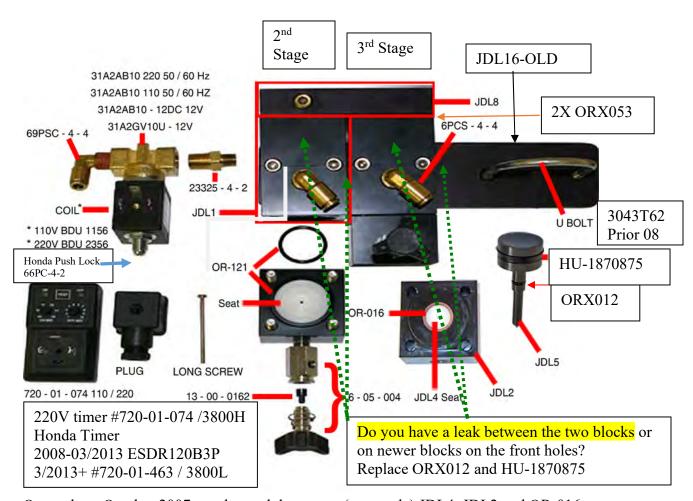


# NUVAIR AUTO DRAIN TROUBLESHOOTING

#### [Link to Nuvair Auto Drains]



On or about October 2007 we changed the seat to (new style) JDL4, JDL2 and OR-016 with smaller seat and o-ring, as shown on the right. Each Auto Drain block will have a large seat or small seat based on the age it was manufactured. The hole in the center of the seats measure .040 for the third stage (right) and .080 for the second stage (left). (You must have the right seat in the right spot) All seats have a different size hole based on the pressure of the block. Seats are NOT interchangeable. Seat color may be white or black! Honda timers have changed three times and the older model prior to 2007 send power all the time and stop to drain for 3 seconds.

2008---Rebuild kits O-rings, seats, piston ring. Double 6049.2 Triple 6049.3 2007 Rebuild kits O-rings, seats, piston ring. Single 6049.1 Triple 6049.4

ORX012 Piston shaft O-Rings

JDL4-1mm Final seat (large old style or small new style)

JDL4-2mm Second stage (large old style or small new style)

JDL4-3mm Low pressure (large old style or small new style)

JDL5 Piston

JDL8 Top Cap Dual Design

JDL2 Middle Drain Block

JDL1 Large Main Block

ORX034 Top cap o-ringm 1 each

ORX029-OR121Bottom cap O-Rings around large white seat prior to 8/2007

ORX020-OR-016 Bottom cap O-Rings around small white seat after 8/2007

HU-1250/6 Piston Ring

Bolts for JDL2 1" 3/4 Steel

JDL4A	Delrin Seat w/ 0.5mm Hole- Autodrain (Old Style)
JDL4A-1	Delrin Seat w/ 1mm Hole- Autodrain (Old Style)
JDL4A-2	Delrin Seat w/ 2mm Hole- Autodrain (Old Style)
JDL4A-3	Delrin Seat w/ 3mm Hole- Autodrain (Old Style)
JDL4A-5	Delrin Seat w/ 5mm Hole- Autodrain (Old Style)

## **Trouble Shooting**

#### First determine if the Auto Drain is leaking while running or while off!

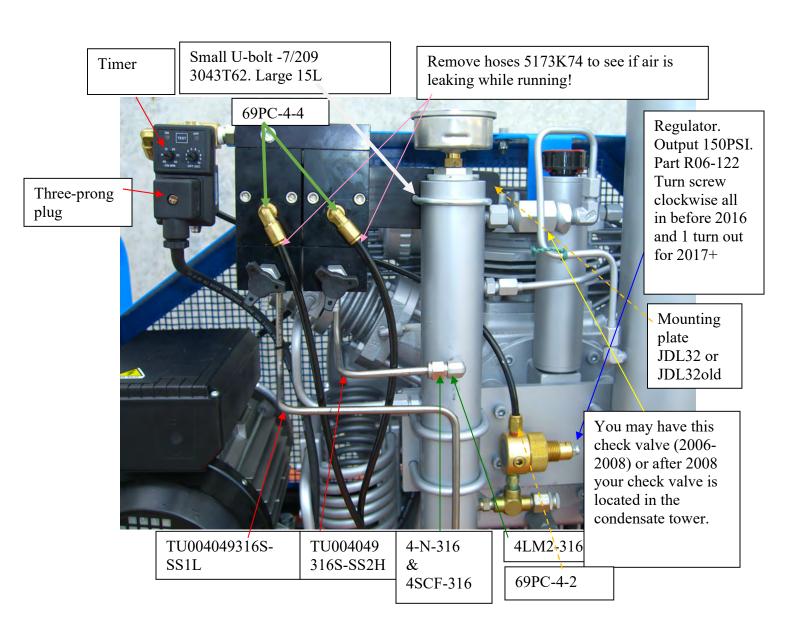
Remove both of the black nylon tubes from the brass elbows (69PSC-4-4) on the face of the Auto Drain by pushing the retaining ring and hose up, then pull out hose while holding the ring up. <a href="https://www.youtube.com/watch?v=qtWLFKpItz8">https://www.youtube.com/watch?v=qtWLFKpItz8</a>

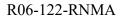
**Caution!** Drains will fully unload at anytime. Do not place any body part directly under the drain!

