replacement parts industries, inc

IMPORTANT!

Be sure that the water pressure to the machine is regulated between 35 PSI to a maximum of 40 PSI.

RPI Part #MTK009
OEM Part #78400-722
PM KIT
FITS MEDIVATORS®
Model: DSD-201®

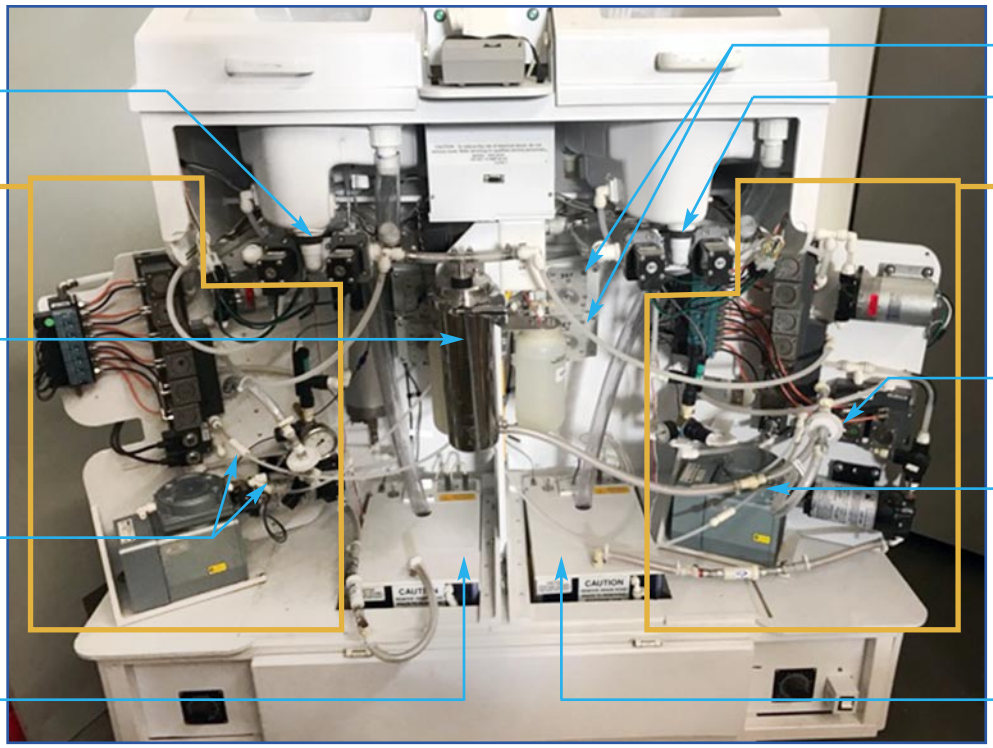
INSTALLATION INSTRUCTIONS

This annual PM Kit fits 120VAC DSD-201 machines that have been upgraded to the 3/4" drain valve (OEM Part #78401-050 which is also included in the PM Kit #78400-724) or DSD-201 with serial #649904-064 and above.

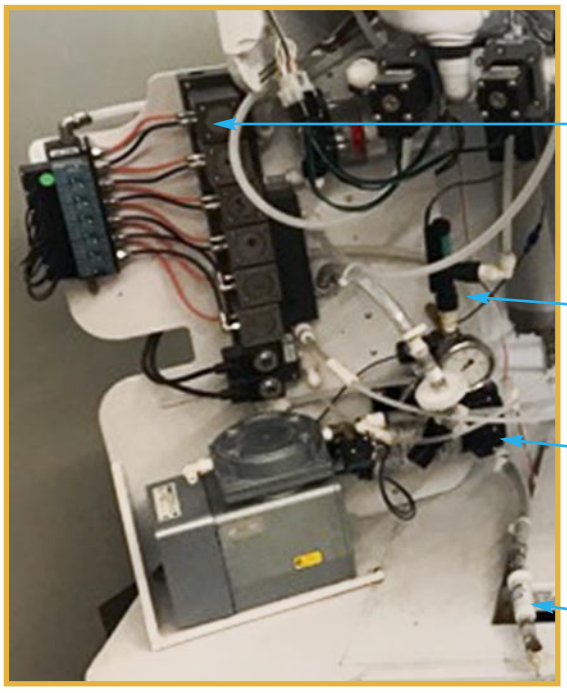
CALL (800) 221-9723 • FAX (818) 882-7028 • WEBSITE www.rpiparts.com
E-MAIL order@rpiparts.com • techsupport@rpiparts.com

Medivators® DSD-201 *KEY COMPONENTS*

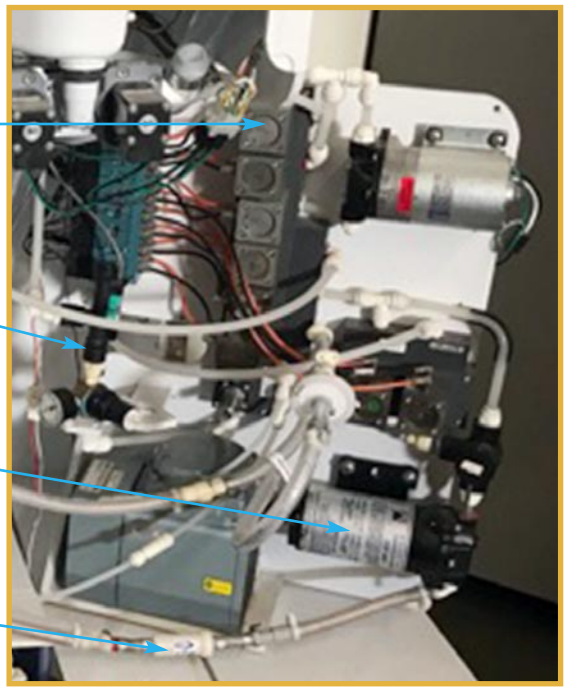
Familiarize yourself with the main components of this machine as shown below before initiating any PM procedures. Please note, the machine shown below is for training purposes, therefore your machine may look slightly different.



