

**KVH Industries, Inc.**

# **TracPhone® LTE-1**



**Installation Guide**

# TracPhone LTE-1

## Installation Guide



This guide explains how to install the TracPhone LTE-1 antenna system on a vessel. Operation instructions are provided in the Quick Start Guide.

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### Installation Steps

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### Who Should Install the System?

To ensure a safe and effective installation, KVH recommends that a KVH-authorized marine technician install the TracPhone antenna. KVH-authorized technicians have the tools and electronics expertise necessary to install the system. To find a technician near you, visit [www.kvh.com/wheretogetservice](http://www.kvh.com/wheretogetservice).

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### Activating the System

Network settings require the LTE system to be activated by the subscriber. For your convenience, the system can be activated remotely in advance using the information on the QR code label located on the first page of the *TracPhone LTE-1 Quick Start Guide*. By using the QR code, the antenna serial number will automatically be populated in the online activation form. Alternatively, you can go to [www.kvh.com/lteactivate](http://www.kvh.com/lteactivate) and enter the serial number printed on the label.

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### Technical Support

Phone: +1 401 847-3327  
Email: [support@kvh.com](mailto:support@kvh.com)

Hours: Mon.-Fri., 9am-6pm;  
Sat. 9am-2pm ET, -5 GMT

# Important Safety Information

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This icon indicates a danger, warning, or caution notice. Be sure to read these carefully to avoid injury.



## WARNING

### Risk of Electric Shock

To avoid electric shock, do not open the Power-over-Ethernet (PoE) injector enclosure or any component inside the antenna dome. There are no user-serviceable parts inside.



## WARNING

### Risk of Electric Shock

If any component of the TracPhone LTE-1 system becomes damaged and/or no longer functions normally, disconnect it from vessel power, secure it from unintended operation, and contact KVH Technical Support (see [“Technical Support” on page 1](#)). All repairs or modifications must be performed by a trained, KVH-certified technician. If you are a KVH-certified technician, you still must contact KVH Technical Support prior to conducting any repairs or modifications to the equipment.



## WARNING

### Risk of Explosion

Do not operate the PoE injector (or any other electrical device) in an environment where flammable gases, vapors, or dusts are present. In addition, do not operate the PoE injector in an environment with a temperature outside its 5° F to 131° F (-15° C to 55° C) temperature range.



## WARNING

### Risk of Electric Shock

Failure to ground the TracPhone LTE-1 system properly to ship's ground will cause an unsafe floating ground condition, risking potentially lethal electric shock. See [“Wire the PoE Injector” on page 10](#) for details on the proper grounding of the equipment.



## CAUTION

### RF Radiation Hazard

The antenna transmits up to 0.5 watts of radio frequency (RF) energy that is potentially harmful. Whenever the system is powered on, make sure everyone stays more than 10 inches (25 cm) away from the antenna. Additionally, the antenna must not be co-located or operate in conjunction with any other antennas or transmitters except in accordance with FCC multi-transmitter procedures.

# 1 Inspect Parts and Get Tools

Before you begin, follow these steps to ensure you have everything needed to complete the installation.

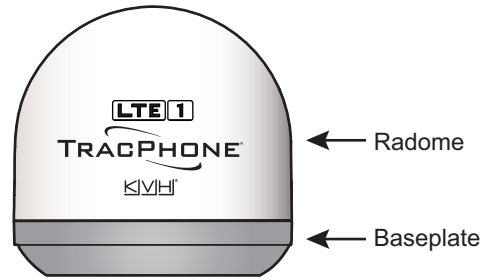
**IMPORTANT!**

Always lift the antenna by the baseplate and never by the radome or any portion of the internal antenna assembly (see Figure 1).

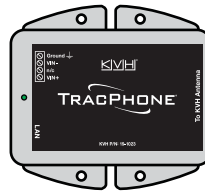
- a. Unpack the box and ensure it contains everything shown on the Kitpack Contents List. Save the packaging for future use.
- b. Carefully examine all of the supplied parts to ensure nothing was damaged in shipment.
- c. Gather the tools and materials listed below. You will need these items to complete the installation.
  - Flat-head and Phillips screwdrivers
  - Electric drill with 1/8" (3 mm) and 1/4" (6 mm) bits
  - Hole saw of desired diameter (for cable access hole, see Figure 5 on page 5)
  - Socket wrenches
  - Light hammer and center punch
  - Adhesive tape, and scribe or pencil
  - Silicone sealant or equivalent
  - Multimeter
  - Wi-Fi-enabled mobile device, such as a laptop PC, or Apple® iOS or Android™ smartphone/tablet

Figure 1: TracPhone LTE-1 System Components

Antenna



Power-over-Ethernet (POE) Injector



# 2 Plan the Antenna Installation

Before you begin, consider the following antenna installation guidelines.

**IMPORTANT!**

Be sure to follow the guidelines below. Damage caused by an improper installation is not covered under KVH warranty.

- Minimize blockage. Optimal performance requires a 360° clear view of the horizon at the highest possible vantage point to receive cellular signals. The fewer obstructions, the better the system will perform (see Figure 2).
- Consider the distance between your antenna and any radar. Most radar transmitters emit RF energy within an elevation range of -15° to +15° (see Figure 3). Therefore, mount the antenna outside of this elevation range and at least 3 ft (1 m) away from the radar.

**IMPORTANT!**

Never place the antenna in the beam path of the radar, regardless of distance. The radar's energy may damage the antenna or impair its performance.

- Make sure the mounting surface is wide enough to accommodate the antenna's base (see Figure 4). Also make sure it is flat, level, strong enough to support the antenna's weight, and rigid enough to prevent antenna vibration.
- Be sure to mount the antenna near enough to the PoE injector belowdecks to allow you to connect the KVH-supplied 50 ft. (15 m) CAT-6 Ethernet cable between them, while still maintaining slack in the cable for a sufficient service loop (see [page 7](#)).

**NOTE:** If you need to use a longer cable, optional 75 ft (22 m) (part no. 32-1332-0075) and 100 ft (30 m) (part no. 32-1332-0100) Ethernet cables are available from KVH.

Figure 2: Blockage from Obstruction

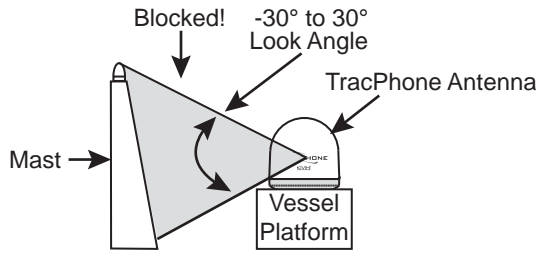


Figure 3: Distance from Radar

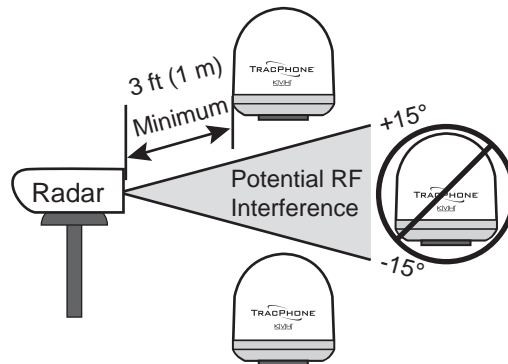
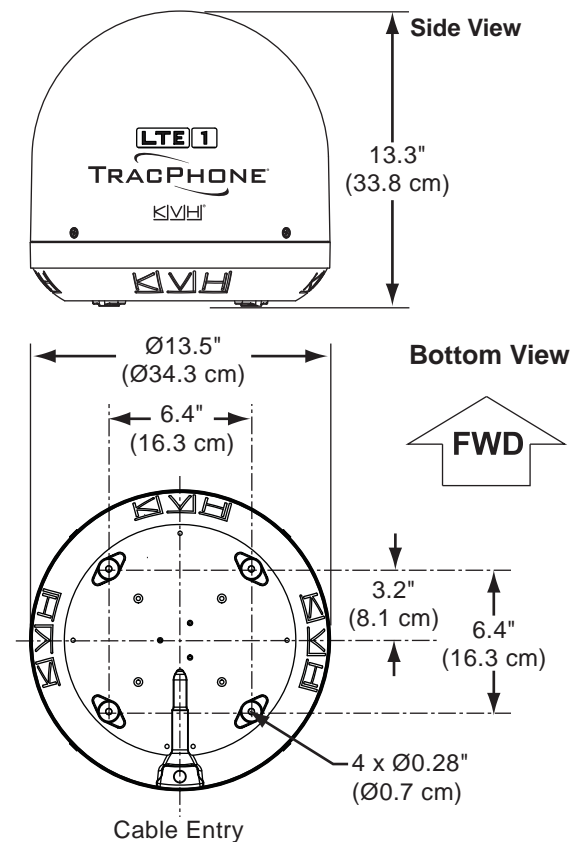


Figure 4: Antenna Dimensions



# 3 Prepare the Antenna Site

Once you have identified a suitable antenna mounting site, according to the guidelines provided on [page 4](#), follow these steps to prepare the mounting site for installation.

