

# **INSTRUCTION MANUAL**

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# DISCLAIMER AND WARRANTY

### DISCLAIMER

By using the CoolBot Pro temperature controller, you (the "User") acknowledge there are inherent hazards in getting an air-conditioner ("A/C") to do something it was not originally designed to do, and that these inherent hazards cannot be ameliorated, mitigated or obviated while still maintaining the essential functionality of the CoolBot Pro. User accepts all responsibility in the use of and monitoring of the CoolBot Pro and A/C. User assumes all risk of loss of property or product due to improper functioning of the CoolBot Pro (or A/C). User assumes all risk of injury and warrants that he/she will defend, indemnify and hold the seller harmless for any direct or consequential harm or damage that may result from the use of this product. Users that don't accept this responsibility must return the CoolBot Pro for a FULL REFUND before use.

**LIMITED WARRANTY:** The CoolBot Pro is warranted against defects for 1 year, not including damage due to misuse or accidents. To double the warranty on your CoolBot Pro see page 24 for details.

HAPPY CUSTOMER GUARANTEE: Return the CoolBot Pro in its original condition within 45 days if you are not fully satisfied for a full refund (shipping not included). Credit only given if you email us at support@storeitcold.com or call 888-871-5723 before shipping.

# WHAT'S IN THE BOX?



- (1) CoolBot Pro Patented Digital Temperature Controller
- (1) CoolBot Jumper Wi-Fi Radio Signal Module
- (2) Temperature Sensors Sensor Cables (Blue) with external 2.5mm jack connector
- (1) Heater Cable CoolBot Heater Cable (Red Tip) with external 2.5mm jack connector
- (1) Data Cable Data Transfer Cable (Silver or Gray) with RJ11 connector on both ends
- (1) Power Supply Mini-USB port connector cable. Input: 110V-240V / Output: 5V, 1Amp
- (1) CoolBot Pro Quick Start Set Up Guide 4 pages

# KNOWING YOUR COOLBOT PRO



FIG 1

#### DISPLAY:

The display changes depending on which Mode Indicator Light is illuminated.

#### MODE INDICATOR LIGHT:

Shows which mode you are currently using. Change modes by pressing the left or right arrows.

**Room Mode**: While in **normal operation**, the display shows the current room temperature and the Room Mode Indicator Light is solid (no blinking).

**Fins Mode**: From the Room Mode, press the right arrow once to access the Fins Mode. The light above "Fins" will turn on solid (no blinking). The display will show the current fins' (A/C's coil) temperature.

**Heater Mode**: From the Room Mode, press the right arrow twice to access the Heater Mode. The light above "Heater" will turn on solid (no blinking). The display will show an "F" for Fahrenheit or a "C" for Celsius.

**Program Mode**: From the Room Mode, press the right arrow 3 times to access the Program Mode. The light above "Program" will turn on solid (no blinking). The display will show a number (e.g. 7.8), which will be the firmware version on your CoolBot Pro.

**POWER INDICATOR LIGHT:** This light is constantly on (solid), as long as your CoolBot Pro is plugged in and getting the correct power supply (110V-230V).

**HEATER ACTIVITY INDICATOR:** When the CoolBot Pro is "calling for cooling" this light will **blink slowly**. It will stop blinking if the room temperature has reached the "set point" or the fins are reaching the freezing set point.

#### INPUT TOUCH KEYS

CHECKMARK KEY: Press to enter the setup menu, save values, and exit each particular mode. RIGHT ARROW KEY: Press to move the Mode indicator light in between modes from left to right. LEFT ARROW KEY: Press to move the Mode indicator light in between modes from right to left.

**ROOM AND FIN SENSOR CABLES:** These two cables **are interchangeable**. They monitor the room temperature and the A/C's fin temperature.

**DATA CABLE**: This cable connects your CoolBot Pro and your Jumper.

**HEATER CABLE:** This cable (red tip) heats up the A/C's temperature sensor when cooling is needed.

**POWER CORD**: This standard Mini USB cable brings power to your CoolBot and the Jumper.

JUMPER: This is a radio signal device that connects your CoolBot to your Wi-Fi and to the Internet.

WI-FI STATUS: Flashes when a message has come in from the server - from the Internet.

**DATA STATUS**: Flashes when data is received from the CoolBot Pro controller.

# HOW DOES THE COOLBOT PRO WORK WITH YOUR A/C?

The CoolBot Pro uses 2 temperature sensors (ROOM and FINS), the HEATER cable (red tip) and a programmed microcontroller to direct your air conditioner to operate in such a way as to cool the room to a set temperature in between  $33^{\circ}F/0.5^{\circ}C$  and  $65^{\circ}F/18^{\circ}C$  without freezing up.

### How does it do this?

The HEATER cable (red tip) is keeping your A/C's sensor warm to make the A/C "think" it is warmer than the actual room temperature. By doing this, the compressor on your A/C keeps running and cools down the space.

The ROOM and the FIN sensors tell the HEATER when to stop running. When the HEATER turns off, the A/C's sensor cools down and shuts off the compressor in response.

If the room temperature reaches the set value, the HEATER will stop running. Your A/C's Temperature sensor will cool down and shut the compressor off.

If the fins of your A/C are reaching the freezing set point (33°F factory default), the HEATER will stop running. Your A/C's Temperature sensor will cool down and shut the compressor off to allow for a defrost cycle. This is normal even if the room has not reached its set point.

A **slowly blinking Heater Activity Light is completely normal** during operation. It indicates that the CoolBot is "Calling for Cooling and the Heater Cable is getting hot.

The defrost cycle of the A/C does not use heat; it defrosts by turning your compressor off and circulating air over the frosted coil.

