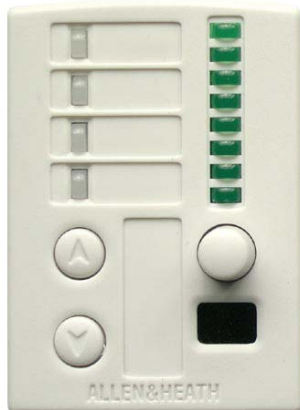
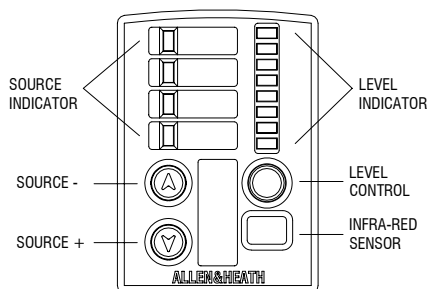
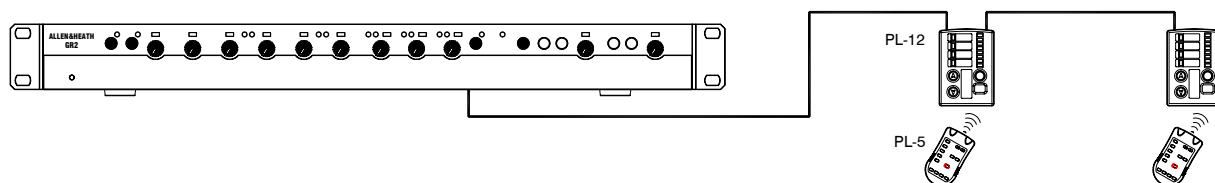


## User Guide

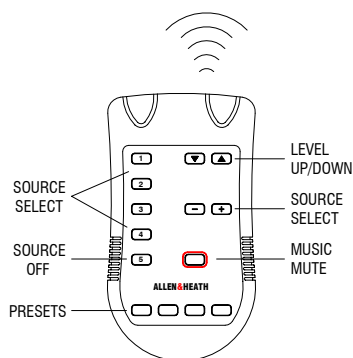


The **PL-12** is an 'intelligent' remote controller for use with the Allen & Heath **GR2** audio zone mixer. It provides the non-technical operator with local control of the music source selection and/or audio level. Up to two controllers may be connected, just one, one for each zone, or a single unit to simultaneously control both zones. A menu of setup options allows the installer to configure its function to match the specific requirements of each application. Additional switches may be wired for room combining situations and to disable the controller when the settings should not be changed. The optional **PL-5** hand held infra-red remote controller adds wireless control, and additional features including the store and recall of up to 4 source/level presets. The **PL-12** can be mounted into a single unit wall box using the standard face plate provided, or furniture mounted using the cutting template details given here. It interfaces with the **GR2** using standard CAT5 cables. The second controller daisy chains with the first for convenient single run cabling. Space is provided on the panel for custom labelling.



### PL-12 Controls

- **Source select** Scroll up/down through the available music sources.
- **Source indicators** Light green to show the selected source, red for mute.
- **Rotary level control** Adjusts audio level in 32 steps from off to on.
- **Level indicator** 8 LED bar to display the level.
- **Infra-red sensor** Detects the optional **PL-5** hand held controller.
- **Label space** Recessed areas for custom labelling.

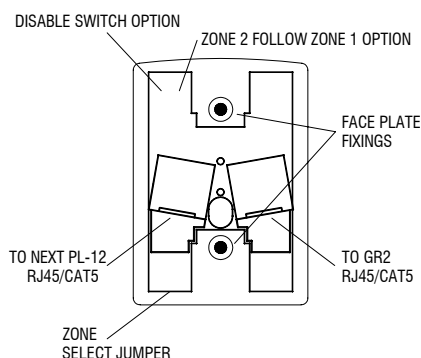


### PL-5 Controls (Option for the PL-12)

- **Source select keys** Scroll up/down through the available music sources.
- **Source keys** Direct selection of available music sources 1 to 4.
- **Source off key** De-selects all sources.
- **Level keys** Adjust the level up or down.
- **Music mute key** Silences the selected source.
- **Preset keys** Store and recall up to 4 presets of level and source selection.

