



UNSEAT-8

Owner's Manual

**Unseat 8" Active Subwoofer
with Crossover**

Welcome

Thank you for purchasing an ESB product. Please read all instructions carefully before operation, to ensure that you understand the product completely and that you will get 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. ESB accepts no liability for hearing loss, bodily injury or property damage resulting from the use or misuse of this product.
2. Stop the car before performing any complicated operations.

Cautions and Notes

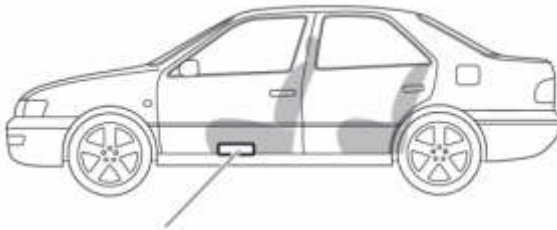
This unit is designed to operate on 12V DC, Negative ground electrical systems.

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 solder and insulating tape.
4. Be sure to leave an appropriate space between the antenna (aerial) and the power wires of this unit.
5. When replacing the fuse, only use one 25A fuse for UNSEAT-8.
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. Listening to the tape, radio, cd or mp3, etc. with the volume on loud for a long period of time will exhaust the battery, while the engine is turned off or while the engine is idling.

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

Installation

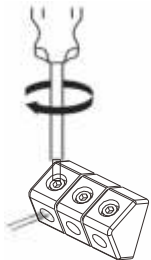
The following illustration shows a typical installation. To get the best performance from your ESB subwoofer, we strongly recommend that installation be entrusted to a qualified professional. Although these instructions explain how to install ESB subwoofer in a general sense, they do not show specific 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 ESB car audio dealer about professional installation.



Under the front seat

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 in a location such as under the front seat, using the supplied hardware.

Terminal connectors:

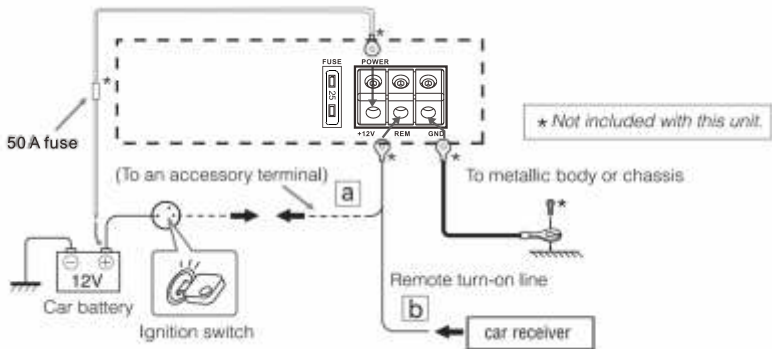


When making the terminal connections, properly fix the terminals with the screw provided by turning it in the direction as illustrated.

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:



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

1. When using a power cord, be sure to place the 50A fuse near the battery as show.
2. Connect the lead wire (purchase 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 5mm² or 18 gauge. Be sure to use a ring terminal (optional) for secure connection.

3. If you have any questions regarding the thickness of the power cord, consult your nearest ESB dealer.

When connecting a 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.

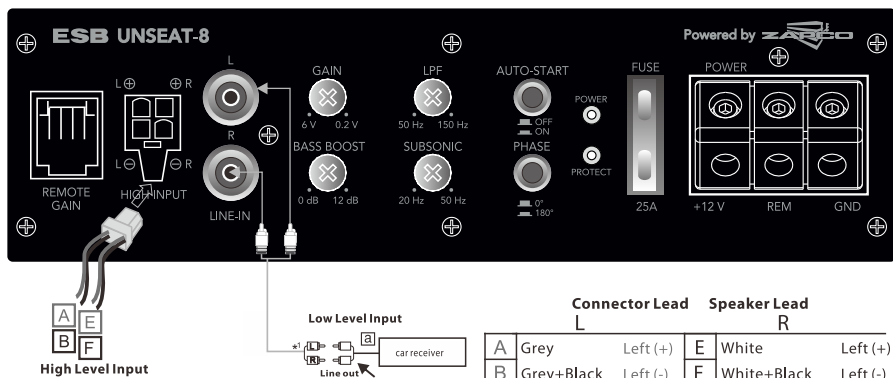
If you use car receiver with a remote lead (b), connect to the REM terminal of this unit.

