



EC10B

*2-Way Electronic Crossover
with Remote Subwoofer Level Control*

Congratulations on your purchase of a Planet Audio Crossover.

It has been designed, engineered and manufactured to bring you the highest level of performance and quality, and will afford you years of listening pleasure.

Thank you for making Planet Audio your choice for car audio entertainment!

USER'S MANUAL

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How this crossover is used

The Planet Audio EC10B 2-way electronic crossover is a high-fidelity signal processor that allows you to customize the low level output of your input source (e.g., a car radio), so that the signal can be applied to an amplifier or amplifiers as a part of a 2-way mobile audio system.

It is intended for use in a car audio system which includes amplifiers in the signal path AFTER the crossover, and provides low pass (for subwoofers) and high pass low level outputs (for full range, mids, mid-bass or tweeters) via RCA connectors.

This crossover accepts the input signal from a 2-channel input source, using either low level RCA outputs or high level (speaker) outputs from your head unit.

Input source selection

The EC10B features both low level (RCA) inputs and high level (speaker level) inputs, enabling you to generate a two-way system from virtually any head unit you may own.

If your head unit has RCA Left and Right Channel outputs, you should choose these for your EC10B input source, since the quality of sound reproduction is best when using these.

However, if your head unit lacks RCA outputs, you can use the speaker outputs from the head unit as an input source for the EC10B. Simply follow the wiring diagrams in this manual closely to make sure you get the best performance possible and avoid damaging your head unit.

NOTE: Do not connect both high level and low level inputs to the EC10B.

Installation

Before installing your new Planet Audio crossover, please become familiar with all the information contained in this manual.

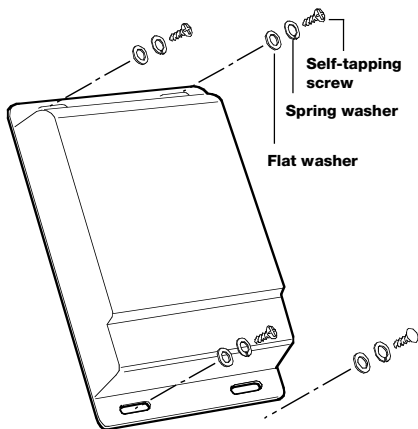
Choose a mounting location where the unit will not distract or otherwise interfere with the driver's ability to control the vehicle.

Use only the installation parts and hardware provided with the unit to ensure proper installation. Using other parts can cause malfunction and possible damage to your Planet Audio crossover.

Avoid installing the unit in a location which is subject to high temperatures, direct sunlight, hot air from such sources as heaters or exhaust lines, or where it will be subject to contact with dust, dirt, moisture or excessive vibration.

Mounting the crossover

The EC10B is designed to be installed securely to a flat surface in your vehicle using the screws and washers provided. Install the unit according to the diagram below.



Turning on the power

Before powering up for the first time:

1. Carefully check all electrical and audio connections.
2. Set all level controls to their minimum positions.
3. Set all switches to the settings appropriate for your installation.

The EC10B has internal ON/OFF circuitry which responds to turning ON or OFF the head unit of your car audio system. This requires that your head unit have a remote turn-on lead available on the rear panel (which most head units have).