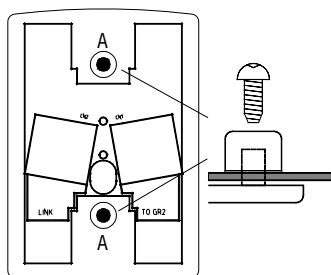
### PL-12 Installation

- **Face plate fixings** Mount the module to the wall plate.
- **Zone select jumper** Configures which zone to control.
- **Disable option** Wire a switch to lock out the controls.
- **Zone 2 follow zone 1 option** Wire a switch for control of both zones.
- **To GR2** RJ45 for CAT5 cable connection to **GR2**.
- **To next PL-12** RJ45 for CAT5 cable connection to second **PL-12** if used.

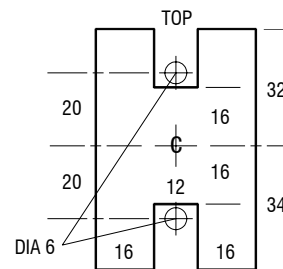


### PL-12 Setup Menu (Accessed and stored on the PL-12)

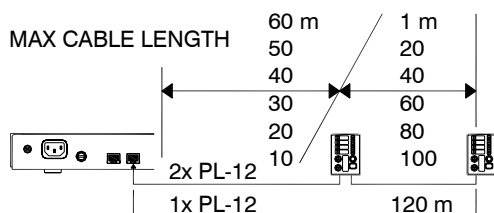
- **Zone 2 follow zone 1 mode** Setting for one **PL-12** to control both zones.
- **Sources to select** Choice of combinations of none, 1234, 123, 234, 23.
- **Source off** Add a source off position to the selection.
- **Power up default** Choice of off, last settings, or one of 4 presets.
- **Preset enable** Store and/or recall of 4 level/source presets using the **PL-5**.



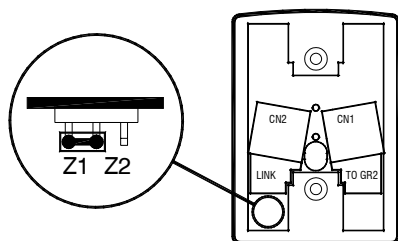
**Mounting to the face plate** A pre-cut brushed aluminium wall plate is supplied according to territory, UK (part number AA5029), EU (AA5250) or US (AA5030). A suitable backing box for the UK plate can be ordered (AA5220). The module fits into an 'H' shaped cutout in the centre of the face plate. The module is held using the two screws with plastic clamps provided (A). Unscrew these from the module first. Should a custom mounting plate be required, a template (in millimetres) is provided here. Ensure that enough space is provided for the cables.



**Safety ground** Ensure that the supplied aluminium face plate (or any custom metal plate) is correctly grounded to ensure operator safety. The plate should be connected to a local safety ground. Use a ground wire or physical contact with a grounded back box.

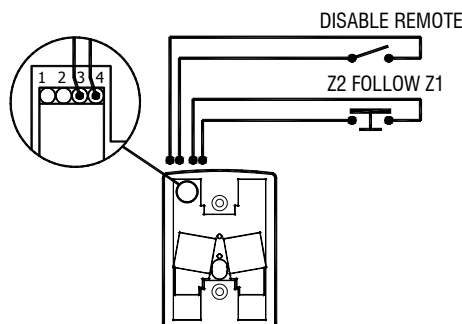


**Connections** Use standard one-to-one wired CAT5 / RJ45 cables. The control of both zones is passed down a single CAT5 cable. Connect the **GR2 ZONE REMOTE** port to the first **PL-12 TO GR2** port (CN1). If two remotes are used, connect the first **LINK** port to the second **TO GR2** port (CN2). Do not connect more than two remotes. Note the maximum cable length from the diagram shown here. Use unbooted plugs to ensure the cables can fit into the backing box. Allow enough service loop for module removal.

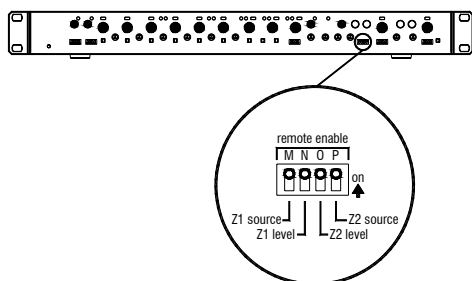


**Assigning which zone to control** Set the module jumper plug to the Z1 (zone 1) or Z2 (zone 2) position. Do this while the remote power is turned off. If two remotes are used they must not be set to control the same zone. The first remote in the chain may be set to either Z1 or Z2.

**Wiring a disable switch (option)** Solder pads are provide for connecting an external switch to disable the remote and protect the settings, for example when the room should not be used. Such a switch could be located near the **GR2** or in the manager's office. Each remote can have its own disable switch. When disabled, the 4 source indicators light red.



