

WINEGARD® Connect™

LONG RANGE, HIGH PERFORMANCE WIFI EXTENDER + 4G LTE

4G1xM

Installation / Operation Manual



WF-200M

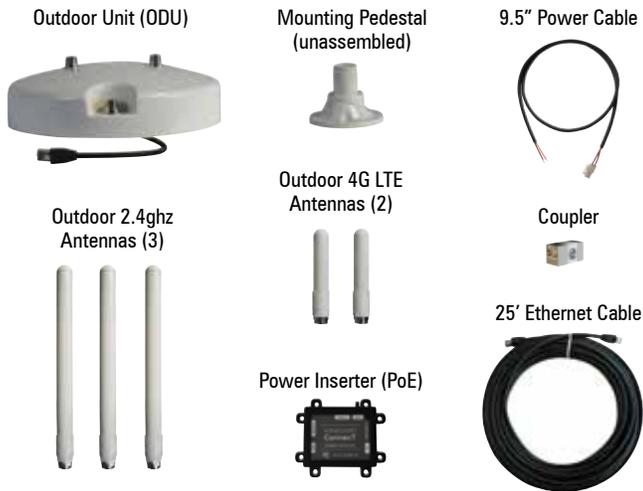
DESIGNED & TESTED
SPECIFICALLY FOR MARINE



DESIGNED AND
MANUFACTURED IN
USA

STOP! Before beginning assembly and installation, decide where you want to mount the antenna and the power supply. The power supply will also have to be connected to 12V power source and mounted in a water free environment.

PARTS LIST



ADDITIONAL MATERIALS NEEDED:

- Mounting Screws (consult your vehicle manufacturer for the correct hardware).
- Power cable (if additional length is needed)
- Electrical tape
- Wire Connectors (18 gauge)
- Drill
- Sealant

WARNINGS:

- Read this manual carefully and completely before attempting to assemble, install or operate this product. Winegard recommends the installation of this equipment be done by a professional technician familiar with the vehicle in which it is installed. Batteries may expel explosive gases when not properly ventilated, therefore, special care and consideration is required if wiring directly to a battery. Winegard recommends wiring directly to a fused panel or fused box. Consult your vehicle manufacturer for additional information on safely installing accessories.
- Save these instructions.
- Do not use any other PoE device with this system. Failure to comply could cause damage to the product.
- Do not paint any portion of the Winegard® Connect™. Painting the system could damage the system and will void the warranty.
- Before installing, make sure you will have access the Ethernet cable exiting the base of the unit once it is routed through and mounted to the plastic pedestal.
- 4G LTE service will not work in Mexico.

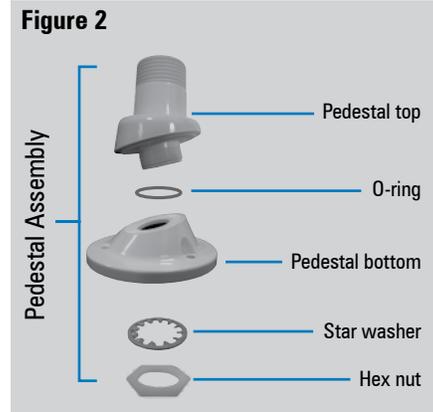
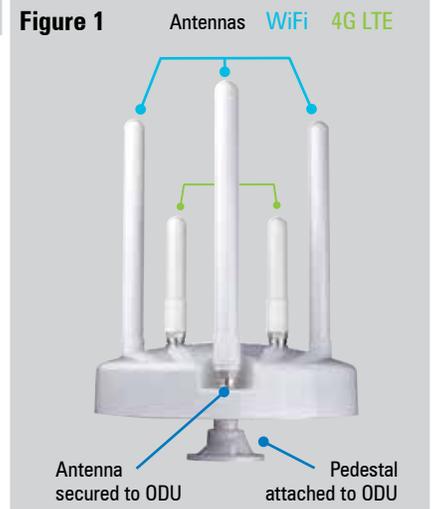
EXTERIOR INSTALLATION

- 1) Remove each antenna from the protective bag and screw it into the correct open port on the outdoor unit (ODU). *Figure 1.*
- 2) Firmly tighten each antenna by hand. If using a wrench, do not overtighten the antenna as the antennas or housing may become damaged. The antennas should be tightened to 20–25 inch pounds of torque.
- 3) Assemble the mounting pedestal as shown in Figure 2.

Step 1. Place the O-ring over the threads on the short end of the pedestal top. Make sure the O-ring fits snugly into the groove.