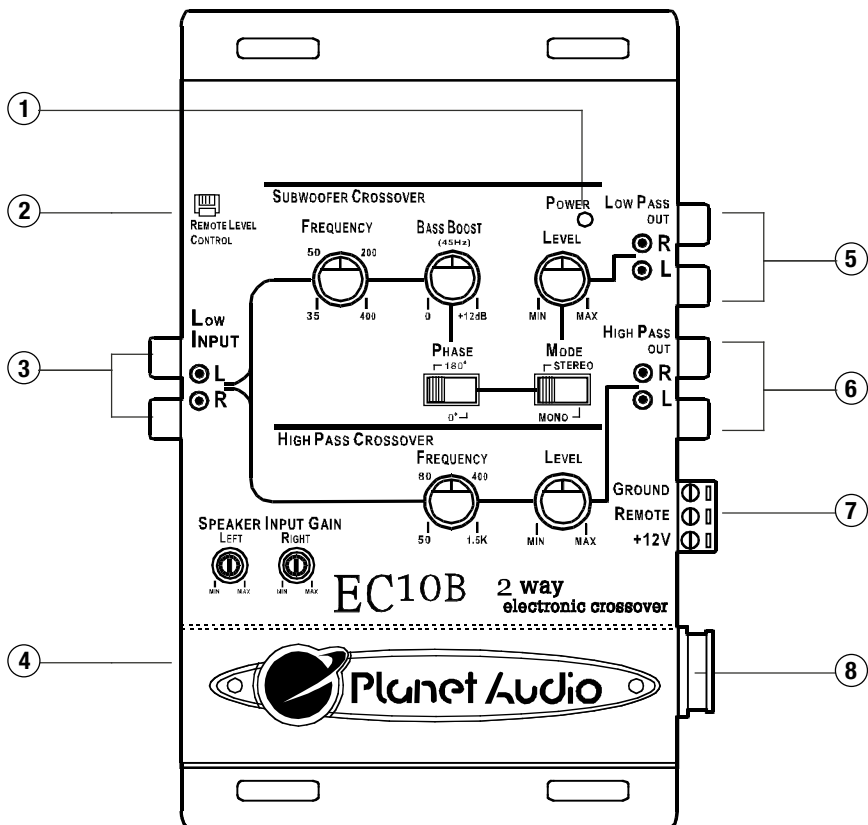
With this convenient remote turn-on/off feature, you never have to worry about turning off the power to the equalizer when you shut off the audio system.

When you are confident all connections have been made correctly:

1. Power up your audio system by turning on the head unit.
2. Set the volume control on the head unit to about 3/4 volume, and adjust the EC10B's Speaker Input Gain controls for each channel to just below the level of distortion.

Further fine tuning of the controls on the EC10B and the input levels of the connected amplifiers may be necessary to obtain satisfactory results. If you are unsure about how to fine-tune the system, please consult with your Planet Audio dealer.

Input, output, remote and power connections



1 POWER LED

2 REMOTE LEVEL CONTROL CONNECTOR

3 LEFT/RIGHT LOW LEVEL (RCA) INPUTS

If your head unit has low level (RCA) 2-channel outputs, connect the outputs of your head units to these connections.

4 LEFT/RIGHT HIGH LEVEL (Speaker) INPUTS

If your head unit lacks low level (RCA) 2-channel outputs, connect the outputs of your head units to these connections.

NOTE: Do not connect both high level and low level inputs to the EC10B.

5 LEFT AND RIGHT LOW PASS (Subwoofer) OUTPUTS

6 LEFT AND RIGHT HIGH PASS (Highs/Mids) OUTPUTS

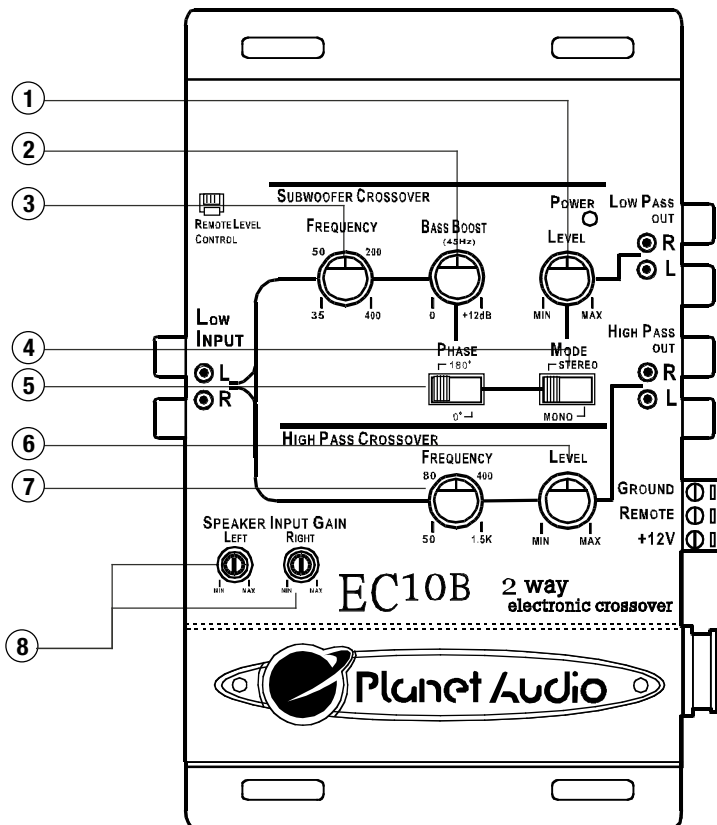
7 +12V, GROUND AND REMOTE TURN-ON TERMINALS

Use this control to select the highest frequency to be sent to the subwoofer channel. Choose a frequency between 50Hz and 250Hz.

