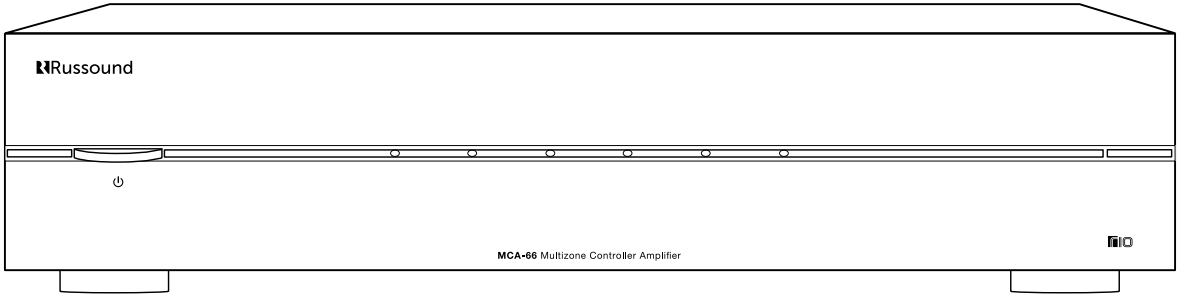
Russound®



MCA-66

6 Source, 6 Zone Controller Amplifier

Installation Manual

NOTICE:
INTERNET CONNECTION REQUIRED FOR PRODUCT INSTALLATION

There are two things that must be done at the time of installation of this product that require a working internet connection:

1. Enter valid Russound Certified Installer credentials. The MCA-66 is shipped in a locked state so that it cannot be operated without first being configured by a Russound Certified Installer.

RUSSOUND CERTIFIED INSTALLER REQUIRED

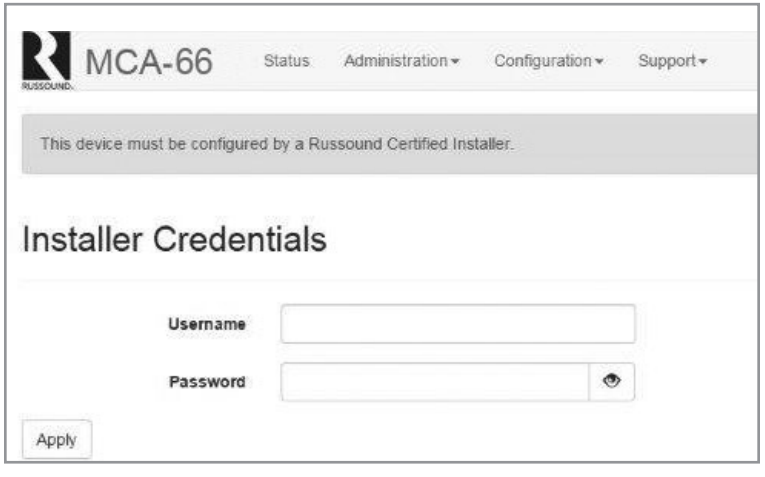
IF YOU ARE NOT A RUSSOUND CERTIFIED INSTALLER, YOU WILL NOT BE ABLE TO INSTALL AND CONFIGURE THIS PRODUCT.

If you are a custom installation professional and wish to become authorized as a Russound Certified Installer, please contact your Russound Sales Representative for more information.

Note: If you are a Russound Certified Installer and you plan on installing this product on a job site that may not have working internet access, please configure the unit at your shop or other location where internet access is available BEFORE you take it to the job site.

2. Firmware may be updated through Web-SCS configuration webpages or by using a USB stick with the latest firmware. In both cases, an internet connection is required for obtaining the most recent firmware.

Note: If no internet connection will be available at the installation location, please download the latest firmware from the Russound website to your laptop or to a USB drive before going to the job site.



Russound Certified Installer credentials must be entered through the Web-SCS configuration webpages.

Lockdown Feature

When a product is shipped from Russound, it will operate in only a "locked" state. In this state, no audio or control of attached devices via its user interfaces (keypad, touchscreen, MyRussound App) is available. In order to unlock the system, valid Russound Certified Installer credentials must be entered in the Web-SCS.

When the controller is first powered on, a message will appear on all connected MDK-C6 keypads, TS3 touchscreens and the MyRussound App indicating that the device must be unlocked. The message will contain the IP address of the controller. Using your mobile device or computer, browse to the controller's IP address (type http:// and then the IP address).

If you are using the MyRussound App, the IP address appears as a link that will direct you to the Web-SCS via your local web browser.

If you do not have a valid Russound Certified Installer credential, please contact your Russound sales representative.

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Thank you for choosing the Russound MCA-66 Multizone Controller Amplifier to enhance your home with multiroom audio.

MCA-66 Feature Overview

Available User interfaces: The MCA-66 works with the MDK-C6 keypad, SLK1 keypad, TS3 touchscreen, and the MyRussound App. For information about user interfaces, go to the Russound portal at www.russound.com.

Note: The internal AM/FM tuner available in our previous C-Series controllers was replaced in the MCA controllers with a *Bluetooth®* input extension for the easy addition of an optional BTC-1X *Bluetooth* receiver. If you'd like to add a tuner, Russound manufactures the ST-1 and the DMS-3.1 which can be added to the MCA-66.

Firmware updates can now be performed using the either the USB connection or Ethernet connection.

Programming the controller is performed using a network connection only. Basic programming of the controller can be performed using the Web-SCS. Russound SCS-C5 configuration software is available for additional programming options.

Key features include:

- Twelve channels of analog amplification rated at 20 watts per channel
- Digital Audio Inputs (3 coax, 1 optical)
- 6 Sources delivered to up to 6 zones for sharing music throughout the home
- Built-in *Bluetooth* extension input to connect a BTC-1X receiver.
- Scalable up to 36 zones.
- Ethernet connectivity for programming and control.
- On-board Basic Configuration available with Web-SCS via an internet browser from most mobile devices such as phones or tablets.
- Supports 32 Global System Favorites as well as 2 Favorites per Zone.
- Works with RNET smart sources, transmitting metadata (song, artist and other information) for display on the keypads.
- Audio paging with a 12v trigger input.
- Party mode, Do Not Disturb, and source / zone linking options.
- Alarm clock and sleep timer (with MDK-C6 keypad and TS3).
  Note: Alarm function requires a dedicated source input such as the ST-1 Smart Tuner
- Simplified programming and control via intelligent IR learning capabilities for quick setup.
- Fixed/Variable Line level outputs for zones 1 and 2.
- Routed IR source control outputs for each source, and one common IR output.
- Home Theater trigger in/out.

Key Programming Features

The MCA-66 Controller now has a new programming feature called Web-SCS. This programming feature allows the installer to connect to the controller via its IP address using any smartphone, tablet, or laptop and configure basic items such as naming sources and naming zones. Full featured programming, such as IR programming for non-Russound sources, are still available through the traditional SCS-C5 programming software, available as a free download from Russound.com.

Web-SCS is designed to be used with an internet browser. Now, the installer can get a system up and running, and in many cases completely finished, right from their phone or tablet.

Web-SCS Features

- Assign Zone and Source names
- General network configuration (static IP)
- Firmware Updates
- Zone Volume Trim
- Enable/Disable Zone All On Participation
- Source Type and Source Volume Trim
- Switch between Digital and Analog inputs

SCS-C5 Features

All features of Web-SCS, plus:

- IR Source Programming
- Learned IR programming
- Macro Setup
- Save/Load configuration files
- Zone page enable/disable
- Keypad button configuration
- Power Management configuration
- Source and Zone linking

Programmable options with Russound SCS-C5 software

SCS-C5 software which is needed to program and configure additional or advanced features of the system is available via download from the Support Center at www.russound.com. With your Windows (XP, 7, or 8.x) laptop, you can configure the system completely prior to connecting with the MCA-66 controller. The software has a Source Setup Wizard to aid in the setup and basic configuration of the sources. Once configured, the system information can be saved to a file.

Items to be programmed with SCS-C5 software include:

Source Configuration - the enhanced IR library simplifies programming.

