



Control Programming LLC

Release Notes

Platform – Bond Bridge - Platform - Cloud
version 2.00.006

Extension

This release note is for the CPLLC Tekmar tN4 Gateway 482 Extension. Tekmar provides a family of various thermostat, setpoint controllers, and snow melt controllers.

Additional information on Tekmar products can be found at <https://www.watts.com/our-story/brands/tekmar>.

Notes and Recommendations

Presently this extension only handles the TH series of Tekmar devices. Additional SC and SM devices will be supported in the near future.

Drivers->Platform->Tekmar->tN4 Gateway 482

Since a platform extension does not have a UI, any issues will be documented in the error log. If no sub extensions are created an error was encountered. The paired extension folder will be created, assuming no errors are encountered, and the time it takes is dependent on the number of devices attached to the gateway.

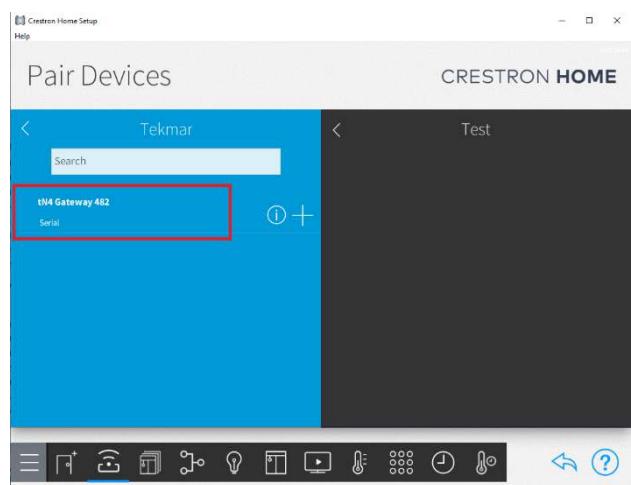
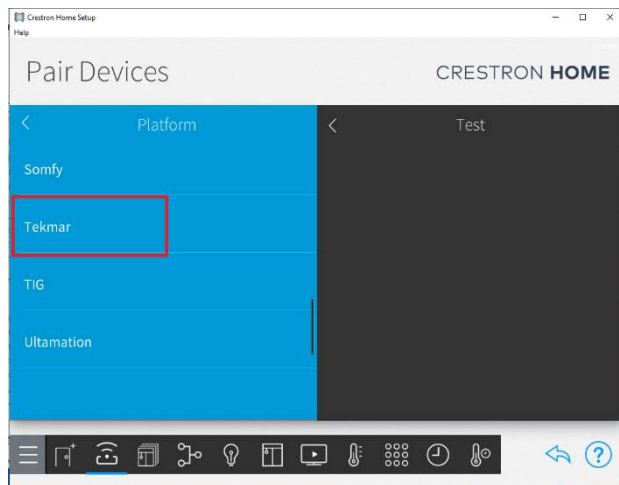
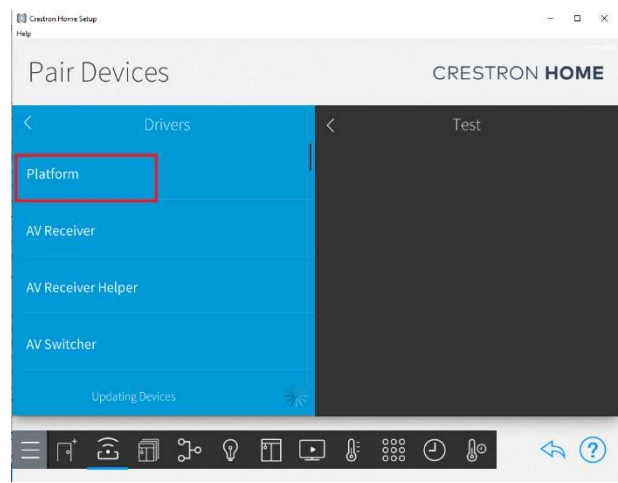
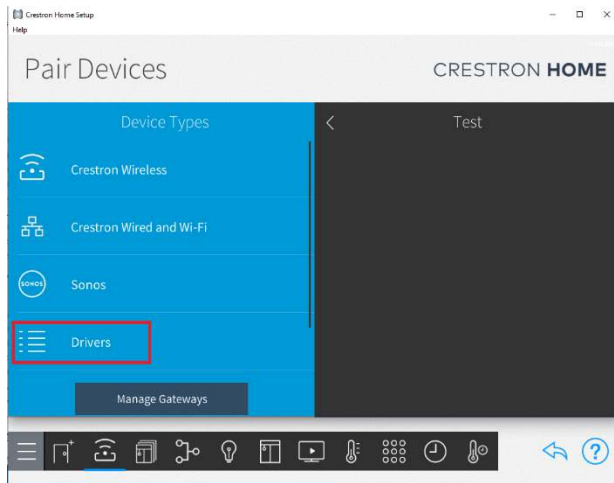
It is recommended that this extension not be installed until the Tekmar system is fully operational and function as desired.

