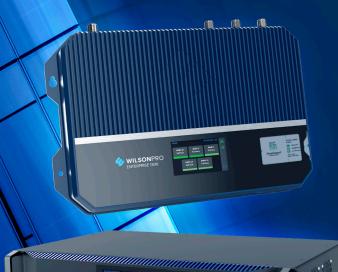




ENTERPRISE 1300/1300R

In-Building Cell Signal Amplifier with Multi-Tower Targeting (MTT) Technology



Installation Guide

Index

Package Contents	. 1
About The Enterprise 1300 & 1300R	2
Additional Features	4
Installation Diagram	5
Menu System	8
WilsonPro Cloud	17
Local Ethernet Configuration Utility	34
Safety Guidelines	42
Specifications	44
Warranty	45

Package Contents

Enterprise 1300 SKU 460149



Enterprise 1300 Amplifier



Wide Band Directional Antenna (314411)



Dome Antenna (304412)



100 ft. Wilson400 Cable (qty. 2) (952300)



2 ft. Wilson400 Cable (952402)



50 Ohm Lightning Surge Protector (859902)

Enterprise 1300R SKU 460150



Enterprise 1300R Amplifier



Wide Band Directional Antenna (314411)



Dome Antenna (304412)



100 ft. Wilson400 Cable (qty. 2) (952300)



2 ft. Wilson400 Cable (952402)



50 Ohm Lightning Surge Protector (859902)

Enterprise 1300 & 1300R

In-Building Cell Signal Amplifier Systems



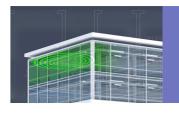
Frequency-specific "split mode" option, facilitating separate outdoor antennas for different bands, resulting in improved indoor coverage.



Remote system monitoring. Connects to WilsonPro Cloud service via internal, preactivated LTE modem or Ethernet.



High max uplink power (up to +26 dBm): will reach distant cell towers.



High max downlink power (+17 dBm) for up to 40,000 sq ft coverage with a strong "5 bar" outside signal.

2



The Enterprise 1300 & 1300R cell signal amplifier systems provide significantly enhanced 4G LTE and 3G voice and data coverage inside buildings where cell signals may not otherwise penetrate. Installation of an Enterprise 1300 & 1300R cell signal amplifier system results in fewer dropped calls, improved voice quality, uninterrupted texts, and faster data speeds—along with better audio and video streaming.

For installers and integrators, subscribing to the WilsonPro Cloud means you can sell your clients extended service plans, generating recurring revenue streams for your business. And for your clients, the WilsonPro Cloud provides ultra-high system reliability and guaranteed uptime.

The Enterprise 1300 & 1300R amplifiers connect to the WilsonPro Cloud right out of the box via an LTE modem on the donor antenna, or through a traditional hardwired Ethernet port. The wireless LTE connection is included in the annual WilsonPro Cloud subscription, so no additional Internet connection is required.

The Enterprise 1300 & 1300R cell signal amplifier systems also incorporate Wilson Electronics' state-of-the-art XDR (eXtended Dynamic Range) technology that prevents signal overload conditions which can, in accordance with regulations, force the amplifier to shut down. When the Enterprise 1300 & 1300R cell signal amplifier systems sense that any incoming cell signal is too strong and threatens to overload the system, XDR automatically reduces amplifier gain to compensate while maintaining signal coverage throughout the building. The Enterprise 1300 & 1300R cell signal amplifier systems incorporate an easy-to-use color LCD touch screen, and all antenna ports are located on the same side of the unit for simple installation. Like all WilsonPro cell signal amplifiers, the Enterprise 1300 & 1300R cell signal amplifier systems are universal: they work for all cellular devices, all services and all U.S. and Canada cell phone carriers.

Additional Features



Extended Dynamic Range (XDR) for continuous connectivity:

XDR lets the Enterprise 1300 & 1300R systems work with an incoming signal and never shut down due to a strong outside signal.



Choice of Wall-Mount or Rack-Mount Installation: All indoor and outdoor port(s) are located on top of the amplifier for easy antenna connections, while an exposed mounting flange on each amplifier provides for simple installation.



Onboard Software for Intelligent Control: The amplifier is automatically controlled by onboard software, ensuring connectivity throughout large spaces and multi-story buildings. The amplifier will adjust its gain level up or down as required by the conditions of the immediate signal environment.



