

Monoprice™ 6-Source / 8-Zone Home Audio Multizone Controller and Amplifier Kit

P/N **44518**
User Manual

SAFETY WARNINGS AND GUIDELINES

Please read this entire manual before using the Monoprice™ 8-Zone Home Audio Multizone Controller and Amplifier Kit, paying extra attention to these safety warnings and guidelines. Please keep this manual in a safe place for future reference.

- This multizone controller and amplifier kit is intended for indoor use only.
- This multizone controller and amplifier kit should be operated in a well-ventilated area. Minimum clearance is 2" from the ventilation openings.
- Do not expose the unit to water or moisture of any kind. Do not place drinks or other containers with moisture on or near the device. If moisture does get in or on the device, immediately unplug it from the power source and allow it to fully dry before reapplying power.
- Do not touch the unit, the power cord, or any other connected cables with wet hands.
- Do not expose the unit to excessively high temperatures. Do not place it in, on, or near heat sources, like a fireplace, stove, radiator, etc. Do not leave it in direct sunlight.
- Do not place or install this multizone controller and amplifier kit in an area where it can be exposed to excessive amounts of dust, humidity, oil, smoke, or combustible vapors.
- Before operating, check the unit and power cord for physical damage. Do not use it if physical damage has occurred.
- Before plugging the unit into a power outlet, ensure that the outlet provides the same type and level of power required by the unit.
- Unplug this multizone controller and amplifier kit from the power source when unused.
- Take care to prevent damage to the power cord. Do not allow it to become crimped, pinched, walked on, or become tangled with other cords. Ensure that the power cord does not present a tripping hazard.
- Never unplug the unit by pulling on the power cord. Always grasp the connector head or adapter body.
- Ensure power is turned off and disconnected before making any electrical connections.
- To reduce the risk of electric shock, do not remove the cover.
- Do not use chemical cleaners or solvents to clean this multizone controller and amplifier kit. Use only a soft cloth that's slightly moistened with warm water.
- This multizone controller and amplifier kit has no user-serviceable parts. Do not attempt to open, service, or modify it.

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INTRODUCTION

Thank you for purchasing the Monoprice™ Multizone Home Audio Controller and Amplifier Kit. It is a functional, easy-to-install, highly compatible, expandable, and user-friendly audio distribution system. Bringing you advanced Class D amplification technology, this unit provides up to 2x 50 W power and distributes at most to 24 zones (which all can be controlled by a packaged keypad IR remote controller).

There are six input sources with various types of connectors on the rear panel. There is an optical digital input to manage the sound of a flat screen or a CD player to have a high resolution of sound quality in each zone. The device and the overall distribution system are easy to install, so every audiophile in every zone can use an IR controller or keypad to enjoy the powerful audio. High functionality and performance bring you musical enjoyment just the way you want it.

FEATURES

- **2x 50 W (@ 4 Ω)** output power for each zone
- Class D amplification (85% high efficiency)
- Optional stereo/mono output for each zone
- Pre-amp output on zone 1 to 8
- Built-in IR receiver & IR remote controller for source select/volume/treble/bass
- 12 V DC trigger output to an external device when the system is powered on
- 12 V DC mute trigger input from external devices
- 2-way communication via the RS-232 port
- Expands up to 24 zones by 2 additional units
- 8 LEDs, 8 zones for power on, standby & mute
- Built-in IR emitter
- Switchable AC 115 V / 230 V input power

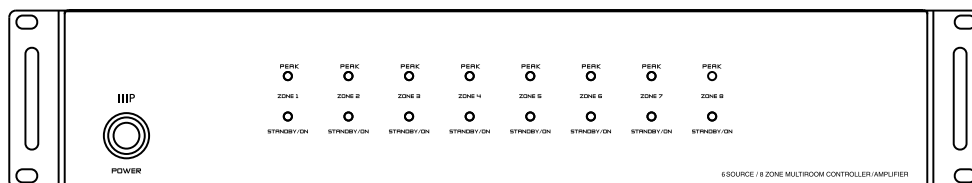
PACKAGE CONTENTS

Please take an inventory of the package contents to ensure you have all the items listed below. If anything is missing or damaged, please contact Monoprice™ Customer Service for a replacement.

- **1x** 6 × 8 Multizone Home Audio Controller/Amplifier
- **8x** Keypad Controllers
- **1x** Keypad In-Wall Hub Connection Plate
- **1x** Infrared Remote Control
- **1x** Expansion Ribbon Cable
- **1x** Rack Mounting Kit
- **1x** AC Power Cord
- **1x** User Manual

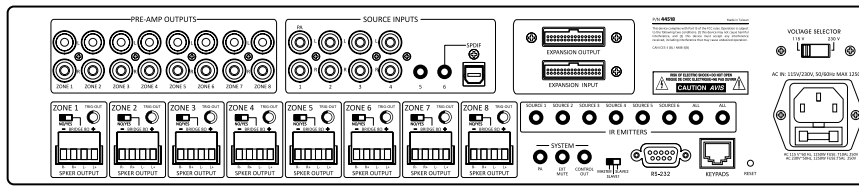
PRODUCT OVERVIEW

Front Panel



1. **Power ON / OFF / STANDBY Switch** – press the power button once to turn on the system. Press it again to release the latch and turn the unit off.
Note: Even when the Master Controller is powered on, each zone will remain in Standby mode until the zone keypad is activated.
2. **Standby / Zone ON LED** – these eight LEDs illuminate to indicate the status of each zone. *Blue:* In Standby mode. *White:* In Activate mode. *Blue/White:* In Mute mode.
3. **PEAK LED** – a warning light to indicate the connected source level is too high. If this is illuminating *red*, reduce the input or output level in the affected zone.

