
AEU-525CF AEU-525CFH AEU-525CFH-14

Portable Dental System

Transport III



SERVICE MANUAL



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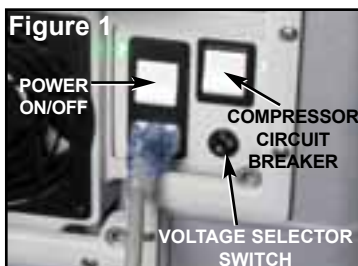
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GENERAL SERVICE INFORMATION

This service manual offers information not available in the AEU-525CF/AEU-525CFH/AEU-525CFH-14 Transport III Operation and Maintenance Instruction Manual. It will help you better understand the operation of the Transport III system, thereby reducing service time. A Replacement Parts List is also included on page 27. See the Schematic Drawing Set (PN 420991) for assembly drawings with individual part numbers, plumbing diagrams, and electrical schematics. The plumbing and electrical diagrams show all air, water, and wiring components as installed in the unit.

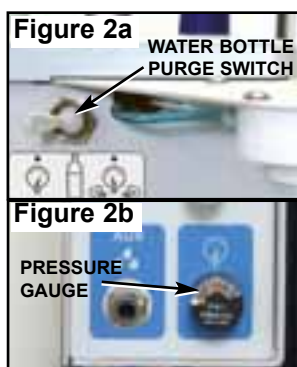
INSPECTION & OPERATION VERIFICATION

To verify that the Transport III unit is functioning properly, first follow the Setup procedure in the Operation and Maintenance Manual or in the 525 Setup Video presented on the Aseptico website. The System is designed to operate from 110V or 230V 50/60Hz power. A manually operated switch located next to the power inlet cord, allows the user to select the proper voltage (Fig. 1).



Turn both rocker switches on the motor housing to the 'ON' position. The left-hand switch turns the unit power On/Off. The right-hand switch acts as a circuit breaker for the compressor. Electrical overloads will trip both switches. Simply turn the switches back On to reset. Green LED's adjacent to each switch illuminate when the switches are On. NOTE: When the unit is in use, it's compressor motor will occasionally turn On and Off, to maintain proper pressure. IMPORTANT: The switch should be left in the On position when not in use.

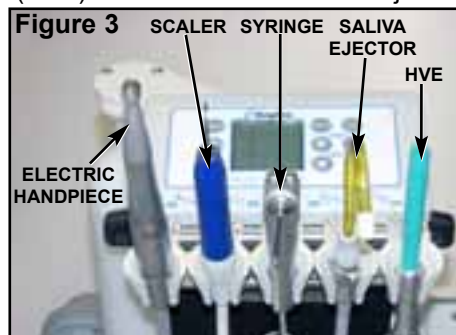
Toggle the water-bottle purge switch located on the back side of the air/ electric module to the "PRESSURE" position (Fig. 2a). Turn the main power switch, to the ON position. The compressor pump should pressurize the air and water bottles and maintain the system operating pressure at 45-55 PSI (3.10-3.78 bar). Check the pressure on the gauge located on the side of the air/electric module (Fig. 2b).



The Transport III System uses a single compressor motor with a split head. The split head provides pressure on one side and vacuum on the other. The vacuum side uses venturi boosters to increase the vacuum. The system pressure is regulated by a switch located on the right wall of the motor housing assembly. This switch activates the compressor when the pressure drops to approximately 45 PSI, and it stops the compressor when the pressure builds to approximately 50 PSI.

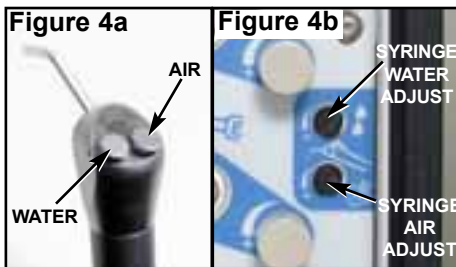
The electric motor/handpiece, scaler, and vacuum

instrument holders are air-activated holders. If the High Vacuum Evacuator (HVE) or low-volume saliva ejector instruments (Fig. 3) are removed from their holders or if they aren't properly seated in their holders, the compressor will run continuously, even when the system pressure is fully pressurized. If the HVE and saliva ejector instruments are seated in their holders properly but the compressor fails to turn off, turn the unit's power switch OFF and check for air leaks in the system. If the system pressure gauge is showing pressure, the leaking sound should be detectable. Use your ear, or place a tube to your ear like a stethoscope, to locate the source of the leak. If a leak can't be heard from any air lines or fittings, check the air and water bottles for tightness and the condition of their seals, and check the three O-rings from the junction block.



Air/Water Syringe

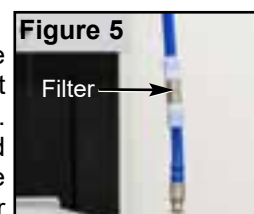
Check the 3-Way Air/Water Syringe (Fig. 4a) by depressing the air and water syringe buttons individually then both simultaneously for air/water mist. This mist can be adjusted with the two syringe flow control knobs located on the manifold control panel (see Fig. 4b).



The top knob adjusts the water flow and the bottom knob adjusts the air flow. Turn the knobs clockwise to decrease the flow or counterclockwise to increase the flow.

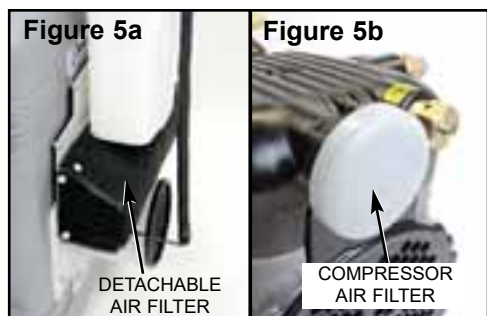
Water Filter

Inspect the water filter (Fig. 5) on the end of the water pick-up tube that protrudes into the water supply bottle. If the filter becomes clogged and restricts the water flow, it needs to be cleaned by reverse flushing, or replaced. CAUTION: Do not run saline solutions through the water system -- saline will rust the water filter.



Air Filters

The system provides a dual air filtration system. The primary filter (Fig. 5a) is installed into the door frame on the case lid and is used in dusty environments. It uses a foam filter that can be detached and cleaned. Simply pull the foam pad off the frame studs and clean with soap



and water or compressed air. The secondary air filter is a canister-type filter that threads into the compressor head (Fig. 5b). This filter should be replaced if it becomes clogged and restricts air flow.

Vacuum System

To check the function of the vacuum system, first allow the system to reach full pressure. Check that all four tubes to the waste tank are fully seated and locked into their fittings on the top of the waste tank (Fig. 6a). Ensure that the waste tank level sensor is plugged into the connector on the unit's compressor housing (Fig. 6b). The system will not activate the compressor if this sensor is not connected properly.

Fill a container with 300 milliliters of water. Turn the valve on the low vacuum saliva ejector instrument to the OFF position and submerge the HVE instrument into the container. It should take less than 10 seconds to extract the 300 milliliters of water from the container using the HVE. Refill the 300 milliliters of water and turn the HVE instrument OFF and the saliva ejector to ON, then submerge the saliva ejector instrument into the container. It should take less than 18 seconds to remove 300 milliliters of water using the saliva ejector.

Instruments:

To check the functions of the electric motor/handpiece and scaler, remove each instrument from its respective holder one at a time (see Fig. 3), and test the instrument, with coolant water and/or air flow. Both instruments are activated by the foot control.

Electric Motor/Handpiece

Remove the electric motor/handpiece from its holder (Fig. 3). A handpiece water ON/OFF toggle valve is located on the manifold control panel (Fig. 7). Place this toggle in the "ON" position and depress the foot pedal. Ensure that coolant water flows to the handpiece. A water flow adjustment valve is also provided to control the volume of water going to the handpiece. This valve is located next to the ON/OFF toggle valve (Fig. 7). Turn this adjustment valve counterclockwise to increase flow, then clockwise to decrease flow.

A handpiece air ON/OFF toggle valve is also located on the manifold control panel (see Fig. 7). This valve allows coolant air to flow to the electric handpiece. Depress the foot pedal



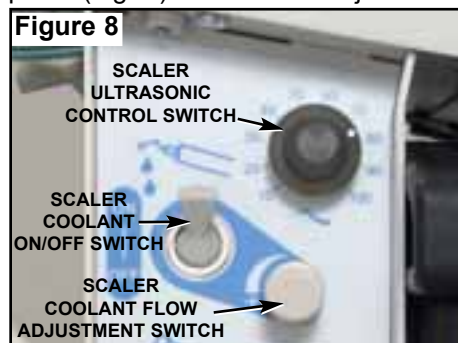
and place this toggle in the "ON" position. Ensure that coolant air flows to the handpiece. An air flow adjustment valve is located next to this ON/OFF toggle valve (Fig. 7). Turn this adjustment valve counterclockwise to increase the volume of air to the handpiece, then turn it clockwise to decrease the flow.

Return the electric handpiece to its holder when testing is complete.

Scaler

Remove the Scaler from its holder (Fig. 3). A scaler water ON/OFF toggle switch is located on the manifold control panel, just below the ultrasonic adjustment knob (Fig. 8). Place this toggle switch in the "ON" position and depress the foot pedal. Ensure that coolant water flows to the scaler. A water flow adjustment valve is also provided to control the volume of water going to the scaler. This valve is located next to the On/OFF toggle switch. Turn this adjustment valve counterclockwise to increase coolant flow, then clockwise to decrease coolant flow. During normal operation, adjust this valve until the water flow is no less than 20 ml/min at the tip.

A scaler ultrasonic setting control switch is also located on the manifold control panel (Fig. 8). This switch adjusts the ultrasonic intensity of the scaler. Turn the control knob clockwise to maximum intensity, then counterclockwise to minimum. When scaling, follow the tip manufacturer's recommended ultrasonic settings for each tip.



Return the scaler to its holder when testing is complete.

Cleaning and Lubrication:

When servicing the Transport III system, the parts of any component disassembled should be thoroughly cleaned and inspected before reassembly. A hot detergent solution is an effective cleaner on all non-electrical parts. Flush all non-electrical parts with clear, hot water. Abrasive cleaners have the potential to damage surface finishes and should be avoided. Any wiping should be done with a soft lint-free cloth.

Electrical parts should be cleaned with an appropriate electrical parts cleaner or air.

CAUTION: Use only NON-foaming cleansers in the vacuum lines.

Use a silicone base lubricating grease, such as Parker Super O-Lube, PN 490138, to lubricate O-rings and seals in the system. Before performing any reassembly of parts that contain O-rings or seals, apply a light coat of silicone grease. This will make installation easier and prevent the O-rings or seals from being damaged.

Water Lines

Disinfect the water lines weekly. Prepare a 1:10 bleach solution (1 part household bleach to 9 parts water). Remove water supply bottle and discard residual water. Replace the empty water supply bottle and air purge all waterlines. Fill water supply bottle with bleach solution. Run bleach solution through all lines. Allow bleach solution to stand in lines for 10 minutes. Remove water supply bottle and discard bleach. Flush water supply bottle and all lines thoroughly with clean water. Air purge and leave lines dry until next clinical use.

CAUTION:

Do not run saline solutions through the water system -- saline will rust the water filters.

REFER TO STERILIZATION AND MAINTENANCE SECTION ON PAGE 24 FOR MORE CLEANING INSTRUCTIONS.

Adhesives

Refer to included Schematic Drawing Set, PN 420991, for proper identification and application of all adhesives.

ESD PRECAUTIONS

The following electrostatic controls must be used when working on this unit:

ESD Training and Standards:

Employees handling electronic sub-assemblies and ESD sensitive components are expected to be trained. Training should be based on IPC-A-610 or equivalent ESD standard ANSI/ESD-S-20-20 – Protection of Electrical and Electronic Parts, Assemblies and Equipment.

ESD Static Controlled Area:

Areas that are designated for handling and working on electronic sub-assemblies or their components should be marked off with signs indicating the area where ESD controls are to be enforced. These areas are to be kept clear from persons that are not trained to prevent ESD damage from occurring.

ESD Environment:

The work area is to be free of all static generating materials, such as plastic containers, water bottles, plastic bags, plastic objects, such as plastic pens, heat guns (unless made for the ESD environment).

ESD Jackets:

Clothing should be non-static generating (cotton).

Static generating clothing (e.g. wool, acrylic, nylon) must be covered with an ESD jacket that is buttoned closed.

Optional gloves:

Nitrile gloves may be used to cover the hands when working, but are not required.

Seating:

ESD Chairs should be used in place of static generating chairs (e.g. modern office seating use static generating materials).

Storage and packaging:

All circuit boards and components are to be stored on or in static dissipative or static shielding material, throughout shipping and storage.

ESD Wrist Strap and Mat Routine Checks:

The wrist strap should be checked daily using an ESD wrist strap testing station. See chart below.

ESD mats should be checked at least quarterly.

Reading from Operator Through	Maximum Tolerable Resistance	Maximum Acceptable Discharge Time
Wrist strap to ground	100 megohms	Less than 0.1 sec.
Table mat to ground	1000 megohms	Less than 1 sec.

DISASSEMBLY

OVERVIEW: When disassembling the AEU-525CF Transport III System, it is recommended that its modular subassemblies be removed and disassembled in the order shown below:

1. Inlet/Outlet Air Filter Assy
2. Waste Tank Assy (*)
3. Dental Instruments
4. Water Bottle
5. Air/Electric Module Assy (*)
6. Air Bottle Assy
7. Top Shelf Components
8. Electrical Panel Assy
9. Motor Housing - Left Wall Assy
10. Motor Housing - Right Wall Assy
11. Venturi & Muffler Bracket Assy
12. Compressor/Vacuum Pump Assy
13. Case Assy

(*) The Waste Tank and Air/Electric Manifold Block are not customer-serviceable subassemblies and should not be disassembled in the field -- please return these items to Asepto if repairs are necessary.

The operator control panels are located on the Air/Electric Module Assembly. The power inlets and power supplies are located on the Electrical Panel Assembly, and the compressor and its vacuum components are located on the Motor Housing Assembly.

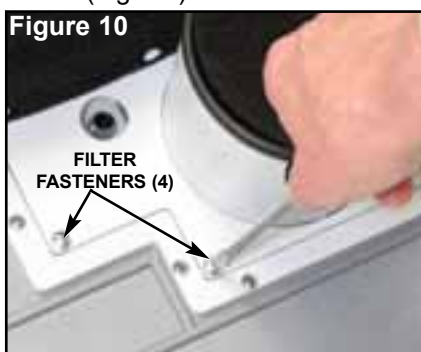
INLET/OUTLET AIR FILTER ASSEMBLY

The socket for the Waste Tank Level Sensor Connector is located on the Electrical Panel Assembly, behind the Air Filter Assembly (see Fig. 9).

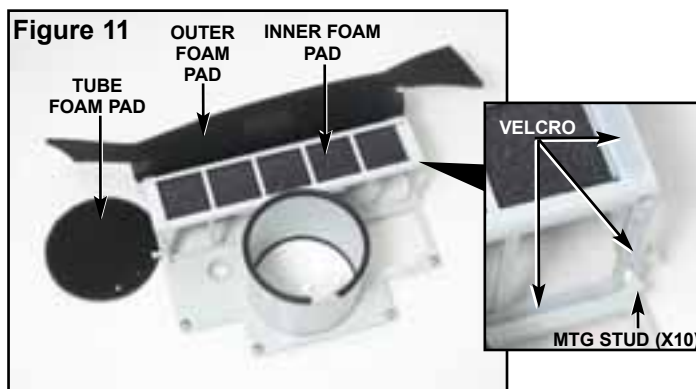
Grasp the locking collar on the Connector and pull the Connector straight out of its socket, through the plastic hole in the Air Filter Assembly. The Connector is keyed to the socket, so when reinstalling, press the connector gently against the socket then rotate until the connector aligns with and enters the socket. Ensure that the connector is dry and free of any moisture before reconnecting to the socket.



Swing the Connector and cord out of the way. Use either a standard flat-head screwdriver, or the fastener tool provided on the inside of the Transport III case lid, to loosen the four fasteners on the Filter frame (Fig. 10). Turn the fasteners counter-clockwise 1/4-turn. Lift the Filter out of the lid door frame and move to a workbench for further disassembly.



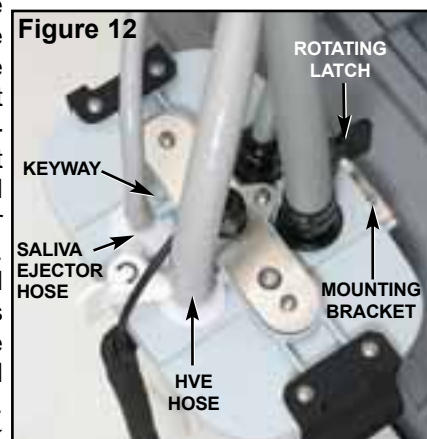
The three foam filter pads can be detached from the Filter frame for cleaning or replacement. Carefully



peel the large Outer Foam Pad (PN 730685), Inner Foam Pad (PN 730684), or circular Tube Foam Pad (PN 730687) off their Mounting Studs (PN 510848) and Velcro Strips (PN 480030) (Fig. 11). Clean or replace pads as needed and then reattach to frame.

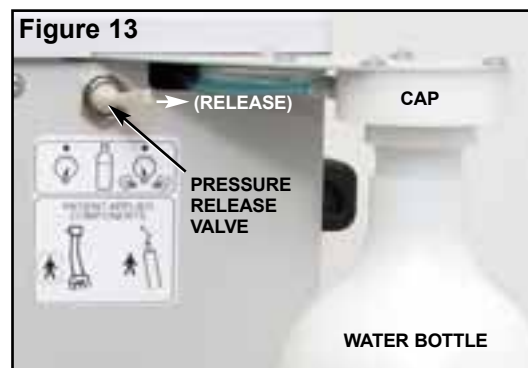
WASTE TANK ASSEMBLY

The Waste Tank is located on the back side of the Transport III, hanging from a mounting bracket on the case lid (Fig. 12). First, remove the four gray hoses from the top of the waste-tank lid. Note the color match between the black and white rotating latches on the lid with their respective black or white hose fittings. Also note that the HVE and saliva-ejector instrument hose fittings are keyed to only fit their respective inlet ports. Unplug the waste level sensor from its connector on the Electrical Panel Assembly (see Fig. 9). Ensure that the tank has been cleaned of all waste and residue before removing (refer to Operations Manual for instructions on emptying the Waste Tank.) Lift Tank off mounting bracket and set aside for reassembly later.



WATER BOTTLE

Release any residual pressure from the Transport III Water Bottle by toggling the Pressure Release Valve to the right (Fig. 13). Unscrew the Water Bottle from its cap and carefully lower the bottle until clear of its water-supply tube/ filter assembly. Place Bottle aside for reassembly later.



FOOT CONTROL

The Transport III Foot Control connector is located on the bottom of the Air/Electric Module Assembly (Fig. 14). Loosen the outer sleeve on the cord connector and pull the connector straight out of its receptacle. Place the Foot Control aside for reassembly later.

IMPORTANT: The Foot Control is not a customer serviceable item and should be replaced or returned to Aseptico for repairs, if necessary.

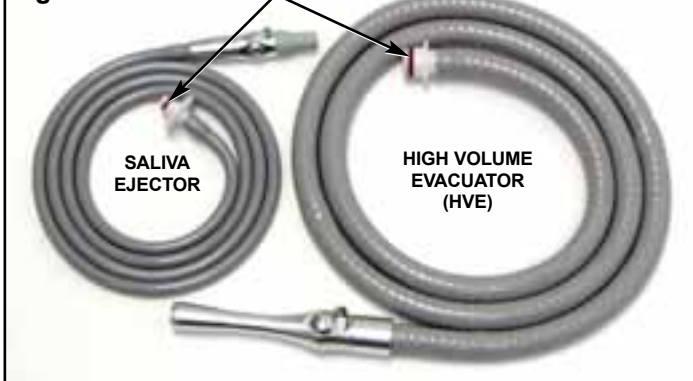
Figure 14



VACUUM VALVES & HOSES

Remove the HVE and saliva ejector valves from their respective holders and move to a work bench for inspection and/or repair (Fig. 15):

Figure 15



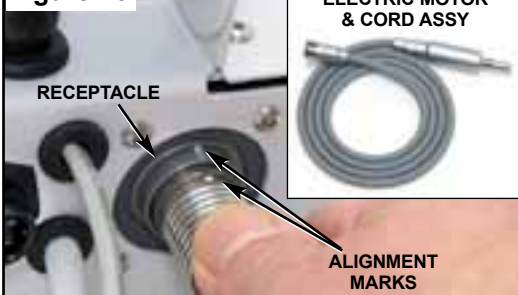
- Inspect hoses for cracks or leaks - replace if necessary.
- Check the integrity of the HVE 'O' rings (PN 520101) and the saliva ejector 'O' ring (PN 520100) - replace if necessary.
- The anodized aluminum bodies of the HVE & saliva ejector valves (PNs AA-35LAD & AA-37LAD) can be snapped apart at their swivel connectors. The levers and Viton® O-ring spools can be disassembled without tools, for cleaning and lubrication. (Use small amount of Parker Super O-Lube (PN 490138) to lubricate). Ensure that the valve heads swivel freely and that the levers turn On/Off properly - replace if necessary.

ELECTRIC MOTOR & CORD ASSEMBLY

Remove the Electric Handpiece/Motor from its holder.

Detach the handpiece from the motor and set aside. The receptacle for the Electric Motor cord connector is located on the bottom of

Figure 16



the Air/Electric Module Assembly (Fig. 16). Pull the connector straight out of its receptacle only by the locking collar. Set Motor/Cord aside. When reconnecting the motor connector, ensure that the round dimple on the cord connector aligns with the grooved mark on the receptacle.

