CoolBot®: Air Conditioner Recommendations

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The CoolBot® transforms any well-insulated room, shed, or trailer into an affordable walk-in cooler using a standard air conditioner. When choosing an air conditioning unit for use with your CoolBot® temperature controller, you will want to consider the following factors:

- Intended Use
- Temperature Needs
- Cooler Size
- Quality of Cooler Insulation

BUILDING A COOLER

There are many different options for creating a walk-in cooler for your CoolBot®, including building a shed-like structure, sectioning off a part of a garage or barn, or repurposing a cargo trailer. The key to building an efficient cooler is to create an air-tight space and invest in proper insulation. The industry standard insulation for a walk-in cooler is at least 4 inches of rigid closed cell foam in the walls, ceiling, and floor for a minimum insulation value of R-25. Please see our website for more information and videos on building an insulated walk-in cooler for your CoolBot®.

SIZING THE AIR CONDITIONING UNIT TO YOUR COOLER

It is important to choose an air conditioning unit that is appropriately sized for the space you will be cooling. Please see the chart below for general guidelines for sizing your AC unit to your cooler space in order to maintain an ideal storage temperature of approximately 38°F/3°C for most vegetables and 42–45°F/6–7°C for flowers.

*Please note the recommendations in the chart assume that the cooler is relatively air-tight, has adequate insulation, and that the door is opened no more than 6 times per hour. If these conditions are not met, you will want to choose an A/C unit with higher BTU's (British Thermal Units) than those listed to compensate.

Walk-In Cooler Dimensions	Recommended Air Conditioner Size	
	For Vegetable Storage	For Flower Storage
4' L x 4' W x 8' H	8,000 BTU	7,000 BTU
6' L x 6' W x 8' H	8,000 BTU	8,000 BTU
6' L x 8' W x 8' H	10,000 BTU	10,000 BTU
8' L x 8' W x 8' H	12,000 BTU	12,000 BTU
8' L x 10' W x 8' H	15,000 BTU	15,000 BTU
8' L x 12' W x 8' H	18,000 BTU	18,000 BTU
10' L x 14' W x 8' H	24,000 BTU	24,000 BTU

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Additional Sizing Considerations:

- You may need to install multiple A/C units and CoolBot® controllers for cooling an area larger than those listed in the chart above.
- If you will be entering and exiting your cooler frequently, you might consider installing vinyl strip doors in addition to using a higher output AC unit.
- Glass display doors, common among florists, are less efficient than an insulated door so you should choose a higher output AC unit than is recommended for your cooler size.
- For florists, choosing an oversized AC unit can be helpful because the fan speeds can be kept lower, so as not to disturb delicate flowers.
- If your desired temperature is 50°F/10°C or above, you can choose an air conditioner with a lower BTU output than is recommended for your cooler size.

TYPES OF AIR CONDITIONING UNITS

There are several types of air conditioning units, all with varying degrees of compatibility with the CoolBot® controller. It is important to understand their strengths and limitations when choosing a type for use.



Window-Mounted Types
Window-mounted AC units are designed to be easily installed through an open window and are preferred for use with the CoolBot® because they are durable, efficient, and offer the widest selection of compatible brands. Several models offer an Energy Star rating for meeting certain guidelines regarding energy efficiency, thereby saving you money on electricity.

Mini-Split Types
Mini-split A/C units are generally more efficient and take up less space than window-mounted types, however, they can cost more than twice as much. These units are often more affordable and easier to find when shopping outside of the United States. The CoolBot® is compatible with several mini-split brands but check with the manufacturer that it will function in the lowest outside air temperature for your climate.





Portable AC Units
Portable AC units are far less efficient than window-mounted and mini-split types. ONLY Whynter brand models are recommended for use with the CoolBot®, and it MUST be a Dual Hose Model. These portable units are only effective for keeping your cooler at 50°F/10°C or above. If colder temperatures are required, you will want to select another type of air conditioner.

Roof-Mount/ RV Units
Roof-mounted and RV type units are not recommended to use with the CoolBot®.

AIR CONDITIONER REQUIREMENTS

- You must choose an AC unit with **Digital Display** and **Automatic Restart** for the CoolBot® to function properly.
- Please see the chart on the following page for additional information about specific AC brands and models that are compatible with the CoolBot®.

