

INSTALLATION INSTRUCTIONS

4 Channels High Efficient Line Output Converter

Comparing to the standard Line Output Converter(LOC), this device works via DC to convert 4 channels of the speaker level audio into 4 channels of line level audio. Therefore, it results better characteristics on low frequency (<10 Hz), more efficient transforming ratio and double possible on input power handling. In addition this device is also built-in Amplifier Remote Gegerator, which detects the presence of audio signals and then generate a remote output to turn-on an amplifier. With the high quality potentiometers, the output audio level of each channel can be infinitely adjusted. Also, the size of device is small and easy to install.

Note: This device is able to produce a stable and useful REMOTE signal only if the headunit is an high power unit (BTL).

On these kind of headunits, each output has a steady state voltage which is used to detect when the headunit is powered on.

This device needs at least 3V DC on at least one of its inputs. When the inputs are less than 3V DC, the device will be turned off.

This device are not intended to sense the music signal, but only the DC voltage present on each BTL output.

Tech Specifications

@ 12V Battery Supply, Temp 25°C, 1KHz, 10KOhm load, 1Vrms output signal.

Stand-by current consumption	< 0.8mA
Operative current consumption	<30mA
Polarity inversion protection	Yes
Max allowed current on Remote Out	100 mA (normal operation)
Min allowed load on Remote Out	120 Ohm (normal operation)
Remote Out voltage	
@ 100mA of Rem Out current	>11V
Remote Out short circuit protection	Yes (vs ground)
Max short circuit duration on Remote Out	< 10 seconds (*)
Total harmonic distortion THD	< 0.02%
Output signal bandwidth @ -1dB	10< F(Hz) <30K
S/N ratio	> 100dB
Channel separation	> 60dB
Common mode noise rejection	> 60dB

Step down conversion ratio	4:1 V/V
Output audio level infinitely adjustable	Yes (per channel)
High level input ballast impedance	45 Ohm / 2W each channel
Max continuous (sine wave) power handling @ 4Ohm	25Wrms x CH
Max allowed head-unit nominal power handling	50W x CH (**)
Max output signal @ THD < 0.1%	3.2 Vrms
Min output load impedance	2 KOhm

(*) if Max allowed time is exceeded, permanent damages to device may occur.

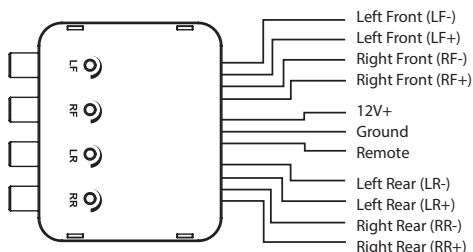
(**) maximum real RMS nominal power, not PMPO, peak, etc.

Wire color and function

The audio input wire colors are an EIA standard for car stereo applications as follows:

Input harness

White = left front (+) input	(LF+)
White/Black = left front (-) input	(LF-)
Gray = right front (+) input	(RF+)
Gray/Black = right front (-) input	(RF-)
Green = left rear (+) input	(LR+)
Green/Black = left rear (-) input	(LR-)
Purple = right rear (+) input	(RR+)
Purple/Black = right rear (-) input	(RR-)



Power harness

Red = battery +12v input

Black = power (-) ground input

Blue = remote +12v output

Caution: We recommend disconnecting the negative battery terminal before beginning any installation. All accessories, switches, and especially air bag indicator lights must be plugged in before reconnecting the battery or cycling the ignition.

Note: This product is used only for 4 channels' converting. If you want to convert 2 channels, please choose our other product HL452, NOT use this 4 channels HL454.