- Unfold the antenna mounting template (supplied in the subscriber Welcome Kit) and place it onto the mounting surface. Make sure the "FWD" (forward) arrow points toward the bow and is **parallel** to the vessel's centerline (see Figure 5). Tape in place.
- Using a light hammer and center punch, mark the locations for the four mounting holes and cable access hole on the mounting surface in the locations indicated on the template.
- Drill a 1/4" (6 mm) hole at the four mounting hole locations you marked in Step b. Later, you will insert four #10-32 screws through these holes to secure the antenna to the mounting surface.
- Using a hole saw, drill the cable access hole in the location you marked in Step b. Be sure to size the hole appropriately to maintain a cable bend radius of at least 2.6" (6.6 cm). If the hole location is in the center of the antenna mounting hole pattern, the diameter of the cable access hole must not exceed 3.5" (89 mm). Smooth the edges of the hole to protect the cable. Later, you will route the antenna's Ethernet cable through this hole and into the vessel.
- Clean and dry the antenna mounting surface.
- Peel off the paper backing from the supplied foam seal to expose the adhesive. Then press the foam seal down firmly onto the mounting surface, ensuring the hole in the foam seal aligns with the cable access hole in the mounting surface (see Figure 6).

Figure 5: Antenna Mounting Holes Layout

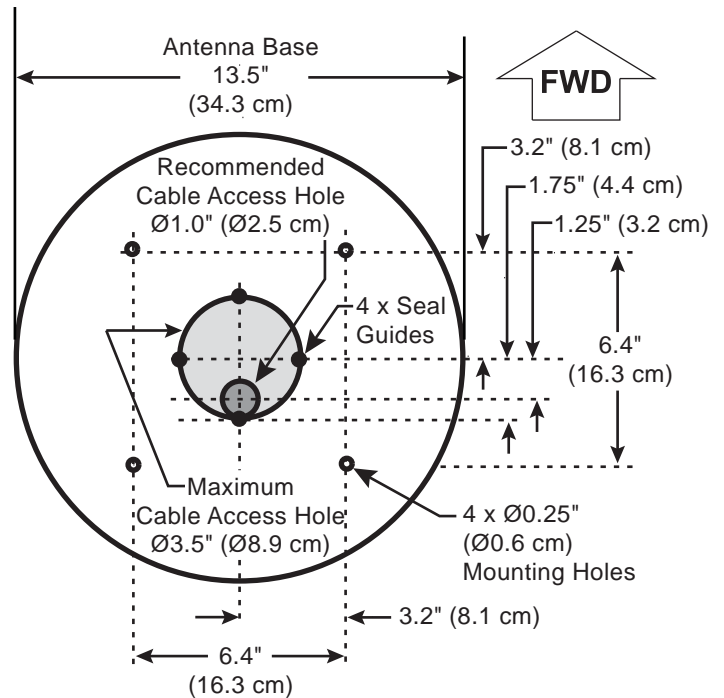


Figure 6: Foam Seal



# 4 Prepare the Antenna

Follow these steps to prepare the TracPhone LTE-1 antenna for installation.

- a. Attach the four rubber mounting feet (supplied in kit) to the bottom of the antenna at the locations shown in Figure 7.

**IMPORTANT!**

Be sure to install the rubber feet. They are required to isolate the antenna from vibration.

*NOTE: If the optional mounting bracket was purchased with the system (KVH part no. 72-0409), install it first according to its installation instructions.*

- b. Remove the four #8-32 screws securing the radome to the antenna (see Figure 8).
- c. Carefully lift the radome straight up until clear of the antenna assembly and set it aside in a safe place.

If you keep the radome topside, secure it with a lanyard to prevent it from falling overboard. Also, do not place the radome on a hot steel deck – the heat may warp the radome.

- d. Note the antenna serial number, factory default SSID and password for the built-in Wi-Fi provided on the label inside the antenna dome (see Figure 9).

**IMPORTANT!**

The QR code on the label is provided as a backup to the label located on the first page of the *TracPhone LTE-1 Quick Start Guide* and is intended for **subscriber use only** for activation.

Figure 7: Attaching the Rubber Feet

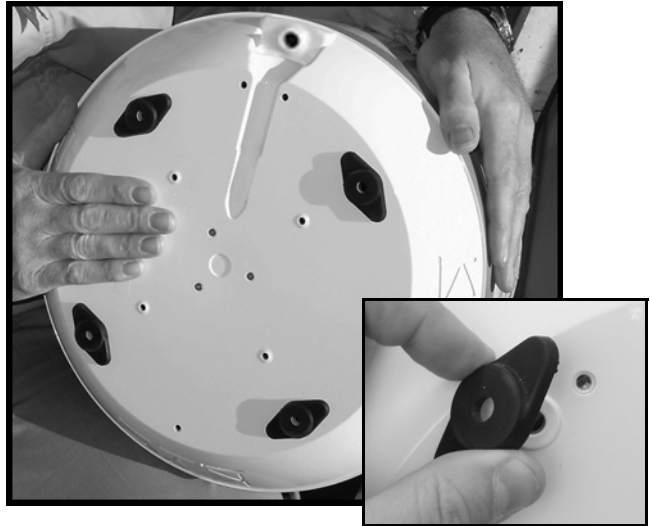


Figure 8: Removing the Radome

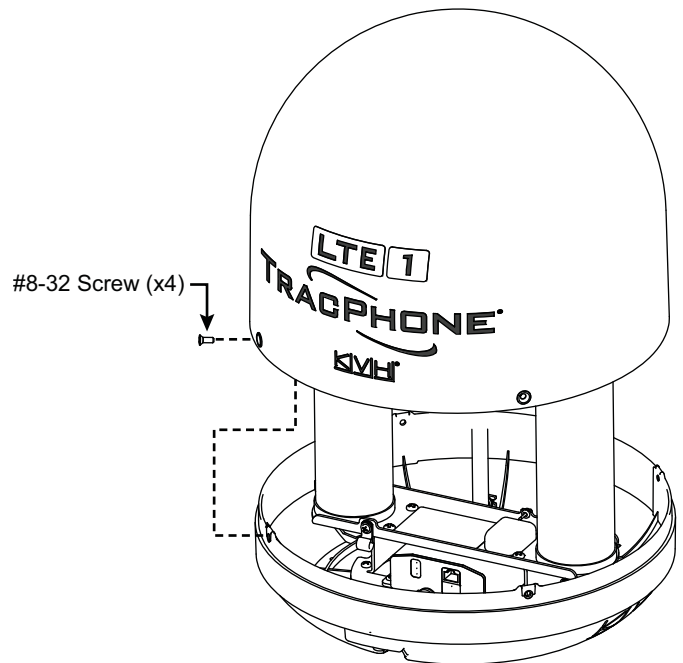
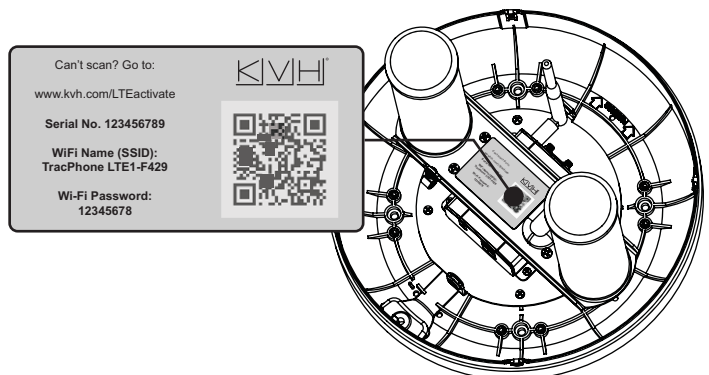


Figure 9: Location of the Serial Number and QR Code



# 4 Continued Prepare the Antenna

- e. Remove but do not discard the push-in grommet from the cable entry hole in the baseplate.
- f. Feed the CAT-6 Ethernet cable (*supplied in kit*) through the cable entry hole. Then, leaving 1.5 ft (46 cm) of cable for an adequate service loop, and maintaining at least a 2.6" (6.6 cm) bend radius, route the cable as shown in Figure 10.
- g. Slide the Ethernet cable through the split in the snap-in grommet inside the baseplate (see Figure 11). Then secure the cable by rotating the grommet until the split is facing down.
- h. Connect the Ethernet cable to the Wi-Fi modem's "LAN/WAN" port (see Figure 10).
- i. Secure the service loop to the antenna mounting plate with the preinstalled #10-32 screw and P-clip (see Figure 11). Then tighten the screw and P-clip to 31 in-lbs of torque.
- j. Attach the push-in grommet that you removed in Step d to the cable near the cable entry hole. Then reinstall the grommet in the cable entry hole.
- k. Route the other end of the cable along the cable channel underneath the baseplate and belowdecks through the cable access hole. Always maintain at least a 2.6" (6.6 cm) bend radius.
- l. Weatherproof and seal the cable access hole as required.

