

# **Armstrong** Hot Water, Inc. – **Technical Service Bulletin**

221 Armstrong Blvd., Three Rivers, Michigan 49093 – U.S.A. Phone: (269) 279-3602 Fax: (269) 279-3130

### **AHWG TSB#1–Leaking GDAs Replacement**

Product: DRV40 & DRV80 Gen. 2

Technical Assessment Reference: AHWG TA#1-Leaking GDAs

Topic/Problem Replacement & Resolution: Leaking DRV40 & DRV80 Gen. 2 Gear Drive Assemblies

The following will explain the necessary parts and procedure to fully replace existing Gear Drive Assemblies (p/n D45790) used within DRV40 and DRV80 Gen. 2 products. Upon completion of this replacement procedure the DRV40 and DRV80 Gen. 2 products should no longer leak and should be fully operational and perform to original factory specifications.

Below is a list of parts that are included in the replacement kits:

Gear Drive Assembly – p/n D68927

### **Tools Required:**

- T Handle Hex Head Wrenches; Sizes 2.5mm, 3mm, and 4mm
- Socket ½" w/ Ratchet



Figure 1: Gear Drive Assembly

### **Replacement Process/Steps:**

- 1. Power down the DRV40 or DRV80 Gen. 2 by pulling the power cord from the outlet its connected to, or turning off the switch if hard wired
- 2. Remove the two screws on the right side of the plastic electric housing with the #4mm T handle hex head wrench (see Figure 2 below)
- 3. Disconnect the two connectors and remove the clip on the top hinge pin and rotate the plastic electric enclosure away from the DRV valve body and slide up to remove (see Figure 3 below)
  - a. Note this may be hard wired in, but still needs to be rotated away for accessibility



**Figure 2: Plastic Electric Enclosure Access** 



Figure 3: Plastic Electric Enclosure Rotated

4. Ensure that the water supply is turned off for the cold water inlet, hot water inlet, mixed water outlet and recirculation return line feeding the valve



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- 5. On the front lower portion of the valve is a magnetic rotor spindle which is held in place with a #2.5mm hex head screw (this is magnetized as a safety feature and must be replaced) (see Figure 4 below)
- 6. Remove the 4 screws holding the bottom plastic cover to the valve body using the #3mm T handle hex head wrench; the plastic cover will slide down and away (see Figure 5 below)



Figure 4: Magnetic Rotor Spindle

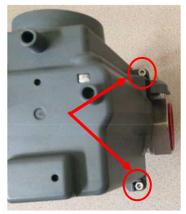


Figure 5: Bottom Plastic Cover (only 2 shown)

- 7. With the cover removed and facing toward the valve, on the left side of the valve body is the drain plug; remove this with a ½" socket tool & drain water (see Figure 6 below)
  - a. Note slowly remove this as the water pressure & temperature inside the valve may be high
- 8. Still facing the valve you should now see the present gear drive assembly; remove the 4 screws holding it in place with a #3mm T handle hex head wrench and slide the gear drive assembly away from the valve body (see Figure 6 below)
- 9. Reverse all of above steps to reassemble with new gear drive assembly (p/n D68927)
- 10. With valve power back on, go in to original programming software and re-calibrate (see Figure 7 below)

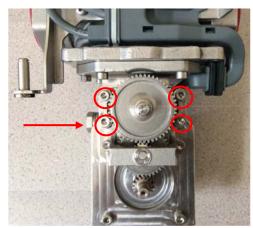


Figure 6: Drain Plug & GDA Screws

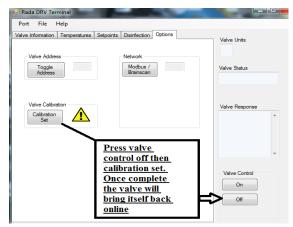


Figure 7: Valve Program Calibration

#### **Quick Links:**

- DRV40 IOM DRV80 IOM
- Video Link