# HOW DOES THE JUMPER WORK WITH YOUR COOLBOT PRO?

The Jumper is the "middle man" in between your CoolBot Pro controller and your Wi-Fi Network. It allows the **CoolBot Pro App** to receive data from the controller and vice versa. The **Jumper does not need batteries**. It gets power through the Data Cable from the CoolBot Pro controller.

**IMPORTANT!** 

An available Wi-Fi Network is required for the Jumper to operate. Mount the Jumper **outside** of your cooler in a place where you have a strong Wi-Fi signal. Connect your Jumper to the CoolBot Pro using ONLY the supplied Data Cable.

**NOTE**: The CoolBot Pro can still work to cool your room **without the Jumper**. Just install the CoolBot Pro **without** the Data Cable and without the Jumper connected to it. Your CoolBot Pro will keep your cooler cold but you won't be able to access data or change settings from the CoolBot Pro App.

# BEFORE INSTALLING YOUR COOLBOT PRO

- Should I read this manual? Yes! We highly recommend reading this manual entirely to familiarize yourself with the new CoolBot Pro, with the CoolBot Pro App, and to ensure proper installation.
- What if I don't have Internet <u>OR</u> Wi-Fi? No problem! You can still use the CoolBot Pro without the CoolBot Jumper and without a Wi-Fi connection just like the previous generation CoolBots. <u>Go straight to</u> the "INSTALLING YOUR COOLBOT PRO TO YOUR A/C" Section of this manual (page 9). NOTE: Your CoolBot Pro will keep your cooler cold but you won't be able to access data or change settings from the CoolBot Pro App.
- I have an Internet connection <u>AND</u> Wi-Fi. Awesome! Then you will enjoy all of the benefits of the CoolBot Pro and its App. <u>Start with</u> "CONNECTING YOUR COOLBOT PRO TO YOUR WI-FI NETWORK" Section of this manual (page 8) and then move to the "INSTALLING YOUR COOLBOT PRO TO YOUR A/C" Section of this guide (page 9).
- I am replacing my existing CoolBot with the new CoolBot Pro. No biggie! To ensure your cooler will continue performing just as well as always grab a pen and write down the settings from your old CoolBot:
  - ✓ Room Set Point: \_\_\_\_\_ Push either arrow key on your CoolBot until the Room Mode light is lit. Press the checkmark and the current setpoint will blink.
  - ✓ Fins Setting: \_\_\_\_\_ Push either arrow key on your CoolBot until the Fins Mode light is lit. Press the checkmark and the current Fins Setting will blink.
  - ✓ Heater delay: \_\_\_\_\_ Push either arrow key on your CoolBot until the Heater Mode light is lit. Press the checkmark three times and the current Heater Delay Setting will blink.

Please go through the following checklist before installing your CoolBot Pro:

### □ The A/C Unit:

- □ Has digital display only.
- Has Automatic Restart.
- □ Is properly sized in BTUs. To check A/C sizing visit: <u>https://www.storeitcold.com/support</u>
- □ Is a recommended model. To check A/C compatibility visit: <u>https://www.storeitcold.com/support</u>

### □ The A/C is installed:

- □ High up on the cooler wall (bottom of the A/C above 5 feet/1.5 meters).
- On a short wall if it is a rectangular room.
- □ Tipped backwards (about 1 inch) and level from side to side to allow for proper draining.

### □ The Room:

- Ceiling and walls are insulated to R25 using Rigid Foam or Spray Foam (**NO fiberglass batt** insulation!).
- □ Seams, corners and door gaskets are tightly sealed.
- □ Is airtight. When I close the door of my room (standing inside), I see no light through any cracks.
- □ Floor is insulated (only if it's a mobile cooler, trailer, container, deck, raised floor, or if trying to cool below 38°F/3°C).

# INSTALLING YOUR COOLBOT PRO

Watch our CoolBot Pro Installation Video at <u>www.storeitcold.com/support</u>

# CONNECTING YOUR COOLBOT PRO TO YOUR WI-FI NETWORK

#### IMPORTANT

A Wi-Fi with Internet connection is required in order to access and use the CoolBot Pro App

### CoolBot Pro and CoolBot Jumper Set Up

- STEP 1Unpack the CoolBot Pro in an area with good Wi-Fi reception (outside of your cooler). Plug in the<br/>Temperature Sensors and the Heater Cable into the corresponding ports (See diagram on page 11). Don't<br/>connect the cables to your A/C and don't plug in the power supply.
- STEP 2 Connect the CoolBot Jumper to the CoolBot Pro using ONLY the provided silver/grey Data Cable. The provided Data Cable is specific to the CoolBot Pro/Jumper standard phone cable will not work and may damage your CoolBot Pro/Jumper.
- **STEP 3** In an area where your PC or phone gets good Wi-Fi reception, **plug in the CoolBot Pro's Power Supply.** You should see codes and flashing mode lights for several seconds. These should settle down to one flashing Program light, and the **code "EO"** alternating with the current room temperature.

# Wi-Fi Configuration and Web App Set Up

**STEP 4** Start the CoolBot Pro App by scanning the QR Code on your smartphone or go to the web page <u>https://cb.storeitcold.com</u> on a device that has Wi-Fi (PC, tablet, phone, etc.).



