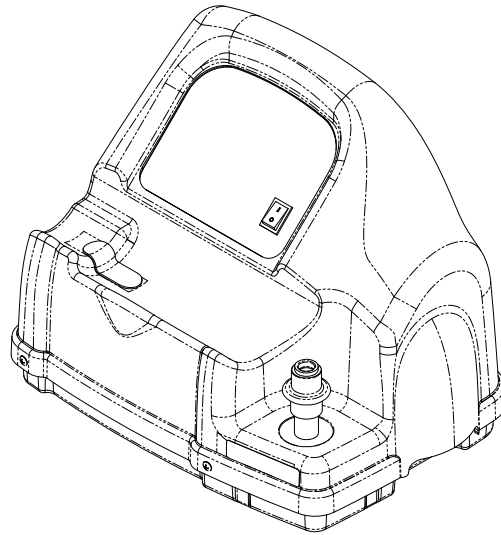


HomeFill® II AW Compressor



NOTE: Compressor shown without cylinder attached.

DEALER: Keep this manual. The procedures in this manual **MUST** be performed by a qualified technician.

For more information regarding Invacare products, parts, and services, please visit www.invacare.com



Yes, you can.®

⚠ DANGER

Risk Of Death, Injury, Or Damage

Improper use of the product may cause death, injury or damage. This manual contains important information for the safe operation and use of this product.

- **DO NOT** use this product or any available optional equipment without first completely reading and understanding these instructions and any additional instructional material such as user manuals, service manuals or instruction sheets supplied with this product or optional equipment.
 - If you are unable to understand the warnings, cautions or instructions, contact a healthcare professional, dealer or technical personnel before attempting to use this equipment.
 - **THE PROCEDURES IN THIS SERVICE MANUAL MUST BE PERFORMED BY A QUALIFIED TECHNICIAN.**
-

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SPECIAL NOTES

⚠ DANGER

Risk Of Death, Injury Or Damage From Fire

Textiles, oil or petroleum substances, grease, greasy substances and other combustibles are easily ignited and burn with great intensity in oxygen enriched air and when in contact with oxygen under pressure. To avoid fire, death, injury or damage:

- **DO NOT SMOKE** while using this device.
- **DO NOT** use near **OPEN FLAME** or **IGNITION SOURCES**.
- **DO NOT** use any lubricants on the compressor unless recommended by Invacare.
- **NO SMOKING** signs should be prominently displayed.
- **Avoid** creation of any spark near oxygen equipment. This includes sparks from static electricity created by any type of friction.
- **Keep** all matches, lighted cigarettes, electronic cigarettes or other sources of ignition out of the room in which this compressor is located and away from where oxygen is being delivered.
- **Keep** the oxygen tubing, cord, and compressor out from under such items as blankets, bed coverings, chair cushions, clothing, and away from heated or hot surfaces including space heaters, stoves, and similar electrical appliances.
- **DO NOT** allow oil from your hands or other sources to come into contact with the compressor coupling or cylinder fittings. These substances may become flammable in the presence of oxygen and cause injury. **Avoid** touching the cylinder fitting whenever possible. Example of items to avoid are hand creams or lotions, cooking oils, suntan oils or sunblocks and similar oily products. If you use these types of products Invacare suggests you wash your hands prior to using the HomeFill unit. If the cylinder fitting should come in contact with such substances it should be cleaned off with a damp cloth prior to connecting it to the compressor.
- **NEVER** oil or lubricate the compressor coupler or cylinder fittings. **NEVER** use any penetrating oil or lubricant such as **WD-40[®]** or **3-in-1 Oil[®]**. If connection difficulty is experienced verify that the cylinder fitting is being inserted straight down into the compressor coupler. If continued difficulty is experienced contact your supplier for assistance.

⚠ ACCESSORIES WARNING

Risk of Serious Injury Or Damage

Use of non-Invacare accessories may result in serious injury or damage.

- Invacare products are specifically designed and manufactured for use in conjunction with Invacare accessories. Accessories designed by other manufacturers have not been tested by Invacare and are not recommended for use with Invacare products.
- **DO NOT** use non-Invacare accessories.
- To obtain Invacare accessories, contact Invacare by phone or at www.invacare.com.

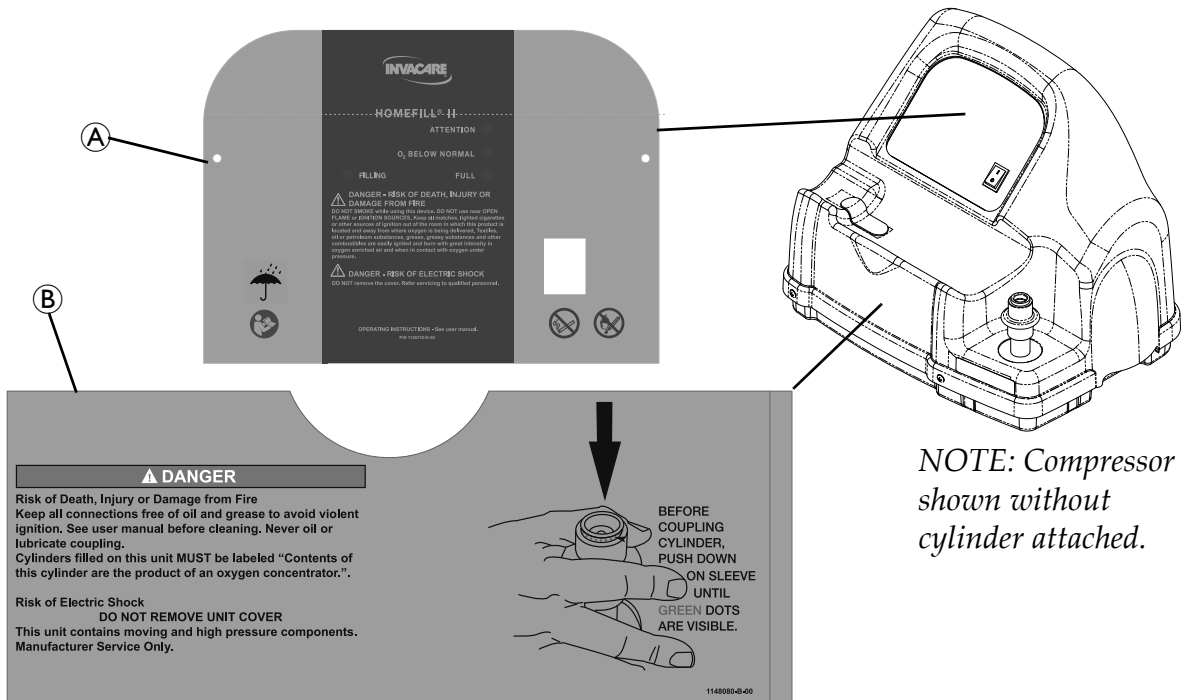
NOTE: The information contained in this document is subject to change without notice.

TECHNICAL DATA

SPECIFICATIONS

Regulatory Listings:	EN/IEC 60601-1
	EN/IEC 60601-1-2
Electrical Ratings:	230 V~, 1.0 A, 50 Hz
Operating Environmental Conditions:	41 to 104° F (5 to 40° C) at 15 to 60% non-condensing humidity
Atmospheric Pressure:	700 to 1060 hPa
Storage and Transport:	-25 to 158° F (-23 to 70° C) at 15 to 95% non-condensing humidity
Input Pressure Required:	14 - 21 PSI (96.5-144.7 kPa)
Input Flow Required:	2 L/min
Input O₂% Required:	>90% O ₂
Width:	20 ¼ inches (51.44 cm)
Height:	15 inches (38.1 cm)
Depth:	16 inches (40.64 cm)
Weight:	33 lbs (14.97 kg)
Shipping Weight:	39 lbs (17.69 kg)
Max Applied Part Temperature:	122° F (50° C)

LABEL LOCATIONS



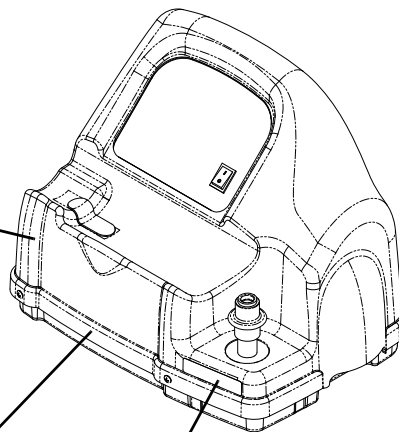
FRONT PANEL LABEL A PART NUMBER	COMPOSITE LABEL B PART NUMBER	LANGUAGE
1145730	1148080	English
1145734	1148081	Spanish
1145735	1148082	French
1145736	1148083	German
1145737	1148084	Portuguese
1145738	1148085	Norwegian
1145739	1148086	Finnish
1145740	1148087	Danish
1145741	1148088	Italian
1145742	1148089	Polish
1145743	1148090	Czech
1145744	1148091	Greek
1145745	1148092	Dutch
1145746	1148093	Swedish
1155844	1155847	Chinese
1163176	1163177	Estonian
1164884	1164885	Latvian
1167490	1167489	Lithuanian

NOTE: Compressor shown without cylinder attached.

⚠ DANGER Risk of Death, Injury or Damage from Fire
Keep all connections free of oil and grease to avoid violent ignition. See user manual before cleaning. 1075220-D-00

⚠ DANGER Risk of Electric Shock
DO NOT REMOVE UNIT COVER
This unit contains moving and high pressure components. Manufacturer Service Only. 1075221-C-01

⚠ DANGER Risk of Death, Injury or Damage from Fire
Keep all connections free of oil and grease to avoid violent ignition. See user manual before cleaning. Never oil or lubricate coupling. Cylinders filled on this unit MUST be labeled "Contents of this cylinder are the product of an oxygen concentrator." 1075238-D-00






GENERAL

Symbols












Symbols in the Manual










Signal words are used in this manual and apply to hazards or unsafe practices which could result in personal injury or property damage. Refer to the table below for definitions of the signal words.

Signal Word	Meaning
 DANGER	Danger indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
 WARNING	Warning indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
 CAUTION	Caution indicates a potentially hazardous situation which, if not avoided, may result in property damage or minor injury or both.
! IMPORTANT	Indicates a hazardous situation that could result in damage to property if it is not avoided.
<i>NOTE:</i>	Gives useful tips, recommendations and information for efficient, trouble-free use.

Symbols on the Product

The following symbols are found on the compressor, compressor packaging or the oxygen cylinder.

	Read the Manual (Compressor) <i>NOTE: The color of the symbol background is blue on product labels.</i>
	Read the Manual (Cylinder)
	Electrical Hazard
	Alternating Current
	Type BF equipment - Applied Parts
	Power switch "ON"
	Power switch "OFF"
	DO NOT smoke
	No Open Flame
	Class II, Double Insulation. Refer to Double Insulated Products in the Safety section of the manual.
	Keep dry in transport or storage and during use

	Fuse
	Oxidizer <i>NOTE: The color of the symbol background is yellow on product labels.</i>
	Non-flammable gas, class 2 type (oxygen) <i>NOTE: The color of the symbol background is green on product labels.</i>
	Transport and Storage Temperature
	Transport and Storage Humidity
	Recycle this product. Refer to Disposal of Equipment and Accessories in the After Use section of the manual.
	This product complies with Directive 93/42/EEC concerning medical devices. The launch date of this product is stated in the CE declaration of conformity.
	European Representative
	Manufacturer

Intended Use

WARNING

- The use of this device is limited to refilling a specific patient's own oxygen cylinders. The designated cylinders **MUST** be used **ONLY** by the specific oxygen patient and are not to be distributed to any other individual for any purpose.
- No other use of this device is indicated.

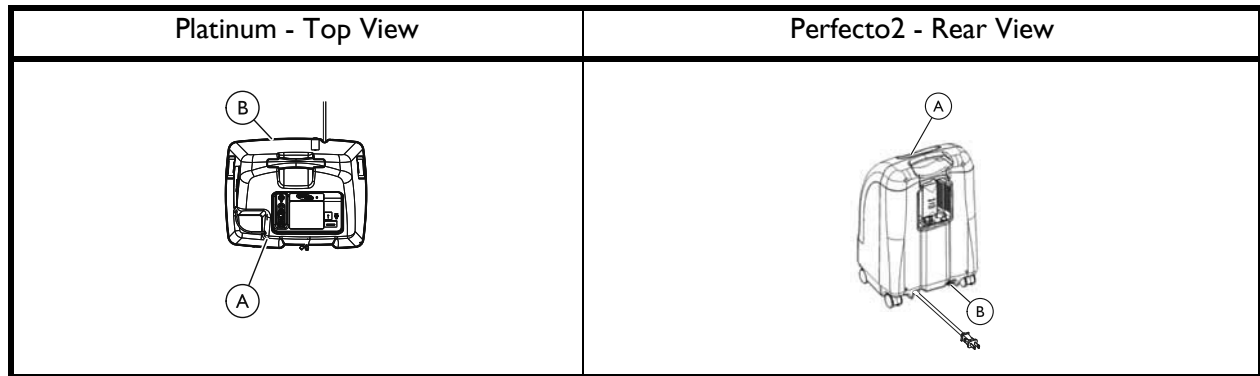
WARNING

Risk of Death, Injury or Damage

The Invacare HomeFill compressor was designed to be used only with Invacare oxygen concentrators. Use with other types of devices may cause injury, death or property damage.

- **DO NOT** use the Invacare HomeFill compressor with anything other than an Invacare oxygen concentrator.
- Use only with specially designed Invacare oxygen concentrators that are HomeFill compatible.

To determine if your oxygen concentrator is HomeFill compatible, examine the lower right corner of the rear of the oxygen concentrator (A) for an outlet fitting (B).



The intended use of an Invacare HomeFill compressor is an accessory device to an Invacare oxygen concentrator that enables the patient to refill custom portable oxygen cylinders for personal use.

This product is intended for single patient use in the indoor homecare environment only and is not to be used for bulk cylinder refilling.

No specific product knowledge or training is required, other than what is contained in this manual, to operate the product.

It is not intended for supplying oxygen therapy during refilling.

This product is intended to be used by or under adult supervision only after reading and understanding the instructions and warnings of this user manual.

SECTION I—GENERAL GUIDELINES

⚠ DANGER

Risk Of Death, Injury Or Damage

Improper use of the product may cause death, injury or damage. This section contains important information for the safe operation and use of this product.

- In order to ensure the safe installation, assembly and operation of the HomeFill Compressor these instructions **MUST** be followed.
-

⚠ CAUTION

Federal (statutory) law restricts this device to sale by or on the order of a medical practitioner licensed by a governmental agency where he/she practices.

- **ONLY** a licensed medical practitioner may order the purchase or use of this device.
-

Operating Information

⚠ WARNING

Risk of Injury or Damage

The HomeFill is equipped with a high pressure relief valve to ensure the user's safety. When activated, this safety feature will make an extremely loud noise. To avoid injury or damage:

- If this noise occurs, turn the unit **Off. DO NOT** use. Service unit before use. Refer to **Replacing Burst Disk Fitting** on page 42.

If improperly positioned and secured, the power cord and interconnect hose can cause injury due to tripping and falling. Product damage may also occur.

- The power cord and interconnect hose **MUST** be routed and secured properly.
- **Avoid** positioning power cords across areas of high traffic.
- **Before** moving or repositioning either the compressor or concentrator, **ALWAYS** disconnect the **AC** power cords and the interconnect hose between the compressor and concentrator.

Blocking the air flow into and out of the compressor may cause injury or damage.

- **NEVER** block the air openings of the product or place it on a soft surface, such as a bed or couch, where the air opening may be blocked.
- Keep the openings free from lint, hair and similar foreign items.
- **NEVER** drop or insert any object into any opening.

A damaged product may malfunction and cause injury or damage. To avoid injury or damage:

- **DO NOT** get the compressor wet.
 - If the compressor is not working properly, if it has been dropped or damaged, or submersed in water, a qualified technician **MUST** examine and repair the unit **BEFORE** it is given to the user.
-

⚠ WARNING

Risk of Injury or Damage

- If any leakage of the oxygen cylinder is detected, **DO NOT** attempt to use the cylinder. Turn the flow selector knob on the regulator to “Off”. If leakage persists, place the cylinder outdoors and notify your Home Health Care Provider or Service Representative of this condition.

Risk of Injury

- **ALWAYS** keep hands and fingers clear of moving parts to avoid injury.
-

Handling

⚠ WARNING

Risk of Fire

- **DO NOT** store filled cylinder assemblies near a furnace, hot water tank, in the trunk of a car or other high temperature area. Storage in areas such as this can result in bursting of the cylinder assembly or fire.

Risk of Injury or Damage

- **NEVER** transport a compressor with a cylinder connected to or stored on the compressor. Otherwise, injury or damage can occur.
-

⚠ CAUTION

Risk of Injury or Damage

To reduce the risk of injury or damage from dropped or impacted cylinder assemblies:

- Use two hands when handling/transporting oxygen cylinders.
 - Only use Invacare Corporation carrying bag.
 - **DO NOT** allow cylinder assemblies to tip or fall. **DO NOT** drop cylinder assemblies.
 - Secure gas cylinders so they cannot fall.
 - Ensure cylinder is always in upright position when not connected to the HomeFill compressor.
 - **DO NOT** allow cylinder to impact inanimate objects.
-

EMC Information

⚠ WARNING

Risk of Injury or Damage

To reduce the risk of injury or product damage from interference with wireless equipment:

- **Keep the compressor at least 9.8 ft (3.0 m) away from wireless communication equipment such as wireless home network devices, mobile phones, cordless phones and base stations, walkie-talkies, etc.**

Medical Electrical Equipment needs to be installed and used according to the EMC information in this manual.

This equipment has been tested and found to comply with EMC limits specified by IEC/EN 60601-1-2 for Type BF equipment. These limits are determined to provide reasonable protection against electromagnetic interference in a typical home healthcare environment. This equipment is not intended for use in a professional healthcare environment.

Portable and mobile RF communications equipment can affect the operation of this equipment. The compressor may be stacked on top on an Invacare HomeFill compatible oxygen concentrator during setup. The compressor operation should be observed to verify normal cylinder filling in either situation.

Other devices may experience interference from even the low levels of electromagnetic emissions permitted by the above standard. To determine if the emissions from the compressor are causing the interference, turn the compressor Off. If the interference with the other device operation stops, then the compressor is causing the interference. In such rare cases, interference may be reduced or corrected by one of the following measures:

- Reposition, relocate, or increase the separation between the devices.
- Connect either line powered device to a different electrical power circuit.

Contact Invacare for any additional EMC information or EMC tables for the device environment.

SECTION 2— CONCENTRATOR VERIFICATION AND MAINTENANCE

Performance Verification

NOTE: A dedicated concentrator should be used to test HomeFill compressors.

NOTE: The test concentrator MUST have its performance verified and documented prior to testing HomeFill compressors.

NOTE: All performance verification and maintenance performed on the test concentrator MUST be documented on a log sheet that is attached to the concentrator.

1. Turn On the concentrator and set the flow rate to 5 L/min.
2. Allow the concentrator to warm up for a minimum of 30 minutes.
3. After the 30 minute warm-up, check the oxygen concentration using a calibrated oxygen analyzer.

NOTE: The oxygen concentration reading MUST be above 90% at 5 L/min.

4. Provided the oxygen concentration is 90% or higher at 5 L/min., record the following on the repair statement and on the test concentrator maintenance log:
 - A. Date of the performance test and when any service is performed.
 - B. Hour meter reading.
 - C. Oxygen concentration.
 - D. If service is performed, record all details of repair, including preventative maintenance.
 - E. Record all parts replaced, and list all detailed performance results.

NOTE: A new entry MUST be made for each performance test, or when any service type items are performed.

5. Turn the concentrator flow rate down to 2.5 L/min.
6. Connect the test concentrator to the HomeFill compressor to be tested. Refer to Connecting the Compressor to the Concentrator on page 17.
7. Test the HomeFill compressor. Refer to Troubleshooting/Cylinder Fill Times on page 85.

Connecting the Compressor to the Concentrator

NOTE: For this procedure, refer to FIGURE 2.1 on page 17.

1. Insert one end of the interconnect hose into the outlet fitting on the back of the concentrator (Detail “A”).
2. Insert the opposite end of the interconnect hose into the inlet fitting on the side of the compressor (Detail “B”).

NOTE: The metal tabs on the concentrator outlet fitting and the compressor inlet fitting will pop out with an audible “click” when the end of the interconnect hose is properly installed (Detail “C”).

3. For models that DO NOT have coiled tubing, loop any excess interconnect hose and secure to the back of the concentrator with the fastening straps.

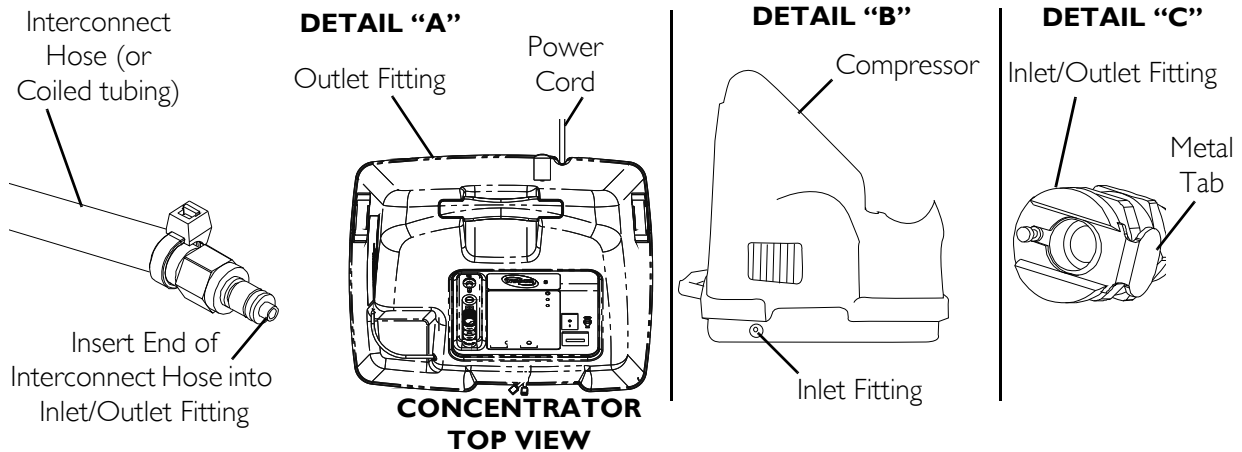


FIGURE 2.1 Concentrator Verification and Maintenance

SECTION 3—CHECKLIST AND CYLINDER INSPECTION

Compressor Operation Checklist

Each time the HomeFill Compressor is used to fill a cylinder, complete the following checklist:

- Ensure the concentrator has been on for at least 30 minutes. Refer to the concentrator User Manual.
- Perform the prefill inspection on the cylinder.
- Connect the cylinder to the compressor.
- Turn the compressor On.
- Examine the indicator lights on the control panel.
- Disconnect and remove the full cylinder.
- Turn the compressor Off.
- If filling another cylinder, repeat this checklist.

Cylinder Prefill Inspection

⚠ WARNING

Use only cylinders that have the Invacare HomeFill II connection and the HomeFill II label as shown in **FIGURE 3.1** on page 18.

All cylinders **MUST** be inspected before attempting to fill. Otherwise, injury or damage may occur.

NOTE: For this procedure, refer to FIGURE 3.1 on page 18.

To identify a HomeFill II compatible cylinder **(A)**, look for a black stripe **(B)** on the top of the cylinder and look for the HomeFill II label **(C)**.

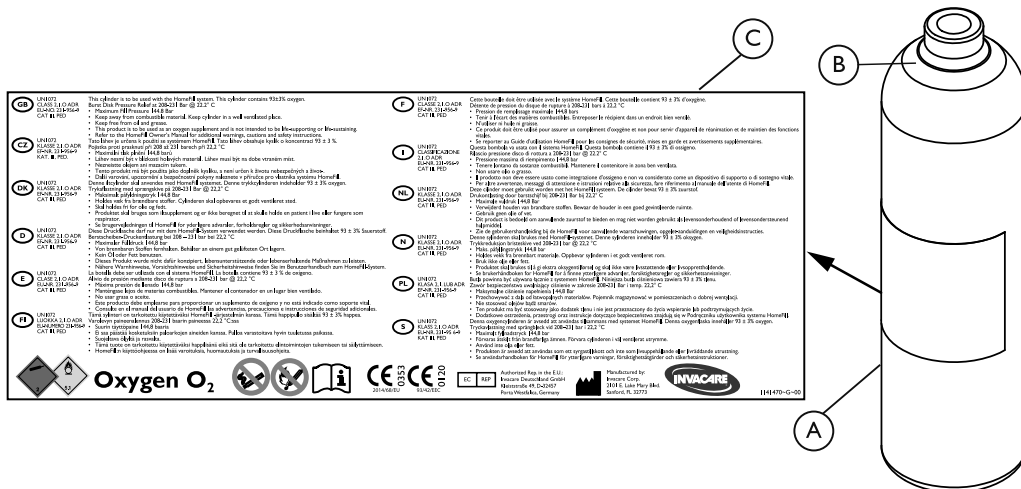


FIGURE 3.1 Cylinder Prefill Inspection

Hydrostatic Testing Date

Aluminum cylinders **MUST** undergo testing every ten years.

WARNING

Risk of Injury

To reduce the risk of injury:

- **DO NOT** fill cylinders that have not been tested in the past ten years. Otherwise, serious personal injury may result. Contact your dealer/Home Care equipment provider for replacement.
-

External Examination

1. Examine the outside of the cylinder for the following conditions, and replace the cylinder if they exist:
 - Dents or dings
 - Arc burns
 - Oil or grease
 - Any other signs of damage that might cause a cylinder to be unacceptable or unsafe for use.
2. Examine the cylinder for evidence of fire or thermal damage. Evidence includes charring or blistering of the paint, or other protective coating or heat sensitive indicator. If fire or thermal damage is found, replace the cylinder.
3. Inspect the Invacare valve for the following and replace if found:
 - Debris, oil or grease
 - Noticeable signs of damage
 - Signs of corrosion inside the valve
 - Signs of excessive heat or fire damage

SECTION 4—COMPRESSOR OPERATION

Connecting/Disconnecting Cylinder to/from Compressor

Connecting the Cylinder to the Compressor

⚠ WARNING

DO NOT modify any connections on the HomeFill compressor.

NEVER use tools of any kind to connect/disconnect the cylinder and the compressor. Otherwise, severe injury and/or damage may occur.

DO NOT drop oxygen cylinders. Use two hands when handling/transporting oxygen cylinders. Otherwise, injury or damage may occur.

DO NOT use a liquid leak detector to test for leaks.

NOTE: For this procedure, refer to FIGURE 4.1 on page 20 and FIGURE 4.2 on page 21.

1. Prior to each use, inspect product for visible damage. Refer to External Examination on page 19. **DO NOT** use if any damage is found.

NOTE: If for any reason, any label becomes illegible or lost, contact your dealer/Home Care equipment provider.

2. Examine the cylinder gauge. If the cylinder pressure is less than 1500 psig. (10342 kPa), proceed to STEP 2.

NOTE: For location of the cylinder gauge, refer to the cylinder user manual. If the cylinder pressure is greater than 1500 psig (10342 kPa), DO NOT attempt to top off the cylinder. It may not fill. Bleed the cylinder or select another cylinder.

3. Set the regulator flow dial on the cylinder to Off (Detail “B” of FIGURE 4.2). Refer to the cylinder user manual.
4. Remove the cylinder and connector fillport covers (if present).

NOTE: On older models, the green dots do not exist.

5. To reset the connector, momentarily push down on the outer ring (sleeve) of the connector fillport until GREEN dots are visible (FIGURE 4.1).

NOTE: If the outer ring (sleeve) is in the up position (GREEN dots not visible), the connector fillport will not be able to accept the cylinder fillport. Pushing down momentarily will reset the connector fillport (GREEN dots visible) to accept the cylinder fillport.

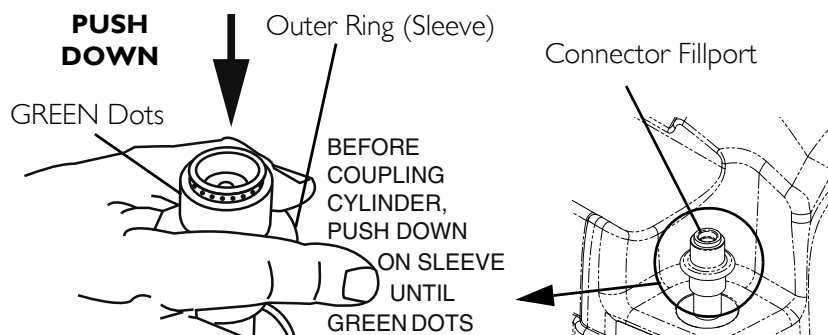
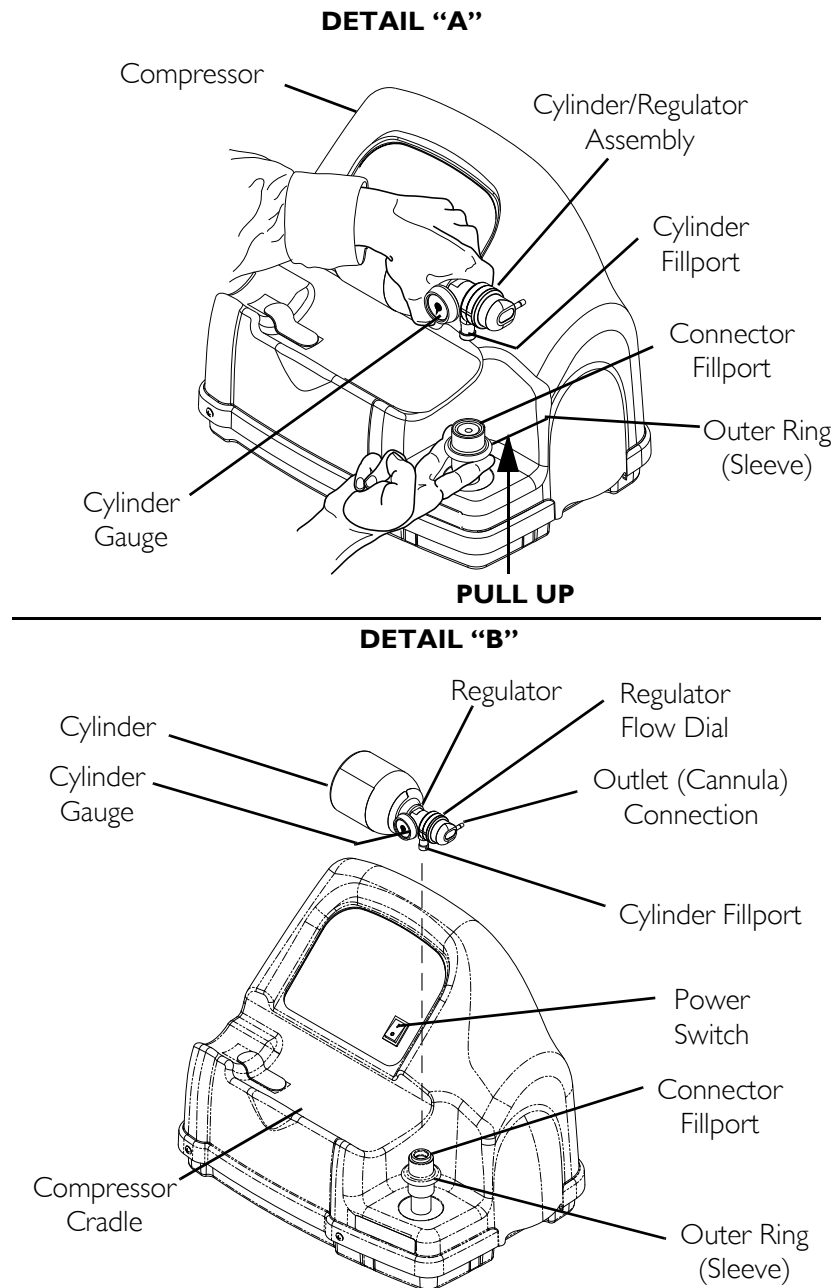


FIGURE 4.1 Resetting Connector Fillport

6. Grasp the cylinder/regulator assembly in the area behind the cylinder gauge in FIGURE 4.2 on page 21.
7. Position the cylinder in the compressor cradle (Detail "A" of FIGURE 4.2).
8. Align the cylinder fillport with the connector fillport (Detail "B" of FIGURE 4.2).
9. Pull up on the outer ring (sleeve) of the connector fillport while pushing down on the cylinder/regulator assembly to couple the cylinder fillport into the connector fillport (Detail "A" of FIGURE 4.2).

NOTE: The cylinder is properly connected when an audible "click" is heard.



NOTE: Fillport covers not shown for clarity.

FIGURE 4.2 Connecting the Cylinder to the Compressor

Disconnecting Cylinder From Compressor

⚠ WARNING

DO NOT modify any connections on the HomeFill compressor. **NEVER** use tools of any kind to connect/disconnect the cylinder and the compressor. Otherwise, severe injury and/or damage may occur.

NOTE: For this procedure, refer to FIGURE 4.3 on page 22.