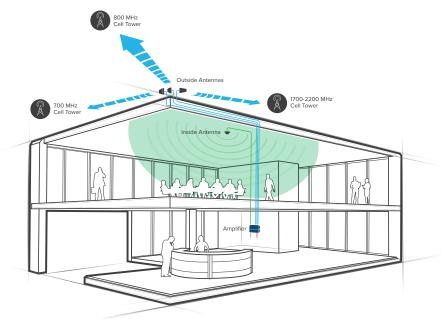
Color LCD Touch Screen: The Enterprise 1300 & 1300R systems utilize a color LCD touch screen, for assessing amplifier performance and viewing amplifier configuration.

Installation Diagram

The Enterprise 1300 & 1300R are capable of operating in traditional **Common Mode**, in which all amplifier cell bands use the same outdoor antenna, or **Split Mode**, in which cell bands use separate outdoor antennas.

Split Mode

Split mode is advantageous for an installation in which cell towers for different bands are located in different directions. Outdoor directional antennas can be pointed to provide maximum cell coverage for each band.



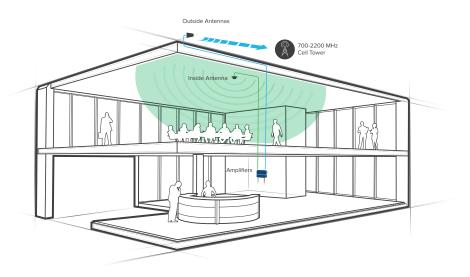
Note: A Wilson Lightning Surge Protector is recommended for all building installations. Make sure the protector is installed outside the building at point of entry connected to a suitable ground and in line between the Outside Antennas and the Signal Amplifier.

INSTALLATION DIAGRAM cont.)

Common Mode

Common mode can be used for an installation in which cell towers for different bands are located in the same direction.

Note: The Enterprise 1300 & 1300R is configured to common mode by default.



Post-Install Setup

The Enterprise 1300 & 1300R systems are designed with advanced internal programming, which allows it to automatically adjust for a variety of conditions, including the added functionality, alerts, and troubleshooting of an enhanced cloud management and monitoring solution.

Once the AC power cable and antenna cables are connected, scan the QR code on the Quick Registration Card to add the amplifier to your WilsonPro Cloud account. For detailed instructions see the WilsonPro Cloud section.





Menu System

The Enterprise 1300 & 1300R takes about 8 seconds to boot up. Once boot up is complete, the home screen will appear, showing the amplification and status of each band.

Start Up Screen



Band Menu Color Description

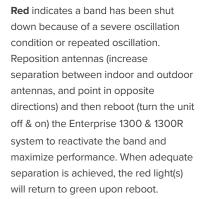


Green indicates that a band is operating correctly with maximum allowable gain.

Yellow indicates band gain reduction because of an oscillation condition. Reposition antennas (increase separation between indoor and outdoor antennas, and point in opposite directions) and then reboot (turn the unit off & on) the Enterprise 1300 & 1300R system to reactivate the band and maximize performance. When adequate separation is achieved, the yellow lights will return to green upon reboot.

Note: when the light is yellow, the band is operational; however, performance is reduced.

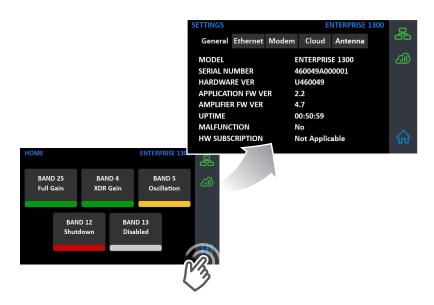
(MENU SYSTEM cont.)



Gray indicates band has been disabled.

Settings Screen

Tap 'Settings Icon' in the lower right corner to view the Settings Screen.



There are 5 Settings Screens represented by "tabs". Tap the tab heading to view each Settings Screen. General settings below.

Note: Bands and Ports are disabled or enabled from the Cloud or Local Amplifier Configuration Utility only.





Ethernet Settings Tab



Modem Settings Tab



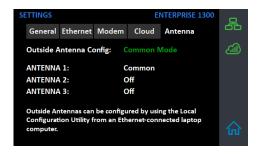
Cloud Communication Settings Tab

Note: The Reset Local Comm button is used in case the user has configured the amplifier such that the Local Amplifier Configuration Utility is not accessible, e.g., if the communication preferences are set to "LTE Only". The "reset" function will change the communication preferences to "LTE Preferred w/Ethernet Backup". It will also reset the login credentials for the Local Amplifier Configuration Utility to factory defaults.



