

# L-1 Series

## Remote Line Input Modules



L-1W (White)



L-1B (Black)



L-1AW (White)



L-1AB (Black)

## Installation Guide

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## Introduction

The L-1 is a remote line input module for use with all Cloud host units fitted with a Facility Port, including:

- MA40F, MA40T and MA40E Mini Amplifiers
- MA80FT and MA80E Mini Amplifiers
- Z4MK4 and Z8MK4 Zone Mixers (also discontinued Z4MK3 and Z8MK3)
- 46-120 and 46-120MEDIA Zone Mixing Amplifiers
- 46-80 and 46-80T Mixing Amplifiers

**NOTE:** Unless specifically stated otherwise, all references to "L-1" in this Installation Guide can be taken to apply to all L-1 mechanical and cosmetic variants.

The L-1 module provides a remote input connection point for a stereo music source.

Two types of input connectors are provided: a pair of phono sockets (RCA jacks) and a 3.5 mm mini-jack socket. The volume of the signal from the connected source may be adjusted on the module with the **MUSIC LEVEL** control. The stereo channels are summed to mono internally. The L-1 is connected to the host unit's Facility Port by a single screened Cat 5 cable with RJ45 connectors. DC power is supplied by the host unit via this connection.

## Mounting - mechanical

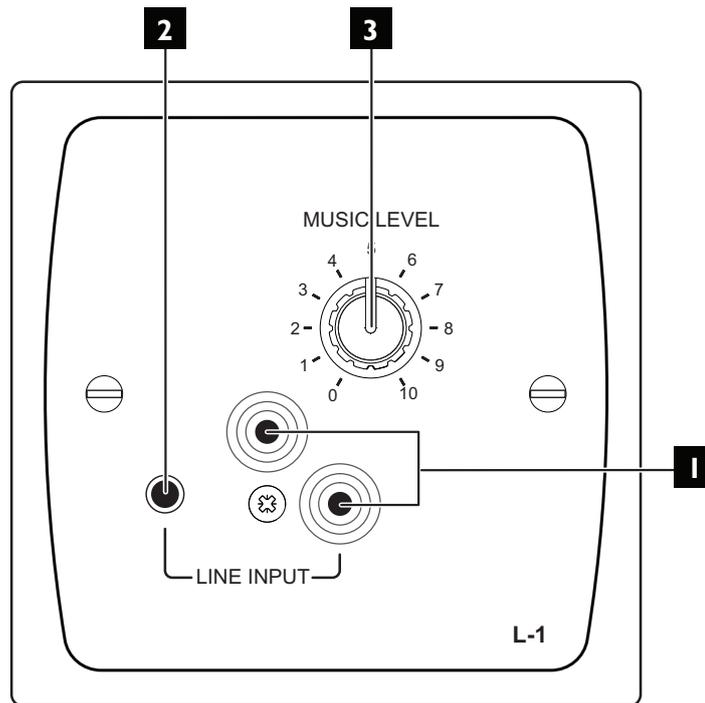
### L-1 (UK version)

The Cloud L-1 fits a standard UK-style single-gang electrical back box. The box used should have a depth of at least 35 mm.

### L-1A (US version)

The Cloud L-1A is compatible with Decora housings, in vertical orientation. The housing should have a depth of at least 1½".

