

03.122 WRS Maintenance Procedure (03. ECLSS)

OBJECTIVE:

To maintain the Water Recovery System (WRS) by replacing filters

EQUIPMENT:

Flat blade screwdriver

PPE safety glasses

PPE Kobalt work gloves

PPE Static wrist tether

ECLSS KIT: Rechargeable trap filter (will be gathered during the procedure)

Microbial filter (will be gathered during the procedure)

NOTE

Do not turn off the main pump power switch for the WRS pump or heater



- L2C
1. REMOVE RECHARGEABLE TRAP FILTER
 - 1.1 Don PPE safety glasses
 - 1.2 Don PPE gloves
 - 1.3 Don Static Wrist Tether and attach to any unpainted metallic surface
 - 1.4 Turn Distillation Gas Vent Valve clockwise to closed position (see Figure 1)

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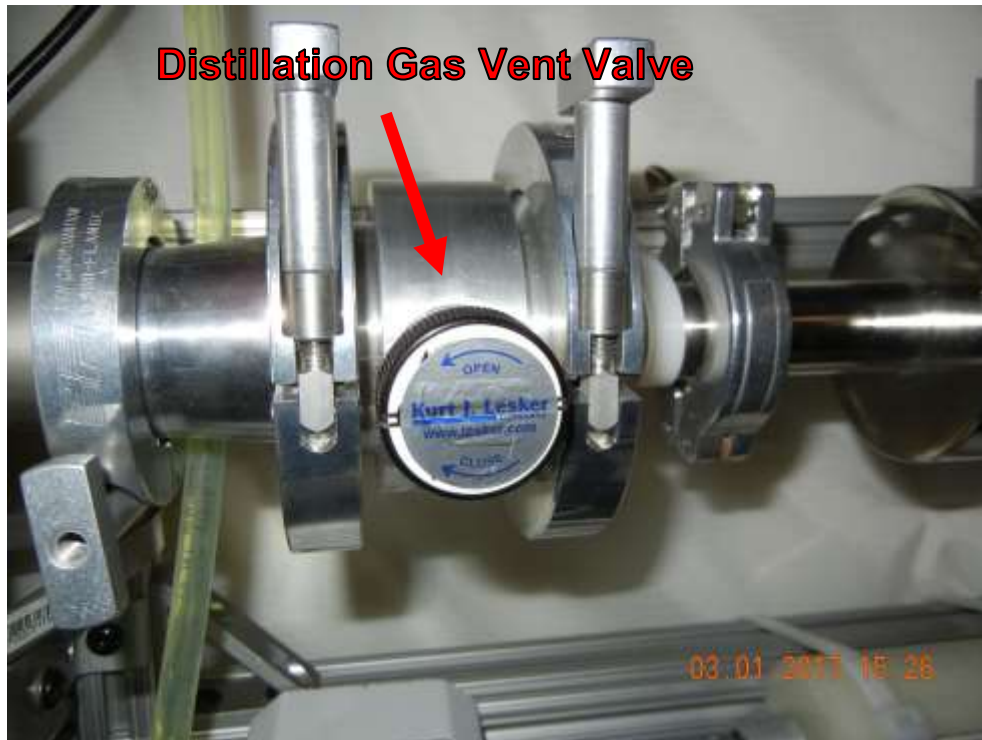


Figure 1: Distillation Gas Vent Valve

1.5 Pull Rechargeable Trap Lever down (see Figure 2)



Figure 2: Rechargeable Trap Lever

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- 1.6 Remove Rechargeable Trap Filter Cover by sliding left and temp stow (see Figure 3)



Figure 3: Rechargeable Trap Filter Cover

- 1.7 Disconnect hose from Filter Housing

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- 1.8 Remove and temp stow rubber gasket (see Figure 4)



Figure 4: Rubber Gasket



Figure 5: Filter Screen



Figure 6: Filter Sleeve and Rechargeable Trap Filter

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- 1.8 Remove and temp stow Filter Screen from Filter Housing
- 1.9 Remove used Rechargeable Trap Filter and Filter Sleeve from Filter Housing
- 1.10 Remove used Rechargeable Trap Filter from Filter Sleeve
- 1.11 Temp stow Filter Sleeve
- 1.12 Place used Rechargeable Trap Filter in a Ziploc bag labeled "Used Trap Filter" and stow in ECLSS kit

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2. INSTALL NEW RECHARGEABLE TRAP FILTER

- 2.1 Retrieve clean Rechargeable Trap Filter from bag of spares in the ECLSS kit and insert into Filter Sleeve
- 2.2 Insert Filter Sleeve into Filter Housing
- 2.3 Insert Filter Screen into Filter Housing with screen facing out
- 2.4 Place rubber gasket on Filter Housing and mate hose

<p style="text-align: center;"><u>NOTE</u> 2nd crewmember may be needed for steps 2.5 -2.6</p>
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- 2.5 Secure the Rechargeable Trap Filter Cover using clamp.
- 2.6 Confirm adjustable clamp on the lever is positioned within the base of the cover. Pull lever up to lock

<p style="text-align: center;"><u>NOTE</u> Hand-tighten clamp then point the lever towards the outer wall of the cabin</p>

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3 REMOVE MICROBIAL FILTER

- 3.1 Grasp Microbial filter and turn clockwise to remove

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Figure 7: Microbial Filter

- 3.2 Stow used microbial filter in ECLSS kit in Ziploc bag labeled "Used Microbial Filter"
- 3.3 Call MCC and report serial number of removed microbial filter

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4 INSTALL NEW MICROBIAL FILTER

- 4.1 Remove new Microbial filter from ECLSS kit
- 4.2 Insert new Microbial filter into filter housing and turn counter clockwise until you feel a click.
- 4.3 Call MCC and report serial number of new microbial filter
- 4.4 Turn Distillation Gas Vent Valve counter-clockwise to open position.
- 4.5 Doff PPE gloves and safety glasses
- 4.6 Stow PPE and ECLSS kit in Airlock stowage locations.