# Chapter 18
## Water and Waste Systems

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## Description

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## Functional Schematics (Not Used)
WATER AND WASTE SYSTEMS

GENERAL

Three potable water systems (System 1, System 2, and System 3) provide a pressurized and filtered supply of fresh water for the washbasins, wet galleys, coffee makers, and drinking fountains. The system provides drainage for waste water.

The waste system consists of sub-systems to drain, rinse, prime, and flush toilets.

DESCRIPTION

POTABLE WATER SYSTEM

Fresh water is supplied to the wet galleys, coffee makers, drinking fountains, and lavatory washstands from three independent storage tanks. Heaters are installed to supply hot water to the washstands. Pressure for the three water systems is normally supplied by air from pneumatic systems 1 and 2. The system includes an automatically actuated compressor boost pump to provide pressurization when the pneumatic pressure level drops below normal water system requirements. The system can be pressurized at an exterior service panel to provide a flow of water prior to APU or engine start.

Each water system is capable of being depressurized and drained through valves controlled by switches. An annunciator light indicates any disagreement between the positions of the drain valve switch and the drain valves.

Each water system has a low pressure indicating light and a water tank quantity indicator, graduated in percent of capacity.

Galley G2 is supplied by water systems 1 and 2, galley G4 is supplied by water systems 2 and 3, and galley G7 is supplied by water systems 1 and 3. Each wet galley has indicator lights to show which system has the most water. A water system selector is provided in each galley for manual selection of either system or shutoff of both systems serving that galley.

The wet galleys and lavatories are supplied as follows:

- System 1 services lavatories B, 3, and 4, galleys G2 and G7, and a drinking fountain at lavatory B.
- System 2 services lavatories A, D (if installed), and K (if installed), galleys G2 and G4, and a drinking fountain at lavatories A, D, and K.
- System 3 services lavatories 5, 6, and C (if installed), galleys G4 and G7, and a drinking fountain at lavatory C.

WASTE SYSTEMS

The toilets are flush types with integral waste tanks. The flushing cycle on each toilet is automatically controlled by an electric timer.

Waste water from the washstands and drinking fountains is collected in drain manifolds and routed overboard.
through heated drain masts. Circuit breaker protection of the drain masts is provided at the Flight Engineer's station. Other than circuit protection, no controls for the waste system are available to the flight crew.

**CONTROLS AND INDICATORS**

Main controls and indicators are on the Flight Engineer's upper Panel No. 2 and No. 3. Illustrations of these panels are in Chapter 1.

The OFF position of the water system selector in galleys G2, G4, and G7 serves as shutoff valves in these galleys.

Individual controls and indicators and interior arrangement are illustrated and described in another section of this chapter.
WET GALLEYS AND LAVATORY LOCATIONS

FORWARD GALLEY

FORWARD LAVATORIES (2)

MID CABIN GALLEY

DRINKING FOUNTAIN
* IF INSTALLED

MID CABIN LAVATORIES (3)

AFT GALLEY

AFT LAVATORIES (4)

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WATER SYSTEM - Controls and Indicators

WTR DRAIN HEAT LOW Light
Indicates failure of one or more water drain mast heater elements.

(F/E UPPER PANEL NO. 2)

LINE DRAIN
Placing switch to OPEN allows the forward section of each system to drain back to the tanks and the aft section of the system to drain overboard.

LINE DRAIN DISAGREE Light
Comes on if switch and valve position do not agree and while valve is in transit.

WTR SYS PRESS LO Lights (3)
Come on when pressure in water tank is low.

POTABLE WATER – WTR QTY Gage (3)
Indicates the quantity of water in respective system supply tank.

Water System Depressurization Switches (3)
Placing switch in DEPRESS position will open overflow/vent valve and permit water tank pressure to be vented overboard.

SYSTEM Lights (1, 2, and 3)
The SYSTEM USE lights (1 & 2 for G2) (2 & 3 for G4) (1 & 3 for G7) come on to indicate which system has the most water remaining.

WATER SYSTEM SELECT
Selects the system for use with the most water remaining. When in the OFF position, water supply to the applicable galley will be shut off.

WATER SYSTEM SELECTOR (TYPICAL GALLEY G2, G4 and G7)