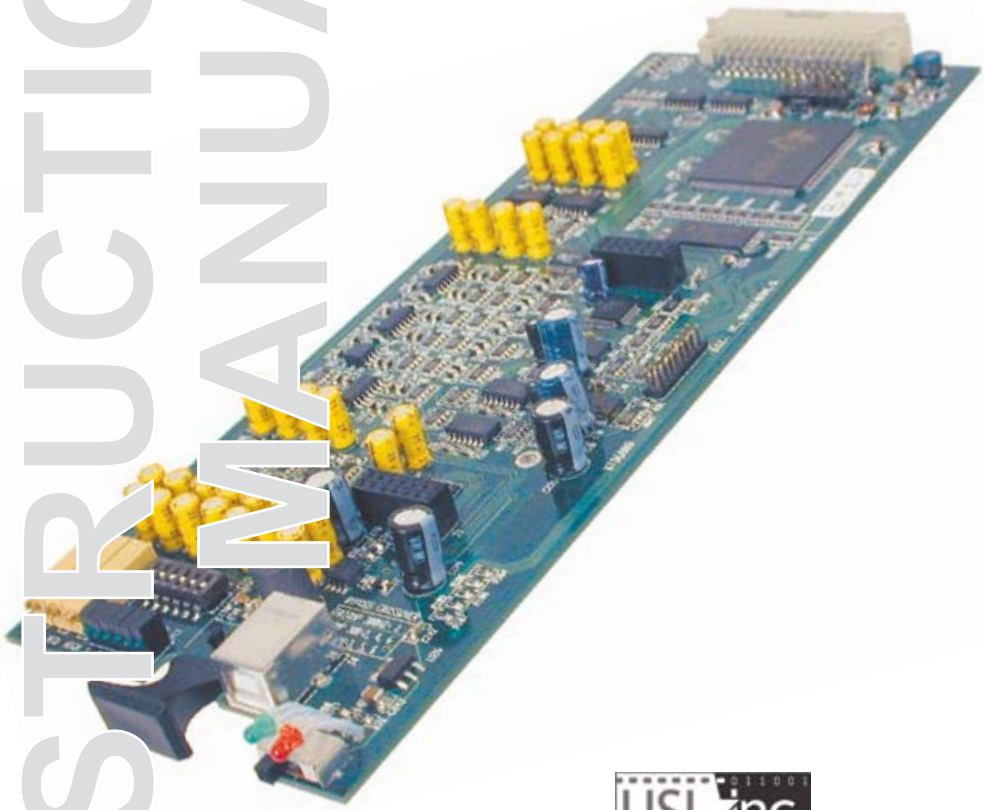
XTD-680

Digital Crossover Module

INSTRUCTION MANUAL



USL, inc.

181 Bonetti Drive
San Luis Obispo, CA
93401
ph: 805-549-0161
fax: 805-549-0163
e-mail:usl@uslinc.com

One Year Limited Warranty

★ ★ ★ ★ ★

USL, Inc. warrants that each product manufactured by it will be free from defects in material and workmanship under normal usage for a period of one (1) year after its purchase new from an authorized dealer. Our obligation under this warranty is limited to repairing or replacing any product or component which we are satisfied does not conform with the foregoing warranty and which is returned to our factory, freight paid, or serviced by one of our authorized contractors. The forgoing warranty is exclusive and in lieu of all other warranties, whether expressed or implied. Such warranty shall not apply to any product or component (A) repaired or altered by anyone other than USL, Inc. or an authorized service contractor; (B) tampered with or altered in any way or subjected to misuse, negligence or accident or (C) which has been improperly connected installed or adjusted other than in accordance with USL, Inc.'s instruction.