1. Press the compressor power switch to the Off (O) position.
2. Grasp the cylinder/regulator assembly in the area behind the cylinder gauge.
3. With the other hand, grasp the outer ring (sleeve) of the connector fillport and push down.
4. Lift up on the cylinder/regulator assembly to remove from the connector fillport.
5. When the cylinder fillport is disconnected from the connector fillport, release the outer ring (sleeve) of the connector fillport and use two hands to remove the cylinder from the compressor cradle.

⚠ WARNING

- The fillport cover on the connector fillport and the cylinder fillport MUST be replaced after filling and whenever not in use. If either of the fillport covers are missing replace these parts before using or returning to the user.

6. Place the fillport covers onto the connector and cylinder fillports.

NOTE: The fillport covers should be used whenever cylinders are not being filled.

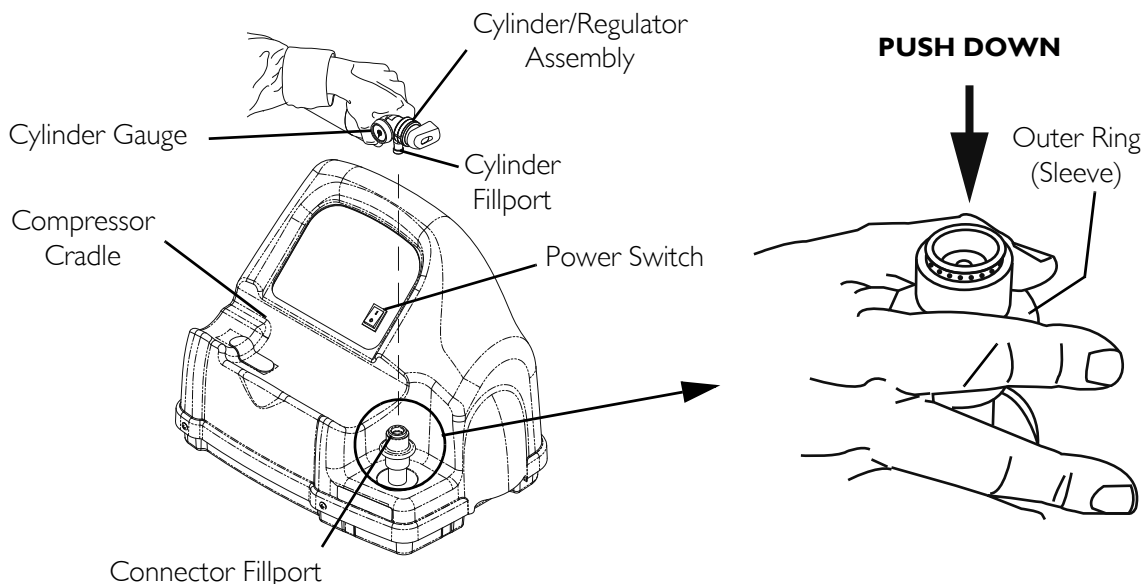


FIGURE 4.3 Disconnecting Cylinder From Compressor

Turning the Compressor On and Off

NOTE: For this procedure, refer to FIGURE 4.4 on page 24.

1. Make sure the concentrator is On and runs a minimum of 30 minutes.

⚠ CAUTION

The concentrator flow rate to the patient MUST be set at maximum: 2.5 L/min. or less for Platinum 5, Platinum S, Perfecto₂ and 5 L/min. for Platinum 9. Otherwise, the oxygen level to the compressor will be <90% and the compressor will not fill the cylinder.

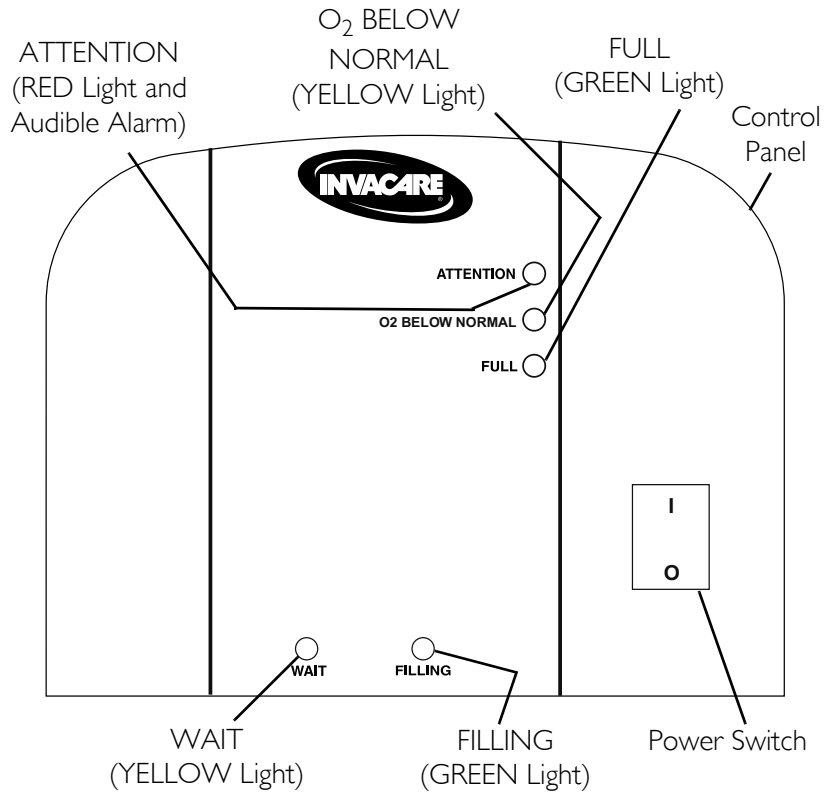
2. Set the concentrator flow rate to the patient to 2.5 L/min. or less for Platinum 5, Platinum S, Perfecto₂ and 5 L/min. for Platinum 9.
3. Make sure the cylinder is connected to the compressor. Refer to Connecting the Cylinder to the Compressor on page 20.
4. Push the power switch on the control panel to the On position.
5. Perform one of the following:
 - A. For HomeFill units manufactured before 02/02/06 - Examine the control panel. The following sequence of events should occur:
 - 0-3 minutes - The WAIT (YELLOW) light will be lit while the compressor warms up.
 - After three minutes - The FILLING (GREEN) light will be on while the cylinder is filling.
 - The FULL (GREEN) light will be on when the cylinder is finished filling. Proceed to STEP 6.
 - B. For HomeFill units manufactured after 02/02/06 - Examine the control panel. The following sequence of events should occur:
 - 0-3 minutes - The O₂ Below Normal (YELLOW) light will be lit while the compressor warms up.
 - After three minutes - The FILLING (GREEN) light will be on while the cylinder is filling.
 - The FULL (GREEN) light will be on when the cylinder is finished filling. Proceed to STEP 6.

NOTE: The O₂ BELOW NORMAL (YELLOW) light may come on if the oxygen level from the concentrator has not yet reached or drops below 90%. The compressor will begin or resume filling when the oxygen level reaches 90%. If light does not go Off within 10 minutes, refer to Troubleshooting on page 85.

NOTE: If the ATTENTION (RED) light and audible alarm are on, refer to Troubleshooting on page 85.

6. Remove the full cylinder. Refer to Disconnecting Cylinder From Compressor on page 22.

For HomeFill units manufactured before 02/02/06



For HomeFill units manufactured after 02/02/06

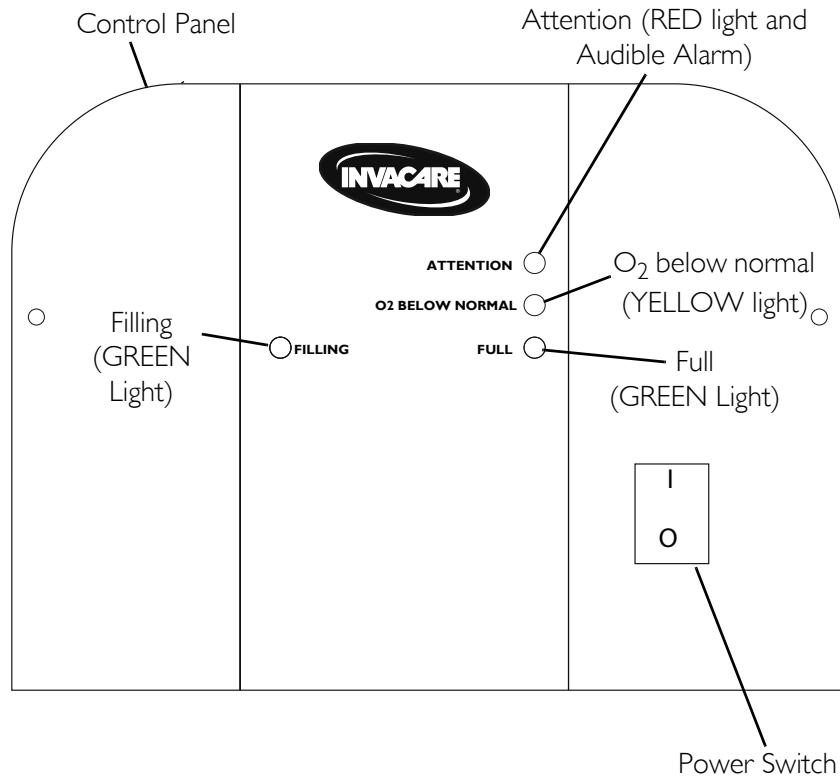


FIGURE 4.4 Turning the Compressor On and Off

SECTION 5—CABINET ASSEMBLY

Removing/Installing the Cabinet

⚠ DANGER

To prevent electrical shock, **ALWAYS** disconnect HomeFill from electrical outlet before servicing.

NOTE: For this procedure, refer to FIGURE 5.1.

Tools required for this procedure are:

- Phillips screwdriver

Removing

1. Unplug the power cord from the electrical outlet.
2. Remove cylinder (if attached). Refer to [Disconnecting Cylinder From Compressor](#) on page 22.
3. Remove the four mounting screws that secure the cabinet assembly to the base assembly.
4. Lift the cabinet straight up off of the base assembly.

Installing

1. Position the cabinet on the base assembly as shown.
2. Secure the cabinet to the base assembly with four mounting screws. Securely tighten.
3. Reattach cylinder. Refer to [Connecting the Cylinder to the Compressor](#) on page 20.
4. Plug power cord into electrical outlet.

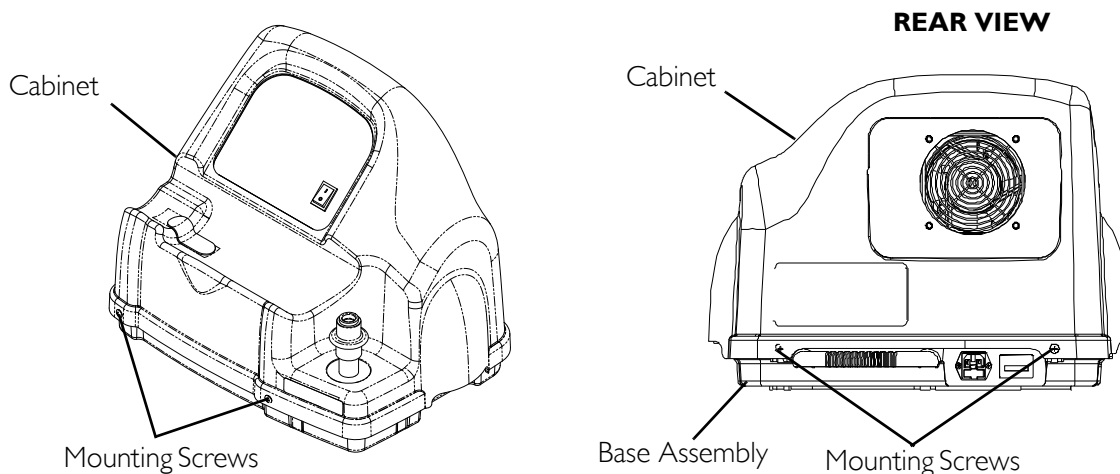


FIGURE 5.1 Removing/Installing the Cabinet

Removing/Installing the Cabinet Filter Grid

NOTE: For this procedure, refer to FIGURE 5.2.

Tools required: Flat head screwdriver and .09 mm drill bit

Removing

1. Remove the cabinet. Refer to [Removing/Installing the Cabinet](#) on page 25.
2. Perform one of the following:
 - For units that have plastic rivets, remove the plastic rivets by pushing the rivets from the inside out with a .09 mm drill bit, proceed to STEP 3.
 - For units without plastic rivets, proceed to STEP 3.
3. Using the flat head screwdriver, pry the lip of the cabinet filter grid out of the cabinet (Detail "C").

Installing

NOTE: For units that have plastic rivets, the cabinet MUST be replaced to use the new filter grid.

1. Install the cabinet filter grid (Detail "B") to the inside of the cabinet. Ensure that the lip of the cabinet filter grid is on the outside of the cabinet.
2. Install the cabinet. Refer to [Removing/Installing the Cabinet](#) on page 25.

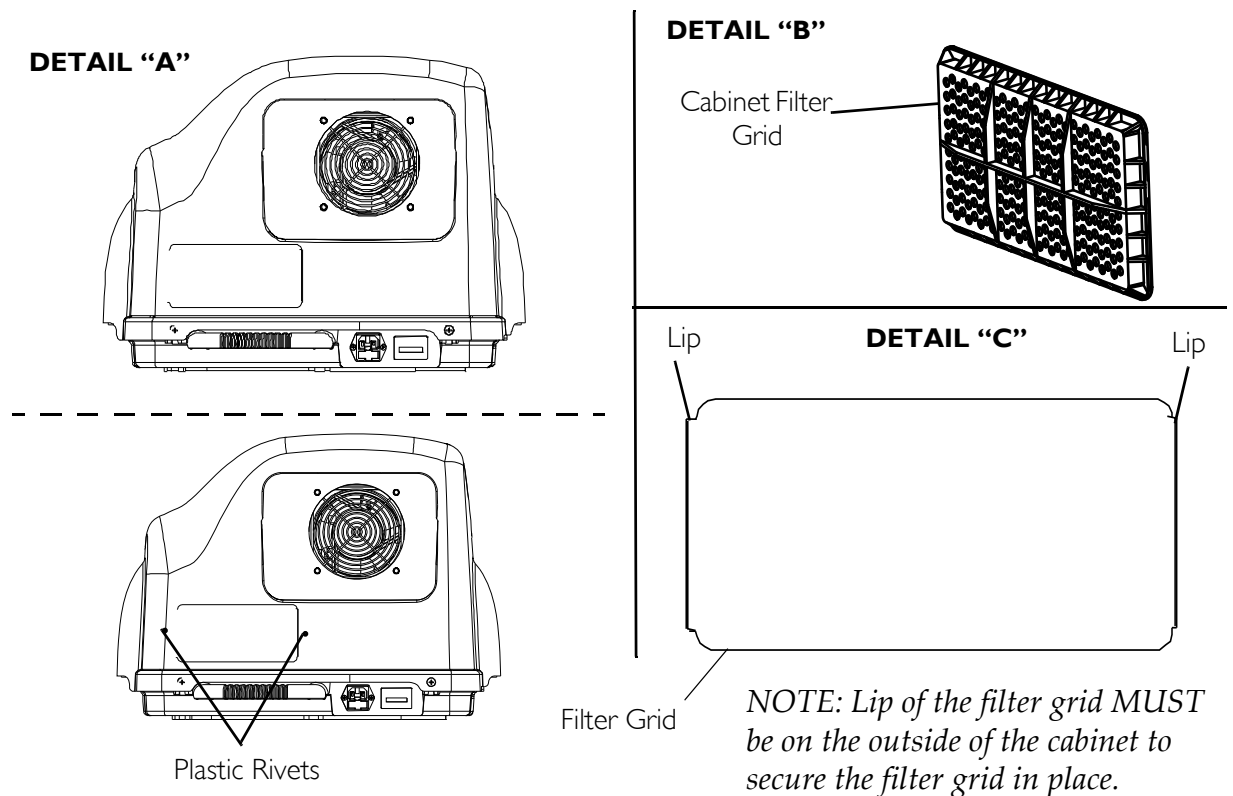


FIGURE 5.2 Removing/Installing the Cabinet Filter Grid

Replacing Non-Skid Adhesive Back Pad

NOTE: For this procedure, refer to FIGURE 5.3.

1. Peel the existing pad from the cabinet and discard.
2. Peel the backing from the new pad.
3. Attach the new pad to the cabinet.

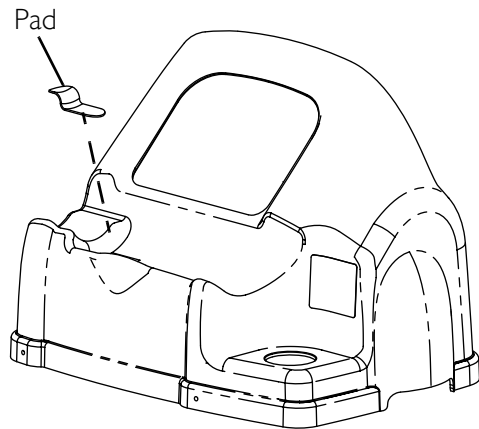


FIGURE 5.3 Replacing Non-Skid Adhesive Back Pad

Replacing Foam Gasket

NOTE: For this procedure, refer to FIGURE 5.4.

1. Remove the cabinet. Refer to [Removing/Installing the Cabinet](#) on page 25.
2. Peel the existing foam gasket from the inside of the control panel opening and discard.
3. Peel the backing from the new foam gasket.
4. Attach the new foam gasket to the inside of control panel opening.

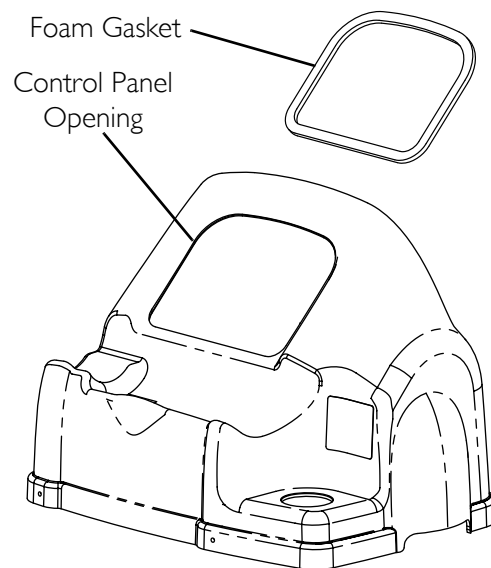


FIGURE 5.4 Replacing Foam Gasket

SECTION 6—PANEL ASSEMBLY

Replacing Exhaust Fan

NOTE: For this procedure, refer to FIGURE 6.1.

Tools required for this procedure are:

- Phillips screwdriver
- Torque Wrench

1. Remove the cabinet. Refer to Removing/Installing the Cabinet on page 25.
2. Note the wire orientation of the two wires located on the exhaust fan.
3. Disconnect the two wires from exhaust fan wire connectors.
4. Remove the four mounting screws securing the fan inlet seal to the exhaust fan (Detail “B”).
5. Set the fan inlet seal aside for re-use.
6. Remove the four mounting screws securing the exhaust fan to the isolator plate.

NOTE: Before securing exhaust fan in place, ensure airflow arrow (molded into the side of the fan) points toward the back and out of the unit.

7. Secure the exhaust fan to the isolator plate with four mounting screws. The mounting screws **MUST** be torqued to 20–30 in-lbs (2.26-3.39 Nm).
8. Secure the fan inlet seal to the exhaust fan with four mounting screws. The mounting screws **MUST** be torqued to 20–30 in-lbs (2.26-3.39 Nm).
9. Connect the two wires to the exhaust fan in the orientation previously noted.
10. Install cabinet. Refer to Removing/Installing the Cabinet on page 25.

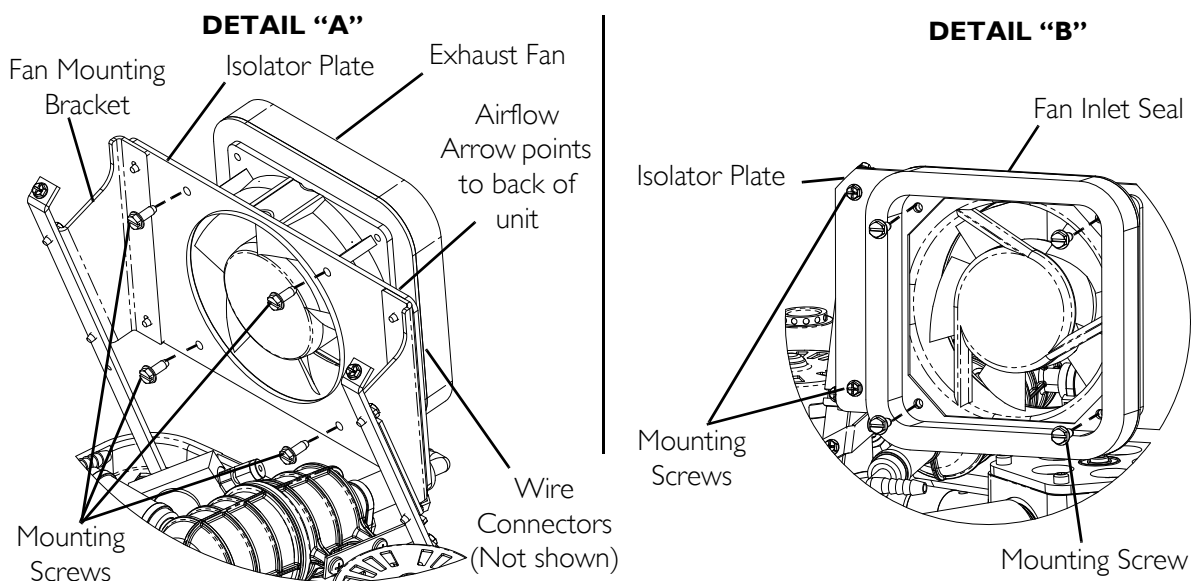


FIGURE 6.1 Replacing Exhaust Fan

Removing/Installing Control Panel

NOTE: For this procedure, refer to FIGURE 6.2.

Tools required for this procedure are:

- Phillips screwdriver
1. Remove the cabinet. Refer to [Removing/Installing the Cabinet](#) on page 25.
 2. Remove the two mounting screws securing the top of the control panel (Detail “A”).
 3. Loosen the two mounting screws securing the bottom of the control panel (Detail “A”).
 4. Slowly pull the control panel back to expose the circuit board and its connections.
 5. Disconnect the three wiring harnesses from the three connectors on the circuit board (Detail “B”).

⚠ CAUTION

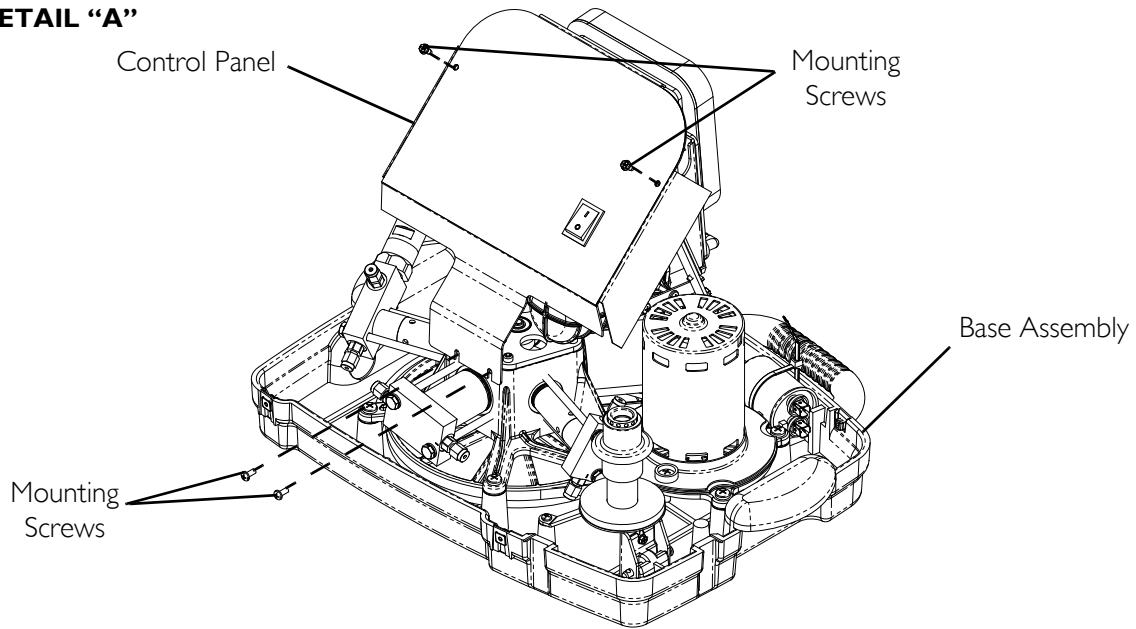
DO NOT disconnect the opaque oxygen sensor tube from the sensor as this may damage the circuit board.

6. Disconnect the opaque oxygen sensor tube from the barbed fitting opposite the sensor (Detail “B”).
7. Note the location of the two wire connectors of the power switch for later replacement.
8. Disconnect the two wire connectors from the power switch (Detail “B”).
9. Disconnect bleed resistor from the control panel (Detail “C”).
10. Remove the control panel.

Installing

1. Connect bleed resistor to the control panel (Detail “C”).
2. Connect the two wire connectors to the power switch (Detail “B”) in the orientation noted previously.
3. Connect the opaque oxygen sensor tube to the barbed fitting on the opposite end of the sensor (Detail “B”).
4. Connect the three wiring harnesses to the three connectors on the circuit board (Detail “B”).
5. Secure the bottom of the control panel with two mounting screws. Securely tighten.
6. Secure the top of the control panel with two mounting screws. Securely tighten.
7. Install the cabinet. Refer to [Removing/Installing the Cabinet](#) on page 25.

DETAIL "A"



⚠ CAUTION
DO NOT disconnect the opaque oxygen sensor tube from the sensor.

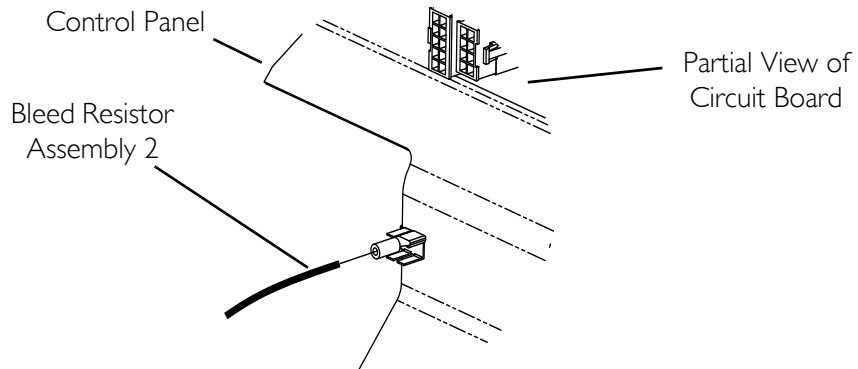
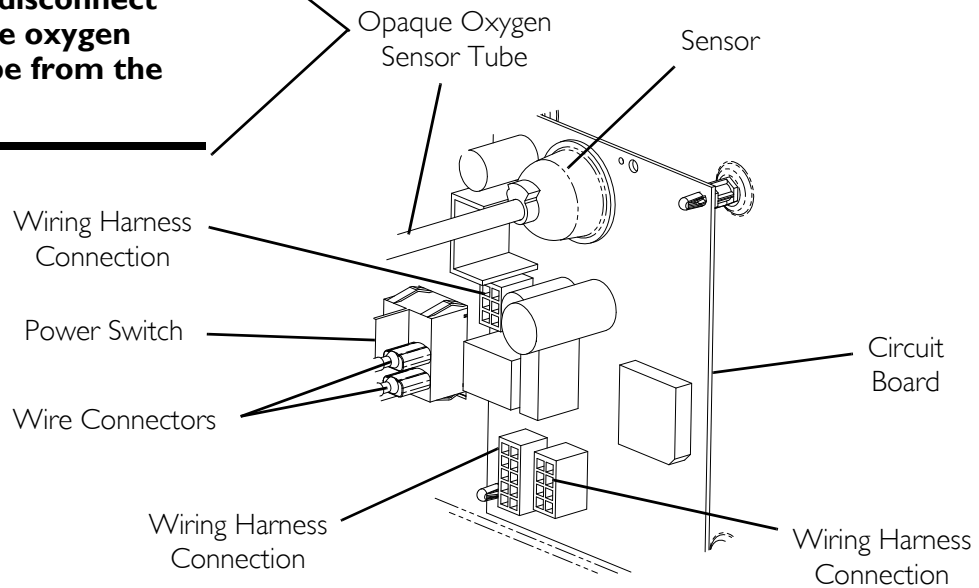


FIGURE 6.2 Removing/Installing Control Panel

Testing/Replacing the Power Switch

NOTE: For this procedure, refer to FIGURE 6.3 on page 31.

Tools required for this procedure are:

- Ohmmeter
1. Remove the cabinet. Refer to Removing/Installing the Cabinet on page 25.
 2. Remove the control panel. Refer to Removing/Installing Control Panel on page 29.
 3. Note the location of the two wire connectors of the power switch for later replacement.
 4. Remove the two wire connectors from the power switch.
 - A. Using an ohmmeter, test the continuity of the switch by placing the meter leads on the switch terminals where the wires were connected.
 - B. Turn the switch to the On position.
 - C. If no indication of continuity is achieved, proceed to step 5. If continuity is achieved, proceed to Step 7.
 5. Release the four retaining clips and push the power switch out of the control panel.
 6. Install power switch into control panel as shown.
 7. Install the two wire connectors onto the power switch.
 8. Install the control panel. Refer to Removing/Installing Control Panel on page 29.
 9. Install the cabinet. Refer to Removing/Installing the Cabinet on page 25.

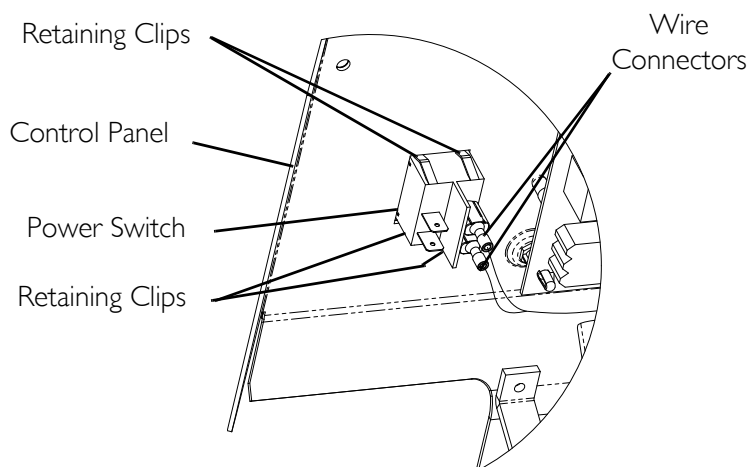


FIGURE 6.3 Testing/Replacing the Power Switch

Replacing Circuit Board

⚠ CAUTION

Before handling any circuit boards, you need to be properly grounded to prevent static damage to the components of the circuit board. A static strap **MUST** be worn and properly grounded using an alligator clip. Electrical conduit or a water pipe is normally sufficient when a known good ground is not available. Care should be taken to ensure that the alligator clip contacts with a bare metal surface.

When removing quick disconnect terminals, **DO NOT** pull on the wire itself as damage to the connection may occur. Hold down the circuit board with one hand and use an upward force with a slight rocking motion to remove the wire connections.

Circuit Boards were changed on 7/3/06. Circuit boards manufactured before 7/3/06 are not interchangeable with circuit boards manufactured after 7/3/06. Otherwise, damage may occur. Consult the HomeFill parts book for the correct circuit board.

NOTE: For this procedure, refer to FIGURE 6.4 on page 32.

1. Remove the cabinet. Refer to [Removing/Installing the Cabinet](#) on page 25.
2. Remove the control panel. Refer to [Removing/Installing Control Panel](#) on page 29.
3. Push in on each of the four standoff securing tabs one at a time while pulling the circuit board away from the control panel.

⚠ CAUTION

Before installing the circuit board, ensure that all insulators are in place.

4. Install new circuit board onto standoff tabs.

NOTE: When installing the circuit board to the control panel, make sure that the standoff securing tabs are out. You will hear an audible click when the securing tab locks the circuit board in place.

5. Install the control panel. Refer to [Removing/Installing Control Panel](#) on page 29.
6. Install the cabinet. Refer to [Removing/Installing the Cabinet](#) on page 25.
7. Operate the compressor.
8. To ensure proper operation, perform a cylinder fill test. Refer to [Cylinder Fill Test](#) on page 88.

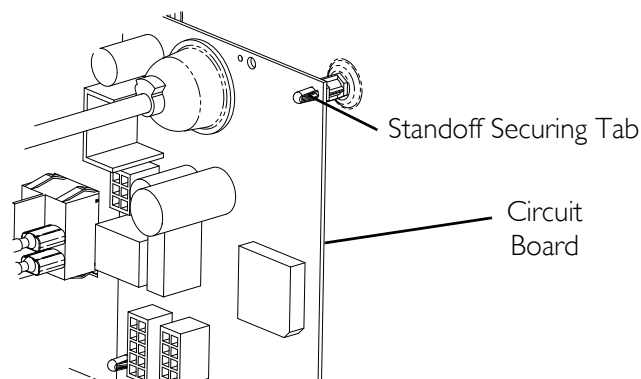


FIGURE 6.4 Replacing Circuit Board

Replacing Accumulator Assembly

⚠ DANGER

To prevent electrical shock, **ALWAYS** disconnect compressor from electrical outlet before servicing.