Step 2. Attach the pedestal top and bottom together, making sure to line up the slanted pieces so the antenna will be horizontal when mounted.

Step 3. Install the star washer on the underside of the pedestal bottom. Loosely thread the hexagonal nut onto the underside of the pedestal bottom. Check to see that the pedestal top is still at the desired angle. If installing on a slanted surface, make sure the pedestal top is in vertical position. Tighten hexagonal nut until it is flush with the threaded end of the pedestal bottom. Finally, tighten a half turn more.



EXTERIOR INSTALLATION (cont)

- Next, decide where the unit will be mounted and place the pedestal in place. Using a 1/8" drill bit, pre-drill the holes (3) for each of the screws (not provided) to hold the mounting pedestal in place. You will also need to drill a 3/4" hole in the center of these holes for the Ethernet cable exiting the ODU to enter.
- Add a small bead of manufacturer approved sealant (not provided) to each hole. See TIP.
- Drive screws (3) through the pedestal base and into each hole (3) until tight. Do not overtighten as it will cause the screw to strip. See NOTE.
- After the mount is securely in place, slide the Ethernet cable attached to the ODU into the center hole of the mounting pedestal. This should also slide it into the 3/4" hole you previously drilled.
- With the cable routed through the mounting pedestal, place the center hole on the bottom of the ODU to the top of the threaded mounting adapter and rotate the ODU clockwise until firmly tightened. See **CAUTION** to the right.
- Add a small amount of approved sealant around the base of the mounting pedestal and over each screw (3).
- Next, connect this Ethernet cable to the coupler provided and on the opposite end of the coupler connect the 25' Ethernet cable.*

TIP: Clean the surface where the unit will be mounted to ensure a good seal.

NOTE: Before selecting the mounting screws, consult your vehicle manufacturer for any special screw requirements.

CAUTION: When attaching the Connect to the pedestal, be very careful to start the threads properly before screwing into position.

INTERIOR INSTALLATION

CAUTION: Before proceeding, be sure to shut off electricity in order to avoid electrical shock.

- Determine where you will install the (PoE) Power Inserter. See **WARNING** below.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THE POWER SUPPLY TO RAIN OR MOISTURE.

- Connect the 25' Ethernet cable from the ODU to the "To Antenna" connection on the PoE. Ensure that the cable is adequately secured to this port.
- Connect the supplied 9.5" power cable into the "Power IN" port on the PoE. Again, ensure the cable is tightly secured to this port.
- Next, if needed, connect the bare wire ends of the 9.5" power cable to an 18AWG power wire (not supplied and must not exceed 50 feet). Connect the red (Power) cables together and the black (Ground) cables together with wire connectors (not included). Wrap electrical tape (not included) around each wire connector down to the wire. Run the opposite end of the power cable to a dedicated 12VDC circuit with an in-line 3A fuse. See **WARNING** to the right.
- If connecting a device to the LAN port, run an Ethernet cable (not provided) from the LAN port on the PoE to the Ethernet connection on your device. Winegard recommends not using an Ethernet cable longer than 50 feet.
- Lastly, there are 8 mounting eyelets on the PoE. We recommend using at least 4 screws (not provided) to 4 of these eyelets to mount the PoE to the desired location. To ensure eyelets don't break, do not overtighten screw.
- Turn the power switch to the on position. The LED should light up and you are ready to use.

Figure 3

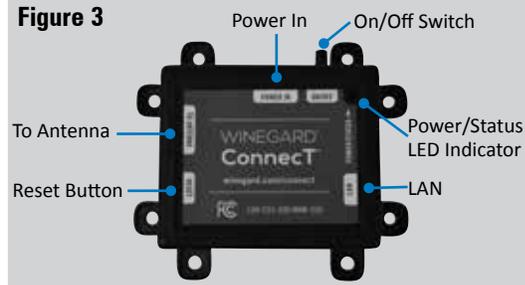


Figure 4

PoE Wiring Requirements

- Supply voltage – 9-16V
- Output Voltage – 24V
- Max. operating current – 1A
- Max. operating temperature – 60C
- Max. power cable length –
18 gauge (recommended)– 50'
- LAN port – Max. Ethernet length –
CAT5e – 50'

WARNING: MAKE SURE NO BARE WIRE OR WIRE STRANDS ARE VISIBLE AFTER MAKING CONNECTIONS. FAILURE TO PROPERLY INSTALL MAY MAKE THE UNIT INOPERABLE AND COULD EVEN CAUSE FIRE, EXPLOSION, PERSONAL INJURY OR DEATH.