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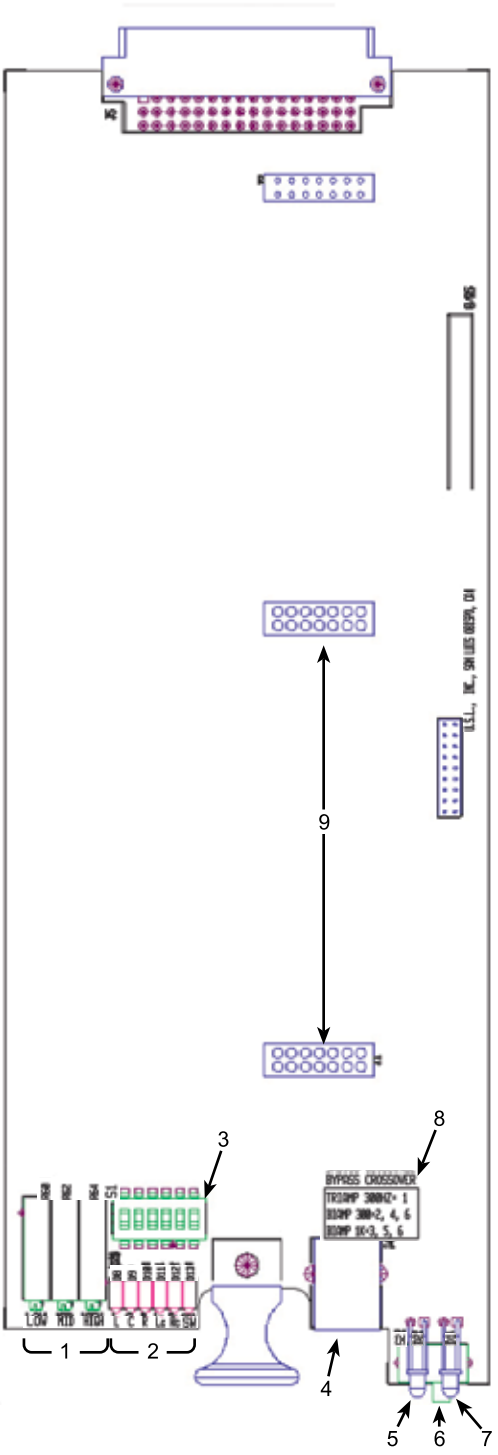
Introduction

Please read this entire manual before commencing your installation.

The Ultra★Stereo XTD-680 is a digital crossover card for use with a CM series Crossover Monitor Chassis and may provide either three channels (Left, Center, Right) or, with the addition of a piggyback board, two additional channels (Left Center, Right Center) of Biamp or Triamp crossover capability. Subwoofer control is also provided. The card is configured for individual requirements by an easy to use Graphical User Interface that runs on a laptop computer communicating via a USB cable. A library of existing speaker types is provided or each of the features may be configured manually. Cinema Profile information may be entered for future reference. Additionally, the XTD-680 is designed to interface with Ultra Stereo's JSD-80 for complete system equalization.

As a result, only the Bypass features need to be configured on the XTD-680 card itself. A DIP switch selects the type of Bypass crossover (Triamp/Biamp/Biamp Frequency) and three potentiometers set the Bypass crossover levels. In use, there is only a two position switch for selecting "Normal" or "Bypass" operation.



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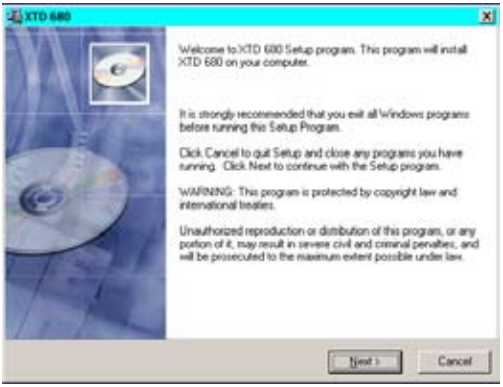
SOFTWARE INSTALLATION

Place the installation CD into the CD drive. The XTD-680 Setup Screen will appear.



To continue with the installation, choose “Next >”.

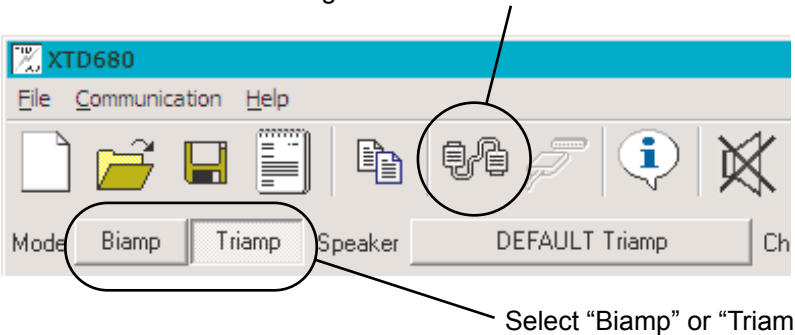
If this is the first time setting up and installing an XTD-680, it is recommended that the precaution be taken of turning down the gain of the stage speaker amplifiers to a low level and turning OFF the amplifiers for the surrounds and subwoofer.

