.

(3) Fill the potable water tank with approximately 30 gallons (110 liters) of water (AMM 12-14-01/301).

NOTE: The filter cartridge must not be installed in the water service cart.

S 672-054

WARNING: DO NOT BREATHE THE CHLORINE DIOXIDE GAS. WHEN THE TWO CHEMICALS ARE MIXED, CHLORINE DIOXIDE GAS IS PRODUCED WHICH CAN CAUSE INJURY TO PERSONS IF THEY BREATHE THE GAS.

(4) Make the disinfectant that follows (in a 5-gallon plastic container):
(a) Recommended disinfectant:
1) Chlorine dioxide (stabilized 2%) and citric acid (crystals or powder) or citric acid 50% (liquid) as an alternative.
a) AIRPLANES WITH STANDARD CAPACITY WATER TANK (60 GAL);
Mix the following amounts of chlorine dioxide with citric acid in a clean, closed plastic container:
42.2 fluid ounces (1.25 liters) chlorine dioxide,
5.28 fluid ounces (0.16 liter) citric acid (crystals or powder), or
8.45 fluid ounces (0.25 liter) citric acid 50% (liquid).

b) Stop for 5 minutes (activation period).
c) Use a clean instrument to mix the solution fully.
d) Add approximately 5 gallons of water to the solution.

S 672-006
(5) Add the disinfectant to the potable water system through the fill line connection.

S 672-009
(6) Fill the potable water system with water until full (AMM 12-14-01/301).

S 672-001
(7) Flush the potable water system with the disinfectant as follows:
(a) Let the potable water system pressurize.
(b) Starting with the most forward unit in the airplane, open each faucet (hot and cold sides), galley spigot, and the water boiler until disinfectant flows through each.

NOTE: The disinfectant may be noticable by its slight yellow color.

(c) Close the faucets, spigots, and water boilers.
(d) AIRPLANES WITH VACUUM WASTE SYSTEMS;
Starting in the most forward lavatory, flush each toilet at least twice with a 15 second delay between flushes or until disinfectant appears.

NOTE: The disinfectant may be noticable by its slight yellow color.

(e) Fill the remainder of the potable water system (AMM 12-14-01/30 1).
(f) Let the potable water system soak for one (1) hour.

S 682-002
(8) Drain the potable water system (AMM 12-14-01/301).

S 172-003
(9) Fill the potable water system (AMM 12-14-01/301).

S 172-004
(10) Open each faucet (hot and cold sides), galley spigot, and the water boiler for 15 seconds or until clean water flows from each.

S 172-005
(11) AIRPLANES WITH VACUUM WASTE SYSTEMS;
Flush each toilet at least twice with a 15 second delay between flushes or until clean water appears.

S 422-080
(12) AIRPLANES WITH CHARCOAL FILTERS;
Install a new filter cartridge, do this Task: Water Filter Cartridge Replacement (AMM 38-11-15-2)
(a) Open each cold water faucet, galley spigot, and the water boiler for 15 seconds or until clean water flows from each.
(b) Make sure the water filter does not have a leak.

S 612-006
(13) Service the potable water system (AMM 12-14-01/301).

TASK 38-10-00-102-011

3. Clean the Potable Water Tank Manually

A. General
(1) This task is used to manually clean the potable water tank. This should only be used when the disinfecting task is not effective. This task only cleans the water tank, not the entire potable water system. The normal process for maintenance of the potable water system is Disinfect the Potable Water System, AMM 38-10-00/201.

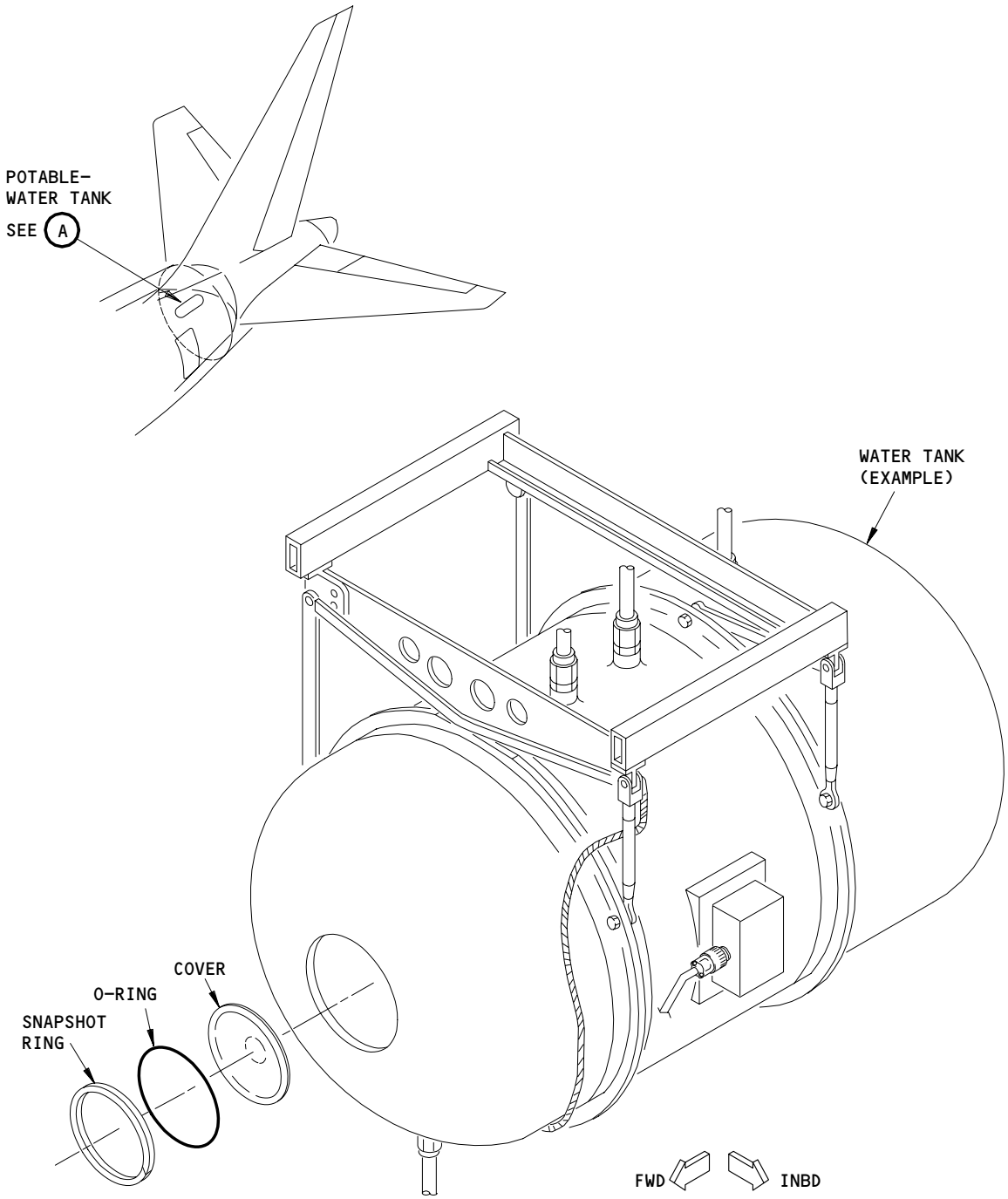
B. Equipment
(1) Water service cart
(2) Soft bristle brush with handle
(3) Gloves
(4) Utility knife
(5) Soft mallet

C. Consumable Materials
(1) G00022 Chemical, Water purifying Chlorine Dioxide (stabilized 2% solution) - Purogene or Oxine
(2) B00637 Acid, Citric (crystals or powder), Commercially Available - A-A-59147
(3) B00402 - Cleaning Compound, MIL-C-87936

D. References
(1) AMM 12-14-01/301, Potable Water System
(2) AMM 25-50-03/401, Bulkhead Lining
(3) AMM 36-00-00/201, Pneumatic Power
(4) AMM 38-10-00/201, Potable Water System - Pressure Release
(5) AMM 52-49-00/001, Exterior Service Doors

E. Access
(1) Access Panel

165AL	Potable Water Service Panel (757-200 4DR Airplanes)
165BL	Potable Water Service Panel (757-200 OWX Airplanes)
165BL	Potable Water Service Panel (757-300 Airplanes)



POTABLE–WATER TANK
A

Potable–Water Tank Cleaning
Figure 201

F. Prepare to Manually Clean the Main Water Tank

S 682-012
(1) Drain the potable water system (AMM 12-14-01/301).

S 842-076
(2) To release the pressure from the potable water system, do this task: Potable Water System - Pressure Release (AMM 38-10-00/201).

S 022-013
(3) Main water tank access:
Remove the aft cargo compartment rear bulkhead liner (AMM 25-50-03/401).

G. Manually Clean the Tank

S 012-014
(1) Do these steps to gain access to the inside of the water tank:

WARNING: DEPRESSURIZE WATER TANK BEFORE OPENING TANK END CAP. IF THE TANK END CAP SNAP RING IS REMOVED PRIOR TO TANK DEPRESSURIZATION, THE TANK END CAP CAN INJURE MAINTENANCE PERSONEL.

CAUTION: DO NOT INSERT MORE THAN 0.25 INCH OF THE KNIFE INTO THE INSULATION COVER. IF THE DEPTH OF THE CUT IS MORE THAN 0.25 INCH, YOU CAN DAMAGE THE POTABLE WATER TANK.

(a) To access the end caps, make two cuts, one horizontal and one vertical, into the insulation material near the center of each of the tank end caps.
(b) Move the insulation cover to the side.
(c) Compress the snap rings and remove them from the end caps (Fig. 201).
(d) Pull the end caps from the tank.

S 112-015
(2) AIRPLANES WITH STANDARD CAPACITY WATER TANK (60 GAL);
Mix 19 fluid ounces (0.57 liter) of chlorine dioxide with 2.4 fluid ounces (0.07 liter) of citric acid in a 5-gallon plastic container.

S 112-074
(3) AIRPLANES WITH INCREASED CAPACITY WATER TANK (120 GAL);
Mix 38 fluid ounces (1.14 liter) of chlorine dioxide with 4.8 fluid ounces (0.14 liter) of citric acid in a 5-gallon plastic container.

S 142-016
(4) Put the mixture into the water tank.

S 142-017
(5) Clean the inside of the tank with a soft-bristle brush.

S 682-018
(6) Drain the tank (AMM 12-14-01/301).

S 862-019
(7) Mix 6 ounces of detergent and 1-gallon of water in a 2-gallon plastic container.

S 142-020
(8) Put the mixture into the water tank.

S 142-021
(9) Clean the inside of the tank and covers with a soft-bristle brush.

S 682-022
(10) Drain the tank (AMM 12-14-01/301).

S 172-023
(11) Flush the inside of the tank with water and drain the tank (AMM 12-14-01/301).

S 172-032
(12) Do the step above for three times.

S 142-024
(13) Wash the tank end caps with clean water.

S 422-025
(14) Install the end cap in the tank so that the spherical surface is inside the tank. Use a soft mallet to position the cap around the outer circumference until it is firmly seated. Make sure the O-ring is not dislodged, pinched or damaged during assembly (Fig. 201).

S 422-104

CAUTION: WHEN YOU ASSEMBLE THE WATER TANK, MAKE SURE THE SNAP RING IS INSTALLED TO COVER THE RED DEPTH LINE. IF YOU DO NOT INSTALL THE SNAP RING TO COVER THE RED DEPTH LINE, YOU CAN CAUSE DAMAGE TO EQUIPMENT.

(15) Install the snap ring in the polar ring slot. Make sure the snap ring is installed to the point where the red depth line can not be seen.

H. Put the Airplane Back to its Usual Condition.

S 432-027
(1) Close the drain valve (Fig. 201).

S 692-028
(2) Fill the potable water system (AMM 12-14-01/301).

S 842-075
(3) Restore pressure to the potable water system, AMM 38-10-00/201.

S 792-029
(4) Examine all the connections for leakage. Make sure there is no leakage.

S 422-030
(5) Put the insulation cover on the tank and install the tape over the open areas.

S 422-031
(6) Install rear bulkhead liner for the aft cargo compartment (AMM 25-50-03/401).

TASK 38-10-00-042-050

4. Release Pressure from the Potable Water System

A. References
(1) AMM 12-14-01/301, Potable Water System
(2) AMM 25-50-03/401, Bulkhead Lining
(3) AMM 36-00-00/201, Pneumatic - General
(4) AMM 52-34-00/001, Open Aft Cargo Door
(5) AMM 52-36-00/001, Open Bulk Cargo Door
(6) AMM 52-49-00/001, Exterior Service Doors

B. Access
(1) Location Zones
119/120 Main Equipment Center
211/212 Control Cabin

(2) Access Panel
165AL Potable Water Service Panel (757-200 4DR Airplanes)
165BL Potable Water Service Panel (757-200 OWX Airplanes)
165BL Potable Water Service Panel (757-300 Airplanes)

C. Release Pressure from the Potable Water System

S 862-042
(1) Supply electrical power (AMM 24-22-00/201).

S 862-043
(2) Remove pneumatic power (AMM 36-00-00/201).

S 862-041
(3) AIRPLANES WITH STANDARD CAPACITY TANK (RECIRCULATING TOILETS); Do these tasks:
(a) Open this circuit breaker, and attach a DO-NOT-CLOSE tag:
1) On the main power distribution panel, P6:
a) 6K21, POT WATER CPRSR
(b) Open the door for the potable water service panel (AMM 52-49-00/001).

(c) To release pressure from the potable water system, do these tasks:
1) Turn the WATER TANK FILL VALVE handle 1/4-turn to unlock and pull down to OPEN.
2) After 30 seconds (when all air has escaped), push the handle for the WATER TANK FILL VALVE in (closed) and give a 1/4-turn to lock.

(d) If access to a water system component is necessary, do these steps:
1) Open the aft cargo door (AMM 52-34-00/001).
2) Remove the aft bulkhead lining in the bulk cargo compartment (AMM 25-50-03/401).

TASK 38-10-00-442-044

5. Restore Pressure to the Potable Water System

A. References
(1) AMM 12-14-01/301, Potable Water System
(2) AMM 25-50-03/401, Bulkhead Lining

B. Access
(1) Location Zones
119/120 Main Equipment Center
211/212 Control Cabin

C. Restore Pressure to the Potable Water System

S 862-046
(1) If not already supplied, supply electrical power (AMM 24-22-00/201).

S 862-048
(2) AIRPLANES WITH STANDARD CAPACITY TANK (RECIRCULATING TOILET); Do these tasks:
(a) Remove the DO-NOT-CLOSE tag, and close this circuit breaker:
1) On the main power distribution panel, P6:
a) 6K21, POT WATER CPRSR

S 412-053
(3) Close the door for the potable water service panel (AMM 52-49-00/001).

S 782-045

(4) Make sure the air compressor operates and pressurizes the potable water system.

S 862-055

(5) Make sure the air compressor shuts off when the potable water system is fully pressurized.

POTABLE WATER SYSTEM - ADJUSTMENT/TEST

1. General
   A. This procedure gives the steps to do these tests:
      (1) Leakage Test of the Sink Drain Lines
      (2) Leakage Test of the Potable Water System
      (3) Test of the Air Compressor
      (4) Test of the Pressure Regulator
   B. This Chapter/Section/Subject/Page Block uses Configurations (CONFIGs) to identify different water system configurations used by operators:
      CONFIGURATION 1:
         airplanes with standard capacity (60 gal) water tank - ie, used for airplanes with the recirc toilet system.
      CONFIGURATION 2:
         airplanes with increased capacity (120 gal) water tank - ie, used for airplanes with the vacuum waste system.
   C. If an operator does not have a particular configuration in their fleet, that CONFIG's procedure will be LIMITED as CONFIGURATION NOT USED and will contain no instructions.

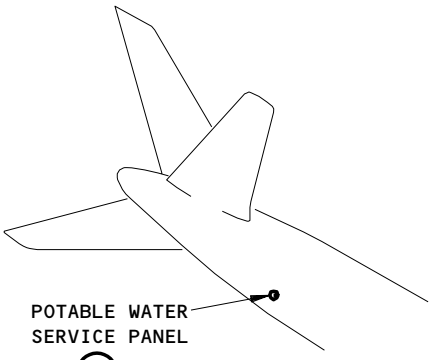
TASK 38-11-00-795-001-001

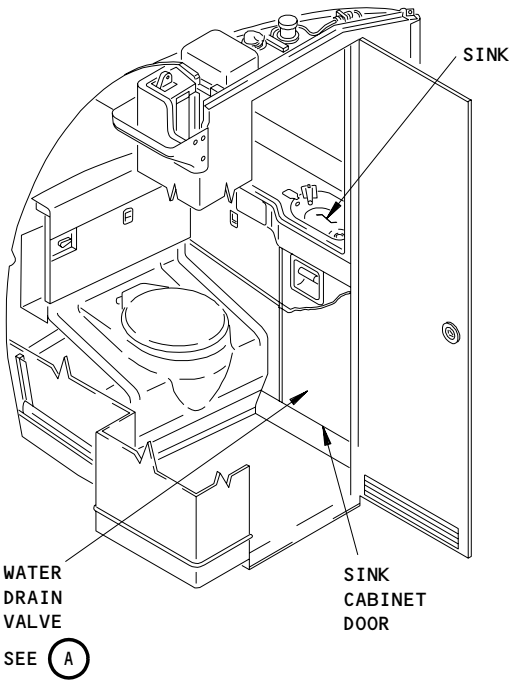
2. Leakage Test of the Sink Drain Lines (Fig. 501)
   A. General
      (1) Use this test to make sure there are no leaks in the gray water drain lines for the lavatory and galley sinks.
   B. Equipment
      (1) Drain mast plug.
         (a) Plug Equipment - Waste Water Drain Mast, C38001-1 (Preferred)
         (b) Plug Equipment - Waste Water Drain Mast, A38011-1 (Alternate)
   C. References
      (1) AMM 12-14-01/301, Potable Water System
      (2) AMM 24-22-00/201, Electrical Power - Control
   D. Access
      (1) Location Zones
         100 Lower Half of Fuselage
         200 Upper Half of Fuselage

   E. Procedure

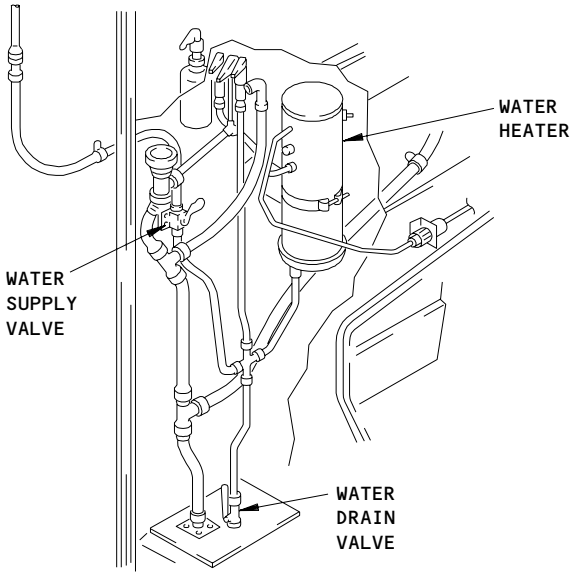
      S 865-002-001
      (1) Supply electrical power (AMM 24-22-00/201).

      S 615-003-001
      (2) Fill the potable water tank (AMM 12-14-01/301).

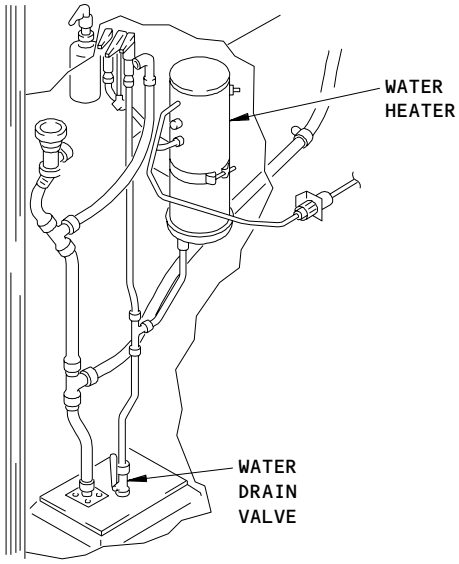




LAVATORY
(EXAMPLE)



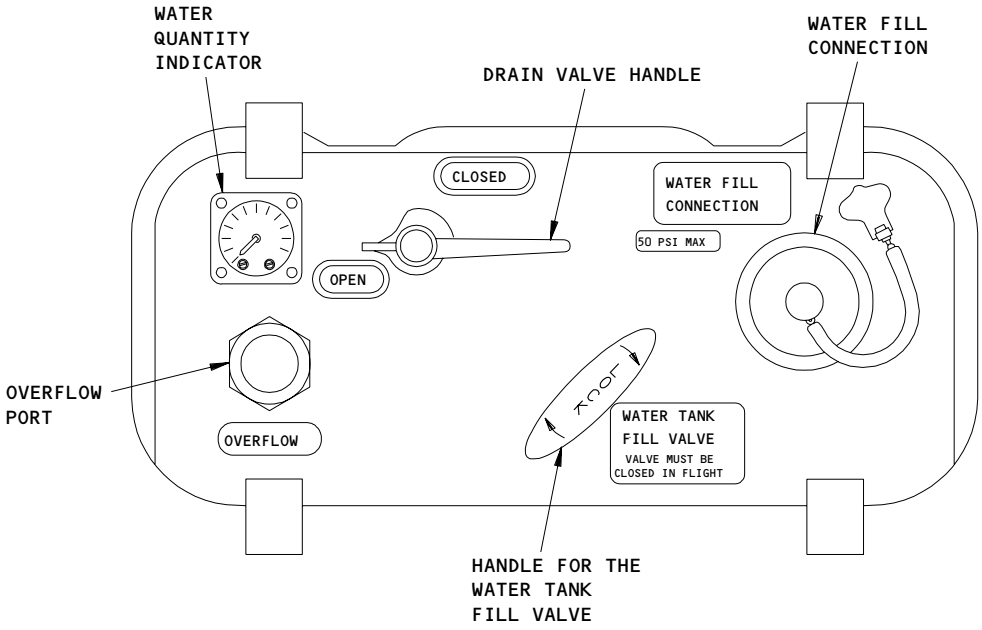
WATER DRAIN VALVE
(FORWARD AND MID LAVATORIES)
(DOORS 1, 2, OR 3)
A 1



WATER DRAIN VALVE
(AFT LAVATORIES)
(DOOR 4)
A 1

1 AS INSTALLED

Potable Water System Test
Figure 501 (Sheet 1)



POTABLE WATER SERVICE PANEL, 165AL

(B)

Potable Water System Test
Figure 501 (Sheet 2)

S 485-004-001
(3) Install a plug in the forward drain mast.

S 795-005-001
(4) Put water in the forward lavatory and galley sinks until water stays in the sinks.

NOTE: The drain in the sink must be open when water is put in the sink.

S 795-006-001
(5) Stop for five minutes.

S 795-007-001
(6) Examine all drain line connections for leakage. No leakage is permitted.

S 095-008-001
(7) Remove the plug from the forward drain mast and let the water drain.

S 485-009-001
(8) Install a plug in the aft drain mast.

S 795-010-001
(9) Put water in the aft lavatory and galley sinks until water stays in the sinks.

NOTE: The drain in the sink must be open when water is put in the sink.

S 795-011-001
(10) Stop for five minutes.

S 795-012-001
(11) Examine all drain line connections for leakage. No leakage is permitted.

S 095-013-001
(12) Remove the plug from the aft drain mast and let the water drain.

S 865-014-001
(13) Remove electrical power if it is not necessary (AMM 24-22-00/201).

TASK 38-11-00-795-015-001

3. Potable Water System - Leakage Test (Fig. 502)

A. General

(1) Use this procedure to make sure the potable water system does not have a leak.

B. Equipment

(1) Pressure Gage - 0-75 psig - Commercially Available

(2) Pressurization Valve - Commercially Available

(3) Pressure Source - 0-75 psig - Clean Air, or Nitrogen - Commercially Available

C. References

(1) AMM 12-14-01/301, Potable Water Servicing

(2) AMM 24-22-00/201, Electrical Power - Control

(3) AMM 25-50-03/401, Aft Cargo Bulkhead Lining

(4) AMM 38-10-00/201, Potable Water System - Pressure Release/Restore

(5) AMM 52-34-00/001, No. 1 and No. 2 Cargo Door

D. Access

(1) Location Zone

100	Lower Half of Fuselage
200	Upper Half of Fuselage
822	Aft cargo door

E. Procedure for Potable Water Supply System

S 865-016-001

(1) Supply electrical power (AMM 24-22-00/201).

S 015-017-001

(2) Open the aft cargo door (AMM 52-34-00/001).

S 015-018-001

(3) Remove the aft bulkhead lining of the aft cargo compartment (AMM 25-50-03/401).

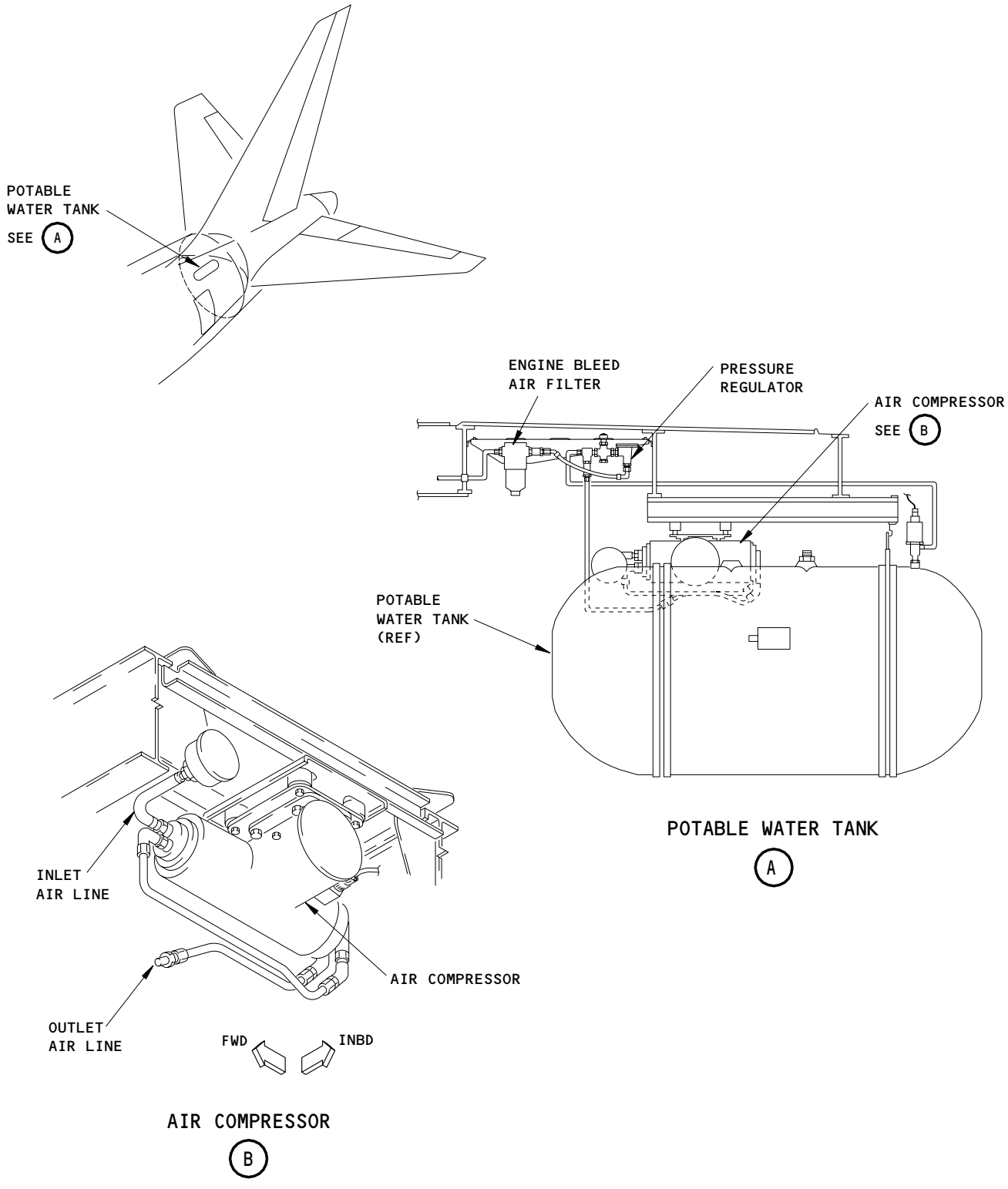
S 485-019-001

(4) Install the pressure gage and the pressurization valve in the potable water system.

(a) The pressure gage and the pressurization valve should be installed in a suitable location in the pressurization line between the water tank and the pressure regulator and check valves.

S 615-020-001

(5) Fill the potable water system (AMM 12-14-01/301).



Potable Water System Compressor Test
Figure 502

S 865-021-001
(6) Pressurize the potable water system to 50 psig (345 kPa).

NOTE: Use clean air or nitrogen. Do not use "shop" air.

S 875-022-001
(7) Open the faucets in each lavatory and galley and let the water flow for 2 minutes.

NOTE: Keep the pressure (in the potable water system) at 50 psig.

S 865-023-001
(8) Close all the water faucets.

S 795-024-001
(9) Keep the pressure (in the potable water system) at 50 psig for 5 minutes.

S 795-025-001
(10) Make sure there are no air or water leaks in these locations:
(a) At the water fill connection on the potable water service panel.
(b) At the water drain connection on the potable water service panel.
(c) In the water lines that supply lavatory and galley water.

F. Put the Airplane Back to its Usual Condition

S 865-026-001
(1) To release the pressure from the potable water system, do this task: Potable Water System - Pressure Release (AMM 38-10-00/201).

S 085-027-001
(2) Remove the pressurization valve and the pressure gage from the potable water system pressurization line.

S 865-028-001
(3) Return pressurization line to original configuration.

S 865-029-001
(4) To pressurize the potable water system, do this task: Potable Water System - Pressure Restore (AMM 38-10-00/201).

S 795-030-001

(5) Make sure there are no air leaks where the gage and pressurization fittings were installed.

S 415-031-001

WARNING: OBEY THE INSTRUCTIONS IN THE PROCEDURE TO INSTALL THE CARGO LINING. THE INCORRECT INSTALLATION OF THE CARGO LINING CAN LET THE FIRE EXTINGUISHING AGENT OR SMOKE OUT OF THE CARGO COMPARTMENT DURING A FIRE.

(6) Install the aft bulkhead lining of the aft cargo compartment (AMM 25-50-03/401).

S 415-032-001

(7) Close the aft cargo door (AMM 52-34-00/001).

S 415-033-001

(8) Remove electrical power if it is not necessary (AMM 24-22-00/201).

TASK 38-11-00-725-034-001

4. Test of the Air Compressor (Fig. 501 and Fig. 502)

A. General

(1) Use this test to make sure the pressure switch stops and starts the air compressor (for the potable water system) at the correct pressures.

B. Equipment

(1) Pressure gage - 0-75 psi, commercially available

(2) Pressure gage - 0-75 psi, with bleed valve, commercially available (Optional)

C. References

(1) AMM 12-14-01/301, Potable Water System

(2) AMM 24-22-00/201, Electrical Power - Control

(3) AMM 25-50-03/401, Aft Cargo Bulkhead Lining

(4) AMM 36-00-00/201, Pneumatic Power

(5) AMM 52-34-00/001, No. 1 and No. 2 Cargo Door

D. Access

(1) Location Zone

166 Area Aft of Bulk Cargo Compartment (Right)

(2) Access Panel

165AL Potable Water Service Panel (757-200 4DR Airplanes)
165BL Potable Water Service Panel (757-200 0WX Airplanes)

E. Procedure

S 865-036-001

(1) To deactivate the potable water air compressor and release pressure from the potable water system, do this task: Potable Water System - Pressure Release (AMM 38-10-00/201).

S 615-037-001

(2) Fill the potable water tank (AMM 12-14-01/301).

S 725-038-001

(3) Make sure all the water drain valves (for the potable water system) and water faucets on the airplane are closed (Fig. 501).

NOTE: The water supply valves can be open.

S 865-039-001

(4) Remove pneumatic power (AMM 36-00-00/201).

S 015-040-001

(5) Open the No. 2 cargo door (AMM 52-34-00/001).

S 015-041-001

(6) Remove the aft right bulkhead lining from the bulk cargo compartment (AMM 25-50-03/401).

S 485-042-001

(7) Connect the pressure gage to the pressure line for the potable water tank.

S 865-043-001

(8) To restore pressure to the potable water system, do this task: Potable Water System - Restore Pressure (AMM 38-10-00/201).

S 725-044-001

(9) AIRPLANES WITH PRESSURE SWITCH P/N 60B50024-2;
Make sure the air compressor stops when the pressure reaches 40 ±1 psig.

S 725-045-001
(10) AIRPLANES WITH PRESSURE SWITCH P/N 60B50024-1 OR 10-62205-3;
Make sure the air compressor stops when the pressure reaches 31 ±1 psig.

S 725-046-001
(11) Slowly turn the handle for the WATER TANK FILL VALVE, (at the service panel) in the direction of OPEN, to bleed air from the potable water system.

S 725-047-001
(12) AIRPLANES WITH PRESSURE SWITCH P/N 60B50024-2;
Make sure the air compressor starts when the pressure drops to 35 ±1 psig.

S 725-048-001
(13) AIRPLANES WITH PRESSURE SWITCH P/N 60B50024-1 OR 10-62205-3;
Make sure the air compressor starts when the pressure drops to 26 ±1 psig.

S 865-049-001
(14) To release pressure from the potable water system, do this task: Potable Water System - Pressure Release (AMM 38-10-00/201).

S 085-050-001
(15) Remove the pressure gage from the pressure line for the potable water tank.

S 435-051-001
(16) Connect the pressure line to the potable water tank.

S 415-052-001
(17) Install the aft right bulkhead lining of the bulk cargo compartment (AMM 25-50-03/401).

S 415-053-001
(18) Close the No. 2 cargo door (AMM 52-34-00/001).

S 865-054-001
(19) To restore pressure to the potable water system, do this task: Potable Water System - Restore Pressure (AMM 38-10-00/201).

S 865-055-001
(20) Remove electrical power if it is not necessary (AMM 24-22-00/201).

TASK 38-11-00-725-081-001

5. Test of the Pressure Regulator (Fig. 502)
   A. General
      (1) Use this test to make sure the pressure regulator for the potable water system will operate correctly.

B. Equipment
(1) Air Source - 60 psig minimum, commercially available
(2) Pressure gage - 0-75 psi, commercially available
(3) Pressure gage - 0-75 psi, with bleed valve, commercially available (Optional).

C. References
(1) AMM 12-14-01/301, Potable Water System
(2) AMM 25-50-03/401, Cargo Compartment Bulkhead Lining
(3) AMM 36-00-00/201, Pneumatic Power
(4) AMM 52-34-00/001, No. 1 and No. 2 Cargo Door

D. Access
(1) Location Zone
166 Area Aft of Bulk Cargo Compartment (Right)

(2) Access Panel
165AL Potable Water Service Panel (757-200 4DR Airplanes)
165BL Potable Water Service Panel (757-200 0WX Airplanes)

E. Procedure

S 615-083-001
(1) Fill the potable water tank (AMM 12-14-01/301).

S 865-084-001
(2) To release pressure from the potable water system, do this task: Potable Water System - Pressure Release (AMM 38-10-00/201).

S 725-085-001
(3) Make sure all the water drain valves (for the potable water system) and water faucets on the airplane are closed (Fig. 501).

NOTE: The water supply valves can be open.

S 865-086-001
(4) Remove pneumatic power (AMM 36-00-00/201).

S 015-087-001
(5) Open the No. 2 cargo door (AMM 52-34-00/001).

S 015-088-001
(6) Remove the aft right bulkhead lining of the bulk cargo compartment (AMM 25-50-03/401).

S 485-089-001
(7) Connect the pressure gage to the pressure line of the potable water tank.

S 035-090-001
(8) Disconnect the air line from the inlet port of the engine/APU bleed air filter.

S 485-091-001
(9) Connect the air source to the inlet port of the engine/APU bleed air filter.

S 725-092-001
(10) Supply a pressure of 55 psig to the inlet port of the engine/APU bleed air filter.

S 725-093-001
(11) Make sure the pressure gage (connected to the pressure line for the potable water tank) shows a pressure of 40 ±3 psig.

S 725-094-001
(12) Stop the supply of air to the engine/APU bleed air filter.

S 485-095-001
(13) Move the handle for the WATER TANK FILL VALVE to OPEN.

S 085-096-001
(14) Disconnect the air source from the inlet port of the engine/APU bleed air filter.

S 435-097-001
(15) Connect the air line to the inlet port of the engine/APU bleed air filter.

S 085-098-001
(16) Remove the pressure gage from pressure line for the potable water tank.

S 435-099-001
(17) Connect the pressure line to the potable water tank.

S 415-100-001
(18) Install the aft right bulkhead lining of the bulk cargo compartment (AMM 25-50-03/401).

S 415-101-001
(19) Close the No. 2 cargo door (AMM 52-34-00/001).

S 485-102-001
(20) Move the handle for the WATER TANK FILL VALVE to CLOSED.

S 865-103-001
(21) To restore pressure to the potable water system, do this task:
Potable Water System - Restore Pressure (AMM 38-10-00/201).

POTABLE WATER SYSTEM - ADJUSTMENT/TEST

TASK 38-11-00-705-138-002

1. Potable Water System - Increased Capacity (120 gals)
   A. General
      (1) This CONFIGURATION is NOT USED.

WATER TANK - REMOVAL/INSTALLATION

1. General
   A. This Section uses Configurations to identify the different sized water tanks used by an operator:
      (1) CONFIG 1: airplanes with a standard capacity water tank (60 gal) used on airplanes with recirculating toilet systems.
      (2) CONFIG 2: airplanes with increased capacity water tank (120 gal) used on airplanes with vacuum waste toilet systems.
   B. Each operator will receive only the configuration(s) applicable to his operation. For example, an operator that has only airplanes with the standard capacity water tank will receive only CONFIG 1. An operator with only airplanes with the increased capacity water tank will receive only CONFIG 2. An operator with both standard and increased capacity tank airplanes will receive both CONFIG 1 and 2.
   C. This procedure has these tasks:
      (1) A removal of the 60 gallon standard capacity water tanks for airplanes with recirculating toilets.
      (2) An installation of the 60 gallon standard water tanks for airplanes with recirculating toilets.

TASK 38-11-01-004-001-001

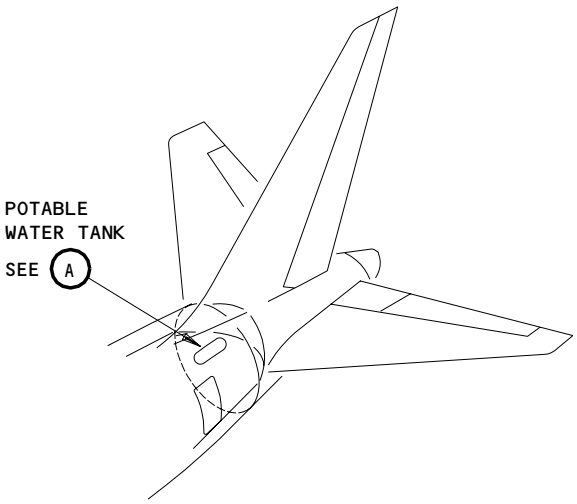
2. Remove the Standard Capacity Potable Water Tank (Fig. 401)
   A. References
      (1) AMM 12-14-01/301, Potable Water System
      (2) AMM 24-22-00/201, Electrical Power - Control
      (3) AMM 25-50-03/401, Bulkhead Lining
      (4) AMM 36-00-00/201, Pneumatic - General
      (5) AMM 52-34-00/001, No. 1 and No. 2 Cargo Door
   B. Access
      (1) Location Zone
          166 Area Aft of Bulk Cargo Compartment (Right)

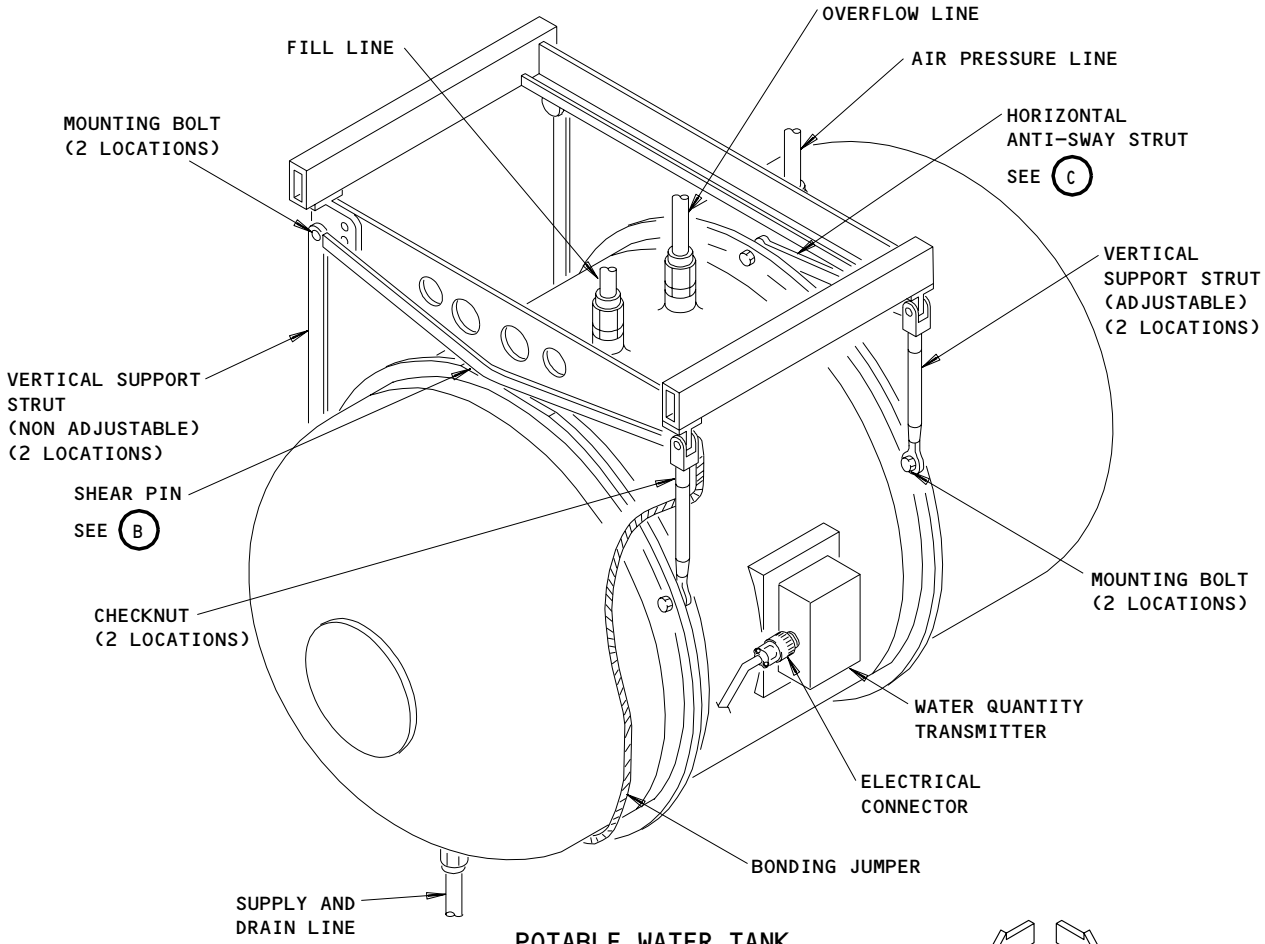
   C. Procedure

      S 864-003-001
      (1) To deactivate the potable water air compressor and release pressure from the potable water system, do this task: Potable Water System - Pressure Release (AMM 38-10-00/201).

      S 684-004-001
      (2) Drain the potable water system (AMM 12-14-01/301).

      S 014-005-001
      (3) Open the No. 2 cargo door (AMM 52-34-00/001).

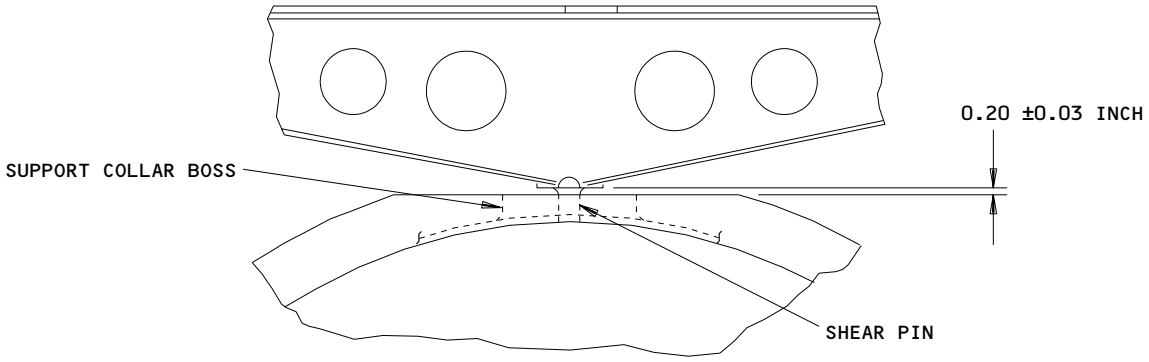




POTABLE WATER TANK

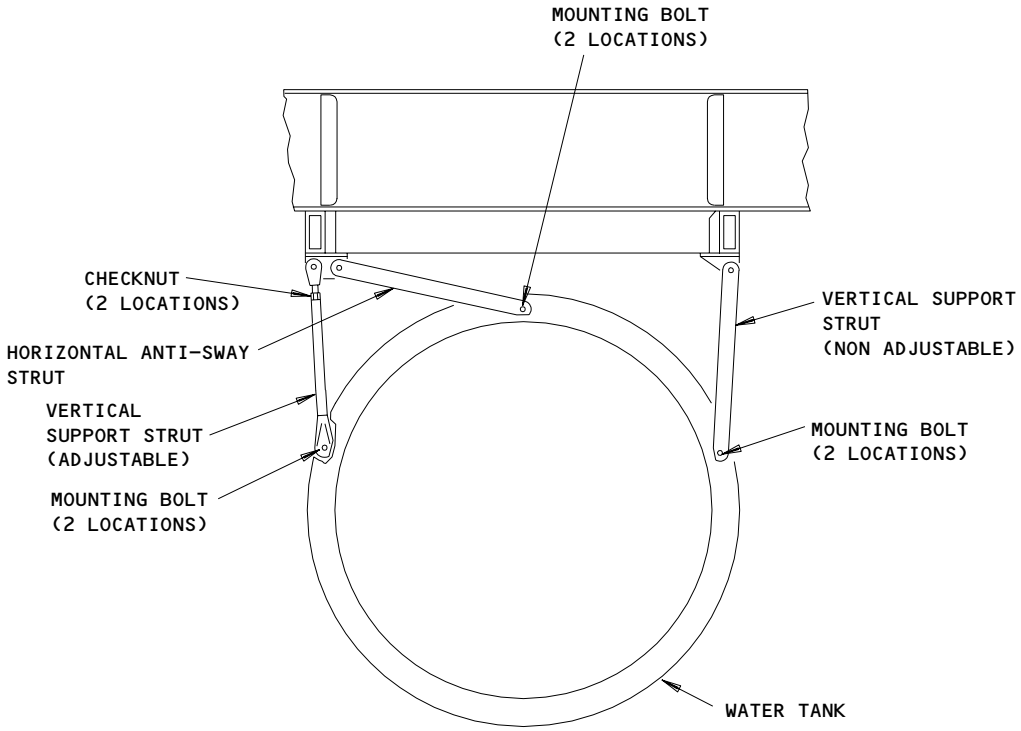
A

Potable Water Tank Installation
Figure 401 (Sheet 1)



SHEAR PIN
(FRONT VIEW)

B



HORIZONTAL ANTI-SWAY STRUT
(REAR VIEW)

C

Portable Water Tank Installation
Figure 401 (Sheet 2)

S 014-006-001
(4) Remove the aft right bulkhead lining of the bulk cargo compartment (AMM 25-50-03/401).

S 034-007-001
(5) Disconnect all the lines that are attached to the potable water tank.

S 034-008-001
(6) Put caps on the lines and plugs in the potable water tank to keep contamination out.

S 034-009-001
(7) Disconnect the electrical connector from the water quantity transmitter.

S 024-010-001
(8) Support the potable water tank.

S 024-011-001
(9) Remove the bolts from the vertical support struts and from the horizontal anti-sway strut.

S 024-012-001
(10) Lower the potable water tank straight down until it disengages the shear pin.

S 024-013-001
(11) Remove the potable water tank.

TASK 38-11-01-404-014-001

3. Install the Standard Capacity Potable Water Tank (Fig. 401)

A. References
(1) AMM 12-14-01/301, Potable Water System
(2) AMM 24-22-00/201, Electrical Power - Control
(3) AMM 25-50-03/401, Bulkhead Lining

(4) AMM 52-34-00/001, No. 1 and No. 2 Cargo Door

B. Access

(1) Location Zone

166 Area Aft of Bulk Cargo Compartment (Right)

C. Procedure

S 424-016-001

(1) Put the potable water tank in a position that aligns the support collar boss with the shear pin.

S 424-017-001

(2) Lift the potable water tank to engage the shear pin.

S 424-018-001

(3) Install the bolts that attach the four vertical support struts. Do not tighten the bolts.

S 424-019-001

(4) Install the bolts that attach the horizontal anti-sway strut. Do not tighten the bolts.

S 424-020-001

(5) Adjust the two vertical support struts that are adjustable to get the dimension shown in Detail B, Fig. 401.

S 424-021-001

(6) Tighten all the mounting bolts and the check nuts.

S 434-023-001

(7) Connect the electrical connector to the water quantity transmitter.

S 434-024-001

(8) Connect all the lines to the potable water tank.

S 614-025-001

(9) Fill the potable water tank (AMM 12-14-01/301).

S 864-026-001

(10) To restore pressure to the potable water system, do this task: Potable Water System - Restore Pressure (AMM 38-10-00/201).

S 214-027-001

(11) When the potable water tank has pressurized, make sure there is no leakage at any of the connections on the potable water tank.

S 414-028-001

(12) Install the aft right bulkhead lining of the bulk cargo compartment (AMM 25-50-03/401).

S 414-029-001
(13) Close the No. 2 cargo door (AMM 52-34-00/001).

S 864-030-001
(14) Remove electrical power if it is not necessary (AMM 24-22-00/201).

