

## Installation, Operation & Maintenance Instructions For Model EDV-2000 Electric Condensate Drains

### PRODUCT DESCRIPTION

The EDV-2000 removes condensed water and oil from the air receiver tank. Additional drains may be installed throughout your compressed air system, including aftercoolers, filters, drip legs and dryers.

The EDV-2000 operates on a timer which can be set to automatically drain the air receiver tank at operator-determined intervals.

Key features include:

- 100% continuous duty
- NEMA 4 enclosure
- Adjustable time on (.5 - 10 seconds)
- Adjustable time off (.5 - 45 minutes)
- Stainless steel operator
- LED to indicate electrical power is on
- LED to indicate valve is open
- Manual override
- 6' power cord (AC plug on 110/220 volt drains only)
- Agency approval

### RECEIPT & INSPECTION

Remove the EDV-2000 from packaging and inspect for transportation damage. Ensure the voltage rating on the solenoid valve matches your power supply.

### INSTALLATION

On compressors that have been in service without an automatic drain, all debris at the bottom of the tank should be cleaned and blown out before installing the electric drain.

**WARNING: DO NOT install the EDV-2000 on a pressurized tank. Depressurize the tank and disconnect the power supply before installing.**

**NOTE: For ease of installation, it may be necessary to elevate the tank. Ensure adequate lifting equipment is available.**

1. Install EDV-2000 using proper sealant (i.e., Loctite 567) on the threads. Ensure sealant does not enter the valve body.
2. Supply EDV-2000 with the proper electrical supply voltage.

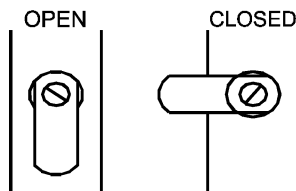
### OPERATION

**CAUTION: Do not operate the EDV-2000 outside the following pressure and temperature ranges:**

Maximum Operating Pressure: 250 psig  
Compressed Air Temperature: 33 to 265°F  
Ambient Temperature: 33 to 125°F

1. Open the strainer ball valve.

**Strainer Ball Valve.**



2. Set the "time off" and "time on" knobs. See TIMER SETTINGS (below) for an explanation of the settings.
3. During compressor operation, check for air leaks.

### TIMER SETTINGS

The "time off" setting determines the interval between cycles from 30 seconds to 45 minutes. The "time on" setting determines the actual time the compressor drains condensate from the 1/4" or 1/2" condensate outlet port.

The timer's cycle rate and drain opening time should be adjusted to open just long enough to discharge the condensate. The timer is properly set when it opens and discharges condensate and then vents air for approximately one second before closing. Adjustments may be made depending on many factors, including humidity and duty cycle.

### TROUBLESHOOTING

| Trouble                  | Cause                                                        | Action                                                       |
|--------------------------|--------------------------------------------------------------|--------------------------------------------------------------|
| Valve will not close.    | 1. Debris in solenoid valve prevents diaphragm from seating. | 1. Remove solenoid valve, disassemble, clean and reassemble. |
|                          | 2. Short in electrical component.                            | 2. Check and replace power cord or timer as needed.          |
| Timer will not activate. | 1. No electrical supply.                                     | 1. Apply power.                                              |
|                          | 2. Timer malfunction                                         | 2. Replace timer.                                            |
|                          | 3. Clogged port.                                             | 3. Clean valve.                                              |
|                          | 4. Solenoid valve malfunction.                               | 4. Replace solenoid valve.                                   |
|                          | 5. Clogged strainer.                                         | 5. Clean strainer.                                           |

### MAINTENANCE

**NOTE: The following maintenance schedule has been developed for typical applications. Maintenance intervals should be shortened in harsher environments.**

| DRAIN VALVE MAINTENANCE SCHEDULE |                                                                            |
|----------------------------------|----------------------------------------------------------------------------|
| DAILY                            | Test the valve for proper operation.<br>Clean the filter screen if needed. |
| MONTHLY (EVERY 30 DAYS)          | Clean the filter screen.                                                   |

To clean the filter screen, perform the following steps:

1. Close the strainer ball valve completely to isolate it from the air receiver tank.
2. Press the TEST button on the timer to vent the pressure remaining in the valve. Repeat until all pressure is removed.

**CAUTION! High pressure air can cause injury from flying debris. Ensure the strainer ball valve is completely closed and pressure is released from the valve prior to cleaning.**

3. Remove the plug from the strainer with a suitable wrench. If you hear air escaping from the cleaning port, STOP IMMEDIATELY and repeat steps 1 and 2.
4. Remove the stainless steel filter screen and clean it. Remove any debris that may be in the strainer body before replacing the filter screen.
5. Replace plug and tighten with wrench.
6. When putting the EDV-2000 back into service, press the TEST button to confirm proper function.

