



HANGARBOT

HangarBot Thermostat INSTALLATION MANUAL DCN-8000-80-v1





HANGARBOT

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1. Introduction

The Hangarbot Thermostat allows you to adjust your Hangar's temperature so you can make your Hangar cooler or warmer to meet your heating and cooling needs even if you're away from the Hangar.

Included in the package:

1. Thermostat unit
2. Micro-USB Power Cord



Figure 1 Hangarbot Remote Thermostat

The Hangarbot Thermostat shown in Figure 1 can be controlled remotely with the Hangarbot App on your iPhone or can be manually controlled using the buttons on the front (See section 6)

The Hangarbot Thermostat is connected to Hangarbot App through the hangarbot HUB and enables the user to directly set the desired temperature from the App see Figure 2.

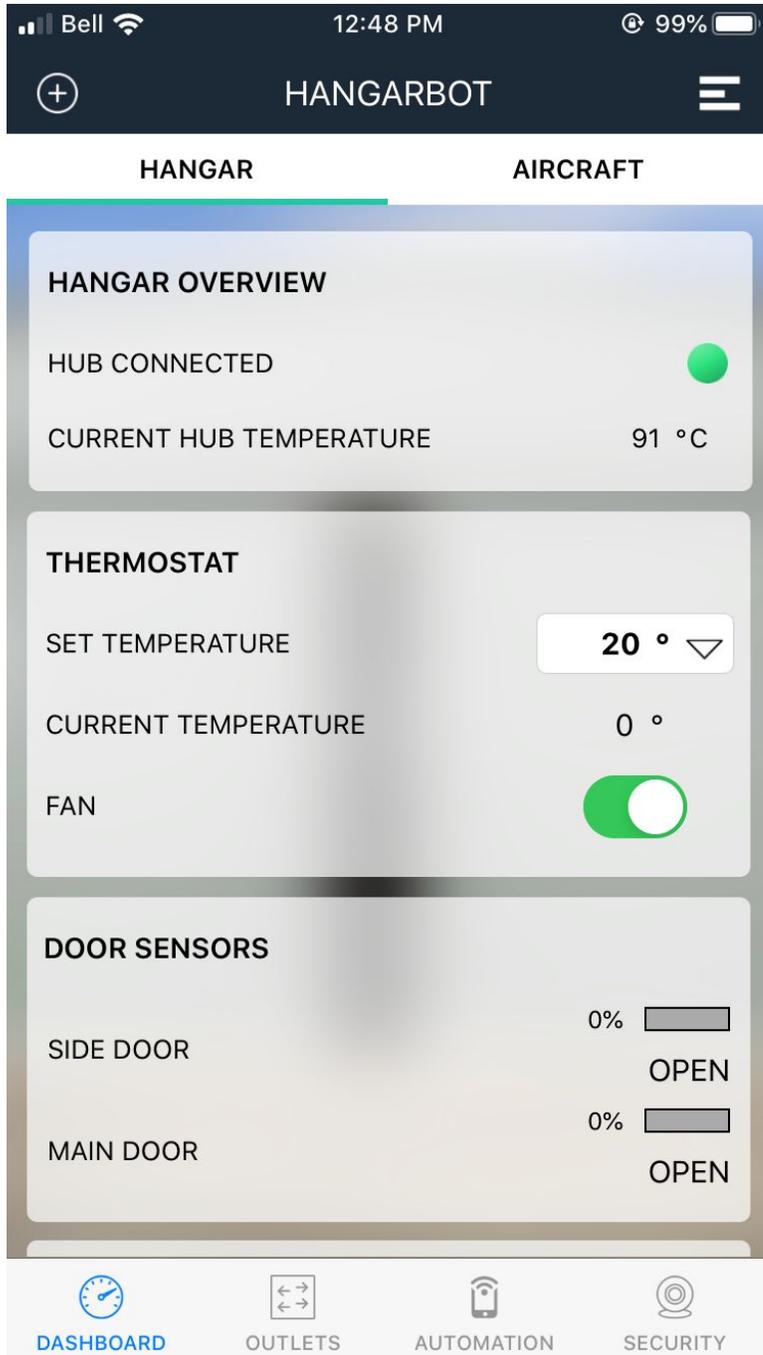


Figure 2 Hangarbot App DASHBOARD SCREEN



2. Thermostat Display

2.1 LCD Display Information

The Thermostat display has the following items displayed:

Current Temp:xx	Shows the current temperature
Target Temp:xx	Shows the desired temperature
P	shows the thermostat is not paired and ready to pair with the HUB
R	shows the thermostat is paired with the HUB



Figure 3 Hangarbot Display Screen

2.2 LCD Contrast Control

The Thermostat display contrast can be controlled by the contrast knob on the front of the thermostat as shown in figure 4 below