SIDE A MAIN MODULE



SIDE B MAIN MODULE



PM Kit (RPI Part #MTK009) Part Listing:

- (1 package of 2) Cover (Basin Sensor) (RPI Part #MTC029)
- (4) Valve Rebuild Kit (Drain/Return) (RPI Part #MTK013)
- (2) Valve Rebuild Kit (Overflow) (RPI Part #MTK014)
- (1 package of 10) Air Valve Diaphragm Kit (RPI Part #MTK019)
- (2) Pump (Disinfectant) (RPI Part #MTP025)
- (1 package of 4) Valve Seal (Alcohol & Detergent) (RPI Part #MTS022)
- (1 package of 4) Peristaltic Pump Tube Set (RPI Part #MTS024)
- (1 package of 8) Check Valve (RPI Part #MTV027)
- (1 package of 2) Check Valve (Alcohol & Detergent) (RPI Part #MTV028)
- (1 pc) High Temp Lubricant (RPI Part #RPL090)
  *SDS sheets are available on the RPI website, **www.rpiparts.com**.*
- (2 pcs) O-Ring (RPI Part #RPO984)
- (1 package of 3) Absorbent Pad (RPI Part #RPP958)
- (1) O-Ring Removal Tool (RPI Part #RXT002)
- (1) Wrench (Low Profile) (RPI Part #RXT003)

Required Tools:

- Nut driver (7/16" and 3/8"), an open end wrench or socket wrench may also be used
- Allen keys (9/64", 3/32" and 3/16")
- Screwdrivers
  - Small flat blade
  - Small tipped Phillips
  - Medium tipped Phillips
  - Large tipped Phillips
- Collet Release Wrench Set (RPI Part #RXT004) - John Guest tool
- Cloth or rag (lint free)
- 0-36 in-lb torque driver
- Container (1/2 gallon or larger)
- Adjustable wrench
- Needle nose pliers
- Vice grips
- Manometer (Used for optional leak test validation)

Prior to Performing the Preventative Maintenance:

- It is important to carefully read all of the instructions before starting with the PM.
- Be sure to have all of the required tools listed on the previous page before beginning the PM.
- Precautions should be taken to avoid spilling any disinfectant.
- It is important to wear all of the appropriate Personal Protective Equipment (PPE) while performing the preventative maintenance. For all of the appropriate PPE, refer to the related Safety Data Sheets (SDS).
- To start the preventative maintenance, the machine must be placed in an idle state.
- If the disinfectant is not dumped prior to the PM, flush the disinfectant lines prior to performing the PM as follows:
  1. Start by disconnecting the disinfectant filters.
  2. Ensure a restrictor adapter is installed in both basins.
  3. Start on side A and enter diagnostics mode by pressing **SETUP, 88, ENTER, 135, ENTER**.
  4. Units with software version 5.07 and above press **0, ENTER**. For units with lower software versions, proceed to the next step.
  5. Press **18, ENTER, 8, ENTER,** and then to purge the disinfectant out of the pumps press **7, ENTER.**
  6. To deactivate all components press **0, ENTER**.
  7. Now, complete the process for side B by repeating Steps, #3 - #6. Once all steps are complete press **14, ENTER**.
  8. To exit diagnostics, press **CANCEL** twice.
  9. Begin the flush on both sides, then press **CANCEL** and **ENTER** during the air purge of the flush cycle.

Preparation (refer to Figure 1 - 0.2 Micron Filter and Bleed Valve)

1. Shut off the incoming water line.
2. Open the bleeder valve slowly and bleed the 0.2 micron filter for several seconds until all flow stops, then close the valve. Place a container under the bleeder hose to catch any fluid.
3. Unplug the power cord from the wall outlet.
4. Pull the pressure relief ring on the air tank to bleed all remaining pressure from the air tank assembly.

FIGURE 1 - 0.2 Micron Filter and Bleed Valve

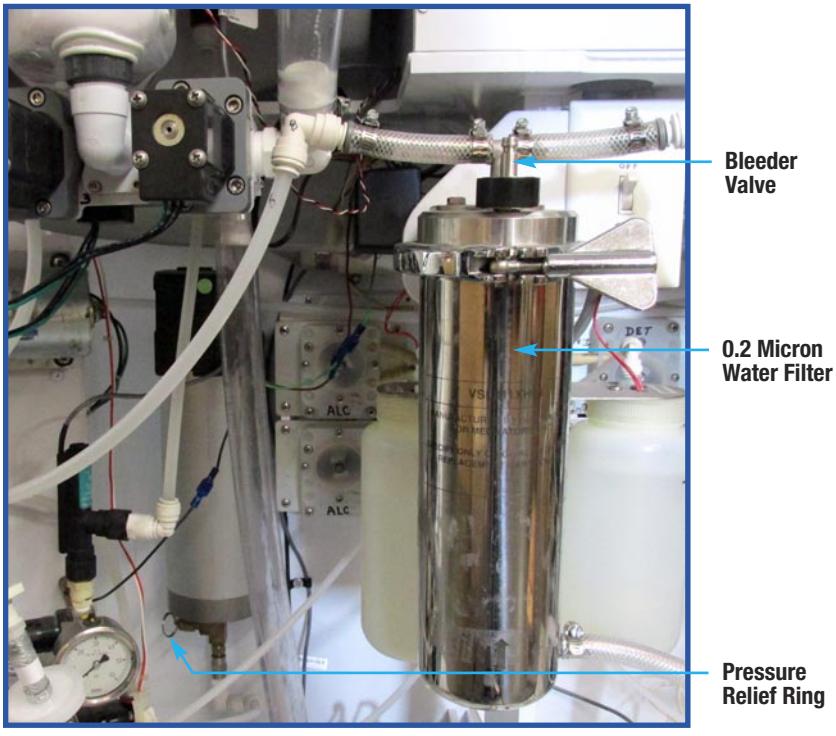


FIGURE 2 - Main Manifold

3/4" Valve Maintenance

Note: It is recommended that you remove the 3/4" drain valve manifold to rebuild the 3/4" drain valves.