Figure 10: Connecting the Ethernet Cable

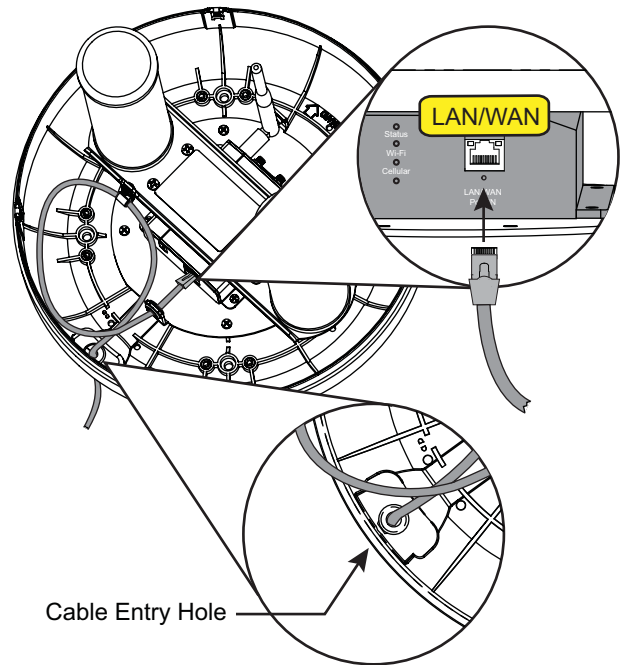
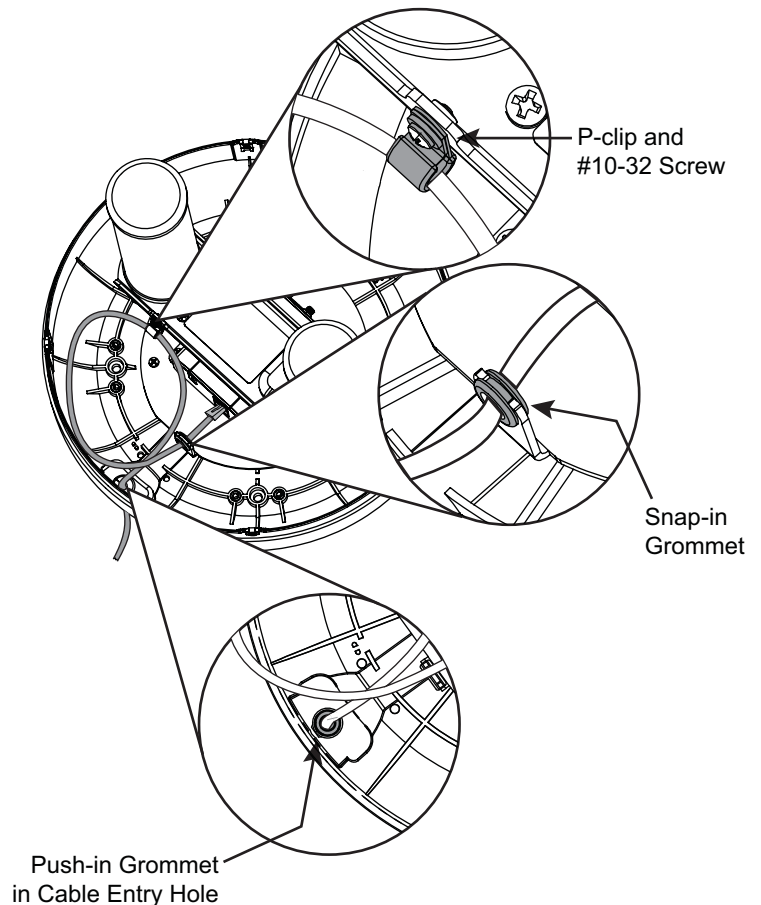


Figure 11: Securing the Ethernet Cable





# 5 Mount the Antenna

Follow these steps to mount the antenna to the mounting surface.

- a. Place the antenna baseplate over the holes drilled in the mounting surface. Ensure the "Forward" arrow inside the baseplate points toward the bow and is **parallel** to the vessel's centerline (see Figure 12).

**IMPORTANT!**

Be sure to insert the mounting bolts from above and use the supplied hardware for a secure installation.

- b. Apply a thin layer of the supplied anti-seize lubricant to the threads of the four #10-32 Phillips screws.



**CAUTION**

Be sure to observe the safe handling instructions in the Material Safety Data Sheet (MSDS) provided with the anti-seize lubricant.

- c. At each of the four baseplate mounting holes, place a 7/16"-diameter flat washer on a #10-32 Phillips screw and insert the screw into the hole from above (see Figure 13).
- d. Secure each mounting bolt to the mounting surface using a 3/4 "-diameter flat washer and a #10 lock nut from below. Using hand tools, tighten all four screws until the four rubber feet on the baseplate are bottomed against the mounting surface and the foam seal is fully compressed.

**IMPORTANT!**

Use only manual hand tools to tighten the mounting screws. The torque from a power tool might distort the antenna baseplate.

- e. Reinstall the radome onto the antenna. The radome's "LTE-1 TracPhone" labels should face fore and aft. Secure in place with the four #8-32 screws you removed earlier.

Figure 12: Forward Arrow (Example)

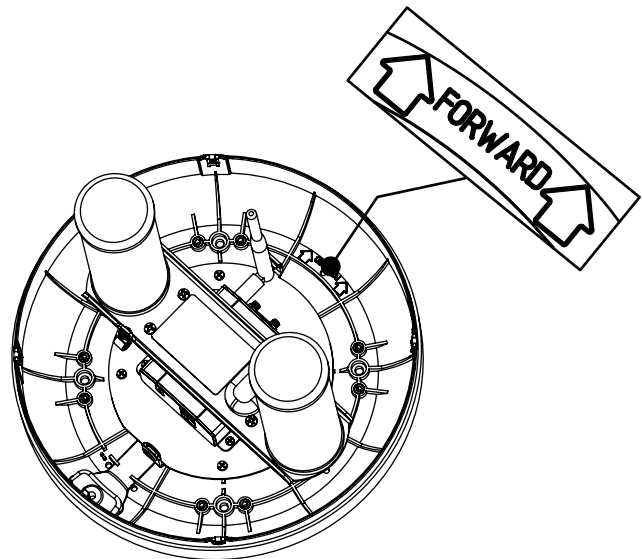
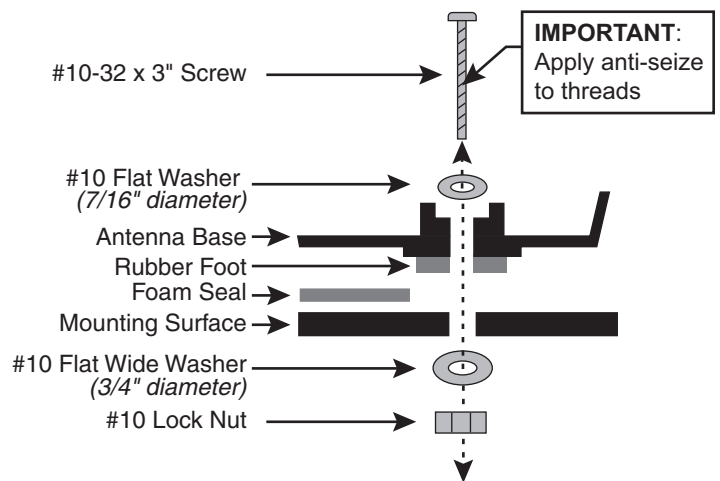


Figure 13: Mounting Hardware



# 6 Mount the PoE Injector

Follow these steps to mount the PoE injector in a suitable location.

