



MICRO-AIR

Improve Your Starts With EasyStart



Thanks for purchasing our EasyStart™ Soft Starter

Before You Begin...

We want you to be safe and successful so please read the below information before attempting to install our EasyStart Soft Starter.

① Safety First! ⚠

ALL power sources should be turned off before installation. Voltages present can be lethal if improperly handled. A qualified installer should be contacted if you are not comfortable with the installation. Always be sure of your surroundings especially with rooftop installations.

② EasyStart Wiring Diagrams

Resource guides, wiring diagrams and complete product manuals can be found at: www.micro-air.com/knowledgebank

Select a wiring diagram for your air conditioning unit.

Recreational
Vehicle



Marine
Vessels



Residential
Commercial



Other
Applications



③ EasyStart Learning Process

EasyStart will learn your system's compressor motor during the first 5 to 7 successful start-ups, depending on your system's capacity and specifications. This process will ensure that your EasyStart is providing the smoothest and lowest-current start-up.

Typically you can allow your thermostat to cycle your system normally and this will cause the learning process to complete on its own within a short period of time without your taking any special action. If however you wish to complete the learning process right away, you can follow these steps:

- Turn on the system and wait for the compressor to start. You can simply wait at least 5 minutes or until you confirm the compressor has started (i.e. blowing noticeably cold air in cool mode or blowing warm air in heat mode).
- Turn off the system and wait at least 3 minutes.
- Repeat steps 1 and 2 at least 6 more times.

④ Time For a Test

You should now be ready to test our EasyStart unit with your A/C and generator. Connect your generator to your environment as you would normally do and set your A/C to your comfort temperature.

Your A/C should now be able to gently start up and cool your RV, Boat or even Home with less noise and effort.

Congratulations and Enjoy!

Thank You For Your Business!

Specifications

ASY-399 Voltage: 100 to 125 VAC

ASY-364 Voltage: 100 to 250 VAC
ASY-368

Phase: Single
Frequency: 50 or 60 Hz

Part Numbers

ASY-399 / 364
ASY-368

Recommended Toolbox

Phillips Screwdriver
Flathead Screwdriver
Wire Stripper
Crimping Tool
Needle Nose Pliers
Diagonal Pliers
Electrical Tape

Recommended Parts

3M Double-Stick Foam Tape
Plastic bushing (split)
Tie Wraps
Quick Connect Receptacles
End Splice Connectors
Wire Caps
Extra #14 AWG wire

Order Our Installation Kit Online
Part Number: KIT-364-368-RT2

Troubleshooting Guides

Did you know that our EasyStart units come with built-in LED troubleshooting indicator lights?



Check out our easy to use charts on the reverse side to help determine issues with wiring, power or other items.

① Check Wiring and Connections

The most common mistake is incorrect wiring. Check that your wiring is correct with the diagram you selected and make sure all connection points are tightly connected.

② LED Troubleshooting Indicator Lights

Be sure that power has been removed for at least 5-7 minutes before powering back on.

Once your system is back on, EasyStart will record the error and allow you to see which indicator light or combinations of lights are lit.

Use one of the charts below that relates to your model in order to determine the error code.

③ Use one of the below charts for your model

EasyStart non Bluetooth models LED Indicator Lights

Confirm the light or lights that are lit to determine the type of fault detected.

LED Location: bottom/center inside of the unit where wiring harness enters.

	D21	D22	D23
Power Interruption		ON	ON
Stall	ON		ON
Over Current		ON	
Overload/Klixon Open	ON		
Line Voltage is >160V	ON	ON	
Start winding not detected - EasyStart improperly wired	ON	ON	ON

EasyStart Bluetooth models LED Indicator Lights

The fault LED will flash whenever a fault occurs. Count the flashes to determine the type of fault detected.

Flashes POWER LED or D35	Indication	Self-Resetting
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Steady Green Off	EasyStart is powered and operating EasyStart is not powered	not applicable not applicable
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NORMAL LED or DS1

Steady Green	EasyStart is operating as expected without any active faults	not applicable
3 Flash Green	Short-Cycle Timer Active (FRM B27 or later)	✓

FAULT LED or DS1

1 Flash	Unexpected Current	⊖
2 Flash	Over-Current	✓
3 Flash	Power Interruption (FRM B27 or later) Power Interruption or Short Cycle Timer Active (FRM B26 and earlier)	✓
4 Flash	Overload/Klixon Open	✓
5 Flash	Stall	✓
6 Flash	Wrong Line Voltage	⊖
7 Flash	Start Winding not Detected/Mis-wiring	⊖



Indicator Order **

** Image above represents non Bluetooth models only

Error Definitions

Power Interruption: Power was lost for several AC line voltage cycles and EasyStart shut down to prevent an overload. It is normal for this to occur with natural power disruptions.

Short-Cycle Timer Active: The 3-minute short-cycle prevention timer is active and is normal operation. If the A/C shuts down and wants to start again in under 3 minutes, then EasyStart will prevent starting for the full 3 minutes. This ensures pressure has equalized in the system and a low current start can occur.

Stall: EasyStart is not seeing the condition where it can declare that the compressor motor is running at the correct speed. This means that the start failed, or the motor speed was reduced enough to stop the motor. There are many possibilities for this fault which can include:

Voltage collapse of the power source	Failing run capacitor or compressor
Voltage collapses due to poor wiring	Bad learn data
Improper wiring	Wrong model EasyStart

Over-Current: The current measured by EasyStart has exceeded the maximum amount it allows. Be sure you have the correct model EasyStart for your system. Look at our troubleshooting guides at the bottom of the page and contact Micro-Air for further assistance if needed.

Overload/Klixon Open: The compressor overload switch has opened during operation and was detected by EasyStart. This indicates poor air or water flow, or a problem with the compressor or the switch itself.

Wrong Line Voltage: The 120V-only RV EasyStart (ASY-399) cannot be used in 220V applications.

Start Winding Not Detected: One or more of the following wiring problems has occurred:

- The orange wire is not connected to the start winding (compressor "S" wire)
- The black wire is not connected to the common winding (compressor "C" wire)
- L2 is not connected to the run capacitor L2 (capacitor "C" terminal). This may occur if you do not grab the correct compressor "R" wire to connect to EasyStart brown.
- L2 is connected to the start winding (compressor "S" wire)

Unexpected Current: EasyStart sees a large current at the beginning of the start process. Verify the wiring, then perform a relearn on the unit and monitor for additional faults. If faults persist after relearning then contact Micro-Air for assistance.

④ Additional Help

Still stuck? no problem! Simply provide the LED indicator light information with a description of the problem through our online support system below.

<https://www.micro-air.com/SupportRequest>

