CoolBot®

INSTRUCTION MANUAL AND TROUBLESHOOTING GUIDE

INDEX

DISCLAIMER AND WARRANTY

DISCLAIMER

By using the CoolBot 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. User accepts all responsibility in the use of and monitoring of the CoolBot and A/C. User assumes all risk of loss of property or product due to improper functioning of the CoolBot (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 for a FULL REFUND before use.

LIMITED WARRANTY: CoolBots are warranted against defects for 1 year, not including damage due to misuse or accidents. To double the warranty on your CoolBot see page 19 for details.

HAPPY CUSTOMER GUARANTEE: Return the CoolBot 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 - Patented Digital Temperature Controller

2 Temperature Sensors - Sensor cables (Black or Blue) with external 2.5mm jack connector

1 Heater Cable - CoolBot heater cable (red tip) with external 2.5mm jack connector

1 Power Supply - Mini-USB port connector with 110V-240V input/ 5V, 1Amp Output

1 CoolBot Manual

1 CoolBot Quick Start Set Up Guide

KNOWING YOUR COOLBOT
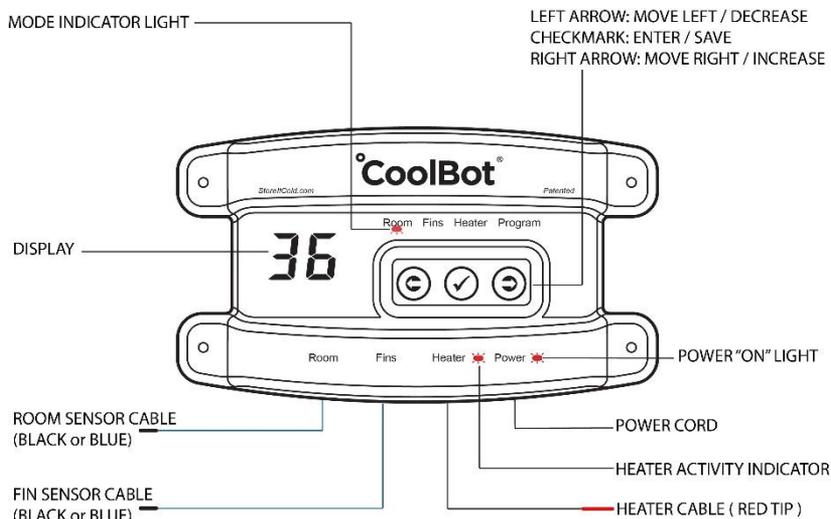

MODE INDICATOR LIGHT

LEFT ARROW: MOVE LEFT / DECREASE
CHECKMARK: ENTER / SAVE
RIGHT ARROW: MOVE RIGHT / INCREASE

DISPLAY

ROOM SENSOR CABLE
(BLACK or BLUE)

FIN SENSOR CABLE
(BLACK or BLUE)

POWER "ON" LIGHT

POWER CORD

HEATER ACTIVITY INDICATOR

HEATER CABLE (RED TIP)

FIG. 1

During **normal operation** or after 20 seconds of inactivity the CoolBot goes into the "Room Mode" by default and the display shows the current room temperature.

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. 6.5), which will be the firmware version on your CoolBot.

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

HEATER ACTIVITY INDICATOR: During **normal operation** and when "**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: Room -> Fins -> Heater -> Program -> Room

> **LEFT ARROW KEY:** Press to move the Mode indicator light in between modes from right to left: Room <- Program <- Heater <- Fins <- Room

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

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

POWER CORD: This standard Mini USB cable brings power to your CoolBot. It is a power supply cord with Input of :100-240V / 50-60HZ, and output of: 5VDC and 1 Amp.

HOW DOES THE COOLBOT WORK?

The CoolBot uses 2 sensors (ROOM and FIN sensors), the HEATER cable (red tip) and a programmed micro-controller to direct your air conditioner to operate in such a way as to cool the room to a set temperature in between 33°F/0.5°C and 65°F/18°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 are in charge of telling 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/0.5°C 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 HEATER is getting hot, and the CoolBot is "Calling for Cooling."