NOTE: For this procedure, refer to FIGURE 6.5 on page 33.

Tools required for this procedure are:

- Phillips screwdriver

Removing Accumulator Assembly

1. Remove the cabinet. Refer to Removing/Installing the Cabinet on page 25.
2. Remove the control panel. Refer to Removing/Installing Control Panel on page 29.
3. Remove the two mounting screws securing the accumulator assembly to the main brackets.
4. Cut the two tie-wraps securing the two fittings to the oxygen hoses.
5. Remove the existing accumulator assembly.

Installing Accumulator Assembly

1. Install the accumulator assembly to the main brackets with two mounting screws.
2. Connect the two fittings to the oxygen hoses.
3. Secure the two fittings to the oxygen hoses with two tie-wraps.
4. Install the control panel. Refer to Removing/Installing Control Panel on page 29.
5. Install the cabinet. Refer to Removing/Installing the Cabinet on page 25.

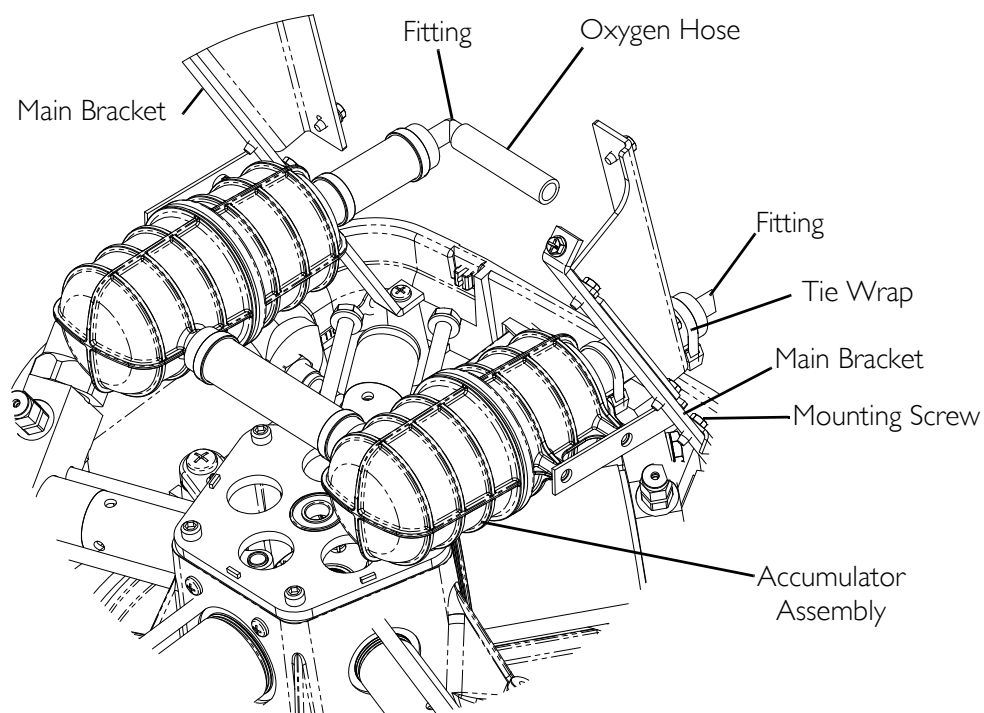


FIGURE 6.5 Replacing Accumulator Assembly

SECTION 7—BASE COMPONENTS

Replacing the Fuse

NOTE: For this procedure, refer to FIGURE 7.1.

1. Unplug the power cord from the electrical outlet.
2. Remove the power cord from the power inlet A on the compressor base C.
3. Pull out the fuse drawer B at the bottom of the power inlet.
4. Using a fuse puller or a small flat blade screw driver, remove the front fuse inside the fuse drawer and discard.

NOTE: The fuse drawer contains space for two fuses. The front location is for the operational fuse. The unit is supplied with the front fuse only. The rear location is for an optional spare fuse. When replacing the front fuse, ensure that there is a spare fuse with the same type and rating in the fuse drawer.

5. Install replacement fuse in front fuse D slot.

NOTE: Use a 5 mm x 20 mm, time lag, low breaking capacity, 250V, 2 Amp, IEC 60127 style only (Invacare part number 1099820).

6. Push fuse drawer back into the power inlet.
7. Install power cord into the power inlet on the compressor base.
8. Plug power cord into electrical outlet.
9. Turn the power switch to the On (I) position and check to see that the unit powers up properly.
10. If the unit does not come on, turn the power switch off, unplug the power cord, and call your dealer, provider or Invacare for service.

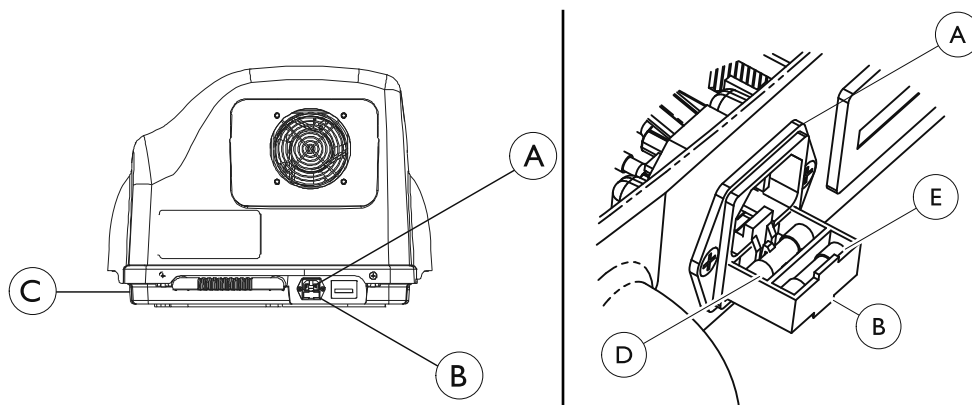


FIGURE 7.1 Replacing the Fuse

Removing/Installing the Power Inlet

NOTE: For this procedure, refer to FIGURE 7.2.

Tools required for this procedure are:

- Phillips screwdriver
- Torque Wrench

Removing

1. Remove the cabinet. Refer to [Removing/Installing the Cabinet](#) on page 25.
2. Remove the two mounting screws that secure the power inlet to the base.
3. Slowly pull the power inlet out of the base assembly to expose the wire connections.
4. Note the location of the wire connector and dual terminal connector before disconnecting the wire connectors from the power inlet.

NOTE: The dual terminal connector houses the top and middle wire connectors.

5. Disconnect the bottom wire connector from the power inlet.
6. Disconnect the dual terminal connector from the power inlet.
7. Discard the existing power inlet.

Installing

1. Connect the dual terminal connector to the new power inlet.
2. Connect the bottom terminal connector to the new power inlet.
3. Secure the power inlet to the base with two mounting screws. Torque the mounting screws to 20–25 in-lbs (2.26-2.82 Nm).
4. Install the cabinet. Refer to [Removing/Installing the Cabinet](#) on page 25.

NOTE: Top and Middle wire connectors attach to dual terminal connector.

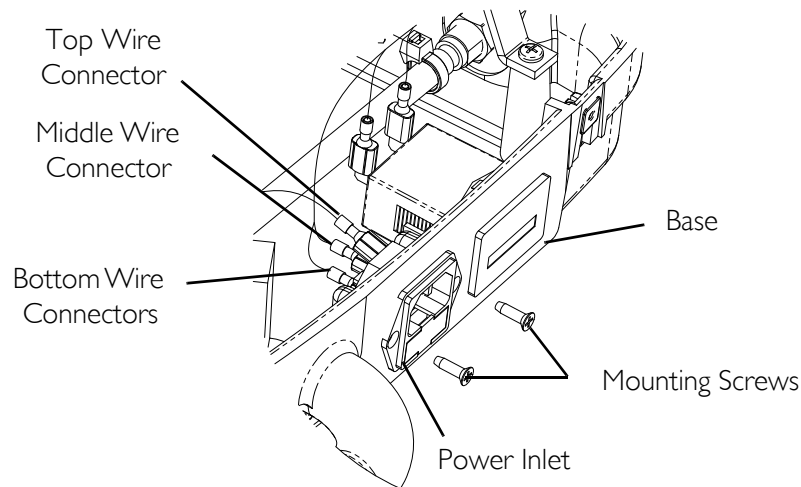


FIGURE 7.2 Removing/Installing the Power Inlet

Replacing Hour Meter

NOTE: For this procedure, refer to FIGURE 7.3 on page 36.

1. Remove the cabinet. Refer to [Removing/Installing the Cabinet](#) on page 25.
2. Note the orientation of the two wire connectors before removing.
3. Remove the two wire connectors from the hour meter.

NOTE: The hour meter and retaining clip are separate components. Both of these components hold the other component in place. When the hour meter is removed, in STEP 3, the retaining clip will become a loose component.

4. Pull the retaining clip away from the sides of the hour meter while pushing out the hour meter from the inside of the base.
5. Position the retaining clip on the inside of the compressor base assembly.
6. Insert the hour meter through the front of the base assembly and through the retaining clip.
7. Pull the retaining clip forward toward the base assembly so that the hour meter and retaining clip are snug against the base assembly.
8. Install the two wire connectors onto the hour meter in the orientation previously noted.
9. Install the cabinet. Refer to [Removing/Installing the Cabinet](#) on page 25.

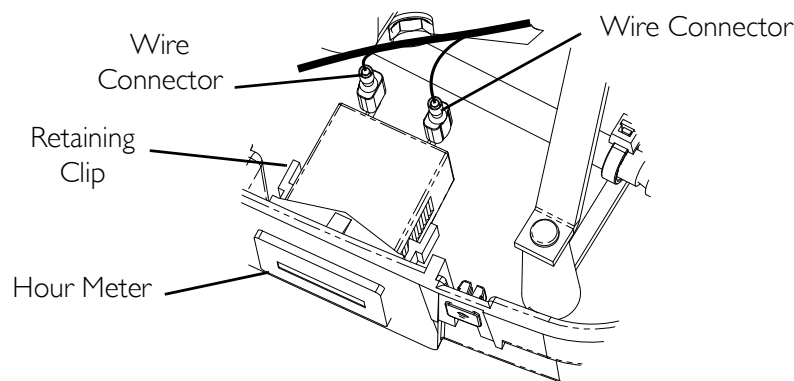


FIGURE 7.3 Replacing Hour Meter

Replacing O₂ Inlet Connector/Inlet Connector Dust Cap

NOTE: For this procedure, refer to FIGURE 7.4 on page 37.

Tools required for this procedure are:

- $\frac{5}{8}$ inch wrench
- side cutters

1. Remove the cabinet. Refer to [Removing/Installing the Cabinet](#) on page 25.

⚠ CAUTION

Be careful not to cut the tubing when performing the following step.

2. Using the side cutters, cut the tie-wrap securing the tubing to the O₂ connector.
3. Remove the tubing from the O₂ connector.
4. Using a $\frac{5}{8}$ -inch wrench, remove the locknut securing the connector to the base.
5. Remove the connector and dust cap from the base.
6. Install the connector and dust cap to the base.
7. Secure the connector to the base with the locknut. Torque the locknut to 8-10 inch-pounds.
8. Secure the tubing to the O₂ connector with a tie-wrap.
9. Install the cabinet. Refer to [Removing/Installing the Cabinet](#) on page 25.

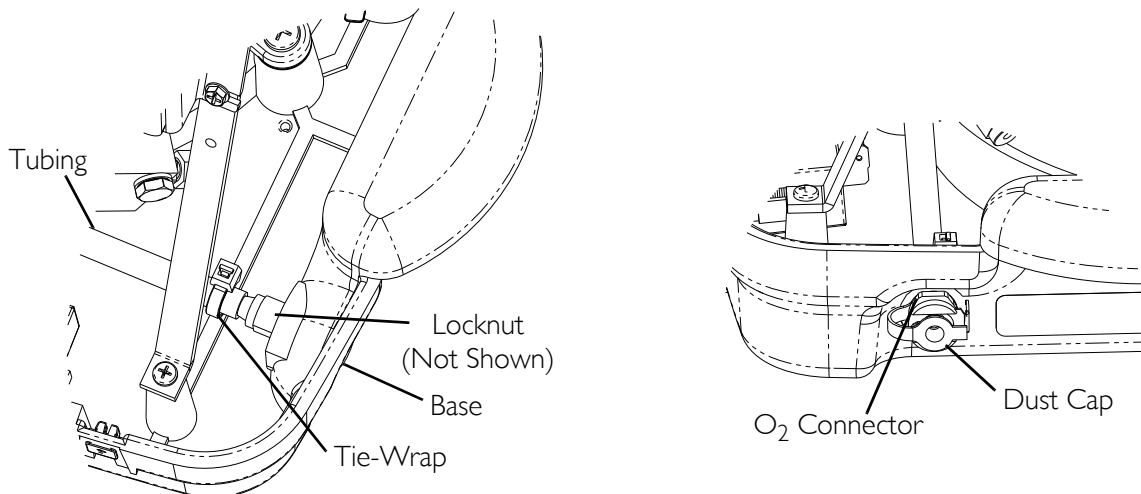


FIGURE 7.4 Replacing O₂ Inlet Connector/Inlet Connector Dust Cap

Replacing Transformer

NOTE: For this procedure, refer to FIGURE 7.5 on page 38.

Tools required for this procedure are:

- Phillips screwdriver
1. Remove the cabinet. Refer to [Removing/Installing the Cabinet](#) on page 25.
 2. Note the four wire colors and sizes and four jumper colors and sizes for the connectors located on the transformer.
 3. Disconnect the four wire connectors and four jumper connectors from the transformer.
 4. Remove the two mounting screws that secure the transformer to the base.
 5. Remove the transformer from the base.
 6. Install the new transformer into the base.
 7. Secure the transformer to the base with two mounting screws. Securely tighten.
 8. Connect the four wire connectors to the transformer in the orientation (for colors and sizes) noted previously.

9. Install the cabinet. Refer to [Removing/Installing the Cabinet](#) on page 25.

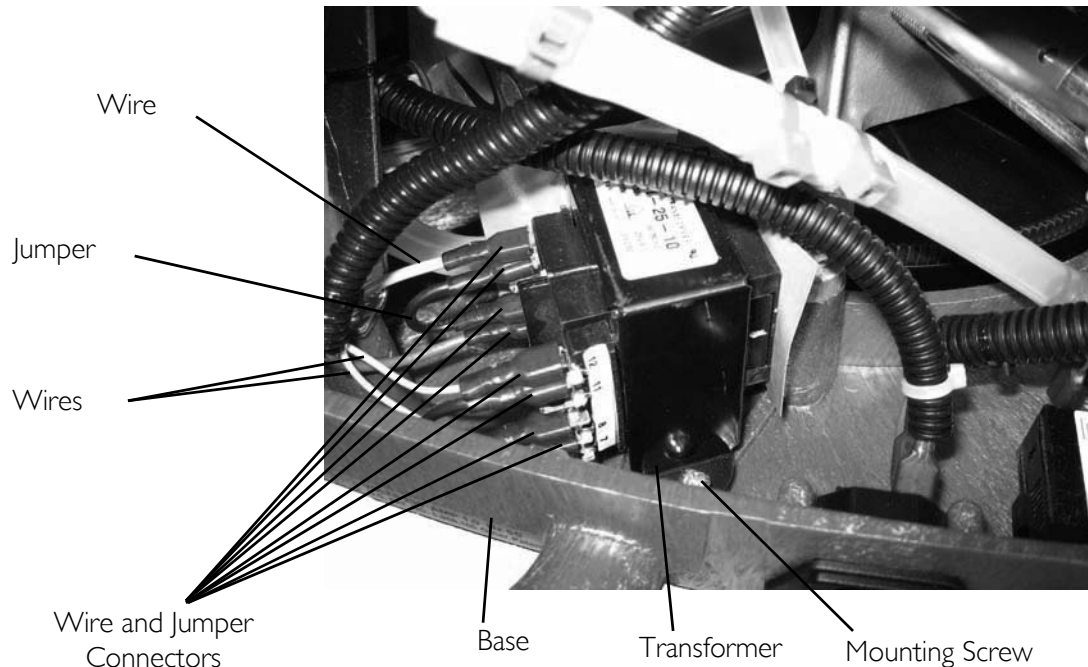


FIGURE 7.5 Replacing Transformer

Testing/Replacing Capacitor

Testing

⚠ WARNING

The capacitor is an electrical storage device that stores an electronic charge. **ALWAYS** discharge the capacitor before testing or handling. Failure to discharge the capacitor may result in bodily harm and/or damage to test equipment.

NOTE: For this procedure, refer to FIGURE 7.6 on page 39.

1. Remove the cabinet. Refer to [Removing/Installing the Cabinet](#) on page 25.
2. Remove the two wire connectors from the capacitor.
3. Discharge the capacitor by placing a screw driver with an insulated handle across the wire connectors on the top of the capacitor.
4. Connect the leads of a capacitance meter to the terminals on the capacitor.

NOTE: For the capacitor to be within specification, the meter should read 3 mfd +10% or -5%.

5. Perform one of the following:
 - If the capacitor is out of specification, replace the capacitor. Refer to [Replacing Capacitor](#) on page 39.
 - If the capacitor is in specification, reconnect the two wires and proceed to STEP 7.
6. Install the cabinet. Refer to [Removing/Installing the Cabinet](#) on page 25.

Replacing Capacitor

⚠ WARNING

The capacitor is an electrical storage device that stores an electric charge. **ALWAYS** discharge the capacitor before testing or handling. Failure to discharge the capacitor may result in bodily harm and/or damage to test equipment.

NOTE: For this procedure, refer to FIGURE 7.6.

Tools required for this procedure are:

- screwdriver
 - side cutters
1. Remove the cabinet. Refer to [Removing/Installing the Cabinet](#) on page 25.
 2. Remove the two wire connectors from the capacitor.
 3. Discharge the capacitor by placing a screw driver with an insulated handle across the wire connectors on the top of the capacitor.
 4. Cut and remove the tie-wrap securing the capacitor to the base.
 5. Remove the capacitor.
 6. Install a new capacitor and tie-wrap.
 7. Reconnect the two wire connectors.
 8. Install the cabinet. Refer to [Removing/Installing the Cabinet](#) on page 25.

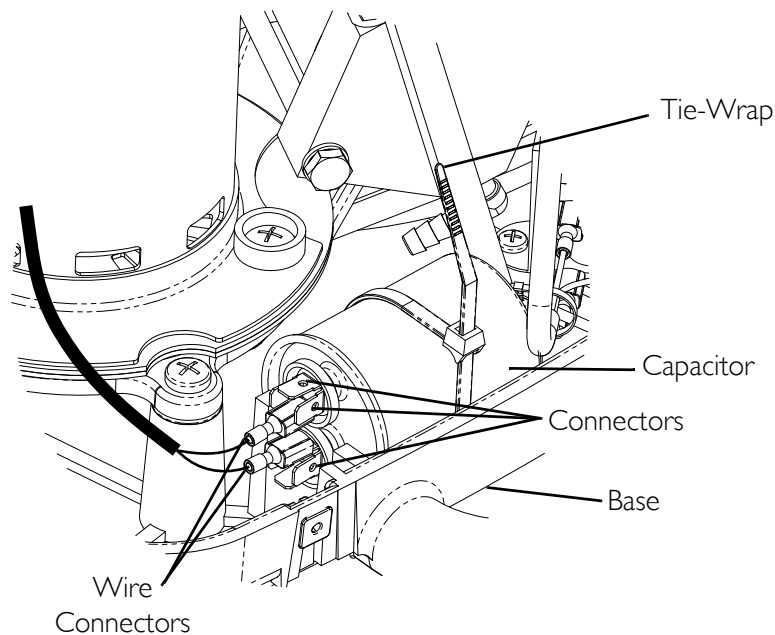


FIGURE 7.6 Testing/Replacing Capacitor

Removing Connector Fillport Dust Cover and Lanyard - Units Manufactured Before 10/03/2005

⚠ DANGER

To prevent electrical shock, **ALWAYS** disconnect compressor from electrical outlet before servicing.

Removing

NOTE: For this procedure, refer to FIGURE 7.7 on page 40.

Tools required for this procedure are:

- $\frac{7}{16}$ Wrench, Phillips screwdriver

NOTE: Because the parts for the this style fillport are no longer available, remove the existing fillport by following the instructions below and install new style fillport.

1. Remove the locknut connecting the oxygen line to the connector fillport.
2. Remove the quick-release pin.
3. Remove the mounting screw connecting the flange to the base.
4. Remove the connector fillport from the base.
5. Remove the locknut and the two washers at the bottom of the connector fillport.
6. Remove the flange from the connector fillport assembly.
7. Remove the existing lanyard from the shaft.
8. Install new style fillport. Refer to Removing/Installing Connector Fillport Dust Cover and Lanyard - Units Manufactured After 10/02/2005 on page 41.

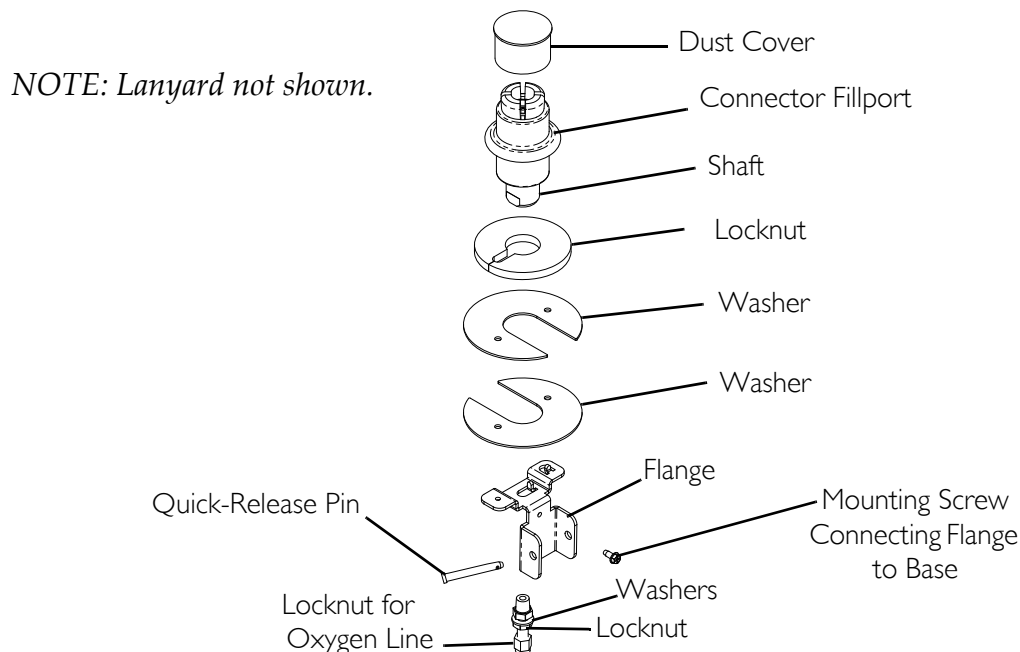


FIGURE 7.7 Removing Connector Fillport Dust Cover and Lanyard - Units Manufactured Before 10/03/2005

Removing/Installing Connector Fillport Dust Cover and Lanyard - Units Manufactured After 10/02/2005

NOTE: For this procedure, refer to FIGURE 7.8 on page 41.

Tools required for this procedure are:

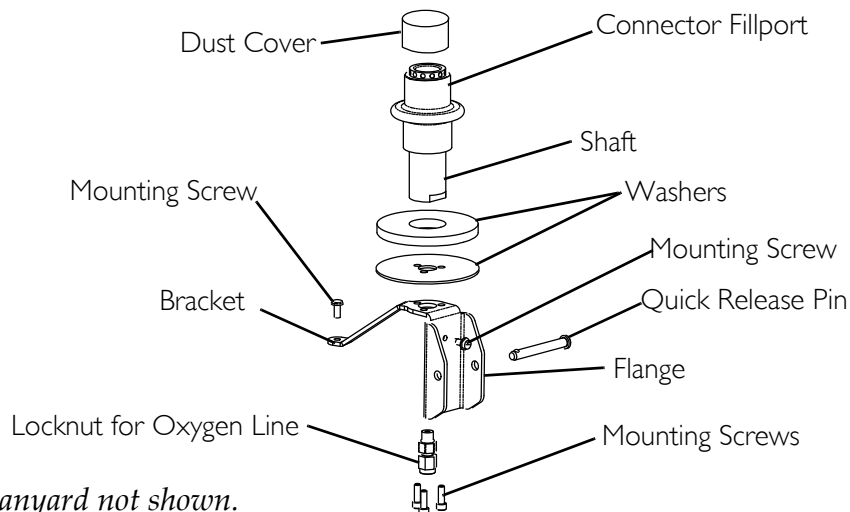
- $\frac{7}{16}$ Wrench
- Phillips screwdriver
- $\frac{9}{64}$ Allen Wrench

Removing

1. Remove the locknut connecting the oxygen line to the connector fillport.
2. Remove the mounting screw that connects the bracket to the base assembly.
3. Remove the mounting screw that connects the flange to the base assembly.
4. Remove the quick-release pin and remove the connector fillport and two washers from the compressor.
5. Remove the three mounting screws at the bottom of the connector fillport.
6. Remove the flange.
7. Remove the existing lanyard from the shaft.

Installing

1. Install the new lanyard onto the shaft.
2. Secure the flange to the bottom of the connector fillport with the three mounting screws. Securely tighten.
3. Secure the two washers and connector fillport to the compressor with the quick release pin.
4. Secure the flange to the base assembly with a mounting screw. Securely tighten.
5. Secure the bracket to the base assembly with a mounting screw. Securely tighten.
6. Connect the oxygen line to the connector fillport with the locknut. Securely tighten.



NOTE: Lanyard not shown.

FIGURE 7.8 - Removing/Installing Connector Fillport Dust Cover and Lanyard - Units Manufactured After 10/02/2005

Replacing the High Pressure Switch

NOTE: For this procedure, refer to FIGURE 7.9.

Tools required:

1¹/₈ inch crows foot

1. Install an empty cylinder onto the compressor. Refer to Connecting/Disconnecting Cylinder to/from Compressor on page 20.
2. Bleed off any internal pressure.
3. Remove the cylinder from the compressor. Refer to Connecting/Disconnecting Cylinder to/from Compressor on page 20.
4. Remove the cabinet. Refer to Removing/Installing the Cabinet on page 25.
5. Remove the two wires from the high pressure switch.
6. Using a 1¹/₈" crows foot, remove the high- pressure switch.

⚠ CAUTION

Gloves MUST be worn during the re-installation process to prevent oil from skin contacting the high-pressure switch.

7. Using a 1¹/₈" crows foot, install the high pressure switch. Torque the high pressure switch to 50-55 in-lbs (5.65-6.21 Nm).
8. Install the two wires from the high pressure switch.
9. Perform Leak Test procedure. Refer to Leak Test on page 87
10. Perform Fill Test procedure. Refer to Cylinder Fill Test on page 88.
11. Install the cabinet. Refer to Removing/Installing the Cabinet on page 25.

Replacing Burst Disk Fitting

NOTE: For this procedure, refer to FIGURE 7.9.

Tools Required:

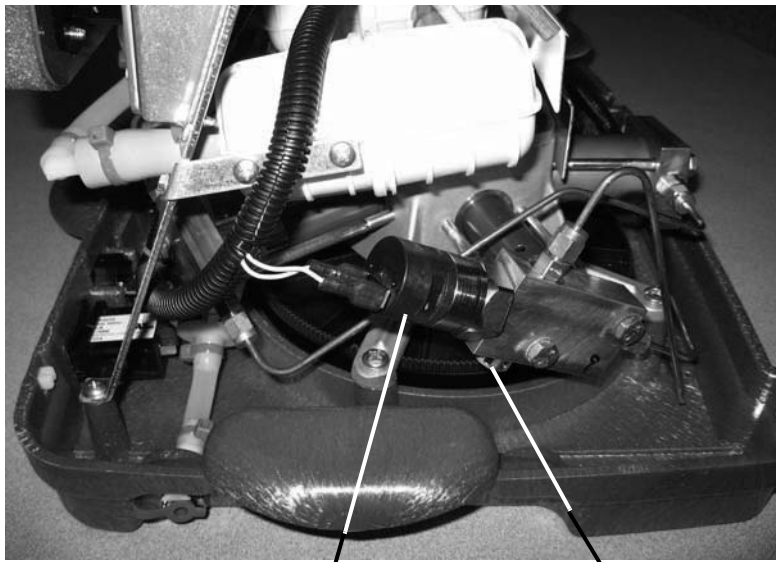
⁹/₁₆ inch Wrench

1. Remove the cabinet. Refer to Removing/Installing the Cabinet on page 25.

⚠ CAUTION

While performing STEP 2, gloves MUST be worn during to prevent oil from skin contacting the burst disk fitting. Otherwise, damage to the fitting may occur.

2. Using a ⁹/₁₆" wrench, remove the burst disk fitting from the stage 5 cylinder head.
3. Using a ⁹/₁₆" wrench, install new burst disk fitting by threading fitting into the cylinder head. Torque to 65-70 in-lbs (7.34-7.91 Nm).
4. Perform Leak Test procedure. Refer to Leak Test on page 87
5. Perform Fill Test procedure. Refer to Cylinder Fill Test on page 88.
6. Install the cabinet. Refer to Removing/Installing the Cabinet on page 25.



High Pressure Switch

Burst Disk Fitting

FIGURE 7.9 Replacing the High Pressure Switch/Replacing Burst Disk Fitting

SECTION 8—BASE REPLACEMENT

Tools Required: $\frac{7}{16}$ open ended wrench, $\frac{5}{8}$ open ended wrench, Diagonal Cutters, Needle Nose Pliers, Phillips screwdriver.

Disassembly

NOTE: For this procedure, refer to FIGURE 8.1 through FIGURE 8.7.

1. Install an empty cylinder onto the compressor to release pressure in lines. Refer to Connecting/Disconnecting Cylinder to/from Compressor on page 20.
2. Remove cylinder. Refer to Connecting/Disconnecting Cylinder to/from Compressor on page 20.
3. Disconnect power from the HomeFill unit.
4. Remove the cabinet. Refer to Removing/Installing the Cabinet on page 25.
5. Disconnect the two pin connector that connects the motor to the wiring harness (FIGURE 8.1).
6. Using needle nose pliers, disconnect the two wires from the capacitor (FIGURE 8.1).
7. Using needle nose pliers, disconnect the grounding clip from the motor (FIGURE 8.1).