## Select a Location

Consider these installation guidelines.

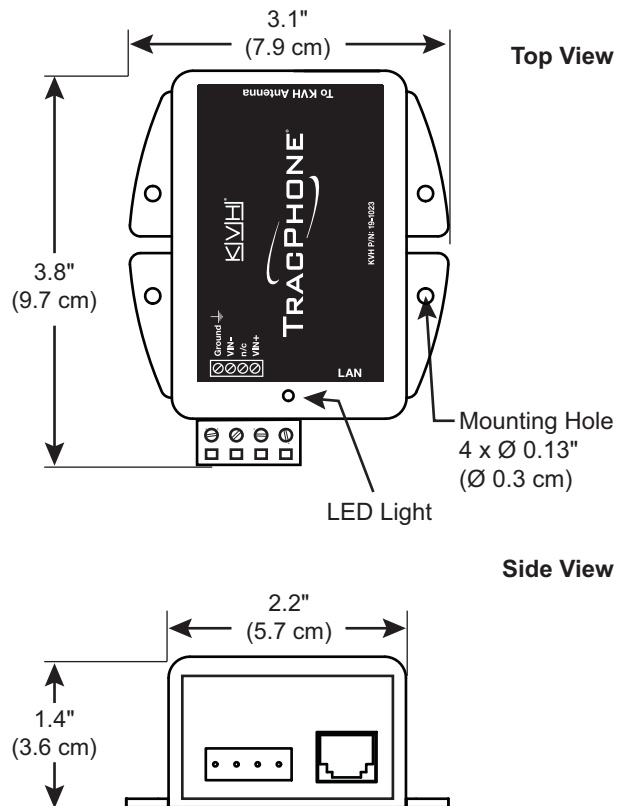
- Select a cool, dry, well-ventilated area belowdecks away from any heat sources or salt spray.
- Be sure the PoE injector's power LED light will be visible to the user.
- Select a location that will provide adequate clearance for the PoE injector dimensions (see Figure 14) and leave plenty of room to accommodate adequate service loops and strain-relief.

## Mount the PoE Injector

Follow these steps to install the PoE injector.

- a. Using the PoE injector itself as a guide, mark the locations of each of the four mounting holes (see Figure 14).
- b. Drill a 1/8" (0.3 cm) hole at the four mounting hole locations you marked in Step a.
- c. Secure the PoE injector using fasteners that are appropriate for the mounting surface's construction.

Figure 14: PoE Injector Dimensions



# 7 Wire the PoE Injector

Follow the steps below and on [page 11](#) to wire the PoE injector to the antenna and connect power to the system.

## Connect the PoE Injector to the Antenna

Connect the Ethernet cable from the antenna to the “To KVH Antenna” Ethernet port on the PoE injector (see Figure 15).

### IMPORTANT!

Do not connect anything other than the antenna’s Ethernet cable to the PoE injector’s “To KVH Antenna” Ethernet port. The PoE injector supplies voltage that will damage other devices, such as laptop computers.

## Connect Power to the PoE Injector

### IMPORTANT!

A 5A circuit breaker should be installed between the PoE injector and vessel power to turn the TracPhone LTE-1 system on and off.

**NOTE:** An optional 24 VDC AC-DC power supply (5 A, 120 W) is available from KVH (part no. 72-0857).

- a. Before you begin, disconnect vessel power.
- b. Connect the PoE injector’s power cable wires to the supplied 4-position terminal strip connector as shown in Figure 16 and described below:
  - Connect the green “Ground” wire to ship’s ground.
  - Connect the black “VIN-” wire to DC Return.

**NOTE:** The third terminal is unused.

- Connect the red “VIN+” wire to the vessel’s 12 -24 VDC power source.

Figure 15: PoE Injector Antenna Connection

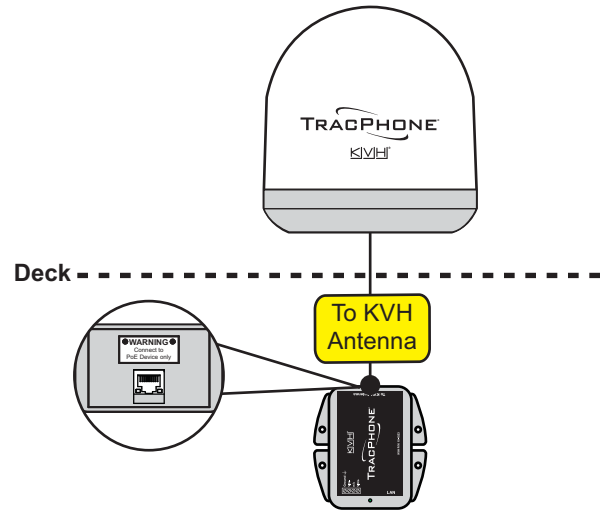
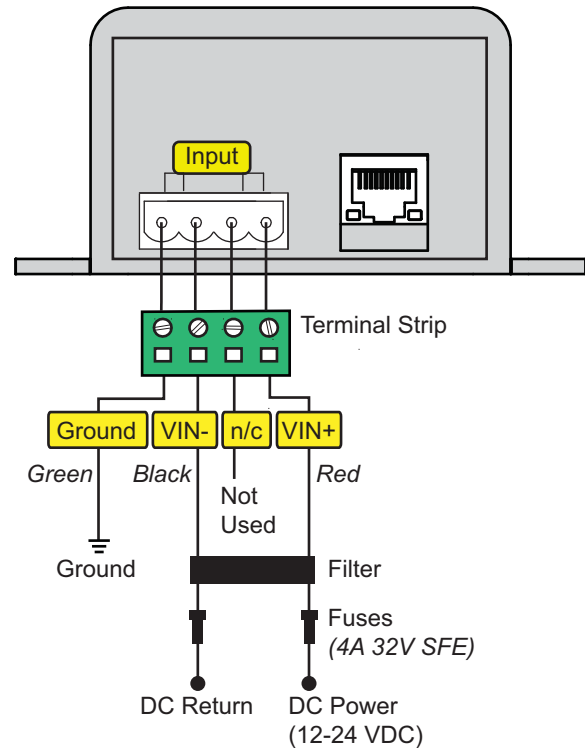


Figure 16: TracPhone LTE-1 System Power

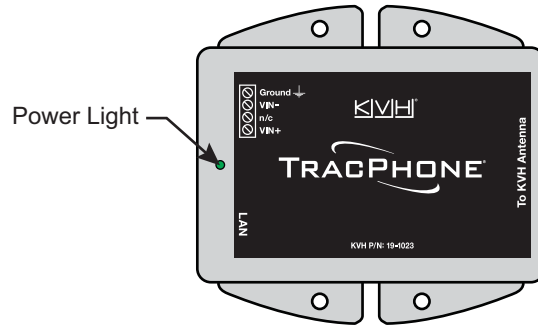


# 7 Continued Wire the PoE Injector

## Check For Proper Grounding

- Check for proper grounding by using a multimeter to measure the AC and DC voltages at the ground and DC return terminal pins (see [Figure 16 on page 10](#)). The measured voltage should be less than 2 VAC and 2 VDC. **A higher voltage indicates a dangerous floating ground condition.**
- Reconnect vessel power and turn on the circuit breaker to apply power to the antenna system. Within seconds, the Power light on the PoE injector should illuminate green (see [Figure 17](#)).
- Repeat Step a with the circuit breaker turned on, looking for the same measured result.

Figure 17: PoE Injector Power Light Location



### WARNING

If you measure 2 volts or greater at the power/ground cable's terminal connector, notify the ship's electrician or authorized vessel representative immediately. This is a dangerous condition. Do not touch the PoE injector or connect anything to it until the problem is fixed.

# 8 Test and Activate the System

## Test the System

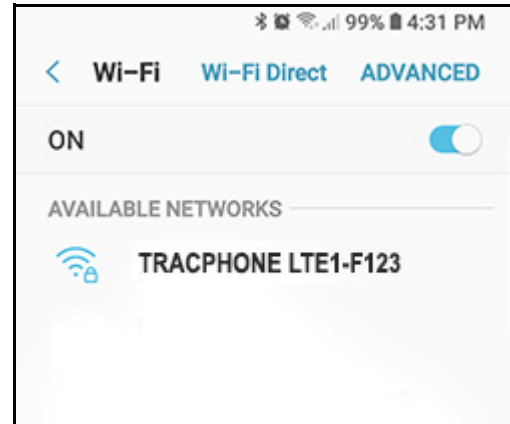
Before continuing, test the system for proper operation. The TracPhone LTE-1 system's factory default SSID should be visible on your mobile device.