**Wiring a zone 2 follow zone 1 switch (option)** Solder pads are provided for connecting an external switch to change the operating mode so that the zone 1 remote controls both zone 1 and zone 2. This is useful when two rooms are used independently or combined into one on some occasions by opening a divider screen. When combined, the zone 1 remote controls the speakers simultaneously in both rooms. **The switch must be connected to the zone 1 remote.** Connect the wires to a manually operated switch or a micro-switch that changes state when the divider screen is opened or closed. When the screen is open the switch contacts should be closed. Note that setup menu option 1 may be used instead of the switch to permanently set this mode if the one remote always controls both zones. Option 8 determines whether follow affects the level and source, or source only. If source only, the level can be independently set for each zone using both remotes. If level and source, the zone 2 remote is fully disabled.



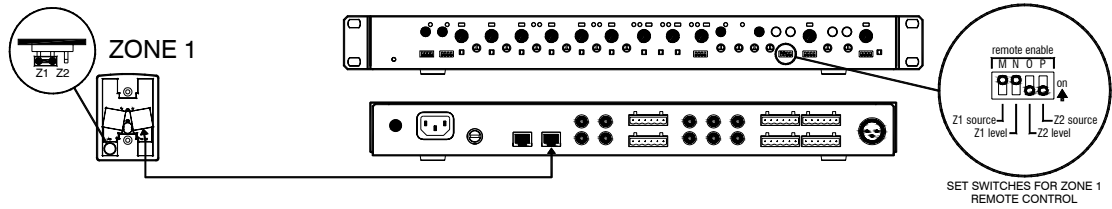
**Configuring the GR2** The **GR2** can be configured to operate in many different ways. Check that its front panel DIP switches are correctly set for your application. Make sure the remote enable switches MNOP are set according to which zones you want the **PL-12** units to control, and whether they should work with just the level or level and source selection. Refer to user guide AP6320. Also decide which music sources to include in the selection.

**PL-12 menu options** A setup menu is available to configure the remote to match your application. For example, you may wish the source selection to scroll between 2, 3 and 4 if you have configured the **GR2** for 4 music sources with music 1 a jukebox priority source that should not be selected on the wall plate. Refer to the menu table later in this guide on the options available.

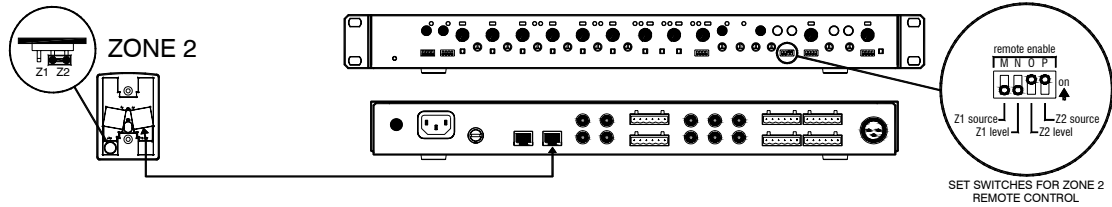
**Configuring the PL-12** Default setting is to select between music sources 1, 2 and 3, to power up with the last settings, the **PL-5** preset store and recall functions disabled, and the zone 2 follow zone 1 function affecting both source and level. A good starting point is to reset the remote before configuration. Refer to the reset and option menu instructions later in this guide. Use the **CONFIGURATION SHEET** in the **GR2** user guide to log your system and option settings (can be downloaded from [www.allen-heath.com](http://www.allen-heath.com)).

Note: On power up, the **PL-12** firmware version number is displayed briefly on one of the 8 level indicators.

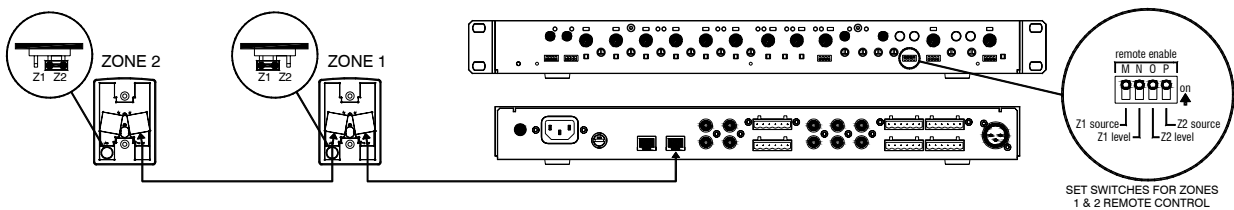
Using one **PL-12** remote to control zone 1:



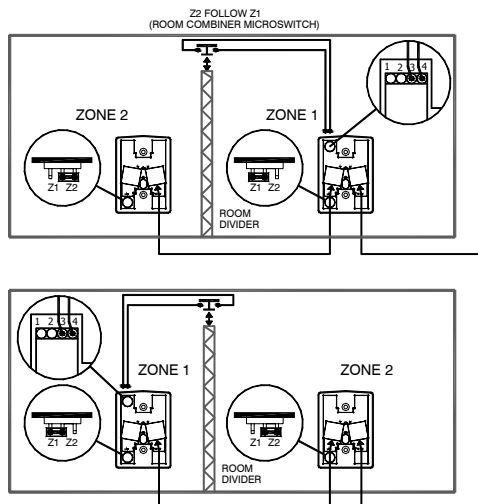
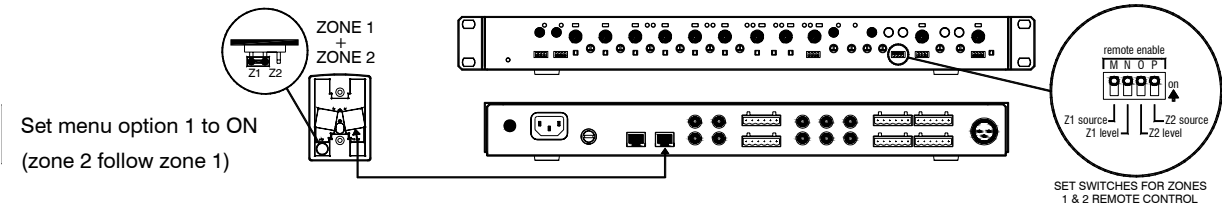
Using one **PL-12** remote to control zone 2:



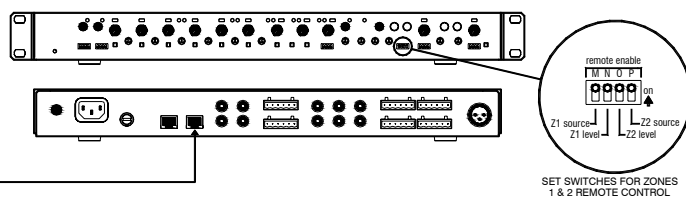
Using two **PL-12** remotes to independently control zone 1 and zone 2: (Note that they may be assigned in either order, 1-2 or 2-1)



Using one **PL-12** remote to control zone 1 and zone 2 simultaneously:



Using two **PL-12** remotes with room combining:



Wire the room divider switch to the zone 1 remote.

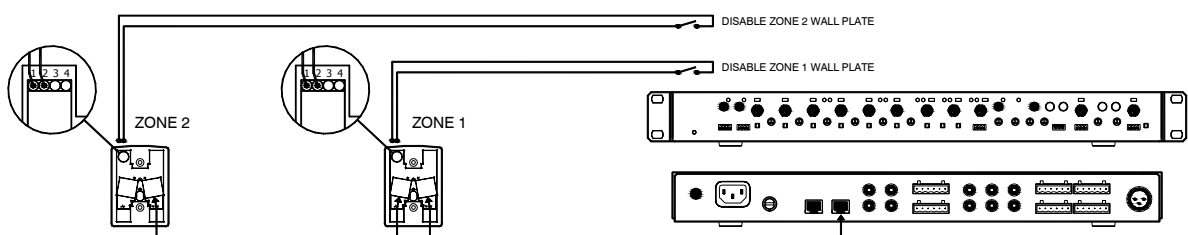
Check that menu option 1 is set to OFF on both remotes.

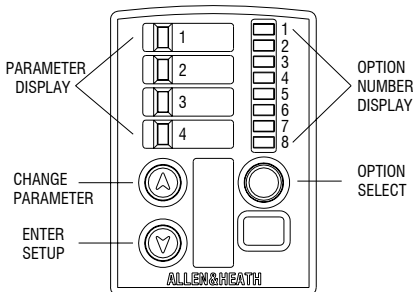
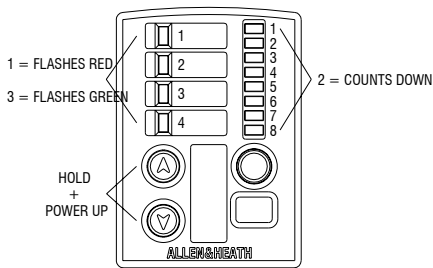
Check that menu option 8 is set the same on both remotes.

