This is NOT a CONSUMER device. It is designated for installation by FCC LICENSEES and QUALIFIED INSTALLERS. You MUST have an FCC LICENSE or express consent of an FCC Licensee to operate this device. Unauthorized use may result in significant forfeiture penalties, including penalties in excess of $100,000 for each continuing violation.
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Notes:15.19(a): This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions (1) This device may not cause harmful interference, and (2) this device must accept any interference received including interference that may cause undesired operation.
Introducing SureCall’s Force7 Industrial Booster. Please read this entire manual before proceeding.

1.1 - Package Contents

Your booster box contains the following items:

- (1) Force7 Industrial Booster
- (8) SC-222W-RP-TNC Dome Antennas
- (1) 75 ft. SC-400-RP-TNC Low Loss Cable
- (2) SC-WS-4-RP-TNC 4-Way splitters
- (1) SC-WS-2-RP-TNC 2-Way splitter
- (26) RP-TNC Connectors
- (1) Lightning protector (SC-LP)

1.2 - Features & Benefits

The booster offers the following features and benefits:

- First 7-band signal booster that simultaneously enhances cellular, Wi-Fi and HDTV signals
- Extends cellular signals in areas with poor coverage due to geographical location and/or building design
- Highly linear amplifier producing the fastest 4G LTE data rates
- Powerful in-building booster with 31 dB of adjustable gain level
- Suitable for large areas up to approximately 80,000 square feet depending on outside signal strength and carrier frequency
- Automatic oscillation detection and protection system powers down the booster to prevent harmful radio interference
- Maximum output power is 3 watts EIRP for Cellular, 2 watts EIRP for PCS and 1 watt for AWS 1710-1755 MHz bands. Fixed stations operating in the 1710-1755 MHz bands are limited to a maximum antenna height of 10 meters above ground

1.3 - Additional Items Needed

The booster requires the following additional components for a complete installation:

- An outside antenna, such as the SC-230W Yagi antenna or SC-288W omni antenna
- HDTV antenna, SC-305 or SC-306 and HDTV coax
- Sufficient low loss 50 ohm interior/exterior cable
- Cable splitter if installing multiple antennas
- Grounded surge suppressor for DC power supply
- Multiple antennas (such as the SC-222W-TNC, omni-directional domes by SureCall)

Note: Due to the recent company change from Cellphone-Mate to SureCall, we have changed the prefix to all of our part numbers from CM to SC.
1.4 - How Cellular Signal Boosters Work

The Force7 booster amplifies cellular signals from the nearest tower to phones in a building and from those phones back to the tower to compensate for weak reception caused by distance, topography, building structure, and/or other reasons. The booster receives the signal from an outside antenna, amplifies that signal, and then rebroadcasts it via the interior antenna(s) where it is picked up by cellular phones, modems, and data cards. The interior antennas also pick up signals from cellular devices and pass them to the booster. The booster amplifies these signals and passes them to the exterior antenna for rebroadcast back to the tower.

CHAPTER 2: Safety

This chapter contains important safety information designed to prevent personal injury, equipment malfunction, and/or radio interference. You are responsible for ensuring a safe installation.

2.1 - Safety Warnings

- You are responsible for knowing and following all applicable codes and regulations and for obtaining all required permits and inspections.
- Follow all safety precautions contained in this Installation Manual.
- The installation process may require working in high locations such as roofs and/or ladders. Follow applicable safety regulations and best practices to injury. Take care not to drop objects off any high area. Cordon off ground areas directly below roof or ladder work.
- Always use appropriate personal protective equipment such as goggles, gloves, hard hat, etc. as needed or required.

WARNING: FAILURE TO EXERCISE CAUTION WHEN WORKING IN HIGH AREAS COULD CAUSE A FALL AND PERSONAL INJURY.
• Some components may be heavy and/or bulky. Always use proper lifting and carrying techniques when handling components, especially when working on a ladder, roof, or other area with a fall hazard.

• The exterior antenna must not be co-located or operating in conjunction with any other antenna.

• Always use a properly installed SureCall lightning protector between the exterior antenna and the booster.

CAUTION: FAILURE TO PROPERLY INSTALL A LIGHTNING PROTECTOR CAN RESULT IN DAMAGE TO THE BOOSTER, ANTENNAS, AND WIRING.

• Always power off the booster before working on the roof of the building or anywhere in close proximity to the external antenna.

