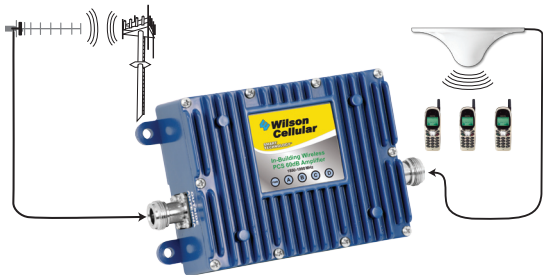




PCS Smart Technology™ Amplifier Installation Guide



**In-Building
Wireless PCS
Smart Technology™ Amplifier
PART # 801306
1850-1990 MHz
FCC ID: PWO8013SB
IC: 4726A-8013SB**

Wilson Electronics, Inc.

3301 E. Deseret Drive, St. George, Utah 84790

For additional technical support visit

www.wilsonelectronics.com

Phone: 1-866-294-1660

Fax: 1-435-656-2432

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

1. PURPOSE OF THE AMPLIFIER

The PCS Smart Technology™ Amplifier improves RF coverage for areas in which low signal strength is a concern.

2. PACKAGE CONTENTS

2.1 Amplifier

2.2 AC/DC 110 volt Power Supply



3. HOW THE AMPLIFIER FUNCTIONS

The signal is received by the outside antenna from the cell site. The signal is then AMPLIFIED and transmitted to your phone through the inside antenna. When the phone transmits, the signal is received by the inside antenna and then AMPLIFIED and transmitted to the cell site through the outside antenna.

4. AMPLIFIER INSTALLATION (see illustration on pg. 4 & 5)

4.1 Installing the **Wilson Cellular** Outside Antenna

WARNING: The outside antenna used with this amplifier must be fixed-mounted on an outdoor permanent structure with a separation of at least 20 feet from all persons during normal operation.

4.1.1 Select a location on the roof using your phone in test mode to find the best signal strength. (See leaflet titled PHONE TEST MODES)

4.1.2 The outside antenna should be located in an area with at least a 3 foot radius clear of obstructions and other radiating elements.

4.2 Installing The Amplifier

WARNING: Connecting amplifier directly to cell phone may damage phone.

WARNING: Connect both antennas before connecting power to the amplifier.

4.2.1 Mount the AMPLIFIER on a wall or ceiling using #6 screws.

NOTE: Mount the AMPLIFIER away from direct sunlight, excessive heat and/or moisture. The amplifier needs proper ventilation. DO NOT place the amplifier in an air-tight enclosure.

4.2.2 Connect outside antenna to the amplifier side labeled "OUTSIDE ANTENNA".

4.2.3 Connect inside antenna to the amplifier side labeled "INSIDE ANTENNA".

4.2.4 Verify that both the outside and inside antennas are connected before connecting the AC-DC power supply to the power outlet.

4.3 Indicator Lights



4.4 Installing The **Wilson Cellular** Inside Antenna

4.4.1 See antenna packaging for model specific instructions.

4.4.2 The inside antenna should be centered in the weak signal area. The inside antenna should be at least 7 feet from the floor.

FCC Separation Warning

WARNING: The inside antenna used with this amplifier must have a separation distance from all persons that is at least:

9 inches for the 2.5 dBi Dome antenna.

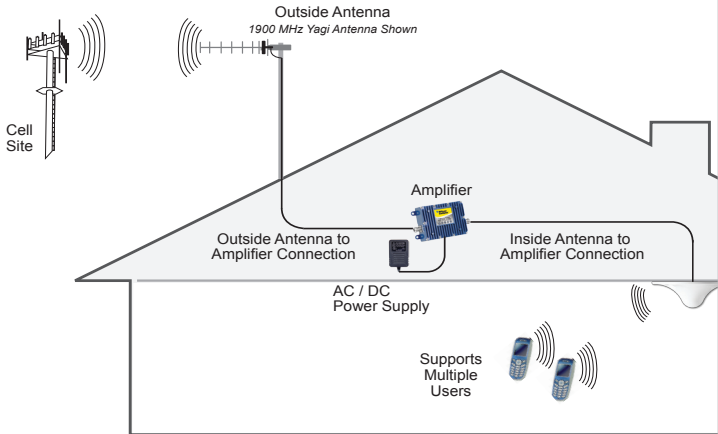
14 inches for the 7 dBi Panel antenna.

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

4.5 When covering multiple areas a 1900 MHz splitter can be used to allow for more than one inside antenna. Extension cables can also be used if the weak signal area is located far from the location of the outside antenna. For coax runs more than 20 feet use 9913 or equivalent coax.

NOTE: For Maximum gain (60 dB), keep a separation distance of at least 50 feet between the outside and inside antennas. Closer spacings may be used, but may cause the amplifier to automatically reduce its gain.

NOTE: When using a Yagi antenna make sure the Yagi is pointed away from the inside antenna.