Antenna Settings Tab

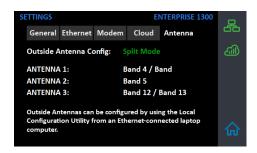
Common Mode is configured from the Local Amplifier Configuration Utility and should be set when using a single Outside Antenna.



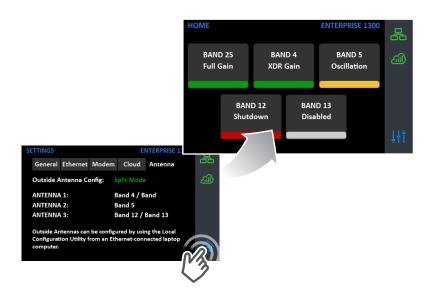


Split-Mode Configuration

Split Mode is configured from the Local Amplifier Configuration Utility and should be set when using separate Outside Antennas for Band 4/25, Band 5, and Band 12/13.



To go back to the Home Screen, tap on the **Home Icon** (in the lower right corner).



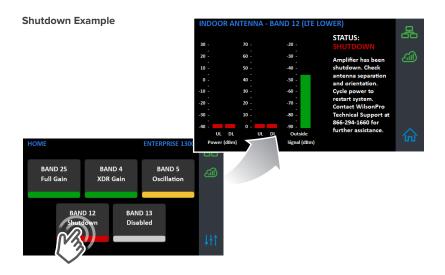
Band-Status Screens

To view specific band information (such as the strength of the received uplink & downlink signal, outside signal strength, and amplifier gain status) tap the desired band on the home screen.



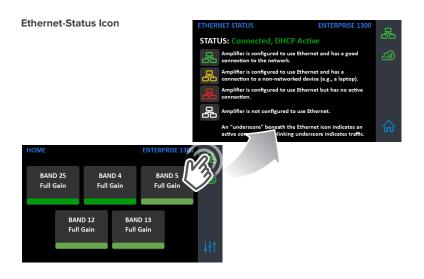


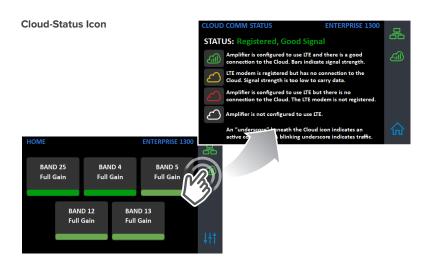




Connectivity Status Screens

The three icons in the upper right provide status related to the Ethernet connection, Cloud connection, and USB device (if inserted).







WilsonPro Cloud 4



The cloud-based platform for remote monitoring & control of cellular signal amplifiers

Enterprise 1300 & 1300R connects to WilsonPro Cloud via the internet, through a traditional RJ-45 "hardwired" Ethernet connection or via LTE connection through the outside antenna. The default setting is "Ethernet Preferred" (gives priority to Ethernet, but will switch to LTE if Ethernet is not connected). NOTE: The LTE modem and SIM card are installed and activated at the WilsonPro factory.

Logging into the WilsonPro Cloud via Ethernet

If you don't already have a WilsonPro Cloud™ account at cloud.wilsonpro.com, call 1-888-923-4448, Monday-Friday 8am-5pm MT so that your account can be created. Once your account is set up, you can then add multiple customers, locations, and amplifiers.

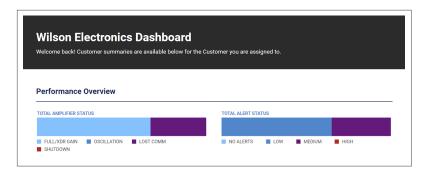
Your supported amplifiers can be added and managed via our WilsonPro Cloud website located at https://cloud.wilsonpro.com. Simply log in using your email address and password.



(WILSONPRO CLOUD cont.)

Customer Dashboard

You can quickly check the status of all of your amplifiers from the **Dashboard** summary screen. The **Total Alert Status** represents the number of alert indications, for all amplifiers assigned to your account, that have not been acknowledged. After an alert is acknowledged, it is no longer included in this chart. **Total Amplifier Status** represents the current, near real-time status of all amplifiers associated with your account.