Zone and Source Names - a list of predefined names are available and will be visible in the user interfaces. Custom naming is also possible.

Source Exclusion - allows you to limit the sources available to a particular zone.

Party Mode Participation - defines whether a zone can participate in Party mode.

Zone and Source Linked Groups - two groups of each type are allowed per controller. Groups share source selection and party mode participation.

All ON Participation - defines whether or not a zone will respond to the All ON command.

Page Participation - defines whether a zone will respond to a page event.

Page Volume - sets the volume of a page event in each zone.

Power Management of Sources - enabled / disabled per source. This feature uses IR commands and audio signal sensing to power up sources and initiate audio to confirm source power states. If enabled, the source will turn on when the first zone is turned on or the home theater trigger has a12 VDC signal present. The source will turn off 5 minutes after the last zone is turned off, or 5 minutes after input is discontinued from the home theater trigger.

Sound Controls - Adjust Bass, Treble, Balance, Loudness and Turn On Volume initial settings per audio zone.

IR Keycode Learning - allows IR codes to be learned, saved, and managed.

Page Input on Source 6 - assigns Source 6 as a paging input.

Note: DHCP must be enabled on the LAN for initial configuration. A static IP address can be configured later.

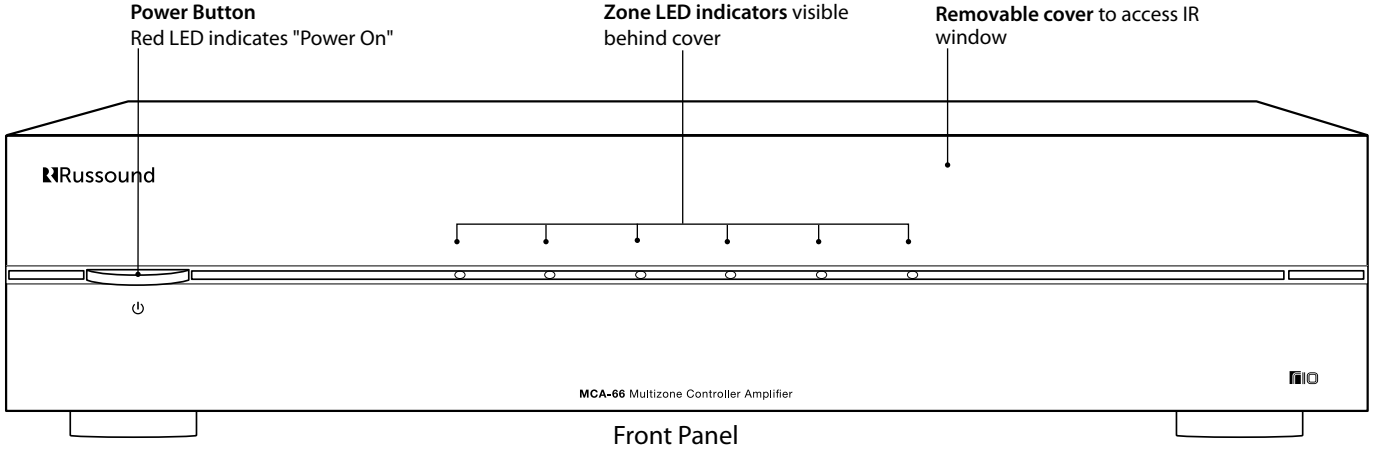
The IP Address of the MCA controller can be obtained via several methods.

- By viewing the DHCP table of connected devices within the settings of the router.
- By using an IP Scanner app on a smartphone or tablet.
- By using a TS3 touchscreen or MDK-C6 keypad:

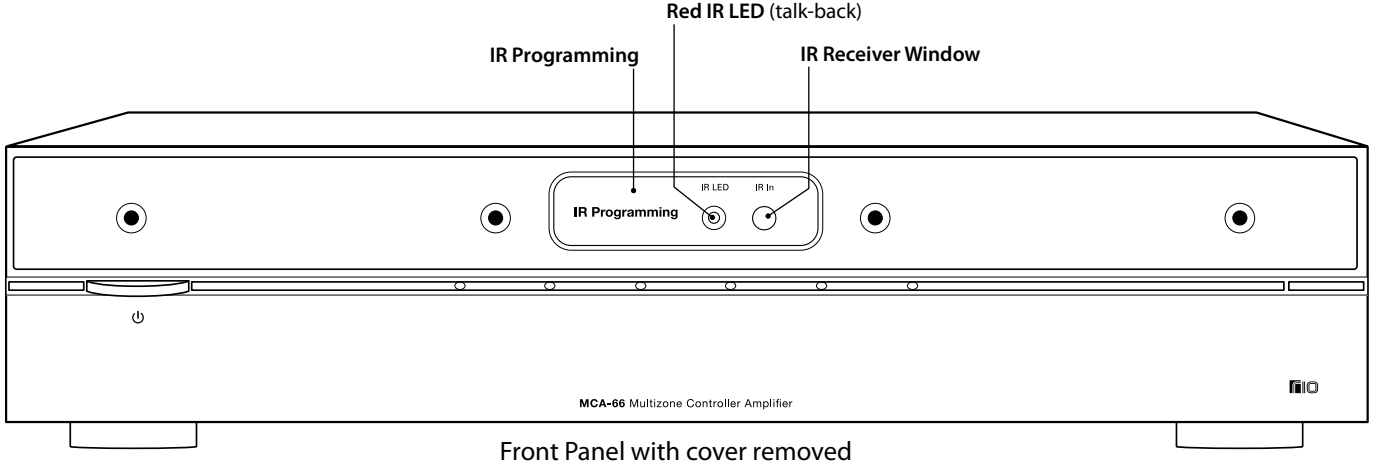
To display the IP Address on a TS3 Touchscreen, select Settings > Screen Setup > Installer Setup (hold for 3 seconds) > About.

To display the IP Address on an MDK-C6 keypad, select **HOME>SETTINGS>INSTALLATION>NETWORK SETTINGS.**

CONTROLLER FRONT PANEL



Front Panel



Front Panel with cover removed

Common 12V Trigger
12VDC 100ma output when any zone is active

Home Theater 12 VDC Trigger
Activates source power management when sharing sources with home theater

AC Voltage Switch
Select appropriate voltage

Digital Inputs
Connect 3 SPDIF coaxial or 1 Toslink Optical connection to digital sources

Page 12VDC Trigger
Accepts paging device 12v input

Factory Reset Button
A 3 second press and hold resets network to DHCP. A 10 second press and hold deletes all configuration information and locks the unit.

Controller ID Switch
Set ID for multiple controller configurations

Serial Interface
RS-232 port for 3rd party device communication

RNET Link - Links multiple controllers and/or RNET sources

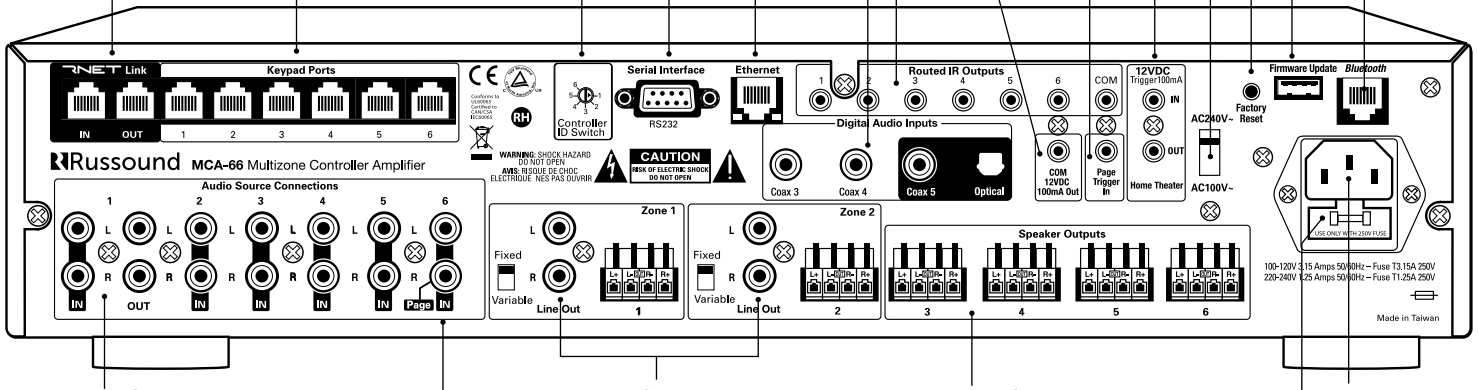
Keypad Ports - RJ-45
Connections for zone keypads

