PAC XHL-44 4 Channels High Efficient Line Output Converter Instruction Manual

Contents

PAC XHL-44 4 Channels High Efficient Line Output Converter

Specifications

- **Stand-by** current consumption: < 0.8mA
- **Operative** current consumption: 11V
- **Polarity** inversion protection: Yes (vs ground)
- **Max allowed** current on Remote Out: < 10 seconds (*)
- **Min allowed** load on Remote Out: < 0.02%
- **Remote** Out voltage @ 100mA of Rem Out current: 10< F(Hz)
- **Remote** Out short circuit protection: 100dB
- Max short circuit duration on Remote Out: > 60dB
- **Total** harmonic distortion THD: > 60dB
- **Output** signal bandwidth @ -1dB S/N ratio: 4:1 V/V
- **Channel** separation: Yes (per channel)
- **Common** mode noise rejection: 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 (**)
- **Min** output load impedance: 3.2 Vrms 2 KOhm

Product Usage Instructions

Installation

- Before starting the installation process, disconnect the negative battery terminal.

Connection

- Follow the EIA standard wiring colors for car stereo applications to connect the input and power harness as follows:
- **Input harness:**
  - **White** = left front (+) input
  - **White**/**Black** = left front (-) input
  - **Gray** = right front (+) input

    - **Gray**/**Black** = right front (-) input
    - **Green** = left rear (+) input
    - **Green**/**Black** = left rear (-) input
    - **Purple** = right rear (+) input
    - **Purple**/**Black** = right rear (-) input
- **Power harness:**
    - **Red** = battery +12v input
    - **Black** = power (-) ground input
    - **Blue** = remote +12v output

Note

This product is designed for converting 4 channels. For 2-channel conversion, please use our HL452 product instead of HL454.

Frequently Asked Questions (FAQ):

Q: Can this device be used to convert only 2 channels?

- **A:** No, this device is specifically designed for converting 4 channels. For 2-channel conversion, please use our HL452 product.

Q: How do I know if the device is properly installed?

- **A:** Ensure that the wiring connections are correct as per the provided color codes and that the device receives the required minimum voltage for operation.

Q: What should I do if the device does not produce any output?

- **A:** Check the wiring connections, power supply, and input signals to troubleshoot any potential issues with the installation.

Channels High Efficient Line Output Converter

- Compared to the standard Line Output Converter(LOC), this device works via DC to convert 4 channels of speaker-level audio into 4 channels of line-level audio.
- Therefore, it results in better characteristics on low frequency (<10 Hz), more efficient transforming ratio, and double possible input power handling.
- In addition, this device also built-in Amplifier Remote Generator, which detects the presence of audio signals and then generates 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 the device is small and easy to install.
- **Note:** This device can produce a stable and useful REMOTE signal only if the head unit is an high-power unit (BTL).
- On this kind of head unit, each output has a steady state voltage which is used to detect when the head unit 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 is 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 @ 40hm 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 the maximum allowed time is exceeded, permanent damage to the 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 these 4 channels HL454.

Documents / Resources

	PAC XHL-44 4 Channels High Efficient Line Output Converter [pdf] Instruction Manual XHL-44 4 Channels High Efficient Line Output Converter, XHL-44, 4 Channels High Efficient Line Output Converter, Efficient Line Output Converter, Line Output Converter, Output Converter, Converter

References

- User Manual