



An I.A.R. International Company

P.O. BOX 4729  
UTICA, NEW YORK 13504  
TELEPHONE (315) 797-1310  
FAX (866) 432-7329  
www.argoindustries.com  
E-MAIL info@ecrinternational.com



# **ARGO CONTROLS CUSTOM WIRING DIAGRAMS TECHNICAL MANUAL**

**Revision No. 4**

**OCTOBER 2003**

*“Celebrating 46 years as a Supplier  
of Hydronic Zoning Controls”*

*1957 - 2003*

*“Often Imitated...Never Duplicated”*

## **INTRODUCTION**

### **ARGO CUSTOM WIRING DIAGRAMS**

**Argo Technology, previously Argo Industries, has manufactured multiple zone relays for over 40 years. Argo pioneered the use of printed circuitry to simplify the wiring of multiple circulators and zone valves. More than 500,000 of these dependable controls have been installed, saving time, money and service calls.**

**Argo Technology has always included a easy-to-read Wiring Diagram in the Argo Controls Product Literature. Over the years, our customers have regularly requested Custom Wiring Diagrams for applications requiring multiple controls.**

**To satisfy our customers and provide added value, Argo has installed a dedicated Graphic Computer to design and generate Custom Wiring Diagrams. Please feel free to use the Diagrams when you are installing similar systems.**

**If you need a Computer Diagram that does not appear in this manual, please call the Argo Technical Support Staff. We will work with you to design and generate a Custom Diagram for your particular Hydronic Zoning application. With the use of a telephone and the fax machine, we will work to provide you with a hard copy diagram of your custom application.**

**DIRECTORY**  
**CUSTOM WIRING DIAGRAMS**

**NEW INSTALLATIONS:**

- N1) Multiple Circulator Pumps**
- One Priority Pump
  - Three to Six Initial Pumps
  - One or more Add-On pumps
- N2) Multiple Circulator Pumps**
- One Priority Pump
  - Three to Six Initial Pumps
  - Up to Four Add-On pumps
- N3) Multiple Zone Valves (9)**
- One Priority Zone Valve
  - Eight Heating Zone Valves
- N4) Multiple Zone Valves and Circulator Pumps**
- One Priority Pump
  - Six Zone Valves
  - Two Heating Zone Pumps
- N5) Multiple Indirect Hot Water Heaters (2)**
- Two Priority Zone Pumps
  - Seven Heating Zone Pumps
- N6) Multiple Indirect Hot Water Heaters (2)**
- Two Priority Zone Pumps
  - Eight Heating Zone Pumps

## **RETROFIT INSTALLATIONS:**

### **R1) Multiple Circulator Pumps**

- **One Priority Pump**
- **One or more Heating Zone Pumps**

### **R2) Multiple Circulator Pumps**

- **One Priority Pump**
- **One Multiple Zone Pump Control**

### **R3) Multiple Zone Valves (9)**

- **One Priority Zone Valve**
- **Six Heating Zone Valves**

### **R4) Multiple Zone Valves and Circulator Pumps**

- **One Priority Pump**
- **Five Heating Zone Valves**
- **One Heating Zone Pumps**
- **Two Radiant Heating Zone Pumps**