1. To remove the 3/4" drain valve manifold from side A, disconnect the solenoid valve wiring harness.
2. Loosen the three hose clamps that secure the three 1" lines to the 1" elbows on either side of the manifold and behind the manifold to remove the hoses. It is important to have a rag ready to catch any spillage from left over fluid still in the lines.
3. Remove the four screws that mount the manifold to the elbow located under the basin. This will require the use of a 9/64" Allen key and it should be noted that the manifold needs to be supported during the removal of the manifold screws. Retain these four screws for later reassembly of the 3/4" drain valve manifold. **See Figure 2 - Main Manifold.**
4. There are three solenoid valves (solenoid valve #9, #10 and #11) that are attached to the 3/4" drain valve manifold. To remove and rebuild each of these solenoid valves, follow steps a-f below for each of the valves. Begin with valve #9, then #10, and finally #11.
    a. Remove the four screws that hold the solenoid coil to the manifold with a Phillips screwdriver. Once the screws are removed, be careful pulling off the solenoid coil as there is a spring inside. Set the solenoid coil and screws aside for later use, and discard the spring as there is a replacement spring in the new Valve Rebuild Kit. If not marked already, label the solenoid coil for ease of reassembly.
    b. Remove the four screws holding the valve block to the manifold using a 3/16" Allen key. Set the screws aside for later reassembly. Pull the valve block away from the manifold ensuring use of a rag to catch any excess fluid.
    c. Ensure removal of the O-ring on the manifold side of the valve before continuing as it may be stuck in the manifold. Discard this O-ring as there is a replacement O-ring in the new Valve Rebuild Kit.

d. There are two different types of Valve Rebuild Kits included in this PM Kit. When rebuilding solenoid valve #9, use Valve Rebuild Kit (RPI Part #MTK014). When rebuilding solenoid valves #10 and #11, use Valve Rebuild Kit (RPI Part #MTK013). **See Figure 3 - Valve Rebuild Kit Exploded Views** for valve configuration only.

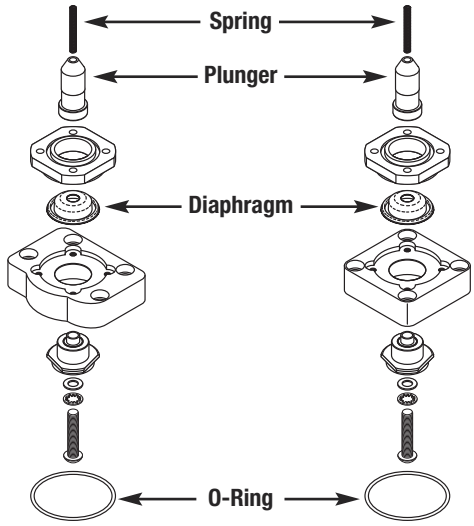
Important Note: *Do NOT push the plunger of the new valve kit in either direction as this could misalign the interior diaphragm seal.*

e. Place the O-ring that came with the Valve Rebuild Kit and Install it into the groove in the manifold using a little High Temp Lubricant (RPI Part #RPL090) to hold it in place.

f. Install the new valve block onto the manifold using the four screws that were removed from the old valve block using a crossing pattern to tighten the screws to 35 in-lbs.

5. Repeat Steps #4a - 4f for solenoid valve #10 and #11 using Valve Rebuild Kit (RPI Part #MTK013).
6. Repeat Steps #1 - 5 for the 3/4" drain valve manifold for side B.

FIGURE 3 - Valve Rebuild Kit Exploded Views



RPI Part #MTK013
Valve Rebuild Kit (Drain/Return)
for use with
solenoid valve #10 & #11

RPI Part #MTK014
Valve Rebuild Kit (Overflow)
for use with
solenoid valve #9

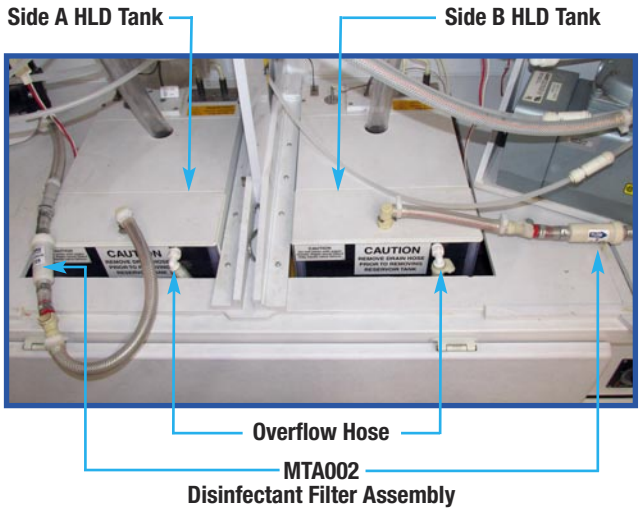
These Valve Rebuild Kits come fully assembled in the order shown above.

7. It is recommended at this point to leave the manifolds off the unit to allow easier access to the main modules described later in this instruction.

HLD Tank Removal

- Both high level disinfectant (HLD) tanks must be removed to provide access to the main valve manifolds. **See Figure 4 - HLD Tanks** for location.
- Disconnect the quick disconnect fitting on the water inlet hose for the 0.2 micron water filter.
- Each HLD tank has a disinfectant supply and disinfectant return tube that must be disconnected. At this point you may want to replace the Disinfectant Filter Assembly (RPI Part #MTA002 - not included in this PM Kit) if the required change coincides with this PM.
- Disconnect the heater power harness, reservoir temperature probe and reservoir level switch from each HLD tank.
- Turn the overflow hose on the front of each HLD tank so it is facing up to avoid spillage when removing the tanks.
- Remove each HLD tank from the cabinet.

