MOBILE Wireless

Wilson Cellular

Installation Guide

Cellular & PCS
Analog & Digital - CDMA, GPRS, GSM, TDMA, 1x, HSDPA

Mobile Wireless Dual Band Cellular/PCS

Smart Technology™ Amplifier

PART# 801201-A

FCC ID: PWO8012ASM

IC: 4726A-8012ASM

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

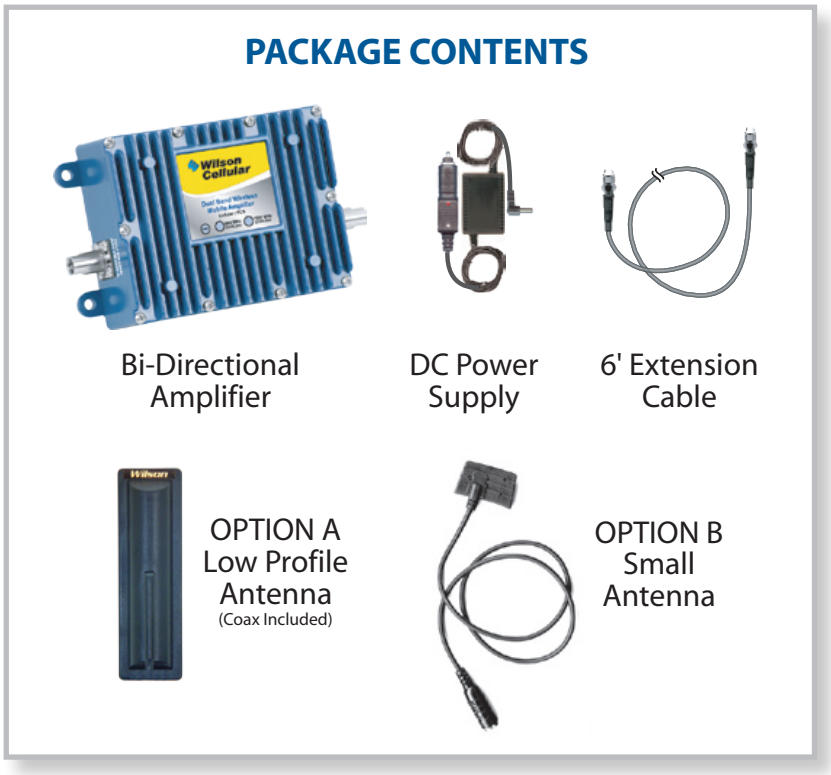
The term “IC:” before the radio certification number signifies that Industry of Canada technical specifications were met.

1. PURPOSE OF THE AMPLIFIER

This Wilson Smart Technology™ Amplifier greatly improves signal strength inside a vehicle without a physical connection to the phone or cellular data card. It also allows multiple devices to be used simultaneously.

2. PACKAGE CONTENTS

- Bi-Directional Amplifier
- DC plug-in power supply
- Low Profile Antenna (Coax Included)
- 6’ Extension Cable
- Small Antenna



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)

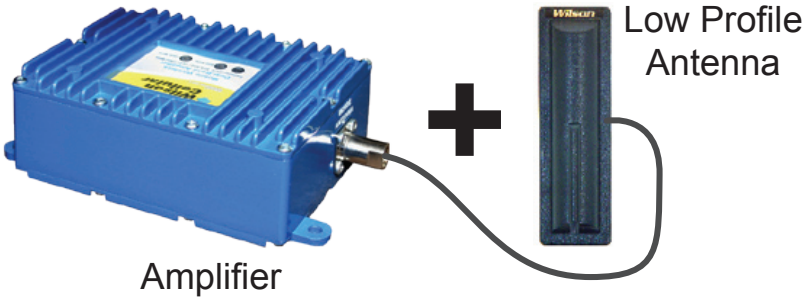
4.1 Mounting the Amplifier

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 (2 options included)