WATER TANK FILL VALVE - REMOVAL/INSTALLATION

TASK 38-11-02-004-002

1. Remove the Water Tank Fill Valve (Fig. 401)
   A. References
      (1) AMM 06-46-00/201, Entry Service and Cargo Doors
      (2) AMM 24-22-00/201, Electrical Power - Control
      (3) AMM 25-50-03/401, Bulkhead Lining
      (4) AMM 36-00-00/201, Pneumatic - General
      (5) AMM 52-34-00/001, No. 1 and No. 2 Cargo Door
   B. Access
      (1) Location Zones
          166 Area Aft of Bulk Cargo Compartment (Right)
          822 No. 2 Cargo Door

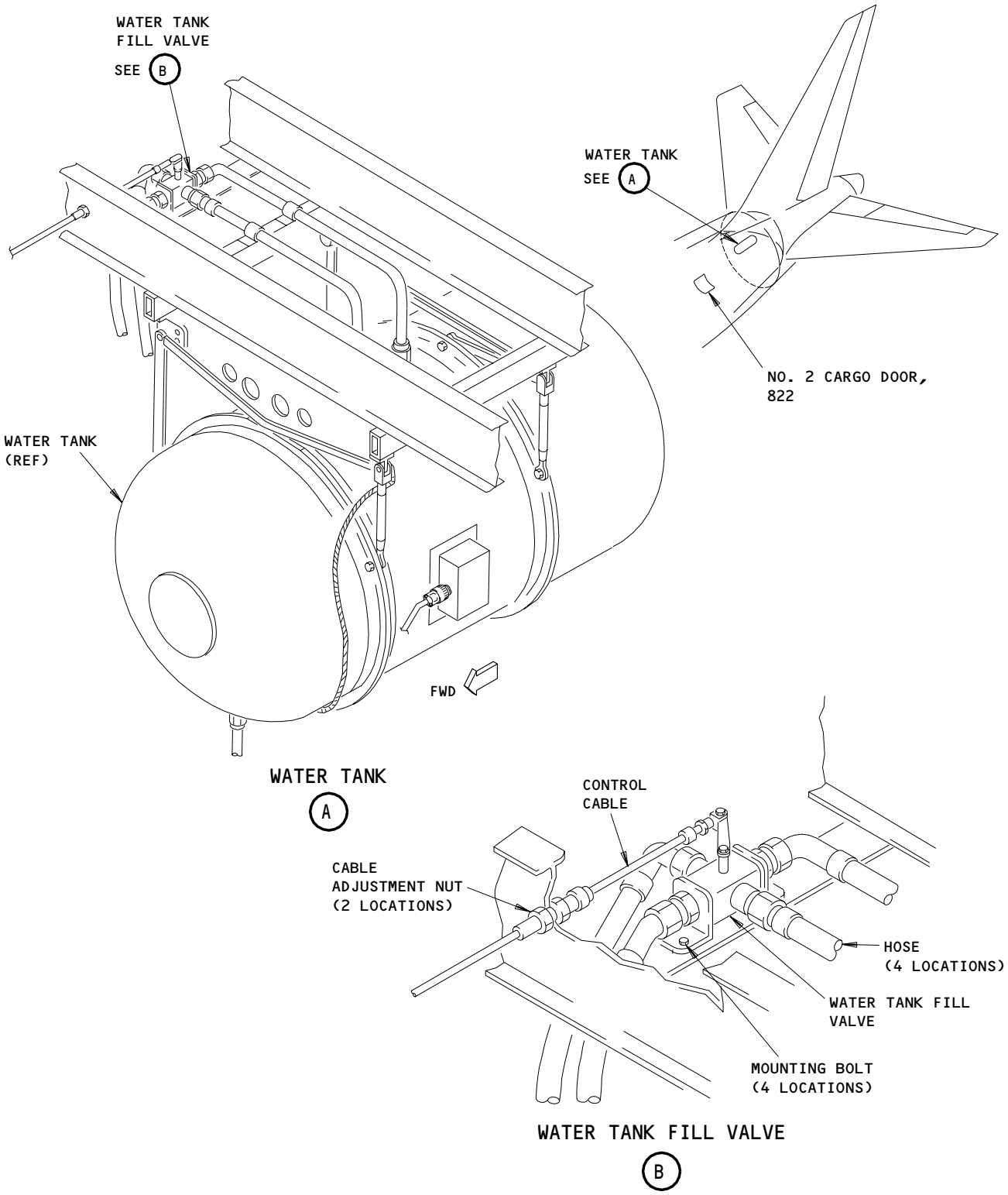
   C. Procedure

      S 864-003
      (1) To release pressure from the potable water system, do this task: Potable Water System - Pressure Release (AMM 38-10-00/201).

      S 024-016
      (2) Do these steps to remove the water tank fill valve:
          (a) Open the water tank fill valve to release pressure from the potable-water system.
          (b) Close the water tank fill valve.
          (c) Open the No. 2 cargo door (AMM 52-34-00/001).
          (d) Remove the aft right bulkhead lining from the bulk cargo compartment (AMM 25-50-03/401).
          (e) Remove the 2 bolts that attach the control cable assembly.
          (f) Move the control cable assembly away from the water tank fill valve.
          (g) Disconnect the hoses from the water tank fill valve.
          (h) Put a cap on the hoses and on the ports of the water tank fill valve to keep contamination out.
          (i) Remove the 4 bolts that attach the water tank fill valve and remove the water tank fill valve.

TASK 38-11-02-004-017

2. Install the Water Tank Fill Valve (Fig. 401)
   A. References
      (1) AMM 06-46-00/201, Entry Service and Cargo Doors
      (2) AMM 24-22-00/201, Electrical Power - Control
      (3) AMM 25-50-03/401, Bulkhead Lining



Water Tank Fill Valve Installation
Figure 401

(4) AMM 52-34-00/001, No. 1 and No. 2 Cargo Door

B. Access

(1) Location Zone

166 Area Aft of Bulk Cargo Compartment (Right)
822 No. 2 Cargo Door

C. Procedure

S 864-018

(1) Make sure the water tank fill valve is closed and that the handle for the water tank fill valve (on the potable-water service panel) is closed.

S 424-019

(2) Install the water tank fill valve with the 4 mounting bolts.

S 024-020

(3) Remove the caps from the water tank fill valve and the hoses.

S 424-021

(4) Connect the hoses to the water tank fill valve.

S 424-048

(5) Connect the control cable assembly to the water tank fill valve (2 bolts).

S 714-028

(6) Make sure the water tank fill valve opens and closes fully when operated from the potable-water service panel.

NOTE: If necessary, turn the cable adjustment nuts to adjust the control cable.

S 434-029

(7) If removed, install a lockwire on the cable adjustment nuts.

S 864-064

(8) To restore pressure to the potable water system, do this task: Potable Water System - Restore Pressure (AMM 38-10-00/201).

S 714-039

(9) Make sure the potable-water system pressurizes.

S 794-040

(10) Make sure the water tank fill valve does not have a leak.

S 414-041
(11) Install the aft right bulkhead lining of the aft cargo compartment (AMM 25-50-03/401).

S 414-042
(12) Close the No. 2 cargo door (AMM 52-34-00/001).

S 864-046
(13) Remove electrical power if it is not necessary (AMM 24-22-00/201).

LAVATORY WASHBASIN FAUCET - REMOVAL/INSTALLATION

1. General
   A. This procedure gives the instructions to remove and install the standard lavatory washbasin faucet (referred to as the faucet).
   B. This procedure also gives the instructions to remove and install the cartridges (the cartridge is the valve for the faucet) found in the standard faucet.

TASK 38-11-04-004-001-001

2. Remove the Standard Lavatory Washbasin Faucet (Fig. 401)
   A. Access
      (1) Location Zone
          200 Upper Half of Fuselage

   B. Procedure

      S 014-002-001
      (1) Open the plumbing access door below the washbasin.

      S 014-003-001
      (2) Remove the waste container.

      S 864-004-001
      (3) Put the water heater switch (14) in the OFF position.

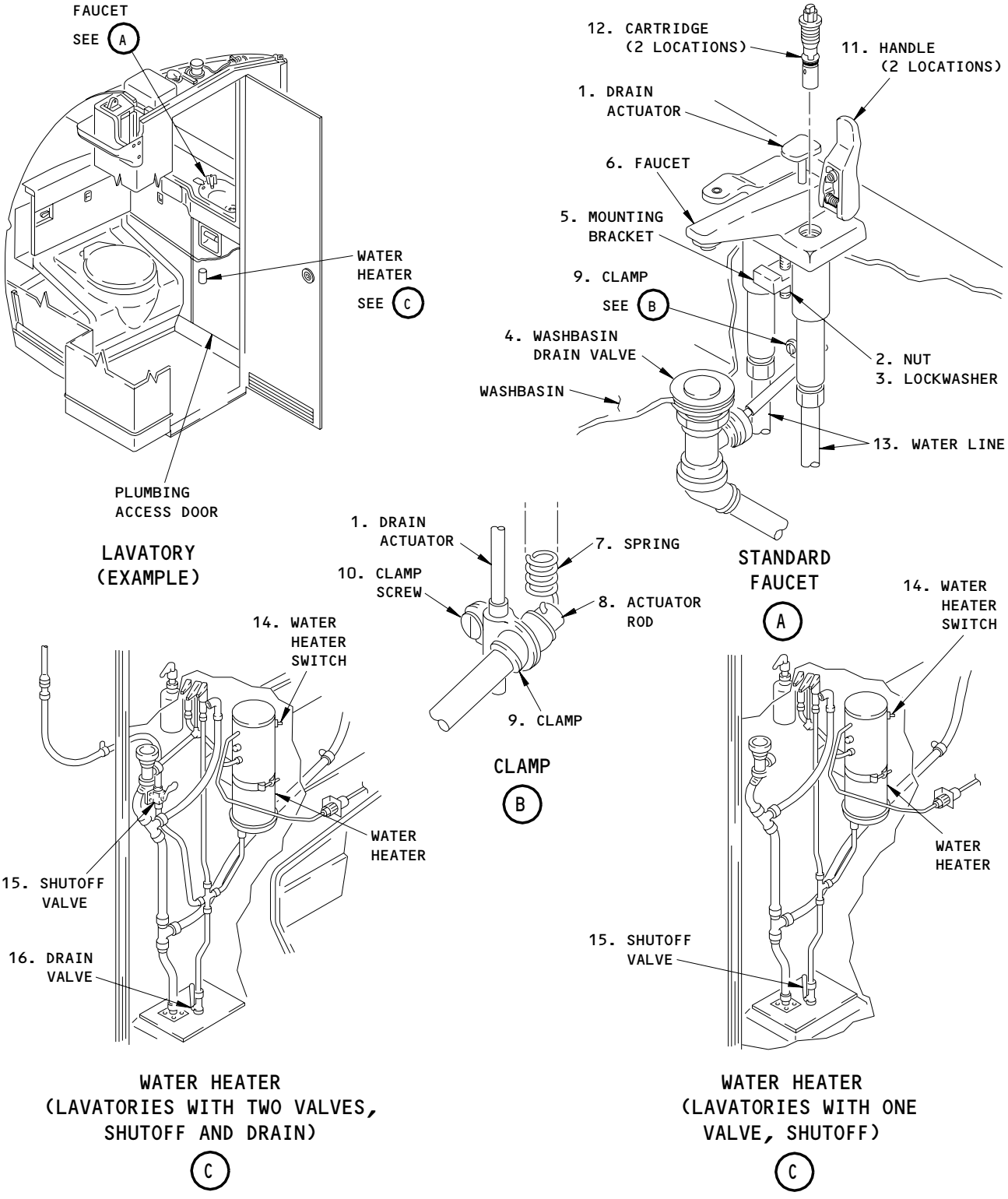
      S 864-007-001
      (4) LAVATORIES WITH TWO VALVES (SHUTOFF AND DRAIN);
      Do these steps:
      (a) Close the shutoff valve (15).
      (b) Open the drain valve (16).

      S 864-008-001
      (5) LAVATORIES WITH ONE VALVE (SHUTOFF);
      Do this step:
      (a) Close the shutoff valve (15).

      S 484-049-001
      (6) Put a container below the faucet to catch the water.

      S 024-050-001
      (7) Disconnect the water lines (13) from the faucet (6).

      S 024-051-001
      (8) Put a cap on the water lines (13) to keep contamination out.



Lavatory Washbasin Faucet Installation
Figure 401

S 024-052-001
(9) Disconnect the spring (7) from the actuator rod (8).

S 024-053-001
(10) Loosen the clamp screw (10) and move the clamp (9) off the drain actuator (1).

S 024-013-001
(11) Remove the nut (2) (that holds the mounting bracket), the lockwasher (3), and the mounting bracket (5).

S 024-014-001
(12) Remove the faucet (6).

TASK 38-11-04-004-015-001

3. Install the Standard Washbasin Faucet (Fig. 401)

A. Parts

MM		NOMENCLATURE	IPC		
FIG	ITEM		SUBJECT	FIG	ITEM
401	1	Drain Actuator	38-11-60	01	90
	2	Nut			135
	3	Lockwasher			140
	4	Washbasin Drain Valve			170
	5	Mounting Bracket			145
	6	Faucet			5
	7	Spring			130
	8	Actuator Rod			250
	9	Clamp			255
	10	Clamp Screw			230
	12	Cartridge			10

B. Access
(1) Location Zone
200 Upper Half of Fuselage

C. Procedure

S 424-016-001
(1) Put the faucet (6) in its position.

S 424-017-001
(2) Install the mounting bracket (5), the lockwasher (3), and the nut (2).

S 424-054-001
(3) Put the clamp (9) on the drain actuator (1).

S 424-055-001
(4) Attach the spring (7) to the actuator rod (8).

S 824-020-001
(5) Adjust the clamp (9) on the drain actuator (1) to cause the drain actuator (1) to be up when the washbasin drain valve (4) is closed.

S 424-056-001
(6) Tighten the clamp screw (10).

S 714-022-001
(7) Make sure the washbasin drain valve (4) opens when you push the drain actuator (1) down and closes when you release the drain actuator (1).
(a) Adjust the clamp (9) on the drain actuator (1) if it is necessary.

S 424-057-001
(8) Remove the caps from the water lines (13).

S 424-058-001
(9) Connect the water lines (13) to the faucet (6).

S 864-027-001
(10) LAVATORIES WITH TWO VALVES (SHUTOFF AND DRAIN);
Do these steps:
(a) Close the drain valve (16).
(b) Open the shutoff valve (15).

S 864-028-001
(11) LAVATORIES WITH ONE VALVE (SHUTOFF);
Open the shutoff valve (15).

S 794-029-001
(12) Make sure the faucet (6) and water lines (13) do not have a leak.

S 864-030-001
(13) Put the water heater switch (14) in the ON position.

S 414-031-001
(14) Install the waste container.

S 414-032-001
(15) Close the plumbing access door.

TASK 38-11-04-004-033-001
4. Remove the Cartridge from the Lavatory Washbasin Standard Faucet (Fig. 401)
A. Access
(1) Location Zone
200 Upper Half of Fuselage

B. Procedure

S 014-034-001
(1) Open the plumbing access door.

S 014-035-001
(2) Remove the waste container.

S 864-036-001
(3) Put the water heater switch (14) in the OFF position.

S 864-037-001
(4) Close the shutoff valve (15).

S 014-038-001
(5) Lift the faucet handle (11) to the vertical position.

S 024-039-001
(6) Turn the cartridge (12) to remove it from the faucet (6).

TASK 38-11-04-404-040-001
5. Install the Cartridge in the Lavatory Washbasin Faucet (Fig. 401)
A. Parts

MM		NOMENCLATURE	IPC		
FIG	ITEM		SUBJECT	FIG	ITEM
401	1	Drain Actuator	38-11-60	01	90
	2	Nut			135
	3	Lockwasher			140
	4	Washbasin Drain Valve			170
	5	Mounting Bracket			145
	6	Faucet			5
	7	Spring			130
	8	Actuator Rod			250
	9	Clamp			255
	10	Clamp Screw			230
	12	Cartridge			10

B. Access
(1) Location Zone
200 Upper Half of Fuselage

C. Procedure

S 424-041-001
(1) Put the cartridge (12) in the faucet (6).

S 424-042-001
(2) Turn the cartridge until it is tight.

S 414-043-001
(3) Push the handle (11) down.

S 864-044-001
(4) Open the shutoff valve (15).

S 794-045-001
(5) Make sure the cartridge (12) does not have a leak.

S 864-046-001
(6) Put the water heater switch (14) in the ON position.

S 414-047-001
(7) Install the waste container.

S 414-048-001

(8) Close the plumbing access door.

LAVATORY WASHBASIN FAUCET - REMOVAL/INSTALLATION

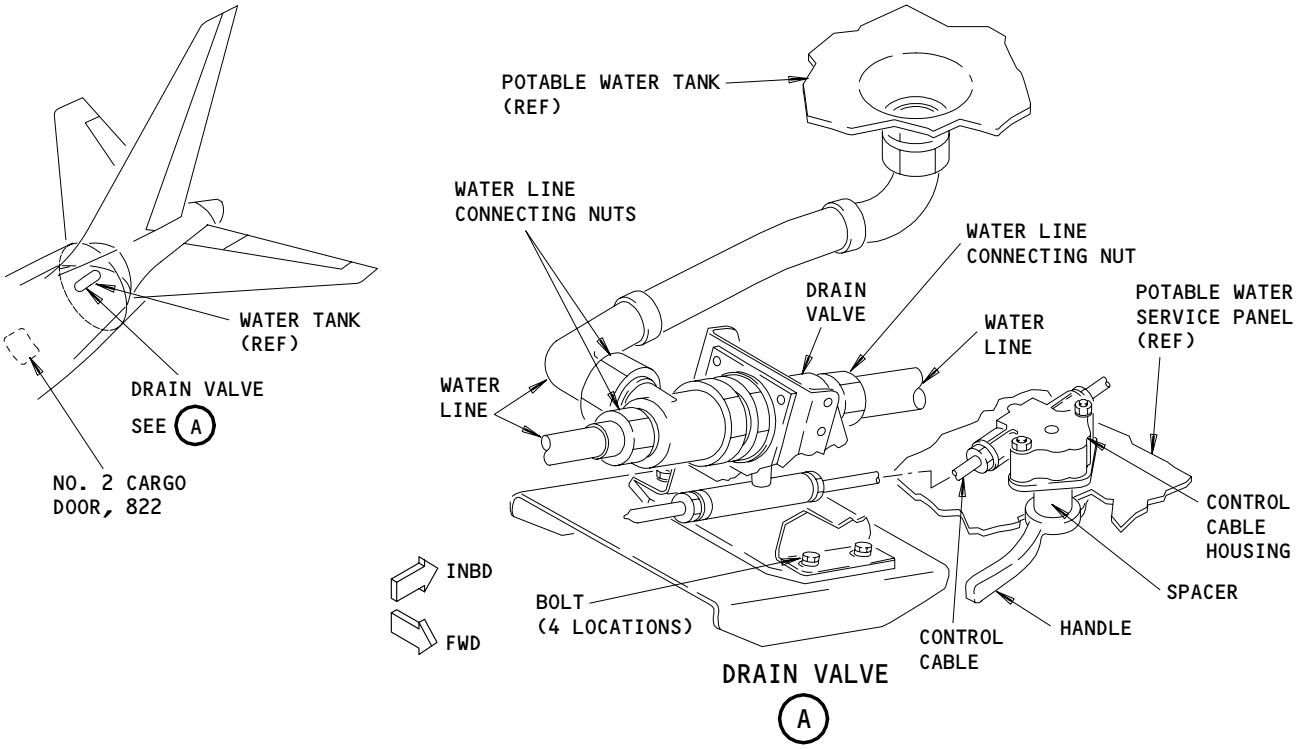
TASK 38-11-04-904-001-002

1. Time-Delay Washbasin Faucet
   A. General
      (1) This configuration is not used.

POTABLE WATER TANK DRAIN VALVE - REMOVAL/INSTALLATION

TASK 38-11-05-004-001

1. Remove the Drain Valve (Fig. 401)
   A. References
      (1) AMM 12-14-01/301, Potable Water System
      (2) AMM 25-50-03/401, Bulkhead Lining
      (3) AMM 52-34-00/001, No. 1 and No. 2 Cargo Door



Potable Water Tank Drain Valve Installation
Figure 401

B. Access
(1) Location Zones
166 Area Aft of Bulk Cargo Compartment (Right)
822 No. 2 Cargo Door

C. Procedure

S 684-002
(1) Drain the potable water system (AMM 12-14-01/301).

S 014-003
(2) Open the No. 2 cargo door (AMM 52-34-00/001).

S 014-004
(3) Remove the right aft bulkhead lining from the bulk cargo compartment (AMM 25-50-03/401).

S 034-005
(4) You can find the drain valve below the potable water tank.

S 034-006
(5) Disconnect the water lines from the drain valve.

S 034-007
(6) Put a plug in the water lines to prevent contamination of the potable water system.

S 034-008
(7) Remove the handle and spacer from the control cable housing.

S 034-009
(8) Remove the control cable.

S 034-010
(9) Remove the bolts that attach the drain valve to the airplane.

S 024-011
(10) Remove the drain valve.

TASK 38-11-05-404-012

2. Install the Drain Valve (Fig. 401)
A. References
(1) AMM 12-14-01/301, Potable Water System
(2) AMM 25-50-03/401, Bulkhead Lining
(3) AMM 52-34-00/001, No. 1 and No. 2 Cargo Door

B. Access
(1) Location Zones
166 Area Aft of Bulk Cargo Compartment (Right)
822 No. 2 Cargo Door

C. Procedure

S 424-013
(1) Put the drain valve in its position and install the bolts that attach it to the airplane.

NOTE: The drain valve should be closed.

S 434-014
(2) Remove the plugs from the water lines.

S 434-015
(3) Connect the water lines to the drain valve.

S 434-016
(4) Install the control cable.

S 434-017
(5) Install the handle and spacer.

NOTE: The handle should be in the CLOSED position.

S 214-018
(6) Make sure the drain valve is open when the handle is in the OPEN position.

S 214-019
(7) Make sure the drain valve is closed when the handle is in the CLOSED position.

S 414-020
(8) Install the right aft bulkhead lining of the aft cargo compartment (AMM 25-50-03/401).

S 414-021
(9) Close the No. 2 cargo door (AMM 52-34-00/001).

S 614-022
(10) Service the potable water system (AMM 12-14-01/301).

POTABLE WATER FILTER - MAINTENANCE PRACTICE

1. General
   A. This procedure gives the instructions to replace the filter cartridge in the water filter case.

TASK 38-11-15-902-001

2. Water Filter Cartridge Replacement (Fig. 201)
   A. Access
      (1) Location Zone
          200 Upper Half of Fuselage

   B. Water Filter Cartridge Replacement

          S 862-002
      (1) Close the water shutoff valve.

          S 862-003
      (2) Open the faucet to release the water pressure.

          S 422-004
      (3) Close the faucet.

          S 032-005
      (4) Loosen the wingnut and remove the clamp at the top of the water filter case.

          S 022-006
      (5) Remove the filter cartridge from the filter case.

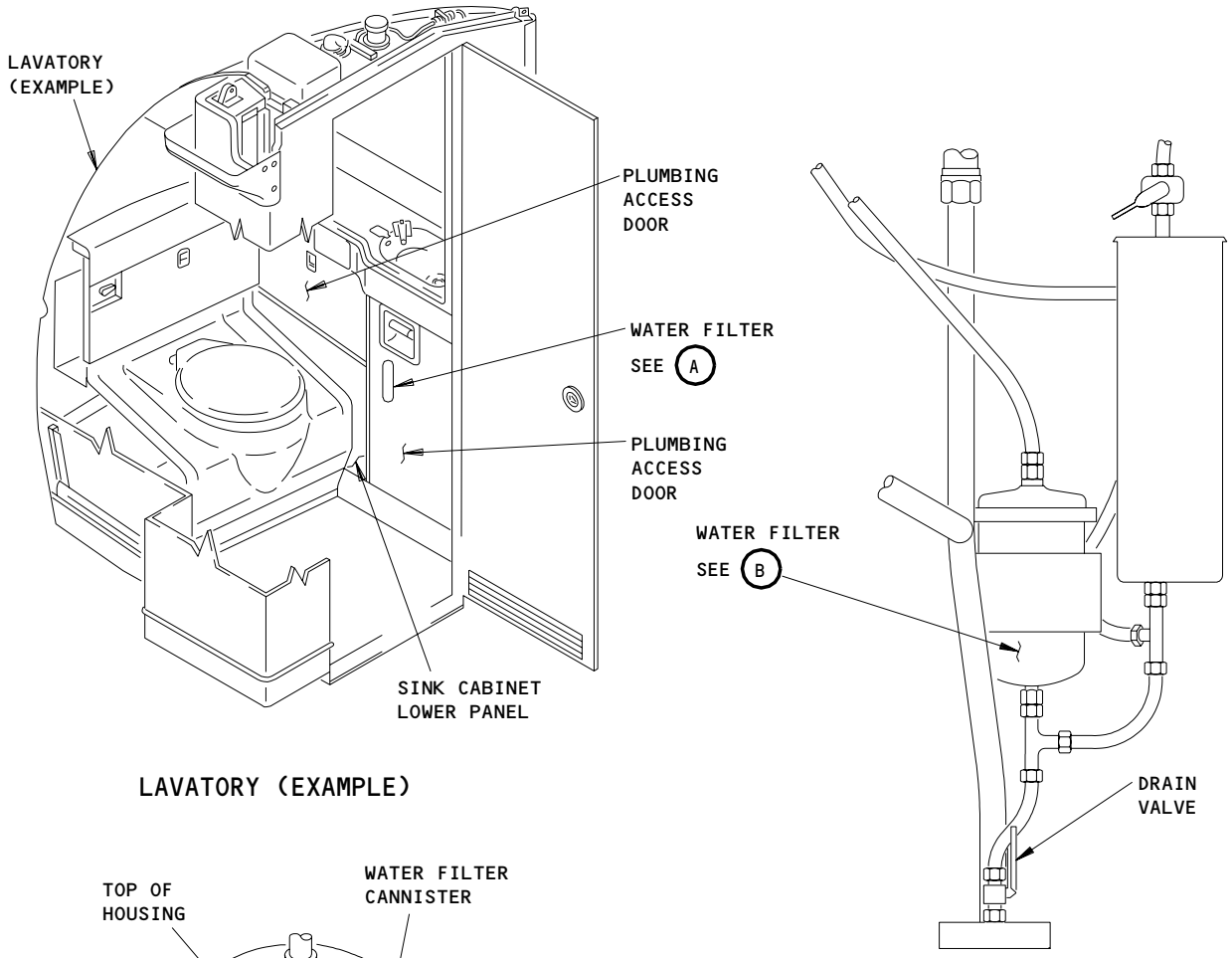
          S 162-007
      (6) Clean the inner side of the filter case with a clean cloth.

          S 422-008
      (7) Install a clean filter cartridge in the water filter case.

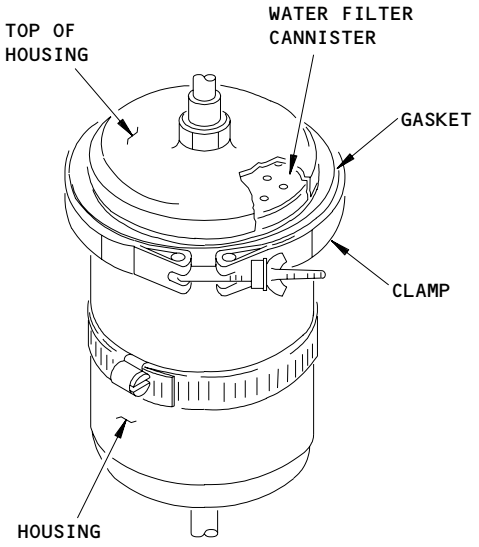
          S 432-009
      (8) Put the gasket on the top of the filter.

          S 412-010
      (9) Close the filter case top and tighten the clamp.

          S 862-011
      (10) Open the water shutoff valve.



LAVATORY (EXAMPLE)



WATER FILTER
B

WATER FILTER HOUSING
A

Water Filter Installation
Figure 201

S 872-012
(11) Open the vent at the top of the water filter case to bleed air.

S 862-013
(12) Close the vent and open the faucet.

S 792-014
(13) Make sure the water filter does not have a leak.

WATER HEATER - REMOVAL/INSTALLATION

1. General
   A. Each lavatory has one water heater. Removal and installation of each water heater is almost the same.

TASK 38-13-51-004-001

2. Remove the Water Heater (Fig. 401)
   A. Access
      (1) Location Zone
          200 Upper Half of Fuselage

   B. Procedure

      S 864-002
      (1) Open the applicable HEATERS LAV WATER circuit breaker on the right miscellaneous electrical equipment panel, P37, row F and attach a DO-NOT-CLOSE tag.

      S 864-003
      (2) Open the applicable HEATERS LAV WATER or LAV WTR HTR circuit breaker on the miscellaneous relay panel, P70, row A and attach a DO-NOT-CLOSE tag.

      S 014-004
      (3) Open the applicable plumbing access door.

      S 014-005
      (4) If applicable, remove the lower panel of the sink cabinet.

      S 044-006
      (5) Close the shutoff valve for the lavatory water supply.

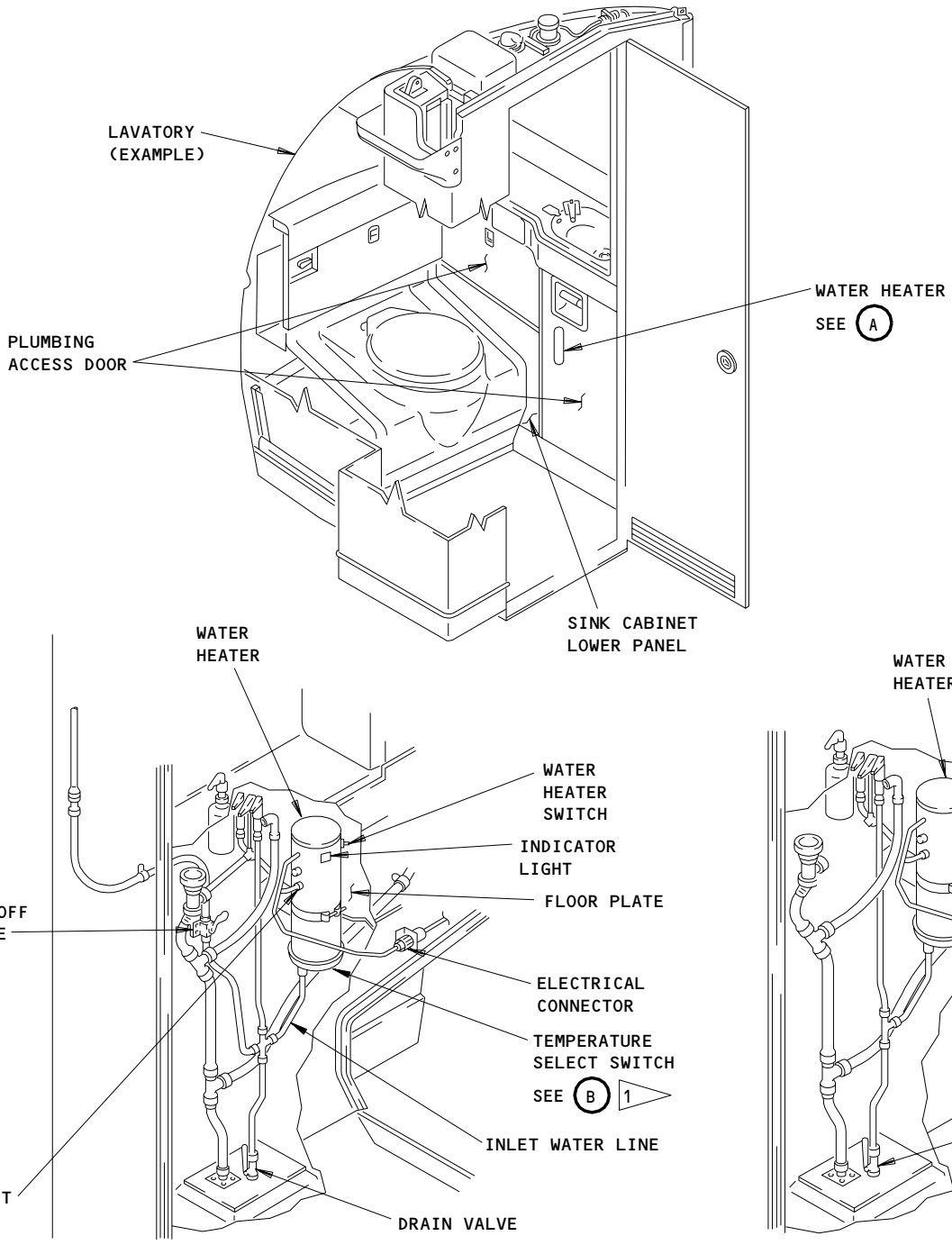
      S 044-007
      (6) Put the water heater switch in the OFF position.

      S 684-008
      (7) In lavatories with a drain valve for the potable-water, open the drain valve.

      S 014-009
      (8) If applicable, remove the floor plate.

      S 034-010
      (9) Disconnect the electrical connector.

      S 684-011
      (10) Put a container below the water heater to catch the water.



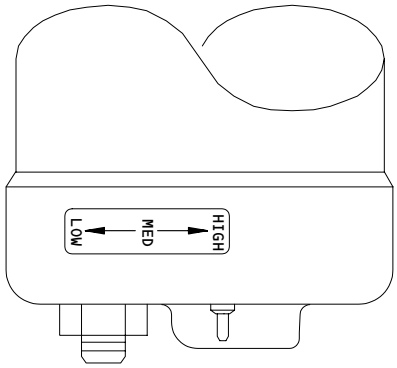
1 WATER HEATERS WITH THE TEMPERATURE SELECT SWITCH

2 IF INSTALLED

WATER HEATER

A

Water Heater Installation
Figure 401 (Sheet 1)



TEMPERATURE SELECT SWITCH

B

Water Heater Installation
Figure 401 (Sheet 2)

F64795

S 034-013
(11) Disconnect the inlet and outlet water lines.

S 034-012
(12) Put a cap on the inlet and outlet water lines.

S 024-014
(13) Remove the screws that attach the water heater bracket to the lavatory.

S 024-015
(14) Remove the water heater.

TASK 38-13-51-404-032

3. Install the Water Heater (Fig. 401)

A. References
(1) AMM 24-22-00/201, Electrical Power - Control

B. Access
(1) Location Zone
200 Upper Half of Fuselage

C. Procedure

S 424-016
(1) Put the water heater in position and attach the water heater bracket with the screws.

S 434-017
(2) Remove the plugs from the inlet and outlet water lines.

S 434-018
(3) Connect the inlet and outlet water lines.

S 444-019
(4) Close the drain valve for the potable-water (if the lavatory has one).

S 444-020
(5) Open the shutoff valve for the lavatory water supply.

S 794-021
(6) Make sure the water line connections do not have a leak.

S 434-022
(7) Connect the electrical connector.

S 414-023
(8) If the floor plate was removed, install it with screws and washers.

S 864-024
(9) Remove the DO-NOT-CLOSE tag and close the HEATERS LAV WATER circuit breakers on the right miscellaneous electrical equipment panel, P37.

S 864-025
(10) Remove the DO-NOT-CLOSE tag and close the HEATER LAV WATER or LAV WTR HTR circuit breakers on the miscellaneous relay panel, P70.

S 864-026
(11) Supply electrical power (AMM 24-22-00/201).

S 864-027
(12) Put the water heater switch in the ON position.

S 714-028
(13) Make sure the indicator light on the water heater comes on.

S 794-033
(14) After five minutes, make sure you get hot water from the hot water faucet.

S 864-035
(15) WATER HEATERS WITH THE TEMPERATURE SELECT SWITCH;
If the water is not at the correct temperature, move the temperature select switch to a higher or lower temperature position.

S 414-029
(16) If the lower panel of the sink cabinet was removed, install it.

S 414-030
(17) Close all plumbing access doors.

S 864-031
(18) Remove electrical power if it is not necessary (AMM 24-22-00/201).

WATER QUANTITY INDICATOR (GALLEY SIDEWALL) - REMOVAL/INSTALLATION

1. General
   A. The forward right galley sidewall contains one water quantity indicator. This procedure gives the tasks to remove and install the indicator.
      (1) See AMM 38-14-06/401 for the removal and installation of the water quantity indicator that is on the potable water service panel.

TASK 38-14-01-004-001

2. Galley Sidewall Water Quantity Indicator Removal
   A. References
      (1) AMM 52-11-00/001, No. 1, 2 and 4 Passenger Doors
   B. Access
      (1) Location Zones
          222 Passenger Cabin - Section 41 (Right)
          841 No. 1 Passenger Door

   C. Prepare for Removal

      S 864-002
      (1) Open this circuit breaker on the overhead panel, P11, and attach DO-NOT-CLOSE tag:
          (a) 11S30, 11S31, or 11S32, POTABLE WATER

      S 864-003
      (2) Open this circuit breaker on the APU external power panel, P34, and attach DO-NOT-CLOSE tag:
          (a) 34A4(A), POTW CONT GND

      S 014-007
      (3) For access to the water quantity indicator on the forward galley sidewall, open the No. 1 passenger door (AMM 52-11-00/001).
   D. Remove the Water Quantity Indicator from the Forward Galley Sidewall

      S 024-010
      (1) Remove the four screws that attach the water quantity indicator to the forward galley sidewall.

S 024-011
(2) Pull the water quantity indicator inboard.

S 034-012
(3) Disconnect the electrical wires from the screw terminals on the rear of the water quantity indicator.

TASK 38-14-01-404-018

3. Galley Sidewall Water Quantity Indicator Installation

A. References
(1) AMM 24-22-00/201, Electrical Power - Control
(2) AMM 52-11-00/001, No. 1, 2 and 4 Passenger Doors

B. Access
(1) Location Zones
222 Passenger Cabin - Section 41 (Right)
841 No. 1 Passenger Door

C. Install the Water Quantity Indicator on the Forward Galley Sidewall

S 434-019
(1) Connect the electrical wires to the screw terminals on the rear of the water quantity indicator.

S 424-020
(2) Put the water quantity indicator in the opening in the forward galley sidewall.

S 424-021
(3) Install the four screws that attach the water quantity indicator to the forward galley sidewall.

D. Put the airplane back to its usual condition.

S 864-029
(1) Remove DO-NOT-CLOSE tag and close this circuit breaker on the overhead panel, P11:
(a) 11S30, 11S31, or 11S32, POTABLE WATER

S 864-030
(2) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the APU external power panel, P34:
(a) 34A4(A), POTW CONT GND

S 864-031
(3) Supply electrical power (AMM 24-22-00/201).

S 714-032
(4) Make sure the water quantity indicator operates correctly.

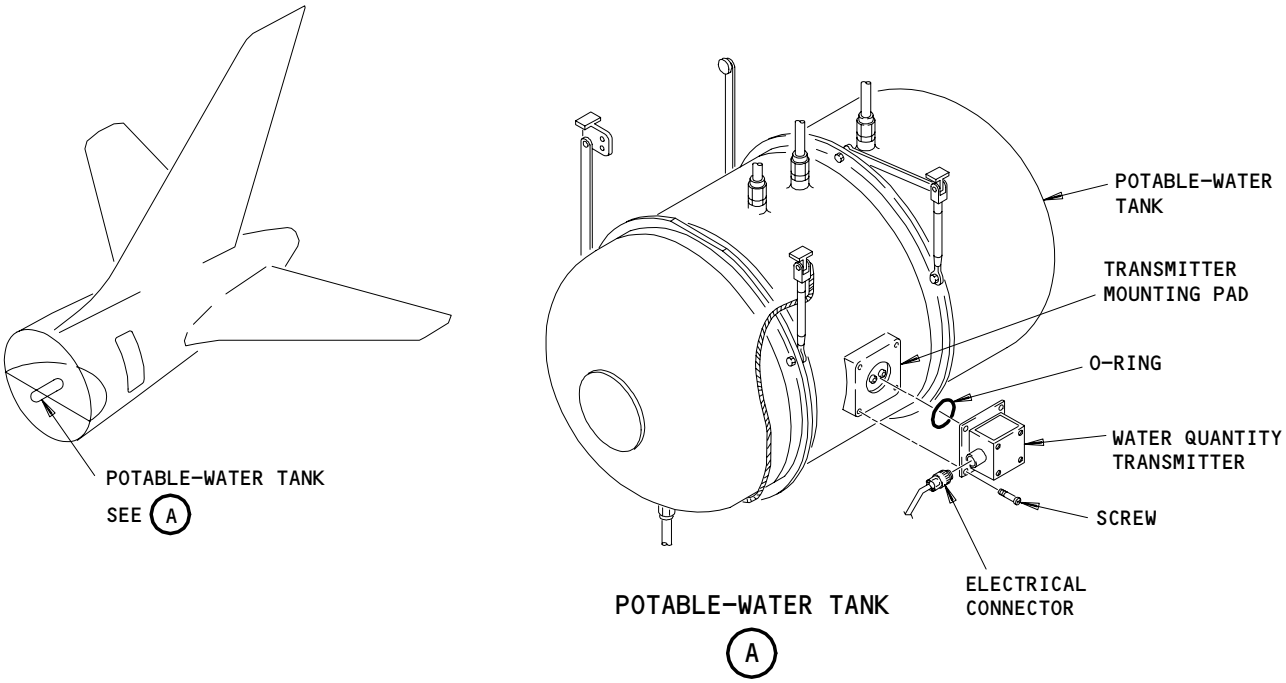
S 414-039
(5) For the water quantity indicator on the forward galley sidewall, close the No. 1 passenger door (AMM 52-11-00/001).

S 864-040
(6) Remove electrical power if it is not necessary (AMM 24-22-00/201).

WATER QUANTITY TRANSMITTER - REMOVAL/INSTALLATION

TASK 38-14-03-004-001

1. Remove the Water Quantity Transmitter (Fig. 401)
   A. References
      (1) AMM 25-50-03/401, Bulkhead Lining
      (2) AMM 52-34-00/001, No. 1 and No. 2 Cargo Door
   B. Access
      (1) Location Zone
          166 Area Aft of Bulk Cargo Compartment (Right)
          822 No. 2 Cargo Door



Water Quantity Transmitter Installation
Figure 401

C. Procedure

S 864-002
(1) Open this circuit breaker on the overhead panel, P11, and attach a DO-NOT-CLOSE tag:
(a) 11R28, 11S30, 11S31, or 11S32, POTABLE WATER

S 864-003
(2) Open this circuit breaker on the APU external power panel, P34, and attach a DO-NOT-CLOSE tag:
(a) 34A4(A), POTW CONT GND

S 014-004
(3) Open the No. 2 cargo door (AMM 52-34-00/001).

S 014-005
(4) Remove the aft right bulkhead lining from the bulk cargo compartment (AMM 25-50-03/401).

S 034-025
(5) Disconnect the electrical connector from the water quantity transmitter.

S 024-007
(6) Remove the screws that attach the water quantity transmitter to the potable water tank.

S 024-008
(7) Pull on the water quantity transmitter to remove it from the potable water tank.

TASK 38-14-03-404-009

2. Install the Water Quantity Transmitter (Fig. 401)

A. References
(1) AMM 12-14-01/301, Potable Water System
(2) AMM 24-22-00/201, Electrical Power - Control
(3) AMM 25-50-03/401, Bulkhead Lining

(4) AMM 52-34-00/001, No. 1 and No. 2 Cargo Door
(5) AMM 52-49-00/001, Exterior Service Doors

B. Access

(1) Location Zones

165/166	Area Aft of Bulk Cargo Compartment
822	No. 2 Cargo Door

(2) Access Panels

165AL	Potable Water Service Panel (757-200 4DR Airplanes)
165BL	Potable Water Service Panel (757-200 0WX Airplanes)

C. Procedure

S 424-010
(1) Use a new O-ring and put the water quantity transmitter in its position on the mounting pad.

S 424-011
(2) Install the screws that attach the water quantity transmitter.

S 434-012
(3) Connect the electrical connector to the water quantity transmitter.

S 864-013
(4) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the overhead panel, P11:
(a) 11R28, 11S30, 11S31, or 11S32, POTABLE WATER

S 864-014
(5) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the APU external power panel, P34:
(a) 34A4(A), POTW CONT GND

S 864-015
(6) Supply electrical power (AMM 24-22-00/201).

S 714-016
(7) Make sure the water quantity indicators operate.

S 414-017

WARNING: OBEY THE INSTRUCTIONS IN THE CARGO LINING INSTALLATION PROCEDURE. INCORRECT INSTALLATION OF THE CARGO LINING CAN LET THE FIRE EXTINGUISHING AGENT OR SMOKE OUT OF THE CARGO COMPARTMENT DURING A FIRE.

(8) Install the aft right bulkhead lining in the bulk cargo compartment (AMM 25-50-03/401).

S 414-018
(9) Close the No. 2 cargo door (AMM 52-34-00/001).

S 614-019
(10) Fill the potable water tank (AMM 12-14-01/301).

S 714-020
(11) Make sure the water quantity indicators show that the potable water tank is full.

S 414-021
(12) Close the door for the potable water service panel, 165AL or 165BL (AMM 52-49-00/001).

S 864-024
(13) Remove electrical power if it is not necessary (AMM 24-22-00/201).

WATER QUANTITY TRANSMITTER - ADJUSTMENT TEST

1. General
   A. Use this procedure to adjust the water quantity transmitter after it is installed. Adjust the water quantity transmitter to get the water quantity indicators to show the correct value.

TASK 38-14-03-825-001

2. Adjust the Water Quantity Transmitter (Fig. 501)
   A. References
      (1) AMM 08-21-00/201, Leveling
      (2) AMM 12-14-01/301, Potable Water System - Servicing
      (3) AMM 24-22-00/201, Electrical Power - Control
      (4) AMM 25-50-03/401, Bulkhead Lining
      (5) AMM 52-34-00/001, No. 1 and No. 2 Cargo Door
   B. Access
      (1) Location Zones
          165/166 Area Aft of Bulk Cargo Compartment
          222 Passenger Cabin - Section 41 (Right)
          822 No. 2 Cargo Door

      (2) Access Panels
          165AL Potable Water Service Panel (757-200 4DR Airplanes)
          165BL Potable Water Service Panel (757-200 0WX Airplanes)

   C. Procedure

      S 845-003
      (1) Make the airplane level (AMM 08-21-00/201).

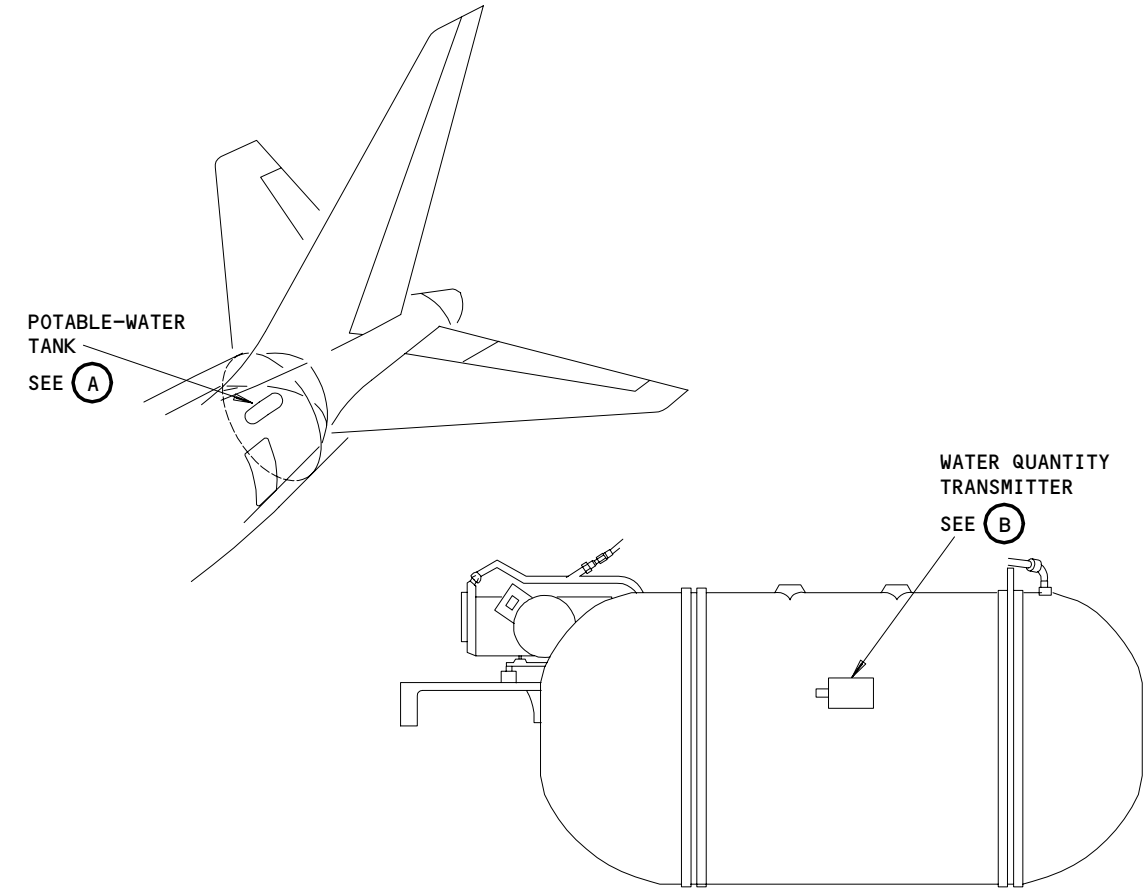
      S 865-004
      (2) Make sure this circuit breaker on the overhead panel, P11, is closed:
      (a) 11R28, 11S30, 11S31 or 11S32, POTABLE WATER

      S 865-005
      (3) Make sure this circuit breaker on the APU external power panel, P34, is closed:
      (a) 34A4(A), POTW CONT GND

      S 865-006
      (4) Supply electrical power (AMM 24-22-00/201).

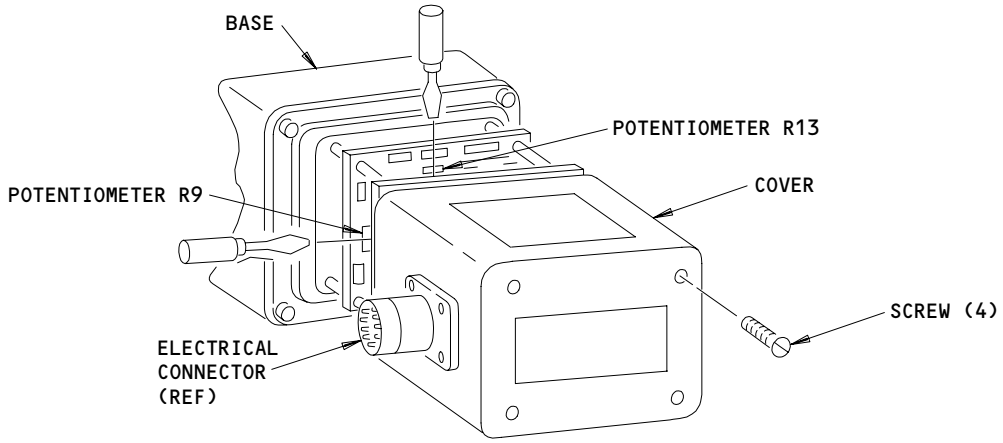
      S 615-007
      (5) Fill and then drain the potable water tank (AMM 12-14-01/301).

