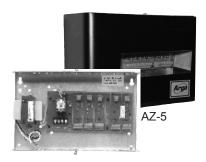


## ARGO AZ SERIES CONTROLS AZ-3, AZ-5

# INSTALLATION, OPERATION & MAINTENANCE MANUAL





Information and specifications outlined in this manual in effect at the time of printing of this manual. ECR International, Inc. reserves the right to discontinue, change specifications or system design at any time without notice and without incurring any obligation, whatsoever.

Manufactured by:

ECR International, Inc.

2201 Dwyer Avenue, Utica NY 13501 web site: <a href="https://www.ecrinternational.com">www.ecrinternational.com</a> <a href="https://www.argocontrols.com">www.argocontrols.com</a>

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**IMPORTANT:** Read and understand the following instructions COMPLETELY before installing!!

Keep this manual near boiler Retain for future reference

## **WARNING**

Fire, explosion, asphyxiation and electrical shock hazard. Improper installation could result in death or serious injury. Read this manual and understand all requirements before beginning installation.

Become familiar with symbols identifying potential hazards.



This is the safety alert symbol. Symbol alerts you to potential personal injury hazards. Obey all safety messages following this symbol to avoid possible injury or death.

## **▲** DANGER

Indicates a hazardous situation which, if not avoided, WILL result in death or serious injury

## **AWARNING**

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

## **A** CAUTION

Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

## **NOTICE**

Used to address practices not related to personal injury.

#### Introduction

This manual is intended to familiarize the installer and user of the Argo AZ Series Zone Valve Controls with their installation and operation to assure normal trouble-free operation.

Argo Controls are designed and manufactured with quality components for maximum life and durability and require minimal service. To insure a satisfactory installation, it is imperative that the instructions be followed carefully before operating the relays. Failure to do so may result in breach of warranty.

### **Mounting Instructions**

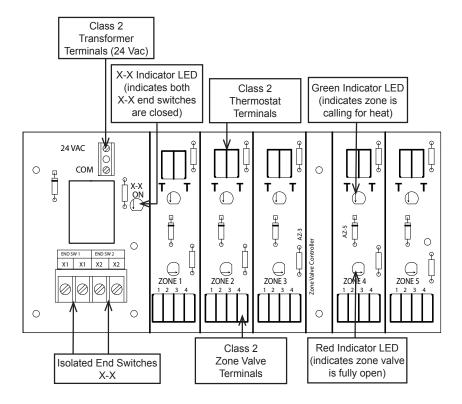
Mount the Argo AZ Series Control vertically on a solid wall or partition. For your convenience it is recommended that the control be mounted as close as possible to the device to be controlled. The control should never be mounted more than 75 feet away. Select a location that is easily accessible for installation and service.

NOTE: To reduce the possible transformer hum and relay noise that is sometimes amplified by mounting surfaces such as sheet metal, plasterboard, and similar materials, place rubber or felt washers between the case and the mounting surface.

- 1. Position the control and mark the mounting holes.
- 2. Start screws (not provided) for the keyhole type mounting holes in the upper corner(s). Tighten the screws down to about 1/8" (3mm) from the surface.
- **3.** Hang the control on the screw(s), position the case, and start the bottom screws.
- **4.** Tighten all screws.

#### **AZ CIRCUIT BOARD**

The diagram below represents Argo AZ-5 Zone Valve Control. AZ-3 has similar connections.



## **Electrical Specifications & Wiring**

## **A**WARNING

Electrical shock hazard. Disconnect power before installing or servicing. Failure to follow these instructions could result in death or serious injury.

## **General Wiring Notice**

All primary wiring must be 14 AWG minimum. Torque terminal screws 6 to 7 inch pounds.

**U.S.A.** - National Electric Code and any other national, state, or local code requirements. Wiring must be N.E.C. Class 1.

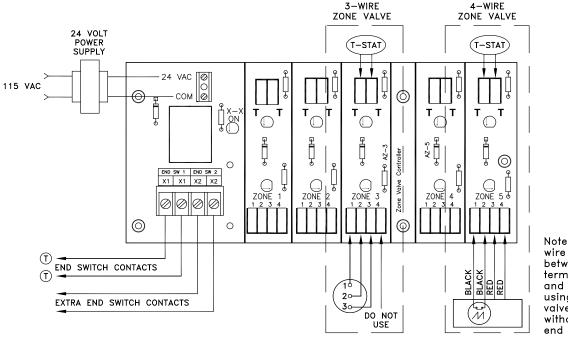
**CANADA -** C.S.A. C22.1 Canadian Electrical Code Part 1 and any other national, provincial, or local code requirements. Wiring must be C.S.A. C22.1 C.E.C. Part 1.