- a. Ensure that you are within range of the antenna's built-in Wi-Fi router (30 ft (9 m), depending on the layout and structure of the vessel).
- b. Find the LTE system's SSID on your mobile device under Wi-Fi settings (see Figure 18).

## Activate the System

The remaining installation steps must be completed after the **subscriber** has activated the LTE system for service. To begin activation, instruct the subscriber to scan the QR code located on the first page of the *TracPhone LTE-1 Quick Start Guide*. They can also visit [www.kvh.com/lteactivate](http://www.kvh.com/lteactivate) to begin the activation process.

Figure 18: LTE System SSID on Android Phone (Example)



# 9 Connect to the Built-In Network

## Network Option 1

Follow the steps below to connect to the built-in network. To use an existing local area network (LAN), refer to [“Connect to an Existing Network” on page 16](#).

### IMPORTANT!

By default, the TracPhone LTE-1 system’s built-in Wi-Fi router has an IP address of 192.168.55.1 and assigns IP addresses to connected devices automatically. If this configuration conflicts with an existing onboard network or you would prefer to manually assign static IP addresses to connected devices, refer to [“Advanced Network Settings” on page 19](#) for instructions.

### Connect Using the Built-In Wi-Fi

**NOTE:** The LTE system’s built-in Wi-Fi range is nominally within 30 ft (9 m) of the antenna. To extend that range, connect a wireless access point (WAP) to the network. In all cases, an Ethernet connection will provide the fastest possible speeds.

- Select the LTE system’s factory default SSID on your mobile device.
- Enter the factory default Wi-Fi password to access the network.
- Follow the steps in [“Configure the Built-In Network” on page 14](#) to configure the built-in network.

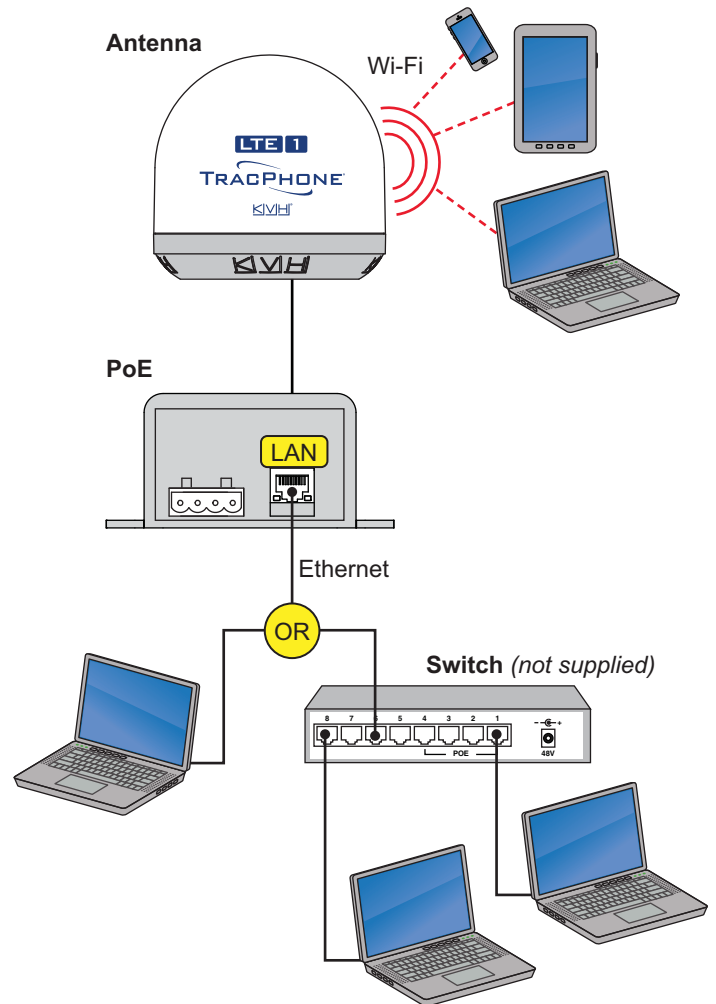
### Connect Directly through the LAN Port

Connect a standard Ethernet cable from the Ethernet port on your computer to the “LAN” port on the PoE injector (see Figure 19).

**NOTE:** Make sure your computer is configured for DHCP (see [“Configure Computers for DHCP” on page 20](#)).

To connect multiple computers, use a simple switch (see Figure 19).

Figure 19: Connect Using the Built-In Wi-Fi and LAN Port



# 10 Configure the Built-In Network

## Network Option 1

The TracPhone LTE-1 system contains a built-in Wi-Fi router that can be configured in a variety of ways to meet the subscriber's needs. To configure the router, you must first obtain the [lte.mykvh.com](http://lte.mykvh.com) login credentials that the subscriber set up during activation.

### IMPORTANT!

If you are unable to obtain the subscriber's login credentials, fill out the "LTE Manager Settings Worksheet" on page 26 and give it to the subscriber along with the Welcome Kit.

### If You Can Access the Subscriber's LTE Manager Account

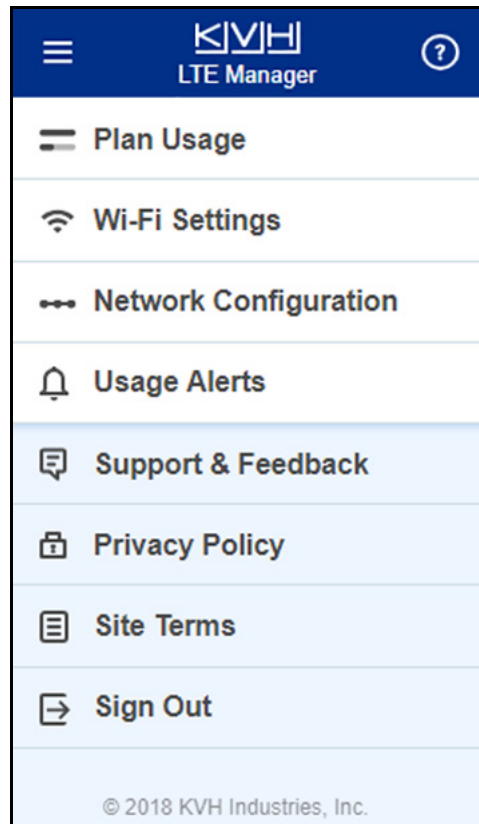
Follow the steps below to configure the built-in Wi-Fi router's settings.

- a. Start your web browser and enter [lte.mykvh.com](http://lte.mykvh.com) to open the LTE Manager web app.

*NOTE: The LTE Manager is also available as an iOS or Android app. Download it for free from the Apple iTunes App Store or Google Play Store.*

- b. At the LTE Manager login screen, enter the subscriber's email address and password.
- c. At the LTE Manager, select **Wi-Fi Settings** from the menu (see Figure 20).

Figure 20: LTE Manager Settings Menu



# 10 Continued Configure the Built-In Network

## Network Option 1

d. Select from the following settings options and make the changes requested by the subscriber (see Figure 21):

- **Built-in Wi-Fi:** Set On/Off to enable or disable the built-in Wi-Fi.
- **SSID (Wi-Fi network name):** Assign a unique name provided by the subscriber for the LTE system's Wi-Fi network.
- **Security mode:** Select "WPA2-PSK" to secure the Wi-Fi network. Select "Open" only if you want anyone within range of the Wi-Fi to have uncontrolled access to your network.
- **Password:** For a secure Wi-Fi network, enter a unique password provided by the subscriber (must be 8-20 characters).

**IMPORTANT!**

Failure to apply a security mode and unique password will make the LTE system's Wi-Fi network vulnerable to outside intrusion.

e. Select **Submit** to save your changes.

Figure 21: Built-In Wi-Fi Settings

The screenshot shows the 'LTE Manager' app interface. At the top, there's a blue header with the 'KVMH' logo and 'LTE Manager' text. Below the header, the carrier information 'Atlantic Nova' and 'LTE-1 21122234' is displayed, along with a signal strength indicator and 'LTE-A'. The main title is 'Built-in Wi-Fi Settings'. Underneath, there's a toggle for 'Built-in Wi-Fi' which is currently set to 'On'. Below that is a text input field for 'SSID (Wi-Fi network name)' containing 'TracPhoneTEST'. The 'Security mode' is set to 'WPA2-PSK' in a dropdown menu. There is an empty text input field for 'Password'. At the bottom, there are two buttons: a blue 'Submit' button and a grey 'Cancel' button.