• Allow at least 24 inches (60 cm) of separation between interior antennas and humans or animals.

• Allow at least 24 inches (60 cm) of separation between exterior antennas and all persons.

• Comply with all antenna separation requirements to prevent signal oscillation.

CAUTION: SIGNAL OSCILLATION CAN CAUSE RADIO INTERFERENCE WITH CELLULAR TOWERS AND RESULT IN CIVIL AND/OR CRIMINAL PENALTIES.
CHAPTER 3: Planning

3.1 - Overview

The general booster installation process follows these steps:

1. Decide where to mount the exterior antenna. This will generally be on the wall or roof of the building in the location with the strongest signal. You will need to decide whether to use an omnidirectional antenna mounted vertically or a directional Yagi antenna pointed directly at the cellular tower (line of sight). You must also consider attaching a grounded lightning protector between the exterior antenna and the booster.

2. Decide where to mount the interior antenna(s), being sure to take separation requirements into account. In general, long narrow spaces will benefit most from directional flat-panel antennas while more square spaces will benefit more from omnidirectional dome antennas.

3. Decide where to mount the booster. This should be in a secure indoor location near a grounded power source.

4. Decide where to route the cables between the exterior antenna and the booster and between the booster and interior antennas.

5. Install the antennas as described in their respective Installation Manuals.

6. Route the cables to the booster location.

7. Install the booster as described in this manual.

8. Power on the booster and perform the configuration and testing as described in this manual.
3.2 - Exterior Antenna

You may use either an omni-directional antenna such as the SC-288W (for flat areas with no obstructions) or a directional Yagi antenna such as the SC-230W (to point directly at the tower). The omni-directional antenna receives and transmits signals in a horizontal 360° circle while the Yagi antenna receives and transmits signals in a focused area and must be aimed directly (line of sight) toward the cellular tower that provides the best signal to the building.

![Omnidirectional and Yagi antennas](image)

The exterior antenna and mast (if any) must be mounted in a location that meets all of the following criteria:

- Best signal strength
- Not co-located with other antennas or used in conjunction with other antennas
- Away from all power lines
- 6 feet from lightning rod antennas
- 24 inches from all persons

These distances are general guidelines only; refer to the applicable building and electrical codes in your area to determine local requirements.

- The HDTV antenna can be mounted a few feet away at this time
3.3 - Interior Antennas

You may use any combination of omnidirectional (dome) interior antennas needed to obtain optimal signal strength throughout the building or installation area. Dome antennas such as the SC-222W-TNC provide 360° hemispherical coverage suitable for mostly square areas. The following example uses two dome antennas to provide full coverage (exterior Yagi antenna also shown):

Keep in mind that floor structures in multistory buildings can cause significant signal loss, which means that you may need to install interior antennas on more than one floor. Here is an example of a multistory installation:
Note: You may or may not need antennas on every floor of a multistory building depending on factors such as building material, booster gain, etc.

3.4 - Antenna Separation

Proper antenna separation is essential in order to prevent signal oscillation (feedback) that can interfere with the cellular tower. Separation is measured in a straight line from the exterior antenna to the closest interior antenna. The closest allowable distance depends on a number of factors such as booster gain level, building material, etc. Recommended separation distances are:

<table>
<thead>
<tr>
<th>Amplifier gain</th>
<th>Minimum separation (ad)</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 dB</td>
<td>5-6 ft.</td>
</tr>
<tr>
<td>45 dB</td>
<td>15-20 ft.</td>
</tr>
<tr>
<td>50 dB</td>
<td>50 ft.</td>
</tr>
<tr>
<td>55 dB</td>
<td>60 ft.</td>
</tr>
<tr>
<td>65 dB</td>
<td>75-80 ft.</td>
</tr>
<tr>
<td>70 dB</td>
<td>100 ft.</td>
</tr>
<tr>
<td>75 dB</td>
<td>100-120 ft.</td>
</tr>
<tr>
<td>80 dB</td>
<td>120-180 ft.</td>
</tr>
</tbody>
</table>

Note: Vertical separation is more important than horizontal separation. If you are unable to obtain the required separation horizontally, try raising the exterior antenna. You may also try reducing the booster gain as described in Chapter 5 of this manual.
If you are using a Yagi exterior antenna, you should normally aim it away from all interior antennas regardless of separation to prevent oscillation.

