



**INOGEN ONE G3HF OXYGEN
CONCENTRATOR SERVICE MANUAL**

96-06434-00-01

Revision A

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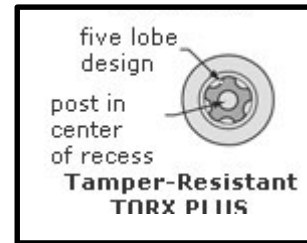
SP-502 and SP-550 Inogen One G3HF Front and Rear Housing Replacement

Parts Required:

1. SP-502, Housing, Rear
2. SP-550, G3HF Housing, Front

Tools Required:

1. T10 Torx Driver



Notes:

1. When removing screws from the device, carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).

Instructions for Removing the Housing:

1. While facing the front housing, remove the battery from the concentrator by pushing down on the blue battery release clip and sliding the device away (Figure 1).



Figure 1: Direction to slide device to remove battery

2. To remove the back housing, place the device on its front side and remove the two screws that secure the back housing to the chassis (Figure 2).



Figure 2: Location of screws

3. With the concentrator still on its front side, slide the back housing down and away from the device then lift up to remove (Figure 3).



Figure 3: Direction to slide housing

4. To remove the front housing, place the device on its back side and remove the two screws that secure the front housing to the chassis (Figure 4).



Figure 4: Location of screws

5. Slide the front housing down and away from the device then lift up to remove.

Instructions for Replacing the Housing:

1. Place the device on its back side.
2. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 5) then push down and toward the device to secure the housing in the chassis.



Figure 5: Housing feet and corresponding chassis grooves

3. Place the device on its front side and repeat step 2 to secure the back housing into the chassis.
4. Replace the two screws that connect the back housing to the chassis and the two screws that connect the front housing to the chassis (Figures 2 and 4). Tighten to 3 in-lbs.
5. Return the concentrator to the upright position
6. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

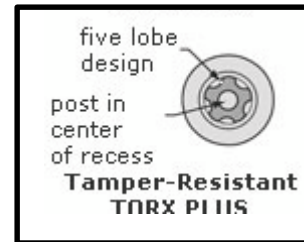
SP-503 Inogen One G3 User Interface Panel Replacement

Parts Required:

1. SP-503, User Interface Panel

Tools Required:

1. T10 Torx Driver



Notes:

1. When removing screws from the device, carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).
3. The connectors for the LCD and User Interface Panel are delicate and should be handled carefully. They must be inserted into the connector straight and be clean of all debris or contamination in order to ensure proper LCD and User Interface Panel Operation.

Instructions for Removing the Housing:

Refer to “**SP-502 and SP-550 Inogen One G3HF Front and Rear Housing Replacement**” on Page 3. Follow steps 1-5 for “Instructions for Removing the Housing.”

Instructions for Removing the User Interface Panel:

1. With the side housing removed, locate and remove the four screws that connect the user interface panel to the chassis (Figures 1 and 2).

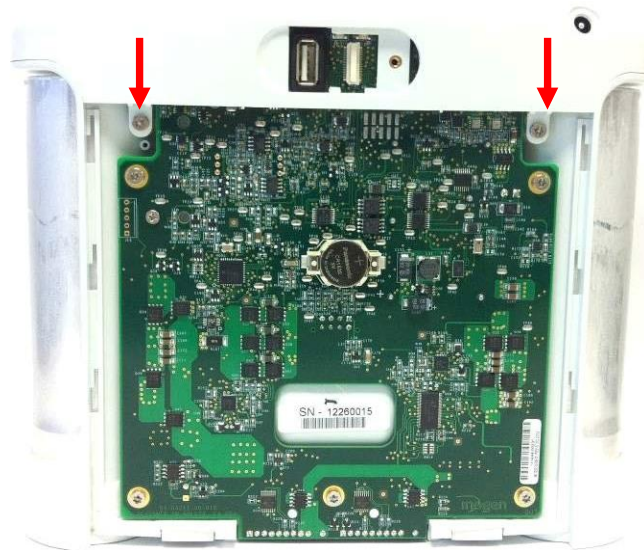


Figure 1: Location of rear screws

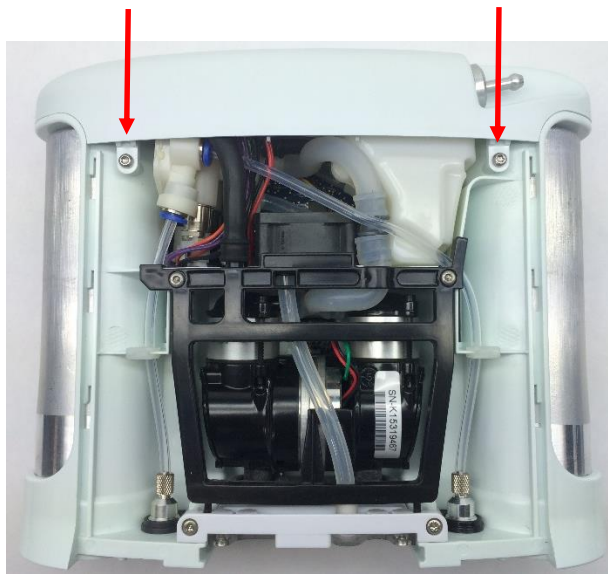


Figure 2: Location of front screws

2. Gently pull upward on the user interface panel to lift it about a centimeter off the device, being careful not to pull on the cables that are connected to the user interface panel. With the UIP cable connector exposed on the motherboard, gently unplug the UIP cable from the motherboard (Figure 3).

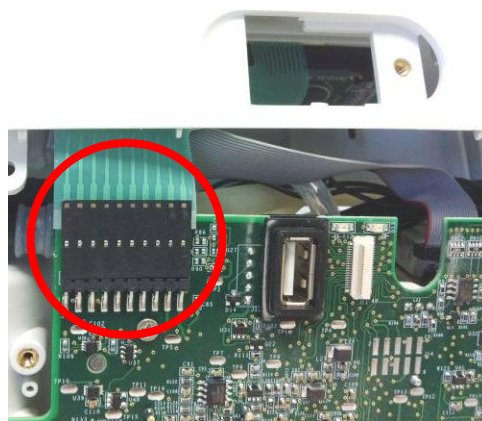


Figure 3: Unplug UIP cable from motherboard

3. Gently unplug the cannula tube and the LCD cable from the user interface panel (Figure 4). Remove the user interface panel.

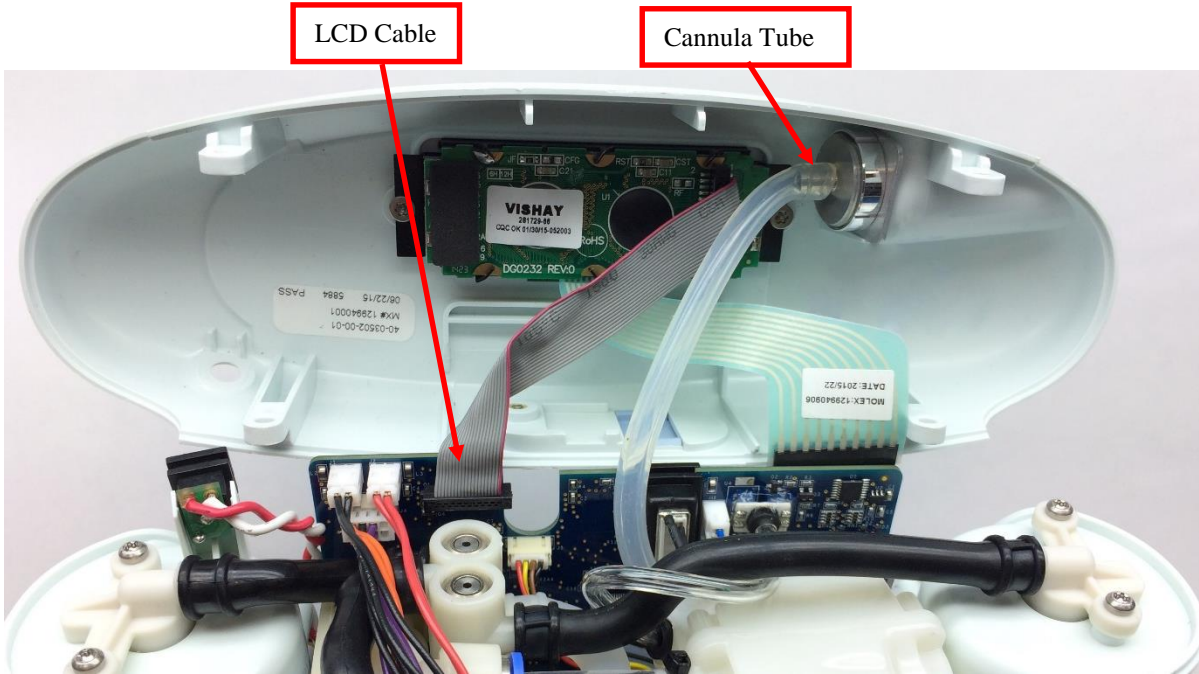


Figure 4: Remove cannula tube and LCD cable from user interface panel

Instructions for Replacing the User Interface Panel:

1. Lay the user interface panel upside down with the underside of the LCD facing upward. Remove the two screws securing the LCD to the user interface panel (Figure 5).



Figure 5: Location of LCD screws

2. Place the LCD module against the back side of the UIP window on the new user interface panel. Orient the LCD module so that the LCD cable connector is on the right side of the user interface panel (as in Figure 5).
3. Re-install the two screws securing the LCD to the user interface panel, making sure that the LCD is straight and properly aligned in the UIP window (Figure 5). Tighten screws to 5 in-lbs.
4. Reconnect the power cable to the LCD module (Figure 6). *Note the location of the red wire.*



Figure 6: Orientation of LCD cable

5. Re-attach the cannula tubing to the cannula connector (Figure 4).
6. Plug the UIP cable back into the motherboard (Figure 3). Double check that the cables are fully seated to ensure a complete connection.
7. Test the function of each button and the LCD. If anything does not work, reseat the cables in the connectors and check for debris in the connectors.
8. Re-install the four screws that connect the user interface panel to the chassis (Figures 1 and 2). Tighten screws to 5 in-lbs.

Instructions for Replacing the Housing:

1. Place the device on its back side.
2. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 7) then push down and toward the device to secure the housing in the chassis.



Figure 7: Housing feet and corresponding chassis grooves

3. Place the device on its front side and repeat step 2 to secure the back housing into the chassis.
4. Replace the two screws that connect the back housing to the chassis and the two screws that connect the front housing to the chassis. Tighten screws to 3 in-lbs.
5. Return the concentrator to the upright position.
6. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

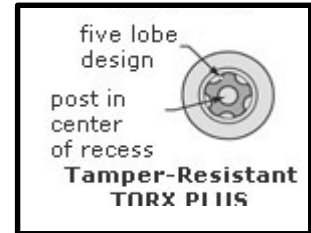
SP-504 Inogen One G3 LCD Replacement

Parts Required:

1. SP-504, LCD

Tools Required:

1. T10 Torx Driver



Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).
3. The connectors for the LCD and User Interface Panel are delicate and should be handled carefully. They must be inserted into the connector straight and be clean of all debris or contamination in order to ensure proper LCD and User Interface Panel Operation.

Instructions for Removing the Housing:

Refer to “SP-502 and SP-550 Inogen One G3HF Front and Rear Housing Replacement” on Page 3. Follow steps 1-5 for “Instructions for Removing the Housing.”

Instructions for Removing the User Interface Panel:

1. With the side housing removed, locate and remove the four screws that connect the user interface panel to the chassis (Figures 1 and 2).

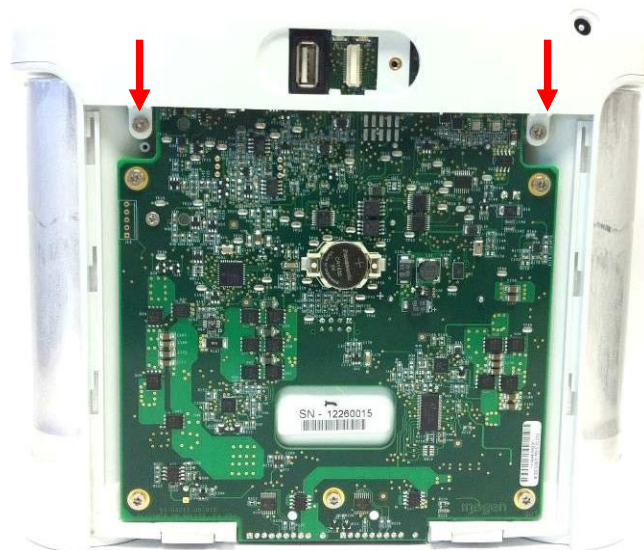


Figure 1: Location of rear screws

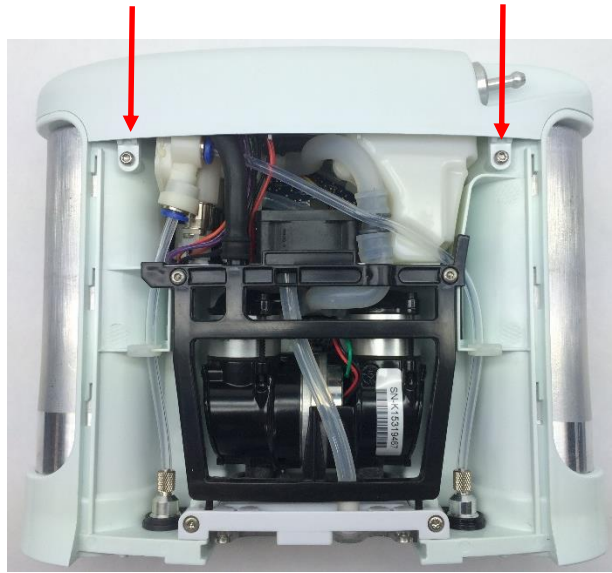


Figure 2: Location of front screws

2. Gently pull upward on the user interface panel to lift it about a centimeter off the device, being careful not to pull on the cables that are connected to the user interface panel. With the UIP cable connector exposed on the motherboard, gently unplug the UIP cable from the motherboard (Figure 3).

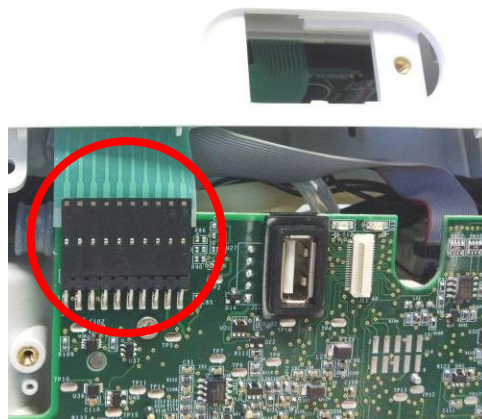


Figure 3: Unplug UIP cable from motherboard

3. Gently unplug the cannula tube and the LCD cable from the user interface panel (Figure 4). Remove the user interface panel.

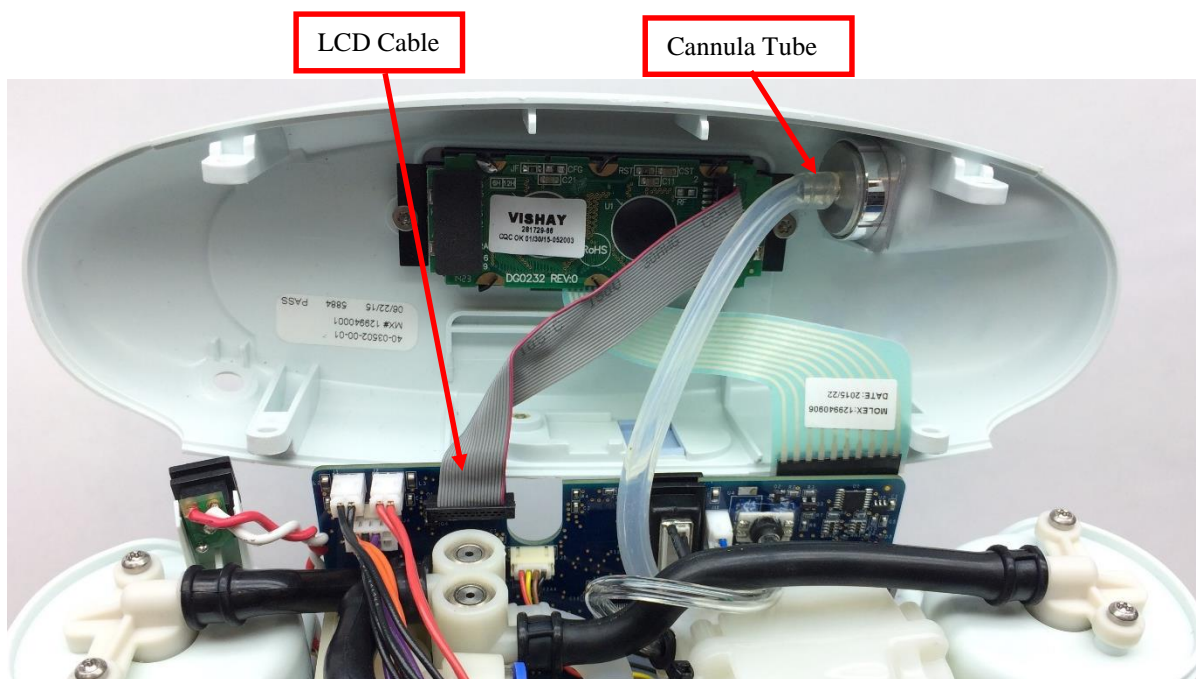


Figure 4: Remove cannula tube and LCD cable from user interface panel

4. Lay the user interface panel upside down with the underside of the LCD facing upward. Remove the two screws securing the LCD to the user interface panel and remove the LCD (Figure 5).



Figure 5: Location of LCD screw

Instructions for Replacing the LCD:

1. Place the new LCD module against the back side of the UIP window on the user interface panel. Orient the LCD module so that the power cable connector on the LCD is on the right side of the user interface panel (as shown in Figure 5).
2. Re-install the two screws securing the LCD to the user interface panel, making sure that the LCD is straight and properly aligned in the UIP window (Figure 5). Tighten screws to 5 in-lbs.
3. Reconnect the cable to the LCD module (Figure 6).
Note the location of the red wire.

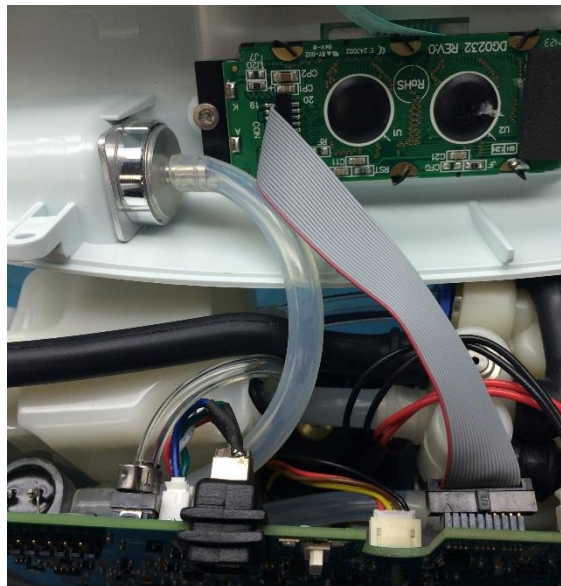


Figure 6: Orientation of LCD cable

4. Re-attach the cannula tubing to the cannula connector (Figure 4).
5. Plug the UIP cable back into the motherboard (Figure 3). Double check that the cables are fully seated to ensure a complete connection.
6. Test the function of each button and the LCD. If anything does not work, reset the cables in the connectors and check for debris in the connectors.
7. Re-install the four screws that connect the user interface panel to the chassis (Figures 1 and 2). Tighten screws to 5 in-lbs.

Instructions for Replacing the Housing:

1. Place the device on its back side.
2. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 7) then push down and toward the device to secure the housing in the chassis.



Figure 7: Housing feet and corresponding chassis grooves

3. Place the device on its front side and repeat step 2 to secure the back housing into the chassis.
4. Replace the two screws that connect the back housing to the chassis and the two screws that connect the front housing to the chassis. Tighten screws to 3 in-lbs.
5. Return the concentrator to the upright position.
6. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

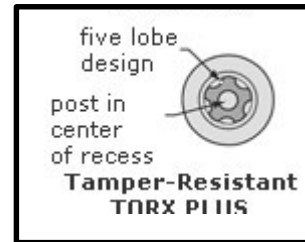
SP-560 Inogen One G3HF Top Column Receptacle Replacement

Parts Required:

1. SP-560, Column Receptacle, Top, G3HF

Tools Required:

1. T10 Torx Driver



Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).
3. The connectors for the LCD and User Interface Panel are delicate and should be handled carefully. They must be inserted into the connector straight and be clean of all debris or contamination in order to ensure proper LCD and User Interface Panel Operation.

Instructions for Removing the Housing:

Refer to “SP-502 and SP-550 Inogen One G3HF Front and Rear Housing Replacement” on Page 3. Follow steps 1-5 for “Instructions for Removing the Housing.”

Instructions for Removing the User Interface Panel:

1. With the side housing removed, locate and remove the four screws that connect the user interface panel to the chassis (Figures 1 and 2).

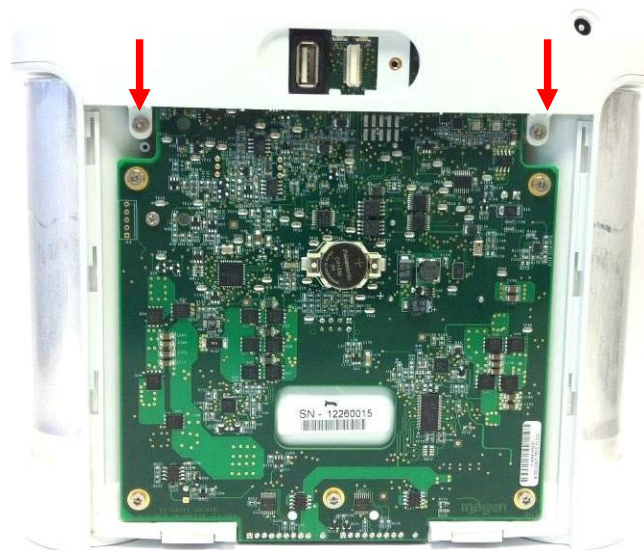


Figure 1: Location of rear screws

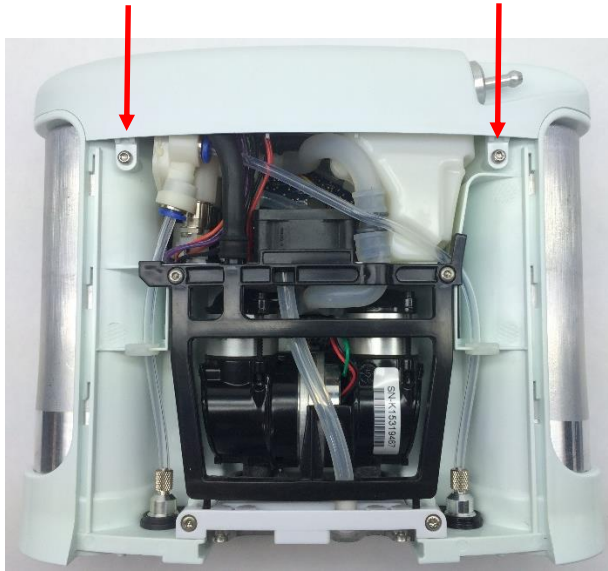


Figure 2: Location of front screws

2. Gently pull upward on the user interface panel to lift it about a centimeter off the device, being careful not to pull on the cables that are connected to the user interface panel. With the UIP cable connector exposed on the motherboard, gently unplug the UIP cable from the motherboard (Figure 3).

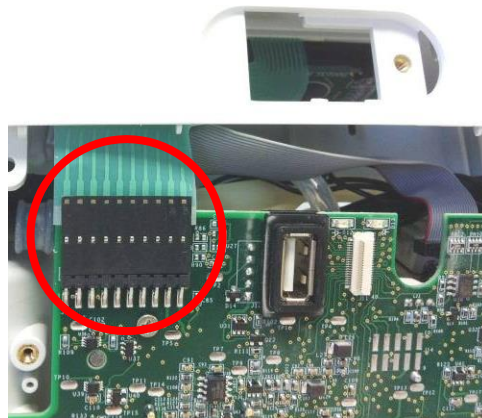


Figure 3: Unplug UIP cable from motherboard

3. Gently unplug the cannula tube and the LCD cable from the user interface panel (Figure 4). Remove the user interface panel.

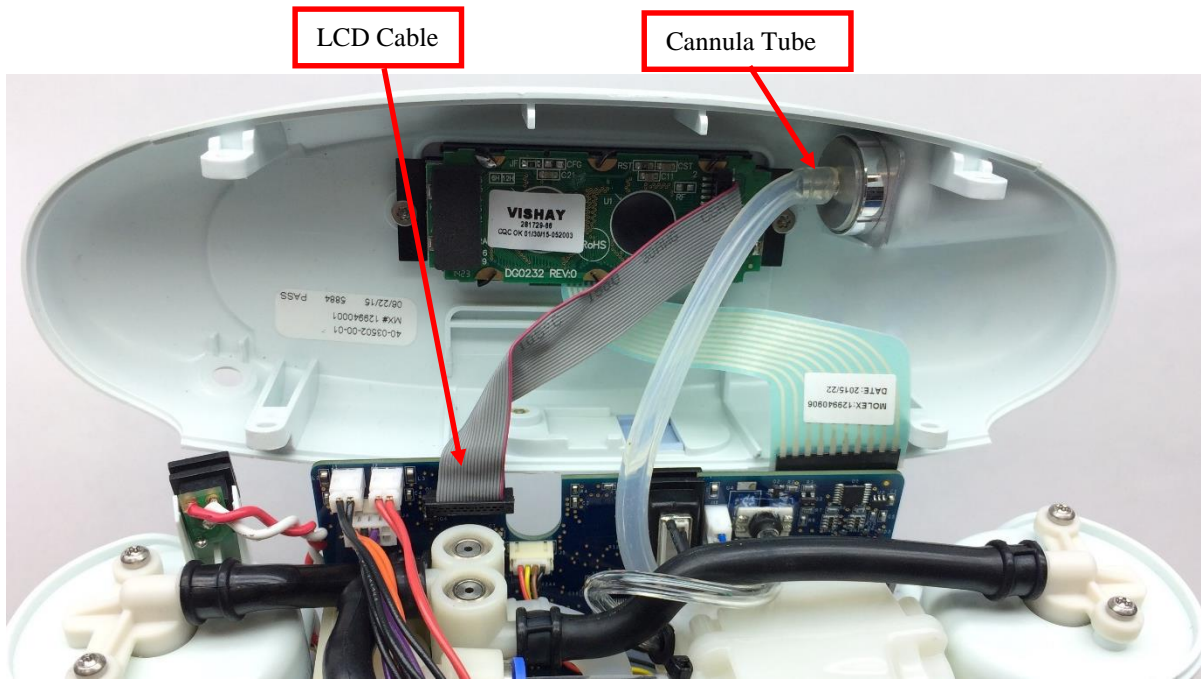


Figure 4: Remove cannula tube and LCD cable from user interface panel

4. Remove the two screws from the receptacle that needs replacing (Figure 5).

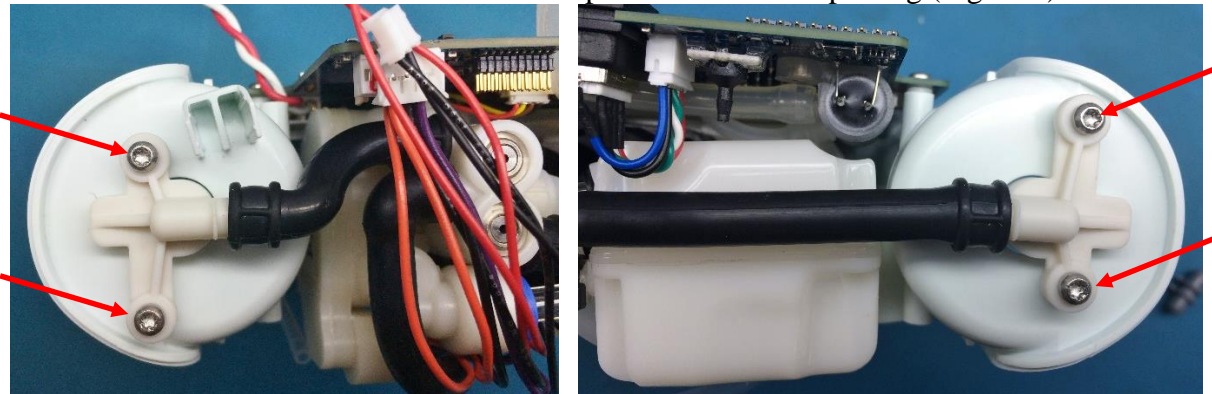


Figure 5: Column Receptacle Screws

5. Remove the receptacle from the molded column tube using a small flathead screw driver, if necessary.

Instructions for Replacing the Column Receptacles:

1. Install the column receptacle into the molded column tube, ensuring that the clocking lines on the tube are directly on top of the receptacle barb (Figure 6). Place the receptacle on top of the column.

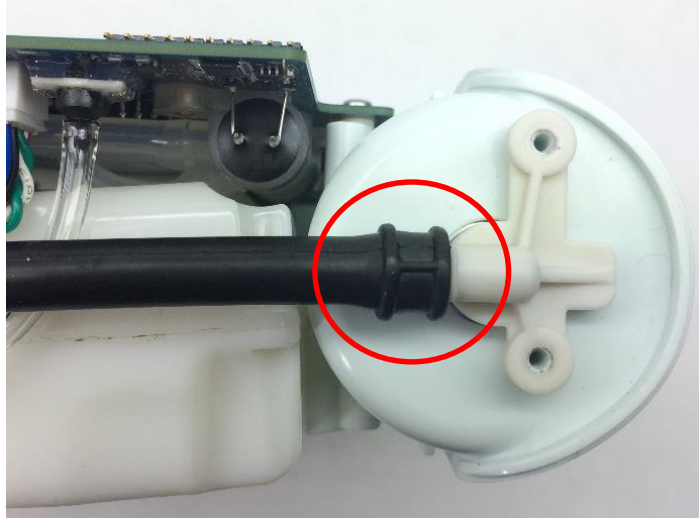


Figure 6: Column Receptacle and Tubing

2. Reinstall the two screws on the column receptacle (Figure 5). Torque to 3 in-lbs.

Instructions for Replacing the Housing:

1. With the new receptacles installed, the user interface panel can now be replaced. Plug the LCD cable back into the motherboard (Figure 4). *Note orientation of red wire.* Re-attach the cannula tubing to the cannula connector.
2. Reconnect the UIP cable to the motherboard (Figure 3).
3. Test the function of each button and the LCD. If anything does not work, reseat the cables in the connectors and check for debris in the connectors.
4. Re-install the four screws that connect the user interface panel to the chassis (Figures 1 and 2). Tighten screws to 5 in-lbs.
5. Place the device on its back side.
6. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 9) then push down and toward the device to secure the housing in the chassis.



Figure 9: Housing feet and corresponding chassis grooves

7. Place the device on its front side and repeat step 6 to secure the back housing into the chassis.
8. Replace the two screws that connect the back housing to the chassis and the two screws that connect the front housing to the chassis. Tighten screws to 3 in-lbs.
9. Return the concentrator to the upright position.
10. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

SP-561 and SP 562 Inogen One G3HF Molded Column Tubes

Parts Required:

1. SP-560, Column Receptacle, Top, G3HF

Tools Required:

1. T10 Torx Driver
2. Small Flathead screwdriver
3. Pliers

Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).
3. The connectors for the LCD and User Interface Panel are delicate and should be handled carefully. They must be inserted into the connector straight and be clean of all debris or contamination in order to ensure proper LCD and User Interface Panel Operation.

Instructions for Removing the Housing:

Refer to “SP-502 and SP-550 Inogen One G3HF Front and Rear Housing Replacement” on Page 3. Follow steps 1-5 for “Instructions for Removing the Housing.”

Instructions for Removing the User Interface Panel:

1. With the side housing removed, locate and remove the four screws that connect the user interface panel to the chassis (Figures 1 and 2).

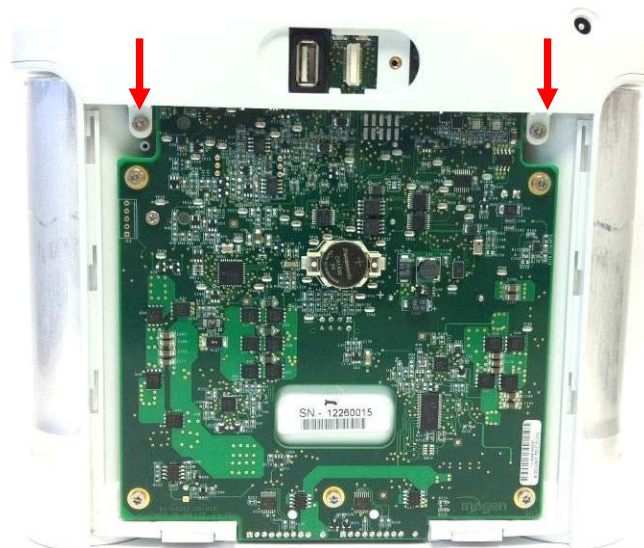


Figure 1: Location of rear screws

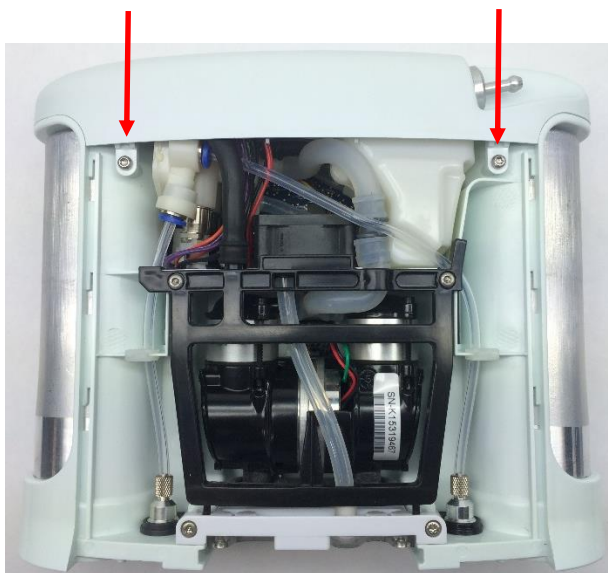


Figure 2: Location of front screws

2. Gently pull upward on the user interface panel to lift it about a centimeter off the device, being careful not to pull on the cables that are connected to the user interface panel. With the UIP cable connector exposed on the motherboard, gently unplug the UIP cable from the motherboard (Figure 3).

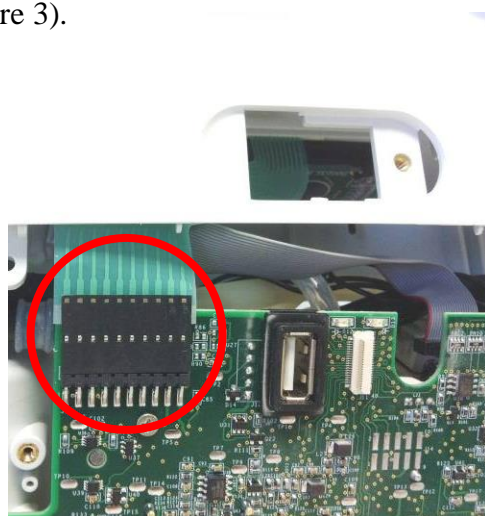


Figure 3: Unplug UIP cable from motherboard

3. Gently unplug the cannula tube and the LCD cable from the user interface panel (Figure 4). Remove the user interface panel.