If air is escaping while compressor is off, the check valve in/or on the condensate tower needs to be replaced.

Run compressor and check to see if air is escaping from one or both drains.

If air is constantly escaping, from both drains turn compressor off and check the regulator mounted on the inside of the condensate tower. The regulator (R06) has a black tube running up to the Auto Drain. -2016 The knob or screw should be turned clockwise until it stops. +2018 The knob or screw should be turned one turn counterclockwise from maximum setting. Old style knob locks by pulling it out.

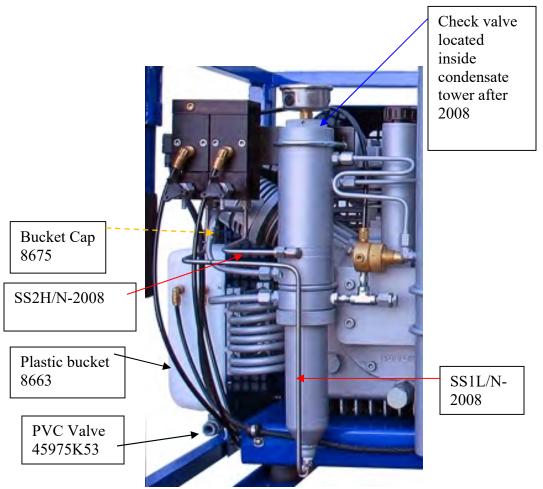




Timer 3800X



Three stage Auto Drain. Rebuild kit 6049.3



If your timer is connected inline with the plug and solenoid disconnect three-prong plug from the timer/solenoid.

Gas models may have the timer remote mounted in a PVC box. Part # ESDR120B3P Check the power and ground wire to the Honda to be sure they are connected! Your battery must have a charge to operate the drain.

Remove timer on electric model! Connect plug directly into solenoid.

Run compressor and check for leak.

Electric models have a fuse located in the Din Rail inside the Motor starter. (Part shown below)

While the compressor is running remove the plug and reinsert to listen for the solenoid to engage and disengage as removed.

If the drain now holds air the timer was burnt out.

If both lights are illuminated on the timer it may be burnt out.

Check to see if you have power to the plug between terminal 1 & 2.

Check fuse in DIN rail inside Motor Starter. (shown below)

If there is no click from the solenoid you need a new solenoid. You may need to replace the solenoid even if you hear or feel a click.

## **Trouble shooting.**

If you heard the solenoid click but the drains still leak the drain seat may be fouled with a particle.

\*While working on the Auto Drains, keep all drains open and all storage tanks closed.\*

Remove the bottoms of the Auto Drains and examine the white seats. Clean any particles that might be on them. If there are any scratches, turn the seats so the non scratched sides are facing up. Please note the hole in the seat is a different size for each block.

Lubricate the piston with compressor oil. Reassemble the auto drain and close the drains.

Retest the Auto Drain by repeating the steps above.

#### Leak between the blocks

If air is escaping from the small hole on the side of the drain block you will need to change part ORX011 and replace the lip seal HU-187075 on the piston.

Open the top of the drains to remove and inspect the piston.

This requires the removal of the bottom of the auto drains.

Push the piston from the bottom to remove.

The piston has a ring that may be damaged or worn.

If the piston or ring is damaged order a new piston and ring.

Clean the piston and ring and lubricate with compressor oil.

If you have had a filter break the media may have blasted the seat so it must be flipped or replaced. The media may have blasted the end of the piston.

Torque the bolts to 10 foot pounds

#### Leaks other than Auto Drains.

Part numbers are located in the back of your manual.

Regulator R06-122 should not leak any air. If the regulator malfunctions the Auto Drains will leak air out of one or both drains progressively as the pressure builds.

Check all manual drains! They have seats that can be replaced.

Check over pressure relief. #165

**Tower O-rings** 

## DO NOT tighten the following parts if leaking.

(VMP)Check valve/Pressure maintaining valve. #151 & Second stage relief valve #179

You can still use the compressor without the Auto Drains, You will need to decide which option is best for bypass.

