

EasyTouch RV™

Reference Manual

for Model

344



MICRO-AIR



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The EasyTouch RV™ 344 model displays are Bluetooth and Wi-Fi enabled displays for remote access to your RV's comfort system. The 344 models were designed to directly replace certain GE™ model RV thermostats. All functionality of the original control is preserved, alongside all of the new functionality that EasyTouch RV brings. Use this manual for detailed installation and operation of this product.

EasyTouch RV 344 Models and Compatible Replacements

EasyTouch RV 344 can be purchased in two colors. [Table 1](#) lists all EasyTouch RV 344 models.

EasyTouch RV 344 Model	Color
ASY-344-X01	Black
ASY-344-X02	White

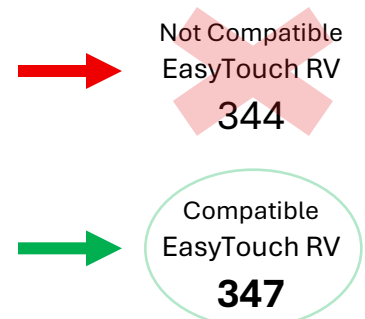
Table 1

The EasyTouch RV 344 is designed to directly replace the GE™ RGRWT_ _ series displays. They communicate with air conditioner control board models RGREC2A and RGREC3A. [Figure 1](#) shows a typical compatible replacement display. Note the buttons are flush on the sides with a square LCD.



Figure 1 – GE™ RGR Series Display Replaced by EasyTouch RV 344

EasyTouch RV 344 is **not** compatible with the older “RAR” series displays. These displays have rubber buttons along the bottom and a rectangular LCD. These displays are compatible with EasyTouch RV Model 347.



Included in the Box

EasyTouch RV model 344 is shipped with the following items:

- 1x EasyTouch RV 344 Display
- 1x Quick-Instruction Card
- 1x Mounting Bracket (*Figure 2*)
- 4x Screw Hole Covers

The mounting bracket is used during installation. The screw hole covers can be used to cover holes in the wall from the previous display if they are exposed.

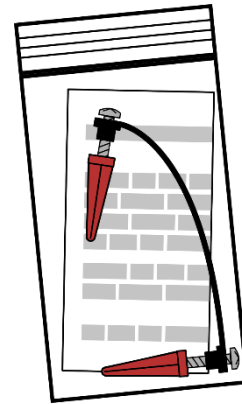


Figure 2 - Mounting Bracket and Instructions

Installing the Display

Safety

First, it is recommended to remove both AC and DC power from your system. Unplug your RV from shore power and turn off any converters or generators to remove AC power. Open your 12-volt DC bus breaker or fuse to de-energize your display. This greatly reduces the chance of any harmful electrical discharge, as well as preventing accidentally opening a fuse.

Removing the Old Display from the Wall

Use a small flathead screwdriver and insert it into the slot on the bottom of the display between the backplate and front cover. Rotate it to pop off the front cover and circuit board. Remove the screws from the backplate to free it from the wall.

Wiring The Display

Flip the front cover over to reveal the wire connections on the circuit board. There are three wire connections with each wire being labelled A, B, and C. Take a picture of the connections and their terminal name. Label the physical wires A, B, and C if needed.

Remove the wire connections by loosening the screw terminals. Connect the wires to the push-in connector of EasyTouch RV based on *Table 2*. Make sure about 3/8" of conductor is exposed of each wire. Twist the strands of wire together if needed. Use a small screwdriver or similar to depress the square push button and fully insert the matching wire. There should be no exposed conductor.



Figure 3 - EasyTouch RV 344 Terminals

Original Wire Color (write in here)	Original Terminal Name	Matching EasyTouch Terminal Name	Function
	A	12V	Power
	B	GND	Ground
	C	COMM	Signal

Table 2 - Wire Chart for EasyTouch RV 344

Re-apply Power

Restore DC power. The display screen should light up and boot into the main menus. Restore AC power so that your appliances can run again. Move on to the section *Mounting the Display*, or the section *Initial Setup Instructions* and mount the display later.