8 FUSE CONNECTOR

Use only fuse with 3A rating.

Front and rear channel controls



Low Pass (Subwoofer) Crossover Channel Controls:

- ① **OUTPUT LEVEL CONTROL**
Use this control to set the output level for the Low Pass (Subwoofer) Channel.
- ② **BASS BOOST LEVEL CONTROL**
Use this control to set the amount of Bass Boost which will be added to this channel.
- ③ **LOW PASS FREQUENCY CONTROL**
Use this control to set the highest frequency which will pass through the Low Pass (Subwoofer) Channel of your system.
- ④ **OUTPUT MODE SELECTOR**
Use this switch to select either Mono or Stereo signal output to be delivered to the Low Pass (Subwoofer) outputs.
- ⑤ **PHASE SELECTOR**
Use this switch to select the output phase of the Low Pass (Subwoofer) channel for the best time alignment and imaging.

High Pass (Highs/Mids) Crossover Channel Controls:

- ⑥ **OUTPUT LEVEL CONTROL**
Use this control to set the output level for the High Pass (Highs/Mids) Channel.
- ⑦ **LOW PASS FREQUENCY CONTROL**
Use this control to set the lowest frequency which will pass through the High Pass (Highs/Mids) Channel of your system.

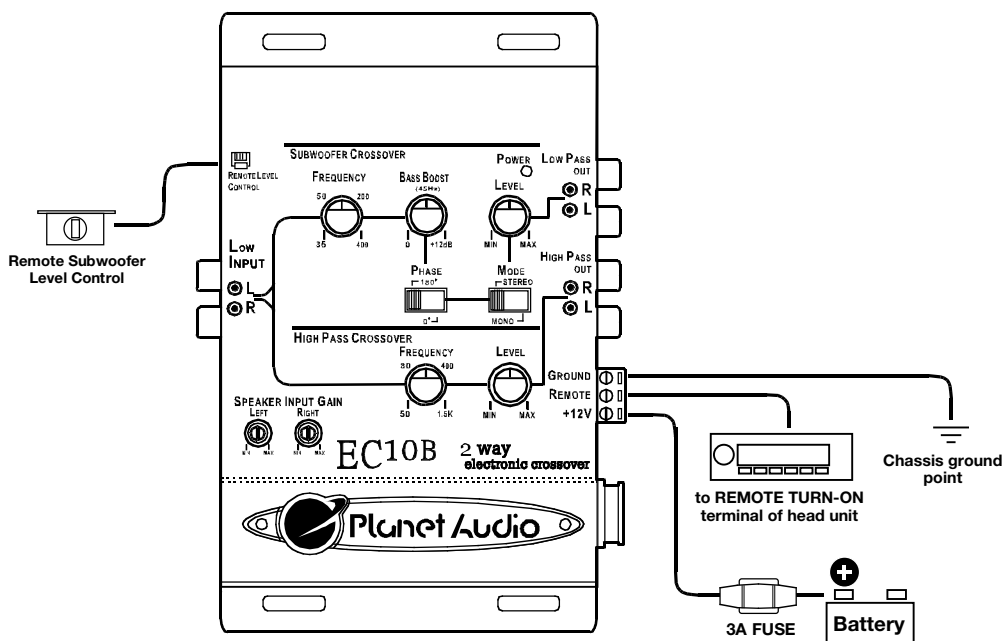
Input Controls:

- ⑧ **LEFT AND RIGHT HIGH LEVEL (SPEAKER) INPUT GAIN CONTROLS**
If you are using the high level inputs, use these controls to set the high input gain levels for each channel. For instructions on doing this, please see page 3 under section called "Turning on the power."