- STEP 5 On the first screen, fill in your email address, create a password and select "Create New Account". The email address will be used for notifications, as well as to link your data to your account.
- STEP 6 Continue to follow the prompts. The App will guide you through configuring the CoolBot Pro to talk to the CoolBot server using your Wi-Fi Network. When prompted, you will need to change the Wi-Fi settings on your device (PC, Tablet, Phone, etc.) to connect to the Wi-Fi Network called "CoolBot". On most smartphone use Settings > Wi-Fi and on most PCs use the network or Wi-Fi status icon.
- STEP 7 Choose or type in the Wi-Fi Network you want the CoolBot to use. This is usually the same network your phone uses, but it can be a different network if you prefer. Enter the Wi-Fi password for the network and press Next.
- **STEP 8** Once the CoolBot Pro is connected to the Network, you should see **no codes (and no flashing)** on the CoolBot Pro display. If your device did not automatically switch back to your usual Wi-Fi settings use the method outlined in STEP 6 to switch them back. You should now see temperatures on the app.
- STEP 9 Press the "Refresh" button on your browser screen. You should now see temperatures on the app. You are all set up! Unplug your CoolBot Pro from the power supply and proceed to "INSTALLING YOUR COOLBO PRO TO YOUR A/C" Section of this guide (p.9) and then to THE COOLBOT PRO APP Section (p.13) to learn about the amazing features of your web base app.

### IMPORTANT!

If you ever need to adjust the Data Cable or CoolBot Jumper placement, unplug the CoolBot Pro before connecting or disconnecting the Data Cable.

### **INSTALLING YOUR COOLBOT PRO TO YOUR A/C**

#### ATTENTION!

We understand how important this investment is for you, and we understand the value behind the product that you will store in your cooler. We highly recommend that you read your A/C and CoolBot Pro installation manual, follow the setup guide step by step, and familiarize yourself with the use and troubleshooting of the CoolBot Pro as well as your A/C unit.

After installing your CoolBot, we strongly advise you to run your cooler for a test period (at least 24 hours) and place some buckets of water or non-perishables to add mass. This is to assure the system is performing correctly and to your needs.

If you are installing your CoolBot Pro to a **Mini Split air conditioner system** please use this step by step guide **along** with our Mini Split Installation Guide available at our **library** at: <u>www.storeitcold.com/support</u>

**STEP 1** Plug the cables into the corresponding labeled ports at the bottom of the CoolBot Pro **except** for the Data Cable.

Plug the cables in and out a couple times as sometimes they don't "seat" all the way the first time. If you are replacing an existing CoolBot with removable Temperature Sensors and Heater Cables, you can leave them in place and connect them to the CoolBot Pro. The CoolBot Pro works with both black and blue Temperature Sensor Cables.

The Room Sensor should hang free in the room.

**STEP 2** Mount the CoolBot on the wall next to the control panel side of the A/C to make it easier to connect the cables.

**CAUTION**! Make sure the wall fasteners are smaller in diameter than the hole in the CoolBot Pro tabs or you will break the plastic tabs.

STEP 3 Remove the air filter from the front of the A/C unit. DO NOT use it! The filters drastically reduce cooling power and increase your chances of icing up.
Clean your fins two times a month. Remove the plastic grill if you can. Some A/C units have a "fresh air vent" tab. This allows some mix of outside air inside the room. If applicable, make sure it is closed. **STEP 4** Find and free your A/C's Temperature Sensor. It's the only thing attached to the front fins/grill of your air conditioner.

On Mini Split air conditioning units this sensor is often not in front of the fins of the indoor unit. It may be tucked into a plastic cover underneath or to the side of the unit. For pictures and examples of Mini Split installations please visit our library section at: <u>www.storeitcold.com/support</u>

If your A/C has a clip built into the sensor to hold the sensor in the fins, remove the sensor from the clip and free it enough to reach the side of the A/C - **DO NOT use the mounting clip for this installation** 

STEP 5 Using ONLY a 2" square piece of Aluminum foil, place **USE ONLY** 2" Square piece of the CoolBot Heater Cable (red tip) next to the A/C's Aluminum foil Temperature Sensor (from STEP 4). Keep together next to each other, pointing in the same direction, and wrap them tightly with the foil. Make sure they are away from the fins & flow of the air and hang free, not touching anything cold or metal. You can put a wire tie or zip tie around the 2 cables (1 DO NOT remove inch before the foil) to keep the cables from getting ed heat shrink pulled apart. A/C Temperature Sensor CoolBot Heater Cable (Red Tip)

STEP 6

#### **IMPORTANT!**

If your A/C has a Secondary Sensor, IT MUST BE UNPLUGGED.

- > Window LG (except Inverter models) and window HAIER units DO NOT have Secondary Sensors (skip to STEP 7).
- Most GE, Danby, Frigidaire, Arctic King, etc. A/C units over 10K BTUs have a Secondary Sensor.
- > All "Mini-Split" air conditioners have Secondary Sensors.

Use just 1 layer of electrical tape to attach the end of the Secondary Sensor to the <u>OUTSIDE</u> of the aluminum foil connection from STEP 5. See picture below.

For videos and pictures on how to locate the secondary sensor go to: https://www.storeitcold.com/support



STEP 7 Use a pen/pencil to open a small gap in the fins about 1" from the bottom and near the center (horizontally), between the bottom and second horizontal cooling pipes.
Take the cable sensor coming from the CoolBot Pro port labeled "Fins" and gently insert just 1/4 inch (0.7 cm) of the TIP into the small gap.
DO NOT force the sensor in, you'll damage it.
Do not touch a coolant pipe with the Fins Sensor.

You want to be between the bottom 2 horizontal cooling pipes. Pinch the fins lightly around the sensor to keep it in place.

 STEP 8
 If you do not have Wi-Fi skip this step and go to STEP 9.

 Mount the CoolBot Jumper outside of your cooler in a location close enough for the provided Data Cable to connect the CoolBot Pro to the CoolBot Jumper.

 The CoolBot Jumper is not weatherproof. If it is to be mounted outdoors where rain, snow, and sunlight may get to it, then install it inside of a weatherproof nonmetallic container.

 After your CoolBot Jumper is mounted, connect the CoolBot Pro and the CoolBot Jumper using ONLY the provided Data Cable.