NOTE: **The defrost of your A/C is not heat assisted**; it defrosts by turning your compressor off and circulating air over the frosted coil.

BEFORE INSTALLING YOUR COOLBOT

Please go through the following checklist before installing your CoolBot:

- ❑ **The A/C Unit:**
    - ❑ Has digital display only.
    - ❑ Is properly sized in BTUs.
      To check A/C sizing visit: https://www.storeitcold.com/buildit
    - ❑ Is of one of the recommended brands and models.
      To check A/C compatibility visit: https://www.storeitcold.com/buildit
    - ❑ Has Automatic Restart.

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

- ❑ **The Room:**
    - ❑ Ceiling and walls are insulated to R25 using Rigid Foam (NO fiberglass).
    - ❑ 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

For videos and pictures about how to install your CoolBot please visit us at:
https://www.storeitcold.com/buildit

STEP 1
- Plug the wires into the labeled ports at the bottom of your CoolBot.
- Make sure you plug the wires in their corresponding ports according to the description in the KNOWING YOUR COOLBOT Section (Page 3).
- Plug the wires in and out a couple times as sometimes they don't "seat" all the way the first time.

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

STEP 3
- Remove the air filters from the front of the A/C unit. The filters drastically reduce cooling power. **Clean your fins 2 times a month**. See DIRTY FINS in TROUBLESHOOTING GUIDE (Page 15).
- 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 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: www.storeitcold.com/buildit
- 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.

STEP 5
- Using ONLY a 2" square piece of Aluminum foil, place the CoolBot **HEATER Cable (red tip)** next to the A/C's Temperature Sensor (from step 4). Keep together next to each other, pointing in the same direction, and wrap them tightly with the foil (FIG 2-page 8).
- 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 wires (1 inch before the foil) to keep the wires from getting pulled apart.
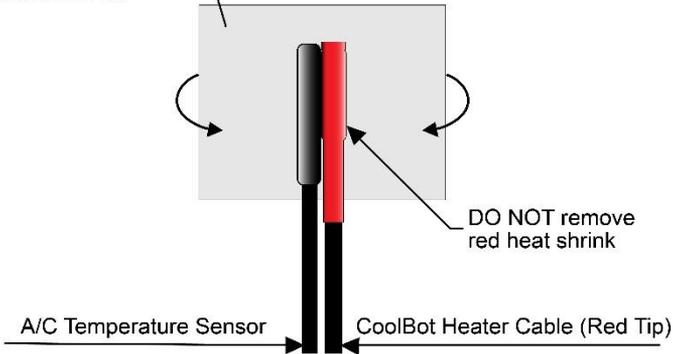
USE ONLY
2" Square piece of
Aluminum foil

DO NOT remove
red heat shrink

A/C Temperature Sensor   CoolBot Heater Cable (Red Tip)

FIG. 2

STEP 6
IMPORTANT! If your A/C Has a Secondary Sensor**, IT MUST BE UNPLUGGED.**

- ➢ **Window LG** and **Window Haier** units **DO NOT** have Secondary Sensors (skip to Step 7).
- ➢ **Most window A/C** units over 10K BTUs (GE, Danby, Frigidaire, etc.) have a Secondary Sensor.
- ➢ **All "Mini-Split"** air conditioners have Secondary Sensors.

For videos and pictures on removing secondary sensors check out our website at:
https://www.storeitcold.com/buildit

To remove the Secondary Sensor:
- Unplug your air conditioner.
- Remove the full front cover of your A/C to expose the **sides of the coil** ("u" shaped pipes).
- Look for one electronic wire often on the same side of the A/C as the control panel. It plugs into a little cup soldered onto one of the coolant tubes.
  NOTE: Some Mini-Splits can have more than one Secondary Sensor. They will all be on the same side of the coil.
  NOTE: Sometimes the Secondary Sensor can be attached to the Cooling Pipes with black foam insulation tape instead of plugged in to a copper cup.
- Grab it with your fingers and slide it out of the copper cup or the insulation tape. **Do not cut the sensor!** It is OK to cut the plastic tie-downs to free the sensor.
- For rooms above 50ºF/10°C, just let that sensor hang free outside the body of the A/C unit so it doesn't touch anything metal.
- **For rooms below 50ºF/10°C, use just 1 layer of electrical tape to attach the end of the Secondary Sensor to the OUTSIDE of the aluminum foil connection from Step 5.**

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 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 so it doesn't fall out.

