



## **BE10AE USER'S MANUAL**

**10" (254 mm) AMPLIFIED SUBWOOFER**  
FEATURING BUILT-IN HIGH POWER AMPLIFIER  
AND 10" PASSIVE RADIATOR



BOSS Audio Systems  
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## Welcome

Thank you for purchasing a Boss Audio Systems product. Please read all instructions carefully before operation, to ensure complete understanding and to obtain the best possible performance from the unit.

## For Safety

1. Playing loud music in an automobile can hinder your ability to hear traffic and permanently damage your hearing. We recommend listening at low or moderate levels while driving your car. BOSS AUDIO ELITE is not liable for hearing loss, bodily injury or property damage resulting from the use or misuse of this product.
2. Do not perform any complicated operations while driving.

## Cautions and Notes

This unit is designed to operate on 12V DC, NEGATIVE ground electrical systems.

1. This unit uses BTL (Balanced Transformer less) amplifier circuitry, i.e., floating ground system, so please comply with the following.
2. Cover the unused terminals with insulating tape to prevent them from short circuiting.
3. When an extension lead is used, it should be as thick and short as possible; connect it firmly with insulating tape.
4. Be sure to leave an appropriate space between the radio antenna and the wires of this unit to avoid signal interference.
5. When replacing the fuse, please pay attention to the corresponding model.
6. Do not let pebbles, sand or metallic objects get inside the unit.
7. To keep the heat dissipation mechanism running effectively, wipe the accumulated dust off periodically.
8. Playing audio with the volume high for a long period of time will drain the battery if the engine is turned off.

DO NOT disassemble the unit since there are no user-serviceable parts inside.

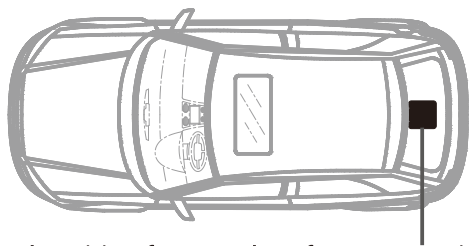
## Specifications

MODEL		BE10AE
P.W.M		✓
Input sensitivity, RCA level		0.2V-6V
Input sensitivity, HIGH level		3V-15V
Remote Control for Subwoofer level		✓
Phase switch		0°-180°
Bass Boost		0dB~+12dB
LPF filter		50Hz-150Hz
SLOPE		12dB or 18dB
T.H.D		<0.2%
MAX power		600W
High Level Inputs with Auto Start Smart Turn-on		✓
Soft delayed remote turn-on		✓
Protection Circuit	Thermal Protection Circuit	✓
	Short Protection Circuits	✓
Illumination		Green-Power Red-Protect Led
Singed-coil loud speaker		✓
Signal-to-noise ratio		>80dB
Frequency response		20Hz-250Hz
Fuse rating		30A
Slim Subwoofer		10"(4 Ohms)
Dimensions(LxWxH)mm		285x285x285

## Installation

### PLACEMENT:

The following illustration shows a typical installation. To get the best performance from your amplifier, we strongly recommend that installation be entrusted to a qualified professional. Although these instructions explain how to install an amplifier in a general sense, they do not show specific installation methods that may be required for your particular vehicle. If you do not have the necessary tools or experience, do not attempt the installation yourself. Instead, please ask your authorized car audio dealer about professional installation.

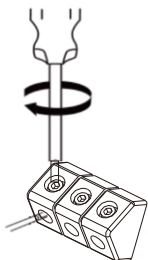


The best location and position for sound performance varies by vehicle type. Installing this in the rear of the vehicle usually yields best sound performance.

1. Disconnect the negative (-) lead from your vehicle's battery.
2. At the installation sites, locate and make a note of all fuel lines, hydraulic brake lines, vacuum lines and electrical wiring. Use extreme caution when cutting or drilling in and around these areas.
3. Choose a safe mounting location away from moisture.
4. Make sure, there is sufficient air circulation at the mounting location for the amplifier to cool itself.
5. Mount the amplifier such as under the front seat, using the supplied hardware.

## Terminal Connections

When making the terminal connections... Properly fix the terminal with the screw provided by turning it in the direction as illustrated.

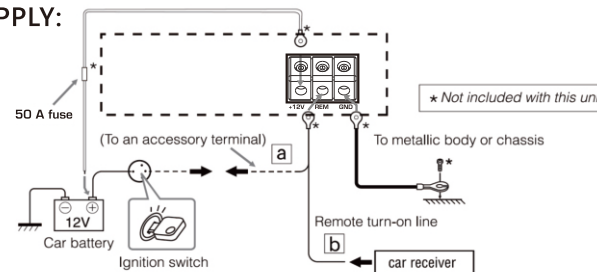


### NOTE:

When you tighten the screw, make sure that the screw is securely fixed in place to prevent disconnection of the terminal. Avoid over-tightening as it may cause damage to the screw or its head slot.