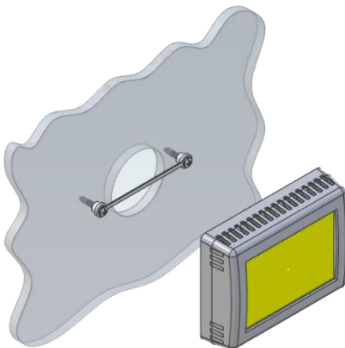
Mounting the Display



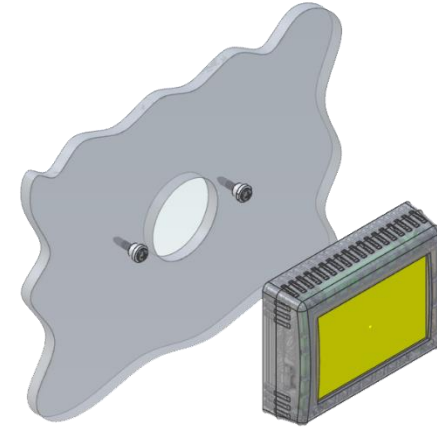
Step 1: Level the mounting bracket horizontally across the hole with the smaller diameter of the mounting button against the wall.



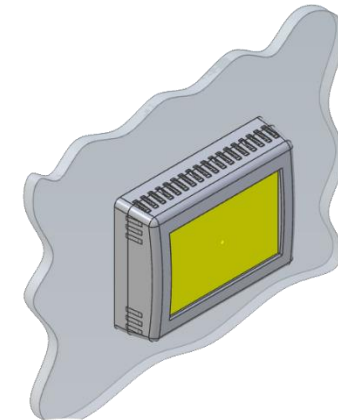
Step 2: Screw in one screw and level the buttons so the display will be straight when installed. Screw into the smaller hole of the two buttons.



Step 3: Screw in the second screw and make sure the buttons are flat and level. The wider inner diameter button has some play to make these adjustments easier.



Step 4: Cut away the center of the mounting bracket before mounting the display on the wall.



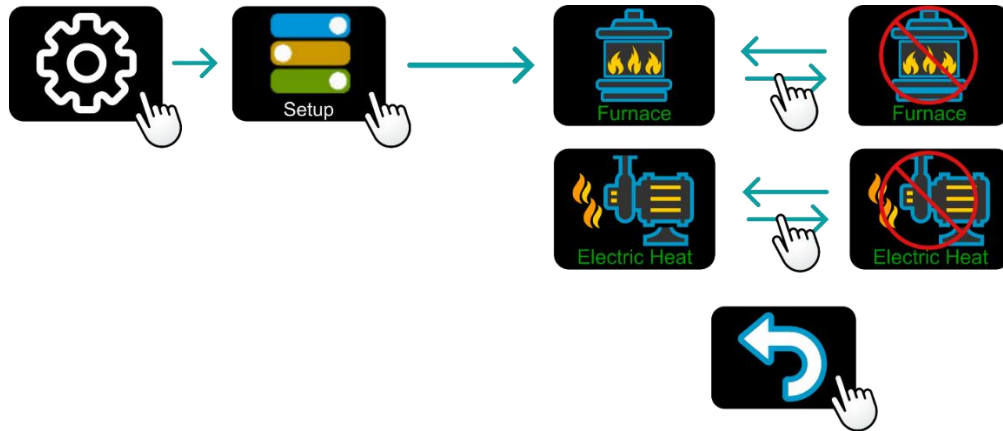
Step 5: Align the buttons with the holes in the back of the display. Press the display against the wall and gently slide the display down to lock it in place.

Initial Setup Instructions

EasyTouch RV 344 also requires some software setup before use. This tells the display what appliances are available.

Configure Available Appliances

Tap the Settings button on the main screen, then navigate to and tap the Setup button. Tap the icons on this page to enable and disable appliances to match your setup. A red line through the icon indicates disabled.