The provided Data Cable is specific to the CoolBot Pro/Jumper – **standard phone cable will not work** and may damage your CoolBot Pro/Jumper.

- **STEP 9** Turn your A/C ON. Set the A/C on "**COOL**" Mode and set the Fan on "**HIGH**" speed. Set the A/C temperature to the lowest setting. **Plug in your CoolBot Pro power supply**.
- **STEP 10** To set the temperature on your CoolBot Pro, press the checkmark button the current set temperature will blink. Use the right or left arrows to set the temperature to the desired value. Press the checkmark to save the value.



NOTE: CoolBot JUMPER can only be used if a Wi-Fi Network Connection is available

# CHANGING SETTINGS ON THE COOLBOT PRO

The CoolBot will **always remember** all your **last settings** even if it has been unplugged for a long time.

# **ROOM TEMPERATURE SETTING**

#### This setting is the average temperature you want in your cooler.

NOTE: The factory default temperature is set at 42°F/5.6°C.

To set a new value for the Room temperature:

- Make sure the Mode indicator light is in the Room position (Room Mode).
- Press the checkmark  $\checkmark$  button. The "set-temperature" will blink on the display.
- Use the arrow buttons to increase or decrease the temperature.
- Press the checkmark  $\checkmark$  button to program (save) your new setting into memory.
- The display will go back to Room Mode showing the current room temperature.

### **FINS SETTING**

This setting adjusts the sensitivity of the FINS Sensor to prevent freeze ups. **NOTE**: The factory default setting is "1."

Adjust this setting ONLY if you are experiencing icing problems.

A higher setting is more "conservative." Some users need to bump up to "3" or "4" to keep from icing up.

95% of CoolBot installations work well with settings in the GREEN zone.

SETTIN	G	0	1	2	3	4	5	6	7	8	9	
--------	---	---	---	---	---	---	---	---	---	---	---	--

To adjust the Fins setting:

- Press the right arrow until the Mode indicator light is in the Fins position (Fins Mode).
- Press the checkmark  $\checkmark$  button. The current Fins setting will blink on the Display.
- Press the left/right arrow to lower/raise the setting value.
- Press the  $\checkmark$  button again to save your new setting into memory.
- The display will go back to the Fins Mode and after 20 seconds of inactivity it will go back to the Room Mode.

### **HEATER DELAY SETTING**

#### This setting allows you to increase or decrease the defrost cycle time.

NOTE: The factory default Heater Delay setting is "d1"

If you are experiencing ice ups and the problem has not been solved by increasing your Fins setting, then raise your Heater Delay setting.

### 95% of CoolBot installations work well with settings in the SHADED zone.

**SETTING** d0 d1 d2 d3 d4 d5 d6 d7 d8

To change the Heater Delay setting:

- Press the right arrow until the Mode indicator light is in the Heater position (Heater Mode).
- Press the checkmark  $\checkmark$  button 3 times. The current Heater Delay setting will blink on the display.
- Press the right/left arrow to increase/decrease the value of the setting.
- Press the checkmark  $\checkmark$  button to save your new setting into memory.
- The display will go back to the Heater Mode and after 20 seconds of inactivity, it will go back to the Room Mode.

# SWITCHING BETWEEN FAHRENHEIT AND CELSIUS

### This setting allows you to switch your CoolBot Pro from displaying °F to °C

NOTE: The factory default temperature scale is in °F

To change the scale of the temperature display:

- Press the right arrow until the Mode indicator light is in the Program position (Program Mode).
- Press the checkmark ✓ button 5 times. You'll see a blinking "P1".
- Press the right arrow once or until you see "P2" blinking on the display.
- Press the checkmark  $\checkmark$  button once to enter the "P2" menu. You'll see an "°F" blinking.
- Press the right arrow once or until you see a "°C" blinking on the display.
- Press the checkmark  $\checkmark$  button once to save the value.
- The display will go back to a "P2" blinking and after 20 seconds of inactivity, it will go back to the Room Mode.

#### **REBOOTING YOUR COOLBOT PRO**

See page 23.

# THE COOLBOT PRO APP

# WEB APP FEATURES

The current version of the web app shows the most recent **Room temperature**, and a **graph of its recent history** on the default screen – **Status Tab**. You can drag to pan, pinch or scroll to zoom into the graph, mouse-over or tap to see precise readings and times, and select different time periods. You can also see a brief summary of the status of the Sensors, Heater, and Network connection under this Status Tab. Under the *Devices* and *Account* Tabs you can adjust CoolBot Pro settings, set temperature ranges and notifications and reset your CoolBot Pro among other features.



# PUTTING YOUR APP ON YOUR HOME SCREEN

The CoolBot Pro App is a web-based app and is not available from your mobile phone App Store. On most devices you can add a link to your home screen for the CoolBot Pro App so you can access it just like any other app. While in the CoolBot Pro App on your browser do the following:

- In Chrome on Android: Open the menu at the upper right and choose "Add to Home Screen."
- In Safari on iOS: Tap the Share button at the bottom of the screen and choose "Add to Home Screen."
- In most **desktop browsers**, you can drag the icon at the **left of the URL bar** at the top of the browser and drop it onto your desktop to create a shortcut.

**NOTE:** You may be prompted for your user ID and password the first time you access the app from the icon on the home screen.

# THE STATUS TAB – Default Screen

This is the **default tab**. Every time you open your app, it will default to this screen.

- 1. Current Tab Status Tab
- 2. Current Room Temperature
- 3. CoolBot Pro Name Set by the user
- 4. Current System State (see System States below)
- Temperature History Graph (see Hysteresis below)
   Drag to pan, pinch or scroll to zoom
- 6. History Time Presets click to choose



#### What Is Temperature Hysteresis?

As you watch your Temperature History Graph on your app, you may see that the **air temperature** in your cooler behaves like a **"wave"** that goes up and down around your set point. This is completely normal for any refrigeration system. **Hysteresis** is the difference in the On and Off temperatures of your cooler as it cycles.

