



WALL CONTROLLERS

C2-EU

C2-US

MZ-SERIES

USER MANUAL



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MZ-C SERIES OVERVIEW

The MZ-C series from HH are wall mounted volume and source controllers for the MZ install zone amplifier range. All MZ-C2 models include a zone volume control, source select and illuminated status/quick mute switch. The installer can select which zone the controller is assigned to with dip switch settings. Connected using a standard Cat5 cable, installation is quick and easy and can be extended to several controllers all linked at once in daisy chain formation. All models in the series come in either white or black so they can blend nicely into your environment. Additionally, there are two versions, EU and US, to fit the relevant surround box for your region.

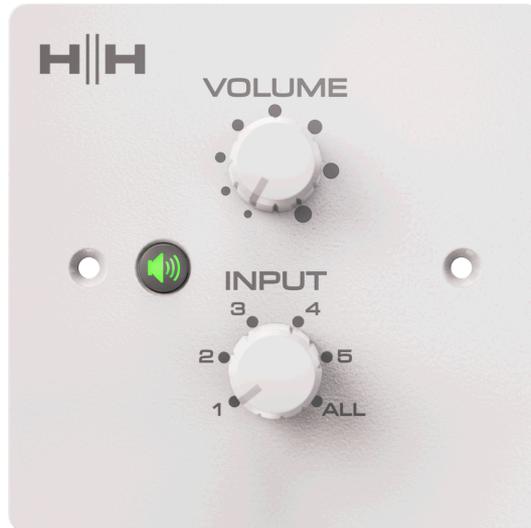
FEATURES

- Remote volume control
- Input source select
- White or black finish
- Control 1, 2, 3 or 4 zones at once with a single controller
- Installer DIP switch settings for selecting zones
- Quick mute switch with status LED
- Two RJ45 sockets for daisy chain connection
- 1G Patch size (EU model) or standard sized J box (US model)



INSTALLATION GUIDE

MODELS



The MZ-C2 has two control knobs, one for the zone volume and one for the zone input source. Additionally, there is a mute LED to toggle the mute state of the zone(s).

Each model comes in two sizes: EU (shown) and US versions, and two colours: white or black.

Dimensions for both can be found by going to [DIMENSIONS](#).

EU MODELS

All EU models will fit the standard size EU square pattress boxes. The front plate of the wall controller is 86 x 86mm and it must be installed in a backbox with at least 36mm depth. Each controller is supplied with 2x M3 x 16mm machine screws to secure it to the enclosure.

US MODELS

All models with the US size will fit a standard J box that is recommended to have a minimum depth of 48mm. The front plate has dimensions 70x114mm. Each controller is supplied with 2x #6-32x5-8 machine screws to secure it to the enclosure.

NOTE: Depending on the backbox you are using, one or two holes may need to be drilled into the top of it to allow the Cat5 connector cables to go through.



WIRING

One or more wall controllers can be connected to the same MZ amplifier via an RJ45 standard CAT5 cable.

A single controller can manage up to 4 zones set via the DIP switch settings on the back, with multiple controllers also able to control the same zone.

NOTE: Make sure that before connecting your wall controllers they are all set to the right zones they are controlling.

To connect a single controller, use a standard CAT5 cable with RJ45 connectors. Plug one end into the remote socket on the back of your MZ amplifier. Connect the other end to the socket on the wall controller labelled **IN** (the left socket as you look at the back).



If multiple wall controllers are required, they must be connected in daisy chain formation from one to the next. Do this by connecting the **OUT** of the previous controller to the **IN** of the next via an RJ45.

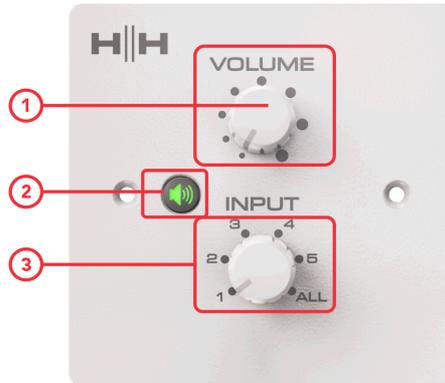
NOTE: Cables between wall controllers, or from wall controller to amplifier should not exceed a length of 100m.



When connected, turn on the amplifier and check that the mute LEDs on all connected controllers turn on (either green or red). The led will flash while it is negotiating with the amplifier on power up and will change to a solid colour once this is done.

USER GUIDE

FRONT PANEL



1. VOLUME CONTROL

Attenuates the volume for all controlled zones. Maximum volume on the controller is equal to whatever the volume is set to on the front panel of the amplifier. Minimum volume is muted.