      NOTE: The potable water tank must be wet and empty to adjust the water quantity transmitter to zero.



POTABLE-WATER TANK

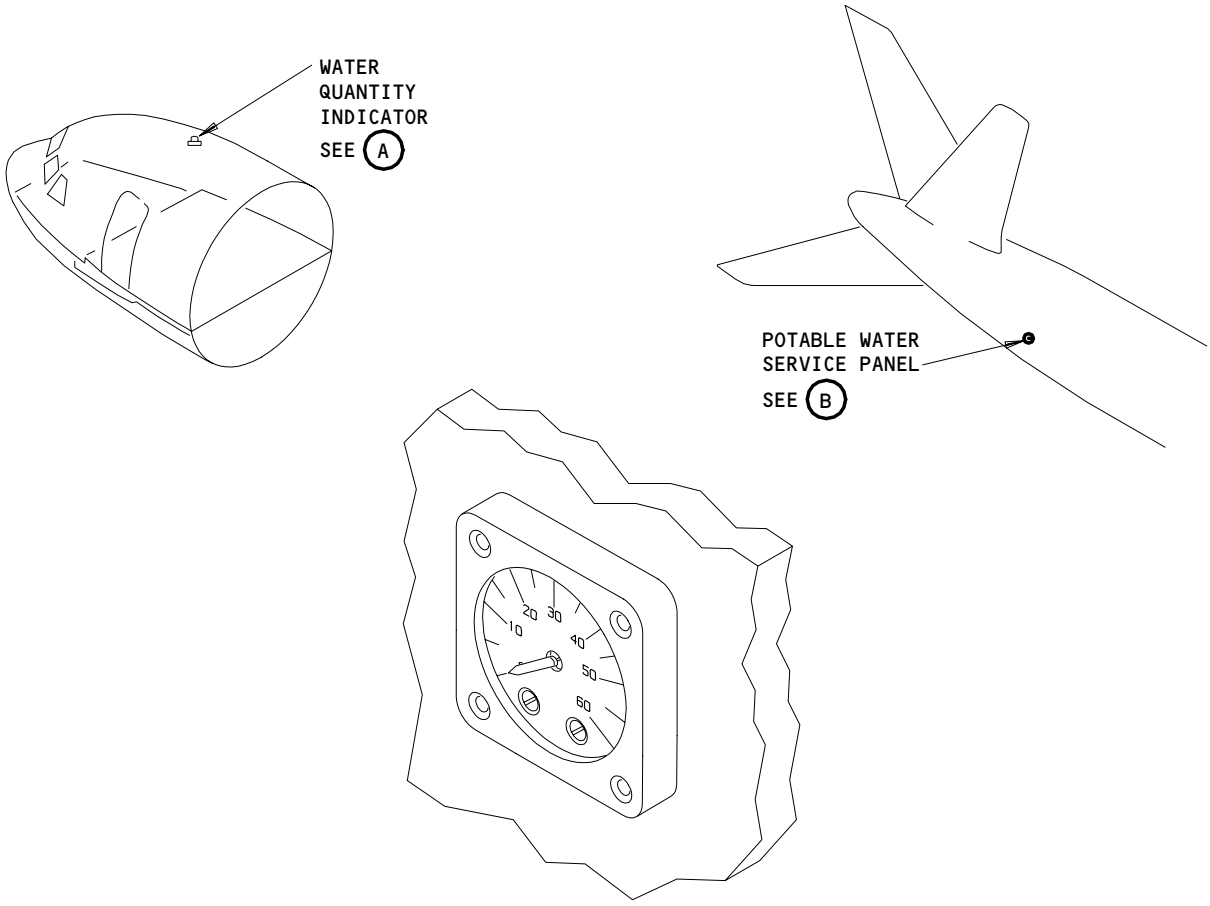
A



WATER QUANTITY TRANSMITTER

B

Water Quantity Transmitter
Figure 501



Water Quantity Indicators
Figure 502

S 015-008
(6) Open the No. 2 cargo door (AMM 52-34-00/001).

S 015-009
(7) Remove the aft right bulkhead lining of the bulk cargo compartment (AMM 25-50-03/401).

S 035-011
(8) Remove the four screws that attach the cover to the water quantity transmitter.

S 015-010

CAUTION: DO NOT PULL THE WIRES IN THE WATER QUANTITY TRANSMITTER WHEN YOU REMOVE THE COVER. THE WIRES ARE SHORT. IF YOU PULL THE WIRES, IT CAN CAUSE DAMAGE TO THE WATER QUANTITY TRANSMITTER.

(9) Pull the cover off the water quantity transmitter for access to the potentiometers.

S 825-012
(10) Adjust the potentiometer, R9, with a screwdriver until the water quantity indicators show zero (Fig. 502).

NOTE: There are two water quantity indicators. One is on the potable water service panel; the other is on the forward galley sidewall.

S 615-014
(11) Fill the potable water tank (AMM 12-14-01/301).

S 825-016
(12) Adjust the potentiometer, R13, until the water quantity indicators show 60 gallons (Fig. 502).

S 415-017
(13) Attach the cover to the water quantity transmitter with the four screws.

S 415-002

WARNING: OBEY THE INSTRUCTIONS IN THE CARGO LINING INSTALLATION PROCEDURE. INCORRECT INSTALLATION OF THE CARGO LINING CAN LET THE FIRE EXTINGUISHING AGENT OR SMOKE OUT OF THE CARGO COMPARTMENT DURING A FIRE.

(14) Install the aft right bulkhead lining in the bulk cargo compartment (AMM 25-50-03/401).

S 415-018

(15) Close the No. 2 cargo door (AMM 52-34-00/001).

S 865-019

(16) Remove electrical power if it is not necessary (AMM 24-22-00/201).

WATER QUANTITY INDICATOR (SERVICE PANEL) - REMOVAL/INSTALLATION

1. General
   A. The potable water service panel contains one water quantity indicator. This procedure gives the tasks to remove and install the indicator.
      (1) See AMM 38-14-01/401 for the removal and installation of the water quantity indicator that is on the forward right galley sidewall on airplanes with the standard capacity potable water tank (airplanes with recirculating toilets).

TASK 38-14-06-004-001

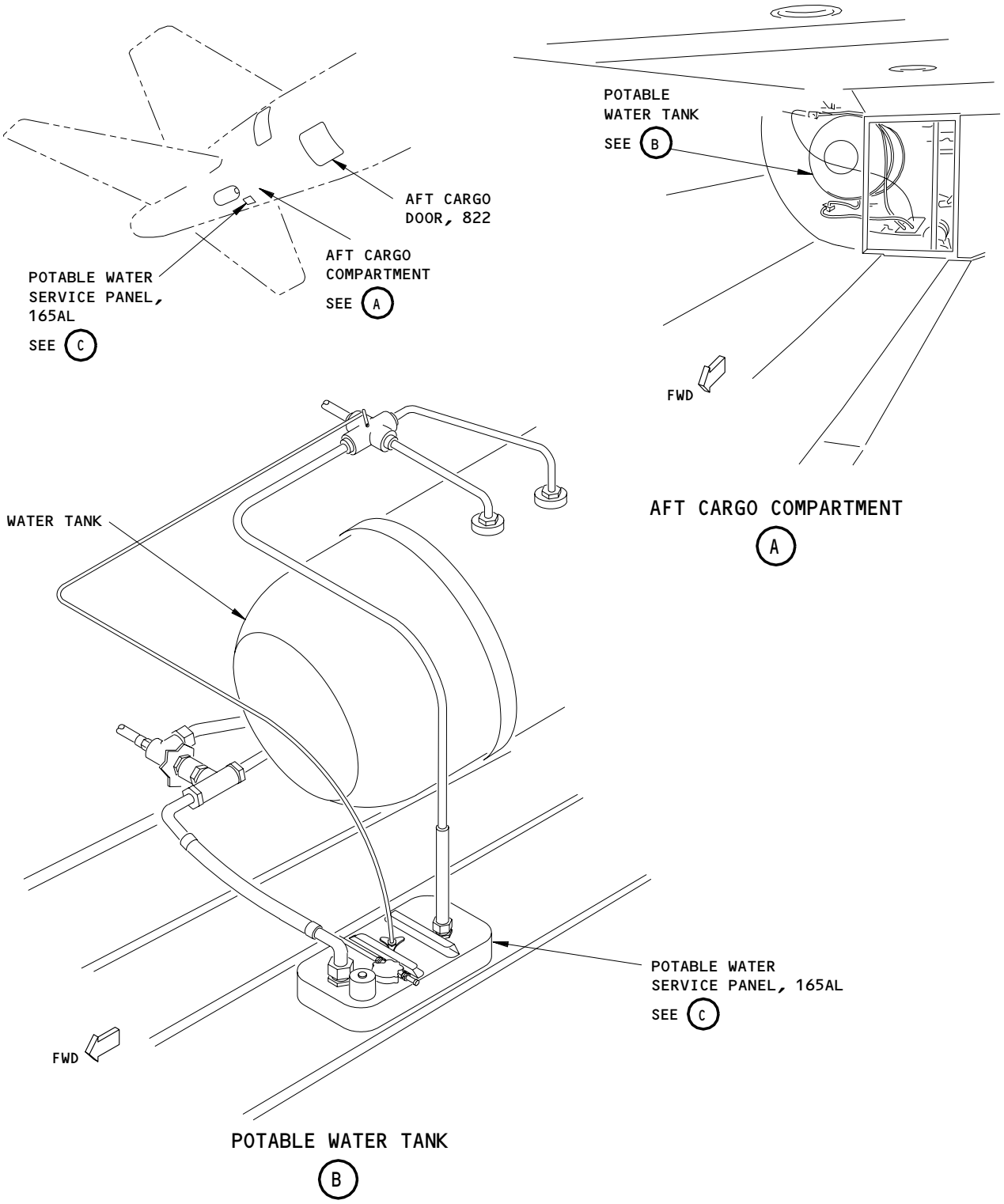
2. Service Panel Water Quantity Indicator Removal (Fig. 401)
   A. Equipment
      (1) Sealant Removal Tool - made from wood or plastic 3/16 in. thick, 8 in. long in 1/4, 1/2 or 3/4 in. widths.
   B. References
      (1) AMM 25-50-03/401, Bulkhead Lining
      (2) AMM 52-49-00/001, Exterior Service Doors
   C. Access
      (1) Location Zone
          165 Area Aft of Bulk Cargo Compartment
      (2) Access Panel
          165AL Potable Water Service Panel (757-200 4DR Airplanes)
          165BL Potable Water Service Panel (757-200 OWX Airplanes)
          165BL Potable Water Service Panel (757-300 Airplanes)

   D. Prepare for Removal

      S 864-002
      (1) Open this circuit breaker on the overhead panel, P11, and attach DO-NOT-CLOSE tag:
          (a) 11S30, 11S31, or 11S32, POTABLE WATER

      S 864-003
      (2) Open this circuit breaker on the APU external power panel, P34, and attach DO-NOT-CLOSE tag:
          (a) 34A4(A), POTW CONT GND

      S 014-004
      (3) For access to the water quantity indicator on the potable water service panel, open the door for the potable water service panel (AMM 52-49-00/001).



Water Quantity Indicator Installation
Figure 401 (Sheet 1)

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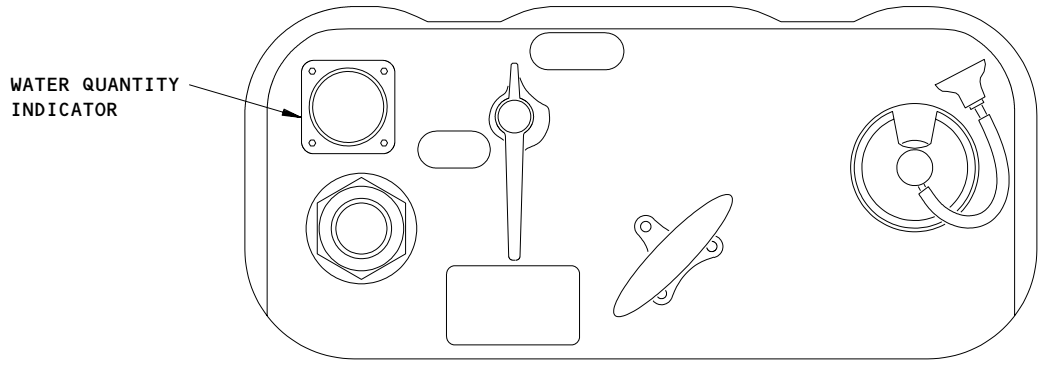
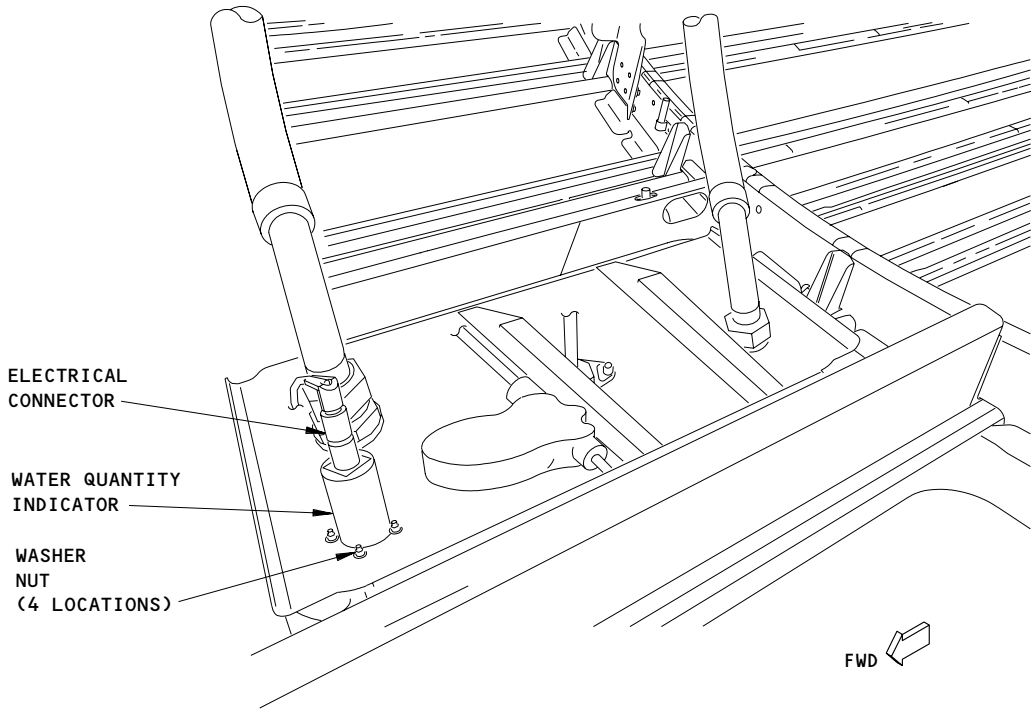


POTABLE WATER SERVICE PANEL (EXTERNAL VIEW)

C



POTABLE WATER SERVICE PANEL (INTERNAL VIEW)

C

Water Quantity Indicator Installation
Figure 401 (Sheet 2)

M22459

S 014-006

(4) For access to the inboard side of the water quantity indicator on the potable water service panel, remove the aft bulkhead lining of the bulk cargo compartment (AMM 25-50-03/401).

E. Remove the Water Quantity Indicator from the Potable Water Service Panel

S 034-010

(1) Disconnect the electrical connector from the rear of the water quantity indicator.

S 034-011

CAUTION: USE HARDWOOD OR PLASTIC CUTTING TOOLS. DO NOT USE METAL CUTTING TOOLS. METAL CUTTING TOOLS CAN DAMAGE THE STRUCTURAL SURFACE OF THE AIRPLANE OR THE WATER QUANTITY INDICATOR.

(2) Remove the fillet seal, around the water quantity indicator (on the inboard side of the potable water service panel) with the wood or plastic sealant removal tools.

S 034-012

(3) Remove the sealant from the mounting studs of the water quantity indicator (4 locations).

S 024-013

(4) Remove the nuts and washers from the mounting studs of the water quantity indicator.

S 024-014

(5) Carefully remove the water quantity indicator from the potable water service panel.

TASK 38-14-06-404-015

3. Service Panel Water Quantity Indicator Installation (Fig. 401)

A. Consumable Materials

(1) A00247 Sealant - Chromate Type, BMS 5-95

B. References

(1) AMM 24-22-00/201, Electrical Power - Control

(2) AMM 25-50-03/401, Bulkhead Lining

(3) AMM 51-31-01/201, Seals and Sealing

(4) AMM 52-49-00/001, Exterior Service Doors

C. Access

(1) Location Zone

165 Area Aft of Bulk Cargo Compartment

(2) Access Panel

165AL Potable Water Service Panel (757-200 4DR Airplanes)
165BL Potable Water Service Panel (757-200 OWX Airplanes)
165BL Potable Water Service Panel (757-300 Airplanes)

D. Install the Water Quantity Indicator on the Potable Water Service Panel

S 394-019

(1) Prepare the surface of the water quantity indicator and the potable water service panel so sealant can be applied (AMM 51-31-01/201).

S 394-020

(2) Apply a faying surface seal of sealant between the water quantity indicator and the potable water service panel (AMM 51-31-01/201).

S 424-021

(3) Put the water quantity indicator in the opening in the potable water service panel.

S 424-022

(4) Install the nut and washer on each of the mounting studs.

S 394-023

(5) Apply a fillet seal around the water quantity indicator on the inboard side of the potable water service panel (AMM 51-31-01/201).

S 394-024

(6) Apply a fillet seal to the nut on each of the mounting studs (AMM 51-31-01/201).

S 434-025

(7) Connect the electrical connector at the rear of the water quantity indicator.

E. Put the airplane back to its usual condition.

S 864-026

(1) Remove DO-NOT-CLOSE tag and close this circuit breaker on the overhead panel, P11:

(a) 11S30, 11S31, or 11S32, POTABLE WATER

S 864-027
(2) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the APU external power panel, P34:
(a) 34A4(A), POTW CONT GND

S 864-028
(3) Supply electrical power (AMM 24-22-00/201).

S 714-029
(4) Make sure the water quantity indicator operates correctly.

S 414-030
(5) Install the aft bulkhead lining in the bulk cargo compartment (AMM 25-50-03/401).

S 414-031
(6) Close the door for the potable water service panel, 165AL or 165BL (AMM 52-49-00/001).

S 864-033
(7) Remove electrical power if it is not necessary (AMM 24-22-00/201).

AIR COMPRESSOR - REMOVAL/INSTALLATION

1. General
   A. This procedure includes the following tasks:
      (1) The removal of the air compressor with the external air filter.
      (2) The installation of the air compressor with external air filter.
      (3) The post installation test of the air compressor.

   TASK 38-15-01-004-023
2. Air Compressor with External Air Filter - Removal (Fig. 401)
   A. References
      (1) AMM 06-46-00/201, Entry, Service and Cargo Doors
      (2) AMM 25-50-03/401, Bulkhead Lining
      (3) AMM 36-00-00/201, Pneumatic - General
      (4) AMM 38-10-00/201, Potable Water System - Pressure Release
   B. Access
      (1) Location Zone
          166 Area Aft of Bulk Cargo Compartment (Right)

   C. Procedure

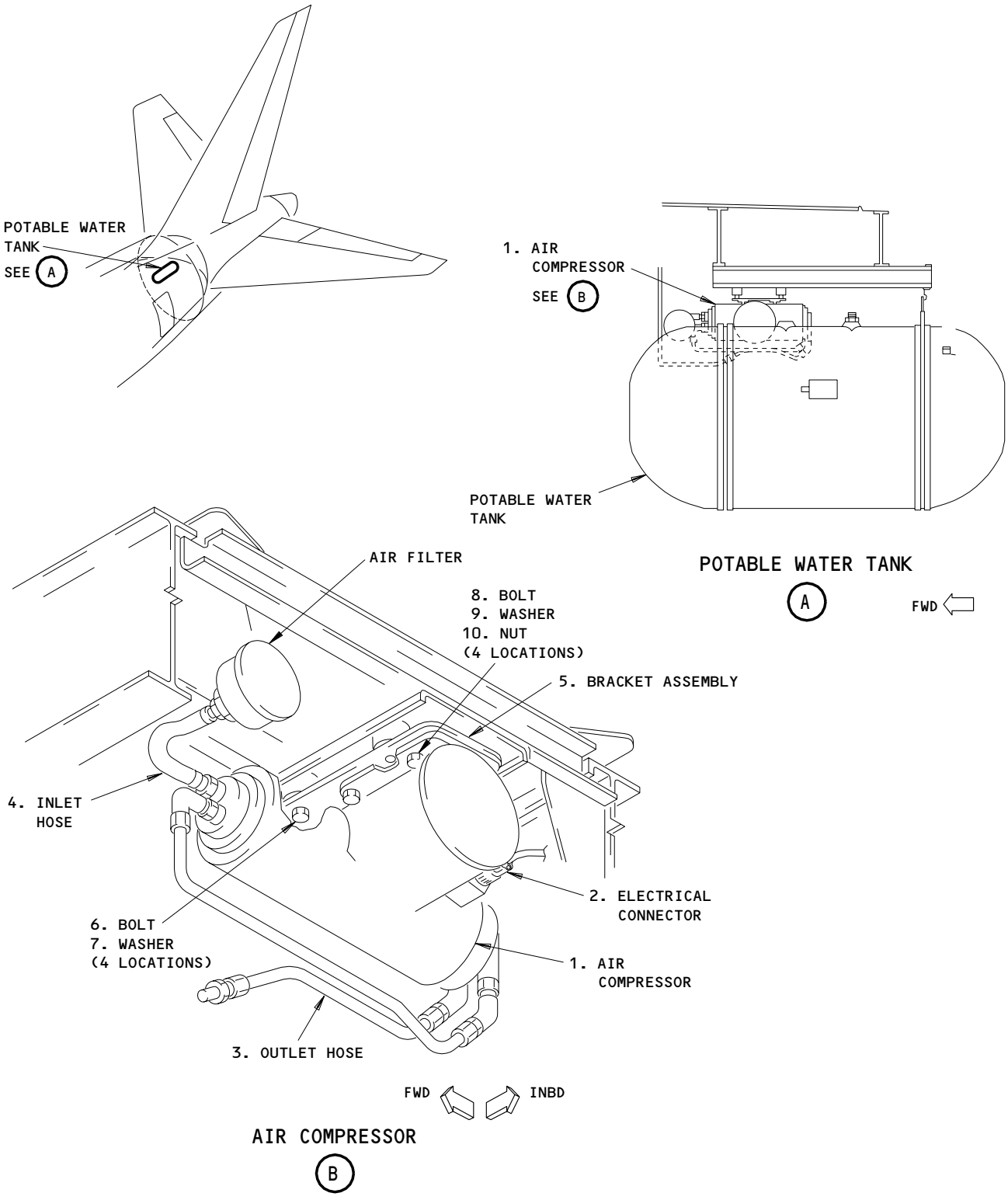
      S 864-024
      (1) To release pressure from the potable water system, do this task: Potable Water System - Pressure Release (AMM 38-10-00/201).

      S 034-036
      (2) Disconnect the electrical connector (2) from the air compressor (1).

      S 034-037
      (3) Disconnect the air lines (3 and 4) from the air compressor (1).

      S 034-002
      (4) Put a cap on the air lines (3 and 4) to keep contamination out.

      S 024-044
      (5) Hold the air compressor (1).



Air Compressor Installation
Figure 401

S 024-076
(6) Remove the air filter from the pneumatic line (4).

S 024-077
(7) Disconnect the pneumatic line (4) from the support bracket.

S 024-038
(8) Remove the fasteners that attach the air compressor to the shockmount plate.

S 024-003
(9) Remove the air compressor.

TASK 38-15-01-404-050

3. Air Compressor with External Air Filter - Installation (Fig. 401)

A. Parts

AMM		NOMENCLATURE	AIPC		
FIG	ITEM		SUBJECT	FIG	ITEM
401	1	Compressor	38-15-01	01	45
	5	Adapter Plate			105
	6	Bolt			110
	7	Washer			115
	8	Screw			30
	9	Washer			35
	10	Nut			40
	11	Shock Mount			

B. References

(1) AMM 24-22-00/201, Electrical Power - Control
(2) AMM 25-50-03/401, Bulkhead Lining
(3) AMM 38-10-00/201, Potable Water System - Restore Pressure
(4) AMM 38-15-02/401, Air Filter - Removal/Installation.

(5) AMM 38-15-10/401, Check Valve - Removal/Installation
(6) AMM 52-34-00/001, No. 1 and No. 2 Cargo Door

C. Access
(1) Location Zone
166 Area Aft of Bulk Cargo Compartment (Right)

D. Procedure

S 424-052
(1) Install the air compressor (1) with the mounting fasteners on the shockmounts plate.
(a) Install the adapter plate (5) on the air compressor with the bolts (8), washers (9), and nuts (10).

S 434-062
(2) Remove the caps from pneumatic lines (3 and 4).

S 024-134
(3) Remove the air compressor check valve (AMM 38-15-10/401). The check valve is attached to the air compressor outlet hose/line, downstream of the air compressor.

S 214-148
(4) Do a visual check of the air compressor check valve for contamination, corrosion, deformation or damage.

S 424-135
(5) Install a serviceable check valve (AMM 38-15-10/401).

S 164-136
(6) Clear the outlet hose/line between the air compressor and the check valve, of any debris or contamination. Use clean dry air (G50321) or gaseous nitrogen (G50322).

NOTE: To clean the line, use 40 to 100 PSIG clean shop air or nitrogen, applied to the check valve end of the line, for approximately 1 to 2 minutes.

S 434-137
(7) Connect the outlet hose/line to the air compressor check valve (AMM 38-15-10/401).

S 434-020
(8) Connect the pneumatic lines (3 and 4) to the air compressor (1).

S 424-078
(9) Attach the pneumatic line (4) to the support bracket.

S 214-138
(10) Do a check of the inlet air filter for contamination, deformation or damage. Clean or replace the inlet air filter, as necessary (AMM 38-15-02/401).

S 434-079
(11) Install a serviceable inlet air filter on the inlet hose (4) (AMM 38-15-02/401).

S 434-063
(12) Connect the electrical connector (2) to the air compressor (1).

S 714-139
(13) Do this procedure: Air Compressor Installation Test.
(a) Remove the air compressor check valve (AMM 38-15-10/401). The check valve is attached to the air compressor outlet hose/line downstream of the air compressor.
(b) Do a visual check of the air compressor check valve for contamination, corrosion, deformation or damage.
(c) Install a serviceable check valve (AMM 38-15-10/401).
(d) Clear the pneumatic line and hose, between the air compressor and the check valve, of any debris or contamination. Use clean dry air (G50321) or gaseous nitrogen (G50322).

NOTE: To clean the line, use 40 to 100 PSIG clean shop air or nitrogen, applied to the check valve end of the line, for approximately 1 to 2 minutes.

TASK 38-15-01-714-141

4. Air Compressor Installation Test
A. Consumable Materials
(1) G00091 - Leak Detector Compound.
(2) G00034 - Cotton Wiper
B. References
(1) AMM 12-14 01/301, Potable Water System - Servicing
(2) AMM 24-22-00/201, Electrical Power - Control
(3) AMM 25-50-03/401, Bulkhead Lining
(4) AMM 38-10-00/201, Potable Water System - Restore Pressure
(5) AMM 52-34-00/001, No. 1 and No. 2 Cargo Door
C. Access
(1) Location Zone
166 Area Aft of Bulk Cargo Compartment (Right)

D. Procedure

S 864-142
(1) To supply electrical power do this task:
Supply electrical power (AMM 24-22-00/201).

S 614-143
(2) Make sure that the potable water tanks are filled with water (AMM 12-14-01/301).

S 864-085
(3) Pressurize the potable water system using the air compressor.
(a) Do this task: Potable Water System - Restore Pressure (AMM 38-10-00/201).

S 794-144
(4) Apply the leak detection compound, G00091, to all the fittings and connections.
(a) Look for bubbles to find any leaks.
(b) If you find leaks, tighten the fittings and connections.

S 164-145
(5) Remove the leak detection compound with a clean cotton wiper, G00034, immediately after the check.
(a) Make sure the fittings and connections are dry.

S 714-146
(6) Make sure that after 5 minutes, the system is fully pressurized and the compressor stops.

NOTE: If the compressor does not stop, trouble shooting of the potable water pressurization system may be necessary.

S 794-147
(7) After the compressor stops, listen for air leakage internal to the air compressor check valve.

NOTE: This may be difficult when the airplane systems are active. Best results may be obtained if this is done with the airplane systems off, eg, engines or APU off, vents/chillers inactive, etc.

(a) Replace the check valve if you can hear internal air leakage.

E. Restore the airplane to its usual condition

S 424-090

WARNING: OBEY THE INSTRUCTIONS IN THE CARGO LINING INSTALLATION PROCEDURE. THE INCORRECT INSTALLATION OF THE CARGO LINING CAN LET THE FIRE EXTINGUISHING AGENT OR SMOKE OUT OF THE CARGO COMPARTMENT DURING A FIRE.

(1) Install the aft right bulkhead lining in the bulk cargo compartment (AMM 25-50-03/401).

S 414-089

(2) Close the cargo door (AMM 52-34-00/001).

S 864-088

(3) Remove electrical power if it is not necessary (AMM 24-22-00/201).

AIR FILTER - REMOVAL/INSTALLATION

1. General
   A. This procedure gives the instructions to replace the engine bleed air-filter, the compressor inlet air-filter, and their related elements.

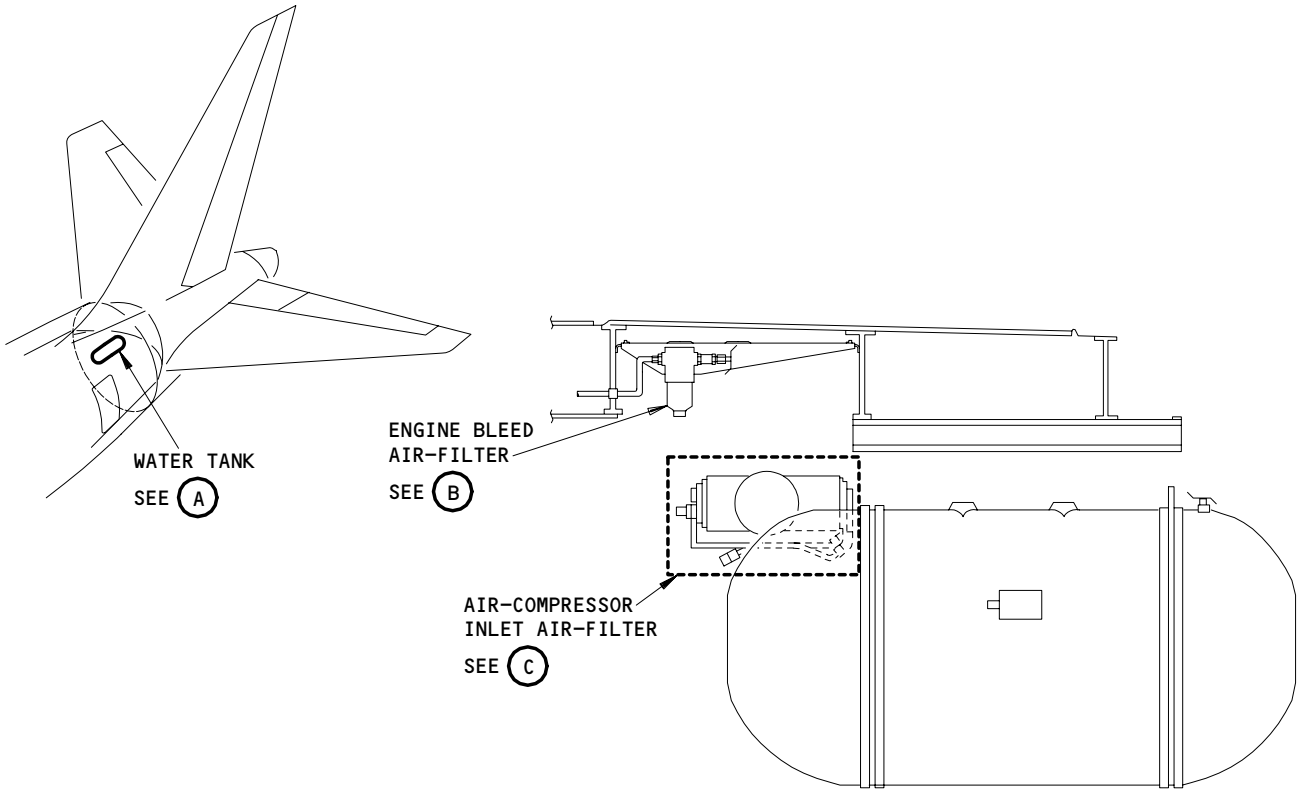
   TASK 38-15-02-004-007
2. Air-Filter Element - Removal (Fig. 401)
   A. General
      (1) This procedure is for both the engine bleed air-filter and the air-compressor inlet air-filter.
   B. References
      (1) AMM 24-22-00/201, Electrical Power Control
      (2) AMM 25-50-03/401, Bulkhead Lining
      (3) AMM 36-00-00/201, Pneumatic - General
      (4) AMM 38-10-00/201, Potable Water System - Release Pressure
   C. Access
      (1) Location Zone
          166 Area aft of bulk cargo compartment (Right)

      (2) Access Panel
          822 No. 2 cargo door
      (3) Access Panel
          823 No. 3 cargo door
   D. Remove the Air-Filter Element

      S 864-001
      (1) To release pressure in the potable water system, do this task: Potable Water System - Pressure Release (AMM 38-10-00/201).

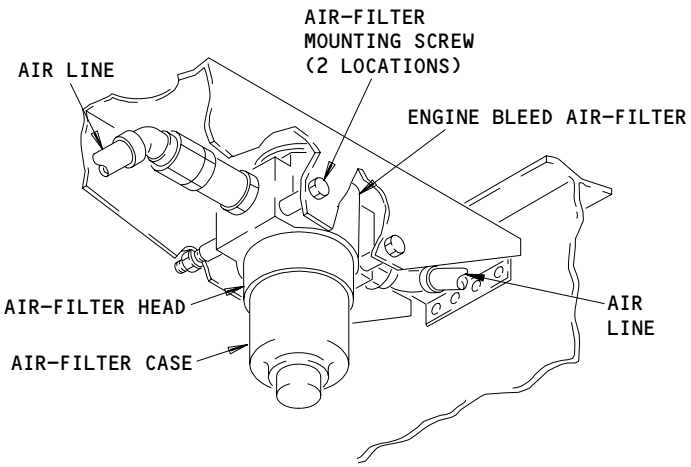
      S 024-020
      (2) For the air-compressor inlet air-filter, remove the air-filter cartridge from the air-filter boot.

      S 024-021
      (3) For the engine bleed air-filter do the steps that follow:
      (a) Remove the air-filter case.



WATER TANK

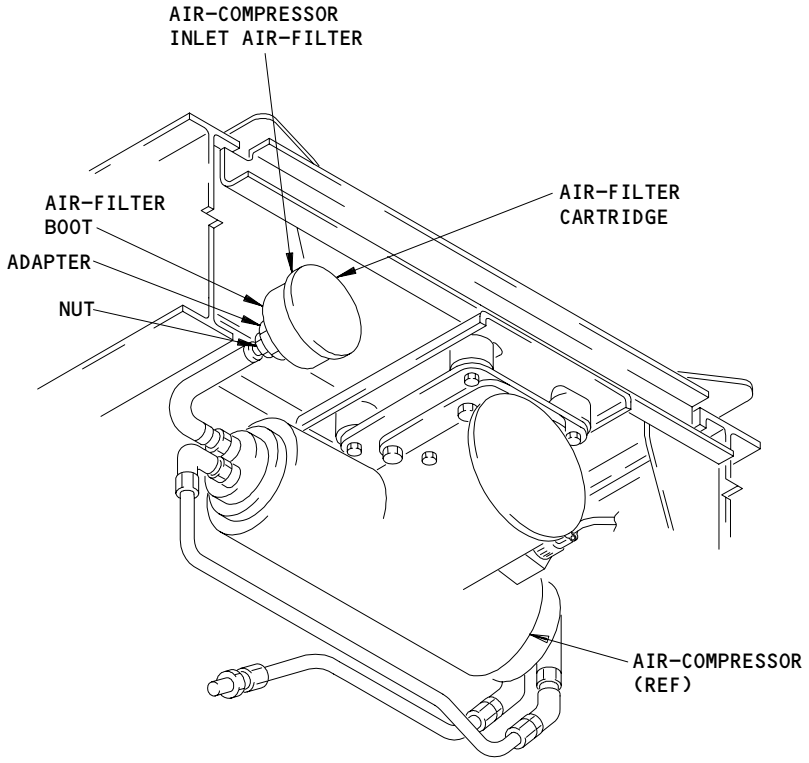
A



ENGINE BLEED AIR-FILTER

B

Air-Filter Installation
Figure 401 (Sheet 1)



AIR-COMPRESSOR INLET AIR-FILTER

C

Air-Filter Installation
Figure 401 (Sheet 2)

(b) Remove the air-filter element.

TASK 38-15-02-404-078

3. Air-Filter Element - Installation

A. General

(1) This procedure is for both the engine bleed air-filter and the air-compressor inlet air-filter.

B. References

(1) AMM 24-22-00/201, Electrical Power Control
(2) AMM 25-50-03/401, Bulkhead Lining
(3) AMM 36-00-00/201, Pneumatic - General
(4) AMM 38-10-00/201, Potable Water System - Restore Pressure
(5) AMM 52-34-00/001, No. 1 and No. 2 Cargo Door
(6) AMM 52-36-00/001, No. 3 Cargo Door

C. Access

(1) Location Zone
166 Area aft of bulk cargo compartment (Right)

(2) Access Panel
822 No. 2 cargo door
(3) Access Panel
823 No. 3 cargo door

D. Install the Air-Filter Element

S 424-022

(1) For the air-compressor inlet air-filter do the steps that follow:
(a) Clean the air-filter boot.
(b) Push the air-filter cartridge into the air-filter boot. The air-filter cartridge must touch the shoulder of the air-filter boot.

S 424-023

(2) For the engine bleed air-filter do the steps that follow:
(a) Clean the air-filter case.
(b) Place the air-filter element in the air-filter case.
(c) Use a new O-ring and install the air-filter case on the air-filter head.
(d) Tighten the air filter case to 100-200 pound-inches (11.3-22.6 Newton-meters).

(e) Install a lockwire.
(f) Supply pneumatic power, AMM 36-00-00/201.

S 864-024
(3) To restore pressure to the potable water system, do this task: Potable Water System - Restore Pressure (AMM 38-10-00/201).

S 794-034
(4) Make sure the air-filter case does not have air leaks.

S 414-036
(5) Close the No. 3 cargo door (AMM 52-36-00/001).

S 414-037
(6) Install right aft bulkhead-lining for the aft cargo compartment (AMM 25-50-03/401).

S 414-040
(7) Close the No. 2 cargo door (AMM 52-34-00/001).

S 864-038
(8) Remove pneumatic power if it is not necessary.

S 864-039
(9) Remove electrical power if it is not necessary.

TASK 38-15-02-004-041

4. Air Filter - Removal (Fig. 401)
A. General
(1) This procedure is for both the engine bleed air-filter and the compressor inlet air-filter.
B. References
(1) AMM 24-22-00/201, Electrical Power Control
(2) AMM 25-50-03/401, Bulkhead Lining
(3) AMM 36-00-00/201, Pneumatic - General
(4) AMM 38-10-00/201, Potable Water System - Release Pressure
C. Access
(1) Location Zone
166 Area aft of bulk cargo compartment (Right)

(2) Access Panel
822 No. 2 cargo door

(3) Access Panel
823 No. 3 cargo door

D. Remove the Air Filter

S 864-042
(1) To release pressure in the potable water system, do this task: Potable Water System - Pressure Release (AMM 38-10-00/201).

S 024-057
(2) For the engine bleed air-filter do the steps that follow:
(a) Disconnect the air lines from engine bleed air-filter.
(b) Put caps on the air lines to prevent contamination.
(c) Remove the mounting screws for the engine bleed air-filter.
(d) Remove the engine bleed air-filter.

S 044-058
(3) For the inlet air-filter which is external to the compressor, do the steps that follow:
(a) Loosen the nut.
(b) Remove the air-compressor inlet air-filter with the adapter attached.
(c) Put a cap on the air line to prevent contamination.

TASK 38-15-02-404-079

5. Air-Filter - Installation (Fig. 401)
A. General
(1) This procedure is for both the engine bleed air-filter and the compressor inlet air-filter.
B. References
(1) AMM 24-22-00/201, Electrical Power Control
(2) AMM 25-50-03/401, Bulkhead Lining
(3) AMM 36-00-00/201, Pneumatic - General
(4) AMM 38-10-00/201, Potable Water System - Restore Pressure
(5) AMM 52-34-00/001, No. 1 and No. 2 Cargo Door
(6) AMM 52-36-00/001, No. 3 Cargo Door

C. Access
(1) Location Zone
166 Area aft of bulk cargo compartment (Right)

(2) Access Panel
822 No. 2 cargo door
(3) Access Panel
823 No. 3 cargo door

D. Install the Air-Filter

S 434-059
(1) Remove the caps from the air lines.

S 424-060
(2) For the engine bleed air-filter do the steps that follow:
(a) Hold the engine bleed air-filter in place and install the mounting screws.
(b) Connect the air lines to the engine bleed air-filter. Use new O-rings.
(c) Supply pneumatic power, AMM 36-00-00/201.

S 424-061
(3) For the inlet air-filter which is external to the air-compressor, do the steps that follow:
(a) Put the compressor inlet air-filter on the air line.
(b) Tighten the nut.

S 864-062
(4) To restore pressure to the potable water system, do this task: Potable Water System - Restore Pressure (AMM 38-10-00/201).

S 794-071
(5) Make sure the air line connections to the air-filter do not leak.

S 414-073
(6) Close the No. 3 cargo door (AMM 52-36-00/001).

S 414-074
(7) Install right aft bulkhead-lining in the aft cargo compartment (AMM 25-50-03/401).

S 414-075
(8) Close the No. 2 cargo door (AMM 52-34-00/001).

S 864-076
(9) Remove pneumatic power if it is not necessary.

S 864-077
(10) Remove electrical power if it is not necessary.

PRESSURE REGULATOR - REMOVAL/INSTALLATION

1. General
   A. This procedure gives the instructions to remove and install the pressure regulator for the potable-water system.

TASK 38-15-03-004-001

2. Remove the Pressure Regulator (Fig 401)
   A. References
      (1) AMM 25-50-03/401, Bulkhead Lining
      (2) AMM 36-00-00/201, Pneumatic - General
      (3) AMM 38-10-00/201, Potable Water System - Release Pressure
      (4) AMM 52-34-00/001, No. 1 and No. 2 Cargo Door
   B. Access
      (1) Location Zone
          166 Area Aft of Aft Cargo Compartment (Right)

      (2) Access Panel
          822 Aft Cargo Door

   C. Procedure

      S 014-101
      (1) Open the aft cargo door (AMM 52-34-00/001).

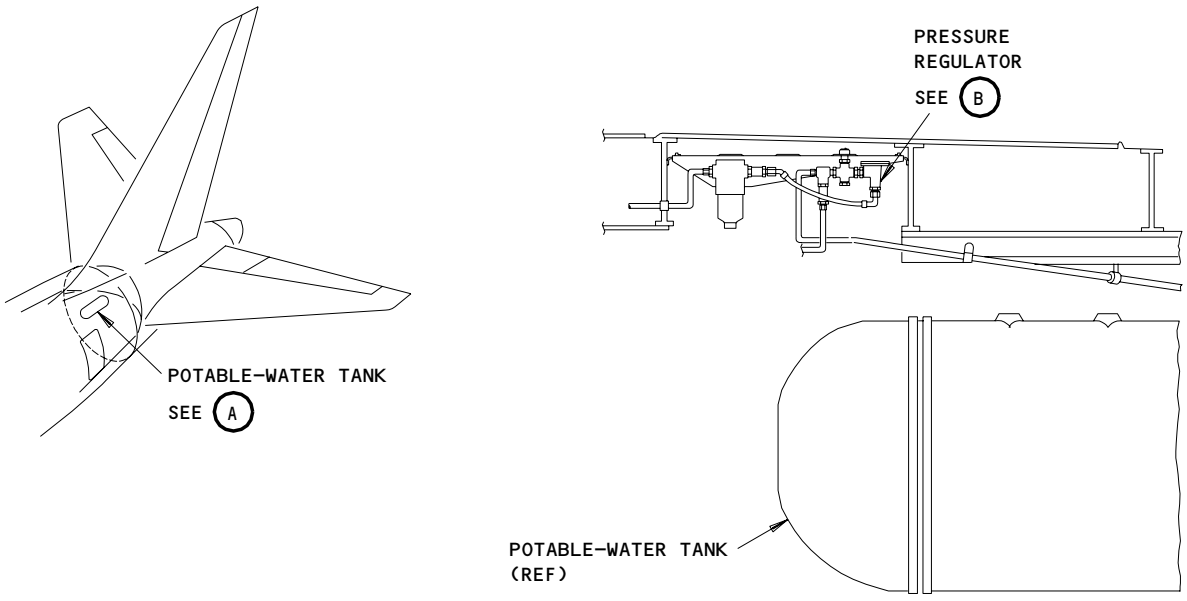
      S 014-098
      (2) Remove the aft right bulkhead lining in the bulk cargo compartment (AMM 25-50-03/401).

      S 864-002
      (3) To release pressure in the potable water system, do this task: Potable Water System - Pressure Release (AMM 38-10-00/201).

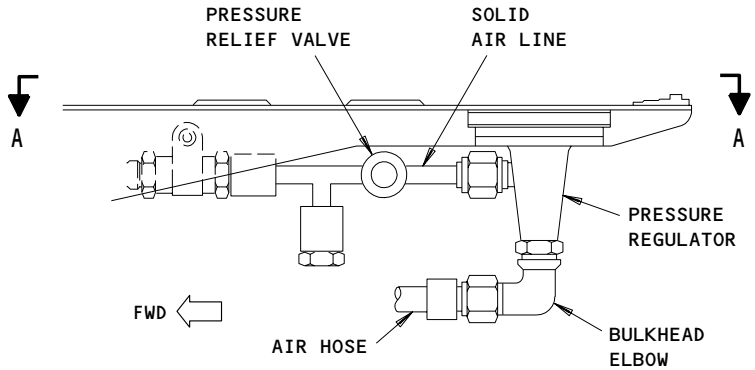
      S 024-078
      (4) To remove the pressure regulator do these tasks:
          (a) Disconnect the air hose from the pressure regulator.
          (b) Put a cap on the air hose to keep contamination out.
          (c) Remove the mounting screws for the pressure regulator.
          (d) Remove the pressure regulator from the bulkhead union.
          (e) Put a cap on the bulkhead union to keep contamination out.

TASK 38-15-03-414-082

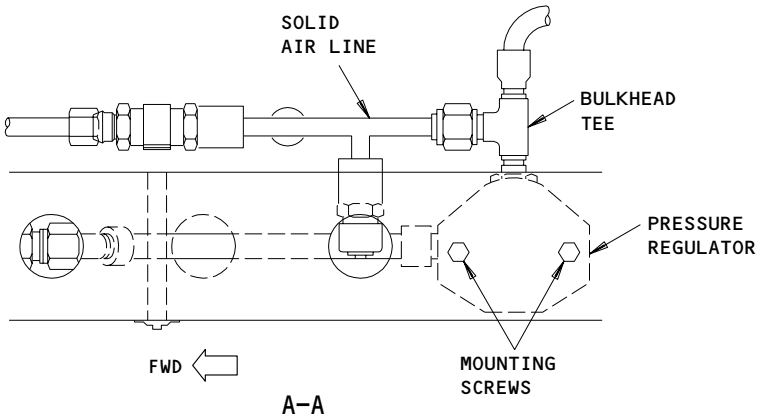
3. Install the Pressure Regulator (Fig 401)
   A. References
      (1) AMM 24-22-00/201, Electrical Power Control



POTABLE–WATER TANK
A



PRESSURE REGULATOR
B



A–A

Pressure Regulator Installation
Figure 401

(2) AMM 25-50-03/401, Bulkhead Lining
(3) AMM 38-10-00/201, Potable Water System - Restore Pressure
(4) AMM 52-34-00/001, No. 1 and No. 2 Cargo Door

B. Access

(1) Location Zone

166 Area Aft of Aft Cargo Compartment (Right)

(2) Access Panel

822 Aft Cargo Door

C. Procedure

S 424-083

(1) To install the pressure regulator do these tasks:
(a) Remove the cap from the bulkhead union.
(b) Install the pressure regulator on the bulkhead union; use a new O-ring.
(c) Hold the pressure regulator in its position and install the mounting screws.
(d) Remove the cap from the air hose.
(e) Install the air hose to the pressure regulator.

D. Return the airplane to its usual condition.

S 864-049

(1) To restore pressure to the potable water system, do this task: Potable Water System - Restore Pressure (AMM 38-10-00/201).

S 794-055

(2) Make sure the pressure regulator and its connections do not have a leak.

S 414-056

WARNING: OBEY THE INSTRUCTIONS IN THE CARGO LINING INSTALLATION PROCEDURE. INCORRECT INSTALLATION OF THE CARGO LINING CAN LET THE FIRE EXTINGUISHING AGENT OR SMOKE OUT OF THE CARGO COMPARTMENT DURING A FIRE.

(3) Install the aft right bulkhead lining in the bulk cargo compartment (Ref 25-50-03).

S 414-057
(4) Close the aft cargo door (AMM 52-34-00/001).

S 864-058
(5) Remove electrical power if it is not necessary (AMM 24-22-00/201).

PRESSURE RELIEF VALVE - MAINTENANCE PRACTICES

1. General
   A. This procedure includes three tasks.
      (1) The removal of the pressure relief valve.
      (2) The test of the pressure relief valve's relief and reset pressures.
      (3) The installation of the pressure relief valve.

   TASK 38-15-04-002-035

2. Pressure Relief Valve - Removal (Fig. 201)
   A. References
      (1) AMM 24-22-00/201, Electrical Power - Control
      (2) AMM 25-50-03/401, Bulkhead Lining
      (3) AMM 36-00-00/201, Pneumatic - General
      (4) AMM 38-10-00/201, Potable Water System - Pressure Release
      (5) AMM 52-34-00/001, No. 1 and No. 2 Cargo Door
   B. Access
      (1) Location Zone
          166 Area Aft of Bulk Cargo Compartment (Right)
      (2) Access Panel
          822 No. 2 Cargo Door, or
          823 No. 3 Cargo Door (if equipped)
   C. Removal Procedure

      S 012-070
      (1) Open the aft cargo door, 822 (or 823 if equipped) (AMM 52-34-00/001).