## Installation

### POWER SUPPLY:



### CAUTION:

To prevent short circuits while making connections, keep the battery's negative terminal disconnected.

1. When using a power cable, be sure to place the 50A fuse near the battery as show.
2. Connect the lead wire (purchased separately) through which power is supplied directly to the battery's "⊕" terminal only after all the other connections have been made.

The lead wire connected to the +B terminal of this unit should have a cross-section of more than 5mm<sup>2</sup> or 18 AWG. Be sure to use a ring terminal for secure connection.

3. If you have any questions regarding the thickness of the power cable, or any cables, consult your nearest dealer.

When connecting to a head unit without a remote lead (a), connect to the accessory circuit of the car which is activated by the ignition switch.

In this case, noise may occur when the car receiver is turned on or off.

To avoid this noise, do not turn on or off the car receiver itself. You can turn on or off the car receiver along with the on/off operation of the ignition switch.

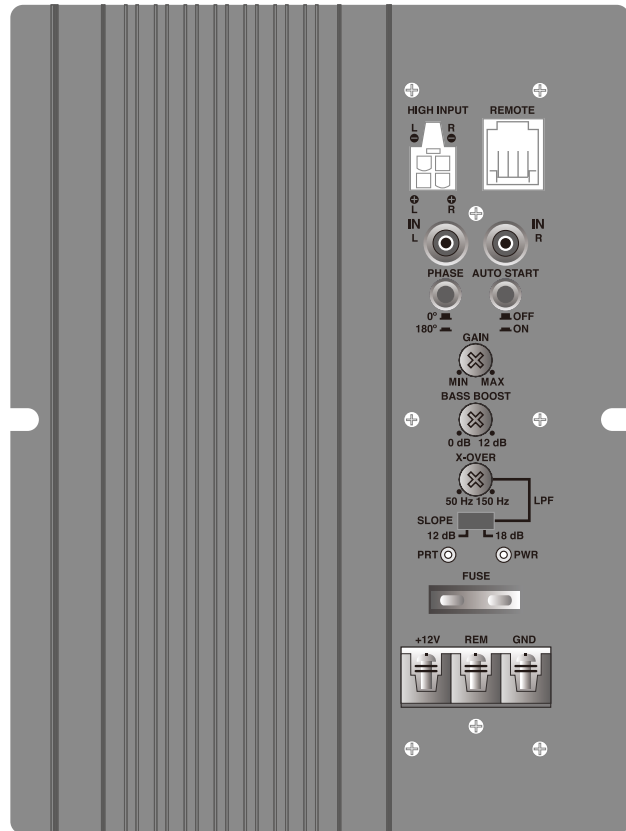
If you use car receiver with a remote lead (b), connect to the REM terminal of this unit.

If the PROTECT LED glows red, it indicates amplifier in protection mode.

In normal status, the POWER LED glows green. Please be sure correct speaker wiring and connections are made.

**BEFORE CONNECTING:** Securely connect all the parts. If the connections are loose, due to contact resistance etc., heat will build up and may be hazardous. Secure and cover the cords with insulating tape and run them safely away from any danger.

## Installation



### AUTO POWER ON WITH SMART SENSE

The AUTO POWER ON feature works only with high level input.

The amplifier will detect high input signal automatically.

NOTE: Make sure that REM connection is not connected while using SMART SENSE POWER ON feature.

### PHASE CONTROL :

Set the phase control switch to select phase of the amplifier output signal 0°-180°

### REMOTE GAIN :

User can use the external remote control to imitate function of gain control knob