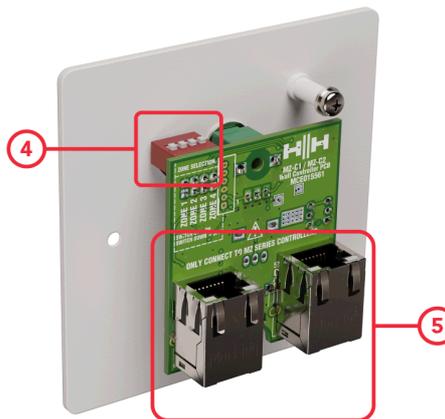
2. MUTE LED

Will light up when connected and the MZ amplifier is powered on, remembering the last state it was set to. Green will produce an unmuted signal and red will mute the signal for any controlled zones.

3. INPUT SELECT

Selects the source input 1-5, for all of the controlled zones. Can also choose **ALL** to play all inputs at once for use in debugging to test each input one at a time. The Input select control will only work if source on the corresponding front panel zone is set to **REMOTE**.

REAR PANEL



4. ZONE DIP SWITCH

Used to select which of the 4 zones are active for the controller. Pin 1 for zone1 etc. note multiple zones may be controlled from one controller. Any changes only take effect on the next power cycle.

5. IN/OUT SOCKETS

Connect your wall controller to the amplifier as well as extend to other controllers. Use a standard CAT5 cable (RJ45). You can use either socket for the input or output.



OPERATION

With your wall controllers all connected and their respective zones set, turn on your amplifier (that has already been setup following the separate user manual for the MZ series). Initially keep all controller volumes at maximum, as this will match whatever volumes are set on the amplifier. The volume on the amplifier should be adjusted firstly to the maximum desired level ever to be present in the zone. Generally, once connected, you will want to enable the front panel lock on the amplifier so that only the controllers are adjusting the volume.

SOURCE SELECT

Set the source on each wall controller to the input desired for the zone. This change will only be applied if the amplifier inputs are set to **REMOTE**.

VOLUME CONTROL

With all amplifier volumes at their maximum desired level, now set the wall controller volumes to a normal level from there. The wall controller will not be able to exceed the volume set on the amplifier. Note, the wall volume will be set to maximum when the emergency in function of the MZ amplifier is activated.

MUTE SWITCH

Set to green to allow an input to play out of all controlled zones. Simply press once to mute and the LED will turn red. Note that any volume controls on the controller and amplifier will not work until the mute is toggled.

MULTIPLE CONTROLLERS

Multiple wall controllers can be connected in a daisy chain formation. These can all be controlling separate zones and must be connected to each other, returning to the MZ install amp.

With multiple wall units in control of the same zone, only one controller can be in charge at a time. The last controller to have any of its controls altered will be what the amplifier will read from.



SPECIFICATIONS

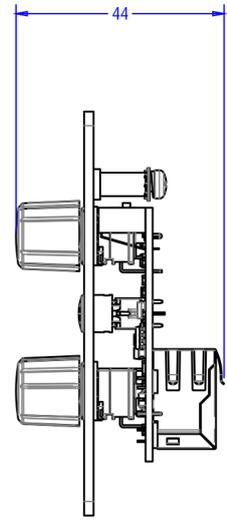
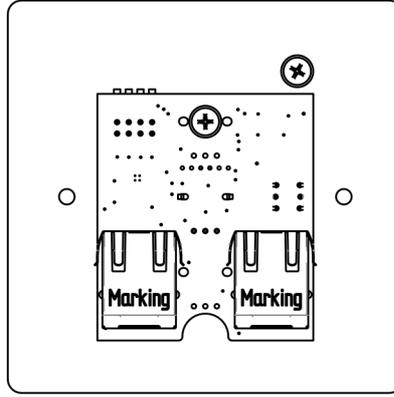
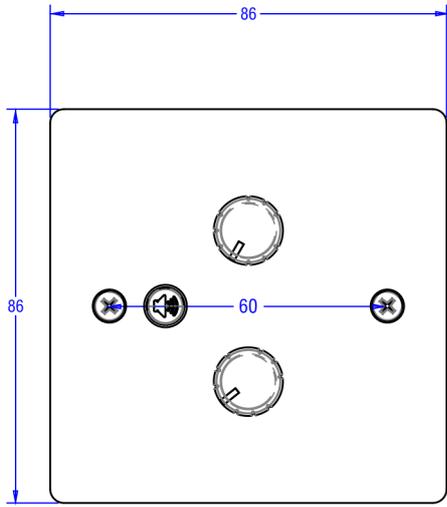
MZ-C2

