

A. Machine displays “HIGH PRESSURE” in Recycle Mode

1. **Oil not drained** (Note: The following steps should be done while in “Automatic”)

- a. Press oil drain button for one second and release
- b. Slowly open the oil drain bottle until fully opened
- c. Press oil drain button to release oil and air; then release
- d. Close oil drain bottle tightly
- e. Press oil drain button for one second and release
- f. Check that oil charge bottle is closed tightly

2. **High Pressure Switch (HPS) defective** (Figure 1)

- a. Disconnect plug and jump out female end - if that works replace HPS (Note: Check Solenoid S9 after replacing HPS to make sure that is functioning properly)

3. **Solenoid S9** (Figure 2 - the following steps should be done while in “RECYCLE” mode)

- a. Remove lead and put back on - does solenoid click

1. Yes - go to Step 4
2. No

- a. Swap coil with S22 - if okay replace coil; if not go to step b
- b. PCB not energizing coil - check voltage

4. **Printed Circuit Board (PCB) Fuse**

- a. Remove cover from board
- b. Check both fuses

5. **PCB Failed**

* The machine normally displays “HIGH PRESSURE” periodically in Fill Cylinder mode. (See Pg. 5 in Operation Manual)

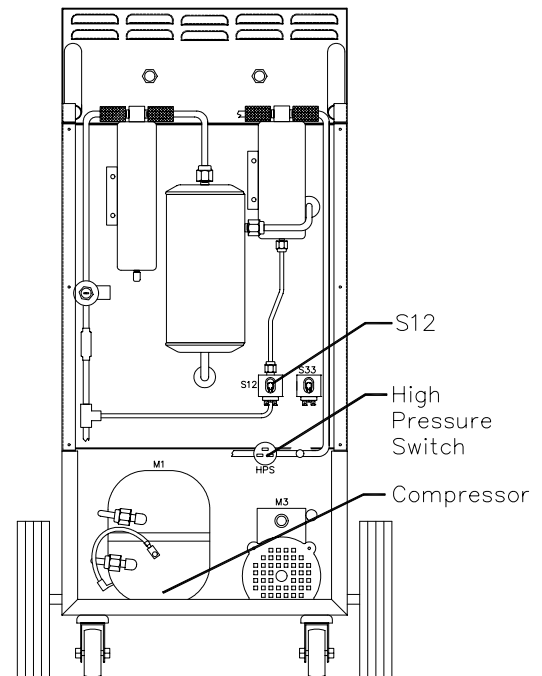


Figure 1

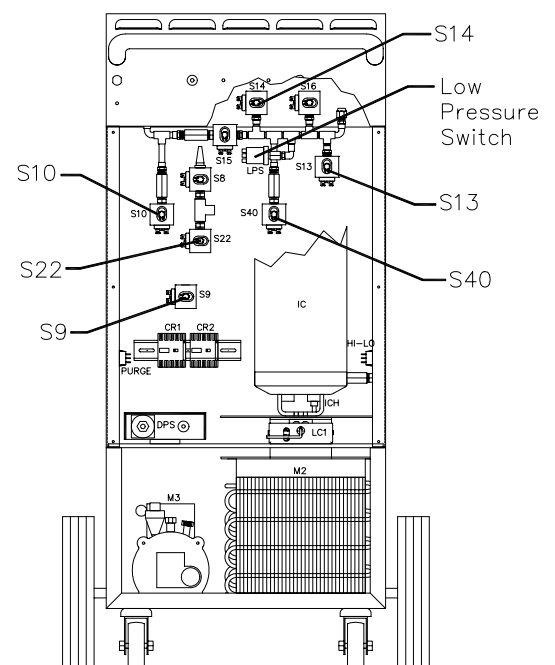


Figure 2

B. Fill Cylinder won't work

1. Make sure yellow hose end with anti-blowback valve (end with depressor) is connected to machine and other end to tank
2. Check pressure of external tank as follows, should be higher than internal cylinder (Note: The following steps should be done while in "Automatic" mode)
 - a. Connect anti-blowback valve to high side port
 - b. Connect other end of yellow hose to tank
 - c. Open valve on tank - to see pressure in tank
 - d. Close valve on tank
 - e. Put machine on "RECYCLE" by pressing the up arrow key one time from "Automatic"
 - f. Press enter key three times until machine displays "COMPRESSOR ON"
 - g. Allow machine to pull down and shut off in a vacuum
 - h. Put machine on "CHARGE" by pressing up arrow key three times from "Automatic" screen
 - i. Press enter key three times until machine displays "CHARGING"
 - j. Pressure on gauge is pressure of internal cylinder
3. Recycle one to two pounds and then go back to Fill Cylinder
4. Replace check valve at quick fill port if all of the above failed