Rear Panel



1. **PRE-AMP OUTPUT** – stereo line level output on each zone. Connect to an additional amplifier with higher output, or powered sub-woofers.
2. **SPEAKER OUTPUTS** – each of these removable Euroblock terminal blocks is used to connect a pair of speakers in Stereo mode or a single speaker in Bridged Mono mode.
3. **STEREO/BRIDGE SWITCH** – each of these slide switches is used to switch the zone between Stereo and Bridged Mono mode. In Stereo mode you can connect 4 Ω or 8 Ω speakers, but in Bridged Mono mode you can only connect an 8 Ω load.
4. **SOURCE INPUTS** – 6 Stereo Analog/Digital inputs:
 - Input 1–4: RCA connectors
 - Input 5: 3.5 mm connector
 - Input 6: S/PDIF or 3.5 mm connectors
5. **INPUT 1/PA** – paging capability for Input 1 to broadcast to all zones when 12 V DC is applied to the PA-IN jack.
6. **TRIG-OUT** – when a zone is activated, the corresponding jack will output 12 V DC to trigger another device.
7. **IR EMITTERS** – IR outputs 6 routed & 2 common.
8. **PA-IN** – 12 V DC paging trigger input.
9. **EXT. MUTE/CONTROL OUT** – mute the entire system with the 12 V DC MUTE IN. Use the 12 V DC CONTROL OUT to trigger other equipment.
10. **EXPANSION IN/OUT PORT** – expandable up to 24 zones with 3x Multizone Controller systems.
11. **RS-232 PORT** – used to connect to a PC to provide automated control.
12. **MASTER/SLAVE SWITCH** – set the unit ID when connecting multicontroller systems.

Note: If expanding to have additional zones with other systems, this needs to be set as a MASTER unit.
13. **KEYPAD** – RJ45 jack connects to the keypad hub for 8 keypads.
14. **RESET** – press this button for 10 seconds to reset the current settings to the factory defaults.
15. **VOLTAGE SELECT** – set to correctly input voltage before turning on the amplifier.

16. **AC INPUT** – apply the correct voltage before operating the amplifier.

Note: The current ratings of the main fuse are different for 115 V AC and 230 V AC, please see the rear panel for details. Ask a qualified personnel to replace the main fuse before adjusting the voltage selector.

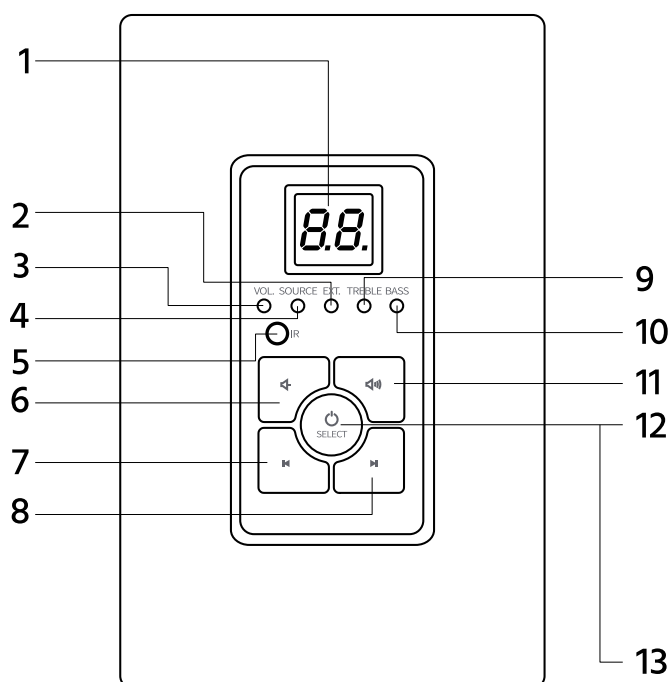
Front Keypad

The Multizone Controller keypads are available in white and black and are designed for effortless operation. Featuring five backlit buttons, the keypad allows easy control of zone power on/off, volume up/down, source selection (1–6), zone treble, zone bass, unmute, and standby functions.

The backlit LED display provides clear visual feedback of levels and selected sources. Additionally, the keypad includes an infrared (IR) receiver, enabling full zone control via the included infrared remote control. The integrated IR system also transmits commands to the Master Controller's IR output jacks, allowing remote control of connected source components.

No programming is required, simply touch the keypad and start playing music instantly.