STEP 8
You are done! Your installation should look something like **FIG 3 (page 10)**.

TURNING YOUR COOLER ON

ATENTION!
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 installation manuals, follow the setup guide step by step, and familiarize yourself with the use and troubleshooting of the CoolBot 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.

NOTE: The CoolBot will remember all your **last settings** even if it is unplugged.

- Turn your A/C unit on.
- Set your A/C unit on "COOL" mode and Fan on "HIGH".
- Set the temperature on your A/C unit as low as it can go.
- Plug in your CoolBot.
- To change the Room temperature from the default of 42°F/5.5°C and to make adjustments to other CoolBot settings please read: CHANGING SETTINGS ON THE COOLBOT (Page 11).

USE ONLY A DIGITAL DISPLAY A/C

MODE: COOL
FAN: HIGH

See **STEP 7**
Bottom Cooling Pipe
2nd Cooling Pipe

CoolBot Fins Sensor

A/C Temperature Sensor

See **STEP 6**

See **STEP 5**

Power Supply

CoolBot Mini USB Power Cable
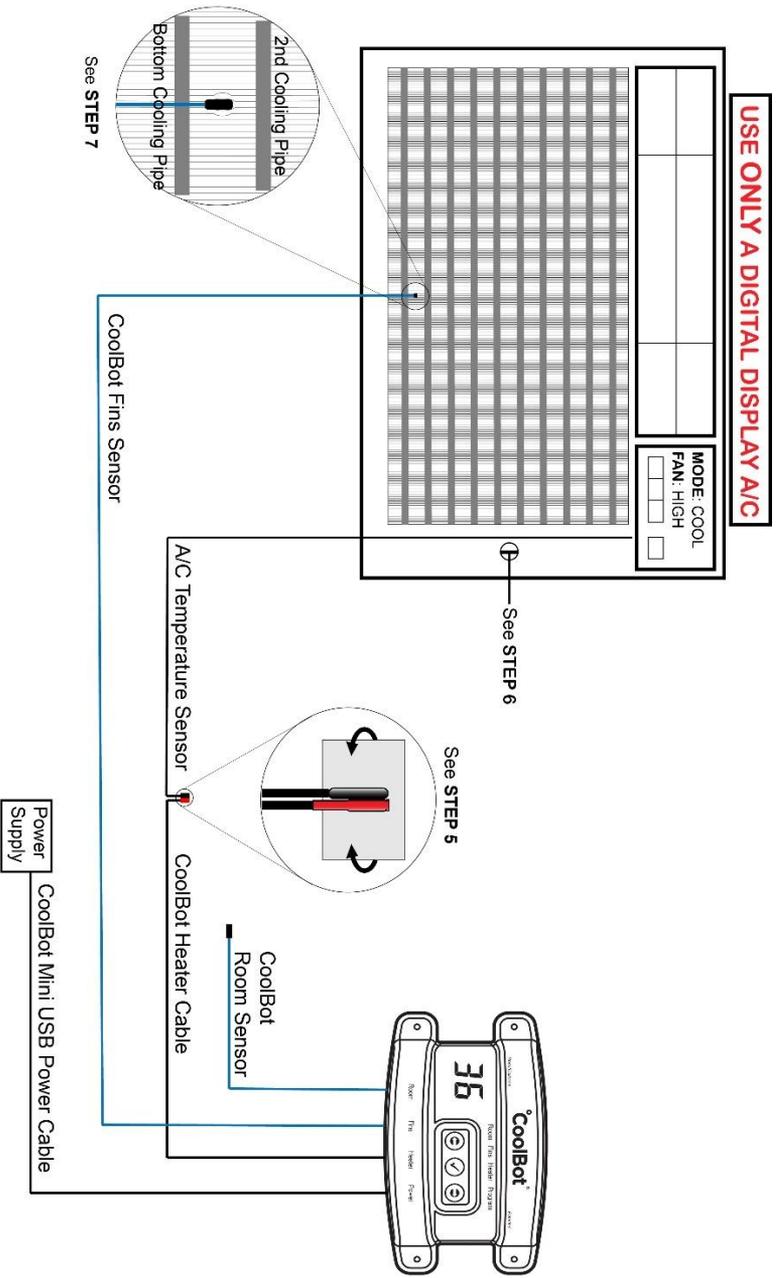
CoolBot Heater Cable