Connecting Remotely

EasyTouch RV can be operated entirely by the touchscreen, however you can also communicate, monitor, and modify operation of it wirelessly using the EasyTouch RV application (mobile app). Some extra features will require a wireless connection and are described in their sections. See [Appendix A: Working Wirelessly](#) for details.



EasyTouch RV App icon

It is recommended to make sure all aspects of the system are working from the display itself before moving on to trying the app. The app mirrors the display touchscreen operation when connected so familiarizing yourself with the display touchscreen first will help understand intended operation and isolate any issues during installation.

Operating the Display - Touchscreen

Main Screen

This screen is where most time is spent using the display. This screen allows you to set and monitor the desired operation of the display, shown in [Figure 4](#).

(1) Zone Selection

This display is a single-zone display so this button is not available or used.

(2) Operational Mode

This is the main operating state of the system. The graphics correspond to how your appliances will operate. Tap it to change to any available mode or turn the system off.

Note: If you do not find an expected zone or mode then see section [Initial Setup Instructions](#)

(3) Fan Speed

This sets how the electric fan (not the furnace blower!) will operate in conjunction with the selected [\(2\) Operational Mode](#). Tap it to iterate the available fan speeds. EasyTouch RV offers improved electric fan control whenever possible.

No fan button for a mode means there is no fan control for the selected mode. Not all fan speeds are available for the selected mode and there is no control of the furnace blower from the display.

- **Full Auto:** Turns the electric fan on and off with a cycle. It automatically adjusts the speed based on the difference between setpoint and inside temperature
- **Cycled:** Turns the electric fan on and off with a cycle at the selected speed only
- **Manual:** Always runs the electric fan at the selected speed
- **Off:** Some modes can be set to not use the electric overhead fan with any cycle

(4) Temperature Setpoint

This button shows the current temperature setpoint for the selected [\(2\) Operational Mode](#). Tap it to adjust the temperature setpoint. Setpoints are tied to each mode to remember the last setting. If there is no setpoint button then there is no setpoint control for the selected mode.

(5) Inside Temperature

This is the temperature reading for the space that the display is trying to temper, determined by an ambient air sensor in the display. This will change color from white when a cycle is active.

(6) Settings

This button will enter the settings screens. Settings are mostly for configuring the display and making changes that are not common or found on the main screen. See section [Settings Screens](#) for more details.

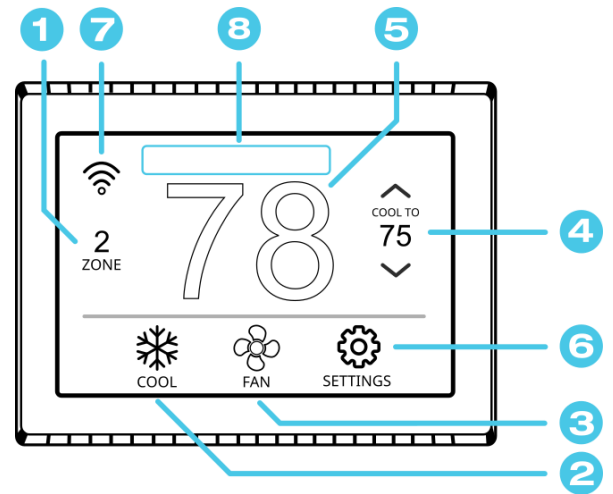


Figure 4 - Main Screen

(7) Wi-Fi Status

The Wi-Fi indicator shows the state of the display's Wi-Fi connection. A red icon means no connection to an internet enabling device. Red with an exclamation means it is connected to an internet enabling device but does not have internet. Green means it is connected to the internet. The number of bars indicate strength. Tap the icon for more information about the Wi-Fi connection.

See the [Connecting to a New Wi-Fi Network](#) for more details.

Max Wi-Fi Recovery

This button on the [\(7\) Wi-Fi Status](#) page, when enabled, will restart the thermostat if it detects an outage for too long. This is intended to make sure the Wi-Fi connection from the thermostat stays up as much as possible.

