

CXL-100T
Installation Guide

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1 Introduction

The CXL-100T is a high performance 70V/100V-line output transformer intended for use in high quality background music and public address applications in systems up to 100W rms. It can be wired externally to both the CX-A4 and CX-A6 Multi-Channel Amplifiers.

2 Electrical safety

The 100V/70V-line system is capable of delivering an electric shock. To comply with relevant safety standards, the CXL-100T must be installed with the appropriate level of care into the Cloud CXL-800 rack housing. The internal insulation board and external connector cover must be fitted to the CXL-800 to provide adequate shock protection.

3 Wiring the CXL-100T

Using at least 1.5 mm² cable, wire the output of the amplifier to the 2 pole connector and connect to the CXL-100T 'AMPLIFIER' terminations observing polarity. The 70V/100V-line output uses the 3 pole connector; for 70V speakers, use the 0V (-) and 70V (+) terminations and for 100V speakers use the 0V (-) and 100V (+) terminations. The speaker cable must be at least 0.75mm², double insulated. With long distances it may advantageous to use thicker cable. The CXL-100T provides a fully balanced output signal which is isolated from the amplifier.

PCB Pin N ^o	Cable-colour	Connection Name
1	Red	Amplifier positive
2	Black	Amplifier negative
3	White	100V
4	Purple	70V
5	Blue	0V

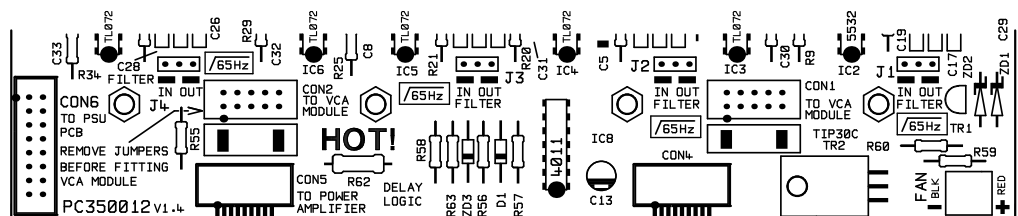
Connections to the CXL-100T

4 CX-A4 and CX-A6 amplifier jumper settings

The CXL-100T may be used at full power with frequencies down to 45Hz. If it is operated with high input levels at frequencies below 45Hz it may saturate and cause the driving amplifier's VI limiter to operate. There are 65Hz high-pass filters on recent versions of the CX-A4 and CX-A6 amplifiers, these filters are designed to protect 70V/100V-line transformers from high level low frequency signals that can cause saturation. The channel filter should be switched 'ON' when the channel has a CXL-100T installed. The following list details relevant jumpers to configure each channel filter. The diagrams show the location of the jumper for each amplifier on the main PCB.

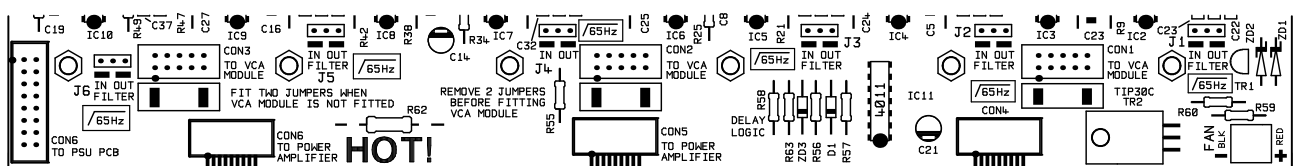
CX-A4

- J1=Channel 1
- J2=Channel 2
- J3=Channel 3
- J4=Channel 4



CX-A6

- J1=Channel 1, J2=Channel 2, J3=Channel 3, J4=Channel 4, J5=Channel 5, J6=Channel 6



5 Mechanical Installation

Important: The CXL-100T must be fitted to the CXL-800 rack housing to comply with the relevant safety standards.

The CXL-100T is a toroidal transformer. A single M6 mounting bolt is supplied to fix the toroid to the CXL-800 rack housing. Once the CXL-100T is fitted, remove the insulation board to gain access to the inside surface of the rear panel; the attached PCB should be fixed to the inside surface of the rear panel using the two M3 x 6mm machine screws. No special ventilation provisions need to be made for the CXL-100T as its high efficiency means little power is dissipated. The CXL-100T should not be mounted close to mains transformers or any other source of strong magnetic fields. Where the use of the CXL-800 is not possible, the CXL-100T must be installed within an insulated housing that conforms to the requirements of BS EN 60065.

6 CXL-800

The CXL-800 provides convenient and safe rack mounting for up to eight CXL-100T 100V/70V-line transformers into a 19" rack enclosure (2U). The CXL-800 is 225mm deep but allow a depth of at least 250mm to provide clearance for connectors. Once the toroidal transformers have been fitted, it is important to replace the internal insulation board and the plastic cover used to protect the rear panel connectors. The CXL-800 is designed for static applications only; extra support may be required in portable equipment.

7 Technical Specification

Maximum Input Voltage	25 V rms
Input Impedance	4 Ohms (with 100 Ohm secondary load)
Output power rating	100W rms
Minimum load impedance	100 Ohm
Frequency response	35Hz to 18kHz (-3dB)
Distortion	<0.01% @1kHz

The CXL-100T conforms to the following European Standards:

BS EN 55103-1: 1997

BS EN 55103-2: 1997

CAUTION - SERVICING

THIS UNIT CONTAINS NO USER SERVICEABLE PARTS. REFER ALL SERVICING TO QUALIFIED SERVICE PERSONNEL. DO NOT PERFORM ANY SERVICING UNLESS YOU ARE QUALIFIED TO DO SO.

WARNING

TO REDUCE THE RISK OF ELECTRICAL SHOCK DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

CAUTION - SHOCK HAZARD

**THE CXL-100T MUST BE MOUNTED IN THE CXL-800 HOUSING
CLOUD ELECTRONICS LTD ACCEPT NO RESPONSIBILITY FOR HAZARDOUS INSTALLATIONS.**

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