FIGURE 4 - HLD Tanks



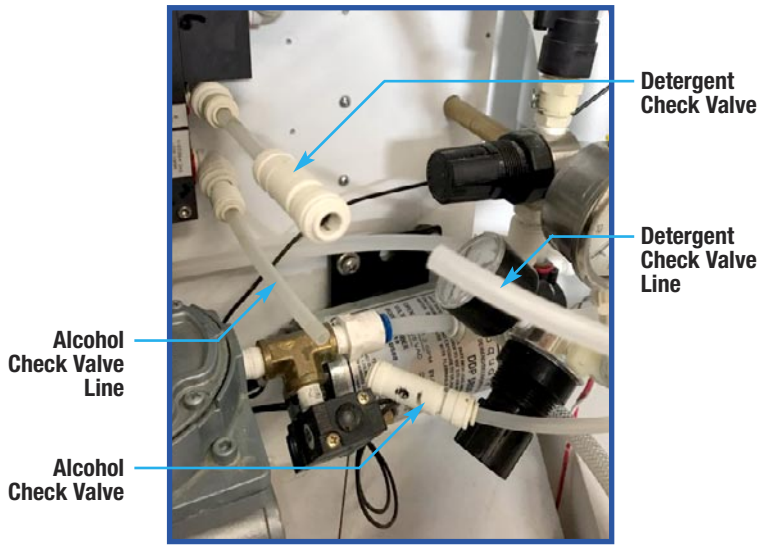
Both high level disinfectant (HLD) tanks must be removed to provide access to the main valve manifolds. ***Note:*** *your machine may look slightly different than the one shown above.*

Removal of the Side A Main Module

Caution: When removing the following connections, ensure proper labeling on all fittings, tubing and terminals to avoid confusion upon reassembly.

- Disconnect the 3/8" lines from the A side 4 station MAC valve manifold, the A side flow switch, and the A side water valve inlet.
- Disconnect the check valves for the alcohol and detergent lines. It is recommended to disconnect the check valves on opposite sides of the check valve to avoid confusion on reassembly. For example, disconnect the detergent line from the right side of the detergent check valve and disconnect the alcohol line from the left side of the alcohol check valve as shown in **Figure 5 - Alcohol and Detergent Line Check Valves.**
- On the A side, disconnect the electrical connectors to the flow switch, 4 station MAC valve manifold, alcohol and detergent valves (Spartan) (label the connector's location for reassembly later), compressor, disinfectant pump and the isolation valve.

FIGURE 5 - Alcohol and Detergent Line Check Valves



Disconnect the check valves for the alcohol and detergent lines. It is recommended to disconnect the check valves on opposite sides of the check valve to avoid confusion on reassembly. For example, disconnect the detergent line from the right side of the detergent check valve and disconnect the alcohol line from the left side of the alcohol check valve as shown above.

- Disconnect the spade connector located on the compressor's black wire that runs between the compressor and air tank.
- Remove the A side main module by removing the three bolts that secure the main module to the unit.
- Continue on to the removal of the B side main module as described below.