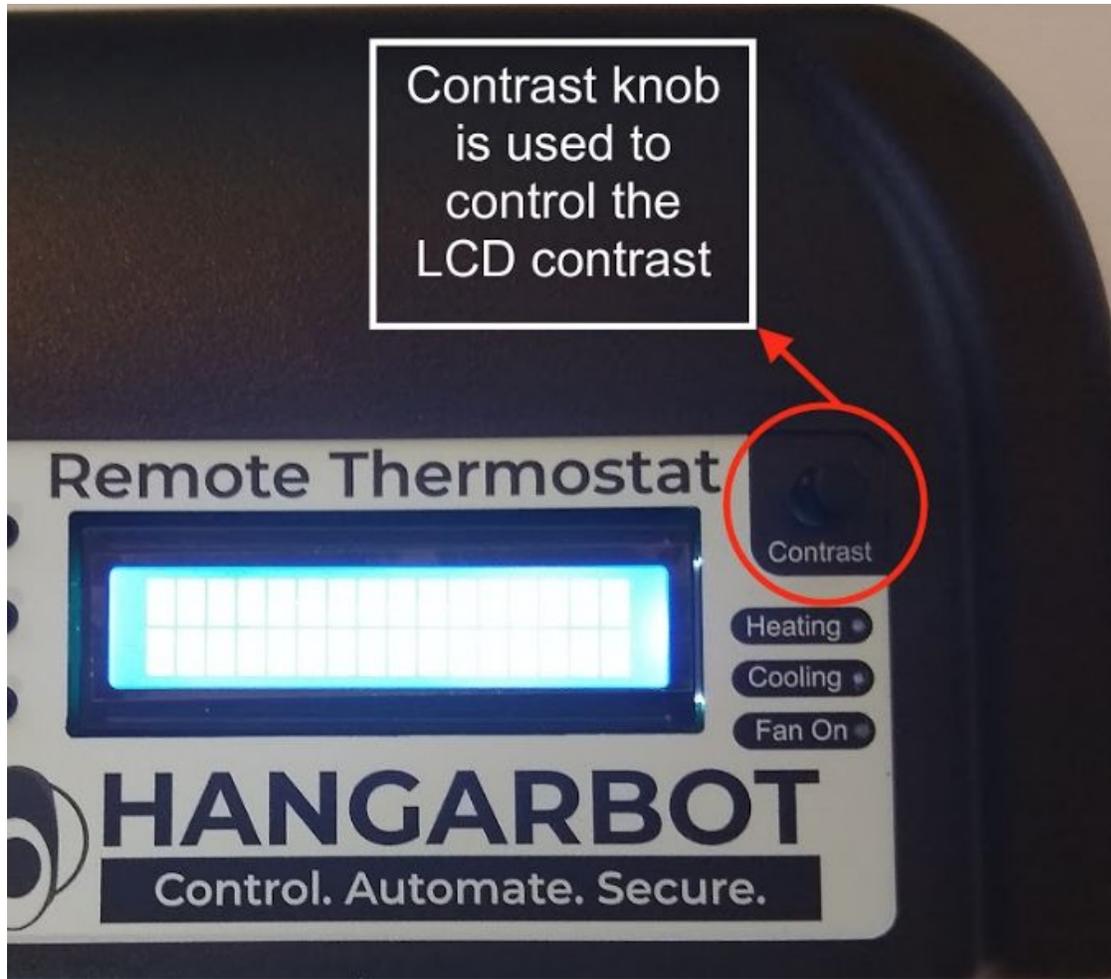


Figure 4 Contrast Knob to control the LCD contrast of the Thermostat



3. Installation

The wiring diagram below (figure 5) shows the general wiring configuration for internal power configurations.

