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BD800NM-B Bi-Directional Amplifier/Repeater for iDEN In Building

Installation Guide

FCC ID: PWOBD800NM

Rev. 2

MODEL: BD800NM-B
PART #'s: 804001 (43dB Model) & 804003 (50dB Model)

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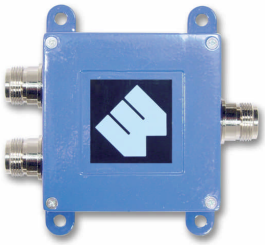

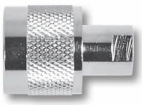

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Stealth

Mini Magnet

Magnet Mount

Roof Mount "Trucker"

Yagi

Pictures are not to scale

1. PACKAGE CONTENTS

1.1 BD800NM-B Bi-Directional Amplifier/Repeater

1.2 AC-to-DC Transformer

2. OPTIONAL ACCESSORIES /ANTENNA OPTIONS

2.1 2-Way RF Splitter – allows for multiple inside antennas.

2.2 Coax Cable Extensions 50Ω (available in 2, 5, 10, 15, 20, 30, 100 ft. lengths)

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 connection and 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	Used with the Yagi antenna to help find the optimum signal strength (for installation purposes only).
951113	2’ Extension 9913 Ultra Low Loss Coax	(0.08 db loss) Jumper Coax – Can be used to connect a splitter behind an amplifier

2.3 Antenna Options:

Inside Antenna Options	Outside Antenna Options
301103 - Magnet Mount	301103 - Magnet Mount
301113 - Mini Magnet	301101 - Roof Mount “Trucker”
301106 - Stealth	301111 - Yagi

2.4 N-Male To FME-Male Adapter – Adapts 9913 Coax to fit the BD800NM-B Bi-Directional Amplifier/Repeater

2.5 Lightning Suppressor

WARNING: Lightning protection is recommended for all installations.

3. PURPOSE OF THE BD800NM-B

The BD800NM-B Bi-Directional Amplifier/Repeater improves RF coverage for areas in which low signal strength or no signal is a problem.

4. HOW THE BD800NM-B FUNCTIONS

The signal is received by the outside antenna from the cell site. It is then AMPLIFIED/REPEATED and transmitted to your IDEN phone through the inside antenna. When the phone transmits it is received by the inside antenna. It is then AMPLIFIED/REPEATED and transmitted to the cell site through the outside antenna.

5. AMPLIFIER SPECIFICATIONS FOR 43dB and 50dB MODELS

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

Frequency……...806-821MHz Uplink 851-866MHz Downlink
Gain…….43/50dB Uplink 43/50dB Downlink (dB depends on model)
Flatness……Uplink +/- 3dB Downlink +/- 3dB
Max RF Output Power…….Uplink +30dBm Downlink +10dBm
Noise Figure……..Uplink / Downlink (5dB @ 894MHz)
Uplink Downlink Isolation...…More than 90dB
Power Consumption…….13.8V, 1.5A
Connecter……..FME-Male 50 Ohms
Dimensions……..5.5 x 4.3 x 1.4 (inches) OR 14.0 x 10.8 x 3.5 (CM)
Weight……..….1.32 Pounds OR 600G