IMPORTANT: The Electric Motor & Cord Assembly is not a customer-serviceable item and should not be disassembled in the field. Return the Motor Assembly to Aseptico if repairs are necessary. Refer to the Sterilization Section in this manual for more information on motor maintenance and care. Refer to the handpiece manufacturers' instructions for information on handpiece maintenance and repair.

AIR/ELECTRIC MODULE ASSEMBLY

The Air/Electric Module Assembly (PN 330597) is the main control module for the Transport III. It provides the operator controls for the electric motor, scaler, air/water syringe, and two suction valves.

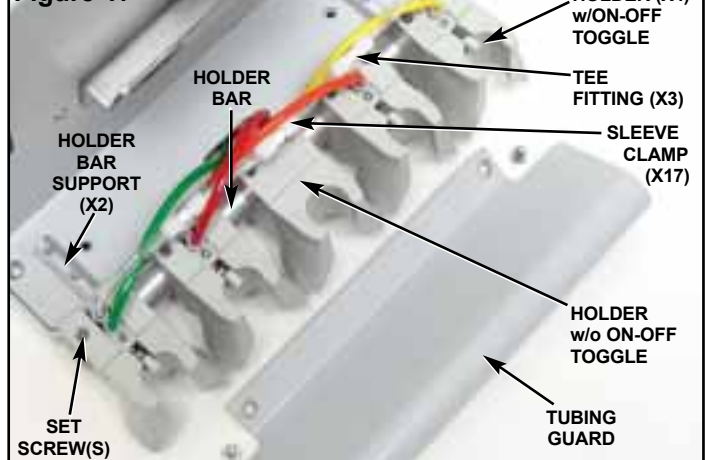
Detach the Air/Electric Module from the Transport III unit as outlined below: (Refer to the Operator's Instruction Manual for complete detailed instructions on detaching this Module.)

1. Loosen the hold-down thumbscrew that attaches the rear housing of the Module to the connector block on the case.
2. Pull the locking tab on the unit's adjustable handle out of its slot and raise the Air/Electric Module until it reaches its highest position (the locking tab will snap into the next slot). The Module's rear housing will become detached from the connector block on the unit.
3. Locate the knob that locks the Air/Electric Module to the adjustable handle and rotate the knob 90° so that it aligns with the vertical slot in the handle.
4. Carefully rotate the bottom of the Air/Electric Module away from the handle so that the knob backs out of the slot.
5. Lift the Air/Electric Module assembly up and outward, until its mounting bracket is free of the large opening at the top of the handle.
6. Move the Module assembly to a work bench for component disassembly.

HANDPIECE TUBING GUARD

The Handpiece Tubing Guard (PN 462121) protects the tubing going to the instrument holders. It is mounted under the instrument holder bar (Fig. 17). Use a 5/64" Allen wrench

Figure 17



DISASSEMBLY - Cont'd

to remove the two mounting screws (PN 510037). Reassemble the Guard in the reverse order.

INSTRUMENT HOLDERS

Two Instrument Holders (PN AA-59G) with on/off toggle controls are located at each end of the Holder Bar (Fig. 17). A fifth toggle-less instrument Holder (PN AA-68G) is located at the center of the bar, between the other four Holders. Remove the Sleeve Clamps (PN 730015) from the tubing going to each of the Holders. Remove the colored tubing and Tee Fittings (PN 730152) going to the Holders (take note of the tubing configurations and colors to each Holder, for reassembly later). Back out the setscrews on the bottom of the Holder(s) with a 3/32" Allen wrench. Remove the Holders from the Holder Bar. Use a 5/64" Allen wrench to remove the two mounting screws (PN 510160) that attach the Holding Bar (PN 462095) to the Holding Bar Supports.

Reassemble the Instrument Holders in the reverse order. Refer to plumbing schematic for proper installation.

WATER FILTER & LUER FITTING

The Water Filter (PN 730326) and Luer Fitting (PN 730073) are located in the blue tube (PN AA-95B) that protrudes into the water bottle (Fig. 18). Depressurize the water bottle and remove it from its water cap. Remove the Luer Fitting from the bottom section of the tube. Loosen the sleeve clamps (PN 730095) located at the top of the blue tube and at both ends of the Filter. Unscrew and remove the Filter. Remove the three fittings (PN 730073) and gaskets (PN 730074) from the tube sections. To clean the Filter, inject compressed air from the top end to unplug its screen, or replace the filter with a new one.

Reassemble in the reverse order, with new gaskets if necessary.

WATER CAP GASKET

The water cap gasket (PN 730473) is located on the underside of the white water bottle cap (PN 462039) (Fig. 19). Depressurize the water bottle and remove it from its water cap. Reach up into the white cap and pull the black gasket from the cap.

Reassemble in the reverse order with a new gasket.

WATER CAP

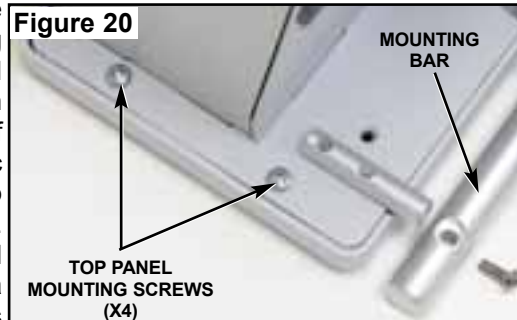
The water cap (PN 462039) is attached under the right side of the Air/Electric Module Top Panel (Fig. 19). Remove the water bottle as previously described. Remove the two sleeve clamps (PN 730015) from the two tubes, then detach the

blue tube (PN AA-94B) and clear tube (PN AA-94C) from the fittings on the cap. Remove the three mounting screws (PN 510404) from the top of the panel (Fig. 18) with a 3/32" Allen wrench and remove cap. Remove the two fittings (PN 730062) and gaskets (PN 730074) from the cap, using a 1/4" open-ended wrench. Inspect and replace fittings or gaskets if necessary.

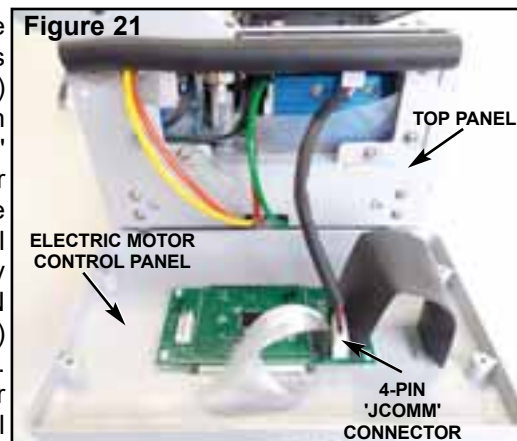
Reassemble the cap in the reverse order. Refer to the plumbing schematic for the proper installation of tubing.

ELECTRIC MOTOR CONTROL PANEL HOUSING

Locate the four mounting screws (PN 510650) on the bottom of the Air/Electric Module Top Panel (Fig. 20), and remove with a #2 Phillips screwdriver.

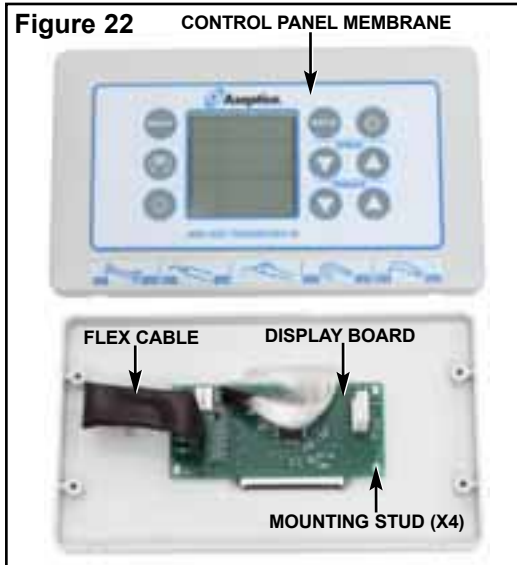


Disconnect the Wire Harness (PN 875113) from the 4-pin 'JCOMM' connector located on the Motor Control Panel Display Board (PN 330600-C) (see Fig. 21). Move Motor Control Panel to the workbench.



Disconnect the Control Panel Membrane flex cable from the 6-pin 'JKEYPAD' connector on the Display Board (Fig. 22). If removal of the Display Board is required, use needlenose

pliers to remove hot melt glue and pinch together the four mounting studs on the Control Panel Housing and lift off the Board. **NOTE:** The Display Board is not a user-serviceable subassembly and



should be returned to Aseptico if repairs are required.

The Control Panel Membrane (PN 420918) is attached to the front of the Panel Housing with an adhesive backing (see Fig. 22). Removal of the Membrane is not recommended unless absolutely necessary. If removal is required, carefully peel the Membrane out of the recess in the Housing and permanently discard the entire Membrane. (**IMPORTANT:** Do not reuse an old Membrane - once detached, it should always be replaced with a brand new Membrane.) To reinstall a new Membrane: 1) Insert flex cable pigtail through the slotted hole in the Top Cover; 2) Remove liner from adhesive backing on new Membrane; 3) Carefully center new Membrane in recess in Top Cover; and, 4) Press down evenly on Membrane until firmly adhered to Cover; and 5) Add 4-inches of 1-inch diameter heat Shrink around Flex Cable (Do Not Shrink).

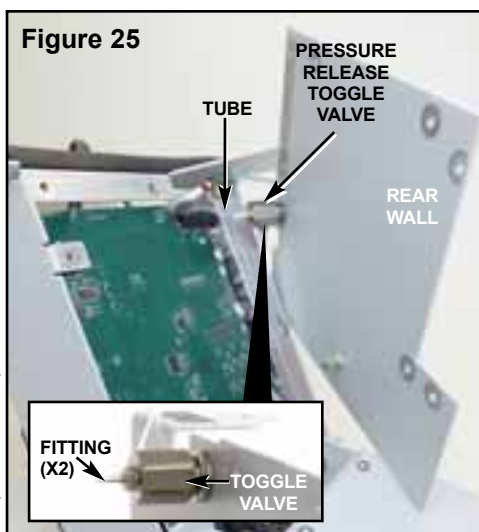
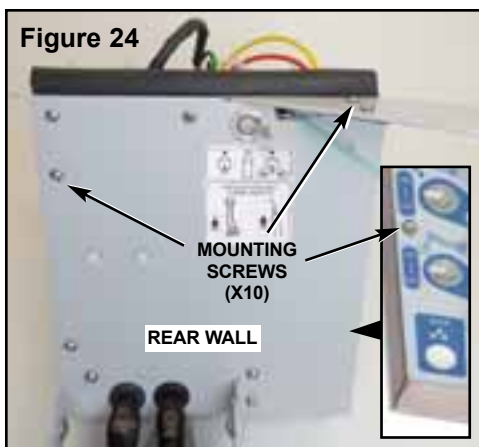
Use a 5/64" Allen wrench to remove the four screws (PN 510037) that attach the two Holder Bar Supports (PN 462096) to the Top Panel (see Fig. 21). Place Supports aside for reassembly later.

The Rubber Seal strip (PN 520104) is adhered to the Top Panel, along the Panel's back edge (top of Fig. 24). Peel off the Seal if necessary. Remove backing and stick new seal into place.

REAR WALL

Use a 5/64" Allen wrench to remove the 10 screws (PN 510037) that attach the Rear Wall to the Air/Electric Module (Fig. 24). Note that one mounting screw is located on the Manifold Assembly control panel and two more are on the top panel.

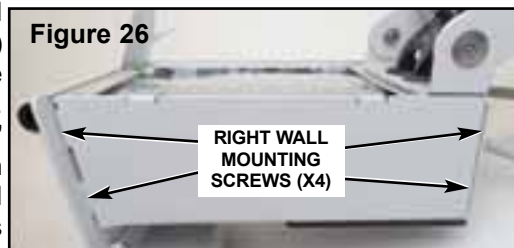
Carefully disconnect the Rear Wall from the Module and swing it to the right, noting that the tubing to the Pressure Toggle Valve (PN 730014) is still attached. Remove sleeve Clamp (PN 730015) and detach the clear tubing (PN AA-94C) from the Toggle Valve. Disconnect Rear



Wall and move to work bench. Remove the two Fittings (PN 730062) and gaskets (PN 730074) with a 1/4" open-ended wrench. Use a 9/16" wrench to remove the Toggle Valve mounting nut located on the outside of the Wall, then remove the Valve.

RIGHT SIDE WALL

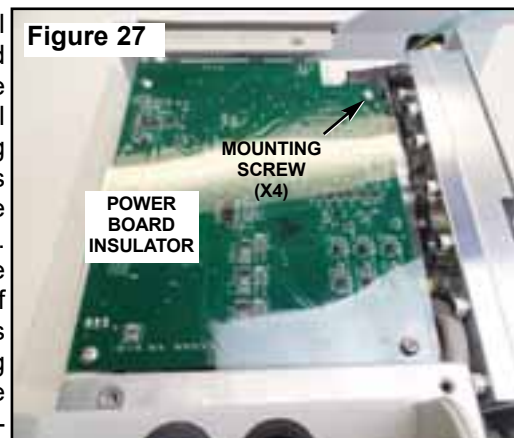
Locate the four mounting screws (PN 510037) that attach the Right Wall (PN 462036) to the Module (see Fig. 26). Use a 5/64" Allen wrench to remove all four screws and set the Wall aside for re-assembly later.



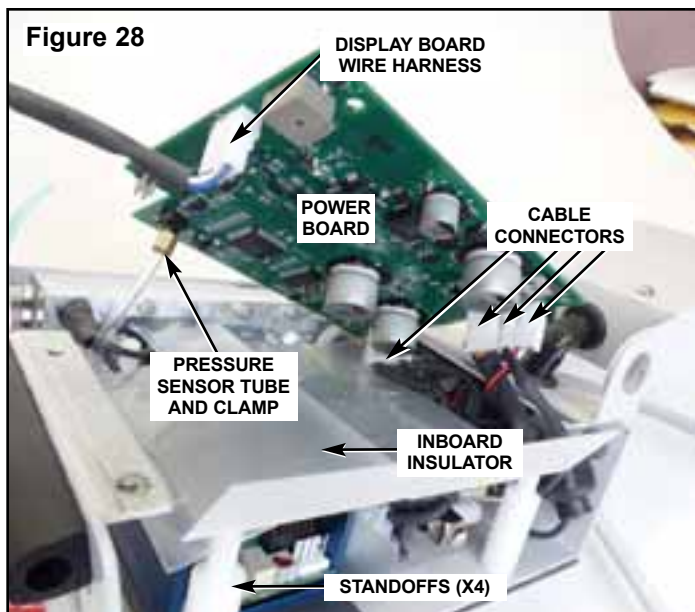
POWER BOARD AND INSULATORS

Use a 1/16" Allen wrench to remove the four screws (PN 510016) that attach the plastic Power Board Insulator (PN 462117) to the Module (Fig. 27). Remove Insulator to expose the Power Board (PN 330601), then place Insulator aside for reassembly later.

Carefully pull Power Board away from the Module until the wiring assemblies can be accessed (Fig. 28). Note the alignment of the Board's mounting holes with the nylon stand-offs. Unclamp the brass Sleeve (PN 461607) from the Pressure Sensor Tube (PN 730227). Detach Tube from 'PSENS1' connector on Power Board. Disconnect the Motor Connector Wiring Assembly (PN 330598) from the 'J_MOTOR' connector on the Board. Note the orientation of the Wiring Assembly's connector and wires with the locking tab and position '1' on the Board's connector. Disconnect the 3-pin, 2-pin, and 5-pin (PN's 860118, 860076, and 860019 respectively) connectors from the 'JPWR1', 'J_SLND', and 'J_FOOTPEDAL' connectors on the Board.



DISASSEMBLY - Cont'd



Note the orientation of the connectors' wiring with the Board's connectors. Remove Power Board from Module and set aside for reassembly later. **IMPORTANT:** The Power Board Assembly is not a customer-serviceable item. Return the Board Assembly to Aseptico if repairs are necessary.

Pull the inboard Insulator (PN 462113) off the four nylon mounting Standoffs (PN 462112) (Fig. 28) and place aside for reassembly later. Unscrew, by hand, the nylon Standoffs from the threaded studs on the Module's Front Wall and set Standoffs aside for re-assembly later.

MANIFOLD ASSEMBLY

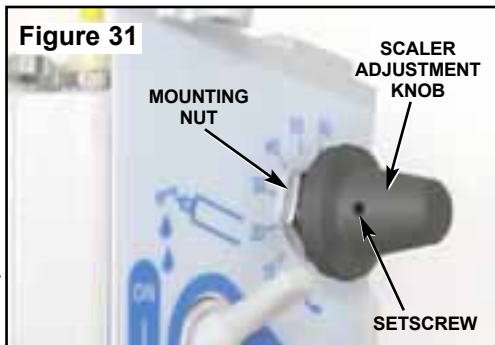
Locate the five mounting screws (PN 510037) for the Manifold Assembly (PN 330591) and Manifold Wall (PN 462029) (Fig. 30), two on the top and two on the bottom of the Module and one on the face of the Manifold Control Panel. Use a 5/64" Allen wrench to remove all four screws.



Carefully pull the Manifold Assembly away from the Module until the plumbing connections on the inboard side are readily accessible.

SCALER-ADJUSTMENT POTENTIOMETER

The scaler potentiometer (part of PN 730691) is located on the Manifold Assembly (Fig. 31). Loosen the small setscrew on the side of the potentiometer knob with a 1/32" Allen wrench and remove knob. Remove the

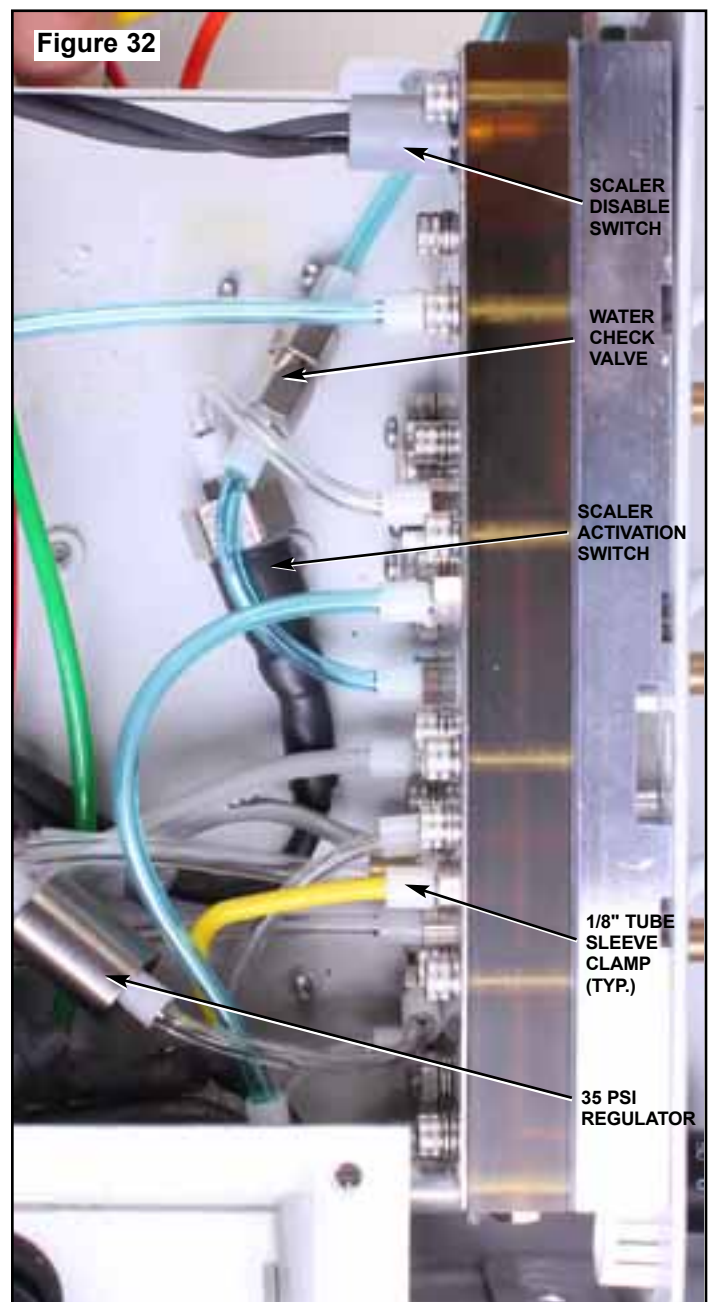


mounting nut on the outboard side of the Manifold Wall with a 1/2" socket or open-ended wrench. From the inboard side of the Manifold, remove potentiometer through the hole in the Wall (see Fig. 33).

Reassemble the scaler potentiometer in the reverse order with the lock washer positioned against the inboard side of the Manifold wall and the alignment pin on the potentiometer keyed into the hole in the Wall.

MANIFOLD BLOCK

The On/Off and Air & Water Control Valves for the Scaler, Motor/Handpiece, and Syringe are located on the Manifold Block Assembly (Fig. 32). Cut the two wires to the Scaler Disable Switch, PN 830144, located at the right top corner of the back side of the Manifold (Fig. 32) and then unscrew Switch by hand. When reassembling, note the lockwasher (part of Switch) is positioned against the Block.



Use diagonal cutters or needle-nose pliers to pry off all sleeve clamps from the tubing and hoses that connect to the Manifold Block (Fig. 32). The 1/8" tubing is clamped with PN 730015 Clamps or PN 730096 Uni-Clamps; and, the 1/4" tubing is attached with either large white nylon Clamps PN 730095; large brass Clamps PN 461607, or the large aluminum Clamps PN 462230.