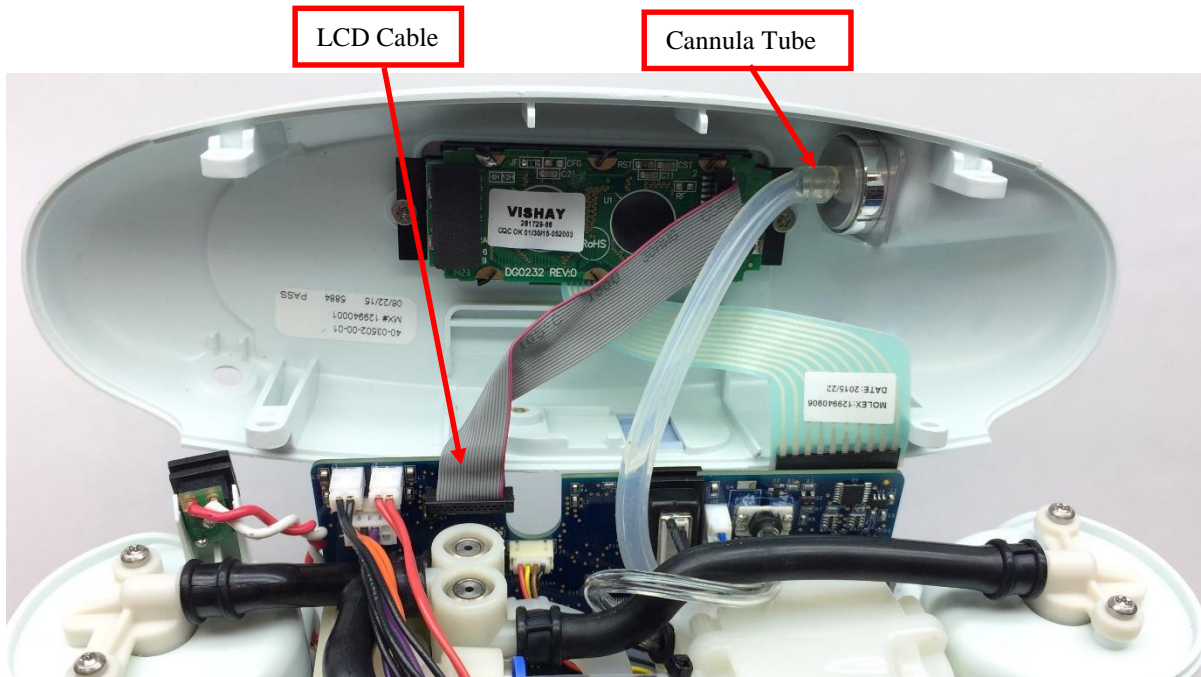


Figure 4: Remove cannula tube and LCD cable from user interface panel

4. Remove the two screws from the receptacle that needs replacing (Figure 5).

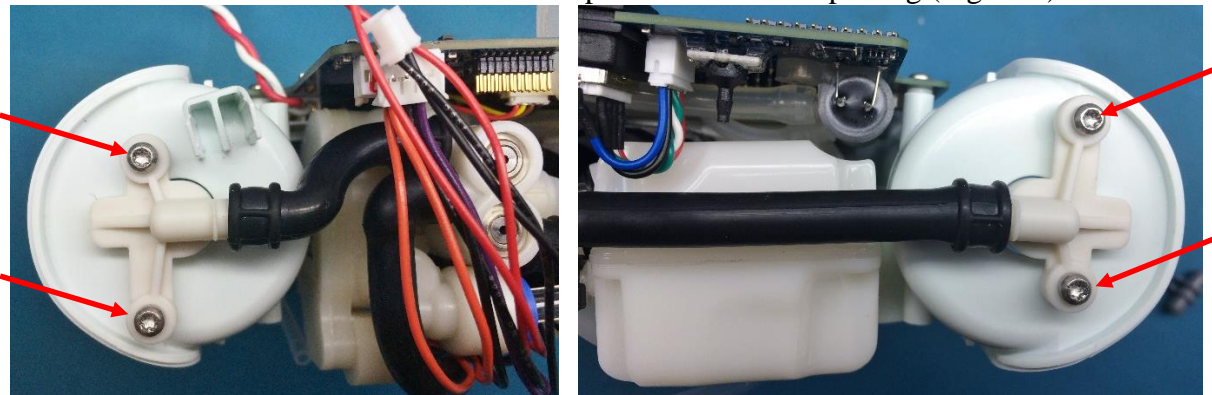


Figure 5: Column Receptacle Screws

5. Remove the receptacle from the molded column tube using a small flathead screw driver, if necessary.
6. If replacing the Short Molded Column Tube, carefully disconnect the feed waste manifold harnesses and the product manifold harness from the motherboard using pliers to pull the white connector off of the pins and away from the motherboard (Figures 6 and 7). Then remove the tube from the Feed Waste Manifold using a small flathead screw driver (Figure 9).

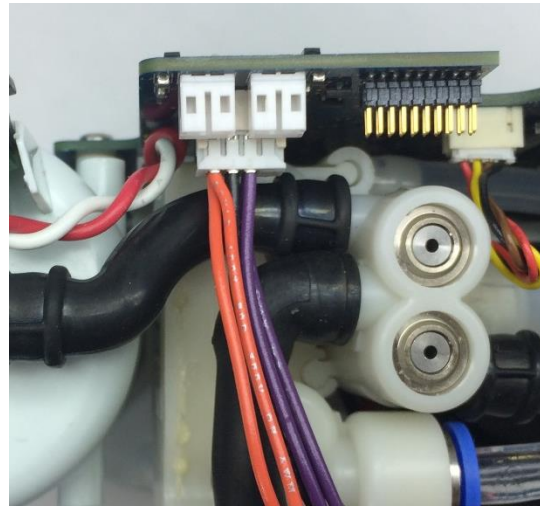
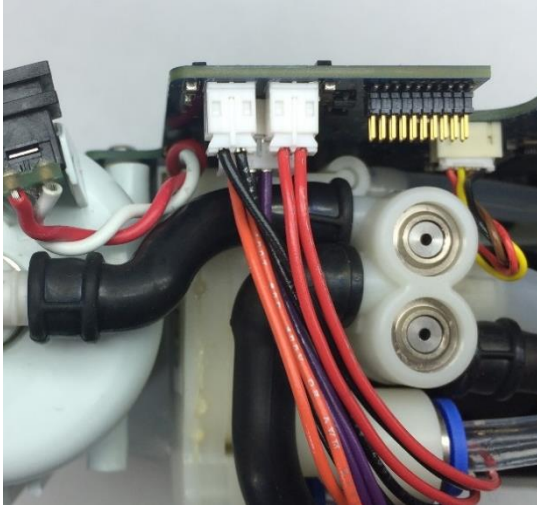


Figure 6: Feed Waste Manifold Harnesses

Figure 7: Product Manifold Harness

7. If replacing the Long Molded Column Tube, remove the Accumulator Sensor Tube by pushing down on the retaining ring while gently pulling on the tubing. Be careful not to apply any force to the pressure sensor (Figure 8). Then remove the Column Tube from the Feed Waste Manifold using a small flathead screwdriver (Figure 9).

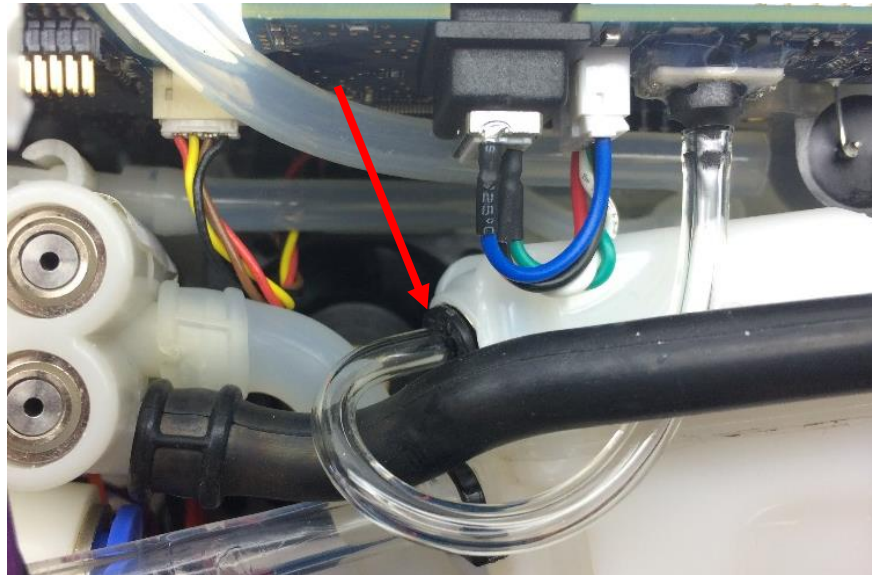


Figure 8: Accumulator Sensor Tubing

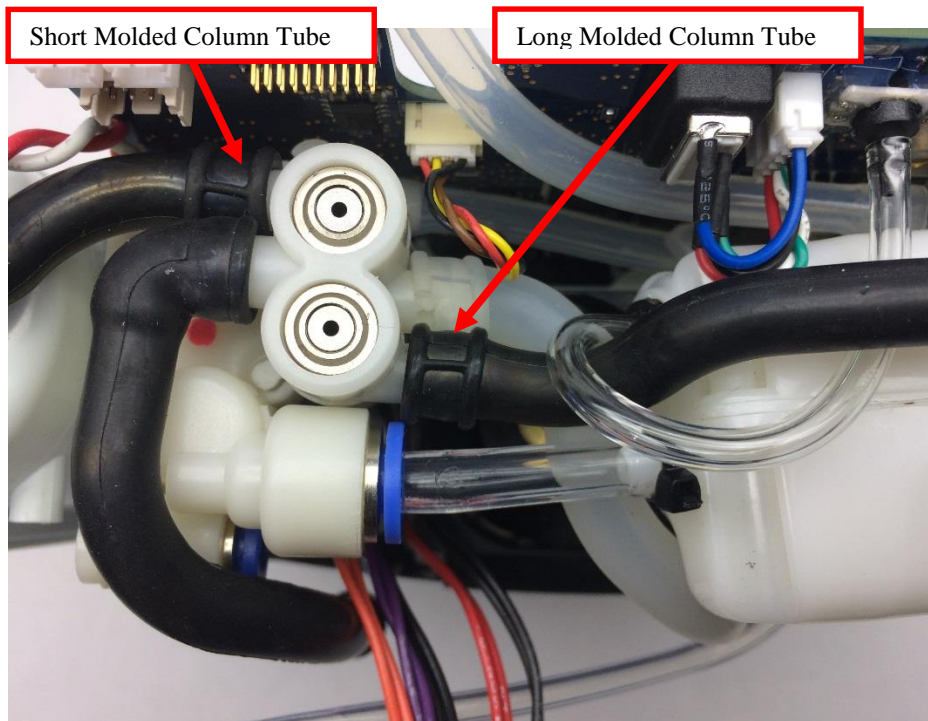


Figure 9: Molded Column Tubes on Feed Waste Manifold

Instructions for Replacing the Column Receptacles:

1. Install the tube back onto the Feed Waste Manifold barb with the clocking line directly on top of the barb (Figure 9).
2. Reinstall either the Accumulator Sensor Tube routing it around the long molded column tube and inserting it into the quick-connect fitting on the Accumulator (Figure 8), or the manifold harnesses by reconnecting the Product Manifold Harness, then the Feed Waste Harnesses to the motherboard (Figures 6 and 7).
3. Install the column receptacle into the molded column tube, ensuring that the clocking lines on the tube are directly on top of the receptacle barb (Figure 10). Place the receptacle on top of the column.

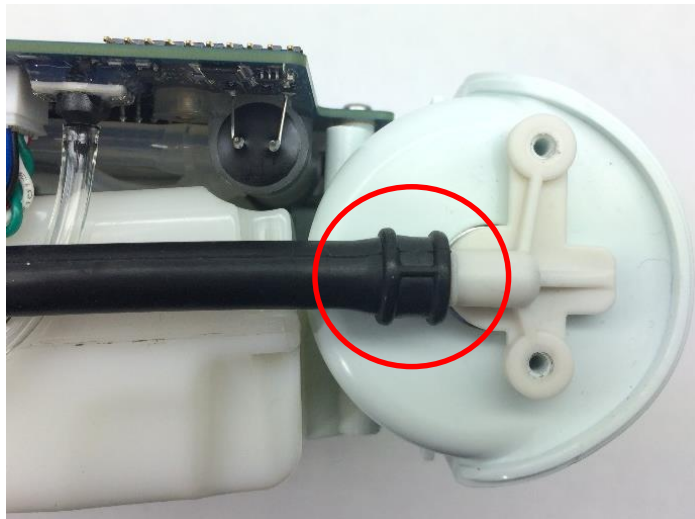


Figure 10: Column Receptacle and Tubing

2. Reinstall the two screws on the column receptacle (Figure 10). Torque to 3 in-lbs.

Instructions for Replacing the Housing:

1. With the new tube(s) installed, the user interface panel can now be replaced. Plug the LCD cable back into the motherboard (Figure 4). *Note orientation of red wire.* Re-attach the cannula tubing to the cannula connector.
2. Reconnect the UIP cable to the motherboard (Figure 3).
3. Test the function of each button and the LCD. If anything does not work, reseal the cables in the connectors and check for debris in the connectors.
4. Re-install the four screws that connect the user interface panel to the chassis (Figures 1 and 2). Tighten screws to 5 in-lbs.
5. Place the device on its back side.
6. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 9) then push down and toward the device to secure the housing in the chassis.



Figure 9: Housing feet and corresponding chassis grooves

7. Place the device on its front side and repeat step 6 to secure the back housing into the chassis.
8. Replace the two screws that connect the back housing to the chassis and the two screws that connect the front housing to the chassis. Tighten screws to 3 in-lbs.
9. Return the concentrator to the upright position.
10. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

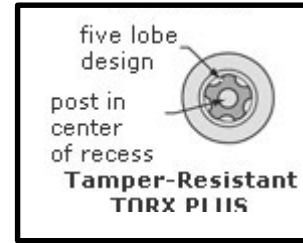
SP-551 Inogen One G3 Inlet Tube Replacement

Parts Required:

1. SP-551, Tube Inlet, G3HF

Tools Required:

1. T10 Torx Driver
2. Small Flathead Screwdriver



Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).
3. The connectors for the LCD and User Interface Panel are delicate and should be handled carefully. They must be inserted into the connector straight and be clean of all debris or contamination in order to ensure proper LCD and User Interface Panel Operation.

Instructions for Removing the Housing:

Refer to “SP-502 and SP-550 Inogen One G3HF Front and Rear Housing Replacement” on Page 3. Follow steps 1-5 for “Instructions for Removing the Housing.”

Instructions for Removing the User Interface Panel:

1. With the side housing removed, locate and remove the four screws that connect the user interface panel to the chassis (Figures 1 and 2).

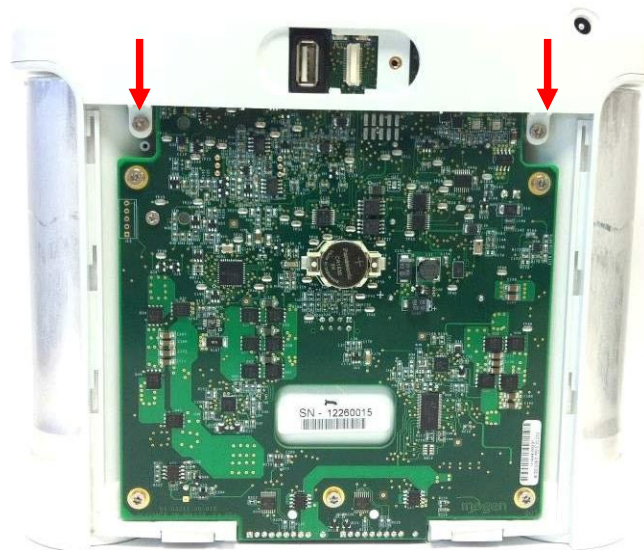


Figure 1: Location of rear screws

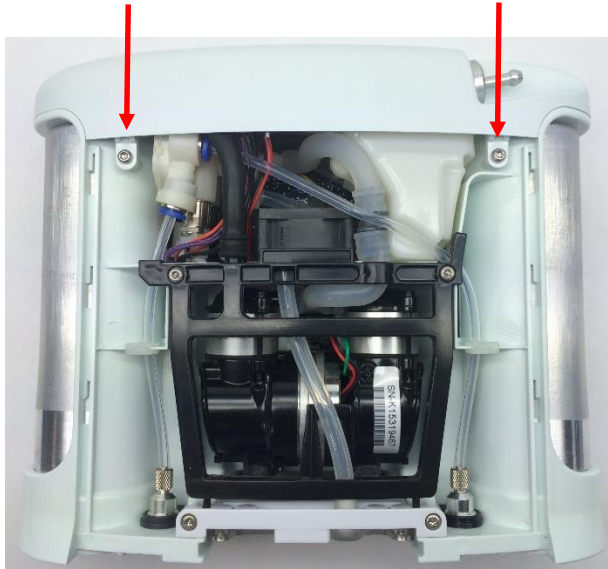


Figure 2: Location of front screws

2. Gently pull upward on the user interface panel to lift it about a centimeter off the device, being careful not to pull on the cables that are connected to the user interface panel. With the UIP cable connector exposed on the motherboard, gently unplug the UIP cable from the motherboard (Figure 3).

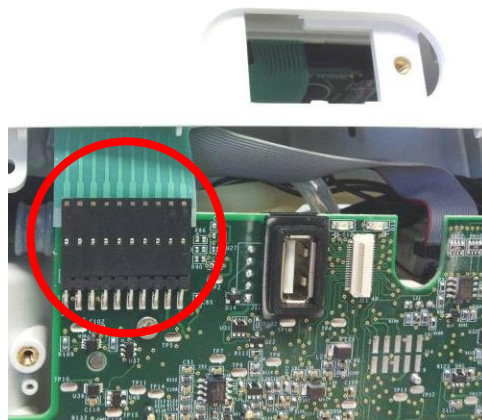


Figure 3: Unplug UIP cable from motherboard

3. Gently unplug the cannula tube and the LCD cable from the user interface panel (Figure 4). Remove the user interface panel.

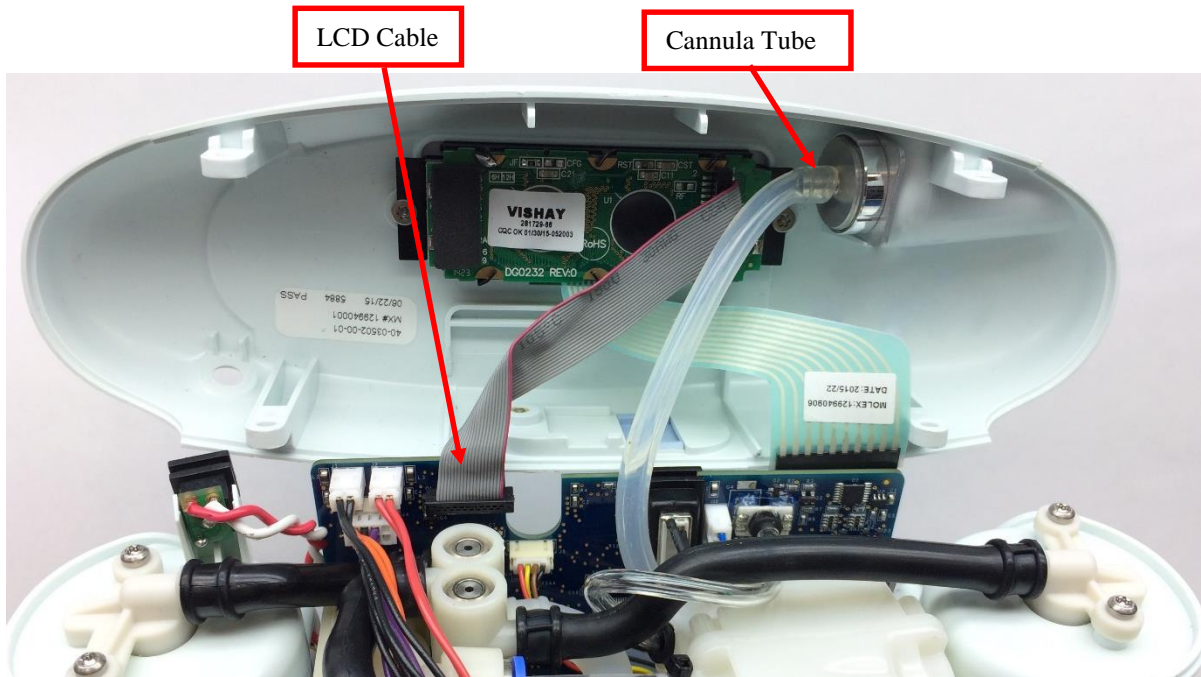


Figure 4: Remove cannula tube and LCD cable from user interface panel

Instructions for Removing the Inlet Tube:

1. Remove the Inlet tube from the feed waste manifold using a small flathead screw driver, if necessary (Figure 5). *Be careful not to damage the sealing surface of the manifold barb when removing the tube.*

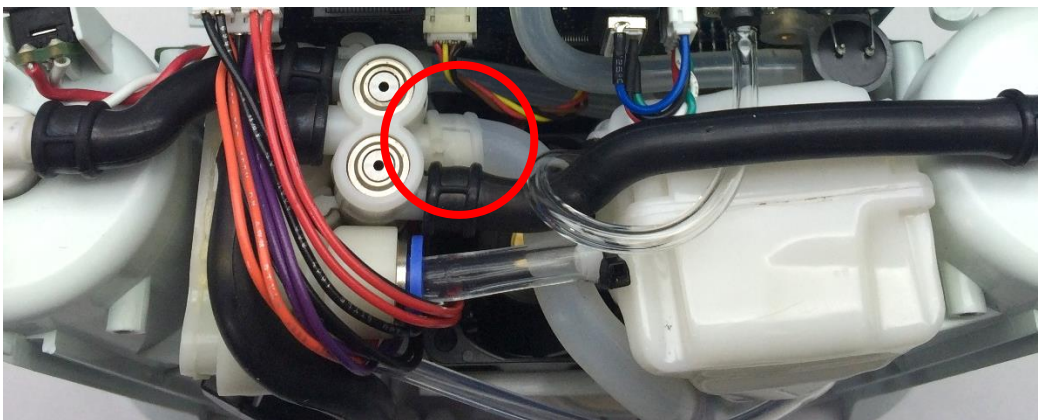


Figure 5: Inlet Tube and feed waste manifold

2. Detach the Inlet tube from the inlet union barb (Figure 6 and 7) and remove the Inlet tube from the device. Unsnap the Column tube from union barb if necessary.

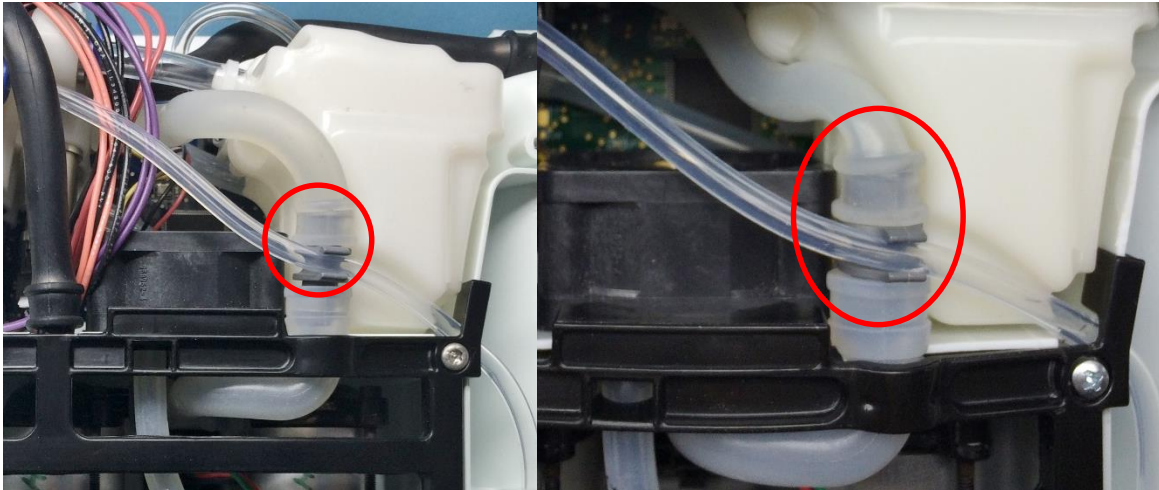


Figure 6 and 7: Inlet tube and inlet union

Instructions for Replacing the Inlet T Tube:

1. Reinstall the new Inlet tube in the orientation below with the top end of the tube attached to the manifold, ensuring that the alignment mark is on top of the manifold barb (See Figure 8). Be sure to feed the inlet tube back under the Accumulator tube. *Seat the tubing as far as possible on to the manifold barb.*

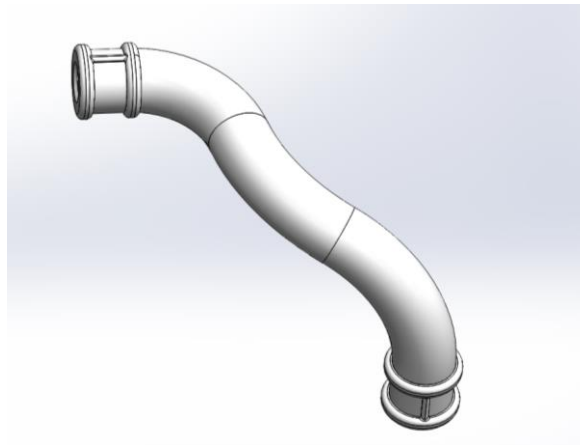


Figure 8: Orientation of Inlet T Tube

2. Attach the bottom end of the new Inlet tube to the inlet union, with the other alignment mark pointing down on the inlet union barb (Figure 6 and 7). Make sure the tubing is fully seated onto the inlet union.
3. Re-install the motherboard.

Instructions for Replacing the Housing:

1. With the new tubing fully installed, the user interface panel can now be replaced. Plug the LCD cable back into the motherboard (Figure 4). *Note orientation of red wire.* Re-attach the cannula tubing to the cannula connector.
2. Reconnect the UIP cable to the motherboard (Figure 3).
3. Test the function of each button and the LCD. If anything does not work, reseal the cables in the connectors and check for debris in the connectors.
4. Re-install the four screws that connect the user interface panel to the chassis (Figures 1 and 2). Tighten screws to 5 in-lbs.
5. Place the device on its back side.
6. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 9) then push down and toward the device to secure the housing in the chassis.



Figure 9: Housing feet and corresponding chassis grooves

7. Place the device on its front side and repeat step 6 to secure the back housing into the chassis.
8. Replace the two screws that connect the back housing to the chassis and the two screws that connect the front housing to the chassis. Tighten screws to 3 in-lbs.
9. Return the concentrator to the upright position.
10. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

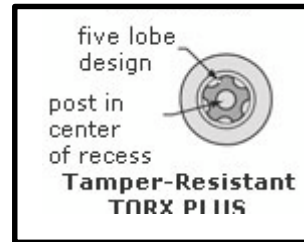
SP-552 Inogen One G3 Exhaust Tube Replacement

Parts Required:

1. SP-552, Tube, Exhaust, G3HF

Tools Required:

1. T10 Torx Driver
2. Small Flathead Screwdriver



Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).
3. The connectors for the LCD and User Interface Panel are delicate and should be handled carefully. They must be inserted into the connector straight and be clean of all debris or contamination in order to ensure proper LCD and User Interface Panel Operation.

Instructions for Removing the Housing:

Refer to “SP-502 and SP-550 Inogen One G3HF Front and Rear Housing Replacement” on Page 3. Follow steps 1-5 for “Instructions for Removing the Housing.”

Instructions for Removing the User Interface Panel:

1. With the side housing removed, locate and remove the four screws that connect the user interface panel to the chassis (Figures 1 and 2).

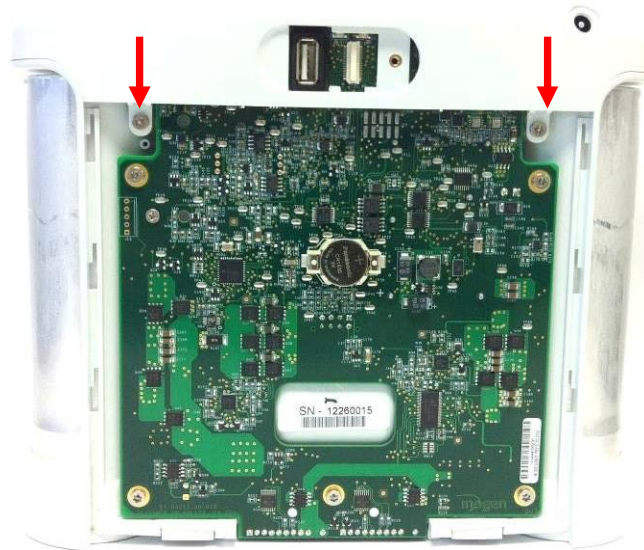


Figure 1: Location of rear screws

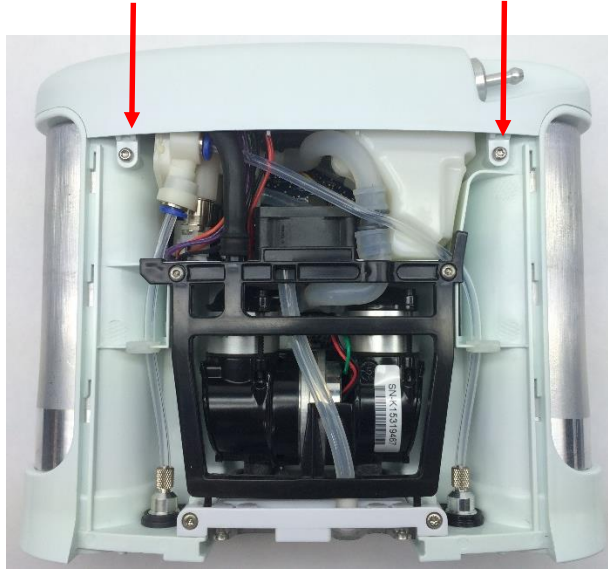


Figure 2: Location of front screws

2. Gently pull upward on the user interface panel to lift it about a centimeter off the device, being careful not to pull on the cables that are connected to the user interface panel. With the UIP cable connector exposed on the motherboard, gently unplug the UIP cable from the motherboard (Figure 3).

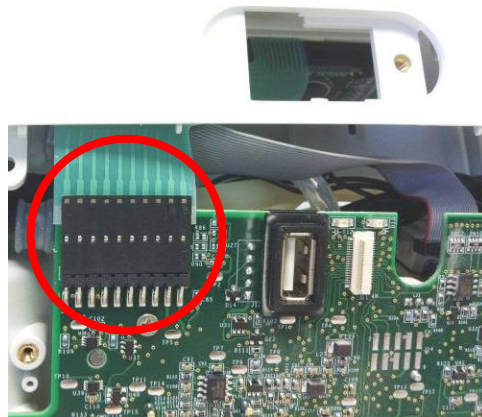


Figure 3: Unplug UIP cable from motherboard

3. Gently unplug the cannula tube and the LCD cable from the user interface panel (Figure 4). Remove the user interface panel.

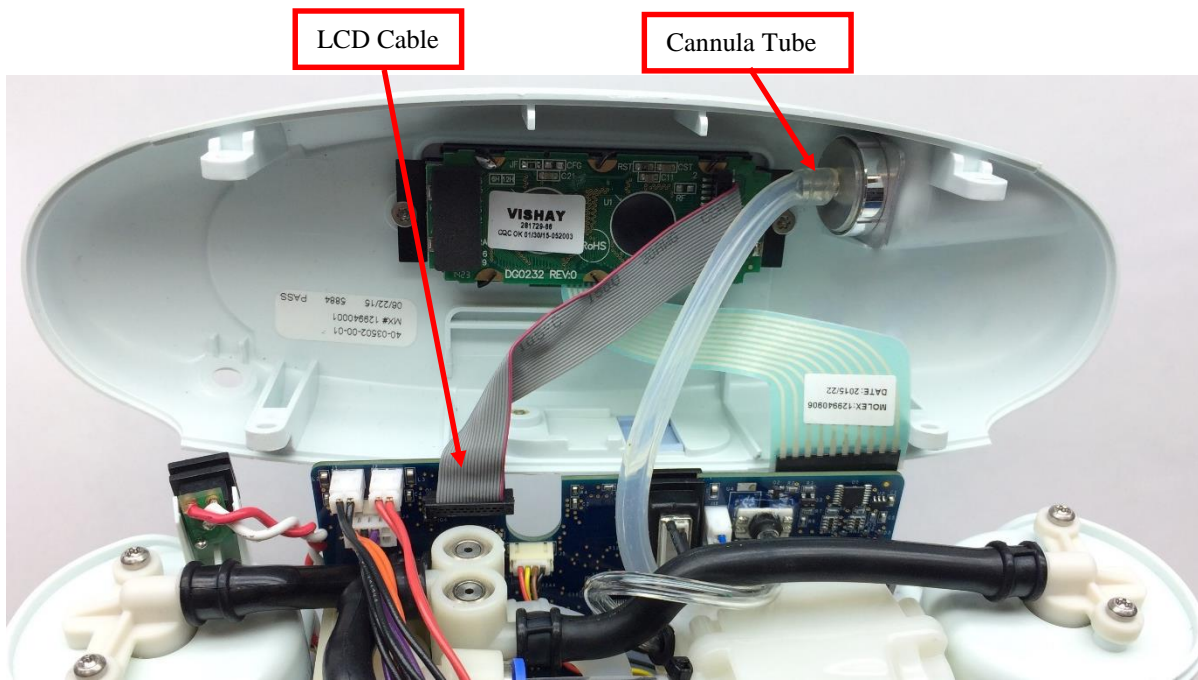


Figure 4: Remove cannula tube and LCD cable from user interface panel

Instructions for Removing the Exhaust Tube:

1. Remove the Exhaust Tube from the Tube Bracket and Muffler Assembly (Figure 5).

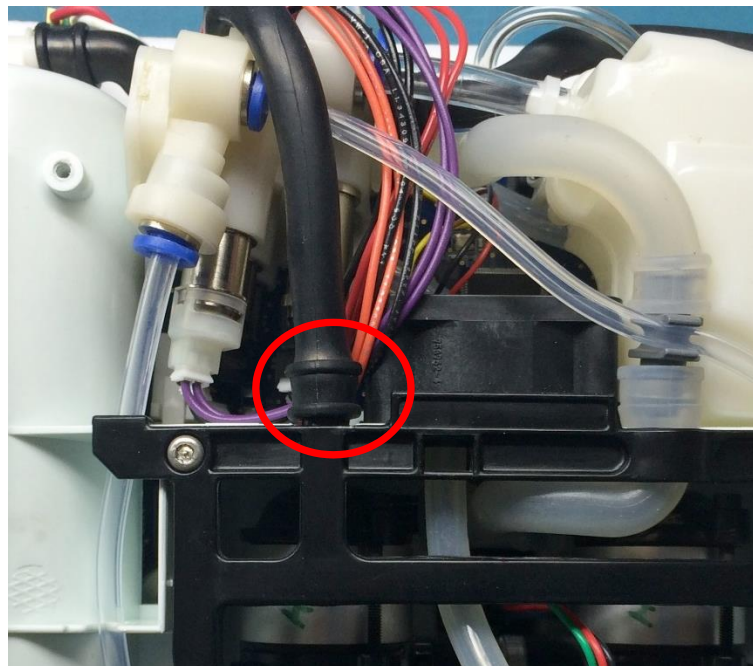


Figure 5: Exhaust Tube and Tube Bracket and Muffler Assembly

2. Disconnect the Feed Waste manifold harnesses and the Product manifold harnesses. (Figures 6 and 7).

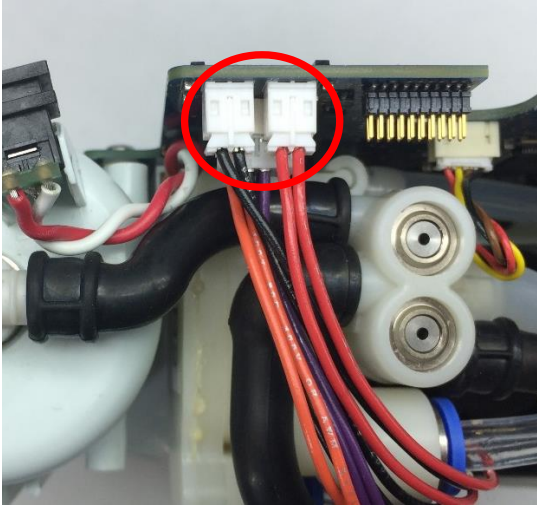


Figure 6: Feed Waste Manifold Harnesses

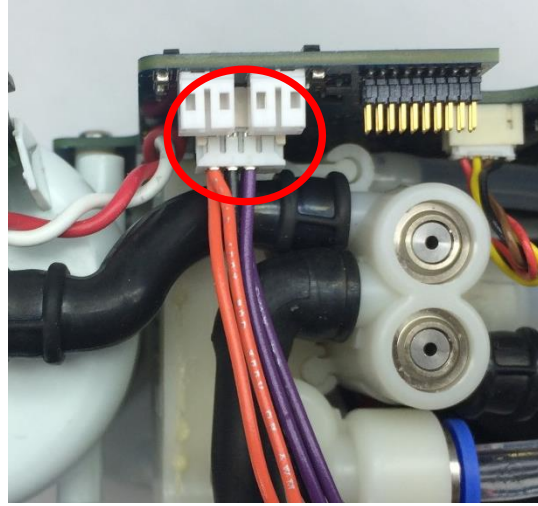


Figure 7: Product Manifold Harness

3. Remove the exhaust tube from the feed waste manifold using a small flathead screw driver, if necessary (Figure 8).

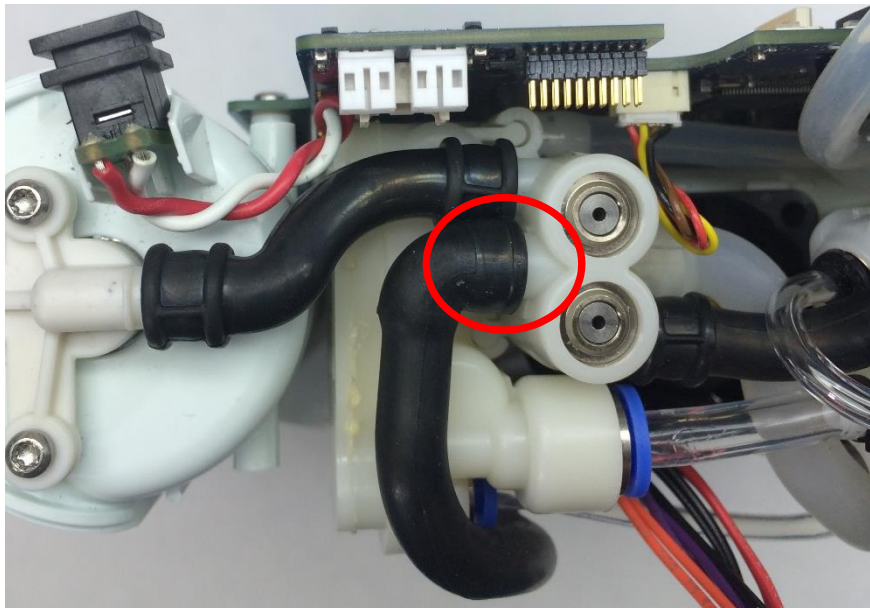


Figure 8: Exhaust tube and feed waste manifold

4. Remove the tube from the device.

Instructions for Replacing the Exhaust Tube:

1. Reinstall the new Exhaust tube by attaching the short side to the Feed Waste manifold and the long end to the Tube Bracket and Muffler Assembly (Figure 9). *Seat the tubing as far as possible on to the manifold barb and Tube Bracket barb.*



Figure 9: Orientation of exhaust T tube

2. Re-install the motherboard.

Instructions for Replacing the Housing:

1. With the new tubing fully installed, the user interface panel can now be replaced. Plug the LCD cable back into the motherboard (Figure 4). *Note orientation of red wire.* Re-attach the cannula tubing to the cannula connector.
2. Reconnect the UIP cable to the motherboard (Figure 3).
3. Test the function of each button and the LCD. If anything does not work, reseal the cables in the connectors and check for debris in the connectors.
4. Re-install the four screws that connect the user interface panel to the chassis (Figures 1 and 2). Tighten screws to 5 in-lbs.
5. Place the device on its back side.
6. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 10) then push down and toward the device to secure the housing in the chassis.