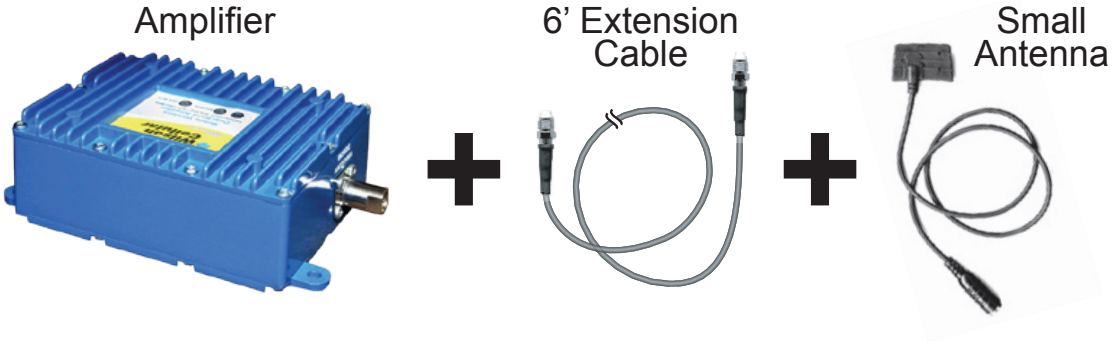
4.2.1A (option A) - The inside antenna should be mounted approximately 1 foot or less from where the phone is used. ***The best place to mount the inside antenna is shoulder height on the side of the drivers seat***. The closer the inside antenna is placed to the phone, the better the performance. See option A.

Do not mount on a surface near metal.



4.2.1B (option B) - For convenience, the Small Antenna directly attached to the phone will perform as well as a Direct Connection Amplifier or similar to the Low Profile antenna attached directly to the phone. The Small Antenna must be directly connected to the back of the phone using Velcro (included). The Small Antenna will not work away from the phone like the Low Profile antenna. Connect the 6' extension cable to the Small Antenna (included). Attach Small Antenna to the back of the phone. See option B.

Small Antenna placement is dependant upon the location of the phones antenna. Place the Small Antenna as close as possible to the phones antenna.



WARNING: Do not plug the amplifier directly ***into*** the phone using a phone specific adapter.

4.2.2 Connect the Inside Antenna (A) or 6' Extension Cable (B) to the side labeled "INSIDE ANTENNA" on the AMPLIFIER.

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

4.3.1 Select an outside mounting location. For best performance keep the antenna centered on the vehicle'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: 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 by metal. This is very important to avoid oscillation.

4.3.3 Connect the Outside Antenna to the AMPLIFIER side labeled "OUTSIDE ANTENNA".
NOTE: Do not place the outside antenna in the vehicle without turning the amplifier off. For example, when at the car wash. **This *will* cause damage to your amplifier**.
NOTE: Do not use a glass mounted antenna with a mobile wireless amplifier.

4.4 Connect the DC Power Supply

4.4.1 Connect the large end of the DC Power Supply into your cigarette lighter and the other end into the input on your amplifier. Use only the supplied power supply.

