

# LEMA 1600HE SOLENOID ACTUATOR

## INTRODUCTION

THANK YOU for the purchase of DIG's LEMA 1600HE solenoid actuator. The LEMA 1600HE is designed to be used in conjunction with all models of the LEIT ambient controllers. The LEMA 1600HE is an encapsulated, zero maintenance, high-efficiency, watertight, 2-way magnetic solenoid actuator that requires minimal power to operate with the LEIT series controllers. The LEMA 1600HE can be installed with the LEMA adapters, allowing conversion of most brand name valves.

## SPECIFICATIONS

**MAXIMUM WIRE RUNS:** 14 AWG 4,500 feet (1365 m) 12 AWG 7,500 feet (2272 m)

### VALVE ADAPTERS

DIG valve adapters are compatible with the following valves:

#### A — MODEL 30- 920 ADAPTOR FITS THE FOLLOWING VALVES:

Irritrol 100, 200B, 205, 217B, 700 and 2400, 2500, 2600 series  
 Toro P220, 252 and 220 series brass valves  
 Bermad 200 series HIT 500 series Superior 950  
 Griswold 2000 and DW Hunter HBV

#### B — MODEL 30- 921 ADAPTOR FITS THE FOLLOWING VALVES:

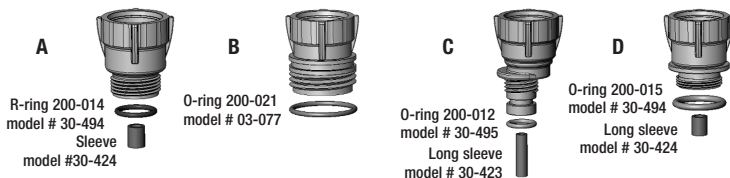
Rain Bird DV, DVF, PGA, PEB, GB, EFB, BPE, PESB and ASVF valves

#### C — MODEL 30- 922 ADAPTOR FITS THE FOLLOWING VALVES:

Hunter ASV, HPV, ICV, PGV and AS VF Series valves

#### D — MODEL 30- 923 ADAPTOR FITS THE FOLLOWING VALVES:

Weathermatic 12000, 21000 series



## INSTALLATION OF LEMA 1600HE (2-WAY) SOLENOID

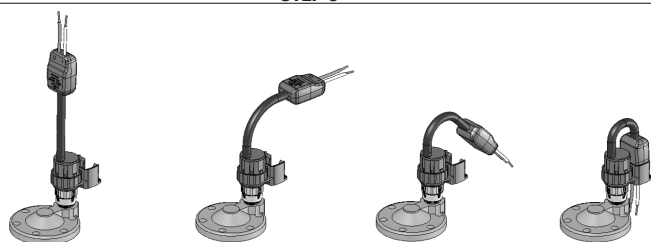
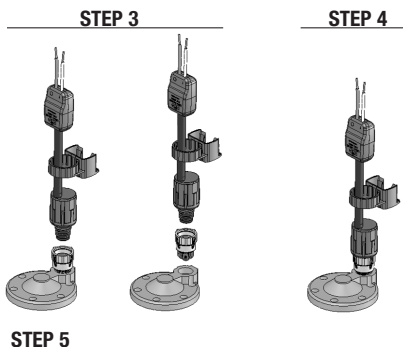
Select the appropriate adaptor for the valve(s) that will be used (see list above)

**STEP 1:** Shut off main line to the valve.

**STEP 2:** Unscrew the conventional solenoid from the valve and remove the solenoid housing, solenoid stem, plunger, spring, and "o" ring (if necessary).

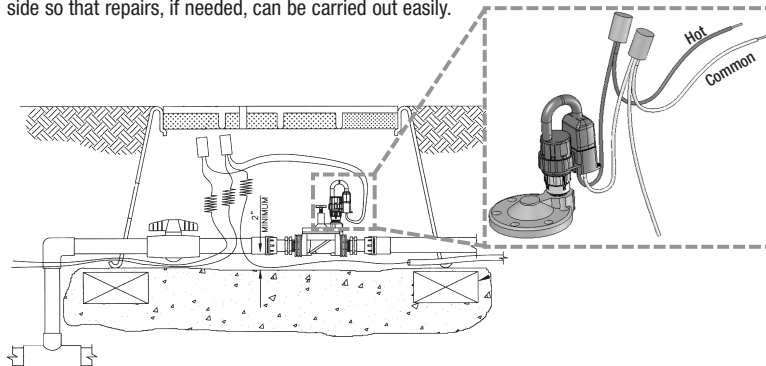
**STEP 3:** Thread and tighten the conversion adaptor clockwise to the compatible valve port, do not over tighten (no tool needed)

**STEP 4:** Make sure that the solenoid holder/ handle is not inserted into the solenoid housing, and then screw the LEMA 1600HE assembly into the correct adaptor. Firmly tighten the solenoid by hand, but do not over tighten.