Sometimes, a cooling or heating cycle may terminate to accommodate this functionality. If this is undesirable, it is recommended to turn this feature off while at the space and reenable it when you plan to be away.

(8) Status Message

Various messages may be shown here to indicate active operations. See the [Status Messages](#) section for potential messages and their meanings.

Operational Modes

All modes operate the overhead electric fan and/or a heating or cooling cycle based on the current setpoint, relative to the inside ambient temperature. To get appliance operation:

1. Set the desired zone to adjust by tapping the *(1) Zone Selection* button, if available.
2. Set the desired mode by tapping the *(2) Operational Mode* and choosing the desired mode, zone off, or system off to turn all zones off.
3. Tap the *(3) Fan Speed* button if applicable to set the desired electric fan operation.
4. Tap the *(4) Temperature Setpoint* button if applicable to set the desired ambient temperature for this zone.
5. Repeat from step 1 as needed.

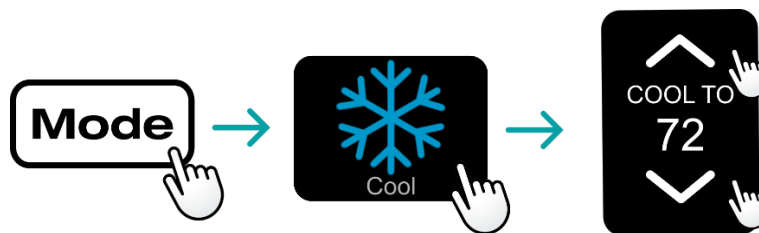
Fans and Fan Only Mode

This mode lets the fan operate based on the chosen *(3) Fan Speed*. This will circulate the air using the electric fan of the A/C without operating any heating or cooling cycles.



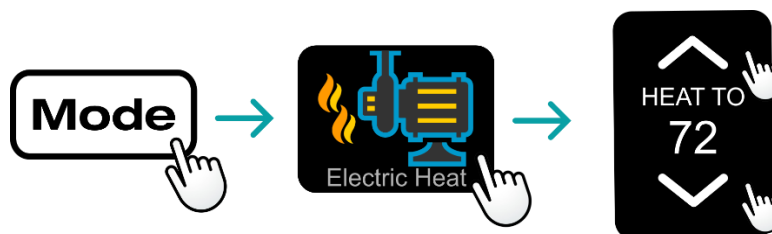
Cool Only Mode

This mode only runs a cool cycle to maintain the cooling set-point in the selected zone. Set the *(2) Operational Mode* to Cool and the desired *(3) Fan Speed* and *(4) Temperature Setpoint*.



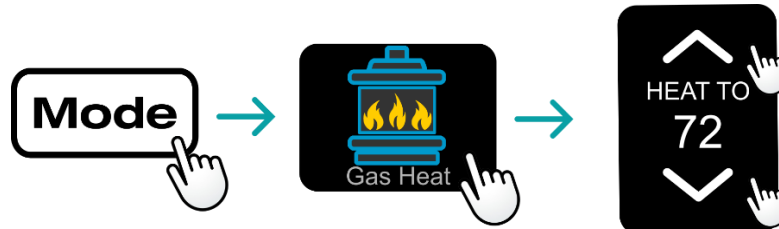
Electric Heat Only Mode

This mode only runs an electric heat cycle to maintain the heating set-point in the selected zone. This may be a heat pump or a heat strip depending on the factory zone set up. Set the *(2) Operational Mode* to Electric Heat and the desired *(3) Fan Speed* and *(4) Temperature Setpoint*.



Auxiliary Heat Only Mode

This mode only runs a “forced-air” auxiliary heat cycle to maintain the heating set-point in the selected zone. Set the (2) *Operational Mode* to Furnace or Aqua and the desired (3) *Fan Speed* and (4) *Temperature Setpoint*.



Both Heat Mode

This mode will start a cycle with the available electric heat. If the system determines that the electric heat cannot meet the demand then it will run the “forced air” auxiliary heat appliance. See the OEM manual for when the control board determines when to change over.



