

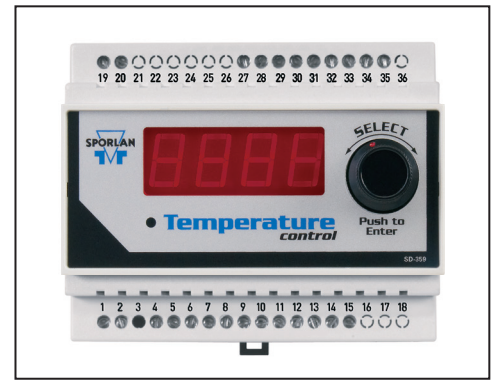


# Sporlan Temperature Control

## Quick Reference Guide

SD-375/092012

Controller v. A



The Sporlan Temperature Control should be installed only by a qualified professional. All other system components (valves and sensors) should be supplied by Sporlan to ensure compatibility and proper operation. There are no user-serviceable components inside the Temperature Control. Opening the case will void the warranty.



**Use caution when working around high voltage components. Safety covers should be used for personal safety on high voltage panels.**

### Tools required:

- Small flat screwdriver for terminal
- Cordless screwdriver
- Phillips and flat screwdrivers
- Needle-nose pliers
- Wire cutters
- Two #8 x 1/2" self tapping screws to mount DIN rail

## 1. INSTALLATION

Reference diagrams on the back of this guide.

**Maximum torque on screw terminals is 3.5 in-lbs.**

1. Mount the controller in a rain-tight, protected location using the supplied DIN rail. To leave enough working space, the suggested mounting area is 10 inches high and 5 inches wide. The minimum depth is 3 inches.
2. Mount the temperature sensor, T1, per the evaporator manufacturer's recommendation. Connect the sensor wires to terminals 31 and 32. The sensor is not polarized.
3. Mount the second temperature sensor, T2 (optional). Connect the sensor wires to terminals 29 and 30. The sensor is not polarized.
4. Connect terminals 25 and 26 to a digital input. A short or closed contact from an external relay will enable pumpdown.
5. Connect the Sporlan electric valve wires to terminals 5, 6, 7, and 8, matching the colors shown in the wiring diagram.
6. Connect power wires to terminals 1 and 2. Power requirements are 24 volts AC at 40VA, Class II transformer.
7. Remove the protective clear film cover from the front of the Temperature Control.

## 2. SETUP

Once powered up, the controller will display the firmware version and then prompt for three system variables to be set. The electric valve is closed upon startup, and the system will not operate until completing setup:

1. Set **tSP**, Temperature Setpoint. Press and then turn the SELECT knob to set the operational setpoint. Press the SELECT knob again to save the value. The next variable is displayed.
2. Set **StEP**, Valve Steps. Select the correct number of steps for the valve being used. Press the SELECT knob to save the value. The next variable is displayed.
3. Set **trUd**, Temperature Rise Valve Direction. Select Open on Temperature Rise (OPTR) or Close on Temperature Rise (CLTR). Press the SELECT knob to save the value.

Setup is complete. The Temperature Control will begin controlling based on default values, and is now displaying **t5!**. The controller is now in the Process Values Menu. Rotate the knob to view values.

## 3. OPERATION

For further system setup or system tuning, adjust parameters through the Setpoint Menu as described below. See the Temperature Control installation and Operation Manual for a complete list of setpoint parameters and definitions.

1. Enter the Setpoint Menu: Hold down the SELECT knob for 5 seconds. Rotate the knob to enter the controller password and press the SELECT knob again. The default password is "**!!!**".

2. To select a parameter, rotate the SELECT knob to the desired parameter. Press the SELECT knob to display the current parameter value.
3. To change a parameter, rotate the SELECT knob to the desired value. Press the SELECT knob again to select the value.
4. After all parameters are set, rotate the SELECT knob to "**ESC**". Press the SELECT knob to save all changes.

**Note: After 60 seconds of inactivity, the Setpoint Menu times out and all changes entered will be lost.**

**Note: Not all refrigeration systems are designed alike. See the Temperature Control Installation and Operation Manual to adjust the settings according to the specific needs of the system.**