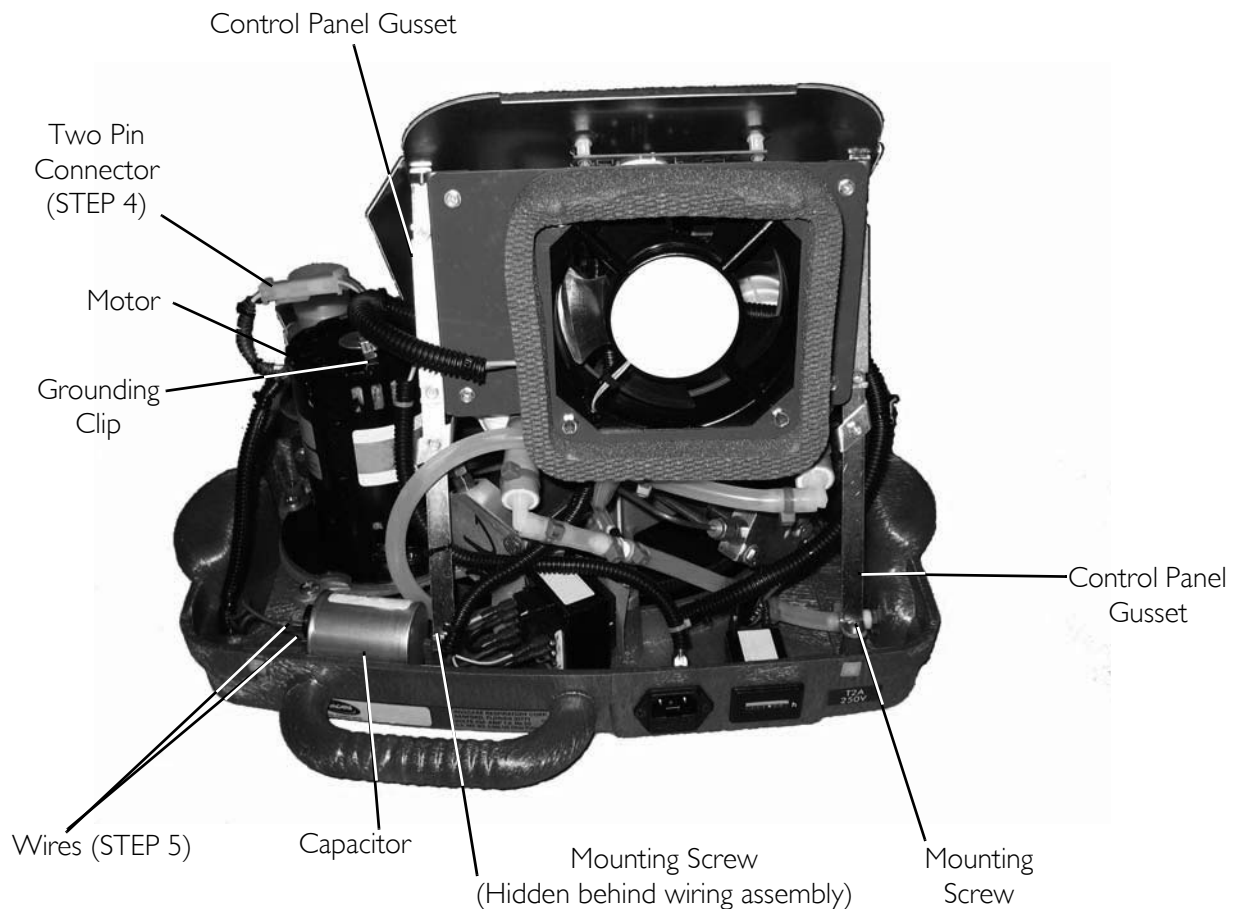


FIGURE 8.1 Base Replacement

8. Disconnect the two wires from the high pressure switch (FIGURE 8.2).

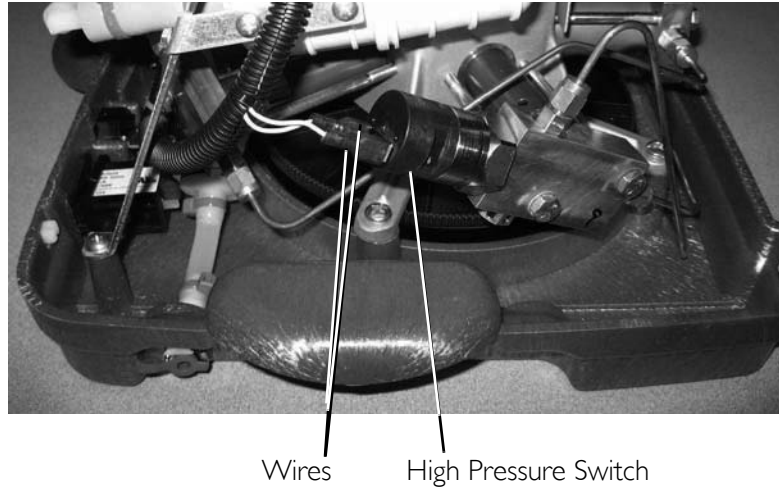


FIGURE 8.2 Base Replacement

9. Using the $\frac{7}{16}$ open ended wrench, loosen the nut and disconnect the high pressure oxygen line from the cylinder fillport connector (FIGURE 8.3).
10. Loosen the two screws that secure the bottom of the control panel in place (FIGURE 8.3).
11. Remove the two screws that secure the control panel gussets to the rear of the base assembly (FIGURE 8.1).

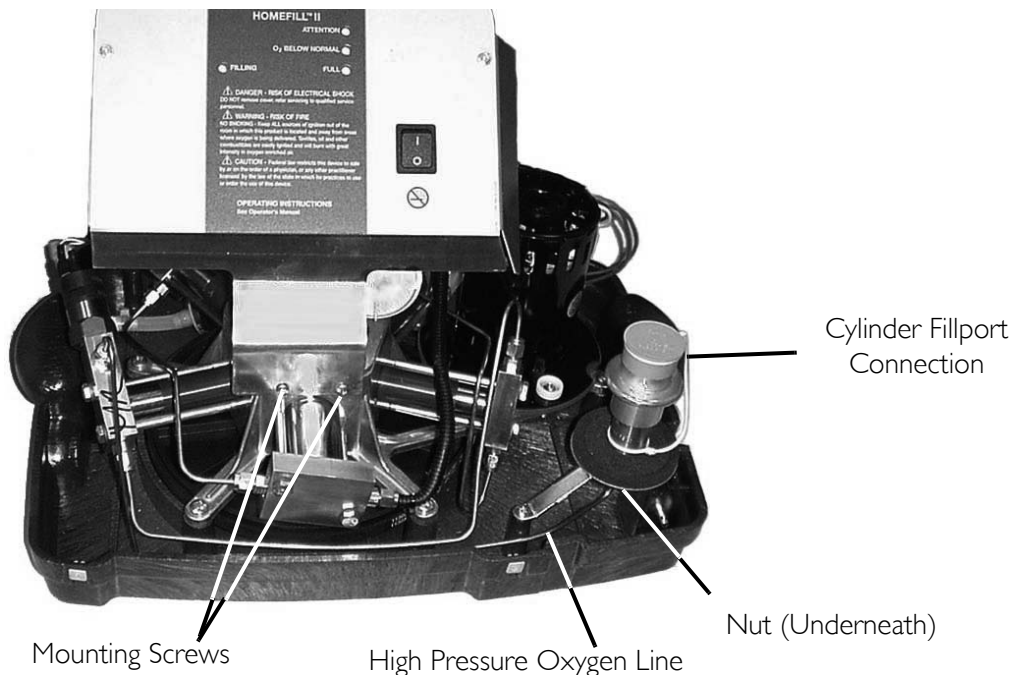
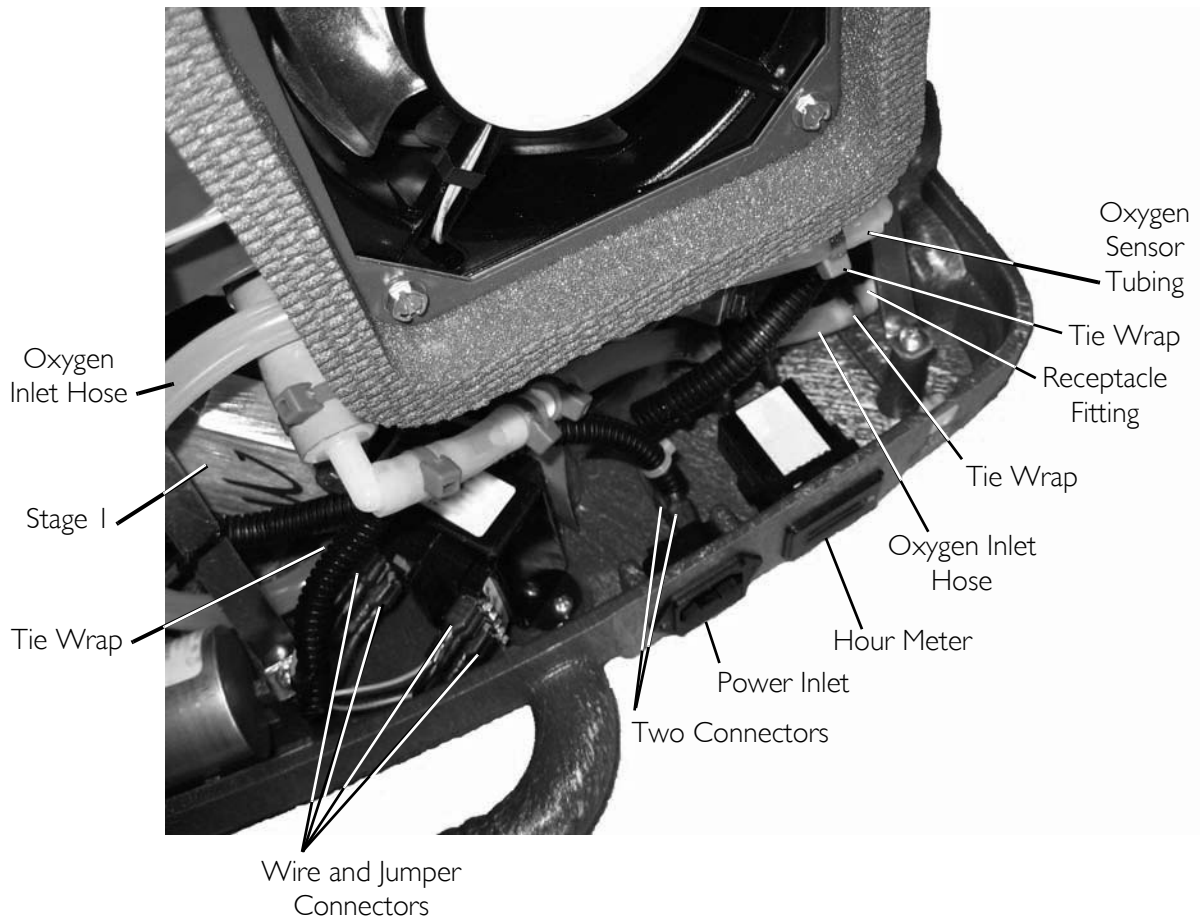


FIGURE 8.3 Base Replacement

⚠ CAUTION

DO NOT cut the tubing or damage (score) the tubing when removing tie-wraps. Otherwise HomeFill unit will not fill cylinders correctly.

12. Using diagonal cutters, cut the tie wrap that secures the oxygen inlet hose to the inlet of stage 1 (FIGURE 8.4).
13. Disconnect the oxygen inlet hose from the inlet of stage 1 (FIGURE 8.4).
14. Using diagonal cutters, cut the tie wrap that secures the oxygen inlet hose to the receptacle fitting (FIGURE 8.4).
15. Remove the oxygen inlet hose from the receptacle fitting (FIGURE 8.4).
16. Using diagonal cutters, cut the tie wrap that secures the oxygen sensor tubing to the oxygen inlet hose (FIGURE 8.4).
17. Remove the oxygen sensor tubing from the oxygen inlet hose (FIGURE 8.4).
18. Note where each of the four wires and two jumpers are connected to the transformer.
19. Using needle nose pliers, disconnect the connectors from the transformer. See Detail "A" in FIGURE 8.4.
20. Using needle nose pliers, disconnect the two connectors from the power inlet (FIGURE 8.4).
21. Using needle nose pliers, disconnect the two connectors (not shown) from the hour meter (FIGURE 8.4).
22. Lift control panel assembly off of base and set aside (FIGURE 8.4).



Detail "A"

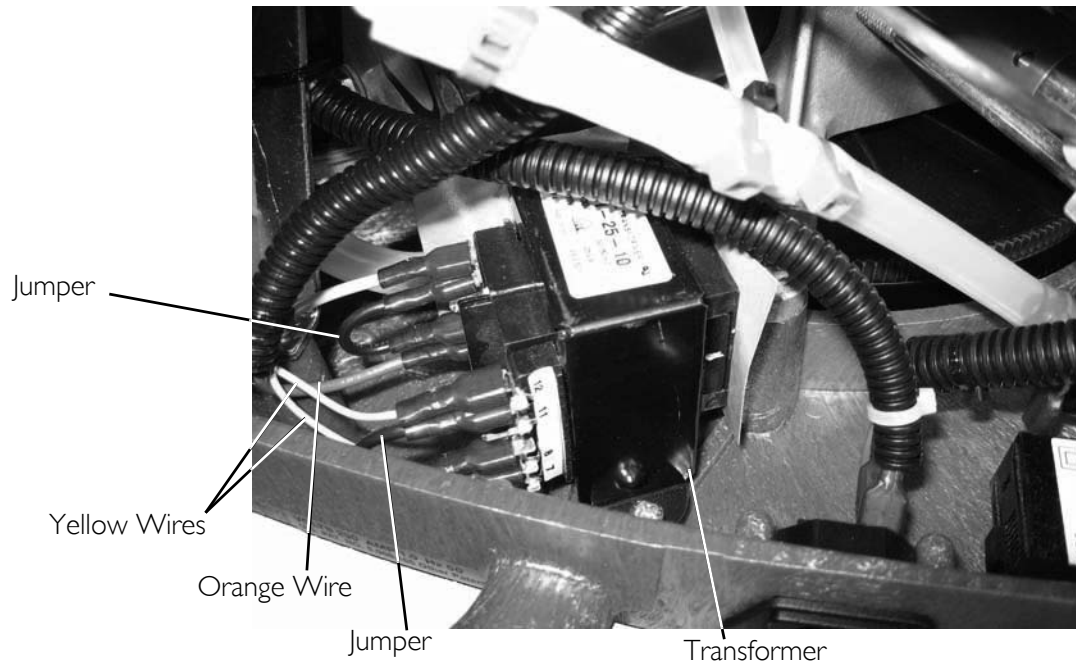


FIGURE 8.4 Base Replacement

23. Remove the six mounting screws that secure the pump/motor assembly to the base (FIGURE 8.5).

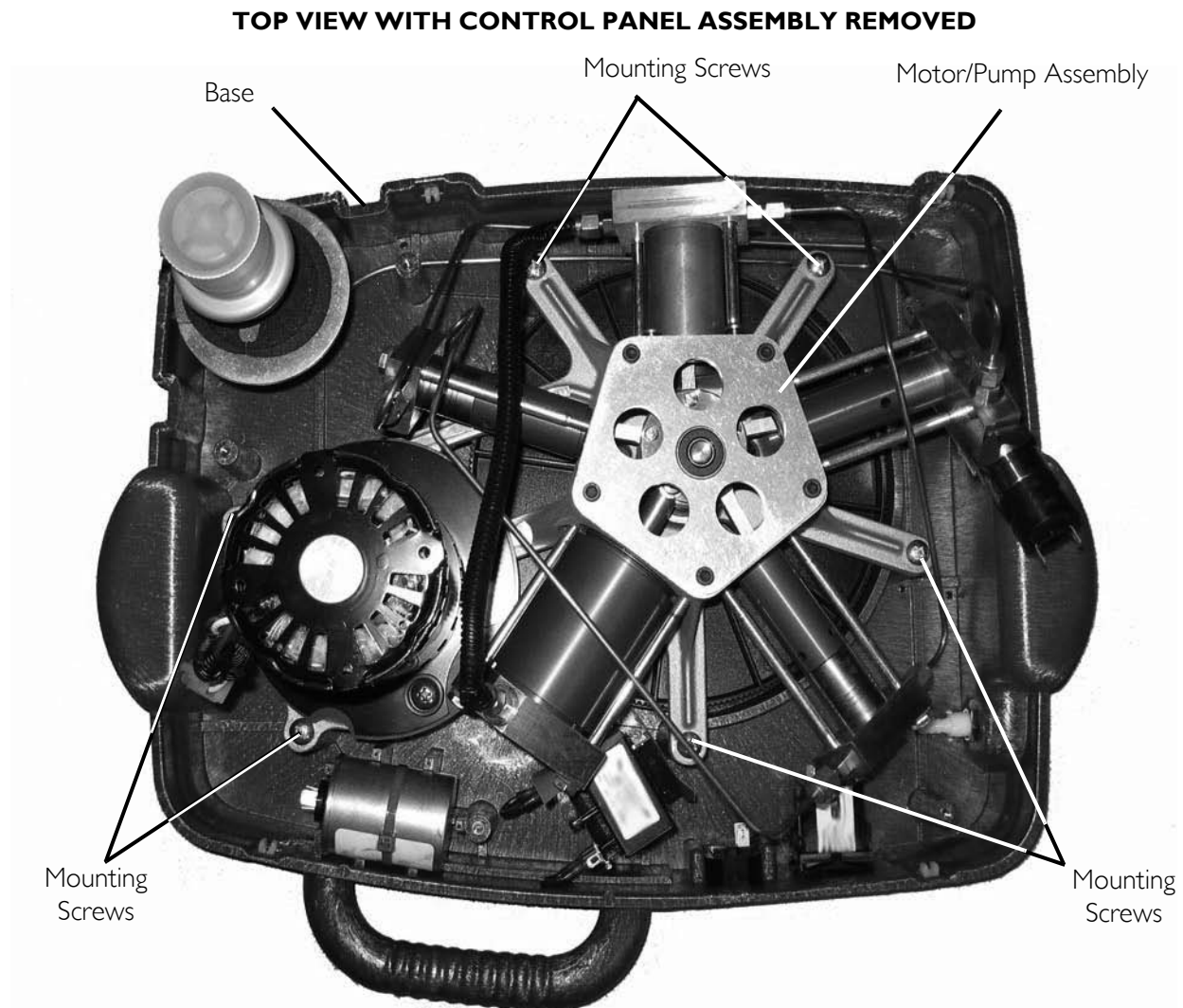


FIGURE 8.5 Base Replacement

24. Cut the tie wrap that secures the capacitor in place and remove capacitor (FIGURE 8.6).

NOTE: Located underneath the capacitor is a tie wrap mount.

25. Remove the mounting screw that secures the tie wrap mount (not shown) to the base.
26. Remove the tie wrap mount (not shown).
27. Remove the two mounting screws that secure the transformer to the base (FIGURE 8.6).
28. Remove the transformer from the base (FIGURE 8.6).
29. Remove the two mounting screws that secure the power inlet to the base (FIGURE 8.6).
30. Remove the power inlet from the base (FIGURE 8.6).

31. Remove the retaining clip and hour meter from the base (FIGURE 8.6).
32. Using the $\frac{5}{8}$ open ended wrench remove the nut from the receptacle fitting (FIGURE 8.6).
33. Remove the receptacle fitting from the base (FIGURE 8.6).

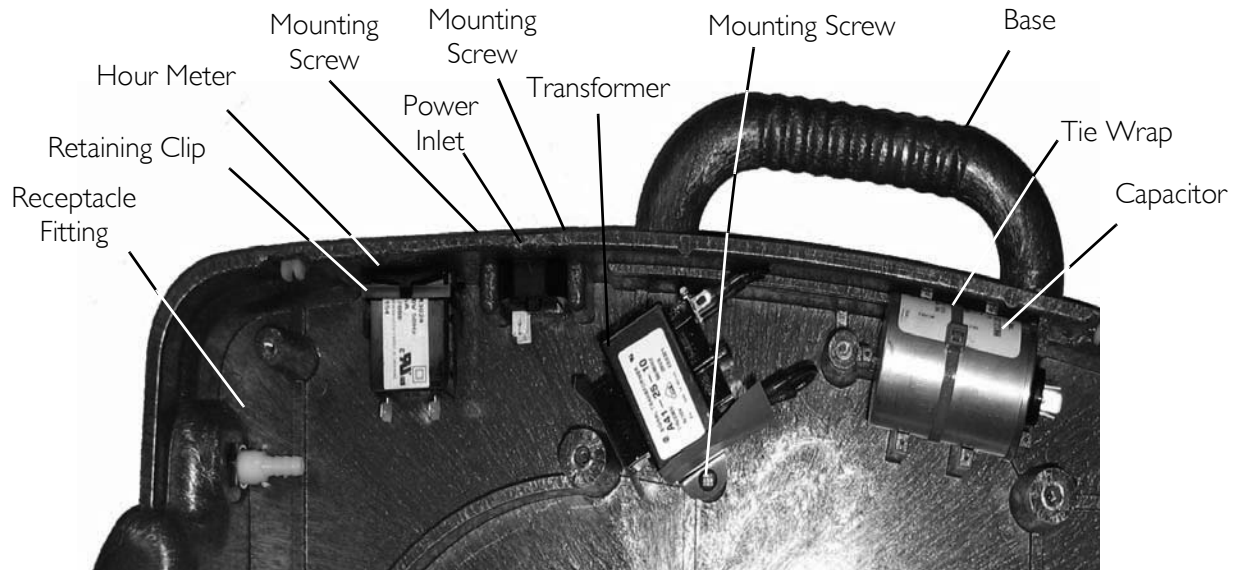


FIGURE 8.6 Base Replacement

34. Perform one of the following (FIGURE 8.7):
 - For units manufactured before 10/2/2005:
 - i. Remove the mounting screw that secures the bracket to the base.
 - ii. Remove pin partially out.
 - iii. Lift connector fillport assembly up off of base.
 - For units manufactured after 10/2/2005:
 - i. Remove the two mounting screws that secure the bracket to the base.
 - ii. Remove pin partially out.
 - iii. Lift connector fillport assembly up off of base.

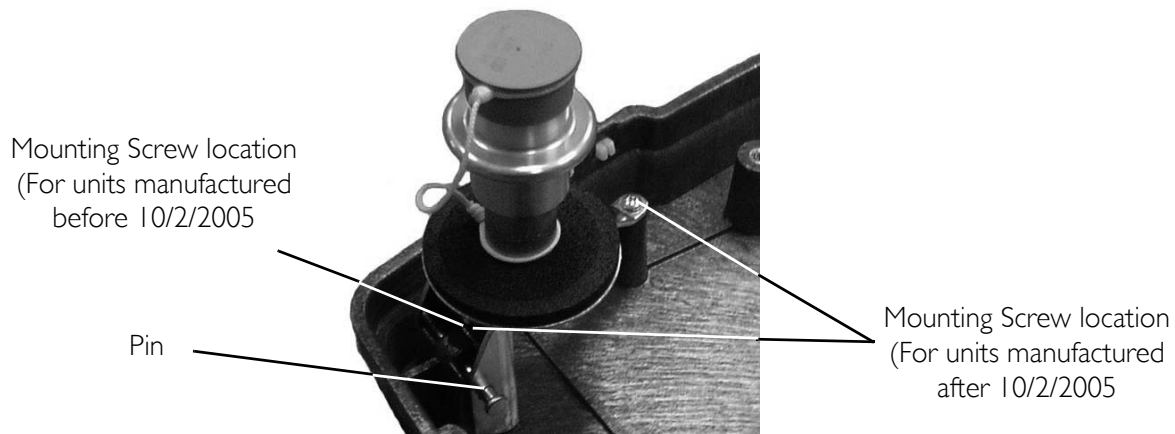


FIGURE 8.7 Base Replacement

Reassembly

NOTE: For this procedure, refer to FIGURE 8.1 through FIGURE 8.7.

1. Perform one of the following (FIGURE 8.7):
 - For units manufactured before 10/2/2005:
 - i. Position the connector fillport assembly as shown.
 - ii. Secure the bracket to the base with a mounting screw.
 - iii. Push pin in.
 - For units manufactured after 10/2/2005:
 - i. Position the connector fillport assembly as shown.
 - ii. Secure the bracket to the base with a mounting screw.
 - iii. Push pin in.
2. Install the receptacle fitting into the base and secure with nut. Securely tighten. (FIGURE 8.6).
3. Install hour meter into the base and secure with retaining clip. (FIGURE 8.6)
4. Install the power inlet into the base and secure with two mounting screws (FIGURE 8.6).
5. Install the transformer into the base and secure with two mounting screws. (FIGURE 8.6)
6. Install the tie wrap mount (not shown) and secure in place with one mounting screw. (FIGURE 8.6)
7. Position capacitor as shown and secure to tie wrap mount with tie wrap (FIGURE 8.6).
8. Secure the pump/motor assembly to the base with six mounting screws. Torque mounting screws to 25-30 in-lbs (2.82-3.4 Nm) (FIGURE 8.5).
9. Position control panel assembly on base (FIGURE 8.4).
10. Connect the two connectors (not shown) to the hour meter (FIGURE 8.4).

11. Connect the two connectors to the power inlet (FIGURE 8.4).
12. Connect the four connectors to the transformer as noted in STEP 18 on page 46.
13. Connect the oxygen sensor tubing to the oxygen inlet hose and secure with tie wrap (FIGURE 8.4)
14. Connect the oxygen inlet hose to the receptacle fitting (FIGURE 8.4).
15. Secure the oxygen inlet hose to the receptacle fitting with a tie wrap (FIGURE 8.4).
16. Connect the oxygen inlet hose to the inlet of stage 1 (FIGURE 8.4).
17. Secure the hose with a tie wrap using a tie wrap gun set at #8 (FIGURE 8.4).
18. Secure the control panel gussets to the rear of the base assembly with two mounting screws (FIGURE 8.1).
19. Secure the bottom of the control panel to the pump assembly with the two mounting screws (FIGURE 8.3).
20. Connect the high pressure oxygen line to the cylinder fillport connector. Securely tighten using the $\frac{7}{16}$ open ended wrench (FIGURE 8.3).
21. Connect the two wires to the high pressure switch (FIGURE 8.2).
22. Connect the grounding clip to the motor (FIGURE 8.1)
23. Connect the two wires to the capacitor (FIGURE 8.1)
24. Connect the two pin connector that connects the motor to the wiring harness (FIGURE 8.1).
25. Install the cabinet. Refer to [Removing/Installing the Cabinet](#) on page 25.

SECTION 9—MOTOR REPLACEMENT

Tools Required:

$\frac{7}{16}$ open ended wrench, $\frac{5}{8}$ open ended wrench, Diagonal Cutters, Needle Nose Pliers
Phillips screwdriver

Disassembly

NOTE: For this procedure, refer to FIGURE 9.1 through FIGURE 9.6.

1. Install an empty cylinder onto the compressor to release the pressure in the lines.
2. Remove the cylinder. Refer to Removing/Installing the Cabinet on page 25.
3. Disconnect power from the HomeFill unit.
4. Remove the cabinet. Refer to Removing/Installing the Cabinet on page 25.
5. Disconnect the two pin connector that connects the motor to the wiring harness (FIGURE 9.1).
6. Using needle nose pliers, disconnect the two wires from the capacitor (FIGURE 9.1).
7. Using needle nose pliers, disconnect the grounding clip from the motor (FIGURE 9.1).

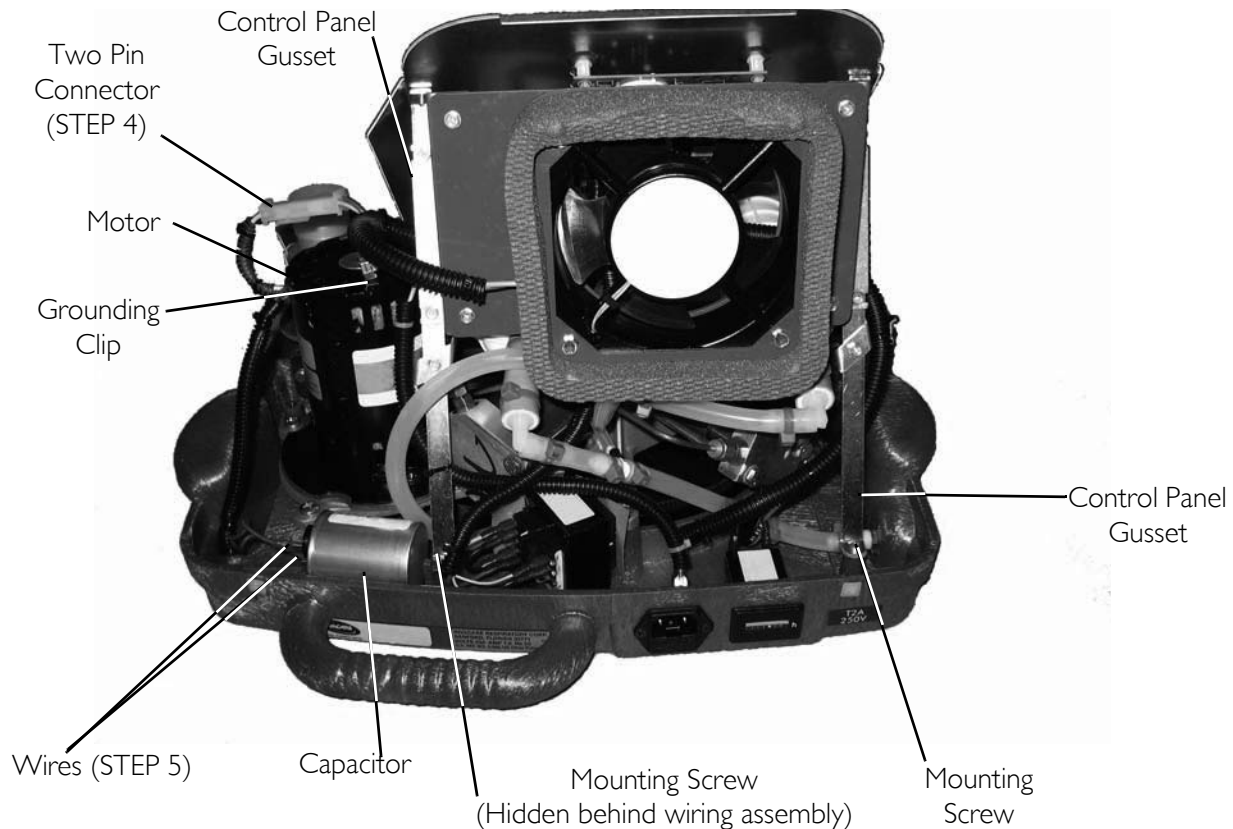


FIGURE 9.1 Motor Replacement

8. Disconnect the two wires from the high pressure switch (FIGURE 9.2).

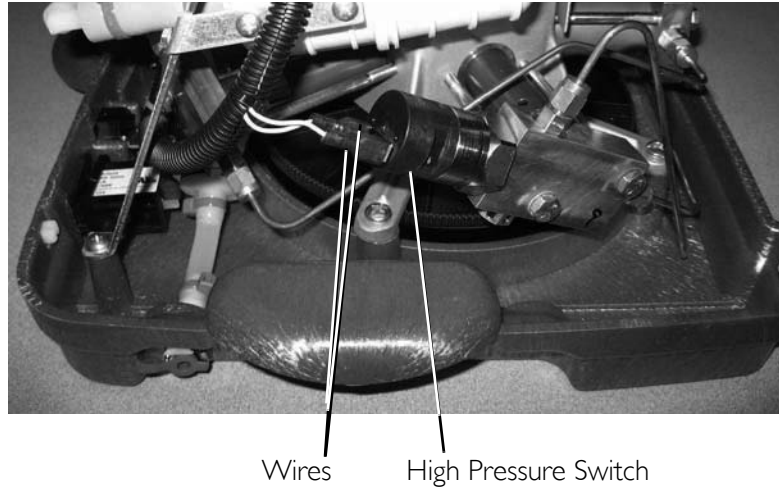


FIGURE 9.2 Motor Replacement

9. Using the $\frac{7}{16}$ open ended wrench, loosen the nut and disconnect the high pressure oxygen line from the cylinder fillport connector (FIGURE 9.3).
10. Loosen the two screws that secure the bottom of the control panel in place (FIGURE 9.3).
11. Remove the two screws that secure the control panel gussets to the rear of the base assembly (FIGURE 9.1).

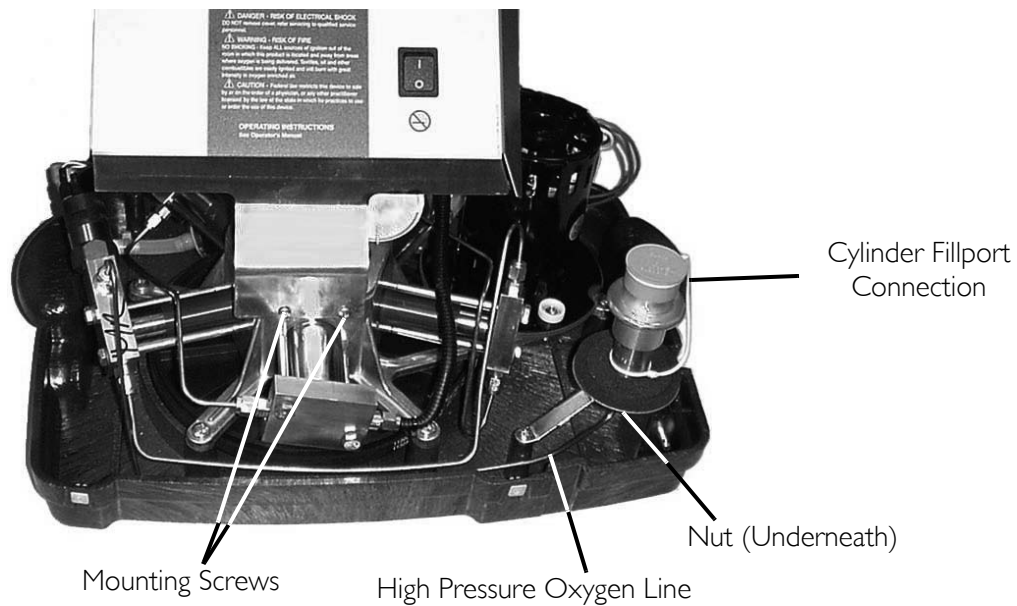
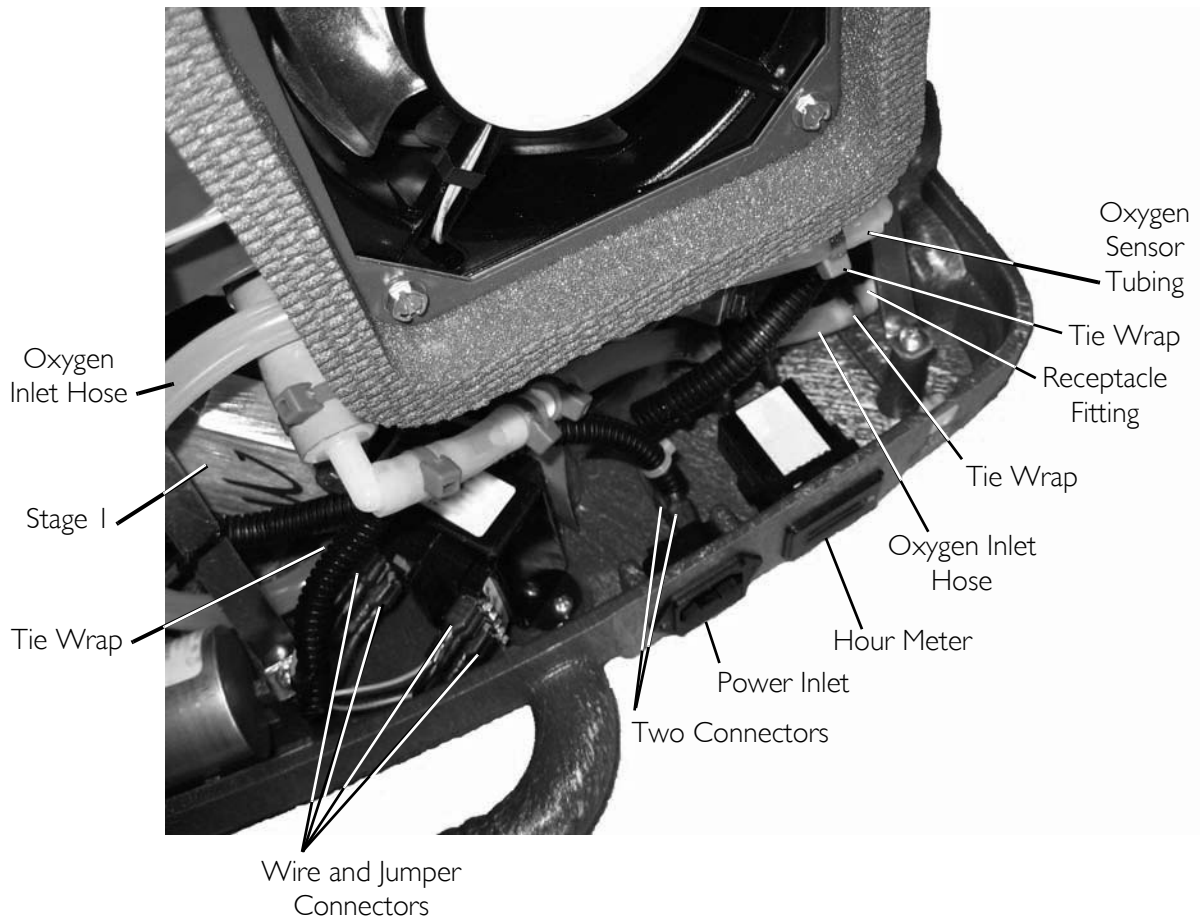


FIGURE 9.3 Motor Replacement

⚠ CAUTION

DO NOT cut the tubing or damage (score) the tubing when removing tie-wraps. Otherwise HomeFill unit will not fill cylinders correctly.