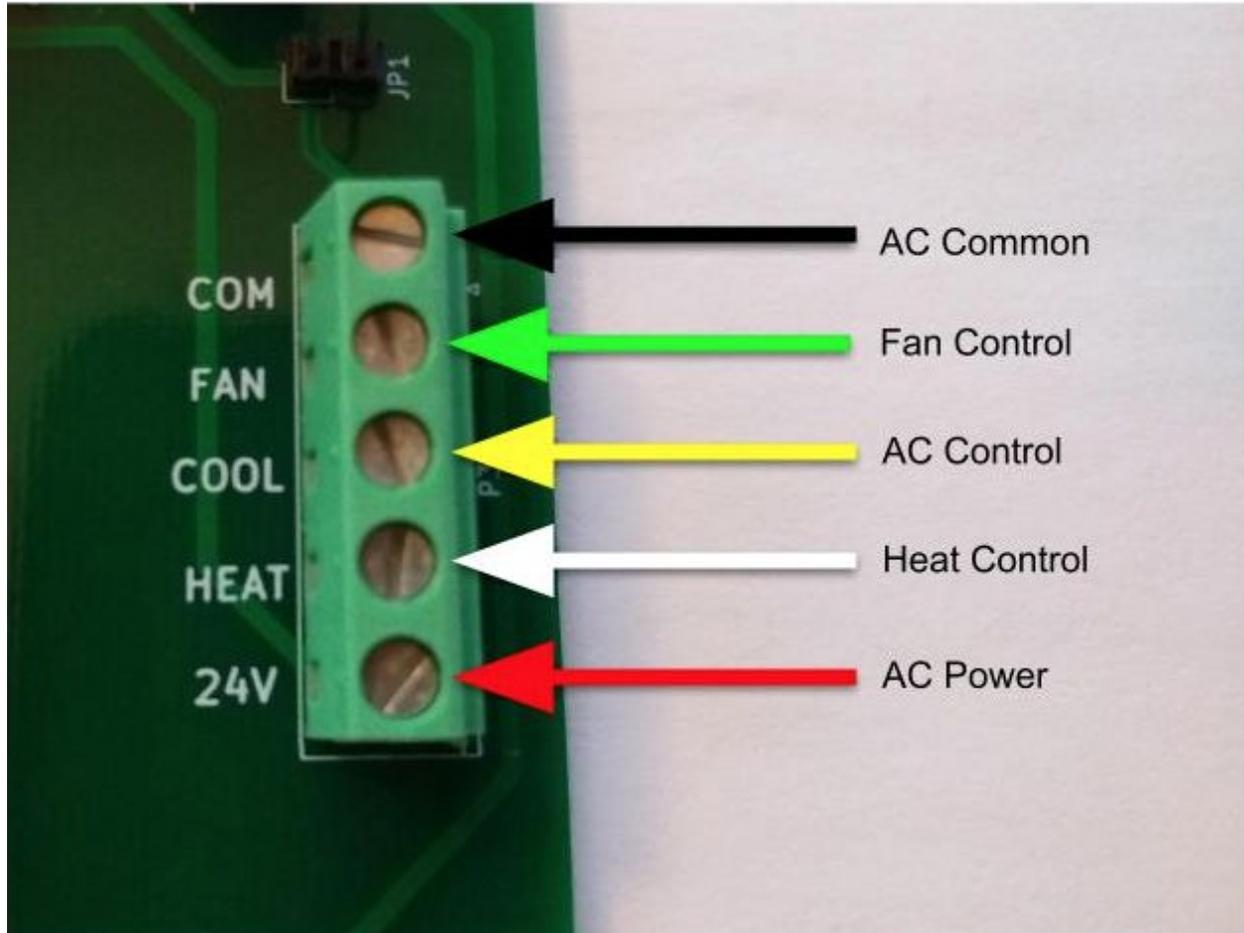


Figure 5 wiring diagram

The wiring diagram below (figure 6) shows the general wiring configuration for external power configurations.

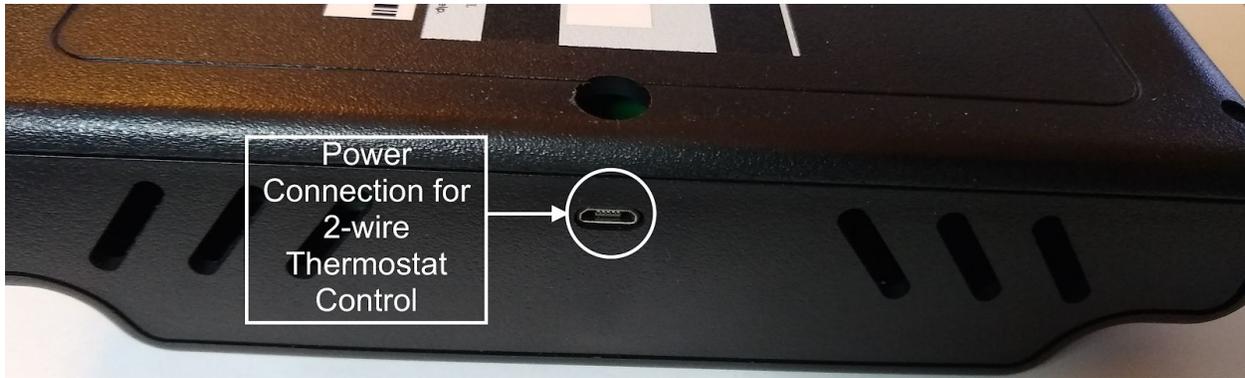


Figure 6 power connection for 2-wire thermostat control

4. Wiring Installation Steps- For Electrician/Installers

- a. Read all steps before starting.
- b. Disconnect power to the hangar HVAC unit.
- c. Remove the old thermostat and take a picture for reference before you disconnect the wires.
- d. Now disconnect the wires from the old thermostat.
- e. Identify which group wires are present
 - i. If there are two wires the proceed to section 4.1
 - ii. If there are black, green, yellow, white, and red wires proceed to section 4.2
- f. Remove the top cover of the thermostat by removing the four screws form the back cover
- g. Be very careful not to disturb the USB connector
- h. Feed those wires through the access hole, shown in figure 7 below, on the back of the Hangarbot thermostat.



Figure 7 Thermostat Wiring Access Port



4.1 Two wire installation

- i. Locate the green multi terminal connector block on the right hand side of the PCB board. See figure 6
- j. Route the red and white wires under the PCB board over to the connector
- k. Connect the red wire that was connected to the old thermostat to the terminal labeled 24V. See figure 6.
- l. Connect the white wire that was connected to the old thermostat to the terminal labeled HEAT
- m. Connect power to the USB connector of the Thermostat using the included power adapter. See figure 8.