Ethernet Port
For programming and control

IR Outputs
6 routed, 1 common

USB Port for Firmware Updates

***Bluetooth* Extension Input**
Connect Russound BTC-1X.



Audio Source Connections
Signal sensing stereo line level inputs

Page Audio In
Source 6 configurable as paging audio input (right channel only)

Line Level Outputs
Can be set Fixed or Variable for zones 1 and 2 (always active when set to Fixed)

Speaker Outputs - Connect 8 Ohm speakers for each of the zones

AC 120/240V Input
Detachable grounded power cord connection

Fuse Holder
Holds replaceable fuse for AC input connection

Rear Panel

Ventilation Requirements

Important: The MCA-66 should be situated so that its location or position does not interfere with its proper ventilation. Do not block vents above or to the sides of the unit, as it requires ventilation for proper operation. Do not expose to excessive dust, and do not allow dust to build up on the unit and block vent holes. Do not place the MCA-66 above or below a heat-generating component such as an audio amplifier.

Be sure to leave at least 2 inches of space to the sides of the unit with open air flow above. A single-space rack mount vent or about 1.75 inches must be kept clear above and below the unit.

Installation

The MCA-66 controller can be rack mounted or placed on a shelf in an equipment rack. The controller occupies two rack spaces with feet removed.

The controller can be installed in an equipment rack using the included rack-mount ears and hardware to attach the ears to the controller chassis.

Up to six controllers can be connected for up to 36 zones on the system.

Note: Systems with multiple controllers require splitting source audio connections with RCA Y-splitter cables, or for larger systems, audio DA (Distribution Amplifier) splitters.

Electrical Power

The MCA-66 operates at 100-120VAC ~60 Hz or 220-240VAC ~50 Hz. Voltage is selected by the voltage switch on the rear panel and incorporates the appropriate detachable power cord. It is recommended that the MCA-66 and the source equipment be plugged into a dedicated 20-amp circuit. A power line conditioner can reduce interference problems caused by noise found in some electrical systems.

The power switch for the unit is on the front panel.

Important Considerations

- Disconnect the power cord before making any connections to the controller.
- Verify that all connections and polarity are correct.
- Keep all power cords away from all signal cables to prevent humming from induced noise.
- Choose reliable signal cables and patch cords.
- Label all wires with the room location at both ends of the wire.
- Avoid running speaker wires or signal cables close to house electrical wiring for any distance. If you have to run them parallel, make sure to space the wires at least two feet from the AC line. If you need to cross an AC line it should be at a 90° angle.
- For multiple controllers, the controller ID must be set with the rotary switch on the rear panel. Each controller must be set to a unique number before powering connected controllers.

Important: Basic Source and Zone name configuration can be done with Web-SCS on a tablet or smartphone. More detailed IR programming and system configuration can be completed with the free SCS-C5 software available at www.russound.com



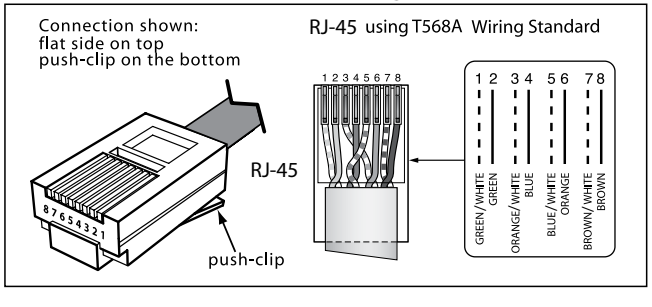
Do not connect the controller's main power feed until all other connections have been made and verified. Live connection or removal of the keypad wiring or other wiring when the system is powered can result in erratic operation or system damage. Double-check terminations during each phase of the installation to prevent accidental damage. Incorrect wiring is the number one cause for non-warranty product damage.

Wiring

Route CAT-5e cable between the keypad locations and the controller. Terminate all CAT-5e cables with an RJ-45 connector using the T568A wiring standard configuration. Utilize a UL/CSA approved electrical box at the keypad (double-gang at least 32 cu. in.) and controller locations. Using connector specific wall plates at the controller location will better organize all of the incoming cables. Route CAT-5e wire from the electrical box to each keypad location, with runs not to exceed 250 feet. Label the wires at both ends with the zone and location.

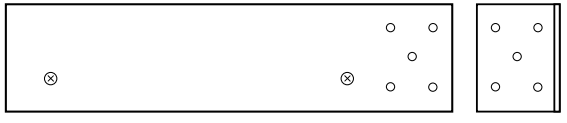
Route standard 4 conductor speaker wire to each speaker location. Each speaker connection requires an 8-ohm load and will provide 20 watts per channel. Standard 16-gauge 4-conductor stranded speaker wire can be run up to 125 feet; 14-gauge wire can be run up to 250 feet.

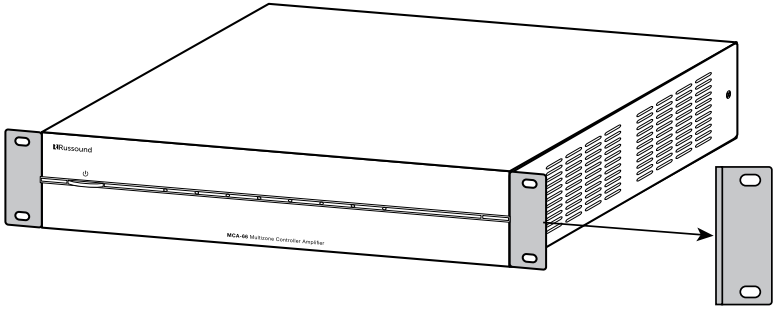
RJ-45 CAT-5 Wiring Scheme



Rack Mount Installation

To attach the rack ears, locate the five rack mount holes on each side of the controller's chassis. Align the holes in the rack ears with the holes in the chassis. Insert and tighten the screws.