On a perfect scenario, as soon as the refrigeration system reaches the set point (e.g. 38°F) it would turn off immediately, warm up a bit (e.g. 38.01°F), and then turn on again, and at 38°F it would turn off again. The end result would be something that is continually turning on and off. This constant starting and stopping would wear the refrigeration system out and it would fail in a short period of time.

Hysteresis is not only normal but necessary to avoid this frequent On and Off cycling. Hysteresis is dependent of many factors including calibration of equipment, response time of temperature probes, CoolBot settings, etc.

The hysteresis value on a CoolBot cooler that has been designed following our recommendations and with a controller set to factory settings is normally around +/- 2°F from the set point.

Hysteresis in your cooler may be of a higher value and that is not a bad thing. Just adjust your set temperature so that the high and low values stay within acceptable ranges for your product. **Remember** that the sensors of the CoolBot are very sensitive to air changes, and the fact that the air temperature changes rapidly at a given point, doesn't mean that your product is changing temperature at the same rate.

Your product has significantly more mass than the CoolBot sensors and it will take a much longer time to gain temperature when exposed to higher air temperatures.

If you were to measure your product temperature you would see that it remains essentially constant while the air temperature in your cooler fluctuates up and down.

# System States

These are the possible states for the system as a whole, from the app's point of view:

# Light-shaded display texts (gold and salmon) indicate situations that might (gold) or do (salmon) need the user's attention.

Dark-shaded display texts (raspberry) indicate that we know for sure the cooler is not performing as desired.

Display text	Notes	User actions
All hardware OK		None
Starting up		Wait
Thermostat disabled	On user request	Turn Power On/ Off at Device - Settings Tab
Updating firmware	Update time is normally less than one minute	Wait
Weak Wi-Fi signal		Move radio module or Wi-Fi access point
Connecting	Provisioning or initial connection is completed, but we haven't heard from the device yet. Typically flashes too briefly to see; if it shows for longer, could indicate a server or device issue.	Wait
Disconnected from server	E.g., timed out	Try reconnecting
Room temp briefly high	Temp is over the high threshold but the device hasn't flagged it for notification yet (takes 30 minutes consistently above, min. 60 minutes since last notification)	Check A/C, room, etc or wait to see how long it persists
Room temp briefly low	Same, but under the low threshold	Check A/C, room, etc or wait to see how long it persists
Room temp was high	Temp is under the high threshold now, but the device is still waiting to clear the notification (takes 30 minutes or a fall of 3 °F)	Check A/C, room, etc or wait to see how long it persists
Room temp was low	Same, but now above the low threshold	Check A/C, room, etc or wait to see how long it persists
CoolBot briefly offline	Device is disconnected, but for less than 30 minutes	Check A/C, room, etc or wait to see how long it persists

Can't connect to server	We tried but it's not resolvable or not accepting connections	Check Internet connection on app device
Device offline		Reboot device, check Wi-Fi, etc.
Room sensor error		
Fins sensor error		Check cable
Heater error		
Hardware error	Multiple failures	Check cables/ power/ etc.
Room temp too hot		Check A/C, room, etc.
Room temp too cold		

# THE DEVICES TAB

On the **Devices** tab, you can see more details about the device, set the CoolBot Pro's settings, and turn on Notifications for when the temperature goes outside of a set range or the CoolBot loses its network connection

- 1. Current Tab Device Tab
- 2. CoolBot Pro Name Click to change
- 3. CoolBot Pro Status Icon
- 4. Expandable Menus Click to expand



#### Settings Menu

After clicking on the Settings Expandable Menu click on EDIT to enter the edit screen

- 1. Current Menu Settings
- 2. Set Temperature Point Slide to adjust
- Target Temperature Range
   Low and High Temperature Slide to adjust.
   No less than 3°F from Set Temperature (+/-)
- Fins Set Point Slide to adjust Please see CHANGING SETTINGS ON THE COOLBOT PRO before adjusting
- Heater Delay Slide to adjust
   Please see CHANGING SETTINGS ON
   THE COOLBOT PRO before adjusting
- Power ON/OFF CoolBot Pro click to choose
   This will ONLY turn ON and OFF your CoolBot Pro
   NOTE: Your A/C unit will keep running and the Room
   will be held at 60°F (or the lowest setting of your A/C)
- 7. Confirmation Icons click to confirm

### **Notifications Menu**

- 1. Current Menu Notifications
- 2. Enable all notifications
- E-mail Notifications Slide to select ON (blue) / OFF (gray)
- 4. SMS Notifications Slide to select ON (blue) / OFF (gray)

SIC Denver WIC				
Status			l	Online
🔅 Settings	1)			-
		Save Resto	re Defaults	Cancel
Set point:		(	7	
32°F		2)—		- 65°F
Target temp range:				
28°F		<u> </u>		- 68°F
Fins adjustment:				
0		₽—		9
Heater delay:				
D0	(!	5)		— D8
Power			6	On 👻
Notifications			Ŭ	Þ
Details				÷

Stat	) tus	Device	0	Account	CoolBot
SIC D	enver WIC				A
Status	3				Alert
ф.	Settings				•
۰	Notifications		1		
Enable	e notifications				2 🔹
Notify	by e-mail				3 🔹 🕤
Notify	by <u>text messag</u>	e			4 •
0	Details				
a,	Hardware Setup	)			
			^		<u>×</u>

### **Details Menu**

Clicking on the *Details* Expandable Menu gives you Information about the most recent information the app obtained from the CoolBot Pro and general information of the app and Wi-Fi signal.