12. Using diagonal cutters, cut the tie wrap that secures the inlet hose to the inlet of stage 1 (FIGURE 9.4).
13. Disconnect the oxygen inlet hose from the inlet of stage 1 (FIGURE 9.4).
14. Using diagonal cutters, cut the tie wrap that secures the oxygen inlet hose to the receptacle fitting (FIGURE 9.4).
15. Remove the oxygen inlet hose from the receptacle fitting (FIGURE 9.4).
16. Using diagonal cutters, cut the tie wrap that secures the oxygen sensor tubing to the oxygen inlet hose (FIGURE 9.4).
17. Remove the oxygen sensor tubing from the oxygen inlet hose (FIGURE 9.4).
18. Note where each of the four wires and two jumpers are connected to the transformer.
19. Using needle nose pliers, disconnect the connectors from the transformer. See Detail "A" in FIGURE 9.4.
20. Using needle nose pliers, disconnect the two connectors from the power inlet (FIGURE 9.4).
21. Using needle nose pliers, disconnect the two connectors (not shown) from the hour meter (FIGURE 9.4).
22. Lift control panel assembly off of base and set aside (FIGURE 9.4).



Detail "A"

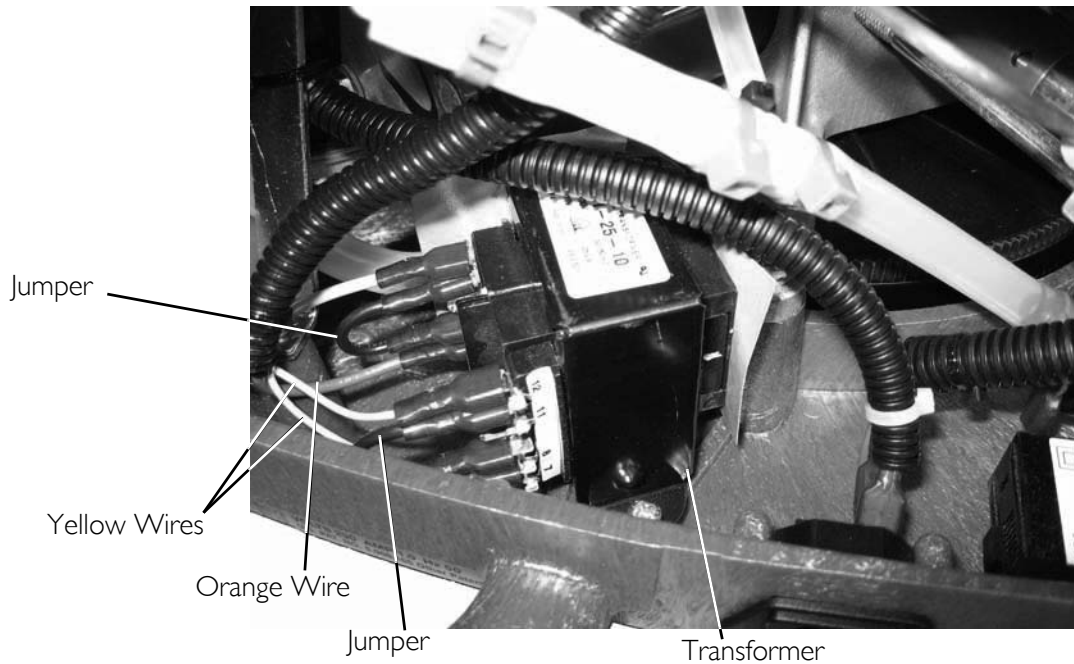


FIGURE 9.4 Motor Replacement

23. Remove the six mounting screws that secure the pump/motor assembly to the base (FIGURE 9.5).

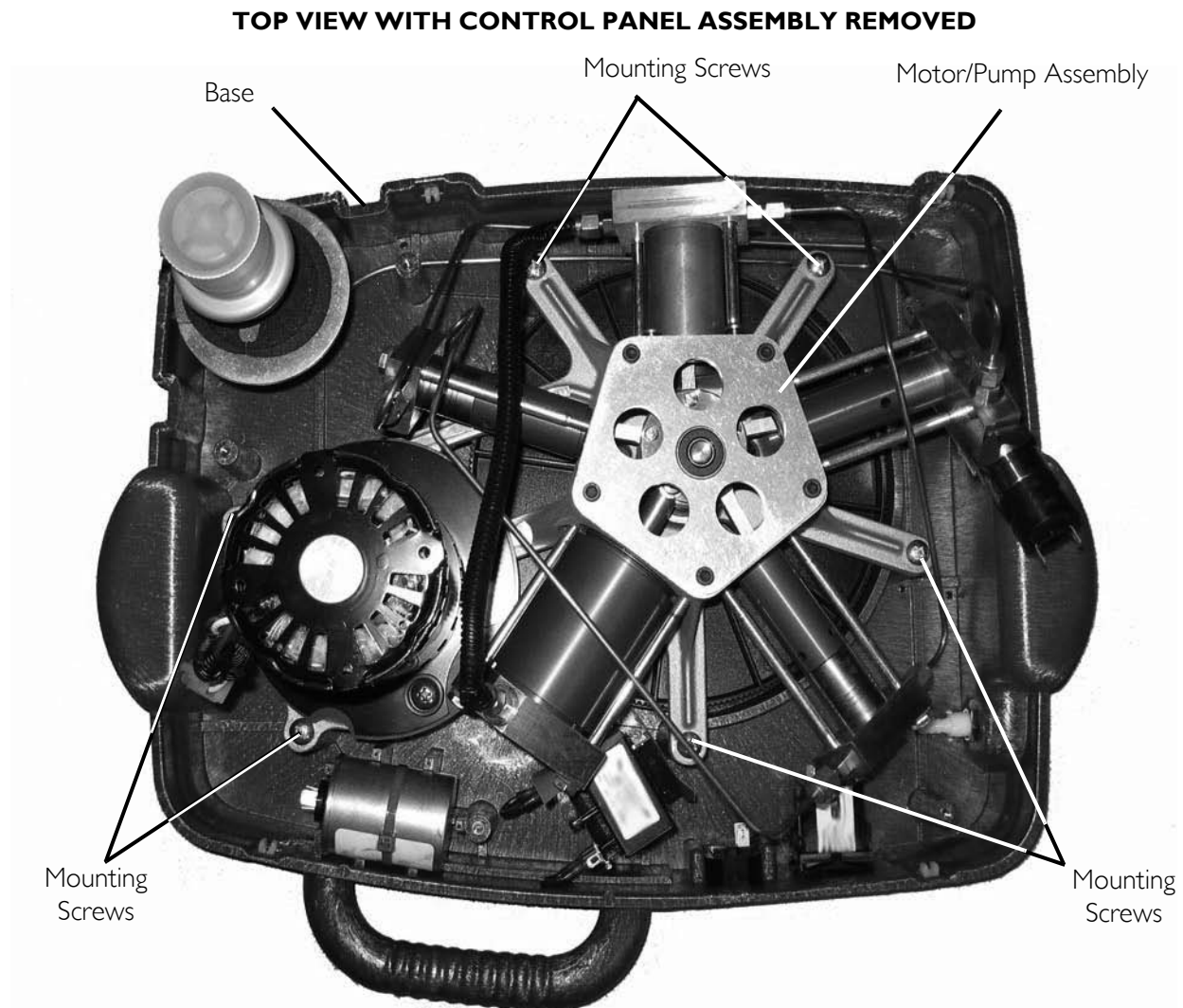


FIGURE 9.5 Motor Replacement

24. Carefully place the pump assembly upside down on the table.
25. Remove the timing belt by gently pulling the belt away from the large pulley and motor pulley. Refer to Detail "A" in FIGURE 9.6.
26. Rotate pump assembly 180° so that the motor is facing up.
27. Remove the two mounting screws, two bushings, and two washers that secure the motor to the pump assembly. Refer to Detail "B" and "C" in FIGURE 9.6.
28. Remove the motor from the pump assembly.

NOTE: Retain the two mounting screws, two bushings, and two washers for reassembly.

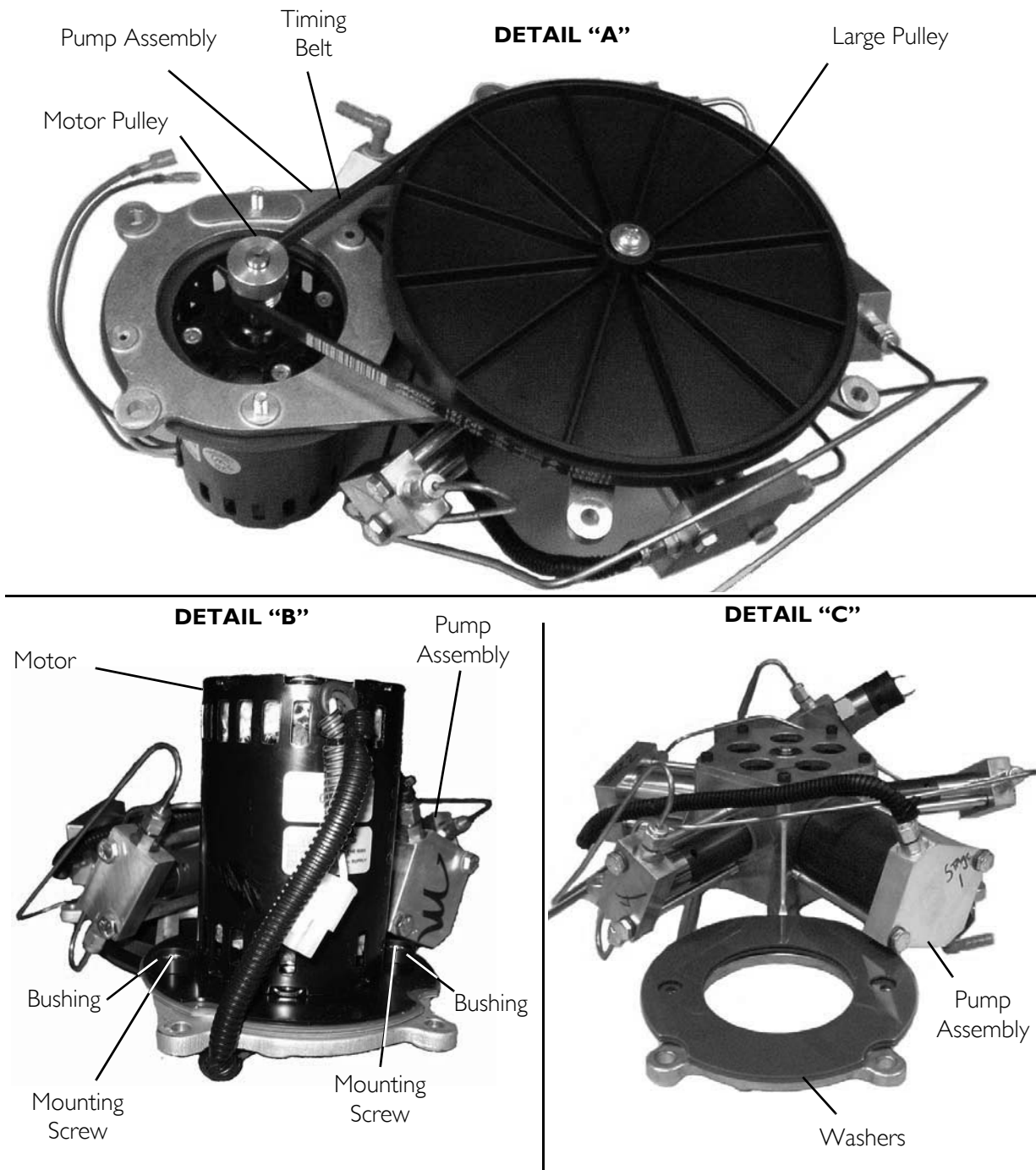


FIGURE 9.6 Motor Replacement

Reassembly

NOTE: For this procedure, refer to FIGURE 9.1 through FIGURE 9.6.

1. Position the washers on the pump assembly. Refer to Detail "C" in FIGURE 9.6.
2. Position the motor on the pump assembly. Refer to Detail "B" in FIGURE 9.6.
3. Secure the two washers and motor to the pump assembly with two mounting screws and two bushings. Torque mounting screws to 60-70 in-lbs (6.78-7.9 Nm). Refer to Detail "B" in FIGURE 9.6

4. Install the belt over the large pulley and the small motor pulley. Refer to Detail “A” in FIGURE 9.6.
5. Turn the large pulley and ensure the belt is tracking properly across both pulleys.
6. Position the motor/pump assembly on the base (FIGURE 9.5).
7. Secure the pump/motor assembly to the base with six mounting screws. Torque mounting screws to 2.82-3.79 Nm (FIGURE 9.5).
8. Position control panel assembly on base (FIGURE 9.4).
9. Connect the two connectors (not shown) to the hour meter (FIGURE 9.4).
10. Connect the two connectors to the power inlet (FIGURE 9.4).
11. Connect the four connectors to the transformer as noted in STEP 18 on page 54 (FIGURE 9.4).
12. Connect the oxygen sensor tubing to the oxygen inlet hose and secure with tie wrap (FIGURE 9.4)
13. Connect the oxygen inlet hose to the receptacle fitting (FIGURE 9.4).
14. Secure the oxygen inlet hose to the receptacle fitting with a tie wrap (FIGURE 9.4).
15. Connect the oxygen inlet hose to the inlet of stage 1 (FIGURE 9.4).
16. Secure the hose with a tie wrap using a tie wrap gun set at #8 (FIGURE 9.4).
17. Secure the control panel gussets to the rear of the base assembly with two mounting screws (FIGURE 9.1).
18. Secure the bottom of the control panel to the pump assembly with the two mounting screws (FIGURE 9.3).
19. Connect the high pressure oxygen line to the cylinder fillport connector. Securely tighten using the $\frac{7}{16}$ open ended wrench (FIGURE 9.3).
20. Connect the two wires to the high pressure switch (FIGURE 9.2).
21. Connect the grounding clip to the motor (FIGURE 9.1)
22. Connect the two wires to the capacitor (FIGURE 9.1)
23. Connect the two pin connector that connects the motor to the wiring harness (FIGURE 9.1).
24. Install the cabinet. Refer to Removing/Installing the Cabinet on page 25.

SECTION 10—COMPRESSOR REPLACEMENT

HomeFill Units Manufactured Before 8/1/05

Tools Required: $\frac{7}{16}$ open ended wrench, $\frac{5}{8}$ open ended wrench, Diagonal Cutters, Needle Nose Pliers, Phillips screwdriver

Disassembly

NOTE: For this procedure, refer to FIGURE 10.1 through FIGURE 10.5.

1. Install an empty cylinder onto the compressor to release the pressure in the lines.
2. Remove the cylinder. Refer to Removing/Installing the Cabinet on page 25.
3. Disconnect power from the HomeFill unit.
4. Remove the cabinet. Refer to Removing/Installing the Cabinet on page 25.
5. Disconnect the two pin connector that connects the motor to the wiring harness (FIGURE 10.1).
6. Using needle nose pliers, disconnect the two wires from the capacitor (FIGURE 10.1).
7. Using needle nose pliers, disconnect the grounding clip from the motor (FIGURE 10.1).

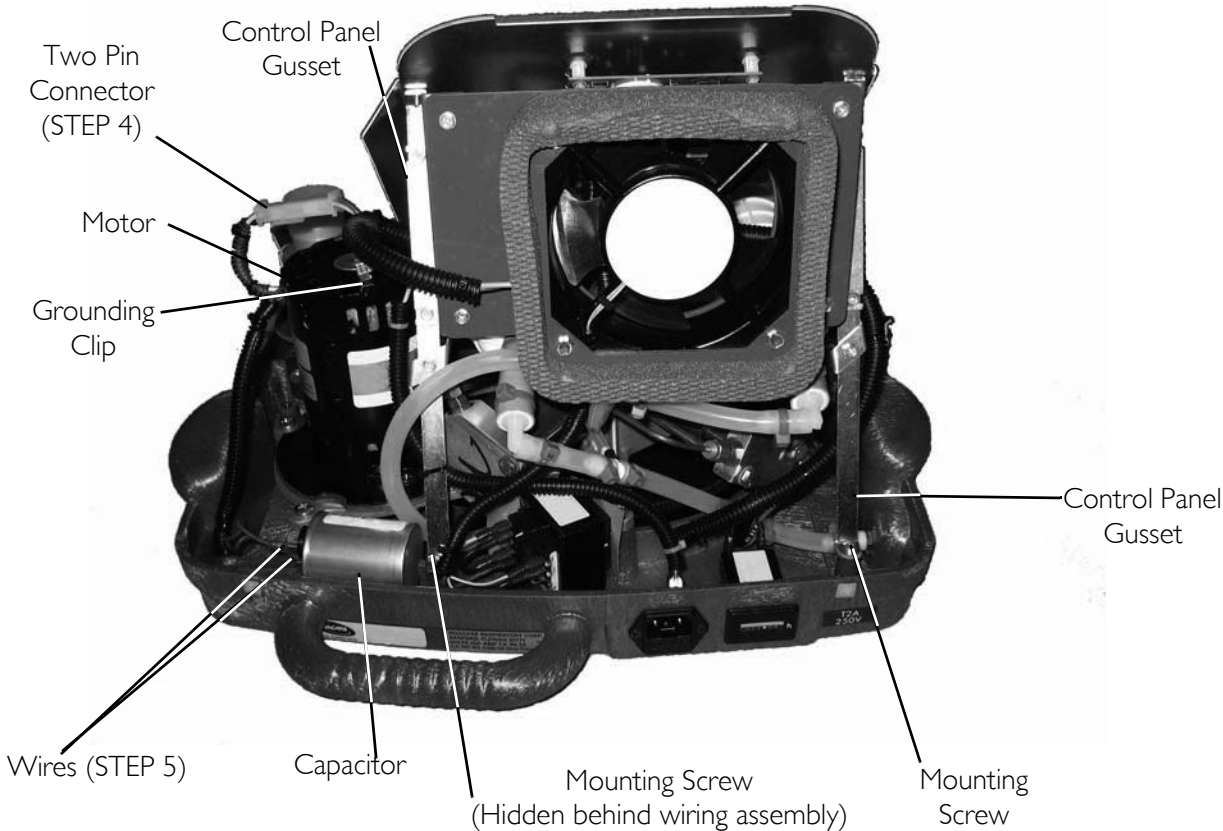


FIGURE 10.1 Compressor Replacement - HomeFill Units Manufactured Before 8/1/05

8. Disconnect the two wires from the high pressure switch (FIGURE 10.2).

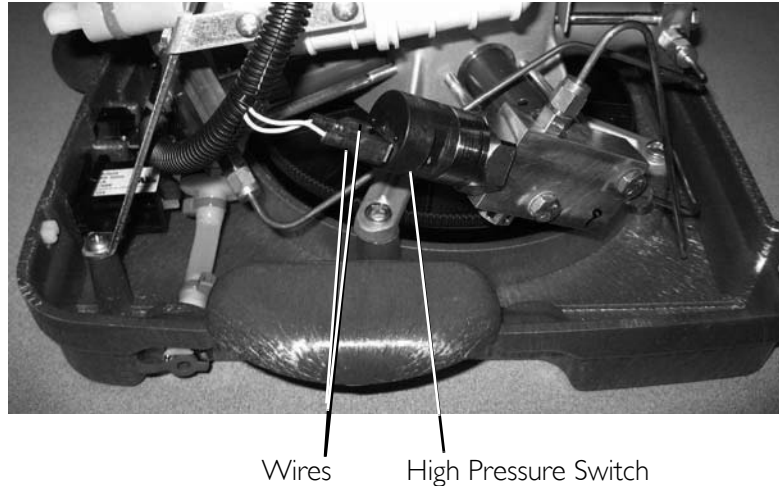


FIGURE 10.2 Compressor Replacement - HomeFill Units Manufactured Before 8/1/05

9. Using the $\frac{7}{16}$ open ended wrench, loosen the nut and disconnect the high pressure oxygen line from the cylinder fillport connector (FIGURE 10.3).
10. Loosen the two screws that secure the bottom of the control panel in place (FIGURE 10.3).
11. Remove the two screws that secure the control panel gussets to the rear of the base assembly (FIGURE 10.1).

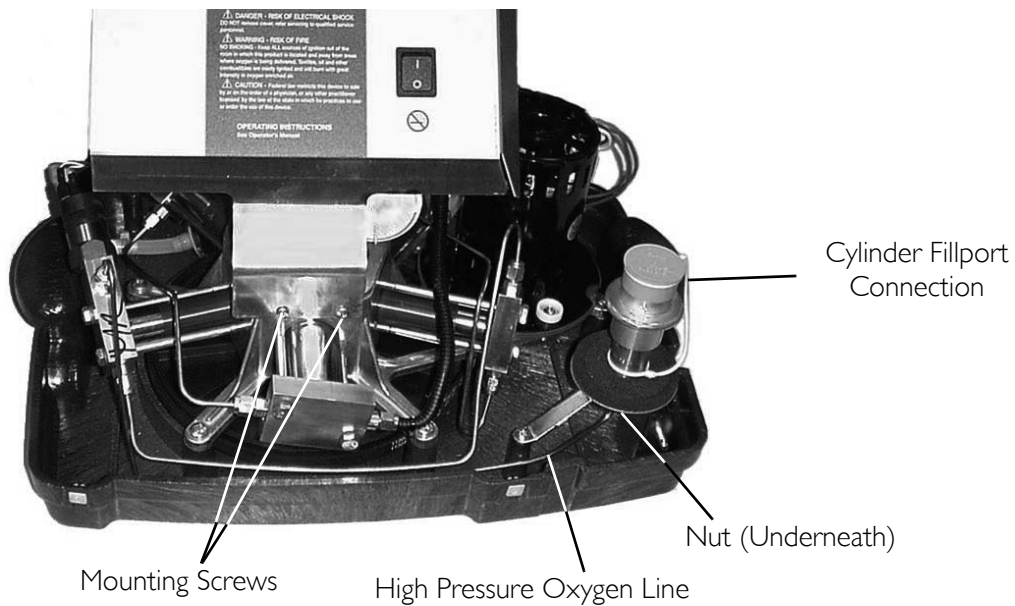
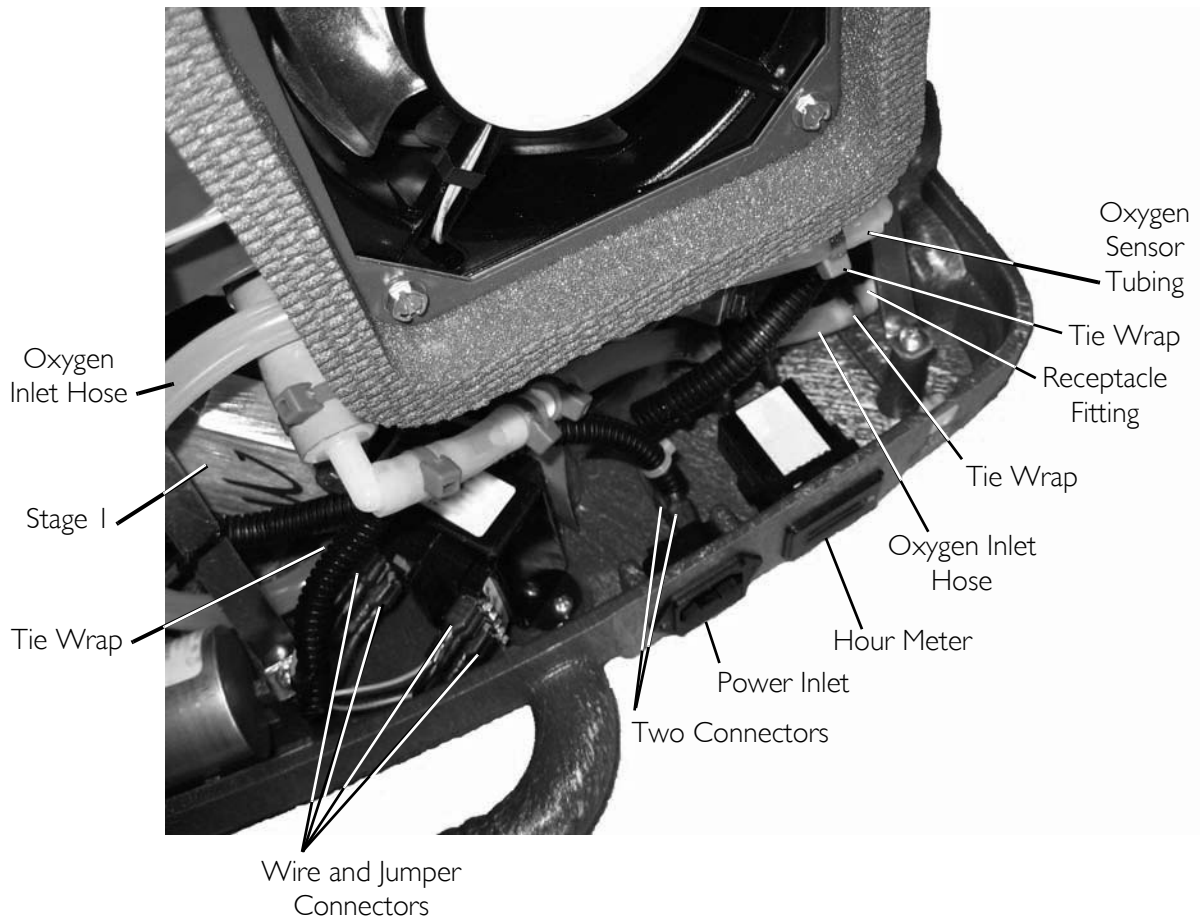


FIGURE 10.3 Compressor Replacement - HomeFill Units Manufactured Before 8/1/05

⚠ CAUTION

DO NOT cut the tubing or damage (score) the tubing when removing tie-wraps. Otherwise, HomeFill unit will not fill cylinders correctly.

12. Using diagonal cutters, cut the tie wrap that secures the inlet hose to the inlet of stage 1 (FIGURE 10.4).
13. Disconnect the oxygen inlet hose from the inlet of stage 1 (FIGURE 10.4).
14. Using diagonal cutters, cut the tie wrap that secures the oxygen inlet hose to the receptacle fitting (FIGURE 10.4).
15. Remove the oxygen inlet hose from the receptacle fitting (FIGURE 10.4).
16. Using diagonal cutters, cut the tie wrap that secures the oxygen sensor tubing to the oxygen inlet hose (FIGURE 10.4).
17. Remove the oxygen sensor tubing from the oxygen inlet hose (FIGURE 10.4).
18. Note where each of the four wires and two jumpers are connected to the transformer.
19. Using needle nose pliers, disconnect the connectors from the transformer. See Detail "A" in FIGURE 10.4.
20. Using needle nose pliers, disconnect the two connectors from the power inlet (FIGURE 10.4).
21. Using needle nose pliers, disconnect the two connectors (not shown) from the hour meter (FIGURE 10.4).
22. Lift control panel assembly off of base and set aside (FIGURE 10.4).



Detail "A"

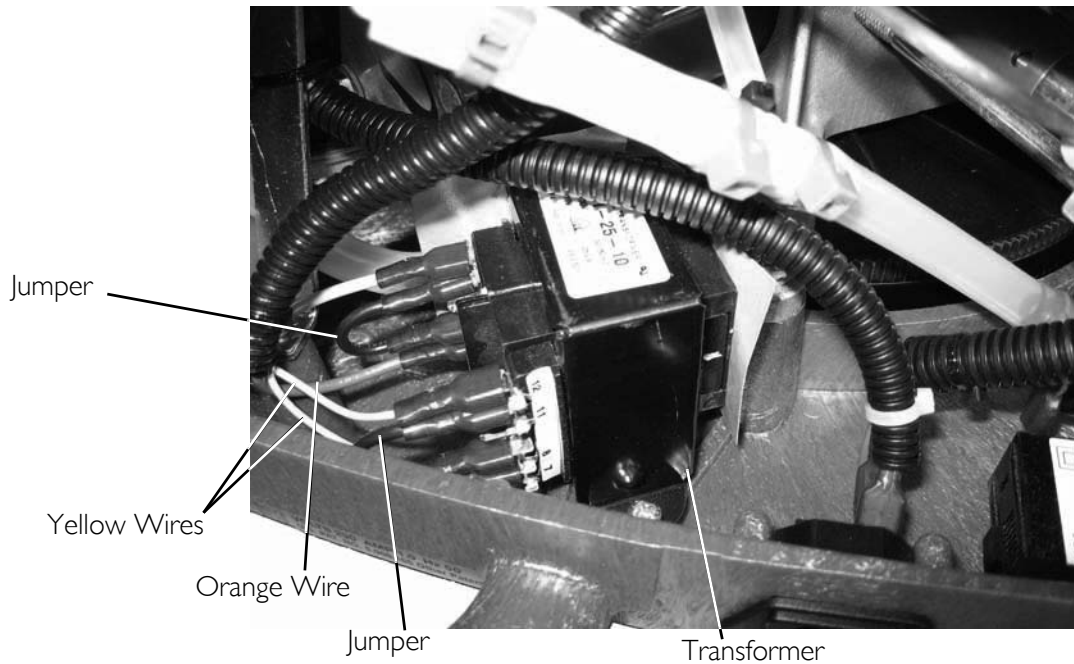


FIGURE 10.4 Compressor Replacement - HomeFill Units Manufactured Before 8/1/05

23. Remove the six mounting screws that secure the compressor/motor assembly to the base (FIGURE 10.5).
24. Remove the existing compressor/motor assembly from the base and set aside.