## **ADDENDUM**

### **A2) ARGO AR822**

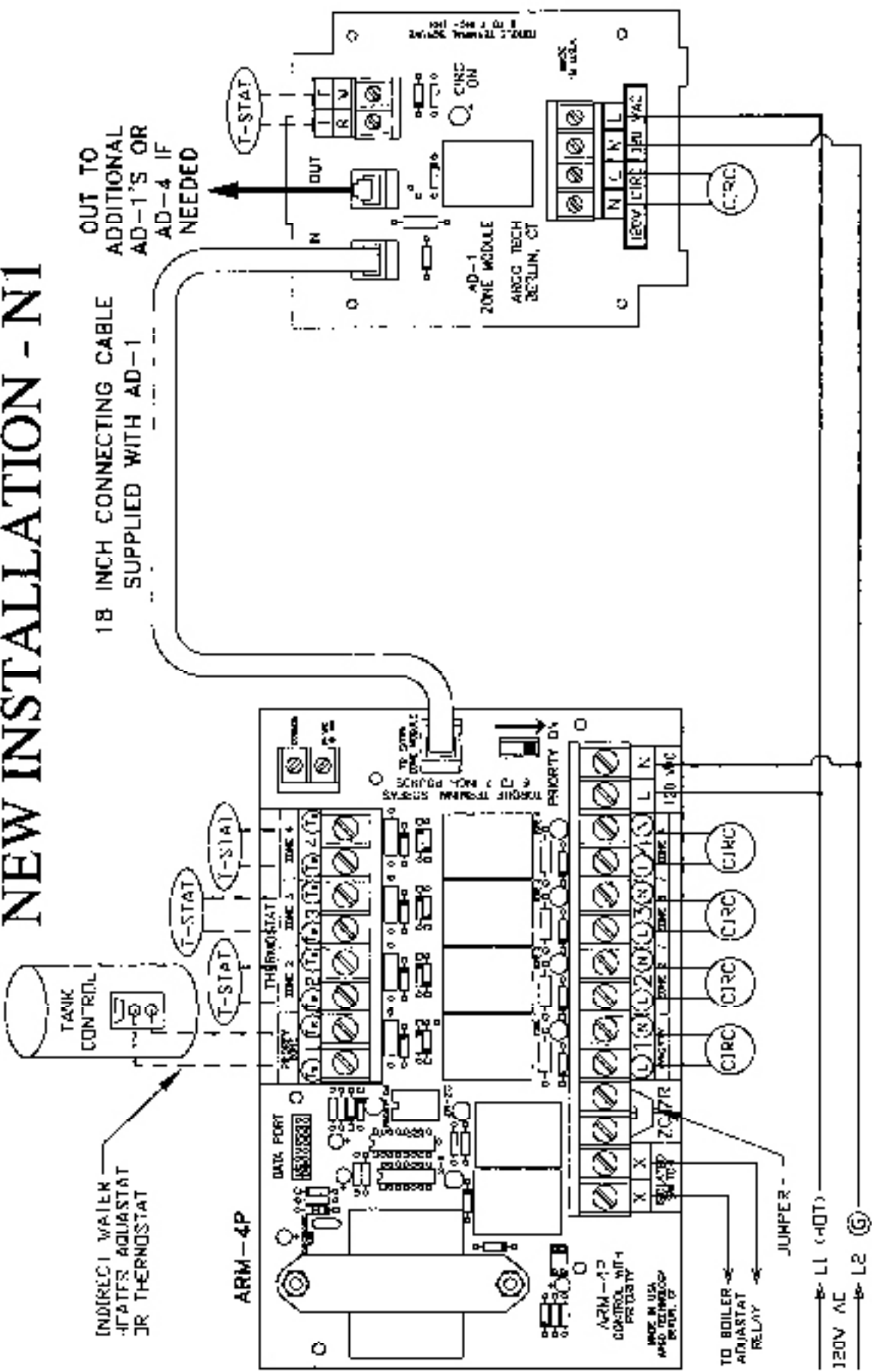
- **Cross Reference Chart**

### **A3) ARGO IR882**

- **Isolation Relay Package**

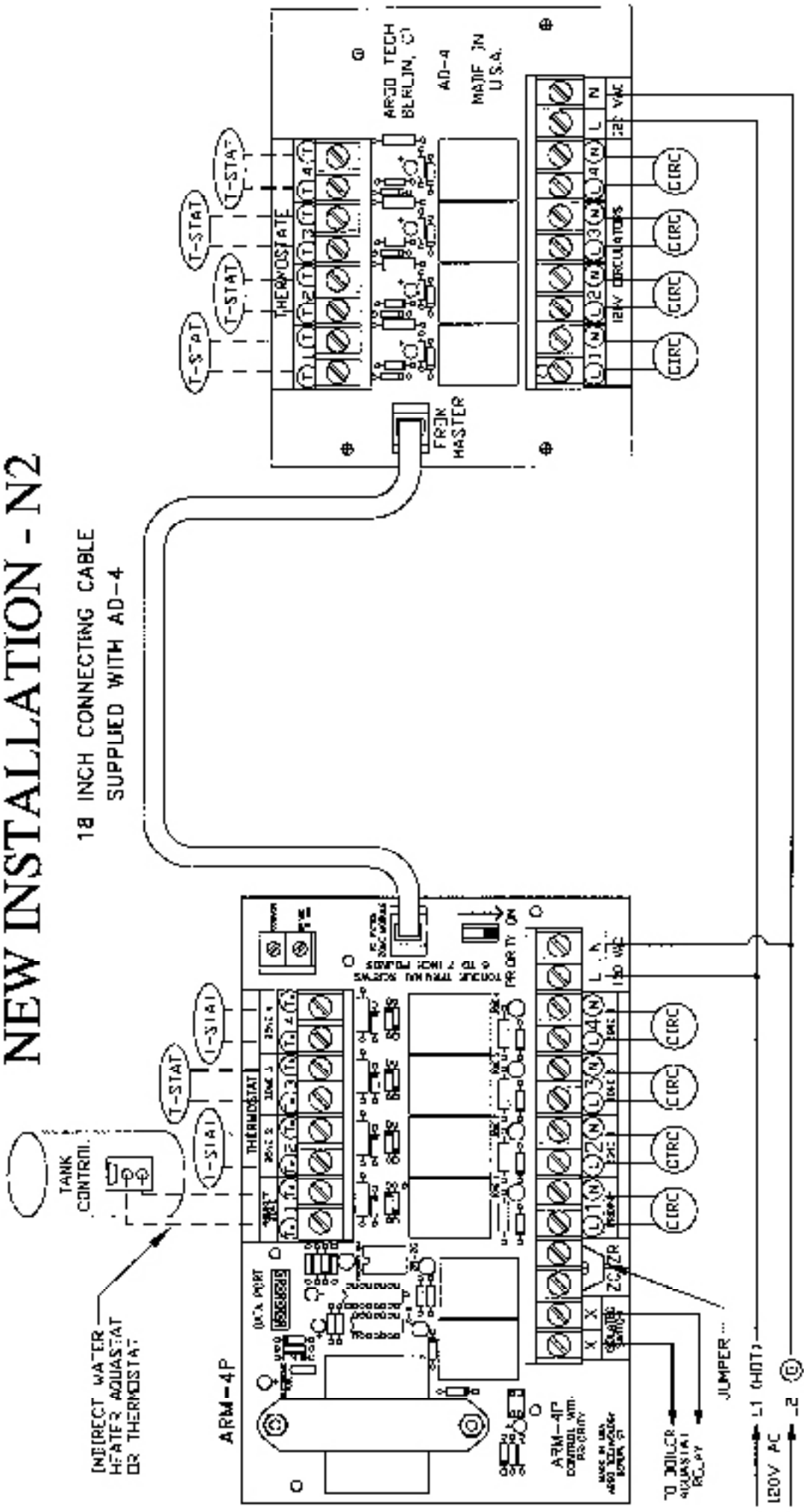
# Wiring Diagram for adding AD-1 to ARM-2P, ARM-3P, ARM-4P or ARM-6P

## NEW INSTALLATION - N1



# Wiring Diagram for adding AD-4 to ARM-2, ARM-3, ARM-4 or ARM-6

## NEW INSTALLATION - N2



18 INCH CONNECTING CABLE  
SUPPLIED WITH AD-4

ARM-4P

ARM-4P  
normal vhm.  
assembly  
MADE IN U.S.A.  
ARMED TECH  
BERLIN, G1

TO BOILER  
AQUASTAT  
SCHEMATIC

JUMPER...