CoolBot Room Sensor

CoolBot

FIG.3

CHANGING SETTINGS ON THE COOLBOT

IMPORTANT! Please make sure you are familiar with the CoolBot parts and controls as described in the KNOWING YOUR COOLBOT (Page 3) and HOW DOES THE COOLBOT WORK? (Page 5) sections, before making any changes to the default setup.

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 ✓ button. The "set-temperature" will blink on the display.
- Use the arrow buttons to increase or decrease the temperature.
- Press the 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.

Caution! For most people, going below "0" will cause freeze-ups.

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

SETTING	…	-4	-3	-2	-1	0	1	2	3	4	…

To adjust the Fins setting:
- From the Room Mode position press the right arrow until the Mode indicator light is in the Fins position (**Fins Mode**).
- Press the checkmark ✓ button. The current Fin setting will blink on the Display.
- Press the left/right arrow to lower/raise the setting value.
- Press the ✓ 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	d9	30	60

To change the Heater Delay setting:
- From the Room Mode position press the right arrow until the Mode indicator light is in the Heater position (**Heater Mode**).
- Press the 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 ✓ 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 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 ✓ 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 ✓ 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

This will restore the CoolBot to factory settings.
To reset the CoolBot back to factory default settings:
- 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 checkmark ✓ button again, it will read "n."
- Press the right arrow once or until the display reads "y."
- Press the checkmark ✓ button and don't press anything else.
- The display will go back to the Room Mode.

TROUBLESHOOTING GUIDE

If you are experiencing problems with your cooler please double-check all the requirements in the BEFORE INSTALLING YOUR COOLBOT (Page 6) section of this manual and make sure that you have followed all the steps in the INSTALLING YOUR COOLBOT (Page 7) section of this guide.

"Er" SHOWING ON MY COOLBOT DISPLAY

"Er" is a communication error with the ROOM sensor.
- Unplug the ROOM sensor from the CoolBot.
- 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 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.

NOTE: CoolBot runs perfectly fine with 1 good sensor (plugged in the Fins port) in a "Safety Mode" while your replacement sensor is being shipped.

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 new sensor please visit our parts page at:
https://www.storeitcold.com/replacement-parts/

To order a replacement sensor under warranty (1 year) please contact our support team at support@storeitcold.com.

"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 9).

NOTE: CoolBot runs perfectly fine with 1 good sensor (plugged in the Fins port) in a "Safety Mode" while your replacement sensor is being shipped.

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.

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https://www.storeitcold.com/replacement-parts/

To order a replacement sensor under warranty (1 year) please contact our support team at support@storeitcold.com.

"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.

To order a new Heater cable please visit our parts page at:
https://www.storeitcold.com/replacement-parts/

To order a replacement Heater cable under warranty (1 year) please contact our support team at support@storeitcold.com.

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 support@storeitcold.com.

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

SENSOR CALIBRATION TEST

Checking the Calibration of your CoolBot 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.

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 sucking vent holes.

MY A/C UNIT KEEPS ICING UP

Thick frost or block of ice forming on the A/C
NOTE: A common reason for ice ups is forgetting to clean your fins - See DIRTY FINS.

