

# Bi-Directional Amplifier Installation Guide

Model:

BDA-800NXT

BDA-819

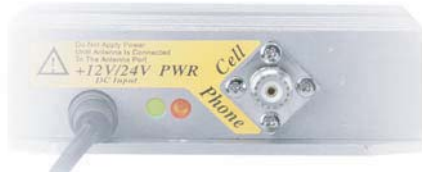
BDA-1900

*Wireless Operation*

*No Physical Connection to Cell Phone*

**Boost** Cellular  
Signal **1000%**

Signal Sensing Technology®



**BOSTON®**  
**Amplifier**  
*Your solution to wireless technology*  
<http://www.bostonamplifier.com>

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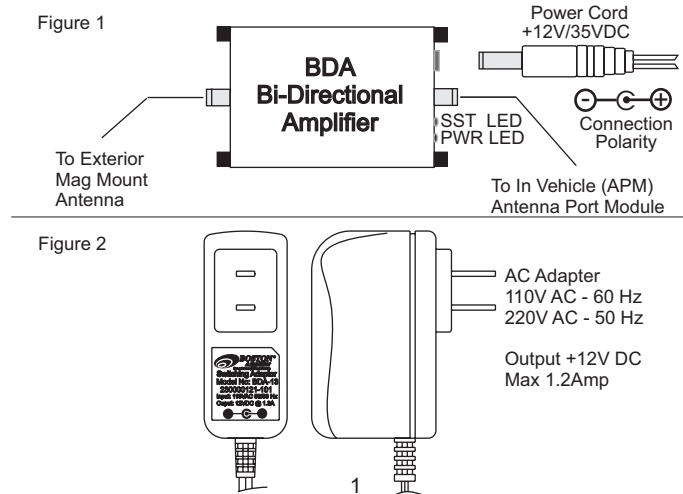
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**Note:** This product amplifies radio frequency energy. Improper installation or use not in strict accordance with the manufacturer's instructions may result in improper operation and or potential damage to the product. There is no guarantee against the presence of interference by other transmitters and noise sources on the operating frequencies. The user is responsible for complying with all applicable federal, state, and local laws, including those pertaining to those involving allowable levels of non-ionizing radiation.

### Bi-Directional Amplifier Connection Diagram



This device complies with FCC rules. Boston Amplifier provides bi-directional amplification of transmit (uplink from the phone to the service provider) and receive (downlink to the phone from the service provider). This amplification can provide improved portable cellular phone call quality, reliability, and range in marginal signal areas.

**Features of the Bi-Directional Amplifier Include**

*Depends on your models, if it is for Vehicle or Home/Office use*

- Models covering Cellular BDA-800NXT, 819 & 1900
- Antenna Isolation SST® and Power LED Indicator
- 4 or 15 Feet Cable with Antenna Port Module
- DC Vehicle Power cable or AC Adapter
- Home / Office Exterior Antenna with Bracket and Cable
- One Year Warranty

**Note:**    *4 Feet Cable for Vehicle Use*  
              *15 Feet Cable for Home Office Use*

The BDA (Bi-Directional Amplifier) is designed for use with cell phones capable of no more than 600 milliwatts output. The majority of wireless phones sold meet this requirement. Any attempt to connect higher-powered phones, such as older analog mobile telephones, to the Bi-Directional Amplifier will nullify the manufacturer's warranty, result in improper and illegal operation, and can damage the unit and or cell phone.

**Note:** Please read the entire contents of this installation guide.

**Important:** The BDA-800NXT, 819 or 1900 can be used with Hands-free kit already installed in vehicle or can be used only with Boston Amplifier's Antenna Port Module (Wireless) with standard off the shelf Cell Phone holder (Cradle). This product is exclusively for use in vehicles, vessels or Home / Office use with a negative-ground power supply.

Operating Voltage: 12VDC to 35VDC  
Power Consumption: Typical Stand By: 350ma  
Usage 550ma

**Step 1: Placement of Amplifier Unit** inside the vehicle, within 4 to 6 ft reach of cigarette lighter, make sure it rests flat, or mounted behind dash board or under the seat with double adhesive tape to secure in place and is not a hazard to driver, or secure the unit on the floor or next to desk in Home / Office.

**Step 2: DC Power Cable** connect in Cigarette Lighter of vehicle or hard wired in vehicle. Use AC Adapter for Home / Office use. Connect DC Power Jack to the power connector socket in the amplifier unit.

**Note:** To avoid the vehicle battery drainage make sure that the amplifier is not receiving any power during the "OFF" stage of Ignition Key.