L1 (HOT)  
120V AC

L2

Ⓞ

ARMED TECH  
BERLIN, G1  
AD-4  
MADE IN  
U.S.A.

new connections

CIRC CIRC CIRC CIRC CIRC CIRC

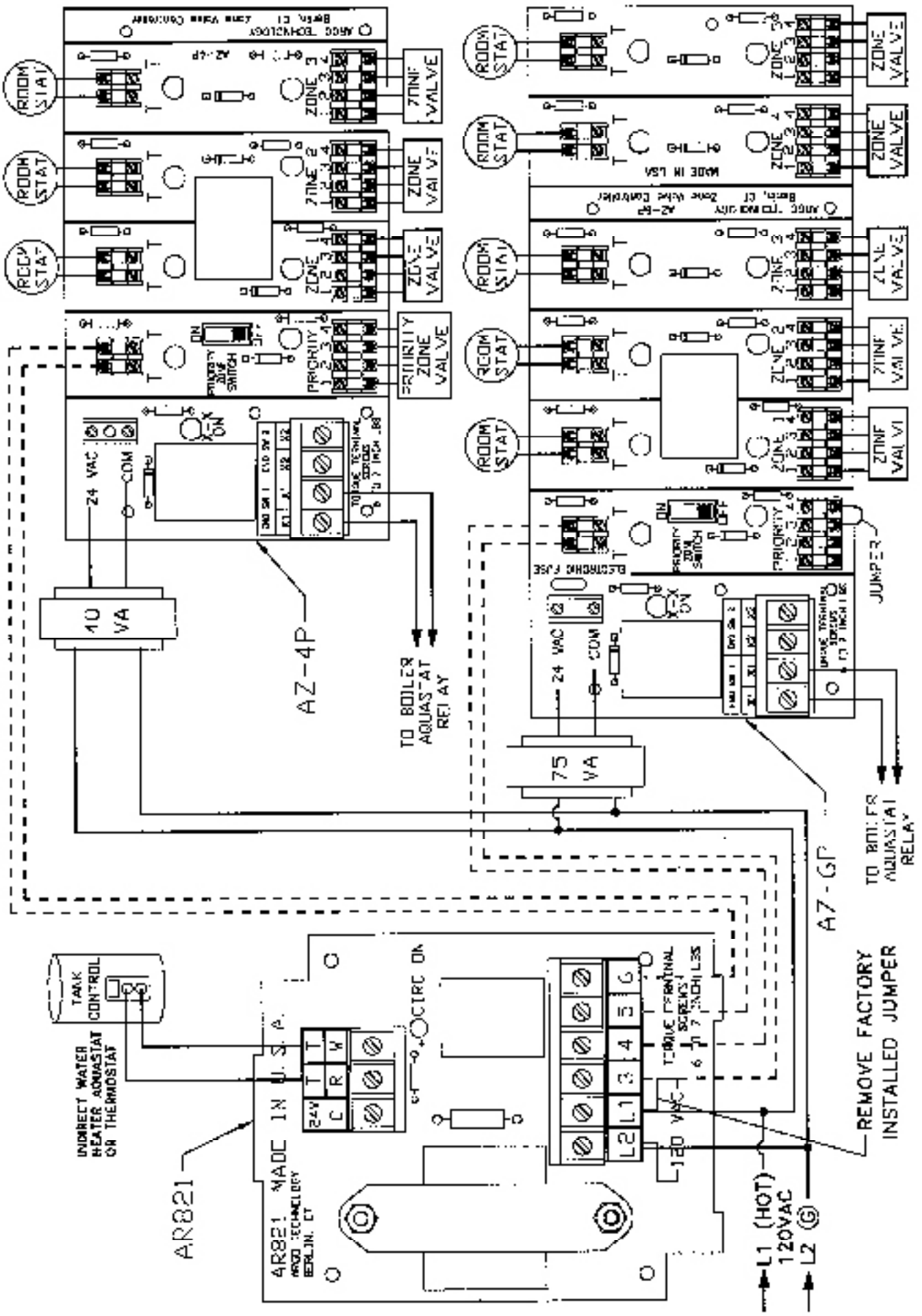
L1 (HOT)  
120V AC

L2

Ⓞ

# Multiple Zone Valves (9) With Priority

New Installation - N3