TOP VIEW WITH CONTROL PANEL ASSEMBLY REMOVED

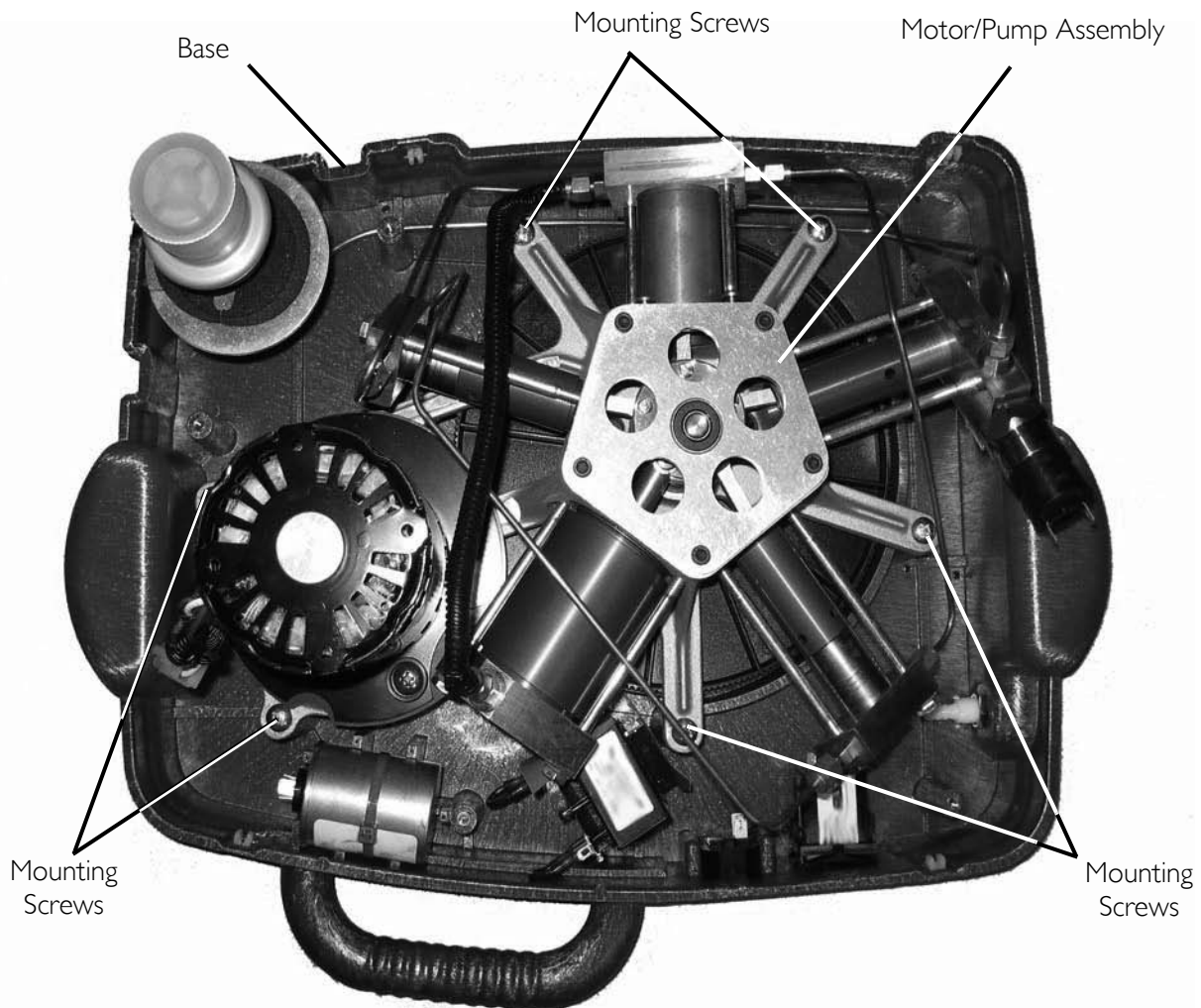


FIGURE 10.5 Compressor Replacement - HomeFill Units Manufactured Before 8/1/05

Assembly of New Motor/Pump Assembly

NOTE: For this procedure, refer to FIGURE 10.6.

New Components Needed: Motor with Pulley (and attaching hardware), Timing Belt, Pump Assembly.

NOTE: Pump assembly comes with the connecting lines between stages (FIGURE 10.6).

1. Position the washers on the pump assembly. Refer to Detail "C" in FIGURE 10.6.
2. Position the motor on the pump assembly. Refer to Detail "B" in FIGURE 10.6.
3. Press the large pulley onto the pump assembly crankshaft. Refer to Detail "A" FIGURE 10.6 on page 66.

4. Secure the large pulley to the pump assembly crankshaft with a mounting screw and washer. Torque to 25-30 in-lbs (2.82-3.74 Nm). Refer to Detail "A" in FIGURE 10.6 on page 66.
5. Secure the two washers and motor to the pump assembly with two mounting screws and two bushings. Torque mounting screws to 60-70 in-lbs (6.78-7.9 Nm). Refer to Detail "B" and "C" in FIGURE 10.6
6. Install the timing belt over the large pulley and the small motor pulley. Refer to Detail "A" in FIGURE 10.6.
7. Turn the large pulley and ensure the timing belt is tracking properly across both pulleys.

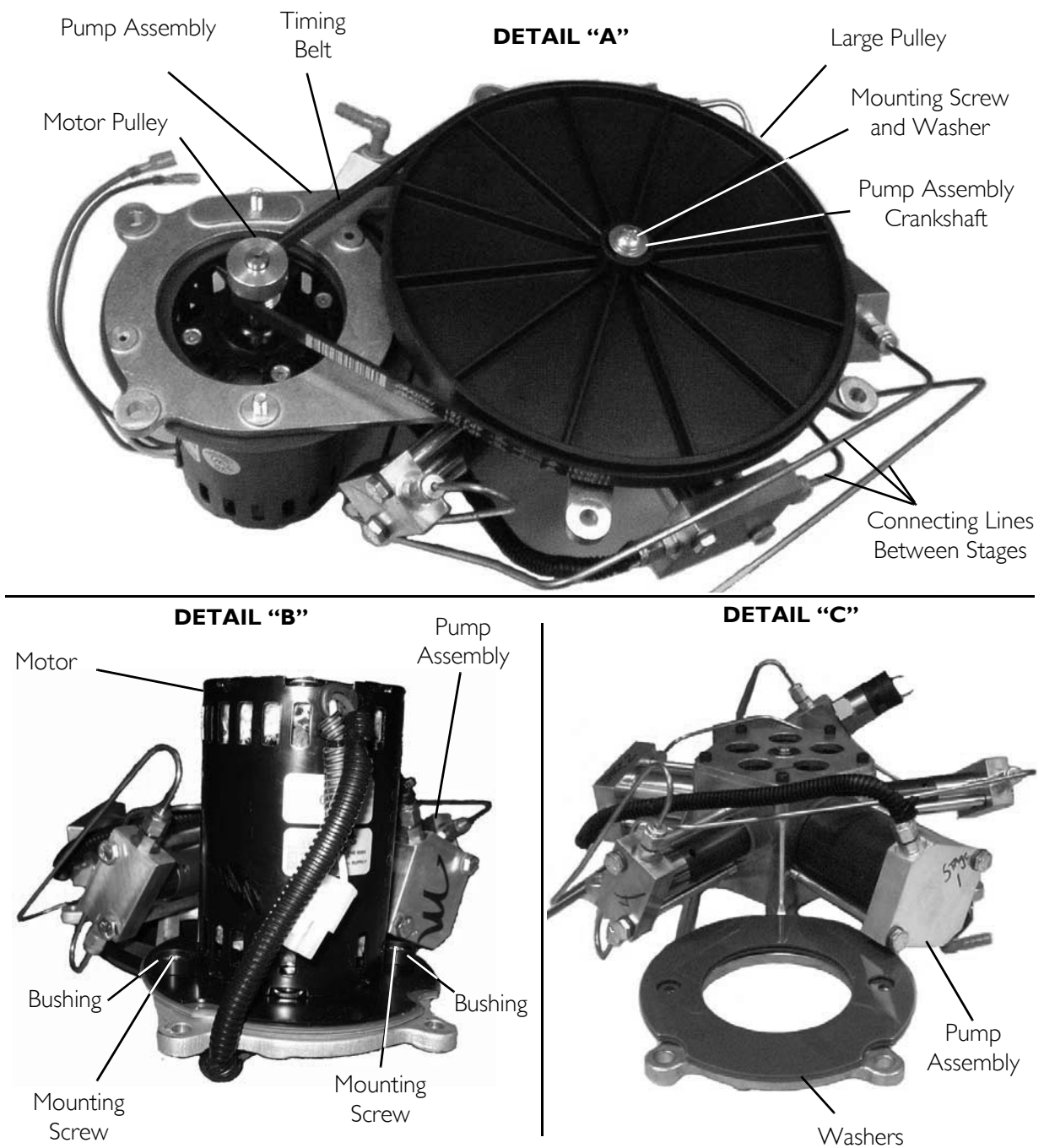


FIGURE 10.6 Compressor Replacement - Assembly of New Motor/Pump Assembly

Reassembly

NOTE: For this procedure, refer to FIGURE 10.1 through FIGURE 10.5.

1. Position the motor/pump assembly on the base (FIGURE 10.5).
2. Secure the motor/pump assembly to the base with six mounting screws. Torque mounting screws to 25-30 in-lbs (2.82-3.39 Nm) (FIGURE 10.5).
3. Position control panel assembly on base (FIGURE 10.4).
4. Connect the two connectors (not shown) to the hour meter (FIGURE 10.4).

5. Connect the two connectors to the power inlet (FIGURE 10.4).
6. Connect the four connectors to the transformer as noted in STEP 18 on page 62 (FIGURE 10.4).
7. Connect the oxygen sensor tubing to the oxygen inlet hose and secure with tie wrap (FIGURE 10.4).
8. Connect the oxygen inlet hose to the receptacle fitting (FIGURE 10.4).
9. Secure the oxygen inlet hose to the receptacle fitting with a tie wrap (FIGURE 10.4).
10. Connect the oxygen inlet hose to the inlet of stage 1 (FIGURE 10.4).
11. Secure the hose with a tie wrap using a tie wrap gun set at #8 (FIGURE 10.4).
12. Secure the control panel gussets to the rear of the base assembly with two mounting screws (FIGURE 10.1).
13. Secure the bottom of the control panel to the pump assembly with the two mounting screws (FIGURE 10.3).
14. Connect the high pressure oxygen line to the cylinder fillport connector. Securely tighten using the $\frac{7}{16}$ open ended wrench (FIGURE 10.2).
15. Connect the two wires to the high pressure switch (FIGURE 10.2).
16. Connect the grounding clip to the motor (FIGURE 10.1).
17. Connect the two wires to the capacitor (FIGURE 10.1).
18. Connect the two pin connector that connects the motor to the wiring harness (FIGURE 10.1).
19. Install the cabinet. Refer to Removing/Installing the Cabinet on page 25.

HomeFill Units Manufactured After 8/1/05

Tools Required:

$\frac{7}{16}$ open ended wrench, $\frac{5}{8}$ open ended wrench, Diagonal Cutters, Needle Nose Pliers
Phillips screwdriver

Disassembly of HomeFill Units

NOTE: For this procedure, refer to FIGURE 10.7 through FIGURE 10.12.

1. Install an empty cylinder onto the compressor to release the pressure in the lines.
2. Remove the cylinder. Refer to Removing/Installing the Cabinet on page 25.
3. Disconnect power from the HomeFill unit.
4. Remove the cabinet. Refer to Removing/Installing the Cabinet on page 25.
5. Disconnect the two pin connector that connects the motor to the wiring harness (FIGURE 10.7).
6. Using needle nose pliers, disconnect the two wires from the capacitor (FIGURE 10.7).
7. Using needle nose pliers, disconnect the grounding clip from the motor (FIGURE 10.7).

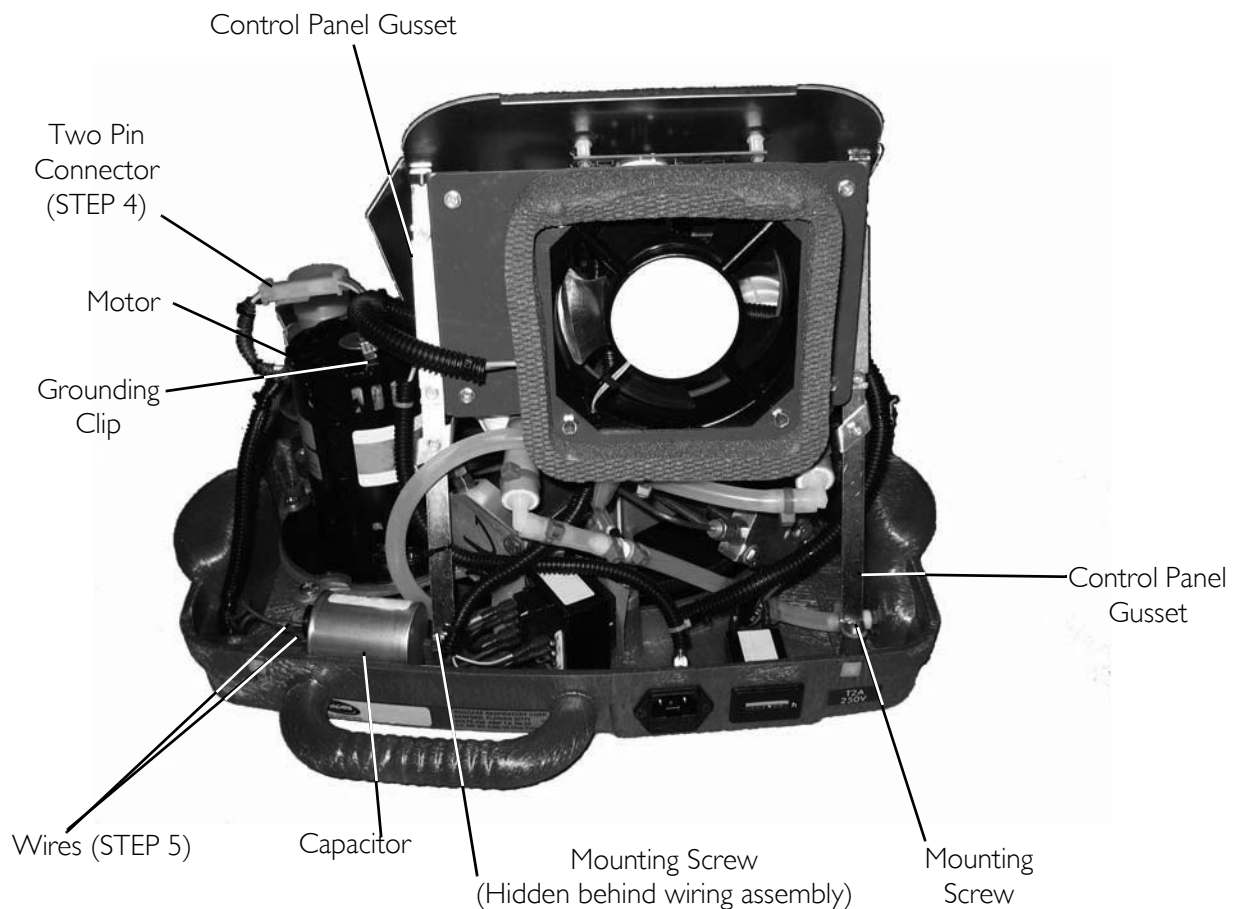


FIGURE 10.7 Compressor Replacement - HomeFill Units Manufactured After 8/1/05

8. Disconnect the two wires from the high pressure switch (FIGURE 10.8).

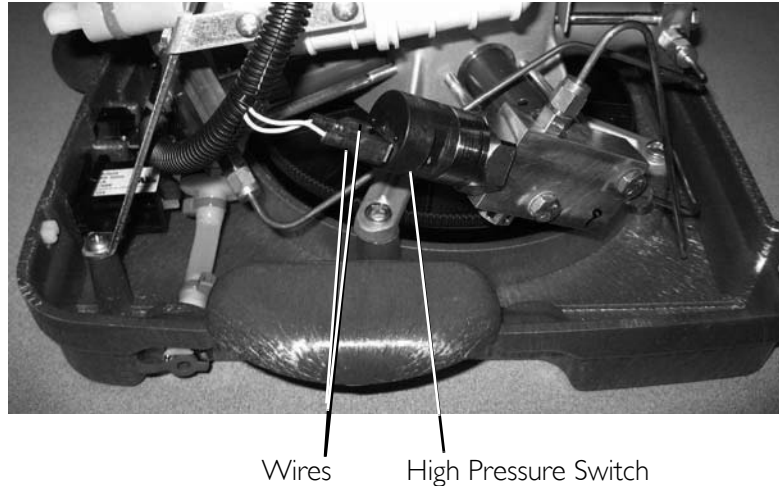


FIGURE 10.8 Compressor Replacement - HomeFill Units Manufactured After 8/1/05

9. Using the $\frac{7}{16}$ open ended wrench, loosen the nut and disconnect the high pressure oxygen line from the cylinder fillport connector (FIGURE 10.9).
10. Loosen the two screws that secure the bottom of the control panel in place (FIGURE 10.9).
11. Remove the two screws that secure the control panel gussets to the rear of the base assembly (FIGURE 10.7).

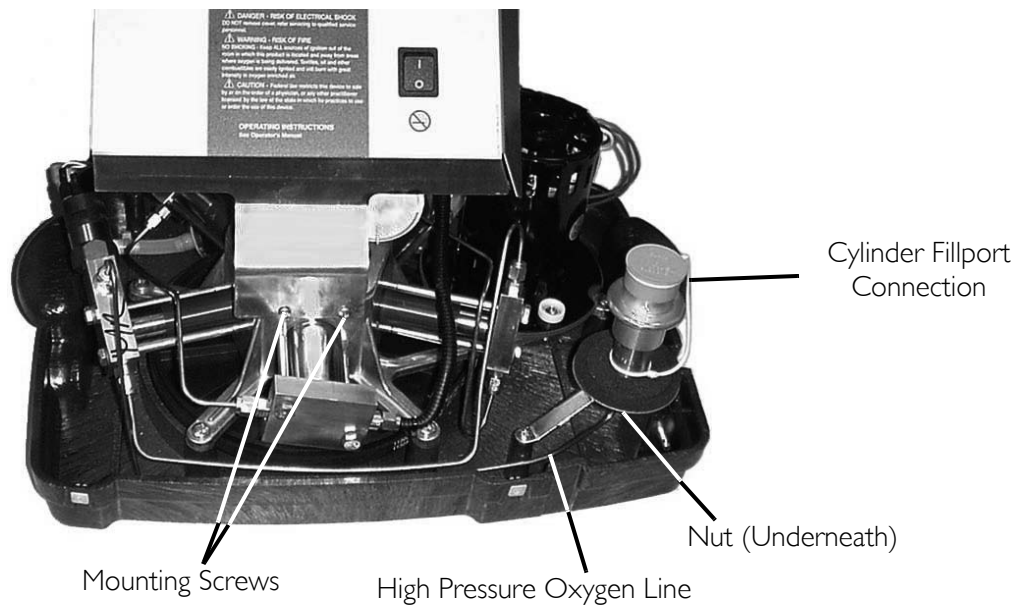
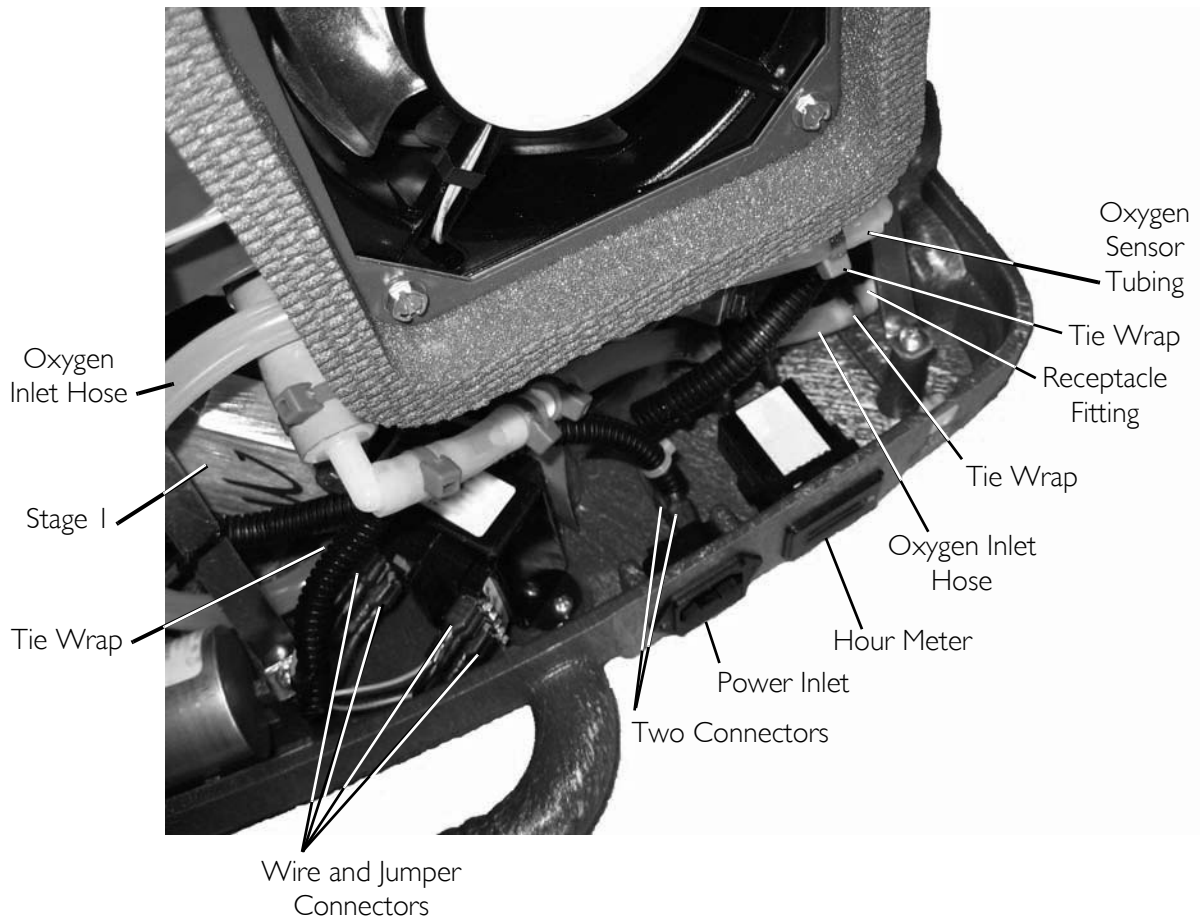


FIGURE 10.9 Compressor Replacement - HomeFill Units Manufactured After 8/1/05

⚠ CAUTION

DO NOT cut the tubing or damage (score) the tubing when removing tie-wraps. Otherwise, HomeFill unit will not fill cylinders correctly.

12. Using diagonal cutters, cut the tie wrap that secures the inlet hose to the inlet of stage 1 (FIGURE 10.10).
13. Disconnect the oxygen inlet hose from the inlet of stage 1 (FIGURE 10.10).
14. Using diagonal cutters, cut the tie wrap that secures the oxygen inlet hose to the receptacle fitting (FIGURE 10.10).
15. Remove the oxygen inlet hose from the receptacle fitting (FIGURE 10.10).
16. Using diagonal cutters, cut the tie wrap that secures the oxygen sensor tubing to the oxygen inlet hose (FIGURE 10.10).
17. Remove the oxygen sensor tubing from the oxygen inlet hose (FIGURE 10.10).
18. Note where each of the four wires and two jumpers are connected to the transformer.
19. Using needle nose pliers, disconnect the connectors from the transformer. See Detail "A" in FIGURE 10.10.
20. Using needle nose pliers, disconnect the two connectors from the power inlet (FIGURE 10.10).
21. Using needle nose pliers, disconnect the two connectors (not shown) from the hour meter (FIGURE 10.10).
22. Lift control panel assembly off of base and set aside (FIGURE 10.10).



Detail "A"

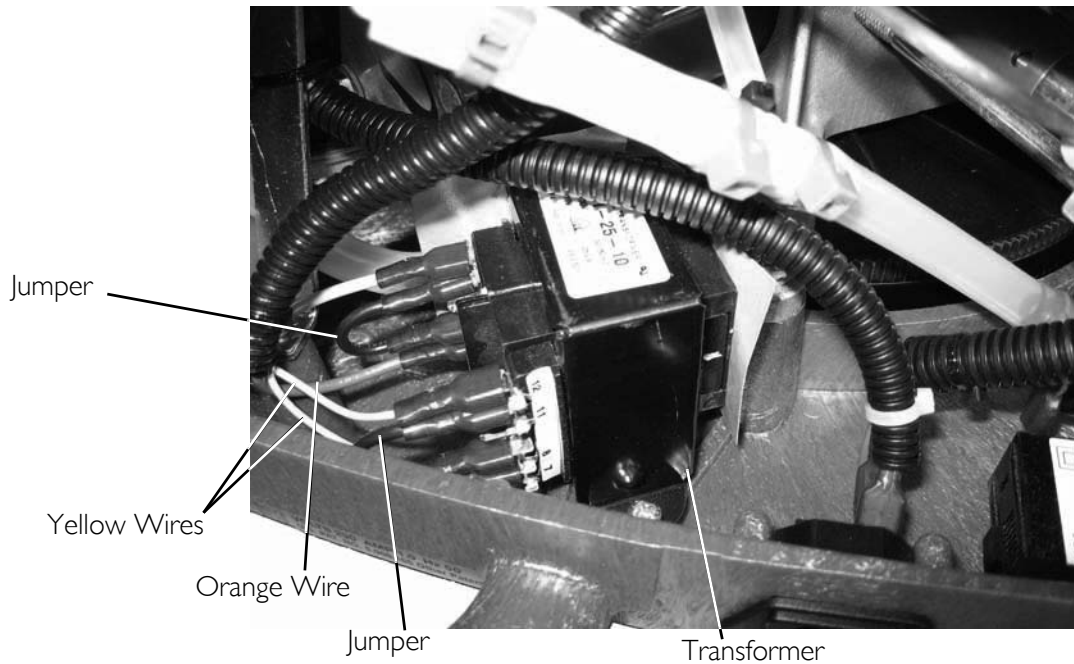


FIGURE 10.10 Compressor Replacement - HomeFill Units Manufactured After 8/1/05

23. Remove the six mounting screws that secure the compressor/motor assembly to the base (FIGURE 10.11).
24. Remove the compressor/motor assembly from the base.

TOP VIEW WITH CONTROL PANEL ASSEMBLY REMOVED

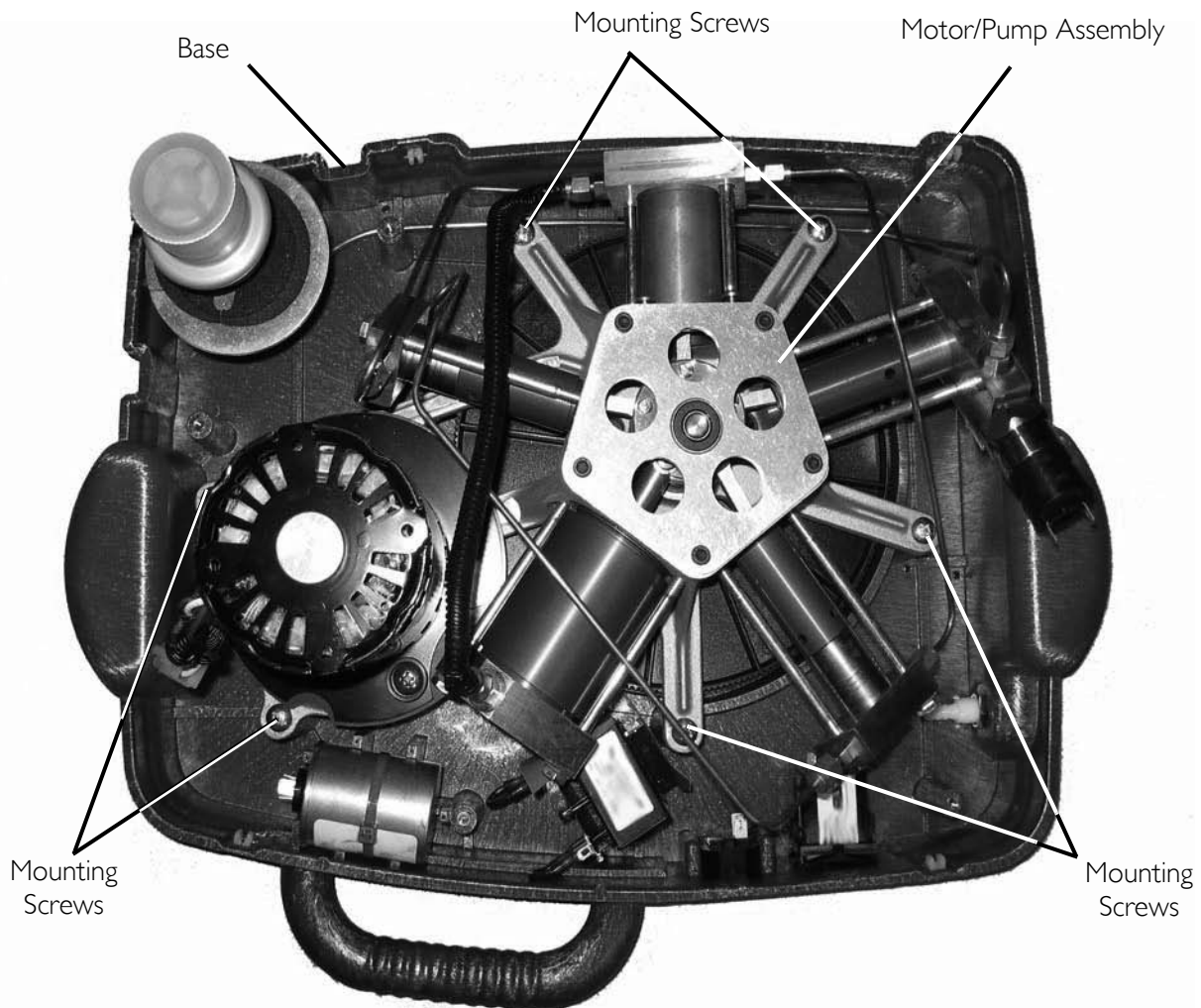


FIGURE 10.11 Compressor Replacement - HomeFill Units Manufactured After 8/1/05

25. Carefully place the pump assembly upside down on the table.
 26. Remove the timing belt by gently pulling the belt away from the large pulley and motor pulley. Refer to Detail "A" in FIGURE 10.12.
 27. Rotate pump assembly 180° so that the motor is facing up.
 28. Remove the two mounting screws, two bushings, and two washers that secure the motor to the pump assembly. Refer to Detail "B" and "C" in FIGURE 10.12.
 29. Remove the motor from the pump assembly.
- NOTE: Retain the two mounting screws, two bushings, and two washers for reassembly.*
30. Remove the mounting screw and washer (Detail "A") that secure the large pulley to the pump assembly crankshaft. Refer to FIGURE 10.12 on page 73.

31. Remove the large pulley from the pump assembly crankshaft.

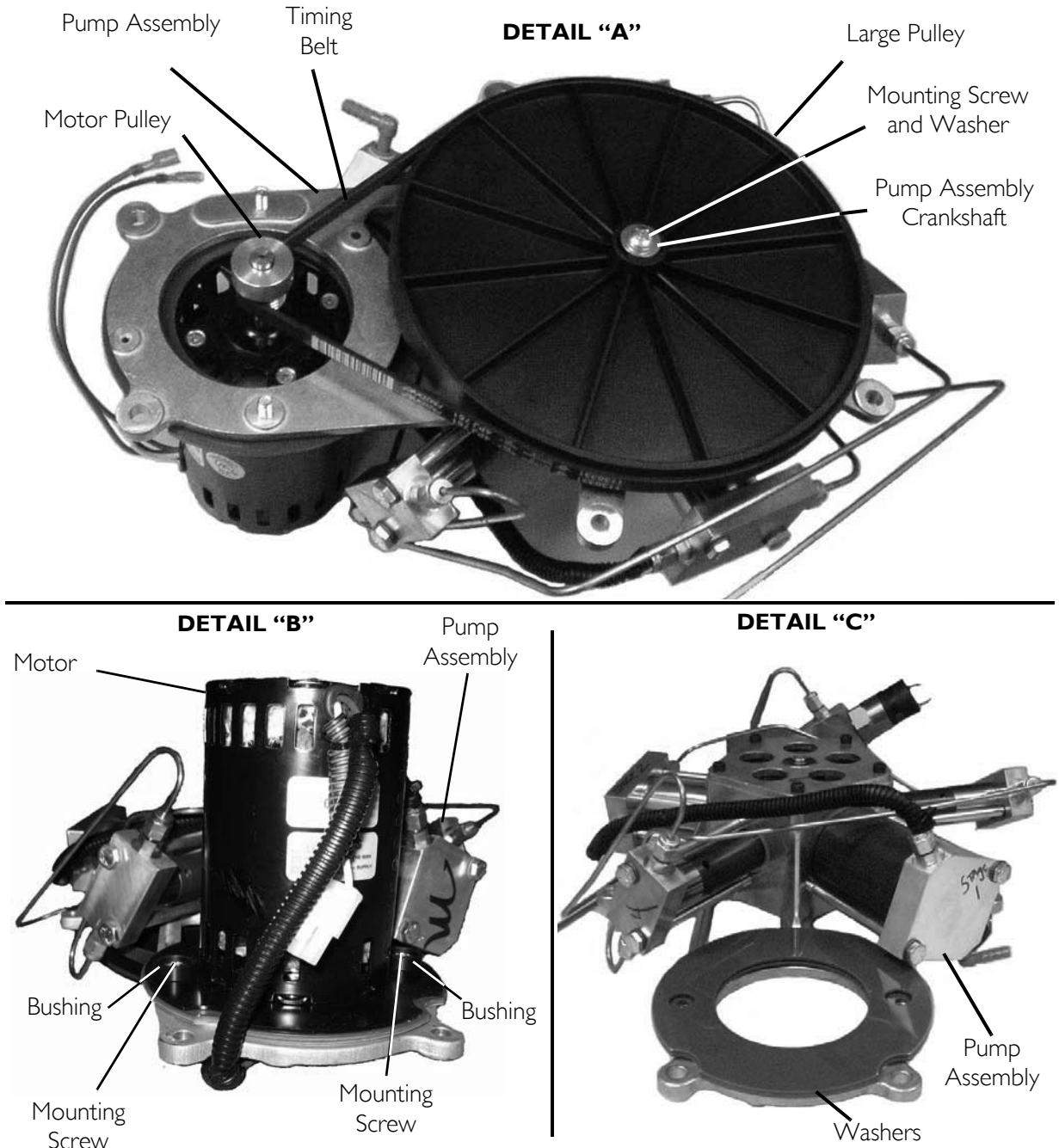


FIGURE 10.12 Compressor Replacement - HomeFill Units Manufactured After 8/1/05

Reassembly of HomeFill Units

NOTE: For this procedure, refer to FIGURE 10.7 through FIGURE 10.12.

