



Installation Guide



AMPS IN BUILDING

Bi-directional Amplifier

#801102 (43dB Model)

#801103 (50dB Model)

#801104 (60dB Model)

FCC ID: PWO824WB56

IC: 4726A-824WB56

IDEN IN BUILDING

Bi-directional Amplifier

#804001 (43dB Model)

#804003 (50dB Model)

#804004 (60dB Model)

FCC ID: PWO806WB56

IC: 4726A-806WB56

Wilson Electronics, Inc.

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For additional technical support go to

www.wilsonelectronics.com

Phone: 1-866-294-1660

Fax: 1-435-656-2432

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

Wireless

IN BUILDING

1. PURPOSE OF THE **AMPS/iDEN** AMPLIFIER

The **AMPS/iDEN** Bi-directional Amplifier improves RF coverage for areas in which low signal strength or no signal is a problem.

2. PACKAGE CONTENTS

2.1 **AMPS/iDEN** Bi-directional Amplifier

2.2 AC-to-DC (110 volt) Power Supply



3. HOW THE **AMPS/iDEN** 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.

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4. AMPLIFIER INSTALLATION (see illustration on 4-5)

4.1 Installing the **Wilson Cellular** Outside Antenna

4.1.1 Select a location on the roof using your **AMPS/iDEN** 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' radius clear of obstructions and other radiating elements.

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.

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.

4.2 Installing The Amplifier

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

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

4.2.2 Connect the Outside Antenna to the AMPLIFIER side labeled "OUTSIDE ANTENNA".

4.2.3 Connect the 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.

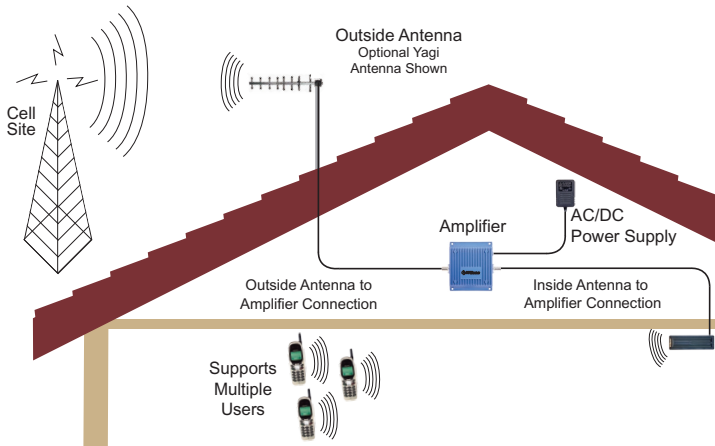
4.3 Installing The **Wilson Cellular** Inside Antenna

4.3.1 The Inside Antenna should be centered in the weak signal area. The INSIDE ANTENNA should be at least 7' from the ground.

WARNING: The inside antenna used with this amplifier must be mounted with a separation distance of at least 8 inches from all persons and must not be co-located or operating in conjunction with any other antenna or amplifier.

4.4 When covering large areas a 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.

NOTE: A minimum of 20' coax extension is recommended for isolation between antennas.



5. AMPLIFIER SPECIFICATIONS FOR AMPS 43dB, 50dB & 60dB MODELS

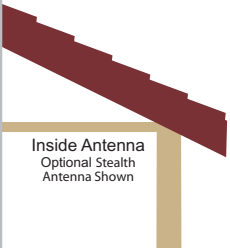
Part #: 801102 (43dB Model) & 801103 (50dB Model) & 801104 (60dB Model)

	43dB	50dB	60dB
Frequency	824-849MHz Uplink 869-894MHz Downlink		
Gain (up/down)	(43dB/43dB)	(50dB/50dB)	(60dB/60dB)
Flatness (up/down)	(+/- 4dB/+/-4dB)	(+/- 4dB/+/-6dB)	(+/- 4dB/+/-6dB)
Max RF (up/down)	(+31.7dBm/+10dBm)	(+31.7dBm/+10dBm)	(+31.7dBm/+10dBm)
Noise Figure (down)	(3dB nominal)	(3dB nominal)	(3dB nominal)
Isolation	Uplink/Downlink More than 90dB		
Power Consumption	13.8V, 1.5A		

AMPLIFIER LAYOUT

KEEP A SEPARATION DISTANCE OF AT LEAST 20ft HORIZONTAL AND 5ft VERTICAL BETWEEN ANTENNAS

If using the Yagi Antenna, make sure the Yagi is pointed AWAY from the inside antenna.