1. **Numeric LED Display**
2. **Ext/Mute/PA Selection LED**
3. **Volume Up/Down LED**
4. **Source Selection LED**
5. **Infrared (IR) Receiver**
6. **Down Button** (Volume, treble, bass, and unmute functions)
7. **Source 1-6 (Descending)**
8. **Source 1-6 (Ascending)**
9. **Treble Up/Down LED**
10. **Bass Up/Down LED**
11. **Up Button** (Volume, treble, bass, and unmute functions)
12. **Power On/Off & Mode Select Button**
 - Hold for 3 seconds to turn the zone on/off.
 - Press repeatedly to cycle through volume, source, treble, and bass adjustment modes.
 - Use with the volume up/down buttons to adjust volume, treble, and bass levels.
13. **Night Light** (Select button emits a soft glow at night when the zone is powered off.)



Rear Keypad

Connection: **RJ45**

The keypad mode switches and selection chart are located on the rear panel of each keypad. The DIP switches set the zone location and communication of each keypad.

Note: All keypads must have their mode DIP switches set properly before powering the amplifier on.



ZONE-select	1			
	2			
	3			
	4			
	5			
	6			
	7			
	8			

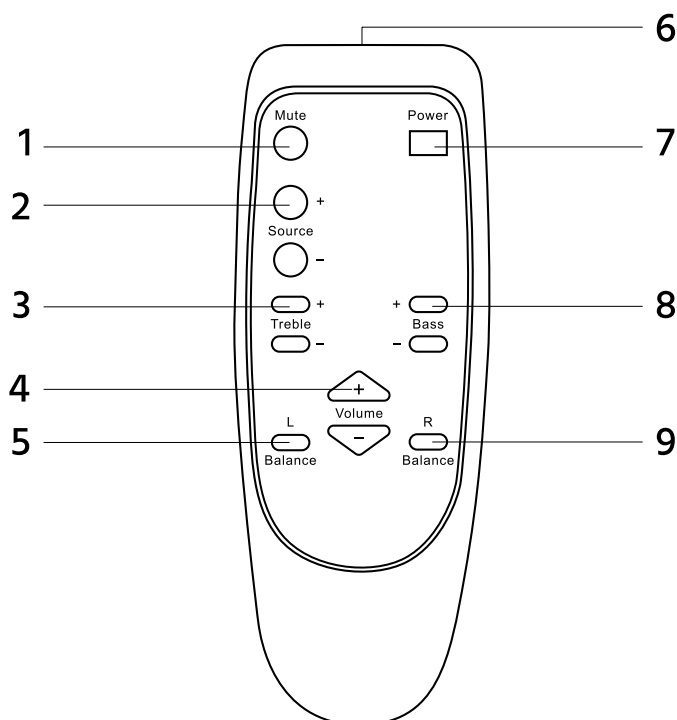
Infrared Remote Control

The Multizone Controller infrared remote control provides full zone control via the IR receiver located at the center of the Multizone Controller keypad. All keypad functions can be accessed directly from the remote.

Additionally, the infrared remote control features a convenient Mute button to temporarily mute audio in the zone. When the mute function is activated, the keypad's numeric LED display will flash to indicate the mute status. Press the Mute button again to resume audio playback.

Alternatively, pressing the volume up/down buttons on the keypad will also unmute the zone and restore audio playback.