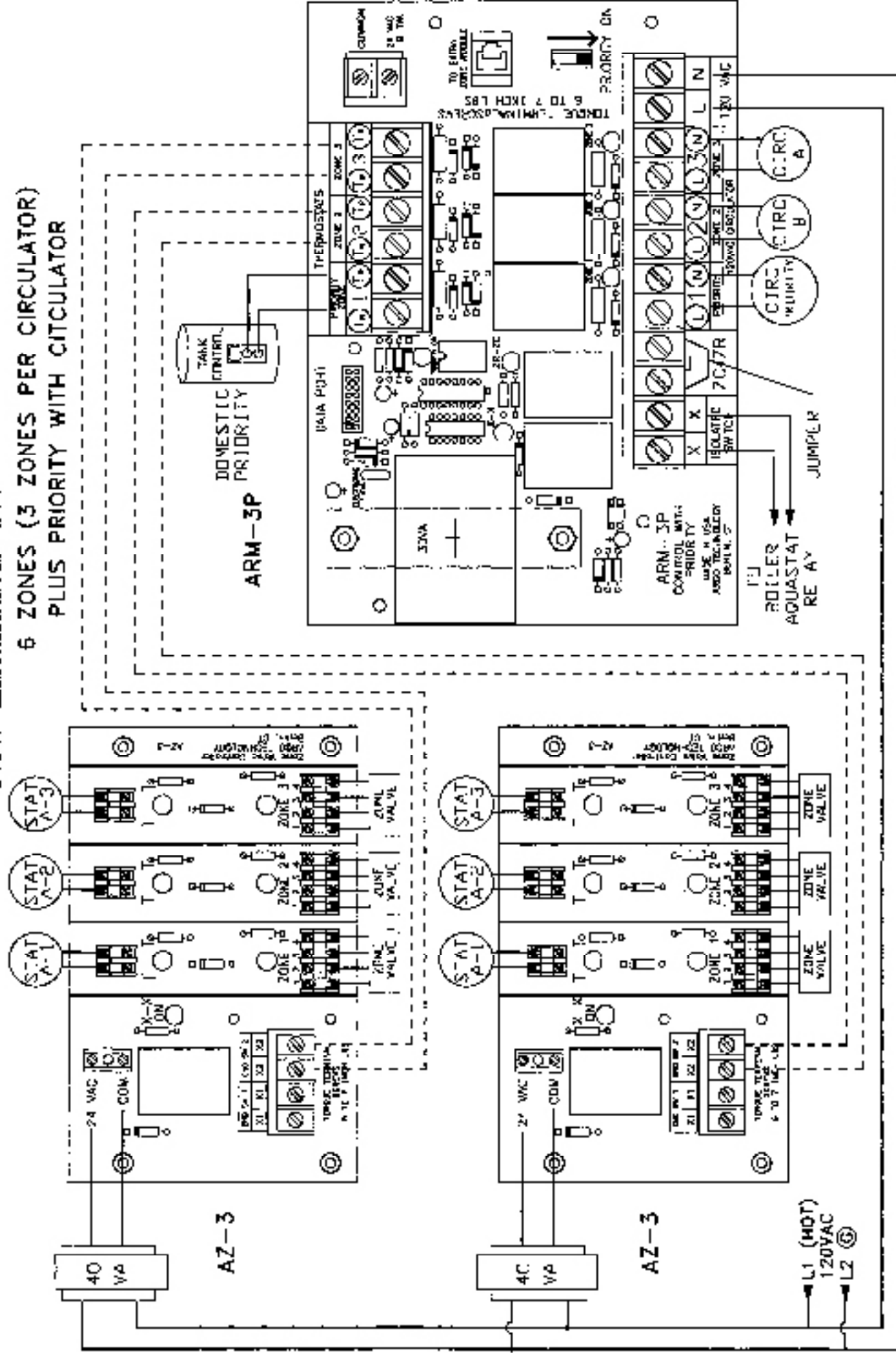




# Multiple Zone Valves and Circulator Pumps

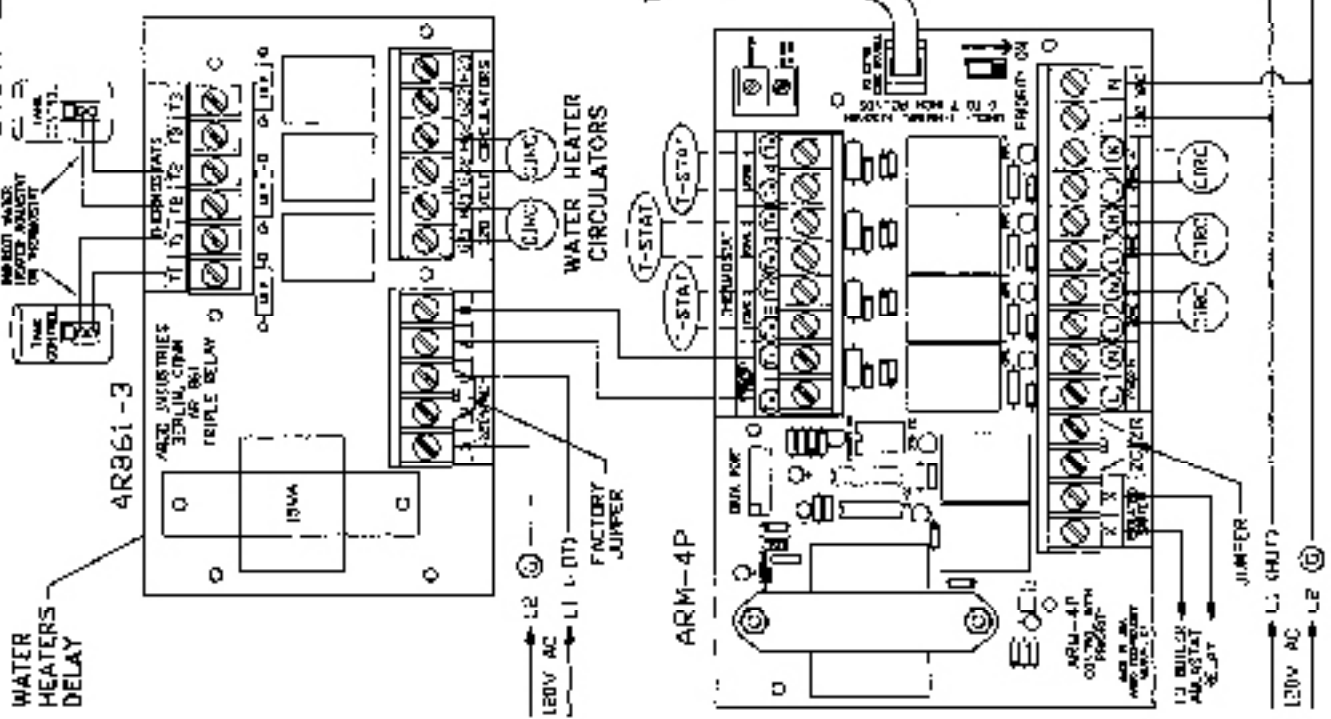
New Installation - N4

6 ZONES (3 ZONES PER CIRCULATOR)  
PLUS PRIORITY WITH CIRCULATOR



# Multiple Indirect Hot Water Heater (2)

New Installation - N5

