



Installation Guide

Cellular & PCS

Analog & Digital - AMPS, CDMA, GPRS, GSM, TDMA



**Mobile Wireless
Dual Band
Cellular/PCS
Smart Technology™ Amplifier
PART# 801201**

FCC ID: PWO8012SM

IC: 4726A-8012SM

Wilson Electronics, Inc.

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

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.

MOBILE
Wireless

1. PURPOSE OF THE AMPLIFIER

The Bi-directional Amplifier greatly improves cell phone coverage for areas in which low signal strength or no signal is a problem when using your portable phone inside the car.

2. PACKAGE CONTENTS

- 2.1 Bi-directional Amplifier
- 2.2 DC plug-in power supply with ON/OFF switch.
- 2.3 Low Profile Antenna (Coax Included)



3. HOW THE AMPLIFIER FUNCTIONS

The signal is received by the outside antenna from the cell site. It is then AMPLIFIED and transmitted to your phone through the inside antenna. When the phone transmits, the signal is received by the inside antenna. It is then AMPLIFIED and transmitted to the cell site through the outside antenna (not included).

4. AMPLIFIER SYSTEM INSTALLATION (See Illustration on pg. 5)

4.1 Mounting the Amplifier

- 4.1.1 Select a suitable location to mount the AMPLIFIER. The amplifier can be mounted to the selected location using screws. (Screws not included.) Mount the AMPLIFIER away from direct sunlight, excessive heat and/or moisture. The amplifier needs proper ventilation.

4.2 Installing the **Wilson Cellular Inside Antenna (Included)**

- 4.2.1 The inside antenna should be mounted about 1 foot from where the phone is used. The best place to mount the inside antenna is shoulder height on the side of the drivers seat. Do not mount on a surface within 4 inches of metal. (Metal found in the seat should not effect the antenna)
- 4.2.2 Connect the Inside Antenna to the side labeled “INSIDE ANTENNA” on the AMPLIFIER.

NOTE: Do not mount on a windshield.

WARNING: The inside antenna must be mounted with a separation distance of at least 1 inch (2.5 cm) from all persons and must not be colocated in conjunction with any other antenna or amplifier.

4.3 Installing the **Wilson Cellular Outside Antenna (Sold Separately)**

- 4.3.1 Select an outside mounting location. For best performance try to keep the antenna centered on the car’s/truck’s roof.
- 4.3.2 The outside antenna should be located in an area with at least a 12” radius clear of obstructions, and other radiating elements.

NOTE: When using a glass mount antenna, keep the separation distance between the inside and outside antennas at least 5ft.

NOTE: If the vehicle has a sunroof, place the outside antenna away from the sunroof so that the inside antenna is shielded from the outside antenna.

WARNING: The outside antenna must be mounted with a separation distance of at least 15.5 inches from any of the vehicle occupants or nearby persons and must not be co-located or operating in conjunction with any other antenna or amplifier. Use of a cellular amplifier with antenna gains higher than 5.12dBi is in violation of FCC regulations for which the offender is fully liable. All Wilson Mobile Antennas are 5.12dBi or less.

- 4.3.3 Connect the Outside Antenna to the AMPLIFIER side labeled “OUTSIDE ANTENNA”.

4.4 Connect the 12V Power Supply

- 4.4.1 Connect the large end of the 12V Power Supply into your cigarette lighter and the other end into the input on your amplifier labeled “DC 6V IN”.

4.5 Overload Indicators

4.5.1



PWR - Power Indicator Light – Indicates power to the unit.

800 MHz & 1900 MHz dual color Green/Red indicators

Green – Amplifier is operating properly.

Red – Indicates the amplifier is oscillating (needs more separation between the Inside and Outside Antennas) and/or the cell sites signal is strong and the amplifier has powered down. (see below)

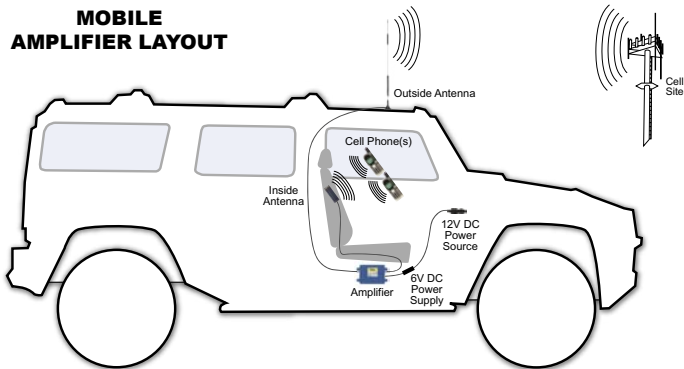
Oscillation – Try moving the outside antenna to a different location, this will create more separation from the inside antenna. The inside antenna should be mounted within one foot (1') of where the cell phone is being used.