3.5 Calculating Signal Strength

You can calculate the number of antennas you will need using the following parameters (in dB):

- **Outside signal level (OSL):** This is the signal strength at the exterior antenna location and will always be a negative number that will usually fall between -50 and -100 dBm. Calls will drop at levels of about -100 dB and lower. A system installed in an area where the signal is -85 or worse will require some detailed engineering to achieve an acceptable solution.

- **Outside antenna gain (OAG):** This is the signal boost provided by the exterior antenna and is always a positive number with SureCall antennas.

<table>
<thead>
<tr>
<th>OAG</th>
<th>Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC-288W omni</td>
<td>+3</td>
</tr>
</tbody>
</table>

**CAUTION:** SIGNAL OSCILLATION CAN CAUSE RADIO INTERFERENCE WITH CELLULAR TOWERS AND RESULT IN CIVIL AND/OR CRIMINAL PENALTIES.
• Inside antenna gain (IAG): This is the signal boost provided by an interior antenna and is always a positive number with SureCall antennas.

<table>
<thead>
<tr>
<th>IAG</th>
<th>Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC-222W-TNC omni dome</td>
<td>+3</td>
</tr>
</tbody>
</table>

• Cable loss (CL): This is the signal loss caused by the cable and is always a negative number.

<table>
<thead>
<tr>
<th>CL</th>
<th>Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 ft. SC-400-TNC</td>
<td>-1 dB / -2 dB</td>
</tr>
<tr>
<td>30 ft. SC-400-TNC</td>
<td>-2 dB / -4 dB</td>
</tr>
<tr>
<td>50 ft. SC-400-TNC</td>
<td>-3 dB / -6 dB</td>
</tr>
<tr>
<td>100 ft. SC-400-TNC</td>
<td>-4 dB / -8 dB</td>
</tr>
</tbody>
</table>

• Splitter loss (SL): This is the signal loss caused by a splitter (used if you are installing multiple antennas).

<table>
<thead>
<tr>
<th>SL</th>
<th>Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-way</td>
<td>-3</td>
</tr>
<tr>
<td>3-way</td>
<td>-5</td>
</tr>
<tr>
<td>4-way</td>
<td>-6</td>
</tr>
</tbody>
</table>

• Booster gain (AG): Number of decibels of amplification provided by the booster (rated gain less any attenuation, as described in Chapter 5 of this manual). This is always a positive number. The signal strength S at an interior antenna equals OSL+OAG+IAG+CL+SL+AG.
3.6 - Booster Location
Select an indoor location for the booster that meets the following criteria:

- Wall or ceiling mounts are acceptable
- Near a properly grounded 110 VAC outlet
- Not in a tightly enclosed or overly hot space
- All power, dip switches and warning lights easily visible
- Least amount of cable to connect all antennas

3.7 - Accessories
The final step in the planning process is to make sure you have all of the necessary accessories to complete the installation. You will need all of the items listed in Chapter 1 of this manual plus some or all of the following:

- Cable clips: Use these to secure the cables to interior and exterior walls/ceilings.
- Appropriately rated sealant/caulking: Use this to waterproof the opening where the cable from the exterior antenna enters the building, if needed.
- Hand and/or power tools: As needed to complete the installation.
- Personal Protective Equipment (PPE): Use all PPE required by local codes and/or best practices to help ensure personal safety during installation.

Note: You may need to obtain a permit from your local building department to install the booster and antennas. Check your local building and/or electrical codes.

CAUTION: YOU ARE RESPONSIBLE FOR ENSURING THAT THE INSTALLATION MEETS ALL APPLICABLE CODES.

3.8 - Need Help?
If you need help planning your installation, please contact a qualified installer, the reseller from whom you purchased the booster, or SureCall.
Chapter 4. Installation

This chapter describes how to install the booster and antennas for best results.

4.1 - Selecting the Locations

Select the locations for the exterior antenna, interior antenna(s), booster, cables, and accessories as described in the previous chapter.

4.2 - Soft Installation

Perform a “soft” installation of all components to test signal coverage and oscillation before making the installation permanent. Avoid making holes or other permanent fixtures during this initial phase. Begin with the most basic set up e.g., one indoor and one outdoor antenna to ensure everything is working before adding antennas. Please refer to Chapter 5 of this manual for configuration and testing instructions. Proceed with the final installation once configuration and testing are complete.

