encore BOOST LINE DRIVER AMPLIFIER

E7T3 Instruction Manual

NO:000001

Thank you for purchasing the Encore Boost Line Driver Amplifier from Beat-Sonic. Designed and made in Japan, this product represents our commitment to quality and excellence. Please read this manual carefully prior to installing this product to ensure proper operation.

■ Product Overview

The Encore Boost is a plug & play line driver amplifier that strengthens the audio signal between your factory head unit and factory amplifier for higher listening levels. Its vehicle-specific harness connects directly to the factory connectors, with no modifications or additional wiring required for installation with the factory audio system.

■ Features

- Connects between the factory head unit and factory amplifier
- Boosts the signal to the factory amplifier for improved sound and output
- Volume synchronized, full-range RCA pre-outs for adding a DSP or powered subwoofer
- Easy plug & play installation
- Made in Japan with Hi-Fi-grade audio components

■ Important

- This product is installed using factory harness connectors. However, there are multiple factory harness connectors of the same size and shape. Do not plug into the wrong connector or serious damage may result. Contact Beat-Sonic if unsure.
- Check the Beat-Sonic website for the latest vehicle compatibility information before installing.
- Some vehicles may require extensive disassembly to install this product. Installation should be performed by an experienced motor vehicle technician or auto electrical professional.

■ Precautions

- This device is suitable for 12 V DC negative-ground electrical systems.
- Wrap cables in protective electrical tape when routing near metal brackets and sharp edges.
- Do not install the main unit or wiring harness near moving mechanisms such as the steering column, seat rails, pedals etc.
- Do not install this product where it may get wet or in areas where it is likely to get dusty or dirty.
- Do not open, disassemble or modify this product.

■ Contents

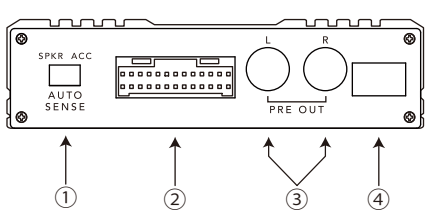
Line Driver Amplifier × 1
Instruction Manual × 1
Harness × 1
Padding Strips × 2
Double-Sided Tape × 2

① Specifications

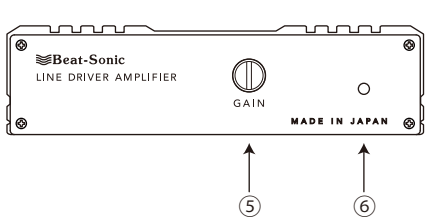
ENCORE BOOST - LINE DRIVER AMPLIFIER

Input	Balanced high-level
Input impedance	10 kΩ
Gain adjustment	-11 dB to +9 dB
Max. balanced output voltage	8 V RMS
RCA output	2 × RCA (Unbalanced)
Max. RCA output voltage	3 V RMS
Remote output	DC 12 V, 300 mA max.
Frequency response	20 Hz - 100 kHz (±1 dB)
Operating voltage	DC 10 - 15 V
Maximum current draw	1 A
Idle current (no signal)	100 mA typ.
Protection	PPTC resettable fuse
Dimensions (W x D x H)	101 × 111 × 26 mm
Weight	200 g (Excl. Harness)