C. Compressor shows excessive amount of oil

1. Tech not draining oil (See section A 1)
2. Adding oil when not necessary (oil level should be checked with unit off)
3. Accumulator filled with oil
 - a. Check that there is pressure at the oil drain
 - b. Solenoid S22 (Figure 2 - this should be done in the "Automatic" mode)
 1. Remove lead and put back on - does solenoid click
 - a. Yes - go to next step
 - b. No
 1. Swap coil with solenoid S10 - if okay replace coil; if not got to step 2
 2. PCB not energizing coil - check voltage
 - c. Check Schrader valve, make sure valve is not bent or loose in port

D. Will not advance from Automatic Mode

1. Knob on top of unit was not removed
2. DOT tank was not mounted properly
3. If up arrow key is pressed and display flickers - load cell not functioning
 - a. Load cell not plugged into board
 - b. Replace load cell
4. Up arrow key is pressed and display does nothing - blown fuse

- a. Remove cover from PCB
- b. Check both fuses

E. Machine will not charge

1. Make sure unit has refrigerant

- a. From “Automatic” screen up arrow three times to “CHARGE”
- b. Enter 0.01 kg as charge amount, press ENTER
- c. Select either High side or Low side charge, press ENTER
 1. Did High side gauge move (or if Low side was selected did Low side gauge move)
 - a. Yes - check flow of refrigerant from port, if none re-calibrate unit
 - b. No - go to Step 2 for High side or go to Step 3 for Low side

2. Solenoid S10 (Figure 2)

- a. Remove lead and put back on - does solenoid click
 1. Yes - go to Step 4
 2. No
 - a. Swap coil with solenoid S22 - if okay replace coil; if not go to step b
 - b. PCB not energizing coil - check voltage

3. Solenoid S40 (Figure 2)

- a. Remove lead and put back on - does solenoid click
 1. Yes - go to Step 4
 2. No
 - a. Swap coil with solenoid S22 - if okay replace coil; if not go to step b
 - b. PCB not energizing coil - check voltage

4. Heater or heat belt - check voltage

5. PCB Failed

F. Machine won't vacuum

1. Make sure low side gauge is in a vacuum

- a. Yes - go to step 2
- b. No - recycle until unit shuts off in vacuum

2. Low Pressure Switch (LPS) defective (Figure 2)

- a. If LPS is two prong
 1. Pull one wire off low pressure switch
 2. Start vacuum - if pump starts replace LPS; if not go to step 3
- b. If LPS is three prong

1. Jump both wires responsible for vacuum
2. Start vacuum - if pump starts replace LPS; if not go to step 3
- 3. Solenoid S14** (Figure 2)
 - a. Remove lead and put back on - does solenoid click
 1. Yes - go to step 4
 2. No
 - a. Swap coil with solenoid S22 - if okay replace coil; if not go to step b
 - b. PCB not energizing coil - check voltage
- 4. PCB Failed**

G. Machine won't recycle

- 1. Low Pressure Switch defective** (Figure 2)
 - a. If LPS is two prong
 1. Jump out both wires going to switch
 2. Start recycle - if compressor comes on replace lps; if not go to step 2
 - b. If LPS is three prong
 1. Jump out two wires responsible for recycle
 2. Start recycle - if compressor comes on replace lps; if not go to step 2
- 2. High Pressure Switch defective** (Figure 1)
 - a. Disconnect plug and jump out female end - if compressor comes on replace HPS; if not go to step 3
- 3. Solenoid S13** (Figure 2)
 1. Remove lead and put back on - does solenoid click
 - a. Yes - go to step 4
 - b. No
 1. Swap coil with solenoid S22 - if okay replace coil; if not go to step 2
 2. PCB not energizing coil - check voltage
- 4. Compressor**
 1. Put manifold gauge on oil fill port
 2. Start recycle procedure - does gauge pull down to 30 InHg
 - a. Yes - go to step 5
 - b. No - replace compressor
- 5. PCB Failed**

H. Machine builds up pressure after shutting off

1. Low side gauge goes above 0

- a. Solenoid S10 (Figure 2) needs rebuilt
- b. Solenoid S22 (Figure 2) needs rebuilt

2. Low side gauge goes to 0 and stays

- a. Check valve before compressor needs to be replaced

I. Machine won't shut off from Recycle mode

- 1. Solenoid S12 (Figure 1) needs rebuilt
- 2. Low pressure switch defective
- 3. Check oil drain bottle and oil charge bottle - both should be closed tightly
- 4. PCB Failed

J. Machine blowing refrigerant out vacuum pump

- 1. Solenoid S14 (Figure 2) needs rebuilt

K. Machine keeps blowing the breaker

- 1. Heater - unplug heater; if unit stops blowing breaker replace heater
- 2. Solenoid S10 - replace coil