4.3 - Exterior Antenna

Mount the exterior antenna in the location you selected during the planning process. Be sure to follow all of the instructions included with the antenna to ensure a safe installation. Remember:

- An omni-directional antenna (SC-288W, etc.) must be mounted vertically.
- A directional Yagi antenna (such as the SC-230W) must be mounted horizontally and be aimed at the desired cellular tower (line of sight).

CAUTION: MOUNT THE EXTERIOR ANTENNA ON A FIXED STRUCTURE.
4.3 - Exterior Antenna (continued)

1. Mount the antenna.
2. Connect the length of SC-400-RP-TNC LMR Cable cable to the antenna and tighten until hand-tight.
3. Run the cable along the planned route.
4. Install and properly ground the SC-LP lightning protector.
5. Seal any holes you make in the outside of the building with appropriate caulking or sealant.
4.4 - Internal Antennas

Mount the interior antenna(s) in the location(s) you selected during the planning process. Be sure to follow the instructions included with the antenna(s) for a safe installation.

Remember: Dome antennas (SC-222W-TNC) should be mounted in the ceiling as close to the center of the desired coverage area as possible with the domed side pointing down.

CAUTION: VERIFY THAT ALL INTERIOR ANTENNAS MEET THE SEPARATION REQUIREMENTS DESCRIBED IN THE PREVIOUS CHAPTER AND THAT NO ANTENNA IS AIMED TOWARD THE EXTERIOR ANTENNA.

1. Mount the antenna.
2. Connect a length of SC-400-TNC cable to the antenna and tighten until hand-tight.
3. If you are installing multiple antennas, run the cable to the splitter location and connect the cable to one of the outputs on the splitter.
4. Connect another length of SC-400-TNC cable to the input side of the splitter (if used) and run this cable to the booster location.
5. It is important to keep the cable runs equal or use taps to ensure a harmonious install.

CAUTION: DO NOT CONNECT AN INTERIOR ANTENNA TO THE SPLITTER INPUT.

15.21 Information to user:

The users manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment. In cases where the manual is provided only in a form other than paper, such as on a computer disk or over the Internet, the information required by this section may be included in the manual in that alternative form, provided the user can reasonably be expected to have the capability to access information in that form.

WARNING: Changes or modifications not expressly approved by SureCall will void the user’s authority to operate the equipment.
4.5 - Mounting the Booster

Mount the booster as follows:

1. Verify that the selected location meets all of the criteria described in the previous chapter.

2. Attach the included mounting kit to the booster using the screws provided. Tighten the screws by hand with a screwdriver until tight plus 1/4 to 1/2 turn. Do not over-tighten.

3. Mount 24 inch x 24 inch, 3/4 inch thick sheet of plywood on top of sheetrock into wall studs where the booster is to be placed. Plywood should be flush against wall. Once mounted, screw the booster to the plywood sheet. The top side of the booster with the lights and DIP switches should be facing away from the wall and plainly visible standing near the booster.

4. Connect the exterior antenna cable to the **Outside Antenna** port on the booster.

5. Connect the interior antenna cable to the **Inside Antenna** port on the booster.

6. Verify that all cable connections are tight and that the exterior and interior antennas are connected to the proper jacks.
CHAPTER 5: Configuration & Testing

The Force7 has 11 dip switches and the frequency bands they utilize for attenuation. Below the image is a general attenuation guide.

5.1 - Dip Switches and Lights

DIP Switches
1. AWS-UL (2100 MHz) Dip switches control AWS uplink (switch 1-5)
2. AWS-DL (2100 MHz) Dip switches control AWS downlink (switch 1-5)
3. PCS-UL (1900 MHz) Dip switches control PCS uplink (switch 1-5)
4. PCS-DL (1900 MHz) Dip switches control PCS downlink (switch 1-5)
5. LTE-UL AT&T (707 MHz) Dip switches control LTE uplink (switch 1-5)
6. LTE-DL (728-757 MHz) Dip switches control LTE downlink (switch 1-5)
7. LTE-UL Verizon (781 MHz) Dip switches control LTE uplink (switch 1-5)
8. CELLULAR-UL (800 MHz) Dip switches control Cellular uplink (switch 1-5)
9. CELLULAR-DL (800 MHz) Dip switches control Cellular downlink (switch 1-5)

<table>
<thead>
<tr>
<th>Switch 1</th>
<th>Switch 2</th>
<th>Switch 3</th>
<th>Switch 4</th>
<th>Switch 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 dB</td>
<td>2 dB</td>
<td>4 dB</td>
<td>8 dB</td>
<td>16 dB</td>
</tr>
</tbody>
</table>