1. Position the washers on the new pump assembly. Refer to Detail "C" in FIGURE 10.12.
2. Position the motor on the new pump assembly. Refer to Detail "B" in FIGURE 10.12.
3. Press the large pulley onto the new pump assembly crankshaft. Refer to Detail "A" FIGURE 10.12 on page 73.

4. Secure the large pulley to the pump assembly shaft with a mounting screw and washer. Torque to 25-30 in-lbs (2.82-3.39 Nm). Refer to Detail "A" in FIGURE 10.12 on page 73.
5. Secure the two washers and motor to the pump assembly with two mounting screws and two bushings. Torque mounting screws to 60-70 in-lbs (6.78-7.9 Nm). Refer to Detail "B" and "C" in FIGURE 10.12.
6. Install the timing belt over the large pulley and the small motor pulley. Refer to Detail "A" in FIGURE 10.12.
7. Turn the large pulley and ensure the belt is tracking properly across both pulleys.
8. Position the motor/pump assembly on the base (FIGURE 10.11).
9. Secure the pump/motor assembly to the base with six mounting screws. Torque mounting screws to 25-30 in-lbs (2.82-3.39 Nm) (FIGURE 10.11).
10. Position control panel assembly on base (FIGURE 10.10).
11. Connect the two connectors (not shown) to the hour meter (FIGURE 10.10).
12. Connect the two connectors to the power inlet (FIGURE 10.10).
13. Connect the four connectors to the transformer as noted in STEP 18 on page 70 (FIGURE 10.10).
14. Connect the oxygen sensor tubing to the oxygen inlet hose and secure with tie wrap (FIGURE 10.10)
15. Connect the oxygen inlet hose to the receptacle fitting (FIGURE 10.10).
16. Secure the oxygen inlet hose to the receptacle fitting with a tie wrap (FIGURE 10.10).
17. Connect the oxygen inlet hose to the inlet of stage 1 (FIGURE 10.10).
18. Secure the hose with a tie wrap using a tie wrap gun set at #8 (FIGURE 10.10).
19. Secure the control panel gussets to the rear of the base assembly with two mounting screws (FIGURE 10.7).
20. Secure the bottom of the control panel to the pump assembly with the two mounting screws (FIGURE 10.9).
21. Connect the high pressure oxygen line to the cylinder fillport connector. Securely tighten using the $\frac{7}{16}$ open ended wrench (FIGURE 10.9).
22. Connect the two wires to the high pressure switch (FIGURE 10.8).
23. Connect the grounding clip to the motor (FIGURE 10.7)
24. Connect the two wires to the capacitor (FIGURE 10.7)
25. Connect the two pin connector that connects the motor to the wiring harness (FIGURE 10.7).
26. Install the cabinet. Refer to Removing/Installing the Cabinet on page 25.

SECTION II—TIMING BELT REPLACEMENT

Tools Required:

$\frac{7}{16}$ open ended wrench, $\frac{5}{8}$ open ended wrench, Diagonal Cutters, Needle Nose Pliers
Phillips screwdriver

Disassembly

NOTE: For this procedure, refer to FIGURE 11.1 through FIGURE 11.6.

1. Install an empty cylinder onto the compressor to release the pressure in the lines.
2. Remove the cylinder. Refer to Removing/Installing the Cabinet on page 25.
3. Disconnect power from the HomeFill unit.
4. Remove the cabinet. Refer to Removing/Installing the Cabinet on page 25.
5. Disconnect the two pin connector that connects the motor to the wiring harness (FIGURE 11.1).
6. Using needle nose pliers, disconnect the two wires from the capacitor (FIGURE 11.1).
7. Using needle nose pliers, disconnect the grounding clip from the motor (FIGURE 11.1).

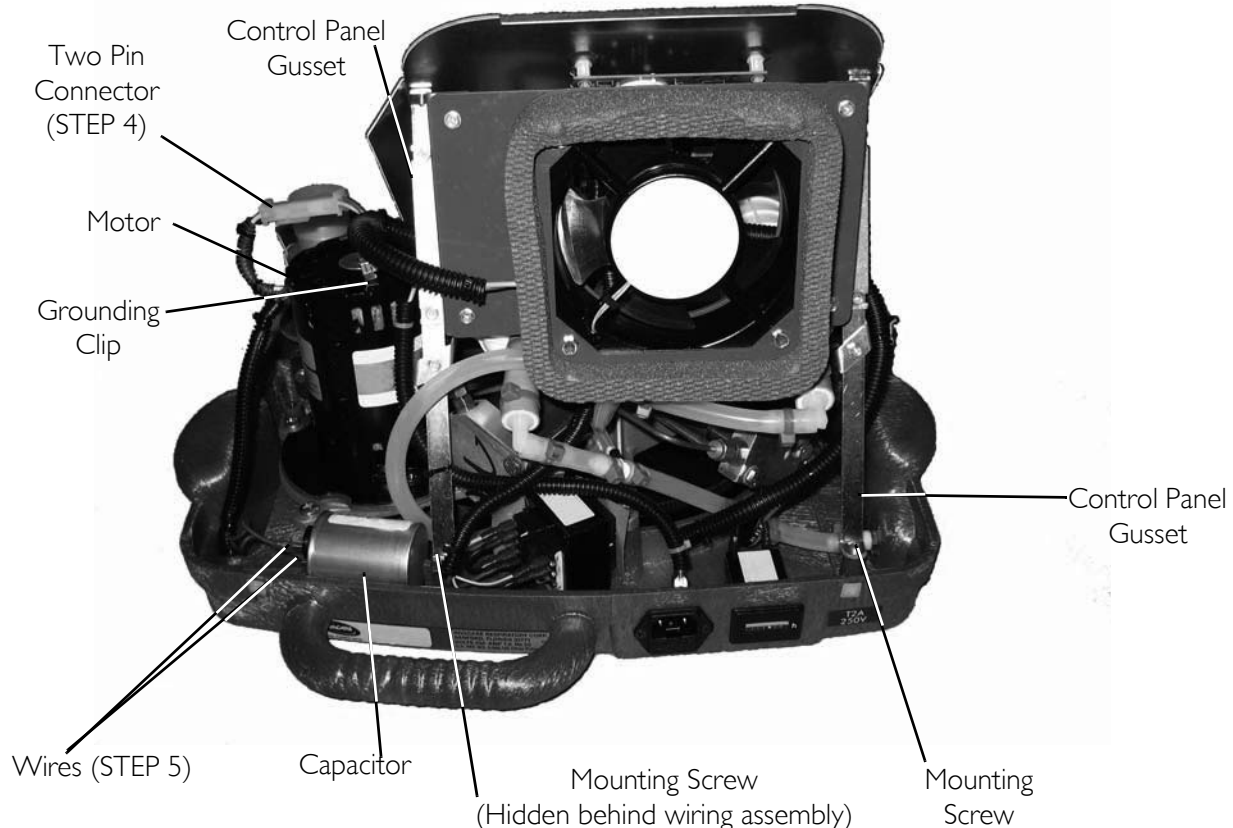


FIGURE 11.1 Timing Belt Replacement

- Disconnect the two wires from the high pressure switch (FIGURE 11.2).

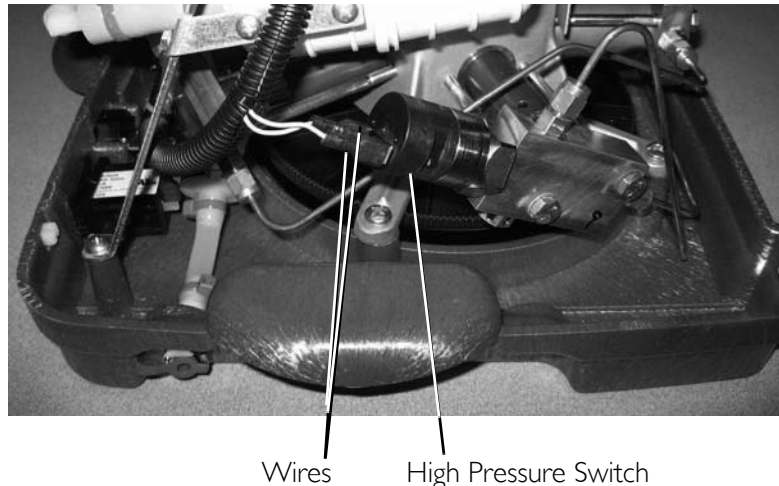


FIGURE 11.2 Timing Belt Replacement

- Using the $\frac{7}{16}$ open ended wrench, loosen the nut and disconnect the high pressure oxygen line from the cylinder fillport connector (FIGURE 11.3).
- Loosen the two screws that secure the bottom of the control panel in place (FIGURE 11.3).
- Remove the two screws that secure the control panel gussets to the rear of the base assembly (FIGURE 11.1).

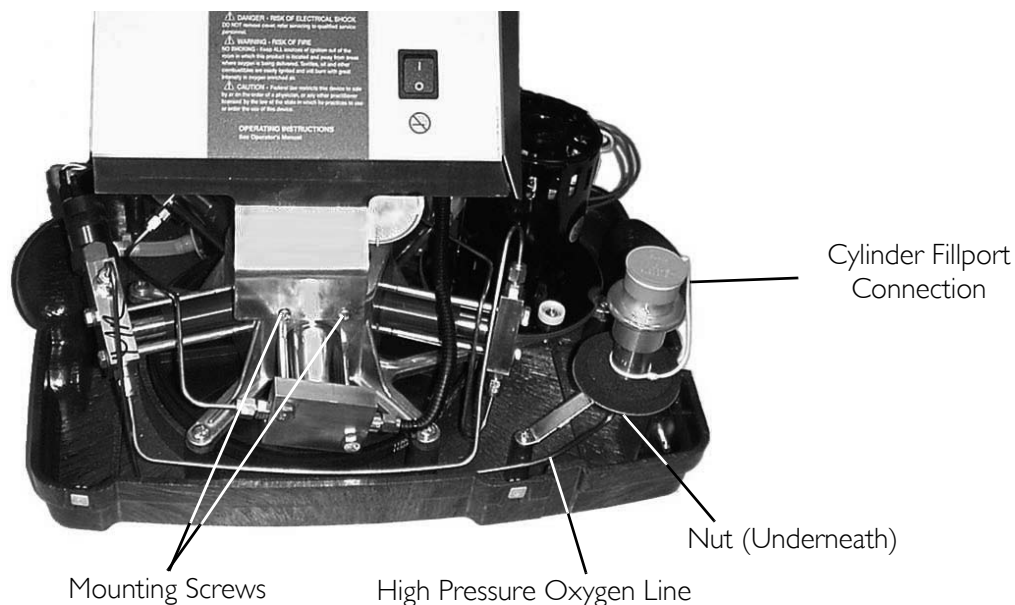


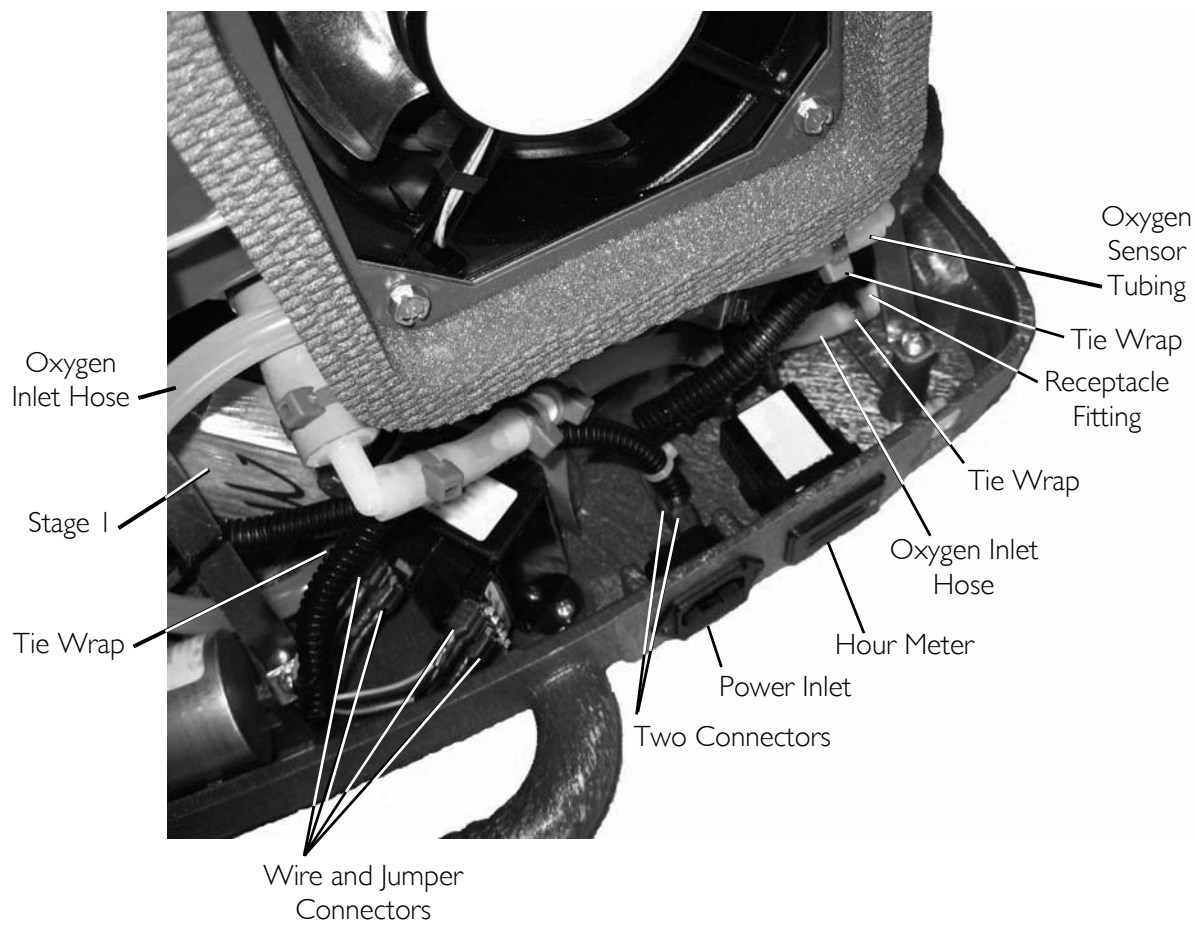
FIGURE 11.3 Timing Belt Replacement

- Using diagonal cutters, cut the tie wrap that secures the inlet hose to the inlet of stage 1 (FIGURE 11.4).

NOTE: DO NOT cut the tubing.

- Disconnect the oxygen inlet hose from the inlet of stage 1 (FIGURE 11.4).

14. Using diagonal cutters, cut the tie wrap that secures the oxygen inlet hose to the receptacle fitting (FIGURE 11.4).
15. Remove the oxygen inlet hose from the receptacle fitting (FIGURE 11.4).
16. Using diagonal cutters, cut the tie wrap that secures the oxygen sensor tubing to the oxygen inlet hose (FIGURE 11.4).
17. Remove the oxygen sensor tubing from the oxygen inlet hose (FIGURE 11.4).
18. Note where each of the four wires and two jumpers are connected to the transformer.
19. Using needle nose pliers, disconnect the connectors from the transformer. See Detail "A" in FIGURE 11.4.
20. Using needle nose pliers, disconnect the two connectors from the power inlet (FIGURE 11.4).
21. Using needle nose pliers, disconnect the two connectors (not shown) from the hour meter (FIGURE 11.4).
22. Lift control panel assembly off of base and set aside (FIGURE 11.4).



Detail "A"

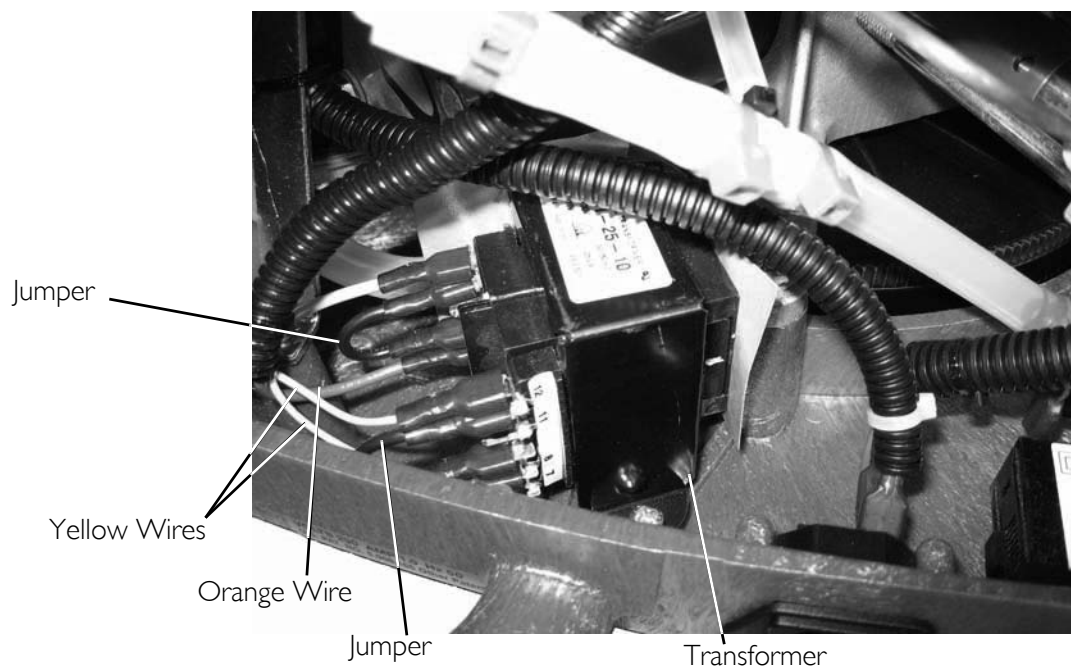


FIGURE II.4 Timing Belt Replacement

23. Remove the six mounting screws that secure the pump/motor assembly to the base (FIGURE 11.5).

TOP VIEW WITH CONTROL PANEL ASSEMBLY REMOVED

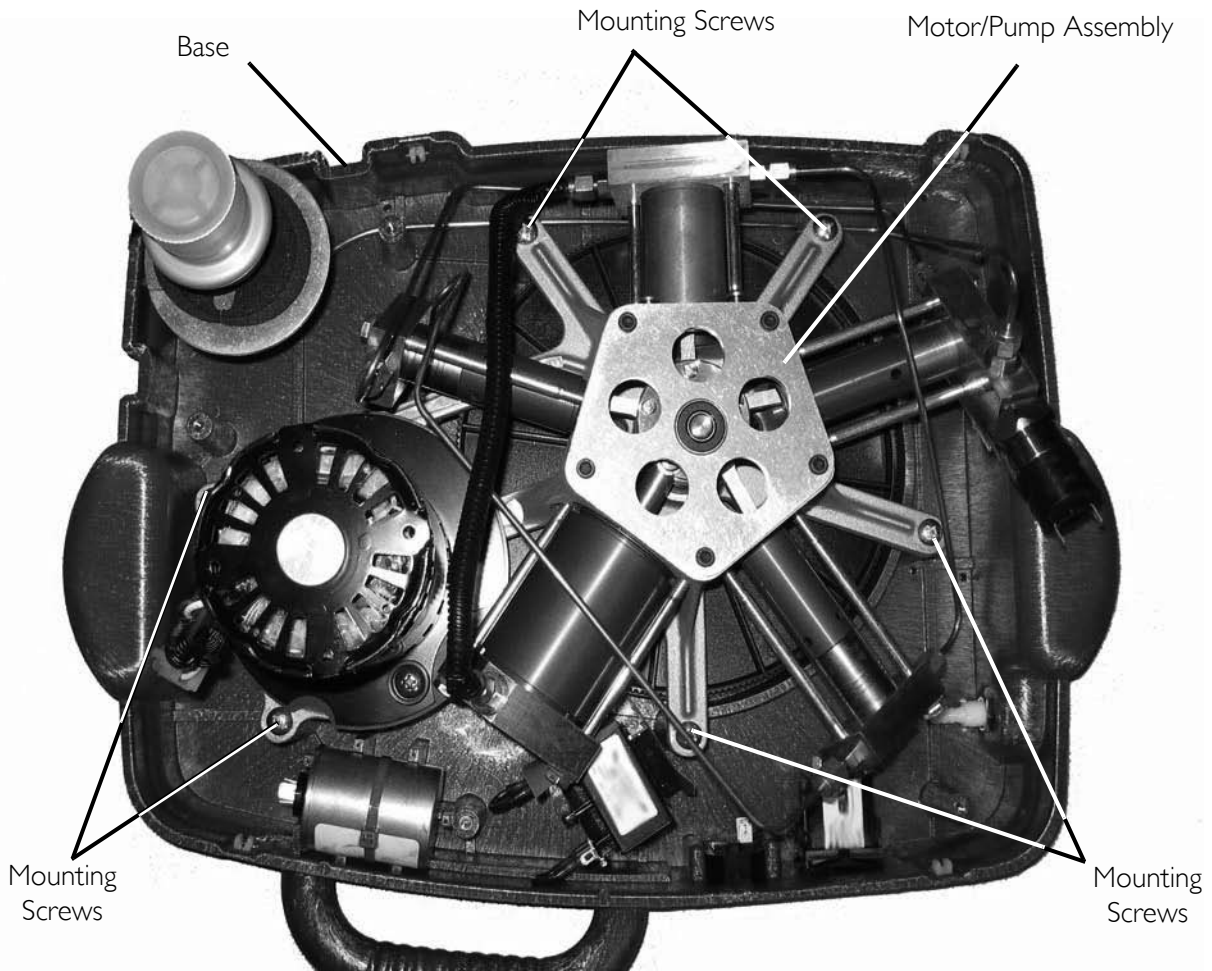


FIGURE 11.5 Timing Belt Replacement

24. Carefully place the pump assembly upside down on the table.
25. Remove the timing belt by gently pulling the belt away from the large pulley and motor pulley (FIGURE 11.6).

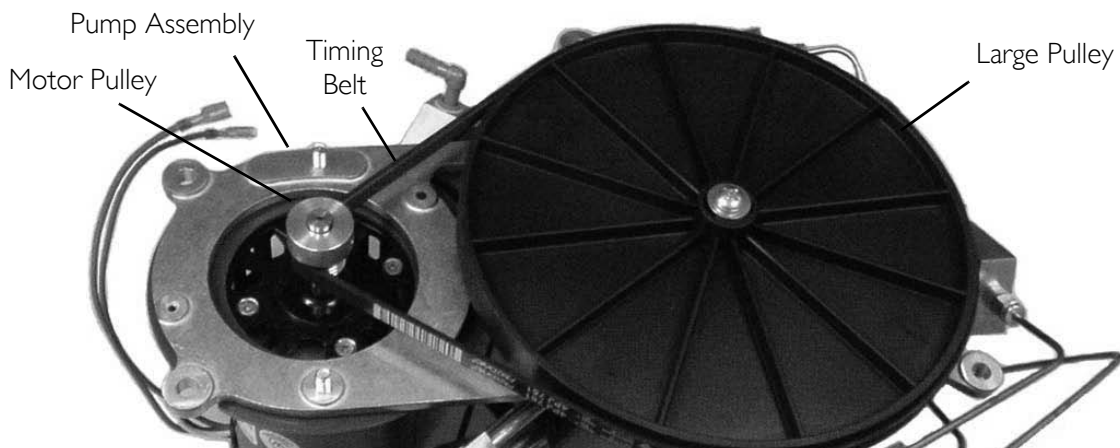


FIGURE 11.6 Timing Belt Replacement

Reassembly

NOTE: For this procedure, refer to FIGURE 11.1 through FIGURE 11.6.

1. Install new belt over the large pulley and the small motor pulley. Refer to Detail “A” in FIGURE 11.6.
2. Turn the large pulley and ensure the belt is tracking properly across both pulleys.
3. Position the motor/pump assembly on the base (FIGURE 11.5).
4. Secure the pump/motor assembly to the base with six mounting screws. Torque mounting screws to 25-30 in-lbs (2.82-3.39 Nm) (FIGURE 11.5).
5. Position control panel assembly on base (FIGURE 11.4).
6. Connect the two connectors (not shown) to the hour meter (FIGURE 11.4).
7. Connect the two connectors to the power inlet (FIGURE 11.4).
8. Connect the four connectors to the transformer as noted in STEP 18 on page 77 (FIGURE 11.4).
9. Connect the oxygen sensor tubing to the oxygen inlet hose and secure with tie wrap (FIGURE 11.4).
10. Connect the oxygen inlet hose to the receptacle fitting (FIGURE 11.4).
11. Secure the oxygen inlet hose to the receptacle fitting with a tie wrap (FIGURE 11.4).
12. Connect the oxygen inlet hose to the inlet of stage 1 (FIGURE 11.4).
13. Secure the hose with a tie wrap using a tie wrap gun set at #8 (FIGURE 11.4).
14. Secure the control panel gussets to the rear of the base assembly with two mounting screws (FIGURE 11.1).
15. Secure the bottom of the control panel to the pump assembly with the two mounting screws (FIGURE 11.3).
16. Connect the high pressure oxygen line to the cylinder fillport connector. Securely tighten using the $\frac{7}{16}$ open ended wrench (FIGURE 11.3).
17. Connect the two wires to the high pressure switch (FIGURE 11.2).
18. Connect the grounding clip to the motor (FIGURE 11.1).
19. Connect the two wires to the capacitor (FIGURE 11.1).
20. Connect the two pin connector that connects the motor to the wiring harness (FIGURE 11.1).
21. Install the cabinet. Refer to Removing/Installing the Cabinet on page 25.

SECTION 12—WIRING ASSEMBLIES

Replacing Wiring Assemblies

⚠ DANGER

To prevent electrical shock, **ALWAYS** disconnect compressor from electrical outlet before servicing.

Full View of Wiring Harnesses

NOTE: For this procedure, refer to FIGURE 12.1.

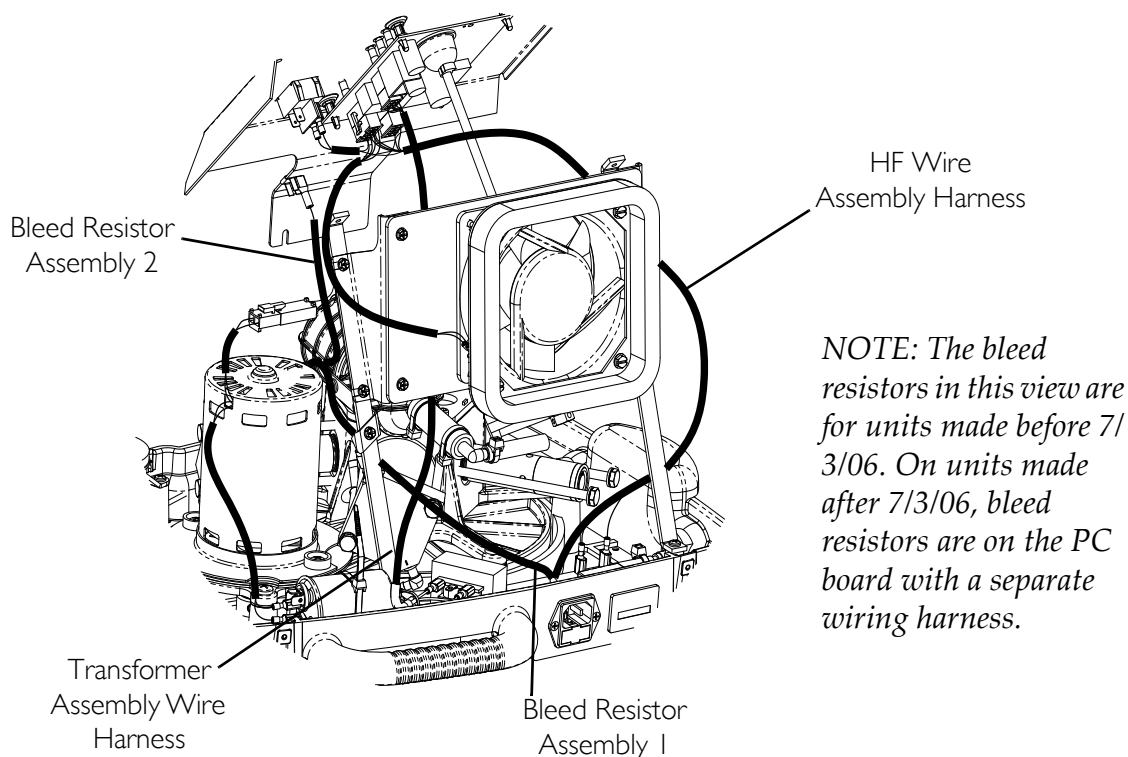


FIGURE 12.1 Full View of Wiring Harnesses

Replacing Transformer Assembly

NOTE: For this procedure, refer to FIGURE 12.2 on page 82.

Tools required for this procedure are:

- Phillips screwdriver
1. Remove the cabinet. Refer to Removing/Installing the Cabinet on page 25.
 2. Remove the control panel. Refer to Removing/Installing Control Panel on page 29.
 3. Remove the two mounting screws that secure the transformer to the base (Detail “A”).
 4. Disconnect the connector from the circuit board (Detail “B”).
 5. Remove the transformer assembly wire harness from the HomeFill compressor.

6. Secure the new transformer to the base with the two mounting screws (Detail "A"). Securely tighten
7. Connect the transformer assembly wire harness to the circuit board (Detail "B").
8. Install the control panel. Refer to Removing/Installing Control Panel on page 29.
9. Install the cabinet. Refer to Removing/Installing the Cabinet on page 25

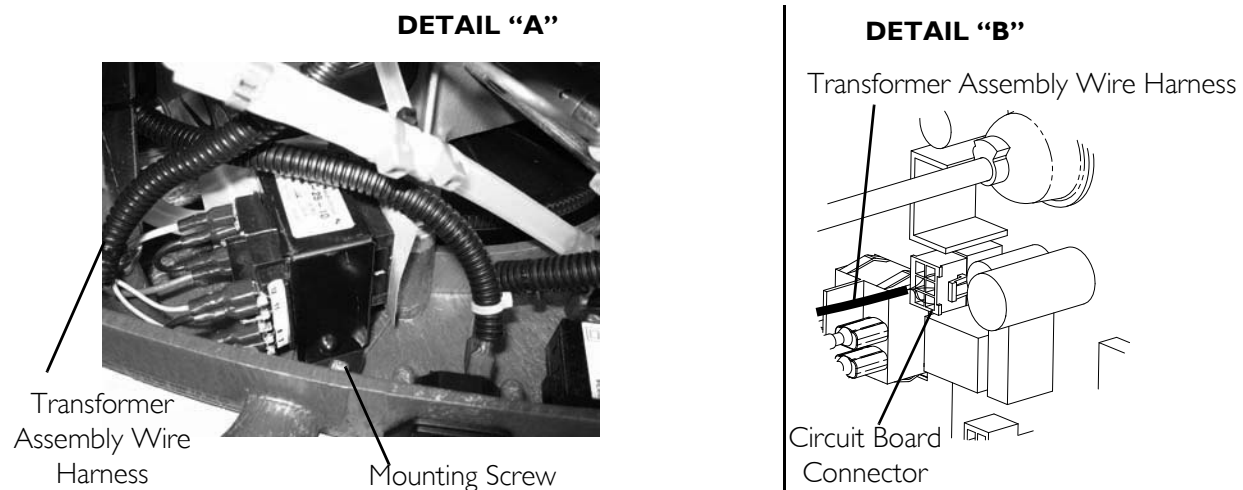


FIGURE 12.2 Replacing Transformer Assembly

Replacing Bleed Resistor Assemblies

Units Manufacture Before 7/3/06

NOTE: For this procedure, refer to FIGURE 12.3 on page 83.

1. Remove the cabinet. Refer to Removing/Installing the Cabinet on page 25.
2. Disconnect bleed resistor assembly 1 from the power inlet (Detail "A").
3. Disconnect the bleed resistor assembly 1 from the grounding clip on the motor assembly (Detail "B").
4. Disconnect bleed resistor assembly 2 from the control panel (Detail "C").
5. Disconnect the bleed resistor assembly 2 from the grounding clip on the motor assembly (Detail "B").
6. Connect one end of the new bleed resistor assembly 1 to the power inlet.
7. Connect the other end of the new bleed resistor assembly 1 to the grounding clip on the motor assembly.
8. Connect one end of the new bleed resistor assembly 2 to the other connection point on the grounding clip on the motor assembly.
9. Connect the other end of the new bleed resistor assembly 2 to the control panel.
10. Install the cabinet. Refer to Removing/Installing the Cabinet on page 25.