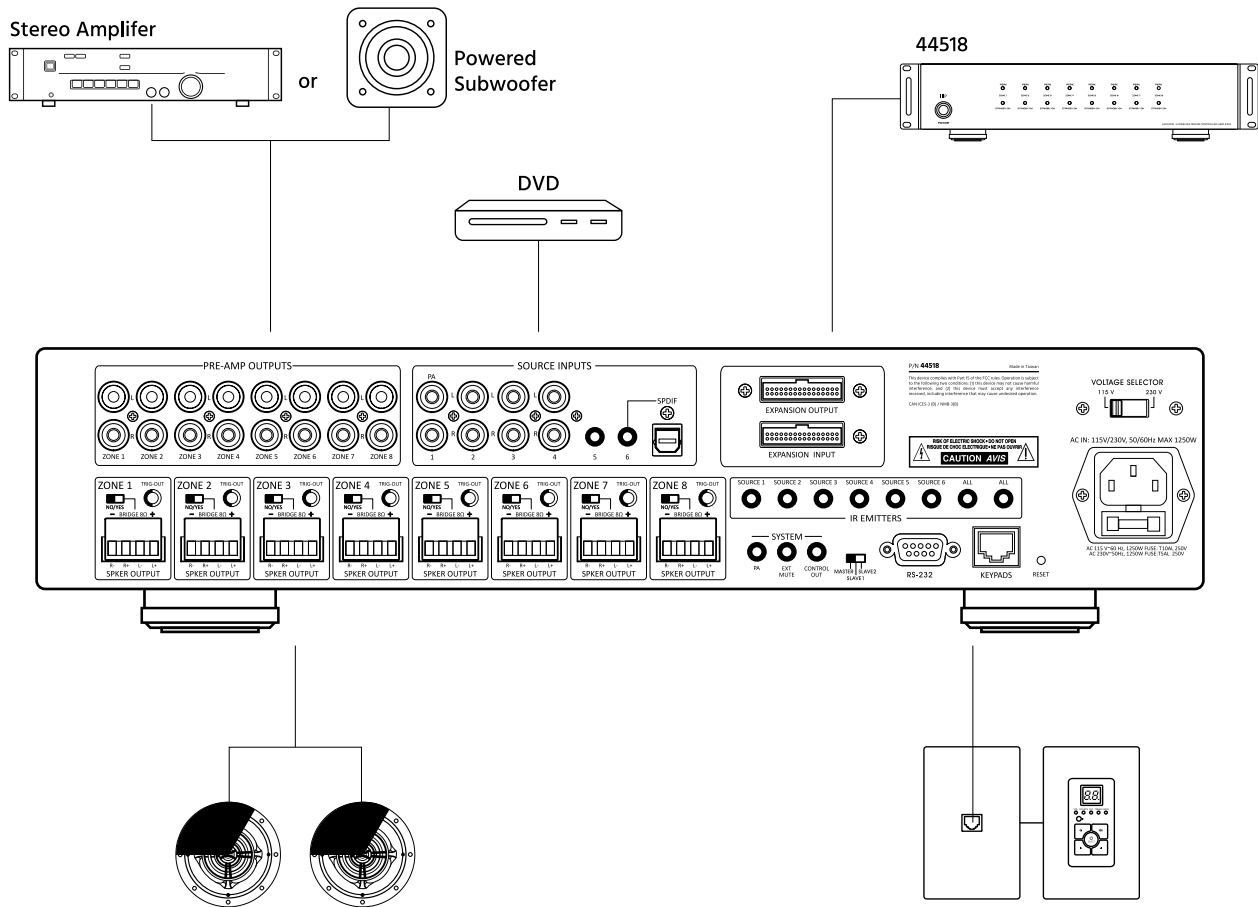
1. **Zone Mute**
2. **Source Selection (1–6)**
3. **Treble Up/Down**
4. **Volume Up/Down**
5. **Balance Left**
6. **Infrared (IR) Emitter**
7. **Zone Power On/Off**
8. **Bass Up/Down**
9. **Balance Right**



CONNECTION AND OPERATION

Before installing the amplifier, it is important to implement good installation practices:

1. Install in a well-ventilated environment.
2. Ensure any vents are not blocked to allow for proper circulation.
3. Do not install above or below sources of heat.
4. Use good quality cabling.
5. The unit can be installed within a rack using the provided mounting rack ears.



LOCATION PLANNING

Before installation, you should make a detailed plan of exactly where you will install each component and how you will route the necessary Ethernet cables to connect everything.

Determine where you will mount the Wallplate Keypad Controllers. Note that installation of the keypads requires the use of a single-gang, low-voltage mounting bracket (not included).

The Master Controller/Amplifier can be installed into a standard 19" equipment rack, using the attached rack mount ears, or can be set on a shelf. Make sure that there is sufficient room around all sides and that there is good airflow for cooling. Do not place other equipment on top of the controller and do not install it in an enclosed space, such as a cabinet or closet.

Of course, you will also need speakers for each zone. The built-in amplifiers in this unit are capable of producing 25 W per channel into 8 Ω speakers or 50 W per channel into 4 Ω speakers. Each amplifier can be individually bridged to produce 100 W into a single 8 Ω speaker. Do not attempt to use 4 Ω speakers with bridged mode.

Note: Even the best speaker cable has some resistance, which increases with the length of the cable. The resistance of the cable must be added to the impedance of the speaker when considering the total load presented to the amplifier. We recommend the use of 8 Ω speakers for longer cable runs because the resistance added by the cable would represent a smaller percentage of the total impedance and therefore would have a lesser impact on sound quality.

CABLE PREPARATION

You will need a variety of cables for this installation, the specifics of which vary depending on your installation choices. None of the cables or connectors mentioned in this section are included in the system.

Note: If you plan on running any of these cables through the walls, through a connecting floor, or inside an air duct in commercial applications, they should be rated for In-Wall, Riser (between floors), or Plenum (air duct) use, respectively. For residential installations, an In-Wall rating is sufficient for all situations. Using unrated or improperly rated cables could accelerate the spread of any fire and could nullify insurance claims.

Ethernet Cables

The Wallplate Keypad Controllers connect to the Master Controller/Amplifier via CAT5e or CAT6 Ethernet cables. The cables carry the low-voltage power needed for the keypad operation and illumination, as well as the specific signals used to control the system.

Depending on the distance of each keypad from the Master Controller, you may be able to use pre-made Ethernet cables. However, it is most likely that you will need to make custom cables of the appropriate length for each zone.

Each Ethernet cable should be wired to the TIA/EIA-568B standard, which is the standard by which almost all currently available, pre-made Ethernet cables are constructed. The following diagram shows the proper wiring for 568B connections:



It's a good idea to use a dedicated RJ45 cable tester to verify the proper operation of each Ethernet cable before installation, especially if you are building the cables yourself and especially if the cables will be routed through the walls, even if using pre-made cables. A cable tester can save a lot of time and frustration in troubleshooting any connectivity issues discovered during installation.

