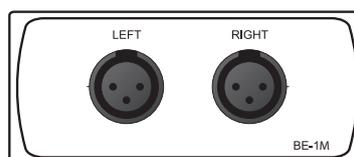
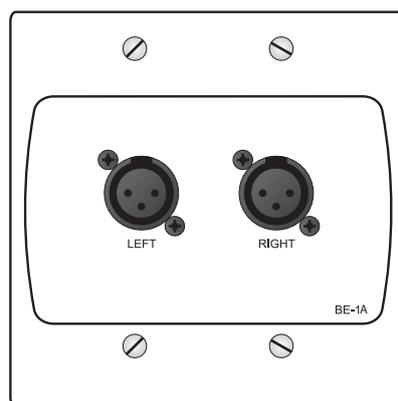
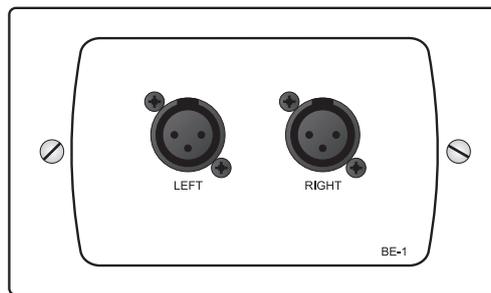


BE-1 Series

Balanced Line Input Modules



Installation Guide

Introduction

The BE-I is a remote line input module for use with the Cloud DCMI range of Digitally Controlled Mixers. It cannot be used with any other Cloud product.

NOTE 1: All references to “DCMI” in this Installation Guide can be taken to apply to all models in the DCMI range.

NOTE 2: Unless specifically stated otherwise, all references to “BE-I” in this Installation Guide can be taken to apply to all BE-I mechanical and cosmetic variants.

This document provides information on how to connect BE-Is into an audio system based on a DCMI. Further information on configuring the DCMI itself for use with BE-Is can be found in the DCMI Installation and User Guide.

The BE-I allows a balanced stereo line-level audio source, such as a professional DJ console, mixing desk, feeds from broadcast equipment, etc., to be connected into a DCMI-based audio system.

The BE-I will generally be installed in zones where such equipment is likely to be required. It is also useful for connecting additional permanent equipment with balanced outputs (the DCMI having only one rear panel balanced line input), in which case it may be installed adjacent to the main equipment rack housing the DCMI.

The input connectors are latching 3-pin female XLRs, wired to the industry-standard pinout:

PIN	FUNCTION
1	Ground
2	Signal 'hot' (+, phase)
3	Signal 'cold' (-, antiphase)

The BE-I’s inputs are electronically balanced, and are optimised for use with signals at a nominal level of 0 dBu. No gain adjustment is provided on the panel; if the signal level from the connected equipment is too low or too high, it should be adjusted at source. Note that the BE-I does not provide electrical isolation and external transformers should be employed if isolation is needed and the source equipment does not have transformer-coupled outputs.

Mounting - mechanical

BE-I (UK version)

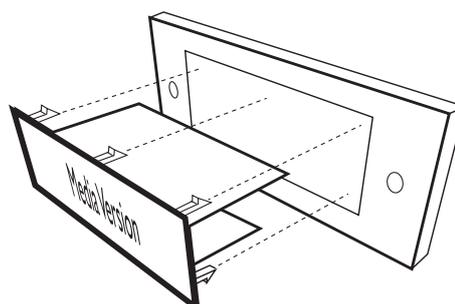
The Cloud BE-I fits a standard UK-style dual-gang electrical back box. The box used should have a depth of at least 35 mm. 2 x M3.5 screws are supplied with the module.

BE-IA (US version)

The Cloud BE-IA fits a standard US dual-gang electrical ‘J’ box in vertical orientation. The box used should have a depth of at least 1¼”. 4 x 6-32 screws are required to secure the module.

BE-IM (Media version)

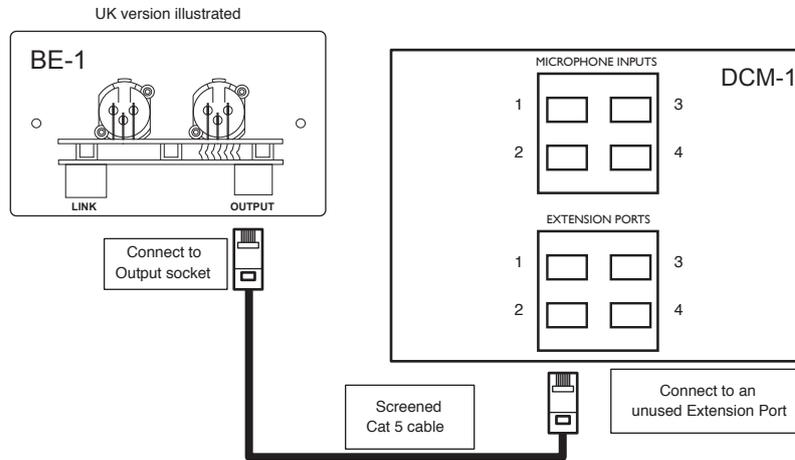
The Cloud BE-IM is a 100 x 50 mm “Euro-module”, and is designed to clip into a mounting frame with this size cut-out (not supplied). Suitable mounting frames are available in most European and other territories, to fit local electrical back box dimensions. Ensure that the back box has a depth of at least 35 mm. The module is secured in place by the six plastic clips (three top, three bottom).