System Requirements and Dependencies

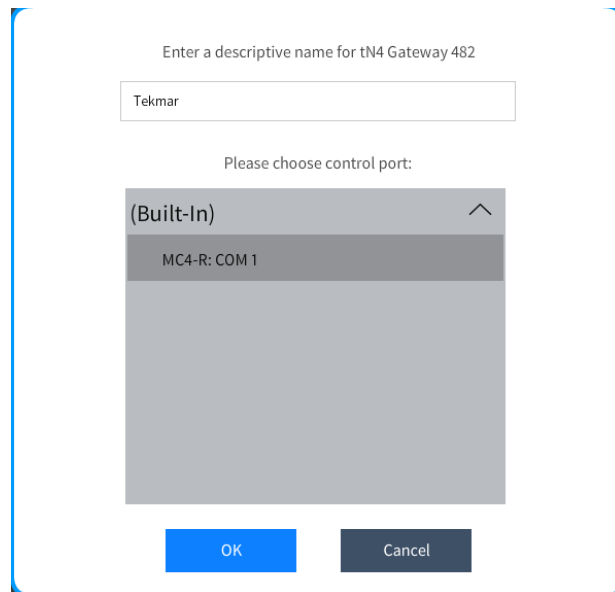
Crestron Home v3.011

Operation Installation/Upgrade Instructions

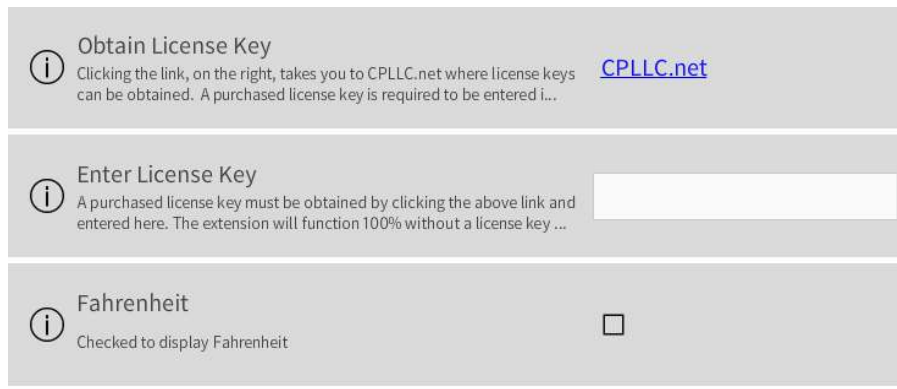
You can find the extension to install by selecting Drivers, Platform, Tekmar, tN4 Gateway 482.



After selecting the “+” to add the extension you will be prompted to enter a unique name and select where the RS232 cable is connected (see below)



After clicking the “OK” button the license key will be prompted for as below. Clicking on the CPLLC.net hyperlink will take you to the website to obtain the necessary license key. That obtained license key needs to be placed in the “Enter License Key” field. The extension will function 100% for two hours without a license key. Additionally if a site license has been acquired no additional keys will be necessary.