**If using a Yagi Antenna,
Make sure the Yagi is *not* pointed
toward the inside antenna.**

**AMPLIFIER PHYSICAL
SPECIFICATIONS**

Connectors	N-Female 50 ohms
Dimensions	4.5 x 3.5 x 1.25 inches 11.4 x 8.9 x 3.2 (cm)
Weight	1.5 lbs / 0.7 kg

AMPLIFIER LAYOUT DIAGRAM

For maximum gain, keep a separation distance of at least 50 feet between the outside and inside antennas.

Inside Antenna
*Optional Dome
Antenna Shown*

5. AMPLIFIER SPECIFICATIONS

Part Number	801306
Gain	60 dB
Frequency	PCS 1850-1910 MHz / 1930-1990 MHz
Linear Output Power	30 dBm
Max Output Power	3 watts
Max RF (up/down)	+30 dBm / +30 dBm
Noise Figure (typical)	4 dB
Flatness (up/down)	± 4 dB
Isolation	> 90 dB
Power Requirements	120 V AC 3 A Max
Connectors	N-Female
Dimensions	4.5 x 3.5 x 1.25 (inch) 11.43 x 8.9 x 3.2 (cm)
Weight	1.5 lbs / 0.7 kg

6. OPTIONAL ACCESSORIES/ANTENNA OPTIONS

WARNING: Lightning protection is recommended for all installations.

6.1 3dB Dual-Band Splitter Part # 859911

6.2 Coax Cable Extensions 50Ω (see chart on next page)

6.3 Antenna Options:

Inside Antenna Options

301103 - Magnet Mount 5 dBi

301106 - Low Profile 2.2 dBi

301113 - Mini Magnet 2.12 dBi

301121 - Dome 2.5 dBi

301122 - Panel 7 dBi

301123 - Dual Polarity Dome, Unity

6.4 N-Male to FME-Male adapter Part # 971113

6.5 Lightning Surge Protection Part # 859902

Outside Antenna Option

301124 - Yagi 13 dBi

7. TECH SUPPORT

If you need further assistance with your installation:

- 1) Call Toll-Free 866-294-1660 8:00 AM – 4:30 PM (Mountain Time)
- 2) E-mail tech support at tech@wilsonelectronics.com
- 3) Visit www.wilsonelectronics.com

8. WARNINGS

WARNING: The outside antenna used with this amplifier must be fixed-mounted on an outdoor permanent structure with a separation of at least 20 feet from all persons during normal operation.

WARNING: The inside antenna used with this amplifier must have a separation distance from all persons that is at least:

9 inches for the 2.5 dBi Dome antenna.

14 inches for the 7 dBi Panel antenna.

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

WARNING: Verify that both the Outside and Inside Antennas are connected before plugging in the AC/DC power supply to the power outlet.

WARNING: Lightning protection is recommended for all installations.

Lightning protection is required for warranty validation.

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EXTENSION CABLE CHART

951110	2' Extension Cable RG58U Low Loss Coax N-Male to FME-Female	Used with the Yagi antenna to help find the optimum signal strength (for installation purposes only).
951101	5' Extension Cable RG58U Low Loss Coax	0.6 dB loss
951102	10' Extension Cable RG58U Low Loss Coax	1.2 dB loss
951103	15' Extension Cable RG58U Low Loss Coax	1.8 dB loss
951104	20' Extension Cable RG58U Low Loss Coax	2.4 dB loss, N-Male to FME-Female
951113	2' Extension Cable 9913 Equivalent Ultra Low Loss Coax	0.08 dB loss, Jumper Coax - Can be used to connect a splitter behind an amplifier.
951108	20' Extension Cable 9913 Equivalent Ultra Low Loss Coax	Only use 9913 Equivalent Low Loss Coax for extensions 20 feet or longer, 0.8 dB loss
951105	30' Extension Cable 9913 Equivalent Ultra Low Loss Coax	1.2 dB loss
951106	50' Extension Cable 9913 Equivalent Ultra Low Loss Coax	2.0 dB loss
951117	75' Extension Cable 9913 Equivalent Ultra Low Loss Coax	3.0 dB loss
951107	100' Extension Cable 9913 Equivalent Low Loss Coax	4.0 dB loss

RG58U - FME connectors / 9913 Equivalent - N connectors

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.

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 this device.

1900 MHz
Yagi



Optional Accessories



FME Male to
N-Male



Lightning Suppressor



Coax Cable Extension
Ultra Low Loss Coax



Dome



Dual Polarity
Dome



Panel



Mini
Magnet



Low
Profile



Magnet
Mount



Trucker 3/8"
Mount

15 DAY MONEY BACK GUARANTEE

All Wilson products
have a 15 day
money back
guarantee with
Proof of Purchase

1 YEAR WARRANTY

The Wilson amplifier is warranted for one year against defects in workmanship and/or materials and will be repaired or replaced, at the discretion of the manufacturer, to the original purchaser with dated proof of purchase or sales receipt.

If any questions arise about an amplifier please call technical support toll-free 1-866-294-1660 or E-mail tech@wilsonelectronics.com

Most warranty cases may be handled by taking the amplifier and the receipt to the store where it was purchased. If inconvenient, the amplifier and a copy of the receipt, may be sent to the factory, at purchasers expense. It will be repaired or replaced and returned shipping paid. Warranty does not cover damages caused by abuse, misuse, and negligence.