



HLC2 / HLC2X
Active High-Level
Converter

#### Thank You

Congratulations on your purchase of the SMD / D'Amore Engineering HLC2 / HLC2X. These units are designed in California, USA with pride. The HLC-2 and HLC-2X are audiophile quality stereo level converters.

#### **Features**

#### HLC-2

- Class A/B Output
- 2-channel active high-level converter
- Balanced 2 wire high level inputs and unbalanced RCA outputs
- Independent Left/Right gain controls
- 10V RMS Output
- Micro-power high speed mil spec power supply
- Ultra-low distortion over entire audio spectrum
- Blue LED power good indicator

# **HLC-2X** features all the above plus:

- 12dB/Octave Linkwitz-Riley 100% analog crossovers
- High Pass, Low Pass, or Bypass
- 60Hz, 100Hz, 150Hz selectable

## **Description and about the Design**

The HLC-2 / HCL2X is 2-channel active high-level converter useful for connecting aftermarket audio amplifiers to OEM audio systems that do not have RCA (low level) inputs. The HLC-2 includes a pair of independent gain controls left and right channels. The HLC-2X adds 12dB/octave Linkwitz-Riley active crossovers (High Pass, Low Pass, or bypass) with 3 selectable frequencies. The output is Class A/B, the filters are 100% analog, and it has a military grade micro-power high speed bi-polar boost converter power supply. This means it will deliver a super clean, distortion-free signal over the entire audio spectrum with no low frequency roll-off, 10 Volts RMS output, all while drawing just 0.08 Amps of current. It draws so little current that one could run it from a 9V battery if they wanted to.

## **Specifications**

Operating voltage range for power supply 6-18 VDC

Operating voltage range for remote turn on  $\, \, 6-18 \; \text{VDC} \,$ 

Frequency Response 10Hz – 40,000Hz +/- 0.3dB

Signal to Noise ratio > 115dBA

THD+N 20Hz - 20,000Hz < 0.005%

THD+N 1 kHz, 4 V RMS < 0.003%

Maximum Input Voltage 40 V RMS BTL

Maximum Output Voltage > 10 V RMS

Current Draw @12.6 V HLC-2 80mA

Current Draw @12.6 V HLC-2X 120mA

Crossovers (HLC-2X) 12dB/Oct 60,100,150Hz

#### Installation

Connect the BLACK wire to ground.

Connect the RED wire to constant battery voltage.

Connect the BLUE wire to switched voltage.

Connect the WHITE signal wire to the left channel (+) speaker output of audio source

Connect the WHITE with BLACK signal wire to the left channel (-) speaker output of audio source

Connect the GREY signal wire to the right channel (+) speaker output of audio source

Connect the GREY with BLACK signal wire to the right channel (-) speaker output of audio source

Connect the RCA outputs to your favorite D'Amore Engineering audio amplifier, yes you can use other brands, but why?

### How to set the Crossovers (HLC-2X only)

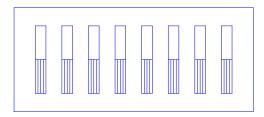
Remove access door on the bottom of HLC-2X

Looking into the bottom of the HLC-2X, the switches on your right are for the left channel and vice versa (because it is upside down). Not like you would want different crossovers from left to right, but you could if you wanted to.

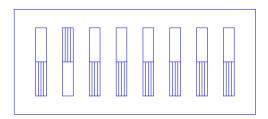
Set the switches like this for the desired function:

### Bypass (crossover off) -

All Switches to the OFF position



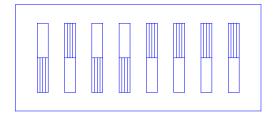
# High Pass 60 Hz



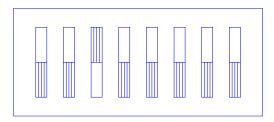
High Pass 100 Hz



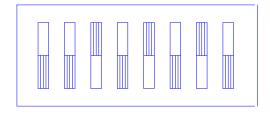
High Pass 150Hz



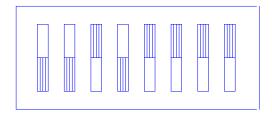
## Low Pass 60Hz



## Low Pass 100 Hz



### Low Pass 150 Hz



# D'Amore Engineering

HLC-2 / HLC-2X Owner's Manual Rev. A 2021 Camarillo, California USA