② Parts Location

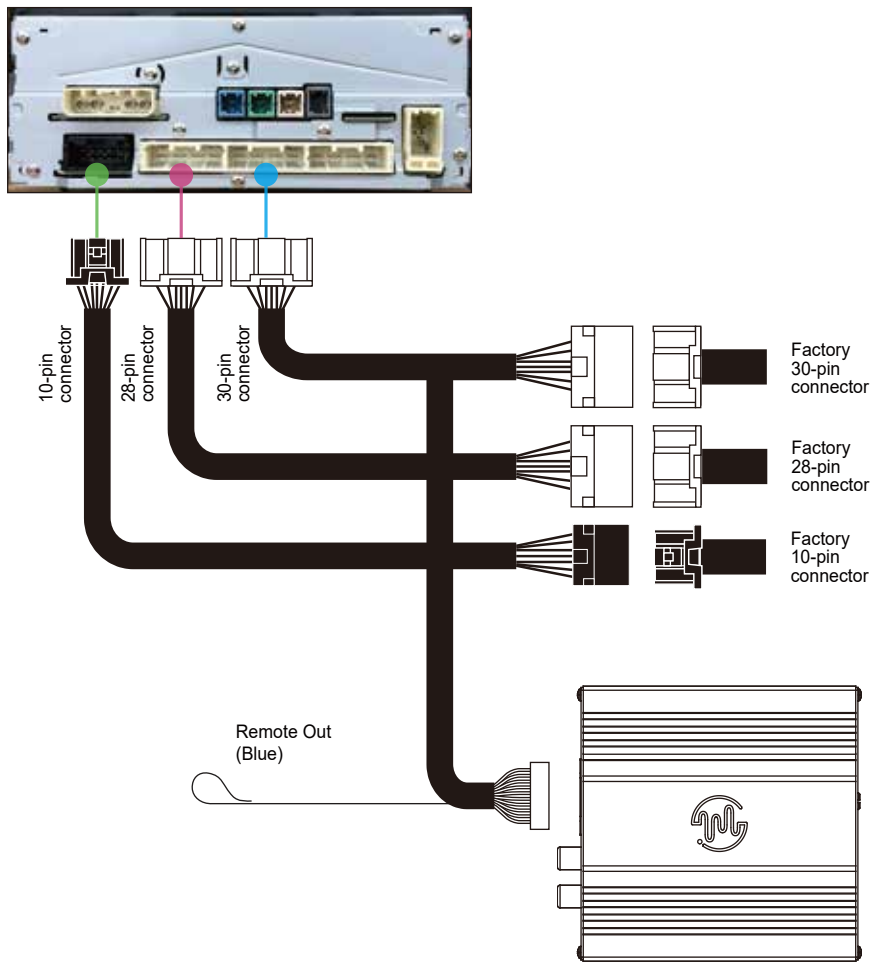


① Auto sense switch
SPKR : Turns on when a DC offset is detected
ACC : Turns on with accessories (ACC signal)
② Vehicle harness connector
③ Full-range RCA pre-outs
④ Programming port (for service use only).



⑤ Gain control
⑥ Power indicator

③ Connection Diagram



④ Installation

4.1 Remove all necessary parts to gain access to the rear of the factory head unit. The method of disassembly varies for each vehicle. If unsure, please contact Beat-Sonic for vehicle-specific installation advice.

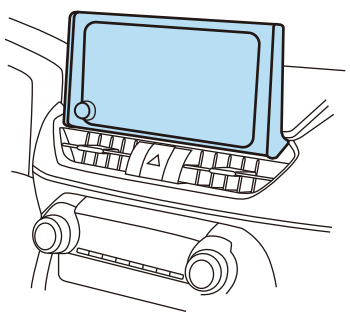
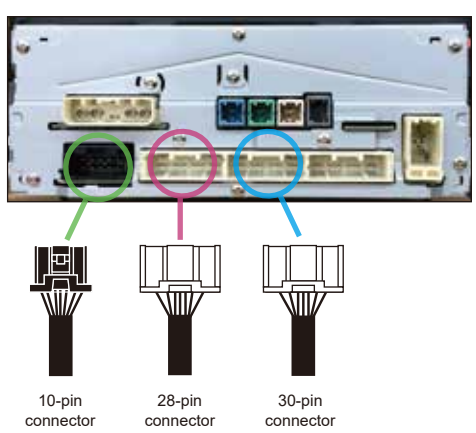


Diagram for illustration purposes. Actual radio and panels will vary according to model and grade.

4.2 Viewing the head unit from the rear, identify the factory 10-pin, 28-pin and 30-pin connectors shown in section 3. Disconnect them from the head unit and connect the supplied harness between the head unit and the corresponding factory connectors. Connector positions may vary by vehicle.



Photos are for illustration purposes. Actual radio, number of connectors and connector positions will vary according to model and grade.

4 Installation (continued)

4.3 Choose a suitable location to mount the amplifier. The mounting location will vary depending on the vehicle. Suggested mounting locations include behind the factory head unit, inside the glove compartment or behind the glove compartment.

When installing behind the head unit, behind the glove compartment or other location inside the dash: use the supplied foam padding strips by cutting to size to prevent rattles caused by metal-to-metal contact.

4.4 Route the harness and connect the 26-pin connector to the line driver amplifier.

4.5 Confirm all connectors are fully inserted before reinstalling the head unit back into its original position. Reconnect all other electrical connectors including AC / heater controls, behind trim panels etc. Test the system by turning on the radio and confirm that sound is heard from all speakers. Play music through the sound system and adjust the gain if necessary (see section 5 below).

⚠ IMPORTANT

Reconnect all electrical connectors behind the radio, AC / heater controls, behind trim panels etc., to their original locations before switching on the ignition. Failure to do so may cause warning lights or diagnostic trouble codes that require a reset procedure.

4.6 Return panels and trim to the original locations taking care to ensure all connectors are reconnected to complete the installation.

5 Gain Adjustment

Understanding Gain

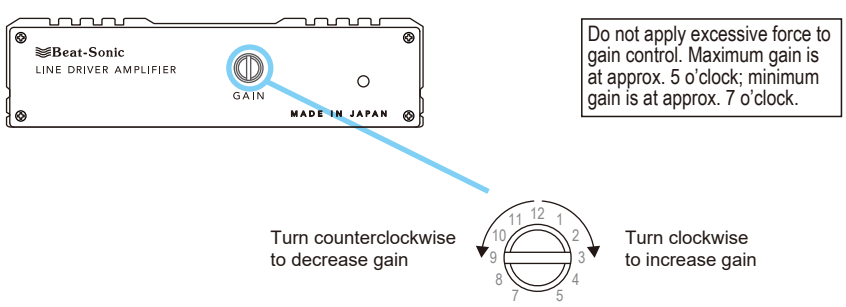
Gain describes how much the audio signal is amplified. Increasing the Encore Boost's gain provides a stronger signal to your factory amplifier, allowing it to deliver more power to the speakers at the same volume setting.