Controller / Keypad Connection

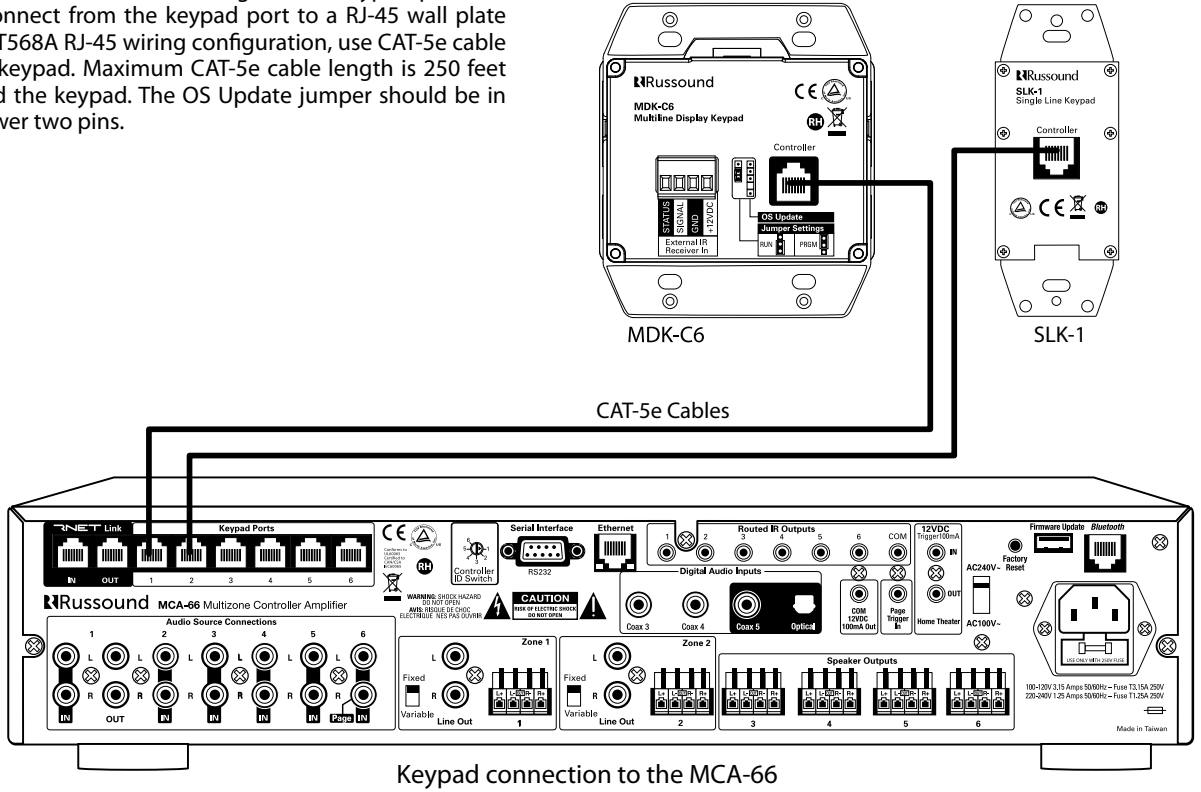
The MDK-C6 keypad is designed for use with the MCA controllers, and connects to a keypad port near the top left on the rear of the controller. These RJ-45 ports support MDK-C6, SLK-1 keypads and TS3 touchscreens .

The six keypad ports correspond to the six zones supported by the MCA-66. When a connected keypad is powered on, the zone becomes active and the corresponding zone LED lights up on the front of the MCA-66 controller.

Connections are made using CAT-5e with RJ-45 connectors using T568A wire configuration. For a clean installation when wiring from a keypad port use a CAT-5e patch cable to connect from the keypad port to a RJ-45 wall plate (optional). Using the same T568A RJ-45 wiring configuration, use CAT-5e cable from the wall plate to the keypad. Maximum CAT-5e cable length is 250 feet between the controller and the keypad. The OS Update jumper should be in the RUN position on the lower two pins.

If more keypads are desired for a zone, use an optional SA-ZX3 keypad splitter with a Russound 1201A (12VDC 1A) power supply at the controller end. All keypads on an SA-ZX3 control the same zone. More detailed information regarding SA-ZX3 installation and operation can be found in its installation manual.

Note: The keypad ports are only to be used with Russound keypads and are NOT to be used for any ethernet or computer networking connections. The Russound keypad ports output 12vDC that will damage networking products.



Keypad connection to the MCA-66

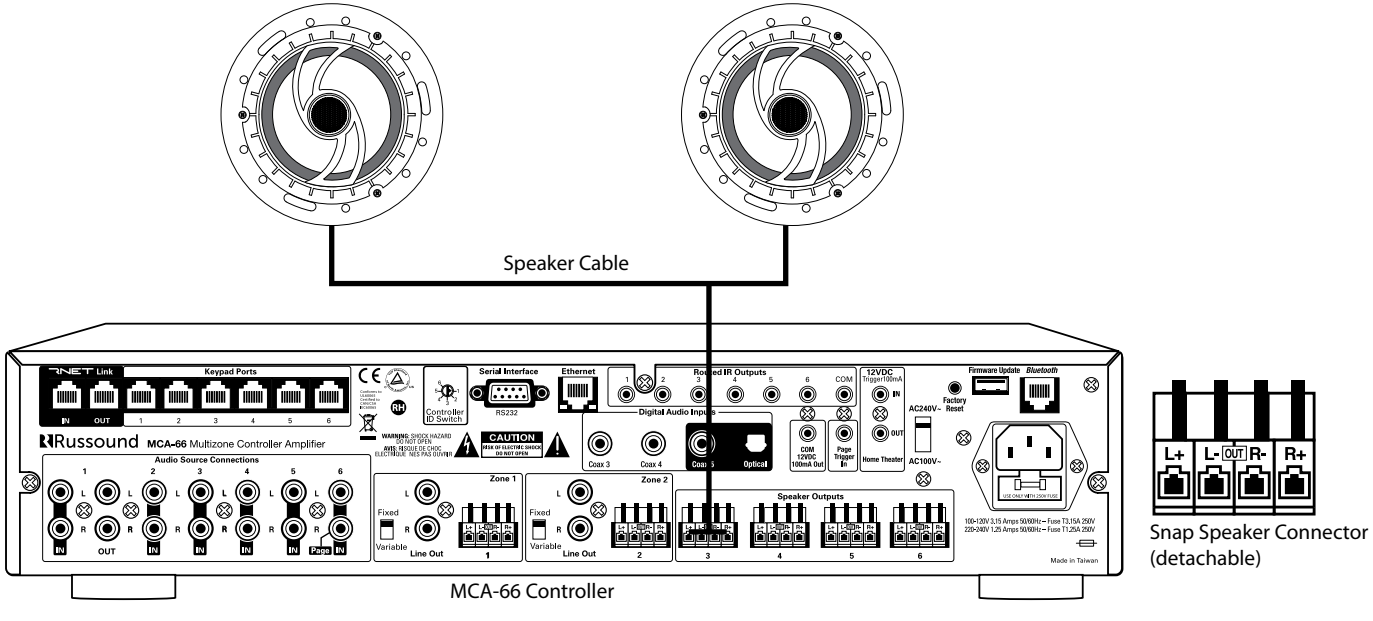
Speaker Output Connections

The MCA-66 supports speaker outputs for all zones. These 20 watt per channel stereo speaker level outputs have high-current two-channel analog amplifiers. Each speaker connection requires an 8-ohm load.

The speakers are connected to the MCA-66 using the supplied modular snap speaker connectors. Each of these color coded connectors is designated for the speaker set of a particular amplified zone. To avoid confusion, connect one zone speaker set at a time starting with Zone 1, taking care to keep zone and speaker wire identities straight.

Strip 1 to 2 inches (2.5 to 5 cm) off the end of each speaker cable jacket. Then strip ¼ inch (0.7 cm) of insulation off each wire. Twist the speaker wire strands together so there are no strands separated from the bundle.

Lift the locking lever for each connection until it locks open and insert the proper speaker wire, matching channel and polarity for all four wires. Snap the lever down. Check to make sure there are no stray strands of wire outside the terminals. If there are, remove the wire, twist the strands together, and reconnect the wire to the terminal. Insert the modular connector into its designated output on the back of the MCA-66.

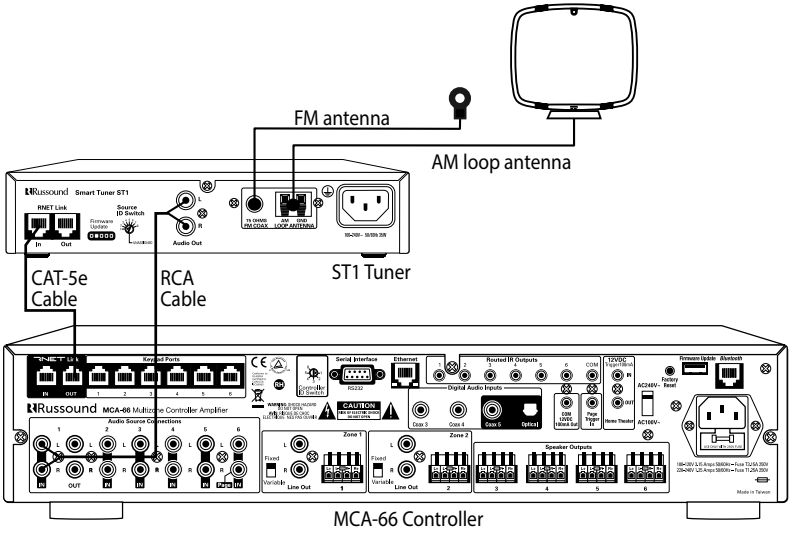


Speaker Output Connections

RNET Source Data Connections

The RNET Link In and Link Out can be used to connect the MCA-66 to other Russound RNET-enabled source equipment. The connection is made using a CAT-5e patch cable from the Link Out of the controller and into the Link In of the RNET-enabled source. Another CAT-5e patch cable can be used to link out of that source and link into another RNET-enabled source in the system. Use a standard CAT-5e patch cable with an RJ-45 connector on each end.