Adding a Customer

To create a new customer from the Dashboard screen, click on **CREATE NEW CUSTOMER.**

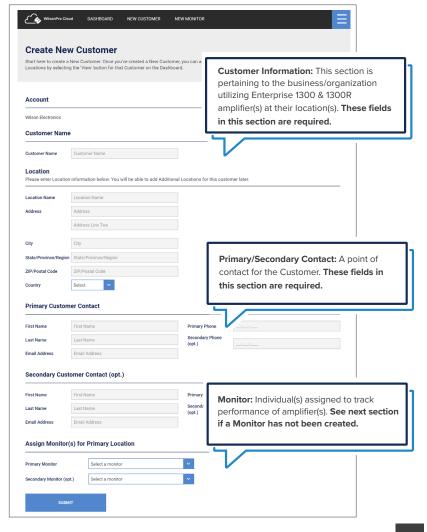


NOTE: If you don't already have a WilsonPro Cloud account at cloud.wilsonpro.com, call **1-888-923-4448**, Monday-Friday 8am-5pm MT.



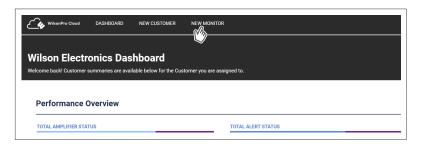
(WILSONPRO CLOUD - ADDING A CUSTOMER cont.)

Enter information for **Customer** (business/organization utilizing the Enterprise 1300 & 1300R product), **Primary Contact** (notification recipient), and select a **Monitor**. After clicking on **SUBMIT** the new customer will appear on the dashboard page below the alert and status summary with a default location.

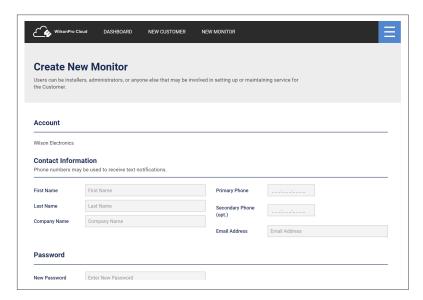


(WILSONPRO CLOUD - ADDING A CUSTOMER cont.)

If a Monitor has not been created, click on **NEW MONITOR** at the top of the webpage. Installer/Integrator can assign Monitors to track the performance of the amplifier(s). A Monitor can be made Administrator, who can see all information within the account and create additional Monitors.



Enter information and click SUBMIT.

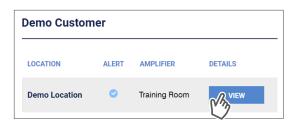




(WILSONPRO CLOUD cont.)

Creating an Additional Customer Location

To create an additional customer location click VIEW.



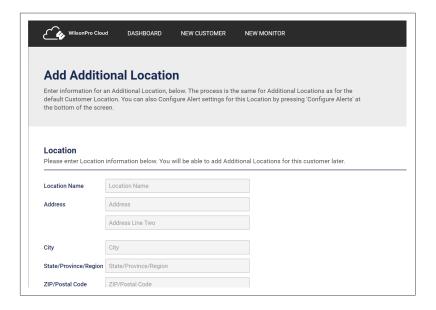
Then click ADD NEW LOCATION.



(WILSONPRO CLOUD - ADDING A CUSTOMER LOCATION cont.)

Enter information and click **SUBMIT**.

NOTE: Customer Information and Primary Contact fields are required, these must be populated before submitting page.



(WILSONPRO CLOUD cont.)

Adding an Amplifier

On the dashboard page, find the customer location you would like to add the amplifier and click **VIEW.**



Then click ADD AMPLIFIER.



Add an amplifier name. An example: Hotel Lobby etc.



(WILSONPRO CLOUD - ADDING A AMPLIFIER cont.)

Click **SCAN AMPLIFIER QR CODE** located on Quick Setup Card (which is in the plastic sleeve on the amplifier).



The serial number and MAC address will autopopulate after scanning QR code. Click **LOOK UP SERIAL NUMBERS**. NOTE: The serial number and MAC address fields can be populated manually.

Serial Number	Serial Number	
MAC Address	MAC Address (11:22:33:44:55:66)	
nno nadress	11770 / Ida (1 1.22.55.77.55.55)	

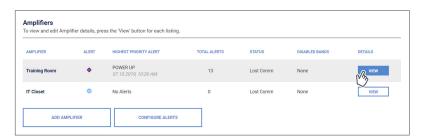
(WILSONPRO CLOUD cont.)

Amplifier Metrics

Now that the amplifier(s) have been added to the location, click **VIEW** to view details about the amplifier.