OPERATION

NOTE: Winegard recommends using Chrome or Firefox for set-up.

WARNING: DO NOT CLICK THE BACK BUTTON ON YOUR WEB BROWSER WHEN NAVIGATING THROUGH THIS SOFTWARE.

- 1) Turn on the WiFi enabled device that you want to connect and scan for wireless networks with this device.
- 2) The label located on the front of this manual lists the unique default SSID and password. Select this WiFi signal from the list of wireless networks and connect. Once the correct SSID has been selected, enter the password.

IMPORTANT: DO NOT LOSE THIS MANUAL. It contains your unique factory default SSID and password.

- 3) Once connected, open an Internet browser and type **10.11.12.1** into the address bar and press **Enter**. *Figure 5*. This will take you to the Admin Login Screen. Login using:

Username: **admin** Password: **admin**

The Winegard ConnectT 4G1xM can access the internet two different ways: from a local WiFi network or a 4G LTE network.

- 4) To connect to a 4G LTE network, select **4G LTE Only** from the internet access menu. Then click **SELECT**. *Figure 6*.

WARNING: CONNECTING TO THE INTERNET THROUGH 4G LTE WILL USE DATA FROM YOUR WINEGARD CONNECT DATA PLAN.

- 5) To add data to the 4G1xM from the Status screen, select the **DATA PLAN** icon. Once on the data plan screen, you can see how much data you have remaining or click the link in the subscription field to view your current plan or purchase more data. *Figure 7*.

WARNING: IN ORDER TO PURCHASE DATA YOU MUST BE CONNECTED TO AN INTERNET SOURCE.

NOTE: Any changes made to your network settings may result in a temporary loss of all network connections for up to 1 minute while being applied. This includes switching from WiFi to 4G and from 4G to WiFi. During this temporary loss your device may switch to a local remembered WiFi network. This will not allow you to return to the ConnectT setup screens. If this happens manually reconnect to the ConnectT's SSID again from your device.

- 6) To connect to a WiFi network, select **WiFi Only** and then click on **SCAN FOR WiFi**. This will bring up a list of all WiFi signals in range (this could take a few minutes). The Winegard ConnectT will display available networks by signal strength. Select the desired network and click **CONTINUE**. *Figure 8*.
- 7) Enter the network password, if prompted. Once the Winegard ConnectT connects to the internet the **INTERNET STATUS** will show connected (this could take as long as two minutes). You are now ready to use the WiFi.

NOTE: Some networks will display a "splash page" when connecting instead of using a network password. When connecting to a network requiring a splash screen for multiple days, it may be necessary to clear your browser cache.

Figure 5



Figure 6

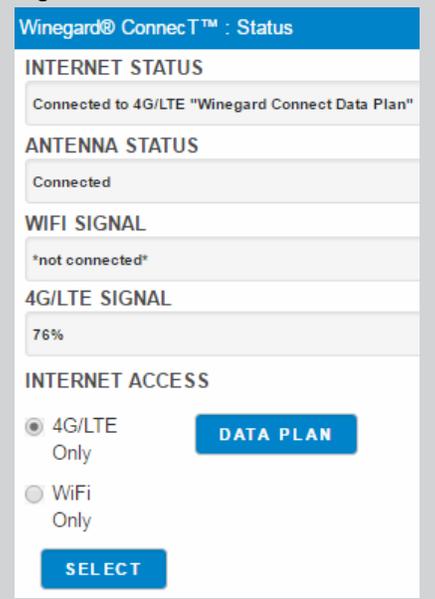


Figure 7

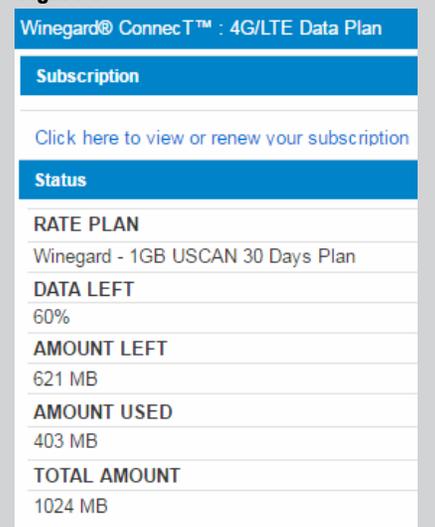
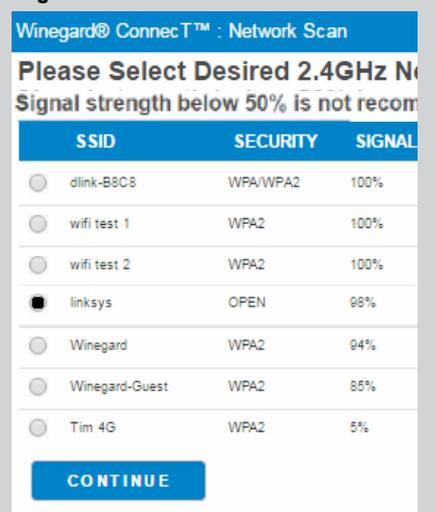