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AIR CONDITIONER BRANDS

Not all air conditioner brands are compatible with the CoolBot®, so it is important to select one that has been tested and approved for this use. The chart below is a guide to choosing an AC unit that is known for being compatible with the CoolBot® controller. We can NOT guarantee compatibility of any brand or models not listed in the chart below.

IMPORTANT NOTES:

- All AC units MUST have a Digital Display and Automatic Restart for use with the CoolBot®.
- LG is the top preferred brand due to their reliability and easy installation.
- If using the CoolBot® in colder temperatures, we recommend selecting a unit from LG Electronics, Danby, Haier, or GE. Check with the manufacturer for detailed information on the AC unit's temperature limitations.
- The chart below lists some models as "Limited Experience - Limited Support." This means that users have reported good results, however, we do not have enough data to classify them as "Compatible."
- For instructions on locating Secondary Sensors or Mini-split installation, please visit https://www.storeitcold.com/support/.

BRAND	Window-Mounted Air Conditioners	Secondary Sensor?	Mini-Split Air Conditioners	Secondary Sensor?
Amana	Limited Experience - Limited Support	YES	Not Compatible	
Arctic King	Any Digital Display Model	YES 12K BTU and above	Not Compatible	
Beaumark	Not Compatible		Not Compatible	
Comfort Aire	Limited Experience - Limited Support	YES	Not Compatible	
Daikin	Not Compatible		ONLY for use in coolers kept at 45°F and above.	YES
Danby	Any Digital Display Model from 2011 and After	YES 12K BTU and above	Not Compatible	
Degodi	Not Compatible		Not Compatible	
Dometic	Not Compatible		Not Compatible	
Electrolux	Not Compatible		Not Compatible	
Emerson	Not Compatible		Not Compatible	
Fedders	Limited Experience - Limited Support	YES	Not Compatible	
Friedrich	Not Compatible		Not Compatible	
Frigidaire	Any Digital Display Model from 2015 and After Except FFRA1222U1	YES 12K BTU and above	Not Compatible	
Fujitsu	Not Compatible		Any Digital Display Model	YES
G.E.	Any Digital Display Model from 2015 and After	YES 12K BTU and above	Not Compatible	
Garrison	Any Digital Display Model (Canada ONLY)	YES Some 10K BTU and most above	Not Compatible	

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BRAND	Window-Mounted Air Conditioners	Secondary Sensor?	Mini-Split Air Conditioners	Secondary Sensor?
Goldstar	Not Compatible		Not Compatible	
Gree	Not Compatible		Not Compatible	
Haier	Any Digital Display Model Except HWE Model	NO	Not Compatible	
Kelvinator	Any Digital Display Model (Australia ONLY)	YES 12K BTU and above	Not Compatible	
Klimaire	Not Compatible		Not Compatible	
LG ***Top Preferred Brand**	Any Digital Display Model Except LW6017R	NO Inverter models DO have secondary sensors	Any Digital Display Model	YES
Midea	Not Compatible		Not Compatible	
Mitsubishi	Not Compatible		Any Digital Display Model	YES
Poineer	Not Compatible		Not Compatible	
Polar Wind	Not Compatible		Not Compatible	
Samsung	Limited Experience - Limited Support	YES	Any Digital Display Model	YES
Sears Kenmore	Any Digital Display Model from 2017 and After	YES 12K BTU units and above w/ digital display in the center	Not Compatible	
Senville	Not Compatible		Not Compatible	
Sharp	Not Compatible		Not Compatible	
Soleus Air	Limited Experience - Limited Support	YES	Not Compatible	
SPT	Limited Experience - Limited Support	YES	Not Compatible	
Tappan	Not Compatible		Not Compatible	
Toshiba	Not Compatible *Or ANY other AC with a Toshiba compressor		Not Compatible	
Uberhaus	Limited Experience - Limited Support	Yes	Not Compatible	
Westinghouse	Not Compatible		Not Compatible	
Westpoint	Limited Experience - Limited Support	YES	Not Compatible	
Whirlpool	Not Compatible		Not Compatible	
Whynter	Not Compatible		Not Compatible	

SUPPORT

For technical questions and support, please visit https://www.storeitcold.com/support/.

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