Figure 10: Housing feet and corresponding chassis grooves

7. Place the device on its front side and repeat step 6 to secure the back housing into the chassis.
8. Replace the two screws that connect the back housing to the chassis and the two screws that connect the front housing to the chassis. Tighten screws to 3 in-lbs.
9. Return the concentrator to the upright position
10. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

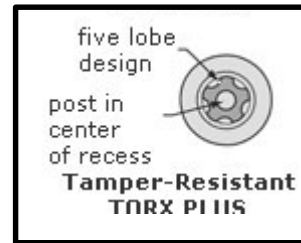
SP-507 Inogen One G3 Filter Box Lid Replacement

Parts Required:

1. SP-507, Housing, Filter Box, Lid

Tools Required:

1. T10 Torx Driver
2. Small Flathead Screwdriver



Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite to the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).

Instructions for Removing the Filter Box Lid:

1. While facing the front housing, remove the battery from the concentrator by pushing down on the blue battery release clip and sliding the device away (Figure 1).



Figure 1: Direction to slide device to remove battery

2. Place the device on its back and remove the four screws connecting the filter box lid to the device (Figure 2).

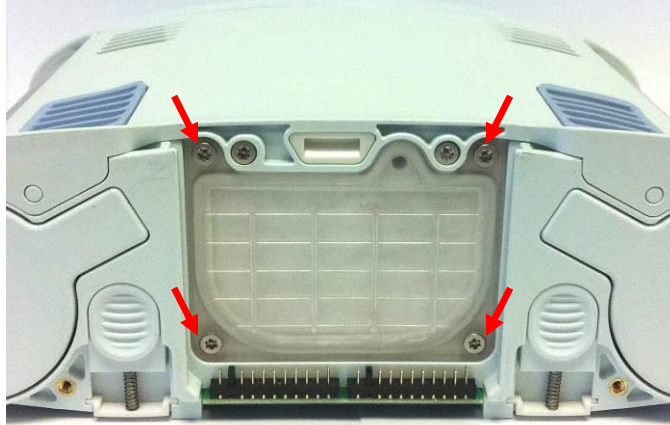


Figure 2: Filter box lid screws

3. Carefully pull the filter away from the device to remove. Use a flathead screwdriver to separate the filter from the device if necessary.

Instructions for Replacing the Filter Box Lid:

1. Insert the new filter into the allotted space on the chassis and re-install the four screws that connect it (Figure 2). Tighten screws to 4.5 in-lbs.
2. Return the concentrator to the upright position.
3. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

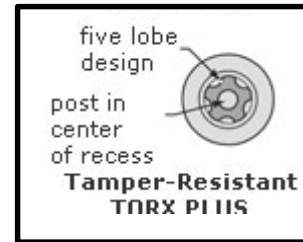
SP-553 Inogen One G3HF Fan Replacement

Parts Required:

1. SP-553 Fan, Axial, 40x20, G3HF

Tools Required:

1. T10 Torx Driver
2. Pliers
3. Small Flathead Screwdriver



Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).
3. The connectors for the LCD and User Interface Panel are delicate and should be handled carefully. They must be inserted into the connector straight and be clean of all debris or contamination in order to ensure proper LCD and User Interface Panel Operation.

Instructions for Removing the Housing:

Refer to “SP-502 and SP-550 Inogen One G3HF Front and Rear Housing Replacement” on Page 3. Follow steps 1-5 for “Instructions for Removing the Housing.”

Instructions for Removing the User Interface Panel:

1. With the side housing removed, locate and remove the four screws that connect the user interface panel to the chassis (Figures 1 and 2).

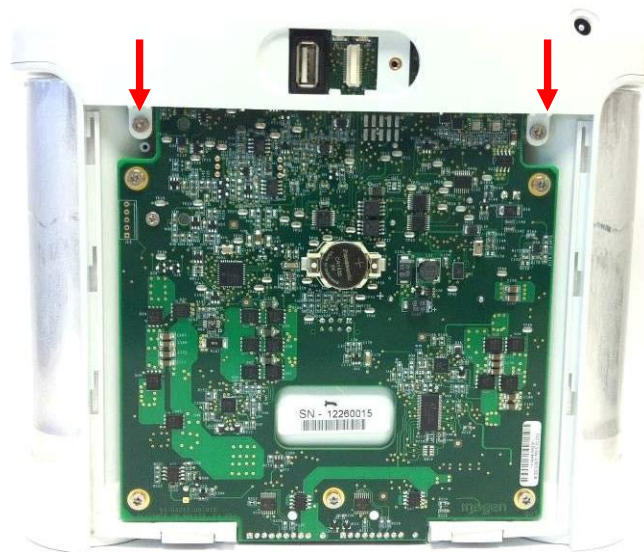


Figure 1: Location of rear screws

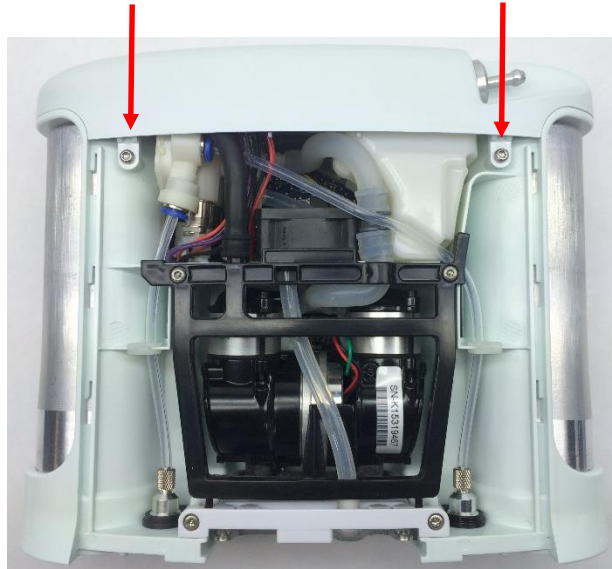


Figure 2: Location of front screws

2. Gently pull upward on the user interface panel to lift it about a centimeter off the device, being careful not to pull on the cables that are connected to the user interface panel. With the UIP cable connector exposed on the motherboard, gently unplug the UIP cable from the motherboard (Figure 3).

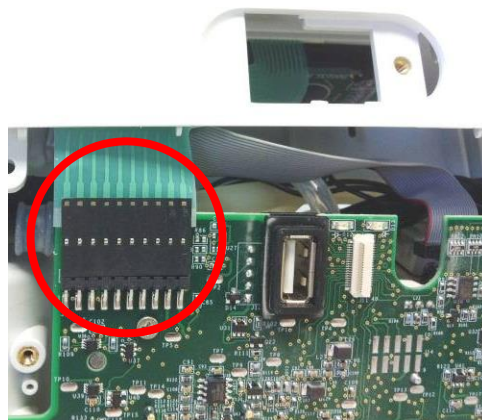


Figure 3: Unplug UIP cable from motherboard

3. Gently unplug the cannula tube and the LCD cable from the user interface panel (Figure 4). Remove the user interface panel.

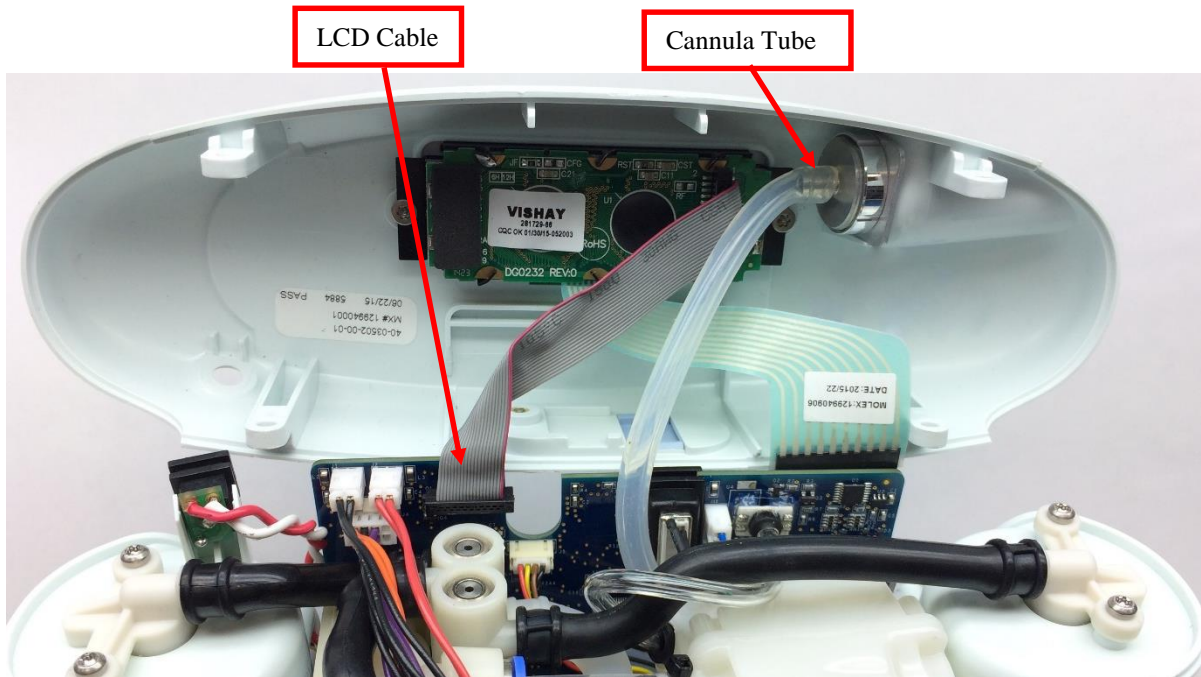


Figure 4: Remove cannula tube and LCD cable from user interface panel

Instructions for Removing the Fan:

1. Unplug the fan cable from the motherboard. *Use pliers if necessary* (Figure 5).

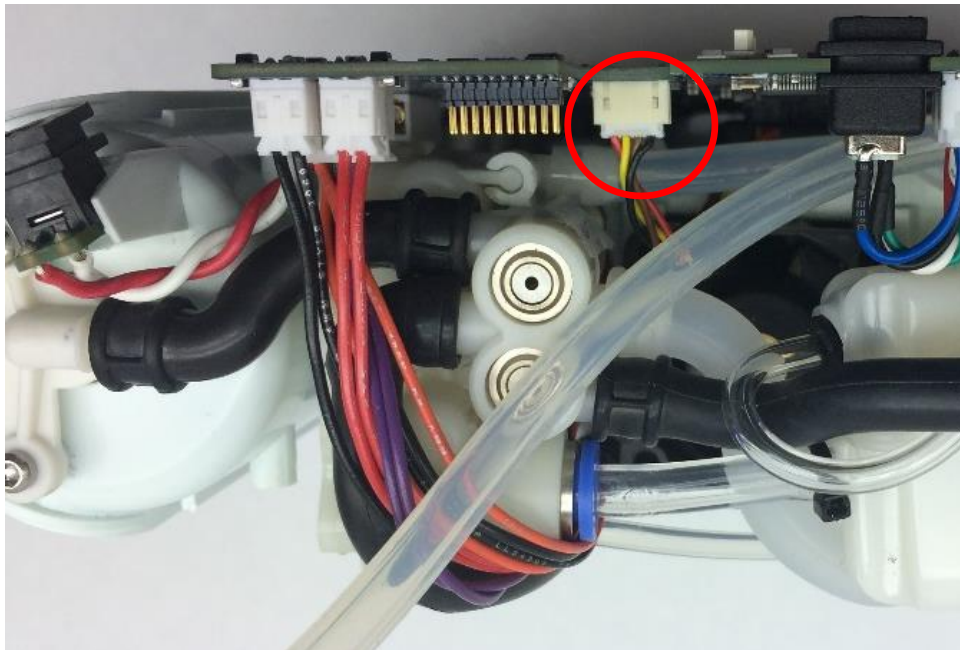


Figure 5: Location of fan connector on motherboard

2. Remove the two screws holding in the Tube Bracket and Muffler Assembly. Then slide the bracket pegs out of the chassis (Figure 6).

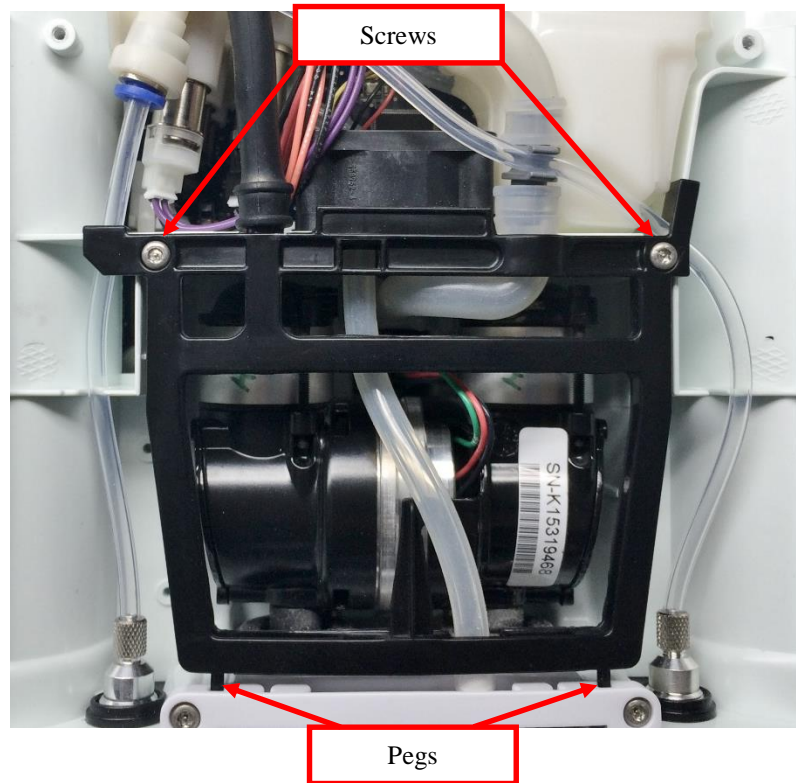


Figure 6: Tube Bracket and Muffler Assembly

3. Unclip the column tubing from the inlet union (Figure 7).

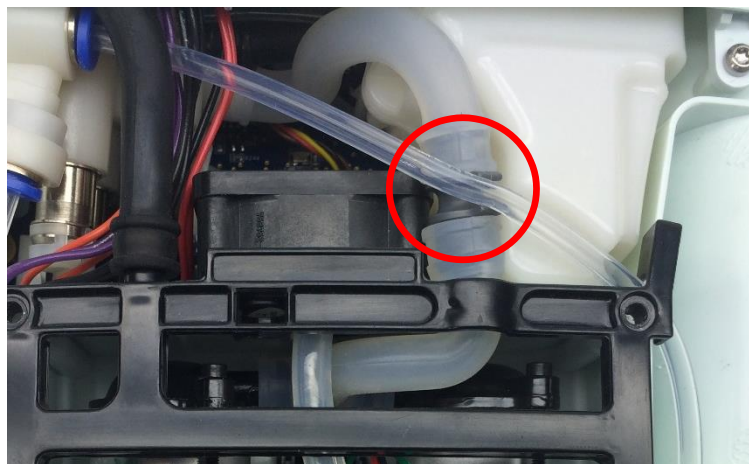


Figure 7: Column tubing and inlet union

4. Lift the Tube Bracket and Muffler Assembly away from the fan. Then pull the fan out of the assembly (Figure 8). The fan is held in by mounts on the chassis, so it will require some force.

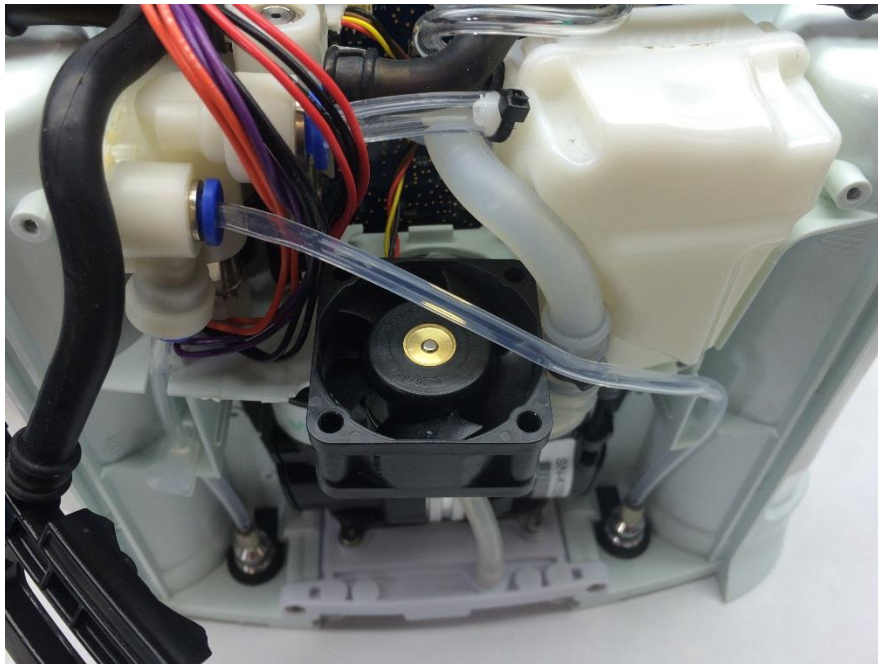


Figure 8: Fan removal

Instructions for Replacing the Fan:

1. Insert the new fan in the allotted space on the chassis, making sure that the cable harness is facing the motherboard and that flow of the fan is oriented downward (as shown in Figure 8). The fan will snap back into the chassis mounts.
2. Route the harness under the Inlet tube and plug the cable back into the motherboard, assuring proper connection by gently pulling on the cable (as shown in Figure 5.)
3. Clip the column tube back into the inlet union (as shown in Figure 7).
4. Slide the Tube Bracket and Muffler Assembly pegs back into the slots in the chassis. Align the bracket back into place and reinstall the two screws to 4 in-lbs. (Figure 6).

Instructions for Reinstall the Housing:

1. To re-install the user interface panel, plug the LCD cable back into the motherboard (Figure 4). *Note orientation of red wire.* Re-attach the cannula tubing to the cannula connector (Figure 4).
2. Reconnect the UIP cable to the motherboard (Figure 3).
3. Test the function of each button and the LCD. If anything does not work, reseat the cables in the connectors and check for debris in the connectors.
4. Re-install the four screws that connect the user interface panel to the chassis (Figures 1 and 2). Tighten screws to 5 in-lbs.
5. Place the device on its back side.

6. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 9) then push down and toward the device to secure the housing in the chassis.



Figure 9: Housing feet and corresponding chassis groove.

7. Place the device on its front side and repeat step 6 to secure the back housing into the chassis.
8. Replace the two screws that connect the back housing to the chassis and the two screws that connect the front housing to the chassis. Tighten screws to 3 in-lbs.
9. Return the concentrator to the upright position
10. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

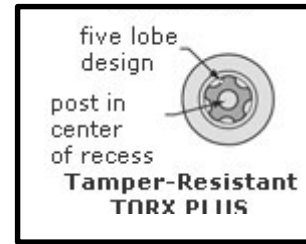
SP-509 Inogen One G3 Compressor Replacement

Parts Required:

1. SP-509, Assembly, Compressor

Tools Required:

1. T10 Torx Driver
2. Small Flathead Screwdriver
3. 1/8" Hex Driver
4. Pliers



Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).

Instructions for Removing the Housing:

1. While facing the front housing, remove the battery from the concentrator by pushing down on the blue battery release clip and sliding the device away (Figure 1).



Figure 1: Direction to slide device to remove battery

2. Place the device on its back side and remove the two screws that secure the front housing to the bottom of the chassis (Figure 2).



Figure 2: Location of screws

3. With the concentrator still on its back side, slide the front housing down and away from the device then lift up to remove.

Instructions for Removing the Compressor:

1. Locate and remove the two screws that connect the tube bracket to the chassis (Figure 3). Remove the tube bracket and set aside.

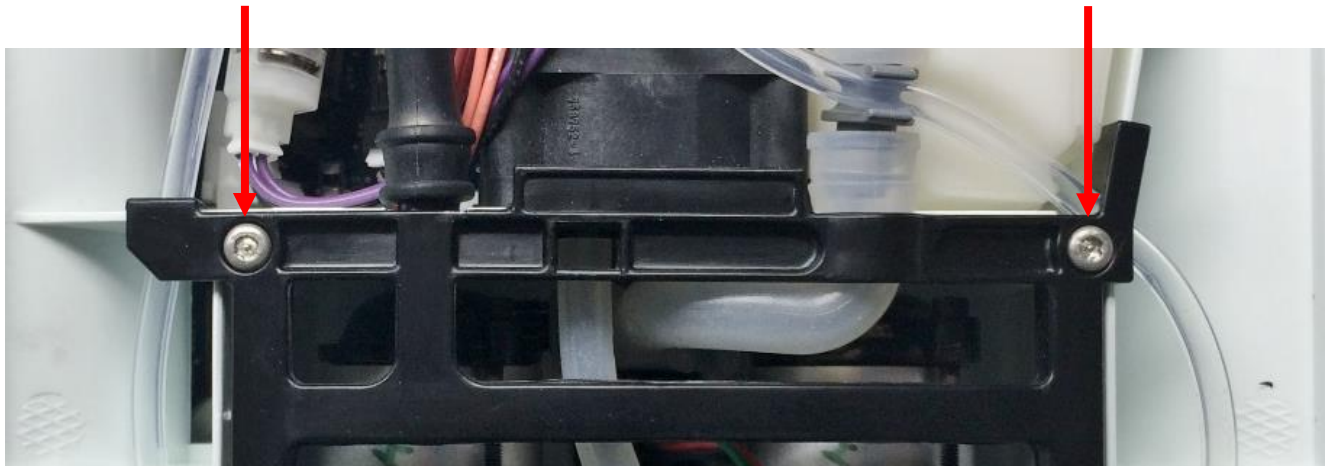


Figure 3: Tube bracket screws

2. Remove the four screws attaching the filter box lid to the filter body (Figure 4) and remove the filter box lid using a flathead screwdriver to separate it from the filter body, if necessary.

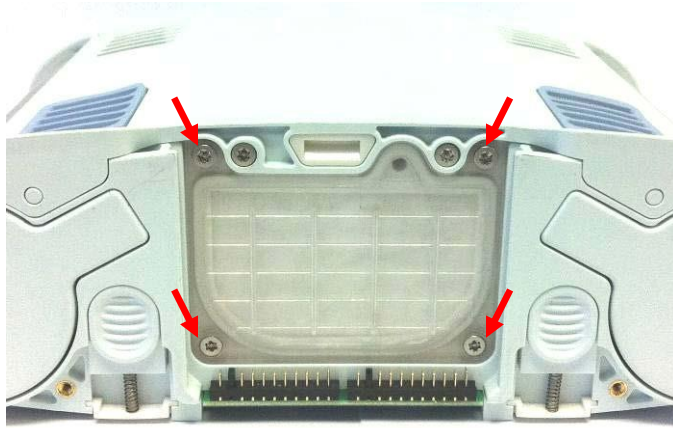


Figure 4: Filter box lid screws

3. Locate and remove the two screws connecting the compressor feet to the filter body with a 4mm Allen key driver (Figure 5).

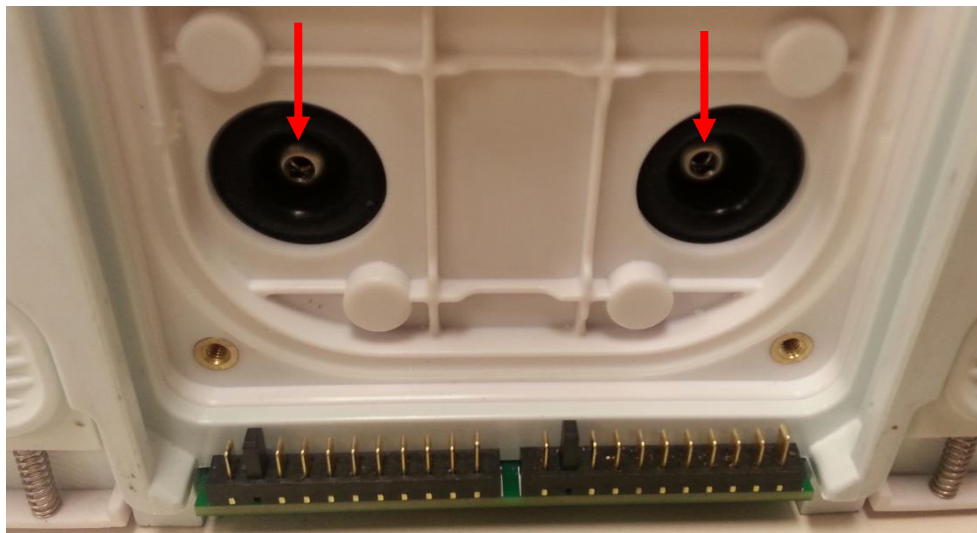


Figure 5: Compressor screws

4. Unscrew the screw and washer connecting the dual feed tube to the chassis (Figure 6).



Figure 6: Dual feed tube screw and washer

5. Unplug the dual feed tube from the grey inlet union using a flathead screwdriver, if necessary (Figure 7).

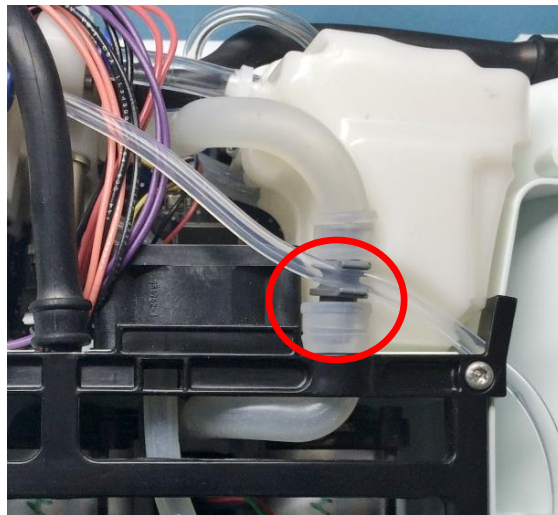


Figure 7: Unplug dual feed tube

6. Remove the compressor cable from the motherboard using pliers to press down on the release clip while pulling the connector housing away from the device (Figure 8). *Do not pull on the compressor wires.*

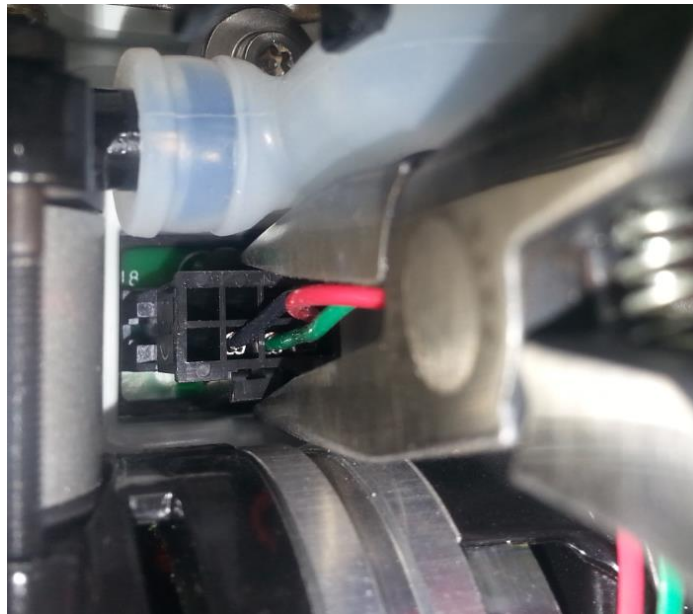
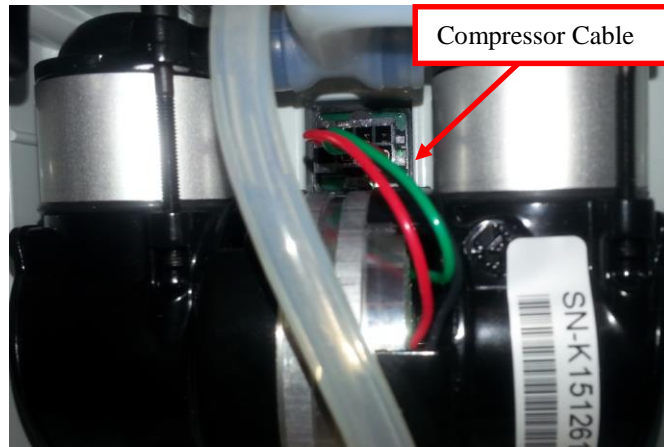


Figure 8: Detach compressor cable from Motherboard

7. Gently lift the compressor away from the device and remove the compressor (Figure 9).

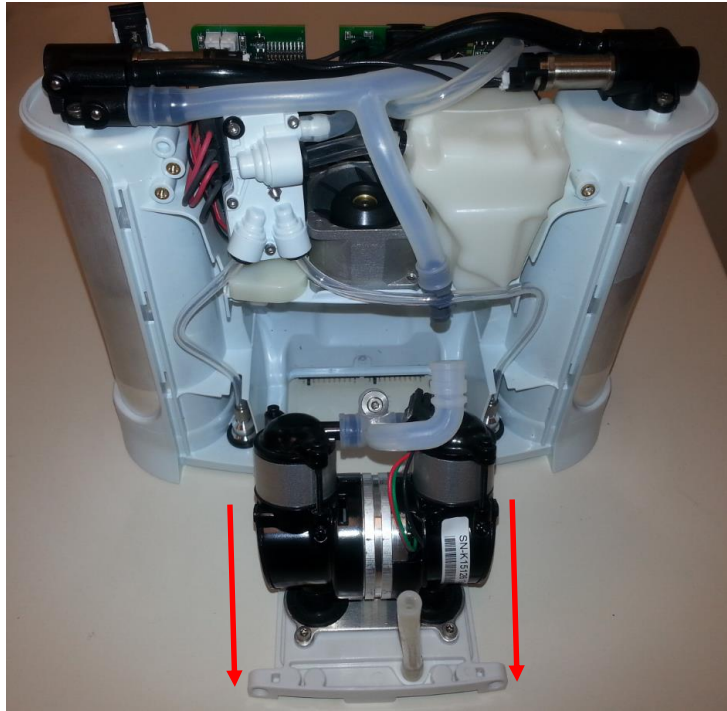


Figure 9: Remove the compressor

Instructions for Replacing the Compressor:

1. Place the new compressor in the space in the chassis and align the compressor feet with the molded mounts on the filter body (Figure 10). Reinstall the two screws that connect the compressor to the filter body, lightly tightening by hand (Figure 5).

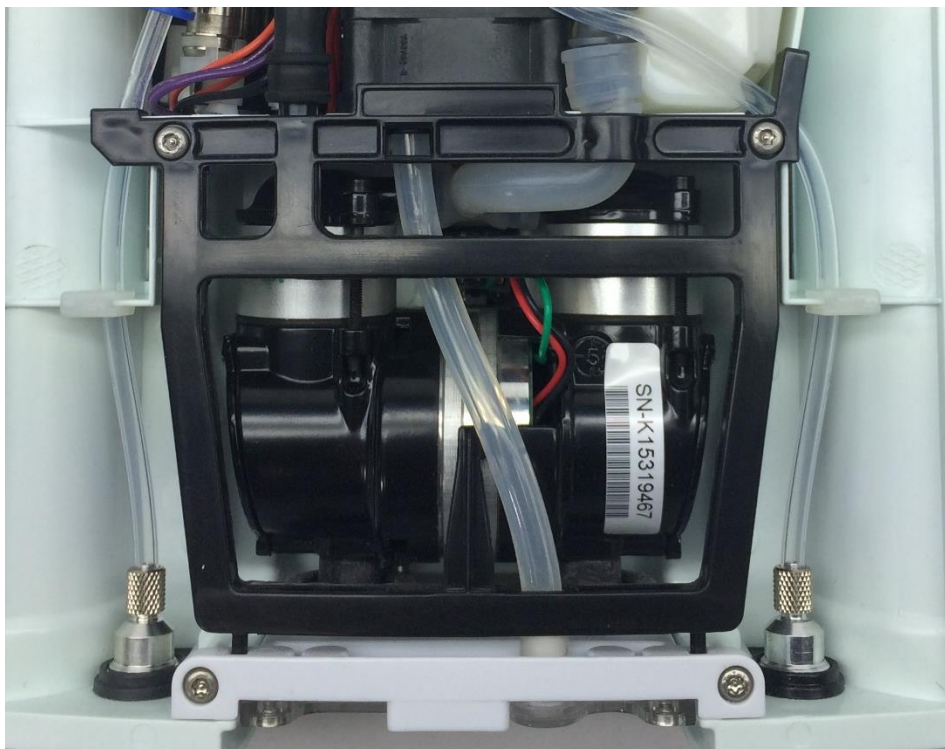


Figure 10: Properly installed compressor

2. Replace the filter box lid and secure the four screws that connect it to the filter body (Figure 4). Tighten screws to 6 in-lbs.
3. Re-attach the dual feed tube to the black inlet union, making sure the tube is fully secured (Figure 7).
4. Reinstall the screw and washer that attach the other end of the dual feed tube to the chassis, tightening the screw to 3 in-lbs (Figure 6). *Over tightening this screw will damage the compressor outlet tube.*
5. Plug in the compressor cable (Figure 8). Double check that the cable housing is locked into the receptacle.
6. With all cables and tubing reattached, make sure all tubes are properly oriented in their respected positions on the chassis before reinstalling the tube bracket. Reinstall the two screws (Figure 3). Tighten screws to 4 in-lbs.