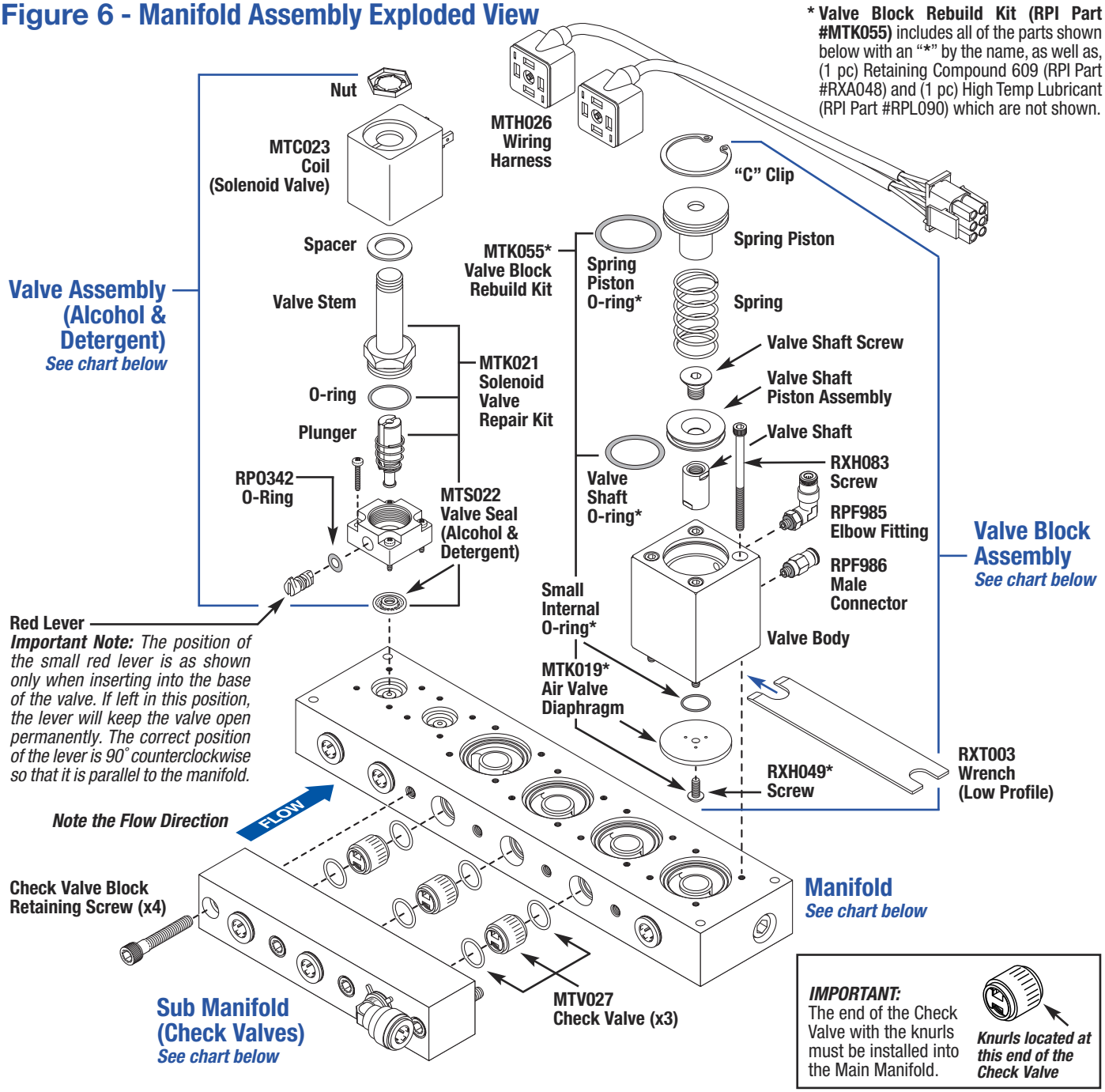
Removal of the Side B Main Module

Caution: When removing the following connections, ensure proper labeling on all fittings, tubing and terminals to avoid confusion upon reassembly.

- Disconnect the 3/8" lines from the B side 6 station MAC valve manifold, the B side flow switch, and main water valve inlet on the B side two station manifold.
- Disconnect the check valves for the alcohol and detergent lines. It is recommended to disconnect the check valves on opposite sides of the check valve to avoid confusion on reassembly. For example, disconnect the detergent line from the right side of the detergent check valve and disconnect the alcohol line from the left side of the alcohol check valve as shown in **Figure 5.**
- On the B side, disconnect the electrical connectors to the flow switch, 6 station MAC valve manifold, alcohol and detergent valve (Spartan) (label the connector's location for reassembly later), compressor, chemical load switch and the disinfectant pump.
- Remove the B side main module by removing the three bolts that secure the main module to the unit.

Figure 6 - Manifold Assembly Exploded View

*** Valve Block Rebuild Kit (RPI Part #MTK055)** includes all of the parts shown below with an "*****" by the name, as well as, (1 pc) Retaining Compound 609 (RPI Part #RXA048) and (1 pc) High Temp Lubricant (RPI Part #RPL090) which are not shown.



IMPORTANT:
The end of the Check Valve with the knurls must be installed into the Main Manifold.

Knurls located at this end of the Check Valve

RPI Part Description	8 Station	6 Station	2 Station
Manifold Assembly	MTA038	MTA040	MTA042
Manifold	MTM039	MTM041	MTM043
Sub Manifold (Check Valves)	MTM051	MTM051	MTM052
Valve Assembly (Alcohol/Detergent)	MTV020	MTV020	Not Required
Valve Block Assembly	MTA017 & MTA018*	MTA017 & MTA018*	MTA016*
Valve Block Rebuild Kit	MTK055	MTK055	MTK055

* The configuration of the Valve Block Assembly determines which assembly is required:
• MTA016 includes (2) Elbow Fittings • MTA017 includes (2) Straight Fittings • MTA018 includes (1) Elbow Fitting and (1) Straight Fitting

Replacement of the Valve Seals

- Place both of the main modules on their back to have easy access to the valves.
- Disconnect the air hoses leading from the MAC manifold to the valve block assemblies starting with the top and working down. It is important to label the air hoses to avoid confusion upon reassembly.
- Remove the 4 Screws (RPI Part #RXH083) that hold the valve block assembly to the manifold using a 9/64" Allen key and set the screws aside for later use **(see Figure 6 - Manifold Assembly Exploded View).**
- Flip the valve over so the valve seal is facing up and the valve block assembly lays on a flat surface.
- Use the Wrench (Low Profile) (RPI Part #RXT003) to slide under the seal and hold the valve shaft in place. **Note:** it may be easier to pull the old valve seal off the retaining screw to allow for a better visual. Use a 3/32" Allen key while holding the valve shaft in place to break the center screw loose. If the screw is difficult to loosen, a pair of vice grips may be used on the side of the head of the screw to break the screw free. Do not worry about damage to the screw as new ones are provided in the Air Valve Diaphragm Kit (RPI Part #MTK019) included in this PM Kit.
- Once the old screw and valve seal are removed, clean the valve block assembly of any excess Loctite or debris.
- Place a new diaphragm, from the Air Valve Diaphragm Kit (RPI Part #MTK019), on the valve block with the grooved side facing up. Sparingly apply Retaining Compound 609 (RPI Part #RXA048) to the tip of the Screw (RPI Part #RXH049). Install the screw and tighten until snug. **Caution:** Avoid using a large amount of retaining compound to make removing the screw at the next PM easier. Do not over-tighten the retaining screw, this may cause the seal to cup or deform resulting in an ineffective seal.
- Place the valve block assembly on the manifold and hold the valve block down with your thumb while tightening the four screws uniformly in a diagonal pattern. **Do not over tighten** the screws, this can cause the manifold to strip or the insert to come loose.
- Continue these steps for all valve block assemblies on both A and B side manifolds, including the B side water and disinfectant valve blocks.