A shortcut to the installation program will be placed on your desktop. Once the installation has been completed, to proceed, double click on that shortcut.

The opening installation screen appears.

XTD-680 CROSSOVER SETUP

Connect to the XTD-680 using the connect icon.



Select “Biamp” or “Triamp”,

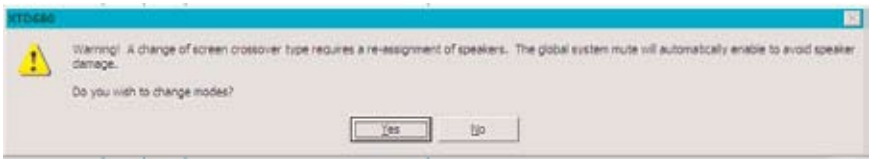
Upon connection to the XTD-680, the window at the bottom right of the main screen changes from

Disconnected

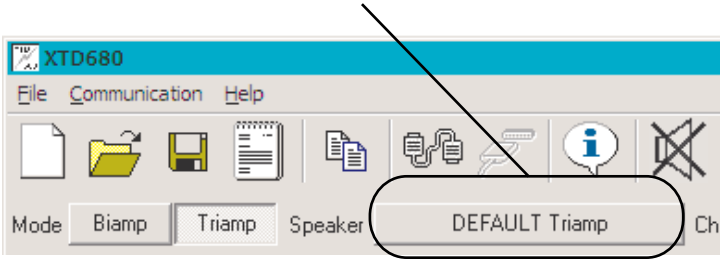
to

Connected

The software starts, by default, in Triamp. If you wish to switch to Biamp, a warning window appears prompting you to change the speaker. When connected, the system will automatically mute the stage channels only at this time.

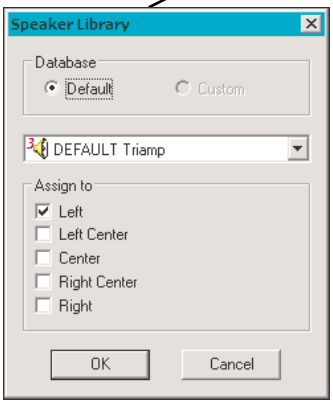


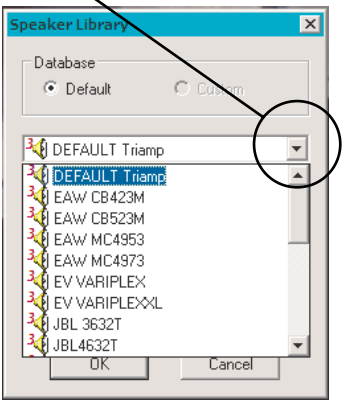
Clicking on the “Default Triamp” button will bring up a Speaker Library.



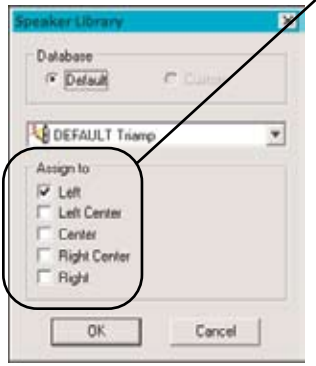
NOTE: “DEFAULT Triamp is a speaker selection and is the default one in the setup program. If you change your speaker selection (see next page), the label on this button will change to that selection.

In the “Speaker Library” window, use the pulldown to select the speakers.



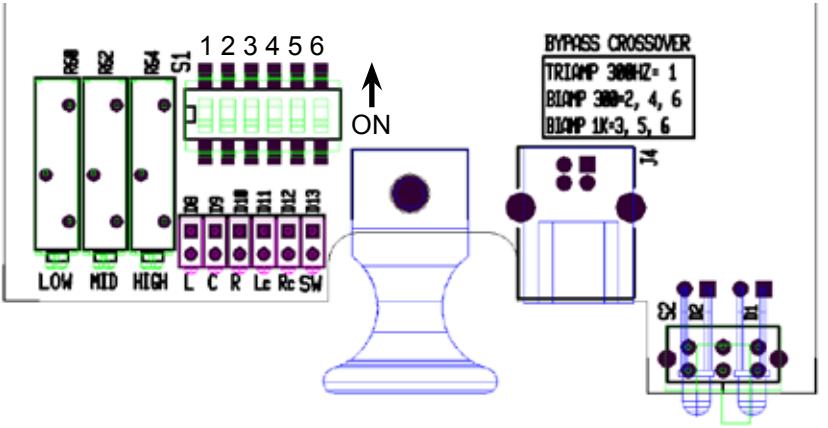


You may load channels by checking the boxes in the library window.