Figure 8



OPERATION (cont)

Most functions on the Winegard Connect are controlled from the Local Network Settings screen. From the Status Screen, select **LOCAL NETWORK SETTINGS** from the drop down menu and click **SELECT**. From here (Figure 9), it is possible to do any of the following:

Change (SSID) Network Name

NOTE: Any changes made to your network settings may result in a temporary loss of all network connections for up to 1 minute while the changes are applied.

It is recommended that you change the name of the IDU. This will improve the security of your network and make it easier to find with your WiFi enabled devices.

Change Network Password

To secure your network, it is suggested that you change the network password to something you can remember. The new password must be at least eight characters long.

Security Type

The Winegard Connect Security Type has been defaulted to WPA2-PSK (AES). Other options are available on this screen.

Guest Network

The Winegard Connect provides a simple way to set up an extra network that doesn't have access to the Status Screen. This allows you to provide guests with an easier password to use when accessing your network while still maintaining a secure system.

To set up a Guest Network:

- 1) Click on **ENABLE**. *Figure 10*.
- 2) Give the guest network an easily recognizable name. *Figure 10*.
- 3) Enter a password. If you use a simple password, it is recommended that the guest network be disabled when not in use. *Figure 10*.

Figure 9

The screenshot shows the 'Winegard® Connect™ : Settings' screen. Under the '2.4 GHz Network Settings' section, the following fields are visible: 'LOCAL NETWORK SSID' with the value 'Winegard2ghzE1B29C', 'PASSWORD (must be at least 8 chars)' with a masked password '*****', 'Hide Password:' checked, 'SELECT SECURITY TYPE' with 'WPA2-PSK (AES)' selected, and 'CHANNEL' with the value '11'.

Figure 10

The screenshot shows the '2.4 GHz Guest Network Settings' screen. At the top, there are radio buttons for 'ENABLE:' (selected) and 'DISABLE:'. Below this, the 'GUEST NETWORK SSID' field contains 'WinegardGuestE17B8C'. The 'PASSWORD (must be at least 6 chars)' field contains a masked password '*****'. The 'Hide Password:' checkbox is checked.

ADVANCED SETTINGS

Connected Devices

This displays the name of each device currently connected wirelessly to the Winegard Connect.

Change Network Address

WARNING: DO NOT CHANGE THE NETWORK ADDRESS UNLESS INSTRUCTED BY WINEGARD TECH SUPPORT. DOING SO MAY CAUSE YOUR SYSTEM TO NOT FUNCTION PROPERLY.

Change Admin Password

It is not necessary to change the ADMIN PASSWORD, however, to change the password click on **CHANGE ADMIN PASSWORD** to bring up the new password screen. Enter the new password into the area for both PASSWORD and RE-ENTER PASSWORD. The password in each of these boxes must match.

NOTE: Do not use the existing WiFi password for the ADMIN PASSWORD.

UPDATING THE WINEGARD® CONNECT™ SOFTWARE

When first setting up the Winegard ConnectT it is recommended to check for software updates the first time the system is connected to an Internet signal. It is also recommended to check for updates every couple months for fixes and added features.

NOTE: To retain all passwords and name changes during updates, click "Keep Settings".

- 1) From the Status Screen, choose **UPDATE SOFTWARE** from the drop down menu and click **SELECT**.

NOTE: Updating the system software from the network will require the Winegard ConnectT to be connected to an internet source.

- 2) Once on the update software screen, click **CHECK FOR LATEST VERSION**. See Figure 11.
- 3) There will be a slight delay while the Winegard ConnectT compares the current software version to the latest available version. If you have the latest version there is no need to update the software, click **CANCEL**. If the check finds that you have older software, click **PROCEED** to update to the latest version. See Figure 12.
- 4) If you clicked **PROCEED**, the system will be unavailable for several minutes while the outdoor antenna resets. As it powers back on, the system will function normally.