Electrical and remote level controller connections

Using 16GA minimum wire connect the EC10B as follows:

- Connect the shortest possible wire to a clean, unpainted chassis ground point. Connect this wire to the Ground connection of the EC10B.
- Connect the +12V terminal directly to the vehicle battery, using a distribution block near the crossover, if desired. Be sure to install a 3A inline fuse within 18 inches of the battery terminal.
- Connect the Remote terminal of the EC10B to the remote turn on lead from your head unit.



Input and output connections

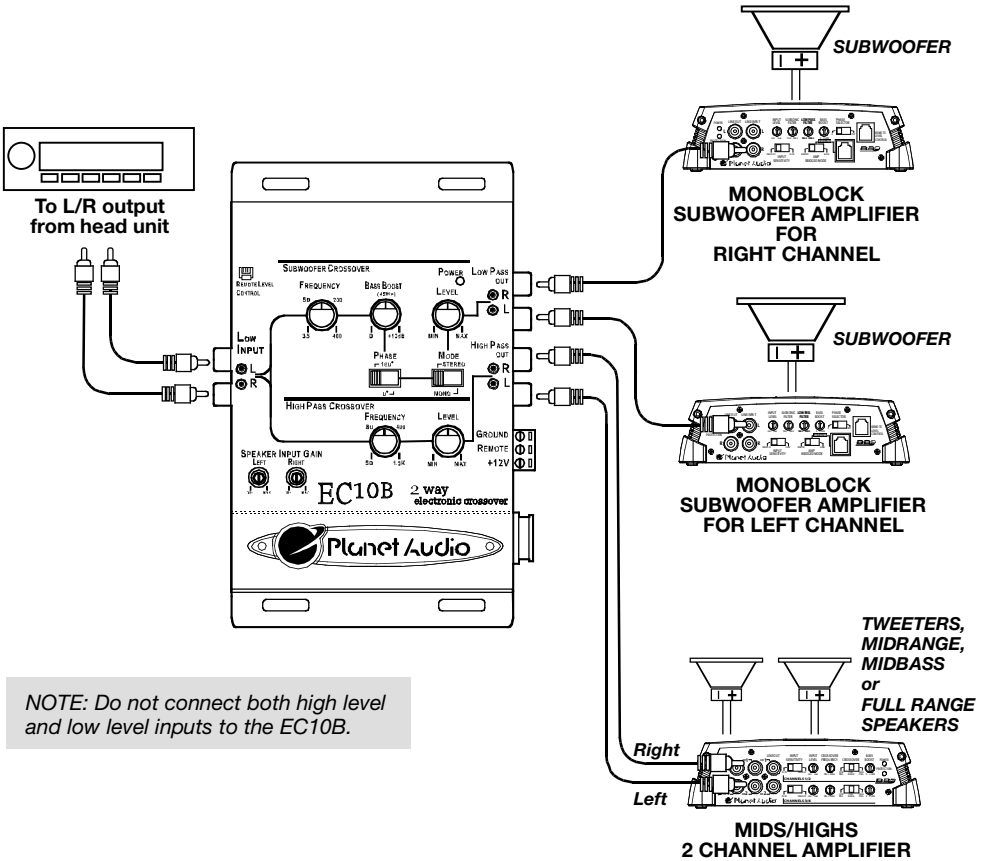
Input and output connections vary depending on the system application. Examples are shown in system diagrams on the pages which follow in this manual. Always use high quality RCA cables for low level input and output connections.

System #1: 2 channel input/2-way system with low level inputs

Head unit input: 2 channel, low level (RCA) inputs

EC10B output: 2-way stereo system: **Tweeter/Mids L/R channel**
Subwoofer L/R* channels