# 11 Connect to an Existing Network

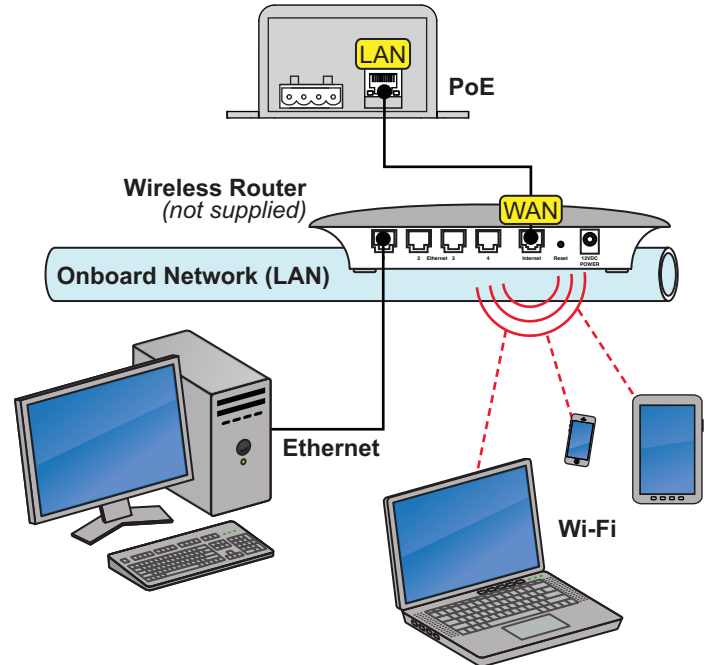
## Network Option 2

If the subscriber already has an existing LAN on the vessel, you can connect its router to the TracPhone LTE-1 system. Then all devices on the network will have access to the LTE service. Follow the steps below to set up this configuration.

- a. Turn off the built-in Wi-Fi on the LTE system. Refer to [“Configure the Built-In Network” on page 14](#) for details.
- b. Connect a standard Ethernet cable from the “WAN” (Internet) port on the network router to the “LAN” port on the PoE injector (see Figure 22).

*NOTE: If the IP address of the existing router is 192.168.55.1, you will need to change the IP address of either the router or the LTE system. Refer to [“Advanced Network Settings” on page 19](#) for details.*

Figure 22: Connect Using an Existing Network



# 12 Set Up Wi-Fi Calling

Optional

To use the TracPhone LTE-1 system to make and receive voice calls, you must either have a smartphone that supports Wi-Fi calling or an app that approximates the feature. To enable the Wi-Fi calling feature on your phone, follow the basic steps below or refer to your device's user documentation.

## Enable Wi-Fi Calling on an iPhone

- a. Navigate to **Settings > Phone > Wi-Fi Calling**.
- b. Using the slider, turn on "Wi-Fi Calling on This iPhone" (see Figure 23).

## Enable Wi-Fi Calling on an Android Phone

(Android version 8.0.0 or later)

- a. Tap the **Phone** app.
- b. Navigate to **Settings > Wi-Fi Calling**.
- c. Using the slider, enable Wi-Fi calling (changes from "Disabled" to "Ready for calls") (see Figure 24).

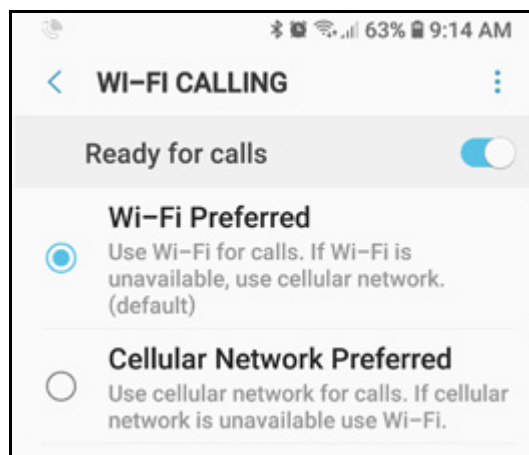
(Android versions earlier than 8.0.0)

- a. Navigate to **Settings > Wireless & Networks > More... > Wi-Fi Calling > Wi-Fi Calling**.
- b. Using the slider, enable Wi-Fi calling (changes from "Disabled" to "Ready for calls") (see Figure 24).

Figure 23: Wi-Fi Calling Enabled on an iPhone



Figure 24: Wi-Fi Calling Enabled on an Android Phone



# 13 Educate the Customer

Deliver the Welcome Kit and the “[LTE Manager Settings Worksheet](#)” on page 26 (if necessary) to the subscriber and explain how to use the system. Ensure the subscriber understands the following.

- How to:
  - Turn on the system
  - Access the Internet
  - Access the LTE Manager and customize the built-in Wi-Fi settings
  - Interpret PoE injector status
  - Perform general troubleshooting
- The radome must remain installed on the antenna at all times, as it protects the antenna from wind, rain, and debris.
- If the subscriber provided you with their LTE Manager password, recommend that they change it for security reasons.

## For More Information

Refer to the *TracPhone LTE-1 Quick Start Guide* or the Help provided in the LTE Manager (see Figure 25).

Figure 25: LTE Manager Help

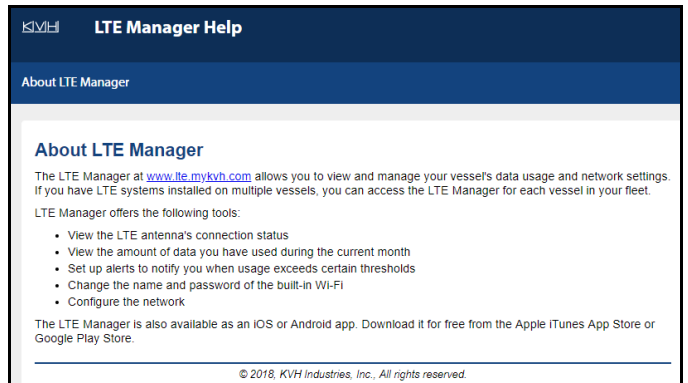


Figure 26: TracPhone LTE-1 Quick Start Guide



# A Advanced Network Settings

### IMPORTANT!

The default network settings work well for most installations (see Figure 27). Do not change them unless absolutely necessary.

If you are unable to obtain the subscriber's login credentials, fill out the "LTE Manager Settings Worksheet" on page 26 and give it to the subscriber along with the Welcome Kit.

### Change the Built-In Router's IP Address

By default, the TracPhone LTE-1 system's built-in router has an IP address of 192.168.55.1. If this configuration conflicts with an existing onboard network (e.g., another router on the vessel is using the same address), you can change router's IP address by following the steps below.

1. At the LTE Manager, select **Network Configuration** from the settings menu.
2. Enter the desired IP address and subnet mask.
3. Select **Submit** to save your changes.

### Disable DHCP to Manually Set IPs

By default, the LTE system's built-in router assigns IP addresses to connected devices automatically. If you prefer to manually assign static IP addresses to your devices, you can turn off the LTE system's DHCP server by following the steps below.

1. At the LTE Manager, select **Network Configuration** from the settings menu.
2. Set DHCP to "Off".
3. Select **Submit** to save your changes.

**NOTE:** Enter a valid IP address in the network settings of each device you want to use with the LTE system. For example, if the LTE system's router is set to the default IP address of 192.168.55.1 and subnet mask of 255.255.255.0, you must set each device to any unique IP address ranging from 192.168.55.2 to 192.168.55.254.

Figure 27: Network Configuration Menu

The screenshot shows the LTE Manager interface. At the top, it displays the KIVI logo and 'LTE Manager'. Below that, it shows the carrier 'Atlantic Nova' and the device 'LTE-1 21122234' with an LTE-A signal strength indicator. The main heading is 'Network Configuration'. A caution message reads: 'Caution! Default settings work for most situations. Do not change unless necessary.' Under the 'DHCP' section, the 'On' button is highlighted in green, and the 'Off' button is greyed out. The 'IP address' field is set to 192.168.55.1. A note below it states: 'Note: 192.168.0.1 is reserved for system for system use. Be sure to assign a different IP address.' The 'Subnet mask' field is set to 255.255.255.0. At the bottom, there are 'Submit' and 'Cancel' buttons.