Replacement of the Check Valves

- Each unit has three check valves in both the A and B side manifolds **(see Figure 6 - Manifold Assembly Exploded View)** along with two more in the B side water and disinfectant valve manifold.
- Remove the four check valve block retaining screws with a 3/16" Allen key.
- Pull the sub manifold block away from the manifold block (gently rock back and forth if necessary) to expose the check valves.
- Once the blocks are separated, it is important to note the flow direction and which direction the check valves are installed to ensure the replacements are installed in the same direction **(see Figure 6 - Manifold Assembly Exploded View).**
- Remove and replace the Check Valves (RPI Part #MTV027). Each Check Valve has two O-rings, one on either side of the Check Valve. The old O-rings must be removed and discarded, and the sealing surfaces need to be inspected and cleaned for each Check Valve. **Caution:** Do not use a sharp or hard tool to remove the O-rings as this could damage the seat of the O-ring. Use the O-ring Removal Tool (RPI Part #RXT002) included in this kit. Two new O-rings come with each Check Valve and need to be installed with a small amount of High Temp Lubricant (RPI Part #RPL090).
- Once all check valves have been replaced, attach the sub manifold block to the manifold block and tighten with the four screws from disassembly. Use a cross pattern to ensure the block is evenly secured.
- Repeat this procedure for the two remaining sub manifold blocks.

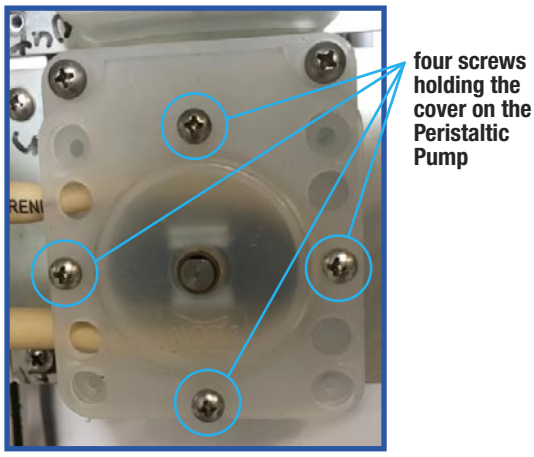
Replacement of the Alcohol and Detergent Valve Seals

- Remove the nut from the top of the Valve Assembly (Alcohol & Detergent) (RPI Part #MTV020) and retain for later reuse **(see Figure 6 - Manifold Assembly Exploded View).**
- Remove the Coil (Solenoid Valve) (RPI Part #MTC023) of each valve, beneath each coil is a spacer that needs to be retained for reassembly.
- Use a Phillips screwdriver to remove the four screws securing the valve's stem to the manifold. These screws need to be retained for reassembly.
- Lift the valve's stem to expose the valve's plunger and seal.
- Remove the seal from the plunger and replace the seal with a new Valve Seal (Alcohol & Detergent) (RPI Part #MTS022). **Important:** Note the small red lever on the base of the valve. This lever will keep the valve open permanently if rotated, so do not rotate this lever. The position of the small red lever is as shown in **Figure 6 - Manifold Assembly Exploded View** only when inserting into the base of the valve. If left in this position, the lever will keep the valve open permanently. The correct position of the lever is 90˚ counterclockwise so that it is parallel to the manifold.
- Reattach the valve and coil to the manifold using the four mounting screws and nut that were retained from disassembly.
- Repeat these steps for both the A and B side manifolds.
- Leave the modules out of the machine and continue with the rest of the PM for ease of access to the other components.

Replacement of the Disinfectant Pump

- Electrically disconnect the pump (if not already done).
- Disconnect the 3/8" hoses from the pump (if not already done). It may be useful to use the Collet Release Wrench Set (RPI Part #RXT004) to remove the hoses. The use of a rag may be required due to excess fluid remaining in the pump.
- Use a Phillips screwdriver to remove the four mounting screws that secure the pump to the module. Save the screws and discard the pump.
- Install the new Pump (Disinfectant) (RPI Part #MTP025) using the existing mounting screws.
- Reconnect the 3/8" hoses by pushing them in as far as they can go and then reconnect the electrical connection.
- Complete these steps for both the A and B side pumps.

FIGURE 7 - Cover of the Peristaltic Pump



Remove the four screws holding the cover on the pump using a Phillips screwdriver. These screws are located in the middle on the top, bottom, left and right of the pump housing in a cross pattern.

Replacement of the Peristaltic Pump Tubes

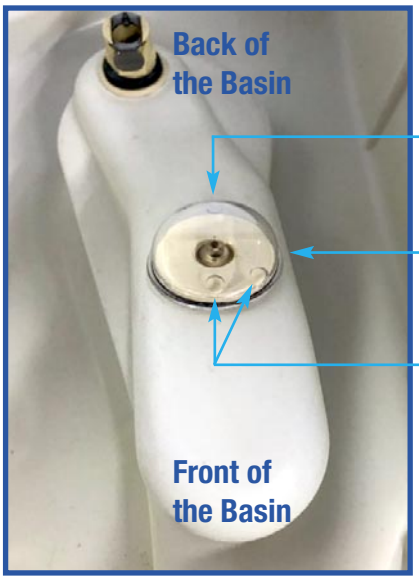
- Before disconnecting any of the lines use a rag or small container for any excess fluid that may remain in the lines. It is important to label each line before disconnecting to ensure proper order when reconnecting the lines.
- The pumps are located behind the 0.2 micron filter assembly just to the left and right. The two on the left are alcohol and the two on the right are detergent. The top two provide for the A side of the machine and the bottom two provide for the B side.
- Disconnect both the inlet and outlet tubes from one of the pumps.

- Remove the four screws holding the cover on the pump using a Phillips screwdriver. These screws are located in the middle on the top, bottom, left and right of the pump housing in a cross pattern **(see Figure 7 - Cover of the Peristaltic Pump on page 8).**
- Remove the cover of the pump and pull out the old pump tubing. You may need to gently rotate the pinch roller to work the tubing out of the track.
- Use a new Peristaltic Pump Tubing Set (RPI Part #MTS024) and position the tube so that the Inlet and outlet are equal in length.
- Position the pinch roller of the pump so that it is in a diagonal position starting with the bottom to the left and the top to the right to insert the top part of the tube. Rotate the pinch roller counter clockwise slightly to push in the rest of the tube.
- Reinstall the cover and screws for the pump. Reconnect the inlet and outlet tubes.
- Continue this process for all four pumps (2 Alcohol and 2 Detergent), the final step of this PM instruction is to prime these pumps.