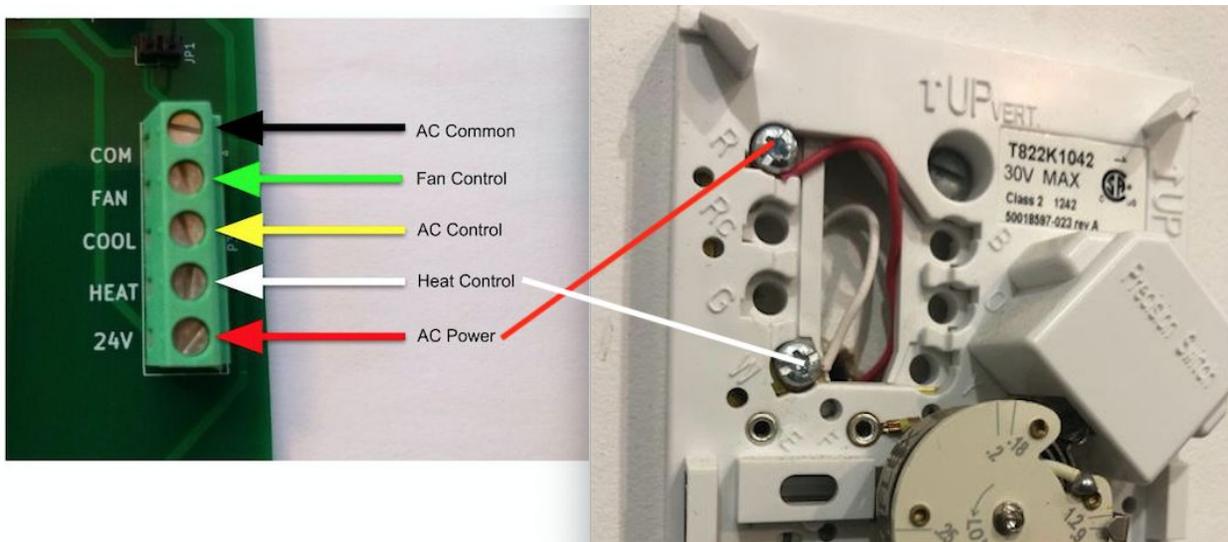


Figure 8 Two wire connection diagram



5. Housing installation

- n. If you have a metallic surface that is not aluminum, mount the thermostat using the magnets on the back of the unit
- o. If the hangar walls are not metallic or if they are aluminum, use the keyholes shown below:



Figure 9 Thermostat base



6. Operation

6.1 Cooling Control operation

6.2 Heating Control operation

6.3 Fan Control operation

The Hangarbot Thermostat can be controlled manually using the 3 button on the left of the LCD as shown in Figure 10 below.



Figure 10 Hot/Cold/Fan buttons for manual control of the Thermostat



6.4 Thermostat Indicators

a. Pairing indicators

When the Thermostat power up for the first time, the pairing indicator will display letter 'P'. Meaning the Thermostat is ready to pair with the HUB.

Once the Thermostat is paired with the HUB see section 7 below the pairing indicator will display 'R'. Meaning the Thermostat has been successfully paired. See figure 10