Along with RNET data signals, the RNET Link In and Link Out port passes source IR signals. To avoid potential cross-talk between the source-specific IR repeating signal lines, the cable can not exceed 18 inches in length.

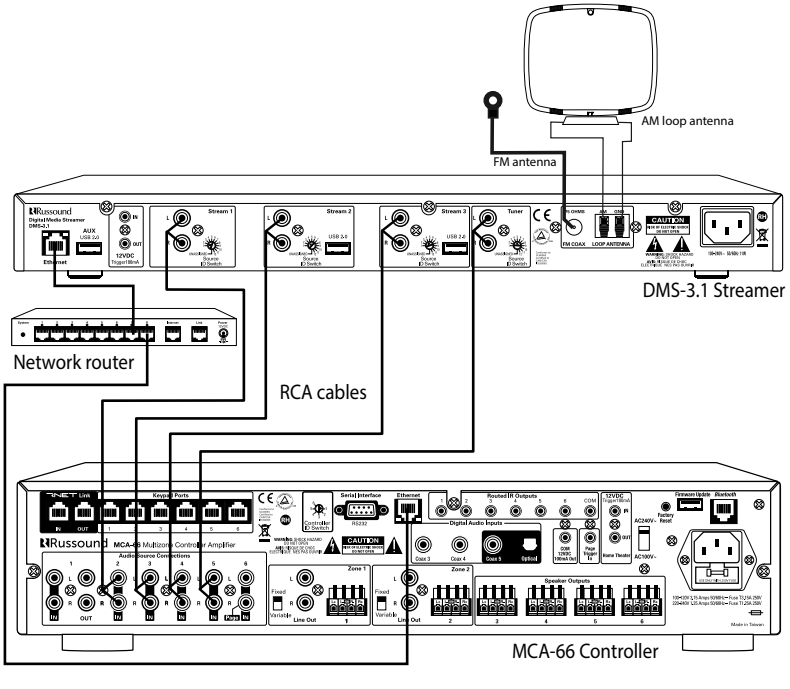


RNET Source Connection to MCA-66

Source Audio Connections

On the MCA-66, sources 1 through 6 have standard stereo audio inputs. All source inputs have audio signal sensing. These sources can be programmed during zone setup to be global sources, or zones can be individually programmed to restrict access to sources.

Connect each source output using quality RCA signal cables. Connect the Left and Right Audio outputs from each source to the corresponding inputs on the MCA-66 controller.



Audio Source Connection to MCA-66

Bluetooth Connection (Optional)

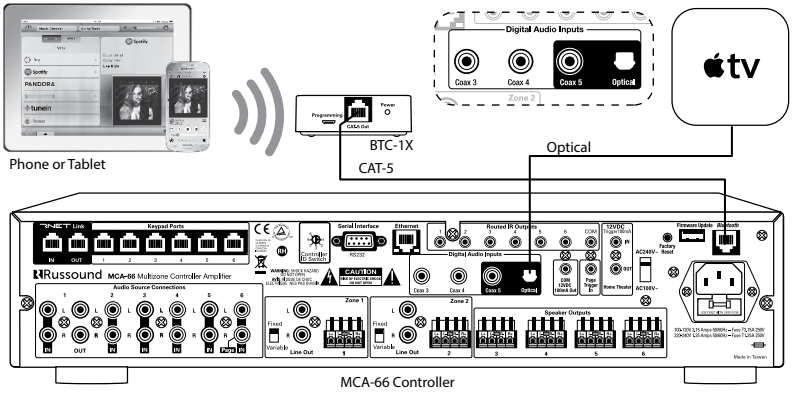
The MCA-66 supports a connection for the optional Russound BTC-1X *Bluetooth* module. The BTC-1X *Bluetooth* module can be located up to 300 feet away from the MCA-66 using CAT-5 wire terminated via T568A, allowing the user to connect their smartphone or tablet via *Bluetooth* within range of the BTC-1X in their living area while the MCA-66 is remotely located.

The *Bluetooth* connection takes up Source 1 of the MCA-66's 6 sources.

Digital Audio Inputs

The MCA-66 supports digital source inputs, for both Coaxial and Optical audio connections. The digital inputs are hard-wired to take up Sources 3, 4 and 5. Source 5 can be configured for either Coaxial or Optical digital input.

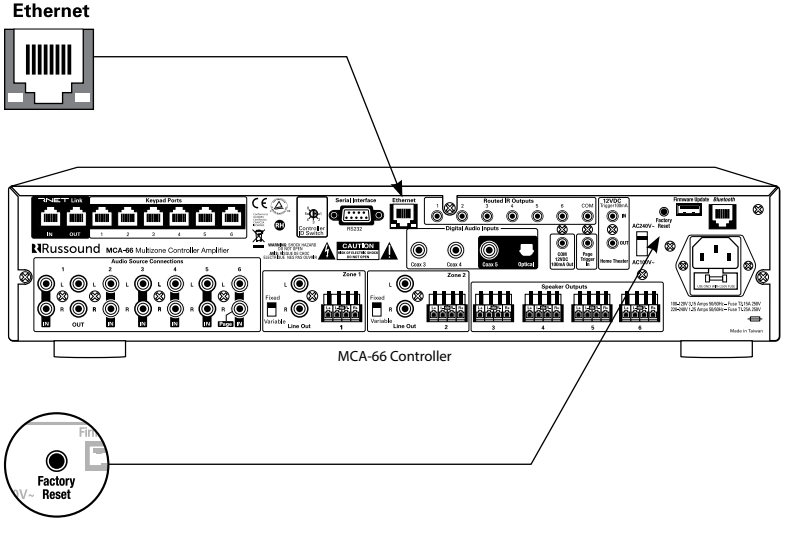
Source 3, 4 and 5 are configured for Analog inputs by default. These source inputs can be configured to be digital inputs using Web-SCS or SCS-C5 configuration software.



Ethernet Connection

The Ethernet connection is used for configuration and programming as well as for enabling control via the MyRussound App. The default connection is DHCP, but it may be configured with a static IP address using the SCS-C5 software.

It is required for communication and controll of Russound IP sources such as the DMS-3.1.



Factory Reset

This button has two functions. A 3 second press and hold will restore network settings to DHCP. A 10-second press and hold will reset the controller to its factory default settings. A unit that has been reset to factory default will have no configuration and will need to be unlocked and reconfigured by a Russound Certified Installer.

MULTIPLE CONTROLLER INSTALLATION

Linking Multiple Controllers

The RNET Link In and Link Out can be used to connect two or more (up to 6) MCA-66 controllers. The connection is made using a CAT-5e patch cable from the Link Out of the first controller and into the Link In of the next controller. Along with RNET data signals, the RNET Link In and Link Out ports pass source IR signals.

The CAT-5e patch cable must have an RJ-45 connector on each end with T568A wiring configuration. It can not exceed 18 inches (45.7 cm) in length to avoid potential cross-talk between the source-specific IR repeating signal lines.