Instructions for Replacing the Housing:

1. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 11) then push down and toward the device to secure the housing in the chassis.



Figure 11: Housing feet and corresponding chassis grooves

2. Replace the two screws that connect the front housing to the chassis (Figure 2). Tighten screws to 3 in-lbs.
3. Return the concentrator to the upright position.
4. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

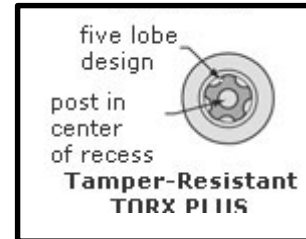
SP-554 Inogen One G3HF Power Cable Replacement

Parts Required:

1. SP-554, Cable, Input, 2Wire, G3HF

Tools Required:

1. T10 Torx Driver



Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).
3. The connectors for the LCD and User Interface Panel are delicate and should be handled carefully. They must be inserted into the connector straight and be clean of all debris or contamination in order to ensure proper LCD and User Interface Panel operation.

Instructions for Removing the Housing:

Refer to “SP-502 and SP-550 Inogen One G3HF Front and Rear Housing Replacement” on Page 3. Follow steps 1-5 for “Instructions for Removing the Housing.”

Instructions for Removing the User Interface Panel:

1. With the side housing removed, locate and remove the four screws that connect the user interface panel to the chassis (Figures 1 and 2).

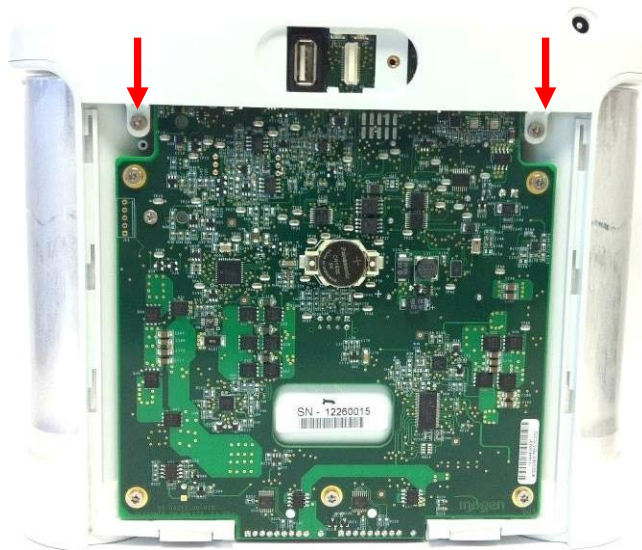


Figure 1: Location of rear screws

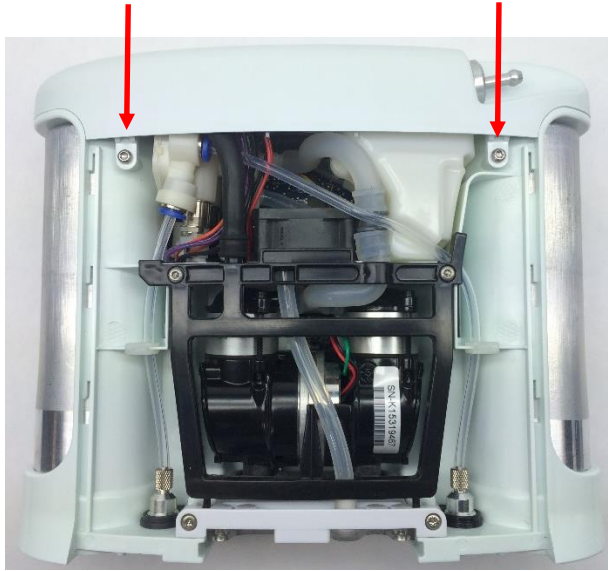


Figure 2: Location of front screws

2. Gently pull upward on the user interface panel to lift it about a centimeter off the device, being careful not to pull on the cables that are connected to the user interface panel. With the UIP cable connector exposed on the motherboard, gently unplug the UIP cable from the motherboard (Figure 3).

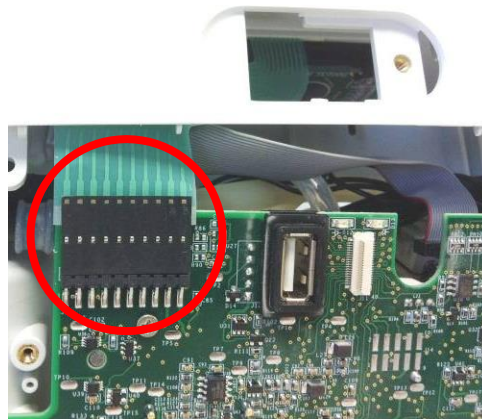


Figure 3: Unplug UIP cable from motherboard

3. Gently unplug the cannula tube and the LCD cable from the user interface panel (Figure 4). Remove the user interface panel.

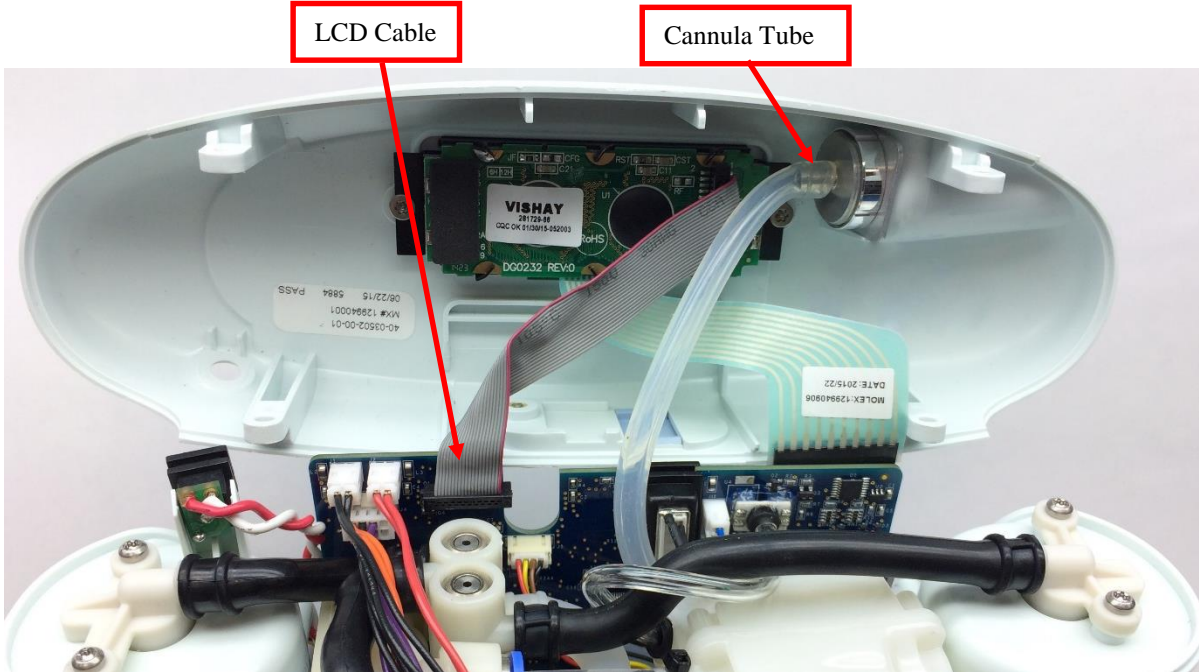


Figure 4: Remove cannula tube and LCD cable from user interface panel

Instructions for Replacing the Power Cable:

1. Remove all five (5) screws on the motherboard (Figure 5).

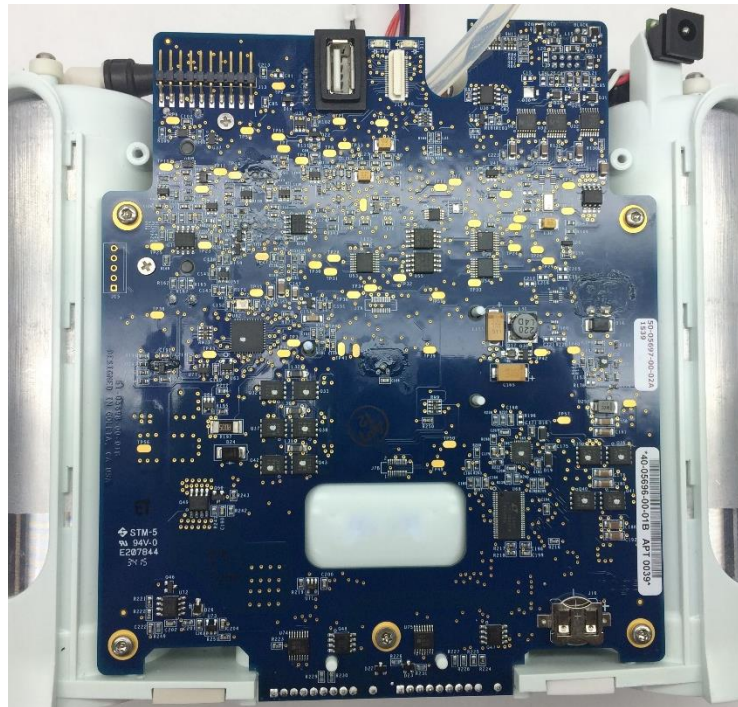


Figure 5: G3HF Motherboard

2. Slightly pull the motherboard away from the chassis, taking care not to overextend any of the cable harnesses. Locate and disconnect the power cable from the connector on the motherboard (Figures 6 and 7). Remove the power cable.

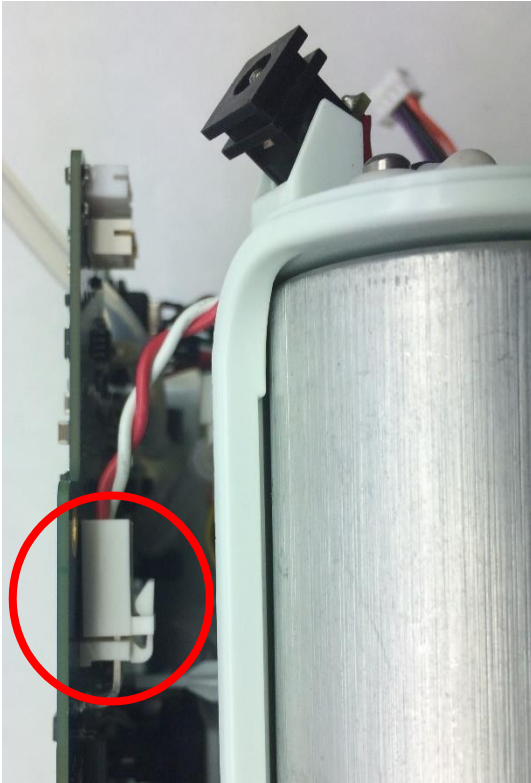


Figure 6: Power Cable

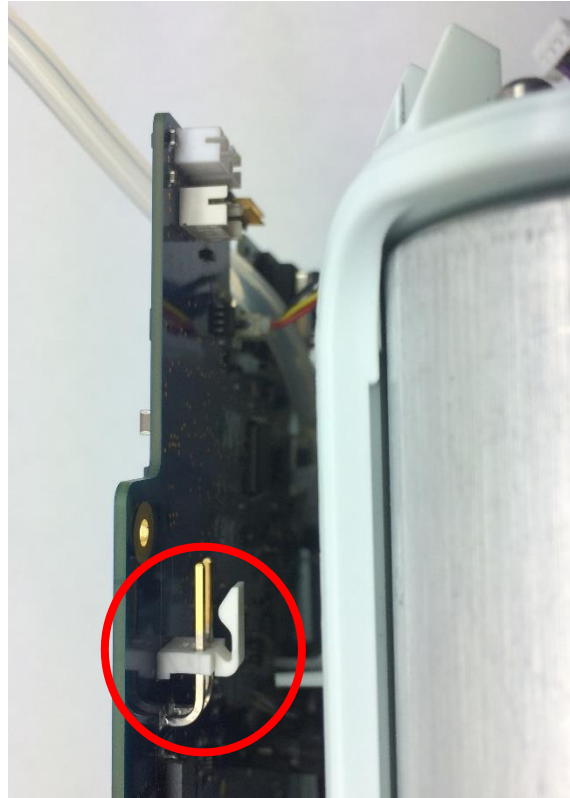


Figure 7: Power Cable removed

3. Install the new power cable by connecting it to the motherboard and aligning the power plug in its designated position on the chassis (Figure 8).

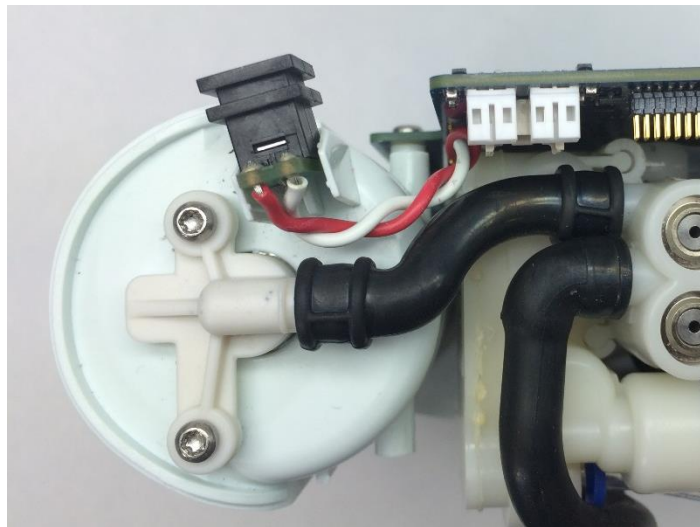


Figure 8: Properly installed power cable

5. Replace all five (5) screws on the motherboard (Figure 4).

Instructions for Replacing the Housing:

1. To re-install the user interface panel, plug the LCD cable back into the motherboard (Figure 4). *Note orientation of red wire.* Re-attach the cannula tubing to the cannula connector.
2. Reconnect the UIP cable to the motherboard (Figure 3).
3. Test the function of each button and the LCD. If anything does not work, reseal the cables in the connectors and check for debris in the connectors.
4. Re-install the four screws that connect the user interface panel to the chassis (Figures 1 and 2). Tighten screws to 5 in-lbs.
5. Place the device on its back side.
6. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 9) then push down and toward the device to secure the housing in the chassis.



Figure 9: Housing feet and corresponding chassis grooves

7. Place the device on its front side and repeat step 6 to secure the back housing into the chassis.
8. Replace the two screws that connect the back housing to the chassis and the two screws that connect the front housing to the chassis. Tighten screws to 3 in-lbs.
9. Return the concentrator to the upright position.
10. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

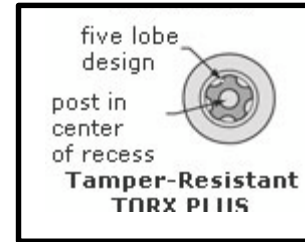
SP-555 Inogen One G3HF Product Manifold Replacement

Parts Required:

1. SP-555, Assembly, Product Manifold, G3HF

Tools Required:

1. T10 Torx Driver
2. Small Flathead Screw Driver
3. Pliers



Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).
3. The connectors for the LCD and User Interface Panel are delicate and should be handled carefully. They must be inserted into the connector straight and be clean of all debris or contamination in order to ensure proper LCD and User Interface Panel Operation.

Instructions for Removing the Housing:

Refer to “SP-502 and SP-550 Inogen One G3HF Front and Rear Housing Replacement” on Page 3. Follow steps 1-5 for “Instructions for Removing the Housing.”

Instructions for Removing the User Interface Panel:

1. With the side housing removed, locate and remove the four screws that connect the user interface panel to the chassis (Figures 1 and 2).

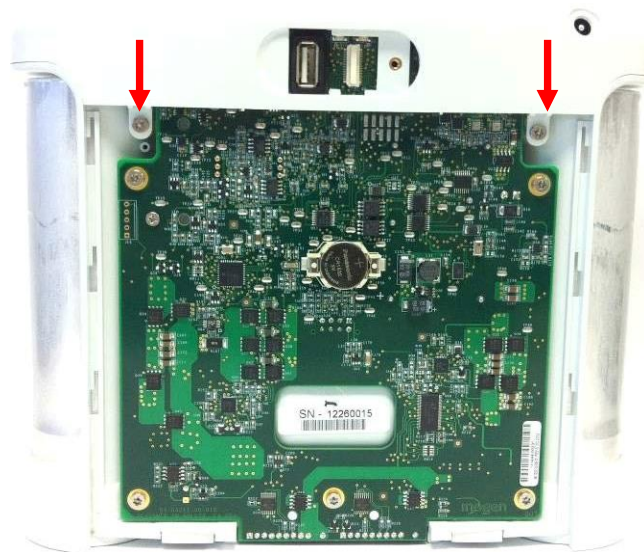


Figure 1: Location of rear screws

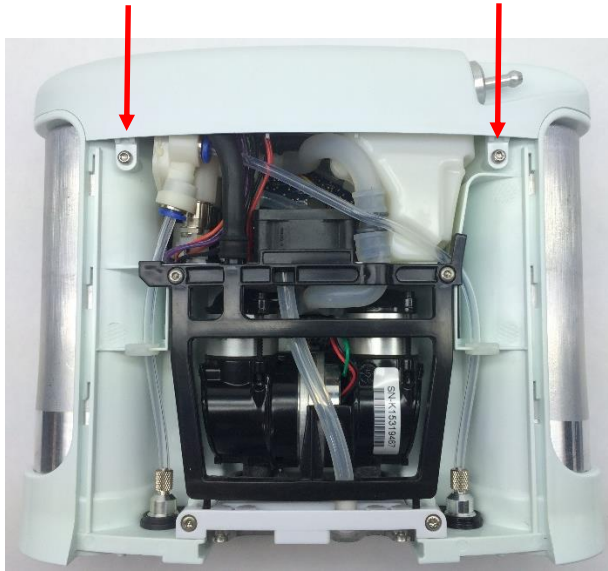


Figure 2: Location of front screws

2. Gently pull upward on the user interface panel to lift it about a centimeter off the device, being careful not to pull on the cables that are connected to the user interface panel. With the UIP cable connector exposed on the motherboard, gently unplug the UIP cable from the motherboard (Figure 3).

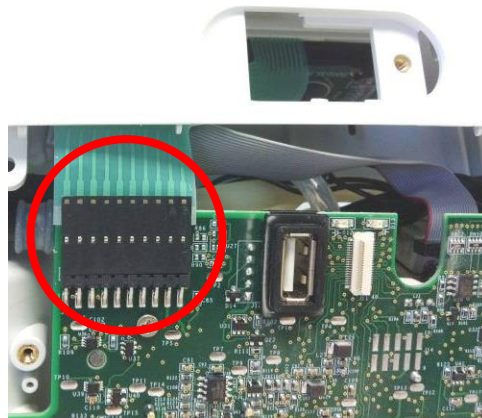


Figure 3: Unplug UIP cable from motherboard

3. Gently unplug the cannula tube and the LCD cable from the user interface panel (Figure 4). Remove the user interface panel.

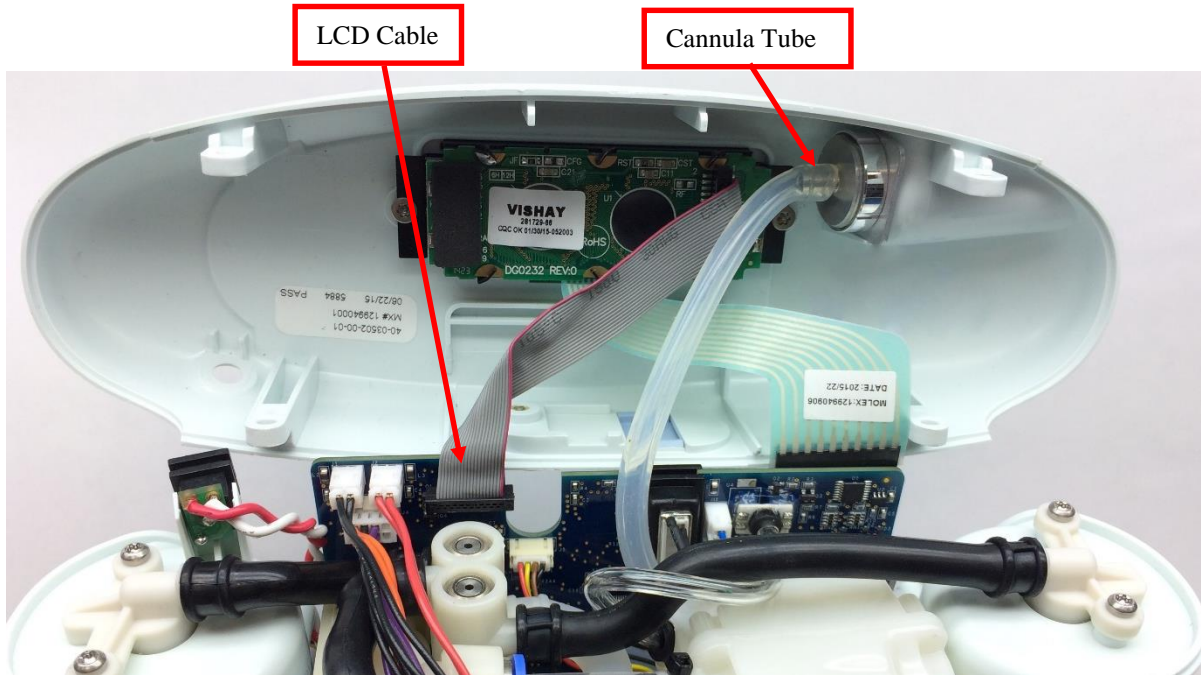


Figure 4: Remove cannula tube and LCD cable from user interface panel

Instructions for Removing the Product Manifold:

1. Carefully disconnect the feed waste manifold harnesses and the product manifold harness from the motherboard using pliers to pull the white connector off of the pins and away from the motherboard (Figures 5 and 6).



Figure 5: Feed Waste Manifold Harnesses

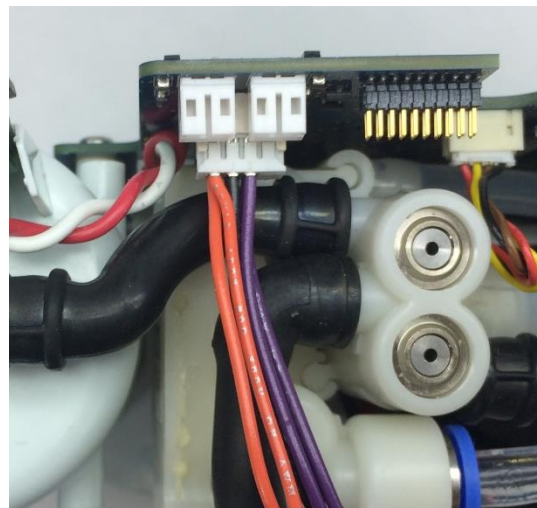


Figure 6: Product Manifold Harness

2. Remove the Exhaust tube from the Tube Bracket and Muffler. Then unclip the Column tube from the Inlet Union Barb

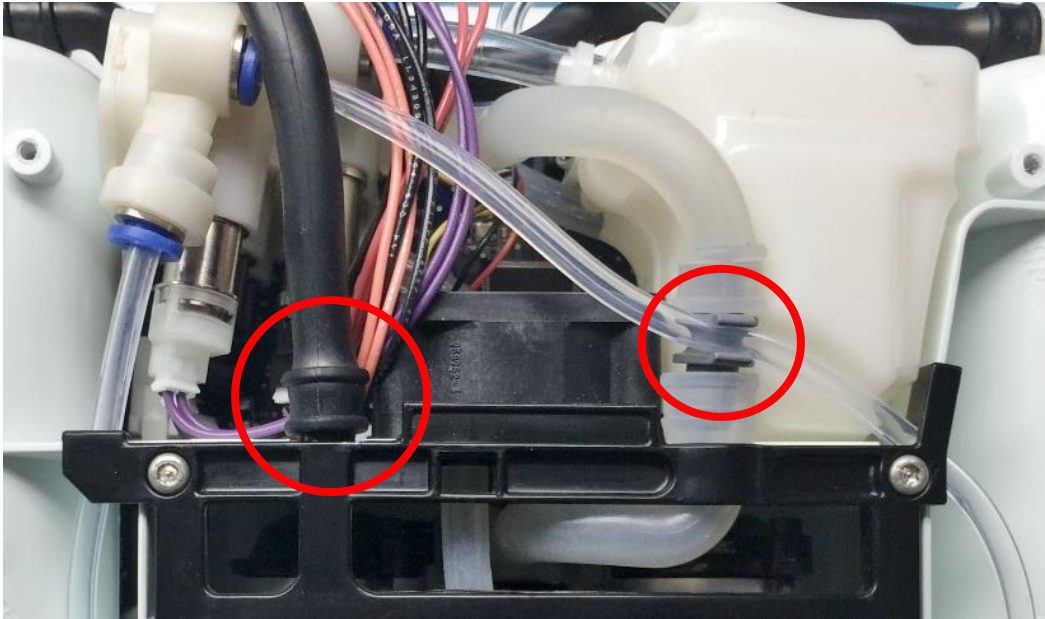


Figure 7: Exhaust Tube and Column Tube

3. Locate the two columns tubes attached to the Product Manifold. Release the Column B Tube from its quick connect by pushing down on the retaining ring while pulling on the tubing. (Figure 8).

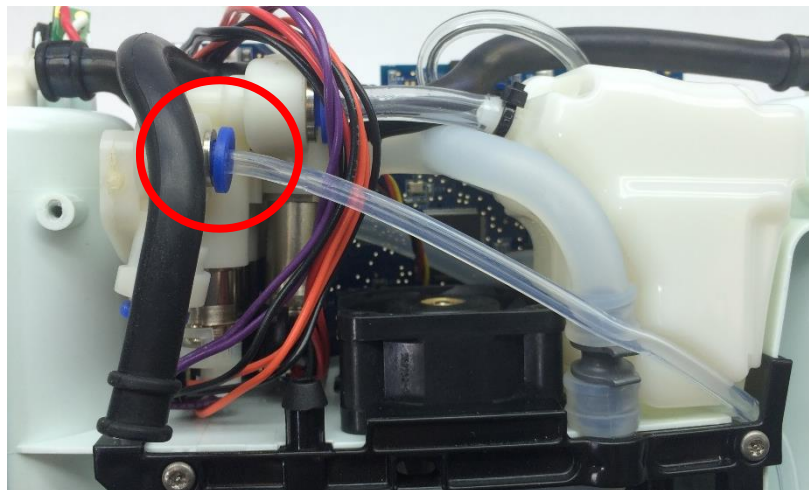


Figure 8: Exhaust Tube and Column Tube

4. Remove the Column A tube from the Product Manifold by pushing down on the retaining ring of the quick connect while pulling the tubing down (Figure 9). Then release the accumulator tubing from its quick connect in the same manner.

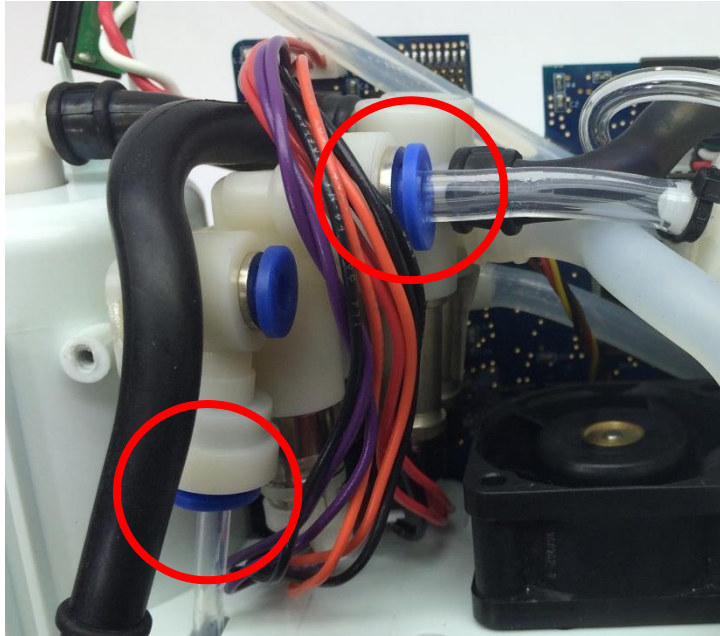


Figure 9: Column and Accumulator Tubing removal

3. Remove the two screws from the Column Receptacle attached to the Short Column Tube (Figure 10). Lift the receptacle away from the chassis to free the manifold.

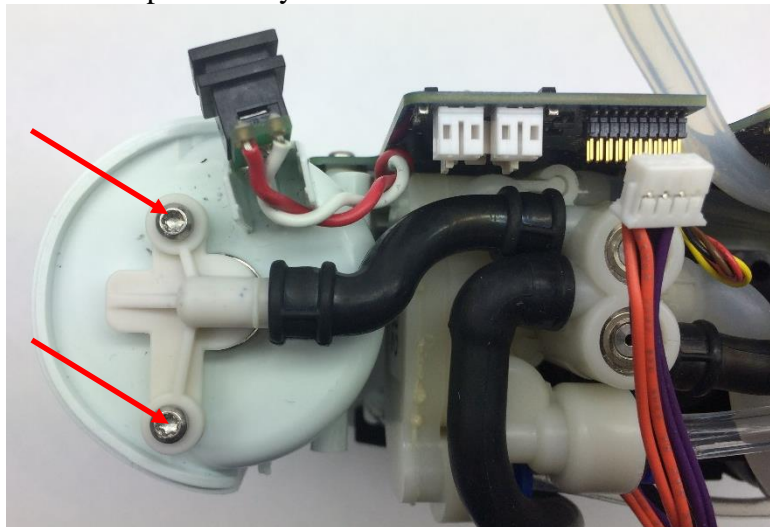


Figure 10: Column Receptacle screws

4. Using pliers, gently remove the O2 Sensor tubing from the manifold barb (Figure 11).

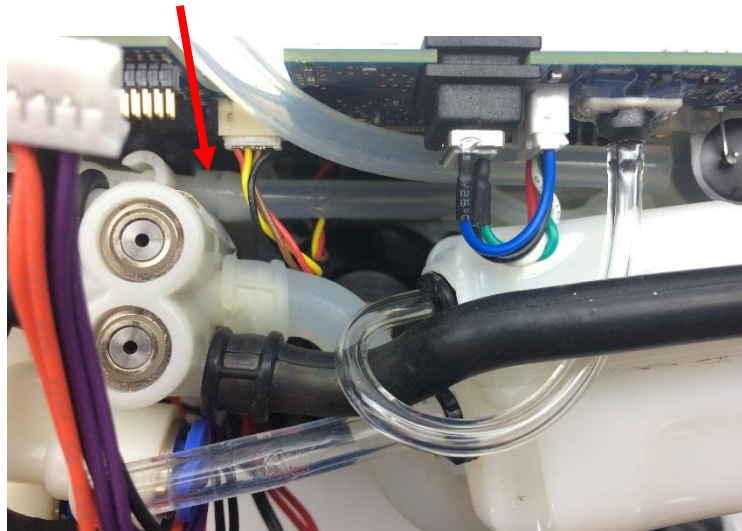


Figure 11: O2 Sensor Tubing Connection

4. With all tubing and cables disconnected, remove the product manifold.

Instructions for Replacing the Product Manifold:

1. Place the new product manifold in its place. Make sure the motherboard cables are oriented in front of the manifold.
2. Reconnect the O2 Sensor tubing the manifold barb (Figure 11).
3. Reinstall the two screws on the column receptacle (Figure 10). Torque to 3 in-lbs.
4. Reinstall the three tubes into their respective quick connects, starting with the accumulator tubing then the column tubes. Pull on the tubing to ensure the tubes have been correctly inserted into the manifold quick connects and do not pull out (Figures 8 and 9).
5. Attach the Exhaust tube back onto the Tube Bracket and re-clip the Column B tube into the Inlet Union Barb (Figure 7).
6. Reconnect the Product Manifold Harness, then the Feed Waste Harnesses to the motherboard. Assure proper connection of the pins (Figures 5 and 6).

Instructions for Replacing the Housing:

1. To re-install the user interface panel, plug the LCD cable back into the motherboard (Figure 4). *Note orientation of red wire.* Re-attach the cannula tubing to the cannula connector.
2. Reconnect the UIP cable to the motherboard (Figure 3).
3. Test the function of each button and the LCD. If anything does not work, reseat the cables in the connectors and check for debris in the connectors.
4. Re-install the four screws that connect the user interface panel to the chassis (Figures 1 and 2). Tighten screws to 5 in-lbs.
5. Place the device on its back side.
6. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 10) then push down and toward the device to secure the housing in the chassis.



Figure 10: Housing feet and corresponding chassis grooves

7. Place the device on its front side and repeat step 6 to secure the back housing into the chassis.
8. Replace the two screws that connect the back housing to the chassis and the two screws that connect the front housing to the chassis. Tighten screws to 3 in-lbs.
9. Return the concentrator to the upright position
10. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

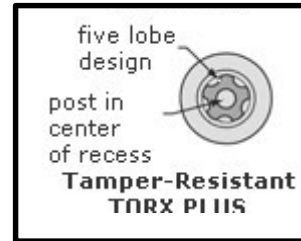
SP-556 Inogen One G3HF Feed Waste Manifold Replacement

Parts Required:

1. SP-556, Manifold, Feed/Waste

Tools Required:

1. T10 Torx Driver
2. Small Flathead Screw Driver
3. Pliers



Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).
3. The connectors for the LCD and User Interface Panel are delicate and should be handled carefully. They must be inserted into the connector straight and be clean of all debris or contamination in order to ensure proper LCD and User Interface Panel Operation.

Instructions for Removing the Housing:

Refer to “SP-502 and SP-550 Inogen One G3HF Front and Rear Housing Replacement” on Page 3. Follow steps 1-5 for “Instructions for Removing the Housing.”

Instructions for Removing the User Interface Panel:

1. With the side housing removed, locate and remove the four screws that connect the user interface panel to the chassis (Figures 1 and 2).

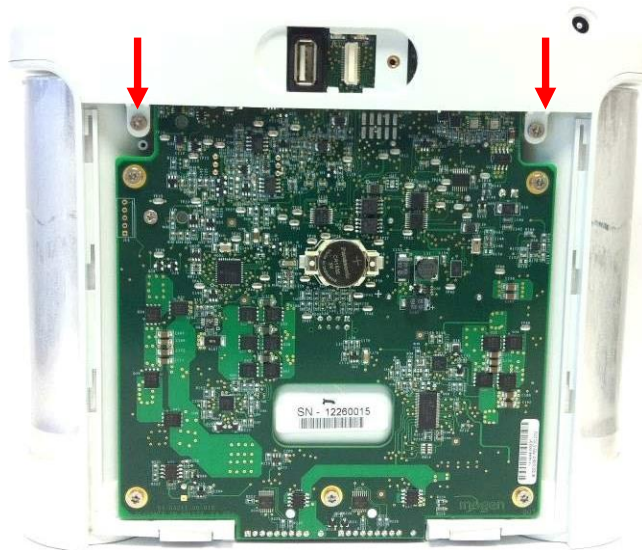


Figure 1: Location of rear screws

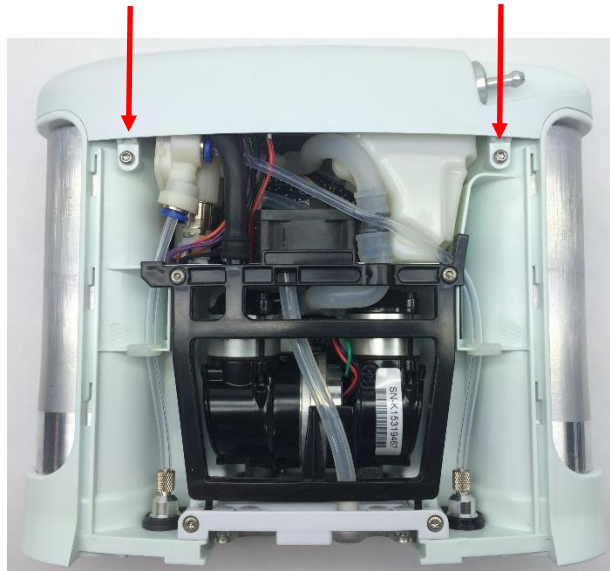


Figure 2: Location of front screws

2. Gently pull upward on the user interface panel to lift it about a centimeter off the device, being careful not to pull on the cables that are connected to the user interface panel. With the UIP cable connector exposed on the motherboard, gently unplug the UIP cable from the motherboard (Figure 3).