Replacement of the Basin Sensor Covers

- Remove the original basin sensor cover. **IMPORTANT:** Make sure to note the orientation of the original sensor cover, the new cover must be installed facing the same direction which should be with the single hole toward the back of the basin and the two holes towards the front **(see Figure 8 - Cover (Basin Sensor) Orientation).**
- Install both new Covers (Basin Sensor) (RPI Part #MTC029).

FIGURE 8 - Cover (Basin Sensor) Orientation



Reinstallation of the Side A Module

- Before installing the side A module ensure that all PM parts have been replaced for that module.
- Reinstall the side A module using the three bolts set aside from disassembly. The longest screw is the one used near the compressor.
- Reinstall the side A 3/4" drain valve manifold using the 4 screws from disassembly. Where the 3/4" drain valve manifold mounts to the basin's elbow, there is a large O-ring that needs to be removed and replaced with the new O-ring (RPI Part #RP0984) from the kit. Use a small amount of High Temp Lubricant (RPI Part #RPL090) to help secure the O-ring into the manifold's O-ring track before installing the manifold onto the basin elbow.
- Connect the 3/8" tube for the side A 4 station MAC valve manifold, the flow switch tube, and water valve inlet for the side A manifold.
- Connect both of the check valves for the side A alcohol and detergent lines.
- Connect the HLD tank's 1" return hose.
- Connect the hose at the bottom of the 0.2 micron water filter.
- Connect the electrical connections for the flow switch, 4 station MAC valve manifold, alcohol and detergent valves (Spartan), compressor, disinfectant pump, side A isolation valve, and side A drain valve.
- Connect the spade connector located on the compressor's black wire that runs between the compressor and air tank.

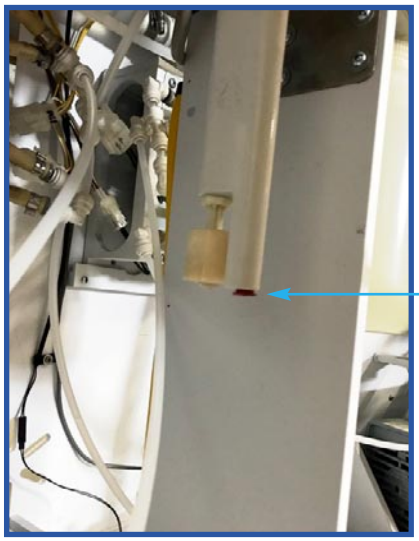
Reinstallation of the Side B Module

- Before installing the side B module ensure that all PM parts have been replaced for that module.
- Reinstall the side B module using the three bolts set aside from disassembly. The longest screw is the one used near the compressor.
- Reinstall the side B 3/4" drain valve manifold using the 4 screws from disassembly. Where the 3/4" drain valve manifold mounts to the basin's elbow, there is a large O-ring that needs to be removed and replaced with the new O-ring (RPI Part #RPO984) from the kit. Use a small amount of High Temp Lubricant (RPI Part #RPL090) to help secure the O-ring into the manifold's O-ring track before installing the manifold onto the basin elbow.
- Reinstall the HLD tanks into their respective sides.
- Connect the 3/8" tube for the side B 6 station MAC valve manifold, the side B flow switch tube, and water inlet for the side B manifold.
- Connect both of the check valves for the side B alcohol and detergent lines.
- Connect the HLD tank's 1" return hose and the 3/8" tube for the main water valve.
- Connect the electrical connections for the flow switch, 6 station MAC valve manifold, alcohol and detergent valves (Spartan), compressor, disinfectant pump and the chemical load switch.

Detergent and Alcohol Bottle Reinstallation

- Mount the alcohol and detergent bracket using a 3/8" Allen key and the four screws from disassembly.
- Connect the sensor harness to the red level sensor cables.
- Connect the feed lines for both the alcohol and detergent bottles.
- Before installing the bottles, wipe down the uptake tubes of both the alcohol and detergent bottles with a lint free rag.
- Remove the red check valve of each bottle with either your fingers or needle nose pliers and discard. **See Figure 9 - Check Valve (Alcohol and Detergent).**
- Clean the hole and surrounding area where the check valve was located.
- Install a new Check Valve (Alcohol and Detergent) (RPI Part #MTV028) for both the alcohol and detergent bottles.
- Install the alcohol and detergent bottles.

FIGURE 9 -
Check Valve (Alcohol and Detergent)



Remove the red check valve of each bottle and clean the hole and surrounding area where the check valve was located. Install a new Check Valve (Alcohol and Detergent) (RPI Part #MTV028) for both the alcohol and detergent bottles.

Operational Check

- Plug the unit into the power outlet and ensure the unit powers up and goes into an idle state. The unit is idle when the side A and B yellow LED Indicators above and below the LCD display are **NOT** illuminated.

- Open the incoming water supply valve slowly.
- Fill the HLD tanks if necessary.
- Press **SETUP, 43, ENTER.** This will bleed the air out of the 0.2 micron filter. Place a small container under the bleed valve to collect water. Open the bleed valve slowly until all air is purged from the filter housing and water flows freely. Close the valve and then press **STOP** twice.
- In each basin install a restrictor adaptor to simulate scope pressure.
- The following steps will be used to prime the pumps of the reprocessor. Each pump and corresponding valve will need to be turned on by the unit's programming until water is seen coming out of the restrictor in the basin related to the activated side of the pump.
    1. To activate the side A alcohol pump, select station A. Press **88, ENTER** to enter diagnostics mode. Press **135, ENTER** and then open the alcohol valve by pressing **0, ENTER** to access valve control. Press **18, ENTER, 12, ENTER** and then turn on the pump by pressing **3, ENTER.** When fluid can be seen coming out of the restrictor adaptor press **0, ENTER** to turn off both the pump and valve.
    2. To activate the side A detergent pump while still in the valve control section press **18, ENTER, 1, ENTER.** This will open the valve. To activate the pump press **19, ENTER.** Turn off the pump once water is seen coming from the restrictor adaptor by pressing **0, ENTER.**
    3. Press **14, ENTER** to open the side A main water valve and remove the fluid from the side A basin. Allow the basin to drain completely (around 30 seconds) before pressing **CANCEL** twice to exit the procedure and diagnostics mode.
    4. Repeat Steps 1-3 for side B for both the alcohol and detergent pumps.