Switch 1 (1 dB) + Switch 2 (2 dB) = 3 dB attenuation
Switch 1 (1 dB) + Switch 2 (2 dB) + Switch 3 (4 dB) = 7 dB attenuation
Switch 1 (1 dB) + Switch 2 (2 dB) + Switch 3 (4 dB) + Switch 4 (8 dB) = 15 dB attenuation
Switch 1 (1 dB) + Switch 2 (2 dB) + Switch 3 (4 dB) + Switch 4 (8 dB) + Switch 5 (16 dB) = 31 dB attenuation
Each bank of DIP switches contain five switches.

- Turning a switch OFF increases booster gain for the selected channel.
- Turning that switch ON decreases booster gain for the selected channel.

From left to right, the DIP switches in each bank provide 1, 2, 4, 8, and 16 dB of attenuation (reduced amplification). These switches are cumulative, meaning that the total amount of attenuation for a channel is equal to the combined dB of all ON DIP switches in the corresponding bank. For example:

- Turning all switches OFF = 0 dB attenuation (booster is at full gain).
- Turning ON Switch #1 in a bank = 1 dB attenuation (booster maximum gain is reduced by 1 dB).
- Turning ON Switches #1, 3, and 5 in a bank = 1+4+16 dB attenuation = 21 dB attenuation.

For example, in an 80 dB booster, this means the selected channel would be reduced to 59 dB (80 dB - 21 dB).

- Turning ON all switches in a bank = 1+2+4+8+16 dB attenuation = 31 dB attenuation

For example, in an 80 dB booster, that means that the selected channel would be reduced to 49 dB (80 dB-31 dB).

When the booster is powered on:

- The green Power light (5) should illuminate.
- If any of the bands are oscillating, the corresponding band lights will flash red and the corresponding band(s) will shut off.

**Note:** When the booster is turned on, the band lights will flash red and yellow for approximately 10 seconds.
5.2 - Initial Configuration

By default, your booster ships with all DIP switches turned OFF to provide maximum gain in all channels. This should always be your starting point whenever installing or reinstalling the booster.

5.3 - Powering on the Booster

To power on the booster:

1. Make sure that exterior and interior antenna cables are firmly connected to the proper ports on the booster.
2. Plug a surge suppressor into a grounded 110 VAC wall outlet.
3. Plug the AC end of the supplied power adapter into the surge suppressor.
4. Plug the DC end of the power adapter into the Power port on the booster.
5. Verify that the green Power light is illuminated.

CAUTION: ONLY USE THE POWER SUPPLY INCLUDED WITH THE BOOSTER. USE OF ANOTHER POWER SUPPLY COULD DAMAGE THE BOOSTER AND/OR POWER SUPPLY.

CAUTION: DO NOT PROCEED BEYOND THIS POINT UNTIL THE BOOSTER IS POWERED ON AND NO RED WARNING LIGHTS ARE ILLUMINATED.

5.4 – Testing

Once the booster is powered on and no Warning lights are illuminated, walk around the entire area to test the voice and/or data signal. Refine the antenna locations and/or gain levels as needed, and then complete the permanent installation once the system is working as desired.

5.5 - Adjusting the Booster

Keep the following points in mind when adjusting the booster:

- Full power is not always your best option. Your goal is to obtain a usable cellular signal in as many areas of the building as possible. A successful installation means that you can make calls without dropping and/or have a reliable data connection.
Do not expect to see 5 bars of reception everywhere in the building as this is practically impossible. Also, signal strength in dB can vary significantly without necessarily affecting the number of bars displayed because different phone and data card manufacturers handle bars slightly differently.

A good rule of thumb is that increasing gain by 6 dB doubles the coverage distance of the interior antennas. Start at the lowest gain setting and increase gain gradually as needed.

If one or more red Warning lights comes on, that indicates that there’s oscillation in that band and the band will immediately shut down. If the dB gain is not adjusted, the Warning light will continue flashing. The booster will power down and will then wake every 30 seconds for the next 15 minutes to see if the problem has been resolved. If the problem hasn’t been resolved after 15 minutes the band will shut off and the booster will need to be turned off and turned back on to reset.

You may see oscillation in any of the bands (see Section 5.6).

If you can’t get the system to work properly, you may need to install an additional interior antenna and/or a different type of interior antenna and/or relocate interior antennas.