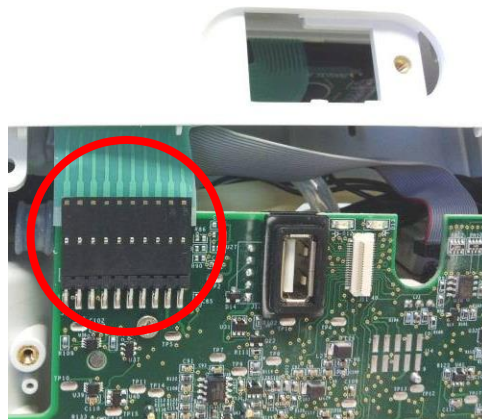


Figure 3: Unplug UIP cable from motherboard

3. Gently unplug the cannula tube and the LCD cable from the user interface panel (Figure 4). Remove the user interface panel.

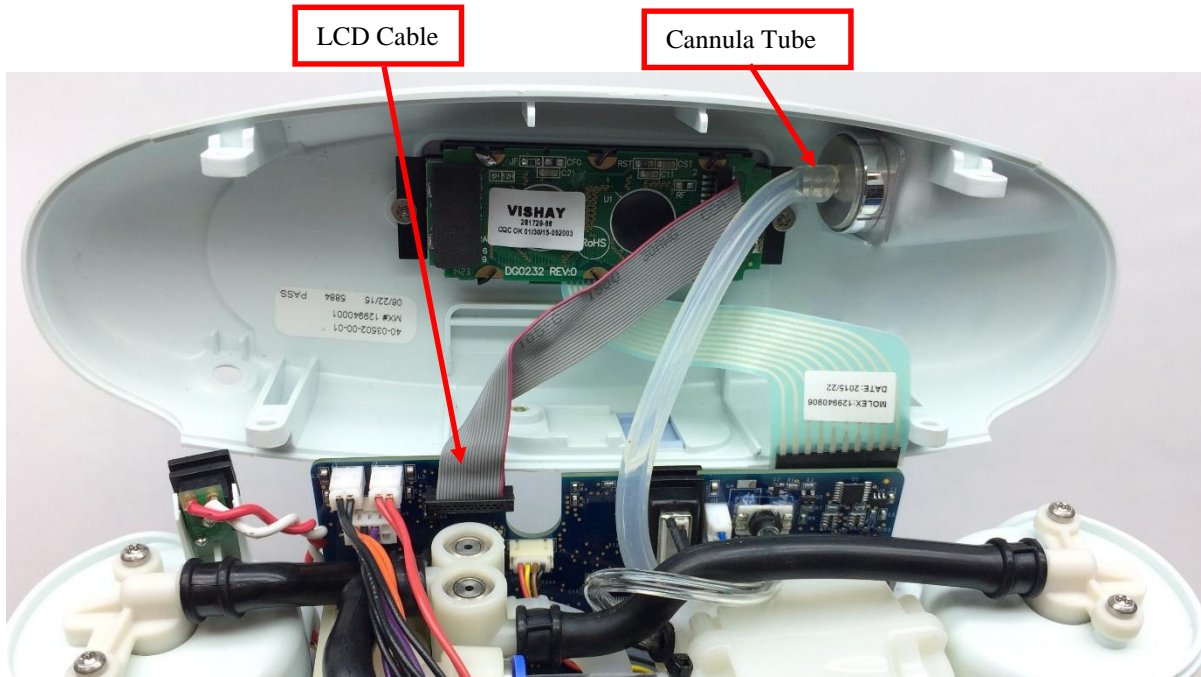


Figure 4: Remove cannula tube and LCD cable from user interface panel

Instructions for Removing the Feed Waste Manifold:

1. Carefully disconnect the feed waste manifold harnesses and the product manifold harness from the motherboard using pliers to pull the white connectors off of the pins and away from the motherboard (Figures 5 and 6).



Figure 5: Feed Waste Manifold Harnesses

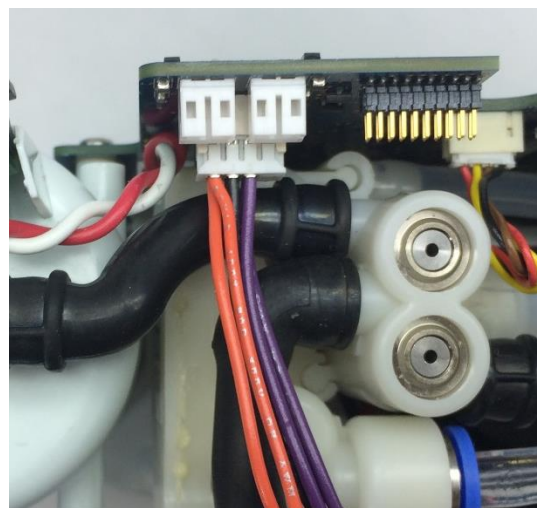


Figure 6: Product Manifold Harness

2. Remove the Exhaust tube from the Tube Bracket and Muffler. Then remove the Inlet tube from the Inlet Union Barb (Figure 7).

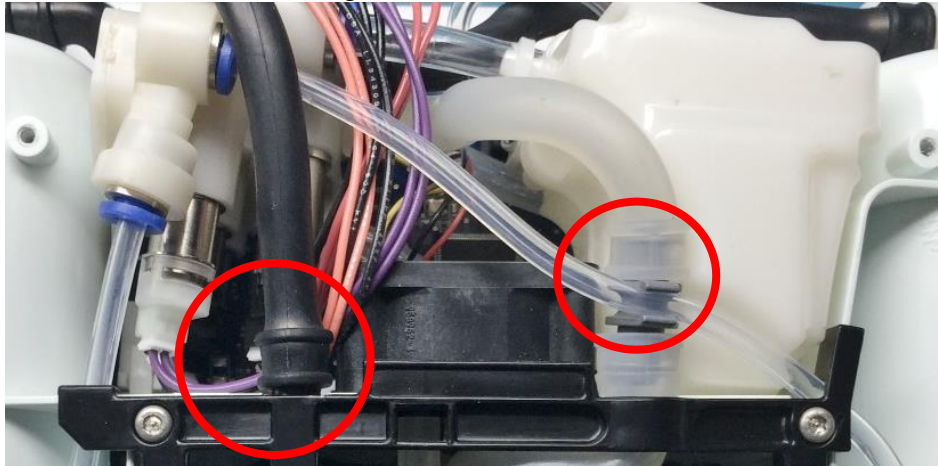
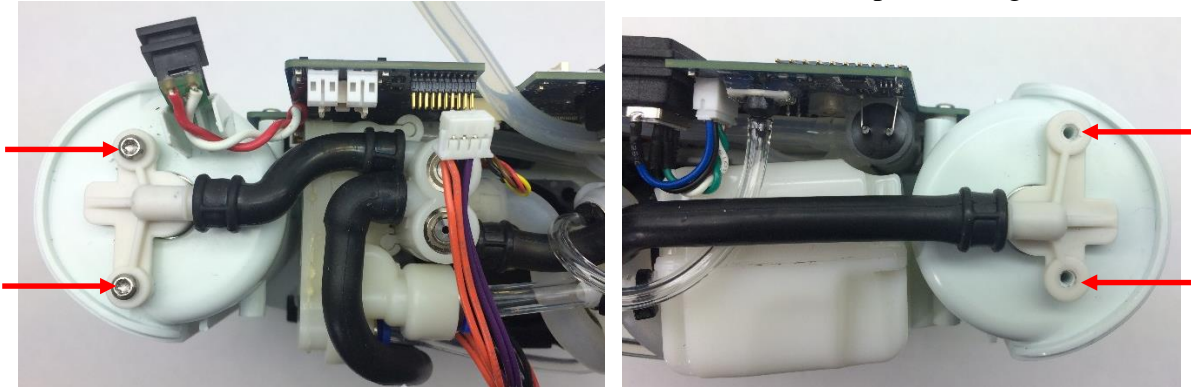


Figure 7: Exhaust Tube and Inlet Tube

3. Remove both of the two screws from each of the Column Receptacles (Figure 8 and 9).



Figures 8 and 9: Left Column Receptacle with screws, Right Column Receptacle with screws removed.

4. Remove the Accumulator Sensor Tubing by pushing down on the retaining ring while gently pulling on the tubing. Be careful not to apply any force to the pressure sensor. (Figure 10)

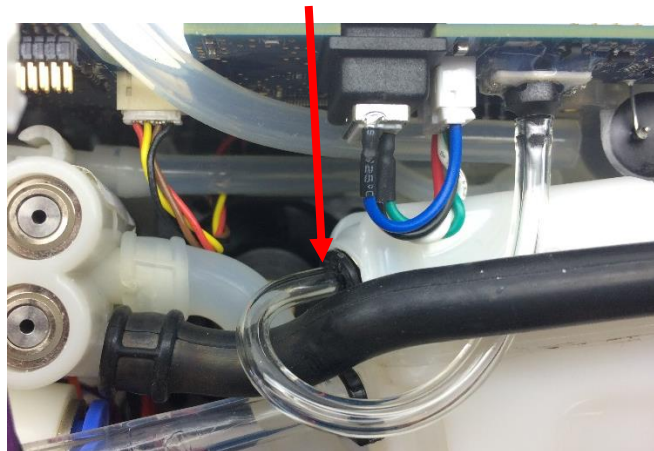


Figure 10: Accumulator Sensor Tubing

5. Lift the Feed Waste Manifold out of the assembly with all tubes attached (Figure 11).

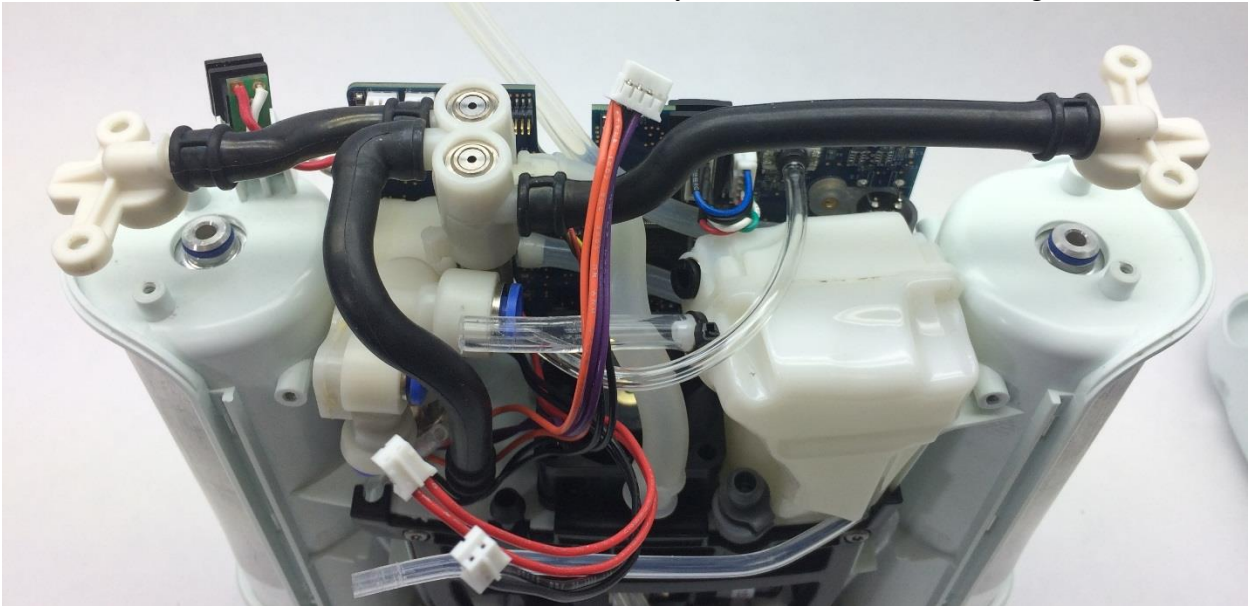


Figure 11: Manifold and tubing removal

6. Remove all four tubes from the Feed Waste Manifold using a small flat head screw driver or pliers if necessary: Short Molded Column Tube, Long Molded Column Tube, Exhaust Tube, and Inlet Tube (Figure 12).

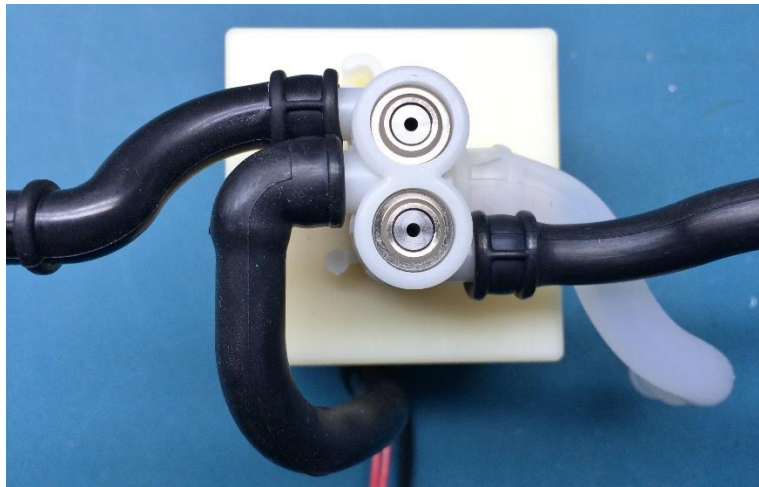


Figure 12: Feed Waste Manifold and Tubing

Instructions for Replacing the Feed Waste Manifold:

1. Install the tubing on the Manifold in the orientation shown in Figure 12. If any of the tubing was cracked or torn during removal, they will need to be replaced.
2. Install the Column Receptacles at the end of each molded column tube. Ensure that the clocking lines on the tubing are aligned with the top of the receptacles.
3. Slide the manifold and tubing into the assembly as shown in Figure 11, ensuring that the wiring harnesses and Inlet Tube are routed under the Accumulator to Manifold tube and are brought to the front of the assembly. The Feed Waste Manifold should slide into the Product Manifold as shown in Figure 13.

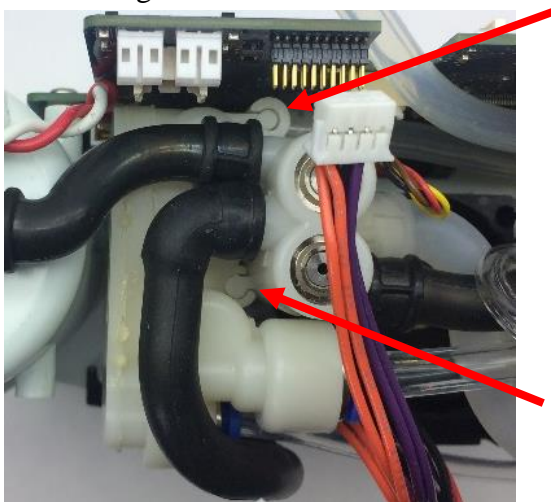


Figure 13: Manifold mating

4. Screw down both column receptacles to 3 in-lbs. Ensure that the sensor tube is under the long molded column tube (Figures 8 and 9).
5. Install the sensor tube by routing it around the long molded column tube and inserting it into the quick-connect fitting on the Accumulator. After insertion, pull lightly on the polyurethane tubing to ensure that it is fully seated in the quick-connect fitting (Figure 10).
6. Install the Exhaust Tube on the Tube Bracket and Muffler, then install the Inlet Tube on the Inlet Union Barb (Figure 7).
7. Connect the Product Manifold harness and the Feed Waste Manifold harnesses (Figure 6 and 5.)

Instructions for Replacing the Housing:

1. With the new feed waste manifold(s) fully installed, the user interface panel can now be replaced. Plug the LCD cable back into the motherboard (Figure 4). *Note orientation of red wire.* Re-attach the cannula tubing to the cannula connector.
2. Reconnect the UIP cable to the motherboard (Figure 3).
3. Test the function of each button and the LCD. If anything does not work, reseat the cables in the connectors and check for debris in the connectors.
4. Re-install the four screws that connect the user interface panel to the chassis (Figures 1 and 2). Tighten screws to 5 in-lbs.
5. Place the device on its back side.

6. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 14) then push down and toward the device to secure the housing in the chassis.



Figure 11: Housing feet and corresponding chassis grooves

7. Place the device on its front side and repeat step 6 to secure the back housing into the chassis.
8. Replace the two screws that connect the back housing to the chassis and the two screws that connect the front housing to the chassis. Tighten screws to 3 in-lbs.
9. Return the concentrator to the upright position.
10. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

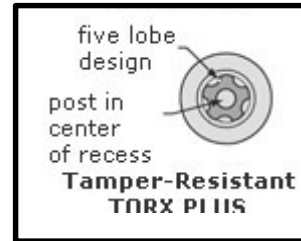
SP-513 Inogen One G3 Accumulator Replacement

Parts Required:

1. SP-513, Assembly, Accumulator

Tools Required:

1. T10 Torx Driver
2. Scissors



Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).
3. The connectors for the LCD and User Interface Panel are delicate and should be handled carefully. They must be inserted into the connector straight and be clean of all debris or contamination in order to ensure proper LCD and User Interface Panel Operation.
4. The barbs on the accumulator cap are delicate and can easily be broken during removal or installation of the tubing.

Instructions for Removing the Housing:

Refer to “SP-502 and SP-550 Inogen One G3HF Front and Rear Housing Replacement” on Page 3. Follow steps 1-5 for “Instructions for Removing the Housing.”

Instructions for Removing the User Interface Panel:

1. With the side housing removed, locate and remove the four screws that connect the user interface panel to the chassis (Figures 1 and 2).

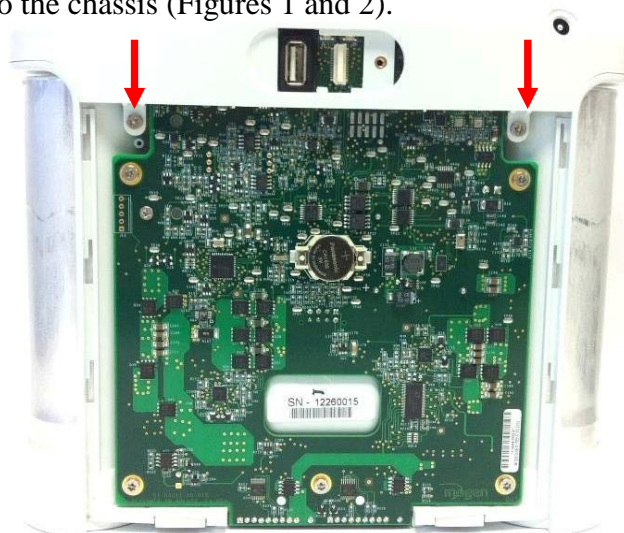


Figure 1: Location of rear screws

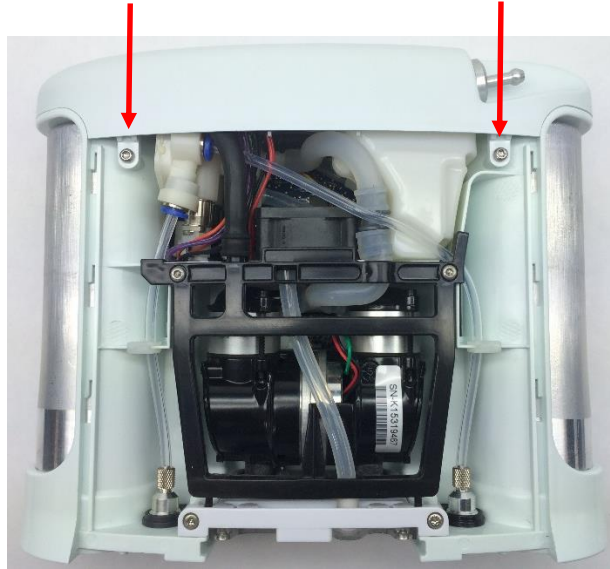


Figure 2: Location of front screws

2. Gently pull upward on the user interface panel to lift it about a centimeter off the device, being careful not to pull on the cables that are connected to the user interface panel. With the UIP cable connector exposed on the motherboard, gently unplug the UIP cable from the motherboard (Figure 3).

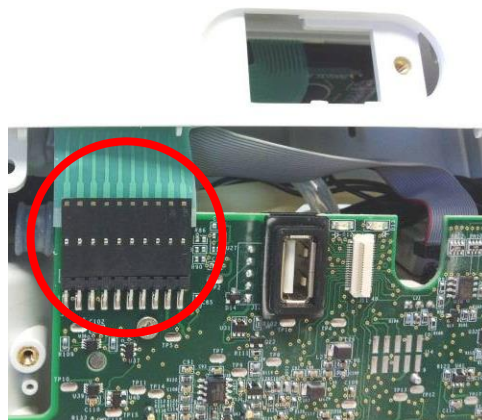


Figure 3: Unplug UIP cable from motherboard

3. Gently unplug the cannula tube and the LCD cable from the user interface panel (Figure 4). Remove the user interface panel.

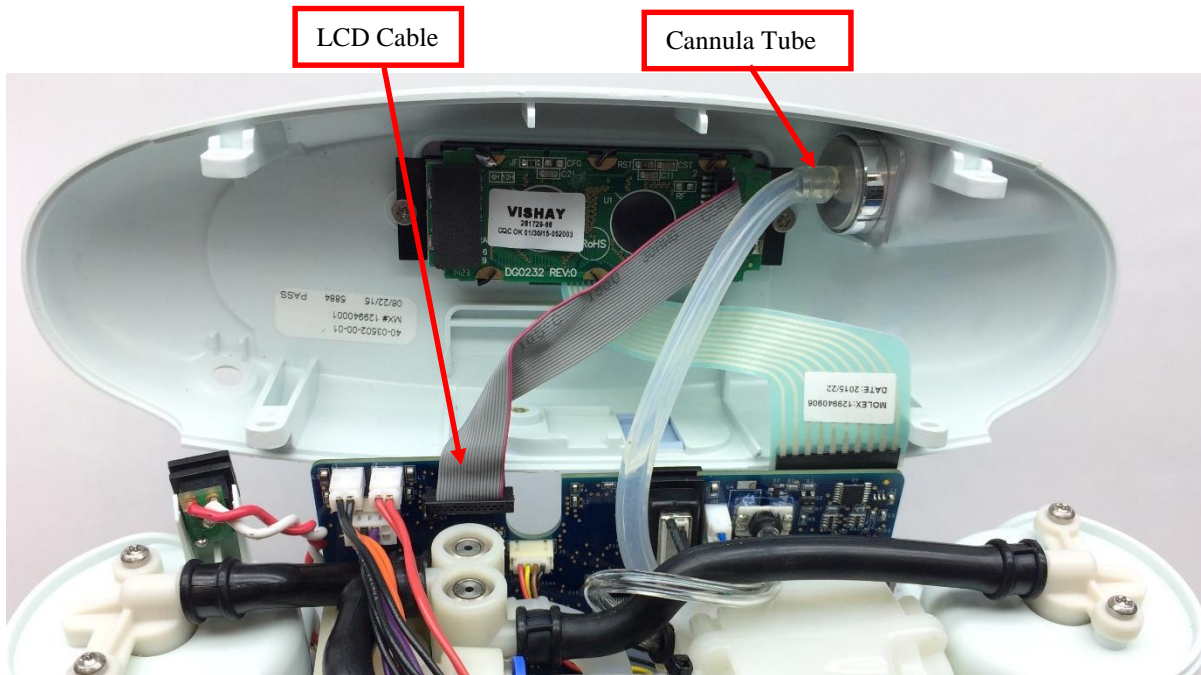


Figure 4: Remove cannula tube and LCD cable from user interface panel

Instructions for Removing the Accumulator:

1. Locate and remove the two screws that connect the tube bracket to the chassis (Figure 5). This frees the tubes surrounding the accumulator and makes more room for removal.

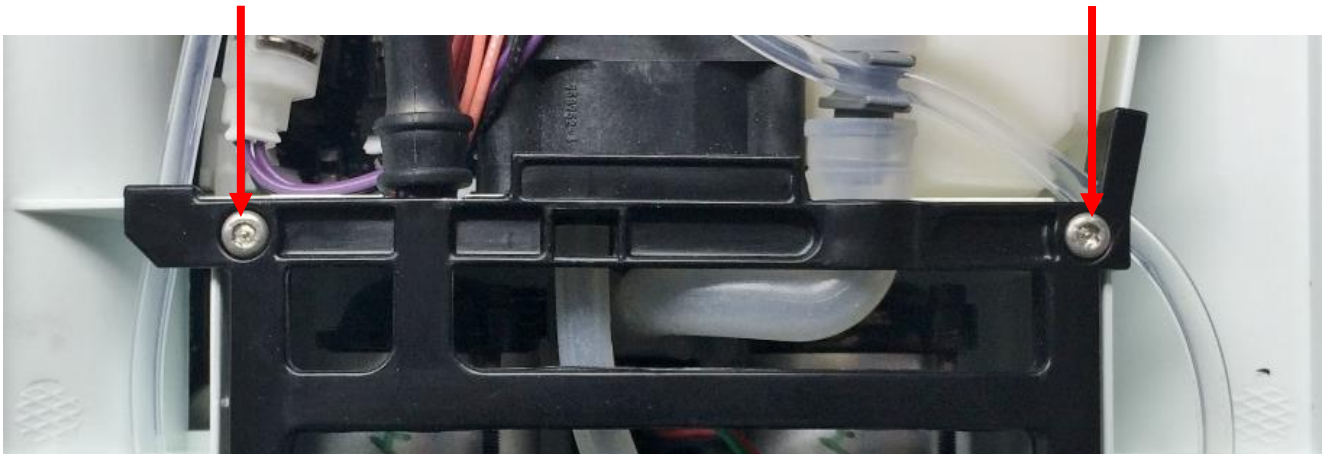


Figure 5: Tube bracket screws

2. Remove the Exhaust tube from the Tube Bracket and Muffler. Then unclip the Column tube from the Inlet Union Barb (Figure 6).

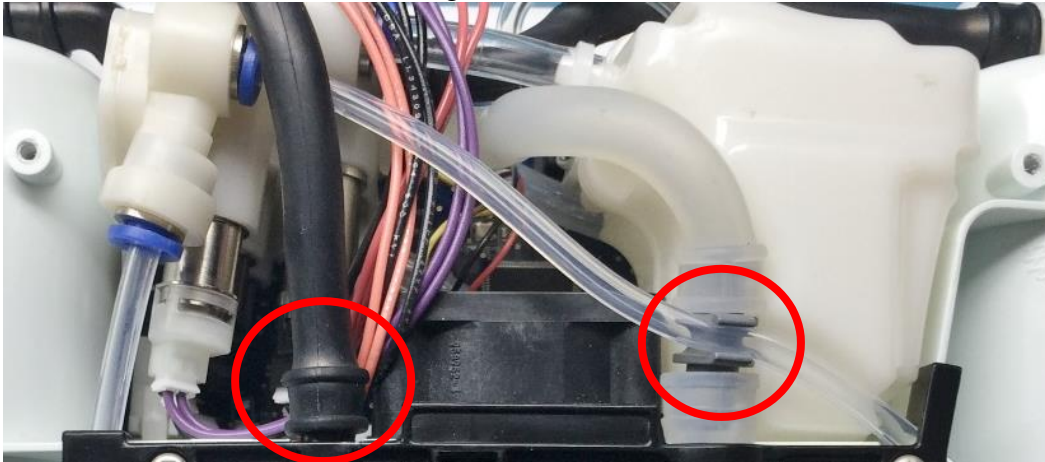


Figure 6: Exhaust Tube and Column Tube

3. Locate the column tube attached to the Product Manifold. Release the Column B Tube from its quick connect by pushing down on the retaining ring while pulling on the tubing. (Figure 7).

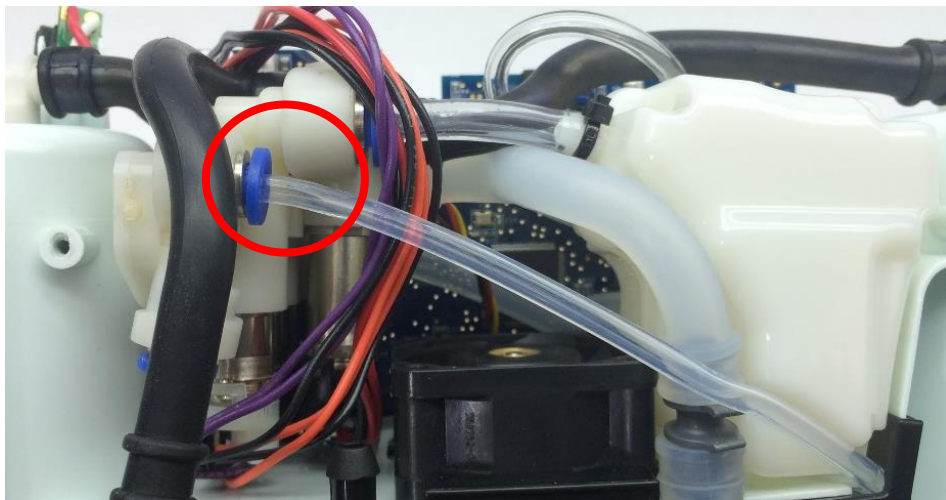


Figure 7: Exhaust Tube and Column Tube

4. Release the Accumulator Tube from its quick connect in the Product Manifold by pushing down on the retaining ring while pulling on the tubing. (Figure 8).

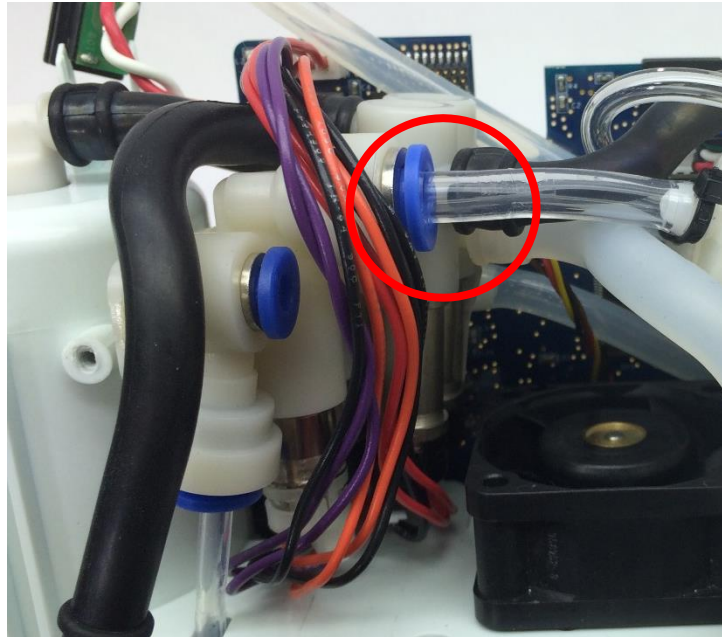


Figure 8: Accumulator Tubing removal

5. Detach the Inlet tube from the inlet union barb (Figure 9).

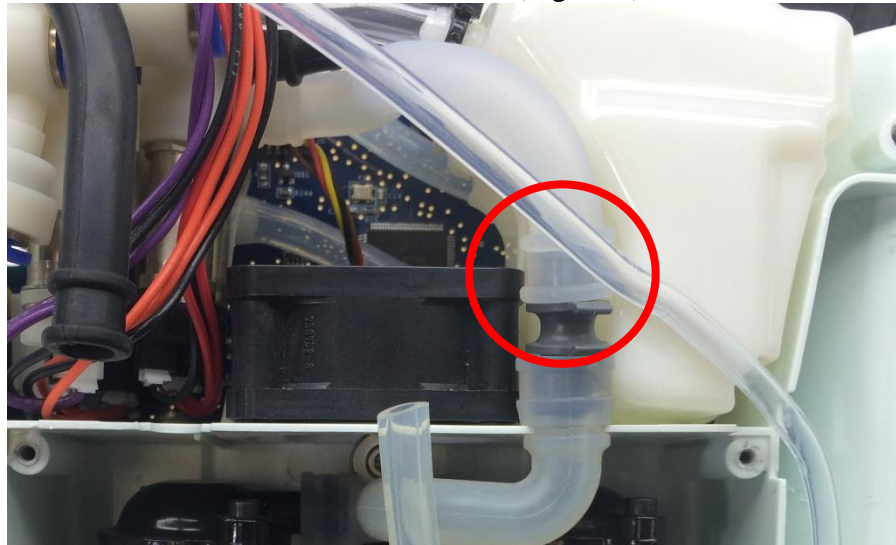


Figure 9: Tube Bracket Removal

6. Remove the Accumulator Sensor Tubing by pushing down on the retaining ring while gently pulling on the tubing. Be careful not to apply any force to the pressure sensor. (Figure 10)

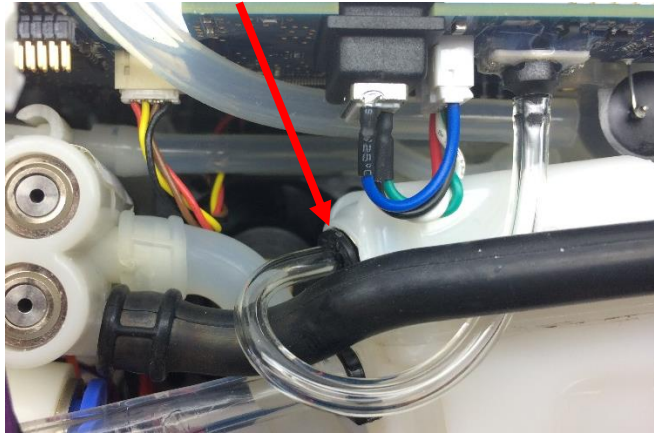


Figure 10: Accumulator Sensor Tubing

7. Carefully slide the Accumulator out of the assembly (Figures 11 and 12).

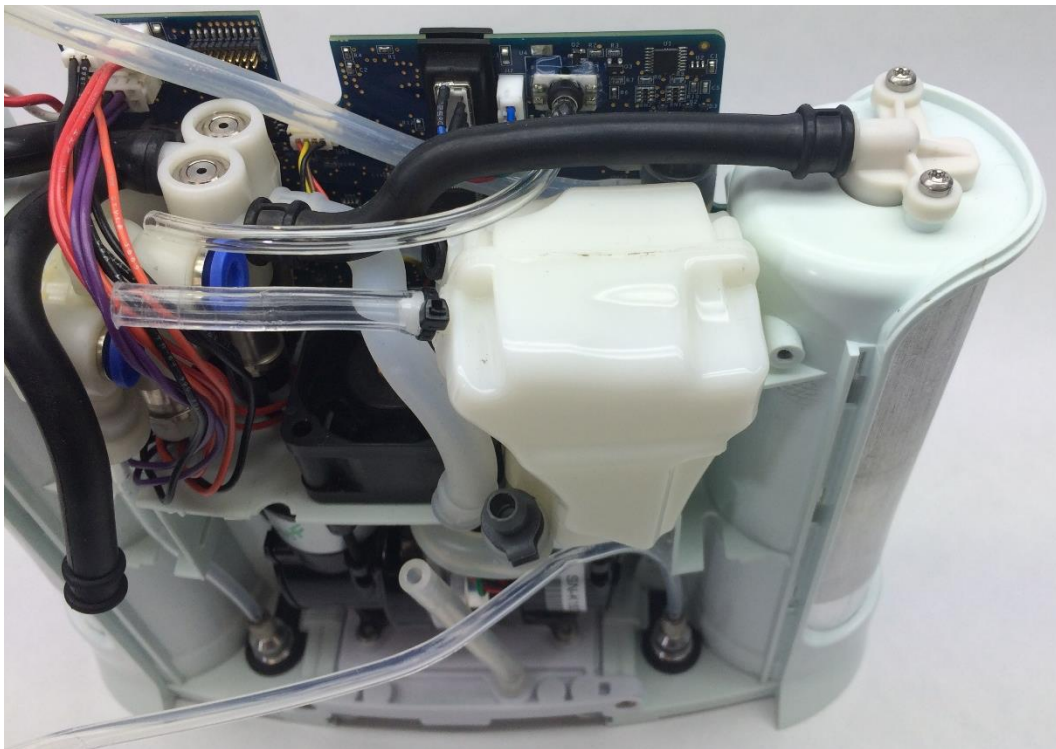


Figure 11: Removing Accumulator



Figure 12: Removing Accumulator

Instructions for Replacing the Accumulator:

1. Replace the accumulator with THV tubing attached into the assembly (Figure 11). Ensure the zip tie does not move and is tightly installed (Figure 13).