Speaker Wires

You will need a speaker wire to connect each speaker in each zone to the Master Controller/Amplifier. The size (AWG) of the wire you choose depends on the distance from the amplifier to the speaker/s, the speaker impedance, and the physical limits of the terminals at each end.

Other than saving a few pennies of cost or grams of weight per foot, there is no reason to use anything other than the thickest wire possible. The Master Controller/Amplifier uses Euroblock terminal connectors, which can accept up to 14 AWG wires, so it is recommended to use 14 AWG speaker wires. If the speaker terminals cannot accept 14 AWG wire, you can use a banana or pin plug to connect the wire to the speaker terminal.

Whatever speaker wire you get, make sure that it has marks to distinguish one conductor from another. Most speaker wires use a colored stripe to identify one of the conductors. The identified conductor is usually used for the positive (+/red) connection and the other for the negative (-/black) side.

Note: When cutting speaker wires, ensure that the length of each stereo pair is the same. This ensures that the overall impedance of each channel is identical. If there is any excess speaker wire, it should not be coiled, as it could create an antenna to receive stray radio signals. Instead, snake the excess wire back and forth.

RCA Cables

If there is a significant distance from the Master Controller/Amplifier to a given speaker zone, it might be better to use an external power amplifier to power the speakers in that zone. If this is the case, you will need stereo RCA cables to connect the preamp outputs to the inputs of the external amp.

While long line-level or preamplifier-level RCA cables are less susceptible to interference over long distances, it is recommended to use RCA cables manufactured using shielded RG-6 or RG-59 cable.

In addition to the preamp connections, you will need a stereo RCA cable to connect up to two source devices to the Master Controller/Amplifier's source inputs. In most cases, these will be relatively short connections, so it is not necessary to use RG-based cables.

3.5 mm TRS Cables

Source Inputs 5 and 6 can accept analog stereo audio signals from a three-conductor 3.5 mm TRS audio cable. You can use premade 3.5 mm audio cables or make them yourself using three-conductor cables and 3.5 mm TRS plugs.

Mini-TOSLINK® Cable

In addition to analog stereo audio signals, **Source Input 6** can also accept digital optical audio (S/PDIF) signals from a fiber optical mini-TOSLINK® cable. Premade mini-TOSLINK® cables are available in a variety of lengths.

Trigger Cables

This system includes several trigger inputs and outputs. The trigger outputs can be connected to the trigger inputs of responsive devices, such as projection screens, lighting systems, curtain motors, etc. The trigger inputs allow the Master Controller to respond to external trigger events, such as a PA or mute signal.

The trigger signal consists of a low-current 12 V DC signal applied to the input, which is carried between systems with a two-conductor cable that terminates in a 3.5 mm TS plug. You can use premade TS cables or make them yourself using 2-conductor wire and 3.5 mm TS plugs.

Note: You can also use 3-conductor 3.5 mm TRS cables instead of TS cables.

RS-232 Serial Cable

If you will be using the RS-232 external control option, you will need to have an RS-232 serial cable to connect your PC to the Master Controller/Amplifier. The specific wiring needs of this cable are determined by your specific setup. You will need a male DB9 (DE9) plug on the end that connects to the Master Controller/Amplifier. See the *RS-232 Serial Control* section for more information about the control codes used by the system.

IR Emitters

This system can repeat IR signals from each speaker zone to control the source devices. Carrying the IR signal from the Master Controller/Amplifier to the actual source device requires the use of IR emitters (not included). The IR emitters connect to the Master Controller via a 3.5 mm TS plug. If the emitters are not long enough, you can use standard 3.5 mm TS or TRS extension cables to increase their lengths.

The IR repeater function supports single-band IR signals only (those in the 38 kHz range).

INSTALLATION

Note: Before making any connections, ensure that all equipment is powered off and unplugged to prevent the possibility of personal injury or equipment damage due to electrical shock.

Test Installation

Before drilling any holes and before running any cables through walls, it is highly recommended to perform a test installation first. The test installation should consist of a complete connection of all speakers, wallplates, source devices, etc. so that full functionality can be verified before making permanent or difficult installation actions.

Ideally, you should route cables from the master location to the intended location of each zone, connect speakers and wallplate keypads in each zone, and perform full functionality testing using the keypads, the system's remote control, and any remote controls for connected source devices.

Connecting Multiple Multizone Controllers

If you will be using multiple multizone controllers, you will need to connect them using the ribbon cable supplied with each unit.

1. Decide which device will be the Master device. Slide the **Master/Slave** switch on this unit to the **Master** position.
2. Plug one end of the included ribbon cable into the **Expansion Output** port on the back of the Master device. Plug the other end into the **Expansion Input** port on the back of the first slave device.
3. Slide the **Master/Slave** switch on the first slave device to the **Slave 1** position.
4. If connecting a third controller, plug one end of the included ribbon cable into the **Expansion Output** port on the back of the first slave device. Plug the other end into the **Expansion Input** port on the back of the second slave device.
5. Slide the **Master/Slave** switch on the second slave device to the **Slave 2** position.