Status	Device	Account	CoolBot
SIC Denver WIC			i
Status			Online
Settings			•
Notifications			÷
Details			$\odot$
Room temp			35 °F
Fins temp			34 °F
Last activity			5:36 PM
Last disconnect			1:26 PM
App version			1.0.16
Jumper firmware vers	ion		7.4.12
WiFi strength			32%
Hardware Setu	, ,		÷ .

#### Hardware Setup Menu

Clicking on the *Hardware Setup* Expandable Menu gives you choices for resetting your CoolBot Pro, downloading latest firmware for the CoolBot Pro controller, and reconfigure you Wi-Fi connection.

SIC De	enver WIC	
tatus		Online
¢	Settings	+
ļ.	Notifications	•
D	Details	•
λ.	Hardware Setup	$\overline{\bigcirc}$
	1 FACTORY RESET	
	2 UPDATE FIRMWARE	
	3 RECONFIGURE WIFI	

1. Factory Reset – Use this option to reset your CoolBot to Factory Settings (Wi-Fi configuration will be kept) A confirmation screen will pop before resetting.

Statu	5	Device	Account	°		t
SIC De	nver WIC					
Status					Online	
\$	Settings				)	•
	Notifications				)	•
0	Details				)	
3	Hardware S	Factory Res	et settings? WiFi		-	
			CANCEL OK			

2. **Update Firmware** – This option downloads the latest Firmware version to your CoolBot **JUMPER**. The tab will become gray and the Status Icon will indicate "updating" in yellow until done.

Statu	S			Updatin	
¢	Settings				•
ļ.	Notifications				•
Ð	Details				•
λ.	Hardware Setup				•
		FACTOR UPDATE I	FIRMWARE		_
		RECONFI	GURE WIFI		

3. **Reconfigure Wi-Fi** – This option will walk you step by step through the entire Wi-Fi configuration process (just like the first time you set up your CoolBot Pro to connect to your Wi-Fi Network).

Press the left arrow to go back to the rest menu.

If you are setting up your Wi-Fi again, then a Jumper reset "CJ" or an "Fr" will be necessary directly at the CoolBot (see From the CoolBot Pro Controller section) so the Jumper resets and the CoolBot displays "EO" meaning that it is ready for a Wi-Fi set up again.

← Set up	CoolBot
	^
Set up WiFi	
We'll set up your CoolBot and get it connecting via WiFi.	
This will require:	
<ul> <li>physical access to the CoolBot</li> <li>changing your WiFi settings on this computer</li> <li>the WiFi password for the network you want to use.</li> </ul>	
START	

# THE ACCOUNT TAB

On the **Account tab**, you can manage your account info and manage your profile settings.

- 1. Email address associated with the account
- 2. Mobile Number to receive SMS Notifications
- 3. Status of your Service
- 4. Subscription info
- 5. App Temperature Display Units
- Display Fins Temperature on the Temperature Graph

   Slide to select
   ON (blue) / OFF (gray)
- 7. Support information

Status	Device	Account	
Email address		1 suppor	rt@storeitcold.com
Mobile number		(2)	+1-888-871-5723
Service			3 Active
Subscription			
Temperature unit			5 Fahrenheit -
Diagnostics			•
Show fin temps			6.
Support			7 REQUEST
	L	OG OUT	

# ERROR CODES ON YOUR COOLBOT PRO

ERROR CODE	PROBLEM WITH	WHAT IT MEANS AND WHAT TO DO
Er	Room Sensor Cable	See solution on the following page
Ef	Fins Sensor Cable	See solution on the following page
EH	Heater Cable	See solution on the following page
EE	CoolBot Jumper	The Jumper is not talking to the CoolBot Pro at all. Check Data Cable connection. Try power-cycling the CoolBot Pro (unplug the power wait a few seconds and plug back in). If you are not using Wi-Fi see Rebooting your CoolBot Pro (page 23)
The following error codes describe <b>problems with the Jumper</b> and go with a <b>blinking Program light</b> . Unless otherwise noted, <b>if you see the same error code for more than a minute</b> , reboot the CoolBot (page 23)		
EO	Jumper/Wi-Fi	The Jumper is in Wi-Fi Configuration mode, or it is completely disconnected. If you see this during normal operation for more than a few seconds, try reconfiguring Wi-Fi. Check Data Cable connection.
E1	Jumper/Wi-Fi	The Jumper is in the middle of getting Wi-Fi configuration from the mobile app. If you see this for a long time try power-cycling the CoolBot Pro (unplug- wait 6 sec- plug again)
E2	Jumper/Wi-Fi	The Jumper is connecting to the Wi-Fi network. If you see this for a long time, first check that your Wi-Fi router is working for other devices, and that it has access to the Internet. Then power-cycle the CoolBot Pro (unplug- wait 6 sec- plug again), as for <b>E1</b> . If that doesn't help, unplug the CoolBot Pro and the Wi-Fi router, then plug in the router, then the CoolBot Pro. Otherwise, reconfigure Wi-Fi.
E3	Jumper/Wi-Fi	The Jumper is connecting the server used for storing data. If you see this for more than a minute, follow the same steps as for <b>E2</b> .
E4	Jumper/Wi-Fi	The Jumper is running normally (You should never see this as an error code).
E5	Jumper/Wi-Fi	The Jumper is updating its connection configuration from a server.
E6	Jumper/Wi-Fi	The Jumper is saving new configuration to permanent storage, OR it's trying to reboot.
E7	Jumper/Wi-Fi	The Jumper is looking for new firmware or downloading and installing it.
E8	Jumper/Wi-Fi	The Jumper is powering on and trying to set itself up as a Wi-Fi access Point (WAP) so that it can enter Wi-Fi Configuration mode. If you see this for more than a few seconds, reboot the CoolBot Pro.
E9	Jumper/Wi-Fi	The Jumper had a problem connecting to the Wi-Fi network, or to the server, or some other error. It will reboot itself after a short wait. If you see this and the network is OK for other devices, you may need to reboot the CoolBot Pro and reconfigure Wi-Fi. <b>Check that your Wi-Fi password is correct</b> .
EA	Jumper/Wi-Fi	The radio is resetting its configuration.