Figure 13: Zip Tie Installed

2. Slide the accumulator barb into the housing chassis opening (Figure 14).

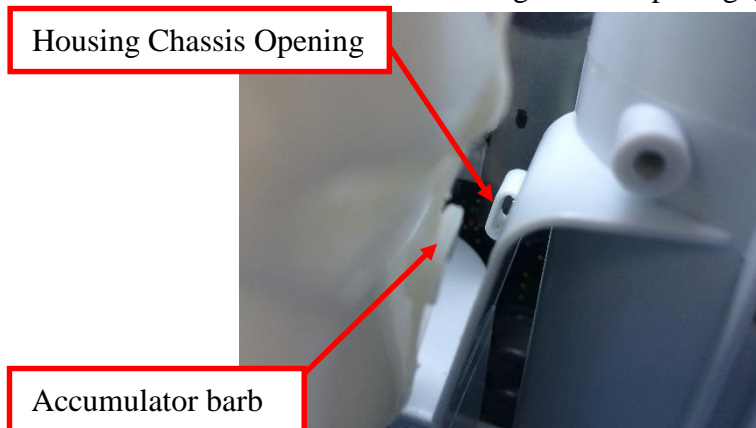


Figure 14: Accumulator barb and Housing chassis opening

3. Attach the Inlet tube to the inlet union barb (Figure 9) and remove the Inlet tube from the assembly.
4. Insert the Accumulator Tube into the quick connect fitting on the Product Manifold. After insertion, pull lightly on the tubing to ensure that it is fully seated (Figure 8).
5. Install the sensor tube by routing it around the long molded column tube and inserting it into the quick-connect fitting on the Accumulator. After insertion, pull lightly on the polyurethane tubing to ensure that it is fully seated (Figure 10).
6. Insert the Column B Tube into the quick connect fitting on the Product Manifold. After insertion, pull lightly on the tubing to ensure that it is fully seated (Figure 7).
7. Install the Exhaust tube onto the barb on the Tube Bracket and Muffler. Then clip the Column tube into the Inlet Union Barb (Figure 6).
8. Slide the Tube Bracket and Muffler Assembly pegs back into the slots in the chassis. Align the bracket back into place and reinstall the two screws to 4 in-lbs. (Figure 5). Ensure that all tubing is properly routed before screwing down. Route the Intake Tube back into the Tube Bracket and Muffler (Figure 15).

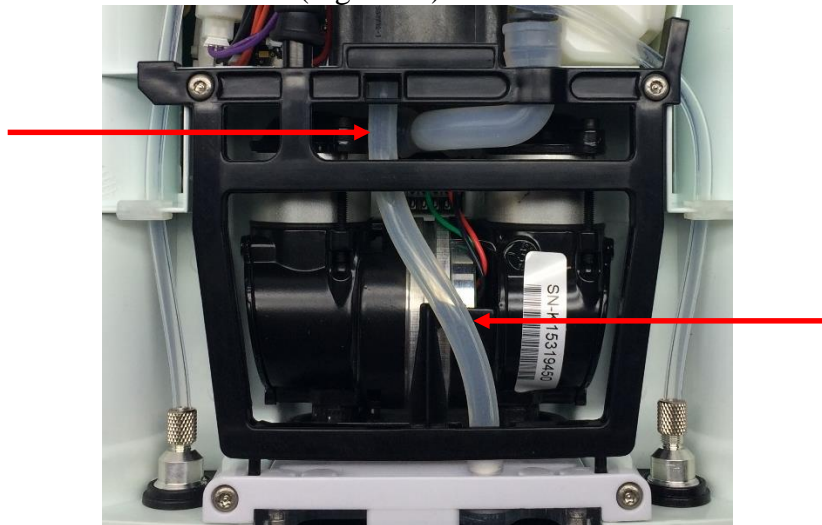


Figure 15: Tube Bracket and Muffler Assembly with routed Intake Tube

Instructions for Replacing the Housing:

1. To re-install the user interface panel, plug the LCD cable back into the motherboard (Figure 4). *Note orientation of red wire.* Re-attach the cannula tubing to the cannula connector.
2. Reconnect the UIP cable to the motherboard (Figure 3).
3. Test the function of each button and the LCD. If anything does not work, reseat the cables in the connectors and check for debris in the connectors.
4. Re-install the four screws that connect the user interface panel to the chassis (Figures 2 and 1). Tighten screws to 5 in-lbs.
5. Place the device on its back side.
6. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 16) then push down and toward the device to secure the housing in the chassis.



Figure 16: Housing feet and corresponding chassis grooves

7. Place the device on its front side and repeat step 6 to secure the back housing into the chassis.
8. Replace the two screws that connect the back housing to the chassis and the two screws that connect the front housing to the chassis. Tighten screws to 3 in-lbs.
9. Return the concentrator to the upright position
10. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

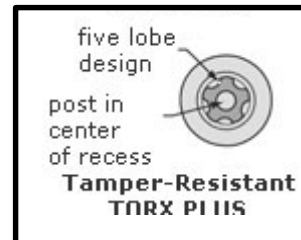
SP-514 Inogen One G3 Breath Detect Sensor Replacement

Parts Required:

1. SP-514, Breath Detect Sensor

Tools Required:

1. T10 Torx Driver
2. Small Flathead Screw Driver
3. Pliers



Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).
3. The connectors for the LCD and User Interface Panel are delicate and should be handled carefully. They must be inserted into the connector straight and be clean of all debris or contamination in order to ensure proper LCD and User Interface Panel Operation.

Instructions for Removing the Housing:

Refer to “SP-502 and SP-550 Inogen One G3HF Front and Rear Housing Replacement” on Page 3. Follow steps 1-5 for “Instructions for Removing the Housing.”

Instructions for Removing the User Interface Panel:

1. With the side housing removed, locate and remove the four screws that connect the user interface panel to the chassis (Figures 1 and 2).

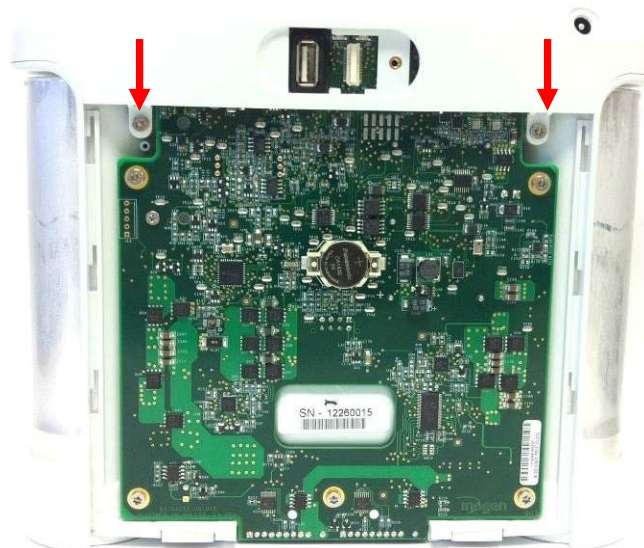


Figure 1: Location of rear screws

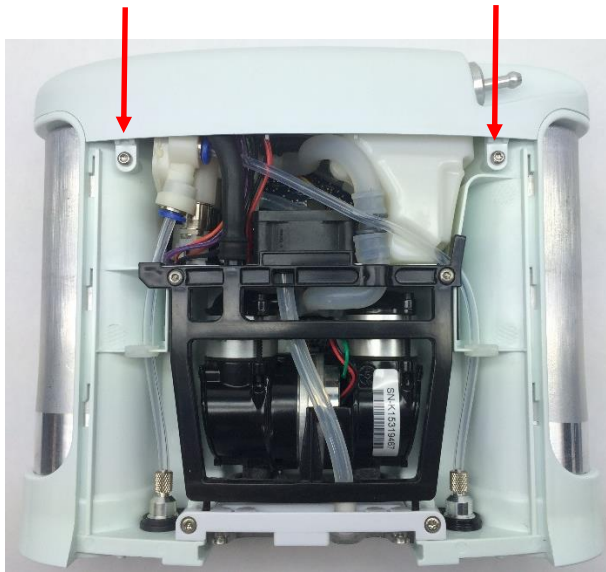


Figure 2: Location of front screws

2. Gently pull upward on the user interface panel to lift it about a centimeter off the device, being careful not to pull on the cables that are connected to the user interface panel. With the UIP cable connector exposed on the motherboard, gently unplug the UIP cable from the motherboard (Figure 3).

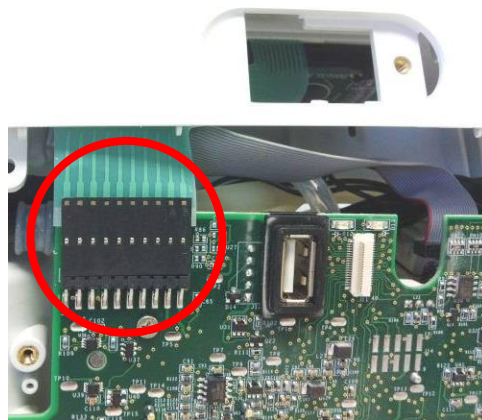


Figure 3: Unplug UIP cable from motherboard

3. Gently unplug the cannula tube and the LCD cable from the user interface panel (Figure 4). Remove the user interface panel.

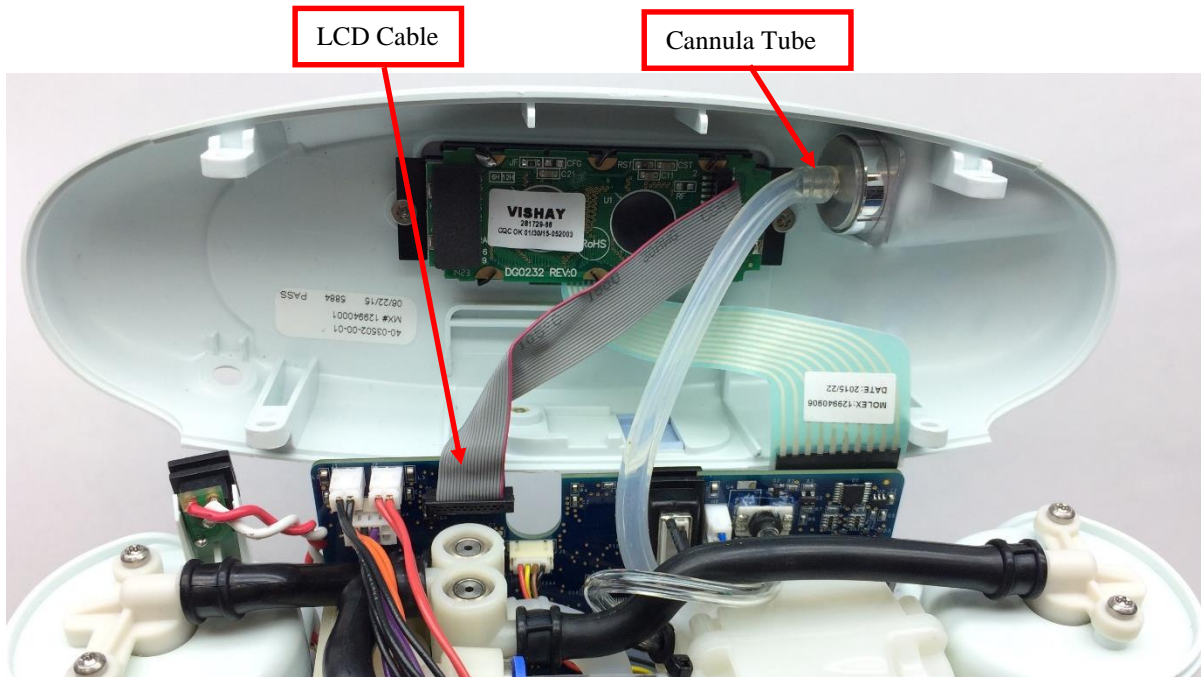
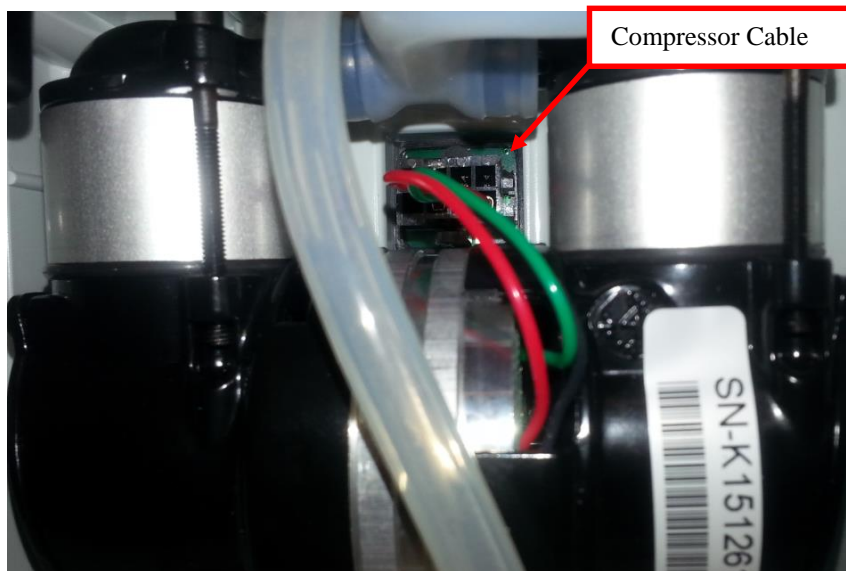


Figure 4: Remove cannula tube and LCD cable from user interface panel

Instructions for Removing the Breath Detect:

1. To gain access to the breath detect, the motherboard must be removed. Locate the compressor cable. Detach the compressor cable from the motherboard using long pliers to press down on the release clip while pulling on the wire connector (Figure 5). *Do not pull on the compressor wires.*



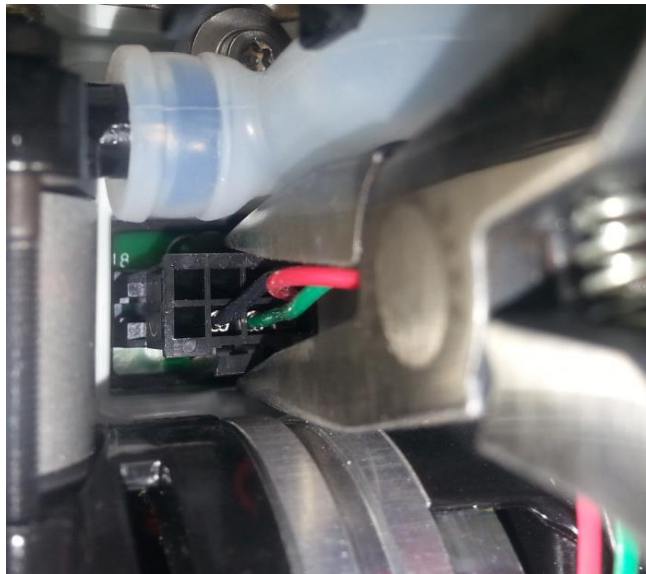


Figure 5: Detach compressor cable from motherboard

2. Carefully disconnect the feed waste manifold harnesses and the product manifold harness from the motherboard using pliers to pull the white connectors off of the pins and away from the motherboard (Figures 6 and 7).

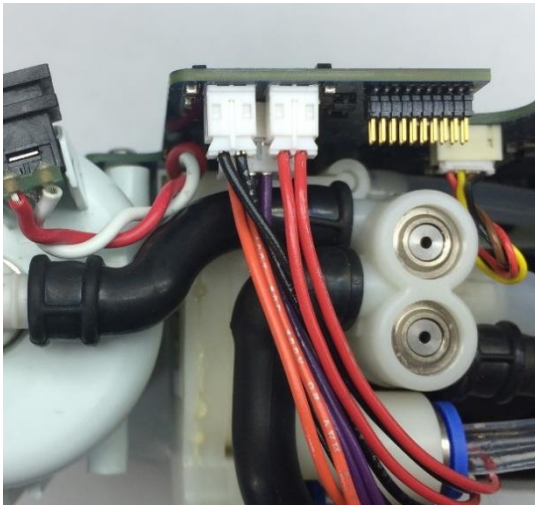


Figure 6: Feed Waste Manifold Harnesses

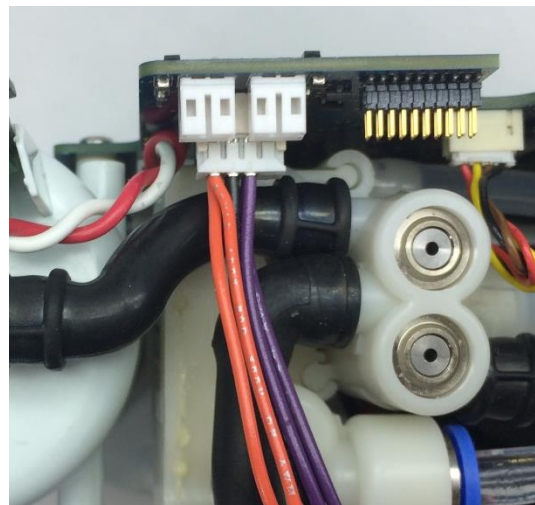


Figure 7: Product Manifold Harness

3. Remove the Accumulator Sensor Tubing by pushing down on the retaining ring while gently pulling on the tubing. Be careful not to apply any force to the pressure sensor. (Figure 8)

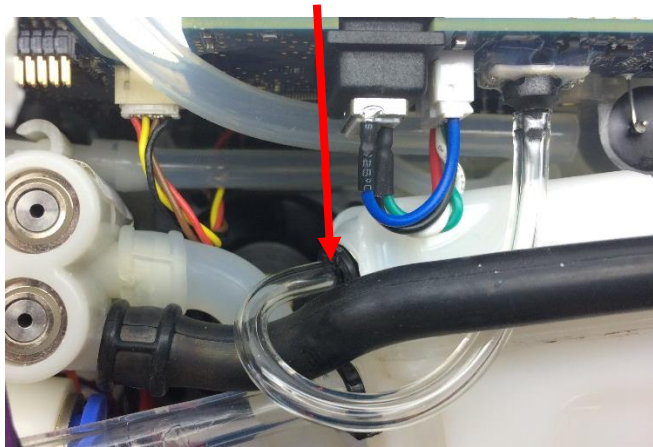


Figure 8: Accumulator Sensor Tubing

4. Unscrew the five screws that attach the motherboard to the chassis on the back side of the device (Figure 9).

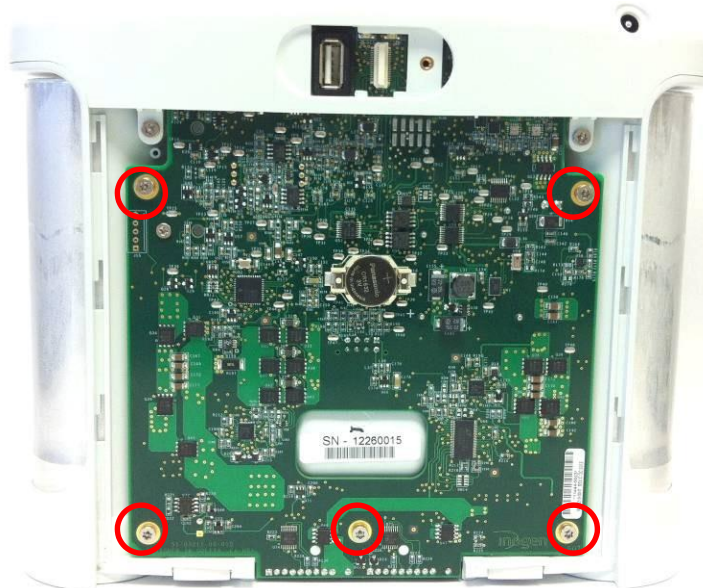


Figure 9: Motherboard screws

- Carefully pull the motherboard about a half inch away from the device, making sure not to bend it in any way. With the cables and tubing exposed, gently unplug the fan cable from the motherboard, then detach the O2 Sensor Tube from the Product Manifold by pulling the tube off of the barb (Figure 10).

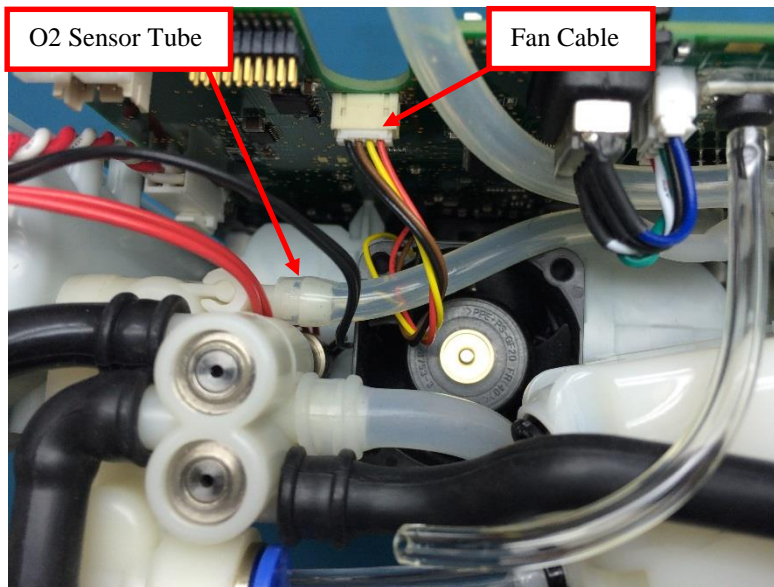


Figure 10: Disconnect fan cable and O2 Sensor Tube

- With all cables and tubing detached, remove the motherboard from the device and set face up.
- Locate the breath detect on the motherboard and unplug the Joiner Tube from the oxygen sensor by pulling the tube off of the barb (Figure 11).

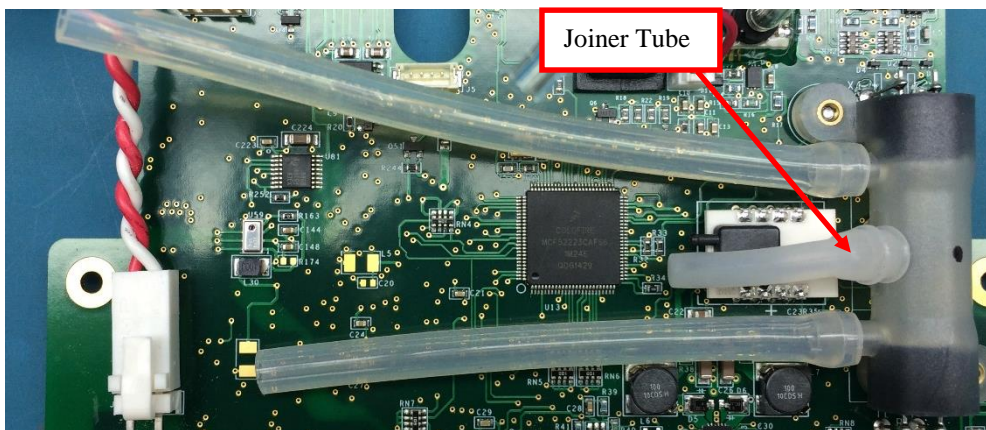


Figure 11: Disconnect tubing from oxygen sensor

- Carefully pull the breath detect off of the motherboard by lifting the white board straight up.

Instructions for Replacing the Breath Detect:

1. Install the new breath detect by aligning the 6 pins on the bottom of the breath detect with the corresponding holes on the motherboard (Figure 12). Make sure the pins are fully seated in the holes and the breath detect is lying flat on the motherboard (Figure 13).



Figure 12: Pins aligned with motherboard holes



Figure 13: Fully seated breath detect

2. Plug the Joiner Tube onto the barb on the oxygen sensor (Figure 11).
3. To re-install the motherboard, make sure the chassis pegs are aligned with the holes in the motherboard. Then reattach the accumulator tubing and the oxygen sensor tubing (Figure 10). Gently pull on each tube/cable to ensure a complete connection.
4. Reinstall the five screws that attach the motherboard to the chassis (Figure 9). Tighten screws to 4.5 in-lbs.
5. Install the sensor tube by routing it around the long molded column tube and inserting it into the quick-connect fitting on the Accumulator. After insertion, pull lightly on the polyurethane tubing to ensure that it is fully seated in the quick-connect fitting (Figure 8).
6. Connect the Product Manifold harness and the Feed Waste Manifold harnesses (Figure 7 and 6.)
7. Plug the compressor cable back into the motherboard (Figure 5).

Instructions for Replacing the Housing:

1. To re-install the user interface panel, plug the LCD cable back into the motherboard (Figure 4). *Note orientation of red wire.* Re-attach the cannula tubing to the cannula connector.
2. Reconnect the UIP cable to the motherboard (Figure 3).
3. Test the function of each button and the LCD. If anything does not work, reseat the cables in the connectors and check for debris in the connectors.
4. Re-install the four screws that connect the user interface panel to the chassis (Figures 1 and 2). Tighten screws to 5 in-lbs.
5. Place the device on its back side.
6. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 14) then push down and toward the device to secure the housing in the chassis.



Figure 14: Housing feet and corresponding chassis grooves

7. Place the device on its front side and repeat step 6 to secure the back housing into the chassis.
8. Replace the two screws that connect the back housing to the chassis and the two screws that connect the front housing to the chassis. Tighten screws to 3 in-lbs.
9. Return the concentrator to the upright position
10. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

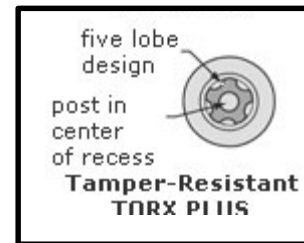
SP-557 Inogen One G3HF Motherboard Replacement

Parts Required:

1. SP-557, Motherboard

Tools Required:

1. T10 Torx Driver
2. Small Flathead Screw Driver
3. Pliers



Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).
3. The connectors for the LCD and User Interface Panel are delicate and should be handled carefully. They must be inserted into the connector straight and be clean of all debris or contamination in order to ensure proper LCD and User Interface Panel Operation.

Instructions for Removing the Housing:

Refer to “SP-502 and SP-550 Inogen One G3HF Front and Rear Housing Replacement” on Page 3. Follow steps 1-5 for “Instructions for Removing the Housing.”

Instructions for Removing the User Interface Panel:

1. With the side housing removed, locate and remove the four screws that connect the user interface panel to the chassis (Figures 1 and 2).

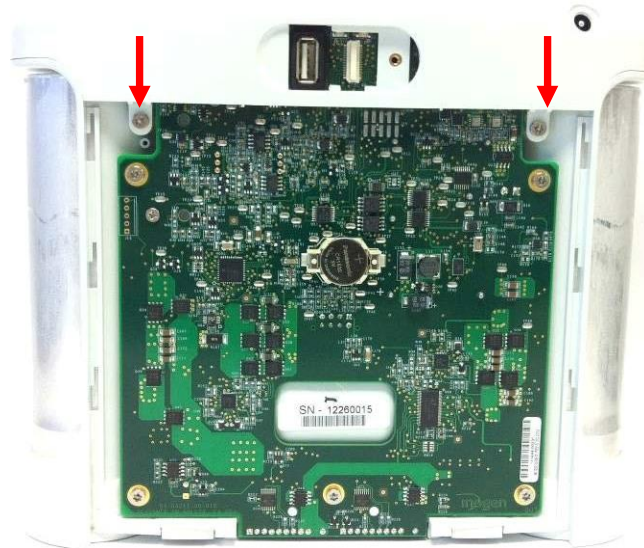


Figure 1: Location of rear screws

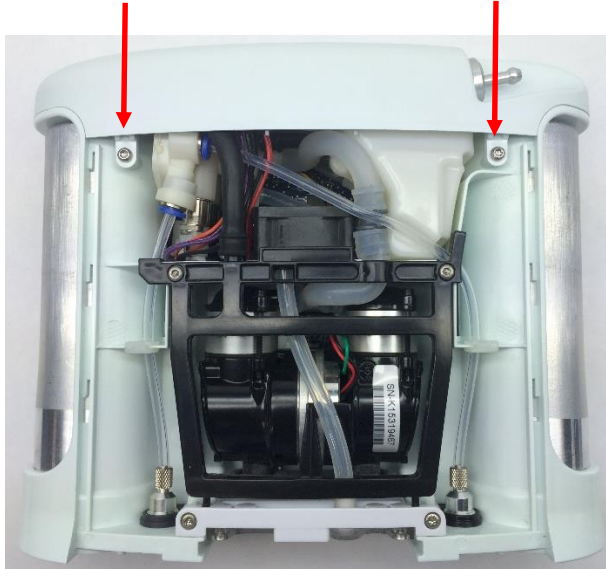


Figure 2: Location of front screws

2. Gently pull upward on the user interface panel to lift it about a centimeter off the device, being careful not to pull on the cables that are connected to the user interface panel. With the UIP cable connector exposed on the motherboard, gently unplug the UIP cable from the motherboard (Figure 3).

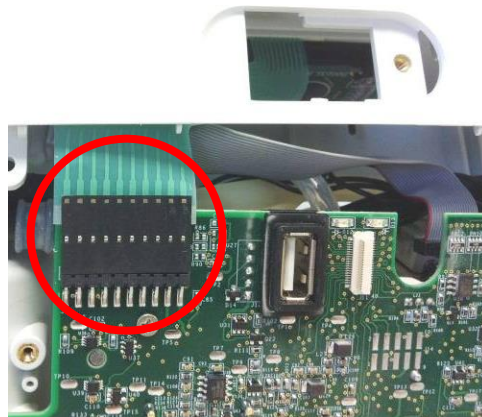


Figure 3: Unplug UIP cable from motherboard

3. Gently unplug the cannula tube and the LCD cable from the user interface panel (Figure 4). Remove the user interface panel.

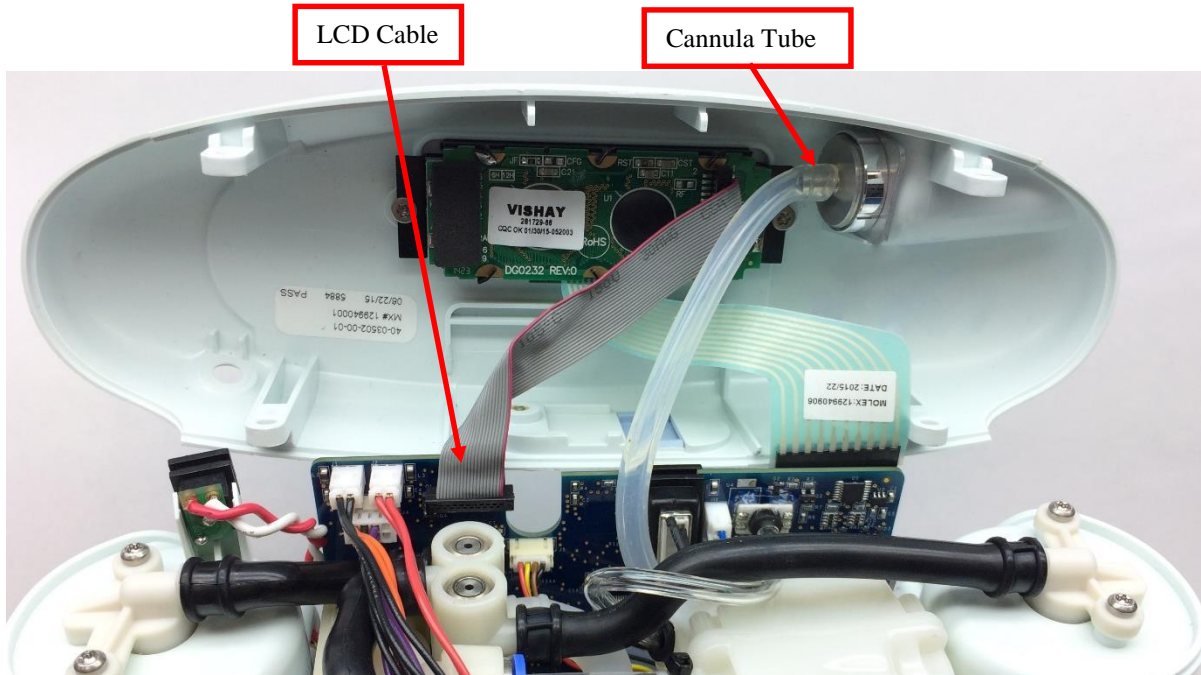
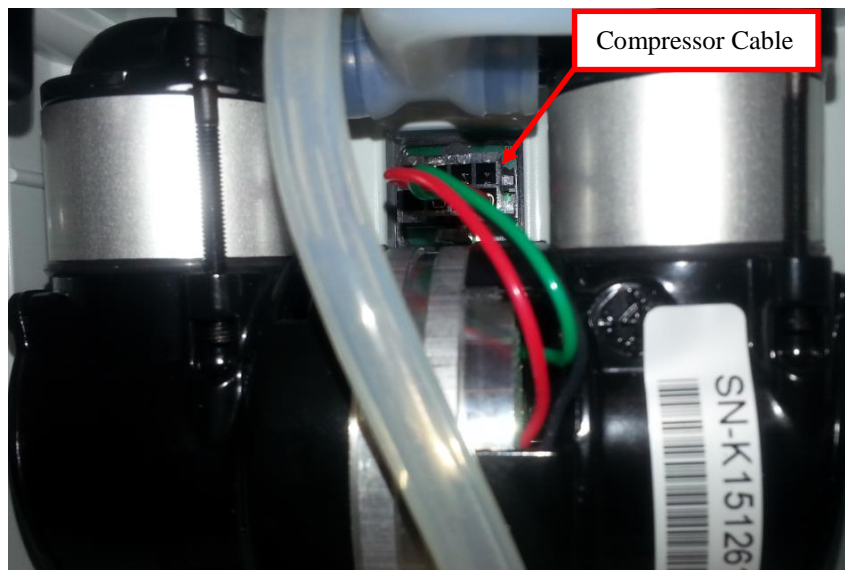


Figure 4: Remove cannula tube and LCD cable from user interface panel

Instructions for Removing the Motherboard:

1. Locate the compressor cable. Detach the compressor cable from the motherboard using long pliers to press down on the release clip while pulling the connector housing (Figure 5). *Do not pull on the compressor wires.*



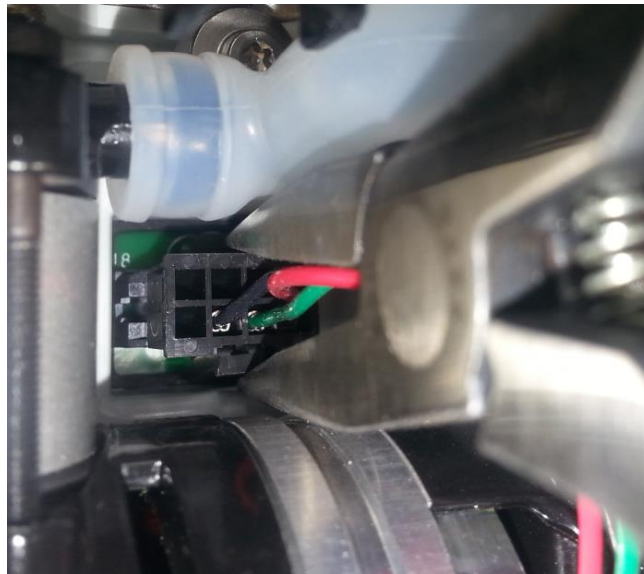


Figure 5: Detach compressor cable from motherboard

2. Carefully disconnect the feed waste manifold harnesses and the product manifold harness from the motherboard using pliers to pull the white connectors off of the pins and away from the motherboard (Figures 6 and 7).