Inside Antenna
Optional Stealth
Antenna Shown

AMPS/iDEN AMPLIFIER PHYSICAL SPECIFICATIONS

Connectors	FME-Male 50 Ohms
Dimensions	5.5x4.3x1.4 (inch) or 14.0x10.8x3.5 (cm)
Weight	1.32 Pounds or 600G

AMPLIFIER SPECIFICATIONS FOR iDEN 43dB, 50dB & 60dB MODELS

Part #: 804001 (43dB Model) & 804003 (50dB Model) & 804004 (60dB Model)

	43dB	50dB	60dB
Frequency	806-821MHz Uplink 851-866MHz Downlink		
Gain (up/down)	(43dB/43dB)	(50dB/50dB)	(60dB/60dB)
Flatness (up/down)	(+/- 4dB/+/-4dB)	(+/- 4dB/+/-6dB)	(+/- 4dB/+/-6dB)
Max RF (up/down)	(+31.7dBm/+10dBm)	(+31.7dBm/+10dBm)	(+31.7dBm/+10dBm)
Noise Figure (down)	(3dB nominal)	(3dB nominal)	(3dB nominal)
Isolation	Uplink/Downlink More than 90dB		
Power Consumption	13.8V, 1.5A		

6. OPTIONAL ACCESSORIES/ANTENNA OPTIONS

6.1 2-Way RF Splitter - allows for multiple inside antennas.

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

6.3 Antenna Options:

Inside Antenna Options

301103 - Magnet Mount

301106 - Stealth

301113 - Mini Magnet

Outside Antenna Option

301111 - Yagi

6.4 N-Female To FME-Female Adapter - Adapts 9913 Coax to fit the **AMPS/iDEN** Bi-directional Amplifier

6.5 Lightning Suppressor

WARNING: Lightning protection is recommended for all installations.

6.6 DC Power Cable

7. TECH SUPPORT

If you need further assistance with your installation:

- 1) Call us Toll-Free at 866-294-1660
- 2) E-mail tech support at tech@wilsonelectronics.com
- 3) Go to www.wilsonelectronics.com

Our Hours of Operation are: 8:00 AM – 4:30 PM (Mountain Time)

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 be mounted with a separation distance of at least 8 inches from all persons and 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.

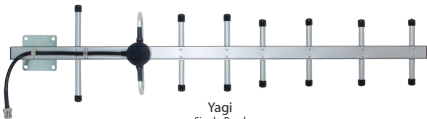
WARNING: Lightning protection is recommended for all installations.

EXTENSION CABLE CHART

951101	5' Extension Cable RG 58 Low Loss Coax	(0.6 db loss)
951102	10' Extension Cable RG 58 Low Loss Coax	(1.2 db loss)
951103	15' Extension Cable RG 58 Low Loss Coax	(1.8 db loss)
951104	20' Extension Cable RG 58 Low Loss Coax	(2.4 db loss) Used with the Yagi Antenna - (N-Male to FME Female)
951108	20' Extension Cable 9913 Ultra Low Loss Coax	Only use 9913 Low Loss Coax for extensions 20' or longer (0.8 db loss)
951105	30' Extension Cable 9913 Ultra Low Loss Coax	(1.2 db loss)
951106	50' Extension Cable 9913 Ultra Low Loss Coax	(2.0 db loss)
951107	100' Extension 9913 Low Loss Coax	(4.0 db loss)
951110	2' Extension RG 58 Low Loss Coax (N-Male to FME Female)	Used with the Yagi antenna to help find the optimum signal strength (for installation purposes only).
951113	2' Extension 9913 Ultra Low Loss Coax (N-Male to N Male Ends)	(0.08 db loss) Jumper Coax - Can be used to connect a splitter behind an amplifier.

RG 58 - FME connectors / 9913 - N connectors

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.



Yagi
Single-Band
(Recommended for Buildings Only)

ANTENNA OPTIONS

For more options visit

www.wilsonelectronics.com



Stealth



Mini Magnet



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 you have questions about your amplifier please call technical support call 1-866-294-1660 or E-mail tech@wilsonelectronics.com

Most warranty cases can 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, where it may be repaired or replaced and returned shipping paid. Warranty does not cover damages caused by abuse, misuse, and negligence.