NOTE: During this reset, your device may switch to a local remembered WiFi network. This will not allow you to return to the ConnectT setup screens. If this happens, simply reconnect manually to the ConnectT's SSID again from your device.

Return to Factory Defaults

To return to factory default, press the reset button located on the left side of the power inserter for 30 seconds. See Figure 4.

WARNING: All changes will be lost and unit will return to factory default SSID and password. To begin setup, please refer to quick start guide.

Maintenance: Periodically check the ODU to ensure all connections are tight. As with all electronics, cycle power every few days to keep things running smoothly.

WINEGARD® CONNECT™ SUPPORT

Troubleshooting

LED DEFINITION:

LED Off	System is powered down.
Solid Red	The Winegard ConnectT is booting up.
Slow Orange Blink	The Winegard PoE is searching for an ODU.
Fast Orange Blink	The Winegard PoE reset button was pressed for 10 seconds.
Slow Red Blink	The Winegard PoE is connected to something other than the ODU in the "To Antenna" port.
Fast Red Blink	The Winegard PoE reset button was pressed for more than 30 seconds.
Solid Green	The Winegard PoE has found the ODU and it is powered up.
Fast Green Blink	The Winegard PoE reset button was pressed for less than 10 seconds.
Alternating Green & Orange Blink	Power may have been removed during an update and the Winegard ODU is in rescue mode.

Figure 11

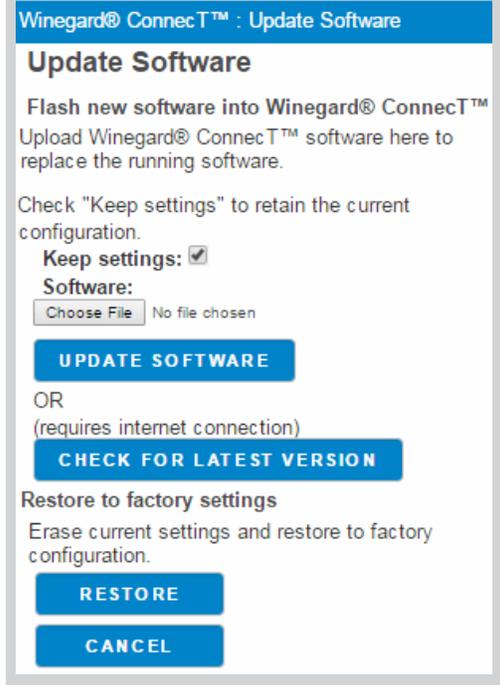
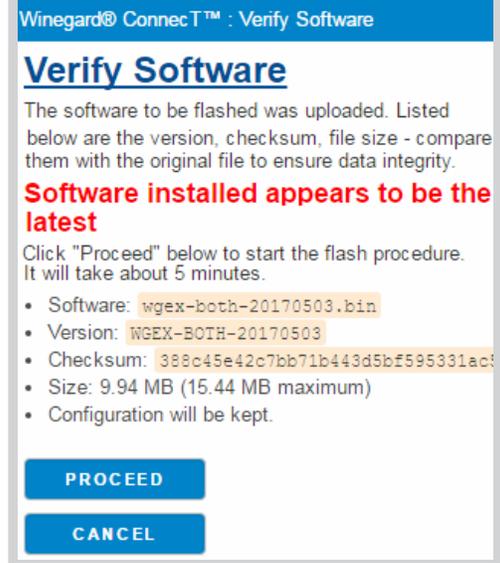