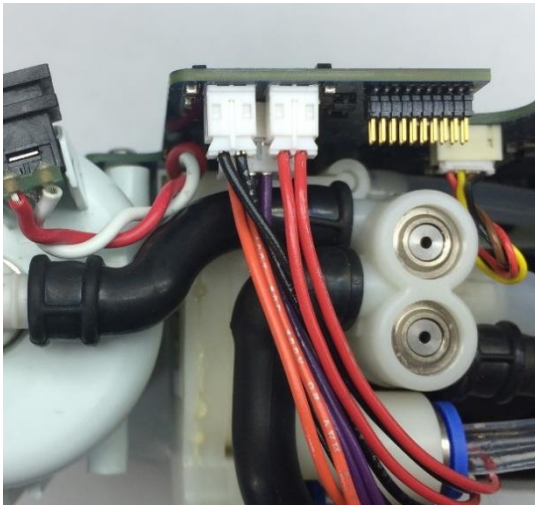


Figure 6: Feed Waste Manifold Harnesses

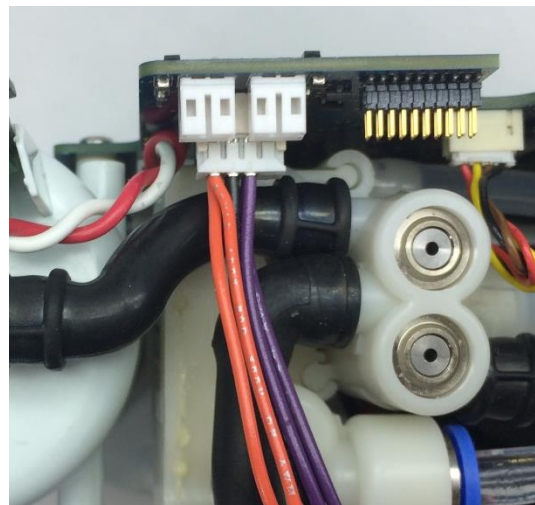


Figure 7: Product Manifold Harness

3. Remove the Accumulator Sensor Tubing by pushing down on the retaining ring while gently pulling on the tubing. Be careful not to apply any force to the pressure sensor. (Figure 8)

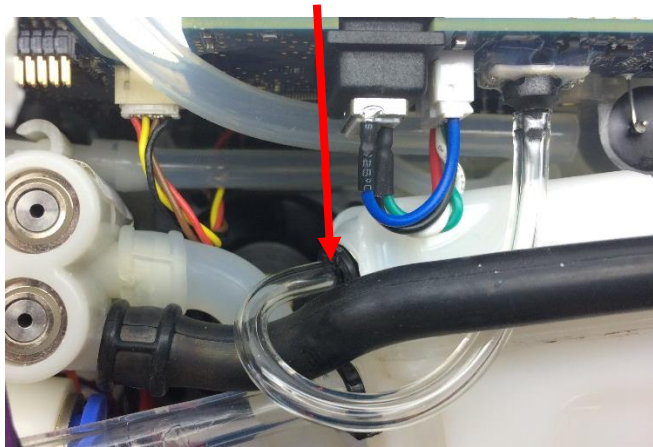


Figure 8: Accumulator Sensor Tubing

4. Unscrew the five screws that attach the motherboard to the chassis on the back side of the device (Figure 9).

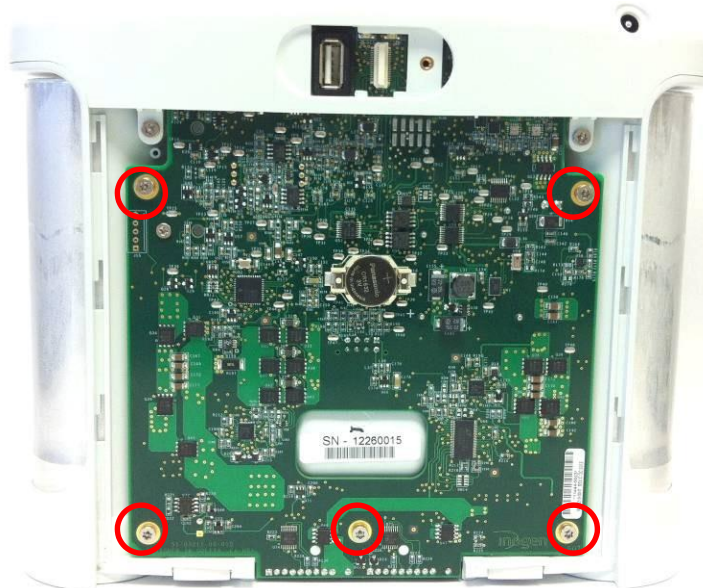


Figure 9: Motherboard screws

5. Carefully pull the motherboard about a half inch away from the device, making sure not to bend it in any way. With the cables and tubing exposed, gently unplug the fan cable from the motherboard, then detach the O2 Sensor Tube from the Product Manifold by pulling the tube off of the barb (Figure 10).

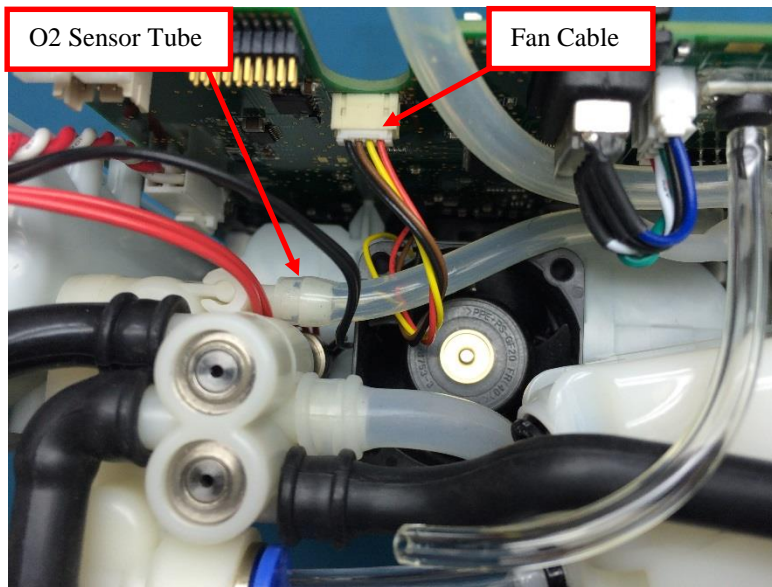


Figure 10: Disconnect fan cable and O2 Sensor Tube

5. With all cables and tubing detached, remove the motherboard from the device and set face up.

Instructions for Replacing the Motherboard:

1. To re-install the motherboard, make sure the chassis pegs are aligned with the holes in the motherboard. Then reattach the accumulator tubing and the oxygen sensor tubing (Figure 10). Gently pull on each tube/cable to ensure a complete connection.
4. Reinstall the five screws that attach the motherboard to the chassis (Figure 9). Tighten screws to 4.5 in-lbs.
5. Install the sensor tube by routing it around the long molded column tube and inserting it into the quick-connect fitting on the Accumulator. After insertion, pull lightly on the polyurethane tubing to ensure that it is fully seated in the quick-connect fitting (Figure 8).
6. Connect the Product Manifold harness and the Feed Waste Manifold harnesses (Figure 7 and 6.)
7. Plug the compressor cable back into the motherboard (Figure 5).

Instructions for Replacing the Housing:

1. To re-install the user interface panel, plug the LCD cable back into the motherboard (Figure 4). *Note orientation of red wire.* Re-attach the cannula tubing to the cannula connector.
2. Reconnect the UIP cable to the motherboard (Figure 3).
3. Test the function of each button and the LCD. If anything does not work, reseal the cables in the connectors and check for debris in the connectors.
4. Re-install the four screws that connect the user interface panel to the chassis (Figures 1 and 2). Tighten screws to 5 in-lbs.
5. Place the device on its back side.
6. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 11) then push down and toward the device to secure the housing in the chassis



Figure 11: Housing feet and corresponding chassis grooves

7. Place the device on its front side and repeat step 6 to secure the back housing into the chassis.
8. Replace the two screws that connect the back housing to the chassis and the two screws that connect the front housing to the chassis. Tighten screws to 3 in-lbs.
9. Return the concentrator to the upright position.
10. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

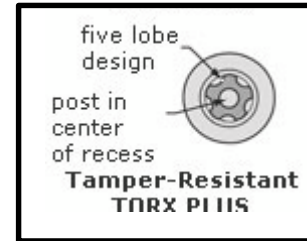
SP-516 Inogen One G3 Filter Body Replacement

Parts Required:

1. SP-516, G3 Housing, Filter Body

Tools Required:

1. T10 Torx Driver
2. Small Flathead Screw Driver
3. 1/8" Hex Driver



Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).

Instructions for Removing the Housing:

Refer to “SP-502 and SP-550 Inogen One G3HF Front and Rear Housing Replacement” on Page 3. Follow steps 1-5 for “Instructions for Removing the Housing.”

Instructions for Removing the Filter Body:

1. With the unit upright, unscrew the bottom center screw on the motherboard (Figure 1). This screw attaches the filter body to the rest of the device.



Figure 1: Location of rear filter body screw

2. Lay the unit on its back side. Unscrew the four screws that attach the filter to the filter body and remove the filter from the device (Figure 2). Use a small flathead screw driver to separate the filter from the chassis, if necessary.

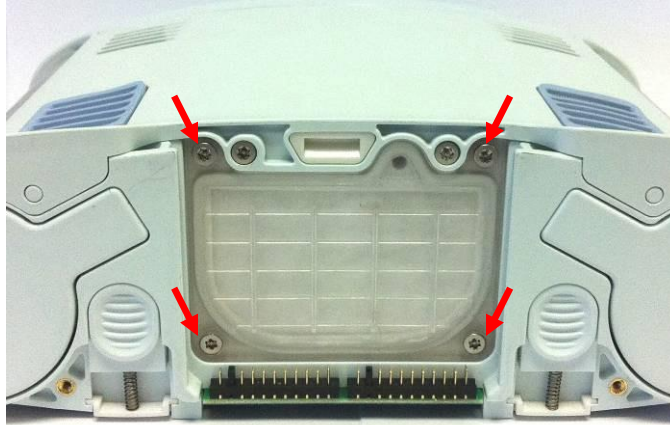


Figure 2: Filter box lid screws

3. Remove the two screws holding in the Tube Bracket and Muffler Assembly. Then slide the bracket pegs out of the chassis (Figure 3).

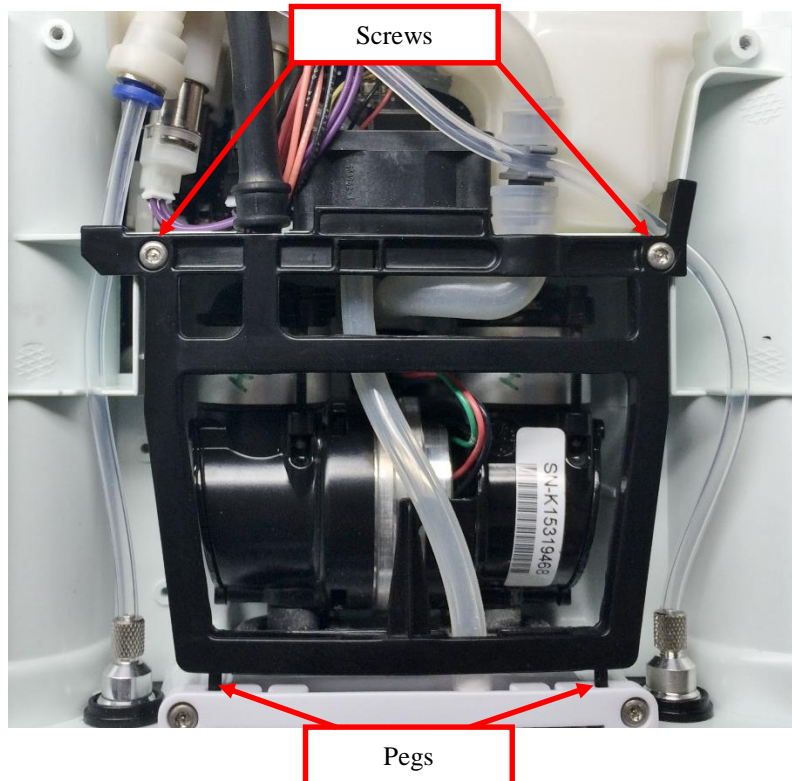


Figure 3: Tube Bracket and Muffler Assembly

4. Unscrew the two screws attaching the filter body to the chassis and unplug the tubing from the filter body (Figure 4). Plug this tube onto the same barb on the new filter body

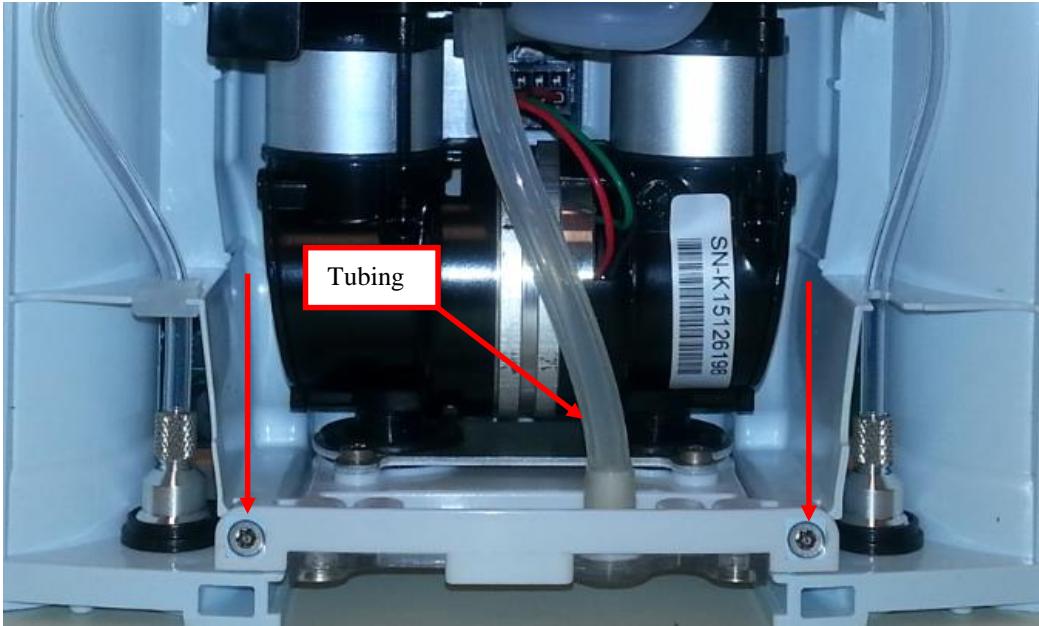


Figure 4: Front filter body screws and tubing

1. Unscrew the two screws attaching the filter body to the compressor on the underside of the device with a 4mm Allen wrench (Figure 5).

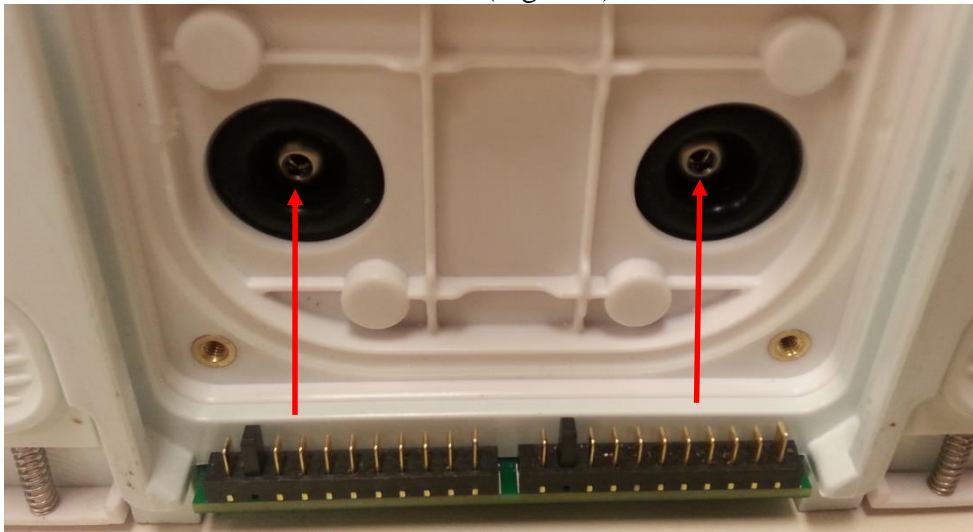


Figure 5: Compressor screws

5. Carefully slide the filter body out of the chassis to remove.

Instructions for Replacing the Filter Body:

1. To replace the filter body housing, place the Overmolded mount on top of the filter body housing. Torque the four screws to 6 in-lbs. in the following order (Figure 6).

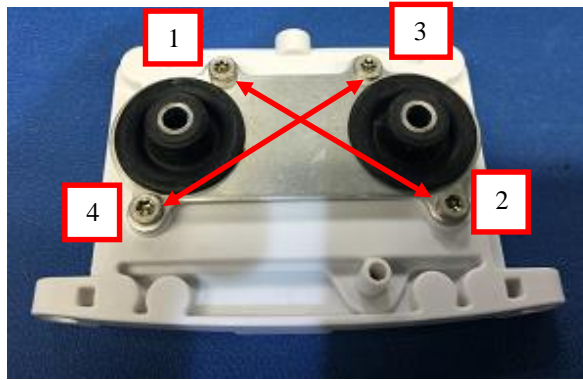


Figure 6: Torque the screws to 6 in-lbs.

2. Add the washers and reinstall the two screws connecting the filter body to the compressor, lightly tightening by hand (Figure 7). Place two screws on the filter body to the chassis (Figure 5). Torque these screws to 10 in-lbs.



Figure 7: Torque the screws to 10 in-lbs.

3. Replace the filter and the four screws that attach it to the filter body (Figure 2).
4. Replace the two screws attaching the Filter Body to the Chassis (Figure 4.) Torque to 6 in-lbs.
4. Insert the Tube Bracket pegs into the slots in the chassis (Figure 3). Replace the two screws holding in the Tube Bracket and Muffler Assembly. Torque to 4 in-lbs.
4. Make sure the other end of the filter body tubing is oriented in its designated space on the tube bracket (Figure 3).
5. Replace the bottom center screw on the motherboard that attaches the filter body to the motherboard (Figure 1). Tighten screw to 4.5 in-lbs.

Instructions for Replacing the Housing:

1. Place the device on its back side.
2. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 8) then push down and toward the device to secure the housing in the chassis.



Figure 8: Housing feet and corresponding chassis grooves

3. Place the device on its front side and repeat step 2 to secure the back housing into the chassis.
4. Replace the two screws that connect the back housing to the chassis and the two screws that connect the front housing to the chassis. Tighten screws to 3 in-lbs.
5. Return the concentrator to the upright position
6. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

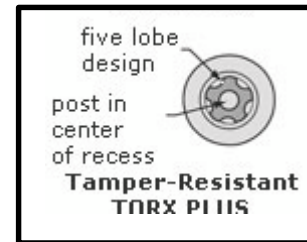
SP-558 Inogen One G3HF Tube Bracket and Muffler Replacement

Parts Required:

1. SP-558, G3HF Tube Bracket and Muffler

Tools Required:

1. T10 Torx Driver



Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).

Instructions for Removing the Housing:

1. While facing the front housing, remove the battery from the concentrator by pushing down on the blue battery release clip and sliding the device away (Figure 1).



Figure 1: Direction to slide device to remove battery

2. To remove the front housing, place the device on its back side and remove the two screws that secure the front housing to the chassis (Figure 2)

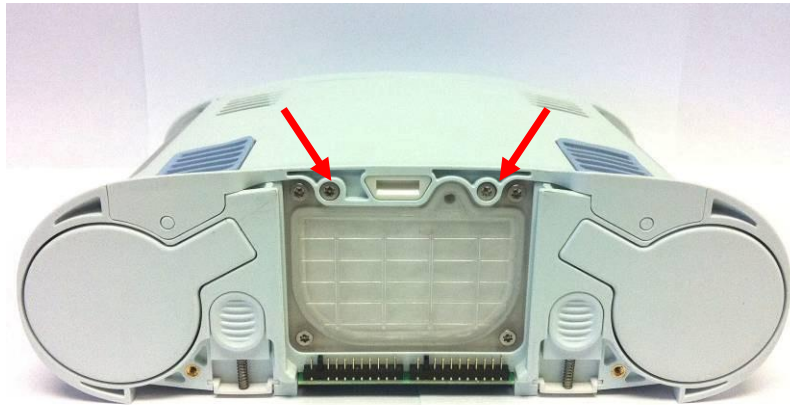


Figure 2: Location of screws

3. Slide the front housing down and away from the device then lift up to remove.

Instructions for Removing the Tube Bracket:

1. Remove the two screws holding in the Tube Bracket and Muffler Assembly. Then slide the bracket pegs out of the chassis (Figure 3).

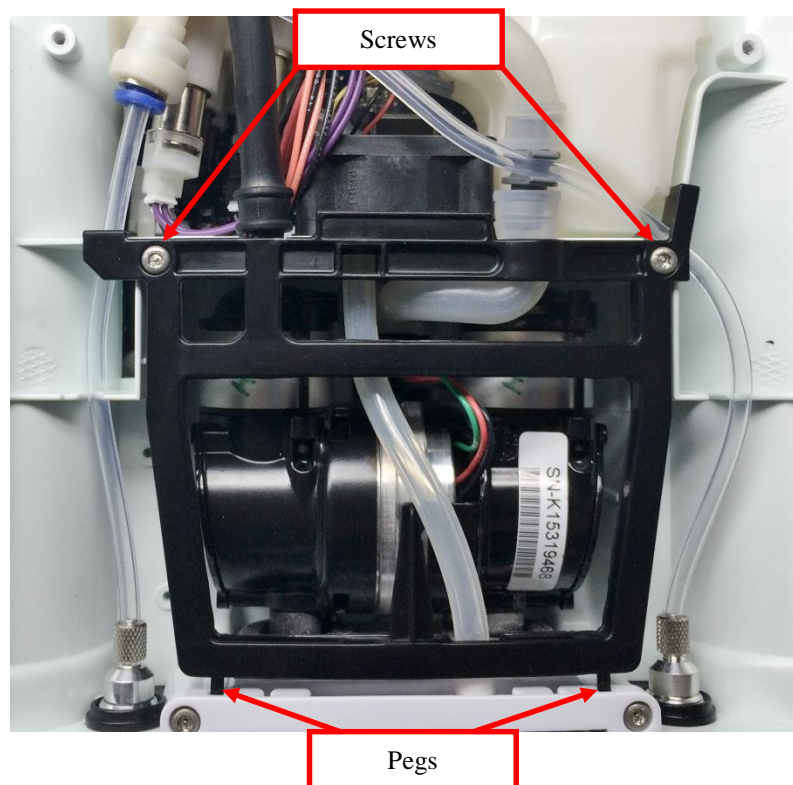


Figure 3: Tube Bracket and Muffler Assembly

2. Remove the tube bracket.

Instructions for Replacing the Tube Bracket:

1. Install the new tube bracket, making sure that the pegs and intake tube are in their respective slots and grooves on the bracket (as seen in Figure 3) before replacing the two screws. Tighten screws to 4 in- lbs.

Instructions for Replacing the Housing:

1. Place the device on its back side.
2. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 4) then push down and toward the device to secure the housing in the chassis.



Figure 4: Housing feet and corresponding chassis grooves

3. Replace the two screws that connect the front housing to the chassis (Figure 2). Tighten screws to 3 in-lbs.
4. Return the concentrator to the upright position
5. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

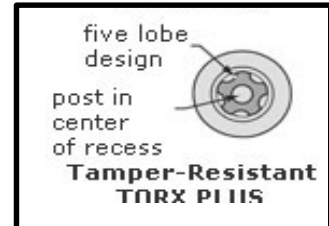
SP-519 Inogen One G3 LCD Cable Replacement

Parts Required:

1. SP-519, Cable Assembly, LCD

Tools Required:

1. T10 Torx Driver



Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).
1. The connectors for the LCD and User Interface Panel are delicate and should be handled carefully. They must be inserted into the connector straight and be clean of all debris or contamination in order to ensure proper LCD and User Interface Panel Operation.

Instructions for Removing the Housing:

Refer to “SP-502 and SP-550 Inogen One G3HF Front and Rear Housing Replacement” on Page 3. Follow steps 1-5 for “Instructions for Removing the Housing.”

Instructions for Removing the User Interface Panel:

1. With the side housing removed, locate and remove the four screws that connect the user interface panel to the chassis (Figures 1 and 2).

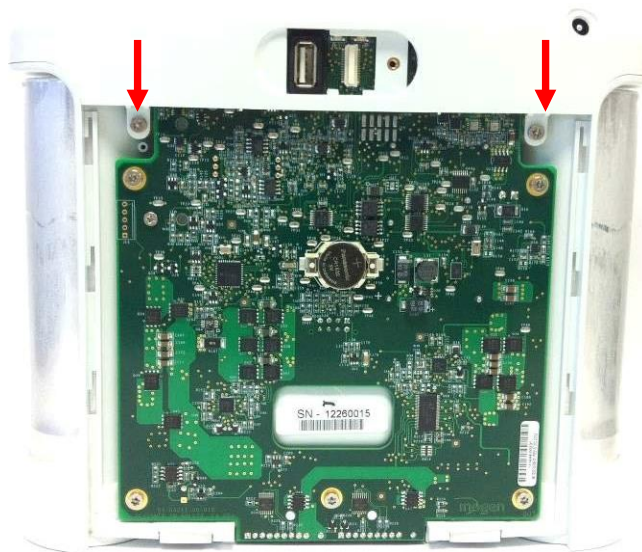


Figure 1: Location of rear screws

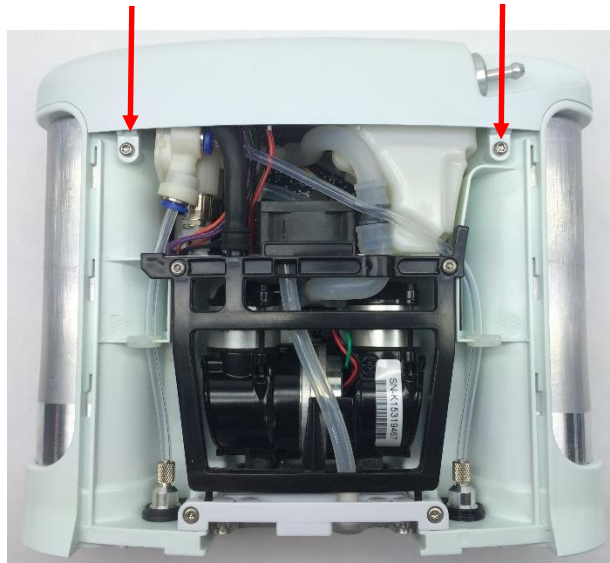


Figure 2: Location of front screws

2. Gently pull upward on the user interface panel to lift it about a centimeter off the device, being careful not to pull on the cables that are connected to the user interface panel. With the UIP cable connector exposed on the motherboard, gently unplug the UIP cable from the motherboard (Figure 3).

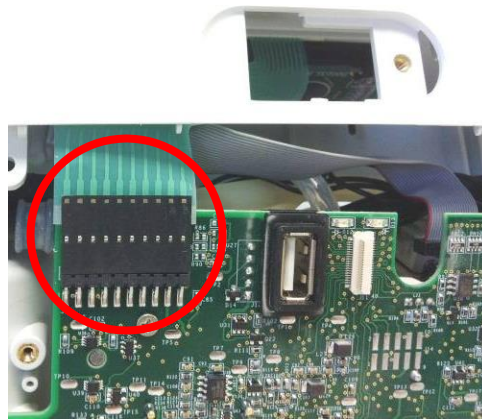


Figure 3: Unplug UIP cable from motherboard

3. Gently unplug the cannula tube and the LCD cable from the user interface panel (Figure 4). Remove the user interface panel.

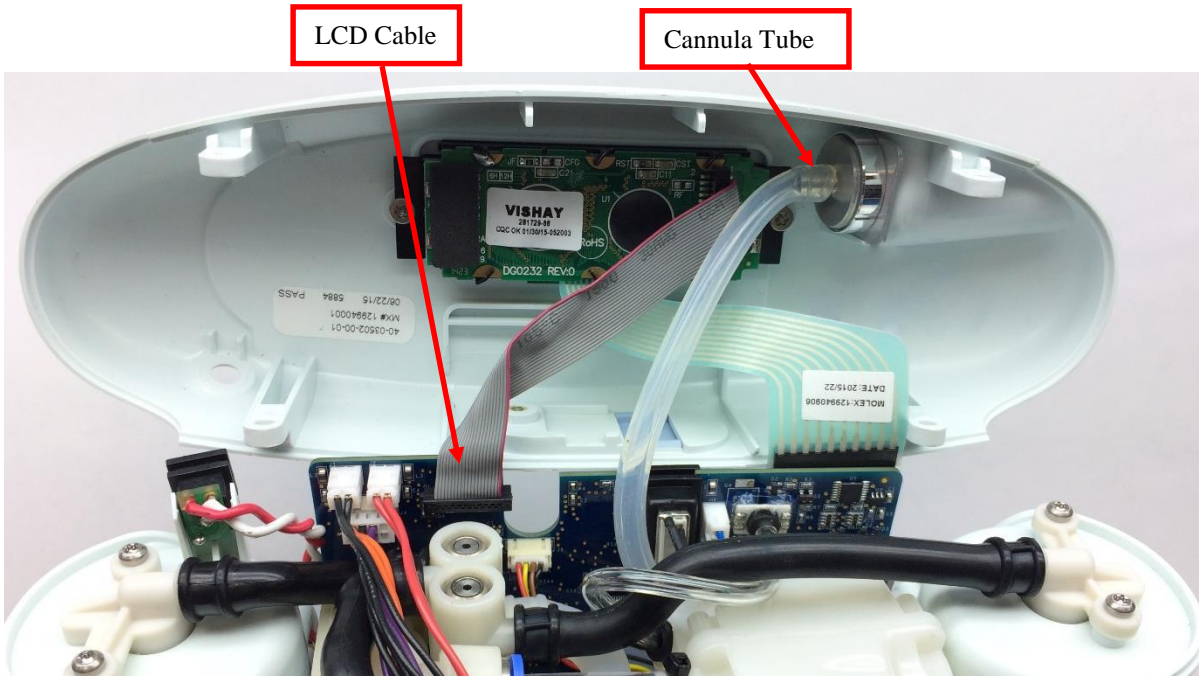


Figure 4: Remove cannula tube and LCD cable from user interface panel

Instructions for Replacing the LCD Cable:

1. Remove the power cable from the user interface panel and install the new LCD cable. Fold the cable as shown in Figure 5. *Note the location of the red wire.*

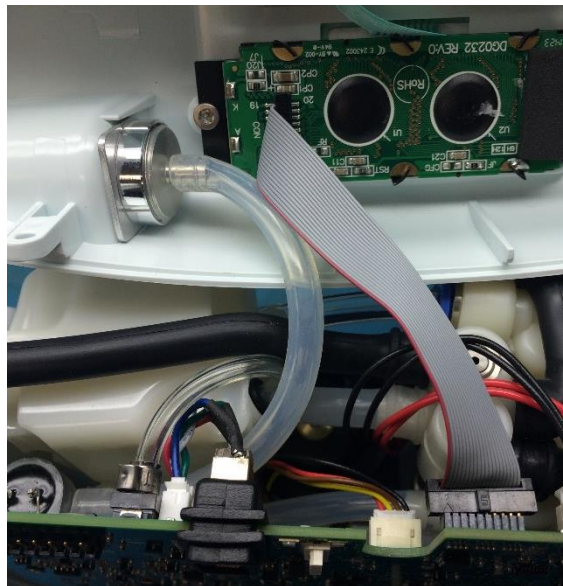


Figure 5: Orientation of LCD cable

Instructions for Replacing the Housing:

1. To re-install the user interface panel, plug the LCD cable back into the motherboard (Figure 8). *Note orientation of red wire.* Re-attach the cannula tubing to the cannula connector.
2. Plug the UIP cable into the motherboard (Figure 3). Double check that the cables are fully seated to ensure a complete connection. 3. Test the function of each button and the LCD. If anything does not work, reseat the cables in the connectors and check for debris in the connectors.
4. Re-install the four screws that connect the user interface panel to the chassis (Figures 1 and 2). Tighten screws to 5 in-lbs.
5. Place the device on its back side.
6. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 6) then push down and toward the device to secure the housing in the chassis.



Figure 6: Housing feet and corresponding chassis grooves

7. Place the device on its front side and repeat step 6 to secure the back housing into the chassis.
8. Replace the two screws that connect the back housing to the chassis and the two screws that connect the front housing to the chassis. Tighten screws to 3 in-lbs.
9. Return the concentrator to the upright position.
10. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

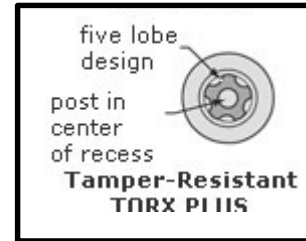
SP-520 Inogen One G3 Dual Feed Tube Replacement

Parts Required:

1. SP-520, Dual Feed Tube

Tools Required:

1. T10 Torx Driver
2. Small Flathead Screw Driver
3. Pliers



Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).

Instructions for Removing the Housing:

Refer to “SP-502 and SP-550 Inogen One G3HF Front and Rear Housing Replacement” on Page 3. Follow steps 1-5 for “Instructions for Removing the Housing.”

Instructions for Removing the Dual Feed Tube:

1. Remove the two screws holding in the Tube Bracket and Muffler Assembly. Then slide the bracket pegs out of the chassis (Figure 1).

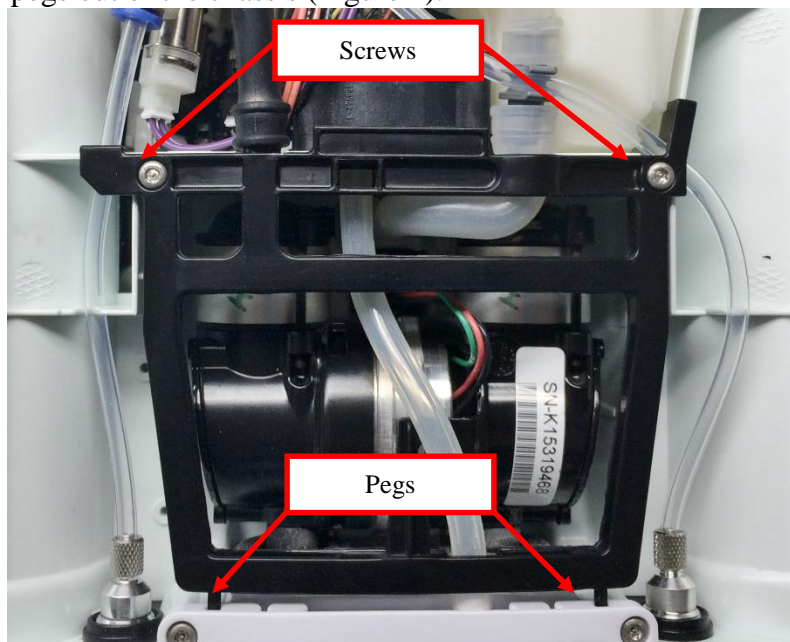


Figure 1: Tube Bracket and Muffler Assembly

2. Disconnect the compressor cable from the motherboard using pliers to push down on the release clip while pulling on the cable housing (Figure 2). *Do not pull on the compressor wires.*

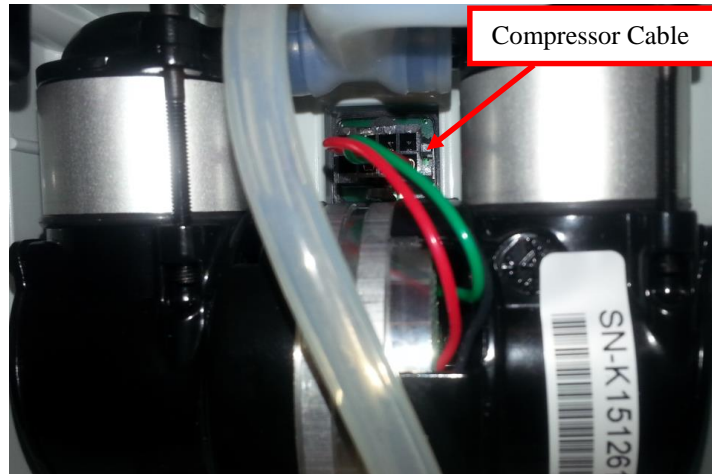


Figure 2: Detach compressor cable from motherboard

3. Remove the screw and washer that connect the dual end of the feed tube to the chassis (Figure 3).

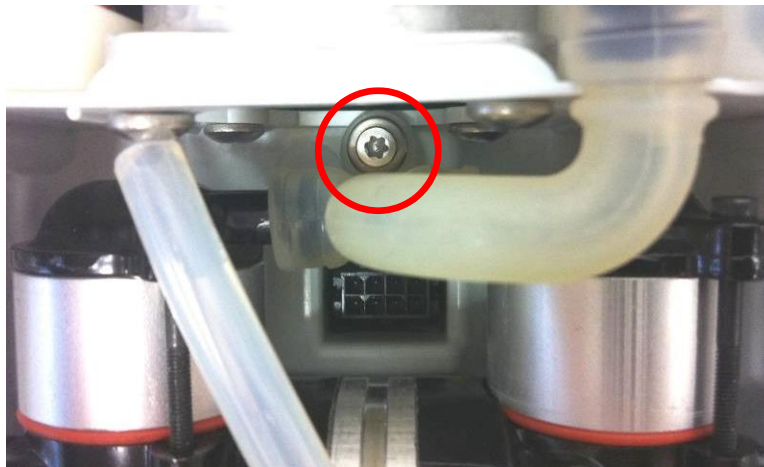


Figure 3: Dual feed tube screw and washer

4. Disconnect the singular end of the feed tube from the inlet union using a small flathead screw driver to push the tube off of the connector (Figure 4).