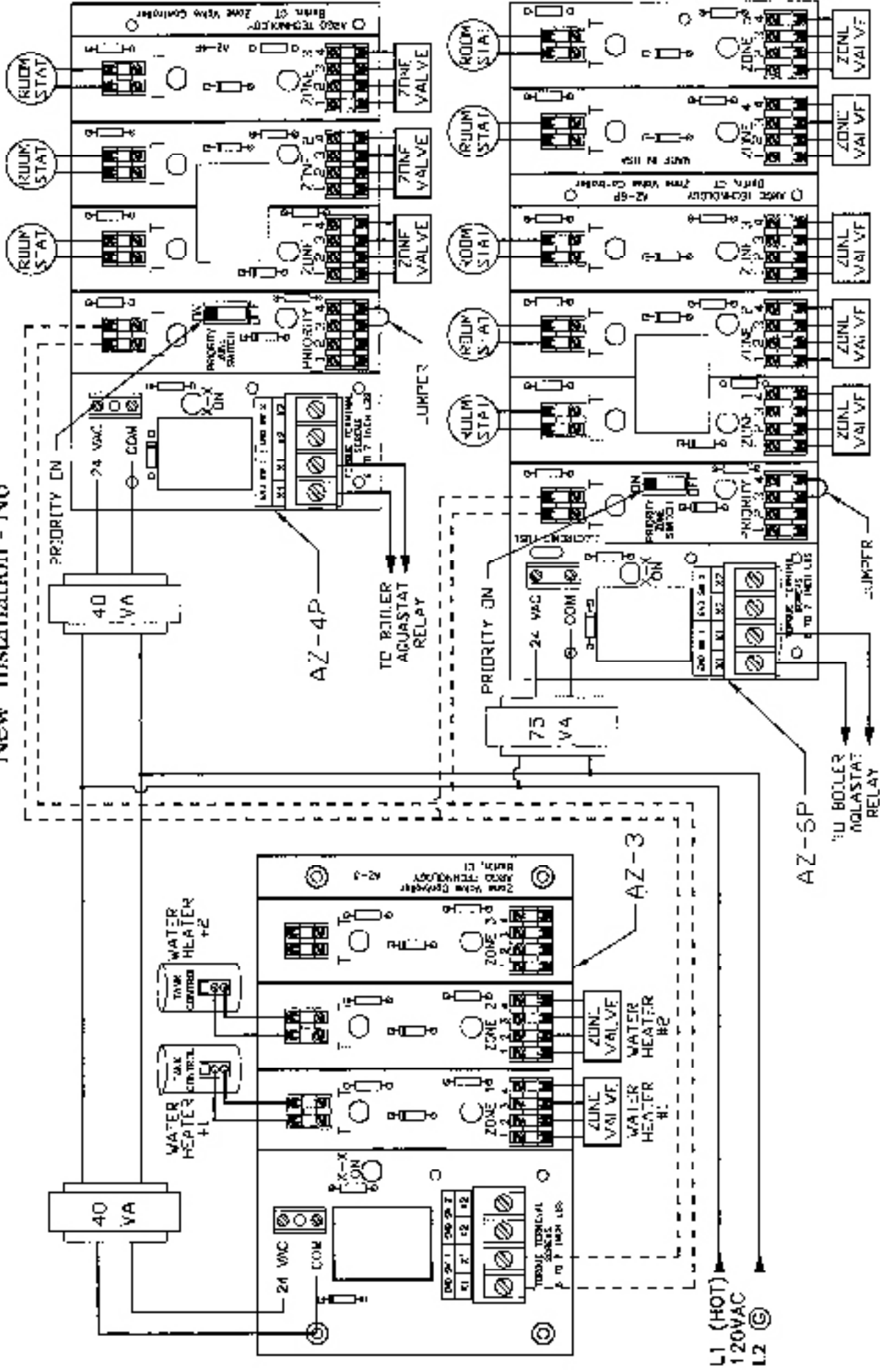


## WIRING DIAGRAM

- 2 INDIRECT WATER WATER TANKS
- 7 HEATING ZONES
- 1 PRIORITY ZONE
- 1 BOILER
- 9 CIRCULATORS

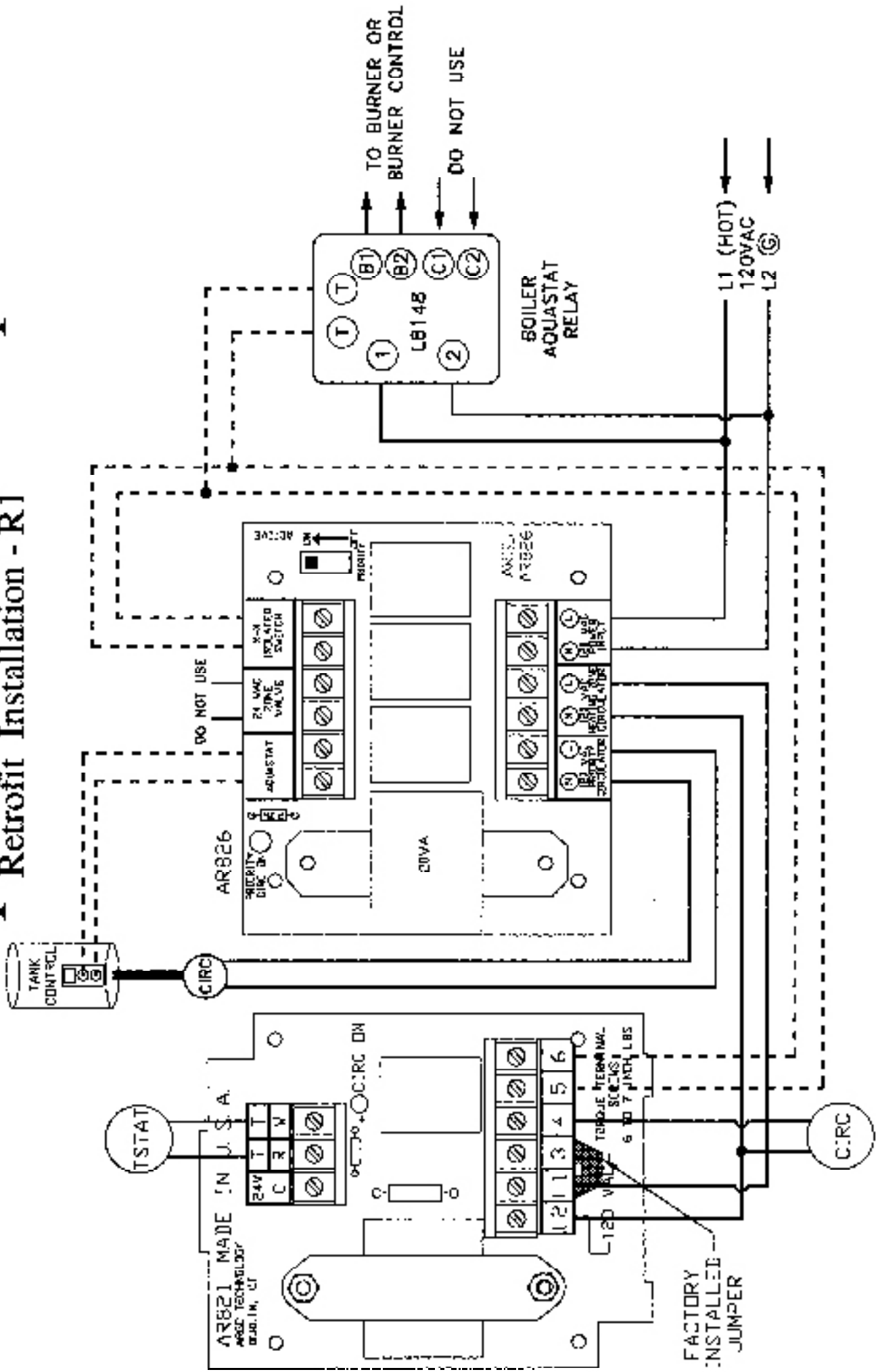
# Multiple Indirect Hot Water Heaters (2) With Priority

