NETWORK UNIT  COVERAGE UNIT

Cel-Fi™ DUO+ Smart Signal Booster™
A true plug-and-play system that doesn't require the installation of antennas or cables.

To use this product you need:
- An LTE compatible mobile phone with qualifying LTE service
- An area inside your home that receives at least one bar of 4G LTE coverage
- Power Outlets

In this package you will find:
- Network Unit
- Coverage Unit
- Two Power Adapters
- Two Mounting Brackets with hardware

Get More from Cel-Fi WAVE
Cel-Fi WAVE is an application available on both smartphones and desktop computers that allows users to interact with Cel-Fi, to access advanced and supplementary features.

Dashboard:
Glance-able view to the state of your Cel-Fi environment.

Settings:
Change the default Operator, setup an external antenna, name your Smart Signal Booster, and more.

Advanced Mode:
Get a real-time technical overview of the installation of your Cel-Fi Smart Signal Booster.

Booster Updates:
Keep your Cel-Fi Smart Signal Booster up-to-date as new software versions become available.

Register
Upon purchase and receipt of your device, make sure to register with your carrier. This is a quick and easy process. Use the link below to register your Smart Signal Booster:


For more information, and software, go to:
www.cel-fi.com/wave

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qsg_DUO-Plus-LTE_17-0227
**Before You Begin**

If you can find a place in your home that gets at least one bar of 4G LTE signal, the revolutionary Cel-Fi DUO+ Smart Signal Booster system brings you smoother video and surfing, and improved coverage throughout your home. Cel-Fi DUO+ Smart Signal Booster is a true plug-and-play system that doesn’t require the complicated installation of antennas or cables.

**Step 1**

**Find the location with the best coverage:**
The first step in setting-up your Cel-Fi DUO+ Smart Signal Booster is to find the location with the best mobile network signal. Use your phone to identify the area with the best signal. Typically, the best service will be near a window in the highest floor of your space. Make sure a 4G LTE icon is displayed on your handset.

**Step 2**

**Plug in the Network Unit:**
Plug the Network Unit into an easily accessible outlet near the area with the strongest 4G LTE signal. (Note: the power supplies in your kit are identical.) Make sure that at least one bar is displayed on the signal strength indicator on the front of the Network Unit. If you do not see at least one bar, try a different location.

**Step 3**

**Optimize the Network Unit Placement:**
The bars on the front of the device indicate the strength of the mobile network signal in the area. Moving the Network Unit to a different location may increase the signal, and can improve the quality of your service.

**Step 4**

**Place the Coverage Unit:**
Place the Coverage Unit as far away, inside the space, as possible from the Network Unit or where you need coverage the most, making sure that you have enough distance between the two units. After several minutes, the numeric display will stop cycling.

If your device is set-up properly, the green icons will appear on the display as seen above. It is possible to place the Coverage Unit too close or too far from the Network Unit. If this happens, a red icon will illuminate indicating that you need to move the Coverage Unit either closer to, or farther away from the Network Unit (see below).

**Step 5**

**Optimize The Coverage Unit Placement:**
The number on the front of the Coverage Unit display indicates the quality of the placement. For the best service experience, move the Coverage Unit around your home until an 8 or 9 displays. Based on the Coverage Unit number, you may need to move farther/closer to the Network Unit.

For additional information about Cel-Fi DUO+ Smart Signal Booster Installation go to: www.cel-fi.com
Mounting Instructions

Each Cel-Fi device may be supplied with mounting brackets and hardware to mount both (or either) the Coverage Unit and the Network Unit.

**NOTE**: The brackets come equipped with screws and inserts for mounting in standard drywall. Before you install the mounts, make sure there are no wires or other objects, or metal plates, behind the drywall layer that will interfere with the inserts, screws, mount, or mounted units.

1. **Determine Cel-Fi Device Location (refer to other side)**

   - **Network Unit**
   - **Coverage Unit**
   - **Quick Start Guide**
   - **Power Adapters (2)**
   - **Mounting Brackets (2)**
   - **Screws (4)**
   - **Drywall Anchors (4)**

2. **Determine Mounting Hole Locations**

3. **Drill Anchor Holes (Drywall)**

   In each marked spot, use a 3/16” drill bit to drill guide holes for the anchors.