# Faceplate Controls and Connections



UK Version illustrated

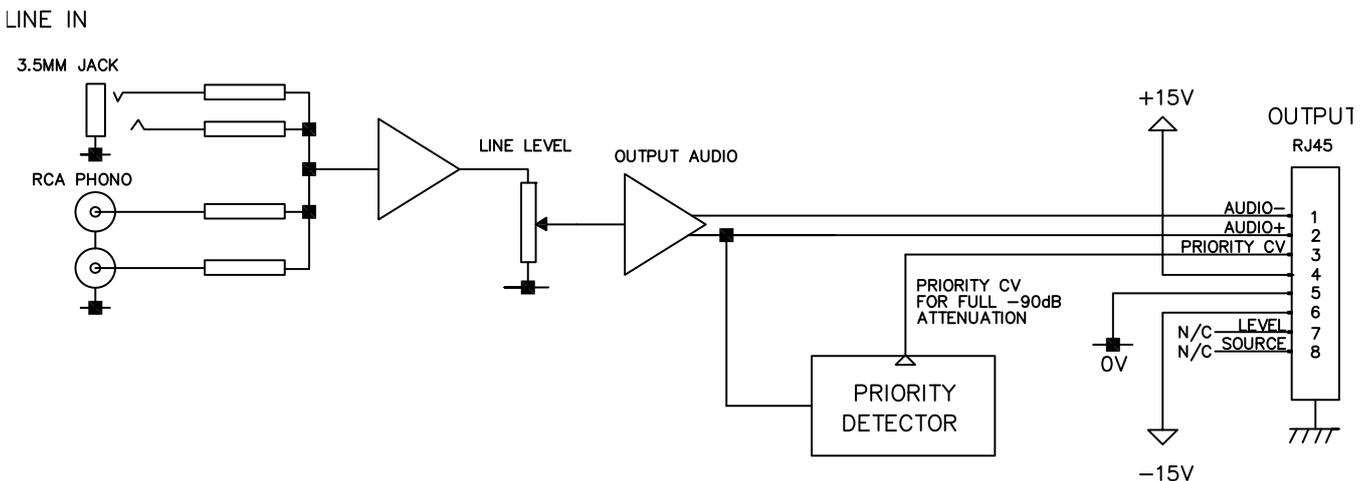
1. **LINE INPUT (a)** – 2 x phono (RCA) sockets for connection of sources such as CD players, audio mixers, radio mic receivers, etc; suitable for line level signals with a nominal level of 0 dBu.
2. **LINE INPUT (b)** – 3-pole 3.5 mm jack socket for connection of sources such as computers, laptops and digital media players; suitable for line level signals with a nominal level of +8 dBu.

NOTE: Sources connected to Inputs **1** and **2** are summed, and then summed internally to mono; hence, if using a mono source such as a radio mic receiver, only one channel need be connected.

3. **MUSIC LEVEL** – level control for the source(s) connected at Inputs [1] and/or [2]. The control has a range of 90 dB (-80 dB to +10 dB); in its fully anticlockwise position, the source will effectively be muted.

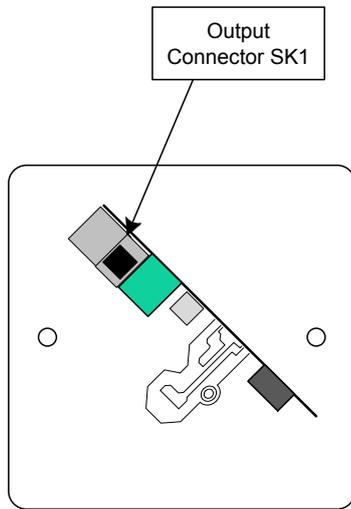
## Block Diagram

### Cloud L-1

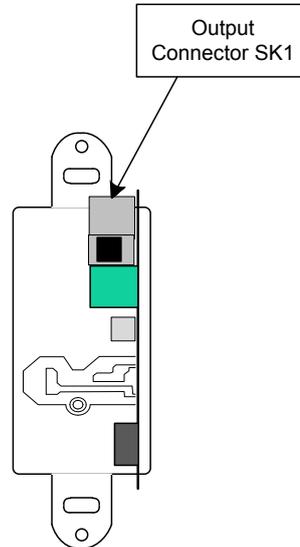


# Installation - connections

Both the L-1 and L-1A have a single PCB fitted to the rear of the faceplate. The RJ45 connector marked SK1 is mounted on the PCB.