Model	MZ-C2-EU-WH	MZ-C2-US-WH	MZ-C2-EU-BK	MZ-C2-US-BK
System type	Wall volume controller with source select			
Colour	White		Black	
Features				
Controls	Rotary volume control, Rotary source selector. Dual colour mute switch (Red for Muted, Green for active) 4W DIP switch to select Z1,Z2,Z3,Z4 control			
Input Connectors	1x RJ45 LAN connector for direct connection to the master zone amplifier			
Output Connectors	1x RJ45 LAN connector for direct connection to the next wall controller in the chain			
Wiring	Standard CAT5e shielded cable, in a daisy chain configuration (Home run wiring not currently supported)			
Dimensions				
Unit dimensions (HWD)	86 x 86 x 44 mm (3.4" x 3.4" x 1.7")	114 x 70 x 44 mm (4.5" x 2.8" x 1.7")	86 x 86 x 44 mm (3.4" x 3.4" x 1.7")	114 x 70 x 44 mm (4.5" x 2.8" x 1.7")
Net Weight	0.147Kg, 0.3lbs			
Carton dimensions (HWD)	133 x 113 x 75 mm (5.2" x 4.4" x 3")			
Gross Weight	0.205Kg, 0.5lbs			
Master Carton Dimensions (HWD)	165 x 475 x 255 mm (6.5" x 18.7" x 10") (0.02 M3) 12pcs			
Gross Weight	4.5Kg, 9.9 lbs 12pcs			
Accessories				
EAN13	5060109458275 single, 5060109458299 Master, 12pcs multipack)	5060109458268 single, 5060109458282 Master, 12pcs multipack)	5060109458404 single, 5060109458411 Master, 12pcs multipack)	5060109458428 single, 5060109458435 Master, 12pcs multipack)

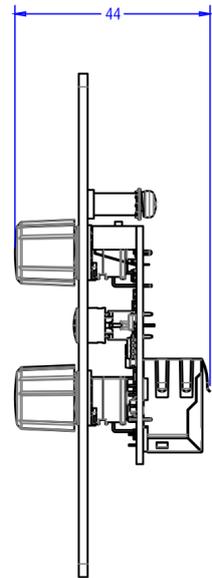
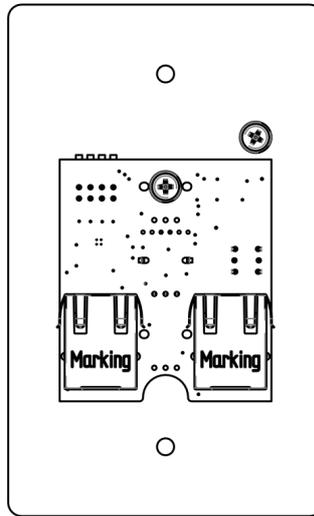
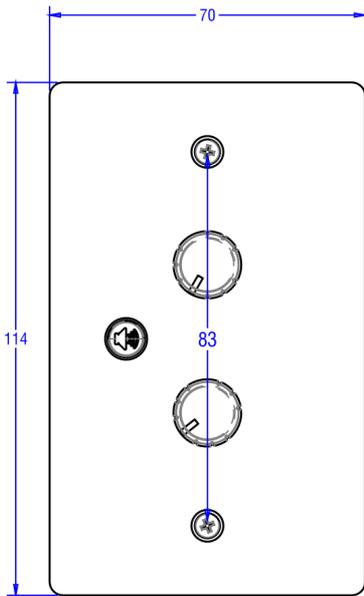


DIMENSIONS

EU MODEL



US MODEL





SAFETY AND WARNINGS

To take full advantage of your new product and enjoy long and trouble-free performance, please read this owner's manual carefully, and keep it in a safe place for future reference.

