tekmar tN4 482 Thermostat

Compatible Control4 Systems:

Designed to work with OS 2.10.6, 3.0+

Compatible Hardware:

tekmarNet4 Gateway 482 - Serial Interface
https://www.watts.com/products/hvac-hot-water-solutions/controls/boiler-mixing-controls/482/482

Driver Download & Change Log:

Please visit https://www.drivercentral.io

Documentation:

https://drivercentral.io/platforms/control4-drivers/climate-fan-fireplace/tekmar-hvac-driver/

Content

Overview

This driver connects to the tekmar tN4 482 gateway driver.

Driver Setup

Thermostat Compatibility

- tekmarNet4 Setpoint Control 161 (101101) – 1 Stage Heat
- tekmarNet4 Setpoint Control 162 (101102) – 1 Stage Heat/Cool
- tekmarNet2 Thermostat 527 (102301) – 1 Stage Heat
- tekmarNet2 Thermostat 528 (102302) – 1 Stage Heat
- tekmarNet2 Thermostat 529 (102303) – 2 Stage Heat
- tekmarNet2 Thermostat 530 (102304) – 1 Stage Heat, 1 Stage Cool, 1 Fan
- tekmarNet4 Thermostat 537 (100102) – 1 Stage Heat
- tekmarNet4 Thermostat 538 (100103) – 1 Stage Heat
- tekmarNet4 Thermostat 540 (100101) – 1 Stage Heat, 1 Stage Cool, 1 Fan

- tekmarNet4 Thermostat 541 (99301) - 1 Stage Heat
- tekmarNet4 Thermostat 542 (99302) - 1 Stage Heat
- tekmarNet4 Thermostat 543 (99401) - 2 Stage Heat
- tekmarNet4 Thermostat 544 (99203) - 1 Stage Heat, 1 Stage Cool, 1 Fan
- tekmarNet4 Thermostat 545 (99202) - 2 Stage Heat, 1 Stage Cool, 1 Fan
- tekmarNet4 Thermostat 546 (99201) - 2 Stage Heat, 2 Stage Cool, 2 Fan
- tekmarNet Thermostat 532 (107201) - 1 Stage Heat
- tekmarNet Thermostat 552 (105103) - 1 Stage Heat
- tekmarNet Thermostat 553 (105102) - 2 Stage Heat, 1 Stage Cool, 1 Fan, Humidity
- tekmarNet Thermostat 554 (105101) - 1 Stage Heat, 1 Stage Cool, 1 Fan
- tekmarNet Thermostat 557 (104401) - 2 Stage Heat, 2 Stage Cool, 1 Fan, Humidity

Thermostat Addressing

- Once the gateway is working, add this driver (the thermostat driver) for each thermostat you will be integrating into the project.
- Enter the correct Thermostat Address into the driver. Addresses are in the form of PBNN. (example 0023). Installer note: Turn on the debug on the gateway driver monitor the lua output. You will see thermostat information including found thermostat addresses.
  - P = the Port of the tN4 gateway the thermostat is connected to. Possible values are: 0-4
  - B = the boiler bus type the thermostat is controlling. Possible values are: 0-4
    - 0 = No boiler (standard thermostat integration)
    - 1 = Boilers 274, 275, 400, 401, 402, 420, 422, 423
    - 2 = Boilers 402, 422, 423
    - 3 = Boilers 423
    - 4 = Boilers 423
  - NN = the two digit address set on the thermostat. Possible values are: 01-24

- Once the thermostat address is correct, the Thermostat Type field will automatically populate. Verify the address type matches the thermostat you are trying to control.
- Refresh Navigators

Thermostat Settings/Options

General Notes

The driver will automatically set all the proper controls, hvac modes, fan modes, humidity controls, dehumidity controls, and enable preset creation and scheduling. Some thermostats have additional options and configurations that dealers may need to modify.

- **Fahrenheit/Celsius**.
    - The driver works with both temperature scales automatically. Dealers can choose the scale under System design or a customer can choose via the extras tab in the proxy.
- **Setpoint Type Thermostats** (161, 162)
    - These thermostats allow control of single setpoint type devices (Hot Tubs, Boilers, etc..). Normally, these thermostats require setting the setpoint values above the standard 90F limit. To allow for this, the driver will automatically enable Min and Max level controls (Fahrenheit) controls for you to customize for your customer. These levels should be the max/min levels the temperature AND setpoints can be go.
    - Setpoint Mode allows you to show the heat or cool setting depending on the control type of the thermostat.
    - Set Property: Setpoint Type to Setpoint Type for these thermostats
- **Thermostats with multiple setpoint types** (Normal, Slab)
    - The property Setpoint Type allows dealers to choose which heating command to send.
        - Setpoint Type: Normal -> Use this for most installations. Systems with in-floor heating can also use this setting.
        - Setpoint Type: Slab -> Use this for thermostat configurations where there is a floor temperature sensor and adjustment of the slab temperature is needed. Shown as Floor on the thermostat.

- Customers can change between these two set-points (if thermostat supported) under the extras tab in the thermostat proxy.
- **Thermostat with multiple temperature values** (Room vs Floor temperature)
  - Similar to Slab/Room heating, dealers can choose which temperature is displayed on the Control4 screen via the property Temperature Type. Customers can also choose between these temperatures via the extras tab in the proxy
- **Fan Types**. Some thermostats support multiple levels of fan speed. If this is enabled change the Fan Type property to Auto,Low,Medium,High,On
- **Advanced Settings** (Driver Actions: **Show Advanced Settings**)
  - **Show Temperature Control Settings**: Set to No to hide the Extras Tab Temperature Options.
  - **Show Humidity**: Set to No to disable humidity
  - **Can Humidify/Can Dehumidify**: Set to No to disable humidification controls in driver
  - **Can Auto/Can Heat/Can Cool**: Set to No to disable control of this mode
- **Unknown Thermostat**.
  - If Unknown Thermostat 4294967295 is displayed, wait 30 seconds and try setting the thermostat address again. This error means the tekmar system does not recognize the thermostat and usually a refresh will be corrected.

Presets/Scheduling

The driver is fully compatible with Preset creation and Scheduling. To set schedules: - Create a Preset and define the settings for this preset - HVAC Mode, Fan Mode, Heat Setpoint, Cool Setpoint, Single Setpoint, Humidify, Dehumidify options are available.

Note: if the thermostat does not support a setting, it will not be displayed

- Create a scheduled event and trigger this preset at that time
- Broadcasting schedules to other thermostat drivers supported

Installer Note: If a scheduled event is created and set to execute within 10 minutes of creation, the event may not trigger.

Vacation Mode

Vacation mode creates a simple way to block scheduled events from running.
- Each thermostat has a vacation heat/cool setpoint setting (done in System
Design) - Vacation mode can be enabled/disabled via Composer Programming -
While vacation mode is enabled (On) scheduled preset events will not happen. - If
a preset is executed via Programing or by user any running vacation mode is
stopped

When vacation mode ends…

- If a schedule event had occurred then the preset for that event will execute
- If no scheduled event occurs, the heat/cool set-points will revert to what they
  were when vacation mode activated
- A message will be displayed on the Proxy (MESSAGE_CHANGED) when
  vacation mode activates.

Support

If you require additional driver assistance or are having some issues please visit
our help desk: https://help.drivercentral.io

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Developer Information

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