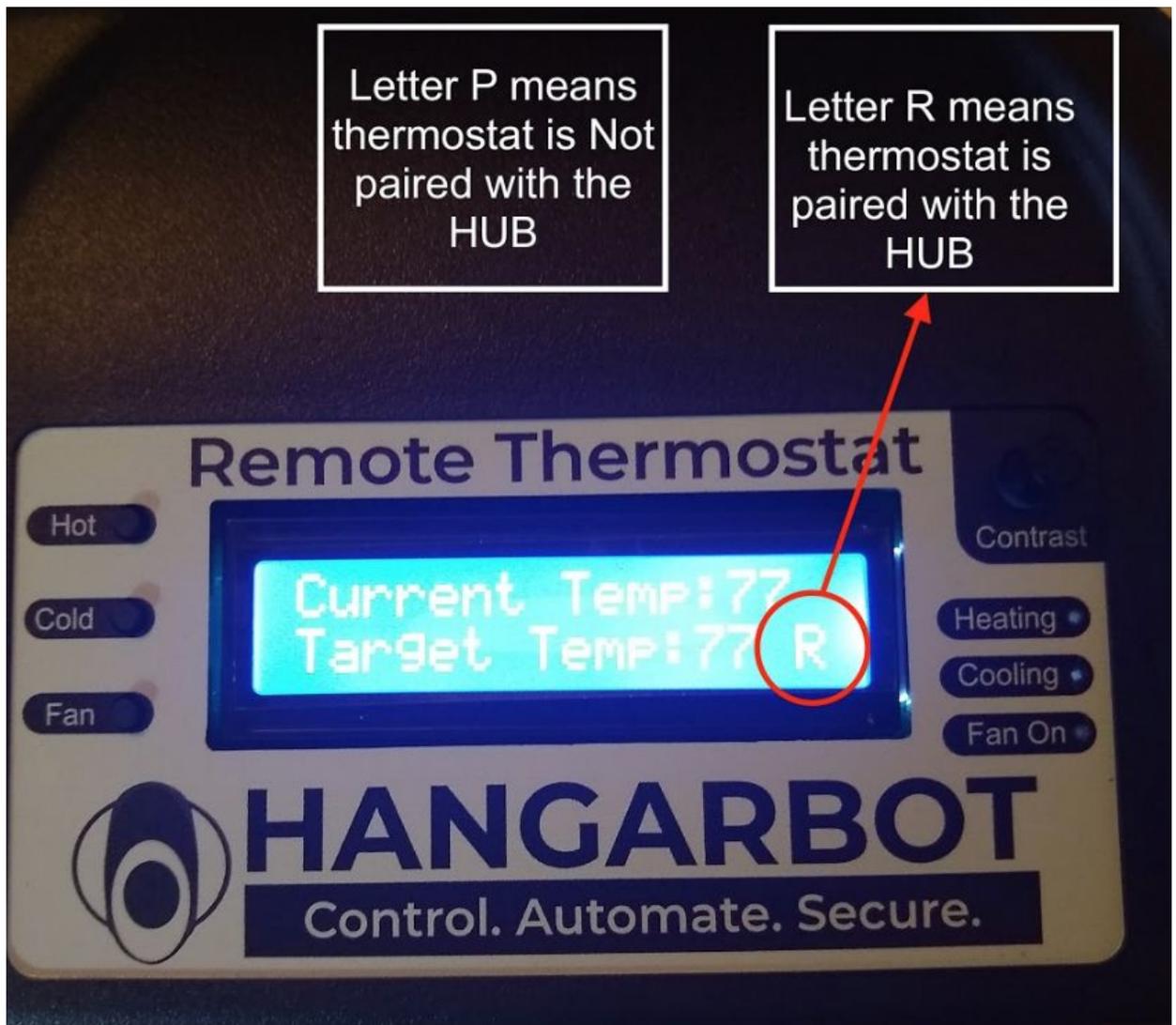


Figure 11 Pairing indicator shown on the screen



b. Cooling Indicator

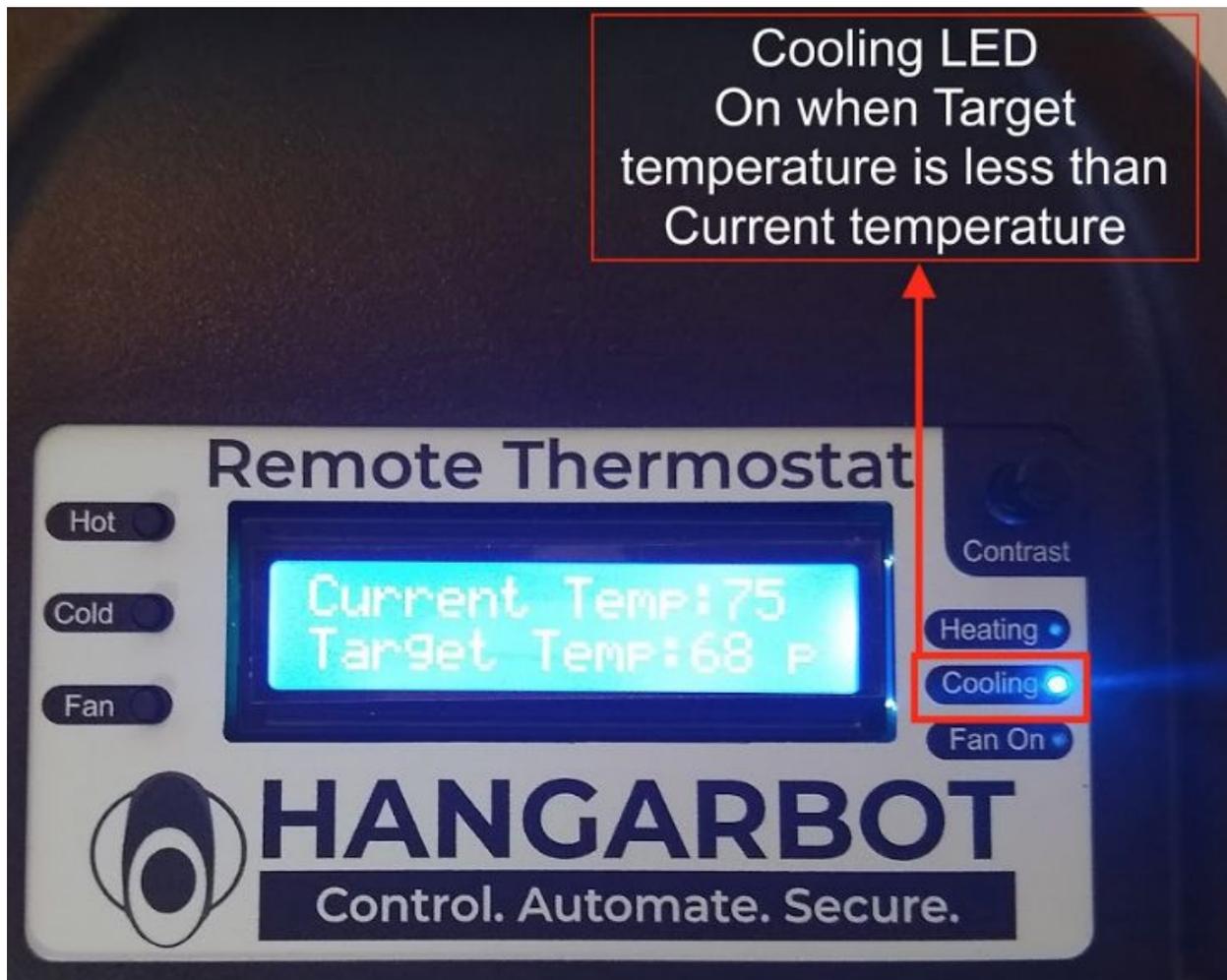