Connecting the Wallplate Keypad Controllers

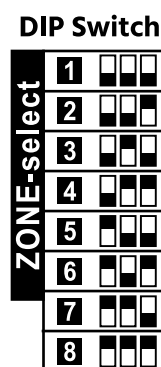
1. Set the three DIP switches on each Keypad Controller to one of the four identification patterns listed below. Each Keypad Controller connected to the same Master Controller/Amplifier must have a unique identification.

Note: The identification is localized to each Master Controller/Amplifier device. If multiple Master Controllers are in use, each one will have its own set of keypads with the same identification numbers as keypads on another Master Controller.

2. Connect one end of an Ethernet cable to the RJ45 port on the front of the Keypad In-Wall Hub Connection Plate. Connect the other end to the **Keypads** port on the back of the Master Controller/Amplifier.
3. Repeat Step 2 for each other Master Controller/Keypad In-Wall Hub Connection Plate set in the system.



4. Connect one end of an Ethernet cable to the RJ45 port on the back of one of the Keypad Controllers. Connect the other end to one of the RJ45 ports on the back of the Keypad In-Wall Hub Connection Plate. It does not matter which port is connected because the DIP switches are used to identify each Keypad Controller.
5. Repeat Step 4 for each other Keypad Controller in the system.



Connecting External Amplifiers

If you are using an external amplifier for one or more zones, perform steps 1-4 below for each external amplifier in the system.

1. Plug one end of a stereo RCA cable into the input jacks on the back of the external amplifier. Plug the other end into the appropriately numbered **Preamp Output** on the back of the Master Controller/Amplifier.
2. Connect one end of a speaker wire to the positive and negative terminals on the left channel speaker. Connect the other end to the positive and negative left channel speaker out terminals on the external amplifier. Ensure that the polarity is properly maintained at each end.
3. Connect the right channel speaker in the same way you connected the left channel in Step 2 above.
4. Visually inspect each connection to ensure that there are no stray strands of wire sticking out of any of the connections. If there are, fix the connection before proceeding.

Connecting the Speaker Wires

For each zone that will be powered using the built-in amplifiers in the Master Controller, perform the steps below.

1. Pull on the Euroblock terminal block on the back of the Master Controller/Amplifier to detach it from the device.
2. Strip about 1/4" of insulation from the ends of each conductor on the speaker wires for this zone. Twist the wire tightly so that there are no stray strands.

3. Carefully insert the positive and negative conductors on each speaker wire into the appropriate sockets in the Euroblock terminal. Tighten the screws on the terminal block until there is a good, solid mechanical and electrical connection.
4. Connect the other ends of each speaker wire to the positive and negative terminals on each of the two speakers. Pay close attention to the polarity to ensure that it is maintained at each end.
5. Visually inspect each connection to ensure that there are no stray strands of wire sticking out of any of the connections. If there are, fix the connection before proceeding.
6. Plug the Euroblock terminal block into the back of the Master Controller/Amplifier unit.

Connecting Analog RCA Source Devices

For each analog source device attached to the Master Controller/Amplifier(s) using the RCA inputs, plug one end of a stereo RCA cable into the Source Input jacks on the back of the Master Controller/Amplifier. Plug the other end into the output jacks of the source device.

Connecting Analog 3.5 mm Source Device

For each analog source device attached to the Master Controller/Amplifier(s) using the 3.5 mm TRS inputs, plug one end of a 3.5 mm TRS stereo audio into the Source Input jack on the back of the Master Controller/Amplifier. Plug the other end into the output jack of the source device.

Connecting a Digital Optical (S/PDIF) Source Device

You can connect digital audio source devices, such as CD players, Blu-Ray players, and digital media streaming devices **Source Input 6**. To make the connection, plug one end of a digital optical cable into **Source Input 6** at the back of the Master Controller/Amplifier, then plug the other end into the output of the digital audio source device.

Connecting the Triggers

The Status and **System Control Out** jacks on the back of the Master Controller/Amplifier provide a constant 12 V DC signal used to trigger other devices on/off, such as projection screens, curtains, lights, etc. The eight numbered Status jacks output a trigger signal whenever the associated zone is active. The **System Control Out** jack outputs a trigger signal whenever any of the zones are active.

Using a 3.5 mm TS or TRS audio cable, plug one end into the trigger input on your other device, then plug the other end into the appropriate output jack on the Master Controller/Amplifier. This is a very low current signal, so length is not an issue.

Connecting IR Emitters

Each Wallplate Keypad Controller has an IR receiver "eye", which can receive and process signals from the system's remote control. Additionally, it can receive and repeat the signals from other remote controls. An IR emitter is used to transmit the repeated IR signal to the IR receiver "eye" on the source device.

Each numbered IR emitter jack corresponds to a specific source device. When an IR remote control is used in a particular zone, the system determines which source device is selected for that zone and sends the IR signal out to that specific device's IR emitter.