Figure 12



Troubleshooting

QUESTION	ANSWER
<i>Am I able to paint the Winegard Connect?</i>	Do not paint any portion of the WiFi extender. Painting the system could damage the system and will void the warranty.
<i>I have wired the PoE and turned the power button on, but I see no LED and I cannot access the Connect software.</i>	Confirm that you are supplying 9-16VDC to the PoE "Power In" port. The unit will not power on and no LED will be present if the voltage is too low. Next, check to make sure the power cable is connected correctly (Red to Power and Black to Ground) and not backwards.
<i>The system says that it is connected, why won't web pages load?</i>	Some WiFi sources do not require a password to connect but do require something before they will let you use their network. In these cases, they will often have a "SPLASH" page that requires you to either agree to their rules or enter a password before they will allow you to use their network. These pages will not always load on the web browser that you select but instead open on your devices default browser. Sometimes browsing to a web page will also bring up this splash page.
<i>The system keeps making me log in every time I try to change screens.</i>	Check to see if you have a second window open on the Winegard Connect status screen. Close this window and the problem should go away.
<i>I changed my password and nothing happened.</i>	The Winegard Connect will reject any password that is not long enough. Try entering a password of at least eight characters. This will improve the security of your devices.
<i>What if I lost my manual and/or cannot find my SSID or password?</i>	If you haven't changed your factory preset SSID or password you have 3 options to recover these: <ol style="list-style-type: none"> 1. Connect a laptop to the LAN connection on your PoE power inserter. Figure 4. This will allow you into the software. Once logged in, you will be able to recover your SSID and password on the Local Networks Settings tab. 2. On the edge of the ODU there will be a white label with your factory preset SSID and password. 3. Remove the 3 nuts from the 3 plastic feet. Lift the outdoor antenna from the 3 metal posts and the label containing this information will be on the bottom side containing this information will be on the bottom side. If you have changed your password you have 2 options: <ol style="list-style-type: none"> 1. Connect a laptop to the LAN connection on your PoE power inserter. Figure 4. This will allow you into the software. Once logged in, you will be able to recover your SSID and password on the Local Networks Settings tab. 2. Press and hold the reset button for 30 seconds located on the PoE (Figure 4). This will restore the unit to the original factory settings. Then you may log in using the factory SSID and password located on the front of this manual or on the ODU.
<i>What do I do if 10.11.12.1 does not bring up the login screen?</i>	One of several things has happened. The first thing to check is the WiFi signal that your model is connected to. If this is not the Winegard Connect SSID, this address isn't valid. If you are indeed connected to the correct network, the address may have been changed. To resolve this, press the reset button on the side of your PoE for 30 seconds. This will return the unit to its factory settings.
<i>My default SSID does not appear on my device when I search for it.</i>	When the Winegard Connect first powers on or has reset for any reason, it stops broadcasting the SSID. It may take between four and five minutes from the time it regained power to start broadcasting again.
<i>I changed my Winegard Connect SSID and was disconnected.</i>	This is normal. The old SSID that you were connected to is no longer valid, simply open your device's WiFi screen and search for the name you chose for your network. Select this and enter the password.
<i>I am connected to a network but the speed isn't very good.</i>	The Winegard Connect can only extend the signal range for what is available. Try moving closer to the source of the signal and logging on with your device directly. If the speed is still slow, try searching for another available network.
4G LTE ONLY	
<i>In the Data Plan page, my rate plans and other fields are showing "unknown".</i>	<ol style="list-style-type: none"> 1. Confirm that you have the most up-to-date software. 2. Log in to your account, click on "View Winegard Connect Subscriptions" to verify you have data. (You will have to be connected to the internet to view this).
<i>I have data but I am not able to connect to the internet. The Internet Status continuously says "Connecting 4G LTE Winegard Connected Data Plan".</i>	<ol style="list-style-type: none"> 1. Ensure that you have coverage in your location. 2. The Winegard Connect 4G will not work in Mexico. 3. Disconnect the Connect from power and wait 10 seconds before reconnecting.
<i>I am being billed every month and am not using the Winegard Connect.</i>	Log in to your account, click on "View Winegard Connect Subscriptions". Verify that auto renew is "Off".
<i>The system will not process my credit card.</i>	Verify that the billing address is the correct address associated with the credit card being used.

Troubleshooting (cont)

STATUS SCREEN MESSAGES:

<i>Connected to Wifi XXXX</i>	The Winegard® ConnecT™ unit is communicating with the source WiFi signal and working. If you are unable to connect to the internet, the source signal may have a problem.
<i>Scanning</i>	The Winegard ConnecT unit is looking for WiFi signals in range. This can take a few minutes. Once the unit is able to identify all of the signals, they will be listed and you will be able to choose one.
<i>Trying to Connect to Wifi XXXX</i>	You have selected a source signal and the Winegard ConnecT unit is attempting to connect to this source. Once connected, the message should change to "Connect to..."
<i>Logging into WiFi XXXX</i>	The source signal is password protected. This message will be displayed after you have entered the correct password and the two systems work out the security protocols.
<i>Bad Password</i>	The source signal is password protected. This message will be displayed after you have entered an incorrect password and the source system has rejected the connection. Generally this screen will only be seen if the source signal is distant or weak. Normally, the password will be rejected on the network password screen.
<i>Not Connected</i>	The Winegard ConnecT system is not connected to a network.
<i>Connecting to Wifi XXXX</i>	The Winegard ConnecT system is talking to the selected source signal and a connection is being made. This will generally only take a minute or two.