Figure 12 Cooling LED indicator



c. Heating Indicator

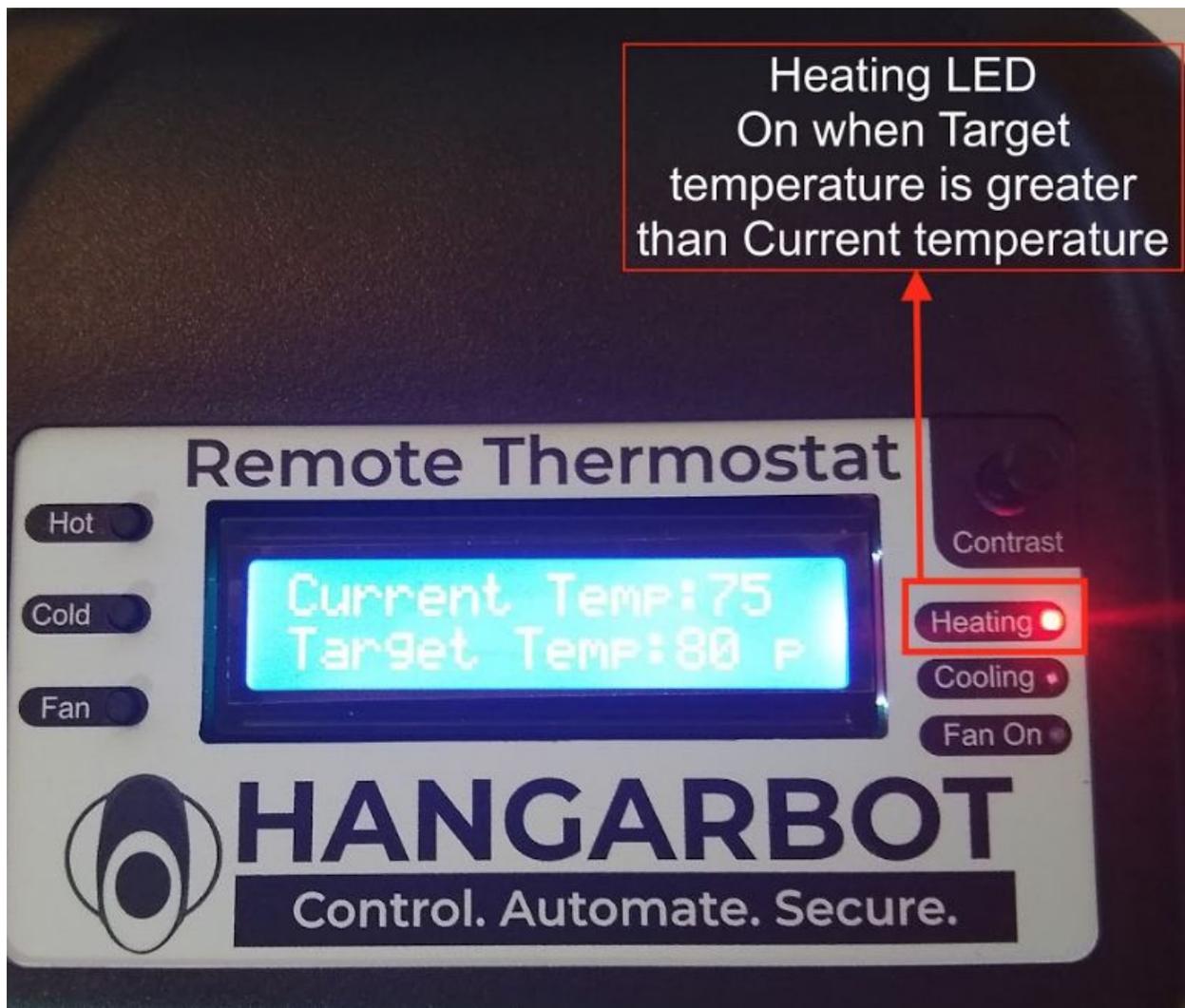


Figure 13 Heating LED indicator