New Installation - N6



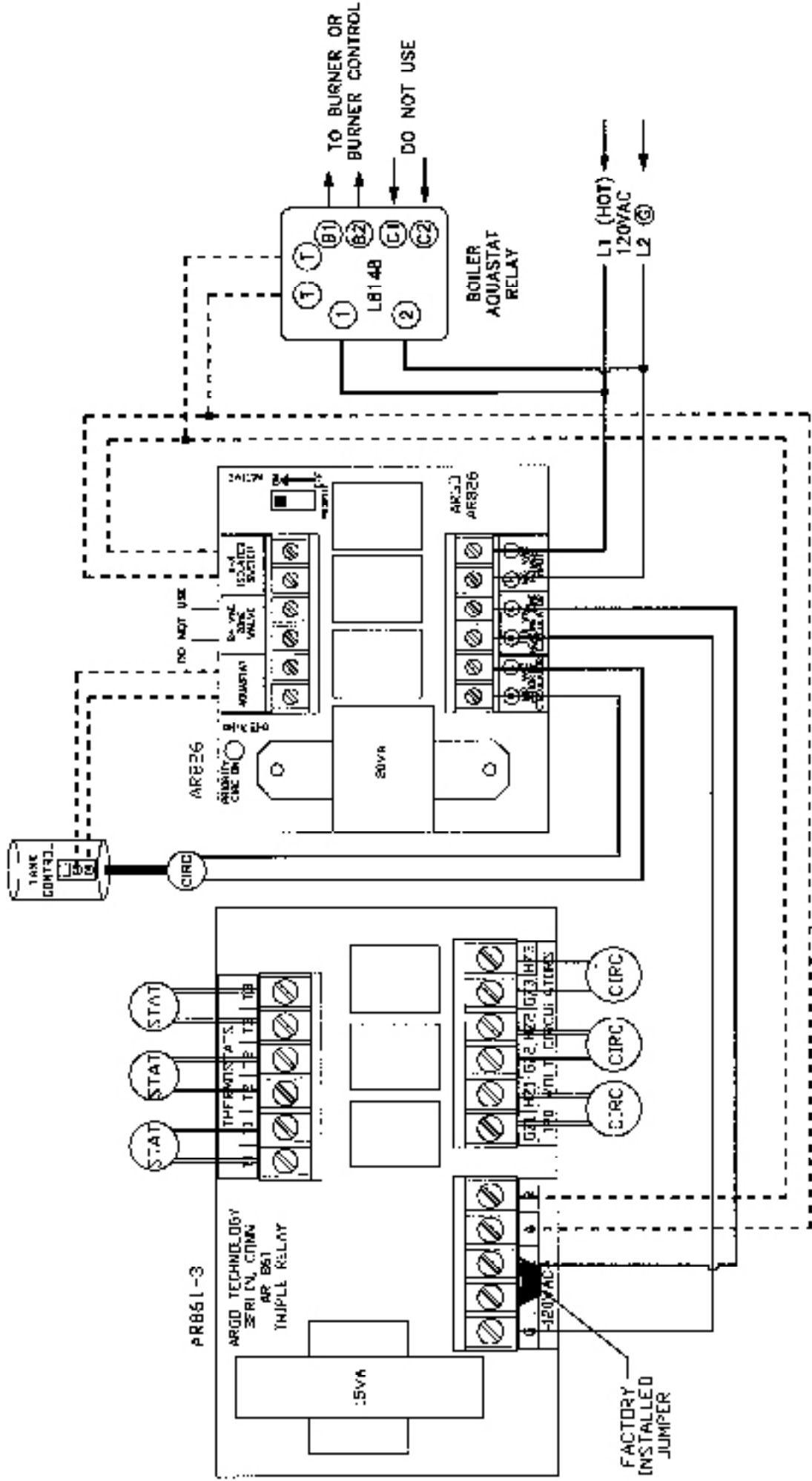
# Multiple Circulator Pumps

Retrofit Installation - R1



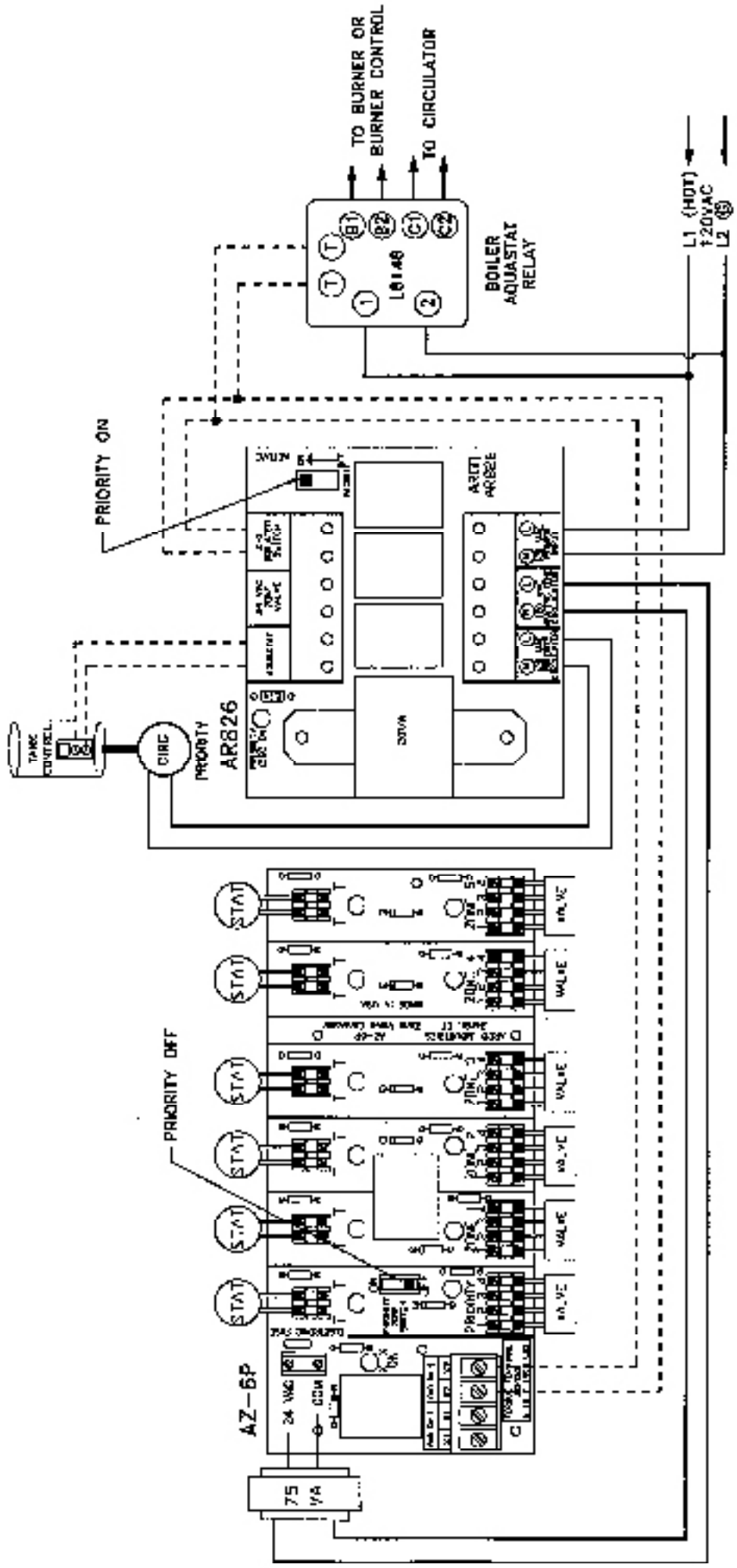
# Multiple Circulator Pumps

## Retrofit Installation - R2



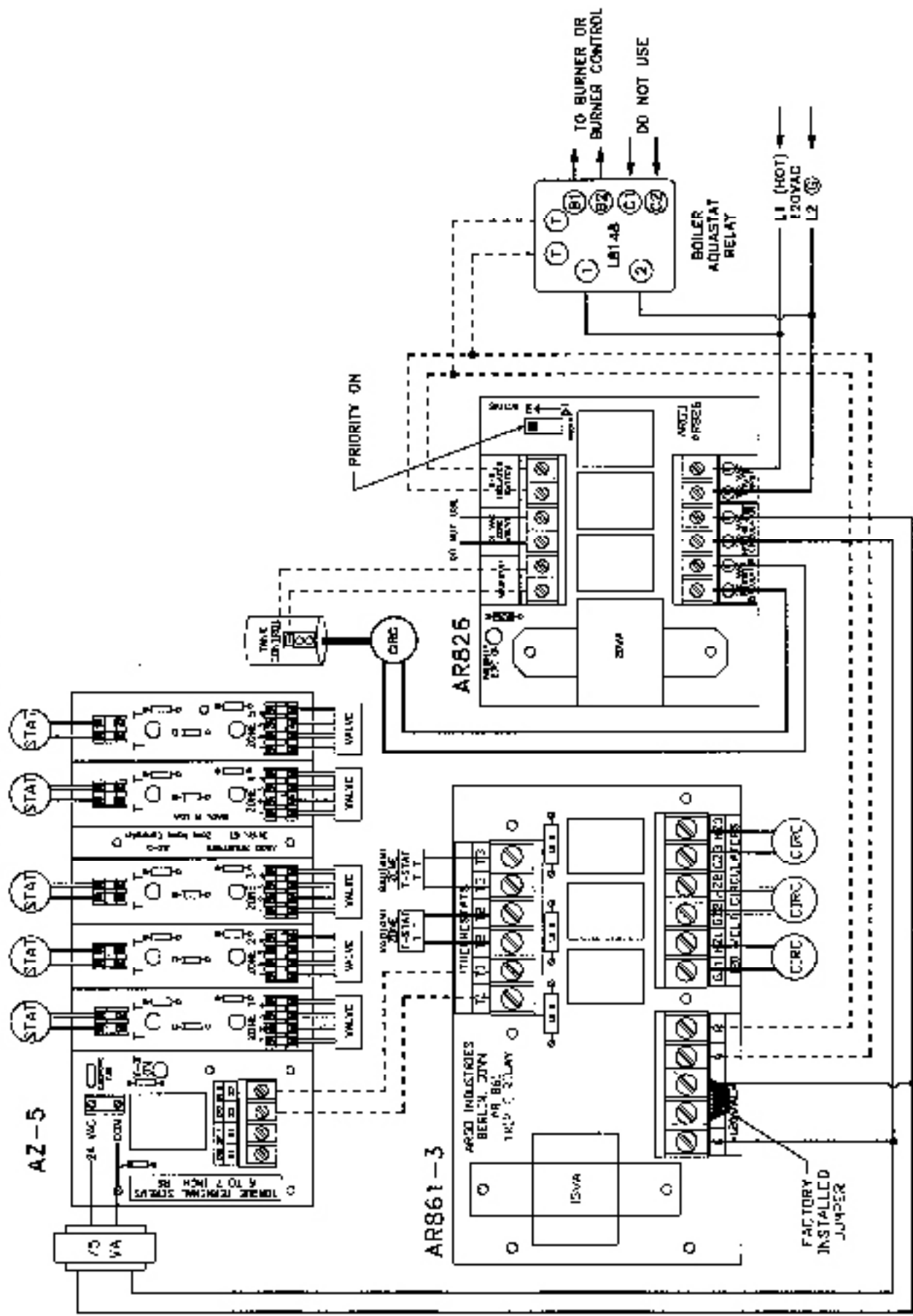
# Multiple Zone Valves with Priority Circulator

Retrofit Installation - R3