# Er IS SHOWING ON MY COOLBOT DISPLAY

Er is a communication error with the Room Sensor.

- Unplug the Room Sensor from the CoolBot Pro.
- Inspect the cable for possible damages in the cord or on the tip.
- Clean the plug end of the sensor (jack connector) with a cotton cloth and plug it back in the CoolBot Pro port a couple times making sure it goes all the way in.
- If the error persists after 20 seconds, unplug the sensor from the Room port and switch ports with the FINS sensor by plugging the ROOM sensor in the Fins port and the FINS sensor in the Room port.
- If the "Er" message is gone and now you have a flashing "Ef" while the Fins Mode light blinks rapidly, then your ROOM sensor cable (currently plugged in the Fins port) is bad and needs replacement.
- Plug the FINS sensor back into the Fins port.
- Discard your ROOM Sensor.
- "Er" will still show on the display (because there is nothing plugged in the Room port). That is all right.

#### - SAFETY MODE-

The CoolBot Pro can work with 1 good sensor (**plugged in to the Fins port**) in a "Safety Mode" while your replacement sensor is being shipped. **DO NOT plug anything in the ROOM port!** 

Since the CoolBot won't display the room temperature while running in the "Safety Mode," the Room temperature will have to be monitored with the aid of an external thermometer.

To order a replacement sensor under warranty (1 year) please contact our support team at <a href="mailto:support@storeitcold.com">support@storeitcold.com</a>. To purchase new sensors please visit our parts page at: <a href="https://www.storeitcold.com/replacement-parts/">https://www.storeitcold.com/replacement-parts/</a>

# EF FLASHES ON MY COOLBOT DISPLAY

The Fins Mode Indicator light flashes rapidly.

Ef is a communication error with the FINS sensor.

- Unplug the FINS sensor from the CoolBot.
- Inspect the cable for possible damages in the cord or on the tip.
- Clean the plug end (jack connector) of the sensor with a cotton cloth and plug it back in the CoolBot port a couple times making sure it goes all the way in.
- If the error persists after 20 seconds, the sensor is bad and needs replacement.
- Unplug the FINS sensor and discard.
- Unplug your ROOM sensor and plug into the Fins port.
- You will see an "Er" message on the screen (because there is nothing plugged in the Room port). That is all right.
- If the "Ef" message stopped flashing and the Fins mode indicator light stopped flashing rapidly you are now working in the "Safety Mode".
- Insert the tip of the sensor into the fins of the A/C (center bottom) following the same recommendations as in the installation guide (STEP 7- Page 11).

### - SAFETY MODE-

The CoolBot Pro can work with 1 good sensor (**plugged in to the Fins port**) in a "Safety Mode" while your replacement sensor is being shipped. **DO NOT plug anything in the ROOM port**!

Since the CoolBot won't display the room temperature while running in the "Safety Mode," the Room temperature will have to be monitored with the aid of an external thermometer.

To order a replacement sensor under warranty (1 year) please contact our support team at <a href="mailto:support@storeitcold.com">support@storeitcold.com</a>. To purchase new sensors please visit our parts page at: <a href="https://www.storeitcold.com/replacement-parts/">https://www.storeitcold.com/replacement-parts/</a>

# "EH" SHOWING ON MY COOLBOT DISPLAY

The Heater Mode Indicator light flashes rapidly.

EH means there is a problem with the HEATER cable (red tip cable).

- Unplug the HEATER from the CoolBot.
- Inspect the cable for possible damages in the cord or in the tip.
- Clean the plug end of the HEATER (jack connector) with a cotton cloth and re plug in the CoolBot a couple times making sure it goes all the way in the port.
- If the error persists after 20 seconds, the HEATER cable is bad and needs replacement.

### ATTENTION!

The CoolBot Pro does not have a workaround mode for a bad Heater Cable. **DO NOT** plug anything other than a replacement Heater Cable in the Heater port- it won't work!

To order a replacement Heater under warranty (1 year) please contact our support team at <a href="mailto:support@storeitcold.com">support@storeitcold.com</a>. To purchase a new Heater please visit our parts page at: <a href="https://www.storeitcold.com/replacement-parts/">https://www.storeitcold.com/replacement-parts/</a>

# **REBOOTING THE COOLBOT PRO**

#### From the CoolBot Pro Controller.

You can also reboot the CoolBot Pro Settings and Wi-Fi from the app (see page 19).

- 1. On the CoolBot Pro, press the left arrow button until the Program light is solidly lit. You will see the firmware version on the display, currently "7.8".
- 2. **Press the Checkmark button five times slowly,** until you see "P1" on the display.
- 3. Press the Left Arrow a few times to get to the reset option you want:
  - P1: resets all settings (Same as Fr)
    - Full factory reset of **CoolBot and Jumper** if the **Jumper is connected**.
    - Factory Reset of the **CoolBot only**, if the **Jumper is disconnected**.
  - ES: escapes from this menu and returns to normal operation
  - CJ: clears the Jumper's (Wi-Fi radio) settings only. The Jumper HAS to be connected to the CoolBot Pro.
  - CE: Wi-Fi Mode disabled: Y=Not using Wi-Fi, N=Using Wi-Fi (See NOTE below)
  - **CS**: clears the CoolBot settings to defaults but **keeps the Wi-Fi settings** the same.
  - Fr: resets all settings (Same as P1)
- 4. Press **Checkmark** to select that reset option.
- 5. You will see a blinking "n" for "no". Press one of the arrow keys to change it to "y" for "yes."
- 6. **Press Checkmark.** The CoolBot will reset the selected settings.
- 7. If you chose **P1**, **CJ**, or **Fr with the Jumper connected to the CoolBot**, the CoolBot will switch to its Wi-Fi Configuration mode. You should **see the code "E0"** on the display. This means the CoolBot pro and the Jumper are ready to reconfigure the Wi-Fi connection.
- 8. The CoolBot set temp has been reset to factory setting of 42F, change it to your desired room temp.