Click VIEW, in the amplifier list.



(WILSONPRO CLOUD - AMPLIFIER METRICS cont.)

	BAND 25	BAND 4	BAND 5	BAND 12	BAND 13	
NAME	PCS	AWS	CELL	LTE Lower	LTE Upper	
STATUS	XDR Gain	XDR Gain	XDR Gain	XDR Gain	XDR Gain	
UPLINK / DOWNLINK GAIN	70 dB / 61 dB	70 dB / 61 dB	62 dB / 60 dB	60 dB / 48 dB	60 dB / 48 dB	
UPLINK / DOWNLINK POWER	-28 dBm / 14 dBm	-35 dBm / 14 dBm	-5 dBm / 15 dBm	-11 dBm / 16 dBm	-13 dBm / 16 dBm	
OUTSIDE SIGNAL	-46 dBm	-47 dBm	-44 dBm	-32 dBm	-32 dBm	
OSCILLATION (24hr)	0	0	0	0	0	

The Band Details table above shows per-Band performance metrics. In addition, Bands can be disabled and re-enabled, as well as viewing the Band History.

WARNING: Disabling bands could disconnect the LTE connection and prevent communication with the cloud.



(WILSONPRO CLOUD - AMPLIFIER METRICS cont.)

The Band History screen provides performance and signal level histories.

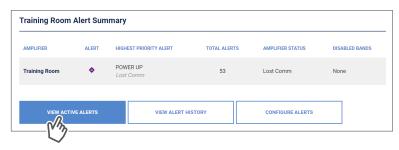


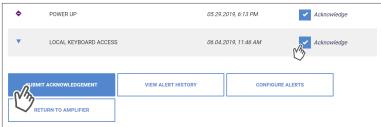
(WILSONPRO CLOUD cont.)

Alerts & Notifications

Alerts are displayed on the **Location Details** screen for all amplifiers for that location. Alerts are also displayed on the Amplifier Details screen for that particular amplifier.

To acknowledge and remove the alert from the lists, choose the alert and click **SUBMIT ACKNOWLEDGEMENT**.





An additional prompt will be displayed indicating alert will be moved to Alert History.





(WILSONPRO CLOUD - ALERTS & NOTIFICATIONS cont.)

To view past alerts that have been removed from the list, click VIEW ALERT HISTORY.

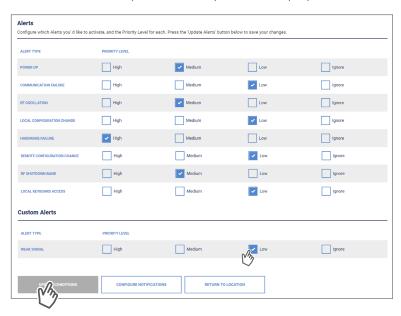


To set which amplifier conditions will result in an alert, click **CONFIGURE ALERTS** (this can be done from the **Amplifier Details** screen as well).



(WILSONPRO CLOUD - ALERTS & NOTIFICATIONS cont.)

Select individual, multiple, or all conditions to change the priority level of all selected alerts, click **UPDATE** after modifying the conditions. These alerts (which can be set as notifications) and then will be pushed to SMS (text) and email.



To configure Alert notifications click **CONFIGURE NOTIFICATIONS**.





(WILSONPRO CLOUD - ALERTS & NOTIFICATIONS cont.)

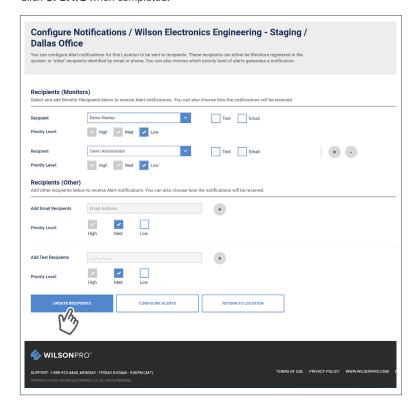
You can configure Alert notifications for this Location to be sent to Recipients.

These Recipients can either be Monitors registered in the system, or 'other'

Recipients identified by email or phone. To add or delete Recipients, click on the

. You can also choose which priority level of alerts generates a notification.

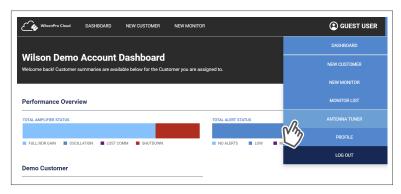
Click UPDATE when completed.