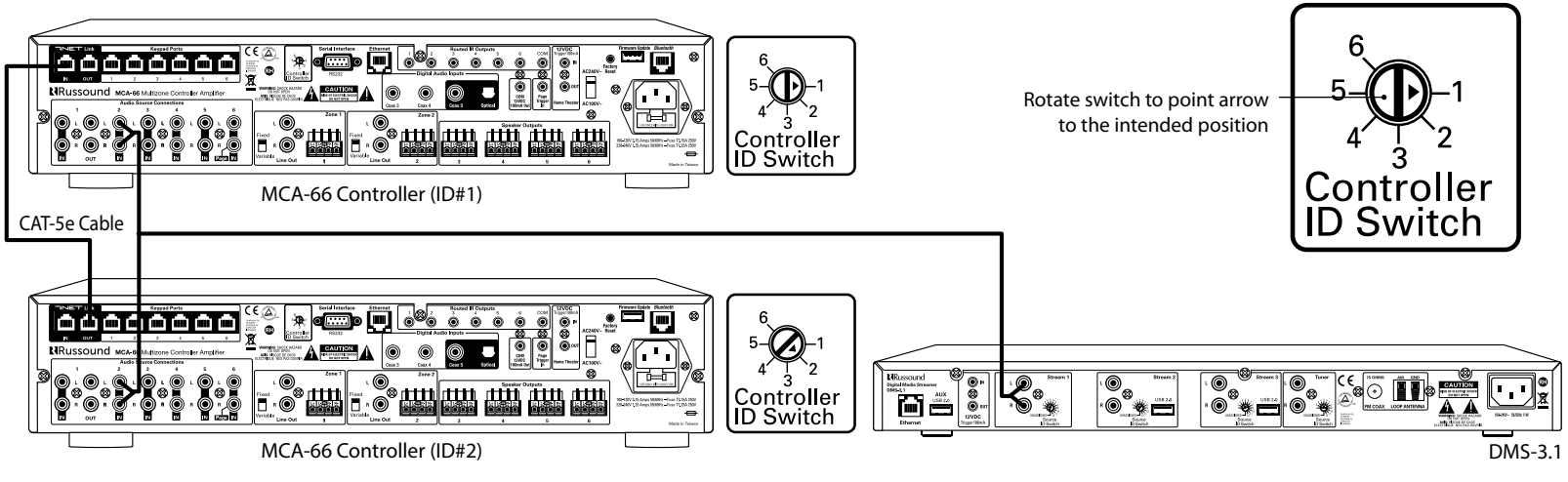
NOTE: Use standard RCA Y-splitter cables to split audio between two controllers. In some multicontroller systems, line level audio distribution amps may be used. Ethernet connection to the LAN is only required on Controller #1 in a multi-controller system.

When using the BTC-1X *Bluetooth* on Source 1, connect the Source 1 OUT on Controller 1 to the Source 1 IN on Controller 2. Continue the audio loop to other controllers, if necessary.

Controller ID Switch Settings

The Controller ID switch is a rotary switch with six positions. It is used to set the controller ID number for multiple controllers.

If two or more MCA-66 controllers are connected using the RNET Link In and Link Out ports, each controller must have a unique controller ID prior to being connected through the RNET ports. Set each controller's ID switch to a unique number. Any multiple controller configuration requires that one controller be set to controller ID #1. This action must be performed before the system setup procedure is completed through SCS-C5 software and before powering up the system. The small arrow on the dial should point at the desired setting.

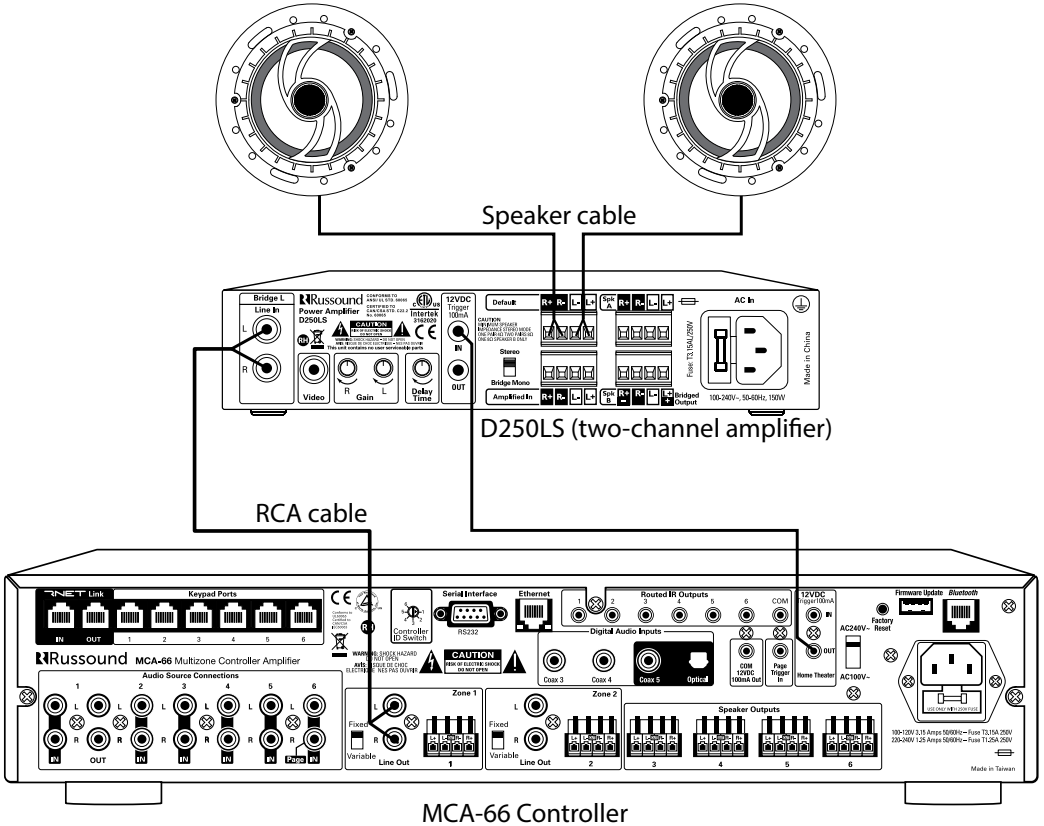


Linked Controllers

Fixed and Variables Zone Outputs

Zone 1 and 2 have line level outputs which can be used for additional amplification when needed, such as for outdoor zones or larger rooms. The Zone Line Output can be set to Variable (default) or Fixed (Always On).

NOTE: When the Zone 1 and/or 2 Line out connections are set at Fixed, the zone audio signal is always on.



Typical Amplifier Connection

PAGE INPUT SOURCE

Paging Audio IN

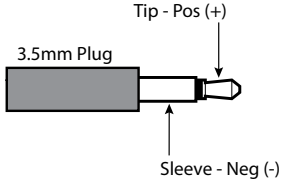
The MCA-66 has a paging audio input on Source 6 (right channel only) that accepts line level audio signals via an RCA cable. The paging input interfaces with the page output of a telephone system or other peripheral device. When a page event is engaged, it interrupts audio outputs for all enabled zones. System paging can be disabled permanently in each zone by software programming or temporarily with Do Not Disturb. To utilize Source 6 for paging input, it must be configured as a page source in the SCS-C5 software.

Note: If Source 6 is enabled for paging events then only five other source inputs are available.

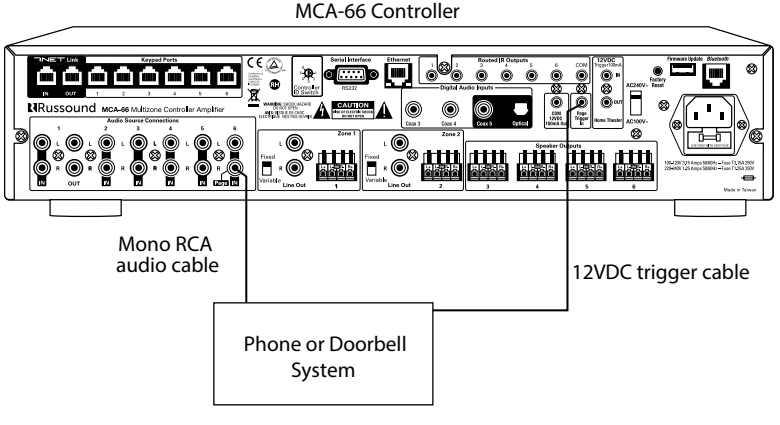
Page Trigger IN

The page trigger input is used to trigger a page event. Paging is configurable per zone using SCS-C5 software. A 12VDC trigger selects the audio input from Source 6 (if configured in software as the Page Input) and sends it to any zone that does not have page disabled or that is not in Do Not Disturb mode. Do not use the page trigger input if there is a regular audio source connected to Source 6.