* can also be set to Mono Sub channel



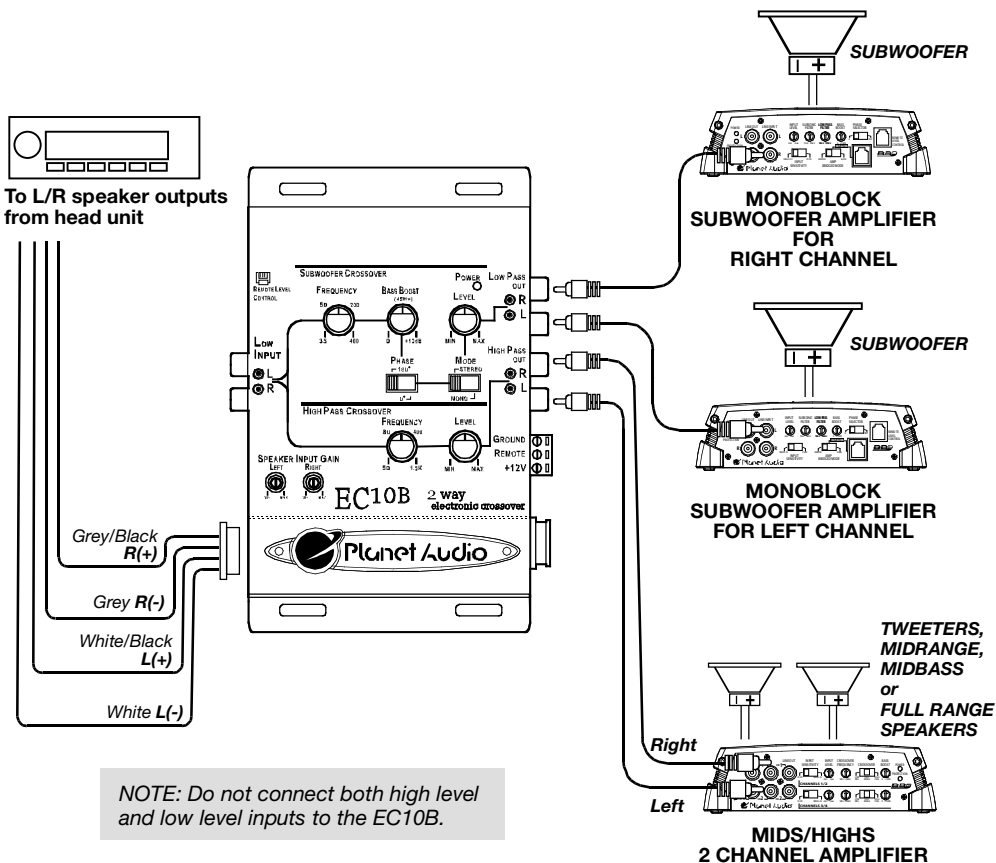
NOTE: Do not connect both high level and low level inputs to the EC10B.

System #2: 2 channel input/2-way system with high level inputs

Head unit input: 2 channel, high level (speaker) inputs

EC10B output: 2-way stereo system: **Tweeter/Mids L/R channel**
Subwoofer L/R* channels

* can also be set to Mono Sub channel



Troubleshooting

If you experience operation or performance problems with this product, compare your installation with the electrical wiring diagram on the previous pages. If problems persist, read the following troubleshooting tips which may help eliminate the problems.

SYMPTOM	POSSIBLE REMEDY
Crossover does not power up.	<i>Check to make sure you have a good ground connection. Check that the Remote Input (Turn-On) has +12VDC. Check that there is battery power on the (+) terminal. Check all fuses, replace if necessary.</i>
Low sound level.	<i>Check to see if wiring is loose or any cables are misconnected or disconnected. Replace RCA cables if faulty.</i>
Background noise is very high.	<i>Check to see if wiring is loose or any cables are misconnected or disconnected. Replace RCA cables if faulty.</i>

Specifications



EC10B

2-Way Electronic Crossover with Remote Subwoofer Level Control

Crossover center frequency ranges	LOW PASS: 35-400Hz HIGH PASS: 50-1.5kHz
Crossover slope	12dB/octave
Bass Boost level adjustment	0-+12dB
Signal-to-Noise Ratio	110dB
THD	0.01%
Channel separation	80dB
Input impedance	20k Ohms (low level); 470 ohms (high level)
Output impedance	100 Ohms
Output gain	1:2 (+6dB)
Power supply	DC-to-DC switching type
Output voltage	8V maximum
Dimensions (W x D x H)	4-1/4" x 7-1/14" x 1-1/8" (108 x 184 x 29mm)

All specifications subject to change without notice.