

## Model DM075

### 3/4 in. Automatic In-line Valve Assembly for Drip Systems

The Automatic In-line Valve Assembly consists of a 24 VAC 3/4" FNPT electric valve, 3/4" MNPT 155 mesh filter, 3/4" FNPT x MNPT 25 PSI preset pressure regulator and a 3/4" FNPT swivel adapter x .700 OD compression fitting for use with drip tubing or drip line (assembly required).

#### Features

- Can be used with a drip system, soaker hose, micro sprinkler system or sprinkler system.
- The DIG Automatic Valve Assembly operates under pressures of up to 100 PSI with an outlet pressure of 25 PSI.
- The maximum flow rate is 12 GPM and the minimum flow rate is .5 GPM.



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## 1. INTRODUCTION

Thank you for purchasing DIG's 3/4" 24 VAC Automatic Valve Assembly. Please take the time to read through the complete instructions before installation. If you have any questions, please call our customer service line at 1-800-344-2281.

This instruction manual is designed to help you set up and operate the 3/4" Automatic In-line Valve Assembly, which can be installed below grade in a valve box (recommended) or above ground into a PVC pipe with pipe thread. After reading the manual and becoming familiar with the basic functioning of the device, save the manual and use it as a reference for less common tasks in the future.

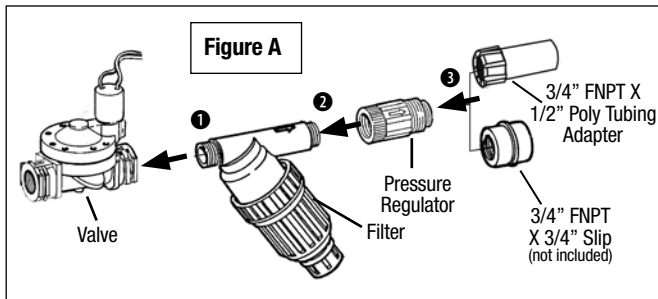
## 2. ASSEMBLY

Caution and recommendations: **Make sure to use 4-6 clockwise wraps of Teflon tape around all threads except the 3/4" swivel adapter.** Do not use pipe cement on the valve as this will damage the valve and void the warranty.

**Step 1:** Using Teflon tape on the threads, connect the filter (making sure that it is angled away from the valve) to the solenoid side of the valve. This is the outlet side of the valve. See Figure A **1**.

**Step 2:** Using Teflon tape on the threads, connect the pressure regulator to the outlet side of the filter. See Figure A **2**.

**Step 3:** Connect the pressure regulator to the poly tubing adapter (included) — no Teflon tape necessary — or the 3/4" in FNPT x 3/4" PVC slip (not included) using Teflon tape. See Figure A **3**.



### 3. INSTALLATION

**NOTE:** Flushing the irrigation lines may be required. Please make sure that no debris enters the automatic valve assembly.

**Step 1** Shut off the main irrigation water supply.

**NOTE:** We recommend installing the Automatic In-line Valve Assembly inside an irrigation box.

**Step 2** Screw the automatic valve assembly into the incoming water supply pipe with 3/4" MNPT and tighten the unit by hand. Use a wrench **ONLY** to adjust to the desired position. Please note that the angle of each of the components (the AC valve, the filter and the pressure regulator) may be adjusted independently.

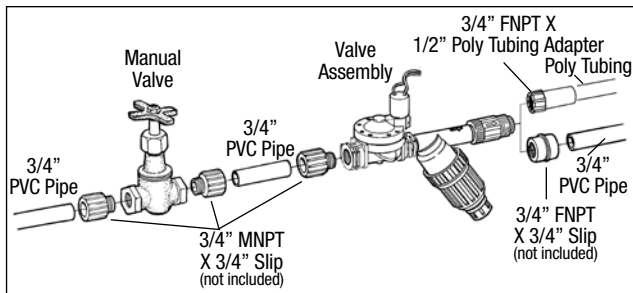
**Step 3** Screw the automatic valve assembly into the outlet PVC pipe water supply or connect to a poly tubing using the 3/4" swivel adapter (included).

**Step 4** Run the wires from the automatic valve assembly to the irrigation controller (AC). We recommend using a minimum of 18-gauge wire. Use a waterproof wire connector designed specifically for valve installation.

**Step 5** Connect either of the wires from the automatic valve assembly to the common terminal on the controller and the other wire to the designated station number terminal on the controller.

**NOTE:** Wires are available in single and multiple strand varieties. PVC jacketed wire is preferable.

**Step 6** Turn main water supply on. The automatic valve assembly will turn on momentarily (this is normal) and then shut off. Check for proper installation by turning the white manual override lever located on the valve to the left a quarter turn. This will turn the valve on.

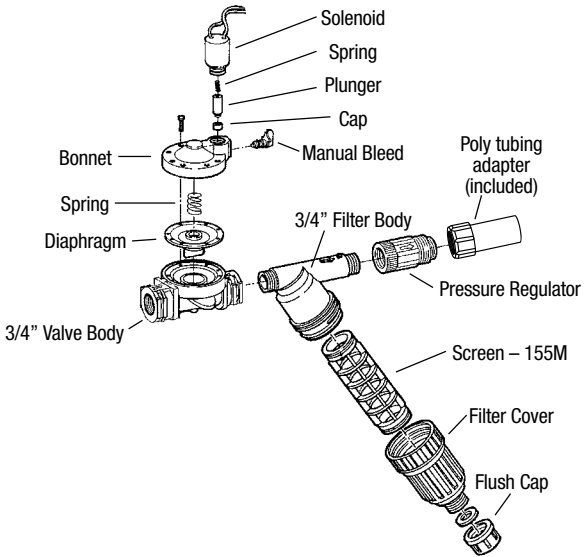


Check all the system components for leaks to make sure that the system is functioning properly. Return the lever to its original vertical position to turn the valve off. After completing the test, carefully backfill the trenches.