(WILSONPRO CLOUD cont.)

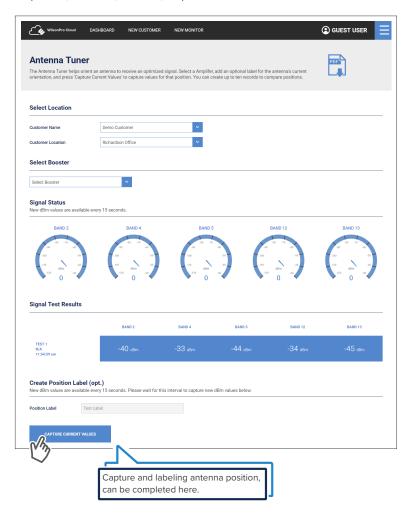
Antenna Tuner Tool

To optimize a signal, you can use the Antenna Tuner Tool to help orient an antenna. Click **ANTENNA TUNER** from the menu drop down.



(WILSONPRO CLOUD - ANTENNA TUNER TOOL cont.)

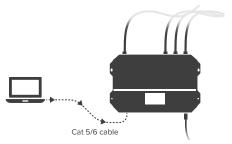
The antenna tuner tool allows the integrator/installer to get nearly real time signal information on a handheld device while making outside adjustments to the donor antenna. The antenna tuner tool is refreshed every 10 seconds. Select from the drop-down; Customer, Location, Amplifier and click **CAPTURE CURRENT VALUES.**



Local Amplifier Configuration Utility

If you need to modify the amplifier communication settings, this utility was created to help you. The default setting is **Ethernet Preferred** (gives priority to Ethernet, but will switch to LTE if Ethernet is not connected).

NOTE: It is only necessary to use this utility if you wish to CHANGE a communication setting. The default setting of Ethernet preferred, LTE backup, is almost always the best setting to use.

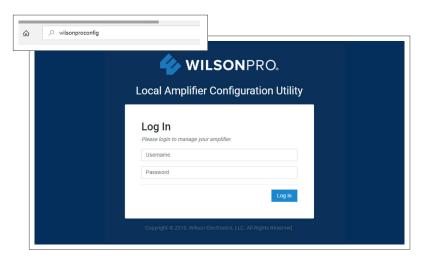


If the Installer/Integrator wishes to change this setting, a laptop computer must be connected to the 1300/1300R via a Cat 5/6 cable to the Ethernet port on the amplifier.



After connecting, the network icon on the amplifier will change color from red to yellow after about one minute.

Type **wilsonproconfig** into the web browser. A login will be displayed, type the following: Username: **admin** – Password: **admin**



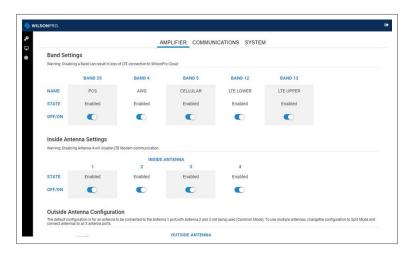
On the Local Amplifier Configuration Utility page you can select **AMPLIFIER**, **COMMUNICATIONS** and **SYSTEM** to set configurations.



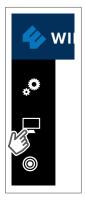


Bands can be turned ON/OFF, you can configure Inside Antenna Settings (ON/OFF) and you can update the Outside Antenna Configuration (COMMON/SPLIT MODE).

Note: Once you make changes to either the Band Enable or Communication Settings, you must wait at least 30 seconds before power cycling the unit or the new settings will not be stored.



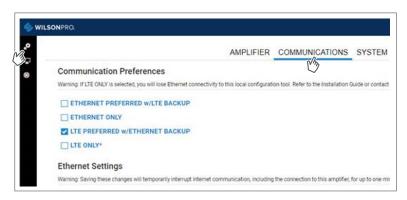
You can navigate through the site by clicking on the **Settings**, **Status** and **Antenna Tuner** icons located on the left then selecting **AMPLIFIER**, **COMMUNICATIONS** or **SYSTEM**.







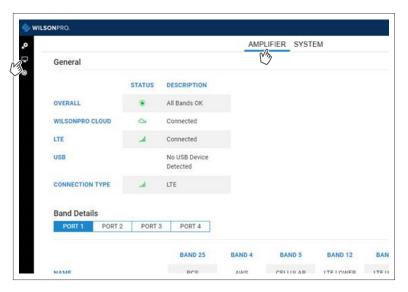
Click on then **COMMUNICATIONS**, Communications Preferences and Ethernet changes can be made here.



