

Basic Settings and Configuration for Thermok Logger 4A

The Thermok Logger 4A Device has 4 temperature input channels, and 2 individually controllable DC relays. To configure the two relays, enter the Main Setup Menu.

Relay A Mode – Where you select the operational mode of the relay

Off Always – Relay is always off

Differential – (default) Differential Temperature Control

On Over – Relay is on when temperature is over a specified limit

On Under – Relay is on when temperature is under a specified limit

On Always – Relay is always on

Relay A Settings – Where you configure the temperature set points and channels to use
Settings for Differential Mode

High Side: (1 – 4) Select which temperature channel you wish to use for your high side.

For a standard solar hot water system, this would be the temperature channel monitoring the temperature of your solar collector.

Low Side: (1 – 4) Select which temperature channel you wish to use for your low side.

For a standard solar hot water system, this would be the temperature channel monitoring the temperature of your hot water tank.

dT on: Delta T, or temperature differential that must exist before the relay will turn on.

For example, if set to 20 degrees, the high side (collector) must be at least 20 degrees warmer than the low side (tank) before the relay will turn on. This setting will depend on your particular system, and may take some experimentation to fine tune.

dT off: Delta T for the relay to turn off. For example, if set to 10 degrees, when the high side is less than 10 degrees higher than the low side, the relay will turn off. The combination of dT on and dT off can be used to prevent short cycling of the controlled pump or load.

Hi Limit: A maximum temperature limit (safety mechanism).

When this temperature is reached, the relay will turn off

OverTemp CH: (1 – 4) Select which temperature channel you wish to monitor for the Hi Limit.

Settings for On Over or On Under Mode

Use Channel X: (1 through 4) Select whether or not you wish to use each channel for temperature monitoring.

Over T or Under T: Enter the temperature set-point at which the relay should turn on.

(additional settings continued on next page)



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Relay B

Relay B is configured the same way as Relay A. It can be used for various purposes such as to sound an alarm buzzer when a set temperature is reached, or to start another pump to start dumping excess heat to a secondary system. It can also be used as a differential controller for a second pump.

Temperature Unit

Used to select Fahrenheit or Celsius for the temperature scale.

RS-232 Setup

Used to select the baud rate to be used for the external RS-232 Port for communications with external devices.

RS-232 Comm Mode

Used to select the communications mode.

Binary / World: For use with APRS World's “**World Data Service**” for remote monitoring.

Modbus Slave: For use as a Modbus RTU slave which can be queried by a Modbus Master.

Relay C

Currently undocumented/unsupported feature. (Should be left Disabled)

CHx Sensor Type

Used to select the type of sensor for each channel.

Normally left at the default “NTC Thermistor”



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