

Section - III SYSTEMS DESCRIPTION

Sub-section 16 WATER/WASTE

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GENERAL

The water and waste system consists of a basin with heated running water located in a lavatory at the rear of the passenger cabin and an electrically flushing toilet with external servicing facilities.

WATER SYSTEM

Wash water is stored in a 2.3 gallon heated water tank with a water pump controlled by operation of the faucet.

LAVATORY WATER TANK

The water tank contains a triple element low voltage immersion heater, controlled to $40^{\circ}\text{C} \pm 2^{\circ}$, and water level microswitches. Provided the tank is full, the water heater comes into operation immediately when the TOILET WASH WATER push switch, on galley panel FG-A, is selected. The switch light illuminates to show system operation.

The water level microswitches operate as follows:

- The high-level switch contacts are closed when the tank is full and open immediately the float starts to fall.
- The low level switch contacts open when the minimum water level (just above the elements) is reached to isolate water heater power supplies preventing overheating of the elements.

LAVATORY WATER PUMP

A counterclockwise rotation of the faucet will energize the pump for continuous operation until the faucet is released. The pump is a self contained 12 VDC geared pump designed to prevent leakage and contamination of the water supply and requires little maintenance. The pump boosts air pressure into the water lines at 20 psig (approximately) above cabin air pressure.

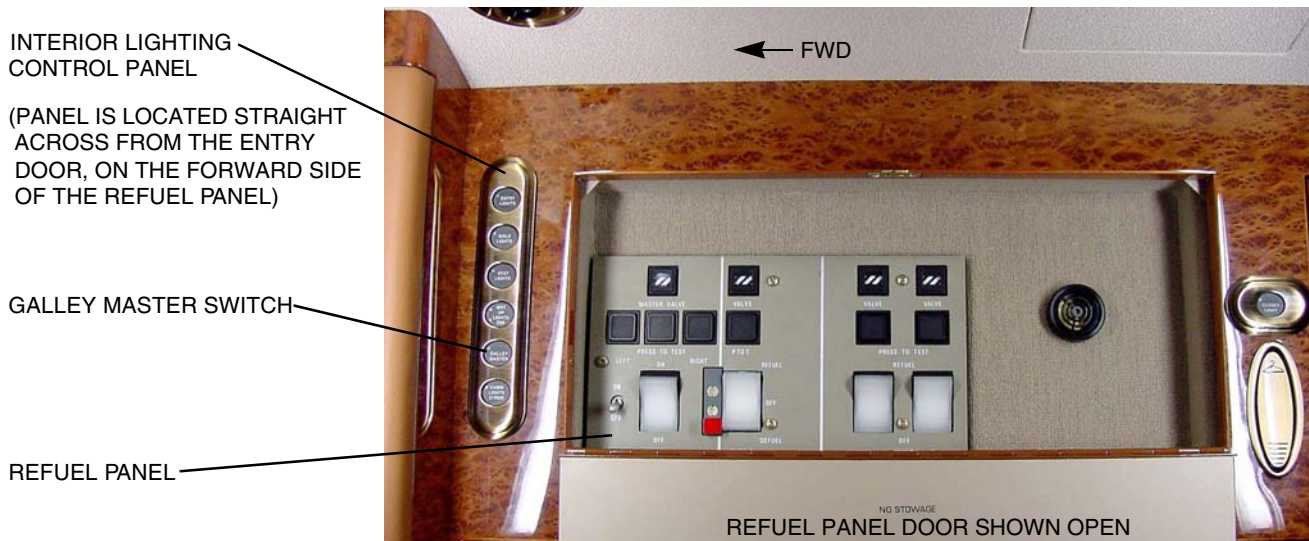
Electrical power for the water pump is normally provided from busbar PS2 through the GALLEY POWER and TOILET WASH WATER switches on the galley switch panel. For ground operation, the system may be connected to the No. 1 battery through the ROOF/STEP light switch selected to the ON position. Pushing the drain button allows the basin contents to drain away to a heated overboard drain mast.

GALLEY WATER (Figure 1)

The galley water system, depending on options selected, has either a heated 2.23 gallon water tank, an unheated 2.07 gallon water tank or both.

With the heated water tank, the water temperature is thermostatically controlled to approximately 100° by factory setting and cannot be adjusted. The water tank has a spigot and tube assembly located on the front face of the tank to deliver the water to a cup or glass.

When the GALLEY MASTER switch on the interior lighting control panel is pushed, the galley busbar is connected to the PE busbar and indicated by the illumination of a small LED in the top left corner of the switch. This provides a power supply, via circuit breakers, for the galley electrical equipment.



