ALLEN&HEATH

PL-3 Wall Plate

AP5081

User Guide

EXAMPLE

PL-Anet SERIAL PORT

ROOM 1 — PL-3

ROOM 2 — PL-3

ROOM 3 — PL-4 / PL-5

ROOM 4 — PL-4

TERMINATION

PL-ANET   DR-LINK   AUDIO IN   AUDIO OUT

DIGITAL EXPANDER

! CAUTION 20V DC
TO AVOID DAMAGE ONLY CONNECT
COMPATIBLE REMOTE CONTROL
EQUIPMENT TO THE PL-ANET PORT.

Introduction   The **PL-3** is one of several remote control devices available for the **iDR** audio mix processor system. It is part of the Allen & Heath **PL Series** of wall plates and remote controllers. It is a wall plate or furniture mounted module comprising plastic control panel and attached circuit assembly. It can be mounted in a single unit wall box using a standard face plate (UK, EU or US version supplied). A suitable template with cutting details is provided for custom application. The **PL-3** interfaces with the Allen & Heath RS485 based PL-Anet serial port. Multiple **PL-3** units can be daisy chained together along with other PL-Anet devices using CAT5 cable. For information on the full range of **PL** products available visit http://www.allen-heath.com. The wall plate control and indicator functions are programmed using the iDR System Manager software. Space is provided on the control panel for custom labelling of the programmed functions. The following combination of controls makes the **PL-3** ideal as a wall mounted room remote controller in installed audio systems. The installer can program the unit so that the non-technical operator has local control of volume, mute, source select, and preset changes which reconfigure the room for different functions.
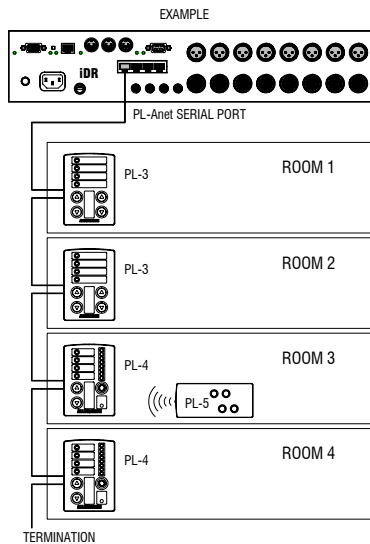
4 switches   can be assigned for level up or down control (input, output, crosspoint or group), mute toggle, polarity toggle, audio monitor select, or preset recall.

4 LED indicators   can be assigned as audio meters (choice of 8 points in the signal path), mute status, polarity status, or as preset related static display. They can display four states: off, green, yellow or red.

Custom labels   Recessed areas are provided for fitting custom adhesive labels. Recommended maximum sizes are 6x26mm and 26x9mm.

Number of devices   The maximum number of **PL** devices that can be connected depends on their type and the cable lengths. Up to 15x **PL-3** devices may be connected to the PL-Anet port, or up to 24x if you are using the optional **PL-9** PL-Anet hub. Fewer devices may be connected if long distances or other **PL** types are also involved. To check this refer to the PL Combinations Calculator spreadsheet available from the Allen & Heath web site.
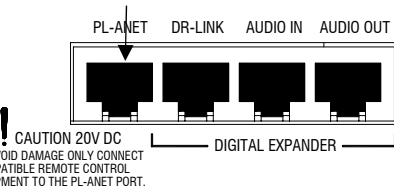
PL-Anet   is the proprietary Allen & Heath system for daisy chaining remote controllers. It is an RS485 serial connection that uses CAT5 STP cable to communicate between devices over long distances. PL-Anet only works with Allen & Heath **PL** devices. The connection includes +20V DC to power the connected devices. The **iDR-8** port is shown here.

IMPORTANT :

⚠ Observe the local standards which may apply to the installation regarding the grade of cable and installation methods.

⚠ To ensure operator safety ensure that any exposed metal face plates are correctly bonded to ground. Do not install the equipment where it is subject to moisture, heat or vibration.

⚠ Connect this equipment to the Allen & Heath PL-Anet port only. Test for correct wiring and installation before switching the equipment on.

Aligning the arrow keys
The four switch caps can be rotated so that the arrow faces up, down, left or right. Decide which way you want them to face according to function, for example volume or source select.

To change them, first remove the two screws (B) and unplug the top PCB. Remove the four screws (C) and lift the lower PCB away. Rotate the switch caps into the required position. Reassemble the module taking care to correctly align the two plugs (D).
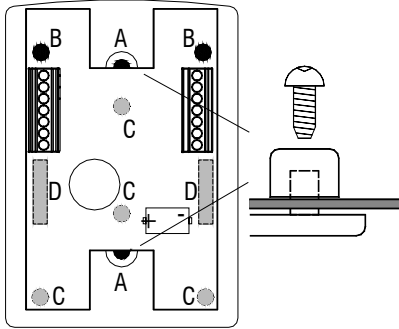
Mounting into the face plate
A pre-cut brushed aluminium UK (part number AA5029), EU (AA5250) or US (AA5030) plate is supplied. A backing box for the UK plate can be supplied (AA5220).