#### NOTE

**IMPORTANT**! If you are **not using Wi-Fi** and you have an **EE** showing on the display follow these steps:

- 1. Unplug the CoolBot Pro from the power supply
- 2. **Disconnect the Jumper** from the CoolBot **disconnect the Data Cable** (if it was connected)
- 3. Plug your CoolBot Pro back in. You will see EE
- 4. Follow steps 1, 2, and 3 for rebooting the CoolBot Pro to get to the main program menu options
- 5. Scroll (with the arrows) to the CE option and select (checkmark) then choose (with the arrows): Y
- 6. **Press Checkmark.** Your CoolBot Pro should stop blinking and revert back to show the Room Temperature (It is ready to use in the "**No Wi-Fi Mode**")

# CHECKS ON YOUR COOLBOT PRO

# MY COOLBOT PRO HAS A BLANK DISPLAY BUT THE POWER LIGHT IS ON

The most likely cause is that your CoolBot is in **Sleep mode.** Either press any button on the CoolBot Pro, or change the **Power** setting on the **Devices tab** in the app.

# MY HEATER DOES NOT SEEM TO BE WORKING

Checking the HEATER is very simple:

- Pull the HEATER out of the aluminum foil. Hold the red tip against the inside of your wrist with your fingers.
- Unplug the POWER to the CoolBot, then plug it back in. In ~5 seconds the Heater Activity Indicator light will come on SOLID for about 20 seconds.
- The HEATER should get Warm/Hot within the first 10-30 seconds of the CoolBot being plugged in. If not, unplug/plug the HEATER a couple times and repeat the test.
- If it STILL doesn't get warm contact us at <a href="mailto:support@storeitcold.com">support@storeitcold.com</a>.

NOTE: During **normal operation**, the Heater light blinks and you may not feel the warmth.

# **TEMPERATURE SENSORS CALIBRATION TEST**

Checking the Calibration of your sensors is very simple:

- Gently slip the Fins Sensor tip out of the fins of the A/C. Let the tip of the sensor hang right next to the tip of your Room sensor cable.
- Allow 2 minutes for the sensor to adjust its temperature reading.
- Compare the Room temperature reading with the Fins temperature reading using the arrows to toggle back and forth between the Room Mode and the Fins Mode.
- Your Room Sensor and your Fins Sensor should read within 3 degrees of each other. If one of the sensors is more than 3 degrees away from the other, compare the readings against a calibrated external thermometer and replace the faulty sensor.

# CHECKS ON YOUR A/C UNIT

### **DIRTY FINS**

- This is a very common problem! Dirty front fins drastically reduce cooling power and waste electricity. **Clean** the fins 2 times a month.
- Use a plastic brush with bristles long enough to go all the way through the fins. Depending on the make of your A/C, a dish brush or paintbrush might work well.
- Use plain water. DO NOT use soap! Soap residue attracts more dirt!
- Dunk bristles in water then swipe down the fins. Rinse the bristles in the water and repeat, working your way across until all the fins have been brushed. Change out the water as needed if it gets murky.
- A/C supply stores also sell "Foaming Coil Cleaner".
- Squished fins greatly reduce the cooling power of the A/C. Use a "Fin Comb" (available at most hardware stores) to straighten them.
- Fins on the back side (outside the cooler) should be cleaned at least once a year. Also, make sure no leaves or debris are blocking the vent louvres of your A/C on the back.

# PROPER INSTALLATION AND SETTINGS

- Make sure your A/C is on "COOL" Mode and the Fan on "HIGH"
- Make sure your A/C is a compatible brand. Check compatibility at: <u>https://www.storeitcold.com/support</u>
- Make sure that the A/C is draining properly.
   The back of the A/C should be a lower (about 1 inch) than the front (inside) and the unit should be level from side to side, so condensation can drain out the back. This is very important!
- Check the insulation around your A/C opening. This is a critical point in your Cooler for condensation.
- Make sure your A/C unit does NOT have a Secondary Sensor.

If the cooler is stuck around 45-50°F/7-10°C, or if the compressor comes off and does not cycle ON back for a while, or if it cools down and then waits a long time to start cooling again, look for a Secondary Sensor on your A/C (See INSTALLING YOUR COOLBOT STEP 6, page 10).

**NOTE:** This can happen even if your A/C has been installed for some time and was working correctly before – please ensure your A/C does not have a secondary sensor if you are experiencing these problems (See INSTALLING YOUR COOLBOT STEP 6, page 10).

# FOR TROUBLESHOOTING AND QUESTIONS

Visit our support page at <u>https://www.storeitcold.com/support</u> Or contact us at <u>support@storeitcold.com</u>

# DOUBLE YOUR WARRANTY!

We'd love to hear how your CoolBot is doing and learn more about how you are using it. Just fill out our Testimonials Form online, and as a way to say "Thanks!", we will double your CoolBot Pro warranty from 1 to **2 years**!

You can find the Testimonials Form at: <u>https://www.storeitcold.com/welcome/</u>

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