ENVIROVAC

START-UP

1. Verify that the level in holding tank is sufficient enough to cover the PIT PUMPS, as well as covers the system “LOW LEVEL, PUMP OFF ALARM” point. If the water level is insufficient, add water using the shipboard fire pump.
2. Once the proper holding tank level has been obtained, place both PIT PUMPS selector switches to the AUTO position.
3. Set the PUMP AUTO OPERATION MODE 3-way selector switch to “ALT.”
4. Press the RED, ALARM-RESET, TEST pushbutton on the system motor controller and both pumps will start.
5. The pumps will run until the system vacuum reaches approximately 18 in of Hg, at which point the pumps will shut-off; the pumps will cycle ON @ approximately 12 in of Hg and shut off again at 18 in of Hg.
6. The SEWAGE DISCHARGE MODE 3-way selector switch can be placed in the following positions:
   a. OFF – no Sewage Discharge
   b. LEVEL – Sewage pumped overboard, untreated; this mode is automatic
   c. TIMER – Sewage is pumped to shipboard MSD system where it is treated and then pumped overboard; this mode is automatic

The System is up and running

SHUT DOWN

1. Verify that the SEWAGE DISCHARGE MODE 3-way selector switch is in the “OFF” position
2. Place both PIT PUMPS selector switches to the “OFF” position
3. Open the ENVIROVAC MCC controller disconnect switch

The System is now secured; lockout with proper Lockout / Tagout (LOTO) devise and make proper entry in the LOTO logbook if work is to be performed on the system.
MARINE SANITATION DEVICE (MSD)

START-UP

1. Verify that the valve is open to apply water pressure to backwash line.
2. Verify that the following valves are opened and lined up correctly:
   A. ORCACLOR
   B. MSD INLET and OUTLET
   C. SEWAGE HOLDING PUMP DISCHARGE TO MSD
3. Close the unit Motor Controller (MCC) disconnect switch – the “POWER ON” light on door should be activated.
4. At the ENVIROVAC MCC, place the SEWAGE DISCHARGE MODE 3-way selector switch to “TIMER” position.
5. At the MSD MCC, place the door selector switch to “RESET” position and release, switch will automatically return to the “ON” position; turn on the ventilation fan switch located in the MCS.
6. The MSD will begin processing sewage, and discharging it overboard after treatment.
7. The MSD will continue to process sewage until the sewage holding tank level gets to the “LOW LEVEL, PUMP OFF” alarm point.
8. Once this alarm point is reached, the ENVIROVAC SEWAGE DISCHARGE MODE 3-way selector switch must be switched to the “OFF” position.

SHUT DOWN

1. Verify that the ENVIROVAC SEWAGE DISCHARGE MODE 3-way selector switch is in the “OFF” position.
2. Place the MSD MCC door selector switch to the “OFF” position; secure ventilation fan switch located in the MCS.
3. Open MSD MCC disconnect switch; lockout with proper Lockout / Tagout (LOTO) devise and make proper entry in the LOTO logbook if work is to be performed on the system.
4. Close the following valves:
   a. ORCACLOR
   b. MSD INLET and OUTLET
   c. SEWAGE HOLDING PUMP DISCHARGE TO MSD
The System is now secured.
ORCACLOR

START-UP

1) Verify that the 3-way valve handle is correctly oriented to close the drain outlet
2) Open S/W inlet valve to unit.
3) Verify that the MSD and ENVIROVAC systems are ready for operations.
4) Verify that the unit “ON – OFF” power switch is in the “ON” position.
5) Start the MSD and ENVIROVAC systems.
6) Adjust the current settings as required; see OEM technical manual if any questions exist.

The Unit is up and running.

SHUT DOWN

1) Secure the MSD system.
2) Move the ORCACLOR Motor Controller (MCC) “ON – OFF” switch to “OFF” position.
3) Close the S/W valve to unit.

The Unit is now secured.