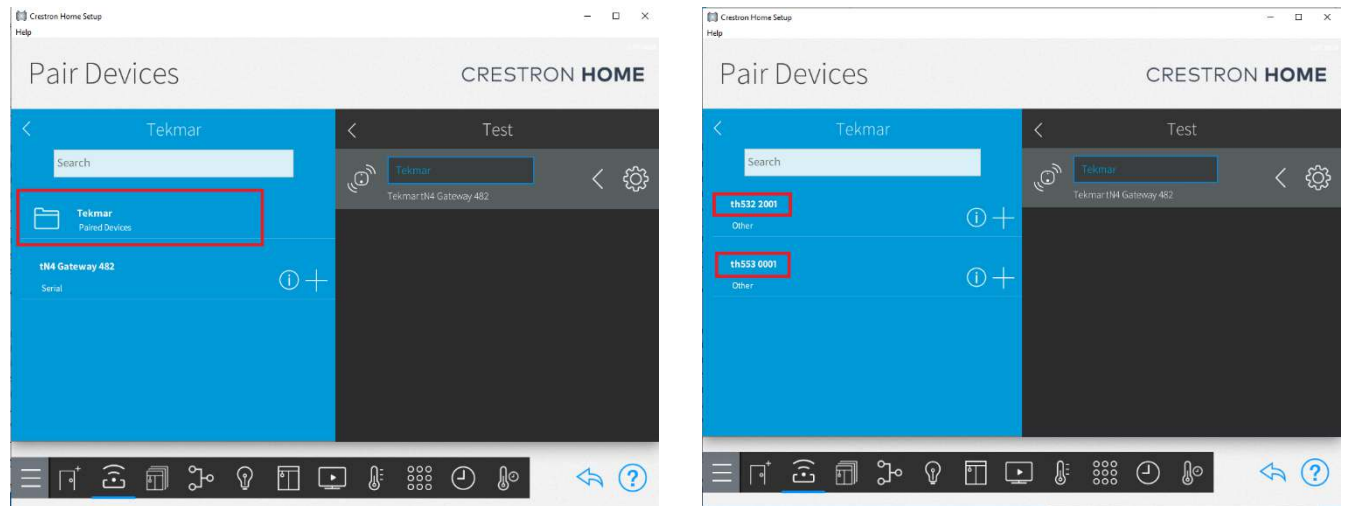


Once the above information has been entered and clicking on “OK”, the Tekmar 482 gateway will be polled to obtain a list of attached devices. Assuming no errors are encountered, a folder named the unique name entered above should display. This folder may take some time to populate depending on the number of attached devices. Any errors encountered will be documented in the processor’s error log. If the folder does not appear then errors have been encountered.

After the “Paired Devices” folder is created and by clicking on the folder a list of identified devices will be presented. The device type (i.e. TH553) and the device ID number (BBNN – Branch number (00-05) and device number (01-99) will be used as the unique identifier.

Clicking the “+” next each paired device will place that device into the specified room











There are three classes of paired extensions supported by the Tekmar extension.



- Thermostat – TH devices (th527, th528, th529, th530, th 532, th537, th538, th540, th541, th542, th543, th544, th545, th546, th552, th553, th554, th557)
- Setpoint Controller – SC devices (sc161, sc162)
- Snow Melt Controller – SM devices (sm654, sm670, sm671)

At present the Setpoint and Snow Melt controllers are currently not implemented.

Thermostat Installer Options

 Starting PIN Code Enter initial numeric PIN code. Leave blank to disable PIN.	<input type="text"/>
 Zone Name Name of Zone to display on the UI	<input type="text" value="th557 1001"/>
 Show on Home Screen Checked to show on Home screen	<input type="checkbox"/>
 Show in Room Screen Checked to show in Room screen	<input checked="" type="checkbox"/>
 Fahrenheit Checked to display Fahrenheit	<input checked="" type="checkbox"/>
 Show Humidity Feedback Checked if humidity feedback is to be displayed, if not leave unchecked.	<input checked="" type="checkbox"/>
 Show Fan Modes Checked if fan modes are to be displayed, if not leave unchecked.	<input checked="" type="checkbox"/>
 Maximum Temperature If current temp goes above this value an event will be triggered. Enter zero to turn off this feature.	<input type="text" value="0"/>
 Minimum Temperature If current temp goes below this value an event will be triggered. Enter zero to turn off this feature.	<input type="text" value="0"/>
 Maximum Demand Minutes If demand (i.e. cooling or heating) stays on longer than this value and event will be triggered. Enter zero to turn off this feature.	<input type="text" value="0"/>

Enter PIN Code – Enter the initial PIN code if being used. Leave blank to turn off PIN code.

Zone Name – Zone name to display on the thermostat control page.

Show on Home Screen – Checked if you want the extension displayed on the home screen. Leave unchecked if not

Show in Room Screen – Checked if you want the extension displayed in the room. Leave unchecked if not.