ELECTRICAL SPECIFICATIONS		
Model Number	Zones	Transformer Voltage
AZ-3	3	120V, 60 HZ, 40VA
AZ-5	5	120V, 60 HZ, 75VA

### **AZ** Sequence of Operation

- The control will scan all TT terminals looking for a call for heat from any thermostat.
- When a call for heat is detected the green TT LED for that zone will illuminate.
- The corresponding zone terminals 1 & 2 will be energized with 24 volts.
- The control will then wait for the zone valve end switch to close, a red LED will illuminate, indicating zone valve is fully open.
- Once the zone valve opens the X-X contact will close.

#### **AZ-5 WIRING SCHEMATIC**



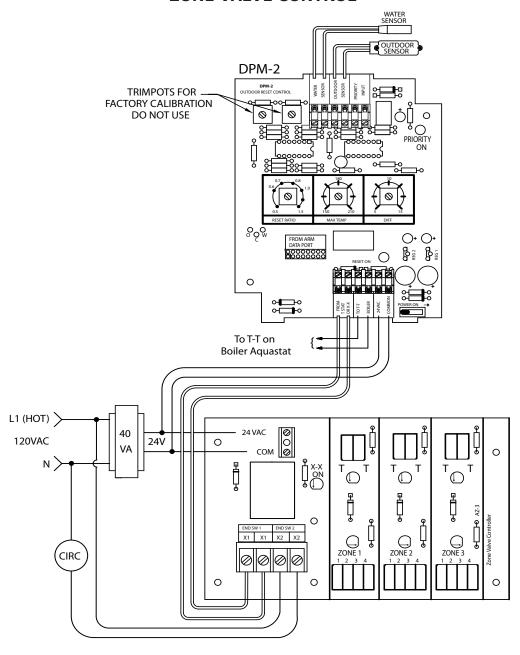
Note: Install wire jumper between terminals 3 and 4 when using zone valve without an end switch.

## AZ Control w/DPM-2 Outdoor Reset Control

DPM-2 Outdoor Reset Control is designed to raise or lower the temperature of the boiler supply water based on a proportionate drop or rise in temperature at the outside sensor.

This control plugs into Argo control equipment with a data port or as a stand alone device that can be easily wired into almost any system. See the separate DPM-2 Installation Manual for more information.

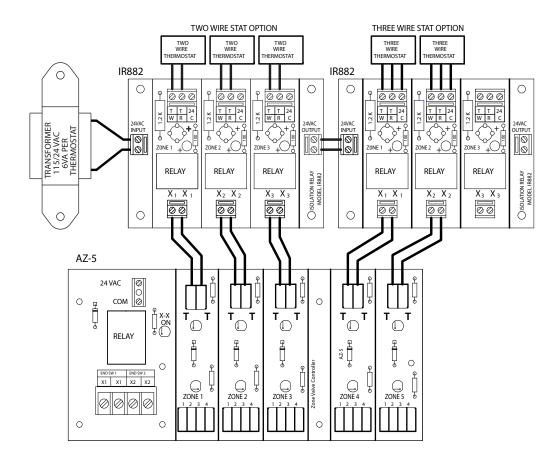
## TYPICAL WIRING APPLICATION USING DPM-2 OUTDOOR RESET WITH ARGO AZ-3 ZONE VALVE CONTROL



## AZ Control W/Power Robbing Thermostat

Argo AZ control should work well with all standard and most programmable setback thermostats. In the event the programmable thermostat you are using causes the control board relays to chatter, you will require an external 24V power supply (transformer) and an Argo IR882 Isolation Relay. Please refer to the literature with the IR882 for proper wiring and transformer sizing.

## TYPICAL APPLICATION USING (2) IR882 RELAYS TO ISOLATE POWER STEALING THERMOSTATS FROM AN ARGO AZ-5 ZONE CONTROL PANEL



**NOTE:** 6VA per thermostat should be acceptable for most applications. Consult your thermostat manufacturer's literature for their actual VA requirements.

Replacement Part	
Part Description	Part Number
Circulator plug-in relay (24 VAC coil)	R35C
Transformer 40 VA (AZ-3)	T40
Transformer 75 VA (AZ-5)	T25

## **Technical Support**

For technical support on this and all Argo products, please contact ECR International Technical Service at 1-800-325-5479. Please have your model number available when calling.

Information Needed When Calling
Model Number
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Installation Date
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Installer