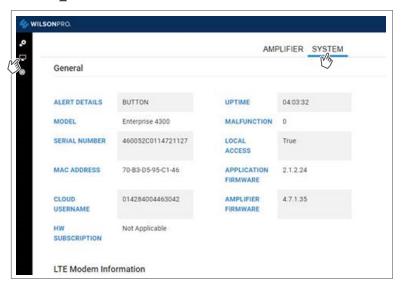
Click on then **SYSTEM**, set password for local amplifier (this password is unrelated to WilsonPro Cloud Service), reboot amplifier and restore system to factory default.



Click on then **AMPLIFIER**, view overall status of amplifier, WilsonPro Cloud, LTE connection, Ethernet conection, USB connection and power levels for each band.

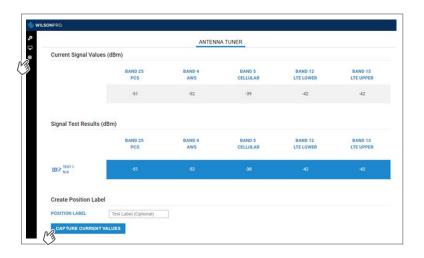


Click on $\hfill \Box$ then $\hfill {\bf SYSTEM},$ view overall system details.



Click on to use the **ANTENNA TUNER** to assist with orienting the antenna.

Click **CAPTURE CURRENT VALUES** and enter an optional label for antenna position to record measurements. These steps can be repeated as many times as you like.



Notes		
NEED HELP?	support.wilsonpro.com	

41

Safety Guidelines



To uphold compliance with network protection standards, all active cellular devices must maintain at least 6 feet of separation distance from Panel and Dome antennas.

Use only the power supply provided in this package. Use of a non-Wilson Electronics product may damage your equipment.

The Signal Amplifier unit is designed for use in an indoor, temperature-controlled environment (operating temperature ranges from 0°C to 45°C (32°F to 113°F). It is not intended for use in attics or similar locations subject to temperatures in excess of that range.

RF Safety Warning: Any antenna used with this device must be located at least 8 inches from all persons.

AWS Warning: The Outside Antenna must be installed no higher than 10 meters (31'9") above ground.

This is a CONSUMER device.

BEFORE USE, you **MUST REGISTER THIS DEVICE** with your wireless provider and have your provider's consent. Most wireless providers consent to the use of signal boosters. Some providers may not consent to the use of this device on their network. If you are unsure, contact your provider.

In Canada, **BEFORE USE** you must meet all requirements set out in ISED CPC-2-1-05. You **MUST** operate this device with approved antennas and cables as specified by the manufacturer. Antennas **MUST** be installed at least 20 cm (8 inches) from (i.e., **MUST NOT** be installed within 20 cm of) any person.

You **MUST** cease operating this device immediately if requested by the FCC (or ISED in Canada) or licensed wireless service provider.

WARNING. E911 location information may not be provided or may be inaccurate for calls served by using this device.

This device may be operated **ONLY** in a fixed location (i.e., may operate in a fixed location only) for in-building use.

FOR MORE INFORMATION ON REQUIREMENTS SET OUT IN ISED CPC-2-1-05, SEE BELOW:

http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf08942.html

FOR MORE INFORMATION ON REGISTERING YOUR SIGNAL BOOSTER WITH YOUR WIRELESS PROVIDER, PLEASE SEE BELOW:

Sprint: http://www.sprint.com/legal/fcc_boosters.html

T-Mobile/MetroPCS: https://support.t-mobile.com/docs/DOC-9827

Verizon Wireless: http://www.verizonwireless.com/wcms/consumer/register-signal-booster.html

AT&T: https://securec45.securewebsession.com/attsignalbooster.com/

U.S. Cellular: http://www.uscellular.com/uscellular/support/fcc-booster-registration.jsp





Kit Components

The following accessories are certified by the FCC to be used with the **ENTERPRISE 1300/1300R.**

This radio transmitter 4726A-460049 / 4726A-460050 has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

	B12/17	B13	B5	B4	B25/2
Outside antenna maximum permissible antenna gain less coax loss (dBi) 50Ω	3.576	3.21	3.012	2.048	1.918
Inside antenna maximum permissible antenna gain less coax loss (dBi) 50Ω	-2.43	-1.69	-3.09	-0.33	-1.29

314411

Wide Band Directional Antenna (Outside Antenna)

952300

100 ft. Wilson400 Cable (for Outside Antenna)

304412

Dome Antenna (Inside antennas)

952300

100 ft. Wilson400 Cable (for Inside Antennas)

859902

50 Ohm Lightning Surge Protector

952302

2 ft. Wilson400 Cable

All equivalent or lesser antennas and cables are suitable for use with 1300/1300R signal boosters.