# B Configure Computers for DHCP

## Appendix

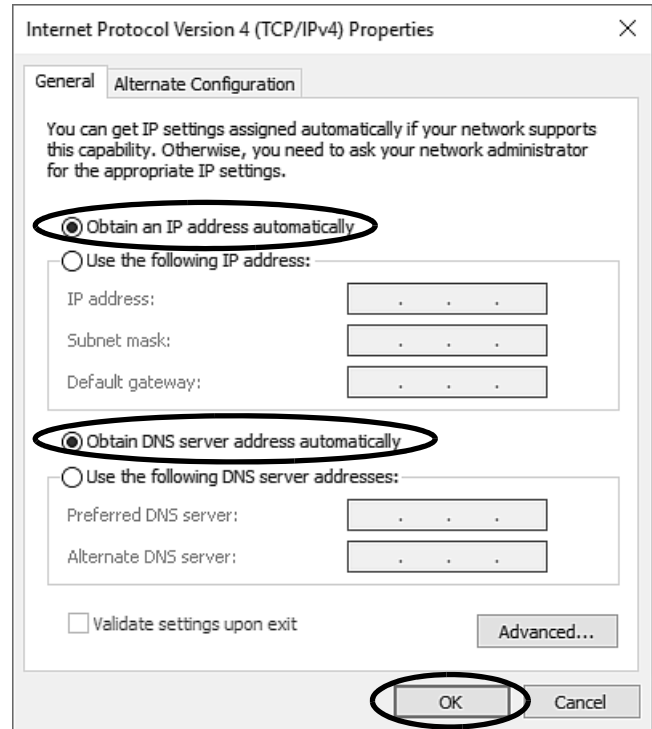
Follow these steps to configure your computer for DHCP to allow it to receive an IP address from the TracPhone LTE-1 system. The location of this configuration setting varies slightly by operating system.

*NOTE: The computer must have a network interface card installed and all cabling must be 100 Mbps fast Ethernet UTP CAT-5 with RJ45 connectors.*

### Windows 10

1. Turn on the computer.
2. Open the **Network and Sharing Center**. The easiest way to get there is to simply enter the name in the search box on the taskbar. *You can also navigate to it from the Start menu: Settings > Network & Internet > Ethernet > Network and Sharing Center.*
3. In Network and Sharing Center, click the **Ethernet** link for the Ethernet connection you are using.
4. In the Ethernet Status dialog box, click **Properties**. *If this screen doesn't appear, just skip to Step 5.*
5. In the Ethernet Properties dialog box, on the **Networking** tab, select **Internet Protocol Version 4**, and then click **Properties**.
6. In the Internet Protocol Properties dialog box, select **Obtain an IP address automatically** and **Obtain DNS server address automatically** (see Figure 28). Then click **OK**.
7. In the Ethernet Properties dialog box, click **Close**. Then click **Close** in the Ethernet Status dialog box.

Figure 28: Windows 10 - Internet Protocol Properties



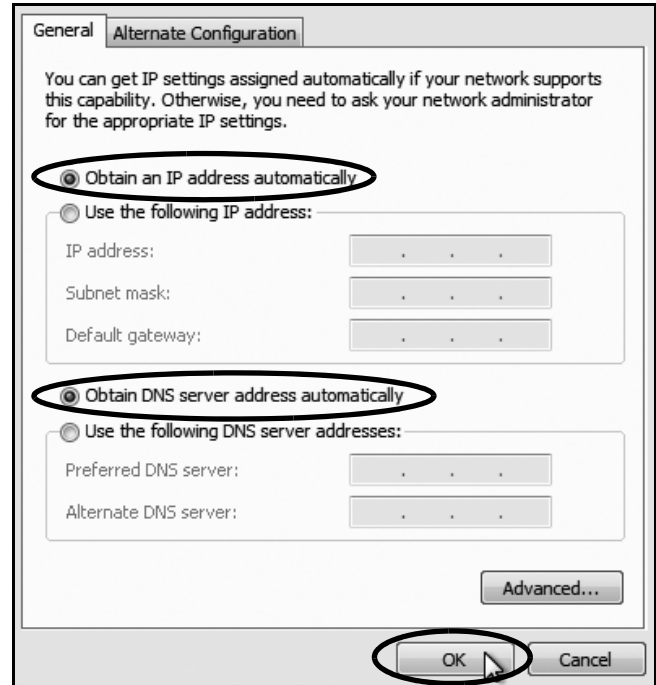
# B Continued Configure Computers for DHCP

## Appendix

### Windows 8

1. Turn on the computer.
2. In Control Panel, double-click **Network and Sharing Center**. *To open the Control Panel, go to the desktop, select Settings from the Charms bar, then select Control Panel.*
3. In Network and Sharing Center, double-click the **Ethernet** link for the Ethernet connection you are using.
4. In the Ethernet Status dialog box, click **Properties**. *If this screen doesn't appear, just skip to Step 5.*
5. In the Ethernet Properties dialog box, on the **Networking** tab, select **Internet Protocol Version 4**, and then click **Properties**.
6. In the Internet Protocol Properties dialog box, select **Obtain an IP address automatically** and **Obtain DNS server address automatically** (see Figure 29). Then click **OK**.
7. In the Ethernet Properties dialog box, click **Close**.

Figure 29: Windows 8 - Internet Protocol Properties



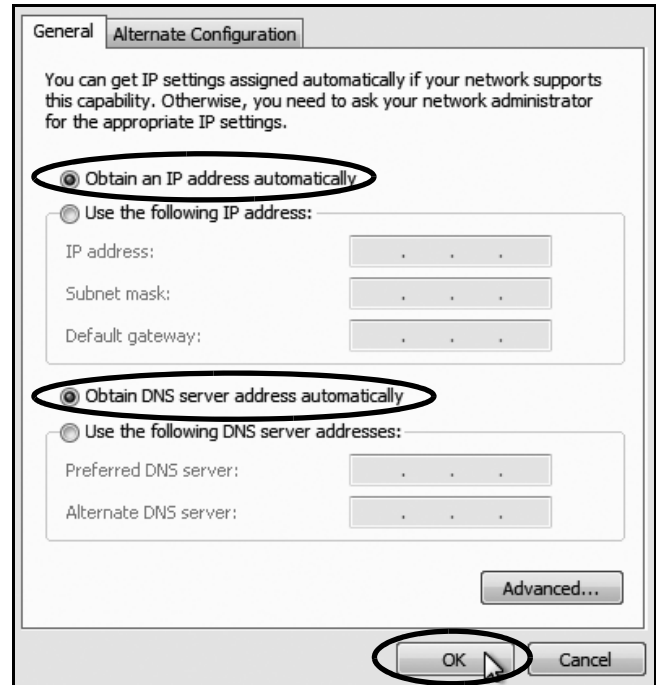
# B Continued Configure Computers for DHCP

## Appendix

### Windows 7 or Windows Vista

1. Turn on the computer.
2. In Control Panel, double-click **Network and Sharing Center**. (You might need to click **Network and Internet** first.) *You can find the control panel either through the Start menu or "My Computer."*
3. In Network and Sharing Center, double-click the **Local Area Connection** link (Windows 7) or **View Status** link (Windows Vista) for the Ethernet connection you are using.
4. In the Local Area Connection Status dialog box, click **Properties**. *If this screen doesn't appear, just skip to Step 5.*
5. In the Local Area Connection Properties dialog box, click the **Networking** tab, select **Internet Protocol Version 4**, and then click **Properties**.
6. In the Internet Protocol Properties dialog box, select **Obtain an IP address automatically** and **Obtain DNS server address automatically** (see Figure 30). Then click **OK**.
7. In the Local Area Connection Properties dialog box, click **OK**.