d. Fan On Indicator

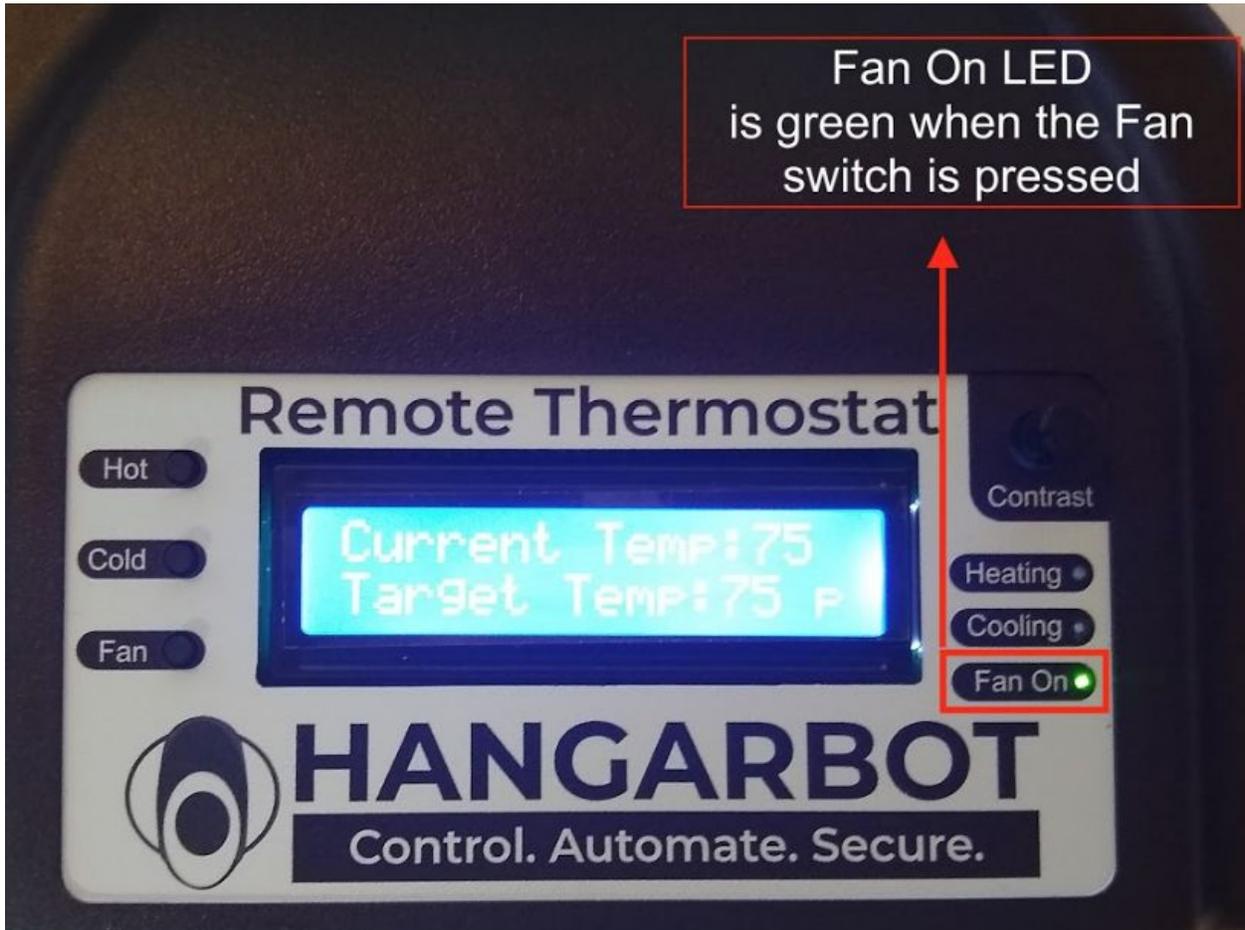
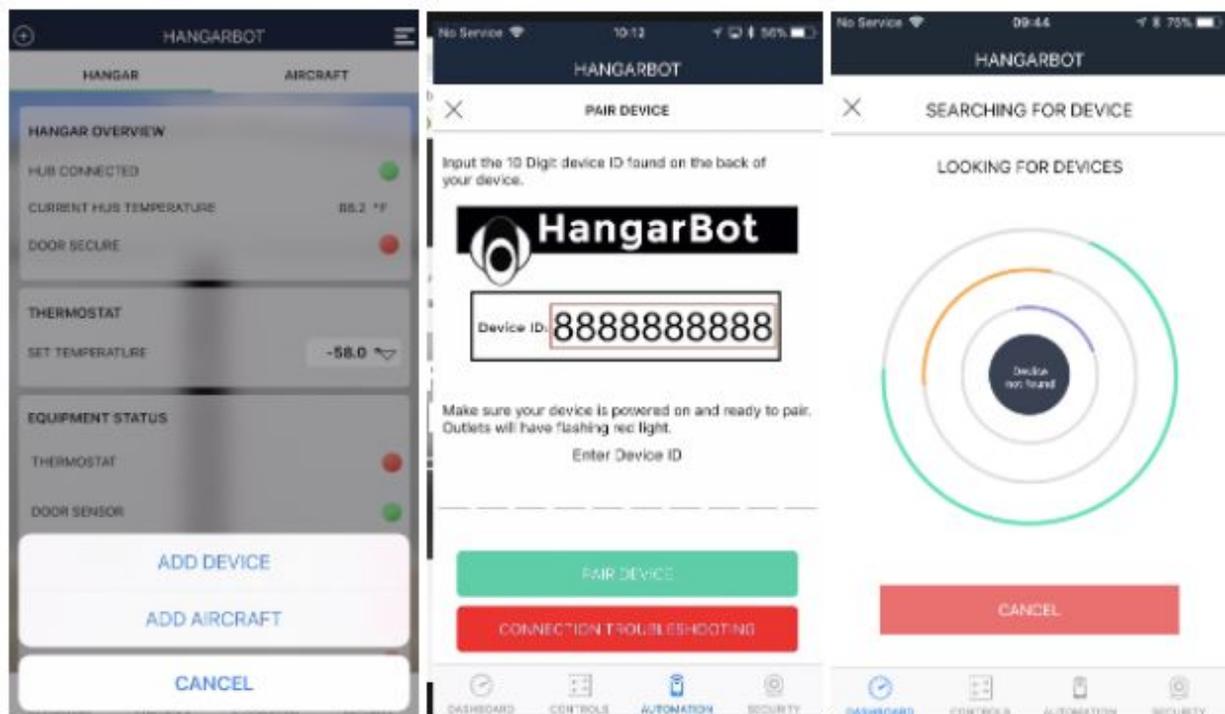
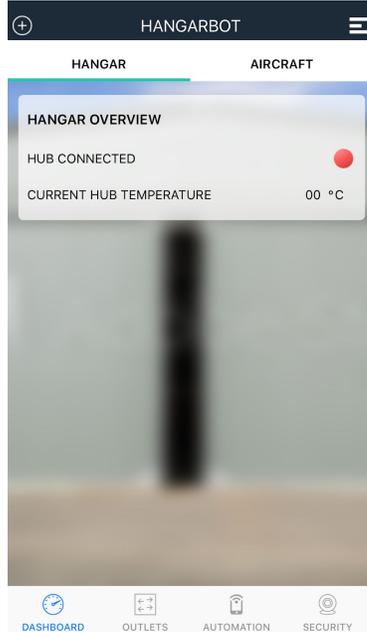