GALLEY SWITCH PANEL

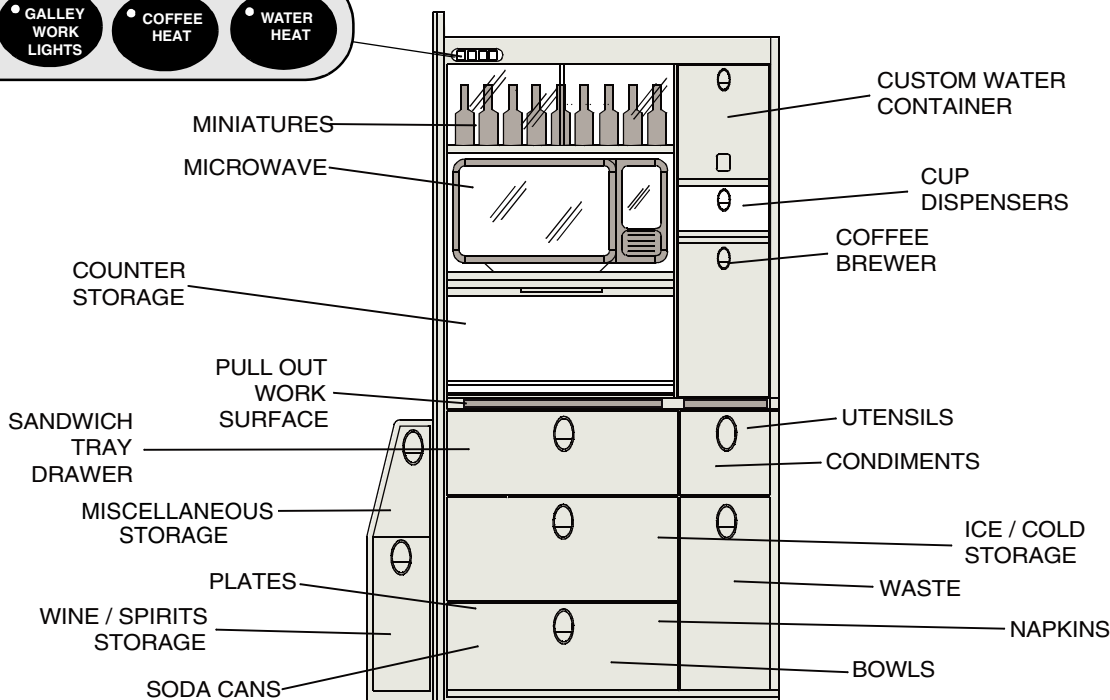
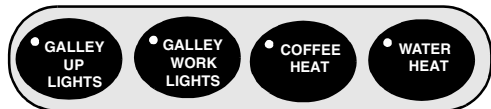


Figure 1
Galley Master Switch and Typical Galley

WASTE SYSTEM

TOILET (Figures 2 & 3)

An electrical flushing toilet (Monogram 4620-17) with external servicing facilities is installed at the rear of the passenger cabin. The toilet is a self-contained removable unit consisting of a tank, motor, pump and a filter.

Operation of the flushing system is by a PRESS TO FLUSH timer button on the vanity unit. Electrical power is normally provided from PS2 busbar and selection of the ROOF LIGHT switch (panel DA, top inboard face) or the ROOF/STEP LIGHT switch (forward vestibule cabinet, rear face) to ON connects a battery No. 1 supply to the coil of the entry lights relay.

Operating the PRESS TO FLUSH timer button will connect the power supply to the motor-driven flushing pump and rotating filter for approximately 8 seconds. Flushing liquid cascades in a thin curtain over the complete inner surface of the toilet bowl from the flushing channel surrounding the upper rim of the bowl. Waste is carried directly to the tank and prevented from re-entry by means of a restrictor in the bottom of the bowl. Flushing liquid is filtered out of the tank through a self-cleaning rotary filter and pumped up to the flush channel (reference Figure 4).

