



CXL-4160
Installation Guide v4.0

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CXL-4160

Installation & User Guide

1 Introduction

The CXL-4160 is an internally mounting 100/70V-line module consisting of 4 transformers each intended for use in high quality background music and public address systems up to 40W rms. It is compatible with both the CX-A450 and 46/50.

2 Installation Information

The CXL-4160 is supplied with Ten M3×6 screws, four 2-way cables and two 10mm M3 hex spacers. The transformers are mounted on a PCB with M3 fixing bushes and screw terminal output connectors.

Note: 70V/100V-line systems are capable of delivering an electrical shock so must be wired with the appropriate level of care.

3 CXL-4160 Installation Instructions

1. Turn the power off and remove the mains cable.
2. Remove top panel.
3. Remove the mains socket and mains switch from the chassis leaving the wiring intact.
4. Should 70V operation be required move the soldered link on the underside of the PCB to 70V.

TX1 = Channel 1

TX2 = Channel 2

TX3 = Channel 3

TX4 = Channel 4

5. Carefully place the CXL-4160 board in the chassis alongside the power supply transformer with the output connector protruding through the rectangular cut out in the rear of the chassis and the transformers facing inside the chassis.
6. Secure the CXL-4160 to the side of the chassis with the 8 provided M3×6 screws.
7. Reinstall the mains switch and socket.
8. Connect the CXL-4160 to the main board using the four 2-way cables. Make sure that the colour of the cable matches the connector markings (see note below).
9. Replace the top panel and fit the protective cover over the outputs of the CXL-4160 using the two 10mm M3 hex spacers and remaining two screws.

When setting the jumper(s) please ensure that you:

- **Remove the mains cable from the rear of the product before removing the top panel.**
- **Only reassemble the unit using screws identical to the original parts.**

NOTE: If you wish to disable a transformer on any zone simply remove its cable. The zone numbers are clearly marked near the connectors on the CXL-4160 and host unit PCB.

4 Signal Requirements

The CXL-4160 may be used at full power with frequencies down to 50Hz. If it is operated with high input levels at frequencies below 50Hz it may saturate and cause the driving amplifier's VI limiter to operate.

Because of this both the CX-A450 and 46/50 have a 65Hz high-pass filter on each channel/zone that is turned ON by setting an internal jumper. The 65Hz high pass filter for a channel or zone must be switched on, when there is a transformer installed. The product specific instructions on the following page detail the procedure you must follow to switch on the appropriate filter.

Setting the 65Hz Filter of the CX-A450

- 1) Turn the power off & remove the mains lead.
- 2) Remove the top panel from the unit.
- 3) Turn the relevant 65Hz high pass filter on by setting the relevant jumpers to the 'ON' position (see list below).

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

- 4) Replace the top panel.

When setting the jumper(s) please ensure that you:

- Remove the mains cable from the rear of the product before removing the top panel.
- Only reassemble the unit using screws identical to the original parts.

If a filter is not switched on, operation at high input levels and low frequencies can result in the transformer saturating and the amplifier's VI and clip limiting operating.

Setting the 65Hz Filter of the 46/50

Jumpers on the 46/50 were changed on 29/03/05. A unit which was produced after this date can be identified by whether there are auxiliary outputs for zones 1&2 on the rear panel. These outputs are only present on units produced after 29/03/05.

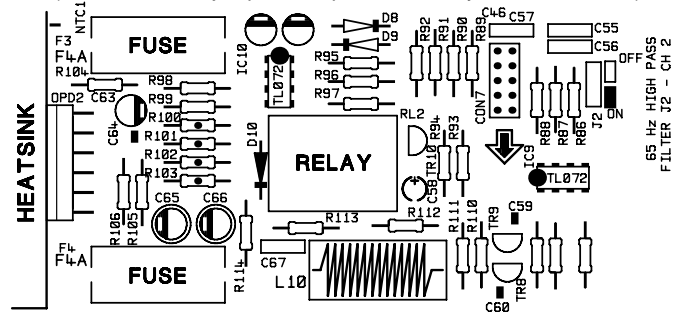
- 1) Turn the power off & remove the mains lead.
- 2) Remove the top panel from the unit.
- 3) Turn the relevant 65Hz high pass filter on by setting the relevant jumpers to the 'ON' position (see table below).