## Installation

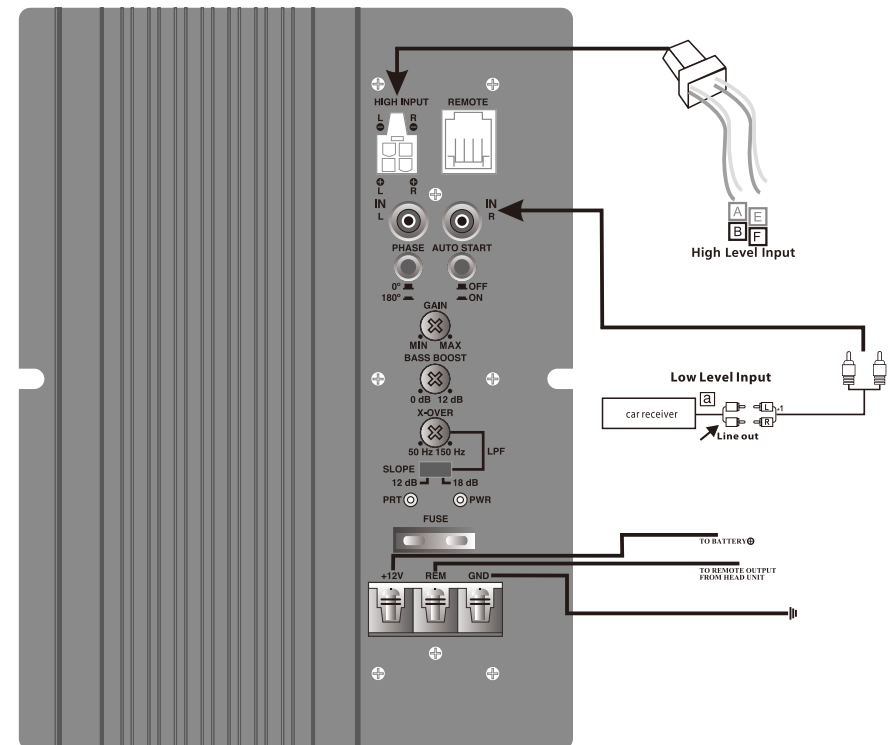
### BASS BOOST :

For adding low bass response, rotate the Knob clockwise to add 0dB-12dB of boost centering around 50Hz

### LOW PASS FILTER :

Rotate this Knob clockwise to set the required low frequency response from 50Hz to 150Hz

Low Pass selectable roll-off rates: 12dB or 18dB



### SIGNAL INPUTS:

This amplifier has two different types of inputs: Low level Input through RCA jack and High Level Input through a four-pin modular connector. Low level inputs provide an exceptionally clean sound from a source unit through RCA jacks. High level inputs make your amplifier virtually adaptable to any source unit with the use of speaker outputs. High level inputs should only be used when RCA outputs are not available. Under no circumstances should both low level and high level inputs be used simultaneously.

## Installation

### LOW LEVEL INPUTS

Choose the correct length and style of RCA patch cables for your needs. Better RCA's usually have gold plated connectors and multiple layers of shielding for better noise rejection(consult your dealer).

Be careful when running your RCA patch cables. Car environments are notorious for poorly insulated wires. This means that hiss, engine noise, and fan noise can easily be picked up through RCA cables if run incorrectly. Avoid running your RCA's near large wire looms or electric fans if possible. Run your patch cables on the opposite side of the vehicle as you did the power wire. Be sure to check for correct balance(red is right and black or white is left).

### HIGH LEVEL INPUTS

Use the high level inputs only if your audio source unit does not have low level outputs. These inputs may be tapped to the closest left and right speaker wires available for greater convenience.

### GAIN CONTROL

This control allows you to match the input level of the amplifier to the output level of your source unit. Matching the input can be accomplished in three simple steps:

Turn gain control all the way down.

Turn on the source unit and adjust it to 2/3 of the max volume.

Adjust the gain control until desired volume is achieved without audible distortion.

Remember, the gain control is not a volume knob. Ignoring the three steps above may leave you with damaged speakers and probably a damaged amplifier.

## Troubleshooting

### THE POWER LED DOES NOT LIGHT

1. Check the fuse to see if it is blown.
2. Check if the ground lead is connected securely to a metal part of the car.
3. Make sure that the equipment connected to this unit is turned on.
4. Use a relay if your system employs too many amplifiers.
5. Confirm the battery voltage(11V to 16V).

### THE PROTECT LED GLOWS RED AND/OR THE UNIT HEATS UP ABNORMALLY

Leave the unit turned off for a while as it cools down.

### NO SOUND IS HEARD

1. Check if the amplifier is powered on(POWER LED glows green)
2. Is the remote turn-on line lead connected correctly
3. Are RCA pin cords connected to the LOW INPUT jacks
4. Is the speaker input connector from the receiver connected to the HIGH INPUT terminal.
5. Is this amplifier grounded

### WORKS BUT ALTERNATOR NOISE IS HEARD.

1. Keep the power connecting leads away from the RCA pin cords.
2. Keep the RCA pin cords away from other electrical cables in the car.
3. Check in High Level Input connector ground wire is properly grounded to metal part of the car.
4. Check head unit body is properly grounded with metal part of the car.
5. Check if the negative speaker leads are touching the car chassis.
6. Check if the noise originates in the receiver.
7. Replace the plugs or use plugs with load resistors.
8. Connect a bypass capacitor across the accessory switches(horn, fan, etc.).

### NOISE WHEN CONNECTED TO AM(MW/LW) TUNER

Move the power leads away from the antenna(aerial) lead.

### DISTORTED AUDIO

1. Check if INPUT LEVEL is set properly.
2. Check if Amplifier of Source unit is defective.