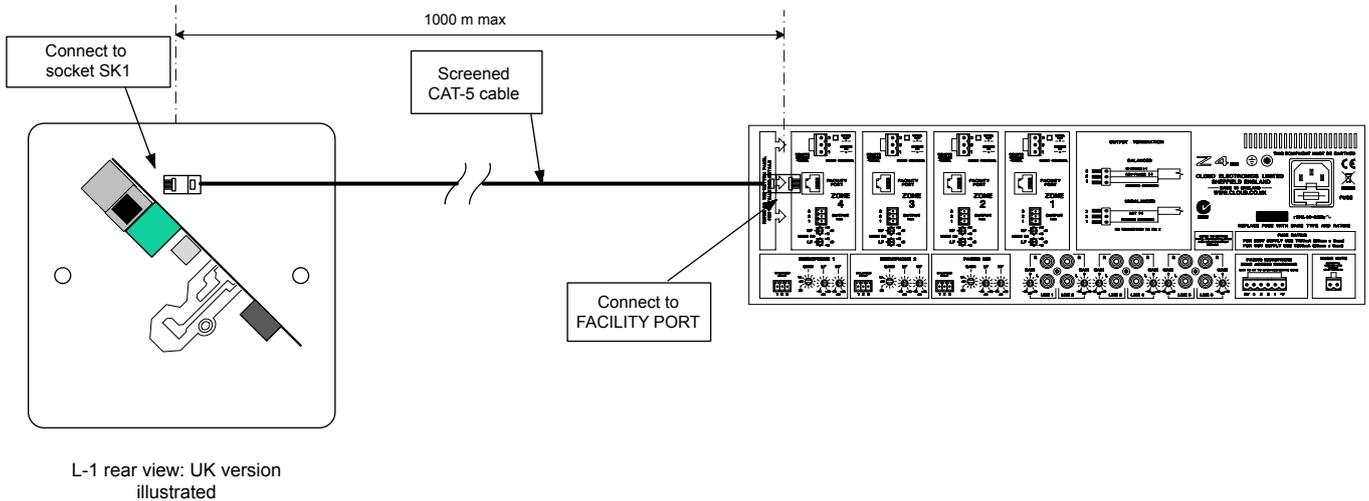


L-1 rear view: UK version



L-1A rear view: Decora version

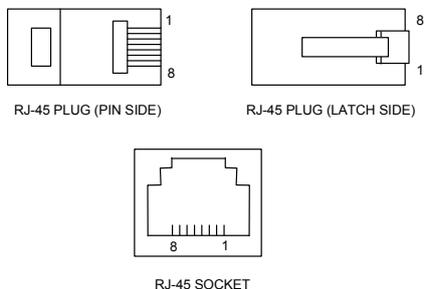
The L-1's SK1 connector should be connected to the host unit's **FACILITY PORT** for the Zone in which it is installed\* with *screened* Cat 5 cable and shielded RJ45 plugs. The Cat 5 cable length should not exceed 1000 m.



L-1 rear view: UK version illustrated

\* There is no reason why the module cannot be connected to the Facility Port of a Zone other than that in which it is installed – though this is likely to be an unusual installation scenario.

**IMPORTANT:** Because the interconnecting cable carries low-level audio, *only* screened Cat 5 should be used, the foil screen of the cable being bonded to the metal screening can of the plugs. If an L-1 is being installed in very close proximity to the host unit, it may be possible to use ready-made screened Cat 5 “patch” cables of short length. In all other situations, shielded RJ45 plugs should be crimped onto the installed screened Cat 5 cable using the pinout shown below.



PIN	USE	Cat 5 CORE	
1	Audio 'cold' phase (-)	White + Orange	
2	Audio 'hot' phase (+)	Orange	
3	Priority VCA control	White + Green	
4	+15 V	Blue	
5	0 V	White + Blue	
6	-15 V	Green	
7	Music level control (0 to 10 V)	White + Brown	NB: Not used on the L-1
8	Music source select control (0 to 10 V)	Brown	
SCN	Screen for system music controls	Connector shell	

The music source connected to the L-1 module will be available in the Zone as soon as the module is connected to the host unit’s Facility Port for that Zone. The volume of the source may be adjusted with the **MUSIC LEVEL** control on the L-1 faceplate: this has a 90 dB range (-80 to +10 dB), so when fully anticlockwise, the source is effectively muted. Note that the source volume will be unaffected by any of the host unit’s front panel controls.

## L-1 Priority Operation

The L-1 contains a priority circuit which activates the host unit’s mute circuitry through pin 3 of the RJ45 connector. When a music signal applied to the L-1 is detected, the priority circuit will mute the music signal currently routed to the Zone by the host unit itself. The attack time (how quickly the host music level drops when the local music starts) and release time (how quickly it recovers after the local music stops) are pre-set, and optimised for best audible results.

The priority circuit is always active.

It is important to note that any Priority functions set within the host unit – e.g., Line 6 Priority or Paging – will operate in other Zones as normal. However, if Line 6 Priority is selected for the Zone containing the L-1, and is active, the Line 6 source will still be ducked by the L-1’s Priority. As the various Cloud host units provide slightly different priority facilities, installers should consult the Installation and User Guide for the host unit if further clarification is needed.

## Power considerations

The L-1 is powered from the host unit’s Facility Port via the Cat 5 connection. The L-1 consumes 8 mA of current from the host unit’s power supply.

In the majority of installations, the host unit will have ample spare current capacity to power one or more L-1s. However, installers should note that this may not be case in a very large system with multiple remote modules in several Zones. If there is any doubt about the power capability, please refer to the host unit’s Installation and User Guide where full details of power supply ratings can be found.

Should you have any questions concerning the installation and connection of the L-1, please visit [www.cloud.co.uk/resources](http://www.cloud.co.uk/resources), where you will find additional technical information.

[www.cloud.co.uk](http://www.cloud.co.uk)



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