**Note:** In general, the uplink and downlink DIP switches should be set identically but this is not always the case.

**5.6 - Automatic Shutdown**

If equipped, the Force7 booster includes an automatic shutdown feature that works in the following sequence:

1. When oscillation is detected in the uplink and/or downlink, the appropriate Warning light(s) will begin flashing red and the Power light (light 5 in the diagram on Page 18) remain green.

2. If oscillation occurs on any other band, lights 6 and/or 7, 8, 9, and 10 will blink as appropriate.

3. If the electrical current powering the booster is too weak or too strong the lights will blink yellow.

4. If the problem is not resolved, the affected side will shut down for 30 seconds.

5. The booster will wake back up. When this occurs, the power light will be green. If oscillation resumes, the lights will flash as previously described. These 30-second cycles will continue for 15 minutes or until the problem is resolved.

6. If the problem is not resolved within 15 minutes, the booster will shut down (all lights off except the Power light, which is green) and must be reset by unplugging it from the power supply and plugging it back in.
To resolve oscillation, increase the antenna separation (Section 3.4) and/or the attenuation (Section 5.1). Each band on the booster works independently from other bands. Therefore, Band lights will react accordingly.

The Manufacturer’s rated output power of this equipment is for single carrier operation. For situations when multiple carrier signals are present, the rating would have to be reduced by 3.5 dB, especially where the output signal is re-radiated and can cause interference to adjacent band users. This power reduction is to be by means of input power or gain reduction and not by an attenuator at the output of the device.

La puissance de sortie nominale indiquée par le fabricant pour cet appareil concerne son fonctionnement avec porteuse unique. Pour des appareils avec porteuses multiples, on doit réduire la valeur nominale de 3,5 dB, surtout si le signal de sortie est retransmis et qu’il peut causer du brouillage aux utilisateurs de bandes adjacentes. Une telle réduction doit porter sur la puissance d’entrée ou sur le gain, et ne doit pas se faire au moyen d’un atténuateur raccordé à la sortie du dispositif.
CHAPTER 6: HDTV and Wi-Fi Installation

6.1 - HDTV Installation

1. Connect inside coax cable to the HDTV1 access port on the booster.
2. Connect the other end of the cable to the antenna port on the back of the television.
3. Connect the outside coax cable to the HDTV OUTSIDE port on the booster.
4. Connect the other end of the outside coax cable to the outside HDTV antenna.

6.2. - Scanning Local Television Channels

On your TV’s remote control, press the Input or Source button, from there you’ll select “TV” or “Air”. Consult your TV manual for detailed instructions.

After selecting “Antenna” or “Air”, press the menu button. Choose the antenna option followed by Auto Program.

You may then need to select the Air button where you can start searching for local channels.

The TV will automatically search all available stations. Once the scan is complete, you can exit your TV menu and begin watching free, high-definition television.

6.3 Wi-Fi Connection

Installation Instructions:

1. Plug the Ethernet cable from your modem/router into the WAN port on the booster.
2. Power on the booster. The WAN and WLAN lights on the Force7 status LEDs will light up.
3. On your computer, tablet or cell phone, search available wireless networks and choose 11n AP. A security password isn’t needed.
4. Enjoy enhanced Wi-Fi throughout your workplace.

Note: To access advanced settings for the internal router, contact SureCall at: 888-365-6283 and we will send you the complete user manual for the router.
CHAPTER 7: Warranty

This chapter contains the warranty information for your SureCall product and also contains information on how to contact the company.

7.1 - Warranty Periods

Your warranty includes the following periods:

- Three-Year Product Warranty: SureCall products are covered under a three-year product warranty from the date of purchase. This protects the customer from any defects or problems the product may have that are solely the fault of SureCall. Incorrect installation or misuse will void this warranty. Upon the return of a defective product, SureCall will issue the customer a working replacement. All returned packages should contain all products distributed.

- Five-Year Extended Product Warranty: A five year warranty is available for purchase on any products sold by SureCall. A five-year warranty must be obtained at the time of purchase. This warranty adds an additional two years to the three year warranty we provide. All regulations still apply.

7.2 - Contact Information

You may consult a SureCall customer service agent directly by contacting us as follows:

- Our online support center is at www.surecall.com/HelpDeskService.aspx If needed, you can create an online support ticket. This is the fastest and best way to get support for your product.

- Call us at (888) 365-6283.