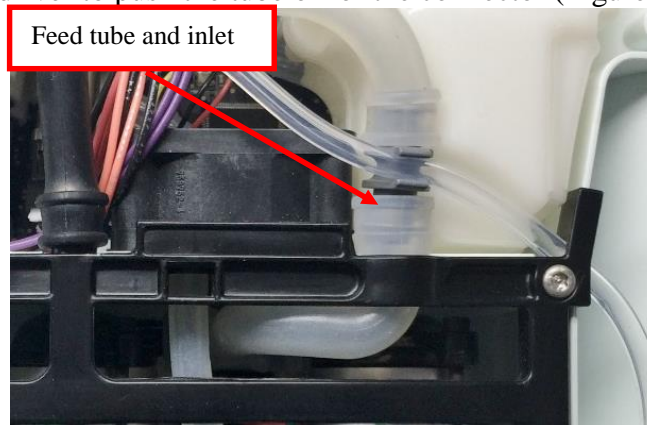


Figure 4: Remove feed tube from inlet union

5. Unscrew the two screws on the front of the device and the bottom center screw on the back of the device that connect the filter body to the chassis (Figures 5 and 6).

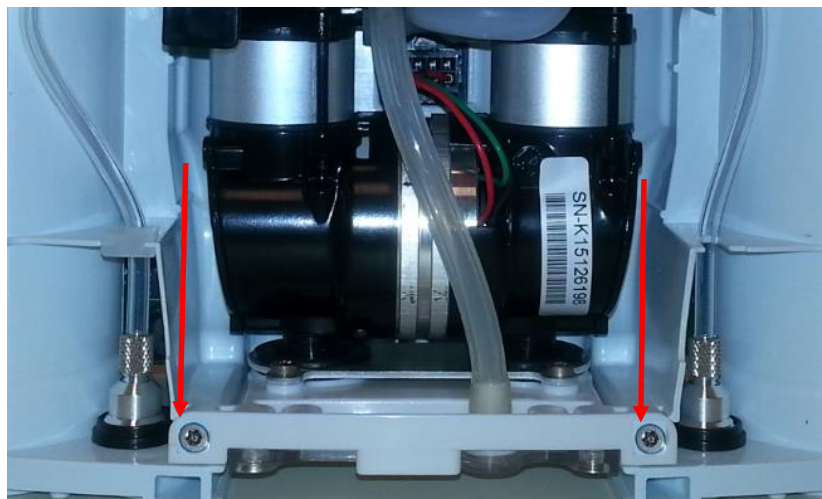


Figure 5: Location of front screws



Figure 6: Location of rear screw

7. Slide the filter body, filter, compressor, and dual feed tube out of the device as a single unit (Figure 7).

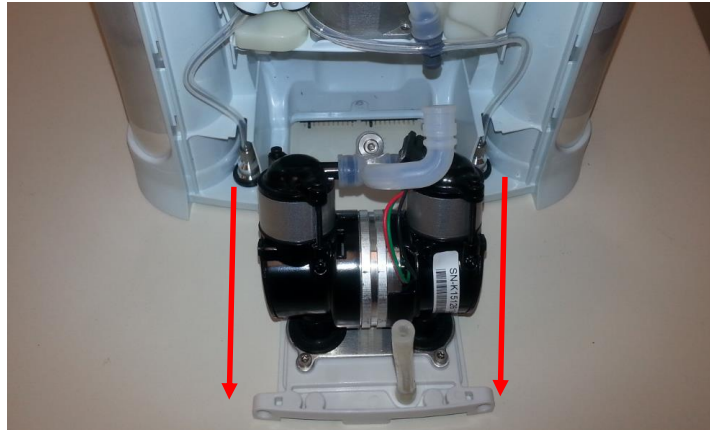


Figure 7: Removal of compressor assembly

8. Remove one end of the dual feed tube off of the compressor at a time (Figure 8) by pushing the tube down between the barbs. *Be careful not to damage the sealing area of the barb during removal.*



Figure 8: Remove dual feed tube from compressor

Instructions for Replacing the Dual Feed Tube:

1. Use the same technique to install the new dual feed tube to the compressor. Use pliers to push the tube onto the connectors (Figure 9).

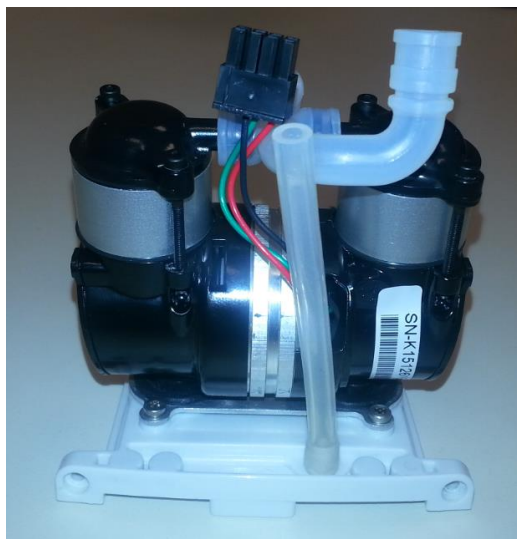


Figure 9: Properly installed dual feed tube

1. Slide the compressor, filter body, filter, and new dual feed tube back into the device as a single unit. The filter body slides into specific grooves in the chassis (Figure 10). Use these grooves to guide the whole compressor assembly into the device.

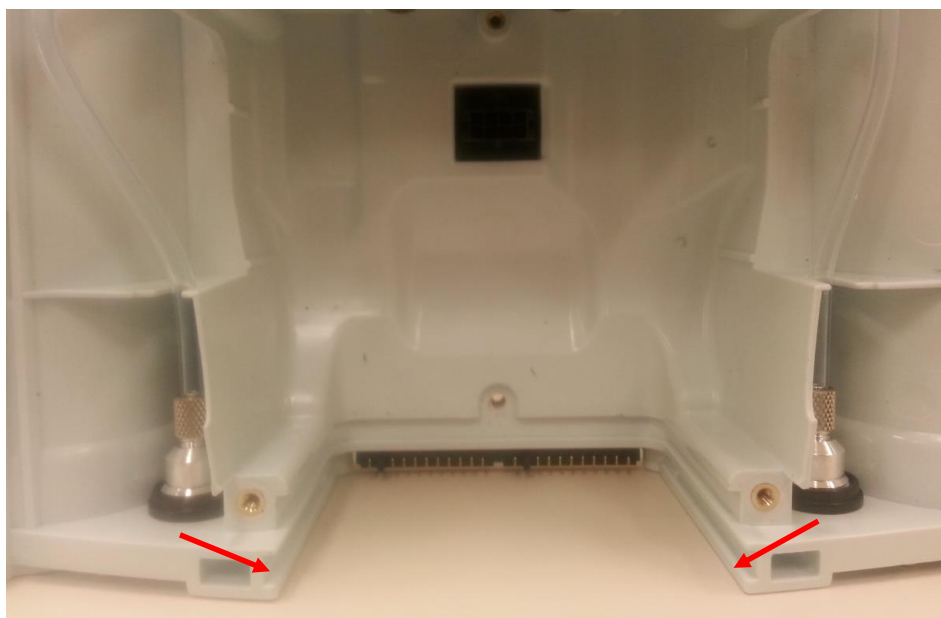


Figure 10: Filter body grooves

3. Reattach the two screws on the front of the device and the bottom center screw on the back of the device that connect the filter body to the chassis (Figures 5 and 6). Tighten screws to 6 in-lbs and 4.5 in-lbs respectively.
4. Reinstall the screw and washer that connect the dual end of the feed tube to the chassis, tightening to 3 in-lbs. (Figure 3).

5. Attach the other end of the feed tube back onto the black inlet union (Figure 4). The tubing seam should be rotated as far to the right as possible to prevent the compressor from striking the back of the chassis.
6. Plug the compressor cable back into the motherboard (Figure 2).
7. Replace the tube bracket, making sure that all tubes are in their respected grooves on the bracket before replacing the two screws (Figure 1). Tighten screws to 4 in-lbs. Route the Intake Tube back through the tube bracket.

Instructions for Replacing the Housing:

1. Place the device on its back side.
2. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 11) then push down and toward the device to secure the housing in the chassis.



Figure 11: Housing feet and corresponding chassis grooves

3. Place the device on its front side and repeat step 2 to secure the back housing into the chassis.
4. Replace the two screws that connect the back housing to the chassis and the two screws that connect the front housing to the chassis. Tighten screws to 3 in-lbs.
5. Return the concentrator to the upright position
6. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

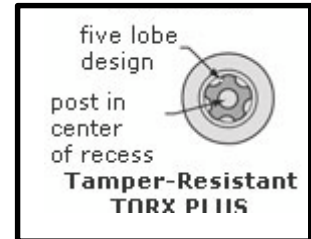
SP-521 Inogen One G3 Column Latch Replacement

Parts Required:

1. SP-521, Kit, Column Latches

Tools Required:

1. T10 Torx Driver



Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).

Instructions for Removing the Housing:

1. While facing the front housing, remove the battery from the concentrator by pushing down on the blue battery release clip and sliding the device away (Figure 1).



Figure 1: Direction to slide device to remove battery

2. To remove the back housing, place the device on its front side and remove the two screws that secure the back housing to the chassis (Figure 2).



Figure 2: Location of screws

3. With the concentrator still on its front side, slide the back housing down and away from the device then lift up to remove (Figure 3).



Figure 3: Direction to slide housing

Instructions for Removing the Column Latch:

1. With the device still on its front side, locate the spring nest, spring, and column latch assembly. Gently pull the spring nest away from the chassis and remove the spring nest and spring together (Figure 4).



Figure 4: Column latch assembly

2. Slide the column latch up to remove it from the chassis (Figure 5).

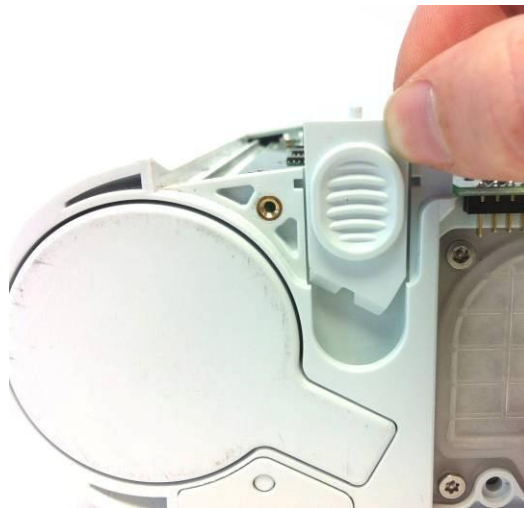


Figure 5: Column latch removal

Instructions for Replacing the Column Latch:

1. Slide the new column latch into the chassis with the slanted end of the latch pointed downward and the small circular spring attachment on top (See figure 5 for orientation).
2. Assemble the spring and spring nest together with the spring wrapped around the circular spring attachment (Figure 6).



Figure 6: Spring and spring nest assembly

3. Make sure the tabs on the sides of the spring nest are closest to the chassis before orienting the other end of the spring onto the circular spring attachment on the column latch.
4. Carefully press down on the spring nest and spring to set the spring nest tabs into the grooves in the chassis (Figure 7).



Figure 7: Properly seated spring nest and column latch

5. If the column latch isn't fully seated against the bottom of its space in the chassis as shown in Figure 7, push the column further into the device until it clicks in place.
6. If replacing both column latches, repeat procedure for the other column latch.

Instructions for Replacing the Housing:

1. Place the device on its front side and seat the feet of the back housing into the corresponding grooves on the chassis (Figure 8) then push down and toward the device to secure the housing in the chassis.



Figure 8: Housing feet and corresponding chassis grooves

2. Replace the two screws that connect the back housing to the chassis (Figure 2). Tighten screws to 3 in-lbs.
3. Return the concentrator to the upright position
4. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

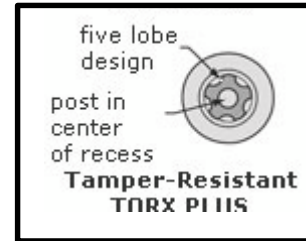
SP-522 Inogen One G3 Column Receptacle Replacement

Parts Required:

1. SP-522, Kit, Column Receptacles

Tools Required:

1. T10 Torx Driver



Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).

Instructions for Removing the Housing:

1. While facing the front housing, remove the battery from the concentrator by pushing down on the blue battery release clip and sliding the device away (Figure 1).



Figure 1: Direction to slide device to remove battery

2. To remove the front housing, place the device on its back side and remove the two screws that secure the front housing to the chassis (Figure 2).



Figure 2: Location of screws

3. Slide the front housing down and away from the device then lift up to remove.

Instructions for Removing the Column Receptacle:

1. With the device still on its back side, unscrew the two tube bracket screws (Figure 3), slide the pegs out of the filter body, and set aside the tube bracket.
2. Disconnect the manifold tube corresponding to the receptacle being removed. Do this by pressing down on the retaining ring while pulling gently on the tubing. Unclip the long column tube from the inlet union barb.

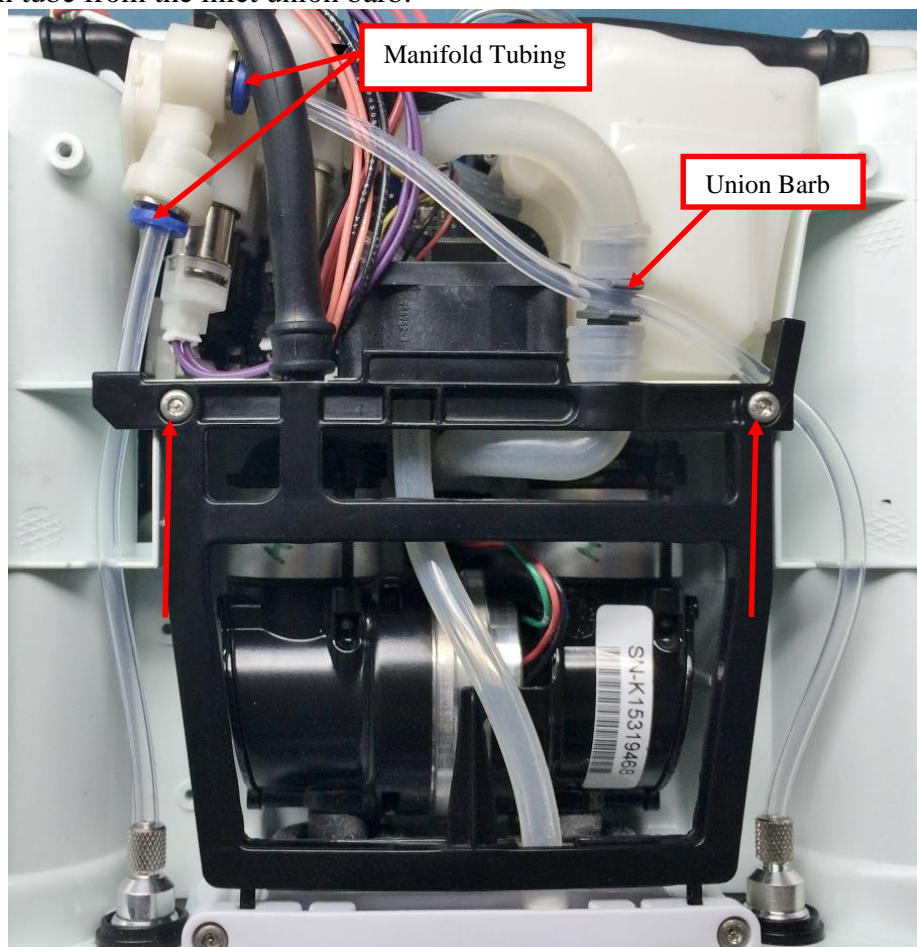


Figure 3: Tube bracket screws

3. In order to remove the receptacle, the corresponding column must be removed. Locate the column latch on the underside of the device (Figure 4) and push downward on it while simultaneously pulling the column out of the chassis. Remove the column and set aside.

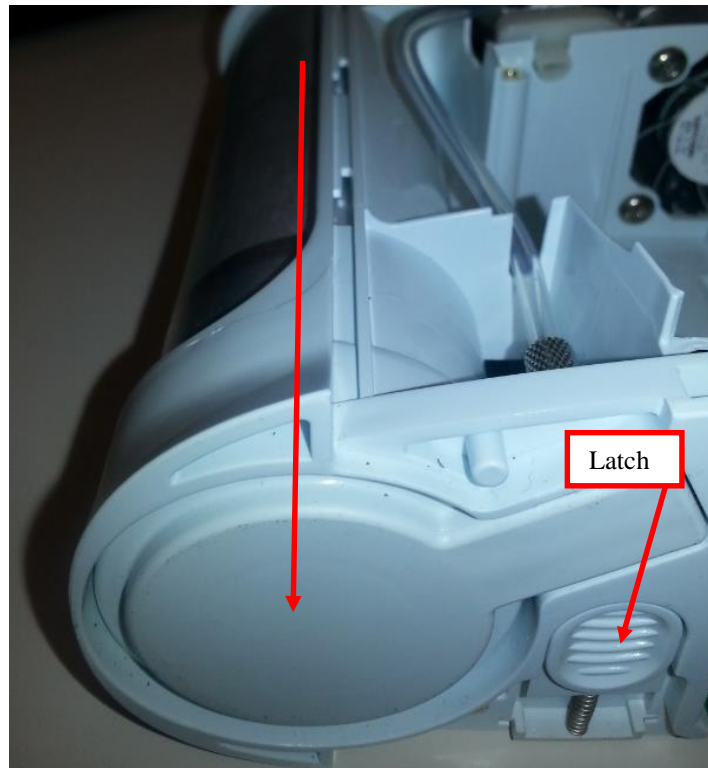


Figure 4: Location of column latch and direction to pull column

4. Remove the receptacle filter disc by blowing it out of the receptacle with compressed air. Set aside for later reinstallation.
5. Using a T10 torx driver, unscrew the receptacle from the underside of the chassis while pressing down on the column latch to lower the column latch teeth (Figure 5). Remove the receptacle through the bottom of the device, slowly pulling the tubing through the chassis. The receptacle washer should remain in place on the other side of the chassis.

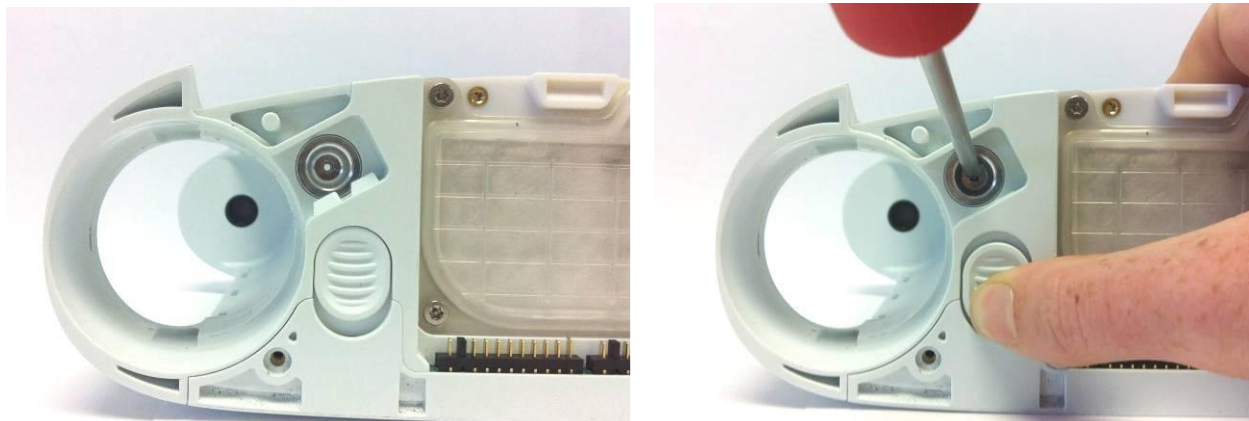


Figure 5: Push down on column latch while unscrewing receptacle

Instructions for Replacing the Column Receptacle:

1. Feed the new receptacle and tubing assembly up through the washer, threading them in and tightening to 3 in-lbs while pressing down on the column latch to lower the column latch teeth (Figure 5). Using compressed air, blow out any debris from the tubing end of the receptacle prior to installing the tubing into the manifold or the column into the receptacle.
2. Replace the receptacle filter disc into the receptacle.
3. Reinstall the column. If the column latch isn't fully seated against the top of its space in the chassis, push the column into the device until it clicks in place (Figure 6).



Figure 6: Correctly installed column (*Note location of column latch*)

4. Reattach the receptacle tubing to its quick connect on the manifold (Figure 3). Gently pull on the tubing to ensure a complete connection.
5. If replacing both column receptacles, repeat procedure for the other receptacle.
6. Replace the tube bracket, inserting the pegs into the chassis, and replace the two screws that hold it in place, making sure that all tubes are properly oriented in their respected positions on the bracket (Figure 3). Tighten screws to 4 in-lbs. Assure both lower grommets are in place against the receptacle tubes (Figure 7).



Figure 7: Left lower grommet

Instructions for Replacing the Housing:

1. Place the device on its back side.
2. Seat the feet of the front housing into the corresponding grooves on the chassis (Figure 8) then push down and toward the device to secure the housing in the chassis.



Figure 8: Housing feet and corresponding chassis grooves

3. Replace the two screws that connect the front housing to the chassis (Figure 2). Tighten screws to 3 in-lbs.
4. Return the concentrator to the upright position.
5. Slide the battery back into the chassis. Ensure the battery clip is fully seated.

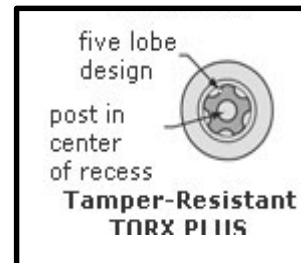
SP-523 Inogen One G3HF Chassis Replacement

Parts Required:

1. SP-559, Housing, Chassis G3HF

Tools Required:

1. T10 Torx Driver
2. Small Flathead Screwdriver
3. Pliers
4. Scissors
5. 1/8" Hex Driver



Notes:

1. When removing screws from the device carefully set in a bin or secure area as these screws will be used to secure the replacement parts.
2. Many of the screws used on the Inogen One G3 have pre-applied loctite on the threads. These loctite screws can be re-used up to four times before replacement screws are required (If exceeded four uses please contact Inogen for a screw replacement kit).
3. The connectors for the LCD and User Interface Panel are delicate and should be handled carefully. They must be inserted into the connector straight and be clean of all debris or contamination in order to ensure proper LCD and User Interface Panel Operation.
4. The barbs on the accumulator cap are delicate and can easily be broken during removal or installation of the tubing.

Instructions on Replacing the Chassis:

1. See "SP-501 and SP-502 Inogen One G3 Front and Rear Housing Replacement" for instructions on removing the housing.
2. Locate and remove the two lower grommets that hold the receptacle tubing in place (Figure 1).



Figure 1: Lower grommet

3. See “SP-522 Inogen One G3 Column Receptacle Replacement” for instructions on removing the column receptacles, attached tubing, columns, and tube bracket. Also remove the receptacle washers from the housing (Figure 2).



Figure 2: Receptacle washer

4. See “SP-521 Inogen One G3 Column Latch Replacement” for instructions on removing the column latches.
5. See “SP-503 Inogen One G3 User Interface Panel Replacement” for instructions on removing the user interface panel.
6. See “SP-557 Inogen One G3 Motherboard Replacement” for instructions on removing the motherboard.
7. Remove chassis gasket from back of chassis (Figure 3).

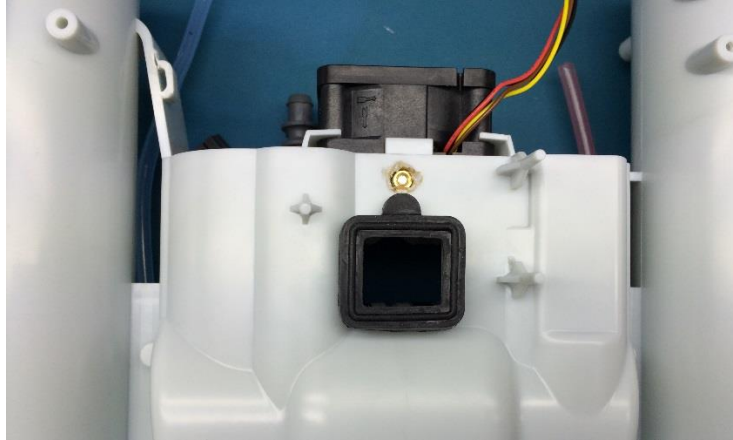


Figure 3: Chassis gasket

8. See “SP-556 Inogen One G3HF Feed Waste Manifold Replacement” for instructions on removing the feed waste manifolds. Do not disconnect the feed waste manifold from its tubing. Remove the feed waste manifold, exhaust tube, inlet tube, and molded column tubes as a single unit.
9. See “SP-555 Inogen One G3HF Product Manifold Replacement” for instructions on removing the product manifold.
10. See “SP-513 Inogen One G3 Accumulator Replacement” for instructions on removing the accumulator.
11. See “SP-509 Inogen One G3 Compressor Replacement” for instructions on removing the compressor, filter body, filter assembly and all attached tubing. There is no need to detach the inlet union from the dual feed tube. These parts can be installed on the new chassis as one unit.
12. See “SP-553 Inogen One G3HF Fan Replacement” for instructions on removing the Fan.
13. Now that all parts have been removed from the chassis, they can be installed onto the new chassis.
14. See “SP-553 Inogen One G3HF Fan Replacement” for instructions on replacing the fan.
15. See “SP-509 Inogen One G3 Compressor Replacement” for instructions on removing the compressor, filter body, filter assembly and all attached tubing.
16. See “SP-513 Inogen One G3 Accumulator Replacement” for instructions on replacing the accumulator.
17. See “SP-555 Inogen One G3HF Product Manifold Replacement” for instructions on replacing the product manifold.
18. See “SP-556 Inogen One G3HF Feed Waste Manifold Replacement” for instructions on replacing the feed waste manifold, exhaust tubing, inlet tubing, and molded column tubes.
19. Replace chassis gasket on back of chassis (Figure 3).
20. See “SP-557 Inogen One G3 Motherboard Replacement” for instructions on replacing the motherboard.
21. See “SP-503 Inogen One G3 User interface Panel Replacement” for instructions on replacing the user interface panel, starting with Step 4.

22. See “SP-521 Inogen One G3 Column Latch Replacement” for instructions on replacing the column latches.
23. Replace the receptacle washers (Figure 2) then see “SP-522 Inogen One G3 Column Receptacle Replacement” for instructions on replacing the column receptacles, attached tubing, columns, and tube bracket.
24. Replace the two lower grommets that hold the receptacle tubing in place (Figure 1).
25. See “SP-550 and SP-502 Inogen One G3HF Front and Rear Housing Replacement” for instructions on replacing the housing.

Inogen One G3 Troubleshooting Guide

1	Power Fault	Expected Behavior	Abnormal Behavior	Fault	Troubleshooting & Repair
	No Power	Concentrator beeps and Inogen logo appears on the LCD when external power is plugged in	No response to AC power, concentrator will not turn on	There is no 3.3V power to the processor	<p>Check power supply power indicator light to ensure power supply is receiving power and functioning.</p> <p>Check that the power cable is correctly plugged into the circuit board. If problem still exists, replace the motherboard</p>
	Power Supply	Green light is present on Power supply and solid	Green light is flashing	Power supply is overheated	<p>Ensure power supply has adequate ventilation space</p> <p>Place power supply on a hard surface instead of carpet</p>
		Green light is present on UPS and solid	Green light is flashing	A short circuit is present	Try a different power supply on the same concentrator to determine if the short is in the power supply or the concentrator. If the short is in the concentrator replace the power input harness or the motherboard.
		Green light is present on UPS and solid	Power is intermittent	The cable from the UPS to the concentrator is damaged due to tightly wrapping the cord	Wiggle and bend the cord to see if the power to the concentrator fails. If yes, replace the power supply
	Auto Power	Concentrator runs and charges battery on DC automobile power	Automobile receptacle fuse blows or overheats	The Cigarette lighter adapter plug on the cord is set improperly	Switch the setting on the cigarette lighter adapter plug to Wide from Narrow

			Automobile receptacle fuse blows or overheats	The power outlet on the automobile is not rated to handle 120W	Check car manual for electrical specification of the power outlet or use a different outlet in the car If automobile power outlet is not rated to handle 120W then the concentrator cannot be used with automobile power (in this car) without a dedicated outlet and wiring.
	Auto Power	Concentrator runs and charges battery on DC automobile power	Automobile does not power the concentrator	The input voltage is too low	Try a different outlet in the vehicle. If problem persists, replace the auto power cable with a DC power supply (BA-302) to increase the voltage output.
	Auto Power	Concentrator runs and charges battery on DC automobile power	Automobile does power the concentrator, but overheating of the cable is caused.	The power connection is shorted, causing the DC cable to become overheated.	Send the DC automobile power cable back to Inogen.
1	Power Fault	Expected Behavior	Abnormal Behavior	Fault	Troubleshooting & Repair
	Battery Power	Concentrator displays the Inogen logo on the LCD screen and beeps when a battery is inserted Empty battery voltage = 12.0V Full battery voltage = 16.8V	No reaction when battery is installed Battery stays at 0% while external power is present Battery Icon is flashing on the LCD screen	The battery is depleted or not recognized by the concentrator	Remove and reinsert the battery or apply external power to bring the concentrator into standby mode Charge the battery by attaching external power. The battery might need 1-2 hours before normal charging begins if the battery is severely depleted (ie, left on a concentrator during storage). If battery charging never resumes, then the battery should be replaced Check the battery voltage by measuring the voltage across the outside two pins on the battery Verify that the connector receptacle and connector pins are not bent or damaged.
		Concentrator displays charging status and remaining run time status	Battery time remaining says 0:00	The concentrator is not communicating with the battery Or the battery might be severely depleted and in need of charging	Shut down the concentrator and then restart it. If the problem persists, try a different battery or a different motherboard

		The battery icon on the LCD shows the approximate charge of the battery	No battery icon is present even though a battery is attached	The concentrator is not communicating with the battery	Shut down the concentrator and the restart it. If the problem persists, try a different battery. If the problem cannot be resolved, replace the motherboard
2	Error Message	Normal Display	Error Display	Fault	Troubleshooting & Repair
	Error 1	No Error Message	System Power Error	The battery attached to the concentrator is depleted or bad OR The UPS voltage is irregular	Try a different battery if available or charge the battery and try again. If the system will not respond to a known good battery, replace the motherboard Try the other input of the UPS to determine if the UPS needs to be replaced (ie, try AC or DC)
	Error 2	No Error Message	Software Error	The Software has encountered an error	Remove power and restart the concentrator. If the error repeats the motherboard needs to be replaced
	Error 4 / 4B	No Error Message	Pressure Error	The system pressure alarm has triggered	Error 4: check that the system pressure is not greater than 30 PSI Error 4B: check that the columns are properly installed. SW version 1.1 may have false alarms for error 4B and should be updated to the latest SW revision to resolve the false errors
	Error 16	No Error Message	System Current Error	The compressor likely did not start when the system was powered on	Inspect the wire harness from the compressor for wear or damage against the metal compressor housing, if the wires are worn through, replace the compressor If Harness is not damaged, replace the motherboard if an alternate compressor will not run from the motherboard
	Error 128	No Error Message	Sensor Error	One of the sensors is giving bad readings	Remove AC and battery power and restart the concentrator. If the error repeats after several attempts the motherboard needs to be replaced
	Oxygen Low	No Error Message		Oxygen < 82% for 30 minutes Causes of this error	If this error persists, the tubing should be checked for leaks or kinks. If no tubing problems are found, replace the zeolite beds or the product manifold

	Oxygen Error	No Error Message		Oxygen < 50% for 10 minutes Various Causes of this error	If no tubing kinks or leaks are found, replace the feed/waste or product manifolds to resolve the problem
2	Error Message	Normal Display	Error Display	Fault	Troubleshooting & Repair
	O2 Sensor Failure	No Error Message	Oxygen Sensor Error	The O2 sensor is giving false readings	Replace the oxygen sensor
	System Hot	No Error Message	System Hot Shutdown	The cooling fan is not functioning OR The exhaust vent is blocked by the carry bag	Allow the concentrator to cool for 10 minutes. If the error occurs immediately when started, replace the cooling fan Clear the vent and resume using the concentrator
	System Cold	No Error Message	System Cold Shutdown	The concentrator will not start-up when stored in temperatures below 4C.	Allow the concentrator to warm up in a room temperature environment for 10 minutes and then restart the concentrator If the problem persists replace the motherboard
	Battery Error	No Error Message	Battery Error	The concentrator is not communicating with the battery	Shut down the concentrator, remove the battery and the restart the concentrator and replace the battery If the problem persists, turn off the concentrator and allow the battery to charge for 4 hours If the problem persists, try a different battery If the problem persists, replace the motherboard
	Service Needed	No Error Message	Service Needed and Red LED on LCD	The compressor has reached its maximum speed and needs service within approximately 30 days Or the Feed/Waste Valve is malfunctioning, and no O2 is being delivered while this error is present	Repair or replace the concentrator when possible by replacing the compressor or the feed waste valve If F/W manifold is faulty, plugging the black exhaust tube will start the PSA cycle confirming the F/W manifold was stuck in an indeterminate position

	O2 Delivery Error	No Error Message	O2 Delivery Error	The system detected a breath but did not detect a bolus delivery	Check for kinked tubing to the breath detect sensor. Replace the breath detect sensor or the Product manifold to resolve the no bolus condition.
3	Abnormality	Normal Behavior	Abnormal Behavior	Fault	Troubleshooting & Repair
	Noise	Concentrator should be free of rattles and whistles	Concentrator makes loud noise when running	Compressor tube not seated correctly	Push the tubing onto the compressor output so that it is all the way flush against the end of the barb. Rotate the tubing so that the compressor does not hit the rear wall of the chassis Check that the compressor mounts are not torn
			Concentrator makes a whistling sound during part of the operating cycle	Product manifold check valve may have debris in it or may be misassembled	Replace the product manifold
4	Software Information	Software Information			
	Motherboard Motor Driver Software	Software v1.0 is only for older compressors that have an 8 wire harness (hall sensor control). Software v1.1 and 1.2 can be used with the older 8 wire harnesses and newer 3 wire harnesses.			

Required Tools

Tool	Notes
T10 Torx Driver	
Small Flathead Screwdriver	
Pliers	
Scissors	
1/8" Hex Driver	
Ultrasonic Oxygen Analyzer	Invacare Check O2 Plus
Ultrasonic Oxygen Analyzer	Salter Labs ProO2 Check Elite
Inogen Spanner Wrench	For cannula barb removal