## PARTS LIST

### EDV-2000 Drain Valve With Strainer/Ball Valve Assembly

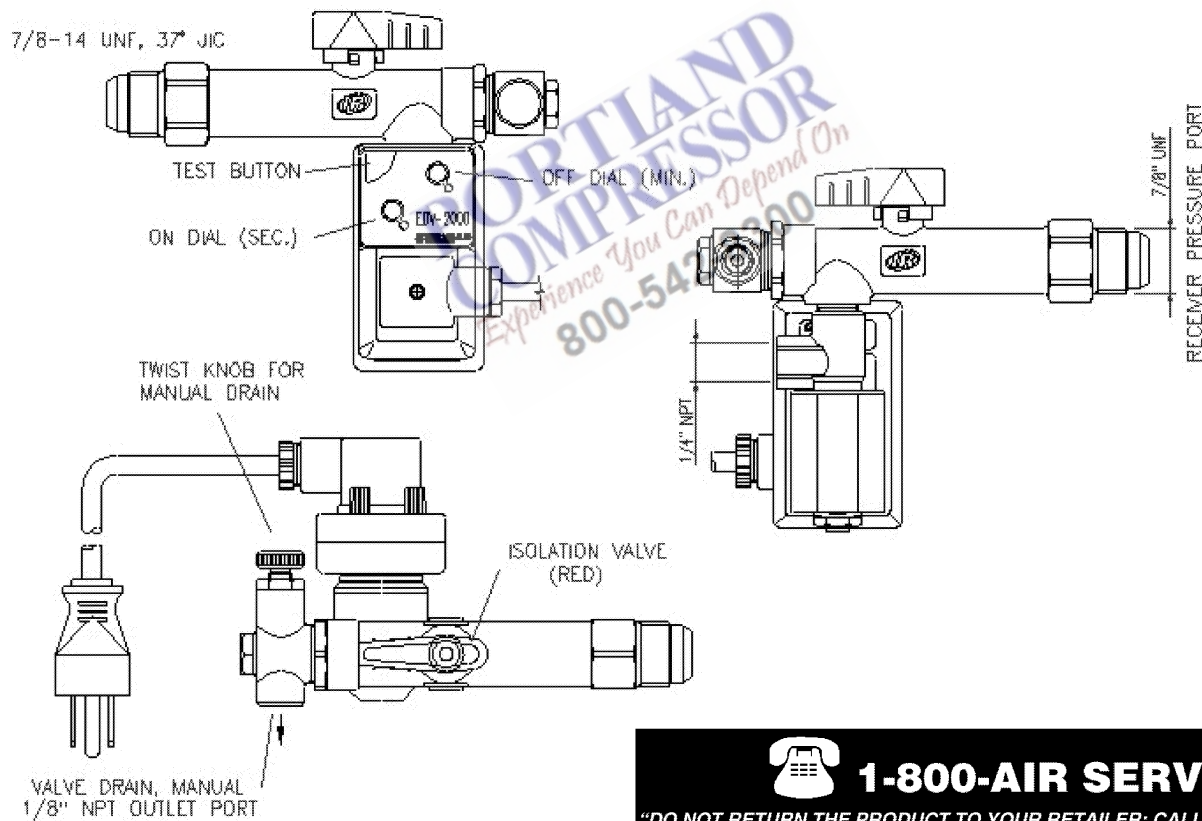
| PART NO.<br>110/120 V 230/240 V | DESCRIPTION       | MAX<br>PRESS.<br>(PSI) | DISCHARGE RATE (GALLONS PER 5<br>SECONDS "ON TIME") ** | NPT SIZE | ORIFICE<br>SIZE |
|---------------------------------|-------------------|------------------------|--------------------------------------------------------|----------|-----------------|
| 38018222                        | 38018230 EDV-2000 | 250                    | UP TO 0.1                                              | 1/4"     | 3/32"           |
| 38018289                        | 38018206 EDV-2000 | 250                    | UP TO 1.0                                              | 1/4"     | 7/16"           |
| 38018198                        | 38018214 EDV-2000 | 250                    | UP TO 1.6                                              | 1/2"     | 7/16"           |

### EDV-2000 Field Retrofit Assembly (Includes Drain Valve, Strainer/Ball Valve Assembly, Connector and Manual Drain Valve)

| PART NO.<br>110/120 V 230/240 V | DESCRIPTION                               | MAX<br>PRESS.<br>(PSI) | DISCHARGE RATE (GALLONS PER 5<br>SECONDS "ON TIME") ** | NPT SIZE | ORIFICE<br>SIZE |
|---------------------------------|-------------------------------------------|------------------------|--------------------------------------------------------|----------|-----------------|
| 54579248                        | 97339402 EDV-2000 FIELD RETROFIT ASSEMBLY | 250                    | UP TO 0.1                                              | 1/4"     | 3/32"           |

## MISCELLANEOUS REPLACEMENT PARTS

| PART NO. | DESCRIPTION                   |
|----------|-------------------------------|
| 38000154 | STAINLESS STEEL FILTER SCREEN |
| 95480273 | O-RING                        |



### NOTES:

- 230 volt models are supplied without AC plugs.
- Discharge rate based upon 90 PSIG air system and 5 seconds valve "on time." Flow rates may vary with installation.
- For Commercial Garages, Repair And Storage installations, refer to the National Electric Code (NEC 1999) Article 511 for the proper installation instructions.
- Disposal of any liquid should be done in accordance with the local, state or federal guidelines that apply to your area.



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