Fahrenheit – Checked if using the Fahrenheit scale. Leave unchecked to use Celsius.

Show Humidity Feedback – Checked if humidity feedback is to be displayed. Some thermostats have built in humidity sensors and if installed in another room would be incorrect humidity.

Show Fan Modes – Check if fan modes are to be displayed.

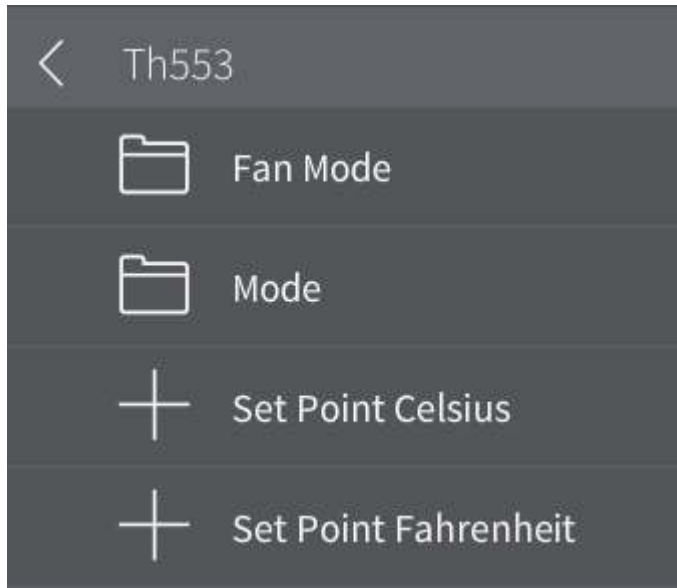
Maximum Temperature – Trigger an event if room temperature goes above this value. Leave 0 to turn off.

Minimum Temperature – Trigger an event if the room temperature goes below this value. Leave 0 to turn off.

Maximum Demand Minutes – Number of minutes, if exceeded, than heat/cool demand that will trigger an event.

The last 3 events can be tied to a Pushover notification, found here <https://cpllc.net/product/pushover-notification/> which could send a notice to your mobile device.

Thermostat Actions



Fan Mode – Select either AUTO or ON for the specific fan mode

Mode – Select ON, COOL, or HEAT for the specific thermostat mode

Set Point Celsius – establish set point value using the Celsius scale

Set Point Fahrenheit – establish set point value using the Fahrenheit scale

Thermostat Events



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Mode is Off
Mode is Cool
Mode is Heat
Mode is Auto
Demand is None
Demand is Cooling
Demand is Heating
Temperature is High
Temperature is Low
Demand is Excessive

Mode is Off – Thermostat has been turned off

Mode is Cool – Thermostat has been set to Cool

Mode is Heat – Thermostat has been set to heat

Mode is Auto – Thermostat has been set to auto

Demand is None – Currently there is no heating or cooling demand

Demand is Cooling – Cooling is being demanded

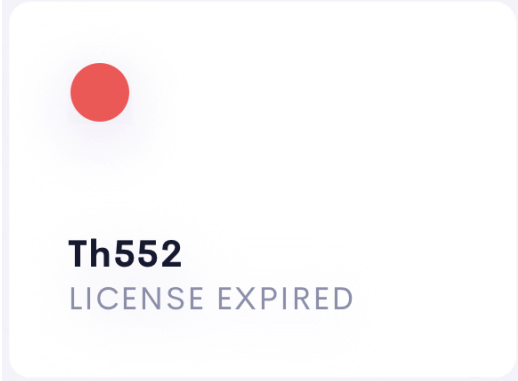
Demand is Heating – Heating is being demanded

Temperature is High – Current temperature has risen above the above installer setting

Temperature is Low – Current temperature has fallen below the above installer setting

Demand is Excessive – Demand for cooling or heating has lasted longer than the number of minutes in the installer setting