Zone	Pre 29/03/05	Post 29/03/05
Zone 1	J7	J7
Zone 2	J8	J9
Zone 3	J13	J16
Zone 4	J14	J18

- 4) Replace the top panel.

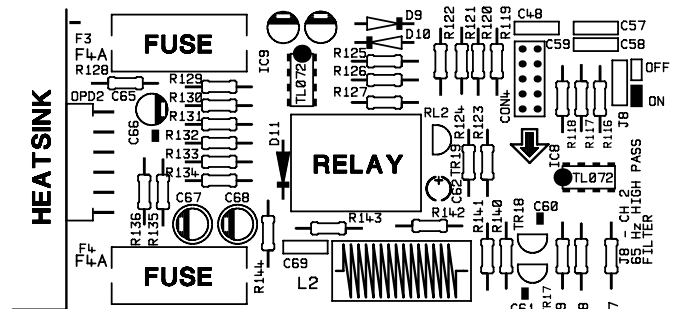
Location of 65Hz Filter Jumper for Channel 2

(The other 65Hz jumpers are placed similarly around the PCB)

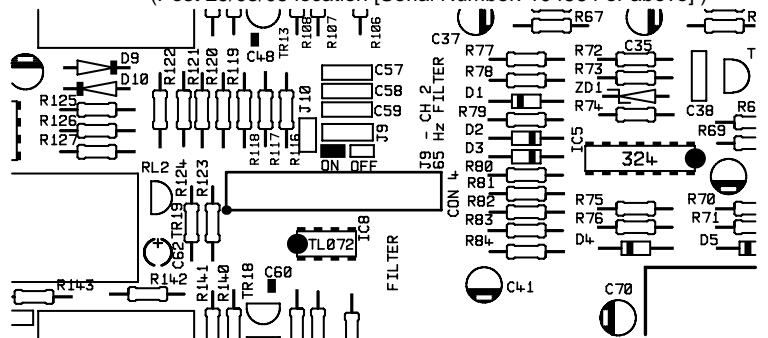


Location of 65Hz Filter Jumper for Zone 2

(Pre 29/03/05 [Serial number: 104563 or below])



(Post 29/03/05 location [Serial Number: 104564 or above])



When setting the jumper(s) please ensure that you:

- Remove the mains cable from the rear of the product before removing the top panel.
- Only reassemble the unit using screws identical to the original parts.

If a filter is not switched on, operation at high input levels and low frequencies can result in the transformer saturating and the amplifier's VI and clip limiting operating.

5 Output Cable Requirements

The cable used for the 70V/100V-line output must be double insulated and capable of carrying adequate current. With long distances, it may be advantageous to use thicker cable. The CXL-4160 transformers are not of the autotransformer type and hence provide a fully balanced output signal that is isolated from the amplifier.

6 Technical Specifications

Maximum Input Voltage	16V rms
Input Impedance	4 Ohms (with 250 Ohm secondary load)
Output power rating	40W rms.
Minimum load impedance	250 Ohms
Distortion	<0.03% @ 1kHz

The CXL-4160 is an accessory for specific cloud products, when installed to these products the CXL-4160 will conform to the relevant European Electrical Safety and EMC Standards.

CAUTION - Installation

THE CXL-4160 IS TO BE FITTED INTERNALLY TO THE CX-A450 OR 46/50, SHOULD THE UNIT BE MOUNTED IN ANY OTHER ENCLOSURE, THE ENCLOSURE MUST BE ELECTRICALLY SAFE AND MEET THE REQUIREMENTS OF BS EN 60065.

THE INSTALLATION OF THE CXL-4160 IS BEYOND THE CONTROL OF CLOUD ELECTRONICS Ltd AND WE ACCEPT NO RESPONSIBILITY FOR HAZARDOUS INSTALLATIONS.

In the interest of continuing improvements Cloud Electronics Limited reserves the right to alter specifications without prior notice.

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