Put your A/C unit in "FAN ONLY" mode to melt the ice. Ice must be melted completely before going through the following check list:

- Is the compressor running constantly? If the coil keeps freezing up (and you hear the compressor humming) even when you put your A/C on the "FAN ONLY" mode or even on "OFF" position, then you have problem with the A/C unit.
- Is your A/C on "COOL" mode? Make sure the A/C is on "COOL" mode, not on "ENERGY SAVER" mode and the fan is on "HIGH."
- Is the A/C draining properly? The back of the A/C should be a little lower (about 1 inch) than the front (inside), so condensation can drain out the back. **This is very important!**
- Perform a sensor test (See SENSOR CALIBRATION TEST- page 15).
- Is the FINS sensor positioned correctly? Make sure the tip of the FINS sensor is inserted **into the fins** of the air conditioner about a ¼", not "sitting next to the fins" or "in the plastic clip in front of the fins."
- Watch your A/C unit as it is cooling. Where does it start icing up? Reposition the FINS sensor to that area where the frost begins to form.
- If the problem persists after the previous checks, increase the Fins setting by 1 or 2 points.
- If the problem persists increase the Heater Delay setting by 1 or 2 points.
- If the problem persists keep stepping up the Fins Setting, then the Heater Delay, until problem is solved.
- If you get to Fins="4" and Heater Delay="d4" and you are still icing up please contact our support team at support@storeitcold.com.

MY ROOM WON'T GET COLD ENOUGH

- Did you give it enough time? Well insulated rooms with the right size A/C can drop below 50ºF/10°C within 1 hour; but if you have a lot of product in your cooler (coming in at ambient or higher temperatures) or a concrete floor, it could take longer to cool down the first time. Also, the rate of temperature decrease drops as the temperature gets lower.
- Is your A/C sized properly? Make sure the A/C unit is big enough to cool the space according to **storeitcold.com** recommendations.
- Is your room well insulated? Make sure that your room is insulated properly to at least R25 value using closed cell foam all around, and ensure that the door, seams, joints and cracks are tightly sealed.
- Is your floor insulated? Your floor should be insulated if it's a mobile cooler, trailer, container, deck, raised floor, or if trying to go **below 38°F/3°C**.
- Do you have a Secondary Sensor on your A/C? If the cooler is stuck around 50ºF/10ºC, look for a Secondary Sensor on your A/C (See INSTALLING YOUR COOLBOT STEP 6 – Page 8).

- Check the HEATER on the CoolBot (See MY HEATER DOES NOT SEEM TO BE WORKING – Page 15).
- Is your FINS Sensor positioned correctly? Make sure the CoolBot FINS Sensor isn't touching a cooling pipe. If it is, you will get a false cold reading. Try pulling it out completely and reinsert it so it is only ¼" in the fins.
- After checking the above try lowering the Fins setting to 0 or even -1 (See CHANGING SETTINGS ON THE COOLBOT- Fins Setting – Page 11). If you try a negative Fins Setting, be sure to check frequently for frost. If frost occurs, raise the fins back to a positive number setting.

MY COOLER WAS RUNNING FINE AND NOW IT WON'T GET COLD

- Is the compressor running? Unplug the A/C unit and reset it following the instructions in the owner's manual of your A/C unit.
- Are the fins clean? See DIRTY FINS (Page 15).
- Is your A/C in the "COOL" mode and the fan on "HIGH"?
- Did you check your HEATER foil connection? See INSTALLING YOUR COOLBOT-STEP 5 (Page 7).
- Did something change from the original setup? Please see MY ROOM WON'T GET COLD ENOUGH (Page 16).

MY ROOM IS GETTING COLDER THAN THE SET TEMPERATURE

- Is your cooler empty? Adding mass to any cooling space helps hold temperatures stable and reduces fluctuations.
  NOTE: Florists - adding 5 gal buckets of water helps.
- Is the HEATER foil connection over insulated? Make sure you **use ONLY a 2x2 inch piece of aluminum foil** as described in STEP 5 of INSTALLING YOUR COOLBOT (Page 7). **DO NOT** use duct tape, insulating pipe tape or other materials.
- Is your A/C oversized? This can happen in small rooms with big A/Cs.
  Turn A/C to "ENERGY SAVER" mode **OR** turn A/C fan to "LOW" and Heater Delay to "d3+."