# Multiple Zone Valves & Circulator Pumps

Retrofit Installation - R4



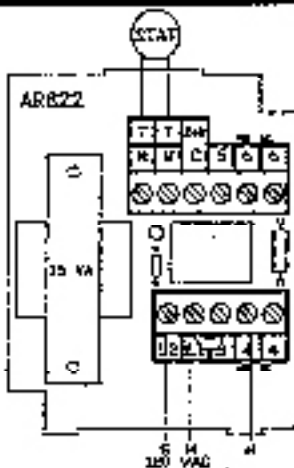


An KCM International Company

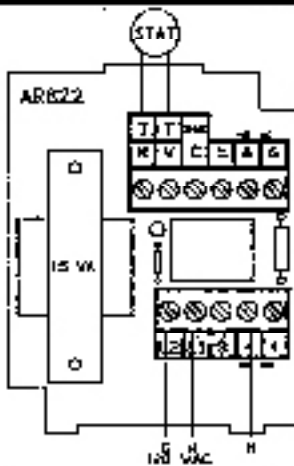
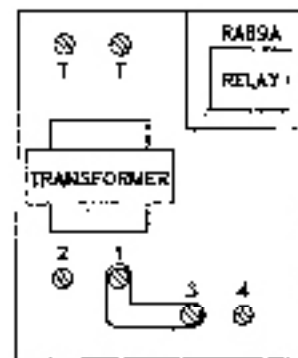
P.O. BOX 4729  
 UTICA, NEW YORK 13504  
 TELEPHONE (315) 797-1310  
 FAX (866) 432-7329  
 www.argoindustries.com  
 E-MAIL info@ecrinternational.com