Figure 30: Windows 7/Windows Vista- Internet Protocol Properties



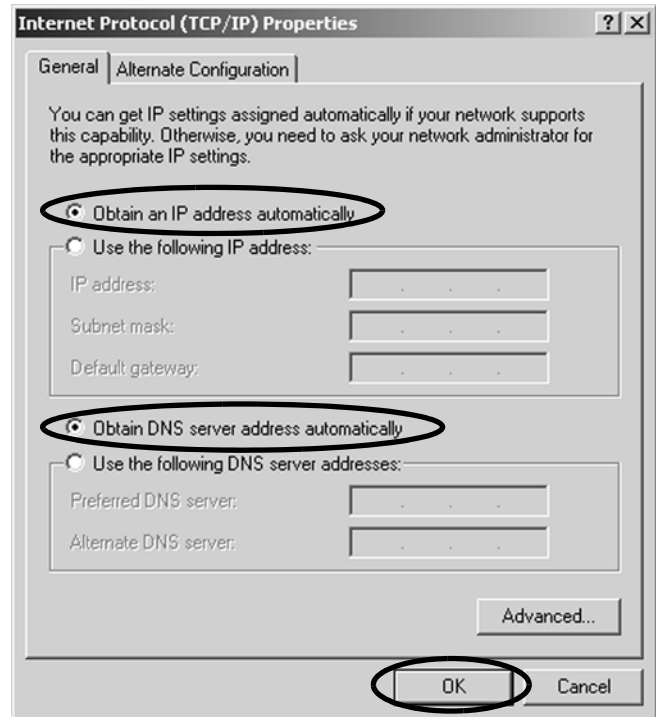
# B Continued Configure Computers for DHCP

## Appendix

### Windows XP

1. Turn on the computer.
2. In Control Panel, double-click **Network Connections**. *You can find the control panel either through the Start menu or "My Computer."*
3. In Network Connections, double-click the **Local Area Connection** for the Ethernet connection you are using.
4. In the Local Area Connection Status dialog box, click the **General** tab. Then click **Properties**. *If this screen doesn't appear, just skip to Step 5.*
5. In the Local Area Connection Properties dialog box, click the **General** tab, select **Internet Protocol (TCP/IP)**, and then click **Properties**.
6. In the Internet Protocol (TCP/IP) Properties dialog box, click the **General** tab. Then select **Obtain an IP address automatically** and **Obtain DNS server address automatically** (see Figure 31). Then click **OK**.
7. In the Local Area Connection Properties dialog box, click **OK**.
8. Restart the computer.

Figure 31: Windows XP - Internet Protocol (TCP/IP) Properties





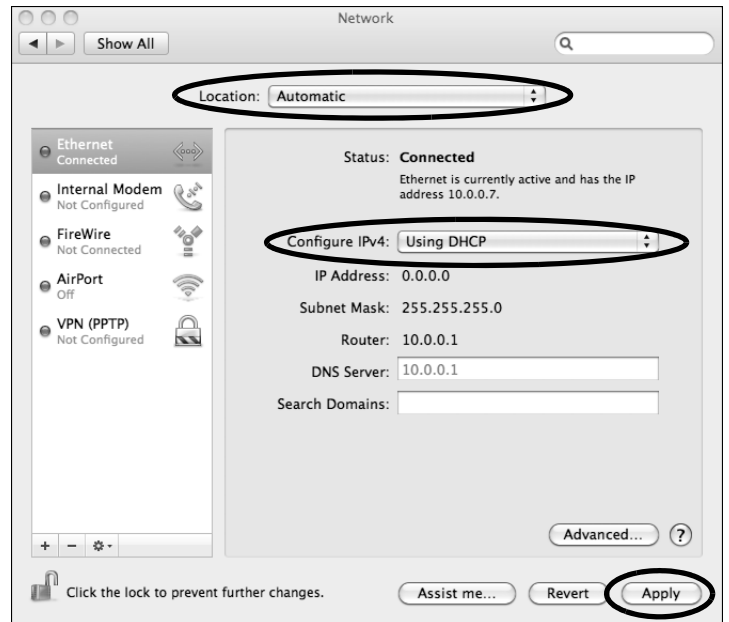
# B Continued Configure Computers for DHCP

## Appendix

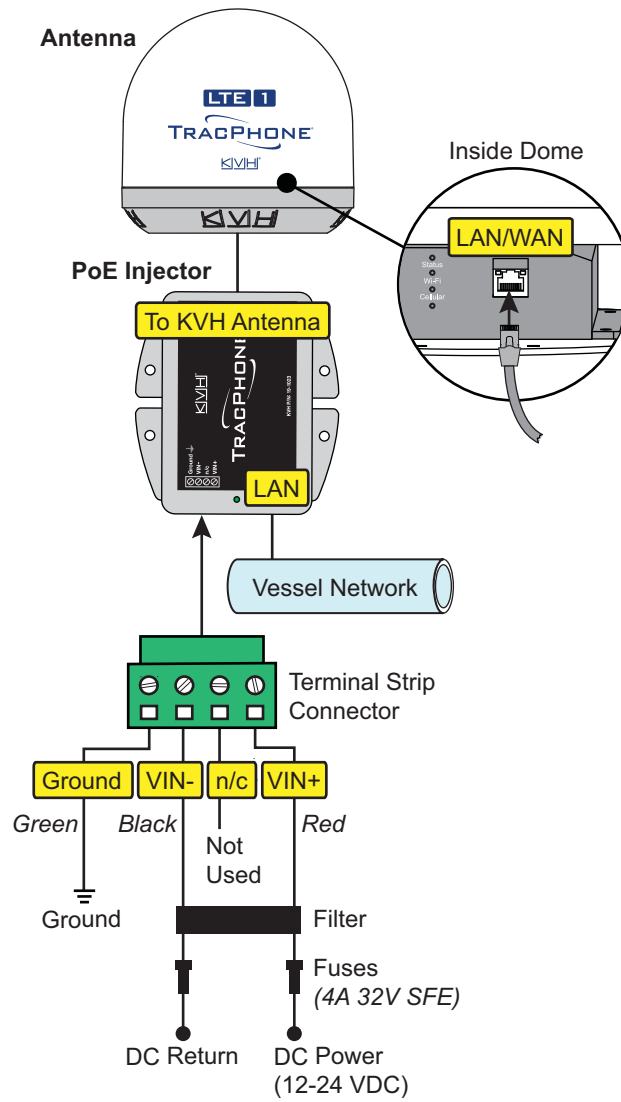
### Macintosh OS X

1. Turn on the computer.
2. In System Preferences, click **Network**.
3. In the Network dialog box, select **Ethernet** then set the following:
  - Location: **Automatic**
  - Configure IPv4: **Using DHCP**
4. Click **Apply**.
5. Restart the computer.

Figure 32: Macintosh OS X - Network Preferences



# G Wiring Diagram



# D LTE Manager Settings Worksheet

Fill out and instruct the subscriber to log into their LTE Manager account to enter their new settings.

## Factory Default Settings

**Built-in Wi-Fi Settings**

Built-in Wi-Fi

On  Off

SSID (Wi-Fi network name)

Security mode

Password

## Subscriber Settings

**Built-in Wi-Fi Settings**

Built-in Wi-Fi

On  Off (circle one)

SSID (Wi-Fi network name)

Security mode

Password

\*The QR code label is on the first page of the TracPhone LTE-1 Quick Start Guide

**Network Configuration**

**Caution!** Default settings work for most situations. Do not change unless necessary.

DHCP

On  Off

IP address

·  ·  ·

**Note:** 192.168.0.1 is reserved for system for system use. Be sure to assign a different IP address.

Subnet mask

·  ·  ·

**Network Configuration**

**Caution!** Default settings work for most situations. Do not change unless necessary.

DHCP

On  Off (circle one)

IP address

·  ·  ·

**Note:** 192.168.0.1 is reserved for system for system use. Be sure to assign a different IP address.

Subnet mask

·  ·  ·



**EU DECLARATION OF CONFORMITY**



**We:**

KVH Industries, Inc.  
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Middletown, RI 02842 U.S.A.  
Tel: +1 401 847 3327

**Declare under our sole responsibility that the following product:**

TracPhone LTE-1 System, consisting of:

- 02-2279 TracPhone LTE Antenna
- 19-1023 TracPhone LTE PoE

<sup>1</sup> The part number is followed by 2 alphanumeric characters which designate non-performance affecting customer specific branding

**Is in conformity with the essential requirements of:**

Radio Equipment Directive 2014/53/EU

**The following harmonized standards and technical specifications have been applied:**

Essential Requirement		Applied Standard(s)
Article 3.1(a)	Health & Safety	EN 60950-1:2006 + A1:2009 + A2:2013
Article 3.1(b)	EMC	EN 60945:2002 + Corrigendum 1:2008
Article 3.2	Spectrum Efficiency	(Antenna Mounted LTE Router) EN 300 328 V2.1.1 (Adaptivity & Receiver Blocking) EN 301 908-1 V11.1.1 EN 301 908-2 V11.1.2 EN 301 908-13 V11.1.2

**Equipment applicability**

The TracPhone LTE is a cellular communications system that provides internet connectivity between a ship and land-based cellular services. The equipment is not intended for SOLAS applications.

**Operating Frequency Bands and Maximum Output Power:**

Transmit Frequency Range: 699-2690MHz

Receive Frequency Range: 717-2690MHz

Output Power: 501mW EIRP

**Signed for and on behalf of:**

KVH Industries, Inc.  
Middletown R.I. U.S.A.

4 Jun 2018

Rick Jones, Director of Corporate Quality



[www.kvh.com](http://www.kvh.com)



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