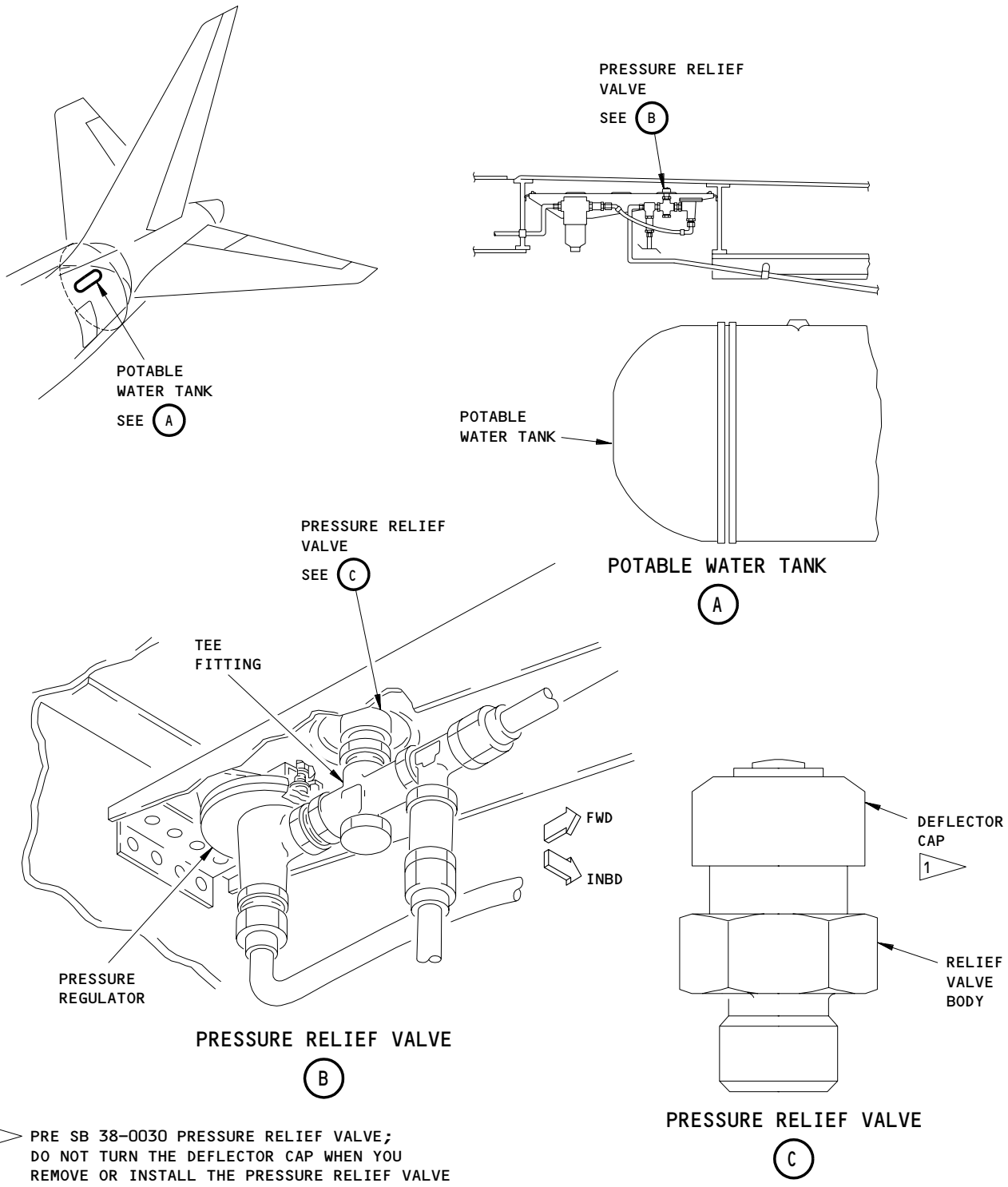
      S 012-071
      (2) Remove the right aft bulkhead lining of the cargo compartment (AMM 25-50-03/401).

      S 862-001
      (3) To release the pressure from the potable water system, do this task: Potable Water System - Pressure Release (AMM 38-10-00/201).

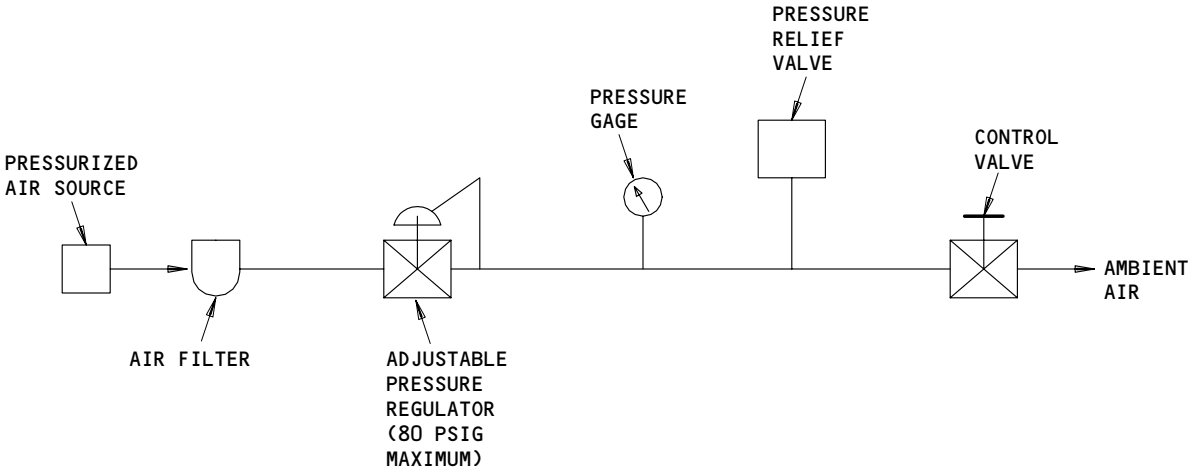
      S 022-038

      WARNING: PRE SB 8-0030 AIRPLANES;
      DO NOT TURN THE DEFLECTOR CAP WHEN YOU REMOVE OR INSTALL THE PRESSURE RELIEF VALVE. THE PRESSURE AT WHICH THE RELIEF VALVE RELEASES PRESSURE CAN CHANGE IF THE DEFLECTOR CAP TURNS. IF THE PRESSURE RELIEF VALVE DOES NOT RELEASE THE CORRECT PRESSURE, INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

      (4) Turn the pressure relief valve counterclockwise to remove it from the tee fitting.



Pressure Relief Valve Installation
Figure 201



Pressure Relief Valve Test
Figure 202

S 032-016

(5) Put a cap on the tee fitting to prevent contamination of the potable water system.

TASK 38-15-04-702-074

3. Pressure Relief Valve Test (Fig. 202)

A. General

(1) This functional test checks the pressure at which pressure relief occurs and also the pressure at which the pressure relief valve resets.

B. Standard Tools and Equipment

(1) Gage - Pressure (0-75 psig ±0.5 psig)
(2) Valve - Control (pressure rating 150 psig minimum, 3/8 inch minimum globe type, 15 scfm minimum flow at 50 psig).
(3) Regulator - Pressure (pressure rated for air source, outlet pressure adjustable, zero to 80 psig, 3/8 inch minimum).
(4) Filter Air (in-line type)
(5) Compressed Air Supply (80 psig, 15 scfm minimum)

C. Test Procedure

S 022-075

WARNING: PRE SB 38-0030 AIRPLANES;
DO NOT TURN THE DEFLECTOR CAP WHEN YOU REMOVE OR INSTALL THE PRESSURE RELIEF VALVE. THE PRESSURE AT WHICH THE RELIEF VALVE RELEASES PRESSURE CAN CHANGE IF THE DEFLECTOR CAP TURNS. IF THE PRESSURE RELIEF VALVE DOES NOT RELEASE THE CORRRECT PRESSURE, INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(1) If the valve has not been removed from the airplane, do the task: Pressure Relief Valve Removal.

S 722-076

(2) Connect these components to a source of compressed air that does not have oil, as shown in Fig. 202.
(a) Pressure Relief Valve (test item)
(b) Control valve
(c) Pressure gage
(d) Pressure regulator
(e) Air filter

S 722-077
(3) To do a check of the relief pressure, do the following steps:
(a) Close the control valve.
(b) With the initial pressure at zero psig, slowly open the pressure regulator.
(c) Look at the pressure gage while you increase pressure.
(d) Keep a record of the initial pressure at which you find airflow or a sudden increase in airflow through the pressure relief valve.

NOTE: This pressure must be less than 75 psig.

(e) If the initial relief pressure is less than 57 psig or more than 75 psig, replace the pressure relief valve.

S 722-083
(4) To do a check of the reset pressure, do the following steps:
(a) With the pressure at relief pressure, slowly close the pressure regulator.
(b) Look at the pressure gage while you decrease pressure.
(c) Keep a record of the reset pressure at which you find that airflow stops or the decrease of pressure stops through the pressure relief valve.

NOTE: This pressure must be more than 53 psig.

(d) If the reset pressure of the relief valve is less than 53 psig, replace the pressure relief valve.

S 782-079
(5) Reduce pressure to zero psig.

S 782-080
(6) Do a subsequent test of the pressure relief valve.
(a) Keep a record of the subsequent pressure at which you find airflow or a sudden increase in airflow through the pressure relief valve.

NOTE: This pressure must be between 57 and 63 psig.

(b) If the subsequent relief pressure is not in the 57 to 63 psig range, replace the pressure relief valve.

S 422-082

WARNING: PRE SB 38-0030 AIRPLANES;
DO NOT TURN THE DEFLECTOR CAP WHEN YOU REMOVE OR INSTALL THE PRESSURE RELIEF VALVE. THE PRESSURE AT WHICH THE RELIEF VALVE RELEASES PRESSURE CAN CHANGE IF THE DEFLECTOR CAP TURNS. IF THE PRESSURE RELIEF VALVE DOES NOT RELEASE THE CORRECT PRESSURE, INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(7) Do this task to install the pressure relief valve:
Pressure Relief Valve Installation

TASK 38-15-04-002-037

4. Pressure Relief Valve - Installation (Fig. 201)

A. References
(1) AMM 24-22-00/201, Electrical Power - Control
(2) AMM 25-50-03/401, Bulkhead Lining
(3) AMM 36-00-00/201, Pneumatic - General
(4) AMM 38-10-00/201, Potable Water System - Restore Pressure
(5) AMM 52-34-00/001, No. 1 and No. 2 Cargo Door

B. Access
(1) Location Zone
166 Area Aft of Bulk Cargo Compartment (Right)
(2) Access Panel
822 No. 2 Cargo Door, or
823 No. 3 Cargo Door (if equipped)

C. Installation Procedure

S 432-017

(1) Remove the protective cap from the tee fitting.

S 422-039

WARNING: PRE SB 8-0030 AIRPLANES;
DO NOT TURN THE DEFLECTOR CAP WHEN YOU REMOVE OR INSTALL THE PRESSURE RELIEF VALVE. THE PRESSURE AT WHICH THE RELIEF VALVE RELEASES PRESSURE CAN CHANGE IF THE DEFLECTOR CAP TURNS. IF THE PRESSURE RELIEF VALVE DOES NOT RELEASE THE CORRECT PRESSURE, INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT CAN OCCUR.

(2) Install the new O-ring packing on the pressure relief valve. Then install the valve in the Tee fitting.

S 712-028

(3) To restore pressure to the potable water system, do this task: Potable Water System - Restore Pressure (AMM 38-10-00/201).

S 792-029

(4) Make sure there are no air leaks at the connection of the pressure relief valve to the tee fitting.

S 412-032

(5) Install the right aft bulkhead lining of the cargo compartment (AMM 25-50-03/401).

S 412-033

(6) Close the cargo door, 822 or 823 (AMM 52-34-00/001).

S 862-034

(7) Remove electrical power if it is not necessary (AMM 24-22-00/201).

PRESSURE SWITCH - REMOVAL/INSTALLATION

1. General
   A. This procedure includes three tasks.
      (1) The removal of the pressure switch.
      (2) The installation of the pressure switch.
      (3) The operational test on the pressure switch.

   TASK 38-15-07-024-041
2. Remove the Pressure Switch (Fig. 401)
   A. References
      (1) AMM 06-46-00/201, Entry, Service and Cargo Doors
      (2) AMM 24-22-00/201, Manual Control
      (3) AMM 25-50-03/401, Bulkhead Lining
      (4) AMM 36-00-00/201, Pneumatic - General
      (5) AMM 38-10-00/201, Potable Water System - Pressure Release
   B. Access
      (1) Location Zone
          166 Area Aft of Bulk Cargo Compartment (Right)
      (2) Access Panels
          822 No. 2 Cargo Door, or
          823 No. 3 Cargo Door (if equiped)

   C. Remove the Pressure Switch (Fig. 401)

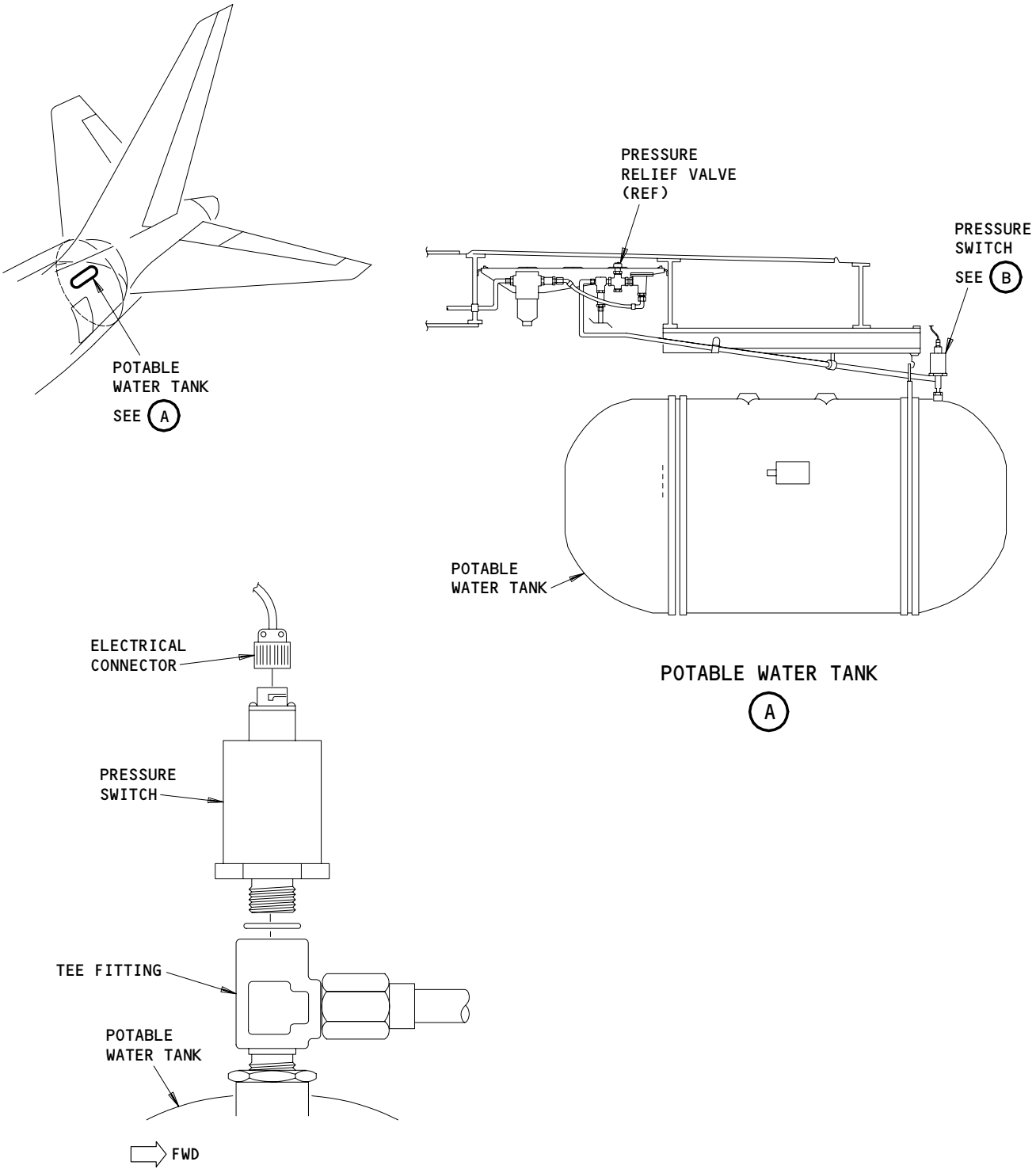
      S 044-103
      (1) To release pressure from the potable water system, do this task: Potable Water System - Pressure Release (AMM 38-10-00/201).

      S 034-018
      (2) Remove the electrical connector from the pressure switch.

      S 024-019
      (3) Turn the pressure switch counterclockwise to remove it.

      S 024-111
      (4) Remove and discard the packing (O-ring).

      S 034-020
      (5) Put a cap on the fitting to prevent contamination of the potable water system.



Pressure Switch Installation
Figure 401

TASK 38-15-07-404-021

3. Install the Pressure Switch (Fig. 401)

A. References

(1) AMM 06-46-00/201, Entry, Service and Cargo Doors
(2) AMM 24-22-00/201, Manual Control
(3) AMM 25-50-03/401, Bulkhead Lining
(4) AMM 36-00-00/201, Pneumatic - General
(5) AMM 38-10-00/201, Potable Water System - Restore Pressure
(6) AMM 52-34-00/001, No. 1 and No. 2 Cargo Door

B. Access

(1) Location Zone
166 Area Aft of Bulk Cargo Compartment (Right)
(2) Access Panels
822 No. 2 Cargo Door, or
823 No. 3 Cargo Door (if equiped)

C. Install the Pressure Switch (Fig. 401)

S 424-108
(1) Do these tasks:
(a) Remove the cap from the tee-fitting or the tank mounting boss.
(b) Install the pressure switch on the tee-fitting or the tank mounting boss. Use a new packing.

S 434-024
(2) Connect the electrical connector to the pressure switch.

S 444-104
(3) To restore pressure to the potable water system, do this task: Potable Water System - Restore Pressure (AMM 38-10-00/201).

S 794-035
(4) Make sure there are no air leaks at the connection of the pressure switch to the tee fitting or tank mounting boss.

S 414-038
(5) Install the right aft bulkhead-lining of the aft cargo compartment (AMM 25-50-03/401).

S 414-039
(6) Close the aft cargo door (AMM 52-34-00/001).

S 864-040
(7) Remove electrical power if it is not necessary (AMM 24-22-00/201).

TASK 38-15-07-724-042

4. Pressure Switch - Operational Test

A. General

(1) Use this procedure to make sure the air compressor (in the potable water system) stops and starts at the correct pressures.

NOTE: The air compressor is controlled by the pressure switch.

B. Equipment

(1) Gage, Pressure, 0-75 psig, with a pressure release valve, - Commercially Available

C. References

(1) AMM 06-46-00/201, Entry, Service, and Cargo Doors
(2) AMM 12-14-01/301, Potable Water Servicing
(3) AMM 24-22-00/201, Electrical Control
(4) AMM 25-50-03/401, Bulkhead Lining
(5) AMM 52-34-00/001, No. 1 and No. 2 Cargo Door
(6) AMM 52-49-00/001, Exterior Service Doors

D. Access

(1) Location Zone
166 Area Aft of Bulk Cargo Compartment (Right)
(2) Access Panels
822 No. 2 Cargo Door, or
823 No. 3 Cargo Door (if equipped)

E. Procedure

S 864-043
(1) Supply electrical power (AMM 24-22-00/201).

S 614-044
(2) Fill the potable water system (AMM 12-14-01/301). Do not close the WATER TANK FILL VALVE.

S 014-047
(3) Open the aft cargo door (AMM 52-34-00/001).

S 014-048
(4) Remove the right aft bulkhead lining from the aft cargo compartment (AMM 25-50-03/401).

S 424-064
(5) Insert a pressure gage, between the potable water tank and the air filter, in air pressure line.

S 444-051
(6) Close the WATER TANK FILL VALVE.

S 724-123
(7) AIRPLANES W/ PRESS SW P/N 60B50024-1, 10-62205-3, 1G216, OR 1G410; Make sure the air compressor stops when the pressure gets to 31 ±2 psig.

S 724-071
(8) AIRPLANES WITH PRESSURE SWITCH P/N 60B50024-2, 1G376 OR S1G376; Make sure the air compressor stops when the pressure gets to 40 ±2 psig.

S 724-125
(9) AIRPLANES WITH PRESSURE SWITCH P/N 60B50024-3, 10-62205-4 OR 1G409; Make sure the air compressor stops when the pressure gets to 40 ±2 psig.

S 724-053
(10) Slowly bleed the air from the potable water system.

S 724-124
(11) AIRPLANES W/ PRESS SW P/N 60B50024-1, 10-62205-3, 1G216, OR 1G410; Make sure the air compressor starts when the pressure gets to 26 ±2 psig.

S 724-072
(12) AIRPLANES WITH PRESSURE SWITCH P/N 60B50024-2, 1G376 OR S1G376; Make sure the air compressor starts when the pressure gets to 35 ±2 psig.

S 724-121
(13) AIRPLANES WITH PRESSURE SWITCH P/N 60B50024-3, 10-62205-4 OR 1G409; Make sure the air compressor starts when the pressure gets to 30 ±2 psig.

S 864-055
(14) Open the WATER TANK FILL VALVE to release the pressure from the potable water system.

S 084-056
(15) Remove the pressure gage from the potable water system.

S 864-057
(16) Close the WATER TANK FILL VALVE.

S 794-058
(17) Make sure there are no air leaks in the area where the pressure gage was installed.

S 414-061
(18) Install the right aft bulkhead lining of the aft cargo compartment (AMM 25-50-03/401).

S 414-062
(19) Close the aft cargo door (AMM 52-34-00/001).

S 864-063
(20) Remove electrical power if it is not necessary (AMM 24-22-00/201).

CHECK VALVE - REMOVAL/INSTALLATION

1. General
   A. This procedure has the instructions to remove and install the check valve for the potable water system.
   B. Various airplane configurations exist as to location and number of check valves. Removal and installation is similar for all check valves. Use the illustration to determine the location of the check valve.

TASK 38-15-10-004-001

2. Remove the Check Valve (Fig. 401)
   A. References
      (1) AMM 25-50-03/401, Bulkhead Lining
      (2) AMM 36-00-00/201, Pneumatic - General
      (3) AMM 38-10-00/201, Potable Water System - Pressure Release
      (4) AMM 52-34-00/001, No. 1 and No. 2 Cargo Door
   B. Access
      (1) Location Zone
          162 Area Aft of Aft Cargo Compartment (Right)
          822 No. 2 Cargo Door

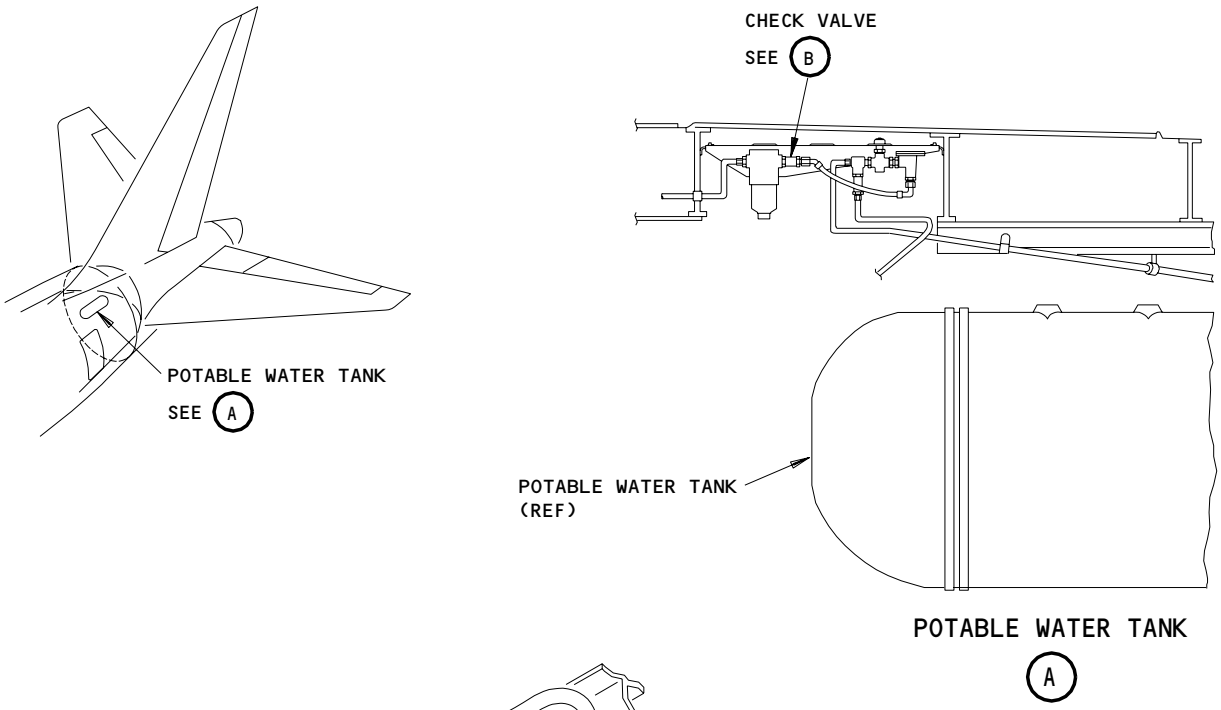
   C. Procedure

      S 864-071
      (1) To release pressure from the potable water system, do this task: Potable Water System - Pressure Release (AMM 38-10-00/201).

      S 864-068
      (2) Locate the check valve.

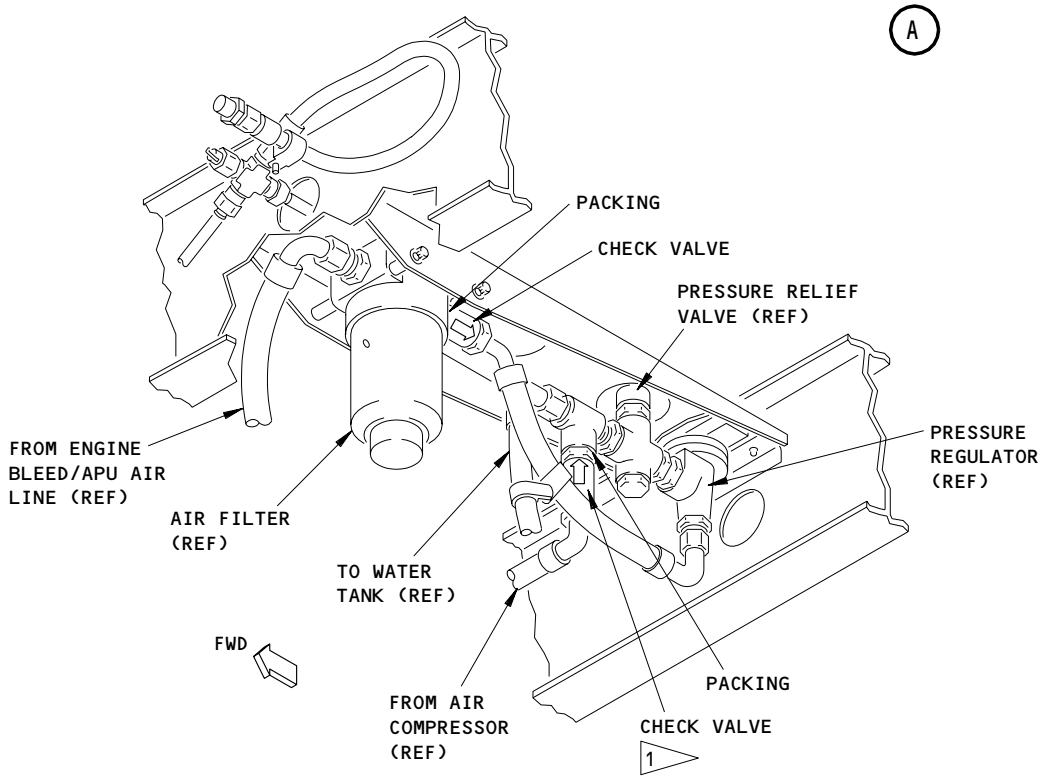
      S 864-069
      (3) Note the direction of air flow and the arrow on the check valve. The flow should be towards the potable water tank.

      S 034-024
      (4) Disconnect the air line, air tube or fitting from the check valve.



POTABLE WATER TANK

A



CHECK VALVE

B

1 SOME AIRPLANES MAY HAVE TWO CHECK VALVES HERE

Check Valve Installation
Figure 401

S 024-025
(5) Remove the check valve from the air line, tube or fitting.

S 024-037
(6) Remove and discard the packing.

S 534-026
(7) Put a cap on the open air line and open port on the fitting to keep contamination out.

TASK 38-15-10-404-011

3. Install the Check Valve (Fig. 401)

A. References
(1) AMM 24-22-00/201, Electrical Power - Control
(2) AMM 25-50-03/401, Bulkhead Lining
(3) AMM 36-00-00/201, Pneumatic - General
(4) AMM 38-10-00/201, Potable Water System - Restore Pressure
(5) AMM 52-34-00/001, No. 1 and No. 2 Cargo Door

B. Access
(1) Location Zone
162 Area Aft of Aft Cargo Compartment (Right)
822 No. 2 Cargo Door

C. Procedure

S 544-027
(1) Remove the caps from the open air line and the open port at the fitting.

S 424-012
(2) Install the new packing(s) on the check valve.

S 434-022
(3) Put the check valve into position with the flow arrow pointed in the direction towards the potable water tank.

S 424-028
(4) Install the check valve to the open port on the air line, tube or fitting.

S 434-029
(5) Connect the air line, tube or fitting to the inlet of the check valve.

S 864-074
(6) If an engine bleed air line check valve was installed, supply pneumatic power, AMM 36-00-00/201.

S 864-016
(7) To repressurize the potable water system, do this task: Potable Water System - Restore Pressure (AMM 38-10-00/201).

S 794-018
(8) Make sure the check valve and its connections do not have a leak.

S 414-019

WARNING: OBEY THE INSTRUCTIONS IN THE CARGO LINING INSTALLATION PROCEDURE. INCORRECT INSTALLATION OF THE CARGO LINING CAN LET THE FIRE EXTINGUISHING AGENT OR SMOKE OUT OF THE CARGO COMPARTMENT DURING A FIRE.

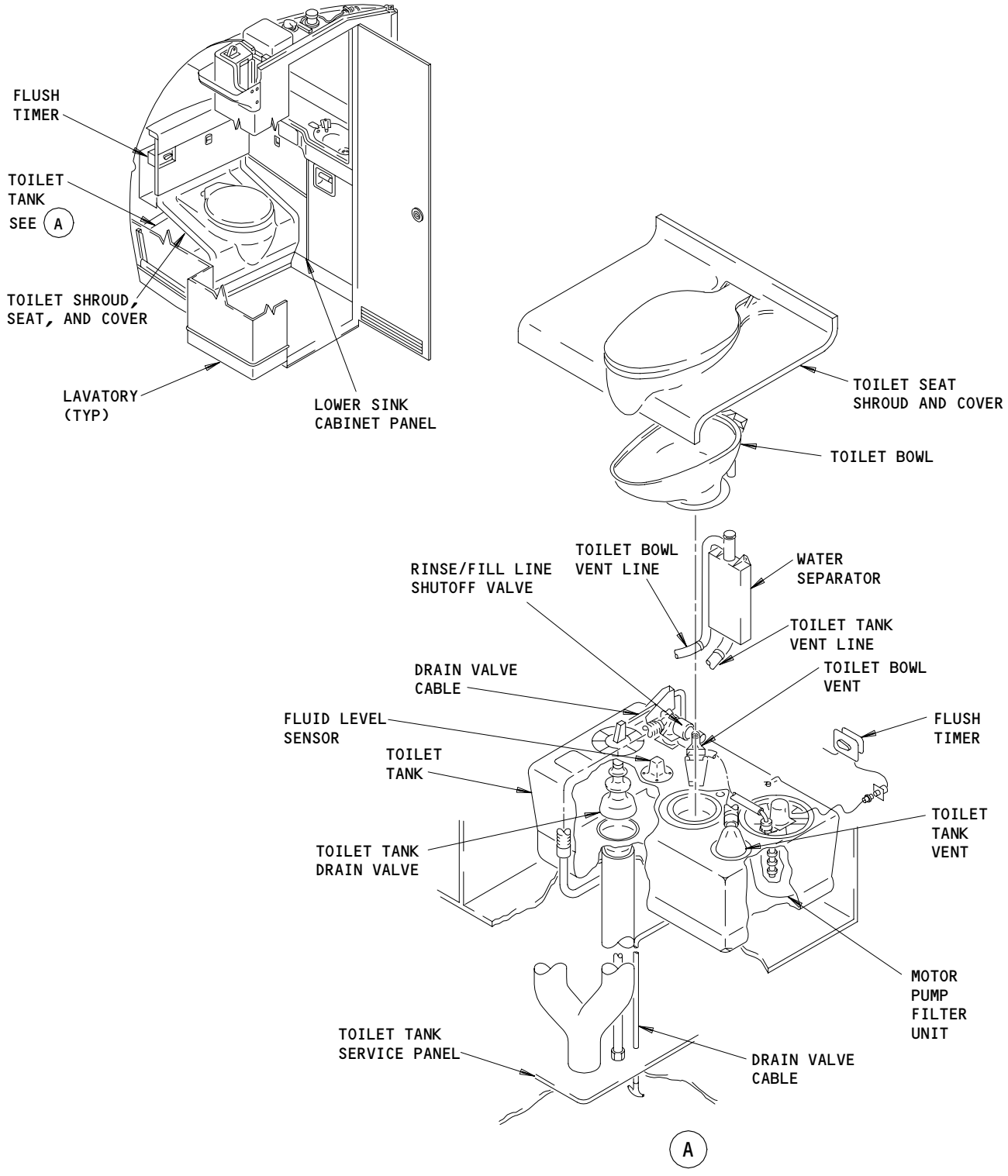
(9) Install the aft right bulkhead lining in the aft cargo compartment (AMM 25-50-03/401).

S 414-020
(10) Close the aft cargo door (AMM 52-34-00/001).

S 864-021
(11) Remove electrical power if it is not necessary (AMM 24-22-00/201).

WASTE DISPOSAL - DESCRIPTION AND OPERATION

1. General
   A. Gray water is waste water from the galley and lavatory washbasins. Gray water is carried through teflon hoses to one of the two heated drain masts. On some airplanes the drain lines pass through mufflers that reduce drain line noise. The drain masts are on the bottom of the fuselage: one forward and one aft.
   B. Each lavatory has an independent toilet waste system. Toilet waste is stored in a toilet tank in each lavatory. During ground servicing the toilet tanks are drained, rinsed and a chemical precharge is added. The toilet flushing medium is precharge mixed with toilet waste water which has been filtered and deodorized.
2. Toilet Tank (Fig. 1)
   A. Each lavatory has a storage tank to hold toilet waste. The tanks are fire resistant plastic and are vented to the lavatory vent system. Each tank is emptied, flushed and precharged through service panels on the bottom of the fuselage.
3. Toilet Bowl (Fig. 1)
   A. A stainless steel toilet bowl attaches to the top of each toilet tank. A separator between the tank and the toilet bowl prevents passengers from seeing into the tank. The separator also prevents liquid in the tank from sloshing up into the bowl. The separator is spring-loaded closed, but opens during the flush cycle. The tank and toilet bowl are covered with a fiberglass shroud.
4. Water Separator (Fig. 1)
   A. A water separator is attached to each toilet system. The water separator is a plastic rectangular box with diagonal metal condensation plates enclosed. The separator mounts behind the toilet back shroud. The water separator connects the toilet tank vent to the airplane onboard ventilation system. The water separator prevents moisture from the toilet tank from entering the onboard ventilation system. A vent near the upper edge of the toilet bowl connects to a point just downstream of the water separator and helps to eliminate toilet bowl odors.
5. Motor-Pump-Filter Unit (Fig. 1)
   A. Each toilet waste tank has a motor-pump-filter unit. This unit attaches to the top of the tank and pumps filtered flushing fluid into the toilet bowl. The motor operates on 115 volt ac power from the overhead circuit breaker panel, P11. The filter is self cleaning and requires no special servicing.
6. Toilet Tank Drain Valve (Fig. 1)
   A. There is a drain valve in the bottom of each toilet tank. The drain valve is spring-loaded shut to prevent leakage from the tank. The drain valve is removed through the top of the tank. A cable, from the ground service panel, opens the valve allowing the tank to drain.



Toilet System Components
Figure 1

7. Rinse/Fill Line Shutoff Valve (Fig. 1)
   A. A two-port fill/shutoff valve is mounted on the top of each toilet tank. The valve is installed in the tank rinse/fill line. The valve prevents overfilling the toilet tank during servicing, allows the rinse/fill line to drain after servicing, and prevents liquid from siphoning out of the toilet tank. The fill/shutoff valve has an electric motor which is activated by a sensor which monitors liquid level inside the toilet tank.
8. Flush Timer (Fig. 1)
   A. The flush timer is mounted on the lavatory wall. The timer is actuated by the toilet flush handle, and provides 115 volt ac power to the flush motor for ten seconds.
9. Operation (Fig. 2)
   A. Functional Description
      (1) The toilet flushing cycle is started when the flush timer handle is depressed. This provides power to the flush motor which operates the pump. Filtered water is pumped into the toilet bowl until the flush timer cuts power to the flush motor (about ten seconds).
      (2) When ground power is applied, the fill/shutoff valve opens. During servicing, the valve closes if the liquid level in the tank reaches three inches from the top of the tank. The valve reopens when the liquid level drops 0.5 ±.25 inches. The valve closes when ground power is removed.
10. Control
   A. Pressing the flush timer handle starts the toilet system. Operation is automatic and is controlled by time switches.
   B. For more details on the Waste Disposal System, refer to this functional schematic:
      SSM 38-30-01: Toilet and Waste System - Forward
      SSM 38-30-02: Toilet and Waste System - Aft
      SSM 38-30-03: Toilet and Waste System - Mid Forward

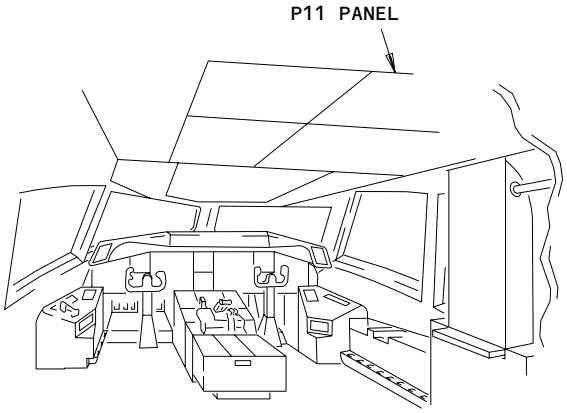
WASTE DISPOSAL

COMPONENT	FIG. 102 SHT	QTY	ACCESS/AREA	REFERENCE
CIRCUIT BREAKER –	--		119BL, MAIN EQUIP CTR, P34	
LAV FILL CONTROL, C4086		1	34A3	
CIRCUIT BREAKER –	--		119BL, MAIN EQUIP CTR, P37	
LAV FILL VALVE, C4169		1	37D8	
CIRCUIT BREAKERS –	--		FLT COMPT, P11	
LAV FLUSH MOTOR A, C3003		1	11S8	*
LAV FLUSH MOTOR F, C3004 1		1	11S11	*
LAV FLUSH MOTOR S, C3043 1		1	11S11	*
LAV FLUSH MOTOR C, C3011		1	11S25	*
LAV FLUSH MOTOR D, C3012		1	11S28	*
BOWL – TOILET	1	4	LAVATORY TOILET TANK	38-32-11
CABLE – DRAIN VALVE CONTROL	1	4	LAVATORY	38-32-10
MAST – DRAIN	2	2	AFT OF FORWARD & AFT CARGO COMPARTMENTS	38-31-01
MOTOR – TOILET FLUSH, (M1)	1	4	LAVATORY TOILET TANK	38-32-05
NIPPLE – WASTE TANK DRAIN DUCT	2	3	LAVATORY SERVICE PANEL DOORS 119AL,121AL,166AR	38-32-16
SENSOR – LEVEL, (S1)	1	4	LAVATORY TOILET TANK	38-32-04
SEPARATOR – WATER	1	4	LAVATORY TOILET BACK SHROUD	38-30-00
TANK – TOILET	1	4	LAVATORY	38-32-01
TIMER – FLUSH, (S2)	1	4	LAVATORY TOILET TANK	38-32-09
VALVE – RINSE/FILL LINE SHUTOFF, (V1)	1	4	LAVATORY TOILET TANK	38-32-03
VALVE – TOILET TANK DRAIN	1	4	LAVATORY TOILET TANK	38-32-02

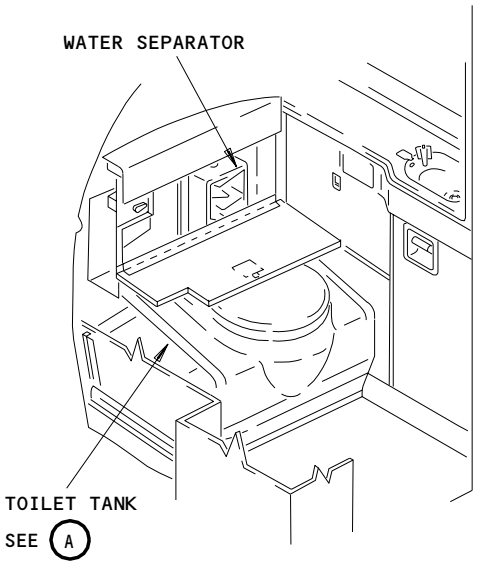
* SEE THE WDM EQUIPMENT LIST

1 NOT ALL AIRPLANES

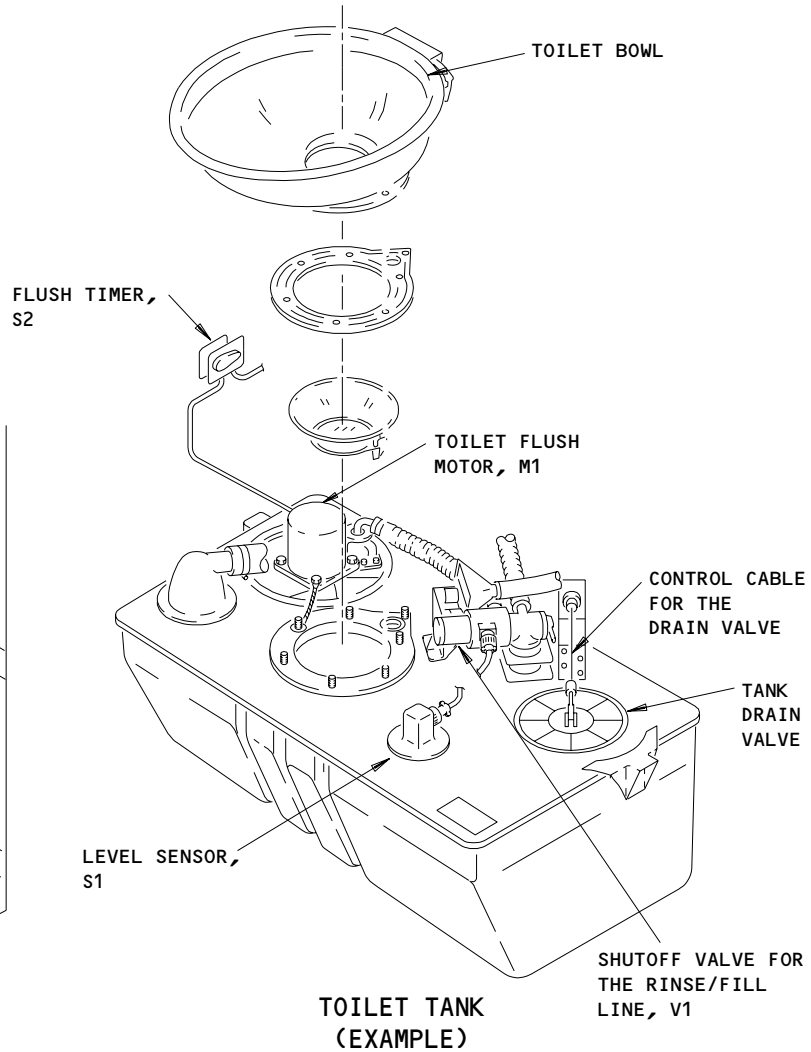
Waste Disposal – Component Index
Figure 101



FLIGHT COMPARTMENT

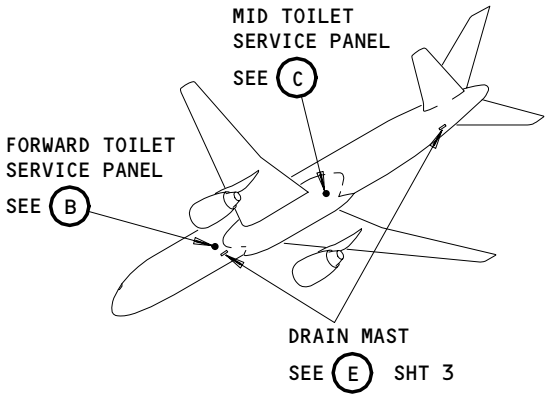


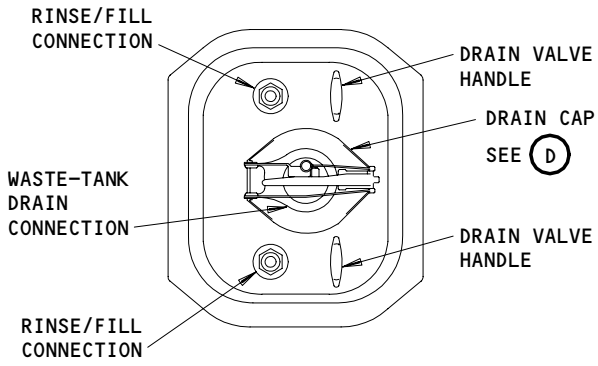
LAVATORY COMPARTMENT
(EXAMPLE)



TOILET TANK
(EXAMPLE)
(A)

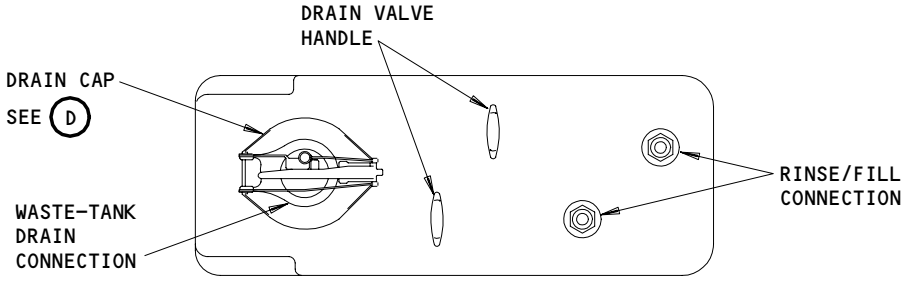
Waste Disposal – Component Location
Figure 102 (Sheet 1)





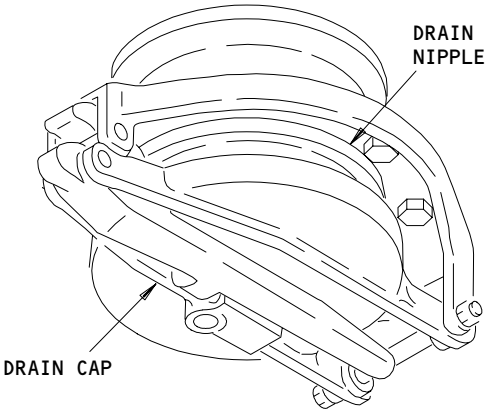
FORWARD TOILET SERVICE PANEL

B



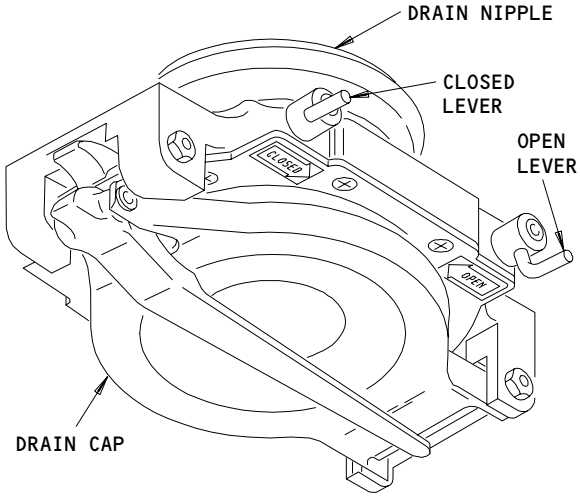
MID TOILET SERVICE PANEL

C



DRAIN CAP

D 1



DRAIN CAP

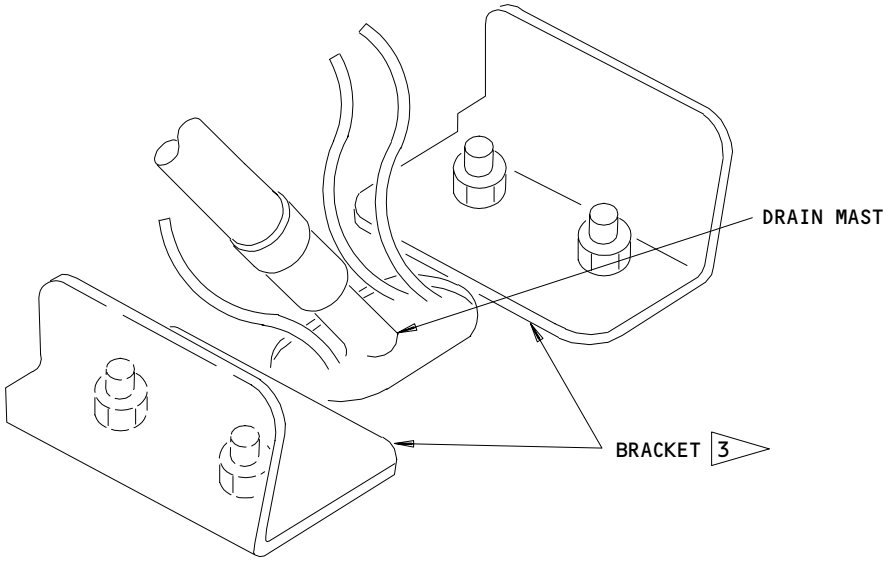
D 2

1 AIRPLANES WITH DRAIN CAP AND DRAIN PLUG

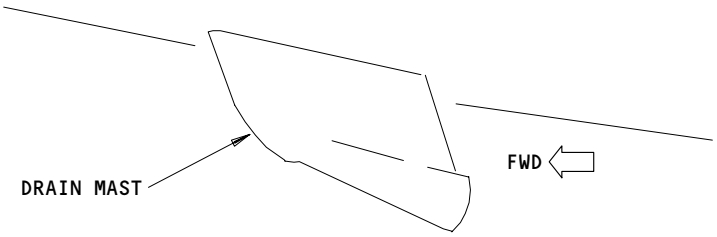
2 AIRPLANES WITH DRAIN CAPS WITH OPEN/CLOSE LEVERS

Waste Disposal - Component Location
Figure 102 (Sheet 2)