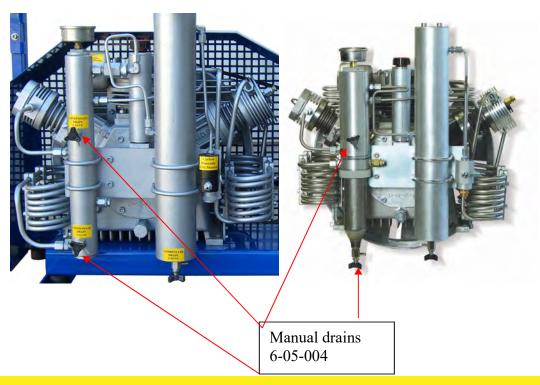
## **Option #1**

You must bypass the solenoid by removing the solenoid and connecting the air source directly into the auto drain. You will need a ½" to 1/8 reducer/coupler or a push lock fitting that has a 1/8" MPT. Connect the push lock fitting to the fitting coming out of the auto drains with the coupler. The drains will need to be drained manual every 10 minutes through the valves in the front of the auto drain blocks until the solenoid is fixed properly. If the drains continue to leak you will need to go to Trouble Shooting section or use Option 2.

## Option #2

Remove the two manual drains from the Auto Drain block and reinsert into the condensate tower as shown below. Drain the manual drains every 8-10 minutes.

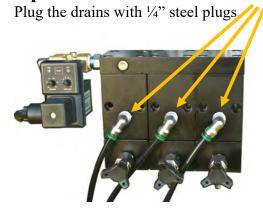
## Compressors shown with manual drains



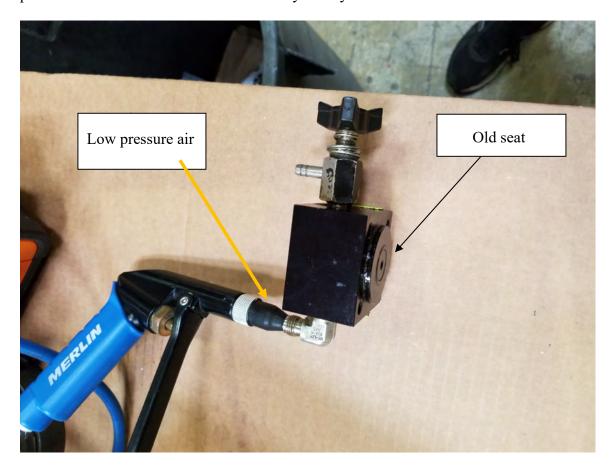
#### Electric Powered Compressors!

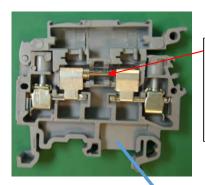
## Option #3

You must drain the manual drains every 8-10 MINUTES!

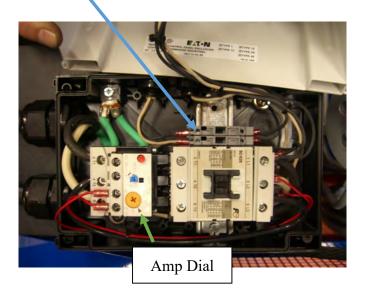


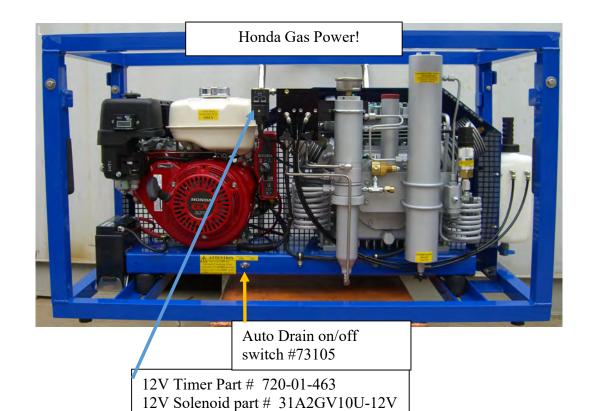
Blow the old seat out by slowly pressurizing the fitting with low pressure air. Warning point the block/seat in a safe direction away from you and shoot into towel.

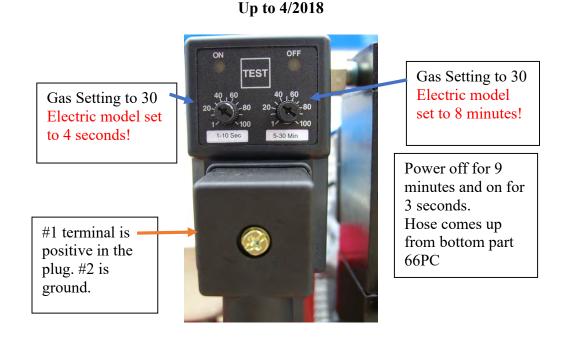




Fuse for electric 220V! 5mm X 20 mm, Glass-Tube Fast, Fuse Time Delay, 250 VAC, 2Amp Located in Motor Starter box Nuvair Part #576-0235002.MXP







If you are consistently blowing out the timer the 12 volt voltage maybe spiking on startup and burning out the timer. Turn the drains on after the engine is running.

## 2018 Timer AC/DC Part 3800



Timer needs to be set by Nuvair.

## Plug!

Check the wires inside the plug to be sure they are connected and do not have broken or loose strands.



#### **AUT2-SB**