- 1) Unpacking: On unpacking your product, please check carefully for any signs of damage that may have occurred whilst in transit from the Laney factory to your dealer. In the unlikely event that there has been damage, please re-pack your unit in its original carton and consult your dealer. We strongly advise you to keep your original transit carton, since in the unlikely event that your unit should develop a fault, you will be able to return it to you dealer for rectification securely packed.
- 2) Amplifier Connection: To avoid damage, generally it is advisable to establish and follow a pattern for turning on and off your system. With all system parts connected, turn on source equipment, mixers, effects processors etc, BEFORE turning on your amplifier. Many products have large transient surges at turn on and off which can cause damage to your speakers. By turning on your amplifier LAST and making sure its level control is set to a minimum, any transients from other equipment should not reach your loudspeakers. Wait till all system parts have stabilised, usually a couple of seconds. Similarly, when turning off your system always turn down the level controls on your amplifier and then turn off its power before turning off other equipment.
- 3) Cables: Never use shielded or microphone cable for any speaker connections as this will not be substantial enough to handle the amplifier load and could cause damage to your complete system. Use good quality shielded cables everywhere else.
- 4) Servicing: The user should not attempt to service these products. Refer all servicing to qualified service personnel.
- 5) Heed all warnings.
- 6) Follow all instructions.
- 7) Do not use this apparatus near water.
- 8) Clean only with a dry cloth.
- 9) Do not block any of the ventilation openings. Install in accordance with manufacturer's instructions.
- 10) Do not install near any heat sources such as radiators, heat registers, stoves or other apparatus (including amplifiers) that produce heat.
- 11) An apparatus with Class I construction shall be connected to a mains socket outlet with a protective connection. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 12) Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point they exit from the apparatus.
- 13) Only use attachments/accessories provided by the manufacturer.
- 14) Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 15) The mains plug or appliance coupler is used as the disconnect device and shall remain readily operable. The user should allow easy access to any mains plug, mains coupler and mains switch used in conjunction with this unit thus making it readily operable. Unplug this apparatus during lightning storms or when unused for long periods of time.
- 16) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as when power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- 17) Never break off the ground pin. Connect only to a power supply of the type marked on the unit adjacent to the power supply cord.
- 18) If this product is to be mounted in an equipment rack, rear support should be provided.
- 19) Note for UK only: If the colours of the wires in the mains lead of this unit do not correspond with the terminals in your plug, proceed as follows:
 - o The wire that is coloured green and yellow must be connected to the terminal that is marked by the letter E, the earth symbol, coloured green or coloured green and yellow.
 - o The wire that is coloured blue must be connected to the terminal that is marked with the letter N or the colour black.
 - o The wire that is coloured brown must be connected to the terminal that is marked with the letter L or the colour red.
- 20) This electrical apparatus should not be exposed to dripping or splashing and care should be taken not to place objects containing liquids, such as vases, upon the apparatus.
- 21) Exposure to extremely high noise levels may cause a permanent hearing loss. Individuals vary considerably in susceptibility to noise-induced hearing loss, but nearly everyone will lose some hearing if exposed to sufficiently intense noise for a sufficient time. The U.S. Government's Occupational Safety and Health Administration (OSHA) has specified the following permissible noise level exposures: According to OSHA, any exposure more than the above permissible limits could result in some hearing loss. Earplugs or protectors to the ear canals or over the ears must be worn when operating this amplification system to prevent a permanent hearing loss, if exposure is more than the limits as set forth above. To ensure against potentially dangerous exposure to high sound pressure levels, it is recommended that all persons exposed to equipment capable of producing high sound pressure levels such as this amplification system be protected by hearing protectors while this unit is in operation.
- 22) If your appliance features a tilting mechanism or a kickback style cabinet, please use this design feature with caution. Due to the ease with which the amplifier can be moved between straight and tilted back positions, only use the amplifier on a level, stable surface. DO NOT operate the amplifier on a desk, table, shelf, or otherwise unsuitable non-stable platform.
- 23) Symbols & nomenclature used on the product and in the product manuals, intended to alert the operator to areas where extra caution may be necessary, are as follows:

Duration Per Day in Hours	Sound Level dBA, slow response
8	90
6	92
4	95
3	97
2	100
1 1/2	102
1	105
1/2	110
1/4 ou inférieur	115