A78747



DRAIN MAST
(INSIDE AIRPLANE VIEW)
E



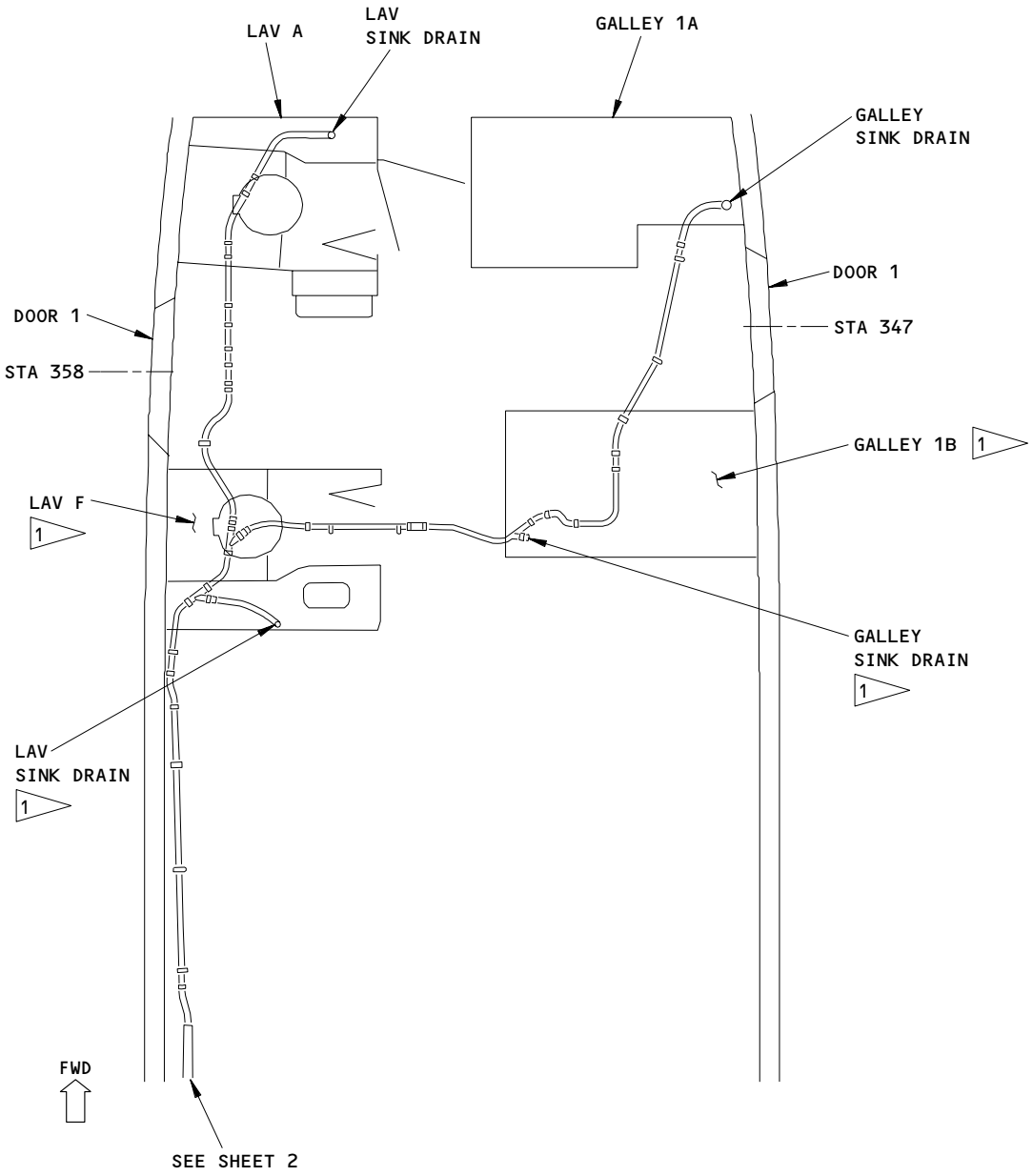
DRAIN MAST
(OUTSIDE AIRPLANE VIEW)
E

3 NOT ON THE FORWARD DRAIN MAST

Waste Disposal - Component Location (Detail from Sht 2)
Figure 102 (Sheet 3)

WASTE WATER SYSTEM - DESCRIPTION AND OPERATION

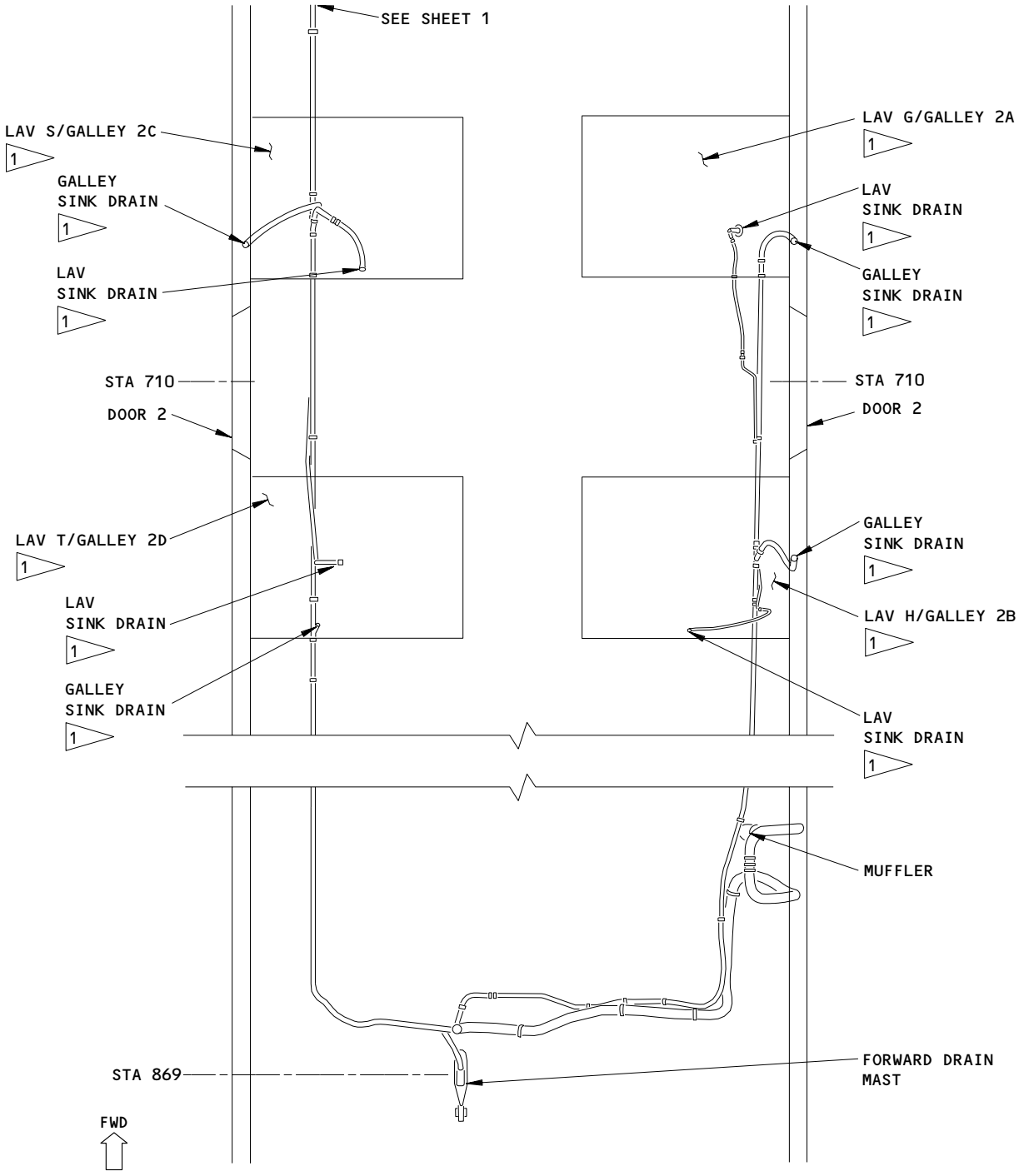
1. General
   A. Waste water is gathered from the lavatory compartment washbasins and the galley sinks, and from the floor gutter drains at the door sills and the galley areas. Two separate systems are designed to direct this waste water overboard. The Gray Water system drains the lav and galley sinks, while the Floor Drain system drains the door sill and galley floor gutters.
      (1) The gray water system gathers the waste water from the lavatory compartment washbasins and galley sinks, and directs the water overboard through drain masts. Included in the gray water system is the tubing leading from the galley sink drains and lavatory washbasins to either of the two drain masts on the underside of the airplane, and also the sink drain mufflers installed in the overflow line of each washbasin. The sink drain muffler reduces the noise level of the air drawn through the system by differential pressure at the drain masts. The drain masts and the tubing outside of the pressurized compartments leading to the drain masts are electrically heated to prevent freezing (AMM 30-71-00/001). Heated cabin air, drawn through the drain system through the galley sink drains and the washbasin overflow lines, warms the lines to the drain masts to prevent waste water from freezing in the lines. The forward drain mast is located at Sta 869 and the aft drain mast is located at STA 1172 (AMM 38-31-01/401).
      (2) The floor drain system drains water from the galley, entry and service door areas that have sill drain gutters. The water from the drain gutters goes through the drain tubes and into one of three sill drain bladders. The bladders keep the water in storage when the airplane is in flight, and empty when the airplane is on the ground. There is a door sill bladder at each of the door #1, door #2 and door #4 areas. Each bladder is located on the bottom centerline of the airplane, adjacent to the skin (AMM 38-31-02/401).
2. Drain Mast
   A. Each of the drain systems terminates in an electrically heated drain mast through which waste water from the galley sink and lavatory washbasins is dumped overboard. The drain masts are located on the underside of the fuselage, one forward and one aft. Drain masts are designed to draw waste water out of the system while airplane is in flight.
3. Door Drain Bladder (Fig. 2)
   A. Each of the drains for the floor areas terminates at a bladder for the door 1, door 2 and door 4 areas. The bladders are located at the centerline of the fuselage, one for the door 1 doors, one for the door 2 doors, and one for the door 4 doors. The bladders store the water that comes from the floor drains while the airplane is in the air. When the airplane is on the ground, and the cabin differential pressure is less than 0.25 psid, the bladder drain valve is open. The bladder drains overboard through a fitting on the bottom of the airplane. After takeoff, when the airplane cabin pressure increases to two to five psid, the valve in the bottom of the drain bladder closes. This keeps the water in the bladder during flight.



DOOR 1
(EXAMPLE)

1 VARIABLE CONFIGURATIONS, AS INSTALLED.

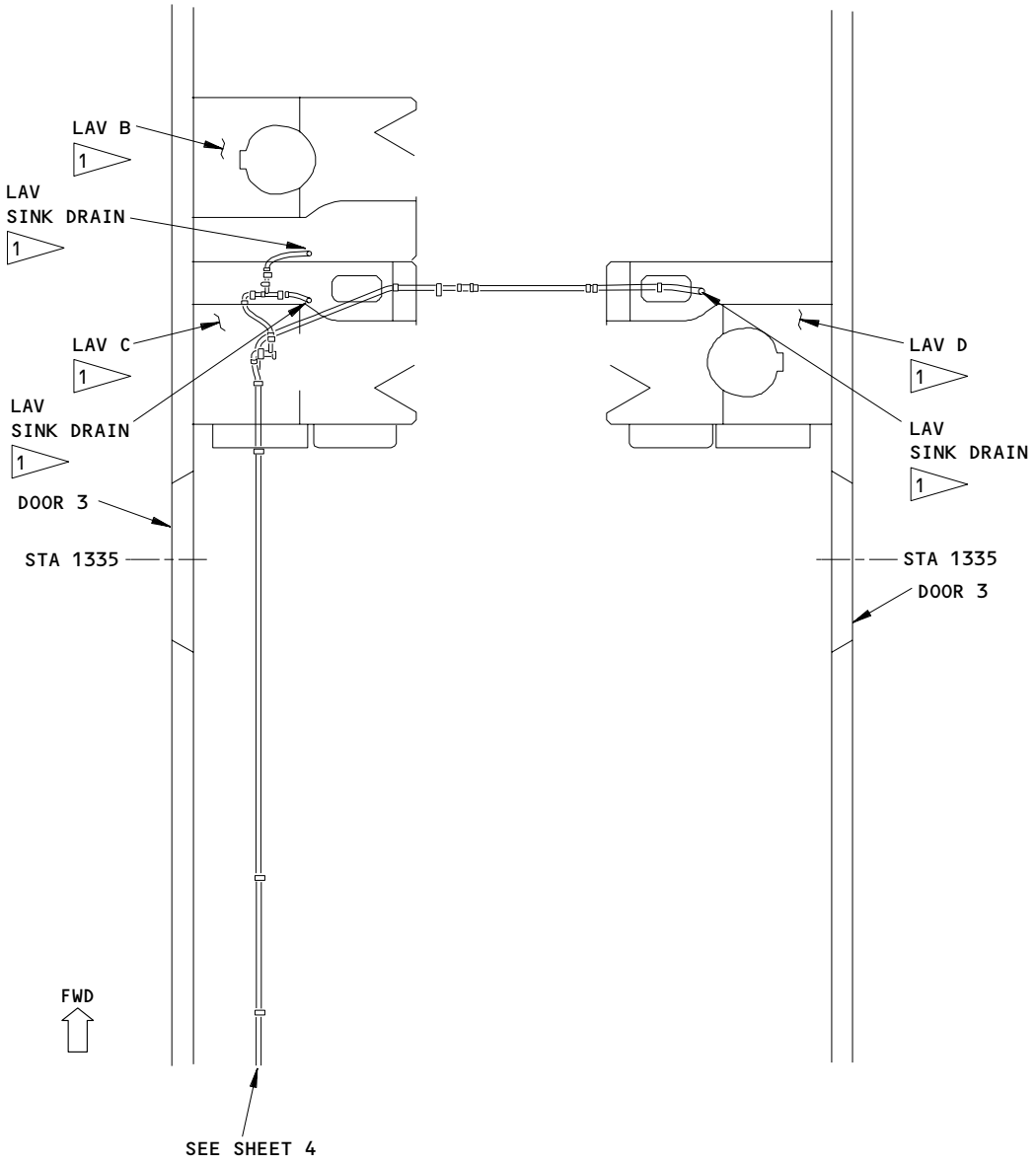
Gray Water Drain - Component Location
Figure 1 (Sheet 1)



DOOR 2
(EXAMPLE)

Gray Water Drain – Component Location
Figure 1 (Sheet 2)

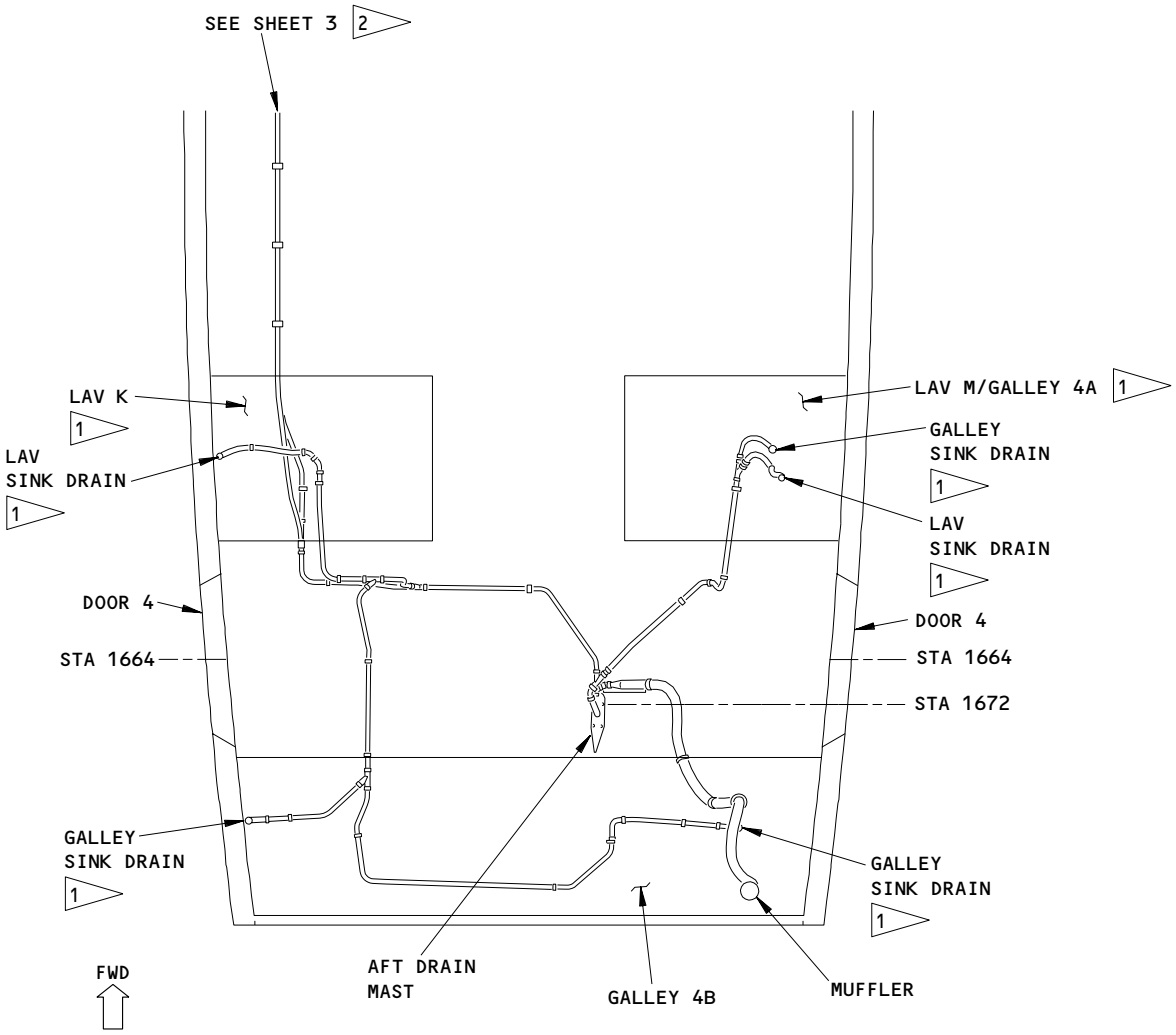
F44574



DOOR 3 2
(EXAMPLE)

2 FOUR DOOR (4 DOOR) AIRPLANES ONLY.

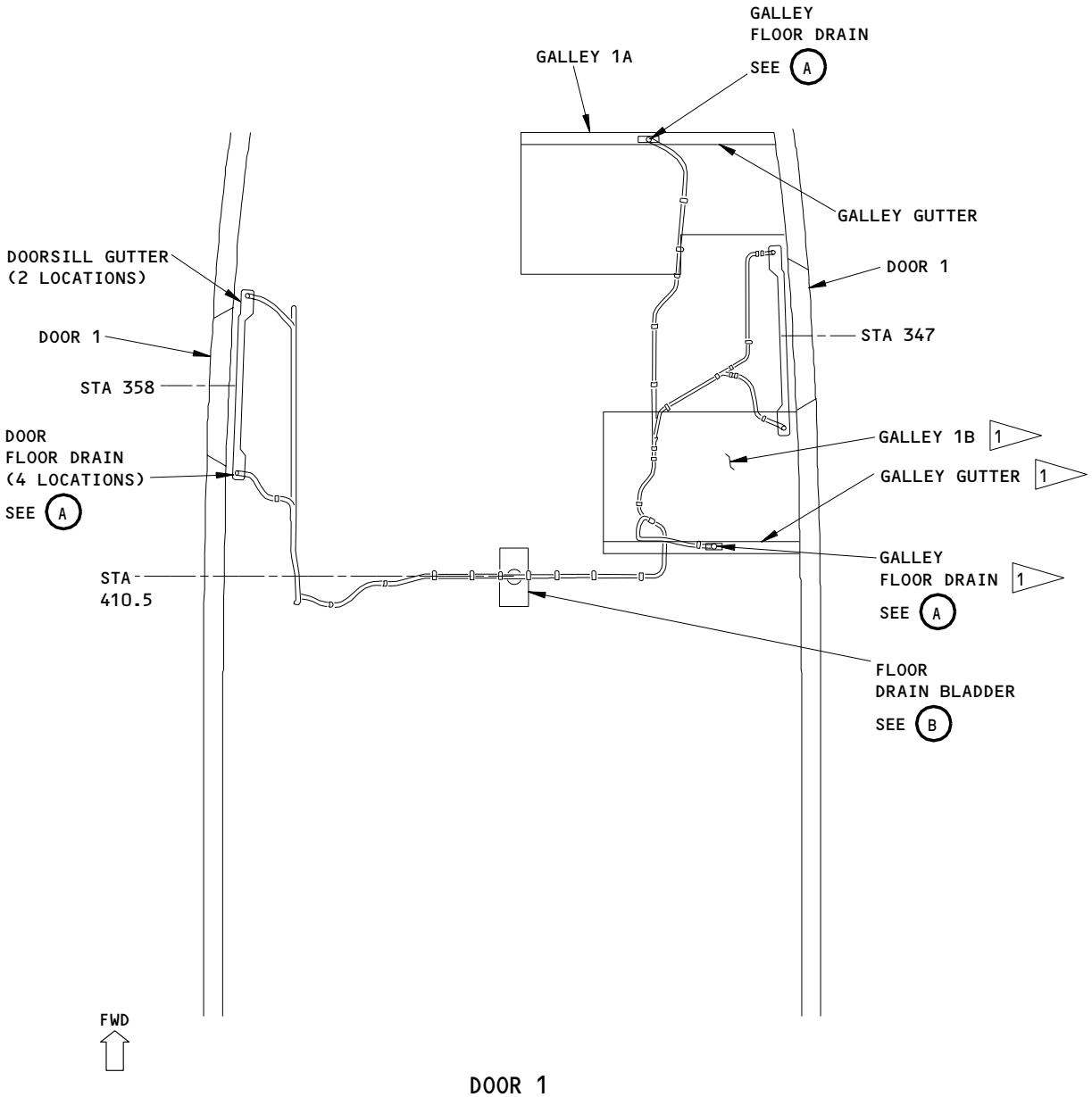
Gray Water Drain - Component Location
Figure 1 (Sheet 3)



DOOR 4
(EXAMPLE)

Gray Water Drain – Component Location
Figure 1 (Sheet 4)

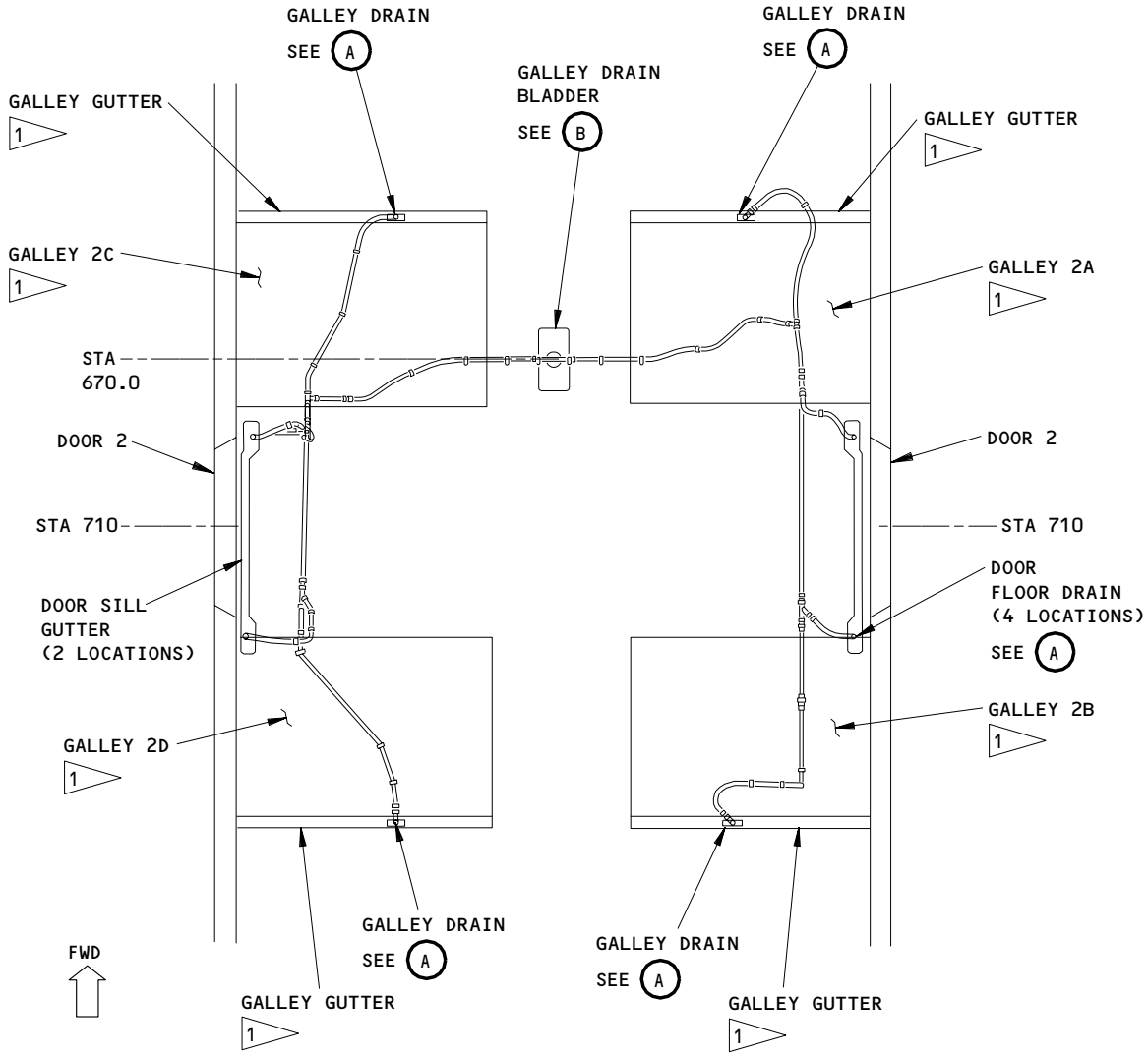
L32777



DOOR 1
(EXAMPLE)

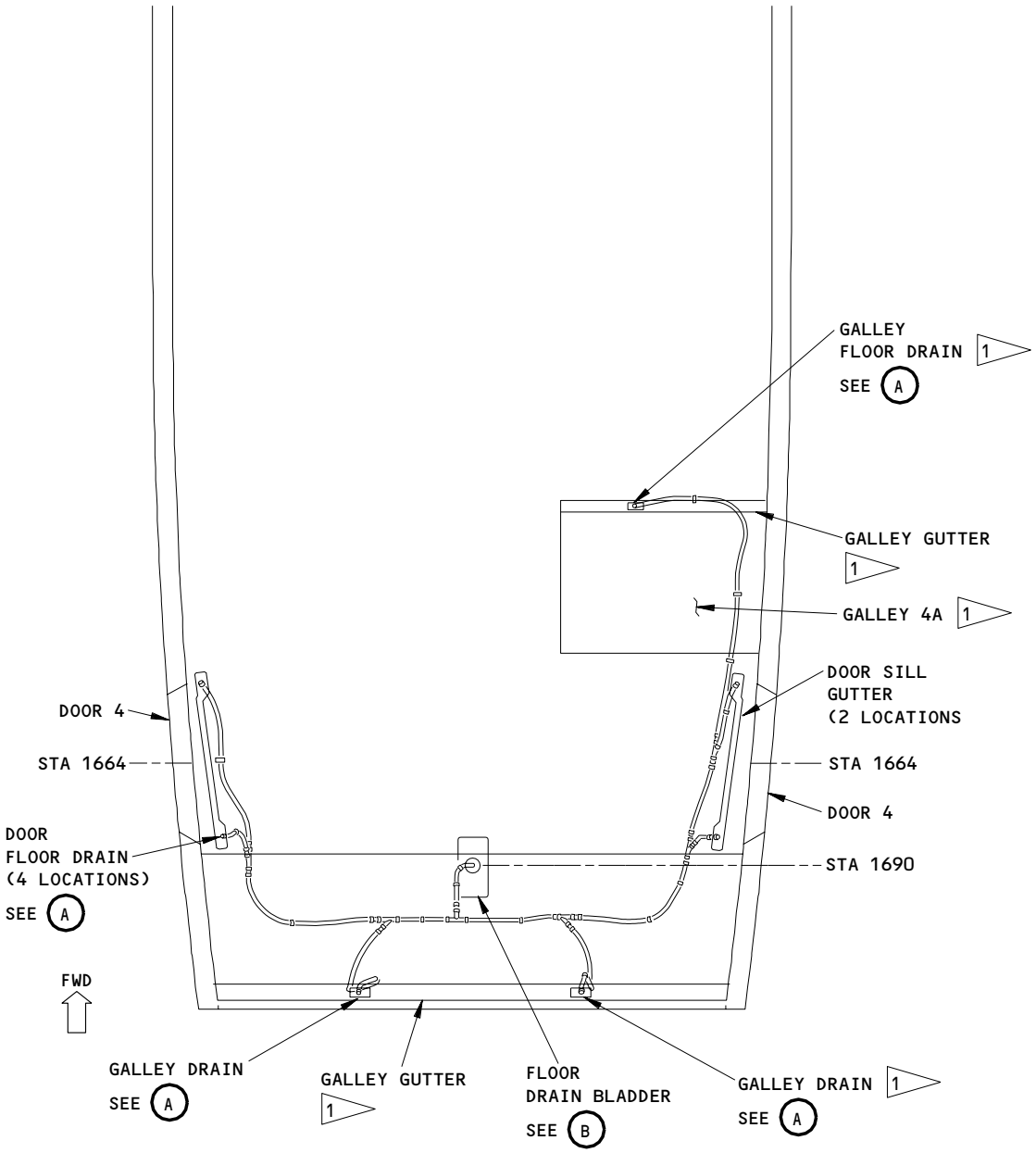
1 VARIABLE CONFIGURATIONS, AS INSTALLED.

Floor Drain - Component Location
Figure 2 (Sheet 1)



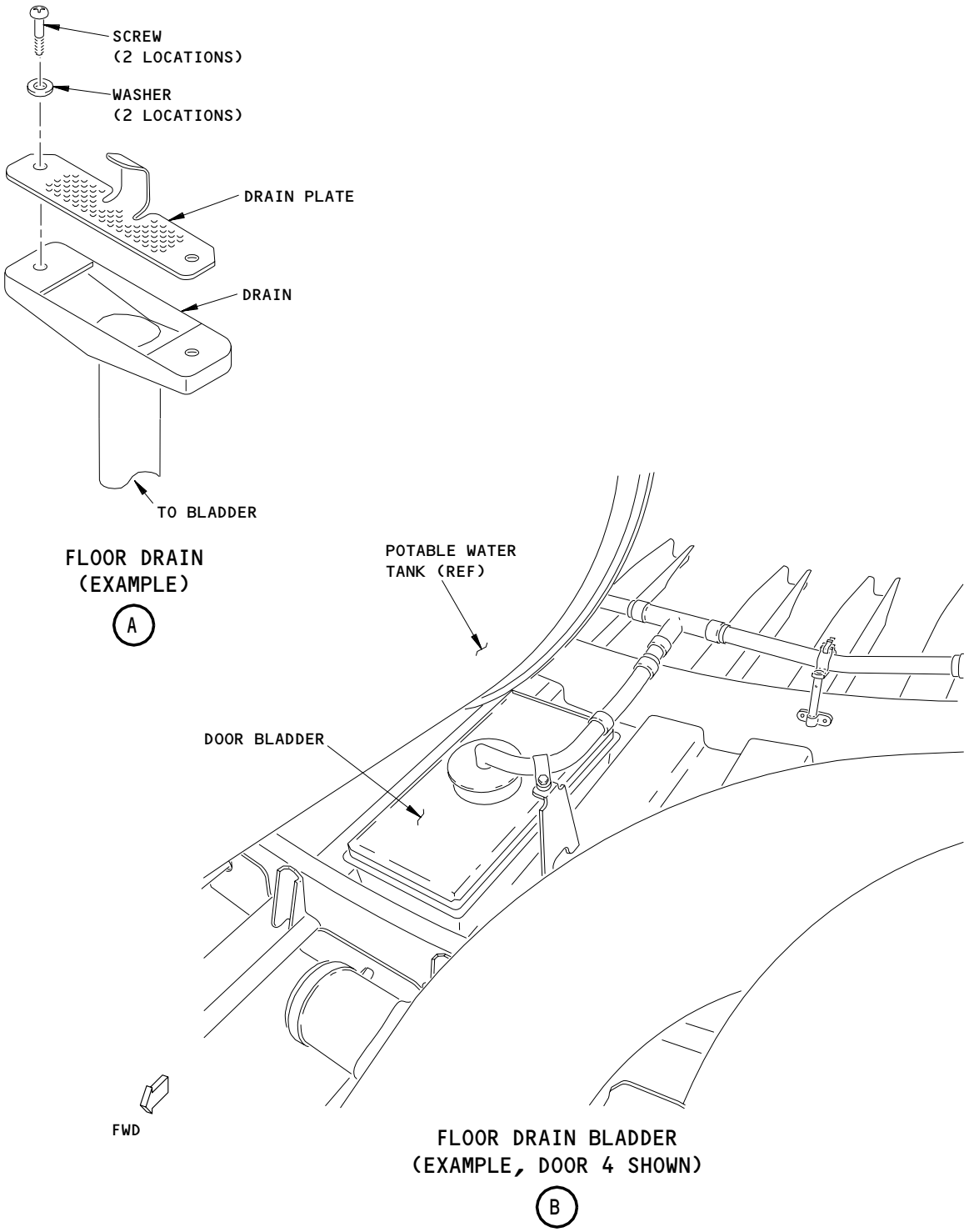
DOOR 2
(EXAMPLE)

Floor Drain - Component Location
Figure 2 (Sheet 2)



DOOR 4
(EXAMPLE)

Floor Drain – Component Location
Figure 2 (Sheet 3)



Floor Drain - Component Location
Figure 2 (Sheet 4)

4. Sink Drain Muffler
   A. The washbasin overflow line, having no stopper, is open overboard through the drain mast. To prevent noises resulting from an excessive flow of air down the drain lines, a muffler is installed in the waste water line.
5. Sink Drain Stopper
   A. There is a stopper in the wash basin bowl that will let the water drain if it is open. If the stopper is closed the water cannot drain from the wash basin. An actuator is mounted in the faucet assembly. The actuator operates the stopper with an actuator arm. Push the actuator down to open the drain line. Pull the actuator up to close the drain line. To remove the stopper, push the actuator down and turn the basin stopper 1/4 turn, and then lift the stopper up.
6. Operation
   A. Functional Description
      (1) The waste water that comes from the galley sinks and floor drains is moved overboard by gravity and the difference in cabin and ambient pressures. The galley sinks are not stoppered, therefore there is a constant flow of air through the drain system overboard through the drain masts.
      (2) The waste water system operation depends on gravity flow of water assisted by airflow due to the differential pressure existing between the pressurized cabin and the exhaust end of the drain mast. The lavatory washbasin stoppers are spring-loaded to the closed position to reduce cabin pressure loss. When the stopper plunger (between the faucets) is pressed by hand, the basin stopper is raised to allow waste water to flow down the drain. When all waste water has passed down the drain, the plunger is released and the stopper returns to the closed position. The washbasin overflow line is not stoppered, therefore, there is a constant flow of air through the drain system overboard through the drain masts. A drain muffler, just upstream of the drain mast connection, reduces the noise level resulting from the flow of air through the drain. The flow of warm cabin air through the drain system and heated drain hoses in some critically cold areas warms the lines to prevent water freezing.

WASTE WATER SYSTEM - MAINTENANCE PRACTICES

1. General
   A. This procedure gives the steps to make a clogged drain line clear.
   B. The lavatory and galley drain lines get clogged when material other than water is put in the drains. Only use the drains for water.

TASK 38-31-00-102-001

2. Make the Drain Line Clear
   A. General
      (1) Use one or more of the procedures that follow to make a clogged drain line clear.
          (a) Start with procedure 1 if the drain line has a strainer (filter).
          (b) Procedures 2, 3, 4, and 6 are best for small blockages.
          (c) Procedure 5 is best for large blockages.
   B. Equipment
      (1) Flexible rotating cable (refered to as a snake), Commercially Available
      (2) Plug Equipment - Waste Water Drain Mast, C38001-1 (Preferred)
      (3) Plug Equipment - Waste Water Drain Mast, A38011-2 (Alternate)
   C. Consumable Materials
      (1) B00126 Cleaner - Alkaline (Turco Altrex 24)
      (2) B50113 - Acid, Acetic (10 percent, 100 grain)
   D. References
      (1) 30-71-01/401, Water Supply and Drain Line Heater Tapes
   E. Access
      (1) Location Zones
          100 Lower Half of Fuselage
          200 Upper Half of Fuselage

   F. Procedure 1 (For Drain Lines with Strainers)

      S 022-002
      (1) Remove the strainer (filter) from below the sink.

      S 212-003
      (2) Make sure the strainer is not clogged.

S 212-004
(3) Make sure the drain line upstream of the strainer is not clogged.

S 102-005
(4) If you did not find the blockage, use procedure 2, 3, 4, or 5. Do procedure 2, 3, 4, or 5 at the end of the drain line below the strainer, not at the drain in the sink.

G. Procedure 2

S 032-006
(1) Put a plug in all the drains that are connected to the drain that is to be made clear.

S 172-007
(2) If the drain line has a strainer, pressurize the drain line downstream of the strainer with water (do not use more than 35 psi pressure).

S 172-008
(3) If the drain line does not have a strainer, pressurize the drain line with water (do not use more than 35 psi pressure).

S 432-009
(4) Remove the plugs from the other drains.

H. Procedure 3

S 142-010

CAUTION: DO NOT PUSH WITH TOO MUCH FORCE ON THE SNAKE. IF YOU PUSH WITH TOO MUCH FORCE ON THE SNAKE YOU CAN DAMAGE THE DRAIN LINE.

(1) Use a flexible cable (refered to as a snake) to make the drain line clear.

NOTE: If the drain line has a strainer, put the snake in the drain line downstream of the strainer.

I. Procedure 4 (Main Gray Water Waste System - from galley and lav sinks)

S 862-057

(1) The Gray Water system drains the lavatory washbasins and the galley sinks, and exits out one of the drain masts on the outside of the fuselage.

S 862-090

(2) Open the C4367 GND - DRAIN MAST HTR circuit breaker on the APU external power panel, P34, and attach a DO-NOT-CLOSE tag.

S 482-073

WARNING: DO NOT TOUCH THE DRAIN MASTS UNTIL THEY HAVE COOLED. DRAIN MASTS GET VERY HOT, AND CAN INJURE PERSONS OR DAMAGE THE EQUIPMENt.

(3) Put the C3800-1 plug (preferred), the A38011-2 plug (alternate), or an equivalent plug, on the drain mast.

S 112-019

WARNING: OBEY THE VENDOR SAFETY PROCEDURES FOR THE ALKALINE CLEANER. IF IT GETS ON YOUR SKIN OR EYES IT CAN CAUSE IRRITATION OR BURNS.

CAUTION: DO NOT GET THE SOLUTION ON THE AIRPLANE OR IN THE STRAINERS FOR THE DRAIN LINES. IT CAN CAUSE CORROSION.

(4) Use a cleaner, Turco Altrex 24 or 10% (100 grain) Acetic Acid, to remove blockage from the drain line.

NOTE: Turco Altrex 24 is a stronger solution than Acetic Acid. It is the best for organic clogs. The acetic acid is the best for scale or lime clogs.

NOTE: Do not use the two cleaners at the same time.

S 112-015

(5) If you use the Turco Altrex 24 solution, mix 8 fl-oz. (237 cc) of the Turco Altrex 24, for each 1 gal (4 l) of hot water.

NOTE: Make 1 to 2 gallons of the Turco Altrex 24 solution.

S 112-017

(6) If you use acetic acid, use it full strength and do these steps:
(a) Put 1 to 2 gallons of the acetic acid in a container.

(b) Heat the acetic acid to approximately 160°F (71°C).

S 112-101
(7) If the drain line has a strainer, put the drain cleaner solution in the drain line downstream of the strainer.

S 112-021
(8) Add the cleaner through the most forward galley sink or lavatory wash basin, as applicable.

NOTE: This is to prevent the cleaner from overflowing into the most forward galley sinks or lavatory washbasins, and possibly spilling, when the airplane is nose down.

S 202-022
(9) Make sure there are no leaks from the drain masts.

S 112-023
(10) Stop for 1 hour to permit the drain cleaner solution to remove blockage from the drain line.

S 082-024

WARNING: MAKE SURE YOU WEAR A FACE SHIELD, GLOVES AND AN APRON. DRAIN FLUID IS TOXIC. IF IT TOUCHES YOUR SKIN IT CAN CAUSE INJURY.

(11) Open the valve on the C3800-1 drain mast plug, or remove the drain mast plug, as applicable.

NOTE: Be prepared for the drain fluid to come out fast.

S 112-039
(12) Drain the system fully.

S 112-038
(13) Flush the system with clean water.

S 082-098
(14) Remove the drain mast plug, as necessary.

S 862-095
(15) Close the C4367 GND - DRAIN MAST HTR circuit breaker on the APU external power panel, P34, and remove the DO-NOT-CLOSE tag.

J. Procedure 5

S 162-012
(1) Do the steps that follow to remove the section of the drain line that you think is clogged.

NOTE: You will usually find the blockage at one of these locations:
- The first elbow fitting below the sink.
- The drain lines near the drain mast.
- The "Y" fittings where the drain lines connect together.

(a) If the drain line has heater tape on it, open the applicable circuit breaker and remove the heater tape as necessary (Ref 30-71-01).
(b) Remove the fasteners and clamps for the drain line.
(c) Remove the drain line.
(d) Blow the blockage out of the drain line with air.
(e) Clean the drain line with the alkaline cleaner.
(f) Install the drain line.
(g) Install the heater tape, on the drain line, if it was removed (Ref 30-71-01).

K. Procedure 6 (Floor Drain System)

S 112-028
(1) Use a suitable cleaner, Altrex solution or 10% (100 grain) Acetic Acid, to remove blockage from the drain line.

NOTE: Altrex is the stronger cleaner, and is most effective on organic clogs. The acetic acid works best on scale or lime clogs.

NOTE: Do not use both cleaners at the same time.

S 112-029
(2) If you use the Altrex solution, mix 8 ounces of the Altrex for each gallon of hot water.

S 112-030
(3) If you use the 10% (100 grain) acetic acid, use it at full strength. Make sure you heat the solution to 160 degrees F (71 degrees C).

S 482-031
(4) Put a suitable plug in the floor drain outlet at the skin of the airplane.

S 112-032

CAUTION: DO NOT GET THE DRAIN CLEANER SOLUTION ON THE AIRPLANE. THE DRAIN CLEANER SOLUTION ON THE SURFACES AROUND THE DRAINS CAN CAUSE CORROSION.

(5) Put a sufficient quantity of the drain cleaner solution in the floor drains.

S 112-034
(6) Make sure there are no leaks.

S 112-035
(7) Stop for 1 hour to permit the drain cleaner solution to remove blockage from the drain line.

S 082-036

WARNING: MAKE SURE YOU WEAR A FACE SHIELD, GLOVES AND AN APRON. DRAIN FLUID IS TOXIC. IF IT TOUCHES YOUR SKIN IT CAN CAUSE INJURY.

(8) Remove the plug.

S 682-055
(9) Use a suitable blunt object to release the drain valve in the skin port.

S 112-025
(10) Make sure the floor drain system is fully drained.

S 112-037
(11) Flush the floor drain system with clean water.

L. Put the Airplane Back to Its Usual Condition.

S 422-013
(1) If the drain line has a strainer, install the strainer in the drain line.

DRAIN MAST - REMOVAL/INSTALLATION

1. General
   A. This procedure gives the instructions to remove and install the forward and aft drain masts. The drain masts drain the water from the lavatory sinks and the galley sinks.

TASK 38-31-01-004-029

2. Remove the Drain Mast (Fig. 401)
   A. References
      (1) AMM 06-41-00/201, Fuselage Access Doors and Panels
      (2) AMM 06-46-00/201, Entry, Service and Cargo Doors
      (3) AMM 25-50-03/401, Bulkhead Lining
      (4) AMM 30-71-01/401, Water Supply and Drain Line Heater Tapes
   B. Access
      (1) Location Zones
          125 Area Aft of Forward Cargo Compartment (Left)
          166 Area Aft of Bulk Cargo Compartment (Right)

      (2) Access Panels
          193CL Water/Waste Drain Mast
          822 No. 2 Cargo Door

   C. Procedure

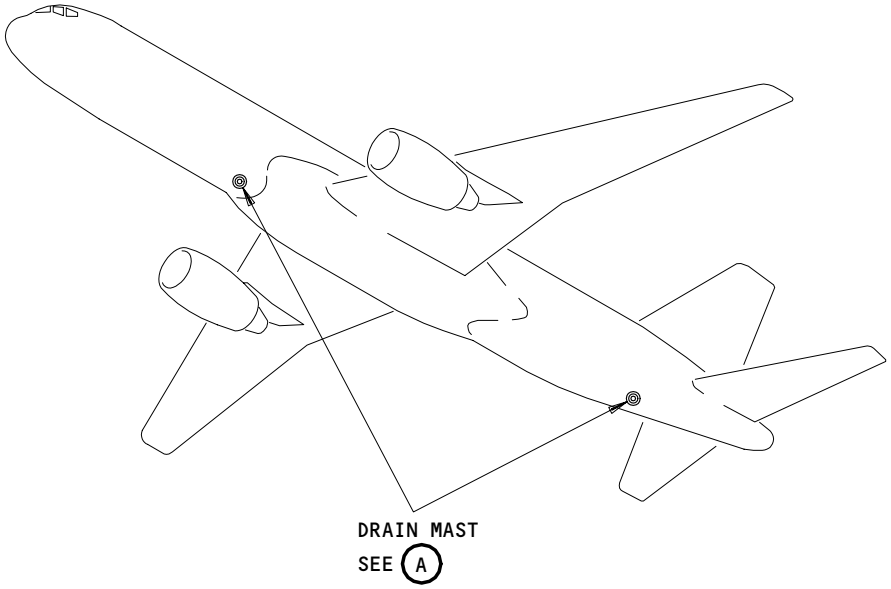
      S 864-002
      (1) Open the applicable DRAIN MAST circuit breaker on the APU external power panel, P34, row B and attach a DO-NOT-CLOSE tag.

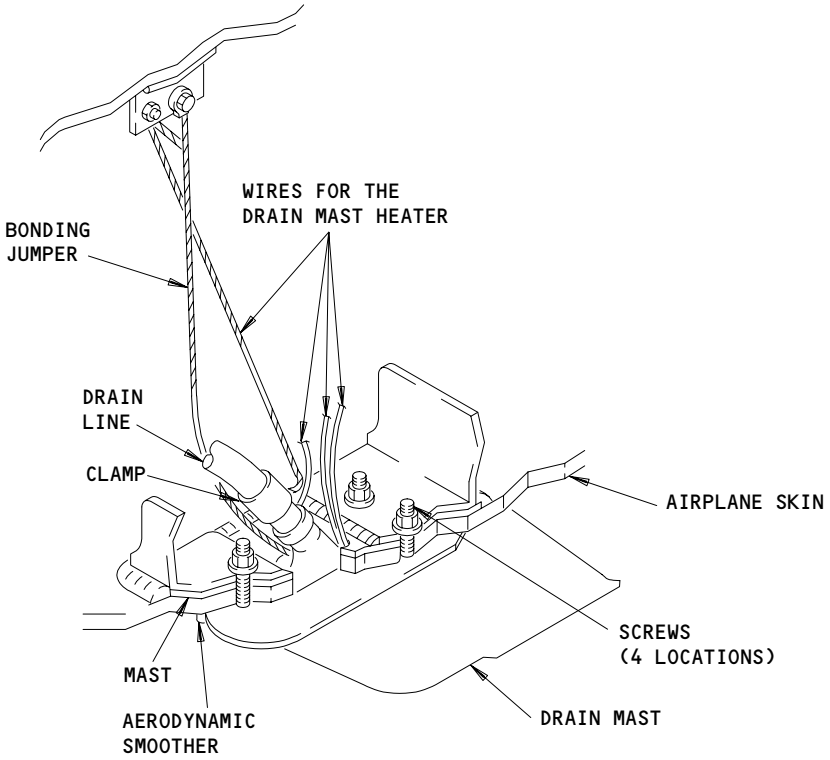
      S 014-003
      (2) Do these steps to get access to the aft drain mast:
          (a) Open the No. 2 cargo door (Ref 06-46-00).
          (b) Remove the aft right bulkhead lining from the bulk cargo compartment (Ref 25-50-03).
          (c) Remove the insulation that is approximately 5 feet forward of the pressure bulkhead and 2 feet right of the airplane centerline.

      S 014-004
      (3) Do this step to get access to the forward drain mast.
          (a) Open the water/waste access panel, 193CL (AMM 06-41-00/201).

      S 034-005
      (4) Disconnect the bonding jumper.

      S 034-006
      (5) Remove the ribbon heater, from the drain line, to get to the hose clamp (Ref 30-71-01).





DRAIN MAST

A

Drain Mast Installation
Figure 401

S 034-007
(6) Disconnect the drain line from the drain mast.

S 034-008
(7) Disconnect the wires for the drain mast heater.

S 024-009
(8) From the outboard side of the airplane, remove the screws that attach the drain mast to the airplane.

S 024-010
(9) Remove the drain mast from the airplane.

TASK 38-31-01-404-011

3. Install the Drain Mast (Fig. 401)

A. Consumable Materials
(1) A50067 - Adhesive - Silicone Rubber - RTV 102 (BAC 5010 Type 60) (Recommended).
(2) A00027 Sealant - G.E. RTV 174 (Alternate)

B. References
(1) AMM 06-41-00/201, Fuselage Access Doors and Panels
(2) AMM 06-46-00/201, Entry, Service and Cargo Doors
(3) AMM 20-10-21/401, Electrical Bonding
(4) AMM 24-22-00/201, Electrical Power - Control
(5) AMM 25-50-03/401, Bulkhead Lining
(6) AMM 30-71-01/401, Water Supply and Drain Line Heater Tapes
(7) AMM 51-31-01/201, Seals and Sealing

C. Access
(1) Location Zones
125 Area Aft of Forward Cargo Compartment (Left)
166 Area Aft of Bulk Cargo Compartment (Right)

(2) Access Panels
193CL Water/Waste Drain Mast
822 No. 2 Cargo Door

D. Procedure

S 424-012
(1) From the outboard side of the airplane, put the drain mast in its position and install the screws.
(a) AIRPLANES WITH ALUMINUM DRAIN MAST ASSEMBLY;
Tighten the screws to a torque of 45-50 in-lbs (5.08-5.65 N-m).

(b) AIRPLANES WITH COMPOSITE DRAIN MAST ASSEMBLY;
Do these steps:
1) Electrically bond the screws wet between the exposed area around the mounting bolts and airframe (AMM 20-10-21/401).
2) Tighten the screws to a torque of 50 +/- 2 in-lbs (5.65 +/- 0.23 N-m). Tighten opposite mounting screws in an alternate pattern. Initially snug up, then tighten to 50% of full torque, and finally tighten to full torque.

S 764-039
(2) AIRPLANES WITH COMPOSITE DRAN MAST ASSEMBLY;
Do an electrical conductivity test of the drain mast:
(a) Check that electrical resistance between the exposed area around the mounting screws on the mast and the structure of the airplane does not exceed 300,000 ohms.

S 394-016
(3) Make a pressure fillet seal around the drain mast (AMM 51-31-01/201).

S 394-017
(4) Seal the screws (AMM 51-31-01/201).

S 434-014
(5) Connect the drain line to the drain mast.

S 434-018
(6) Install the hose clamp on the drain line.

S 434-015
(7) Connect the bonding jumper.

S 434-013
(8) Connect the wires for the drain mast heater.

S 434-019
(9) Install the ribbon heater (AMM 30-71-01/401).

S 434-021
(10) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the APU external power panel, P34:
(a) 34B3(B), DRAIN MAST HTR GND

S 864-022
(11) Supply electrical power (AMM 24-22-00/201).

S 714-023
(12) Make sure the drain mast gets warm.

S 414-024
(13) Install the insulation around the drain mast.

S 414-025

WARNING: OBEY THE INSTRUCTIONS IN THE CARGO LINING INSTALLATION PROCEDURE. INCORRECT INSTALLATION OF THE CARGO LINING CAN LET THE FIRE EXTINGUISHING AGENT OR SMOKE OUT OF THE CARGO COMPARTMENT DURING A FIRE.

(14) Install the aft bulkhead lining (AMM 25-50-03/401).

S 414-026
(15) If you installed the forward drain mast, close the 193CL panel door (AMM 06-41-00/201).

S 414-027
(16) If you installed the aft drain mast, close the No. 2 cargo door (AMM 06-46-00/201).

S 864-028
(17) Remove electrical power if it is not necessary (AMM 24-22-00/201).

SILL DRAIN BLADDER - REMOVAL/INSTALLATION

1. General
   A. This procedure has these six tasks:
      (1) A removal of the Door #1 sill drain bladder assembly.
      (2) An installation of the Door #1 sill drain bladder assembly.
      (3) A removal of the Door #2 sill drain bladder assembly.
      (4) An installation of the Door #2 sill drain bladder assembly.
      (5) A removal of the Door #4 sill drain bladder assembly.
      (6) An installation of the Door #4 sill drain bladder assembly.

   TASK 38-31-02-004-001

2. Door #1 Sill Drain Bladder Assembly Removal (Fig. 401)
   A. References
      (1) AMM 06-46-00/201, Entry, Service and Cargo Doors
      (2) AMM 30-71-01/401, Water Supply and Drain Line Heater Tapes
   B. Access
      (1) Location Zones
          119 Area Below Main Electrical Equipment Center

   C. Prepare for the Removal

      S 014-028
      (1) Get access to the door #1 sill drain bladder assembly, through the main electrical access door, 119BL.
   D. Door #1 Sill Drain Bladder Assembly Removal

      S 024-030
      (1) Loosen the clamps to disconnect the lines from the inlet of the forward drain bladder assembly.

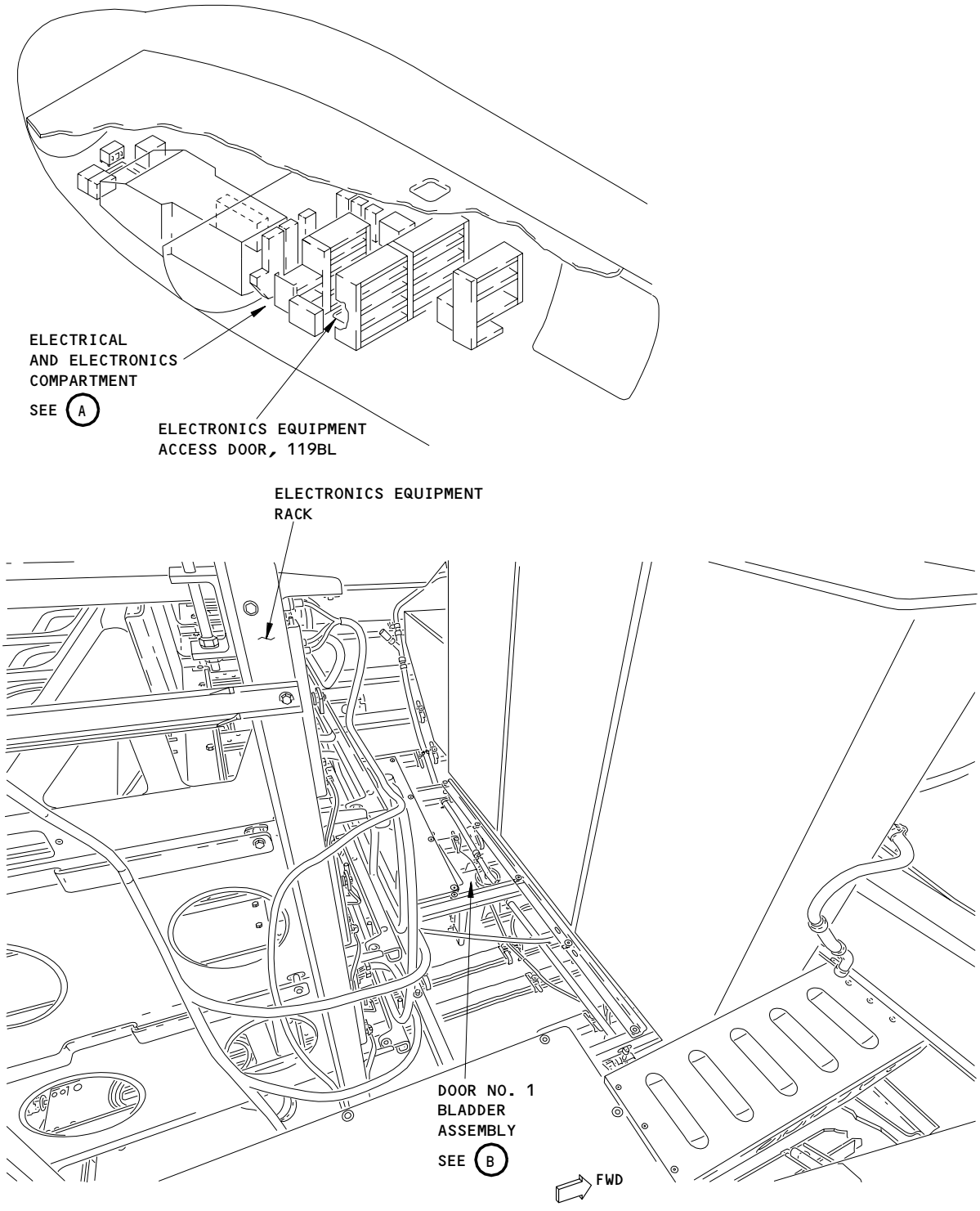
      S 024-032
      (2) Loosen the clamp to remove the cap assembly from the forward drain bladder assembly.

      S 024-033
      (3) Remove the bolts, washers, countersunk washers, and nuts that attach the forward drain bladder assembly to the plate assembly.

      S 024-034
      (4) Remove the door #1 sill drain bladder assembly.

   TASK 38-31-02-404-035

3. Door #1 Sill Drain Bladder Assembly Installation (Fig. 401)
   A. Consumable Materials
      (1) A00027 Adhesive, RTV - BAC 5010, Type 60

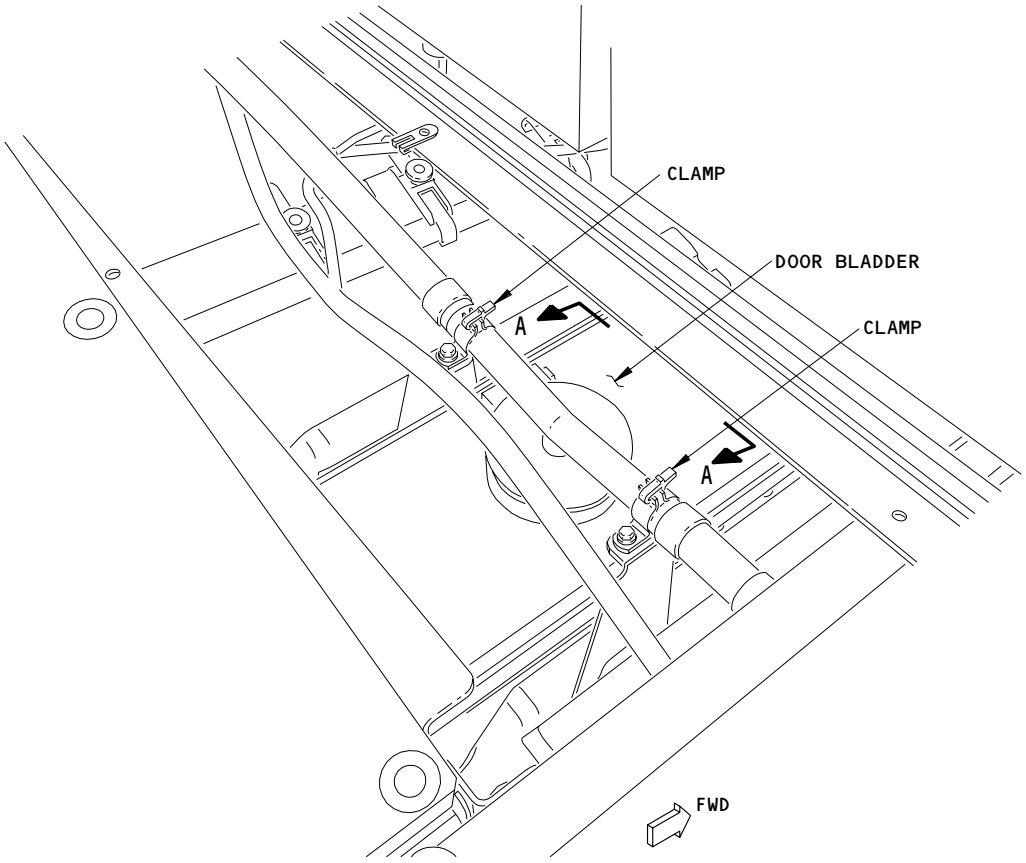


ELECTRICAL AND ELECTRONICS COMPARTMENT

A

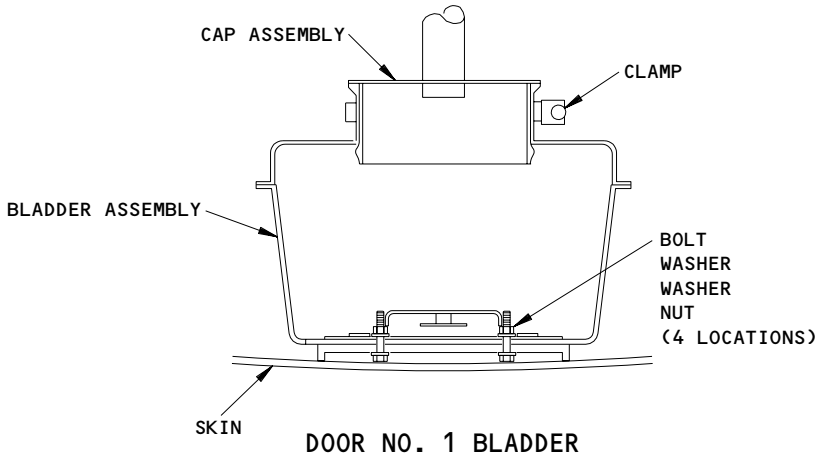
Door No. 1 Bladder Assembly Installation
Figure 401 (Sheet 1)

H45456



DOOR NO. 1 BLADDER ASSEMBLY

B



DOOR NO. 1 BLADDER
A-A

Door No. 1 Bladder Assembly Installation
Figure 401 (Sheet 2)

H45638

B. Access
(1) Location Zones
(a) 119 Area Below Main Electrical Equipment Center
C. Door #1 Sill Drain Bladder Assembly Installation

S 394-038
(1) Apply a fay surface seal with adhesive, BAC 5010, Type 60 between the plate assembly and the Door #1 drain bladder assembly.

NOTE: Do not let the adhesive extend into the drain hole.

S 424-039
(2) Put the door #1 drain bladder assembly in its position on the plate adapter.

S 394-040
(3) Apply a wet seal with adhesive, BAC 5010, Type 60 to the bolts.

S 424-041
(4) Install the bolts, washers, countersunk washers, and nuts.

S 424-042
(5) Install the cap assembly and clamp on the door #1 drain bladder assembly.

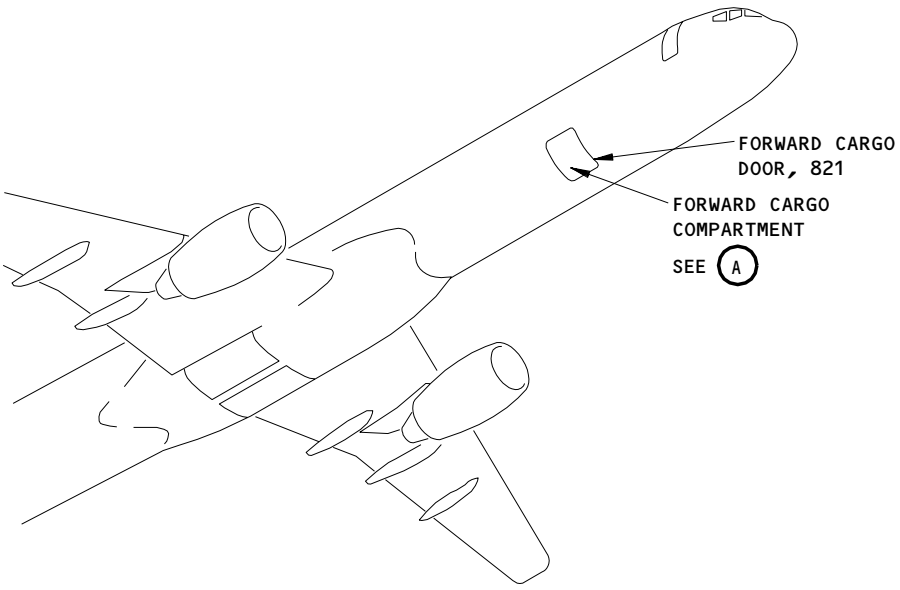
S 424-046
(6) Install the clamps and the drain lines to the inlet of the forward drain bladder assembly.
D. Door #1 Sill Drain Bladder Assembly Installation Test

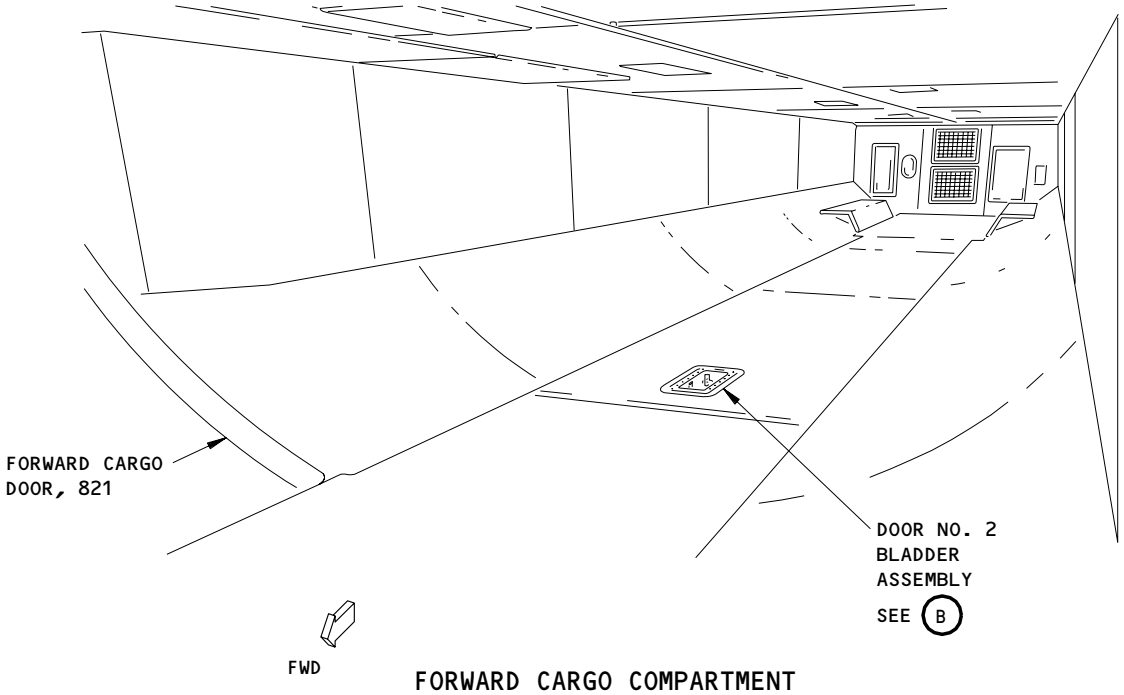
S 864-047
(1) Pour water into the sill drain at the door #1 entry door.

S 714-048
(2) Make sure the water flows to the door #1 sill drain bladder assembly without leakage.
E. Put the Airplane Back to Its Usual Condition

S 414-049
(1) Close the Main Electrical Equipment Access Door, 119BL.

TASK 38-31-02-004-074
4. Door #2 Sill Drain Bladder Assembly Removal (Fig. 402)
A. References
(1) AMM 06-46-00/201, Entry, Service and Cargo Doors



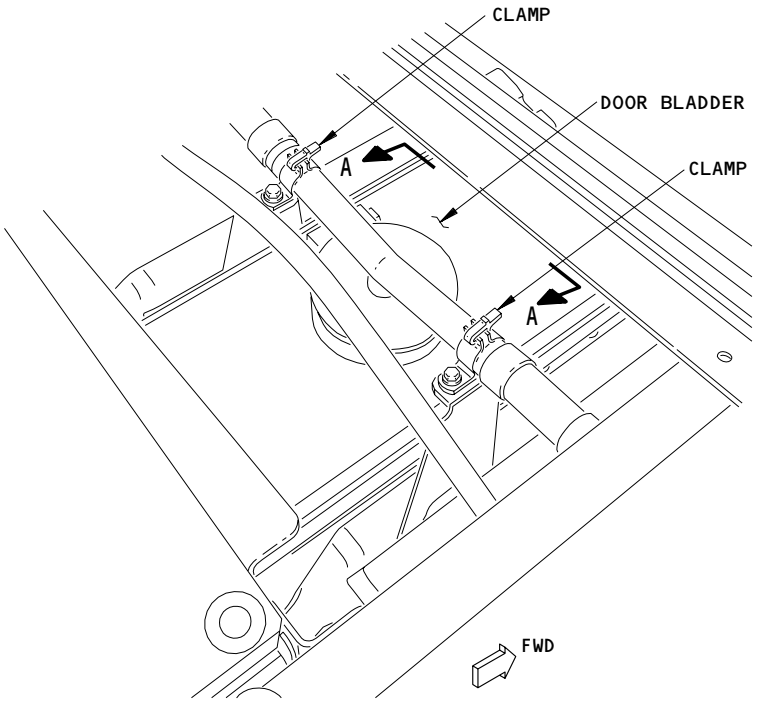


FORWARD CARGO COMPARTMENT

A

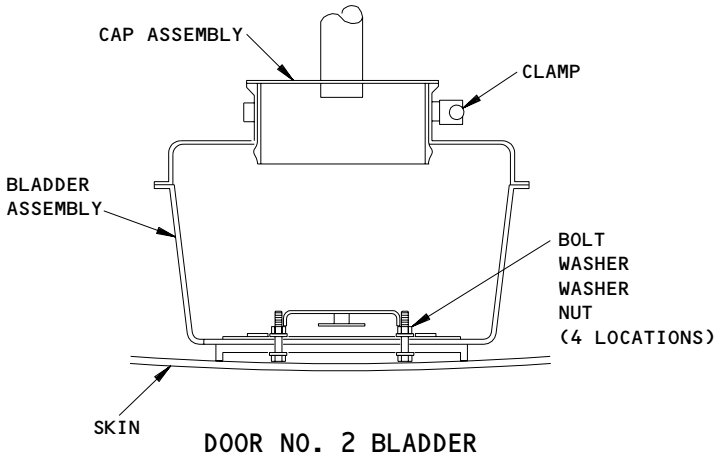
Door No. 2 Bladder Assembly Installation
Figure 402 (Sheet 1)

H45898



DOOR NO. 2 BLADDER ASSEMBLY

(B)



DOOR NO. 2 BLADDER
A-A

Door No. 2 Bladder Assembly Installation
Figure 402 (Sheet 2)

(2) AMM 25-50-04/401, Fwd Cargo Floor
(3) AMM 30-71-01/401, Water Supply and Drain Line Heater Tapes

B. Access
(1) Location Zones
123,124 Area Below Forward Cargo Compartment
821 No. 1 Cargo Door

C. Prepare for the Removal

S 014-075
(1) Open the forward cargo door, 821.

S 014-102
(2) Get access to the door #2 sill drain bladder assembly, (AMM 06-46-00/201).

D. Door #2 Sill Drain Bladder Assembly Removal

S 024-077
(1) Loosen the clamps to disconnect the lines from the inlet of the Door #2 drain bladder assembly.

S 024-079
(2) Loosen the clamp to remove the cap assembly from the Door #2 drain bladder assembly.

S 024-080
(3) Remove the bolts, washers, countersunk washers, and nuts that attach the Door #2 drain bladder assembly to the plate assembly.

TASK 38-31-02-404-082

5. Door #2 Sill Drain Bladder Assembly Installation (Fig. 402)

A. Consumable Materials
(1) A00027 Adhesive, RTV - BAC 5010, Type 60

B. Access
(1) Location Zones
(a) 123,124 Below Fwd Cargo Compartment - Center

C. Door #2 Sill Drain Bladder Assembly Installation

S 394-086
(1) Apply a fay surface seal with adhesive, BAC 5010, Type 60 between the plate assembly and the Door #2 drain bladder assembly.

NOTE: Do not let the adhesive extend into the drain hole.

S 424-087
(2) Put the Door #2 drain bladder assembly in its position on the plate adapter.

S 394-088
(3) Apply a wet seal with adhesive, BAC 5010, Type 60 to the bolts.

S 424-089
(4) Install the bolts, washers, countersunk washers, and nuts.

S 424-090
(5) Install the cap assembly and clamp on the Door #2 drain bladder assembly.

S 424-094
(6) Install the clamps and the drain lines to the inlet of the Door #2 drain bladder assembly.

D. Door #2 Sill Drain Bladder Assembly Installation Test

S 864-095
(1) Pour water into the sill drain at the Door #2 entry door.

S 714-096
(2) Make sure the water flows to the Door #2 sill drain bladder assembly without leakage.

E. Put the Airplane Back to Its Usual Condition

S 414-103

WARNING: OBEY THE INSTRUCTIONS IN THE CARGO LINING INSTALLATION PROCEDURE. INCORRECT INSTALLATION OF THE CARGO LINING CAN LET THE FIRE EXTINGUISHING AGENT OR SMOKE OUT OF THE CARGO COMPARTMENT DURING A FIRE.

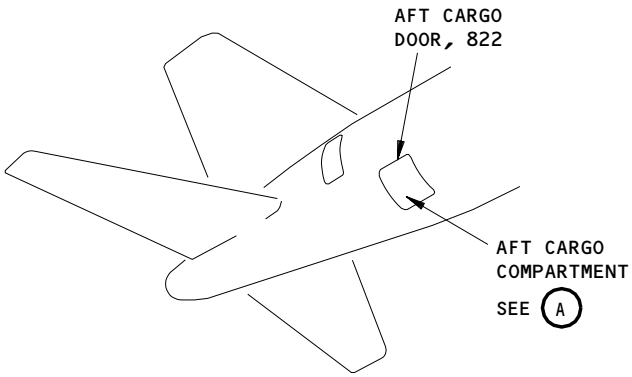
(1) Replace the forward cargo floor lining, (AMM 25-50-04/401).

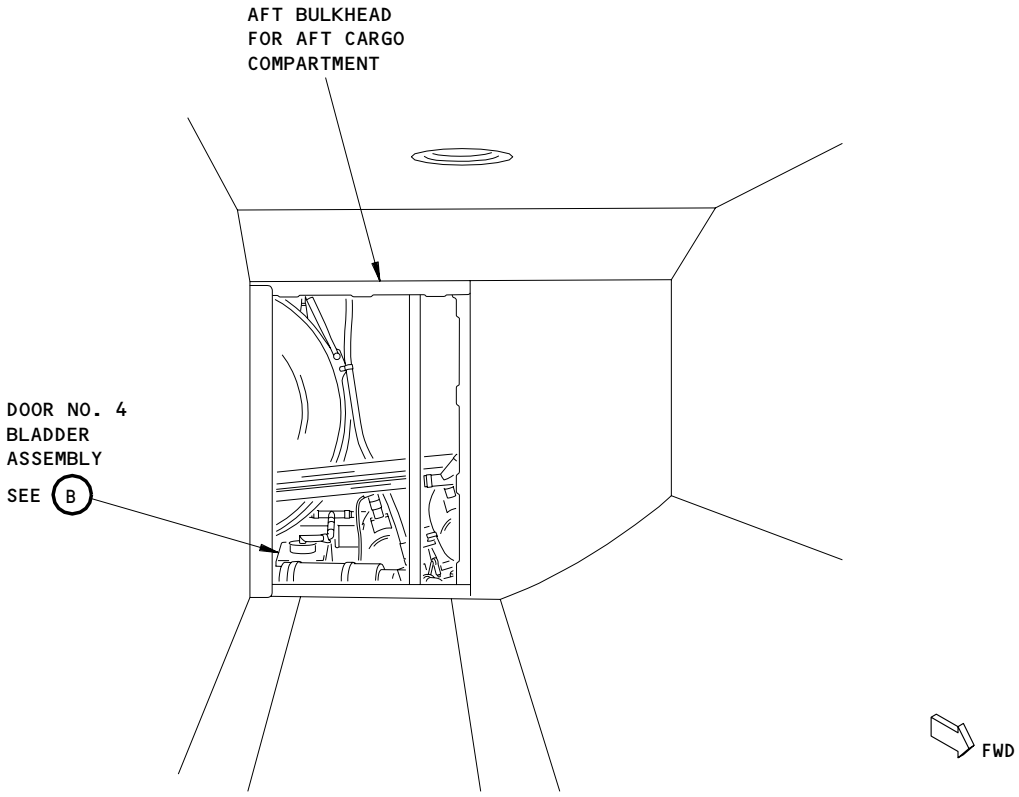
S 414-099
(2) Close the forward cargo door, (AMM 06-46-00/201).

TASK 38-31-02-004-098

6. Door #4 Sill Drain Bladder Assembly Removal (Fig. 403)

A. References
(1) AMM 06-46-00/201, Entry, Service and Cargo Doors
(2) AMM 25-50-03/401, Bulkhead Lining
(3) AMM 30-71-01/401, Water Supply and Drain Line Heater Tapes

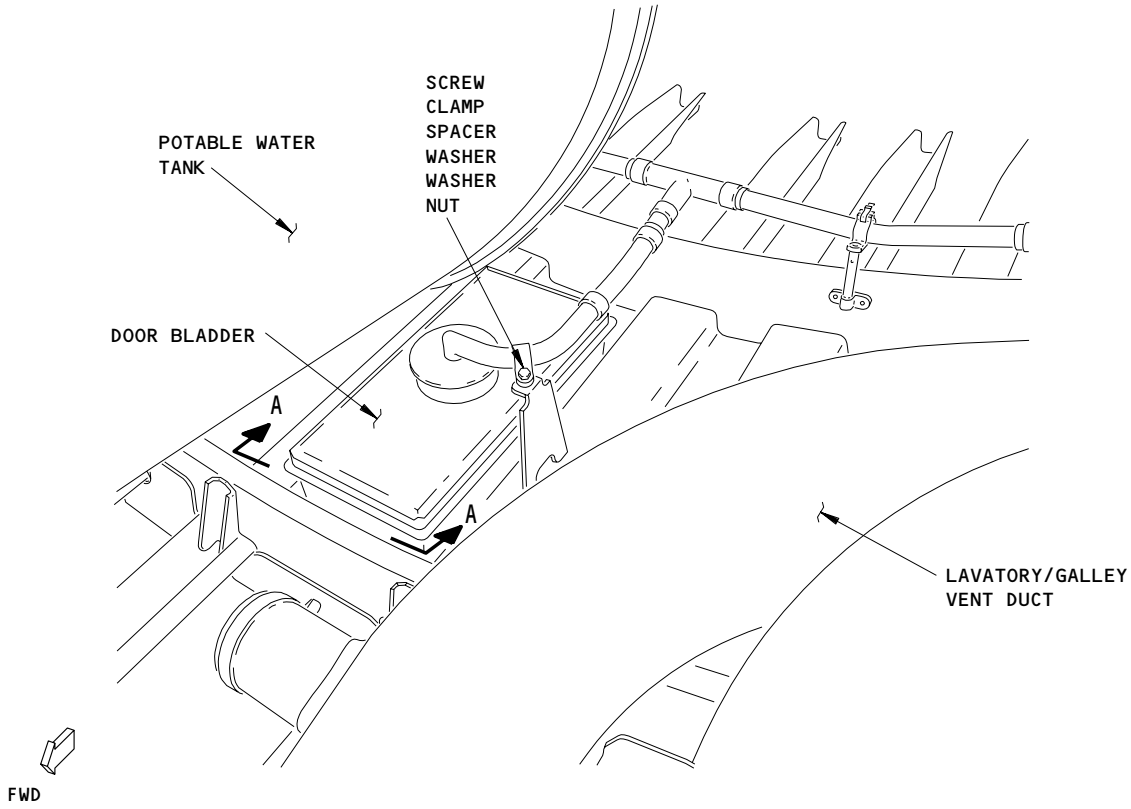




AFT CARGO COMPARTMENT

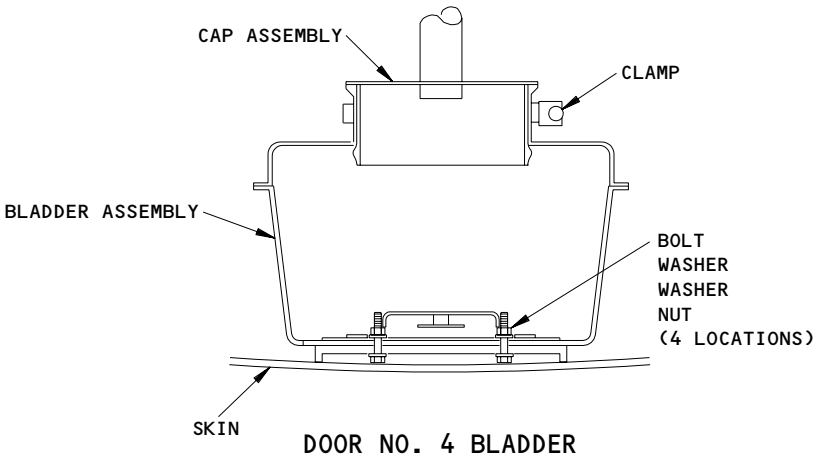
A

Door No. 4 Bladder Assembly Installation
Figure 403 (Sheet 1)



DOOR NO. 4 BLADDER ASSEMBLY

B



DOOR NO. 4 BLADDER
A-A

Door No. 4 Bladder Assembly Installation
Figure 403 (Sheet 2)

B. Access
(1) Location Zones
165,166 Area Aft of Aft Cargo Compartment (Center)
822 Aft Cargo Door

C. Prepare for the Removal

S 014-100
(1) Remove the aft bulkhead lining, (AMM 25-50-03/401).

S 014-051
(2) Get access to the Door #4 sill drain bladder assembly.

D. Door #4 Sill Drain Bladder Assembly Removal

S 024-053
(1) Loosen the clamps to disconnect the lines from the inlet of the Door #4 drain bladder assembly.

S 024-055
(2) Loosen the clamp to remove the cap assembly from the Door #4 drain bladder assembly.

S 024-056
(3) Remove the bolts, washers, countersunk washers, and nuts that attach the Door #4 drain bladder assembly to the plate assembly.

S 024-057
(4) Remove the Door #4 drain bladder assembly.

TASK 38-31-02-404-058

7. Door #4 Sill Drain Bladder Assembly Installation (Fig. 403)
A. Consumable Materials
(1) A00027 Adhesive, RTV - BAC 5010, Type 60
B. Access
(1) Location Zones
(a) 165,166 Area Aft of the Aft Cargo Compartment - Center
C. Door #4 Sill Drain Bladder Assembly Installation

S 394-062
(1) Apply a fay surface seal with adhesive, BAC 5010, Type 60 between the plate assembly and the Door #4 drain bladder assembly.

NOTE: Do not let the adhesive extend into the drain hole.

S 424-063
(2) Put the Door #4 drain bladder assembly in its position on the plate adapter.

S 394-064
(3) Apply a wet seal with adhesive, BAC 5010, Type 60 to the bolts.

S 424-065
(4) Install the bolts, washers, countersunk washers, and nuts.

S 424-066
(5) Install the cap assembly and clamp on the Door #4 drain bladder assembly.

S 424-070
(6) Install the clamps and the drain lines to the inlet of the Door #4 drain bladder assembly.

D. Door #4 Sill Drain Bladder Assembly Installation Test

S 864-071
(1) Pour water into the sill drain at the Door #4 entry door.

S 714-072
(2) Make sure the water flows to the Door #4 sill drain bladder assembly without leakage.

E. Put the Airplane Back to Its Usual Condition

S 414-024

WARNING: OBEY THE INSTRUCTIONS IN THE CARGO LINING INSTALLATION PROCEDURE. INCORRECT INSTALLATION OF THE CARGO LINING CAN LET THE FIRE EXTINGUISHING AGENT OR SMOKE OUT OF THE CARGO COMPARTMENT DURING A FIRE.

(1) Install the aft bulkhead lining, (AMM 25-50-03/401).

S 414-025
(2) Close the aft cargo door, (AMM 06-46-00/201).

TOILET SYSTEM - MAINTENANCE PRACTICES

1. General
   A. This procedure has these tasks:
      (1) Standard Procedures for Work with the Toilet Waste and Equipment.
      (2) Deactivate the toilet.
      (3) Activate the toilet.
      (4) Toilet System Inspection
      (5) Toilet System Cleaning
      (6) Water separator cleaning.

   TASK 38-32-00-382-058

2. Standard Procedures for Work with the Toilet Waste and Equipment
   A. General
      (1) You must obey the standard procedures of your country and local areas when you do work with the toilet waste and toilet waste equipment.
      (2) More standard procedures are given below for when you do work on the toilet assembly, drain lines, waste tanks and drain valves.
   B. Equipment
      (1) Gloves - Rubber (elbow length)
   C. Consumable Materials
      (1) G00000 Gown - Disposable
      (2) G00000 Gloves - Disposable
      (3) G00000 Shop Coat - Disposable
      (4) G00000 Mask - Face
      (5) G01915 Glasses - Safety
   D. Access
      (1) Location Zones
          100 Lower Half Fuselage
          200 Upper Half Fuselage

   E. Procedure

      S 912-120

      WARNING: FOR SANITARY REASONS, ALWAYS WEAR RUBBER GLOVES WHEN WORKING ON THE TOILET SYSTEM OR WHEN HANDLING PARTS WHICH HAVE BEEN IN CONTACT WITH WASTE MATERIAL. WASH HANDS THOROUGHLY WITH SOAP AND WATER AFTER COMPLETION OF PROCEDURE. PER UNITED STATES PUBLIC HEALTH SERVICE REGULATIONS, PERSONNEL WHO SERVICE OR MAINTAIN WASTE WATER SYSTEMS MAY NOT, UNDER ANY CIRCUMSTANCES, SERVICE POTABLE WATER SYSTEMS CONCURRENTLY.

      WARNING: ALL TOILET COMPONENTS MUST BE SANITIZED AND CLEANED PRIOR TO HANDLING AND SHIPPING OR ROUTING. REFER TO OPERATORS GENERAL PROCESS MANUALS FOR DETAILED MATERIALS AND PROCESSES.

(1) If you do work or do servicing on the toilet waste equipment, make sure you wear the clothes that give you protection.

NOTE: This is a list of the clothes that you can wear to give you protection when it is necessary.

(a) Rubber or disposable gloves
(b) Disposable gown
(c) Disposable shop coat
(d) Face mask
(e) Safety glasses

S 912-060

(2) You must not put contamination on other areas after you touch the toilet waste equipment that has contamination. Make sure you remove the protective clothing that has contamination before you do a different task.

S 912-061

(3) If you remove an item with toilet waste contamination, use an approved antibacterial material.

S 912-062

(4) Apply the antibacterial material with a spray gun to these parts:
(a) the toilet bowl
(b) all of the other parts with the contamination.

S 912-063

WARNING: MAKE SURE YOU FOLLOW THE MANUFACTURER'S INSTRUCTIONS WHEN YOU TOUCH THE CHEMICAL PRECHARGE. THE CHEMICAL PRECHARGE CONTAINS MATERIALS WHICH CAN CAUSE INJURY TO YOU IF YOU DO NOT OBEY THE INSTRUCTIONS.

CAUTION: DO NOT ADD THE CHEMICAL PRECHARGE TO THE TANKS IF THE AIRPLANE WILL BE KEPT IN AN AREA WHERE IT CAN FREEZE. THE CHEMICAL PRECHARGE CAN CAUSE DAMAGE TO THE WASTE SYSTEM IF IT FREEZES.

(5) Add approximately 1 quart of chemical precharge to the toilet bowl before you remove the waste material from the bowl.

NOTE: Chlorine bleach used to clean clothing can be used as an alternative to chemical precharge.

S 912-066

(6) Do the steps that follow before you remove these parts:
(a) Toilet waste tank
(b) Waste tank components
(c) Drain valve
(d) Drain lines downstream from the waste tank.
1) Drain the tank (AMM 12-17-01/301).
2) Flush the tank with water (AMM 12-17-01/301).
3) Flush the tank with one to three gallons of chemical precharge (AMM 12-17-01/301).

NOTE: Chlorine bleach used to clean clothing can be used as an alternative to chemical precharge.

TASK 38-32-00-042-067

3. Deactivate the Toilet

A. References
(1) AMM 12-17-01/301, Waste Tank

B. Access
(1) Location Zone
200 Upper Half of Fuselage

C. Toilet Deactivation

S 612-082

(1) Do the servicing procedure for the applicable toilet tank to make sure it is clean and empty (AMM 12-17-01/301).

Do not add precharge.

S 862-083

(2) Open the circuit breaker(s) in row 11S (LAV FLUSH MOTOR) for the applicable system on the overhead panel, P11, and attach a DO-NOT-CLOSE tag:

S 482-098
(3) If necessary, install the placard 'INOPERATIVE' on the inside of the applicable service panel.

S 482-099
(4) If necessary, install the placard 'INOPERATIVE' on the applicable lavatory and lock the lavatory.

TASK 38-32-00-442-073

4. Activate the Toilet

A. References
(1) AMM 12-17-01/301, Waste Tank

B. Access
(1) Location Zone
200 Upper Half of Fuselage

C. Toilet Activation

S 862-101
(1) Remove the DO-NOT-CLOSE tag, and close the circuit breaker(s) in Row 11S (LAV FLUSH MOTOR) on the overhead panel, P11, for the applicable system:

S 482-104
(2) If installed previously, remove the placard 'INOPERATIVE' from the inside of the applicable service panel.

S 482-105
(3) If installed previously, remove the placard 'INOPERATIVE' from the applicable lavatory.

S 862-078
(4) Supply electrical power (AMM 24-22-00/201).

S 712-079
(5) Do these steps to make sure the toilet operates correctly:
(a) Put approximately 1 gallon of water into the toilet bowl.

(b) Operate the flush switch.
(c) Make sure the toilet flushes correctly.

S 862-081
(6) Remove electrical power if it is not necessary (AMM 24-22-00/201).

TASK 38-32-00-202-035
5. Toilet System Inspection
A. References
(1) AMM 06-41-00/201, Fuselage Access Doors and Panels
B. Access
(1) Location Zone
100 Lower Half of Fuselage
200 Upper Half of Fuselage

(2) Access Panels
119AL Forward Toilet Service Panel
121AL Mid Toilet Service Panel
149GL Aft Toilet Service Panel

C. Procedure

S 012-001
(1) Remove the toilet shroud.

S 212-002
(2) Examine all of the parts on the top of the toilet tank for these problems and make the necessary repairs:
(a) Make sure all the fasteners that are necessary are in their position and are tight.
(b) Look for broken parts.
(c) Look for corrosion.
(d) Look for leakage.

NOTE: Leakage around the drain valve cable is permitted.

S 212-003
(3) Examine all of the potable-water plumbing (this includes the faucet and muffler) for these problems and make the necessary repairs:
(a) Look for broken parts
(b) Look for corrosion
(c) Look for leakage.

S 212-004
(4) Examine all the seals for deterioration and make the necessary repairs.

S 212-034
(5) Examine the supports for the toilet shroud for damage and make the necessary repairs.

S 212-005
(6) Examine all the wiring and wire connectors for corrosion and make sure they are not worn; make the necessary repairs.

S 412-006
(7) Install the toilet shroud.

S 012-007
(8) Open the doors for the toilet service panels (AMM 06-41-00/201).

S 212-009
(9) Examine the toilet service panels to make sure there is no indication of leakage from the toilet tanks.

S 212-011
(10) Examine the skin panels around the toilet service panels to make sure there is no indication of leakage from the toilet tanks.

S 412-013
(11) Close the doors for the toilet service panels (AMM 06-41-00/201).

TASK 38-32-00-672-015

6. Toilet System Cleaning

A. General

(1) The recommended method to clean the system is to rinse the system for one to two minutes each time the waste tank is drained. A regular rinse of the system will minimize unshceduled maintenance on the waste system.

B. Consumable Materials

(1) B00490 Chemical Precharge (Deodorant)
(2) B00051 Disinfectant - Deodorizer Lysol Spray and Concentrated Deodorizer Lysol
(3) B00639 Cleaner - Honey Bee 76

(4) B50168 Cleaner - Celeste Industries SP8000

C. References

(1) AMM 12-17-01/301, Waste Tank Servicing

D. Access

(1) Location Zones

100 Lower Half of Fuselage
200 Upper Half of Fuselage

(2) Access Panels

119AL Forward Toilet Service Panel
121AL Mid Toilet Service Panel
149GL Aft Toilet Service Panel

E. Procedure

S 612-039

(1) Drain and flush the toilet tank (AMM 12-17-01/301).

S 112-040

(2) Do these steps after you have drained the toilet tanks fully:

NOTE: Do not add the precharge for the toilet tank. Make sure the flush line from the service cart is connected.

(a) Push the drain valve handle to close the drain valve.
(b) Remove the toilet shroud.
(c) Use a vacuum cleaner to clean loose dirt from the lavatory.

NOTE: Make sure you clean the toilet tank vent, water separator, the inner part of the muffler (for the sink drain), and the bowl vent inlet.

CAUTION: USE ONLY APPROVED MATERIALS ON THE FLOOR PAN, LIGHT LENSES, GASPER AIR FIXTURE, MUFFLER, TOILET TANK VENT, WATER SEPARATOR, HOSES, AND ELECTRICAL WIRES. OTHER MATERIALS CAN CAUSE DAMAGE TO THESE PARTS.

(d) Use an approved disinfectant spray on these parts:
1) The toilet bowl ring
2) The supports for the toilet shroud
3) All cracks and corners of the walls and floor.
4) The service connection box
5) Below the lavatory sink.

S 672-050

(3) Do these steps to clean the toilet tanks:

CAUTION: FOR THE HONEYBEE 76 CLEANER; IMMEDIATELY CLEAN UP ANY CLEANER SPILLED ON THE AIRPLANE SURFACES. DAMAGE OR DETERIORATION OF THE AIRPLANE SURFACES CAN OCCUR. FOR THE BEST CLEANING RESULTS, USE THE HONEYBEE 76 CLEANER IN ITS CONCENTRATED FORM (UNDILUTED). DILUTION OF THE CLEANER WILL REDUCE THE EFFECTIVENESS OF THE CLEANER.

(a) Fill the toilet tank to 5 inches below top of toilet bowl with a mixture of water and liquid lysol-type products (optional Honey Bee 76 or per manufacturer's recommendation).
(b) Let the liquid stand overnight or longer.
    1) During this period do these steps:
        a) Activate flush motor several times each hour.
        b) Use a soft-bristle brush to clean toilet bowl, ring and baffle.
        c) Clean the floor pan.
        d) Clean the light lenses.
        e) Clean the gasper air fixture.
        f) Clean the muffler.
        g) Clean the toilet tank vent.
        h) Clean the water separator.
        i) Clean lint from gap between toilet bowl and shroud.
        j) Clean the toilet bowl vent.
(c) Install the toilet shroud.
    1) Drain and flush the toilet tank (AMM 12-17-01/301).

S 012-026
(4) Open the doors for the toilet service panels (Ref 06-41-00).

S 672-028
(5) Clean the toilet service panels and the area around them with an approved disinfectant solution.

S 672-030
(6) Dry the toilet service panels and the area around them.

S 412-032
(7) Close the door for the toilet service panels (Ref 06-41-00).

TASK 38-32-00-382-106

7. Water Separator Cleaning (Fig 201)
   A. General
      (1) The recommended method to clean the water separator is to soak it in hot soapy water or a mild bleach for a minimum of 15 minutes. Regular cleaning of the water separator will prevent a build-up of fluid from the toilet tank and can aid in odor control.
   B. Consumable Materials
      (1) B00541 Cleaner - General Purpose Detergent - P-D-220
   C. References
      (1) AMM 12-17-01/301, Waste Tank Servicing
   D. Access
      (1) Location Zones
          100 Lower Half of Fuselage
          200 Upper Half of Fuselage

   E. Water Separator Cleaning

S 012-107
(1) Open the amenity cabinet above the toilet to gain access to the water separator.

S 022-108
(2) Remove the screws and washers for the water separator.

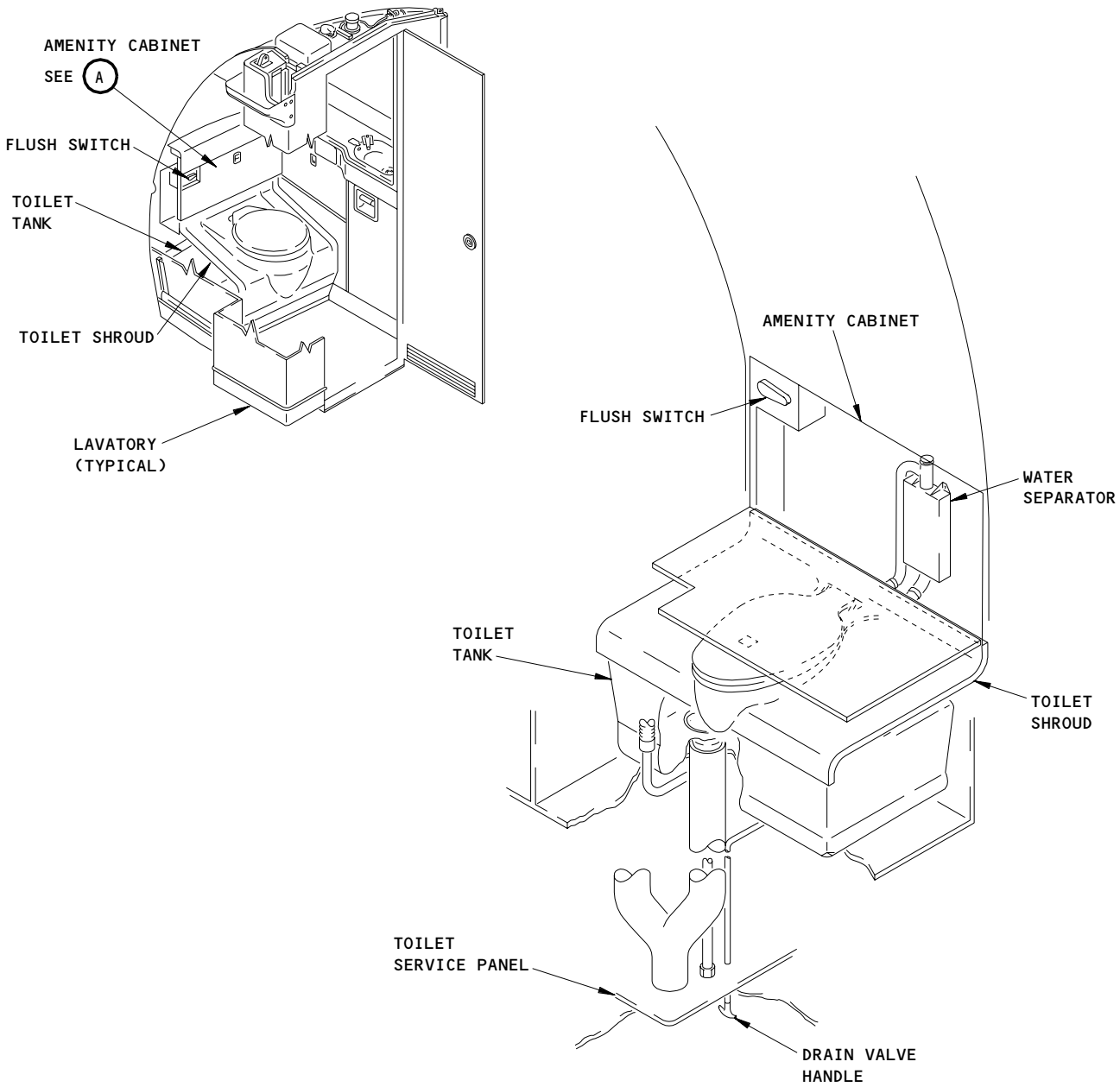
S 022-109
(3) Remove the water separator box.

S 022-110
(4) Disconnect the 3 air vent tubes by removing the clamps.

S 102-111
(5) Mix the cleaner, P-D-220, with hot water in a container.

NOTE: A mild bleach can be used as an alternative to the detergent and water.

S 102-112
(6) Soak the water separator box and the air vent tubes in the cleaning mixture or in a mild bleach for a minumum of 15 minutes.



Toilet System – Maintenance Practices
Figure 201

S 102-113
(7) Flush the water separator with clean water.

S 212-114
(8) Do a visual check of the water separator and make sure it is clean.

