

i-Link

Intelligent Linking Concept for Zone Controls
In Hydronic Heating Systems

NEW



**A New Dimension in Zone Controls
Where Stylish Design And Functionality
Are Combined**

- DUAL RELAY OUTPUTS - INCLUDING A PRIORITY SWITCH
- UNLIMITED ZONE EXPANSION
- PRIORITY TIMER PROTECTION
- SYSTEM CIRCULATOR INTERLOCK

www.azeltec.com

AZEL TECHNOLOGIES INC.

i-Link : LEADING SWITCHING RELAYS FOR THE 21ST CENTURY

The *i-Link* series multi-zone circulator switching relays simplify wiring for hydronic heating systems. With leading edge features and superior product design, *i-Link* makes installation quick and easy.

Available in one to six zone models. The *i-Link* series are designed with flexibility and multi-zone applications in mind. It is so flexible that different models can be interconnected for unlimited zone expansion. In addition, *i-Link* provides far more functional status than other models on the market today because of their front panel LED indicators that provide the easy system diagnostics demanded by today's installers. Each unit is designed with a unique power surge protection to ensure continuous control operation which avoid damage and trouble to replace the unit.

Selectable Priority with Protection Timer

Priority Protection Timer available in two to six zone models ensures other zones get heat every one hour and prevents freeze-ups in the event of a priority zone failure. SP-84, SP-85, SP-86 are equipped with field selectable priority by-pass function to ensure continuous operation of secondary zones which allow maximum flexibility for system applications.

From design to manufacture, each *i-Link* unit is built on the foundations of quality and reliability. Azel products are quality controlled in order to achieve "total customer satisfaction" - a foundation that you can rely on.

GENERAL FEATURES:



SP-81

- Front panel indicator lights
- Fuse protection
- Power surge protection
- Easy-Connect Terminals/Screwless Terminals for Thermostat Connections
- Compact and modern design
- Safety design with all electronic components hiding behind the enclosure
- Simplified wiring
- Universal Design: Cold Start or Tankless Coil Boiler
- Contractor friendly PCB layout
- High Capacity Transformer
- 24VAC transformer output with common terminal provides compatibility with electronic thermostat
- Universal thermostat compatibility
- 100% Factory Tested
- Extended 3 year warranty

ADDITIONAL FEATURES:



SP-82



SP-83



SP-84

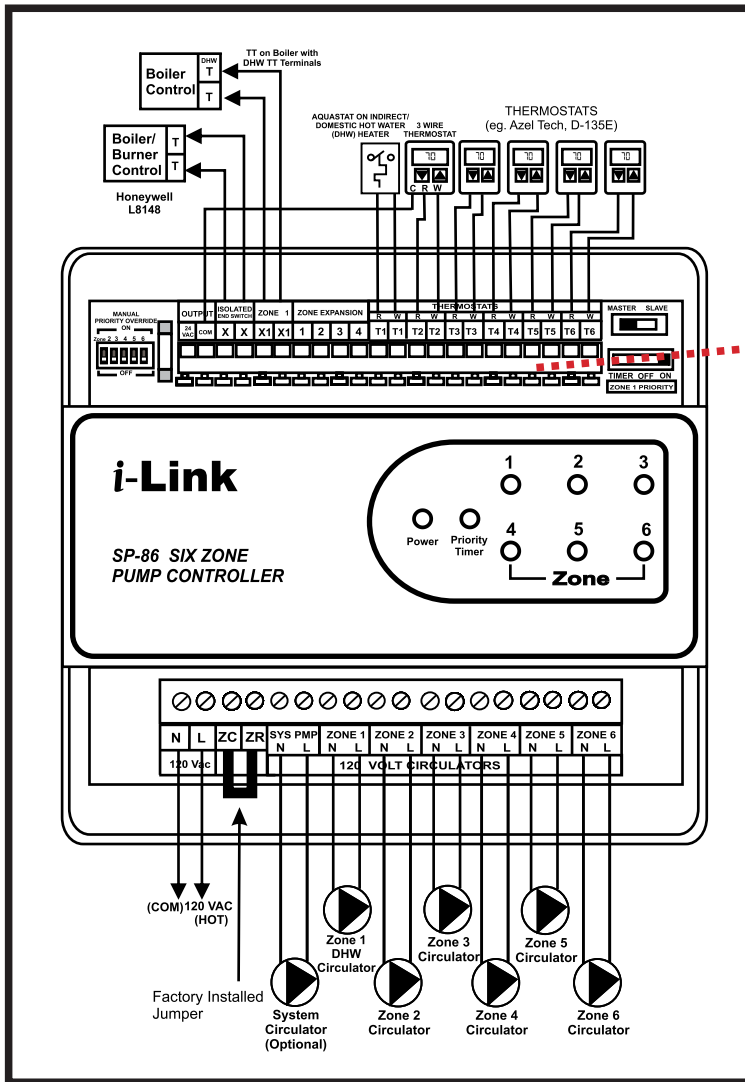


SP-85



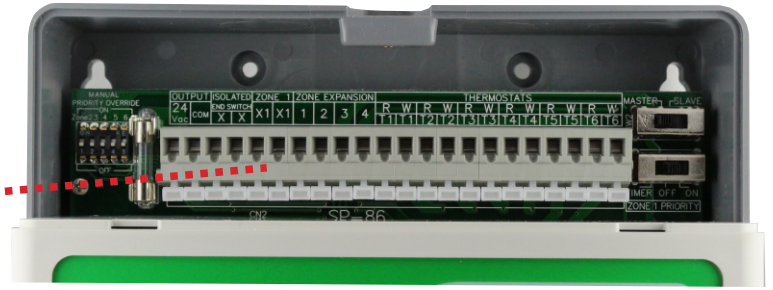
SP-86

- Unlimited zone expansion
- Priority timer for protection of a priority zone malfunction and prevention of freeze-ups in the heating zones.
- Field selectable priority
- Priority End Switch for utilizing full functionality of high efficiency Mod-Con boilers
- Capable of turning on extra system circulator
- SP-84/85/86: Manual priority override(bypass) for each of the secondary zone
- Isolated End Switch



COLD START (LOW THERMAL MASS) BOILER APPLICATION WITH PRIORITY FOR DOMESTIC HOT WATER

High Quality Screwless Terminal Block



SPECIFICATIONS:

Model:	SP-81	1 Zone Switching Relay
	SP-82	2 Zone Switching Relay
	SP-83	3 Zone Switching Relay
	SP-84	4 Zone Switching Relay
	SP-85	5 Zone Switching Relay
	SP-86	6 Zone Switching Relay
Power Supply:	120 VAC, 50/60Hz	
Dimensions:	6 3/8"(W) x 6 5/8"(H) x 2 3/4"(D)	
Electrical Switch Rating:	10 A 1/3 HP @ 120VAC	
Thermostat Anticipator Setting:	0.18 A	
Enclosure:	Flame Retardant Plastic 94V0	
Shipping Weight:	SP-81/82/83	2 lbs.
	SP-84/85/86	3 lbs.

THE AZEL INTEGRATION SYSTEM

Combine Azel thermostats, slab setpoint controls, digital temperature gauges to achieve maximum reliability and performance for hydronic heating systems.

SLAB SETPOINT CONTROL: DST-777 SERIES with PWM - Pulse Width Modulation

DST-777 series controls are microprocessor-based electronic one or two stage setpoint temperature controls, designed to provide one or two on/off controls (Single-Pole Double-Throw (SPDT) relay output) for residential/commercial heating, cooling, air conditioning and refrigeration applications.

The DST-777 is equipped with a Dual Digital display with backlit that provides a constant readout of the sensor temperature and setpoint simultaneously as well as the other programmed settings. The front buttons allow the user to easily and accurately select the set point temperature, differential and heating/cooling mode of the operation. QuickSet feature allows instant setpoint adjustment without entering programming mode. This reliable and versatile control has a very wide setpoint range, an adjustable differential and time delay that makes it applicable in many different applications. The single stage models have Pulse Width Modulation (PWM) control logic to prevent overshoots and undershoots in slow responding systems with large thermal mass such as pools or slabs. A sensor probe P-01 is supplied with the control. This solid state temperature sensor probe can be extended up to 500 feet.