Three-Year Product Warranty

SureCall warrants its products for three years from the date of purchase against defects in workmanship and/or materials. Specifications are subject to change. The three-year warranty only applies to products meeting the latest FCC Certification Guidelines stated on 2/20/2013 and going into effect April 30, 2014. A two-year warranty applies to any products manufactured before May 1, 2014.

Products returned by customers must be in their original, un-modified condition, shipped in the original or protective packaging with proof-of-purchase documentation enclosed, and a Return Merchandise Authorization (RMA) number printed clearly on the outside of the shipping container.

Buyers may obtain an RMA number for warranty returns by calling the SureCall Return Department toll-free at 1-888-365-6283. Any returns received by SureCall without an RMA number clearly printed on the outside of the shipping container will be returned to sender. In order to receive full credit for signal boosters, all accessories originally included in the signal booster box must be returned with the signal booster. (The Buyer does not need to include accessories sold in addition to the signal booster, such as antennas or cables.)
## Force7 Industrial Specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cellular Uplink Frequency Range (MHz):</strong></td>
<td>698–716 / 776–787 / 824–849 / 1850–1915 / 1710–1755 (G Block Included)</td>
</tr>
<tr>
<td><strong>Cellular Downlink Frequency Range (MHz):</strong></td>
<td>728–746 / 746–757 / 869–894 / 1930–1995 / 2110–2155 (G Block Included)</td>
</tr>
<tr>
<td><strong>Supported Standards:</strong></td>
<td>CDMA, WCDMA, GSM, EDGE, HSPA+, EVDO, LTE and all cellular standards</td>
</tr>
<tr>
<td><strong>Gain Adjustment Range</strong></td>
<td>31 dB</td>
</tr>
<tr>
<td><strong>Input / Output Impedance:</strong></td>
<td>50 Ω / 75 Ω (HDTV)</td>
</tr>
<tr>
<td><strong>Maximum Gain:</strong></td>
<td>Cellular - 80 dB / HDTV - 25 dB</td>
</tr>
<tr>
<td><strong>Noise Figure:</strong></td>
<td>5 dB</td>
</tr>
<tr>
<td><strong>VWSR:</strong></td>
<td>≤2.0</td>
</tr>
<tr>
<td><strong>Wi-Fi Frequency Range (GHz):</strong></td>
<td>2.4–2.4835</td>
</tr>
<tr>
<td><strong>Wi-Fi Standards</strong></td>
<td>EEE 802.11b, IEEE 802.11g, IEEE 802.11n</td>
</tr>
<tr>
<td><strong>Maximum Wi-Fi Wireless Data Rate:</strong></td>
<td>150 Mbps (2.4 GHz)</td>
</tr>
<tr>
<td><strong>Wi-Fi Web Browser Requirements:</strong></td>
<td>Internet Explorer, Google Chrome, Mozilla Firefox, Safari</td>
</tr>
<tr>
<td><strong>Security:</strong></td>
<td>WEP, WPS, WPA, WPA2, WPA Mixed</td>
</tr>
<tr>
<td><strong>LAN Port:</strong></td>
<td>1X 10/100M</td>
</tr>
<tr>
<td><strong>WAN Port:</strong></td>
<td>1X 10/100M</td>
</tr>
<tr>
<td><strong>AC Power Transmitter</strong></td>
<td>Input AC 110 V, 60 Hz / Output DC 19 V</td>
</tr>
<tr>
<td><strong>Maximum Output Power:</strong></td>
<td>3 Watt EIRP</td>
</tr>
<tr>
<td><strong>Cable:</strong></td>
<td>SC-400-RP-TNC (Cellular) / RG6 (HDTV, RG6 not included)</td>
</tr>
<tr>
<td><strong>RF Connectors:</strong></td>
<td>N Female with RP-TNC on indoor antenna port</td>
</tr>
<tr>
<td><strong>Power Consumption:</strong></td>
<td>&lt;65W</td>
</tr>
<tr>
<td><strong>Dimensions:</strong></td>
<td>14.5 x 11 x 3.5 inches</td>
</tr>
<tr>
<td><strong>Weight:</strong></td>
<td>19.5 lbs</td>
</tr>
</tbody>
</table>
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**WARNING: E911 location information may not be provided or may be inaccurate for calls served BY USING THIS DEVICE.**

48346 Milmont Drive
Fremont, California 94538
USA
888.365.6283
Fax: 510.996.7250
www.surecall.com

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