Note: The diagram at right shows the required wiring to the 12VDC Page trigger in from the phone system - this will initiate the page.



Polarity of 3.5mm Plug



Typical Paging Configuration
(if using source 6 for paging events)

Home Theater Triggers

These triggers are used to integrate with home theater systems that utilize a 12 volt trigger. The MCA-66 can be used to power manage sources that are being shared with the home theater system. For example, the power management system will check to see the state of the home theater before powering down source gear. Refer to the sample configuration diagram on the next page for connections.

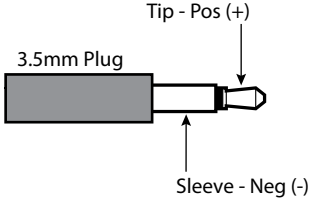
IN

This 12VDC Trigger input will have different functionality based on the state of the system and the state of the trigger. The connections for the trigger are made using a two-conductor cable with 3.5mm male mini-plug. The tip is positive (+) and the sleeve is negative (-).

"System Off" (all zones have been off for at least 5 minutes): If 12VDC is applied to this input, it will activate the power management ON command to the sources. While all zones are still OFF and 12VDC is removed, the system will wait 5 minutes and then activate the power management OFF command to the sources.

"System On" (at least one zone is on): If 12VDC is present but all zones get turned OFF, the power management OFF commands will not be sent until 5 minutes after the 12VDC is removed from the trigger.

Note: If the trigger is not being used, power management will operate normally.

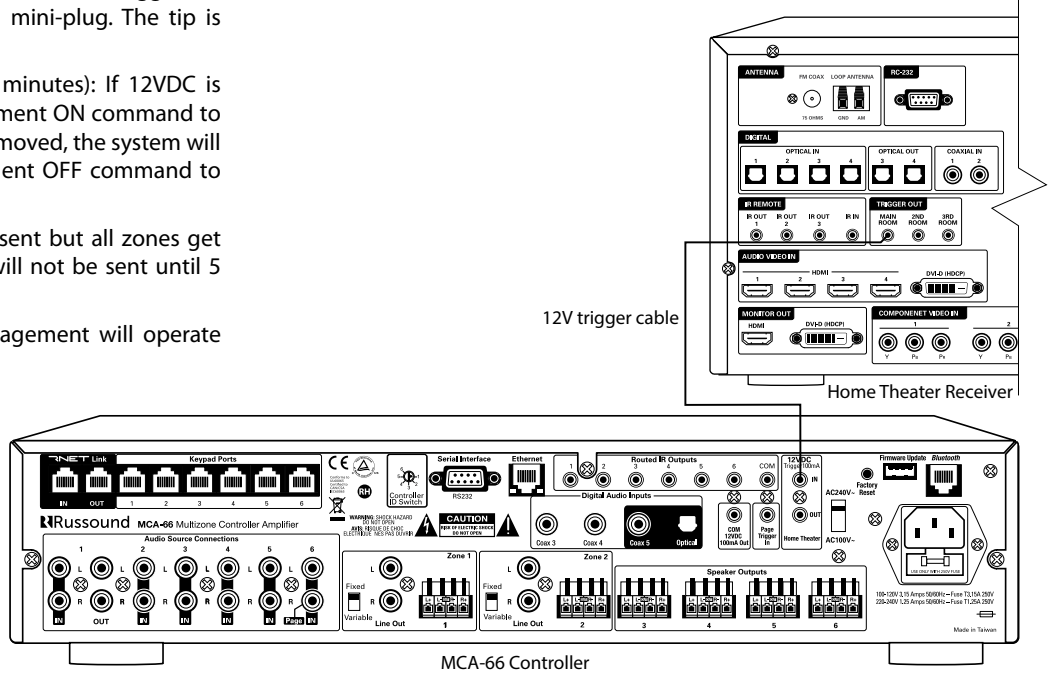


Polarity of 3.5mm Plug

OUT

The 12VDC trigger out can be used to engage any 12VDC trigger device or component such as the Russound D850 Amplifier. The connections for the trigger out are made using a two-conductor cable with 3.5mm male mini-plug ports at each end. The tip is positive (+) and the sleeve is negative (-).

The output is a pass-through of the Home Theater trigger input. It can be used to activate additional devices whenever the Home Theater trigger is active.



Sample Configuration - Home Theater Trigger

IR Connections

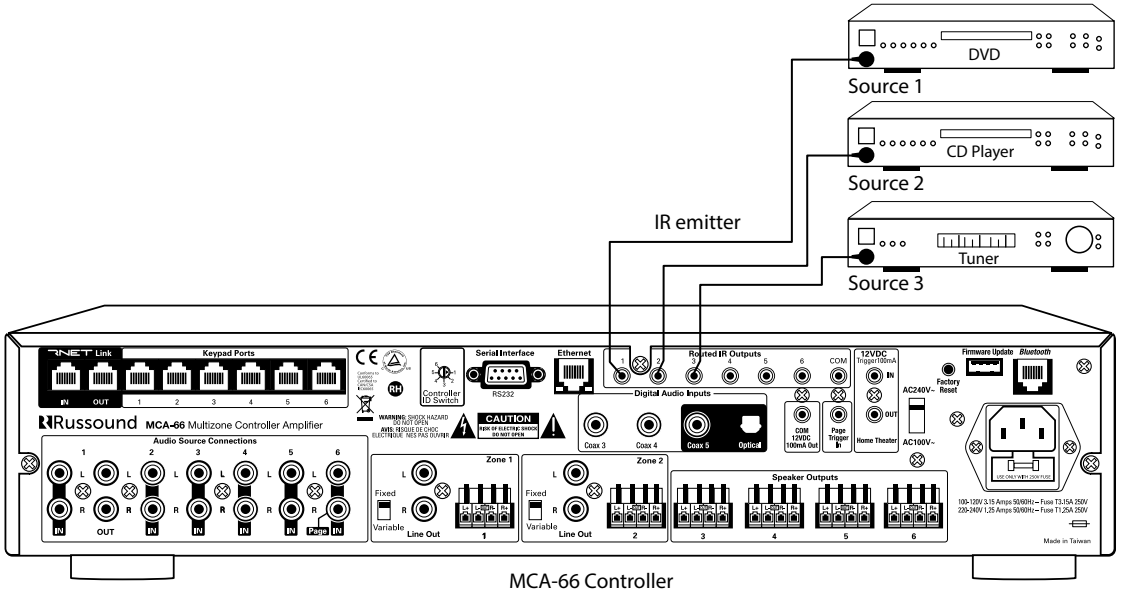
Routed IR Outputs

These six routed IR emitter outputs are supported by the MCA-66 IR engine and support IR pass-through. They are also carried by the RNET Link cable to additional controllers.

Attach the end of the IR emitter with the 3.5mm plug to the IR emitter port. Remove the adhesive back at the other end of the emitter and attach the emitter over the source component's IR window. When using the IR routed outputs, in order to control this source component with IR, the source must be selected at the keypad receiving the command.

Common IR

This output is supported by the MCA-66 IR engine and supports IR pass-through from any of the IR sources or zones. This allows control of any source equipment without that source being selected on the keypad. The connection for the common IR output is made using an IR emitter with a 3.5mm plug. An IR Connecting Block can be used to expand the common IR output to more than one source.