Detach the connecting tubes and hoses from Manifold Block. **NOTE:** To simplify disassembly, at this time, only detach the tubes and hoses that are still interconnected to the Module Assembly -- leave the other tubes and hoses with loose ends attached to the Block (Fig. 33). Take note how all tubes and hoses connect to the Block. Inspect the ends of all tubes and hoses for fraying or cracks and trim off damaged ends before re-attaching to Block. Refer to Plumbing Schematic Drawings for proper reassembly of tubes and hoses.

Move Block to work bench for further disassembly. Detach remaining sleeve clamps and tubes as necessary.

IMPORTANT: The Manifold Block (Fig. 33) is not a customer-serviceable item. Return the Block to Aseptico if repairs are required.

Figure 33



JUNCTION BLOCK

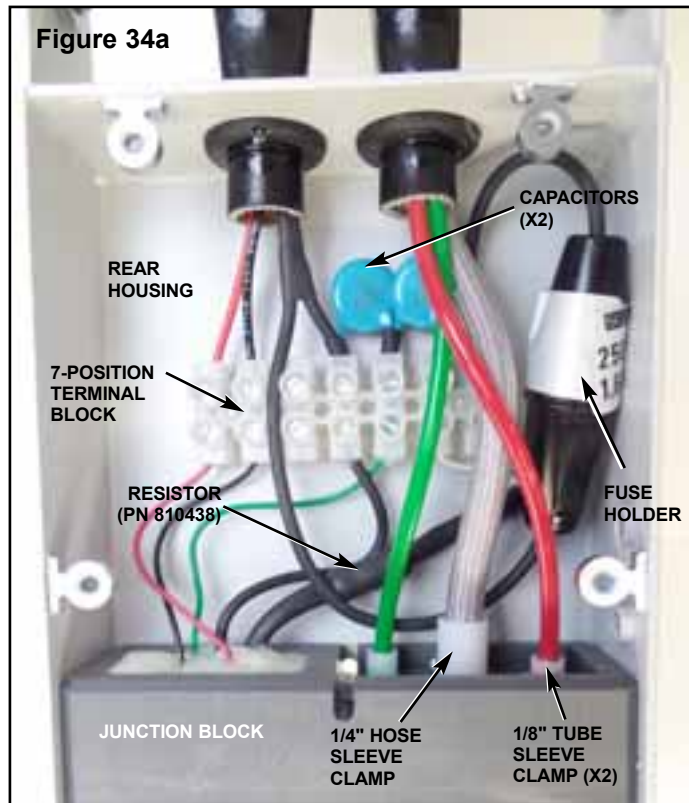
The Junction Block provides an interconnecting air, water, and electrical terminal between the 525CF Control Module and the Compressor Module. The Block is located in the pivotal housing attached to the back side of the Air & Water Manifold Module (Fig. 34a).

Use a 5/64" Allen wrench to remove the four mounting Screws (PN 510037) that attach the Front Housing (PN 462042) to the Rear Housing (PN 462043) (Fig. 34b).

Use diagonal cutters or needle-nose pliers to pry off the sleeve clamps from the two tubes and hose that connect to the Junction Block (Fig. 34a). The 1/8" tubing is clamped with Clamps PN 730015 and the 1/4" hose is attached with a large white nylon Clamp (PN 730095).

Use a small flat-head screwdriver to disconnect just the Junction Block wiring from the 7-position Terminal Block (PN

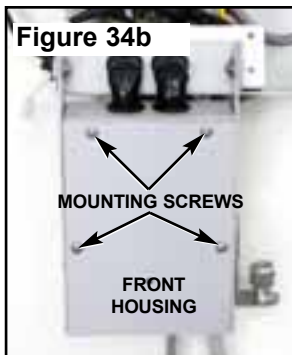
Figure 34a



860283) located inside the Rear Housing (Fig. 34a). Take note of the color wiring-to-terminal connections, for reassembly later. Note the wiring configuration of the Resistor (PN 810438). Refer to the electrical schematic for proper installation.

Locate the Locking Thumbscrew and Bracket (PN 462052) on the side of the Rear Housing (Fig. 44a). Depress and hold the Thumbscrew against the bracket while using a #2 Phillips screwdriver to remove the Junction Block mounting screw (PN 510790). Remove the other mounting screws (PN 510790) located on the opposite side of the Rear Housing (Fig. 44b) and on the back side of the Housing. Remove the Junction Block to the workbench for further disassembly.

Figure 34b



DISASSEMBLY - Cont'd

Figure 44a

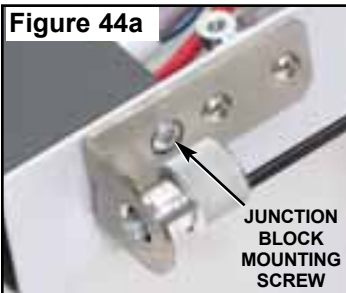
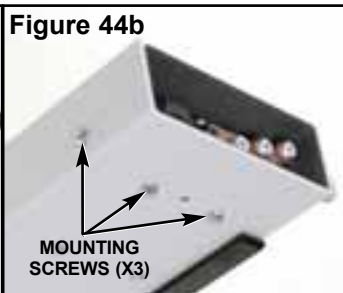


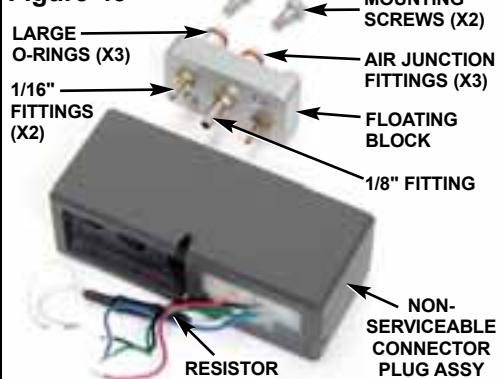
Figure 44b



At the workbench, use a flat-head screwdriver to remove the two Screws (PN 510688) that mount the Floating Block (PN 462052) to the Junction Block (Fig. 45). Move the Floating Block aside and only disassemble if necessary: Use a 5/16" open-ended wrench to remove its three large Air Junction Fittings (PN 462051). Use a 1/4" open-ended wrench to remove its

smaller 1/16" & 1/8" Hose Fittings (PNs 730062 & 730073 respectively) and nylon Gaskets (PN 730074). Replace the large outer O-rings (PN 520121), or smaller internal O-rings (PN 520025) as necessary.

Figure 45



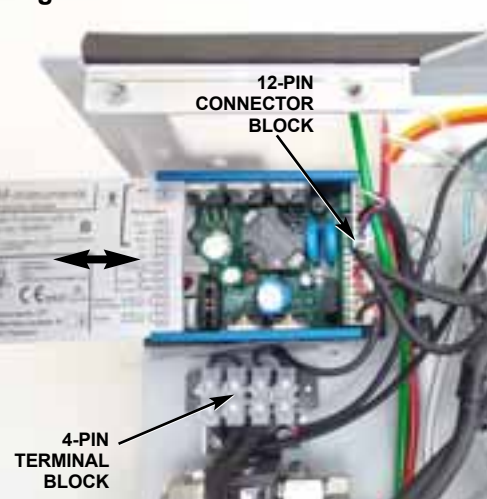
IMPORTANT: The 12-pin Connector Plug (PN 860285) subassembly, which consists of five Wires (PN's 870304-01, -02, -03, -04, & -06) and Contact Terminals (PN 860290), Resistor (PN 810438), and two mounting Screws (PN 510766) are permanently epoxied to the Junction Block and cannot be serviced. Replace the entire epoxied Connector Plug/Junction Block subassembly if repairs are required.

NOTE: It is not necessary to disconnect any remaining wiring from the 7-Position Terminal Block (PN 860283) (Fig. 34a) or the 4-Position Block (PN 860250) (Fig 49), nor remove the Blocks from the unit, unless they are faulty or damaged.

SCALER CONTROL MODULE

The Scaler Control Module (PN 840140) is located on the upper left side of the Manifold Module Front Wall. Slide the cover of the Scaler Module to the left, to expose the wiring terminal blocks underneath (Fig. 49). Disconnect the wiring connector from

Figure 49



the Module's 12-pin receptacle. When reattaching this connector, refer to the wiring guide imprinted on the Module cover, or refer to the System schematic. Unless damaged, there is no need to disconnect or remove any remaining Scaler Module wiring - leave it in place for reassembly later.

Locate the three mounting screws (PN 510530) on the outboard side of the Front Wall that attach the Scaler Module to the Wall. Using a #1 Phillips screwdriver, remove the Screws and then remove the Scaler Module. Set the Module aside for reassembly later. Reassemble the Module in the reverse order.

THREE-WAY VALVE

The Three-Way Valve (PN 730748) and its mounting hardware is located on the Front Wall (Fig. 51).

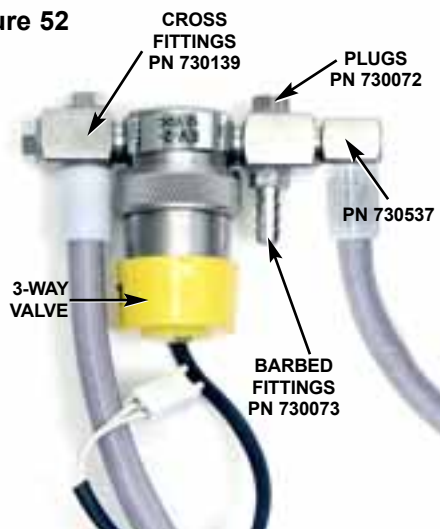
Use diagonal cutters or needle-nose pliers to pry off the large white nylon Sleeve Clamp (PN 730095) from the 1/4" Hose (PN AA-95G) that protrudes through the large black



silicone tubing from the Rear Housing. Use a 5/64" Allen wrench to remove the two Mounting Screws (PN 510037) that attach the Valve to the Mounting Bracket. Leave the Bracket (PN 462114) and Insulator (PN 462116) attached to the Front Housing. Move the Valve and its hardware to the workbench if further disassembly is required.

At the workbench, disconnect the remaining two sleeve clamps and hoses from the two Fittings (PN 730139) (Fig. 52). Use a 1/4" thin open-ended wrench to remove the 2 barbed Fittings (PN 730073), three Plugs (PN 730072), and eight Nylon Gaskets (PN 730074). Use

Figure 52



a 3/8" open-ended wrench to remove the two cross Fittings (PN 730139) and 90 degree angle fitting (PN 750537).

ELECTRIC MOTOR RECEPTACLE

The Electric Motor Receptacle Assembly (PN 330598) is mounted onto the bottom panel of the Air & Electric Module (Fig. 53a). Locate the 4 Mounting Screws (PN 510160) on the bottom of the Module and remove them using a 5/64" Allen Wrench (Fig. 53b). Move the entire Receptacle Assembly to the workbench for further disassembly, if necessary.

Figure 53a

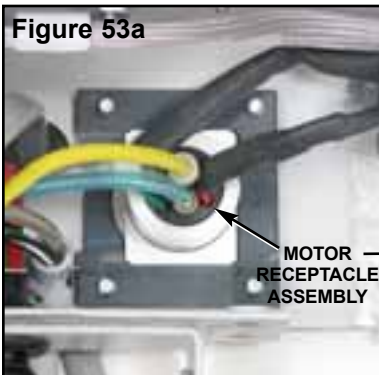
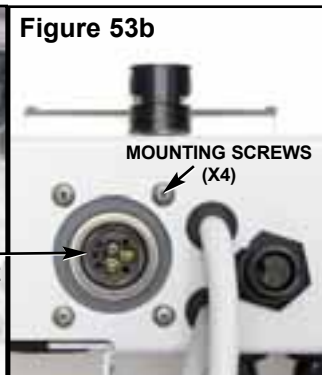
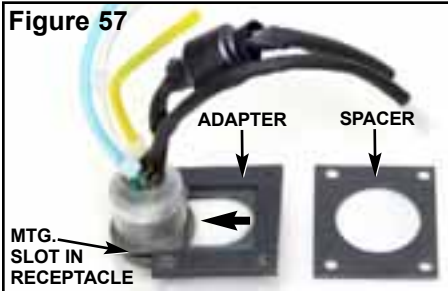


Figure 53b



NOTE: At the workbench, take note how the Adapter Plate (PN 462069) slides into the slot on the Receptacle. Also note the hole-orientation of the Spacer (PN 462135), with the Adapter Plate and Receptacle (Fig. 57).

Figure 57



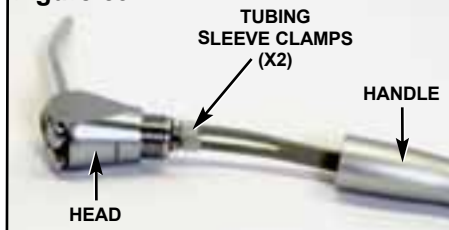
SYRINGE AND SYRINGE TUBING

To replace the Syringe (PN TA-90D), remove the two sleeve clamps (PN 730015) from the Syringe tube splices located inside the bottom panel of the Air & Electric Module (Fig. 58). Pull the tubing down through the grommet and move Syringe and Tubing Assembly to work bench. At bench, unscrew the bottom handle from the Syringe head to access the tubing connections (Fig. 59). Remove the two sleeve clamps (PN 730015) and disconnect the tube (PN AA-85G) from the head.

Figure 58



Figure 59

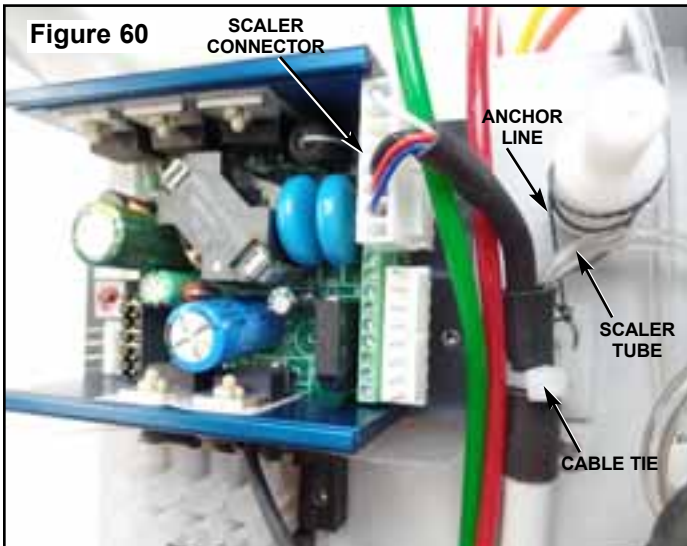


To reassemble the Syringe, cut approximately 67" of the syringe tubing and attach to the Syringe head with two sleeve clamps. Place the syringe in its holder on the Air & Electric Module and adjust the length of the tubing so that it suspends off the floor. Splice the end of the tube as before and attach to the two fittings on the Manifold Block with two sleeve clamps. Verify that air comes out the syringe when the air button is depressed and that water sprays out when the water button is depressed.

SCALER WAND

The Scaler Wand (part of PN 730658 + 730659 + 730660) is attached inside the Air & Electric Module (Fig. 60). Unplug the Scaler Connector from the scaler module. Cut the Cable Tie around the Scaler cord. Remove the Scaler Tube from the manifold. Cut the Anchor Line wrapped around the standoff.

Figure 60



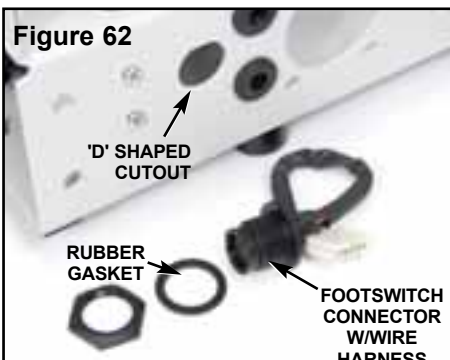
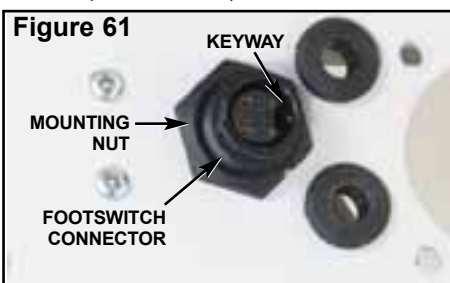
DISASSEMBLY - Cont'd

Pull the Scaler Wand cord down through the grommet in the bottom panel of the Air & Electric Module. Remove Scaler Wand. **IMPORTANT:** The Scaler Wand is not a customer-serviceable item. Return the Wand to Aseptico if repairs are required.

Reassemble the Scaler Wand in the reverse order, adjusting the length of the Wand cord to hang suspended off the floor and then trimming the excess cord and/or water line. Wrap the cable tie around the scaler cord and through the tie wrap mount. Ensure that the tie is not over-tightened and does not restrict the flow of water. Attach the anchor line around the nearby standoff and then tie it to the tie wrap mount. Attach the green, white, and black wires from the Wand to connector on the scaler module using 860020 connector housing and (5) 860023 connector crimp pins according to the sheet 4 diagram of the schematic drawing set (330597). Check to ensure that scaler water flow is appropriate.

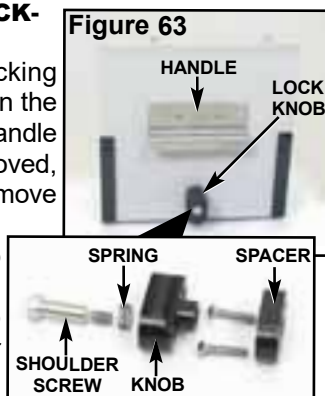
FOOTSWITCH CONNECTOR

The Footswitch Connector (PN 860212) is located on the bottom panel of the Air & Electric Module. Use a 13/16" open-ended wrench to remove mounting nut on outboard side of bottom panel (Fig. 61). (**NOTE:** Take care to protect the panel against scratches when removing nut.) Push Connector inward through 'D' shaped cutout in bottom panel of the Air & Electric Module. Note that the keyway on the threaded Connector is pointing toward the right-hand side. Remove entire Connector and wire harness assembly and set aside for reassembly later. (**NOTE:** During reassembly, ensure that the rubber gasket that is supplied with the Connector (see Fig. 62) is positioned on the inboard side of bottom panel.



AIR/ELECTRIC MODULE LOCK-KNOB & HANDLE

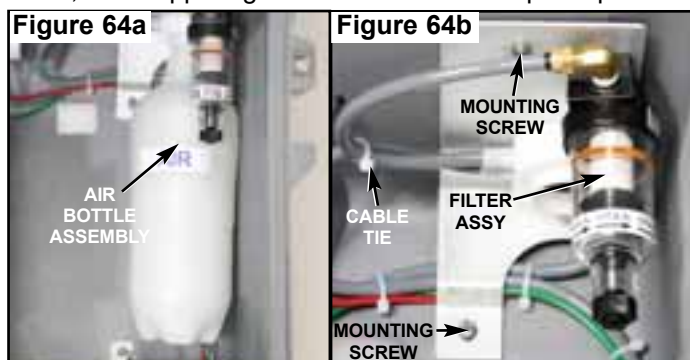
The Air/Electric Module Locking Knob and Handle are located on the Front Wall (Fig. 63). If the Handle (PN 462031) needs to be removed, use a 5/64" Allen wrench to remove its two mounting Screws (PN 510037). The Locking Knob consists of six different parts: Use a 1/8" Allen wrench to remove the large shoulder Screw (PN 510767) and Spring



(PN 510765) that attach the Lock Knob (PN 462033). Then, use a 5/64" Allen wrench to remove the two Screws (PN 510720) that mount the Spacer (PN 462034) to the Wall.

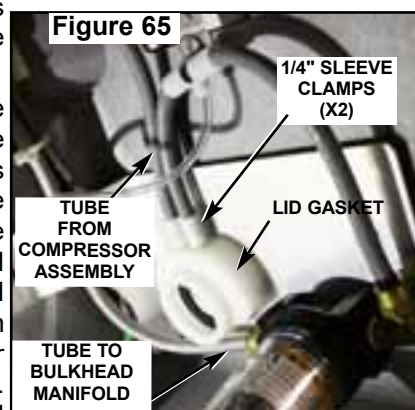
AIR BOTTLE ASSEMBLY

The Air Bottle Assembly is located inside the Transport III Case, in the upper right-hand corner of the top compartment

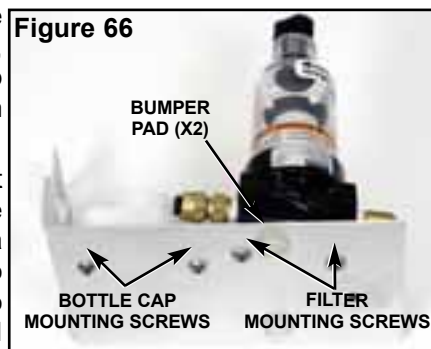


(Fig. 64a). Turn the unit off and purge any residual pressure left in the System (depress the Syringe air button to release all air pressure). Unscrew the Air Bottle (PN 730657) from its Lid (PN 462007) and set Bottle aside for reassembly later. Cut the cable tie around the two gray tubes (PN AA-95G) running to the Air Bottle Assembly (see Fig. 64b). Use a Phillips screwdriver to remove the top mounting Screw (PN 510545) which threads into the Assembly Bracket (PN 462006), through the top of the Case. Then, use a 3/32" Allen wrench to remove the other mounting Screw (PN 510309), which is accessed from the inside of the case.