Specifications

Model Number		460149 / 460150						
FCC ID	PWO460049 / PWO460050							
IC ID	4726A-460049 / 4726A-460050							
Connectors	N-Connectors							
Antenna Impedance	50 Ohms							
Frequency	698-716 MHz, 729-756 MHz, 777-787 MHz, 824-894 MHz, 1850-1995 MHz, 1710-1755/2110-2155 MHz							
Power output for single cell phone (Uplink) dBm	700мнz Band12/17	700мнz Band13	800мнz	1700мнz	1900мнz			
	23.9	23.9	25.1	23.7	26.7			
Power output for single cell phone (Downlink) dBm	700мнz Band12/17	700мнz Band13	800мнz	2100мнz	1900мнz			
	16.7	16.8	16.9	16.8	16.8			
Noise Figure			5 dB nominal					
Power Requirements			120V AC 0.5A					

The term "IC" before the radio certification number only signifies that Industry Canada technical specifications were met.

Each Signal Amplifier is individually tested and factory set to ensure FCC compliance. The Amplifier cannot be adjusted without factory reprogramming or disabling the hardware. The Signal Amplifier will amplify, but not alter incoming and outgoing signals in order to increase coverage of authorized frequency bands only. If the Signal Amplifier is not in use for five minutes, it will reduce gain until a signal is detected. If a detected signal is too high in a frequency band, or if the Signal Amplifier detects an oscillation, the Signal Amplifier will automatically turn the power off on that band. For a detected oscillation the Signal Amplifier will automatically resume normal operation after a minimum of 1 minute. After 5 (five) such automatic restarts, any problematic bands are permanently shut off until the Signal Amplifier has been manually restarted by momentarily removing power from the Signal Amplifier. Noise power, gain, and linearity are maintained by the Signal Amplifier microprocessor.

This device complies with Part 15 of FCC rules. Operation is subject to 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. Changes or modifications not expressly approved by Wilson Electronics LLC could void the authority to operate this equipment.

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions: (1) This device may not cause interference, and (2) This device must accept any interference, including interference that may cause undesired operation of the device. Changes or modifications not expressly approved by Wilson Electronics LLC could void the authority to operate this equipment.

NEED HELP?







Warranty



30 DAY MONEY-BACK GUARANTEE

All WilsonPro products are protected by WilsonPro 30-day money-back guarantee. If for any reason the performance of any product is not acceptable, simply return the product directly to the reseller with a dated proof of purchase.

3 YEAR WARRANTY

WilsonPro Amplifiers are warranted for three (3) years against defects in workmanship and/or materials. Warranty cases may be resolved by returning the product directly to the reseller with a dated proof of purchase.

Signal Amplifiers may also be returned directly to the manufacturer at the consumer's expense, with a dated proof of purchase and a Returned Material Authorization (RMA) number supplied by WilsonPro. WilsonPro shall, at its option, either repair or replace the product.

This warranty does not apply to any Signal Amplifiers determined by WilsonPro to have been subjected to misuse, abuse, neglect, or mishandling that alters or damages physical or electronic properties.

Replacement products may include refurbished WilsonPro products that have been recertified to conform with product specifications.

RMA numbers may be obtained by contacting Customer Support.

DISCLAIMER: The information provided by WilsonPro is believed to be complete and accurate. However, no responsibility is assumed by WilsonPro for any business or personal losses arising from its use, or for any infringements of patents or other rights of third parties that may result from its use.

MARKETING APPROVAL: Installer and end customer hereby grants to Wilson Electronics the express right to use installers or end customers company logo in marketing, sales, financial, and public relations materials and other communications solely to identify Customer as a Wilson Electronics customer.











3301 East Deseret Drive, St. George, UT www.wilsonpro.com | support.wilsonpro.com

Copyright © 2019 Wilson Electronics. All rights reserved. Wilson Electronics products covered by U.S. patent(s) and pending application(s) For patents go to: weboost.com/us/patents