End-User Experience

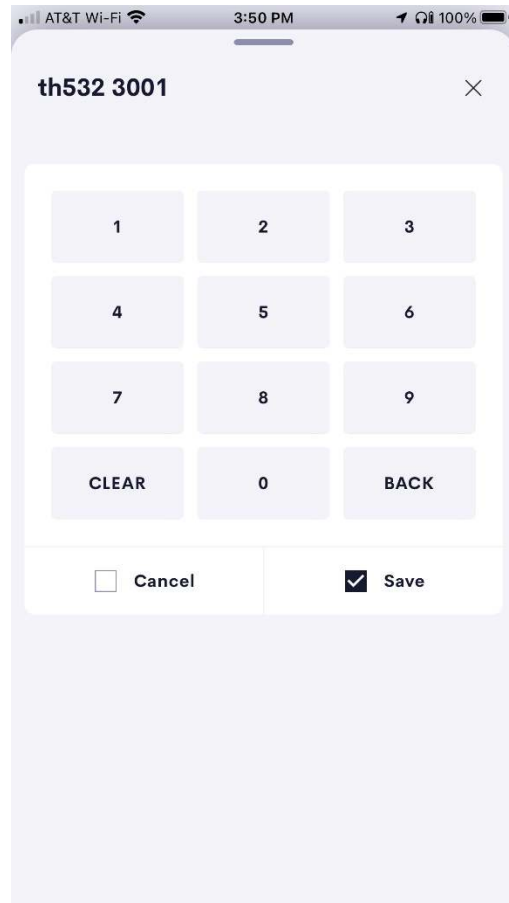
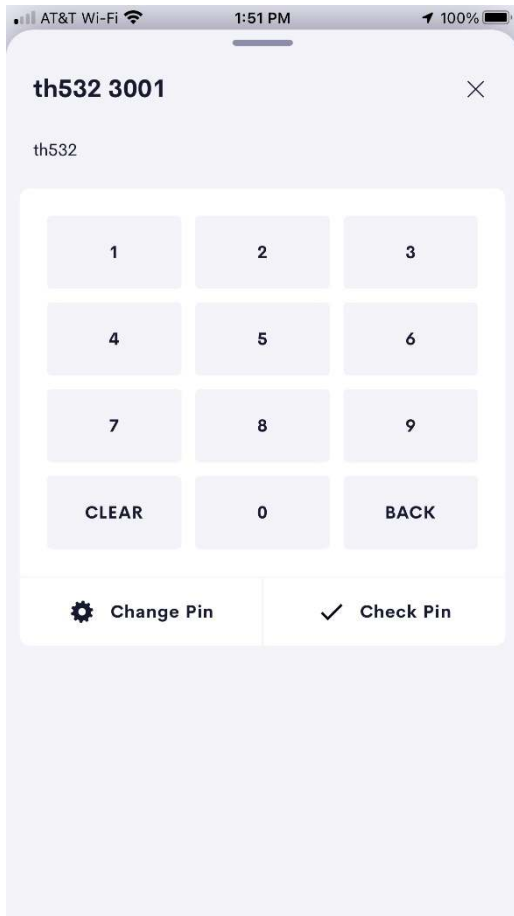


Should the extension be used for more than 2 hours without a valid license key being entered, all devices tiles will show as seen below.

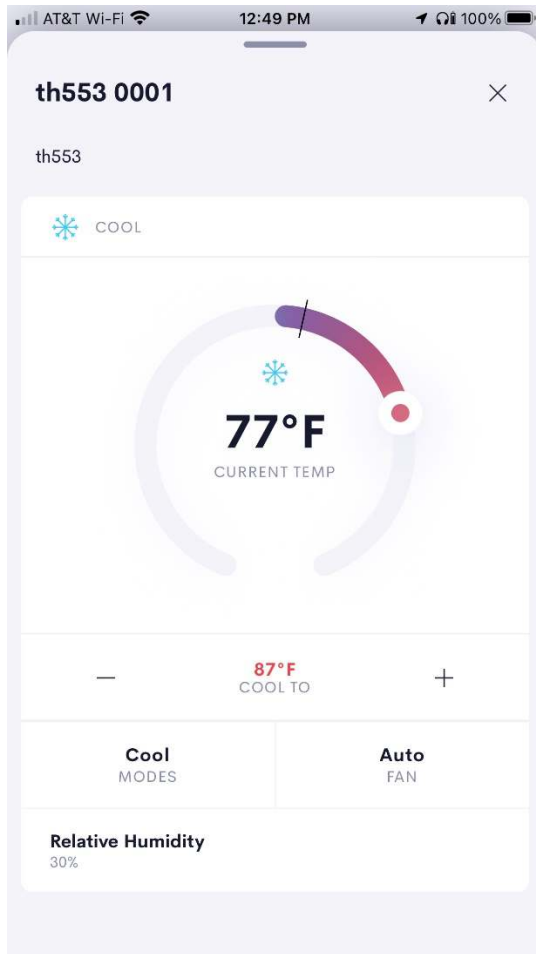
The various operation modes will be displayed as follows on the room/home tile:



From left to right, top to bottom: Cool, Cooling, Heat, Heating, Slab Heat, Slab Heating, and Off.