Carefully pull the Assembly out of the Case to access its tubing (Fig. 65). At the Bottle Lid, remove the Sleeve Clamp (PN 730095) and Tube (PN AA-95G) that runs from the Compressor Assembly (see Fig. 65). At the Filter (PN 730495), locate the Tube going to the Bulkhead Manifold and use a 7/16" open-end wrench to remove it from the straight Fitting on the Filter. When present, remove sleeve clamp and clear tube from tee.



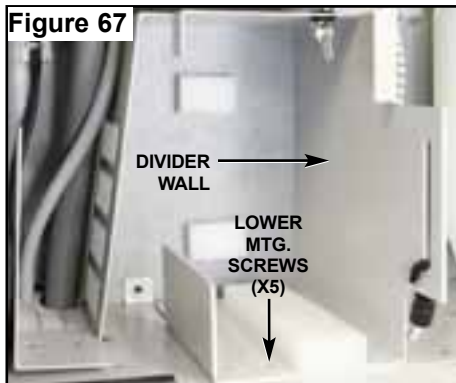
Move the Bracket subassembly to the workbench. Use a 3/32" Allen wrench to remove the two mounting Screws (PN 510404) for the Lid and the two Screws (PN 510309) for the Filter (see Fig. 66).



Inspect and replace the two Bumper Pads (PN 850067) if necessary. Clean or replace Filter (PN 730495) as necessary. Check Bottle Gasket (PN 730473) located inside the Lid (Fig. 65) for wear/leakage and replace as necessary.

DIVIDER WALL

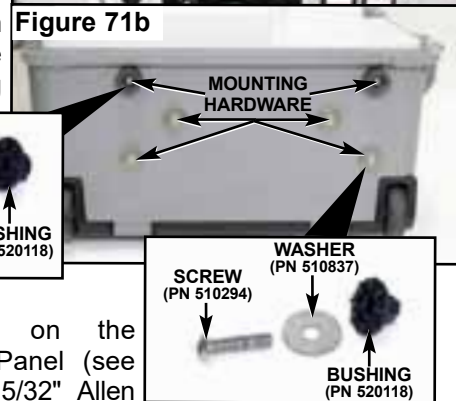
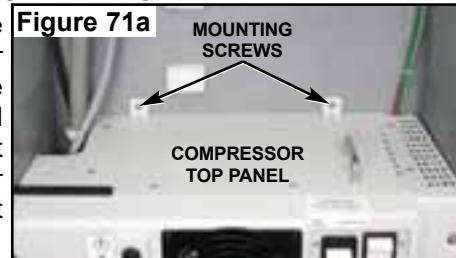
The Divider Wall (PN 462000) is located in the top compartment of the Transport III Case (Fig. 67). Use a 5/64" Allen wrench to remove the five lower mounting Screws (PN 510037). Cut tie wrap holding LVE hose (AA-86G) to barb feedthrough (PN 730558) and remove. Squeeze HVE hose slightly, remove Divider Wall and set aside for reassembly later. To remove the Bungee Cord (PN 730370), untie the knot in the Cord and pull the Cord up through the rubber Grommet (PN 870326). Place Cord aside for reassembly later. Inspect and replace plastic Hook (PN 730371) if damaged. The storage strap (PN 462145) can be removed from the Divider Wall by pulling apart the hook-and-loop connector and replaced if needed.



COMPRESSOR ASSEMBLY TOP PANEL

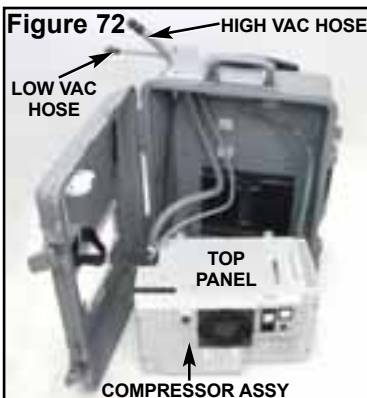
The entire Compressor Assembly can be detached and pulled out of the Transport III Case for component disassembly.

Use a 3/32" Allen wrench to remove the two mounting



Screws (PN 510404) located on the Compressor Top Panel (see Fig. 71a). Use a 5/32" Allen wrench to remove all the Compressor Assembly mounting hardware located on the bottom of the Case (see Fig. 71b).

Pull the High Vacuum and Low Vacuum Hoses down inside the Case top compartment, to provide slack when removing the Compressor Assembly (see Fig. 72). Carefully pull the entire Compressor



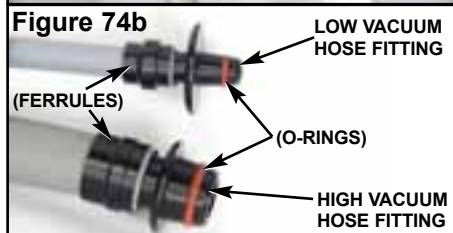
Assembly out of the Case and place in front of Case temporarily. Leave all tubing attached.

A Top Panel (PN 462063) covers the Compressor Assembly (Fig. 72). Use a 5/64" Allen wrench to remove the six Screws (PN 510037) that mount the Panel to the Compressor. Remove Panel (see Fig. 73) and place aside for reassembly later. If the Handle (PN 850075) on the Panel needs replacement, use a 4mm Allen wrench to remove the two mounting Screws (PN 510717) and Lockwashers (PN 510420).

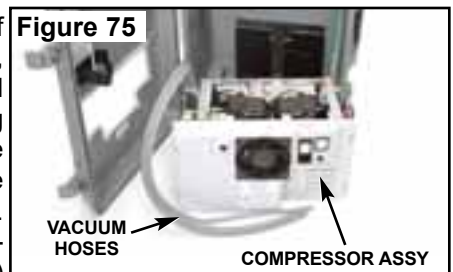


VACUUM HOSE FITTINGS

Locate the Air/Electric Manifold Door on top of the Case. Open Door to access the High and Low Vacuum Hose end Fittings inside the Bulkhead Insert (Fig. 74a). Use adjustable channel lock pliers to pry off the Ferrule (PN



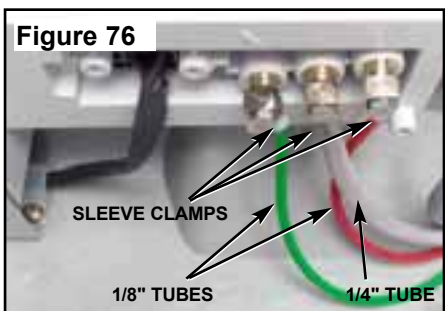
462138) and then the Fitting (PN 462021) on the larger High Vacuum Hose (PN AA-259) (see Fig. 73b). Inspect O-Ring (PN 520101) for wear and replace if necessary. Next, remove Ferrule (PN 462139) and Fitting (PN 462022) on the Low Vacuum Hose (PN 730794) (Fig. 74b). Inspect O-Ring (PN 520100)



for wear and replace if necessary. Pull both Vacuum Hoses ends down through the Bulkhead Insert. Leave opposite ends attached to the Compressor Assembly (Fig. 75).

BULKHEAD TUBES

Use diagonal cutters to pry off the 1/8" & 1/4" Tube Sleeve Clamps (PNs 730015 & 730095) (Fig. 76). Then, remove the Red Tube (PN AA-94R), Green Tube (PN AA-94G), and Gray Tube (PN AA-95G) from their fittings. Leave the opposite ends of the Tubes attached to the Compressor Assembly.



DISASSEMBLY - Cont'd

Locate the Cable Tie (PN 510137) that straps the Display Module Power Cable (PN 875118) to the Compressor Assembly (see Fig. 77). Cut the Tie to provide additional slack for the Power Cable.

Carefully rotate the Compressor Assembly onto its back side (see Fig. 78) (Place a protective pad under the Assembly to prevent scratching.)

Figure 77

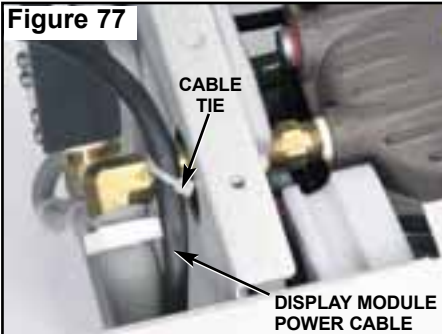
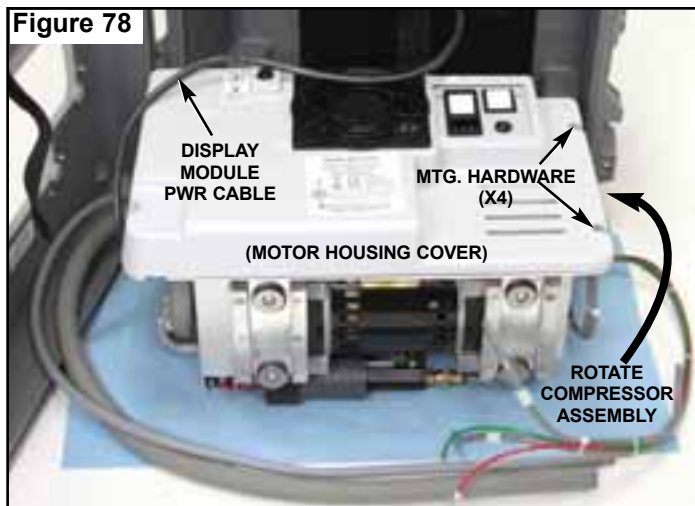


Figure 78



MOTOR HOUSING COVER

Locate the four mounting Screws that attach the Motor Housing Cover to the Compressor Assembly (see Fig. 78). Use a 5/64" Allen wrench to remove the Screws (PN 510036), Metal Washers (PN 510431), Rubber Washers (PN 510827) and Blue Washers (PN 510936). Carefully lift the Cover off the Compressor Assembly and set aside until reassembly later (see Fig. 79)

Figure 79

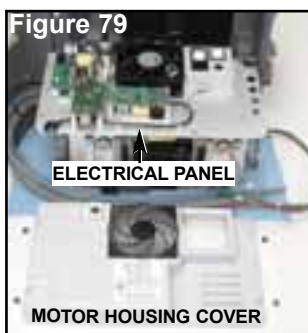
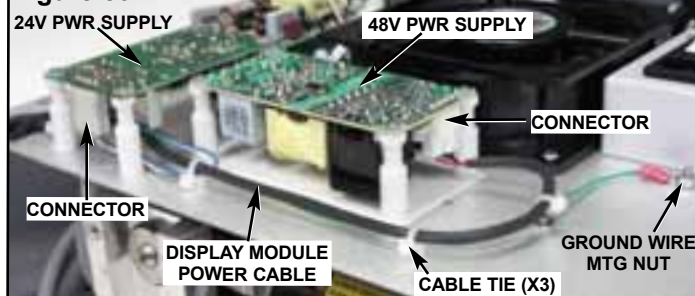


Figure 80



ELECTRICAL PANEL

The Electrical Panel is located beneath the Motor Housing Cover (Fig. 79). Locate the Display Module Power Cable

and follow it's leads to the two power supplies on the Electrical Panel (Fig. 80).

Cut the three Cable Ties (PN 510137) that secure the Display Module Power Cable to the Electrical Panel (Fig. 80). Leave the three Tie Mounts (PN 510179) in place, for reassembly later. Use a 5/16" open-ended wrench to remove the Power Cable Grounding Nut (PN 510293) and Lockwasher (PN 510419) from the stud on the Electrical Panel (see Fig. 80).

48V POWER SUPPLY

The 48V Power Supply (PN 840087-01) provides power to the Electric Motor Assembly. Detach the Power Cable 2-wire connector from the 'CN2' 4-pin receptacle on the Supply's PCB (Fig. 81a). Note the orientation of the connector to the PCB receptacle latch and pin-position of red wire.

Figure 81a

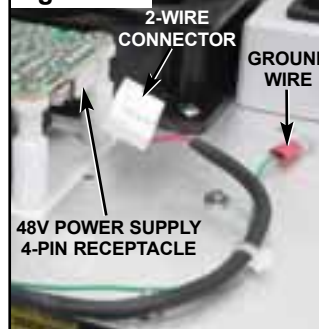
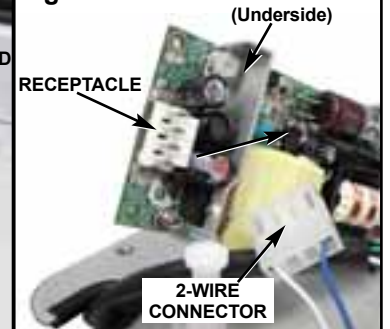


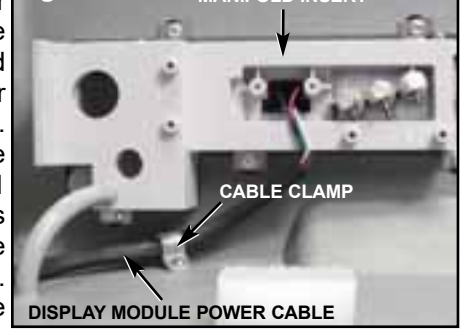
Figure 81b



24V POWER SUPPLY

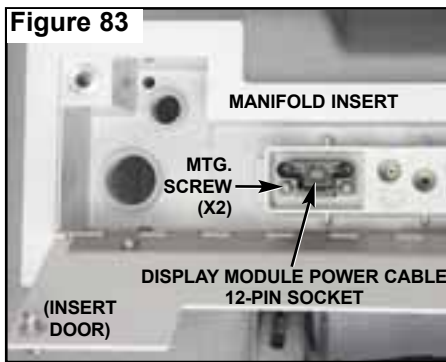
The 24V Power Supply (PN 840120) provides power to the Scaler Assembly. To access the Supply's power connector, which is situated on the Supply's underside, the Supply must first be removed from its mounting Standoffs and turned over. Use a 1/16" Allen wrench to remove the four Screws (PN 510016) and Washers (PN 510573) that secure the Supply to the four Standoffs (PN 462244). Carefully lift the Power Supply off the Standoffs, then detach the Power Cable's 2-wire connector from the 'CN2' 4-pin receptacle on the Supply's PCB (Fig. 81b). Note the orientation of the connector to the receptacle latch and the pin-position of the blue wire. Detach the other 2-wire connector from the 'CN1' receptacle on the Supply's PCB, then set the 24V Power Supply aside for reassembly later. Also note the orientation of this connector to its receptacle latch. Unscrew the four Standoffs (PN 462244) from their studs on the Electrical Panel and place aside for reassembly later. Note position of one (1) 462244-01 standoff which is modified from the other standoffs.

Figure 82



IMPORTANT: The 24V Power Supply is not a customer-serviceable item. Replace the entire Supply or return it to Aseptico if repairs are required. Locate the Cable Clamp (PN 510410) for the Display Module Power

Cable, which is mounted inside the Case, just below the Manifold Insert (see Fig. 82). Use a 3/32" Allen wrench to remove the Clamp mounting Screw (PN 510404). Remove Clamp and set aside for reassembly later.

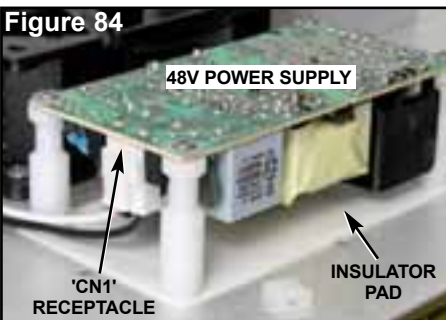


DISPLAY MODULE POWER CABLE

At the top of the case, open the door to the Manifold Insert and locate the Display Module Power Cable 12-Pin Socket. This Socket is mounted into the center of the Insert housing with two integral screws (see Fig. 83). Use a Phillips screwdriver to remove the two mounting screws, then feed the entire Power Cable up and out through the Insert housing. Place the Cable Assembly

aside for reassembly later. Inspect the Cable for damage or faults and replace entire Cable if problems are found.

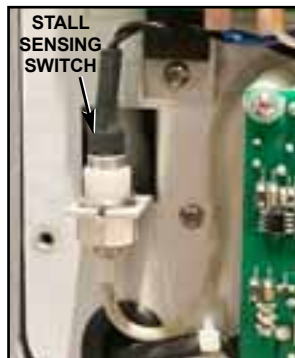
Detach the remaining 2-wire connector from the



'CN1' receptacle on the 48V Power Supply (Fig 84). Note the orientation of the 2-wire connector to the receptacle latch. Use a 1/16" Allen wrench to remove the four Screws (PN 510016) and Washers (PN 510573) that secure the Supply to the four Standoffs (PN 462244). Carefully lift the Power Supply off the Standoffs. and set aside until reassembly later. Unscrew the four Standoffs on the Electrical Panel and place aside for reassembly later. Remove the Insulator Pad (PN 462081) under the Standoffs and set aside for reassembly later. **IMPORTANT:** The 48V Power Supply is not a customer-serviceable item. Replace the entire Supply or return it to Aseptico if repairs are required.

STALL SENSING SWITCH:

Use diagonal cutters to pry off the Sleeve Clamp (PN 730015) and 1/8" clear Tube (PN AA-94C) that is attached between the Stall Sensing Switch (PN 875120) and the Venturi Muffler Assembly #2 (see Fig. 105b). Use a 9/16" open-end wrench to loosen the mounting nut on the top side of the Switch, then spin the nut and lockwasher (part of Switch Assembly) off the threads. Pull the Switch wires down through the mounting hole slot in the Bracket. Remove cable tie holding down stall switch wires going to J_PRESS_SW on the CONTROL BOARD PCB. Remove cable ties holding the rest of the wires going to J_PRESS_SW. Disconnect two red quick disconnects (PN 860239) which are attached to J_PRESS_SW. Remove J_PRESS_SW from CONTROL BOARD PCB and set aside

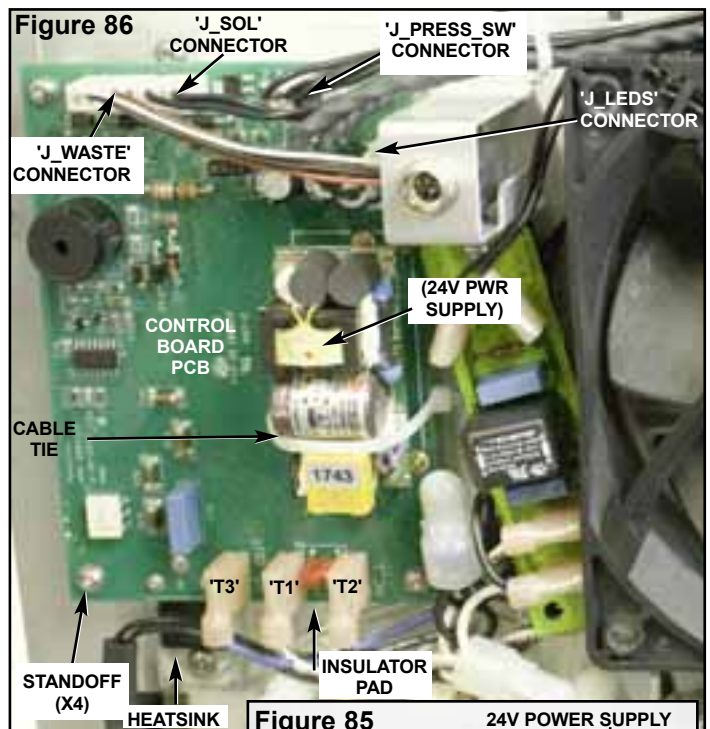


the 875120 wire assembly for reuse later. Reassemble in reverse order.

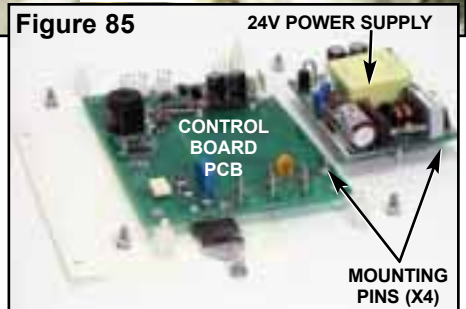
CONTROL BOARD PCB

A smaller 24V Power Supply (PN 840093) provides power to the Electronic Control Board (PN 330604) (Fig. 85). This Power Supply is mounted to the top of the Control Board PCB with a tie wrap and can be detached if necessary.

Detach the three flag-type wire terminals from connectors 'T1', 'T2', and 'T3' on the Control Board PCB (see Fig. 86). Note the color-arrangement of the wires and the connectors. Next, detach the three wire connectors at the PCB sockets marked 'J_WASTE', 'J_SOL', and 'J_LEDS'. Note the



alignment of the connectors to the socket latches, and the wire color positions. Use a 1/16" Allen wrench to remove the four mounting Screws (PN 510016), split lockwashers (PN 510433), and flat nylon washers (PN 510657) that mount the Control Board PCB to the four Standoffs (PN 510760). Next, use a 5/64" Allen wrench to remove the mounting Screw (PN 510160) that attaches the Heatsink (PN 462111) to the PCB. Carefully lift the Control Board Assembly off the Standoffs and move to a workbench for further disassembly. Use a 1/4" open-ended wrench to remove the four Standoffs then remove the Insulator Pad (PN 462080) and set aside for reuse later.

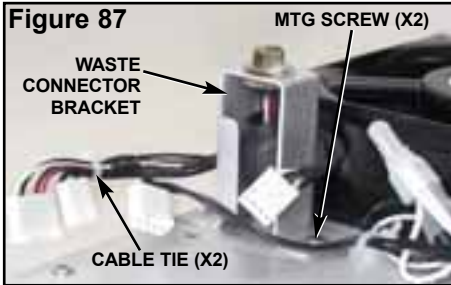


At the workbench, cut and remove the Cable Tie (PN 510628) that straps the Power Supply to the Control Board PCB. Lift the Power Supply straight up and off the mounting pins on the PCB. **IMPORTANT:** The Power Supply and Control Board PCB assemblies are not customer serviceable. If repairs are required to either assembly, replace the entire item or return it to Aseptico for service.

DISASSEMBLY - Cont'd

WASTE CONNECTOR CABLE ASSEMBLY

Locate the Waste Connector Cable Assembly Bracket (Part of Cable Assy PN 875114) (Fig. 87). Cut the two Cable Ties (PN 510137) that bundle the wiring to the Control Board Assembly (see Fig. 86 above). Use a 5/64" Allen wrench to remove the two mounting Screws (PN 510037 and 510881 and spacer PN 510152) for the Bracket. CAREFULLY remove Bracket and cable assembly from around PCB assembly 330870 and set aside for reassembly later.

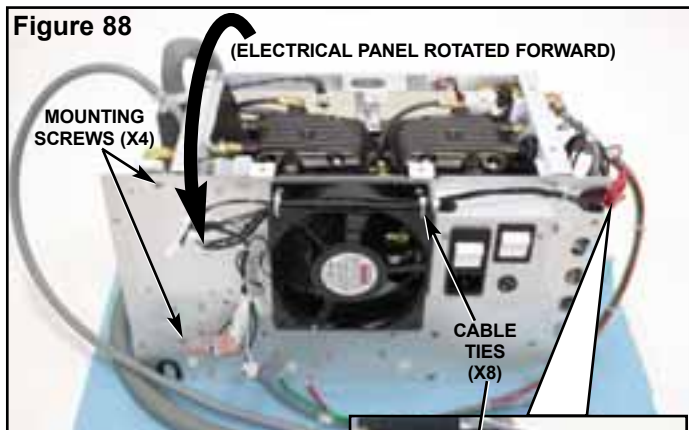


FAN FILTER

Carefully remove the four quick disconnect terminals from the PN 330870 Assembly and remove screw (PN 510881) and spacer (PN 510128) which also holds the fan (PN 540014).

ELECTRICAL PANEL 10-POS TERMINAL BLOCK

Rotate the Compressor Assembly so the Electrical Panel is facing forward (Fig. 88). Locate the two red wire connectors



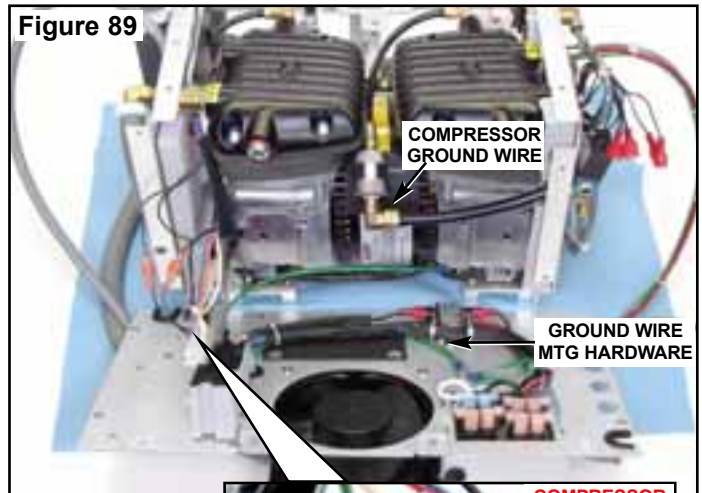
from the Unloader Solenoid Cable Assembly (PN 875115) in the upper right-hand corner of the Panel (see Fig. 88 inset). Disconnect and tag wire connectors. Cut all cable ties located on the front of the Electrical Panel and along the edge of the Cooling Fan.

Locate the four mounting Screws (PN 510037) that attach the Electrical Panel to the Compressor Assembly (see Fig. 88) and remove them using a 5/64" Allen wrench. Carefully lower the top front edge of the Panel downward to expose the back side of the Panel (Fig. 89).

Locate and detach the green/yellow ground wire from the Compressor to the grounding hardware on the back side of the Electrical Panel, using a 5/16" open ended wrench.

Locate the 10-Position Terminal Block (PN 860278) on the back side of the Electrical Panel (Fig. 89). Note the wire

colors and terminal positions of the eight wires coming from the Compressor Motor Assembly. Use a 1/8" flat blade screwdriver to detach these eight wires from the Block.

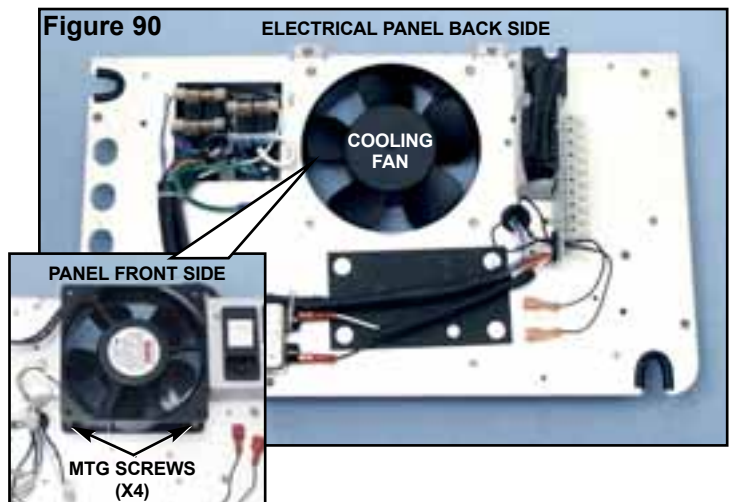


NOTE: When rewiring the System, refer to the Final Assembly Wiring Schematic (sheet 19, drawing 330838). Move the Electrical Panel to the work bench for further disassembly (Fig. 90).

COOLING FAN

The Cooling Fan (PN 540014) is located on the Electrical Panel (Fig. 90). On the front side of the Electrical Panel, remove the three screws (PN 510160) that mount the Fan to the Panel with a 5/64" Allen wrench. Remove Fan.

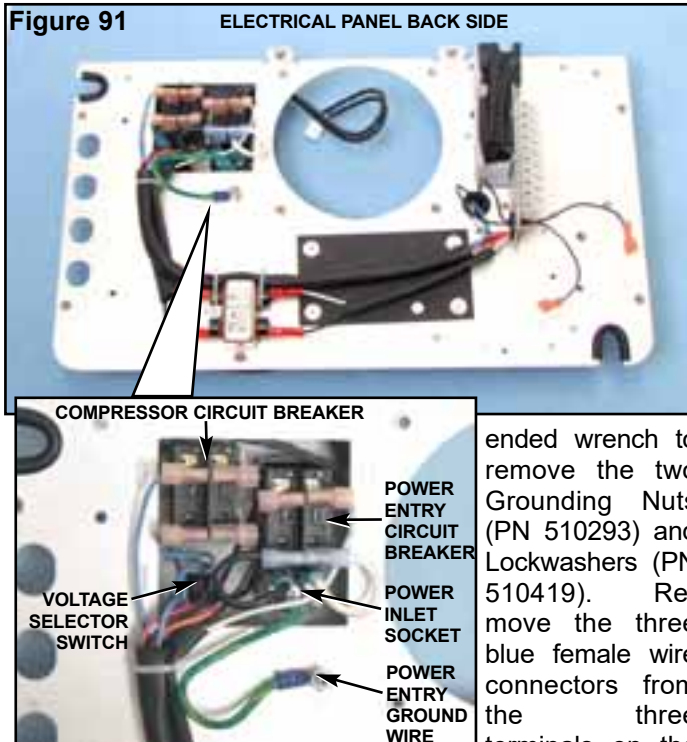
Reassemble Fan in the reverse order with the air flow indicator on the Fan pointing away from the front side of the Panel. Refer to the Final Assembly Wiring Schematic for proper installation. Be sure wires exit fan closest to the top edge of Control Board PCB.



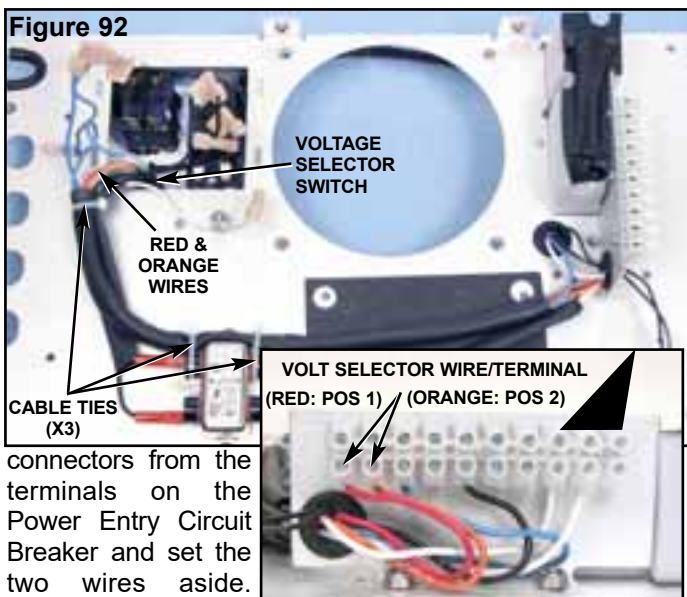
CIRCUIT BREAKERS

The Circuit Breaker Housing (PN 462017) is located on the front of the Electrical Panel. The Housing provides an enclosure for the Power Entry Circuit Breaker (PN 840119), Compressor Circuit Breaker (PN 830151), and the Voltage Selector Switch (PN 840084) (see Figs. 91 & 92).

Note the wiring configuration on the back side of the Circuit Breaker Housing. Tag the mating female wire terminals at each Breaker terminal to assure proper rewiring later - refer to Electrical Schematic in Final Assembly Drawing (sheet 19, drawing 330838) for proper wiring configuration. Locate the green/yellow grounding wire from the power inlet socket on the Power Entry Circuit Breaker (Fig. 92). Use a 5/16" open-



ended wrench to remove the two Grounding Nuts (PN 510293) and Lockwashers (PN 510419). Remove the three blue female wire connectors from the three terminals on the

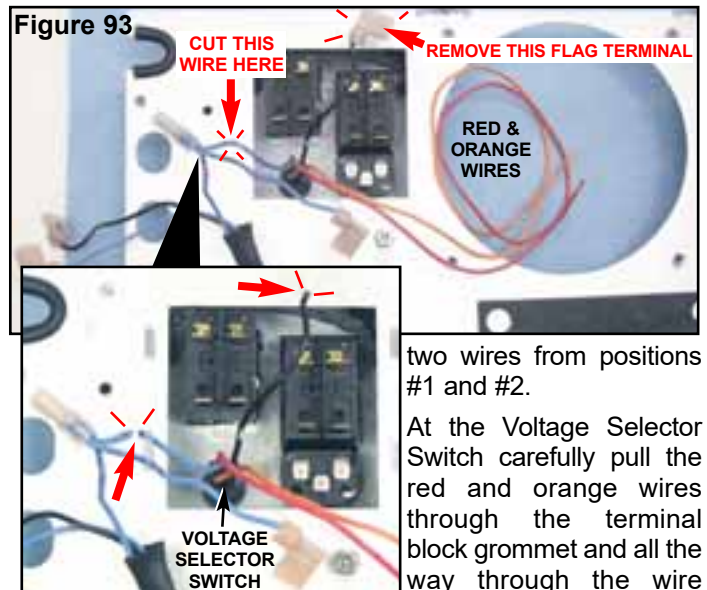


connectors from the terminals on the Power Entry Circuit Breaker and set the two wires aside.

ended wrench to remove the two Grounding Nuts (PN 510293) and Lockwashers (PN 510419). Remove the three blue female wire connectors from the three terminals on the

Remove the six red flag-type wire connectors from the terminals on the Compressor Breaker.

Cut the three cable ties (PN 510137) around the wire bundles on the back side of the Panel (see Fig. 92). Locate the red and orange wires from the Voltage Selector Switch and trace them back to the 10-position terminal block (see Fig. 92 Inset). Use a 1/8" flat blade screwdriver to detach the



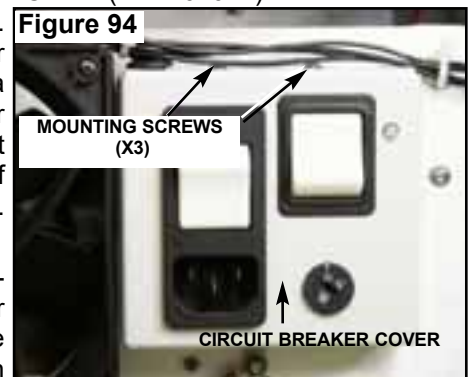
bundle heatshrink tube (Fig. 93).

At the Voltage Selector Switch, locate the crimp that connects the three blue wires together. At the crimp, cut the single blue wire that leads directly to the Voltage Selector.

NOTE: During reassembly, reconnect the three blue Voltage Selector wires shown here using a Panduit Model CT-1551 crimp tool, or equivalent tool capable of #22-10 AWG contour crimps. When reconnecting a new flag terminal to the black wire shown here, use a Molex Model 640014100 tool, or equivalent tool capable of crimping flag terminals.

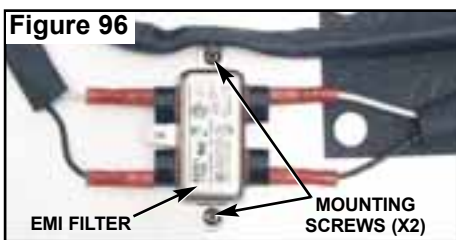
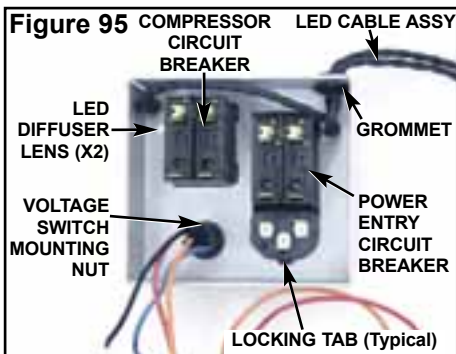
On the front side of the Electrical Panel, use a 5/64" Allen wrench to remove the three Screws (PN 510037) that mount the Circuit Breaker Cover (PN 462017) to the Electrical Panel (see Fig. 94). Move the Cover subassembly to a work bench for component disassembly if required (see Fig. 95).

Use a 9/16" open-ended wrench or pliers to loosen the mounting nut on the inboard side of the Voltage Selector Switch (Fig. 95). Back the nut off the Switch by hand and then slide the nut off the four wires. Pull the Switch and four wires through the front side of the Cover and set aside for reassembly later. Detach the two leads on the LED Cable



DISASSEMBLY - Cont'd

Assembly (PN 875117) from the two LED Diffuser Lenses (PN 850078). Slide Grommet (PN 870185) out of hole in circuit breaker cover around LED wires. Carefully pull the LED Cable Assembly out of the Housing and set aside for reassembly later. Cut the silicone RTV locking the circuit breakers in place. Use a small flat screwdriver to depress the locking tabs located on the sides of the Power Entry and Compressor Breakers and pull each Breaker out through the front side of the Housing. Set the Breakers and the Housing aside for reassembly later. Replace Breakers if necessary.



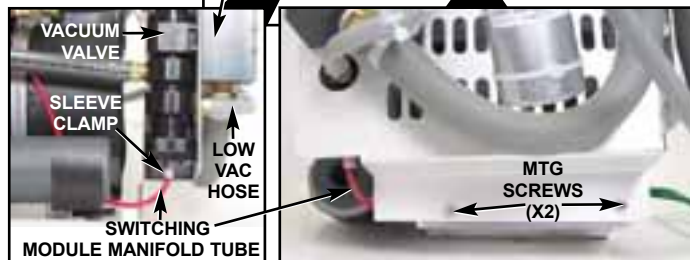
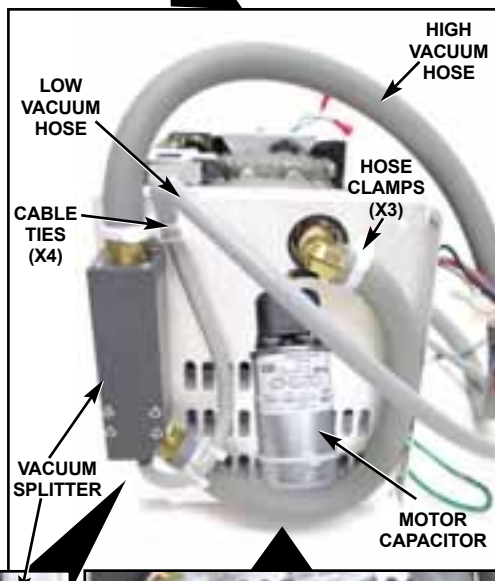
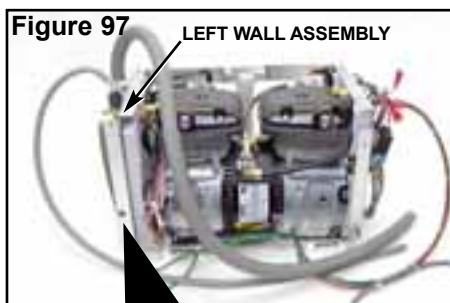
POWER INLET LINE FILTER (EMI)

The Power Inlet Line Filter (PN 840121) is mounted to the back side of the Electrical Panel (Fig. 96). Disconnect the four terminals/wires attached to the Filter. Use a 5/64" Allen wrench to remove the two mounting Screws (PN 510037). Remove Filter and set aside for reassembly later. Replace Filter if necessary.

MOTOR HOUSING - LEFT WALL ASSEMBLY

The Left Wall (PN 462010) of the Motor/Compressor can be detached as a subassembly and then moved to a work bench for component disassembly.

Cut the four Cable Ties (PN 510137) around the Low Vacuum Hose (PN 730794) (Fig. 97). Use pliers to pry off the three large Hose Clamps (PN 510425) around the two High Vacuum Hose sections (PN AA-259). Remove the High and Low Vacuum Hoses from their fittings and place aside for reassembly later. Unplug the Motor Capacitor and cut the cable ties that attach it to the left wall.

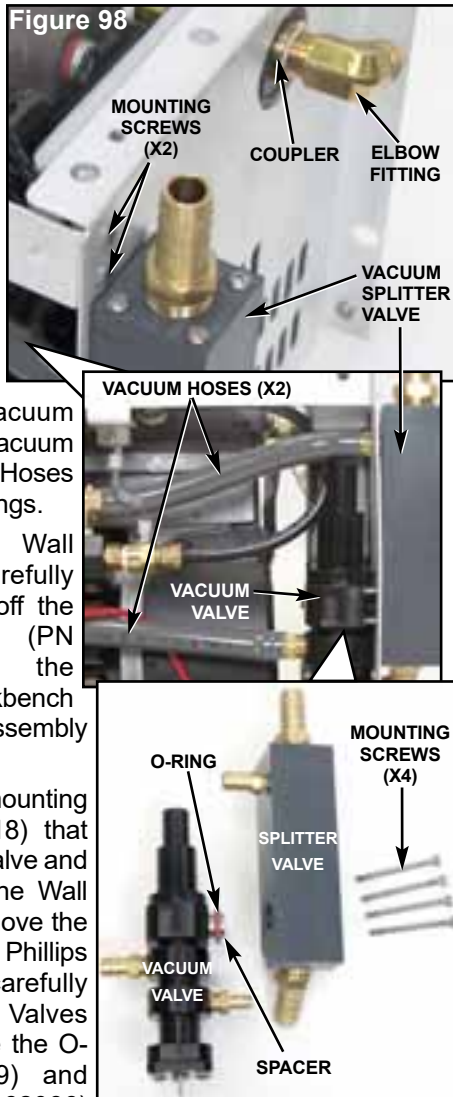


On the inboard side of the Left Wall Assembly, in the lower left-hand corner, locate the red 1/8" Tube (PN AA-94R), which leads from the Switching Module Manifold Assembly (see Fig. 97 inset). Use diagonal cutters to work the 1/8" Sleeve Clamp (PN 730015) off the Tube, then disconnect the Tube from the fitting on the Vacuum Valve.

Use a 5/64" Allen wrench to remove the two mounting Screws (PN 510160) located at the base of the Left Wall Assembly (see Fig. 97 inset).

Locate the two mounting Screws (PN 510037) in the top left corner of the Left Wall Assembly (Fig. 98). Remove Screws, using a 5/64" Allen wrench. Locate the two 1/2" gray vacuum Hoses (PN 730373) leading from the two Venturi Assemblies to the Vacuum Splitter Valve and Vacuum Valve. Disconnect Hoses from the Valves' fittings. Hold the Left Wall Assembly and carefully guide it over and off the Elbow Fitting (PN 730484). Move the Assembly to a workbench for component disassembly - if necessary.

Locate the four mounting Screws (PN 510618) that attach the Splitter Valve and Vacuum Valve to the Wall plate (Fig. 98). Remove the Screws using a #1 Phillips screwdriver and carefully separate the two Valves from the Wall. Note the O-Ring (PN 520079) and Spacer (PN 462086) located between the two Valves. Inspect the O-Ring for cracks or leakage and replace if necessary. **IMPORTANT:** Disassembly of the Vacuum Splitter and Vacuum Valves is not recommended unless Valve malfunction or breakage occurs. Refer to the Schematic Drawing Set for parts configuration and ordering information for these Valves.



MOTOR HOUSING - RIGHT WALL ASSEMBLY

For the Right Wall (PN 462016) use an open-end wrench to detach the nut at the filter end of the Inline Filter Hose. **NOTE:** To simplify reassembly later, leave this nut attached to this Hose end; the other end can remain attached to the elbow in the Wall.

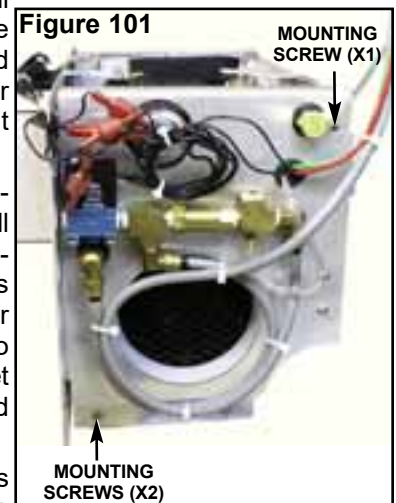
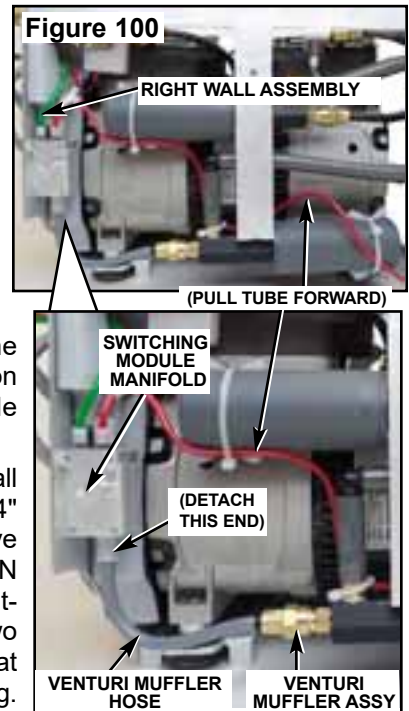
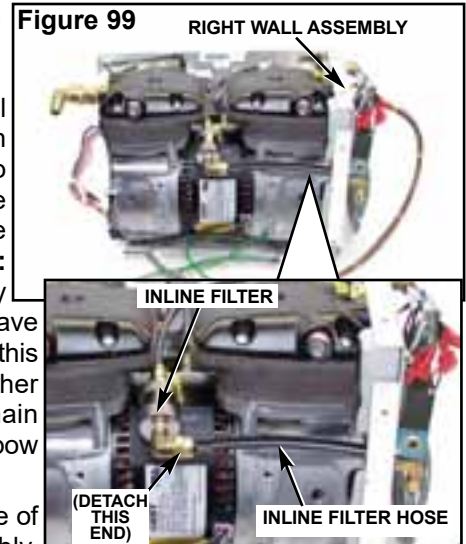
On the opposite side of the Wall Assembly, locate the loose end of the red 1/8" Switching Manifold Tube and carefully draw it forward, out of the Compressor compartment (see Fig. 100). Next, use diagonal cutters to pry the Sleeve Clamp (PN 730095) off the gray 1/4" Venturi-Muffler Hose (PN AA-95G), then detach the Hose from the fitting on the Switching Module Manifold Assembly.

On the front of the Wall Assembly, use a 5/64" Allen wrench to remove the mounting Screw (PN 510037) at the top right-hand corner, and the two Screws (PN 510160) at the base of the Wall (Fig. 101).

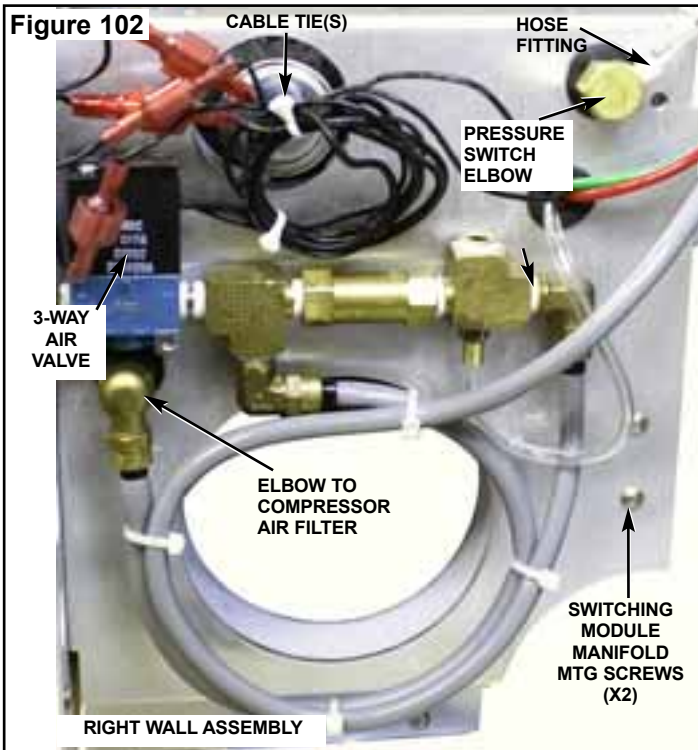
Carefully lift the Right Wall Assembly off the Compressor Assembly and move to a workbench for further component disassembly.

IMPORTANT: Disassembly of the Right Wall Assembly is not recommended unless component malfunction or breakage occurs. Refer to the Schematic Drawing set for parts configuration and ordering information.

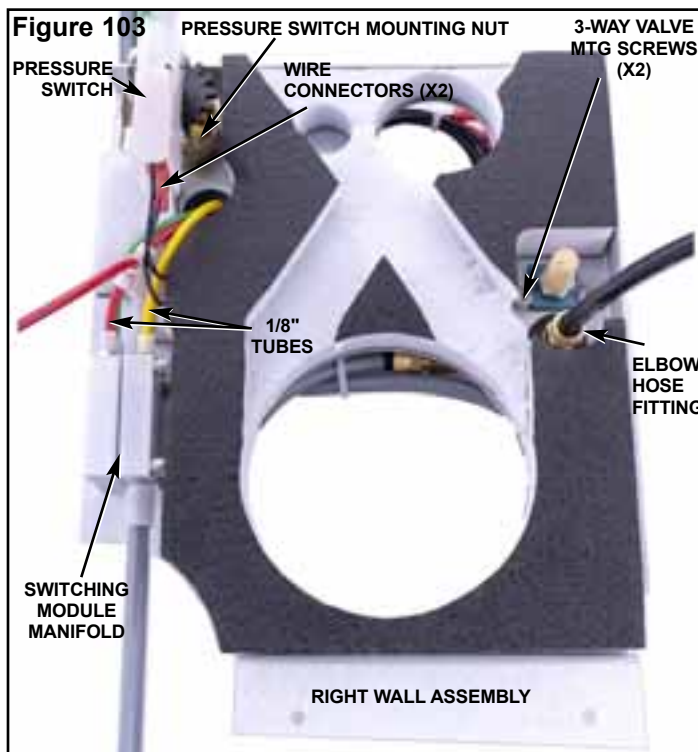
If further disassembly is necessary, remove the main components as follows:



DISASSEMBLY - Cont'd



Pressure Switch & Thermostat (PN 830142): On the outboard side of the Wall (Fig. 102), use diagonal cutters to pry the sleeve clamp (PN 730015) from the PRESSURE SWITCH ELBOW (PN 730772) and remove the clear tubing (PN AA-94C) from the elbow. Then, on the inboard side of the Wall (Fig. 103), disconnect the two red wire-connectors from the Pressure Switch & thermostat terminals. Use a 1" thin open-end wrench to hold the Pressure Switch while spinning off the Elbow with a 9/16" open-end wrench.



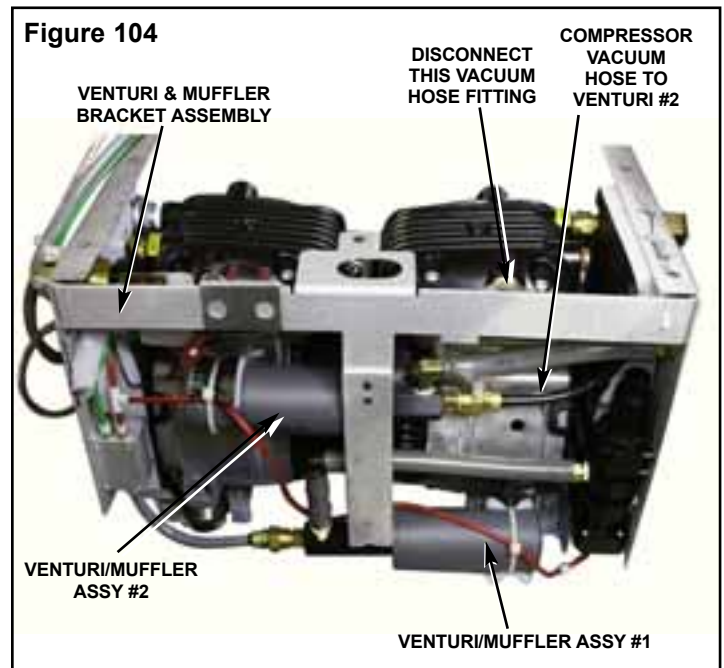
Remove Switch, Elbow, and Washer and set aside for reassembly later.

Switching Module Manifold (PN 330594): On the inboard side of the Wall (Fig. 103), use diagonal cutters to pry the two 1/8" tube Sleeve Clamps (PN 730015) from the Red Tube (PN AA-94R) and Green Tube (PN AA-94G), then the 1/8 clamp (PN 730013) and clear hose (PN AA-94C). Set all Tubes and Hoses aside for reassembly later. On the outboard side of the Wall (Fig. 102), use a 5/64" Allen wrench to remove the two mounting Screws (PN 510037) that attach the Switching Module to the Wall. Remove Module and set aside for reassembly later.

3-Way Air (Unloader) Valve (PN 730578): On the inboard side of the Wall (Fig. 103), use a 9/64" Allen wrench to remove the two mounting Screws (PN 510764) that attach the 3-Way Valve and two Spacers (PN 462094) to the Wall. Refer to the Schematic Drawing set if further disassembly is required. If the Elbow (PN 462094) that leads through the Wall to the Compressor Air Filter needs to be removed, use a 9/16" open-end wrench to hold the Elbow while spinning off the Hose Fitting (PN 730117) with a 7/16" wrench. Cut the Cable Ties (PN 510137) as necessary to free up the two wire leads from the Valve. Draw the gray pressure regulator Hose through the grommet in the Wall and place the Valve and its fixtures and hoses aside for reassembly later.

VENTURI & MUFFLER BRACKET ASSEMBLY

The Venturi & Muffler Bracket Assembly is located on the back side of the Compressor Assembly (Fig. 104). Locate

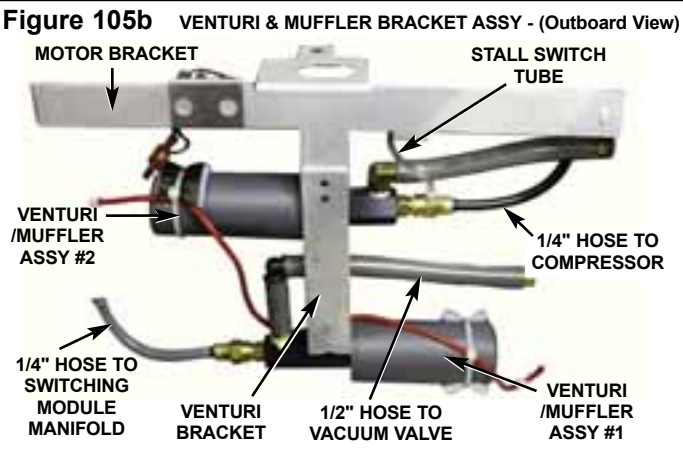
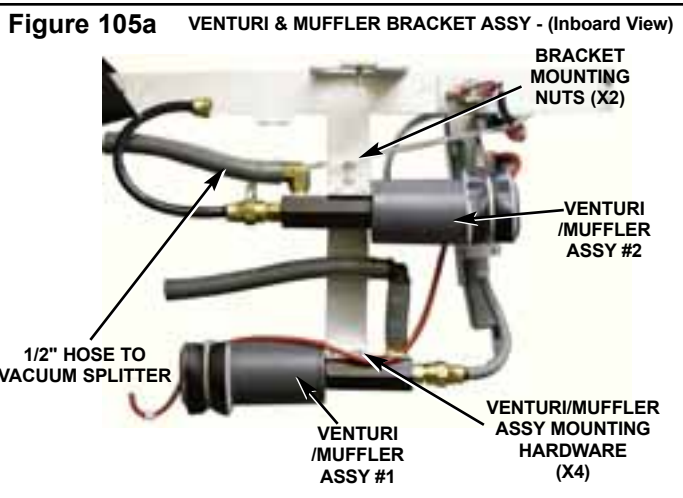


the Black Vacuum Hose (PN 730130) leading from the Compressor Vacuum Head to the Venturi/Muffler Assembly #2. Use a 7/16" Allen wrench to disconnect the Vacuum Hose fitting, at the Compressor Head. Then, move Bracket Assembly to the workbench for further disassembly (Fig. 105).

IMPORTANT: Disassembly of the Venturi & Muffler Bracket Assembly is not recommended unless component malfunction or breakage occurs. Refer to the Schematic Drawing set for parts configuration and ordering information. If further disassembly is necessary, remove the main components as follows:

Remove disconnects to remove the thermostat assembly (PN 330869) and set aside for reassembly later.

Motor Bracket (PN 462106): Use a 1/4" open-end or box wrench to remove the two Nyloc mounting nuts that attach the Motor Bracket to the Venturi Bracket (PN 462107) (Fig.



105a).

Hoses: Remove 1/4" and 1/2" hoses from the Venturi/Muffler Assemblies as necessary (Figs. 105a & 105b). Use a 7/16" open-end wrench to remove the 1/4" hose fittings. The 1/2" hoses can be pryed off their fittings by hand.

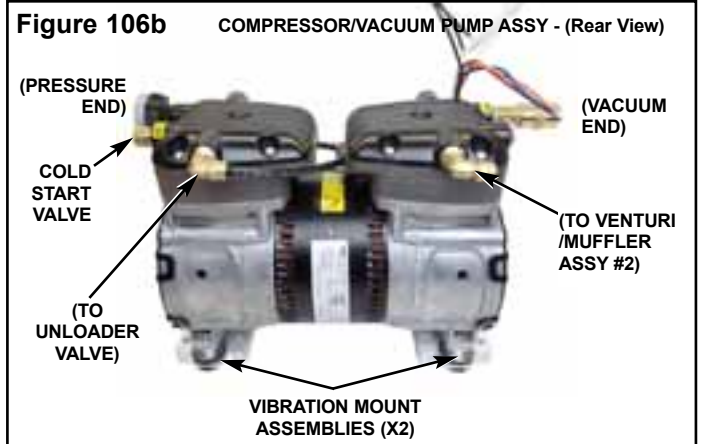
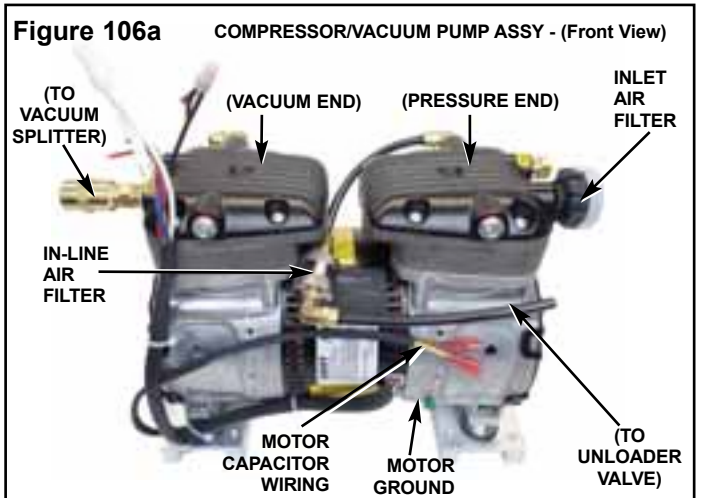
Venturi/Muffler Assemblies #1 & #2: Use a 3/32" Allen wrench to remove the two mounting Screws (PN 510309) and Nylon Gaskets (PN 730074) on each Venturi/Muffler Assembly (Fig. 105a). Set Assemblies aside for reassembly later. **NOTE:** If the Venturi/Muffler Assemblies require additional breakdown, refer to Schematic Drawing set.

COMPRESSOR/VACUUM PUMP ASSEMBLY

The Compressor Assembly is comprised of a compressor motor with a split head, which provides pressure on one side

and vacuum on the other (Figs 106a & 106b). The Compressor motor includes a vibration mount assembly, which is bolted to the bottom of the AEU-525CF Case (see Fig. 107).

IMPORTANT: Disassembly of the Compressor/Pump Assembly is not recommended unless component malfunction or breakage occurs. Refer to the Schematic Drawing set for parts configuration. If further disassembly is necessary, remove the main components as follows:



DISASSEMBLY - Cont'd

In-Line Air Filter (PN 730001): Use a 3/8" open-end wrench to disconnect the Elbow Fitting (PN 730120) from the Filter. Use a 7/16" open-end wrench to remove Fitting (PN 730117) and/or 1/4" black Tube (PN 730130) at the other end of the Filter. Place Filter aside for reassembly later.

Inlet Air Filter (PN 730461): Unthread the Filter from compressor head by hand. Inspect, clean, or replace, as necessary. Place Filter aside for reassembly later.

Cold Start Valve (PN 330633): Use a 9/16" open-end wrench to remove the Valve from the compressor head. Inspect Valve and replace or set aside for reassembly later.

Coupler Fitting (PN 730153): Use a 5/8" open-end wrench to detach the Elbow Fitting (PN 730484) on the end of the Coupler, then use a 3/4" wrench to remove the Coupler. Use 9/16" open-end wrench to remove hex nipple (PN 730233). Place Coupler and hex nipple aside for reassembly later.

Compressor Head Elbow Fittings and Plugs: Use a 3/8" open-end wrench to remove the two Elbow Fittings (PN 730329) that lead from the Compressor heads to the In-Line Filter and Venturi Assembly #2. Only if necessary, use a 1/4" Allen wrench to remove the 1/4" Plugs (PN 730098) from the Compressor Heads.

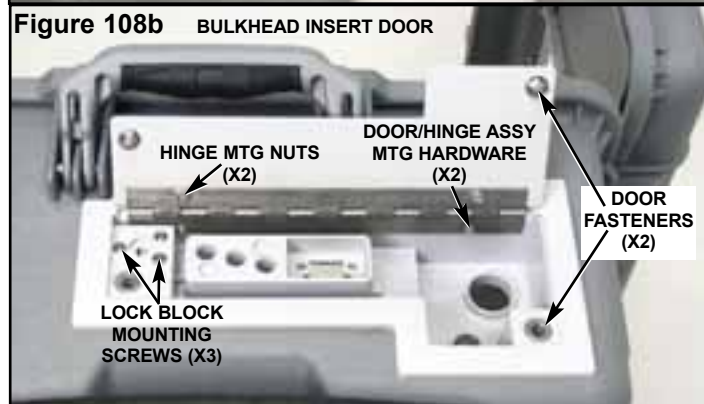
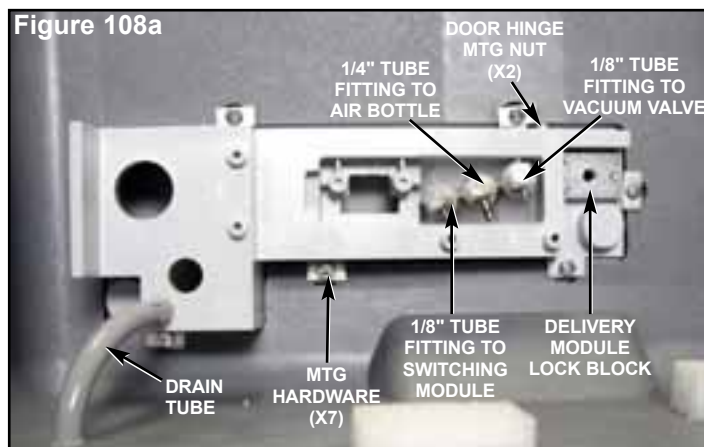
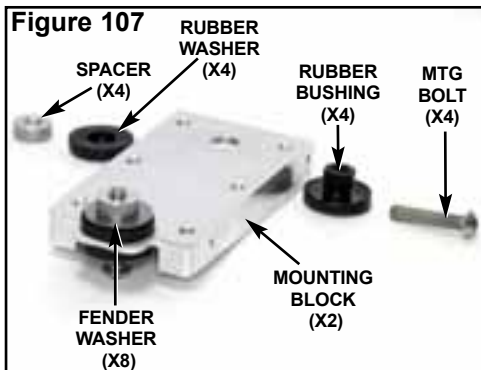
IMPORTANT: The Compressor Motor is not a customer-serviceable item. Return the Motor to Aseptico if repairs are required.

MOTOR MOUNT ASSEMBLY

The two Motor Vibration Mount Assemblies are located on the bottom of the Compressor Motor (Fig. 107).

Use a 5/32" Allen wrench to remove the four Bolts (PN 510295) that mount the two Mounting Blocks (PN 462082) to the Motor. Note the mounting

configuration of the Blocks, Bolts, Fender Washers (PN 510703), Rubber Bushings (PN 870315), Rubber Washers (PN 870316) and Spacers (PN 510779). Remove both Mount Assemblies and set aside for reassembly later.