**Step 3: Position of Exterior Antenna** on vehicle at rear glass or on the trunk or on the rear top of vehicle as far as back as possible. For Home / Office mount the Exterior Antenna near the window or out side the balcony at most upper area of the window. Connect the cable to Antenna side of the Amplifier.

**Step 4: Take 4ft or 15ft Cable** and connect with the hands free kit or directly hard wired to your cell phone or use APM (Antenna Port Module) Position APM in the cradle or holder anywhere in front with the best unobstructed view or on your Home / Office Desk. Place your cell phone on top of APM in the cradle as a pickup wireless signal and use head set from your cell phone to have communication or within a reach of 4 to 6 feet.

**Step 5: Red Power LED** is lit as soon as Ignition Switch or AC Power Adapter Switch become activated, also observe Green LED lit. If APM and Exterior Antenna are not at an adequate distance then the Green LED will go off, including the Red Power LED and Red LED will start blinking. For further Information see SST® Antenna Installation Guide.

**Important:** *For optimal performance, rear exterior antenna to be mounted vertically and Power LED and Green LED should be ON not Blinking.*

**SST® Antenna Installation Guide.**

Signal Sensing Technology® (SST®) is included in all of Boston Amplifier's Bi-Directional Amplifiers. This Signal Sensing Technology® (SST®) will determine if the External and Internal Antennas have sufficient separation.

**SST® Protection:**

It will avoid over heating.

It will not burn the unit.

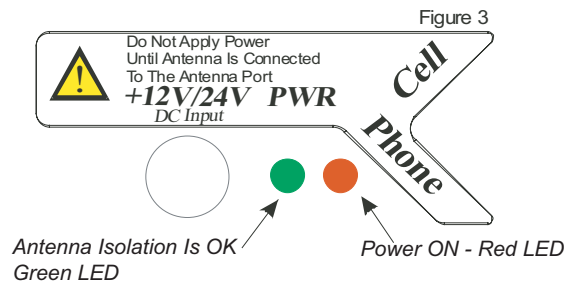
It will avoid weak transmit and receive signals due to the antennas not having sufficient separation.

It will provide visual alarm if the antenna separation is not sufficient.

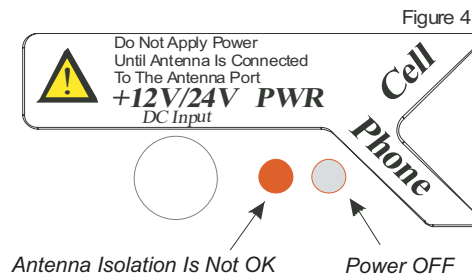
It will self correct once the antenna separation is determine to be sufficient.

**SST® Visual Alarm:**

1. On power-up, the RED LED (Power "ON") light shows that the unit is on. Simultaneously the GREEN SST® Light comes on if both antennas have the proper separation.



2. On power-up, the RED LED (Power "ON") will not come on and the GREEN SST® light will be RED and blinking. This means that the exterior and indoor antennas are too close to each other and need to be moved further apart.



3. Separate the external antenna away from the internal antenna until you observe the Green SST® Light as shown in figure 3.
4. Do not turn the power off if the SST® Red Light Blinks. It has automatic signal sensing technology, which will protect the unit from over heating and making the unit more efficient in performance.



## Vehicle Installation



Figure 2 Copyright© 2002-Present  
Installed Wireless Dash Mount

## Home Installation

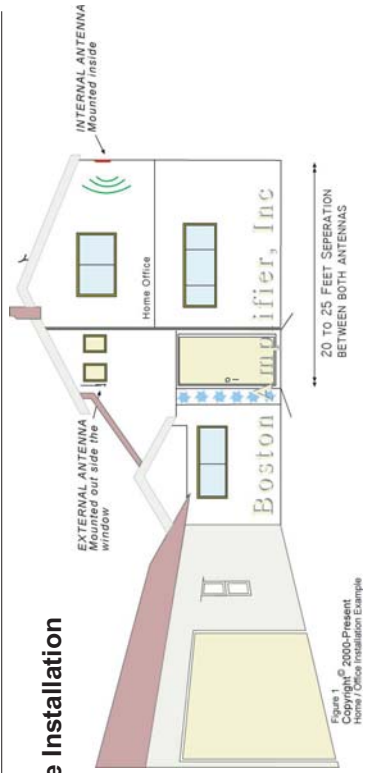


Figure 1  
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Home / Office Installation Example

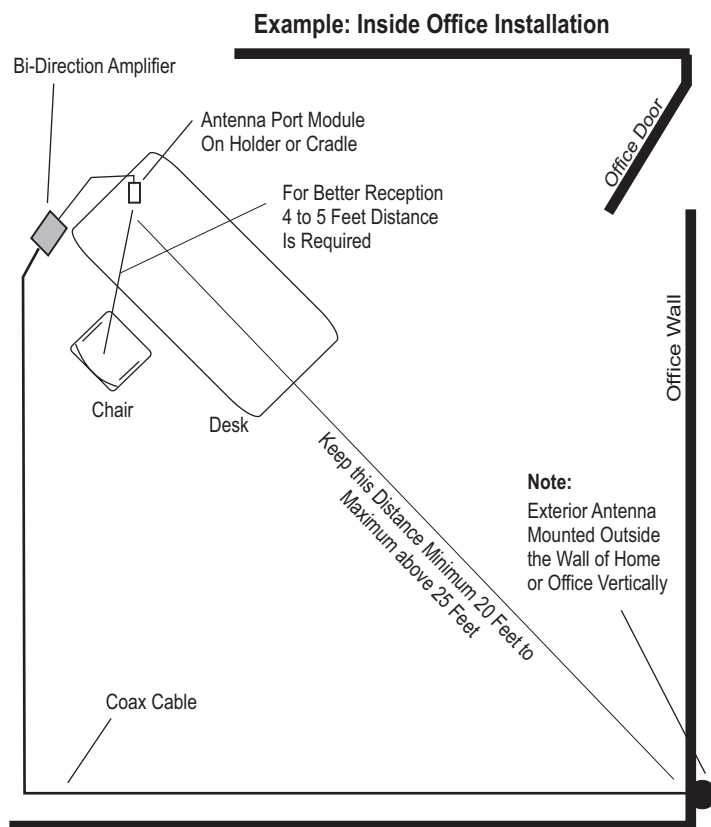


Figure 7

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### **Limited Warranty**

Boston Amplifier warrants to the original purchaser a product free from defects in material and workmanship for a period of One (1) year from the date of purchase.

Under the above warranty, Boston Amplifier, at its option, shall either repair or replace non-conforming or defective products. If Boston Amplifier determines that the product has been misused, carelessly handled, defaced (including unauthorized repairs performed or attempted by others), modified or altered in any way, the warranty will be considered null and void, and the unit will not be repaired or replaced under warranty.

The product must be returned with the proof of purchase to the point of purchase or by obtaining an RMA (Return Merchandise Authorization) number from Boston Amplifier. Claims must be made in accordance with the provisions of this warranty and within the applicable warranty period or they will be disregarded.

No inbound or outbound shipping will be paid, regardless of the territory, by Boston Amplifier neither will its agents, employees, or sales representatives pick up or deliver any defective or non-defective products from customer, distributor or OEM sites. Any product, which is inbound from overseas, must be handled by properly licensed freight forwarders in order to comply with the applicable laws of the United States of America. Boston Amplifier will not be responsible for any product which has been lost or damaged during inbound and outbound shipping. It is customers responsibility to obtain full insurance from the shipping carriers.

Boston Amplifier reserves the ultimate authority to determine what constitutes warranty repair. If it is determined that the product is received after expiration of the warranty period, it will be repaired using Boston Amplifier's standard rates for parts and labor, which may change from time to time.

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### **Limited Warranty**

Boston Amplifier will use its best efforts to repair the product within 15 working days after receipt thereof. Boston Amplifier shall not be responsible for delays caused by shipping or non-availability of replacement parts or other causes, events, or conditions beyond its reasonable control.

The above warranty is the only warranty authorized by Boston Amplifier. The above warranty states the purchaser's exclusive remedy for any breach of the Boston Amplifier warranty and for any claim, whether sounding in contract, tort or negligence, for loss or injury caused by the sale of any product without limiting the generality of the foregoing, shall be limited no more than the replacement value of the Boston Amplifier purchased, or an equivalent product, and only in the event the remedy is being sought by the original purchaser of the Boston Amplifier product in question. Boston Amplifier shall in no event be responsible for any loss of business or profits, downtime or delay, labor, repair, monetary, financial, or material costs, injury to person, persons or property, or any similar or dissimilar consequential loss or damage incurred by the purchaser, even if Boston Amplifier has been advised of the possibilities of such losses or damages.

**Note: Warning Statements:** User must keep 111CM or 48 Inches distance from the RF radio device

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