In addition to the specific IR signaling to individual source devices, the ALL jack repeats all IR signals received, regardless of the zone or the selected source device. With the ALL output, you can use a single IR emitter to process the signals for all devices, so long as they are within range and have a clear line-of-sight to the IR emitter.

To install an IR emitter, simply insert the 3.5 mm plug for the emitter into the appropriate IR Emitter jack. Position the emitter bulb so that it is within range and has a clear line of sight to the source device(s). If the emitter cord is not long enough, you can use any 3.5 mm TS or TRS extension cable to extend its reach.

Connecting Power

1. Using the included AC power cable, plug the C13 end into the C14 panel connector on the back of the Master Controller/Amplifier. Plug the other end into a nearby AC power outlet.
2. Plug in each other device in the system (source devices, external amplifiers, etc.) into nearby AC power outlets.
3. Power on each device.

Final Installation

Once you have verified the proper operation of all aspects of the system, it is time to take it all apart and perform the permanent installation.

1. Turn off and unplug all equipment.
2. Remove all connecting wires and cables and route them to their permanent locations.
3. Reattach all equipment following the steps listed above.
4. For each zone, perform a complete test of full operation as described in the sections above.

*Congratulations! You have completed the installation and can now enjoy music
or other audio material throughout your home.*

RS-232 SERIAL CONTROL

All keypad and remote control operations can be performed by a computer connected to the Master Controller/Amplifier using an RS-232 connection. The communications standard uses:

Baud Rate: 9600, 8, N, 1

DB9 Connector Pinout Tx, Rx, GND

'CR': Carriage Return (0x0D)

No case capitalization/lowercase

Control order structure <xxPPuu'CR' Reply control order frame>

For xxPPuu'CR':

xx: stands for control object code

10: All Zones of Main Unit 1.

20: All Zones of Main Unit 2.

30: All Zones of Main Unit 3.

11: Zone 1 of Main Unit 1.

12: Zone 2 of Main Unit 1.

13: Zone 3 of Main Unit 1.

PP: Stands for control action code.

PR: Power control

PR00: Power off

PR01: Power on

MU: Mute control

MU00: Mute off

MU01: Mute on

DT: Do Not Disturb control

DT00: DT control off

DT01: DT control on

VO: Volume control

VO (00-38): Volume control

TR: Treble control

TR (00-14): Treble control

BS: Bass control

BS (00-14): Bass control

BL: Balance control

BL (00-20): Balance control

CH: Source Channel control

CH (01-06): Source control

Inquiry command structure (1) ?xx'CR'

xx: stands for control object code

10: All Zones of Main Unit 1.

20: All Zones of Main Unit 2.
 30: All Zones of Main Unit 3.
 11: Zone1 of Main Unit 1
 12: Zone2 of Main Unit 1
 13: Zone3 of Main Unit 1
 21: Zone1 of Main Unit 2
 22: Zone2 of Main Unit 2
 23: Zone3 of Main Unit 2

Reply command: > xxaabbccddeeffgghhijj'CR'

aa: PA control status
 bb: Power control status ([5]: Backup Zone Power Status only on zone)
 cc: Mute control status
 dd: DT control status
 ee: Volume control status
 ff: Treble control status
 gg: Bass control status
 hh: Balance control status
 ii: Source control status
 jj: keypad connecting status
 (00: disconnect 01: connected)

Inquiry command structure (2) ?xxPP'CR'

xx: stands for control object code
 10: All Zones of Main Unit 1.
 20: All Zones of Main Unit 2.
 30: All Zones of Main Unit 3.
 11: Zone1 of Main Unit 1
 12: Zone2 of Main Unit 1
 13: Zone3 of Main Unit 1
 14: Zone4 of Main Unit 1
 PP: Stands for control action code.
 PA: PA control
 PR: Power control
 MU: Mute control
 DT: DT control
 VO: Volume control
 TR: Treble control
 BS: Bass control
 BL: Balance control
 CH: Source control
 LS: keypad connecting status

Reply command: >xxPPuu'CR'

Key in 1<*****'CR' change Source 1 Name display, *****needs to be 8 valid ASCII codes

Key in 2<*****'CR' change Source 2 Name display
 Key in 3<*****'CR' change Source 3 Name display
 Key in 4<*****'CR' change Source 4 Name display
 Key in 5<*****'CR' change Source 5 Name display
 Key in 6<*****'CR' change Source 6 Name display
 Key in M<*****'CR' change the name display on the keypad when turned on.
 Key in <9600'CR' change RS232 speed rate to 9600
 Key in <19200'CR' change RS232 speed rate to 19200
 Key in <38400'CR' change RS232 speed rate to 38400
 Key in <57600'CR' change RS232 speed rate to 57600
 Key in <115200'CR' change RS232 speed rate to 115200
 Key in <230400'CR' change RS232 speed rate to 230400

The baud speed rate returns to 9600 when the Master Controller/Amplifier is disconnected from its power source.

ee: Volume control status
 ff: Treble control status
 gg: Bass control status
 hh: Balance control status
 ii: Source control status
 jj: keypad connect status
 (00: disconnect 01: connected)

Inquiry command structure (2) ?xxPP'CR'

xx: stands for control object code
 10: All Zone of Main Unit 1.
 20: All Zone of Main Unit 2.
 30: All Zone of Main Unit 3.
 11: Zone1 of Main Unit 1
 12: Zone2 of Main Unit 1
 13: Zone3 of Main Unit 1
 14: Zone4 of Main Unit 1

PP: Stands for control action code.