MCA-66 Controller

IR Connections to MCA-66

Start up

1. Make connections of sources, speakers, network and keypads to the controller(s).
2. In a multiple controller configuration, set the controller IDs to unique numbers. Use CAT-5e linking cables of no more than 18 in (45.7 cm) to link the controllers. Link by interconnecting the RNET Link ports.
3. Plug in and power the sources and controllers.
4. The left LED showing power on the front panel of each controller should be lit. The zone lights will cycle in a moving pattern until the controller is fully booted, at which time the zone lights will go out.
5. Unlock the system using your Russound Certified Installer Credentials.
6. Perform a firmware update check using either Web-SCS or the SCS-C5 software. Update all Russound system components if required.
7. Configure the system using WEB-SCS or SCS-C5, depending on the requirements of the system configuration.
8. Check operation of the keypads, power on, and cycle through sources. For correct operation, each RNET source must be configured with a unique source ID and must match the assignment made with the SCS-C5 Configuration software.
9. Check zone keypads. The zone LED should be lit on the front of the controller if the corresponding keypad is on. The LED will not be lit if the keypad is not turned on or is absent.
10. Check operation of all keypad functions.
11. Check for functional IR signal pass-through (if applicable).
12. The system is now ready to use.

Troubleshooting

- When the controller and the keypads are powered ON, all the corresponding zone LEDs on the face of the controller will be green. Improper connection may cause one or more LEDs not to be lit. Check all connections.
- Cycle power by pressing the power button, waiting 10 seconds, and then pressing the power button again.
- Check connections from the keypads and speakers to the controller(s).
- If a keypad doesn't respond to commands ensure the OS update jumper on the rear of the keypad is in the RUN position (on the lower pins).

Factory Initialization

If SCS-C5 cannot connect to the MCA-66, follow these steps to perform a network configuration reset.

• Press and hold the Reset button on the rear of the controller for 3 seconds and release.

For a full factory initialization, erasing all configuration settings:

• Press and hold the Reset button on the rear of the controller for 10 seconds.

Note: Performing a factory initialization will restore the unit to its factory default state, including software lockdown. The unit will require valid Russound Certified Installer credentials and an internet connection in order to unlock the device again.

MCA-66 Multizone Controller

Dimensions:	17"W x 3.5"H x 13.4"D (43.2 x 9 x 34 cm)
Weight:	19.2 lbs. (8.7 kg)
Power Supply:	100-120 VAC, 60Hz (MCA-66) 220-240 VAC, 50Hz (MCA-66i)
Fuse Rating:	100-120V/T3.15A 250V US and Canada (MCA-66) 220-240V/T1.25A 250V International (MCA-66i)
Frequency Response:	20Hz-20kHz +/- 1 dB at 1W output into 8 ohms
Watts per channel:	20W RMS into 8 ohms
Total Harmonic Distortion:	<0.10%
Signal to Noise Ratio:	93 dB unweighted, 96 dB A-weighted
Audio Source Inputs:	6 stereo RCA Line-Level, 3 coax,1 optical (maximum of 6 total inputs)
Audio Zone Outputs:	6 Speaker Level 20W/ch (2 Line Level, fixed or variable selectable)
Common Trigger:	Out, 12VDC, @100mA
Home Theater Trigger:	In/Out, 12VDC (pass-through)
Page Trigger:	In, 12VDC
Speaker connection:	6 detachable 4 pole connectors
Keypad ports:	6 RJ-45 T568A standard
IR Outputs:	6 routed, 1 common
Communication ports:	USB (firmware update only) 1 Serial RS-232, 19.2 kHz baud rate 1 Ethernet RJ-45, 10/100 Base T 2 RJ-45 RNET Links In/Out

Limited Warranty

The Russound MCA-66 Controller Amplifier is guaranteed against all defects in materials and workmanship for two (2) years from the date of purchase. During this period, Russound will replace any defective parts and correct any defect in workmanship without charge for either parts or labor.

For this warranty to apply, the unit must be installed and used according to its written instructions. If service is necessary, it must be performed by Russound. The unit must be returned to Russound at the owner's expense and with prior written permission. Accidental damage and shipping damage are not considered defects, nor is damage resulting from abuse or from servicing by an agency or person not specifically authorized in writing by Russound.

This warranty does not cover:

- Damage caused by abuse, accident, misuse, negligence, or improper installation or operation
- Power surges and lightning strikes
- Normal wear and maintenance
- Products that have been altered or modified
- Any product whose identifying number, decal, serial number, etc. has been altered, defaced or removed.

Russound sells products only through authorized Dealers and Distributors to ensure that customers obtain proper support and service. Any Russound product purchased from an unauthorized dealer or other source, including retailers, mail order sellers and online sellers will not be honored or serviced under existing Russound warranty policy. Any sale of products by an unauthorized source or other manner not authorized by Russound shall void the warranty on the applicable product.

Damage to or destruction of components due to application of excessive power voids the warranty on those parts. In these cases, repairs will be made on the basis of the retail value of the parts and labor. To return for repairs, the unit must be shipped to Russound at the owner's expense, along with a note explaining the nature of service required. Be sure to pack the unit in a corrugated container with at least three (3) inches of resilient material to protect the unit from damage in transit.

Before returning a unit for repair, call Russound Tech Support at (866) 888-7466 for a Return Authorization number. Write this number on the shipping label and ship to:

Russound: ATTN: Service, 1 Forbes Road, Newmarket, NH 03857

Due to continual efforts to improve product quality as new technology and techniques become available, Russound/FMP, Inc. reserves the right to revise system specifications without notice.



WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE THE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Safety Instructions

1. Read Instructions - All the safety and operating instructions should be read before the appliance is operated.
2. Retain Instructions - The safety and operating instructions should be retained for future reference.
3. Heed Warnings - All warnings on the appliance in the operating instructions should be adhered to.
4. Follow Instructions - All operating and user instructions should be followed.
5. Water and Moisture - The appliance should not be used near water; for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool. The apparatus shall not be exposed to dripping or splashing liquids and no objects filled with liquids, such as vases, shall be placed on the apparatus. Do not touch the appliance with wet hands. Do not handle the appliance or power cord with wet or damp hands. If water or any other liquid enters the appliance cabinet, take it to qualified service personnel for inspection.
6. Cleaning - The appliance should be cleaned only as recommended by the manufacturer. From time to time you should wipe off the front and side panels and the cabinet with a soft cloth. Do not use rough material, thinners, alcohol or other chemical solvents or cloths since this may damage the finish or remove the panel lettering.
7. Ventilation - The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings, or placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings. Place the unit in a well-ventilated location, leaving at least 2 inches (5 cm) of clearance on all sides, top and rear of unit for air flow. If ventilation is blocked, the unit may overheat and malfunction.
8. Heat - The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
9. Grounding or Polarization - Precaution should be taken so that the grounding or polarization means of an appliance is not defeated.
10. Power Cord Protection - Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, receptacles, and the point where they exit from the appliance.
11. Power Sources - The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
12. Main Power Disconnect - The power switch is a double-pole switch. When the switch is in the "Off" position, the appliance is completely disconnected from the main power.
13. Non-Use Periods - The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
14. Attachments - Only use attachments/accessories specified by the manufacturer.
15. Carts and Stands - The appliance should be used only with a cart or stand that is recommended by the manufacturer. An appliance and cart combination should be moved with care. Quick stops, excessive force and uneven surfaces may cause the appliance and cart combination to overturn.



16. Wall or Ceiling Mounting - The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
17. Location of the Appliance - Do not mount this unit under a kitchen cabinet. Do not expose the appliance to direct sun light or heating units as the appliance internal components' temperature may rise and shorten the life of the components. Avoid damp and dusty places.
18. Object and Liquid Entry - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through the openings.
19. Servicing - The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.
20. Damage Requiring Service - The appliance should be serviced by qualified service personnel when: A. The power supply cord or the plug has been damaged; B. Objects have fallen, liquid has been spilled into the appliance; C. The appliance has been exposed to rain; or D. The appliance does not appear to operate normally; or E. The appliance has been dropped or the enclosure is damaged.

Conforms to UL60065
Certified to CAN/CSA IEC60065

Note: 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 of 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, or consult the dealer or an experienced radio/TV technician for help.

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.

Russound®

MCA-66

6 Source, 6 Zone Controller Amplifier

Installation Manual

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Specifications are subject to change without notice.

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28-1392 03.24.15