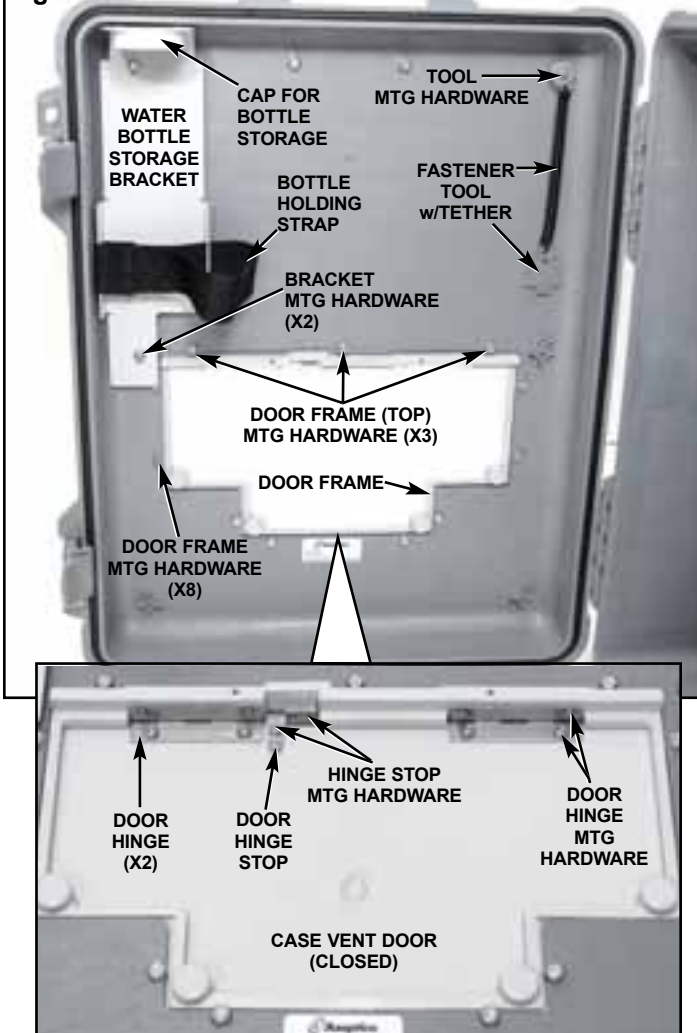


the seven mounting Screws (PN 510790) and rectangular Washers (PN 510784) that clamp the Insert to the underside of the Case. Stand the Case upright and pull the Insert subassembly up through the cutout in the top of the Case. Move the Insert subassembly to a work bench if further disassembly is required. At the bench, open the Insert Door (PN 462047) to expose the three mounting Screws (PN 510160) that attach the Delivery Module Lock Block (PN 462076) to the Insert (see Fig. 108b). Use a 5/64" Allen wrench to remove the Screws and Block and set aside for reassembly later. Locate the two mounting Screws (PN 510016) and Nuts (PN 510394) that attach the Hinge (PN 462046) to the Door (Fig. 108b). Use a 1/16" Allen wrench to remove the Screws while gripping the Nuts with a 1/4" open-end wrench. If necessary, separate the Hinge from the Door using a 1/4" open-end wrench to remove the two mounting Nuts (PN 510394). Leave the two Fasteners (PN 510772), Ejector Spring (PN 510775), and Retainers (PN 510774) attached to the Door -- disassembly is unnecessary.

CASE & LID

IMPORTANT: Disassembly of the 525CF Case and Lid is not recommended unless component malfunction or breakage occurs. Refer to the Schematic Drawing set for parts configuration. If further disassembly is necessary, remove the Case components as follows:

Stand the 525CF Case upright and open the Lid (Fig. 109). Use a Phillips screwdriver to remove the two Screws (PN

Figure 109

510655) and Washers (PN 510431) that attach the Water Bottle Storage Bracket (PN 462109) to the Lid. If necessary, remove the two mounting Screws (PN 510533) for the Bottle Storage Cap (PN 462110), using a Phillips screwdriver. Detach and replace Holding Strap (PN 462144) as necessary. Locate the Fastener Tool (PN 462137) and Coiled Tether (PN 520102) in the upper right-hand corner of the Lid. Remove the Tool mounting Screw (PN 510655) and Washer (PN 510445) with a Phillips screwdriver and detach Tool from Case, if necessary.

Locate the Case Vent Door (PN 462004) on the outboard side of the Lid (see Figs. 109 & 110). Unlock the four Door Fasteners (PN 510772) and swing the Door open to expose the two Hinges (PN 462005) and Hinge Stop (PN 510777). Use a 3/32" Allen wrench to remove the two Screws (PN 510579) that mount the Hinge Stop to the door frame. Use a 1/16" Allen wrench to remove the four Screws (PN 510016) and Lockwashers (PN 510433) that mount the two Hinges to the Door Frame. Move the Vent Door subassembly to the work bench for further disassembly. At the bench, use a 1/4" open-end or box wrench to remove the six Nuts (PN 510434) and Lockwashers (PN 510433) that attach the Hinges and Stop to the Door. Separate the Hinges from the Door and set aside for reassembly later. The Door Fasteners, Ejector Springs (PN 510775), and Retainers (PN

510774) do not need to be removed from the Door.

Use a Phillips screwdriver and 11/32" open-end wrench to remove the three Screws (PN 510533) along the top of the Door Frame (PN 462003). The eight other Screws (PN 510545) and eleven Nuts (PN 510411) that attach the Frame to the Case Lid. Set the Frame aside for reassembly later. Locate the Waste Tank Bracket (PN 462105) on the outboard side of the Lid (Fig. 110). Use an 3/8" open-end or box wrench to remove the two Screws (PN 510124) and flat Washers (PN 510356) that attach the Bracket to the Lid. Place Bracket aside for reassembly later.

The Case Handle and Wheels are integrated into the 525CF Case Assembly (PN 41021-08). Both components can be detached from the Case if necessary: use a large (#3) Phillips screwdriver to remove the ten Screws that mount the Handle and Wheels to the Case.

Figure 110**Figure 111**

THIS COMPLETES THE DISASSEMBLY PROCEDURE FOR THE AEU-525CF TRANSPORT III SYSTEM.

REASSEMBLY:

To reassemble the AEU-525CF System, follow the above instructions in the reverse order.

ALL TUBING

Refer to the plumbing diagram in Drawing Set, PN 420991, for the approximate length and part number of the tube to be replaced.

ALL WIRING

Refer to the electrical schematic in Drawing Set, PN 420991, for the proper size and length of the wire to be replaced

STERILIZATION AND MAINTENANCE:

Because of its simple design, the Aseptico AEU-525CF Transport III System requires very little maintenance. Any maintenance that is needed can be performed in minutes.

PURGING THE SYSTEM:

If the unit will not be used for an extended period of time, or if the unit might be subjected to freezing conditions, the user should purge the system of all water. Simply empty the contents of the water bottle and install it back into its cap, then operate the air/water syringe, scaler, and handpiece with water coolant 'ON' until only air comes through the water lines. Pack the unit and store as normal.

HANDPIECES:

Thorough cleaning and lubrication of E-type handpieces after each use and before sterilization is very important to ensure proper operation and service life of the handpiece. Follow the instructions provided with the handpiece for complete maintenance instructions. When sterilizing **IMPORTANT!** Protect motor from excess oil draining from handpieces. After lubricating and before autoclaving, stand handpiece on its base, on a paper towel, and allow excess oil to drain (see Fig. 122).



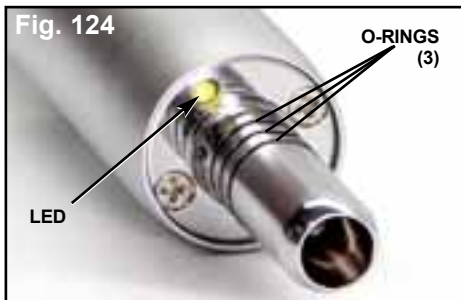
ELECTRIC MOTOR & CORD ASSEMBLY:

The entire Electric Motor and Cord Assembly is fully autoclavable (Fig. 123). Steam autoclave motor/cord assembly at 132° C (270° F) for ten minutes. Loosely coil the motor cord when autoclaving. Avoid sharply bending the cord when autoclaving. Alternatively, wipe down the motor cord with disinfecting solution, and/or sleeve the cord between each patient.



ELECTRIC MOTOR O-RINGS:

Replace electric motor O-rings when worn or damaged (see Fig. 124). Gently peel old O-rings out of grooves and replace with new rings (PN 520069). Occasionally apply **n o n - t o x i c** (p r e f e r a b l y containing PTFE) lubricant to O-rings to maintain flexibility.




LARGE O-RINGS (On Air/Electric Module and High/Low Vacuum Lines):

Keep all O-rings lubricated with PTFE lubricant. Periodically inspect rings for damage or excessive wear -- damaged or worn O-rings will create vacuum leaks, degrading system performance.

MOTOR LED LENS CLEANING:

The lens of the LED light on the motor (see Fig. 124) is soft and can be damaged. It should not be exposed to dust and debris. Excessive dust and debris may cause a drastic decrease in optical output. In the event that the light requires cleaning, first try a gentle swabbing, using a lint-free swab. If needed, use a lint-free swab and isopropyl alcohol to gently remove dirt from the lens. Do not use other solvents as they may adversely react with the LED assembly.

**WARNING**

- Do not attempt to disassemble the motor or motor connector.
- Do not oil or lubricate the motor.
- Do not attach a handpiece to the motor while the motor is running.
- Do not bend motor cord sharply.

Failure to comply with any of the above instructions may void your warranty

CAUTION:

The Electric Motor is sensitive to shock. Do not drop or impact motor against a hard surface

CAUTION FOR ALL STERILIZATION:

- Do not exceed 135° C or 275° F
- Do not submerge in any solutions
- Do not use ultrasonic cleaners

GENERAL CLEANING:

The external surfaces of the chassis should be cleaned using a soft cloth moistened with a mild detergent solution. Any external surfaces of the unit that are contacted during use should be wiped down with a soft cloth moistened with a disinfectant at the beginning of each day and between each patient use.

WATER LINES:

Disinfect the water lines weekly. Prepare a 1:10 bleach solution (1 part household bleach to 9 parts water). Remove water bottle and discard residual water. Replace empty water bottle and air purge all waterlines. Fill water bottle with bleach solution. Run bleach solution through all lines. Allow bleach solution to stand in lines for 10 minutes. Remove water bottle and discard bleach. Flush water bottle and all lines thoroughly with clean water. Air purge and leave lines dry until next clinical use.

CAUTION:

Do not run saline solutions through the water system -- saline will rust the water filters.

VACUUM SYSTEM:

The HVE and low-volume saliva ejector valves are fully autoclavable. Remove the valves from their hoses before autoclaving. The vacuum hoses should not be autoclaved. Clean hoses with a disinfectant solution. **CAUTION:** Use only NON-foaming cleansers in the vacuum lines.

AIR BOTTLE AND FILTER:

Routinely check the air bottle filter once a day for condensation. To drain condensation, place a towel or container below the filter and use pliers to carefully loosen the black knob on the bottom of the filter. **IMPORTANT:** To open the drain, turn the black knob clockwise (follow arrow on "DRAIN →" label); to close drain, turn the knob counterclockwise. Do not overtighten.

NOTE: For highest reliability of operation, it is recommended to replace the air bottle (PN 730657) after 1 year of operation.

WASTE SYSTEM CLEANING:

Empty and clean the waste system whenever the level alarm occurs. Also empty and clean it routinely once a day or before the unit is to be shipped or stored. Follow these steps:

- 1) Empty all waste from the waste container, including any solids trapped in the HVE strainer in the waste container lid.
- 2) Prepare approximately 2/3 liter of 10% bleach/water solution in a separate container. Submerge the end of the high-vacuum ejector (HVE) into this bleach solution and pull no more than 1/3 liter of the solution through the line into the waste container. Repeat this process for the saliva ejector (low vacuum) line. **IMPORTANT:** The solution will enter the waste container at a very high rate -- Care must be taken not to overfill the container's waste compartments.
- 3) Discard bleach solution. All components of the waste container, including the lid assembly and waste container strainer, can be safely rinsed with 10% bleach solution. (**NOTE:** Take care to ensure that water is kept off the level-sensor electrical connector on the case.) Rinse and dry tanks and the lid. If unit is to be shipped or stored, hang vacuum lines vertically to allow any residual water to drain before packing.

3-WAY AIR/WATER SYRINGE:

Depress the right button for air operation, and the left button for water operation. Depressing both buttons will create a mist. The syringe features quick-change autoclavable tips: To remove a tip, press on the locking collar surrounding the tip socket and pull the used tip straight out of the socket (Fig. 125). To insert a new tip, press locking collar and push tip into socket as far as it will go. Release ring and gently tug on tip before using to ensure that tip is securely locked into socket.

Syringe Tip Sterilization:

- 1) Remove contaminated syringe tip.
- 2) Remove all visible signs of contamination before autoclaving.
- 3) Autoclave tip at 132° C (270° F) for ten minutes.
- 4) Sterilize between each patient use.



NOTE: Since only the tips can be autoclaved, it is recommended that the air/water syringe be bagged with a disposable, single-use plastic sleeve between each patient use.

ULTRASONIC SCALER:

The scaler handpiece cover and scaler tips are fully autoclavable. Disinfect and clean the cover and tips before autoclaving. Autoclave at a maximum temperature of 135° C (275° F) for 10 minutes or 120° C (248° F) for 20 minutes.

Wipe off the scaler handpiece and its silicone hose with a soft cloth. Use a 45% isopropal and detergent solution. **DO NOT IMMERSE** the handpiece in any fluid or spray any fluid directly on the handpiece.

MOTOR/CORD RECEPTACLE O-RINGS:

The O-rings (PN 520081) for the three water/air ports in the motor/cord receptacle should be replaced if damaged or worn. Use the provided O-ring installer pin and sleeve to replace the O-rings:

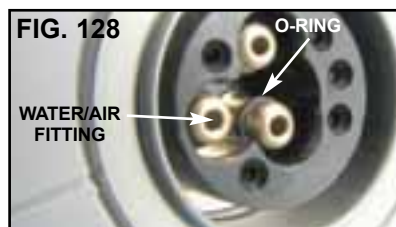
1. Remove old O-ring from water or air port fitting.
2. Slide new O-ring over pointed end of installer pin, onto the pin's shank (see Figure 126).



3. Insert pointed end of installer pin into open end of installer sleeve until O-ring stops against end of tool.
4. Position concave end of installer pin against end of water/air port fitting (see Figure 127).



5. Push installer sleeve inward, until new O-ring seats into groove on fitting (see Figure 128).



AIR FILTER ASSEMBLY:

The foam filter on the Air Filter Assembly should be cleaned regularly if the AEU-525CF is used in a dusty environment. Gently pull the foam sheet off the white mounting studs on the Assembly frame and clean with soap and water or compressed air. If washed, allow filter to dry before operating unit.

TROUBLESHOOTING:

Problem:	Correction:
Unit will not start:	<ul style="list-style-type: none"> • Check system power connection. • Check if both circuit breaker switches are On. • Check if waste container sensor is connected. • Check if waste container is full. • Check if fan is blocked or inoperative.
Unit starts but trips circuit breaker:	<ul style="list-style-type: none"> • Check source circuit to see if it is a minimum of 15A. • Check voltage selector switch for proper voltage. <p>NOTE: Operating the unit off an extension cord is not recommended.</p>
No water pressure:	<ul style="list-style-type: none"> • Check water supply bottle water level. Verify that cap is tight and not cross-threaded. • Check that water supply pressure toggle is in the 'PRESSURE' position.
Insufficient vacuum:	<ul style="list-style-type: none"> • Check HVE and saliva ejector vacuum hose assemblies for blockage; empty the HVE strainer. • Check that the waste container lid is properly seated and tightly secured. • Check that holder toggle switch is On.
Insufficient handpiece operation:	<ul style="list-style-type: none"> • Check the pressure gauge on the side of the air/electric module and ensure that system pressure is sufficient. • Check that handpiece tubing is untangled and not crimped. • Check handpiece connection for missing or broken gasket.
No water to handpiece:	<ul style="list-style-type: none"> • Check that handpiece water toggle on side of air/electric module is 'On'. • Check that the water flow control valve to the handpiece is open (counterclockwise).
No coolant air to handpiece:	<ul style="list-style-type: none"> • Check that handpiece air toggle on side of air/electric module is 'On'. • Check that the air flow control valve to the handpiece is open (counterclockwise).
Electric motor control panel does not light up when on:	<ul style="list-style-type: none"> • Press Standby Button on control panel.
Electric motor control panel lights up when turned on, but handpiece does not turn:	<ul style="list-style-type: none"> • Check motor plug connection. • Depress foot switch. • Turn holder toggle switch toward red dot. • Increase Torque setting • Check that a file or bur is properly seated in the handpiece.
Electric motor slowing down or sluggish:	<ul style="list-style-type: none"> • Increase torque setting. • Check for dirty, under-lubricated handpiece. • Check if handpiece lubricant is draining into motor. After lubricating and before autoclaving, stand handpiece on its base to let excess lubricant drain out.
Electric motor handpiece light does not turn on:	<ul style="list-style-type: none"> • Confirm that handpiece is a fiberoptic illumination type. • Press illumination button on control panel to turn light On and/or increase light intensity
Vacuum doesn't turn off when hoses are in their holders:	<ul style="list-style-type: none"> • Ensure that HVE and saliva ejector vacuum heads are placed firmly in their holders. • Check vacuum On/Off toggles on holders.
Pressure fails to stabilize:	<ul style="list-style-type: none"> • Check that air and water bottles are tight. Check line and fittings for air leaks.
Pressure fails to turn off at 55 PSI:	<ul style="list-style-type: none"> • Check for broken cable to pressure switch.
Unit fails to build pressure:	<ul style="list-style-type: none"> • Check that bottles are tight. Check wires for breaks to pressure regulation switch.
Red LED on the waste container is lit:	<ul style="list-style-type: none"> • Empty full waste container. • Check waste level sensor connection. Verify that connector contacts are dry. • Check that floats in waste container move freely.
Compressor is on, but gauge shows no increase in pressure:	<ul style="list-style-type: none"> • Check unloader valve to see if the valve is switched. Check the line from the compressor to the valve for a rupture. Check the electrical connections to the valve.
HVE vacuum switch is On (toward red dot), but vacuum doesn't activate when hose is removed:	<p>Inspect the toggle lever on the vacuum holder to see if it is stuck. Loosen the setscrew under the switch and adjust the switch for proper operation. Check instrument control switches on the air/electric module assembly.</p>
HVE vacuum pressure seems lower:	<p>Check to see if the waste container lid is properly seated and tightly secured.</p>
Saliva ejector switch is On (toward red dot), but vacuum doesn't activate when hose is removed:	<p>Inspect the toggle lever on the vacuum holder to see if it is stuck. Loosen the setscrew under the switch and adjust the switch for proper operation. Check the toggling connections to the air pilot valve and pump. Check to see if the air pilot valve is functioning by removing the line to the pump and seeing if air is present.</p>

COMMON REPLACEMENT PARTS LIST

ITEM	PART NO	QTY
WASTE TANK ASSEMBLY AEU-525	330603	1
INLINE STRAINER WASTE CONTAINER (HVE	462124	1
O-RING .125ID X .070CS VT70 (AIR-JUNCTION)	520025	3
O-RING .320ID X .028 CS VITON 70 (E-HEAD)	520069	3
O-RING .042ID X .142 X .050 W VITON (MTR RECPTL)	520081	3
O-RING .208 ID X .070 CS VITON AS568-009 (AIR-JUNCTION)	520121	3
O-RING .234ID X .070 CS SILICONE 2-010 (LVE)	520100	2
O-RING .549ID X .103 CS SILICONE 2-113 (HVE)	520101	2
FILTER INLINE ONLY 35 MICRON (FOR UNLOADER)	730001	1
FILTER 10-32 THRD STNLS 100 MICRON (WATR BOT)	730326	1
BOTTLE 1 LITER BLOW MOLDED HDPE (WATER)	730471	1
GASKET (FOR AIR & WATER BOTTLE LID)	730473	3
FILTER AIR 1/4"NPT X 1.19 GAST (INLET FILTER)	730461	1
CASE TRANSPORT MIL SPEC AEU-525CF OD GRN*	410204	1

ITEM	PART NO	QTY
CASE TRANSP MIL SPEC AEU-525CF-14 OD GRN*	410227	1
BOTTLE 750 ML (25 OZ) BLOW MOLDED HDPE (AIR)	730657	1
LINECORD REMOTE US 10 FT HOSP GREY 15A/125A	840049	1
LINECORD REMOTE EURO BLACK 2.5 M	840007	1
O-RING FOR AA-35/36 PKG OF 4 AUTOCLAVABLE	AA-35LR	1
O-RING FOR AA-37 SET OF 3/PKG AUTOCLAVABLE	AA-37LR	1
SCALER TIP THIN SUBGINGIVAL	ASC-10-PE37	1
SCALER TIP SLIM UNIVERSAL	ASC-10-PE38	1
SCALER TIP POWER UNIVERSAL	ASC-10-PE39	1
SYRINGE TIP AUTOCLAVABLE	TA-1	1
SYRINGE 3-WAY AIR/WATER QUICK CHANGE TIP	TA-90D	1
FOAM FILTER INNER AEU-525CF7	730684	1
FOAM FILTER OUTER AEU-525CF	730685	1
FOAM FILTER TUBE AEU-525CF	730687	1

*4210204 is packing case for AEU-525CF & CFH models, 4210227 is packing case for AEU-525CFH-14 models

FINAL INSPECTION AND TESTING - Procedure for Aseptico AEU-525CF - F-4.10-02-B

(Testing specs subject to change. Refer to latest Schematic Drawing Set, PN 420991, Sheets 16-18 for updates.)

EXAMINATION FOR DEFECTS:

- Unit design, construction, operation, and performance not as specified.
- Hardware components such as pins, screws and fasteners missing, broken or otherwise damaged.
- Finish not as specified.
- Damage or defects on exterior or interior surfaces present.
- Plating missing which effects function. Plating not free from blisters, peeling, visible porosity, or other defects.
- Any component fractured, broken punctured, torn, bowed, deteriorated, or malformed.
- Any component misplaced or not in proper alignment.
- Fastening device requiring loosening or removal is swaged, peened, staked, or otherwise permanently fastened, components missing.
- Components do not fit or mate properly.
- Interface fits between components not proper (too loose; too tight/binding).
- Components not free from defects.
- Removable components cannot be removed or replaced without difficulty.
- Coarse machine, tool or die marks present.
- Surface not clean, not free of foreign matter, flux or other defects.
- Damage or defects on exterior or interior surface present.
- Operating instructions not provided.
- Service data not provided.
- Identification markings not present, not complete, not permanent, not correct.