4. **Install Anchors (Drywall)**

5. **Install Mounting Bracket**

6. **Attach the Cel-Fi Unit to the wall mounted bracket**

**Figure 1**
Back view with mounting holes.

**Figure 2**
Backside of unit fits onto bracket hooks.

**IMPORTANT**: Your **Cel-Fi DUO+ Smart Signal Booster** is electronic equipment. Both units must be kept indoors and in a dry, cool, well ventilated area.
# Troubleshooting

## NETWORK UNIT DISPLAY

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Issue</th>
<th>Try This</th>
</tr>
</thead>
</table>
| No lights on the Network Unit display. | The device is not receiving power. | 1. Is the unit plugged in?  
2. Is there power at the outlet?  
3. Try exchanging the power supplies with the **Coverage Unit** to determine if the power supply is defective. |
| Power indicator is red. | Network Unit hardware issue. | Please check the **Coverage Unit** for an alternating error number to determine the proper solution from the list of Error Messages below. |
| Power indicator is green but no bars on the Network Unit display. | Network Unit does not have a 4G LTE signal. | Try moving the **Network Unit** to another room or area where you have more coverage. (Use your mobile phone to find the best 4G LTE coverage). |
| Power indicator is Flashing Green. | Network Unit is setting up communications with **Coverage Unit**. | Wait a few moments, once a path has been set up, the light will stop flashing. |

## COVERAGE UNIT DISPLAY

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Issue</th>
<th>Try This</th>
</tr>
</thead>
</table>
| No lights on the Coverage Unit display. | The device is not powered. | 1. Is the unit plugged in?  
2. Is there power at the outlet?  
3. Try exchanging the power supplies with the **Network Unit** to determine if the power supply is defective. |
| Coverage Unit Power Indicator is red | System Error. | Please check the seven segment display for an alternating Error Messages to determine the proper solution from the list of Error Messages below. |
| Seven segment display cycling for more than a minute. | The Coverage Unit is still trying to wirelessly connect to the **Network Unit**. | Move the **Coverage Unit** farther away from the **Network Unit**. The separation distance may be over 20 meters for a residence, and much farther for open commercial spaces. Try and get an 8 or 9 on the display. |
| Zero displayed. | The Coverage Unit is "Too Close" to the **Network Unit**. | Move the **Coverage Unit** closer to the **Network Unit**. |
| The **Coverage Unit** and **Network Unit** icons are red with two arrows. | The Coverage Unit is "Too Far Away" from the **Network Unit**. | Move the **Coverage Unit** away from the **Network Unit** to get a higher coverage number. More bars is always better. |

## PERFORMANCE

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Issue</th>
<th>Try This</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low <strong>Coverage Unit</strong> number or <strong>Network Unit</strong> input signal.</td>
<td><strong>Network Unit</strong> and <strong>Coverage Unit</strong> are too close together or <strong>Network Unit</strong> signal level is low.</td>
<td>Move the <strong>Coverage Unit</strong> away from the <strong>Network Unit</strong> to get a higher coverage number. This can mean putting the <strong>Coverage Unit</strong> on the opposite end of your home. Higher numbers indicate better coverage. You can also move the <strong>Network Unit</strong> to an area with a stronger signal. More bars is always better.</td>
</tr>
</tbody>
</table>

## ERROR MESSAGES DISPLAY

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Issue</th>
<th>Try This</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>No 4G LTE signal at the <strong>Network Unit</strong>.</td>
<td>Try moving the <strong>Network Unit</strong> to another room or area where you have coverage. (Use your cell phone to find the best 4G LTE coverage).</td>
</tr>
<tr>
<td>E3</td>
<td><strong>Coverage Unit</strong> is overheating. <strong>Network Unit</strong> is overheating.</td>
<td>Make sure that the vents on the unit are not blocked. Move the unit to a cooler area. The system will start working normally when it cools down.</td>
</tr>
<tr>
<td>E5</td>
<td>Registration Required.</td>
<td>Register your address with your mobile network provider, using the <strong>Cel-Fi WAVE app</strong>.</td>
</tr>
<tr>
<td>E7</td>
<td>Unit disabled by network.</td>
<td>Please call your cell phone provider.</td>
</tr>
<tr>
<td>E8</td>
<td>Input signal at <strong>Network Unit</strong> too strong.</td>
<td>Your <strong>Network Unit</strong> is too close to a cellular tower. This may result in a reduced output power (smaller coverage bubble) to limit network interference. Note: If you have satisfactory boost in cellular service you can ignore this message. Otherwise move your <strong>Network Unit</strong> to another location. You might need to move your <strong>Network Unit</strong> to the other side of your home/office.</td>
</tr>
<tr>
<td>E9</td>
<td>Your system was moved from its original address. Registration required due to location lock.</td>
<td>Either move the system back to its original location or register your new address with your mobile network provider, using the <strong>Cel-Fi WAVE app</strong>.</td>
</tr>
</tbody>
</table>

If you see any other error messages or for additional information about **Cel-Fi DUO+ Smart Signal Booster Installation** go to: [www.cel-fi.com/support](http://www.cel-fi.com/support)