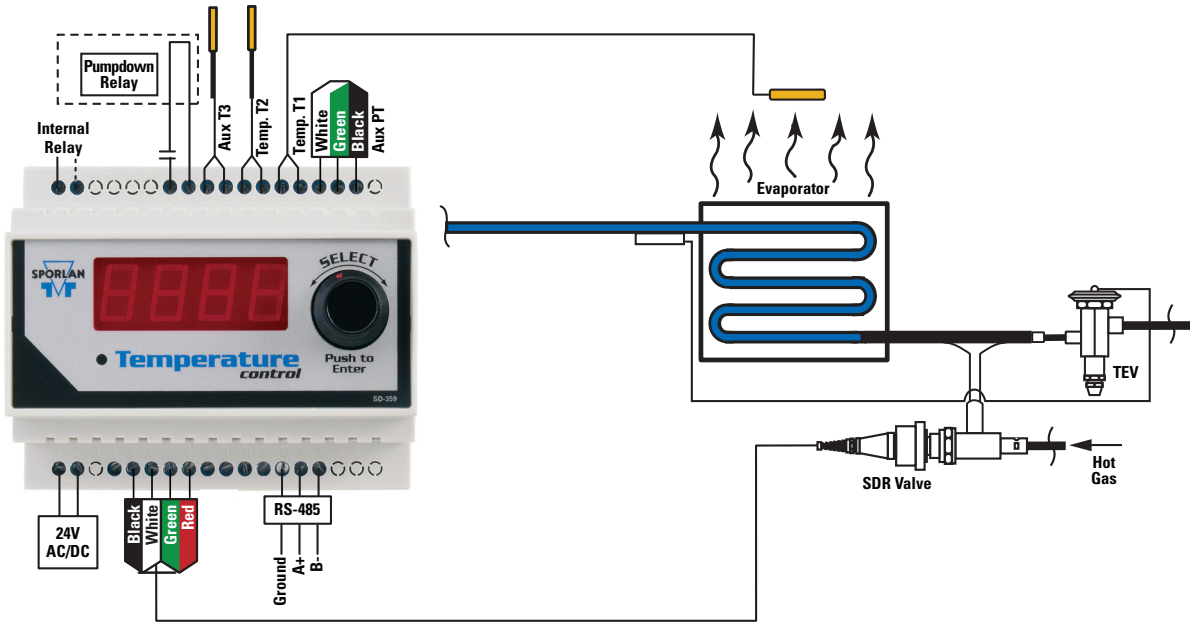
### Sporlan Temperature Control Installation and Operation Manual



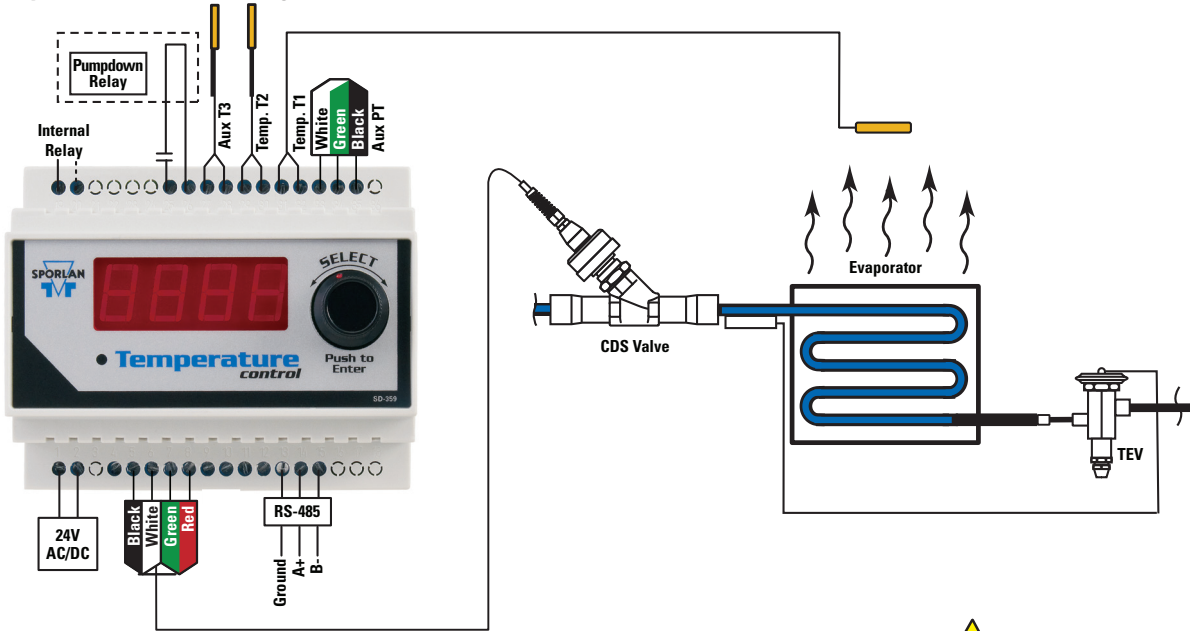
For detailed instructions, scan this QR code or go to [sporlanonline.com/electronic-controls/](http://sporlanonline.com/electronic-controls/)

# Typical Wiring Diagrams

## Hot Gas Bypass



## Evaporator Pressure Regulator



**Note: Use caution when working around high voltage components.**