TEST PROCEDURE - NEW AND REPAIRED PRODUCTS:

A. Assemble AEU-525 with all instruments in their holders, plug the power cord into 115VAC, 60Hz, and set the voltage selector to "115".

B. Performance Test (Suction):

1. Make sure all instruments are in their holders, and power switches are "ON", and turn holder switches to "OFF". DO NOT latch the side latches of the Waste Tank Lid. The Lid sealing gasket should just rest on top of the Waste Tank.
2. Remove the HVE from its holder and turn on the holder switch. The compressor should come on continuously and there should be vacuum at the end of the HVE. Check the maximum vacuum and the free air flow rate. If < 3.5 SCFM @ 54" WC, remove power for 1 hour and repeat. If still low, mark as non-conforming. Return HVE to its holder and turn the holder switch off.
3. Remove the LVE from its holder and turn on the holder switch. The compressor should come on continuously and there should be vacuum at the end of the LVE. Check the maximum vacuum and the free air flow rate. If < 1.1 SCFM @ 20" WC, mark as non-conforming. Return LVE to its holder and turn the holder switch off.
4. Turn the Purge/Pressure switch to 'Purge' and remove the water bottle. There should be no air leaking from the bottle cap. Switch the Purge/Pressure switch to 'Pressure' and verify that there is air flow from the

bottle cap. Switch to 'Purge' and replace the water bottle.

C. Performance Test (Line Voltage Select):

1. Turn off the compressor power switch and allow all the air to bleed from the system.
2. Plug the power cord into 230VAC/50Hz and set the voltage selector to "230". Turn on the power switches and run the compressor until it stops. Remove the HVE from its holder and turn it on to start the compressor again and run for 15 seconds and then turn off the compressor power switch and allow all the air to bleed from the system. Replace HVE in its holder.

D. Performance Test. (Air):

1. Turn on the compressor to fill the air reservoir. Wait two minutes to ensure there is no leakage. The compressor should not come on sooner than every 30 seconds after the first two cycles. Check that the pressure gauge reads 45-50 PSI.
2. Operate the air syringe with a duty cycle of 20 seconds on and 10 seconds off for 5 minutes to check for any possible stalling of the compressor.

E. Hand Motor Test:

1. If the power is on, turn it off. Now turn on the power while watching the LCD display and verify that the software versions are "127" and "11".
2. Ensure the Standby button turns the display on and off.
3. Ensure the ratio button causes the display to cycle through the ratio settings of 1:5, 1:2, 1:1, 5:1, and 8:1. Set the console to the 1:1 ratio.
4. Ensure the Torque Adjust buttons allow adjustment of the display up and down from 5% to 100%. Set the torque to 100%.
5. Ensure the Speed Adjust buttons allow speed adjustment up and down from 2.00KRPM to 40.0KRPM. Set the speed to 2.00KRPM.
6. Put a 20:1 handpiece with a large bur of some kind on the motor. Press the footpedal and verify that the bur rotates counterclockwise when viewed from the bur. Release the footpedal and press the motor direction button and verify that it goes from "FWD" to "REV" and back to "FWD". Set it to "REV" and press the footpedal and verify that the bur is now turning clockwise when viewed from the bur and that the console is beeping. Release the footpedal.
7. Change the ratio to 8:1 and the torque to 5%. Now press the motor direction button and verify that it goes from "FWD" to "REV" to "ENDO" and back to "FWD". Set it to "ENDO" and press the footpedal and loosely grasp the slowly turning bur until you hear a beep and the direction of the bur will briefly reverse and then continue in the original direction.
8. Remove the handpiece and press the "sun" symbol until the LED turns on. Press the Torque Adjust buttons to verify that the light intensity varies from very bright to much dimmer. Leave the intensity at 100% and press the "sun" symbol to turn off the LED. Press the "sun" symbol to turn on the symbol on the LCD display and press the "PRESET" button until there is a beep and the

preset number stops flashing. Now press the foot pedal to turn on the motor and LED and then release it and verify that the LED remains on for 20 +/-5 seconds.

9. Place the motor into a calibrated ATU-0037 tachometer. Confirm that the torque is set to 100%. Set the speed to 40.0KRPM. Press the foot pedal to turn on the motor and record the speed which the tachometer shows and verify that it is 40.0KRPM +/- 2.0KRPM. Values outside this range are non-conforming.

10. Attach an Anthogyr 8:1 (actually 7.2:1) handpiece to the motor and set the controls to 8:1 ratio, 500RPM, 100% torque and ENDO mode. Attach the handpiece to the bit on the dynamometer assembly (copper cylinder) and press the foot pedal. While the motor is running, decrease the Torque% setting until the motor stops and goes into ENDO mode. Record the Torque % setting where this happens. It should be less than 50% and greater than 5%. If not, remove the handpiece and lubricate it with Aseptispray and repeat. If it still fails, mark it as nonconforming.

11a. Remove the handpiece. Depress the foot pedal with the Handpiece Water and Handpiece Air toggle valves off and check that no cooling air or water is coming from the two holes between the O-rings on the motor E-head. You will feel motor cooling air at the front of the E-head however.

11b. Turn the Handpiece Air toggle valve on and adjust the Handpiece Air needle valve on the Delivery Module. Depress the foot pedal and verify that air is coming from the motor E-head hole between the two O-rings farthest from the motor body on the E-head.

11c. Partially fill the Delivery Module water bottle and insert an internal irrigation type handpiece such as the AHP-72MK-FO onto the motor. Turn the Handpiece Air toggle valve off and the Handpiece Water toggle valve on and adjust the Handpiece Water needle valve on the Delivery Module. Depress the foot pedal and verify that water is coming from the handpiece. Turn on the Handpiece Air and verify that a fine mist is coming from the handpiece.

11d. Operate the handpiece motor with the Handpiece Air toggle on and then turn the toggle off while still operating the motor. Release the foot pedal and place the hand motor firmly in its holder and wait 5 seconds. Press the foot pedal. If the motor comes on, the designed leak isn't present or of adequate magnitude.

11e. Turn off the AEU-525 and trip the HVE and bottle pressurization toggles to remove all compressed air from the system. Close the toggles. Fill the ATU-0088 bottle to the line on the side and mount on the AEU-525. Turn on the AEU-525 and observe the final pressure of the ATU-0088 gauge. It should be between 25 and 35 PSI and should be reached within 10 seconds of turn on. Repeat steps 4 more times. If pressure is wrong or it takes too long to pressurize then the module needs to be reworked.

12. Simultaneously hold the Preset and Ratio buttons until the display resets and factory defaults are set.

F. Performance Test (Syringe):

1. Fill the water bottle and turn on the compressor to fill the air reservoir. Press the syringe air button (the right one) and check that the pressure gauge doesn't go below 20 PSI. If it does, change the screwdriver adjust for the syringe air.

2. Release the syringe air button and allow the compressor to refill the reservoir. Press the syringe water button (left one) and verify that water comes out the syringe.

3. Press both buttons and verify that a mist is created.

4. Use ATU-0090 and plug the syringe tip into the syringe. Press the syringe air button and observe the MAXIMUM pressure on the gauge. It must be between 45.0 and 50.0 PSI

G. Performance Test (Scaler):

1. Remove scaler from its holder, install a tip, turn the scaler intensity to "10", turn the Scaler Water control counterclockwise as far as it will go, turn the Scaler Water toggle valve on and press the foot pedal and observe that the scaler produces water from the tip, that the scaler lights come on, and that when the scaler tip is placed against a thin metal surface, there is high pitched noise produced.

2. Turn the Scaler Intensity control from "10" to "100" and back and verify that the control adjusts the intensity of the scaler vibrations.

3. With the Scaler Intensity control set to "10", adjust the Scaler water control clockwise and counterclockwise to verify that it controls the amount of water coming from the scaler tip.

4. Press the foot pedal several times to verify that the scaler goes on and off with no more than a 1/2 second delay. Remove the scaler tip

H. Performance Test (Waste Tank)

1. Remove the Waste Tank lid from the tank and with the floats at the bottom place the .82" spacer over the sensor wells and then press each float upward as far as possible. There must be no alarms. Remove the .82" spacer and lift each float about .250" and there must be flashing from the red LED on the lid and beeping from the main case.

2. Turn on the HVE so that the compressor is on continuously and place a .0625 spacer above the first float and raise the float as high as possible. The compressor must stop.

3. Repeat for other float.

I. HiPot and Ground Bond Tests:

1. On the AC/DC Withstand Voltage Tester, press MENU -> MENU -> SYSTEM and change the "PLC REMOTE" setting to "OFF".

2. Ground Bond Test - Earth Ground at Power Inlet to accessible earthed metal.

Test parameters: Current limit 25 Amps, Dwell time 2 seconds, Resistance limit 0.1 Ohms.

FINAL INSPECTION AND TESTING - Cont'd

Test Details:

- a. Connect the power cord from the test equipment to the mains power inlet of the AEU-525, and the return lead of the Ground Bond Tester to the chrome plated bungee handle.
- b. Verify that the settings on the Ground Bond Tester are correct (Ref. Ground Bond Tester (Preset M0-1).
- c. Press the "TEST" button on the Ground Bond Tester and wait for the test to finish.

3. Dielectric Withstand Test - Mains to accessible earthed metal.

Test parameters: Test voltage 2520 VDC, Ramp 1 second, Dwell 1 second, Leakage current limit 1.0 mA, Arc Fail is OFF.

Test Details:

- a. Connect the power cord from the test equipment to the mains power inlet of the AEU-525, and the return lead of the Hypot III Tester to the chrome handle inside the '525.
- b. Verify that the settings on the AC/DC Withstand Voltage Tester are correct. Press the "TEST" button on the Dielectric Withstand Tester and wait for the test to finish.

4. Dielectric Withstand Test - Mains to AEU-5000 Handmotor.

Test parameters: Test voltage 4350 VDC, Dwell Time 1 second, Leakage current limit 1.0 mA, Arc Fail is OFF.

Test Details:

- a. Connect the power cord from the test equipment to the mains power inlet of the AEU-525 and the return lead of the Ground Bond Tester to the E-head of the AEU-525 motor.
- b. Verify that the settings on the AC/DC Withstand Voltage Tester are correct.
- c. Press the "TEST" button on the Dielectric Withstand Tester and wait for the test to finish.

5. Dielectric Withstand test – Mains to Scaler Tip.

Test parameters: Test voltage 4350 VDC, Ramp 1 second, Dwell 1 second, Leakage limit 1 mA, Arc Fail is OFF.

Test Details:

- a. Make sure the power switch/circuit breaker and the compressor circuit breaker are on.
- b. Open the transition box on the Delivery Module and disconnect the green wire at the Euro terminal strip and fold the wire away from any metal parts.
- c. Connect the appliance coupler cord from the hipot tester to the mains input of the AEU-525. Connect the return cable of the hipot tester to the scaler tip. Lay the scaler handle and the return lead on a sheet of insulator so there is no mechanical stress placed on the scaler tip.
- d. Verify the test settings are correct. Push 'TEST' and wait for the test to finish.
- e. Reconnect the green wire, check continuity, and replace transition box cover.

6. Dielectric Withstand Test - Mains to the combined foot pedal wires.

Test parameters: Test voltage 4350 VDC, Ramp 1 second, Dwell 1 second, Leakage limit 1 mA, Arc Fail is OFF.

Test Details:

- a. Make sure the power switch/circuit breaker and the compressor circuit breaker are on.
- b. Attach a foot pedal connector cable 875070 with all wires joined to form a common test point (ATU-0076).
- c. Connect the appliance coupler cord from the hipot tester to the mains input of the AEU-525. Connect the return cable of the hipot tester to the joined wires of the foot pedal connector.
- d. Verify the test settings are correct.
- e. Push 'TEST' and wait for the test to finish.

J. Empty Water Bottle and Dry:

Make sure the electric motor is attached to the Delivery Module and place the motor in a dry absorbent material. Open Handpiece Water adjust all the way, open the Handpiece Water toggle valve, press on foot pedal and blow out water from the lines and motor. Place motor in holder. Remove scaler from holder and open Scaler Water adjust all the way, open the Scaler Water toggle valve, TURN THE SCALER INTENSITY CONTROL AS LOW AS POSSIBLE, press on foot pedal and blow out water from the lines and scaler. DON'T OPERATE LONGER THAN 30 SECONDS!

K. Foot Control:

Ensure that the foot control has "PASSED" label P/N 420301.

L. Labeling and Serial Number:

Make sure all required labels, including the one with the serial number, are present.
























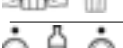

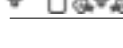
M. Manual and Packaging:

Ensure the instrument has one foot pedal, high vacuum hose, low vacuum hose, 120VAC power cord, 220VAC power cord, 40K motor, waste tank and lid, manual and packing guide.

Refer to Schematic Drawing Set, PN 420991, Sheet 16 for test instructions on the electric motor assembly.

Refer to Schematic Drawing Set, PN 420991, Sheets 17 & 18 for setup instructions and testing parameters for ground bond and dielectric withstand tests.

SYMBOL DEFINITIONS:

	Type BF Equipment		High Volume Evacuator (HVE)
	Attention, consult accompanying documents		Pressure Gauge
	Consult Instructions For Use		Motor Direction
	Manufacturer		Light Controls
	Dangerous Voltage		Footswitch
	Alternating current		On/Off Switch - Mains
	Air		Atmospheric Pressure Limitation
	Water		Temperature Limitation
	Counterclockwise to Increase/Open Clockwise to Decrease/Close		Humidity Limitation
	Electric Handpiece		Protective earth (ground)
	Syringe	IPX1	Protect Against Dripping Water
	Scaler	SN	Serial Number
	Scaler Tip Ultrasonic Control		Do Not Lift by Top Lid Or Latches
	Saliva Ejector		Pressurize / Purge Water Bottle Pressure



DO NOT THROW INTO TRASH:
Dispose of electronic waste and waste containing
amalgam in accordance with local regulations.

REQUIRED TOOLS LIST

Allen Wrenches:

1/16"
5/64"
3/32"
1/8"
9/64"
5/32"
4mm
3/16"
1/4"



Combination Wrenches:

1/4"
5/16"
11/32"
3/8"
7/16"
1/2"
9/16" (Qty: 2)
5/8"
3/4"
13/16"
7/8"
1"



Screwdrivers:

1/4" Standard, Slot
3/64" Standard Slot (Jeweler's)
#1 Phillips
#2 Phillips



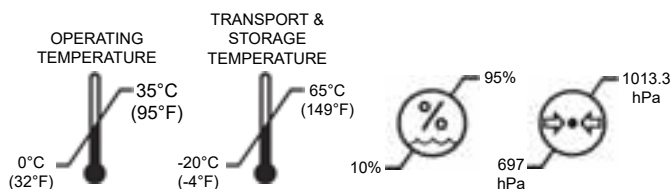
Electrical Tools:

Wire Stripper
Crimp Tool
Panduit Model CT-1551 (or equivalent)
Molex 640014100 (or equivalent)
Diagonal Cutters



SPECIFICATIONS

Transport III Case Size:17.93" W x 22.06" L x 10.43" H
 (45.5 cm x 56 cm x 26.5 cm)
 Shipping Case Size:30.5" W x 25.75" L x 24.75" H
 (77.47 cm x 65.40 cm x 62.86 cm)
 525CF Weight (fully loaded): .57 lbs (25.8 kg)
 Shipping Case Weight:108 lbs (49 kg)
 (fully loaded)
 Power Source:AC Manual-Switching
 Power Rating:115VAC, 50/60Hz, 4.8/5.6 A
 220VAC, 60Hz, 2.8 A
 230VAC, 50/60Hz, 2.5/2.8 A
 Operating Pressure:50 psi (3.45 bar)
 High Volume Vacuum:5.6 SCFM @ 0.8" Hg (159 liters/min @ 2 cm Hg)
 Low Volume Vacuum:1.2 (+/-1) SCFM @ 1.5" Hg (34 (+/-3) liters/min @ 4 cm Hg)
 Simultaneous Vacuum:High 2.4 SCFM @ 4" Hg (68 liters/min @ 10 cm Hg)
 Low 1.2 (+/-1) SCFM @ 1.5" Hg (34 (+/-3) liters/min @ 4 cm Hg)
 Vacuum/Compressor Pump: .1.1 SCFM @ 50 PSI (31.0 liters/min @ 3.45 bar) Oilless Compressor
 Water Reservoir Capacity: . .33.9 fl. oz. (1.0 liters)
 Air Storage Capacity:25.4 fl. oz. (750 ml) nominal
 Water Flow:5.07 fl. oz./min (0.15 liter/min)
 Waste Container Capacity: . .0.48 gallon total/0.24 gal. per side (1.8 liters total/0.90 L per side)
 (NOTE: Capacities reflect liquid volumes up to shutoff levels.)
 Noise Level:70 dBA @ 3'4" (1 meter)
 Case Duty Cycle:Continuous
 Compressor Duty Cycle: . . .Continuous when operating at 50/60 Hz
 Electric Motor Duty Cycle: . .17% (1 minute ON / 5 minutes OFF)
 Environmental Conditions: . .Operating Temperature: 0° to 35° C (32° to 95° F)
 Transport/Storage Temperature: -20° to 65° C (-4° to 149° F)
 Relative Humidity: 10 to 95% non-condensing
 Altitude: 0 to 3048 meters (0 to 10,000 feet)



IMPORTANT

When running the Transport III unit at 50Hz, expect approximately 17% less vacuum and pressure volume due to slower turning of the compressor.

NOTE

With regard to setting the handpieces pressure, 'kgcm²' and 'bar' are equivalent.



MEDICAL – GENERAL MEDICAL EQUIPMENT
 AS TO ELECTRICAL SHOCK, FIRE AND MECHANICAL
 HAZARDS ONLY, IN ACCORDANCE WITH:
 UL 60601-1: First Edition - Medical Electrical
 Equipment, Part 1: General Requirements for Safety.
 ANSI/AAMI ES60601-1:2005/(R)2012 and A1:2012,
 C1:2009/(R)2012 and A2:2010/(R)2012 - Medical
 electrical equipment—Part 1: General requirements
 for basic safety and essential performance.
 CAN/CSA C22.2 NO. 60601-1-08 (2013) - Medical
 Electrical Equipment - Part 1: General Requirements
 for Basic Safety and Essential Performance (Adopted
 IEC 60601-1:2005, third edition, 2005-12), Includes
 Corrigendum 1:2011.

This device has been tested and found to comply with the emissions requirements of
 IEC 60601-1-2:2001-09. These requirements provide reasonable protection against
 harmful electromagnetic interference in a typical medical installation. However, high
 levels of radio-frequency (RF) emissions from electrical devices, such as cellular
 phones, may disrupt the performance of this device. To mitigate disruptive
 electromagnetic interference, position this device away from RF transmitters and
 other sources of electromagnetic energy.

WARRANTY

Aseptico Inc. warrants its new products against defects in material and workmanship under normal and proper use, care, and maintenance for a period of two (2) years from date of original invoice. This two (2) year warranty does NOT apply nor is it extended to products that are not manufactured by Aseptico. These products may be covered by a separate limited warranty provided by the particular manufacturer, and all claims and questions regarding the same are to be directed to the particular manufacturer.

Expendable components, such as batteries, fuses, light bulbs, and tubing sets installed on Aseptico products are specifically excluded and have no warranty. Consumable goods are warranted for the stated expiration date of such goods.

Repair or replacement of any product(s) or part(s) under this warranty does not extend the term of this warranty, and such product(s) or part(s) shall remain covered by the unexpired portion of the warranty period, or for ninety (90) days from the date of return to Aseptico, whichever is later. This limited warranty applies only to the initial or first installation of the product or part.

During the specific warranty periods set forth above, Aseptico will, at its option, repair or replace the product(s) or particular part(s) that are found to be defective in either material or workmanship in part or whole. Aseptico shall be the sole arbiter of such action. In the event of alleged defect under warranty, the purchaser is to notify Aseptico's Customer Service department promptly. Customer Service will provide Return Material Authorization (RMA) instructions, usually directing that the product be returned for service, shipping prepaid by the buyer or end user, to Aseptico or its designated and authorized warranty service center.

This warranty shall not apply to products (1) that have been subjected to neglect, abuse, misuse, improper installation, inadequate maintenance, or damage due to improper use of cleaning materials or chemicals, or non-compliance with Aseptico's storage, installation, operation, maintenance or environmental requirements; (2) that have undergone any modification or repair not previously authorized by Aseptico in writing, or service, repair or modification by or from any facility other than an authorized Aseptico service center or technician, or that use non-authorized software or spare or replacement parts; or (3) that fail due to reasonable and normal use or wear and tear, or materials made, furnished or specified by the buyer or end user.

Aseptico does not assume under this warranty any risks or liabilities arising from the clinical use of its products, whether or not such use involves coincidental utilization of products manufactured by others. Under no circumstances will Aseptico be liable or responsible for special, compensatory, incidental, consequential or punitive damages, lost profits, lost sales, or loss of use or loss of business opportunity by or through the use of the product. Aseptico's sole and maximum liability with respect to the product, other than its obligations set forth above, shall be the total purchase price paid for the product.

For Further Service And/Or Technical Assistance Contact:



**8333 216th St SE, Woodinville, WA 98072-1548
425-487-3157**

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