4.5 Indicators Lights

4.5.1

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

800 MHz & 1900 MHz dual color Green/Red indicators

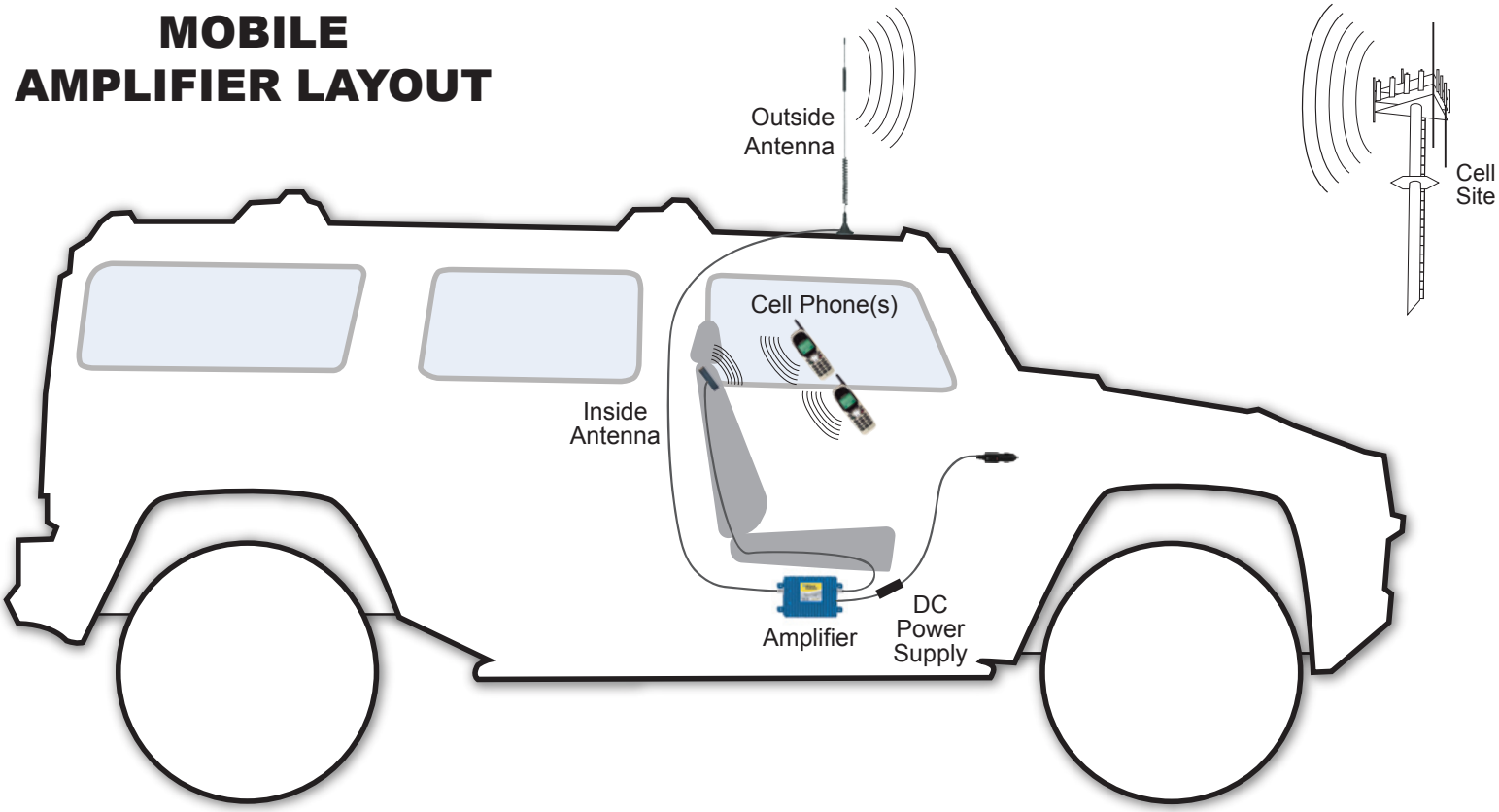
Green – Amplifier is operating properly.

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, creating 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.
NOTE: You do not need amplification when the cell signal is strong. The amplifier is on only when the green light is on. In the city, you may only need amplification when the signal fades from buildings or other structures blocking the signal.

MOBILE AMPLIFIER LAYOUT



5. AMPLIFIER SPECIFICATIONS

	Dual Band 800 / 1900 MHz
Part Number	801201-A
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)	37dB / 43dB
Linear Output Power	+30dBm
Max Output Power	3 Watts (Cell Site Controlled)
Max RF (up/down)	+35dBm / +10dBm
Noise Figure (typical)	3dB nominal
Isolation	Uplink/Downlink more than 90dB
Power Requirements	
Amplifier Usage	6V, 3A (subject to Uplink power)

6. FEATURES

Advanced Electronics Receive & Transmit Better Than Your Cell Phone or Cellular Data Card

- Power Control Logic Ensures Maximum Gain is Within Cellular Standards
- Allows Multiple Devices to be Used Simultaneously
- Maximum 3 Watts Output Power (cell site controlled)
- Designed for All Systems Including CDMA, EDGE, GPRS, GSM, TDMA, 1x, HSDPA
- LED - Power & Overload Shutdown/Oscillation
- Overload Protection Circuit – Protects Cell System from Overload
- Automatic Reset – if overload occurs

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)

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9. NOTES & WARNINGS

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

WARNING: Do not place the outside antenna in the vehicle without turning the amplifier off. For example, when at a car wash. **This *will* cause damage to 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 seperation distance of at least 1 inch (2.5 cm) from all persons and must not be co-located in conjunction with any other antenna or amplifier.

WARNING: Do not plug the amplifier directly ***into*** the phone using a phone specific adapter.

WARNING: Do not use a glass mounted antenna with a mobile wireless amplifier

WARNING: Use only the DC Power Supply that comes with the amplifier, or a replacement supplied by Wilson.

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 power source.

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: 6VDC 3A
RX: 3.6VDC 50mA

Recommended Outside Antenna Options

Mini Magnet | Magnet Mount | NMO Mount

Optional Accessories

Hardwire Kit

Carrying Cases

Also Available

Small Office / Home Office & In Building Smart Technology Amplifiers

Models available for all carriers:

- Cellular
- PCS
- iDEN

Works with all systems including CDMA, TDMA & GSM

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 at 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.

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