This helps you make better use of your factory amplifier's available power - it does not increase its maximum power rating. For the best results, adjust the gain so the sound remains clear and free from distortion at your highest intended listening volume.

How to Adjust the Gain

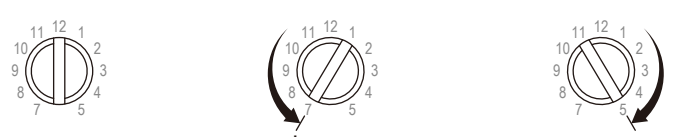
5.1 Adjust factory head unit bass, treble, balance and any other equalizer settings to the mid-point positions.

5.2 Play familiar music with bass, treble and vocals. Gradually increase the factory head unit volume to your highest intended listening level. Using your fingernail or a small flat-head screwdriver, slowly adjust the Encore Boost's gain control until the desired level is reached without audible distortion. If distortion occurs, reduce the gain.



Caution!

The gain control will turn easily until the maximum or minimum stop position is reached.
Do not forcibly turn the gain beyond the max / min stop position, otherwise damage can occur.



Factory-set gain position (approx. 12 o'clock)

Minimum gain position (approx. 7 o'clock)

Maximum gain position (approx. 5 o'clock)

6 RCA Pre-Out Connection (Optional)

This device provides full-range, unfiltered RCA pre-outs with synchronized volume control for connection to an aftermarket powered subwoofer, DSP or amplifier. A remote turn-on wire is included to switch the connected equipment on and off. The connected equipment requires its own power and ground connections.

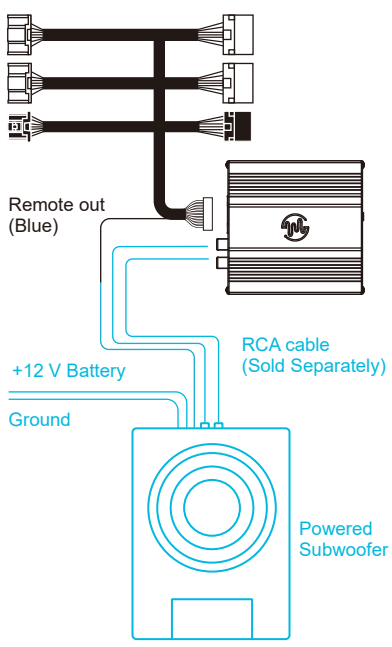
RCA Output Timing and DSP Recommendation

The factory JBL® amplifier introduces a small processing delay relative to the Encore Boost RCA outputs. When additional full-range speakers connected through the RCA outputs play together with the factory speakers, this timing difference may be heard as a slight echo or change in vocal clarity, particularly during speech and vocals.

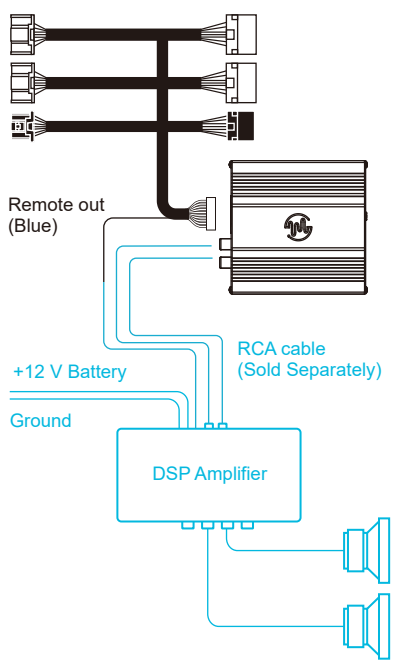
For full-range applications, we recommend connecting the RCA outputs to a digital signal processor (DSP) with adjustable delay. The installer should adjust the timing of the additional speakers to align with the factory speakers.

For subwoofer applications, the earlier RCA signal may help compensate for delay in the subwoofer system. The result depends on the equipment and installation; check phase and timing during setup for the best integration with the factory speakers.

Powered Subwoofer Connection



DSP Amplifier Connection



7 Troubleshooting

Symptom	Possible Cause	Action
No sound	Ensure vehicle is in ACC mode or IGN mode.	Vehicle must be in ACC or IGN mode.
	The battery voltage is too low	Check battery voltage (10 V - 15 V)
No sound in ACC mode	Vehicle uses digital accessories (ACC) mode.	Set the Auto Sense Switch to the SPKR position to enable DC-offset turn on-off.
Steering wheel controls don't work. Intermittent errors.	Connector is not fully inserted into the back of the radio.	Check harness connectors are fully inserted. Firmly push in the connector until you hear the "click".
The sound is too quiet	Head unit volume is too low or fader is biased to front or rear	Adjust volume on radio. Check fader settings are set to neutral.
	The gain setting is not adjusted correctly.	Adjust gain settings as explained in section 5 of this manual.
The sound is distorted	Head unit volume is too high or fader is biased to front or rear	Adjust volume on radio. Check fader settings are set to neutral.
	The gain setting is not adjusted correctly.	Adjust gain settings as explained in section 5 of this manual.

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