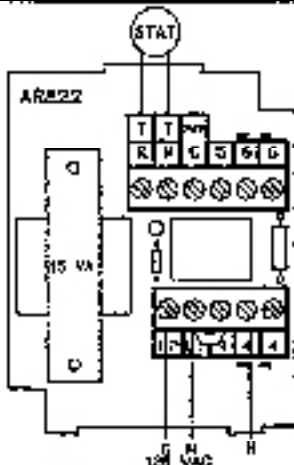
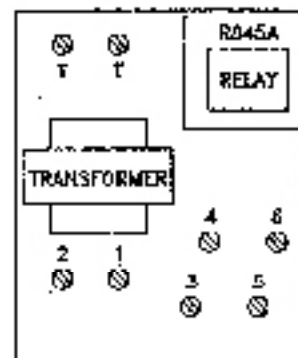
## ARGO AR822 Terminals Cross Reference to Honeywell



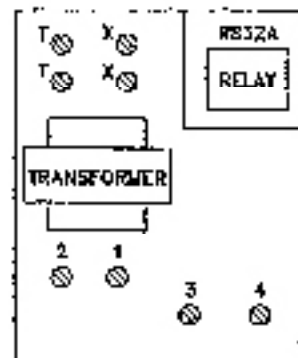
AR822 TERMINALS	REPLACES	R888A TERMINALS
L1	REPLACES	1
L2	REPLACES	2
3	REPLACES	3
4NO	REPLACES	4
RT & WT	REPLACES	T & T



AR822 TERMINALS	REPLACES	R845A TERMINALS
L1	REPLACES	1
L2	REPLACES	2
3	REPLACES	3
4NO	REPLACES	4
5	REPLACES	5
END	REPLACES	6
RT & WT	REPLACES	T & T



AR822 TERMINALS	REPLACES	R832A TERMINALS
L1	REPLACES	1
L2	REPLACES	2
3	REPLACES	3
4NO	REPLACES	4
5 & END	REPLACES	X & X
RT & WT	REPLACES	T & T



• RELAY TRANSFORMERS

• HYDRONIC BASEBOARD  
 Panel Trim  
 Lu-Trim Designer Series

• ELECTRIC BOILERS

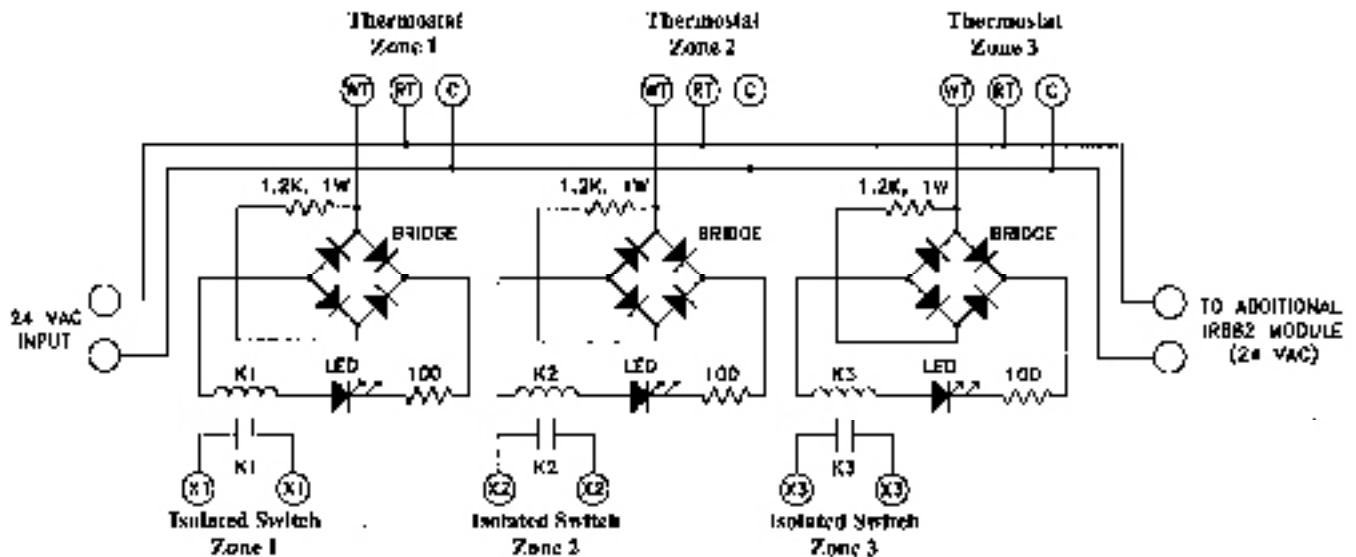




P.O. BOX 4729  
 UTICA, NEW YORK 13504  
 TELEPHONE (315) 797-1310  
 FAX (866) 432-7329  
 www.argoindustries.com  
 E-MAIL info@ecrinternational.com

An ECR International Company

# IR882 WIRING INSTRUCTIONS



## IR882 Isolation Relay Module

The IR882 is designed to interface Solid State Thermostats to other systems. Each module contains three (3) SPST relays. Modules can be easily daisy chained for additional thermostats.

## Power Requirements

The IR882 requires 24 VAC connected to the "24 VAC INPUT" terminals (left side of board). The power available at the "24 VAC Output" terminals is limited by the VA rating of the transformer used.

## Installation

Connect thermostat to the R, W, and C terminals as required. Please refer to the installation instructions for the thermostat you are using.

## Specification

- Power Requirements..... 1.0 VA per zone or 3.0 VA total  
 ..... Add 3.0 VA for each daisy chained module.
- Relay Contact Rating..... 2.5 amps, 1/10 horsepower at 120 / 240 VAC
- Thermostat Current..... .050 amps

## Typical Application

A typical application using daisy chained IR882s can be found on reverse side.

• RELAY TRANSFORMERS

• HYDRONIC BASEBOARD  
 Panel Trim Lo-Trim  
 Designer Series

• ELECTRIC BOILERS

