



iVent 201 Enclosure Disassembly and Reassembly

Full or partial disassembly and reassembly of the ventilator will be required for PM component replacement or diagnostics and repair.

Written By: Lukas Funk

INTRODUCTION

The following subsections are organized by sequential stages of disassembly and reassembly. For instance, if you go through all of the disassembly procedures in the order presented, the entire ventilator will have been disassembled down to any replaceable component. If you go through all of the reassembly procedures in the reverse order, the entire unit will have been rebuilt from basic components and modules.

During reassembly of the iVent201 or any of its subcomponents take care to inspect and reconnect all electrical grounds that have been previously disconnected.

Step 1 — Tools and equipment



- Screwdriver, Phillips, #1
- Hex Key, 3mm, 9 inch length
- Nutdriver, 7mm
- Pliers, needle-nosed

Step 2 — Enclosure Disassembly 1



- Place the ventilator, face down, on an appropriate protective surface. (The foam inserts from the original iVent201 shipping carton are well suited for this purpose).
- Detach the roll stand adapter plate from the bottom of the unit by removing the (4) 3mm x 8mm Phillips head screws and lock washers.

Step 3 — Enclosure Disassembly 2

Top Screws (2)



Bottom Screws (2)

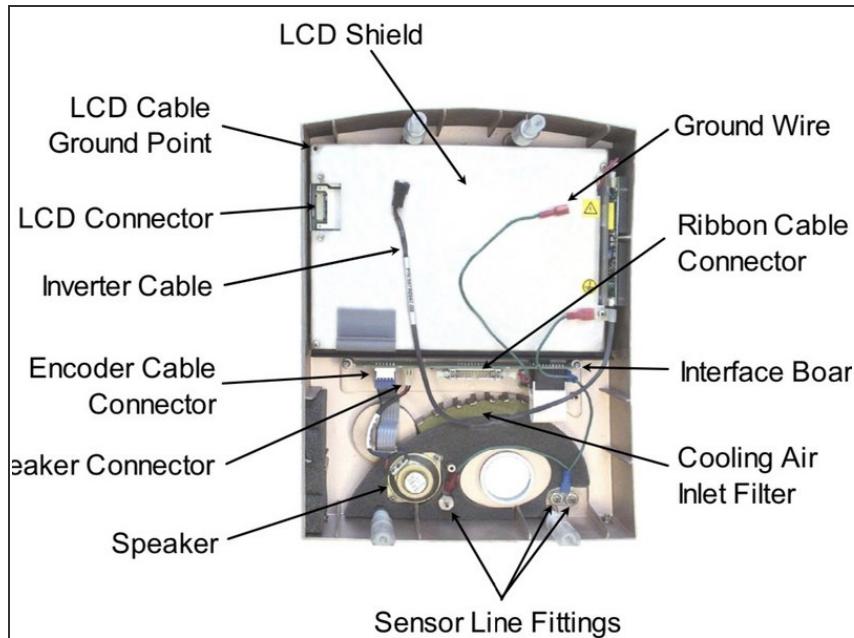
- Use the hex key to remove the (2) 4mm x 30mm screws and washers from the bottom-rear of the enclosure
- Lift the ventilator carrying handle and use the hex key to remove the (2) 4mm x 50mm screws and washers from the top-rear of the enclosure

Step 4 — Enclosure Disassembly 3



- Stand the unit back to an upright position and pull the front enclosure apart from the rear enclosure approximately 4 inches.

Step 5 — Enclosure Disassembly 4



- Disconnect the three tubes from the barbed fittings along the bottom of the inside of the front enclosure. Be sure to note where they were connected.