Figure 14 Fan On LED indicator



7. Thermostat Pairing using Hangarbot App

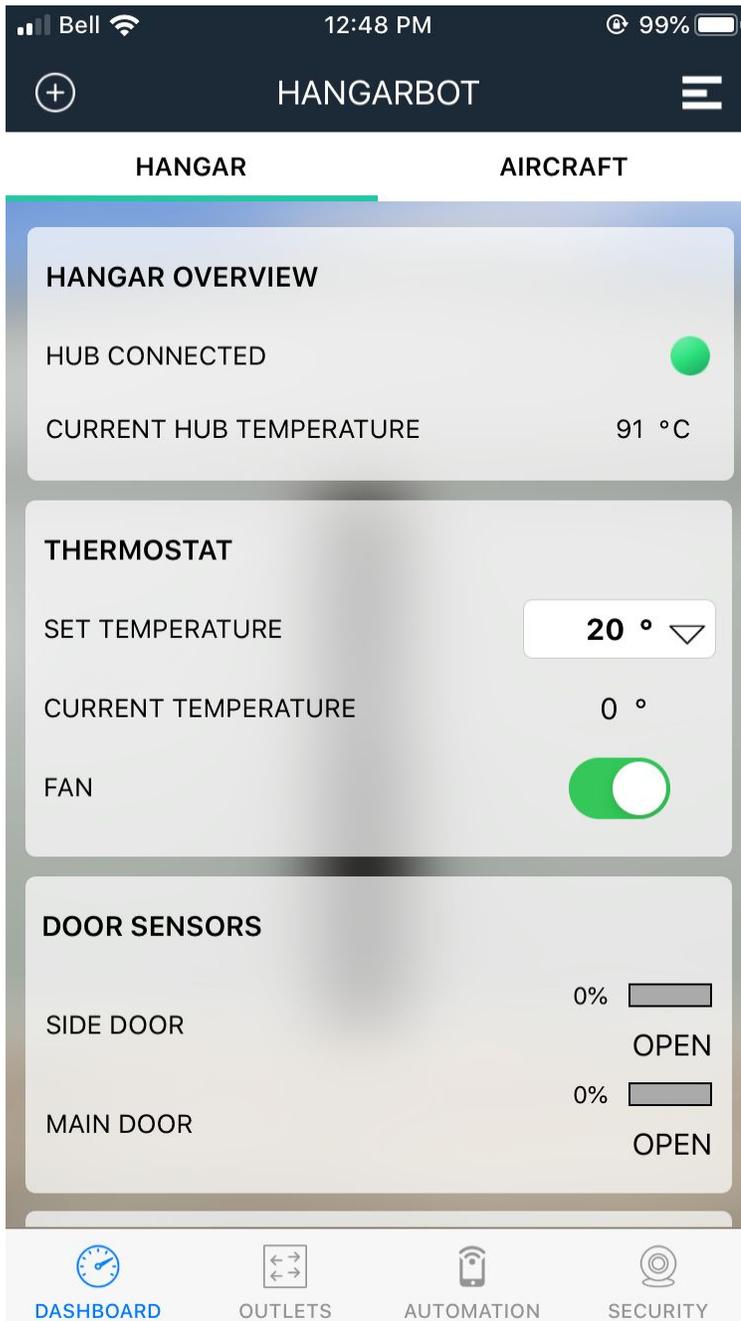
- p. Add Thermostat
 - i. Add a new device under “DASHBOARD” or “CONTROLS” or MENU option
 - ii. Type in the device id found on the back of the door controller:



- q. Go to DASHBOARD option in the app



r. You should have the following options:



s. Test SET TEMPERATURE to ensure the thermostat installation is done correctly



8. Recommended Tools/Supplies

- t. Phillips Head/Flathead screwdriver
- u. 22 AWG gauge wire
 - i. Prefer green, yellow, red, and black
- v. Wire Stripper
- w. Terminal wire connector
- x. Drill if necessary

9. Specifications

Operating Temperature	-4°F to 118°F (-20°C to 48°C)
Dimensions L x H x W	7.5 x 5 x 1.75 in. (12.7cm x 19.1cm x 4.4cm)
Weight	300g
External Input Voltage	5V @ 500mA
Internal Input Voltage	24VAC max
Maximum Current Draw	150mA
Relay Ratings	10A @ 250VAC max

10. Support

For Installation help please contact HangarBot Support at support@hangarbot.com or call (727) 900-6911