**NOTE:** When using the valve assembly to operate a sprinkler system, remove the pressure regulator to assure adequate pressure in the line.

## 4. TECHNICAL SPECIFICATIONS

<b>Pressure Loss:</b>	Flow Rate	5	8	11	16	19
	Pressure Loss	.9	1.2	4.2	8.8	19.0



**Electrical Requirements:**

Voltage and power rating: 50 to 60 Hz

**Power Consumption & Watts:**

Current Inrush: 0.29 to 0.32

Current Holding: 0.14 to 0.16

Power Consumption: 1.7 to 1.9 Watts

**Maximum Operating Temperature:** 130°F

**Maximum Operating Pressure:** 100 PSI

## 5. MATERIALS

**Valve and Solenoid:**

Body: Glass-reinforced nylon

Diaphragm: Natural rubber

Spring and Screws: Stainless steel 303

Solenoid Housing: Epoxy-coated

**“O” Ring:** BUNA-N

**Plunger:** Stainless steel 303

**Filter:** Body and Cover: Polypropylene

Screen: Polyester

**25 PSI Preset Pressure Regulator:**

Body: ABS

Spring: Stainless Steel 303

## 6. TROUBLESHOOTING AND SOLUTIONS

1. Valve assembly fails to open automatically
  - a. Check wire connections
  - b. Check program on the controller
  - c. Check the flow direction of the valve assembly
  - d. Pressure is too high: reduce incoming pressure
2. Valve assembly fails to close automatically
  - a. Check wire connections
  - b. Check program on the controller
  - c. Check manual override lever

3. Valve assembly opens manually but not automatically
  - a. Check wire connections
  - b. Check the program on the controller
4. Pressure and flow drop in the system
  - a. Check filter for clogging and clean if necessary
5. Leakage around the valve assembly
  - a. Tighten valve assembly or add more Teflon tape

## **7. MAINTENANCE**

Careful installation with regular inspection of the emitters and maintenance of the valve and filter will preserve the integrity of the system. By insuring this, your landscape will thrive and you will be satisfied with the efficiency and versatility of your irrigation system installation.

- The automatic valve assembly does not provide backflow prevention. Please consult the local codes for specifics.
- The filter screen should be flushed with clean water periodically. To clean, unscrew the lower portion of the filter, remove the screen, rinse under clean water and replace.
- Winterization of the system may be required in areas where freezing temperatures are experienced. Consult a professional in the area for specific winterization procedures.

## **8. LIMITED WARRANTY**

DIG CORPORATION warrants these products to be free from defects in material and workmanship for a period of three years from date of purchase. DIG will repair or replace, at its option, free of charge, this product if it has proven to be defective within the three year period when said product is returned at customer expense to DIG within the warranty period. THIS WARRANTY DOES NOT COVER ANY EXPENSES INCURRED IN THE REMOVAL AND REINSTALLATION OF THIS PRODUCT.

This warranty does not cover damage resulting from accident, misuse, abuse, neglect, modification or improper installation, use for other than its intended purpose or use with water with subjection to line pressure in excess of 100 lbs. per square inch. This warranty shall extend only to the original purchaser of the product for use by the purchaser. This warranty shall not cover batteries or any malfunction of the product due to battery failure. The obligation of DIG CORPORATION under this warranty is limited to repairing or replacing at its factory this product which shall be returned to the factory within three years after the original purchase and which on examination is found to contain defects in material and workmanship.

DIG CORPORATION SHALL IN NO EVENT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND; THE SOLE OBLIGATION OF DIG BEING LIMITED TO REPAIR OR REPLACEMENT OF DEFECTIVE PRODUCTS. SOME STATES DO NOT ALLOW THE EXCLUSION OR

LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

Unattended use for prolonged periods without inspection to verify proper operation is beyond the intended use of this product, and any damage resulting from such use shall not be the responsibility of DIG CORPORATION. There are no warranties which extend beyond the description on the face hereof. In the case of purchase of the product for use other than for irrigation purposes, DIG CORPORATION hereby disclaims any implied warranties including any warranties of merchantability and fitness for a particular purpose. In the case of the purchase of the product for personal, family or household purposes, DIG CORPORATION disclaims any such warranties to the extent permitted by law.

In order to obtain performance under this warranty, the unit must be returned to the factory, along with proof of purchase indicating original date of purchase, shipping prepaid, addressed as follows: DIG CORPORATION, 1210 Activity Drive, Vista, CA 92081-8510.

Repaired or replaced units will be shipped prepaid to the name and address supplied with the unit returned under warranty. Allow four weeks for repairs and shipping time. Repair of damaged units not otherwise within warranty may be refused or done at a reasonable cost or charge at the option of DIG CORPORATION.

This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

## **9. TECHNICAL ASSISTANCE AND CUSTOMER SERVICE:**

**1-800-344-2281 FAX: 760-727-0282**

Should you encounter any problem(s) with this product or if you do not understand its many features, please refer to this instruction first. If further assistance is required, DIG offers the following customer support:

### **TECHNICAL SERVICE USA**

DIG's Technical Service Team is available to answer questions in English and Spanish from 8:00 AM to 5:00 PM (PST) Monday-Friday (except holidays) at 800-344-2281. Questions in English and Spanish can be e-mailed to [questions@digcorp.com](mailto:questions@digcorp.com) or faxed to 760-727-0282.



1210 Activity Drive  
Vista, CA 92081-8510, USA

Website:

[www.digcorp.com](http://www.digcorp.com)

e-mail: [dig@digcorp.com](mailto:dig@digcorp.com)

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