Step 6 — Enclosure Disassembly 5

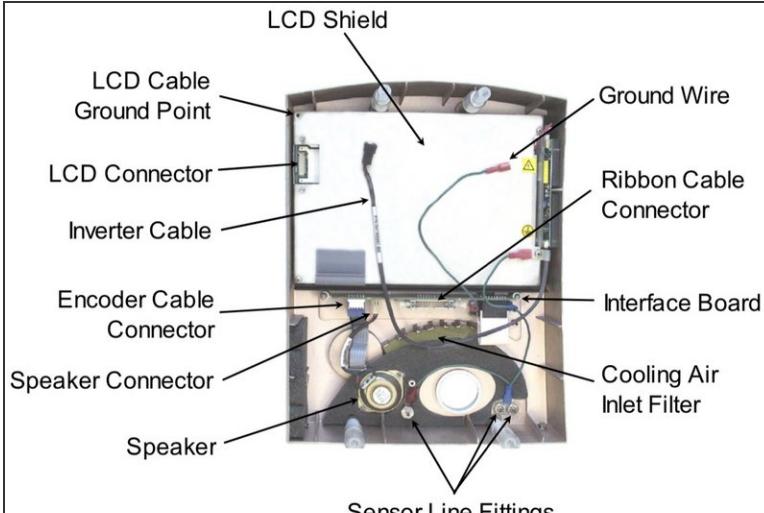


Figure 7-7: Front Enclosure (Inside View) #1

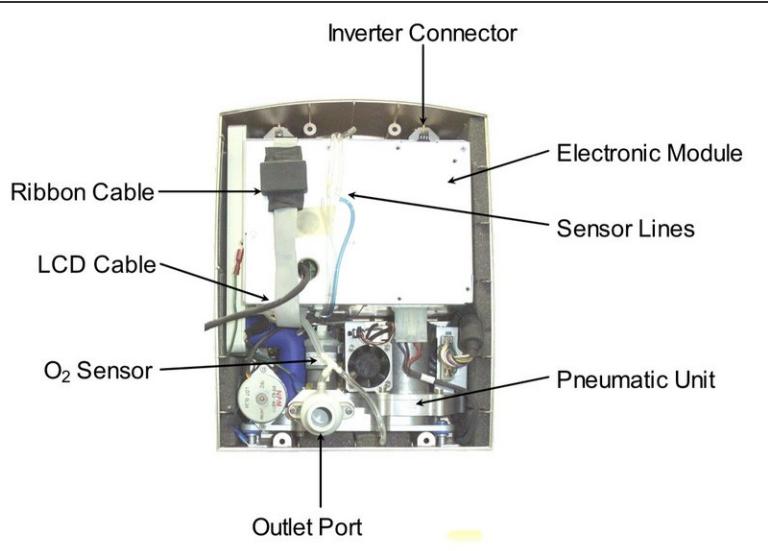


Figure 7-8: Rear Enclosure (Inside View) #1

- Disconnect the ribbon cable from the interface PC board located in the middle of the front enclosure.
- Disconnect the green ground wire and receptacle from the pneumatic unit (just above the outlet port).
- Disconnect the inverter cable from the top of the electronic module.
- With the LCD cable still tethered, lay the front enclosure, face down, on the protective surface.
- *It is best to orient the front enclosure so that it is facing you, upside down with the tethered LCD cable towards the right*
- Detach the green LCD cable ground wire from the LCD shield by removing the (1) 3mm x 14mm Phillips head screw and lock washer located in the corner near the LCD connector.
- Use the nutdriver to remove the (2) 4mm lock nuts from the LCD connector location on the front enclosure. Remove the aluminum U-shaped bracket from the LCD connector site and pull out the LCD connector and cable.
- Remove the aluminum U-shaped bracket from the LCD connector site and pull out the LCD connector and cable.

Step 7 — Enclosure Assembly 1



- Position the front enclosure face down on a protective surface so that it is upside down and to the left of the rear enclosure assembly.
- Plug in LCD connector/ cable into the connector located through the LCD shield.
- Install the U-shaped aluminum bracket oriented foam side down onto the studs protruding from the LCD shield.
- Thread the (2) 4mm lock nuts onto the studs. While pressing down on the center of the bracket, tighten both lock nuts.
- Attach the green LCD ground wire to the corner of the LCD shield with the (1) 3mm x 14mm Phillips head screw and lock washer.
- Position the front enclosure standing up so that it is approximately 4 inches from the rear enclosure.
- Connect the inverter cable to the top of the electronic module.
- Connect the ribbon cable (from the bottom of the electronic module) to the interface PC board located in the middle of the front enclosure. Verify that the connector's side retaining clips are snapped into place.

Step 8 — Enclosure Assembly 2



- Connect the ground cable to the spade terminal located just above the outlet port.
- Connect the three (3) tubes to the barbed fittings located along the bottom of the inside of the front enclosure. Be sure to reconnect them to the same locations that they were removed from:
 - The tube from the outlet port tee is connected to the left-most fitting (when viewed from the inside).
 - The blue tube (or tube with a blue stripe) is connected to the right-most fitting.
 - The remaining tube is connected to the last remaining fitting
- Bring the front and rear enclosures together. Orient the tubing and cables so that none are kinked or crimped.
- Place the unit, face down, on the protective surface.

Step 9 — Enclosure assembly 3



- *Under the weight of the rear enclosure (and assembly), the seam around the entire perimeter of the unit should be closed and even. If it is not, then there is interference from the tubes and/or cables that were just connected.*
- Install the (2) 4mm x 30mm screws and lock washers to the bottom-rear of the enclosure.
- Install the (2) 4mm x 50mm screws and lock washers to the top-rear of the enclosure.
- Attach the roll stand adapter plate to the bottom of the unit by installing the (4) 3mm x 8mm Phillips head screws and lock washers. Be sure to orient the plate so that the single middle hole is toward the rear of the unit.

To reassemble your device, follow these instructions in reverse order.