**STEP 5:** Slip the LEMA 1600HE sleeve/handle into the solenoid housing (see steps below.) Positioning the solenoid handle at a 40°-45° angle towards the valve creates a manual lever; helpful for manual on/off

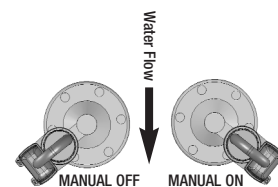
**STEP 6:** Splice the solenoid actuator wires and connect the incoming direct burial color code (hot) wire to the red wire from the solenoid actuator using a dry-splice waterproof connector. Loop the incoming white common wire to the white wire from the solenoid actuator using conventional dry-splice waterproof wire connectors. Leave the wires slightly loose on each side so that repairs, if needed, can be carried out easily.



**NOTE:** Maximum operating pressure up to 150 psi

**STEP 7:** After installation is completed, turn the water supply on to pressurize the main line checking that all valves are operating correctly. The valves should open momentarily and shut off.

Test each valve in manual operation by turning the sleeve/handle to the right to open and to the left to close.



\*Note: if the valve remains open in manual operation, you may need to examine the adaptor and the sleeve to see that they are installed correctly and the adaptor is firmly secured

Please note that the LEMA solenoid actuator operates only with 2-way normally closed valves

**IMPORTANT:** Do not over tighten the LEMA solenoid actuator to the valve

**CAUTION:** For all brand name valves with a manual bleed lever, make sure the lever is in closed position. Do not move the lever after installing the actuator and the valve adapter. If the manual lever on the valve is used it can damage the adapter or the sleeve causing the valve to stay open.

**WARNING:** LEMA solenoid actuators must not be tested with any AC valve tester or DC tester over 9-volts. If you do so, it will cause irreparable damage to the LEMA solenoid actuator and the controller unit. Testing the solenoids with equipment rated higher than 9-volts will void the warranty

If you are having a problem installing the LEMA solenoid actuator to your valve, contact: **DIG CUSTOMER SERVICE AT 1 (800) 322-9146**

**WARRANTY:** DIG Corporation guarantees to its customers who have purchased DIG professional irrigation products including LEIT controllers, solenoids and LEIT accessories that the products will be free from original defects in material and workmanship under normal use for a period of three (3) years, from the date of original manufacture. If any apparent defect arises under normal use and service in the DIG product within the warranty period, DIG at its sole discretion, shall have the option to repair or replace part or all of the original product, free of charge after return of such product at user expense, authorized in writing by DIG Corporation. If a product is replaced, the replacement product will be covered for the remainder of the warranty period dating from the original purchase. This warranty applies only to the DIG Corporation professional irrigation products, which are installed as specified and used for irrigation purposes. This warranty applies only to products, which have not been altered, modified, damaged, misused or misapplied. This warranty does not cover products adversely affected by the system into which the products are incorporated, including improperly designed, installed, operated, or maintained systems. This warranty does not apply to blockage of solenoids, valves, drip line, drippers and microsprinklers due to use of water containing corrosive chemicals, electrolytes, sand, dirt, silt, rust, scale, algae, bacterial slime or other organic contaminants. Tampering with a product (including, but not limited to attempting to disassemble a LEIT controller) will void any warranty the product might otherwise be eligible for. In no event shall DIG's liability exceed the selling price of the product. DIG is not liable for consequential, incidental, indirect or special damages, including but not limited to the labor to inspect, remove or replace products, vegetation loss, loss of energy or water, cost of substitute equipment or services, property damage, loss of use or loss of profits; nor is DIG liable for economic losses, consequential damages or damage to property arising out of installer's negligence or based on strict liability in tort. The user and/or trade customer agrees to the limitations and exclusions of liability of this warranty by purchase or use of DIG products. No representative, agent, distributor or other person has the authority to waive, alter, or add to the printed provisions of this warranty, or to make any representation of warranty not contained here. Some states do not permit the exclusion or limitation of incidental or consequential damages or of implied warranties. Therefore, some of the above exclusions or limitations may not apply to you. This warranty on DIG professional irrigation products is given expressly and in place of all other expressed or implied warranties of merchantability and fitness for a particular purpose, and this warranty is the only warranty on the professional irrigation products made by DIG Corporation.