S 212-116
(9) If the water separator does not appear to be clean, replace it.

S 422-115
(10) Connect the air vent tubes to the water separator by using the clamps.

S 422-117
(11) Put the water separator box back into its original position.

S 422-118
(12) Put back the screws and washers that secure the water separator box in place.

S 412-119
(13) Close the amenity cabinet door.

TOILET SYSTEM - ADJUSTMENT/TEST

1. General
   A. This procedure gives the steps to test the toilet and the toilet drain system.

TASK 38-32-00-725-001

2. System Test of the Toilet System
   A. General
      (1) If you operate the vacuum waste system in hangar areas (or other areas without good airflow), attach venting equipment to the vacuum system exhaust to remove the exhaust away from personnel and the hangar areas.
      (2) Do this functional test for each toilet on the airplane.
   B. Equipment
      (1) Toilet Service Cart - Commercially Available
      (2) Spring Scale, 0 to 60 (minimum) Pounds - Commercially Available

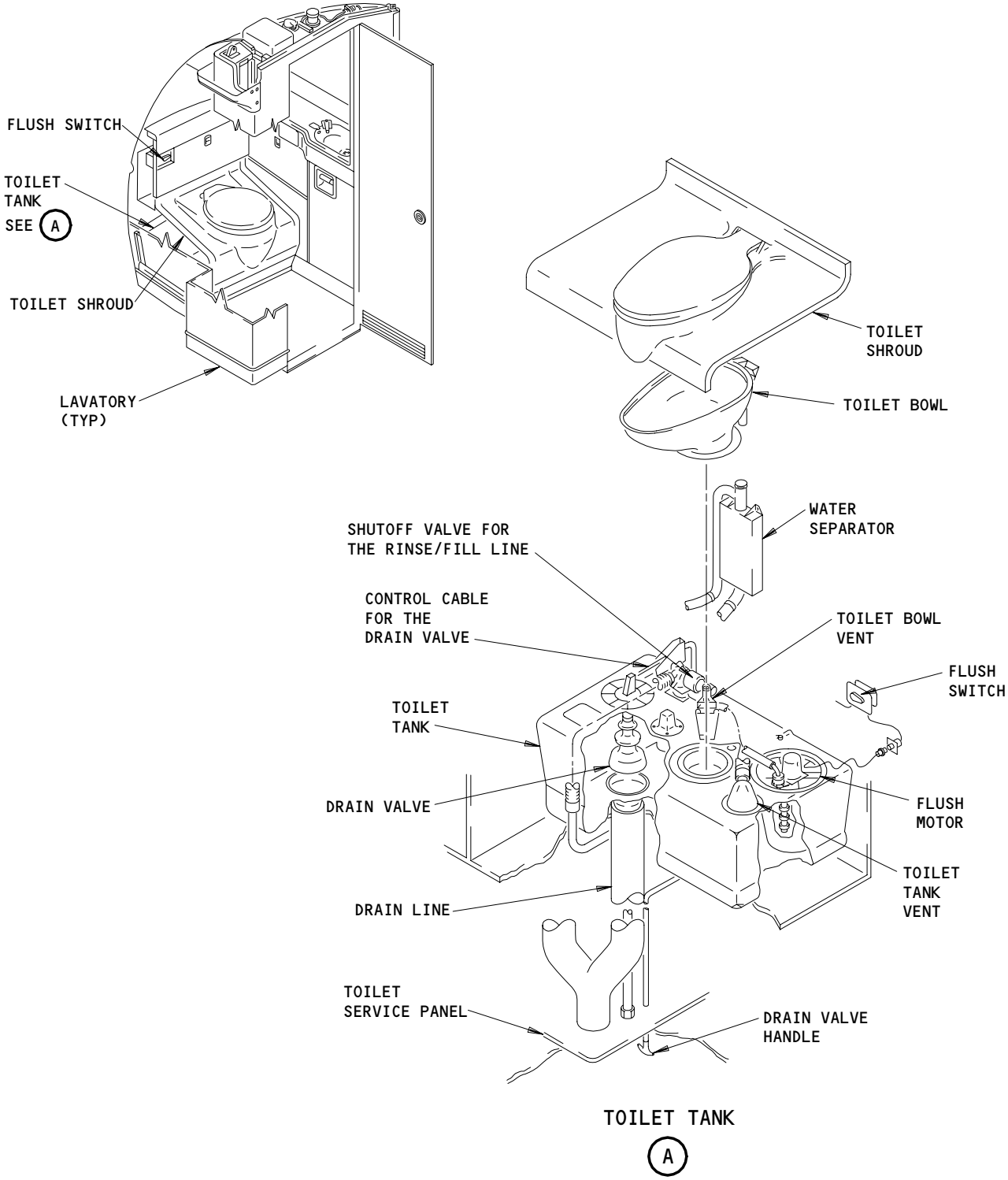
   C. References
      (1) AMM 12-17-01/301, Waste Tank
      (2) AMM 24-22-00/201, Electrical Power - Control
      (3) AMM 24-22-00/201, Electrical Power - Control
      (4) AMM 38-32-10/401 Drain Valve Control Cable
   D. Access
      (1) Location Zones
          100 Lower Half of Fuselage
          200 Upper Half of Fuselage

      (2) Access Panels
          119AL Forward Toilet Service Panel
          121AL Mid Toilet Service Panel
          149GL Aft Toilet Service Panel
   E. Procedure

      S 865-004
      (1) Supply electrical power (AMM 24-22-00).

      S 015-005
      (2) Remove the toilet shroud from the toilet tank.

      S 615-006
      (3) Drain the toilet tanks (Ref 12-17-01).



Toilet System Test
Figure 501

S 495-008
(4) Connect a supply of water to the rinse/fill connection on the toilet service panel.

NOTE: Recommended pressure: 20-50 psig.
Maximum Pressure: 60 psig.

S 725-010
(5) Put two gallons of water in the toilet tank.

S 725-015
(6) Remove the supply of water from the rinse/fill connection. Make sure the water caught in the rinse/fill line drains in a maximum of 15 seconds.

S 725-016
(7) Make sure the rinse/fill line does not have a leak between the toilet and the toilet service panel.

S 725-018
(8) Do the steps that follow to make sure the toilet operates correctly:
(a) Operate the flush switch.
1) Make sure the toilet bowl is fully flushed.
2) Make sure the toilet flushes with much force.
3) Make sure the toilet does not make too much noise.
4) Make sure the toilet flushes for 10 ± 2 seconds.
5) Make sure the toilet does not have other malfunctions.

S 725-019
(9) Operate the flush switch again and make sure the toilet operates correctly (see the steps that are above).

NOTE: This test is done two times because the flush motor in the toilet changes direction with each cycle.

S 725-020
(10) Make sure the toilet does not have a leak.

S 495-021
(11) Put a plug in the toilet bowl vent.

S 725-037
(12) With a suitable bucket or hose connected to a water source, fill the toilet tank with water until the water is approximately two inches from the top of the toilet bowl.

S 725-038
(13) Look for leakage in these locations:
(a) Between the top of the toilet tank and the shutoff valve for the rinse/fill line
(b) Around the bottom of the toilet bowl
(c) Around the flush motor
(d) Around the toilet tank vent
(e) Around the top of the drain valve.

NOTE: Leakage around the drain valve cable is permitted.

S 495-024
(14) Connect a drain hose to the waste-tank drain connection at the toilet service panel.

S 725-026
(15) Open and close the tank drain valve to drain the toilet tank in two gallon increments.
(a) To make sure that the drain line (from the toilet tank to the service panel) is clear, make sure that the water drains at a suitable rate.

S 725-027
(16) Make sure no leakage gets through the tank drain valve when it is closed.

S 725-028
(17) Make sure the drain valve handle at the service panel moves freely with 57 pounds or less of force.

S 725-029
(18) Make sure the drain valve handle has a travel of 4.25 inches minimum.

S 865-048
(19) Turn the drain valve handle to the LOCK position and then release the handle.
(a) Make sure the drain valve handle stays in the open (handle extended) position.
(b) If the lock does not keep the handle in the extended position, replace the control cable (AMM 38-32-10/401).

S 095-030
(20) Remove the plug from the toilet bowl vent.

S 095-031
(21) Disconnect the drain hose from the waste-tank drain connection at the toilet service panel.

S 865-011
(22) Close the drain valve and drain cap at the service panel.

S 495-012
(23) Connect a water supply hose to the rinse/fill connection.

S 865-013
(24) Open the tank drain valve.

S 795-014
(25) With the tank drain valve in the open position, fill the system until the water is approximately 2 inches from the top of the bowl.

S 865-015
(26) Keep the tank drain valve in the open position for 10 minutes.

S 795-016
(27) Examine the drain cap at the service panel for signs of leakage.

S 355-019
(28) Repair all leakages.

S 095-017
(29) Disconnect the water supply hose at the rinse/fill connection.

S 685-018
(30) Connect a drain hose to the waste drain connection at the service panel and drain the system.

S 615-034
(31) Do the "Service the Toilet Tank" procedure (AMM 12-17-01).

S 425-049
(32) Install the toilet shroud for the toilet tank.

S 865-035
(33) Remove electrical power if it is not necessary (AMM 24-22-00).

TOILET TANK - REMOVAL/INSTALLATION

TASK 38-32-01-004-038

1. Remove the Toilet Tank (Fig. 401)

A. References

(1) AMM 12-17-01/301, Waste Tank - Servicing

(2) AMM 38-32-00/201, Toilet System - Toilet Deactivation

B. Access

(1) Location Zone

200 Upper Half of Fuselage

C. Prepare for the Removal

S 864-063

(1) To deactivate the toilet flush pump motor, do this task: Toilet Deactivation (AMM 38-32-00/201).

S 864-067

(2) Open this circuit breaker on the right miscellaneous electrical equipment panel, P37, and attach a DO-NOT-CLOSE tag:

(a) 37D8, LAV FILL VALVE

S 864-006

(3) Open this circuit breaker on the APU/EXTERNAL power panel, P34, and attach DO-NOT-CLOSE tag:

(a) 34A3(A), FILL CONT LAV

D. Remove the Toilet Tank

S 014-009

(1) Remove these parts for access to the toilet tank:

(a) Remove the toilet seat-cover-shroud to get access to the top of the toilet tank.

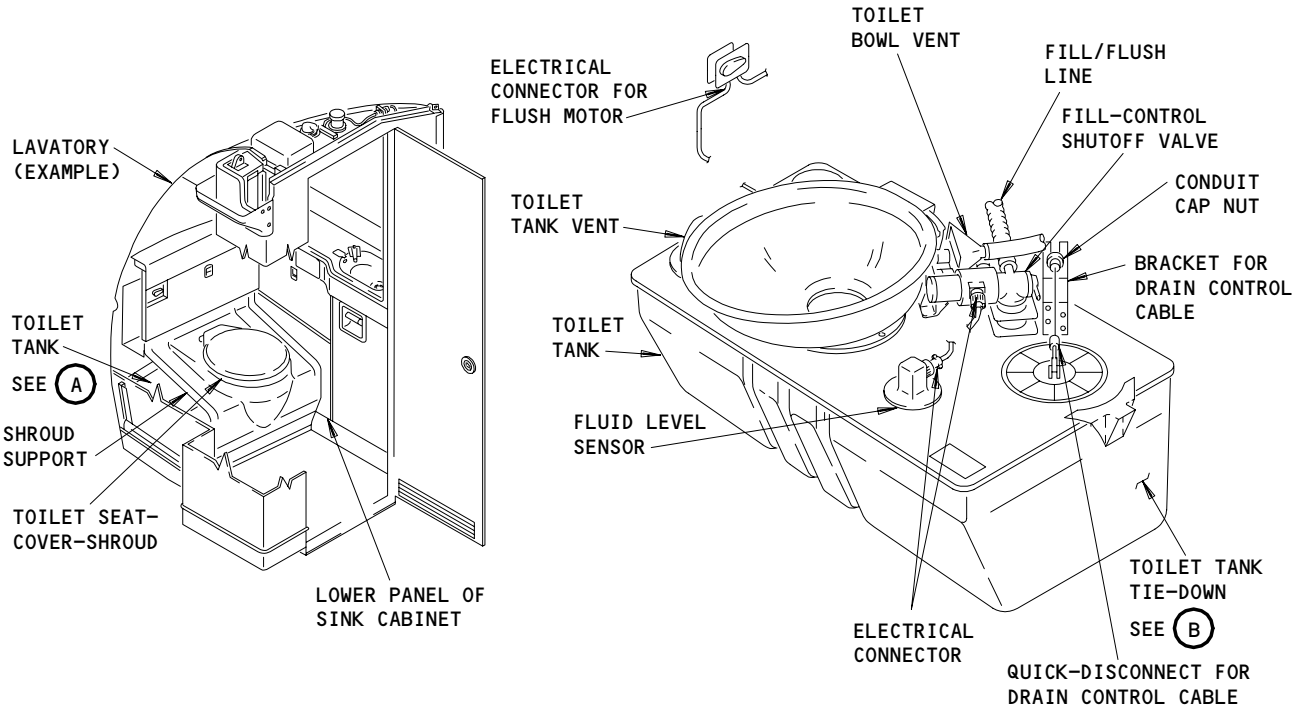
(b) Remove shroud support.

(c) Remove the lower panel of the sink cabinet.

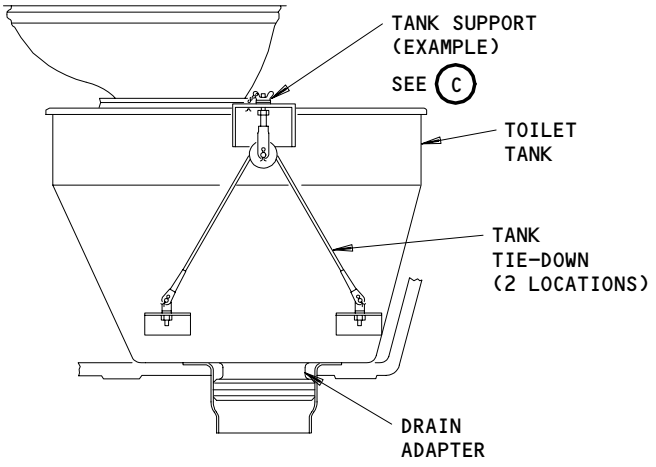
S 034-010

(2) Disconnect these parts:

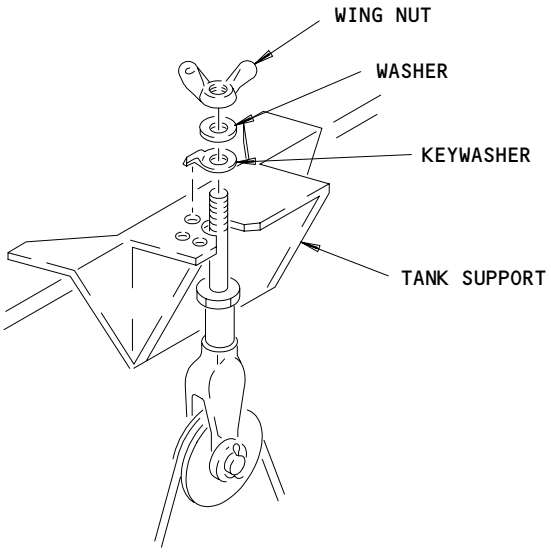
(a) Disconnect the electrical connector for the flush motor.



TOILET TANK
A



TOILET TANK TIE DOWN
B



TANK SUPPORT
(EXAMPLE)
C

Toilet Tank Installation
Figure 401

(b) Disconnect the electrical connectors from the fill-control shutoff valve and the fluid level sensor.
(c) Disconnect the drain valve cable at the quick-disconnect joint.
(d) Loosen the conduit cap nut to remove the drain valve cable from the attach bracket.
(e) Disconnect the fill/flush line.
(f) Disconnect the bonding jumper.
(g) Disconnect the vent lines for the toilet tank and the toilet bowl.
(h) Remove the wing nuts, washers, and key washers that attach the toilet tank to the lavatory.

S 024-015
(3) Lift and turn the toilet tank to loosen it from the drain adapter and locating pins.

S 024-016
(4) Lift the toilet tank straight up and remove it.

TASK 38-32-01-404-037
2. Install the Toilet Tank (Fig. 401)
A. Consumable Materials
(1) D00014 Grease-Molybdenum Disulfide, MIL-G-21164
B. References
(1) AMM 12-17-01/301, Waste Tanks
(2) AMM 38-32-00/201, Toilet System - Toilet Activation
C. Access
(1) Location Zone
200 Upper Half of Fuselage

D. Install the Toilet Tank

S 434-017
(1) Apply grease to a new O-ring and install the O-ring on the drain adapter.

S 424-019
(2) Lower the toilet tank into its position untill it is engaged on the locating pins. Make sure the toilet tank is level with the floor.

S 434-064
(3) Do steps to secure the tank:
(a) Install the key washers, washers, and wing nuts. Tighten wing nuts by hand only.
(b) Install a lockwire to hold each of the wing nuts.

S 434-025
(4) Connect these parts:
(a) Connect the tank vent lines.
(b) Connect the bonding jumper.
(c) Connect the fill/flush line.
(d) Put the cable conduit cap on its bracket.
(e) Tighten the conduit cap nut and install a lockwire.
(f) Connect the drain control cable at the quick-disconnect.
(g) Connect the electrical connectors to the fill control shutoff valve and the fluid level sensor.
(h) Connect the electrical connector to the flush motor.

E. Put the Airplane Back to Its Usual Condition

S 864-026
(1) Remove DO-NOT-CLOSE tag and close this circuit breaker on the P34 panel:
(a) 34A3(A), FILL CONT LAV

S 864-029
(2) Remove DO-NOT-CLOSE tag and close this circuit breaker on the P37 panel:
(a) 37D8, LAV FILL VALVE

S 864-032
(3) To activate the toilet flush pump motor, do this task:
Toilet Activation (AMM 38-32-00/201).

S 414-066

(4) Do these steps to install the toiler covers:

(a) Install the shroud support.

(b) Install the lower panel of the sink cabinet.

S 414-040

(5) Install the toilet seat-cover-shroud.

TOILET TANK DRAIN VALVE - REMOVAL/INSTALLATION

1. General
   A. This procedure gives the instructions to remove and install the drain valve for the toilet tank.

TASK 38-32-02-004-001

2. Remove the Drain Valve (Fig. 401)
   A. References
      (1) AMM 12-17-01/301, Waste Tank
      (2) AMM 38-32-00/201, Toilet System - Toilet Deactivation
   B. Access
      (1) Location Zone
          200 Upper Half of Fuselage

   C. Procedure

      S 864-042
      (1) To deactivate the toilet flush pump motor, do this task: Toilet Deactivation (AMM 38-32-00/201).

      S 014-006
      (2) Remove the toilet shroud to get access to the top of the toilet tank.

      S 014-007
      (3) Remove the access panel that is below the lavatory sink.

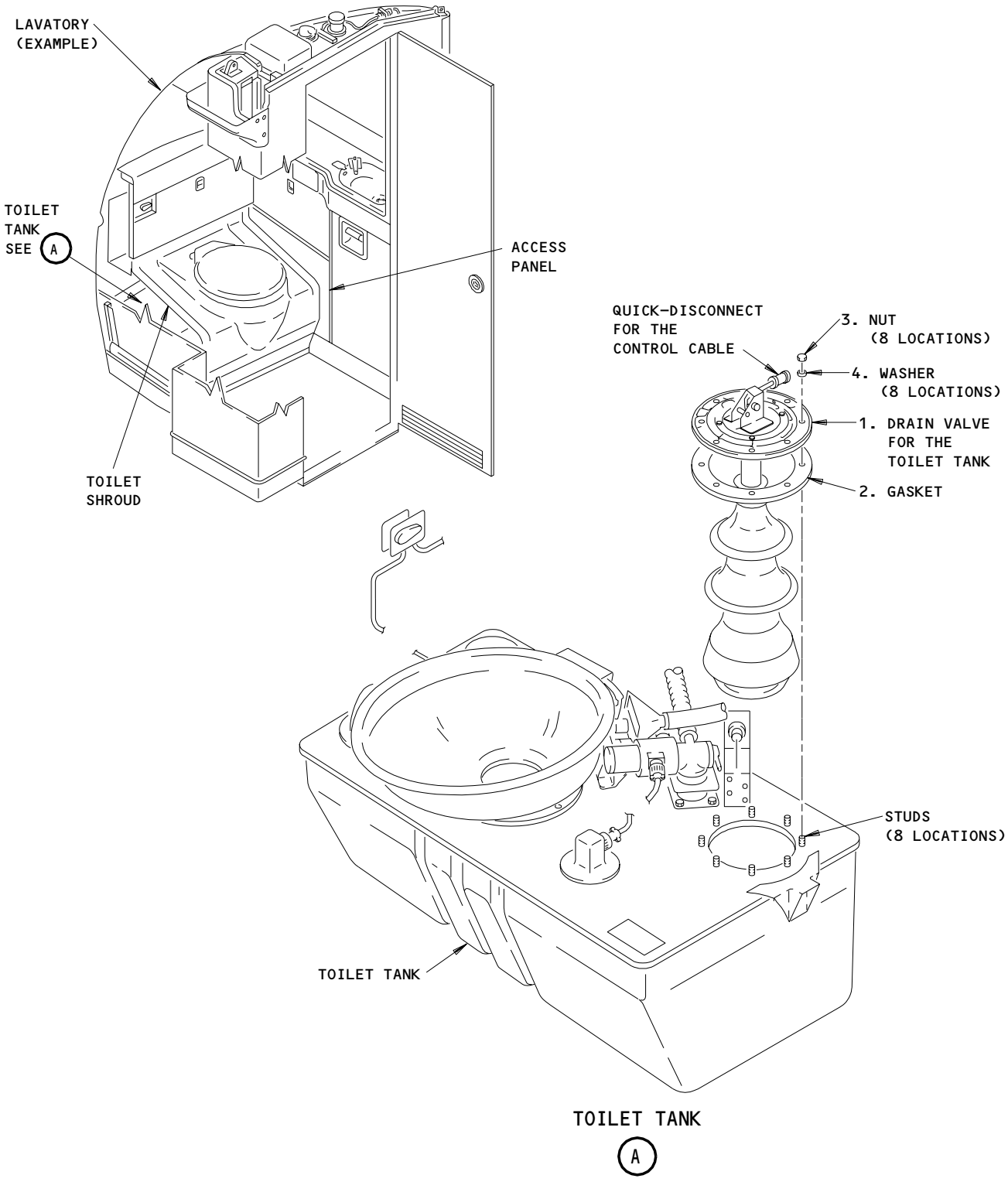
      S 034-008
      (4) Disconnect the drain valve cable at the quick-disconnect joint.

      S 024-009

      CAUTION: HOLD THE DRAIN VALVE DOWN WHEN YOU REMOVE THE NUTS. THE SPRING CAN PUSH THE DRAIN VALVE UP AND CAUSE DAMAGE TO THE STUDS.

      (5) Remove the nuts (3) and the washers (4) that attach the drain valve to the toilet tank.

      S 024-010
      (6) Remove the drain valve (1) from the toilet tank.



Toilet Tank Drain Valve Installation
Figure 401

S 034-011
(7) Remove the gasket (2).

TASK 38-32-02-404-012

3. Install the Drain Valve (Fig. 401)

A. References
(1) AMM 12-17-01/301, Waste Tank
(2) AMM 38-32-00/201, Toilet System - Toilet Activation
(3) AIPC 38-32-01-01, Toilet

B. Equipment
(1) Handle Assembly, Monogram Part Number 12224

C. Access
(1) Location Zone
200 Upper Half of Fuselage

D. Procedure

S 164-013
(1) Clean the mating surfaces of the drain valve and the toilet tank.

S 424-014
(2) Put the drain valve and a new gasket in their position.

NOTE: Align the pulley for the control cable with the control cable.

S 424-015

CAUTION: HOLD THE DRAIN VALVE DOWN WHEN YOU INSTALL THE NUTS. THE SPRING CAN PUSH THE DRAIN VALVE UP AND CAUSE DAMAGE TO THE STUDS.

(3) Hold the drain valve in its position and install the washers (4) and the nuts (3).

S 714-032
(4) Use the handle assembly to manually open and then close the toilet drain valve to make sure the valve operates smoothly.

S 434-016
(5) Connect the drain valve cable at the quick-disconnect joint.

S 794-017
(6) Fill the toilet tank with water.

S 794-018
(7) Make sure there is no leakage around the drain valve.

S 714-019
(8) Operate the drain valve handle on the toilet service panel and do this:
    (a) Pull the drain valve handle down and make sure the water drains from the toilet tank.
    (b) Push the drain valve handle in and make sure the water does not drain from the toilet tank.

S 614-020
(9) Do the "Service the toilet tank" procedure (AMM 12-17-01/301).

S 414-021
(10) Install the access panel that goes below the lavatory sink.

S 414-022
(11) Install the toilet shroud.

S 864-023
(12) To activate the toilet flush pump motor, do this task:
Toilet Activation (AMM 38-32-00/201).

RINSE/FILL LINE SHUTOFF VALVE - REMOVAL/INSTALLATION

1. General
   A. This procedure gives the instructions to remove and install the shutoff valve for the rinse/fill line.

TASK 38-32-03-004-001

2. Remove the Shutoff Valve (Fig. 401)
   A. References
      (1) AMM 12-17-01/301, Waste Tanks
      (2) AMM 38-32-00/201, Toilet System - Toilet Deactivation
   B. Access
      (1) Location Zone
          200 Upper Half of Fuselage

   C. Procedure

      S 864-003
      (1) To deactivate the toilet flush pump motor, do this task: Toilet Deactivation (AMM 38-32-00/201).

      S 864-004
      (2) Open this circuit breaker on the right miscellaneous electrical equipment panel, P37, and attach DO-NOT-CLOSE tag:
          (a) 37D8, LAV FILL VALVE

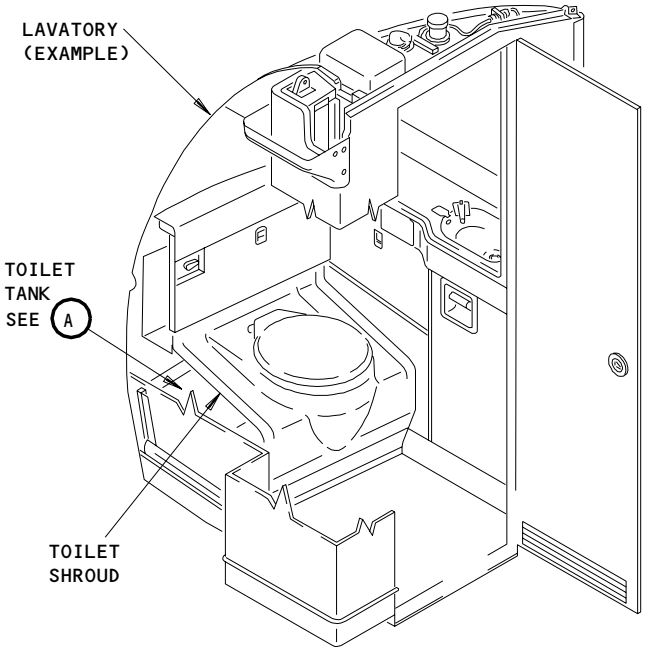
      S 014-005
      (3) Remove the toilet shroud to get access to the top of the toilet tank.

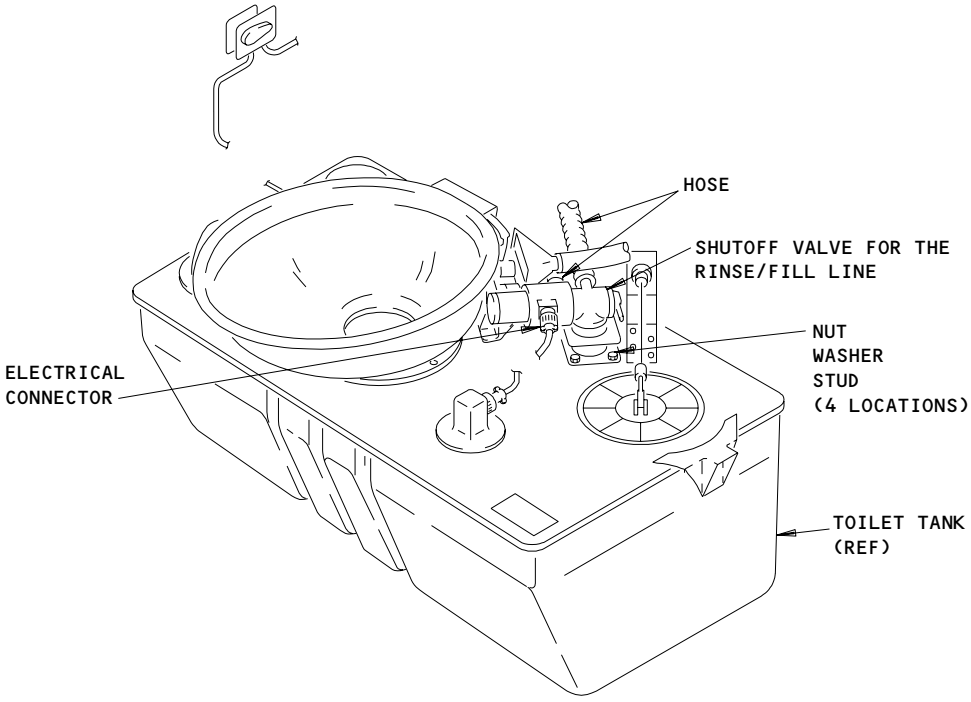
      S 034-006
      (4) Disconnect the electrical connector from the shutoff valve.

      S 034-007
      (5) Disconnect the inlet hose and the outlet hose from the shutoff valve.

      S 024-008
      (6) Remove the nuts and washers that attach the shutoff valve to the top of the toilet tank.

      S 024-009
      (7) Carefully lift the shutoff valve up to remove it.





TOILET TANK
A

Rinse/Fill Line Shutoff Valve Installation
Figure 401

S 034-010
(8) Remove the gasket.

TASK 38-32-03-404-011

3. Install the Shutoff Valve (Fig. 401)

A. References
(1) AMM 12-17-01/301, Waste Tanks
(2) AMM 24-22-00/201, Electrical Power - Control
(3) AMM 38-32-00/201, Toilet System - Toilet Activation

B. Consumable Materials
(1) B00334 Soda - Bicarbonate

C. Access
(1) Location Zone
200 Upper Half of Fuselage

D. Procedure

S 164-012
(1) Clean the mating surfaces of the shutoff valve and the toilet tank.

S 434-013
(2) Install a new gasket.

S 424-014
(3) Put the shutoff valve in its position on the toilet tank.

S 424-015
(4) Install the nuts and the washers.

S 434-016
(5) Connect the inlet hose and the outlet hose to the shutoff valve.

S 144-017
(6) Connect the electrical connector to the shutoff valve.

S 864-018
(7) To activate the toilet flush pump motor, do this task:
Toilet Activation (AMM 38-32-00/201).

S 864-019
(8) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the right miscellaneous electrical equipment panel, P37:
(a) 37D8, LAV FILL VALVE

S 864-020
(9) Supply electrical power (Ref 24-22-00).

S 724-021
(10) Make sure the shutoff valve is open.

S 724-034
(11) Add four (4) ounces of sodium bicarbonate, NaHCO3, mixed with approx one (1) gallon of water, to the toilet tank.

S 724-022
(12) Fill the toilet tank with water (Ref 12-17-01). Make sure the shutoff valve closes when the toilet tank is almost full.

S 684-023
(13) Drain the toilet tank (Ref 12-17-01).

S 724-024
(14) Make sure the shutoff valve is open.

S 614-025
(15) Add toilet flushing deodorant (precharge) to the toilet tank (AMM 12-17-01/301).

NOTE: Make sure the rinse/fill line is fully drained when you disconnect the toilet precharge connection.

S 864-031
(16) Open this circuit breaker on the right miscellaneous electrical equipment panel, P37, and attach DO-NOT-CLOSE tag:
(a) 37D8, LAV FILL VALVE

S 724-027
(17) Make sure the shutoff valve is closed.

S 864-032
(18) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the right miscellaneous electrical equipment panel, P37:
(a) 37D8, LAV FILL VALVE

S 414-029
(19) Install the toilet shroud.

LEVEL SENSOR - REMOVAL/INSTALLATION

1. General
   A. This procedure gives the instructions to remove and install the level sensor for the toilet tank.

   TASK 38-32-04-004-001

2. Remove the Level Sensor (Fig. 401)
   A. References
      (1) AMM 12-17-01/301, Waste Tanks
      (2) AMM 38-32-00/201, Toilet System - Toilet Deactivation
   B. Access
      (1) Location Zone
          200 Upper Half of Fuselage

   C. Procedure

      S 864-003
      (1) To deactivate the toilet flush pump motor, do this task: Toilet Deactivation (AMM 38-32-00/201).

      S 864-004
      (2) Open this circuit breaker on the APU/External power, P34, and attach DO-NOT-CLOSE tag:
      (a) 34A3(A), FILL CONT LAV

      S 864-042
      (3) Open this circuit breaker and install a DO-NOT-CLOSE tag on the right miscellaneous electrical equipment panel, P37:
      (a) 37D8, LAV FILL VALVE

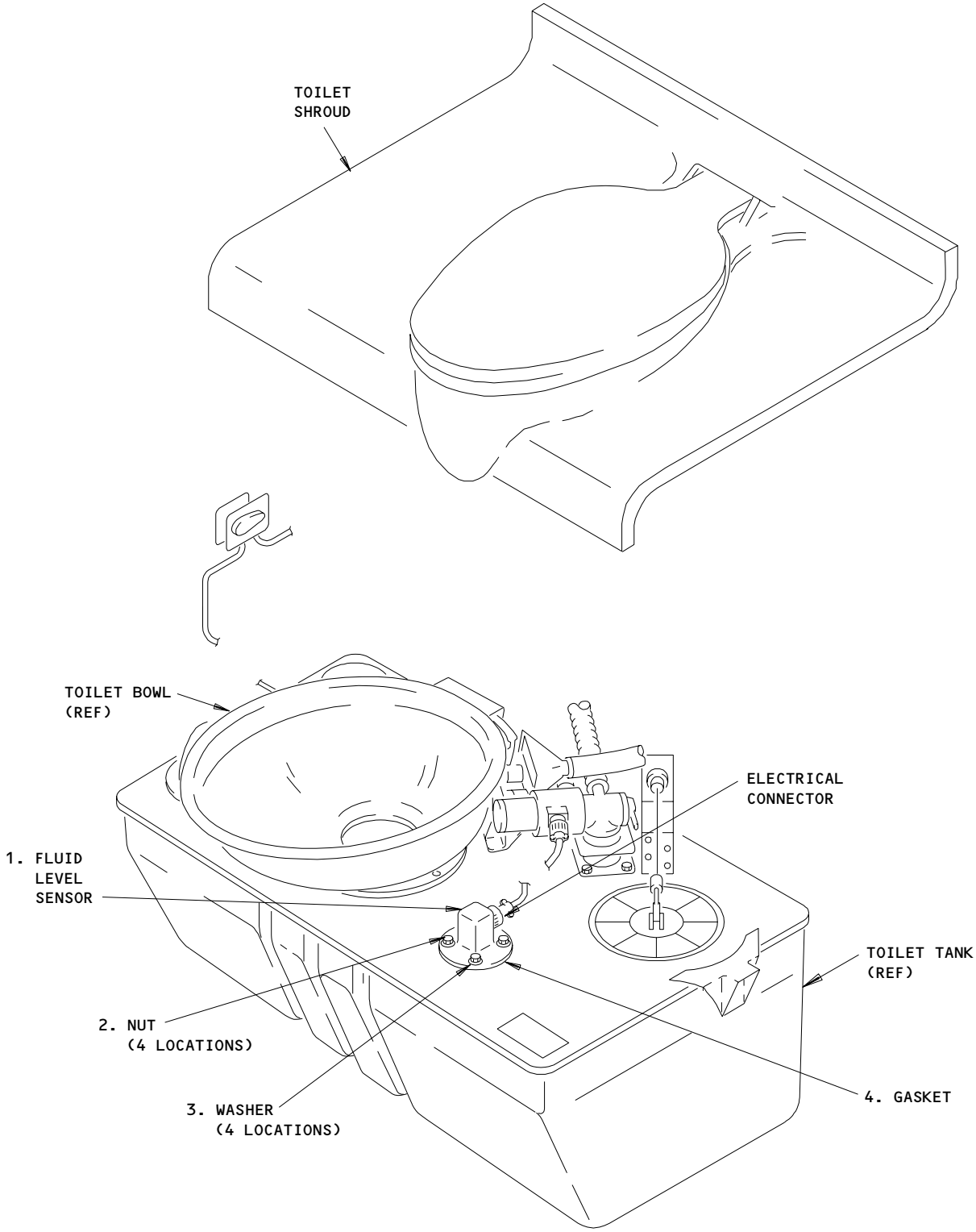
      S 014-005
      (4) Remove the toilet shroud to get access to the top of the toilet tank.

      S 034-006
      (5) Disconnect the electrical connector from the level sensor.

      S 024-007
      (6) Remove the nuts (2) and washers (3) that attach the level sensor (1) to the top of the toilet tank.

      S 024-008
      (7) Remove the level sensor (1) from the toilet tank.

      S 034-009
      (8) Remove the gasket (4).



Fluid Level Sensor
Figure 401

TASK 38-32-04-404-010

3. Install the Level Sensor (Fig. 401)

A. References

(1) AMM 12-17-01/301, Waste Tanks

(2) AMM 24-22-00/201, Electrical Power - Control

(3) AMM 38-32-00/201, Toilet System - Toilet Activation

B. Consumable Materials

(1) B00334 Soda - Bicarbonate

C. Parts

MM			IPC		
FIG	ITEM	NOMENCLATURE	SUBJECT	FIG	ITEM
401	1	Fluid Level Sensor	38-32-53	30	35
	2	Nut			40
	3	Washer			45
	4	Gasket			30
	1	Fluid Level Sensor	38-32-53	31	30
	2	Nut			35
	3	Washer			33
	4	Gasket			25

D. Access

(1) Location Zone

200 Upper Half of Fuselage

E. Procedure

S 164-011

(1) Clean the mating surfaces of the level sensor and the toilet tank.

S 434-012

(2) Install a new gasket (4) for the level sensor on the toilet tank.

S 424-013

(3) Put the level sensor (1) in its position on the toilet tank.

S 424-014

(4) Install the washers (3) and the nuts (2) that attach the level sensor to the toilet tank.

S 434-015

(5) Connect the electrical connector to the level sensor.

S 864-028
(6) To activate the toilet flush pump motor, do this task: Toilet Activation (AMM 38-32-00/201).

S 864-017
(7) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the APU external power panel, P34:
(a) 34A3(A), FILL CONT LAV

S 864-043
(8) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the right miscellaneous electrical equipment panel, P37:
(a) 37D8, LAV FILL VALVE

S 864-018
(9) Supply electrical power (AMM 24-22-00/201).

S 724-019
(10) Make sure the shutoff valve is open.

S 724-032
(11) Add four (4) ounces of sodium bicarbonate, NaHCO3, mixed with approx one (1) gallon of water, to the toilet tank.

S 724-020
(12) Fill the toilet tank with water (AMM 12-17-01/301). Make sure the shutoff valve closes when the toilet tank is almost full.

S 684-021
(13) Drain the toilet tank (AMM 12-17-01/301).

S 724-022
(14) Make sure the shutoff valve is open.

S 614-023
(15) Add toilet flushing deodorant (precharge) to the toilet tank (AMM 12-17-01/301).

S 864-044
(16) Open this circuit breaker on the APU/External power, P34, and attach DO-NOT-CLOSE tag:
(a) 34A3(A), FILL CONT LAV

S 724-025
(17) Make sure the shutoff valve is closed.

S 864-045
(18) Remove the DO-NOT-CLOSE tag and close this circuit breaker on the APU external power panel, P34:
(a) 34A3(A), FILL CONT LAV

S 864-026
(19) Remove electrical power if it is not necessary (AMM 24-22-00/201).

S 414-027
(20) Install the toilet shroud.

FLUSH MOTOR - REMOVAL/INSTALLATION

1. General
   A. This procedure gives the instructions to remove and install the flush motor, the pump, and the filter as one unit.

TASK 38-32-05-004-001

2. Remove the Flush Motor (Fig. 401)
   A. References
      (1) AMM 12-17-01/301, Waste Tank
      (2) AMM 38-32-00/201, Toilet System - Toilet Deactivation
   B. Access
      (1) Location Zone
          200 Upper Half of Fuselage
   C. Prepare for the Removal

      S 864-005
      (1) To deactivate the toilet flush pump motor, do this task: Toilet Deactivation (AMM 38-32-00/201).
   D. Procedure

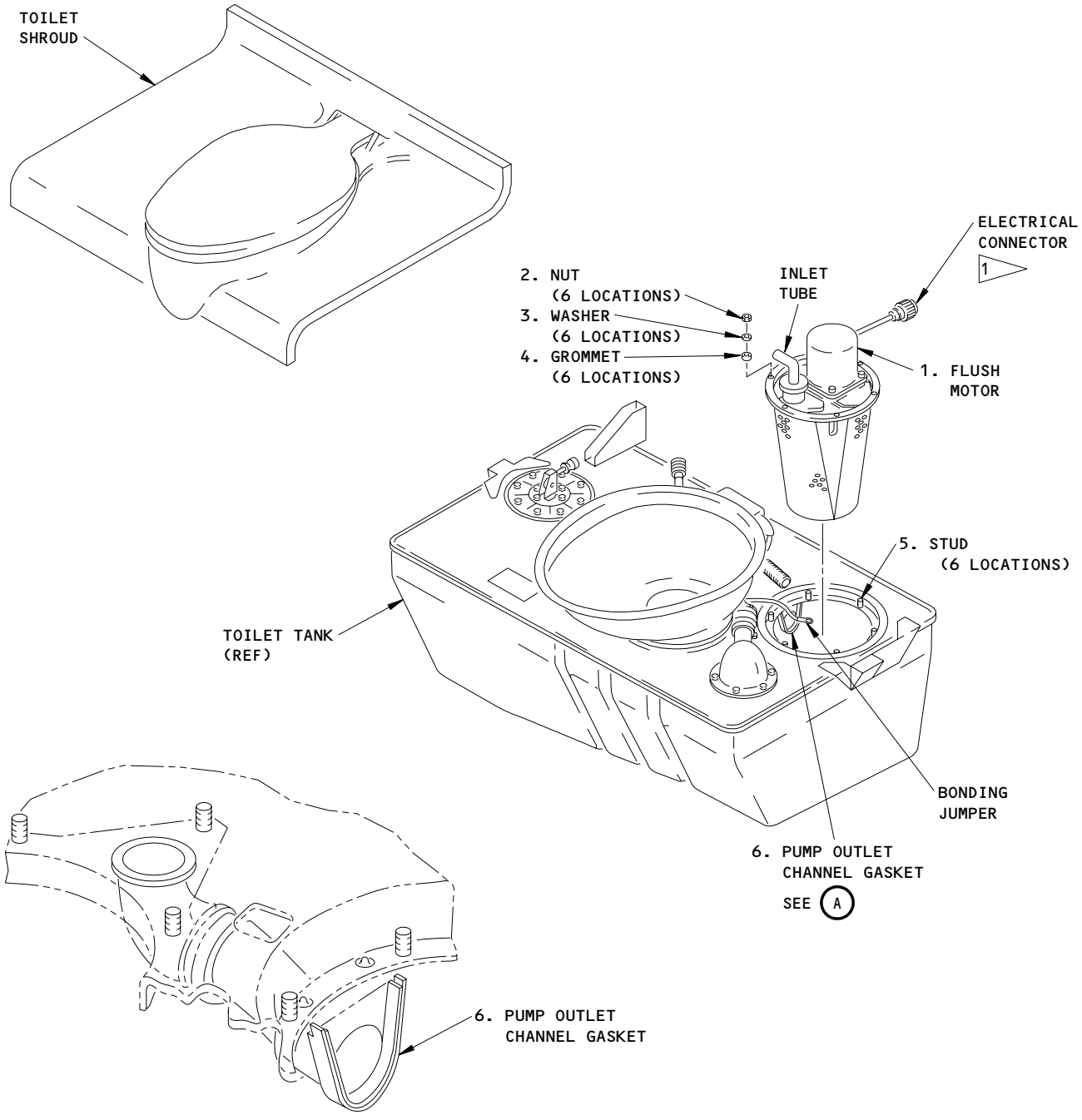
      S 014-007
      (1) Remove the toilet shroud to get access to the toilet tank.

      S 034-010
      (2) Disconnect the electrical connector for the flush motor from the flush timer.

      S 034-012
      (3) Disconnect the bonding jumper from the flush motor.

      S 034-014
      (4) Disconnect the hose from the pump inlet.

      S 024-016
      (5) Remove the mounting nuts (2), the washers (3), and the grommets (4).



Flush Motor Installation
Figure 401

S 024-018

CAUTION: WHEN YOU REMOVE THE FLUSH MOTOR, DO NOT MOVE IT FROM SIDE TO SIDE. IF YOU MOVE THE FLUSH MOTOR FROM SIDE TO SIDE IT CAN LOOSEN THE MOUNTING STUDS.

(6) Lift the flush motor (1) up until it is out of the toilet tank.

S 034-069

(7) Remove the gasket (6) from the pump outlet channel.

TASK 38-32-05-404-020

3. Install the Flush Motor (Fig. 401)

A. References

(1) AMM 12-17-01/301, Waste Tank - Servicing

(2) AMM 24-22-00/201, Electrical Power - Control

(3) AMM 38-32-00/201, Toilet System - Toilet Activation

B. Consumable Materials

(1) A00901 3M Sealing Compound No. 1300

C. Access

(1) Location Zone

200 Upper Half of Fuselage

D. Procedure

S 434-068

(1) Bond a new gasket (6) to the pump outlet channel with sealing compound.

S 024-022

(2) Put the flush motor (1) in its position on the toilet tank. Make sure the flush motor is fully engaged with the toilet tank.

S 424-025

(3) Install the grommets (4), the washers (3), and the nuts (2) on the mounting studs.

(a) Torque the mounting stud fasteners to 10-12 lb-in (1.13-1.36 Nm).

S 434-026
(4) Connect the hose to the pump inlet.

S 434-028
(5) Connect the bonding jumper to the flush motor.

S 434-030
(6) Connect the electrical connector for the flush motor to the flush timer.

S 864-033
(7) To activate the toilet flush pump motor, do this task: Toilet Activation (AMM 38-32-00/201).

S 414-040
(8) Install the toilet shroud.

S 864-042
(9) Remove electrical power if it is not necessary (AMM 24-22-00/201).

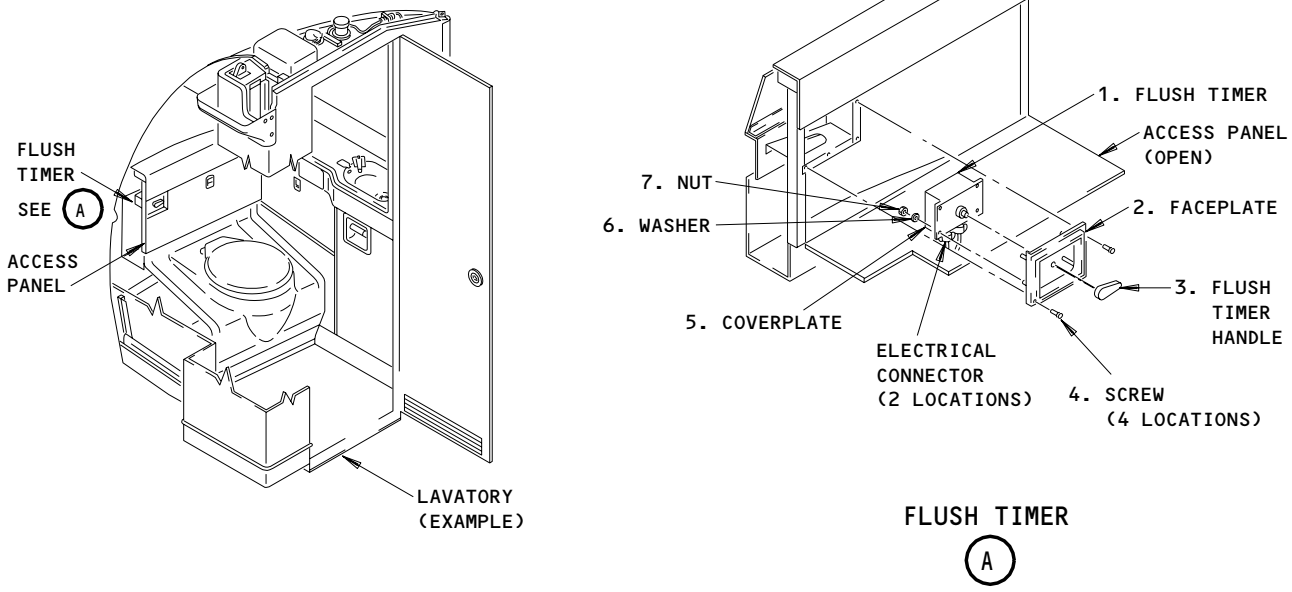
FLUSH TIMER - REMOVAL/INSTALLATION

TASK 38-32-09-004-001

1. Remove the Flush Timer (Fig. 401)
   A. Access
      (1) Location Zone
          200 Upper Half of Fuselage

   B. Procedure

      S 864-002
      (1) To deactivate the toilet flush pump motor, do this task: Toilet Deactivation (AMM 38-32-00/201).



Flush Timer Installation
Figure 401

S 014-003
(2) Open the access panel that is adjacent to the flush timer.

S 034-004
(3) Remove the coverplate (5) from the flush timer.

S 034-005
(4) Disconnect the electrical connectors from the flush timer.

S 034-006
(5) Remove the flush timer handle (3) from the flush timer.

S 024-007
(6) Remove the screws (4), the nuts (7), and the washers (6), and then remove the flush timer (1).

S 034-008
(7) Remove the faceplate (2) from the flush timer (1).

TASK 38-32-09-404-009

2. Install the Flush Timer (Fig. 401)

A. Parts

AMM		NOMENCLATURE	AIPC		
FIG	ITEM		SUBJECT	FIG	ITEM
401	1	Flush Timer Panel	38-32-09	02	123
	2	Faceplate (Escutchion)			117
	3	Handle and Plate Assy			115
	4	Mounting Screw			118,119
	5	Coverplate			155,157
	6	Washer			125,127
	7	Nut			130,132

B. References

(1) AMM 24-22-00/201, Electrical Power - Control

(2) AMM 38-32-00/201, Toilet System - Toilet Activation

C. Access

(1) Location Zone

200 Upper Half of Fuselage

D. Procedure

S 434-010

(1) Attach the faceplate (2) to the flush timer (1).

S 424-011

(2) Put the flush timer (1) in its position and install the screws (4), the washers (6), and the nuts (7).

S 434-012

(3) Install the flush timer handle (3) on the flush timer (1).