Run a Cycle On Both Sides to Inspect the Following:

- All cycle parameters meet the appropriate settings.
- All sensors are functioning properly.
- Proper cycle operation.
- No leaks during either the disinfection or rinse cycles.
- External water pressure meets installation requirements during flush mode (35-40 PSI).
- The alcohol and detergent solutions inject as desired (if used).
- During the disinfectant and rinse phases verify that the basin fills to the appropriate level.
- No fumes or excessive noise is noted.
- When the disinfectant cycle starts, press the **TEST** button on the GFI and wait five seconds before pressing the **RESET** button to reapply power. The unit should resume the cycle where it left off.
- Completion of a full disinfectant cycle on each side with no alarms present.
- During the cycle, inspect under both basins for any leaks inside the unit and bleed off any excess air from the housing using the bleeder valve.
- Ensure the proper date and time is shown on the display. If not, press **SETUP, 2, ENTER** (for the date) and **SETUP, 3, ENTER** (for the time).
- Ensure the interior of the cabinets are clean and wiped down of any fluid or debris.

Adjusting the Drain Times

- Drain times for rinse water and disinfectant must be checked periodically to verify they are set to the optimum times.
- Select side A and enter diagnostics mode by pressing **88, ENTER** and enter the code **135, ENTER.** Press **61, ENTER** to access the drain times.
- The first number is for the rinse drain time followed by the disinfectant drain time. The rinse drain time value should be set to 105 seconds. If this is not correct, press **105, ENTER.** The disinfectant drain time should be set to 110 seconds. If this is not correct, press **110, ENTER.**
- Remain in diagnostics mode and perform the same checks for side B.
- If the internal leak tester is present, follow the ***Leak Tester Option-Check on page 13*** to ensure proper operation.
- If all of the checks pass, the unit must have a waterline disinfection completed before any endoscopes can be processed.

Waterline Disinfection Procedure

- Both stations must be in an idle state to begin this procedure. Default disinfection time is an hour and a half.
- Attach a restrictor adaptor to the basin's endoscope connector port.
- Press **SETUP,** then **6,** then **ENTER,** and finally **START.**
- The display will flash the reminder message of **"Attach Restrictor"**. If not done so already connect the restrictor adaptor and press the **START** key.
- The disinfectant will remain in the lines for the programmed disinfection time.
- Open the internal water supply valve by pressing **SETUP, 43,** then **ENTER.** This provides water to the 0.2 micron filter housing by opening the incoming water supply solenoid valve. A counter will begin counting down from 250 to 0 seconds. Once the counter reaches 0 it will automatically close the water supply solenoid valve if it is not manually closed first.
- Use a container that holds a minimum of 1 liter of liquid and place it under the drain hose coming from the top of the 0.2 micron filter housing.
- Drain the purge line by slowly opening the valve at the top of the drain hose.
- Allow the purge line to drain until all flow stops.
- Close the valve and tap the line to encourage removal of any excess water.
- Remove the container, dump the fluid and press **STOP** to shut off the incoming water supply solenoid valve.
- Press **STOP** one more time to exit the setup menu.
- Once the disinfection cycle has been completed you will need to purge the 0.2 micron water filter housing of any air.

Leak Tester Option-Check

- Connect a manometer to the leak test outlet in the A side basin.
- To test the leak test board select side **"A"** and press **SETUP, 88, 135, 51, ENTER, 54, ENTER** to set up the test.
  a. Press **95, ENTER,** and the display will show **3C.**
  b. Slowly increase pressure on the manometer. As the pressure rises the display will read **34** if pressure is greater than 1 psi and **31** if pressure is greater than 3 psi.
  c. Slowly decrease pressure using the release valve on the manometer. As pressure decreases the display will read **35** if pressure is less than 3 psi and **3F** if pressure is less than 1 psi.
  d. Press **CANCEL**.
- Test the leak tester system by pressing **56, ENTER** to verify 3 psi control pressure and press **57, ENTER** to verify 1 psi hold pressure.
  a. Use the release valve to bleed pressure out of the system to ensure the tester maintains 1 psi.
  b. Press **50, ENTER** to vent the system.
- Test the internal leak test by pressing **56, ENTER,** and allowing the pressure to stabilize.
  a. Press **57, ENTER,** and monitor the pressure for a minimum of 5 minutes to ensure the pressure neither increases or decreases by more than 4 mmHg.
  b. Record the both pressure and time on the test report then vent the system by pressing **50, ENTER.**
- Repeat all previous steps for the B side basin.
- The display readings for the B side leak test board are as follows:
  a. As pressure increases: **1C** if pressure is greater than 1 psi and **8C** if pressure is greater than 3 psi.
  b. As pressure decreases: **9C** if pressure is less than 3 psi and **FC** if pressure is less than 1 psi.

The annual PM procedures are now complete. Be sure to visit the RPI website, **www.rpiparts.com** to find a complete list of RPI parts to fit Medivators DSD-201 machines, download a copy of these instructions to your computer or mobile device, find detailed information about all of the parts included in this PM Kit, and access free technical support.

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Parts mentioned in this booklet are manufactured by Replacement Parts Industries, Inc. to fit Medivators® Model DSD-201® equipment.

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