MY ROOM COOLS DOWN BUT THE TEMPERATURE WILL RAISE UP CONSIDERABLY BEFORE IT COOLS AGAIN (TEMPERATURE SWINGS)

- Do you have a Secondary Sensor? Please see STEP 6 of INSTALLING YOUR COOLBOT (Page 8).
- Is your cooler empty? Adding mass to any cooling space helps hold temperatures stable and reduces fluctuations.
  NOTE: Florists - adding 5 gallon buckets of water helps.
- Is the HEATER foil connection in the air draft? Make sure they are away from the fins and the airflow, not touching anything cold or metal. See STEP 5 - INSTALLING YOUR COOLBOT (Page 7).

- Is the HEATER foil connection over insulated? Make sure you **use ONLY a 2x2 inch piece of aluminum foil** as described in STEP 5 - INSTALLING YOUR COOLBOT (Page 7). **DO NOT** use more than one layer of electrical tape if needed. **DO NOT** use duct tape, insulating pipe tape or other materials.

MY A/C NEVER TURNS OFF

When the A/C unit is in "COOL" mode the compressor actually turns off; the fan stays on, but the compressor cycles. The fan keeps the cold air circulating in the room. This is the best and most recommended way to run your cooler.

You can run the A/C in "ENERGY SAVER" mode so the fan cycles off when the compressor stops running (and comes on every few minutes for a couple seconds to circulate air), but your room will cool slower and might not get quite as cold. You must change the Heater Delay setting to "d3" if running in "ENERGY SAVER" to avoid possible ice ups. Please see CHANGING SETTINGS ON THE COOLBOT (Page 12) to adjust your Heater Delay setting.

- Is the compressor running constantly? If the coil keeps freezing (and you hear the compressor humming) even when you put your A/C on the "FAN ONLY" mode or even on "OFF" position, then you have problem with the A/C unit.

SMALL BAND OF ICE FORMS AT THE BOTTOM OF MY A/C COIL

- Is the A/C draining properly? The back of the A/C should be a little lower (about 1 inch) than the front (inside), and the unit should be leveled from side to side, so condensation can drain out the back. **This is very important!**
- Is it dirty at the bottom front part of the A/C? You can flush it out with water (carefully keeping electronics dry) or use compressed air to clean.
- Is the Cooler performing well? Some users do ignore a thin ice-band at the bottom (it doesn't usually reduce cooling power by a noticeable amount) or small amounts of frost, that will usually disappear when the unit is off (on the defrost cycle).
- Perform a sensor test (See SENSOR CALIBRATION TEST- page 15).
- If the problem persists after the previous checkups, increase the Fins setting by 1 or 2 points.
- If the problem persists increase the Heater Delay setting by 1 or 2 points
- If the problem persists keep stepping up, Fins-then-Heater Delay, until problem is solved.
- If you get to Fins="4" and Heater Delay="d4" and you are still icing up please contact our support team at support@storeitcold.com.

MY A/C UNIT STOPS WHEN IT'S COLD OUTSIDE

This happens as well to commercial walk-in compressors that aren't winterized. It's a physics problem dependent on the design of the A/C unit. As outside temperatures drop, the unit can't circulate coolant fluid properly and a safety is tripped.

- Most LG, Danby, and Haier units have no trouble down to 32ºF/0°C outside.
- Most mini-split A/C units run down to 5ºF/-15°C outside with no trouble.
- Many users in Canada mount the A/C units with the back end INSIDE their garages.
- For most A/C units you will have to manually reset the unit. Follow the instructions of your A/C's owner's manual.

MY A/C UNIT ACCUMULATES A LOT OF WATER IN THE BOTTOM TRAY

Depending on the conditions of your Cooler, construction, insulation, ambient humidity and other factors, your cooler may experience higher amounts of condensation. Most window A/C units nowadays are designed to run with up to ½" of water in the back part of the bottom tray and no drains. However, it's always worth checking a few things to minimize excess condensation:

- Make sure that your room is insulated properly to at least R25 using closed cell foam all around, and ensure that the door, seams, joints and cracks are **tightly sealed. This is very important!**
- Check the insulation around your A/C opening. This is a critical point in your Cooler.
- Check that your A/C unit is tipped backwards (about 1 inch) and leveled from side to side to allow for proper draining.

CAN'T SOLVE YOUR PROBLEM?
Contact us at support@storeitcold.com

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 warranty from 1 to **2 years**!

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