S 434-013

(4) Connect the electrical connectors to the flush timer.

S 434-014

(5) Install the coverplate (5) on the flush timer (1).

S 414-015

(6) Close the access panel.

S 864-016

(7) To activate the toilet flush pump motor, do this task: Toilet Activation (AMM 38-32-00/201).

DRAIN VALVE CONTROL CABLE - REMOVAL/INSTALLATION

1. General
   A. This procedure gives the instructions to remove and install the drain valve cable and the cable casing. It also gives the instructions to remove and install the drain valve cable without the cable casing.

   TASK 38-32-10-004-002

2. Remove the Drain Valve Cable and the Cable Casing (Fig. 401)
   A. Access
      (1) Location Zone
          100 Lower Half of Fuselage
          200 Upper Half of Fuselage

      (2) Access Panels
          119AL Forward Toilet Service Panel
          121AL Mid Toilet Service Panel
          149GL Aft Toilet Service Panel

   B. Procedure

      S 014-001
      (1) Remove the toilet shroud to get access to the toilet tank.

      S 034-003
      (2) Disconnect the drain valve cable from the quick-disconnect joint at the drain valve.

      S 024-004
      (3) Remove the adjustment nuts from the cable casing.

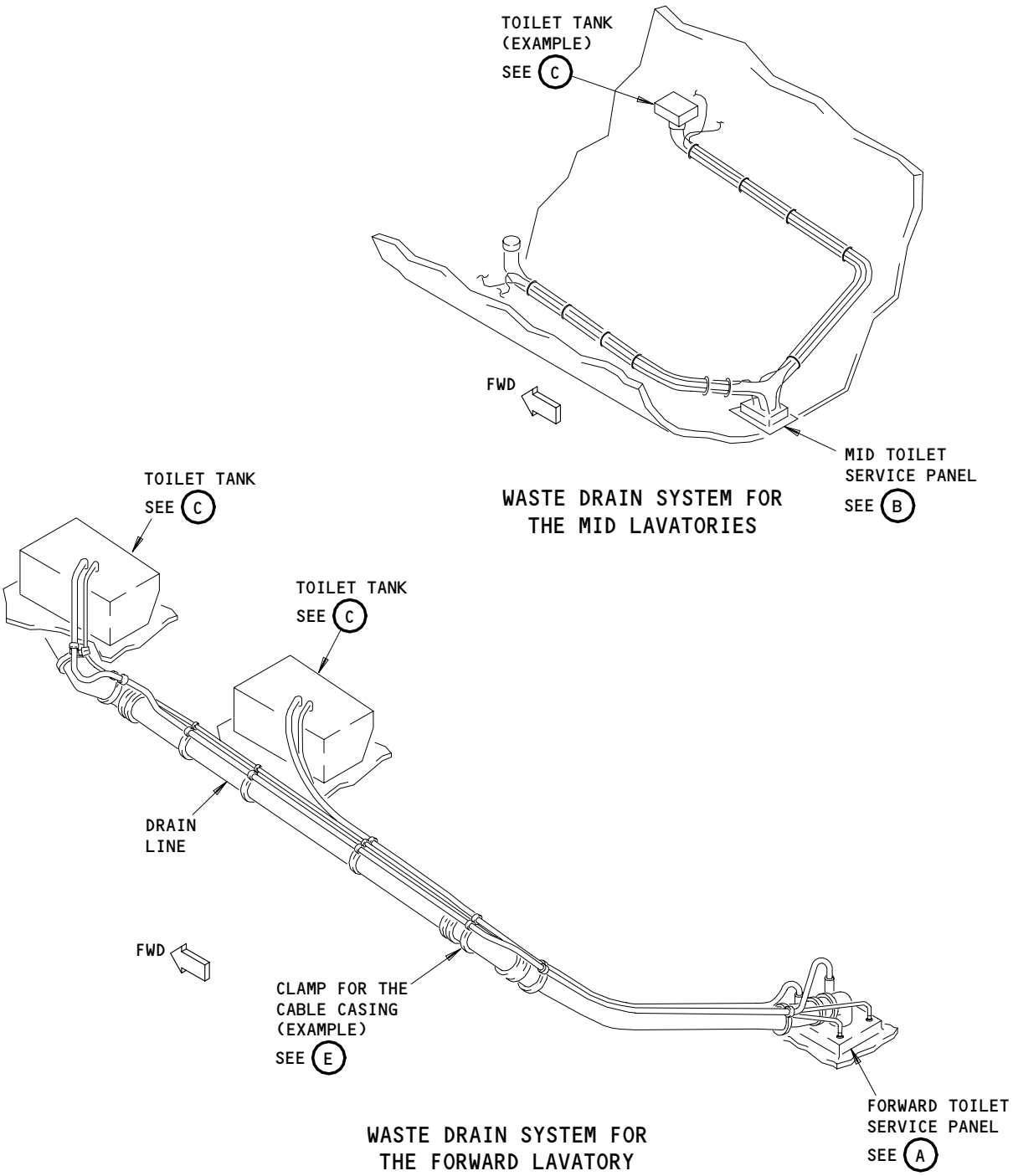
      S 024-009
      (4) Disconnect the cable casing nuts at the toilet service panel.

      S 024-010
      (5) Remove the clamps that attach the cable casing to the brackets on the drain line.

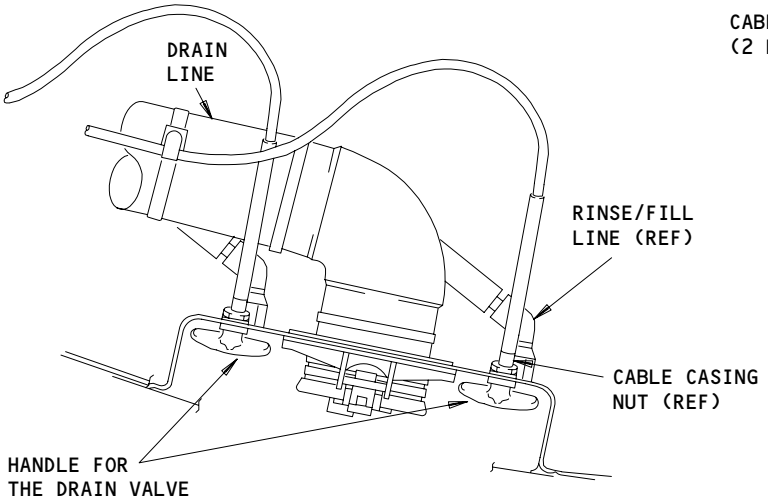
      S 034-011
      (6) Remove the split pin from the handle for the drain valve.

      S 034-012
      (7) Remove the handle from the drain valve cable.

      S 024-015
      (8) Remove the drain valve cable and the cable casing.

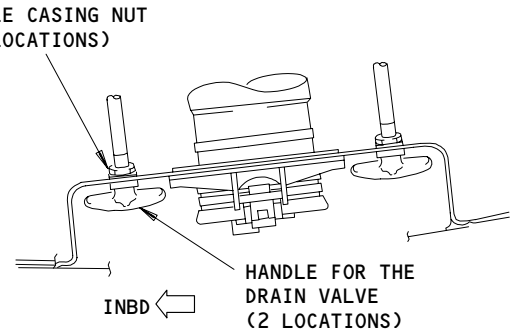


Drain Valve Cable Installation
Figure 401 (Sheet 1)



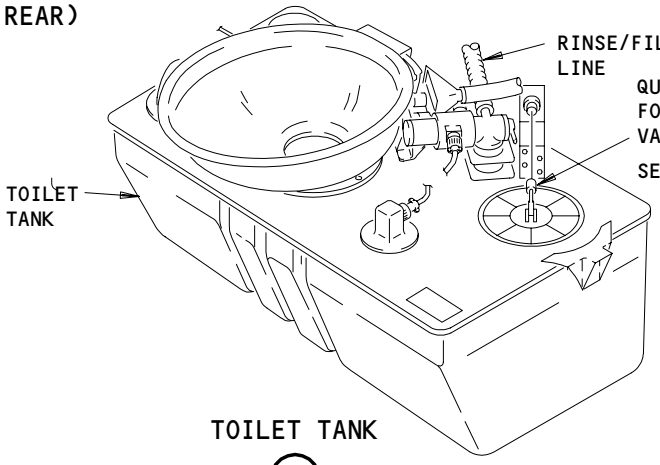
FORWARD TOILET SERVICE PANEL
(VIEW FROM THE REAR)

A



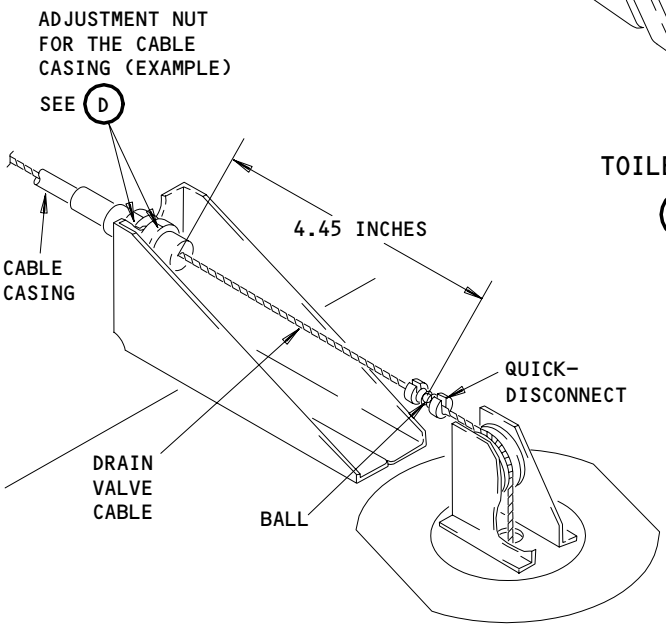
MID TOILET SERVICE PANEL
(VIEW FROM THE REAR)

B



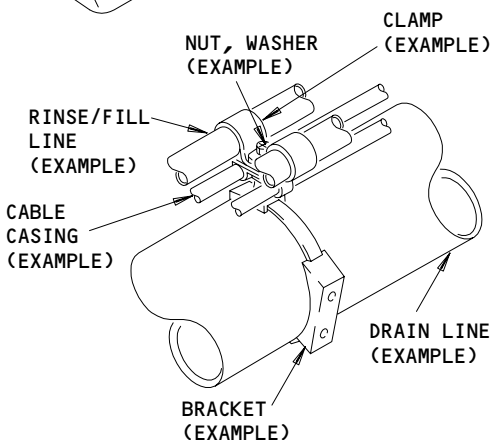
TOILET TANK

C



QUICK-DISCONNECT

D



CLAMP

E

Drain Valve Cable Installation
Figure 401 (Sheet 2)

TASK 38-32-10-404-016

3. Install the Drain Valve Cable and the Cable Casing (Fig. 401)

A. Access

(1) Location Zone

100 Lower Half of Fuselage
200 Upper Half of Fuselage

(2) Access Panels

119AL Forward Toilet Service Panel
121AL Mid Toilet Service Panel
149GL Aft Toilet Service Panel

B. Procedure

S 424-017

(1) Put the drain valve cable and the cable casing in its position.

S 424-031

(2) Attach the cable casing to the toilet service panel with the cable casing nuts and washers. Install lockwire.

NOTE: Lockwire is not required when lockwashers are used.

S 434-032

(3) Install the handle on the drain valve cable.

S 434-033

(4) Install the split pin in the handle.

S 424-034

CAUTION: DO NOT MAKE SMALL RADIUS BENDS IN THE DRAIN VALVE CABLE. SMALL RADIUS BENDS CAN MAKE THE DRAIN VALVE CABLE NOT EASY TO OPERATE

(5) Install the clamps to attach the cable casing to the brackets on the drain line.

S 424-040

(6) Put the adjustment nuts on the cable casing.

S 824-041

(7) Adjust the drain valve cable to the dimension shown.

S 434-042
(8) Tighten the adjustment nuts and install lockwire.

NOTE: Lockwire is not required when lockwashers are used.

S 434-043
(9) Connect the drain valve cable to the quick-disconnect joint at the drain valve.

S 714-044
(10) Pull out, and push in the handle for the drain valve to make sure the drain valve cable moves freely.

S 414-045
(11) Install the toilet shroud.

TASK 38-32-10-004-046
4. Remove the Drain Valve Cable Without the Cable Casing (Fig. 401)
A. Access
(1) Location Zone
100 Lower Half of Fuselage
200 Upper Half of Fuselage

(2) Access Panels
119AL Forward Toilet Service Panel
121AL Mid Toilet Service Panel
149GL Aft Toilet Service Panel

B. Procedure

S 414-047
(1) Remove the toilet shroud to get access to the toilet tank.

S 434-048
(2) Disconnect the drain valve cable from the quick-disconnect joint at the drain valve.

S 024-049
(3) Carefully cut off the end of the drain valve cable (to remove the ball). Make sure you cut the drain valve cable at 90 degrees. Make sure there are no sharp edges.

NOTE: If the drain valve cable is broken you must cut it to remove sharp edges.

S 024-050

CAUTION: MAKE SURE THE DRAIN VALVE CABLE DOES NOT HAVE SHARP EDGES. SHARP EDGES CAN CAUSE DAMAGE TO THE CABLE CASING WHEN YOU REMOVE THE DRAIN VALVE CABLE.

(4) Pull the handle for the drain valve (at the toilet service panel) to remove the drain valve cable.

S 034-051

(5) Remove the handle from the drain valve cable.

TASK 38-32-10-404-052

5. Install the Drain Valve Cable Without the Cable Casing (Fig. 401)

A. Equipment

(1) Portable Swaging Kit - AT520JK, ATI Industries (V78710)

B. Access

(1) Location Zone

100 Lower Half of Fuselage
200 Upper Half of Fuselage

(2) Access Panels

119AL Forward Toilet Service Panel
121AL Mid Toilet Service Panel
149GL Aft Toilet Service Panel

C. Procedure

S 434-059

CAUTION: KEEP THE DRAIN VALVE CABLE CLEAN. A DIRTY DRAIN VALVE CABLE CAN MAKE THE DRAIN VALVE NOT EASY TO MOVE.

(1) Install the handle on the end of the drain valve cable.

S 424-060

(2) Put the end of the drain valve cable in the cable casing at the toilet service panel.

S 424-061

(3) Carefully push the drain valve cable through the cable casing until the handle gets to the toilet service panel.

S 864-058

(4) Put the handle in the locked position.

S 424-062

(5) Cut the drain valve cable to the dimension shown in Fig. 401 and swage a ball to the end of the drain valve cable.

S 434-063
(6) Connect the drain valve cable to the quick-disconnect joint at the drain valve.

S 714-064
(7) Pull out, and push in the handle for the drain valve to make sure the drain valve cable moves freely.

S 414-065
(8) Install the toilet shroud.

TOILET BOWL - REMOVAL/INSTALLATION

TASK 38-32-11-004-006

1. Remove the Toilet Bowl (Fig. 401)
   A. References
      (1) AMM 12-17-01/301, Waste Tank - Servicing
      (2) AMM 38-32-00/201, Toilet System - Toilet Deactivation
   B. Access
      (1) Location Zone
          200 Upper Half of Fuselage

   C. Procedure

      S 864-044
      (1) To deactivate the toilet flush pump motor, do this task: Toilet Deactivation (AMM 38-32-00/201).

      S 014-007
      (2) Remove the toilet shroud to get access to the top of the toilet tank.

      S 024-009
      (3) Remove the nuts and washers that attach the toilet bowl to the toilet tank.

      S 024-010

      CAUTION: WHEN YOU REMOVE THE TOILET BOWL, DO NOT MOVE IT FROM SIDE TO SIDE. IF YOU MOVE THE TOILET BOWL FROM SIDE TO SIDE, IT CAN LOOSEN THE STUDS.

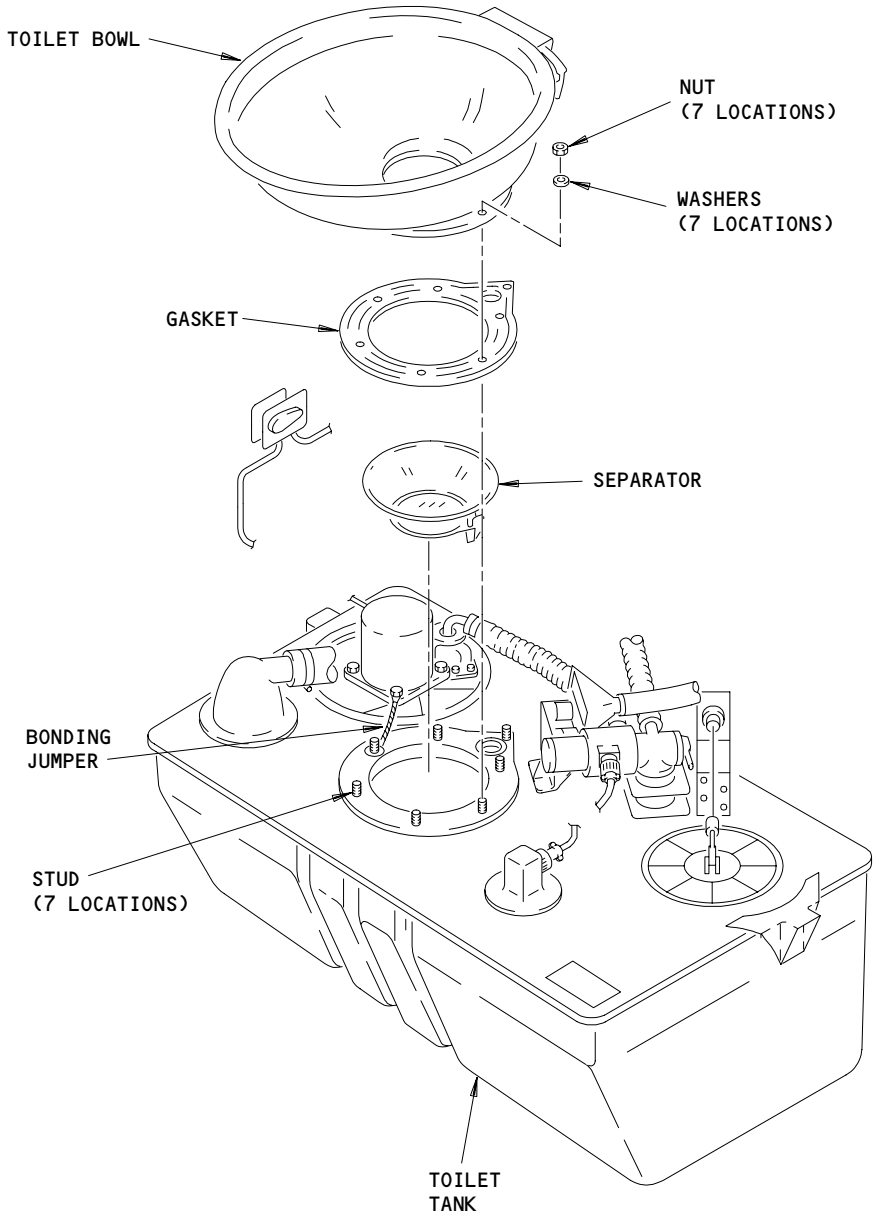
      (4) Lift the toilet bowl up to remove it.

      S 034-011
      (5) Remove the gasket.

      S 034-012
      (6) Remove the separator, if you want to see in the toilet tank.

TASK 38-32-11-404-013

2. Install the Toilet Bowl (Fig. 401)
   A. References
      (1) AMM 12-17-01/301, Waste Tank - Servicing



Toilet Bowl Installation
Figure 401

(2) AMM 24-22-00/201, Electrical Power - Control
(3) AMM 38-32-00/201, Toilet System - Toilet Activation

B. Access
(1) Location Zone
200 Upper Half of Fuselage

C. Procedure

S 144-014
(1) Clean the mating surfaces of the toilet bowl and the toilet tank.

S 434-015
(2) Put the separator in its position on the toilet tank.

S 434-016
(3) Install a new gasket for the toilet bowl.

S 424-017
(4) Put the toilet bowl in its position on the toilet tank.

S 424-018
(5) Install the washers and nuts on the studs.

S 864-020
(6) To activate the toilet flush pump motor, do this task:
Toilet Activation (AMM 38-32-00/201).

S 794-026
(7) Make sure there is not a leak around the toilet bowl.

S 414-027
(8) Install the toilet shroud.

WASTE PANEL RINSE FITTING ASSEMBLY - REMOVAL/INSTALLATION

1. General
   A. There is one waste rinse fitting assembly at each toilet service panel. Some rinse fitting assemblies have a rinse fitting heater attached. Some rinse fitting assemblies do not have a cap and lever attached. The removal and installation of each rinse fitting assembly is similar.

TASK 38-32-14-004-001

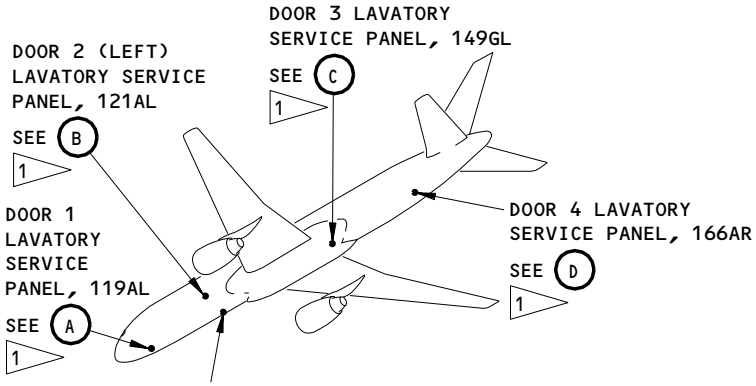
2. Waste Panel Rinse Fitting Assembly Removal
   A. References
      (1) AMM 06-41-00/201, Fuselage Access Doors and Panels
      (2) AMM 12-17-01/301, Waste Tank - Servicing
      (3) AMM 24-22-00/201, Electrical Power - Control
      (4) AMM 25-50-03/401, Bulkhead Lining
   B. Access
      (1) Location Zone
          100 Lower Half of Fuselage

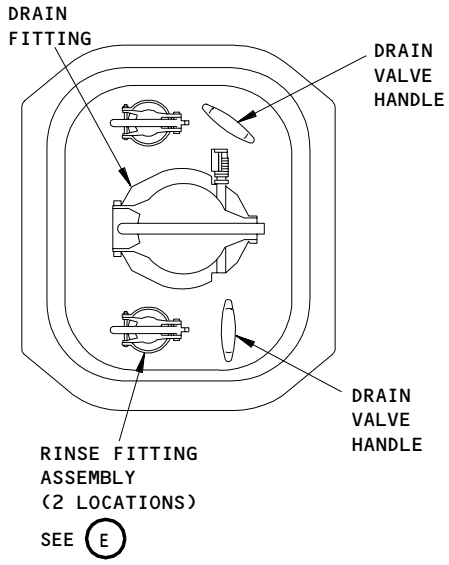
      (2) Access Panels
          AIRPLANES WITH DOOR 1 LAVS (LAV A, LAV F);
          119AL Forward Toilet Service Panel
          AIRPLANES WITH DOOR 2 LEFT SIDE LAVS (LAV S, LAV T);
          121AL Mid Toilet Service Panel (Left)
          AIRPLANES WITH DOOR 2 RIGHT SIDE LAVS (LAV G, LAV H);
          122BR Mid Toilet Service Panel (Right)
          AIRPLANES WITH DOOR 3 LAVS (LAV B, LAV C, LAV D);
          149GL Aft Toilet Service Panel
          AIRPLANES WITH DOOR 4 LAVS (LAV J, LAV K, LAV L, LAV M, LAV R);
          166AR Aft Toilet Service Panel
   C. Prepare for the Removal

      S 864-002
      (1) Supply electrical power (AMM 24-22-00/201).

      S 614-003
      (2) Do the servicing procedure for the applicable toilet (AMM 12-17-01/301).

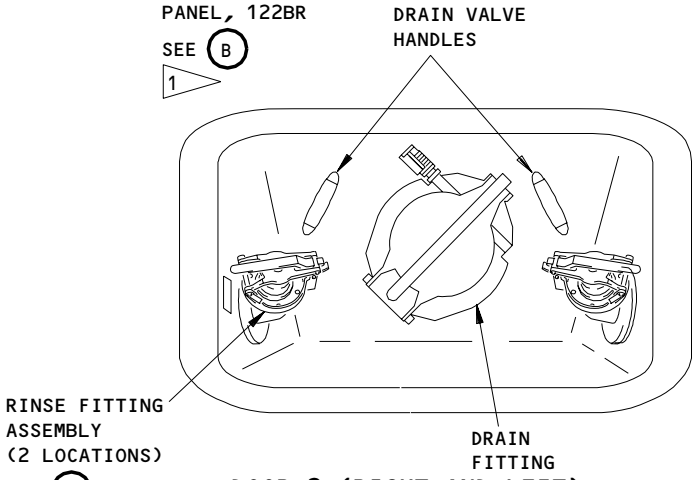
          NOTE: Do not add precharge to the toilet tank. Do not close the door for the toilet service panel.





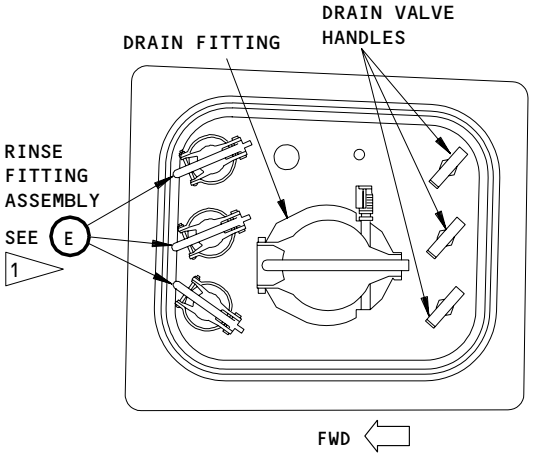
DOOR 1 LAVATORY SERVICE PANEL, 119AL

A 1



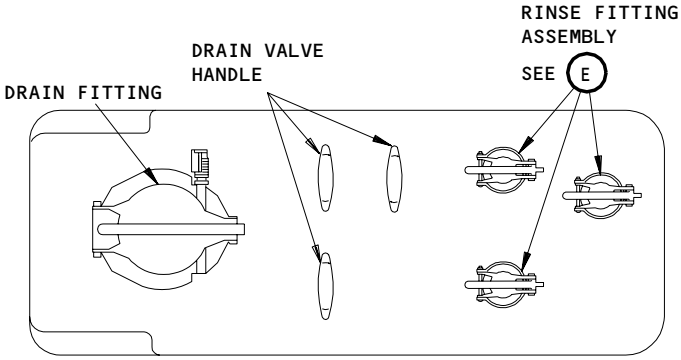
DOOR 2 (RIGHT AND LEFT) LAVATORY SERVICE PANEL, 121AL (122BR)

B 1



DOOR 4 LAVATORY SERVICE PANEL, 166AR

D 1

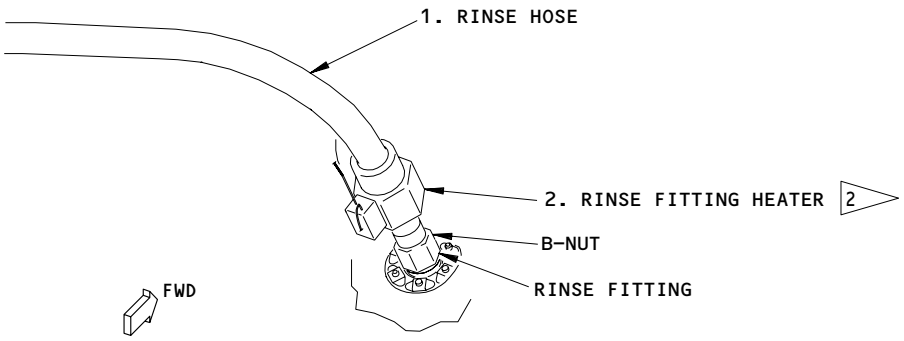


DOOR 3 LAVATORY SERVICE PANEL, 149GL

C 1

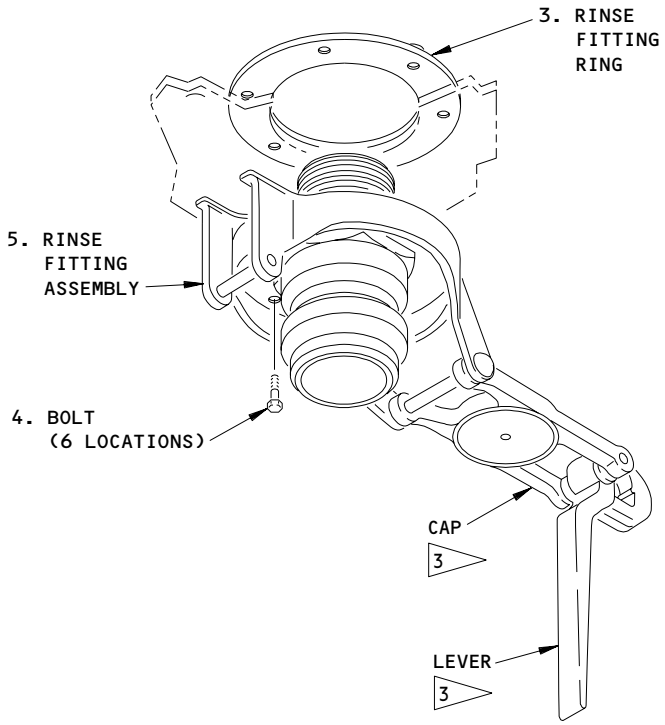
1 ALL POSSIBLE SERVICE PANEL AND RINSE FITTING LOCATIONS SHOWN. NOT ALL INSTALLED ON ALL AIRPLANES.

Waste Panel Rinse Fitting Assembly Installation
Figure 401 (Sheet 1)



RINSE FITTING ASSEMBLY - INTERNAL VIEW
(EXAMPLE)

E



RINSE FITTING ASSEMBLY - EXTERNAL VIEW
(EXAMPLE)

E

2 RINSE FITTING HEATER NOT INSTALLED ON ALL AIRPLANES

3 SOME RINSE FITTING ASSEMBLIES DO NOT HAVE THE CAP AND LEVER.

Waste Panel Rinse Fitting Assembly Installation
Figure 401 (Sheet 2)

S 864-004
(3) Open the circuit breakers for the applicable system, and attach DO-NOT-CLOSE tags:
(a) On the right miscellaneous electrical equipment panel, P37:
1) 37F5, HEATERS WATERLINE FWD
2) 37F6, HEATERS WATERLINE MID
3) 37E1, HEATERS WATERLINE AFT

S 014-005
(4) Get access to the inner side of the toilet service panel.
(a) For the Door 1 lavatory service panel (119AL Access Door), do this step:
1) Remove the floor panel that is at the center of the airplane, immediately forward of the E2 rack, in the main equipment center.
(b) For the Door 2 lavatory toilet service panel (Access Door 121AL - Left Side, 122BR - Right Side), do this step:
1) Remove the sidewall lining in the forward cargo compartment that is opposite the service panel.
(c) For the Door 3 lavatory service panel (149GL Access Door), do this step:
1) Remove the forward bulkhead lining of the aft cargo compartment (AMM 25-50-03/401).
(d) For the Door 4 lavatory service panel (166AR Access Door), do this step:
1) Remove the floor panel lining of the aft cargo compartment (AMM 25-50-03/401).

D. Remove the Waste Panel Rinse Fitting Assembly (Fig. 401)

S 024-029
(1) Loosen the B-nut of the rinse hose (1) to disconnect the rinse fitting cap assy (5).

S 024-008
(2) Remove the bolts (4) that attaches the rinse fitting cap assy (5) to the rinse fitting ring assy (3).

S 024-009
(3) Remove the rinse fitting assembly (5).

TASK 38-32-14-404-010

3. Waste Panel Rinse Fitting Assembly Installation

A. Consumable Materials
(1) A00247 Sealant - Chromate Type, BMS 5-95

B. References
(1) AMM 06-41-00/201, Fuselage Access Doors and Panels
(2) AMM 12-17-01/301, Waste Tank - Servicing
(3) AMM 24-22-00/201, Electrical Power - Control
(4) AMM 25-50-03/401, Bulkhead Lining

C. Access
(1) Location Zones
100 Lower Half of Fuselage
200 Upper Half of Fuselage

(2) Access Panels
AIRPLANES WITH DOOR 1 LAVS (LAV A, LAV F);
119AL Forward Toilet Service Panel
AIRPLANES WITH DOOR 2 LEFT SIDE LAVS (LAV S, LAV T);
121AL Mid Toilet Service Panel (Left)
AIRPLANES WITH DOOR 2 RIGHT SIDE LAVS (LAV G, LAV H);
122BR Mid Toilet Service Panel (Right)
AIRPLANES WITH DOOR 3 LAVS (LAV B, LAV C, LAV D);
149GL Aft Toilet Service Panel
AIRPLANES WITH DOOR 4 LAVS (LAV J, LAV K, LAV L, LAV M, LAV R);
166AR Aft Toilet Service Panel

D. Install the Waste Rinse Fitting Assembly (Fig. 401)

S 394-030
(1) Apply a fay surface seal with sealant, BMS5-95, Type I to the rinse fitting ring assy (3).

S 424-031
(2) Put the rinse fitting ring assy (3) in its position.

S 394-013
(3) Apply a fay surface seal with sealant, BMS5-95, Type I to the rinse fitting assembly (5).

S 424-014
(4) Put the rinse fitting assembly (5) in its position.

S 424-015
(5) Install the bolts (4) for the rinse fitting assembly (5).

S 424-032
(6) Install the rinse hose (1).

E. Waste Panel Rinse Fitting Assembly Installation Test

S 864-025
(1) Open the cap of the rinse fitting (if equiped).

S 484-026
(2) Connect a rinse water hose from the service equipment to the rinse fitting.

S 174-027
(3) Fill the waste tank with 5 to 10 gallons (20 to 40 liters) of water.

S 794-028
(4) Examine the rinse fitting assembly and the connections for leakage.

F. Put the Airplane Back to Its Usual Condition

S 614-019
(1) Add precharge to the toilet tank (AMM 12-17-01/301).

S 414-020
(2) Install any floor panels or bulkhead linings that you removed to access the rinse fitting (AMM 25-50-03/401).

S 414-022
(3) Close the access door for the toilet service panel.

S 864-023
(4) Remove the DO-NOT-CLOSE tags and close the circuit breakers for the applicable system:
(a) On the right miscellaneous electrical equipment panel, P37:
1) 37F5, HEATERS WATERLINE FWD
2) 37F6, HEATERS WATERLINE MID
3) 37E1, HEATERS WATERLINE AFT

S 864-024
(5) Remove electrical power if it is not necessary (AMM 24-22-00/201).

WASTE TANK DRAIN VALVE ASSEMBLY - REMOVAL/INSTALLATION

1. General
   A. There is one waste drain valve assembly at each toilet service panel.

TASK 38-32-16-004-070

2. Waste Drain Valve Assembly Removal
   A. References
      (1) AMM 12-17-01/301, Waste Tank - Servicing
      (2) AMM 24-22-00/201, Electrical Power - Control
      (3) AMM 25-50-02/401, Cargo Compartment Sidewall Linings
      (4) AMM 25-50-03/401, Bulkhead Lining
   B. Access
      (1) Location Zone
          100 Lower Half of Fuselage

      (2) Access Panels
          119AL Forward Toilet Service Panel
          149GL Aft Toilet Service Panel

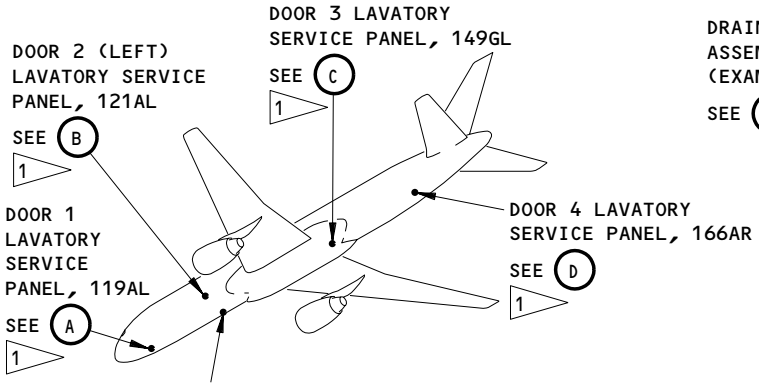
   C. Prepare for the Removal

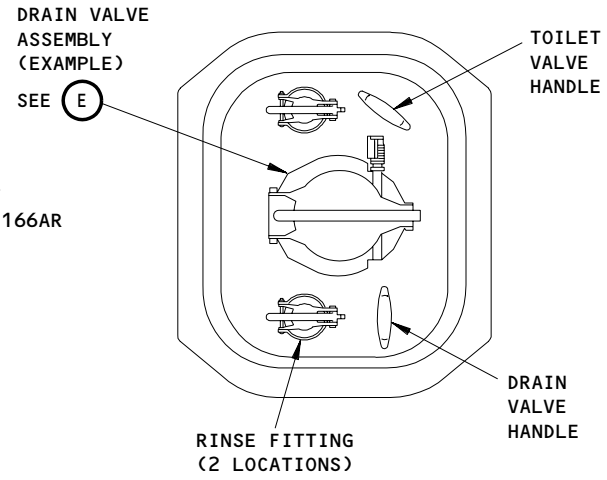
      S 864-003
      (1) Supply electrical power (AMM 24-22-00/201).

      S 614-004
      (2) Do the servicing procedure for the applicable toilet (AMM 12-17-01/301).

      NOTE: Do not add precharge to the toilet tank. Do not close the door for the toilet service panel.

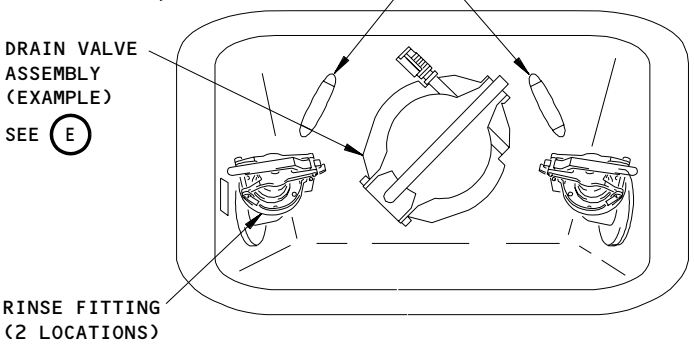
      S 864-005
      (3) Open the applicable HEATERS LAV WATER circuit breaker on the right miscellaneous electrical equipment panel, P37, row F and attach a DO-NOT-CLOSE tag.





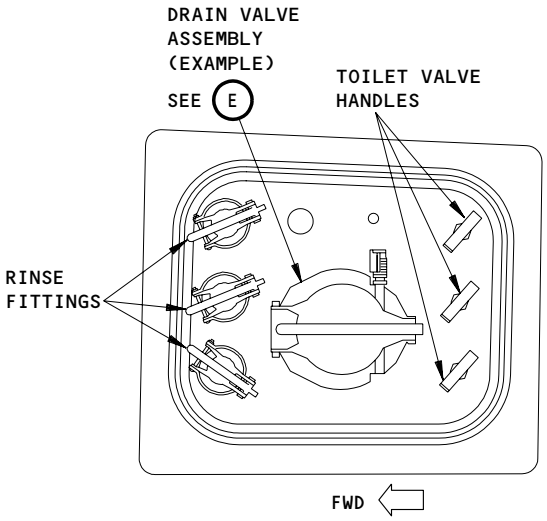
DOOR 1 LAVATORY SERVICE PANEL, 119AL

A 1



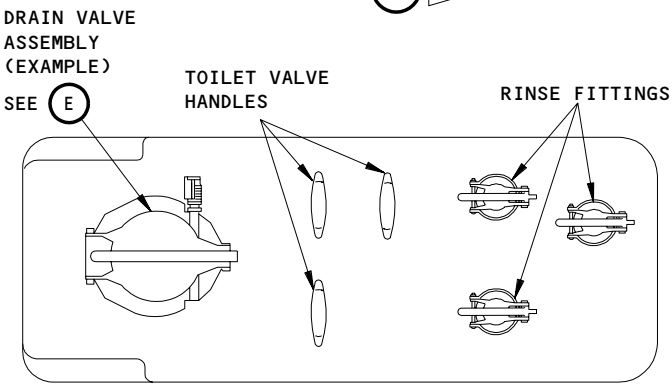
DOOR 2 (RIGHT AND LEFT) LAVATORY SERVICE PANEL, 121AL (122BR)

B 1



DOOR 4 LAVATORY SERVICE PANEL, 166AR

D 1

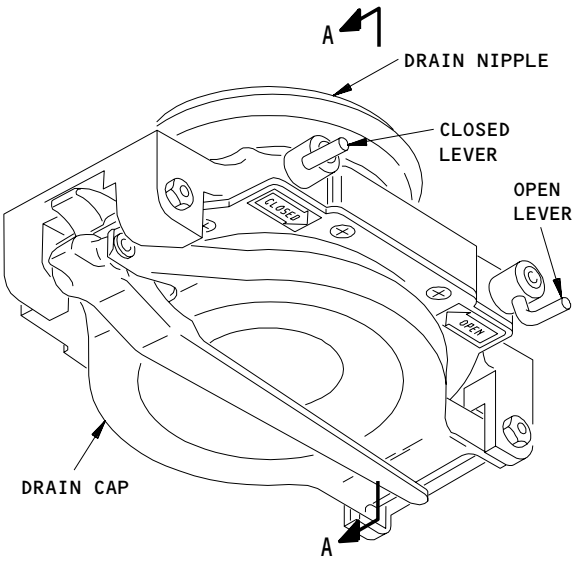


DOOR 3 LAVATORY SERVICE PANEL, 149GL

C 1

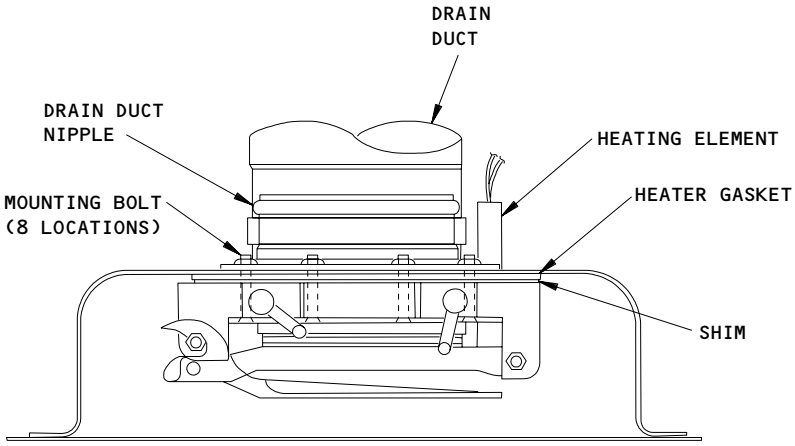
1 LOCATION AS INSTALLED. ALL POSSIBLE SERVICE PANEL LOCATIONS SHOWN. NOT ALL INSTALLED ON ALL AIRPLANES. DRAIN CAP TYPES AND ORIENTATIONS ARE EXAMPLES ONLY. INSTALL ORIGINAL DRAIN VALVE IN THE SAME POSITION AS BEFORE REMOVAL.
OPTIONAL DRAIN VALVES MAY NEED TO BE INSTALLED IN A ROTATED POSITION TO PROVIDE CLEARANCE FOR THE DRAIN VALVE CAP.

Waste Panel Drain Valve Assembly Installation
Figure 401 (Sheet 1)



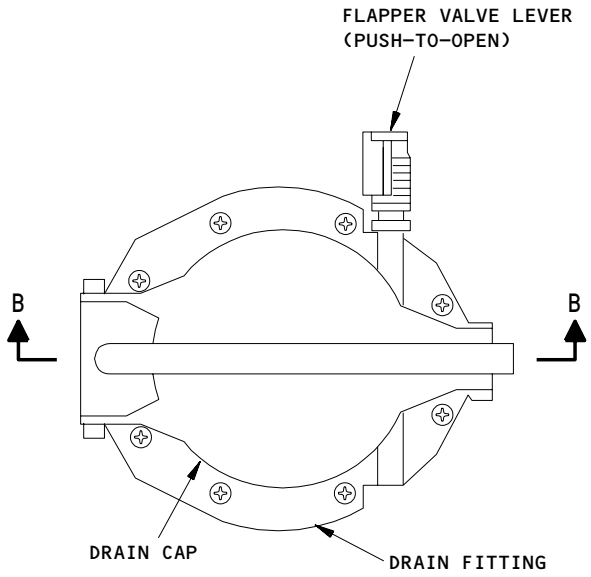
DRAIN VALVE ASSEMBLY
(OPEN/CLOSE LEVER TYPE)

E



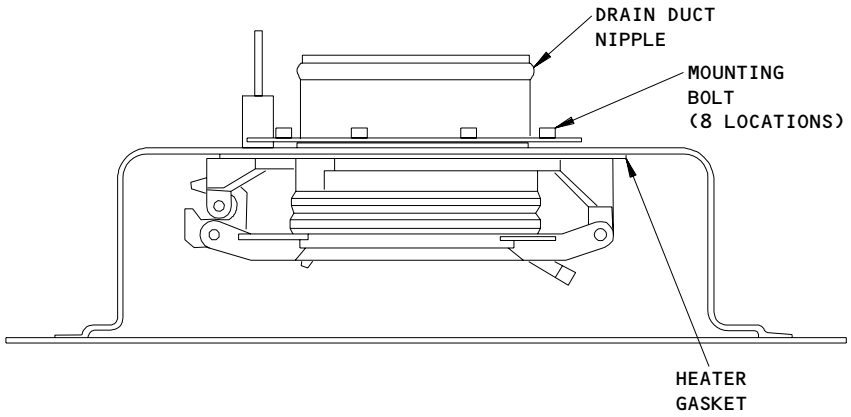
A-A

Waste Panel Drain Valve Assembly Installation
Figure 401 (Sheet 2)



DRAIN VALVE ASSEMBLY
(PUSH-TO-OPEN TYPE)

E



B-B

Waste Panel Drain Valve Assembly Installation
Figure 401 (Sheet 3)

S 014-085
(4) Get access to the inner side of the toilet service panel.
(a) For the forward toilet service panel (119AL Access Door), do this step:
1) Remove the floor panel that is at the center of the airplane, immediately forward of the E2 rack, in the main equipment center.
(b) For the aft toilet service panel (149GL Access Door), do this step:
1) Remove the forward bulkhead lining of the aft cargo compartment (AMM 25-50-03/401).

D. Remove the Waste Drain Valve Assembly (Fig. 401)

S 034-020
(1) Remove the clamp that attaches the drain line to the drain valve.

S 014-021
(2) Open the cap on the drain valve.

S 024-022
(3) Remove the bolts from the drain valve (8 locations).

S 024-089
(4) Remove the waste drain valve assembly from the toilet service panel.

NOTE: Make sure you do not cause damage to the heater gasket between the toilet service panel and the drain valve assembly.

TASK 38-32-16-404-074

3. Waste Drain Valve Assembly Installation

A. Consumable Materials
(1) A00635 RTV 108, Adhesive, Silicone
(2) A00027 DC Q3-7063, Adhesive, Silicone
(3) A00231 RTV 102, Adhesive, Silicone
(4) A00281 RTV 174, Adhesive, Silicone
(5) A00247 Sealant - Chromate Type, BMS 5-95
(6) B00148 Solvent - Methyl Ethyl Ketone (MEK), TT-M-261

B. References
(1) AMM 12-17-01/301, Waste Tank - Servicing
(2) AMM 24-22-00/201, Electrical Power - Control
(3) AMM 25-50-02/401, Cargo Compartment Sidewall Linings
(4) AMM 25-50-03/401, Bulkhead Lining
(5) AMM 30-71-04/401, Drain Pipe Heater Gasket

C. Access
(1) Location Zones
100 Lower Half of Fuselage
200 Upper Half of Fuselage

(2) Access Panels
119AL Forward Toilet Service Panel
121AL Mid Toilet Service Panel
149GL Aft Toilet Service Panel

D. Install the Waste Drain Valve Assembly (Fig. 401)

S 114-042

WARNING: DO NOT GET SOLVENTS IN YOUR, MOUTH OR YOUR EYES, OR ON YOUR SKIN. DO NOT BREATHE THE FUMES FROM SOLVENTS. SOLVENTS ARE HAZARDOUS MATERIALS. REFER TO PRODUCT MATERIAL SAFETY DATA SHEETS (MSDS) AND LOCAL REQUIREMENTS FOR PROPER HANDLING PROCEDURES.

(1) Clean the mating surfaces and the bolts with solvent, Series 90 (AMM 20-30-90/201) to remove the remaining sealant.

S 434-043

(2) If the heater gasket is damaged, replace the heater gasket (AMM 30-71-04/401).

S 394-044

(3) Apply a silicone adhesive to the mating surface of the waste drain valve assembly flange.

S 424-047

(4) Insert the waste drain valve assembly into the waste line.

NOTE: Make sure the waste drain valve assembly is in the same position as before you removed it.

NOTE: Some optional drain valves may need to be rotated to a position that allows the drain valve cap to be completely opened without contacting the surrounding equipment. Make sure the drain valve retains partial coverage on the back of the heater gasket electrical connector.

S 424-046

(5) Use the steps that follow to put the drain valve in its correct position:
(a) At the forward waste service panels, the open and close levers on the drain valve must point outboard.

(b) At the middle waste service panel, the open and close levers on the drain valve must point outboard.
(c) At the aft toilet service panel, the open and close levers on the drain valve must point to the left side of the airplane.

S 424-049
(6) Apply BMS 5-95 sealant to the mounting bolts, for the drain valve, and install the mounting bolts while the sealant is wet.

S 864-081
(7) Get access to the waste service panel on the inside of the airplane.

S 434-051
(8) Install the clamp to attach the drain line to the drain valve.

S 864-091
(9) DRAIN VALVES WITH OPEN/CLOSE LEVERS;
Do these steps to close the flapper valve in the drain valve:
(a) Turn the close lever in the direction of the CLOSED arrow and hold it there.
(b) Move the open lever in the opposite direction of the OPEN arrow to lock the flapper valve in the closed position.
(c) Release the two levers.

S 414-076
(10) DRAIN VALVES WITH PUSH-TO-OPEN LEVER;
Close the cap on the drain valve.

NOTE: The flapper valve will close when you close the cap.

E. Put the Airplane Back to Its Usual Condition

S 614-055
(1) Add precharge to the toilet tank (AMM 12-17-01/301).

S 414-052
(2) Install all of the floor panels, and the bulkhead linings that you removed to access the drain valve (AMM 25-50-03/401).

S 794-090
(3) Make sure there is no leakage at the waste drain assembly.

S 414-056
(4) Close the door for the toilet service panel.

S 864-057
(5) Remove the DO-NOT-CLOSE tag and close the HEATERS LAV WATER circuit breakers on the right miscellaneous electrical equipment panel, P37.