The assembled module fits into an 'H' shaped cutout in the centre of the mounting plate. The module is held using the two screws with plastic clamps provided (A). Unscrew these from the module first. Dimensions are in millimetres below.

TOP

20   32
      16
C
20   16
12   34
DIA 6   16   16
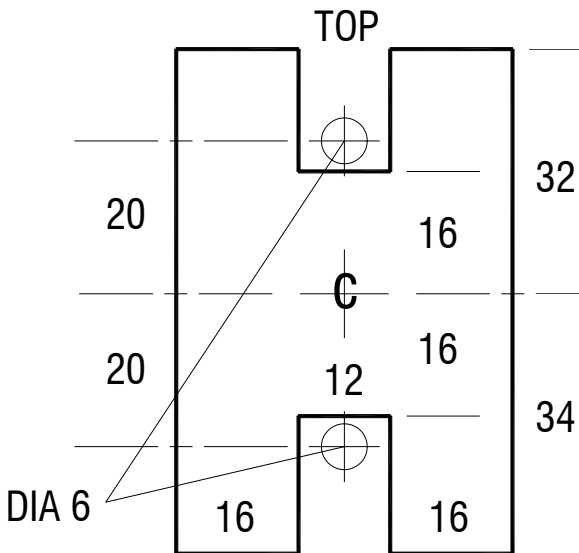
⚠ Grounding a metal plate
If the face plate is metal ensure that it is correctly grounded to ensure operator safety. The plate should be connected to a local safety ground, not the PL-Anet screen connection. Use a ground wire or physical contact with a grounded back box.

Wiring standards
Use flame retardent CAT5 STP (shielded twisted pair) cable. We recommend the multi-stranded rather than solid conductor type. The connection follows the EIA/TIA 568B wiring colour scheme. Ensure all ports and cables in the system are wired to this scheme.

PL-Anet wiring
Screw terminal blocks are provided for the serial port IN and OUT connections. Use a small flat bladed screwdriver. Ensure the wires are correctly stripped and formed to allow sufficient service loop in the backing box. Note that some wires are twisted together in the same terminal.

INPUT   OUTPUT
CABLE SCREEN
WH/OR
OR
BN + WH/BN   0V
BL + WH/BL   +20V DC
WH/GN
GN
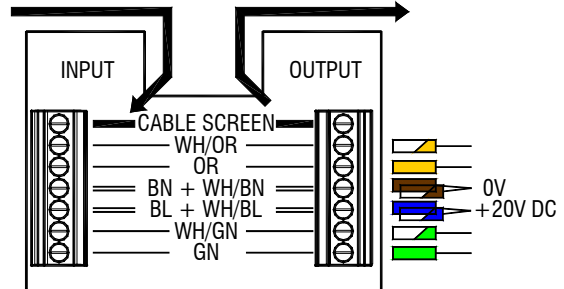
End of chain termination
As with any RS485 system, the last **PL** device needs to have a terminating resistor fitted to its output port. Each **PL-3** is shipped with a 100 ohm resistor already fitted. Leave this fitted only if the unit is the last in the chain.

TERMINATION
INPUT   OUTPUT
100 ohms
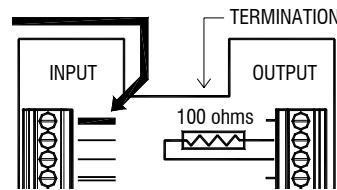
RJ45 wiring
The PL-Anet network plugs into the **iDR** unit using an RJ45 connector. This is wired to the 568B scheme. The pinout is shown here.

1 WH/OR
2 OR
3 WH/GN
4 BL
5 WH/BL
6 GN
7 WH/BN
8 BN

⚠ Testing the wiring
Before powering up the system make sure all the wiring is inspected and continuity tested. This is important as wiring errors may result in damage to the equipment.

Powering up the PL system
Ensure that the **iDR** PL-Anet port is active. Its green 'active' LED should be lit. If not, use the iDR System Manager software Communications Option menu to activate the port. Plug in the PL-Anet cable. The iDR System Manager screen should display icons on the right hand toolbar for each PL device it recognises. Refer to the Help file for details on programming the PL functions.

Diagnostics
If a fault is suspected check the two diagnostics LEDs on the underside of the **PL-3** connector PCB. Both the red and green LEDs should be lit once communication with the **iDR** is established. Also measure the PL-Anet +20V supply feed between the blue wires (+20V) and the brown wires (0V). For reliable operation this voltage should not drop below +11V with all PL LEDs turned on. If a fault is found, first check for correct wiring. If further assistance is required contact Allen & Heath technical support.