If an initial pin has been specified in the installer options, the left image will be displayed prior to the controls being displayed. As the pin is entered in, it will be displayed in the upper left hand just above the pin pad. There are two options once the pin has been entered. Pressing ENTER results in the pin being checked and if correct the control will be displayed. If CHANGE PIN is pressed, the image on the right will be displayed. A different pin can be entered and either CANCEL or SAVE is pressed. In either case the controls page will be displayed.



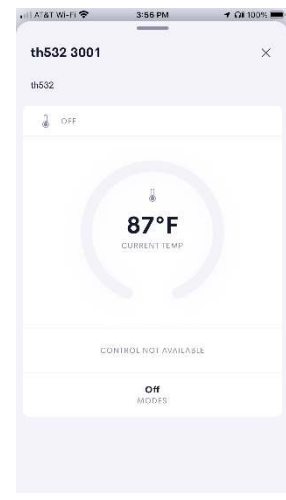
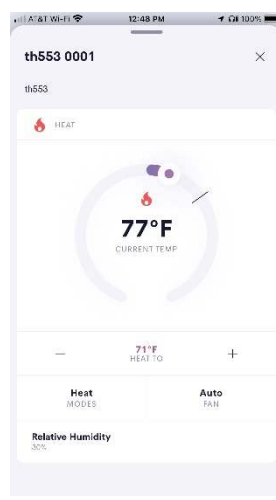
From this screen you can change the operating mode (off, cool, heat) and the fan mode (auto, on).

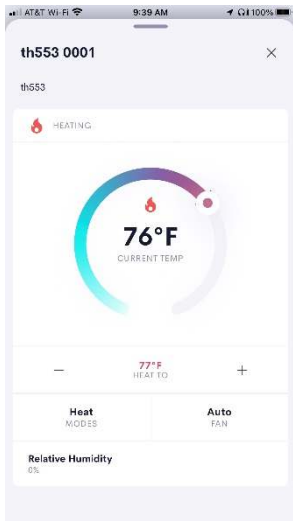
If in heat mode, you will have the ability to increment/decrement the heat setpoint.

If in cool mode, you will have the ability to increment/decrement the cool setpoint.

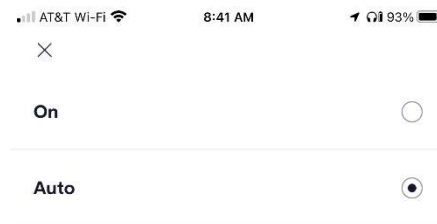
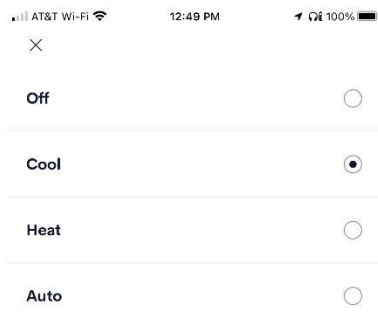
Depending on the device's configuration this will also be able to increment/decrement the slab setpoint.

Below are the various modes and feedback: Cool, Cooling, Heat, Heating, Slab Heat, Slab Heating, and Off





Below are the two selection screens for operating mode and fan mode:



Limitations/Known Issues

- No known limitations or issues

Supported Features

- Not applicable

Test Environment

- CP4-R and MC4-R
- Crestron Home v3.011

Contact Information

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- License Key: <https://cpllc.net/product/tekmar-482-gateway-platform/>

Version History

- | | | |
|------------|----------|--------------------------------------------------------------------------------------------------------------------------|
| 2023-04-04 | 2.00.006 | <ul style="list-style-type: none">• Added required CCD SDK JSON fields• Added Setpoint control UI |
| 2022-10-26 | 2.00.004 | <ul style="list-style-type: none">• Added overview paired extension |
| 2022-10-26 | 2.00.003 | <ul style="list-style-type: none">• Implemented new licensing and fixed a couple of issues |
| 2021-12-26 | 1.00.001 | <ul style="list-style-type: none">• Initial Release |

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