Settings Screens

These settings are common to all displays. These allow for further configuration and control of the display and system behaviors. Each setting can be tapped to configure the related settings.



Settings Button

Tap the settings button as shown in section (6) *Settings* under *Main Screen* to view them.

Navigation

Use these buttons to flip through all the available settings or return to the main screen.



Previous Settings Page



Back to Main Menu



Next Settings Page

System Help

This screen displays a QR code that can be scanned to provide information about display operation and troubleshooting from the Micro-Air website. It also shows the current display firmware revision and the display's serial number.



Help Button

Display Brightness

This screen allows you to set the Active and Sleep brightness levels that are used by the display. Tap the associated up and down arrows to change their level. The screen will transition to sleep brightness after about 30 seconds of inactivity.



Brightness Button

Measurement Units

This setting determines the temperature scale to use in the display. Tap the Units button to toggle between Fahrenheit and Celsius.



Units Buttons

Touchscreen Calibration

The EasyTouch RV touchscreen is calibrated at the factory to accurately interpret your touch presses. Tapping the Touchscreen Calibrate Button will allow you to recalibrate the touch press area. Follow the on-screen prompts to calibrate the touchscreen.



Touchscreen Calibrate Button

Reset

This button gives options for settings that can be reset. Follow the prompts to confirm

- **Restart:** Turns the entire display off and back on
- **Reset Bluetooth:** Reset the saved Bluetooth Password in the display. Use this whenever you reset the password to your app account to regain remote access to the display
- **Reset All:** Restore settings like setpoints and modes to factory defaults
- **Clear Information:** Reset details like Wi-Fi credentials back to defaults



Reset Button

Temperature Reading Adjustment

This setting allows you to calibrate the inside temperature reading with an offset. For example, if the inside temperature reads 72F (22.2C) and you feel it is 75F (24C), you can use the up and down arrows on this page to increment the offset to +3F (+1.8C).

This setting only affects the sensor inside EasyTouch RV. It does *not* affect any remote sensors (optional from the factory) plugged into a zone control board. See section [*\(5\) Inside Temperature*](#) for more information.



*Temperature
Reading
Adjustment*

Temperature Gap (Hysteresis)

This setting determines the difference in temperature required between setpoint and inside temperature before a heating or cooling cycle will begin. This is helpful to prevent short cycling in large spaces or spaces with high thermal loss, by running a cycle for longer amounts of time. This offset is applied to all logic that involves setpoint operations, such as auto modes, auto gas changeover, etc.



*Temperature
Gap Button*

Setup

This setting is used to configure your display's operational settings and is slightly different for each EasyTouch RV model. Some simply display how the air conditioner control board that EasyTouch RV communicates with is configured. Others allow for telling EasyTouch RV what appliances it has connected to it. Tap the Switches button to see what configurations are available. See section [*Initial Setup Instructions*](#) for details on what must be configured, if any. Micro-Air cannot assist with manipulating and adding more appliances to your system.



*Setup
Button*

Status Messages

Some messages may be displayed at the top of the main screen. [Table 3](#) shows the potential messages and their meaning.