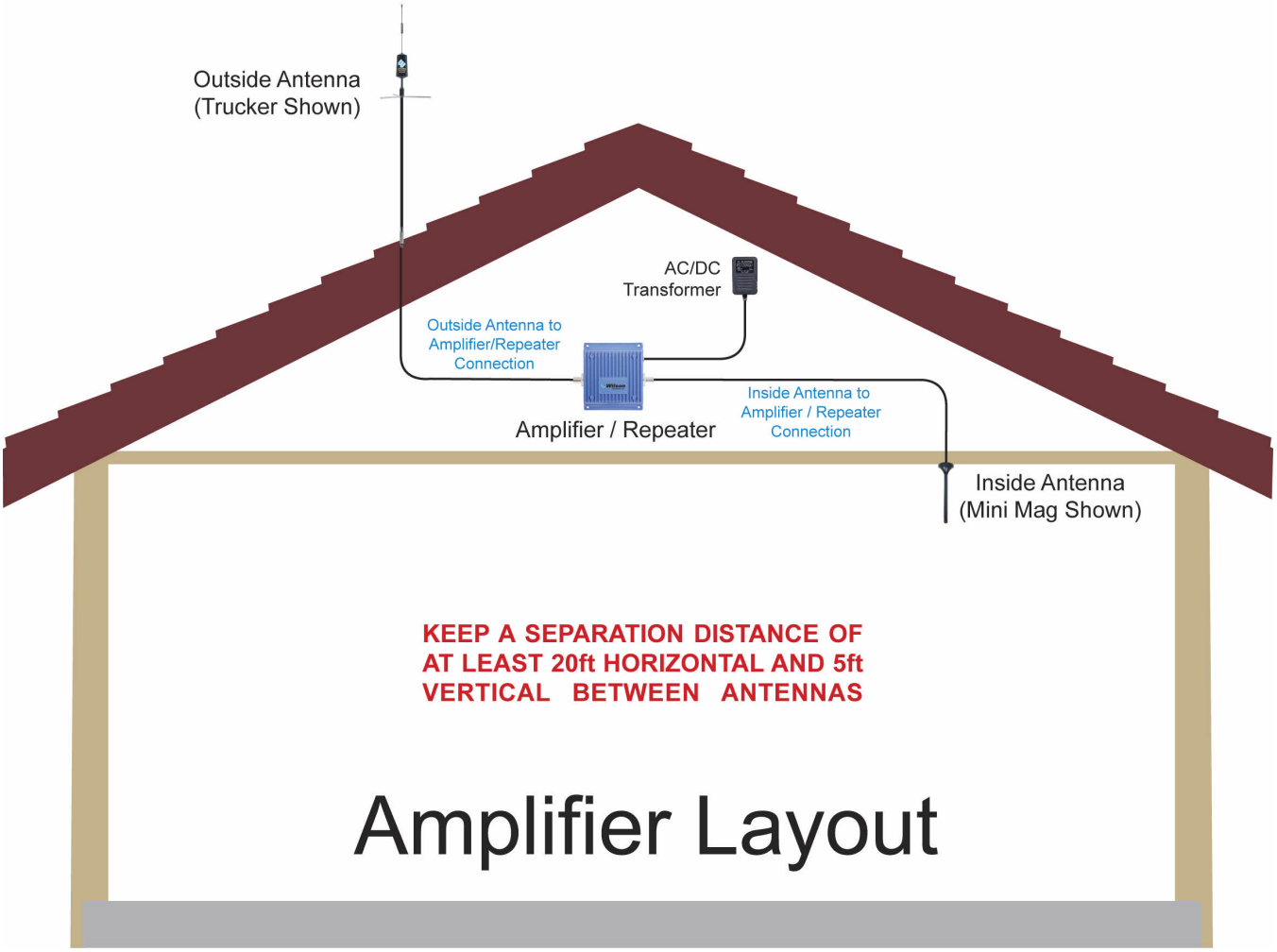
6. AMPLIFIER/REPEATER INSTALLATION (REFER TO ILLUSTRATION)

6.1 Installing the Outside Antenna

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

6.1.2 The Outside Antenna should be located in an area with at least a 3’ radius clear of obstructions and other radiating elements.

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.



ILLUSTRATION

6.2 Installing The Amplifier/Repeater

6.2.1 Mount the AMPLIFIER/REPEATER on a wall or ceiling.

6.2.2 Connect the Outside Antenna to the AMPLIFIER/REPEATER side labeled “OUTSIDE ANTENNA”.

6.3 Installing The Inside Antenna

6.3.1 Connect the Inside Antenna to the side labeled “INSIDE ANTENNA” on the AMPLIFIER/REPEATER.

6.3.2 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.

6.4 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.

7. TECH SUPPORT

If you need further assistance with your installation please call us Toll-Free at 866-294-1660 or send an E-mail to tech@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: Lightning protection is recommended for all installations.