Option 8 = source+level + zone 1 remote controls both, zone 2 turns off.

Option 8 = source only = zone 1 controls both sources, separate level.

Wiring disable switches to turn off the **PL-12** local control:





**Resetting the PL-12** To reset the controller to the default settings shown in the table below, press and hold the ▽ (down) and △ (up) keys while powering up the system. Do this by switching on the **GR2** or by plugging in the **PL-12** CAT5 cable TO GR2 connection while the **GR2** is on. Keep the key pressed while the 4 source indicators flash red, the 8 level indicators count down one at a time, and finally the source indicators flash green to confirm the reset. Releasing the keys before the sequence finishes cancels the reset.

**PL-12 option menu** Access using the front panel keys.

**Enter and exit setup** Press and hold the ▽ (down) key for 4 seconds to enter setup mode. The 4 source indicators light orange until an option is selected by turning the rotary. **Keep the ▽ key held down while changing the settings.** To save the settings and return to normal operating mode release the key.

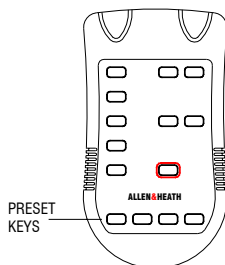
**Option select** Turn the rotary control to scroll through the 8 available options. The current option number is displayed on the LED indicator bar above.

**Parameter display** The current setting for the selected option is displayed on the 4 LED indicators.

**Change parameter** While holding the ▽ key, tap the △ (up) key to cycle through the available parameters. These are detailed in the table below.

OPTION			LED 1	LED 2	LED 3	LED 4	COMMENT
1	Zone 2 follow Zone 1	Off, On	Red = Off Gn = On				Can only be set on the zone 1 controller
2	Sources to select	123, 234, 23, 0, 1234	music 1	music 2	music 3	music 4	Cycle through the available options
3	Source off position	Off, On	Red = Off Gn = On				Adds a 'no source' selection
4	Power up default	Last, Off, Preset	Last	Off	Preset		The source selection and level on power up
5	Power up preset	1, 2, 3, 4	preset 1	preset 2	preset 3	preset 4	Which preset shall be recalled on power up (if set in option 4)
6	PL-5 preset recall	Off, On	Red = Off Gn = On				Enables preset recall from the PL-5 IR controller
7	PL-5 preset store	Off, On	Red = Off Gn = On				Enables preset store from the PL-5 IR controller
8	Follow mode	Source, Source+Level	Source	Level			Which zone 2 parameter follows the zone 1 controller <b>Must be set the same on both zone 1 and 2 controllers</b>

Reset defaults shown in bold above



**Working with presets** The optional **PL-5** infra-red hand-held controller adds the presets function. Up to 4 level and source selection combinations may be stored in the **PL-12** memory. This is convenient for quick recall of settings for regular events. The installer can store these during installation, then use menu option 7 to disable store to prevent them being overwritten by the operator. To disable preset recall use menu option 6.

**To store a preset** Select the required source and level. Hold down the required **PL-5** preset key for 4 seconds. The **PL-12** source indicators all flash green to confirm the store.

**To recall a preset** Briefly press and release the required **PL-5** preset key.

**Important:** Observe the local standards which may apply to the installation. To ensure operator safety ensure that exposed metal plates are correctly bonded to ground. Do not install the equipment where it is subject to moisture, heat or vibration.

**Warning:** To avoid damage, connect the **PL-12** to the Allen & Heath **GR2** only. This product is not compatible with the Allen & Heath PL-Anet system.

To avoid damage to the equipment, make sure all wiring is inspected and continuity tested before powering up the system.

**NOTE:** Do not install the **PL-12** in a position subject to bright sunlight as this may reduce the effectiveness of the IR signal. Note that if you have two **PL-12** in one room they may both pick up the signal from one IR controller. This may or may not be desired.

**CE** This product complies with the European Electromagnetic Compatibility directives 89/336/EEC & 92/31/EEC.

**NOTE:** Any changes or modifications to the equipment not approved by Allen & Heath could void the compliance of the equipment. Whilst we believe the information in this guide to be reliable we do not assume responsibility for inaccuracies. We also reserve the right to make changes in the interest of further product development. Copyright© 2005 Allen & Heath Ltd. All rights reserved.