PA: PA control

PR: Power control

MU: Mute control

DT: DT control

VO: Volume control

TR: Treble control

BS: Bass control

BL: Balance control

CH: Source control

LS: keypad connecting status

Reply command: >xxPPuu'CR',*****needs to be 8 ASCII codes.

Key in 1<*****'CR' change Source 1 Name display on the keypad when the keypad is turned on.

Key in 2<*****'CR' change Source 2 Name display on the keypad when the keypad is turned on.
 Key in 3<*****'CR' change Source 3 Name display on the keypad when the keypad is turned on.
 Key in 4<*****'CR' change Source 4 Name display on the keypad when the keypad is turned on.
 Key in 5<*****'CR' change Source 5 Name display on the keypad when the keypad is turned on.
 Key in 6<*****'CR' change Source 6 Name display on the keypad when the keypad is turned on.
 Key in M<*****'CR' change the name in the display on the keypad when the keypad is turned on.
 Key in <9600'CR' change RS232 speed rate to 9600
 Key in <19200'CR' change RS232 speed rate to 19200
 Key in <38400'CR' change RS232 speed rate to 38400
 Key in <57600'CR' change RS232 speed rate to 57600
 Key in <115200'CR' change RS232 speed rate to 115200
 Key in <230400'CR' change RS232 speed rate to 230400

TECHNICAL SPECIFICATIONS

P/N	44518
Stereo RMS Power (8 Ω)	25 W / stereo per zone
Stereo RMS Power (4 Ω)	50 W / stereo per zone
Bridged (Mono) RMS Power (8 Ω)	100 W per zone
S/N Ratio	> 85 dB A-Weighted
THD	< 0.1%
Frequency Response	20 Hz - 20 kHz
Input Impedance	> 47 k Ω
Input Sensitivity	500 mV for 50 W @ 1 kHz into 4 Ω on one zone 500 mV for 25 W @ 1 kHz into 8 Ω on one zone
Amplifier Protection	Overload, Short Circuit, Thermal
System ON Trigger Voltage	+12 V DC
External Mute Trigger Voltage	+12 V DC
Infrared Frequency	38 kHz
Input Connectors	3.5 mm stereo, RCA, TOSLINK®, RS-232 (DB9)
Output Connectors	Euroblock terminal (up to 14 ga), RCA Pre-out, 3.5 mm mono, RJ45 (keypad hub only)
Power Supply (Switchable)	115 V / 230 V, 50/60 Hz MAX 1250 W
Maximum Power Consumption	1250 W
Maximum Standby Power	22 W
Dimension (W × H × D)	16.9" × 3.5" × 16.4" (430 mm × 89 mm × 416 mm)
Weight	26.5 lbs (12 kg)

CUSTOMER SERVICE

The Monoprice™ Customer Service department is dedicated to ensuring that your ordering, purchasing, and delivery experience is second to none. If you have any problems with your order, please give us an opportunity to make it right. You can contact a Monoprice™ Customer Service representative through the Live Chat link on our website **www.monoprice.com** or via email at **support@monoprice.com**. Check the website for support times and links.

TECHNICAL SUPPORT

Monoprice™ is pleased to provide free, live, online technical support to assist you with any questions you may have about installation, setup, troubleshooting, or product recommendations. If you ever need assistance with your new product, please come online to talk to one of our friendly and knowledgeable Tech Support Associates. Technical support is available through the online chat button on our website **www.monoprice.com** or through email by sending a message to **tech@monoprice.com**. Check the website for support times and links.

To download the latest drivers, firmware, manuals, etc., go to **www.monoprice.com** and type **44518** into the search bar. If available, support files are linked at the bottom of the product page.

REGULATORY COMPLIANCE

Notice for FCC



This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Modifying the equipment without Monoprice's authorization may result in the equipment no longer complying with FCC requirements for Class B digital devices. In that event, your right to use the equipment may be limited by FCC regulations, and you may be required to correct any interference to radio or television communications at your own expense.

This equipment has been tested and found to comply with the limits for a 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 to 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.

Notice for ISED Canada

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

DISPOSAL AND RECYCLING INFORMATION



The symbol indicates that this product should be disposed of separately from regular household waste streams. It is your responsibility to dispose of this and other electrical and electronics products via designated collection facilities appointed by the government or local authorities. Correct disposal and recycling will help prevent potential negative consequences to the environment and human health. For more detailed information about the disposal of your unwanted product, please contact your local authorities, waste disposal service, or the shop where you purchased the product.



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