Mounting frame to suit UK-style double-gang back box illustrated.

Wiring

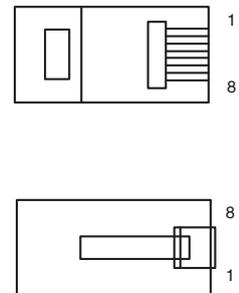
The BE-1's OUTPUT connector should be connected to one of the DCM1's EXTENSION PORTs (Line inputs 1 to 4) with screened Cat 5 cable and shielded RJ45 plugs. Do not connect any other equipment to the phono sockets of the same-numbered Line Input on the DCM1.



Note that all BE-1s have two RJ45 connectors, OUTPUT and LINK. On BE-1 and BE-1A versions, they are both mounted on the lower PCB, with the OUTPUT connector on the right (looking at the module rear), and LINK connector on the left. On BE-1M versions, they are mounted on the upper PCB, again with the OUTPUT connector on the right.

IMPORTANT: Because the cables carry 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 a BE-1 is being mounted in close proximity to the DCM1, it may be possible to use ready-made screened Cat 5 “patch” cables of an appropriate length. Otherwise, shielded RJ45 plugs should be crimped onto the installed screened Cat 5 cable using the pinout shown below.

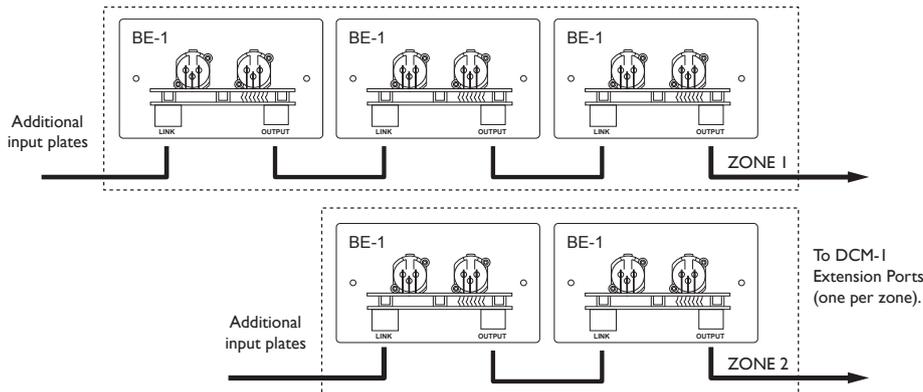
PIN	USE	CAT-5 CORE
1	Left (cold)	White + Orange
2	Left (hot)	Orange
3	Sense	White + Green
4	DC +ve	Blue
5	0v	White + Blue
6	DC -ve	Green
7	Right (hot)	White + Brown
8	Right (cold)	Brown
SCN	Screen	Connector Shell



Connecting Multiple BE-Is

Multiple BE-Is may be “daisy-chained” together to provide input points at different locations in the same zone. Signals applied to modules wired in this way will be summed together and fed to the DCMI Line Input to which the “first” BE-I in the chain (that whose OUTPUT socket is connected directly to the DCMI). An internal gating circuit on each module automatically “disconnects” any chained modules which are not in use, to minimise noise contribution. Chained modules will be treated as a single line input at the DCMI.

Multiple BE-Is in the same zone may be daisy-chained by connecting the LINK RJ45 socket on the first BE-I to the OUTPUT socket on the second BE-I, and so on, as shown below.



Interconnecting BE-I and LE-I remote input modules

The Cloud LE-I is an alternative range of optional remote line input modules, providing an unbalanced stereo line input on both phono sockets and a 3.5 mm jack socket. BE-I modules may be intermixed with LE-Is in a daisy-chain wiring arrangement in the manner described for BE-Is alone, using the LE-I’s OUTPUT and LINK connectors. All the modules on a chain will be treated as a single line input at the DCMI.

Note that is not possible to intermix BE-Is with Cloud ME-I remote microphone input modules in this manner.

DC Power

The BE-I is powered from the DCMI’s EXTENSION PORTS via the Cat 5 connection. The BE-I consumes 24 mA of current from the DCMI power supply.

If there is any doubt regarding the DCMI’s spare DC power capacity (as might be the case in a very large system with many CDR-I remote controls, level restoration relays, etc.), please refer to the DCMI Installation and User Guide (*Appendix; PSU capacity*) where full details of the DCMI’s PSU ratings can be found.

Should you have any questions concerning the installation and connection of the BE-I, please visit www.cloud.co.uk/resources, where you will find additional technical information.

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