If the Protect LED glows red, it indicates amplifier in protection mode. In normal status, the Power LED glows green. Please ensure correct speaker wiring and connections.

Before connections: Loose connections at the power or ground terminals can cause electrical arcing. This can cause intense heat and damage the terminal block and even damage the amplifier. Assure that all connections are secure and inspect periodically.

Controls

The amplifier has low level input through RCA jacks and high level input through a four-pin modular connector. Low level inputs provide an exceptionally clean sound from a source unit through RCA cables. 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.



Low level inputs

Be careful when running your RCA patch cables. Car environment 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 signal cables and your power cables on opposite sides of the vehicle.

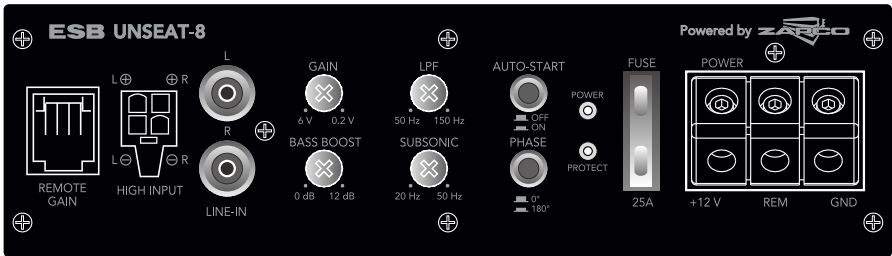
High level inputs

Use the high level inputs only if your audio source unit does not have low level outputs. These inputs may be connected 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. Match the input in three simple steps: 1- Turn gain control all the way down. 2- Turn on the source unit and adjust it to 3/4 of the max volume. 3- 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.

Controls




Auto Power On with Smart Sense

The auto power on feature works only with high level input. Amplifier will detect high input signal and turn ON / turn OFF automatically. The REM (+12V turn-on) terminal should not be connected when using the smart sense power on feature.

Subsonic filter

Set the subsonic filter knob anticlockwise to filter out low frequencies up to 50 Hz.

Phase control

Set the phase control switch to select phase of the amplifier output signal 

Remote gain

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

Bass boost

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

Low pass filter

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

Troubleshooting

For more details, consult your ESB dealer.

The power LED does not light

1. Check if the fuse 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 turn-on 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. Make sure that the remote turn-on line lead is connected correctly.
3. Make sure RCA pin cords are connected to low input jacks
4. Make sure the speaker input connector from the receiver is connected to the high input terminal.
5. Check if the amplifier is grounded.

Alternator noise is heard

1. Keep the power connection leads away from the RCA signal cables.
2. Keep the RCA signal cables away from other electrical wires 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.

Specifications

P.W.M.	v	
Input sensitivity, RCA level	0.2 V - 6 V	
Input sensitivity, HIGH level	1V	
Remote Control for Subwoofer level	v	
Phase switch	0 - 180°	
Bass Boost	0 - 12 dB	
Subsonic filter	20 - 50 Hz	
LPF filter	50 - 150 Hz	
T.H.D.	< 0.38 %	
RMS power	170 W	
MAX power	250 W	
High level auto power on	v	
Soft delayed remote turn-on	v	
Protection	Thermal	v
	Short	v
Illumination LED	Green/Power - Red/Prot.	
S/N ratio	> 88 dB	
Frequency response	15 - 125 Hz	
Fuse rating	25 A	
Slim woofer	8" (2 ohms)	
Dimensions in centimeters (L x H x W)	35.5 x 8.1 x 25.2	