APPLICATIONS:

The DST-777 can be used for a wide variety of applications:

- Tank Heating
- Slab thermostat for radiant floor heating
- Boiler control (used as a thermostat)
- Space and return air temperature control
- Condenser fan cycling
- Milk coolers, Chillers
- Cooling tower pump control
- Refrigerated warehouses
- Beer and beverage coolers
- Refrigerated display cases
- Walk-in and reach-in refrigerators
- Other applications: research, science, laboratory, education, aquarium, hydroponics, pools and more..



DIGITAL TEMPERATURE GAUGE: DS-60P



Catalog #: DS6005

This microprocessor-based, Digital Temperature gauge DS-60P represents the “next generation” in temperature gauge industries. The bold, hi-contrast LCD display ensures accurate temperature reading to the tenth degree and can be easily read from greater distances than the conventional mechanical temperature gauge.

DS-60P replaces two mechanical temperature gauges as it can simultaneously display the accurate temperature of supply and return piping on a hydronic heating system. In addition, the solid state temperature sensor probe can be extended up to several hundred feet. The unit is designed to be powered by 24VAC input or by lithium battery. When 24VAC is supplied, the lithium battery works as backup power to enable the unit to continue operating in case of power failure. Other features include Min/Max memory which shows the highest and lowest temperature after the last reset and instant Fahrenheit to Centigrade conversion. DS-60P is also ideal for any application that requires quick and accurate response to temperature change, an easy to read display and a wide temperature range.

DIGITAL NON-PROGRAMMABLE THERMOSTATS



D-135E



D-135ES

The D-135 series thermostat is a stand-alone microprocessor based thermostat with large LCD display that takes the guess work out of reading the temperature and maintains highly accurate temperature control without the programming hassle.

The thermostat is designed to control room temperature by way of on/off controlling the heating (and cooling) equipments. The setpoint is displayed and can be changed easily by pressing up or down arrow button.

This simple to use accurate thermostat will replace most round, square or rectangular thermostats. D-135 series is environmentally safe, mercury-free which requires no leveling, so there's no hassle, and no special disposal requirements.

FEATURES:

- Deluxe standard Heat Only
- Reliable Digital Electronic Accuracy
- Contains NO Mercury, environmentally safe
- Accurate Universal Replacement
- No Leveling Required
- Low Voltage (24 VAC) Systems or battery operated
- Only 2 wires needed to power thermostat, no need to change battery in the future

D-138 ADDITIONAL FEATURES:

- Unique “*spinning-switch*” dial allows instant setpoint change of $\pm 3^{\circ}\text{F}$ as quick as a flash.
- Fan Switch
- Heat/Cool/Off Switch
- EEPROM for Setting Backup



D-138

DIGITAL NON-PROGRAMMABLE RADIANT FLOOR HEATING THERMOSTAT



D-508F digital non-programmable heat only thermostat is designed to control either ambient(air) temperature (A Mode) or floor temperature (F Mode) or a combination of ambient temperature with floor temperature limits(AF Mode). An auxiliary remote sensor is provided to measure slab temperature in order to control the floor temperature(within maximum and minimum limits in AF Mode). It can also be used for sensing the outdoor temperature in A Mode.

DIGITAL PROGRAMMABLE THERMOSTATS: D500 FOR HEATING & COOLING D502F FOR RADIANT FLOOR HEATING



D-500/D502F

Azel Technologies introduces 500 series electronic programmable thermostat that utilizes the latest digital technologies for residential and light commercial systems. D-500 is designed for 24 Vac single-stage heating and cooling systems. D-502F is designed to control the floor temperature in Radiant Floor Heating Systems. It comes with a 10-ft floor sensor probe.

The 500 series can accurately control the temperature within one degree. Reliable permanent memory retains the programmed settings in the event of a power failure. In addition, the large and easy to read LCD display with backlit makes the thermostat easy to operate and simple to program.

The 500 series programmable thermostat delivers maximum comfort and energy savings by automatically changing to the preset temperature for various times of the day. The energy use and costs can be reduced according to the program heat and cool times as much as 33%. This programmable thermostat is better for the environment, since using less energy helps reduce greenhouse gas emissions associated with energy production.

AZEL TECHNOLOGIES INC.

P.O. Box 53138, 10 Royal Orchard Blvd., Thornhill, Ontario, Canada L3T 7R9
Ph: 905-223-5567 Fax: 905-223-3778 Email: info@azeltec.com

www.azeltec.com

For more product information, please contact: