

# *interfire*®



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Made in Korea



**BD-4X**  
**Instruction Manual**

## INTRODUCTION

Congratulations on purchasing the Power Acoustik BD-4X. You are now the proud owner of the finest and most accurate bass enhancing & restoration system available.

Whether your interest is in Beethoven's kettle dums, in Miles Davis' trumpet or in the percussion of Rap lyrics, the BD-4X would restore those long lost missing bass notes, with amazing accuracy and clarity.

There's dash mounted level control unit which permits instant adjustments;whether it's because your passenger is not as muth a "bass-head" as you are or for whatever reason you want to turn it down a bit, this handy knob does the trick.

## FEATURES

**Bass Driver:** The BD-4X contains a Bass Driver circuit that accurately recreates and injects Low frequency information back into the signal path. What that means in everyday terms is that the BD-4X will give more bass impact to your best compact discs or even your old tapes.

**Bass Equalization Circuit:** The BD-4X has a unique equalization circuit that contours the restored bass to your speaker systems.

**Dash Mount Remote Control:** The BD-4X comes with a Dash Mountable Remote Control that allows you to enjoy the effects of the BD-4X with out having to leave the drivers seat. The Dash Mount Control has a LED indicator, this LED will glow brighter as you add more bass or dimmer when you decrease it.

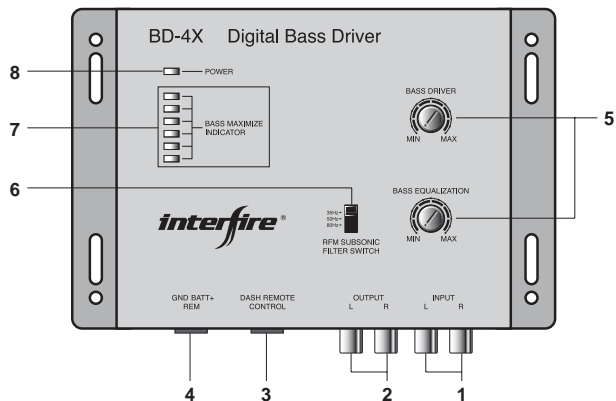
**Bass Maximizer Indicator:** Not only does The BD-4X provide good music to your ears, but it also gives you some visual enjoyment as well. On the Chassis of the BD4X, there are three LED indicators that flashes when the bass maximization circuit is activated.

**PFM Subsonic Filter Switch:** The unique feature is legendary with its ability to fine tune the bass response of any system. Why waste power on nasty subsonic information when PFM Subsonic Filter Switch can help you to clean things up?

**Bass Output Control:** The BD-4X has the ability to produce large amount of deep, mind shattering bass without damaging your speakers. The Bass Output Control circuit allows the BD-4X to maximize the bass output of any autosound audio system while restraining destructive bursts.

## FUNCTIONS

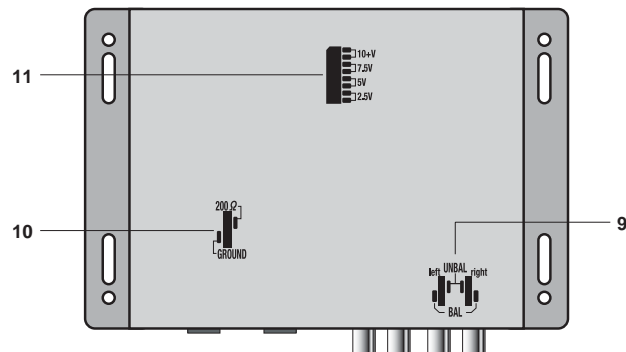
### THE OUTSIDE



- 1. Inputs:** The inputs of The BD-4X use a balanced input circuit to help minimize induced noise. The are also designed to handle very high signal voltages up to 15 volts.
- 2. Outputs:** These RCA connectors should be connected to the next component after the BD-4X, such as a crossover, equalizer, or amplifier. Just remember, the BD-4X should go inline before a crossover.
- 3. Dash Remote Control**
- 4. Power Connector**
- 5. Para-Bass Controls:** These 2 knobs control the Para-Bass functions of the BD-4X. The BASS DRIVER knob allows you to pick the center frequency that you want the BD-4X bass restoration circuit to maximize. The BASS EQUALIZATION knob adjusts how wide of a frequency range the BD-4X will effect.
- 6. The PFM Subsonic Filter Switch:** The BD-4X utilizes a PFM Subsonic Filter Switch which will help with speaker control and amplifier power management. This PFM Subsonic Filter Switch comes with three frequencies selections 35Hz/50Hz/80Hz. On most systems, setting the switch at 33Hz is fine. If you want to protect your speaker system even more, you should try a higher frequency. Often a higher frequency actually sounds louder and cleaner.

## FUNCTIONS

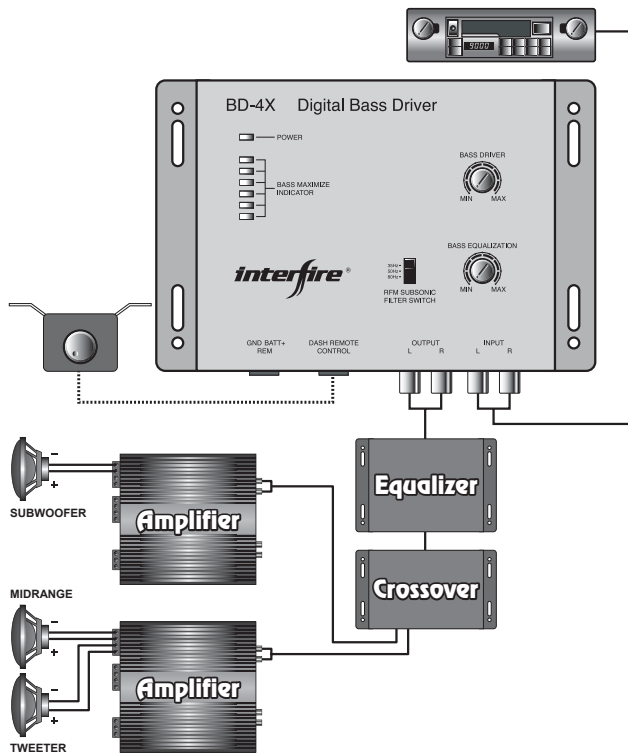
### THE INSIDE



- 7. Bass Maximizer Indicator:** These three LED indicators flashes when the bass maximization circuit is activated.
- 8. Power On LED**
- 9. Input Grounding:** For most systems you can leave this jumper set in the BALANCED position. In some systems, the source unit may look for a ground through the RCA connectors. In this event, you should go ahead and change the jumpers to the UNBALANCED position.
- 10. Ground Isolation Jumpers:** Occasionally alternator whine may appear in a system because the source unit and amplifier may use different grounding. To help in this situation, we have provided alternative grounding connections. Made sure your system is turned OFF before you move these jumpers.
- 11. Bass Output Control Jumpers:** Not all systems are designed the same, some systems are designed strictly for SPL(sound pressure level)while others are a little more tame. The Bass Maximizer circuit can either increase or decrease the signal voltage of the Bass Restoration Circuit. Depending upon your system, you may opt to change these jumpers to a higher or lower setting to maximize your bass output and protect your speakers. In most systems the factory setting will suit you fine. We recommend you try the factory setting first.

## SIGNAL CONNECTION

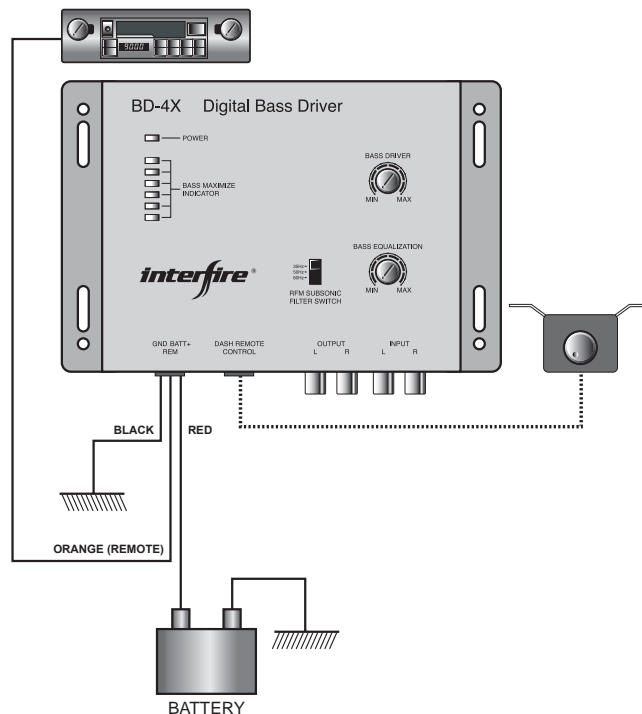
**NOTE:** For signal connection, the output RCA connectors should be connected to the next component after the BD-4X, such as a crossover, equalizer, or amplifier. Just remember, the BD-4X should go inline before a crossover.



## ELECTRONIC CONNECTIONS & WIRING

### Power connection

- **B+(12V)** : Connect a red wire to the car battery or other power source.
- **REMOTE**: Connect an orange wire to remote activating (1 2V DC) wire of car stereo or equalizer.
- **GND** : Connect a black wire to the car chassis for ground connection.



## ADJUSTING THE PARA-BASS CONTROLS

The bass response in a system is affected by four factors:

- (1) The acoustics of the vehicle
- (2) The locations of the speakers
- (3) The music on the tape
- (4) Speakers and speaker enclosures.

Because of the variations in the recording process, we developed BD-4X to help restore any low frequencies lost during the recording process, however, the acoustics of various environments are different.

The **Sweep** control allows you to select a center frequency (the frequency most affected) between 27 and 63 Hz. The **Width** control then allows you to control the shape of the filter centered around the **Sweep** frequency.

## SETTING THE BASS OUTPUT CONTROL

The BD-4X is the most powerful bass component. This device equipped with several different Bass Output selections. If you should need to change the setting, Please use the chart below for guidance. It is recommended : listen to the factory setting before changing your Bass Output settings.

### Recommended Settings

Setting	Amplifier Input Voltage	Minimum Speaker Size
2.5Volt	3Volt or less	8"
5Volt	5Volt or less	10"
7.5Volt	7.5Volt or less	12"
10Volt	Oh My Gosh!!!!!!!!!!!!!!	

## SPECIFICATIONS

Maximum Input Level	_____	15 V rms
Maximum Output Level	_____	13.5V peak
Frequency Response	_____	10Hz - 100KHz;+/-1dB
Total Harmonic Distortion	_____	0.003%
Signal to Noise Ratio	_____	-130dB
Balanced Input Noise Rejection	_____	>60dB
Input Impedance	_____	10 Kohm
Output Impedance	_____	150 Ohms
Power Supply	_____	High headroom PWM
Power draw	_____	150mA
Recommend fuse rating	_____	1 Amp

## TROUBLE SHOOTING GUIDE

**If the Unit does not turn-on, and/or the power indicator LED is NOT illuminated, dothis:**

- 1) Check and make sure that B+ and GND are not reversed
- 2) Check that all power wires are properly connected and has the appropriate potential (11-16 volts)
- 3) Check that the fuse is intact.

**If you experience high audible distortion or low output volume:**

- 4) Check that the input and output levels are set correctly. Input should match the source and output should match the sensitivity of the host.
- 5) Check the crossover settings ; make sure they are correct ; for high "Q" systems, set the crossover half an octave above the desired point and for low "Q" systems, set it 1 octave or more above.

**If you experience whining or engine noises:**

- 6) Verify that the GND connection is secure, the conductor (wire) is not too thin and unnecessarily long.
- 7) Check that the B+ wire is not too thin and unnecessarily long.
- 8) Change the power source ; try taking power from a different point.

## INSTALLATION

- TAPPING SCREW
- SPRING WASHER
- PLAIN WASHER



**MEMO**

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