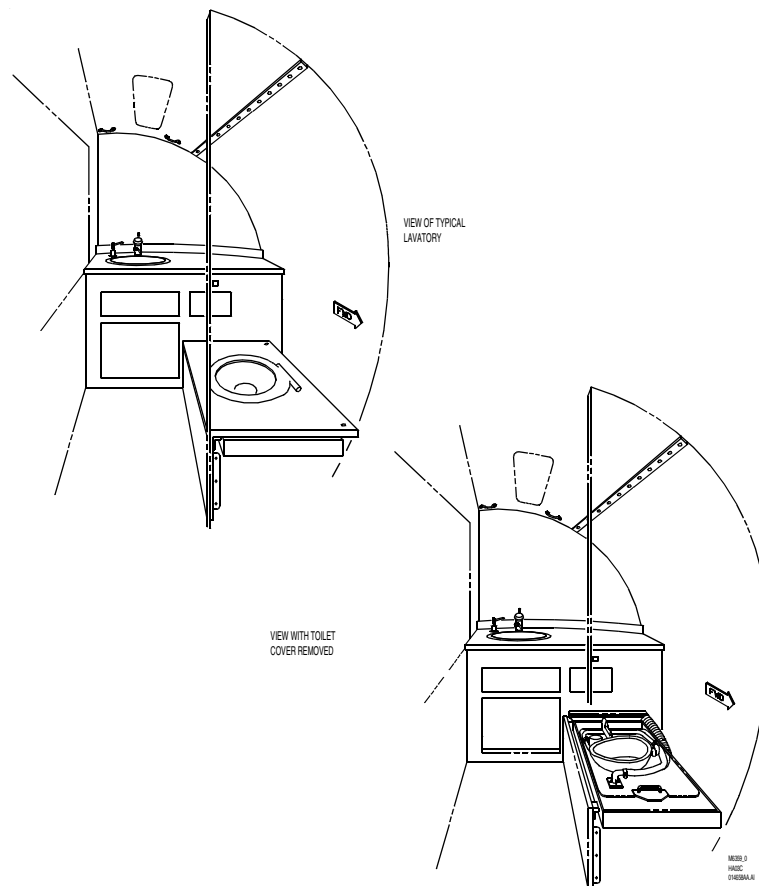
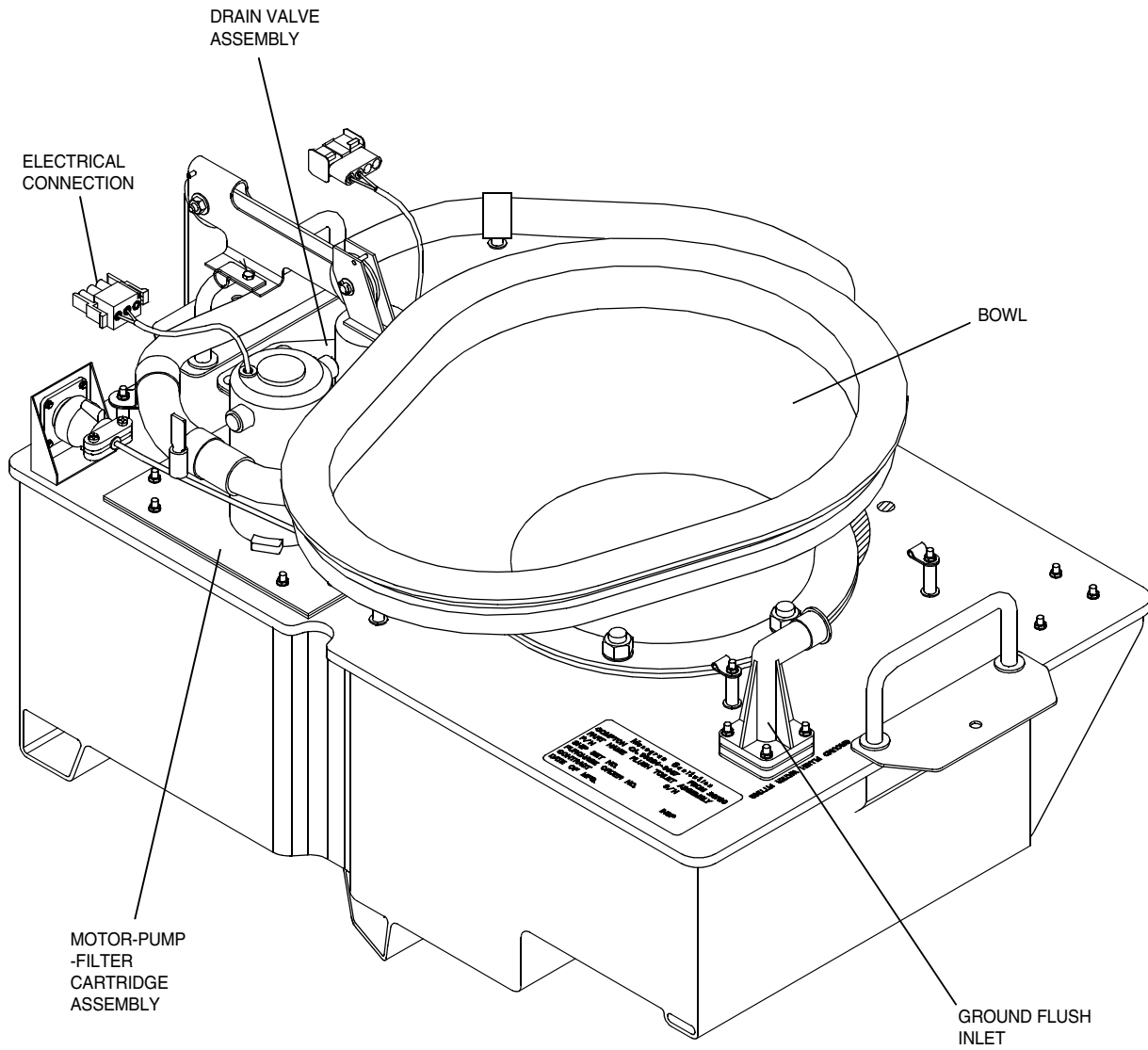
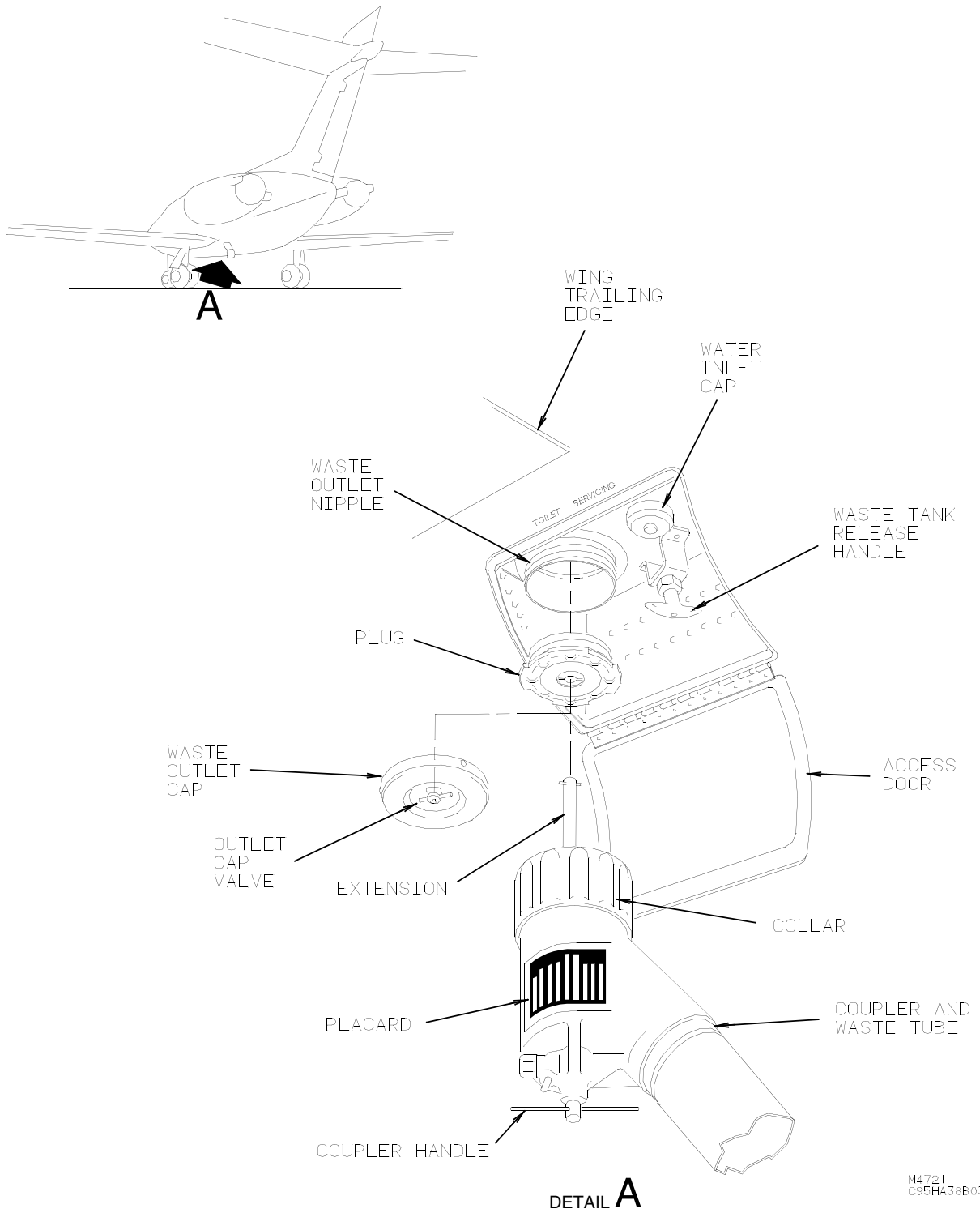


Figure 2
Typical Toilet Compartment



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HA03C
014659AA.AI

Figure 3
Typical Toilet with External Servicing Facility



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C95HA38B0365 C

Figure 4
Toilet Ground Servicing

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