



CONTROL4 DRIVER FOR SINOPÉ ZIGBEE THERMOSTATS

This driver enables you to control a Sinopé ZigBee thermostat from Control4. The following thermostats are currently supported: TH1123ZB, TH1124ZB and TH1300ZB (Control4 models only).

IMPORTANT: OS 2.7 or later is required for this thermostat driver to work properly.

INSTRUCTIONS

- For Control4 to properly maintain the Outdoor Temperature on the Sinopé thermostats, you must first install and configure one instance of the Control4 Weather Station (Weather Underground) driver found under Manufacturer “Weather Underground”. If this driver is installed in your project, it will be used automatically for Outdoor Temperature. This driver uses the same provider as Navigator, so the value should be the same when you select the same coordinates (Latitude/Longitude).
- Add one instance of this thermostat driver for each physical Sinopé ZigBee thermostat.
- **IMPORTANT:** some of the earlier TH1123ZB/TH1124ZB thermostats must be configured for Control4. Follow the instructions supplied with the thermostat. Models specifically labeled ‘C4’ do not need to be configured. Other thermostat configuration items will be ignored by the driver. **Use the driver’s properties to set ALL thermostat configuration items.**
- Identify each thermostat by simultaneously pressing both buttons on the thermostat. This process may take **up to 60** seconds depending on the ZigBee channel used.
- It may take up to two minutes for the driver to read all information from each thermostat. If this is a TH1300ZB (Floor Heating thermostat), set the ‘Control Type’ property to have access to the right configuration items.
- By default, the driver will be in Celsius mode, as this is also the thermostat’s default. If desired, select Fahrenheit under Properties.
- For each thermostat, connect the “TEMPERATURE” and “TEMPERATURE_CONTROL” Room Control bindings as appropriate for your project.
- When you are done, Refresh Navigators.

USAGE NOTES

- The thermostat has two different setpoints: an ‘Occupied’ setpoint and an ‘Unoccupied’ (or ‘Away’) setpoint. They are respectively mapped to modes ‘Heat’ and ‘Heat Away’.

- To create a Schedule, you must first create at least two Presets.
- A Hold Mode is available when using Presets and Schedule. When Hold is set to “Permanent”, all Presets changes (manually, by Schedule or by Programming) are ignored except when a Preset specifically contains a “Hold Mode” “Off” command. When Hold is set to Off manually or by Programming, the most recently requested (but ignored) Preset is activated. Presets may also contain a “Hold Mode” “Permanent” command which causes Hold to be set to “Permanent” after the Preset is activated in the thermostat.
- The command “Synchronize this Thermostat” available under Extras may be used when you suspect that the driver has missed some previous feedback from the thermostat. All the thermostat’s attributes are then re-read by the driver.
- To force the thermostat to leave the ZigBee network, press and hold both buttons until the thermostat resets. Also perform a disconnect in Composer.
- In Programming, the following Device Specific Commands are available:
 - ‘Backlight’ is used to set the thermostat’s backlight to ‘Sensing’ or ‘Auto’. See the ‘Backlight Status’ property below for details.
 - ‘Demand Response’ is used to turn the ‘DR’ indicator on the thermostat’s display On or Off.
- The format of the time display is set automatically based on the thermostat scale: 12h for Fahrenheit and 24h for Celsius.

PROPERTIES

- **Driver Version** displays the version of this driver.
- **Debug Mode** turns Debug Mode Off or On (with output to the Lua Output window).
- **Debug Duration in Minutes** sets the duration of Debug On.
- **Driver Information** displays various status messages about the driver.
- **Thermostat Model** displays the model of the actual device connected to the driver.
- **Setpoint Minimum, Maximum** allows you to specify the minimum and maximum setpoint values available when using the thermostat up/down buttons.
- **Cycle Length** (TH1123ZB/TH1124ZB only) determines how the thermostat will manage the heating cycle. Use the Long Cycle whenever you are controlling an electrical heating device with an imbedded fan.
- **Backlight Status** determines if the thermostat’s display will normally be Off except when one of the thermostat buttons is pressed (Auto) or always On with intensity based on ambient light level

(Sensing). This option may be changed dynamically via programming (Device Specific Command) should the user decide to turn off the displays during the night, for example.

- **Control Type** (TH1300ZB only) – this is a main control for the Floor heating thermostat. Selecting Air (A) Mode, sets the floor heating to be controlled by the ambient temperature as measured by the thermostat. Limits are available (see below) to prevent the floor from over/underheating. Selecting Floor (F) Mode, sets the floor heating to be controlled by the floor sensor. In this mode, a limit on Ambient temperature (see below) is available to prevent the floor from overheating the room.
- **Auxiliary Output Configuration** (TH1300 only) allows you to specify the type of Auxiliary control connected to the thermostat. In Air Mode (A), the values may be 'Off', 'Second stage SSR (short cycles)', 'Second stage relay (long cycles)' and 'Slave (TR1310 expansion unit)'. In Floor Mode (F), only 'Off' and 'Slave' are allowed.
- **Floor Temperature Minimum,Maximum** (TH1300ZB, Air Mode (A) only) allows you to specify the limits for floor heating, in order to avoid any damage to the floor by over/underheating. Specify as two temperature values, separated by a comma (example: 5,36). The temperatures should match the selected scale (Celsius or Fahrenheit) and if a specific limit is not required, simply set it to 0 (examples: 0,90 or 10,0 or 0,0). The allowed temperature ranges are 5 to 36 for Celsius and 41 to 96 for Fahrenheit).
- **Maximum Ambient Temperature** (TH1300ZB, Floor Mode (F) only) allows you to specify the limit for the ambient temperature when heating as the thermostat is then controlled by the floor sensor. Specify as one temperature value (example: 28). The temperature should match the selected scale (Celsius or Fahrenheit) and if such a limit is not required, simply set it to 0. The allowed temperature ranges are 5 to 36 for Celsius and 41 to 96 for Fahrenheit).
- **Floor Sensor Type** (TH1300ZB only) allows you to specify the type of sensor used in the floor. Allowed resistance values are 10K (the most common) and 12K.
- **Thermostat Display** (TH1300ZB only) allows you to select if the thermostat will display the outdoor temperature (when available) or the current setpoint.

Informational Properties:

- **Unoccupied Setpoint** displays the setpoint used when the Mode is set to 'Heat Away'.
- **Heat Level** displays the current heating % applied by the thermostat.
- **Load Value** display the wattage of the heating load connected to the thermostat. This value may be inaccurate when the actual load connected to the thermostat is below 400W.
- **Current Hold Mode** displays the current Hold Mode of the thermostat.
- **Current Floor Temperature** (TH1300ZB only) displays the current temperature measured by the floor sensor.
- **Hardware and Software Levels** (TH1300ZB only) displays the current hardware (HW2 and HW3) and software SW2 and SW3 of the thermostat.

- **Outdoor Temperature** displays the most recent outside temperature received from the Weather Station driver. The thermostat will display a rounded temperature which may be different from the value show here.

PROGRAMMING

- Device Specific Commands are available to change the status of the thermostat's backlighting and to Set/reset the Demand Response indicator on the thermostat's front panel.
- (TH1300ZB only) Events are available when the GFCI protection is activated/reset and when the various floor and ambient temperature limits are reached.

SUPPORT

For support on this driver please go to <http://www.sinopetech.com>. Give a detailed description of the problem and also include the version number of the driver and the version of Control4 OS that you are using.

CHANGELOG

1.0.0	November 9, 2017	Initial Version
2.0.0	October 9. 2018	Support added for TH1300ZB Floor heating thermostats

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