Message Text	Description
NO CONTROL RESPONSE	This message means EasyTouch RV does not hear communication to an “RGR” series GE™ control board. Ensure that the A, B, and C wires are connected properly from the control board in the plenum. Make sure the wires are installed corrected into the back of EasyTouch RV. Make sure you have purchased the correct EasyTouch model for your system. See EasyTouch RV 344 Models and Compatible Replacements and Installing the Display for details.
LOW DC VOLTAGE	The control board is reporting a low voltage condition, typically less than 10.5 VDC in a nominal 12 VDC system. All appliances will shut off and resume when the condition clears.
INSIDE COIL SENSOR	The control board is reporting its inside coil sensor has failed or disconnected. The sensor and/or A/C control board must be serviced. No electric appliances can run.
OUTSIDE COIL SENSOR (heat pump only)	EasyTouch RV has detected the sensor reading for the outside coil connected to the control board has failed. The sensor and/or A/C control board must be serviced. No electric appliances can run.
BAD OUTSIDE SENSOR (heat pump only)	EasyTouch RV has detected the sensor reading for the outside ambient air, connected to the control board has failed. The sensor and/or A/C control board must be serviced. No electric appliances can run.
FREEZE DETECTED	The control board is reporting the inside coil is freezing up and so any cool cycle is shut down. It is recommended to increase airflow by cleaning any air filters and opening the vents.
HP OVER TEMP (heat pump only)	The control board is reporting the inside coil is exceeding 140° F and so any heat pump cycle is shut down. It is recommended to increase airflow by cleaning any air filters and opening the vents.
OVERRIDE ACTIVE (heat pump only)	The control board is reporting the outside temperature is too cold to run the heat pump and has locked out. It is recommended to use the Both Heat mode to allow the system to switch to gas furnace when needed.
BAD INDOOR SENSOR	EasyTouch RV has an ambient sensor for making decisions on when to operate a cycle. EasyTouch RV needs to be repaired or replaced.

Table 3 - Status Message Descriptions

Smart-Device Application Features

Check for Updates

Checks to see if any updates are available for the display. The smart device application must have internet and the display must be connected to Wi-Fi with a green Wi-Fi symbol. Tap Check for Updates and follow the prompts.

Note: Beta updates may be available from time to time, but these are for people working with Micro-Air in testing them. Some features may not work as expected. The current version firmware can be restored by checking for updates again.

Edit Wi-Fi Settings or Connect to Wi-Fi

This is where you will make the connection from the display to the internet. See section [*Connecting to a New Wi-Fi Network*](#) for details on how to use this feature. The app must be connected to the display over Bluetooth to see this option.

Refresh Configuration

This setting resets the saved configuration in the app if a configuration change is made at the display. If there is a difference between the modes and zones available on the app compared to the display then press this button to sync the app to the display. First time connection will grab the correct settings but activate this setting to force the sync.

Appendix A: Working Wirelessly

This display may be operated remotely using either Bluetooth or Wi-Fi. All connectivity is performed through the EasyTouch RV App on a smart device. The app is downloaded from the Google Play store or Apple App store. The first time the app is opened, it will ask to create an account. Create your account and follow the prompts to connect your display.



EasyTouch RV App icon

Bluetooth is a limited range method to connect, typically used when near the display. The display can be connected to an internet-connected network, where you can then access the display from anywhere you have an internet connection with the app.

If a second user is going to use the display remotely, they **MUST** use the same account and password that the first user assigned to the display. Each display can only be assigned to a single account, but many users can control the display if they use the same account.

First Connection Steps

Note: An internet connection on your smart device is necessary for these steps.

1. EasyTouch RV uses BLE which is a special implementation of Bluetooth. The smart device and display do not “Pair” like other common devices. Ensure that Bluetooth is enabled in the smart device settings, and that the app has Bluetooth permissions. Android systems have changed over time and some users may need to have location permissions give to the app, location permissions turned on in general, our give “nearby devices” permissions to the app.
2. Start the app on your smart device. Bluetooth permissions must be accepted and may prompt you for them. The app will open to a main page where you can log-in, delete an account, recover a lost password, or create an account. Tap create account and enter your name, email, and a password at the prompts. The system will send a confirmation email to your inbox. Enter the number in the confirmation email when asked.
3. Once the account is created, the application may ask to add a device. If your display is powered and permissions are set up, it will show in the list to be added to your account, found over Bluetooth. Select the device and enter a name for it. This name is used to identify and connect to it in the future.
4. If you added a control, the app will ask if you want to connect the display to Wi-Fi now. Enter your SSID (network name) and password of the network you want to connect the display to.

Adding a Display to Your Account

Follow the next steps if you did not add a display or there are more to add.