Strong Cell Signal – The amplifier is designed to power down when the cell site signal is strong. If you are installing the amplifier where the cell signal is strong, go to an area with low signal strength and verify that the light turns to Green.

If you need additional help – call Tech Support 1-866-294-1660 M-F 8am – 5pm MST or email tech@wilsonelectronics.com.



MOBILE AMPLIFIER LAYOUT



5. AMPLIFIER SPECIFICATIONS

	Dual Band 800 / 1900 MHz
Part Number	801201
Connectors	FME-Male 50 Ohms
Dimensions	5.6 x 3.6 x 1.7 inch or 14.2 x 9.1 x 4.4 cm
Weight	1.44 lbs or 0.65 kg
Frequency	824-894MHz / 1850-1990MHz
Gain (up/down)	40dB / 40dB
Linear Output Power	+30dBm
Max Output Power	3 Watts (Cell Site Controlled)
Max RF (up/down)	+35dBm / +10dBm
Noise Figure (typical)	3dB nominal
Flatness (up/down)	+/- 3dB +/- 4dB
Isolation	Uplink/Downlink more than 90dB
Power Requirements	12V, .5A-1.5A (subject to Uplink power)

6. FEATURES

Wireless Operation - No Physical Connection to Cellphone

The Amplifier greatly improves signal strength inside a vehicle without a physical connection to your phone. It also allows multiple phones to be used simultaneously.

Advanced Electronics Receive & Transmit Better Than Your Cellphone

The Wilson Cellular Amplifier has a better receiver than what's in your cellphone. Its advanced electronics are very sensitive and able to receive weak signals that would go undetected by most cellphones. It also has a better transmitter with more than double the power of your cellphone. This allows your voice to be heard by distant cell sites, increasing coverage up to 50 miles or more.

7. OPTIONAL ACCESSORIES/ANTENNA OPTIONS

7.1 Outside Antenna Options

See page 8

8. 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)

9. NOTES & WARNINGS

NOTE: When using a glass mount antenna, keep the separation distance between the inside and outside antennas at least 5ft.

WARNING: Verify that both the outside antenna and then inside antenna are connected before powering up the amplifier.

WARNING: The outside antenna must be mounted with a separation distance of at least 15.5 inches from any of the vehicle occupants or nearby persons and must not be co-located or operating in conjunction with any other antenna or amplifier. Use of a cellular amplifier with antenna gains higher than 5.12dBi is in violation of FCC regulations for which the offender is fully liable. All Wilson Mobile Antennas are 5.12dBi or less.

WARNING: The inside antenna must be mounted with a separation distance of at least 1 inch (2.5 cm) from all persons and must not be collocated in conjunction with any other antenna or amplifier.

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.

Leaving the amplifier on in an unused vehicle for days may drain your battery. This can be avoided by plugging into an ignition switched outlet.

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.

In order to prevent excessive input levels from distorting or otherwise overdriving this amplifier, the maximum uplink RF output is 35 dBm, and the maximum downlink RF output is 10 dBm. When an input tends to create greater than these maximum levels, a switching circuit will reduce the RF output by as much as 50 dB.

The voltage and current into the final amplification stage are: TX: 5VDC 0.5A-1.5A
RX: 3.6VDC 50mA

The information provided by Wilson Electronics, Inc. is believed to be complete and accurate. However, no responsibility is assumed by Wilson Electronics, Inc. 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.

Copyright © 2005 Wilson Electronics, Inc.

OUTSIDE ANTENNA OPTIONS



Mini
Glass



Mini
Magnet



Magnet
Mount



Glass
Mount



NMO
Mount



Trucker

Pictures are not to scale - Not All Outside Antenna Options Are Shown

For more options visit www.wilsonelectronics.com

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.