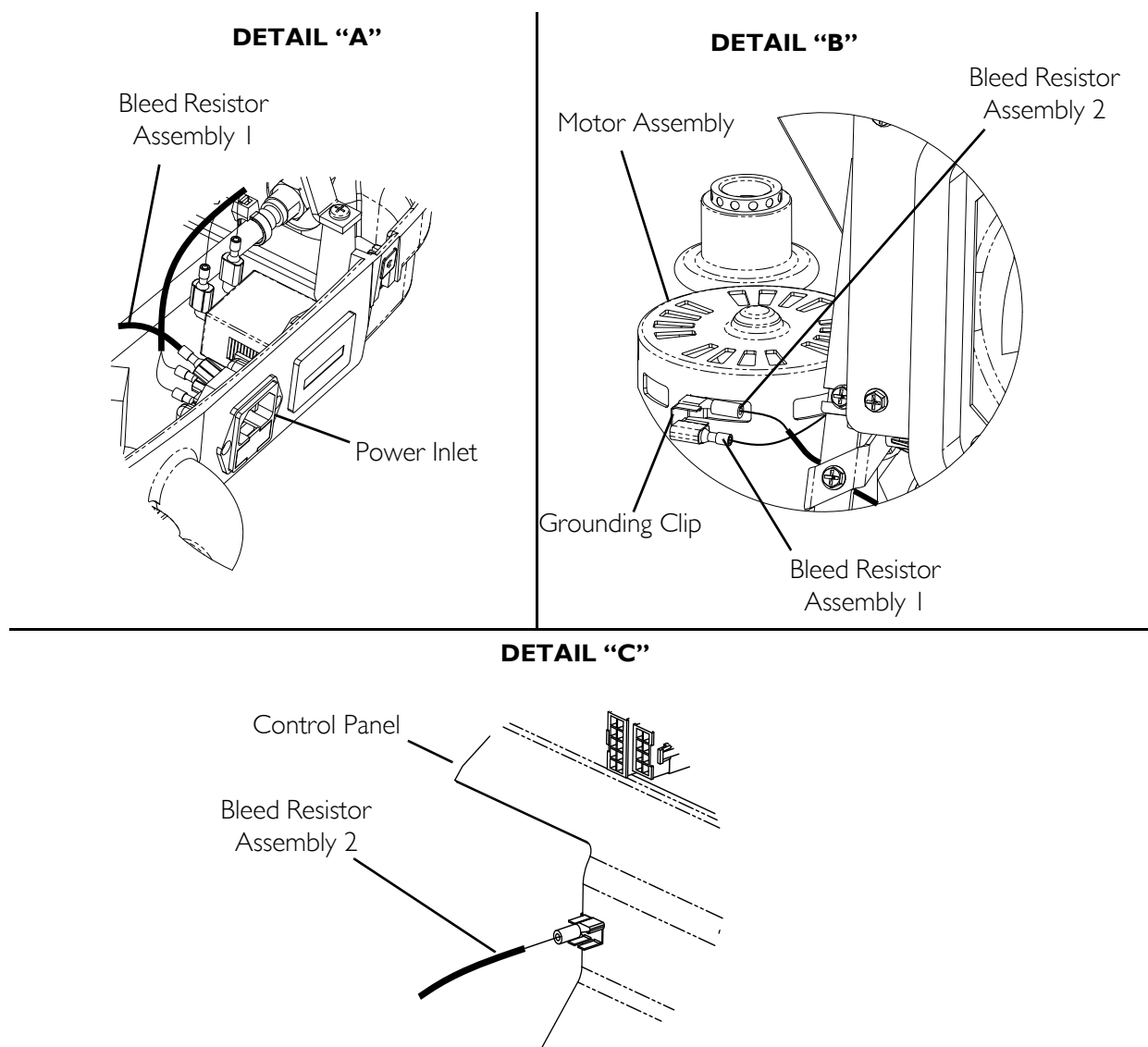


FIGURE 12.3 Replacing Bleed Resistor Assemblies - Units Manufacture Before 7/3/06

Units Manufacture After 7/3/06

NOTE: The bleed resistors in this view are for units made before 7/3/06. On units made after 7/3/06, bleed resistors are on the PC board with a separate wiring harness.

Replacing HFII Assembly Wire Harness

NOTE: For this procedure, refer to FIGURE 12.4 on page 84.

1. Remove the cabinet. Refer to Removing/Installing the Cabinet on page 25.
2. Remove the control panel. Refer to Removing/Installing Control Panel on page 29.
3. Note the orientation of the connectors on the power inlet (Detail "A").
4. Disconnect the two connectors from the power inlet.
5. Note the orientation of the two connectors on the hour meter (Detail "A").
6. Disconnect the two connectors from the hour meter.

7. Disconnect the following connectors:
 - A. Two connectors to the high pressure switch (Detail “B”).
 - B. Two connectors to the circuit board (Detail “C”).
 - C. Two connectors to the On/Off switch (Detail “C”).
 - D. Connector to the motor (Detail “D”).
8. Note the orientation of the two connectors to the exhaust fan (Detail “D”).
9. Disconnect the connectors from the exhaust fan.
10. Reverse STEPS 1-9 to install the new HFII assembly wire harness.

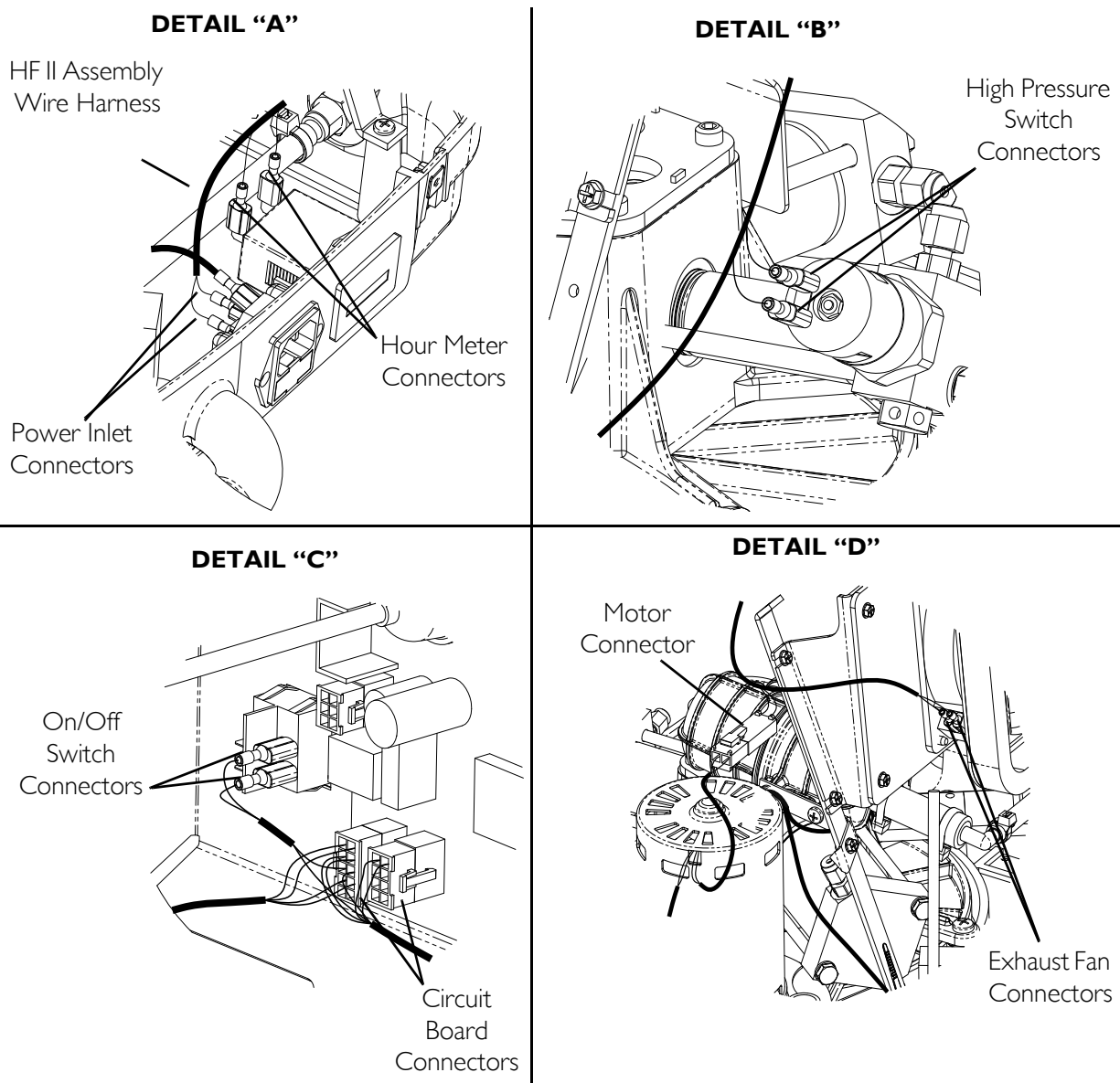


FIGURE 12.4 Replacing HFII Assembly Wire Harness

SECTION 13—TROUBLESHOOTING/CYLINDER FILL TIMES

Indicator Light Explanation

INDICATOR LIGHT COLOR	COMPRESSOR STATUS	EFFECT
NONE	Compressor is Off.	O ₂ flowing to user if concentrator is On.
WAIT	Compressor is On and warming up (0-3 minutes after Power is On).	Cylinder filling not started. O ₂ flowing to user if concentrator is On.
O ₂ BELOW NORMAL - YELLOW	O ₂ from the concentrator is <90% (any time after 3 min warm up).	Cylinder filling stops, will restart when O ₂ >90%. O ₂ flowing to user if concentrator is On.
FILLING - GREEN	Compressor is On cylinder filling O ₂ from the concentrator is >90%. (any time after 3 min warm-up).	Cylinder is filling O ₂ flowing to user.
FULL - GREEN	Compressor is On. Cylinder is finished filling (full): - Remove cylinder (Full light is On in > 10 mins) or Cylinder is not attached properly - Check connection (Full light is On in <10 mins).	Cylinder filling stops. Cannot fill another cylinder until compressor is turned Off and On again. O ₂ flowing to user if concentrator is On.
ATTENTION - RED (Audible Alarm)	Compressor is On. Cylinder not filling. Causes: Full cylinder attached when unit turned On. Replace with empty cylinder or internal failure.	Compressor does not begin to fill or stops filling. Unit MUST be turned Off and On before filling can occur. O ₂ flowing to user if concentrator is On.

Troubleshooting

PROBLEM	SOLUTION
No indicator lights On when compressor turned On.	<ol style="list-style-type: none"> 1. Turn compressor Off. 2. Check that power cord is properly plugged into compressor and wall outlet. 3. Check the fuse on the compressor. If bad, replace. 4. Turn the compressor On. 5. If performing STEPS 1-4 does not cause any indicator lights to come on, contact Invacare for service.

SECTION 13—TROUBLESHOOTING/CYLINDER FILL TIMES

PROBLEM	SOLUTION
RED Light On	<p>1. Check the cylinder gauge to see if it is FULL. Cylinder full - Remove the cylinder and turn the unit Off. Perform the <u>Cylinder Prefill Inspection</u> on page 18 with a cylinder that is NOT FULL.</p> <p>Cylinder not full- Proceed to STEP 2. Cylinder MUST be below 1500 psi (10342 kPa) for compressor to start. If the psi is above 1500 psi (10342 kPa) the compressor identifies the cylinder as full.</p> <p>2. Check that the cylinder is connected properly. Turn the compressor Off. Remove the cylinder and reinstall. Turn the compressor On.</p> <p>3. If cylinder is not full and is connected properly, the compressor may have internal failure. Contact Invacare for service.</p>
Compressor cycles On and Off or O ₂ BELOW NORMAL (YELLOW) and FILLING (GREEN) lights are alternating or O ₂ BELOW NORMAL (YELLOW) light goes On and Off	<p>1. Check the concentrator liter flow setting is at:</p> <ul style="list-style-type: none"> - 2.5 L/min or less for Platinum 5, Platinum S or Perfecto₂ oxygen concentrators. - 5 L/min or less for Platinum 9 concentrators. <p>If necessary, adjust the liter flow setting (refer to the HomeFill user manual). Wait at least 20 minutes for the GREEN light to appear. If it does not appear, proceed to STEP 2.</p> <p>2. The concentrator may need service, contact Invacare for service.</p>
O ₂ BELOW NORMAL (YELLOW) light stays On.	<p>1. Ensure the concentrator has warmed up for at least 30 minutes. If it has not been 30 minutes, turn the compressor Off until the concentrator warms up. If the YELLOW light still remains on proceed to STEP 2.</p> <p>2. Inspect the connection between the compressor and the concentrator for damage or pinching. If damaged, replace. If pinched, straighten tubing. Turn the compressor Off for at least 10 seconds.</p> <p>Turn the compressor On. If the YELLOW light still remains On proceed to STEP 3.</p> <p>3. The concentrator may need service, contact Invacare for service.</p>
Fill times exceed maximum as recommended fill times or GREEN FILLING light stays On.	<p>1. Ensure the cylinder regulator flow control valve is set to Off.</p> <p>2. Check the recommended fill times shown in <u>Cylinder Fill Times</u> on page 87.</p> <p>3. Check that the cylinder is connected properly. Turn the compressor Off. Remove the cylinder and reinstall. Turn the compressor On.</p> <p>4. Check the compressor/concentrator line for proper connection and/or damage (i.e., leaks or kinks).</p> <p>5. Check the concentrator liter flow setting is at:</p> <ul style="list-style-type: none"> - 2.5 L/min or less for Platinum 5, Platinum S or Perfecto₂ oxygen concentrators. - 5 L/min or less for Platinum 9 concentrators. <p>If necessary, adjust the liter flow setting (refer to the HomeFill user manual). If the GREEN filling light does not go Off, the compressor and/or concentrator may need service. Contact Invacare for service.</p>
Excessive noise when compressor is On.	<p>1. Contact Invacare for service.</p>
Hissing sound from Regulator when flow selector is Off.	<p>1. Turn flow selector Off.</p> <p>2. If hissing sounds continue, contact Invacare for service.</p>
Regulator is On but O ₂ is not being delivered.	<p>1. Refill cylinder.</p> <p>2. Check that cannula is straight and not pinched. If damaged, replace.</p> <p>3. Contact Invacare for service.</p>

Cylinder Fill Times

CYLINDER FILLING TIMES	Concentrator Flow Rate to Patient: Platinum 5, Platinum S, Perfecto ₂ up to 2.5 L/min Platinum 9 up to 5 L/min			
	*HF2PC9	*HF2PCL4	*HF2PCL6	HF2PCE8
NORMAL	2 hr 20 min	60 min	1 hr 25 min	2 hr 5 min
MAXIMUM	2 hr 45 min	1 hr 20 min	1 hr 50 min	N/A

NOTE: Filling time is approximate and may vary with environmental conditions.

NOTE: *Not for EU countries

Leak Test

⚠ WARNING

Use extreme caution when testing this device. It may start unexpectedly, and it contains many pinch points.

DO NOT spray electrical connections with leak-tek.

NEVER allow HomeFill to continue running above 2100 psi (14479 kPa).

DO NOT tighten fittings beyond a ¼ turn. Tightening beyond ¼ turn risks stretching and weakening the copper material and causing a ruptured fitting.

Tools and Supplies Needed:

- High Pressure Gauge
- Leak Tek 50/50 Mix
- Flashlight

1. Plug HomeFill into an electrical outlet.
2. Attach a high pressure gauge to the fill line disconnect.
3. Attach the oxygen concentrator line to the inlet fitting. Refer to Concentrator Verification and Maintenance on page 16.
4. Ensure that the concentrator output is greater than 90% at 2.5 L/min for Platinum 5, Platinum S or Perfecto₂ concentrators or 5 L/min for Platinum 9 concentrators. Refer to Concentrator Verification and Maintenance on page 16.
5. Turn the power switch On.
6. Note that four of the five LEDs and the FILLING LED light at start-up.
7. If unit does not start within three minutes, confirm power and oxygen inputs are present.
8. Once HomeFill starts, remove the input tubing. Unit should shut down within 30 seconds.
9. Reinstall the input tubing, unit should restart within 30 seconds.

NOTE: The high pressure gauge should start to indicate raising pressure.

10. Once the pressure is above 500 psi (3447 kPa), start leak checking the unit at the test points in the following table.

NOTE: If necessary, use a flashlight to aid in the identification of bubbles.

STAGE	TEST POINTS
1	Inlet tubing—including bulk head fitting, plastic tee, check valve, outlet HEPA filter, accumulator assembly, tubing connections, inlet fitting (bottom), head/cylinder seal, output fitting (top), and copper tubing.
2	Inlet fitting (top), head / cylinder seal, output fitting (bottom) and copper tubing.
3,4	Inlet fitting (bottom), head / cylinder seal, output fitting.
5	Inlet fitting (bottom), head / cylinder seal, output fitting, high pressure switch, burst disk, and copper tubing—including disconnect assembly.

⚠ WARNING

DO NOT tighten fittings beyond a ¼ turn. Tightening beyond a ¼ turn risks stretching and weakening the copper material and causing an explosion.

11. If a leak is found at a fitting, carefully tighten the fitting up to a ¼ turn to eliminate the leak.
12. Continue inspection until pressure reaches 2000 psi (13790 kPa).
13. Once the high pressure gauge reaches 2000 ± 100 psi (13790 ± 689 kPa), the unit should shut Off.
14. Bleed the pressure down to 1000 ± 200 psi (6895 ± 1379 kPa) and repeat STEP 13 to confirm.

Cylinder Fill Test

NOTE: For this procedure, refer to FIGURE 13.2 on page 91.

The following procedure describes the cylinder fill test process for the HomeFill.

Tools and Supplies Needed:

- Timer (See Figure 9.1)
- O₂ analyzer
- Flow meter
- Pressure gauge
- Leak Tek 50/50 mix

**FIGURE 13.1** Timer

⚠ WARNING

Use extreme caution when testing this device. It may start unexpectedly, and it contains many pinch points.

DO NOT spray electrical connections with leak-tek.

NEVER allow HomeFill to continue running above 2100 psi (14479 kPa).

Before testing begins, make sure the test compressor is in good condition.

Perform leak checks on the HomeFill compressor throughout testing.

Perform periodic maintenance on test concentrator to ensure consistent results.

1. Place an empty M6 cylinder into the connector fillport on the HomeFill. Refer to Connecting the Cylinder to the Compressor on page 20.
2. Ensure that the flow selector on cylinder is positioned at “0”.
3. Connect the concentrator bulkhead fitting to the HomeFill inlet fitting. Refer to Concentrator Verification and Maintenance on page 16.
4. Attach the timer to the HomeFill:
 - A. Note the orientation of the BROWN and BLUE HomeFill harness wires connected to the hour meter for later reconnection.
 - B. Disconnect both HomeFill harness wires from the hour meter.
 - C. Attach the BROWN HomeFill harness wire to the BROWN timer harness connector (i.e., BROWN wire to BROWN wire).
 - D. Attach the BLUE HomeFill harness wire to the BLUE timer harness connector (i.e., BLUE wire to BLUE wire).
 - E. Attach the BROWN timer harness wire to the connector on the hour meter to which the BROWN HomeFill harness wire is normally connected.
 - F. Attach the BLUE timer harness wire to the connector on the hour meter to which the BLUE HomeFill harness wire is normally connected.
5. Plug the HomeFill into 220 VAC power source.
6. Turn the power switch On.

7. Reset the timer to zero.
8. The HomeFill should start filling within three minutes. If HomeFill fails to start filling, check connections and confirm the concentrator output is greater than 90% at 2.5 L/min for Platinum 5, Platinum S or Perfecto₂ concentrators or 5 L/min for Platinum 9 concentrators.

NOTE: After the fill has completed, the HomeFill will shut down and the cylinder pressure gauge should read 2000 ± 100 psi (13790 ± 689 kPa).

9. Check the fill time on the timer:

NOTE: The display is ALWAYS on.

- A. The fill time should be less than 01:12:00. If so, record the time on the repair statement.
 - B. If the fill time is greater than 01:12:00, verify the test concentrator output is greater than 90%, the cylinder is in the “0” position, and there are no leaks in the HomeFill unit. Refer to Leak Test on page 87.
10. Remove the full cylinder from the HomeFill and bleed the pressure out completely.
 11. After the first successful fill, repeat STEP 5 to STEP 9.
 12. After the second consecutive fill, proceed to STEP 14.
 13. Turn the power switch to the Off position.
 14. Remove the timer.
 15. Unplug the power cord.
 16. Disconnect the inlet hose from the inlet fitting.
 17. Reconnect the HomeFill harness wires to the hour meter:
 - A. Disconnect the BLUE timer harness wire from the connector on the hour meter.
 - B. Disconnect the BROWN timer harness wire from the connector on the hour meter.
 - C. Disconnect the BLUE HomeFill harness wire from the BLUE timer harness connector.
 - D. Disconnect the BROWN HomeFill harness wire from the BROWN timer harness connector.
 - E. Connect both HomeFill harness wires to the hour meter in the orientation previously noted.

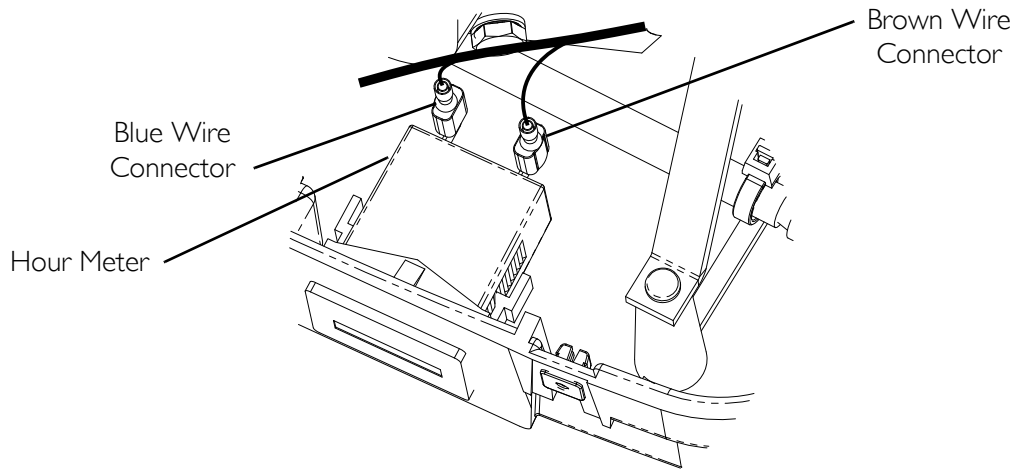


FIGURE 13.2 Cylinder Fill Test

HomeFill 2000 psi Switch/P.C.B. Shut Down Test

NOTE: For this procedure, refer to FIGURE 13.3 on page 93.

Tools and Supplies Needed:

- 2000 psi (13790 kPa) test gauge
 - Dedicated test concentrator
1. Warm concentrator up for 30 min.
 2. Attach 2000 psi (13790 kPa) gauge end to HomeFill connector fillport.
 3. Turn valve on end clockwise to close.
 4. Attach HomeFill to your test concentrator, and set flow to 2.5 L/min for Platinum 5, Platinum S or Perfecto₂ concentrators or 5 L/min for Platinum 9 concentrators (not shown).
 5. After three minutes the HomeFill will start to fill the test gauge, the needle will move off of zero and begin to climb steadily.
 6. The HomeFill unit will shut down when the pressure reaches 2000 ± 100 psi (13790 ± 689 kPa):

⚠ CAUTION

If the HomeFill unit exceeds 2100 psi (14479 kPa) without shutting down, manually turn the unit off, otherwise damage to the unit can occur.

- A. Watch the needle on the gauge to insure pressure does not exceed 2100 psi (14479 kPa), if the unit exceeds 2100 psi (14479 kPa) without shutting down, manually turn the unit off otherwise damage to the unit can occur. If this happens replace the high pressure switch and re-test. If unit fails this test again, replace P.C. board. Refer to Replacing Circuit Board on page 32.
 - B. If the unit fails to reach 2000 psi (13790 kPa) within three minutes, a leak in the compressor stages is present and the pump assembly **MUST** be replaced. Refer to Compressor Replacement on page 59.
7. When the HomeFill has completed the deadhead fill, it will shut down and state FULL on the control panel.
 8. Turn the HomeFill Off.
 9. Slowly open the valve counter-clockwise to bleed the pressure in the gauge line.
 10. Remove the test gauge connector end from the connector fillport.



FIGURE 13.3 HomeFill 2000 psi Switch/P.C.B. Shut Down Test

SECTION 14—MAINTENANCE

The HomeFill compressor was specifically designed to minimize routine preventive maintenance. Only professionals of the healthcare field or persons fully conversant with this process, such as authorized or factory trained personnel, should perform preventive maintenance or performance adjustments on the compressor.

Wear and Tear

Invacare reserves the right to ask for any item back that has an alleged defect in workmanship. See the warranty in this manual for specific warranty information.

Refer to the procedures in this Service Manual for proper preventative maintenance schedule and use of the product.

This is just a general guideline and does not include items damaged due to abuse and misuse. Useful life is dependent upon many factors.

Normal wear and tear items and components for this product are listed below.

- All types of filters
- All types of tubing

Service Life

⚠ WARNING

Risk of Injury or Damage

The product has been tested for the service life stated in this manual. Use of the product beyond this time period may cause injury or product damage.

- **ONLY use the product for the service life stated in this manual. DO NOT exceed the service life of the product.**
 - **Perform all maintenance according to the recommended schedule in this manual.**
-

The expected service life of this product is 5 years or 5000 hours of operation when used in accordance with the safety instructions, maintenance intervals and correct use, stated in this manual. The effective service life can vary according to frequency and intensity of use. Maintenance should be done at least every week.

Cleaning/Replacing the Cabinet Filter

⚠ WARNING

- Push the power switch to the Off (O) position and unplug the compressor before cleaning.
- **DO NOT** operate the compressor without the filter installed.

⚠ CAUTION

- **DO NOT** unplug by pulling on cord. To unplug, grasp the plug not the cord, otherwise damage may occur.

NOTE: For this procedure, refer to FIGURE 14.1.

NOTE: All compressors have one filter on the back of the cabinet.

NOTE: Perform this procedure at least once a week.

1. Unplug the compressor. Grasp the plug, not the cord.
2. Remove the filter.
3. Clean the filter with a vacuum cleaner or wash in warm soapy water and rinse thoroughly.
4. Dry the filter thoroughly before reinstallation.

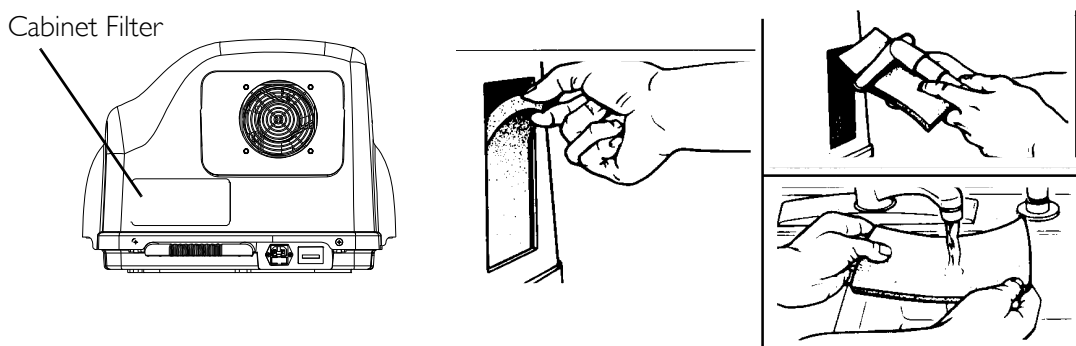


FIGURE 14.1 Cleaning/Replacing the Cabinet Filter

Cleaning Cabinet

⚠ DANGER

Risk Of Electric Shock

This unit contains moving and high pressure components. There are no user serviceable parts inside the cover. To avoid electric shock, injury or death:

- **DO NOT** remove the cover.
- Refer servicing to qualified personnel.

1. Clean the cabinet with a mild household cleaner and non-abrasive cloth or sponge.

Verification Process - Invacare HomeFill Compressor

NOTE: Inspection to be performed upon delivery of unit from Invacare and upon return of unit from rental periods.

MODEL No. _____

SERIAL No. _____

ON EACH INSPECTION				
Record Date of Service				
Record Elapsed Hours on the Hour Meter				
Clean and disinfect the equipment per Cleaning/Disinfection policy				
VISUAL INSPECTION				
Check the electrical cord for damage				
Inspect the cabinet for damage				
Inspect the oxygen intake connection for damage, and/or the presence of oil or grease				
Inspect the cylinder fillport for damage, and/or the presence of oil or grease				
Inspect that the three warning labels are present				
Clean/Replace the filter (located in back of cabinet – IVC Part # 2000489)				
<i>NOTE: If any damage is found, return unit to Invacare. If any of the warning labels are missing, please order replacement labels from Invacare.</i>				
Function Test (procedure below)				

Function Test

1. Set test concentrator to 2.5 L/min for Platinum 5, Platinum S or Perfecto₂ concentrators or 5 L/min for Platinum 9 concentrators and verify oxygen concentration > 90%.
2. Plug the unit in.
3. Connect the concentrator to the compressor.
4. Connect an empty HomeFill cylinder to the cylinder fillport.
5. Turn the compressor on and observe for the following:
 - A. The Wait (YELLOW) light comes on for 3 minutes.
 - B. After 3 minutes, the Fill (GREEN) light will come on when the O₂ from the concentrator is > 90%.
 - C. The compressor begins to fill the cylinder.
 - D. Disconnect the concentrator oxygen supply line and observe that the “O₂ below Normal” (YELLOW) light comes on.
 - E. Reconnect the concentrator supply line and observe that Fill (GREEN) light comes on and the cylinder begins to fill.
 - F. Continue to fill cylinder and verify fill time to meet chart below.

Cylinder Filling Times	Concentrator Flow Rate to Patient: Platinum 5, Platinum S, Perfecto ₂ up to 2.5 L/min Platinum 9 up to 5 L/min	
	Size	
	ML6 (1.0 L)	C (M9) (1.7L)
NORMAL	1 hr 25 min	2 hr 20 min
MAXIMUM	1 hr 50 min	2 hr 45 min

NOTE: All filling times are approximate and may vary with environmental conditions.

Verification Process - Invacare HomeFill Cylinder

NOTE: Inspection to be performed upon delivery of unit from Invacare and upon return of unit from rental periods.

MODEL No. _____

SERIAL No. _____

ON EACH INSPECTION					
Record Date of Service					
Clean and disinfect the equipment per Cleaning/Disinfection policy					
<p style="text-align: center;">⚠ CAUTION</p> <p>Hand wipe conserver and regulator. DO NOT soak or spray fluids directly onto conserver or regulator.</p>					
Visual Inspection					
Check the cylinder Hydrostatic test date. If the cylinder is within 6 months of needing to be re-certified, remove the cylinder from service and send it to be Hydrostatic tested/re-certified					
Bleed the cylinder down until it is empty (use 2 L/min. continuous flow setting on conserver)					
Examine the cylinder for: Dents or Dings, Arc Burns, Oil or Grease, Any other signs of damage, Any signs of Fire or Heat damage, Presence of legible label					
Inspect the valve for: Debris, Oil, or Grease, Noticeable signs of damage, Signs of corrosion inside of the valve, Signs of heat damage					
Inspect the gauge for visual damage or needle inaccuracy. If damaged or inaccurate, remove the cylinder from service.					
<i>NOTE: If damage is found, return unit to Invacare.</i>					
Function Test (Procedure below)					

Function Test

1. Make sure the cylinder fill port properly connects to the HomeFill filling unit.
2. Partially fill the cylinder to check for proper filling operation (15 min).
3. Verify movement on gauge.
4. Check the cylinder for leaks.

CAUTION

DO NOT soak conserver or regulator – focus on cylinder/conserver interface.

5. Test the flow of the regulator at continuous flow. It should read 2 L/min.
6. Connect an oxygen cannula to the conserving device at each setting.
7. Breathe with the cannula to see if it pulses.
8. Bleed the cylinder down until empty (use 2 L/min. continuous flow setting on conserver).
9. Verify gauge is at 0 psi (0 kPa) when cylinder is empty.
10. If it does not pulse, discontinue use. Return to Invacare for repair

SECTION 15—AFTER USE

Disposal

This product has been supplied from an environmentally aware manufacturer that complies with the Waste Electrical and Electronic Equipment (WEEE) Directive 2012/19/EU.

This product may contain substances that could be harmful to the environment if disposed of in places (landfills) that are not appropriate according to legislation.

The 'crossed out wheellie bin' symbol is placed on this product to encourage you to recycle wherever possible.

Follow local governing ordinances and recycling plans regarding disposal of the device or components normally used in operation.

The device does not generate waste or residue in operation. DO NOT dispose of the device in the normal waste stream. Any accessories not part of the device MUST be handled in accordance with the individual product marking for disposal.

Please be environmentally responsible and recycle this product at its end of life. Contact Invacare or your service provider for product recycling information.

NOTES

NOTES

CUSTOMER SERVICE AND WARRANTY INFORMATION

Terms and conditions of the warranty are part of the general terms and conditions particular to the individual countries in which this product is sold.

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