1. Open the app and you should be signed in from the directions of the [*First Connection Steps*](#) section. Press the settings gear and “Add Device”.
2. The nearby display (s) should be listed in the “Devices Found” list. These are the displays heard over Bluetooth. Select the device and enter a name for the device.
3. Once added, go back to the “Devices” screen, which lists all the displays added to your account.
4. Select the display you want to control from the “Devices” list to connect.

Connecting to a New Wi-Fi Network

You can connect to the display from anywhere using the app when the display is connected to an internet source. The internet source **must** be operating on a 2.4GHz network to connect to EasyTouch.

1. Connect to the display in Bluetooth and press the settings gear. Apple users select Bluetooth on the first page.
2. Select “Connect to Wi-Fi” or similar from the settings window.
3. Connect to a network:
 - a. The SSID (network name) will say “searching” then switch to “select”. Tap “select” to choose from a network the display can hear.
 - i. Alternatively, enter the SSID manually (case sensitive)
 - b. Enter the password (case sensitive).
4. Press OK and the screen will return to the selection screen. The display will reset and a green Wi-Fi symbol will appear on the main display screen if the connection was successful.
5. With a green Wi-Fi symbol, you can now connect to the display from anywhere using the app over the internet.

Updating The EasyTouch RV Display

Ensuring you have the latest display software is key to having all the latest features.

1. Ensure the display is connected to Wi-Fi with a green Wi-Fi symbol.
2. Connect to the display with the app and press the app’s settings gear. Then tap Check for Updates.
3. Follow the prompts to update the display or ensure that you already have the latest software.

Appendix B: Troubleshooting

This section has some troubleshooting suggestions based on what you may find with this display in particular. Please take a look at our [Quick Start and FAQ Manual](#) for typical questions that may arise when using the display or the app, as well as quick instructions for common operations.

Wi-Fi Troubleshooting

This is a list of potential fixes we have found for most customers that have trouble connecting the display to the internet. If you still have trouble then navigate to our [Micro-Air EasyTouch RV Knowledge Bank](#) that has a troubleshooting section. See the WiFi troubleshooting articles for the latest information.

Blue Wi-Fi Icon – No connection

- SSID (Network name) and password are both case sensitive.
- Be sure you are connecting to a 2.4 GHz network and not a 5GHz or 6GHz network.
- Set the security to WPA2 and TKIP+AES if you are having trouble.
- The display has a limit of 31 characters for the SSID and 50 for the password.
- Ensure the number of devices limit for the network is not full.
- Ensure the Wi-Fi source is not out of range or metal partitions blocking the signal.
- Try a guest network or mobile hotspot that may have reduced restrictions.
- Reset the router to renew the DHCP lease.
- If you are in a metal enclosure, try moving the router or display a few inches (even if temporary) and trying again.
- If using MAC filtering, add the display to the allowed devices list.
- Try assigning a DHCP reservation to the display's MAC address.

Red Wi-Fi Icon – Connected without Internet

- The router must have an internet connection
- Server may be down, check back at a later time
- Be sure there is no firewall in the router blocking the incoming messages (port 8883, MQTT). Place the display's IP or MAC address into the router's DMZ settings to bypass any firewalls.

More Information and Resources

Micro-Air EasyTouch RV Knowledge Bank

Home page of the knowledge bank for the latest guides on setup, operation, and troubleshooting.

https://www.micro-air.com/kb_easytouch_rv.htm

Quick Start and FAQ Manual

Installation section of the Knowledge Bank, which has the quick start and FAQ manual at the top.

https://www.micro-air.com/kb-easytouchrv/cat_installation.htm

Dealer Map

This is a map of all technicians and RV shops associated with Micro-Air. You can use these businesses for installation services.

<https://www.microair.net/pages/find-a-dealer>

Main Website

Main website for buying our products and contacting us for support. Please read over the rest of the *Appendix B: Troubleshooting* section, the *Quick Start and FAQ Manual*, and the rest of this manual to see if it has the answers to your questions or issues. If you still have trouble, be sure to provide what product you have, model number, serial number, and a description of what is happening and what you have tried when contacting us.

<https://www.microair.net/>