When you have selected the channels you want, click “OK” to close the “Speaker Library” window. At this time, the settings you selected are loaded into the XTD-680 and will be reflected in the display and the data at the bottom of the display. You may un-mute the system and audio should be present.
This would be a good time to do a Disconnect and select “Save”.
After doing a Disconnect/Save, the CM Series should be power cycled. When the unit comes back on, it should be ready for use with the speaker crossover settings you saved.

BYPASS CROSSOVER
DIP SWITCH SETTING



ON is up.
Triamp 300 Hz shown

Bypass Crossover	Dipswitch setting					
	1	2	3	4	5	6
TRIAMP 300 Hz	ON	OFF	OFF	OFF	OFF	OFF
BIAMP 300 Hz	OFF	ON	OFF	ON	OFF	ON
BIAMP 1KHz	OFF	OFF	ON	OFF	ON	ON

XTD-680 Specifications

Input/Output Channels:
Balanced line Inputs: 15K, 0dB=300mVrms
Balanced line Outputs: <1k, 0dB=300mVrms
Left, Center, and Right Channels: Triamp or Biamp operation.
Sub Woofer channel: single range operation.
Optional Left Center and Right Center Channels: capable of Triamp or Biamp operation.
Analog Input reference level: 300mVrms-0dBr.
Digital Input reference level: -26dBFS.
Input Level Indicator LED: >-30dBr (-56dBFS).
Note: Flat Input EQ, Tone at 1kHz except SW at 100Hz
May not provide accurate reading with equalized processor settings and/or pink noise.
All Frequency increments are 1Hz.
All Gain increments are 0.5dB.
All Q increments are 0.25.
All Delay increments are 20.8us.

Features/Functions:
All Channels:
Global Mute
Channel Delay: 0 to 10 ms
Channel Level: -22 to +8

Left, Center, Right Channels:
Channel High Pass: Frequency Range: 20 to 40 Hz
Q: 0.707 or 2.0

Specifications Contd.

High Band (Biamp and Triamp)
- High Pass Filter (Lindquist-Riley): 200 to 4 kHz
- Band Gain: -18 to 0dB
- Band Delay: 0 to 5304uS
- Parametric: Frequency: 300 to 20 kHz
  Gain: -12 to +6dB
  Q: 0.5 to 10
- Horn Filter: Frequency: 1 k to 15 kHz
  Gain 0 to +6dB
- Screen Filter: Frequency: 1 k to 15 kHz
  Gain: 0 to +6dB
- Band Mute
- Invert

Mid Band in Triamp / Low Band in Biamp
- High Pass Filter (Lindquist-Riley): 130 to 1kHz; triamp only
- Low Pass Filter (Lindquist-Riley): Triamp: 200 to 4kHz, Biamp: 100 to 4kHz
- Band Gain: -18 to 0dB
- Band Delay: 0 to 5304uS
- Parametric: Frequency: Triamp: 100 to 4 kHz, Biamp: 25 to 4 kHz
  Gain: -12 to +6dB
  Q: 0.5 to 10
- Band Mute
- Invert

Low Band in Triamp Only
- Low Pass Filter (Lindquist-Riley): 200 to 4 kHz
- Band Gain: -18 to 0dB
- Band Delay: 0 to 5304uS
- Parametric: Frequency: 25 to 800Hz
  Gain: -12 to +6dB
  Q: 0.5 to 10
- Band Mute
- Invert

Subwoofer Channel
- Low Pass Filter (12dB/Oct): 500Hz, fixed.
- Band Gain: -18 to 0dB
- Band Delay: 0 to 5304uS
- Band Mute
- Invert

Precision Sound • Light • Color

181 Bonetti Drive
San Luis Obispo, CA 93401
ph: 805-549-0161
fax: 805-549-0163
e-mail:usl@uslinc.com

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