 CAUTION:	<p>Intended to alert the user to the presence of uninsulated 'Dangerous Voltage' within the products enclosure that may be sufficient to constitute a risk of electrical shock to persons.</p> <p>Ce symbole est utilisé pur indiquer à l'utilisateur de ce produit de tension non-isolée dangereuse pouvant être d'intensité suffisante pour constituer un risque de choc électrique.</p> <p>Este simbolo tiene el proposito de alertar al usuario de la presencia de '(voltaje) peligroso' que no tiene aislamiento dentro de la caja del producto que puede tener una magnitud suficiente como para constituir riesgo de corrientazo.</p> <p>Dieses Symbol soll den Anwender vor unisolierten gefährlichen Spannungen innerhalb des Gehäuses warnen, die von Ausreichender Stärke sind, um einen elektrischen Schlag verursachen zu können.</p>
 WARNING:	<p>Intended to alert the user of the presence of important operating and maintenance (Servicing) instructions in the literature accompanying the product.</p> <p>Dieses Symbol soll den Anwender vor unisolierten gefährlichen Spannungen innerhalb des Gehäuses warnen, die von Ausreichender Stärke sind, um einen elektrischen Schlag verursachen zu können.</p> <p>Este simbolo tiene el proposito de la alertar al usuario de la presencis de instrucccones importantes sobre la operacion y mantenimiento en la literatura que viene conel producto.</p> <p>Dieses Symbol soll den Benutzer auf wichtige Instruktionen in der Bedienungsanleitung aufmerksam machen, die Handhabung und Wartung des Produkts betreffen.</p>
<p>CAUTION:</p> <p>ATTENTION :</p> <p>PRECAUCION:</p> <p>VORSICHT:</p>	<p>Risk of electrical shock - DO NOT OPEN. To reduce the risk of electrical shock, do not remove the cover. No user serviceable parts inside. Refer servicing to qualified personnel.</p> <p>Risques de choc électrique - NE PAS OUVIRIR. Afin de réduire le risque de choc électrique, ne pas enlever le couvercle. Il ne se trouve a l'intérieur aucune pièce pouvant être réparée par l'utilisateur. Confier l'entretien a un personnel qualifié.</p> <p>Riesgo de descarga eléctrica - NO ABRIR. Para reducir el riesgo de descarga eléctrica, no quite la cubierta. No hay piezas reparables por el usuario en el interior. Remita el servicio a personal calificado.</p> <p>Risiko - Elektrischer Schlag! Nicht offen! Um das Risiko eines elektrischen Schlages zu vermeiden, nicht die Abdeckung entfernen. Es befinden sich keine Teile darin, die vor Anwender repariert werden konnten. Reparaturen nur von qualifiziertem Fachpersonal durchführen lassen.</p>
<p>WARNING:</p> <p>ADVERTISSEMENT :</p> <p>ADVERTENCIA:</p> <p>ACHTUNG:</p>	<p>To prevent electrical shock or fire hazard, do not expose this appliance to rain or moisture. Before using this appliance, please read the operating instructions for further warnings.</p> <p>Afin de prévenir les risques de décharge électrique ou de feu, n'exposez pas cet appareil a la pluie ou a l'humidité. Avant d'utiliser cet appareil, lisez les avertissements supplantais situes dans le guide.</p> <p>Para evitar descargas eléctricas o peligro de incendio, no exponga este aparato a la lluvia ni a la humedad. Antes de usar este aparato, lea las instrucciones de funcionamiento para conocer más advertencias.</p> <p>Um einen elektrischen Schlag oder Feuergefahr zu vermeiden, sollte dieses Gerät nicht dem Regen oder Feuchtigkeit ausgesetzt werden. Vor Inbetriebnahme unbedingt die Bedienungsanleitung lesen.</p>
	<p>This device complies with Part 15 of the FCC rules Operation is subject to the following two conditions:</p> <ol style="list-style-type: none"> 1) This device may not cause harmful interference. 2) This device must accept any interference received, that may cause undesired operation. <p>Warning: Changes or modification to the equipment not approved by Laney can void the user's authority to use the equipment.</p> <p>Note: This equipment has been tested and found to comply with the limits for Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures. Reorient or relocate the receiving antenna. Increase the separation between the equipment and receiver. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. Consult the dealer or an experienced radio/TV technician for help.</p>
	<p>This product conforms to the requirements of the following European Regulations, Directives & Rules: CE Mark (93/68/EEC), Low Voltage (2014/35/EU), EMC (2014/30/EU), RoHS (2011/65/EU), ErP (2009/125/EU)</p> <p>SIMPLIFIED EU DECLARATION OF CONFORMITY</p> <p>Hereby, Laney Electronics Ltd. declares that the radio equipment is in compliance with Directives 2014/53/EU, 2011/65/EU, 2009/125/EU. Full text of the EU declaration of conformity is available at the following internet address:</p> <p>https://support.hhelectronics.com/approvals</p>
	<p>The object of the declaration described above is in conformity with the relevant statutory requirement Electrical Equipment (Safety) Regulations 2016, Electromagnetic Compatibility Regulations 2016, The Restriction of the use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012, The Ecodesign for Energy-Related Products and Energy Information, (Amendment) (EU Exit) Regulations 2012</p>
	<p>In order to reduce environmental damage, at the end of its useful life, this product must not be disposed of along with normal household waste to landfill sites. It must be taken to an approved recycling centre according to the recommendations of the WEEE (Waste Electrical and Electronic Equipment) directive applicable in your country.</p>

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HH ELECTRONICS PART OF HEADSTOCK GROUP
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**IN THE INTEREST OF CONTINUED DEVELOPMENT, HH RESERVES THE RIGHT TO AMEND PRODUCT SPECIFICATION
WITHOUT PRIOR NOTIFICATION.**

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