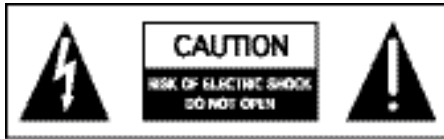




CAA66
Multisource Multiroom
Audio Controller/Amplifier
Installation Manual



IMPORTANT SAFEGUARDS



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 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.

If you have any questions please call Russound Inc. at 1-800-638-8055 or 603-659-5170.

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.
6. 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.
7. Wall or Ceiling Mounting - The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
8. 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.
9. Heat - The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.



10. 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.
11. Grounding or Polarization - Precaution should be taken so that the grounding or polarization means of an appliance is not defeated.
12. 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.
13. Cleaning - The appliance should be cleaned only as recommended by the manufacturer.
14. Non-use Periods - The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
15. 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.
16. Damage Requiring Service - The appliance should be serviced by qualified service personnel when:
 - A. The power supply cord or the plug has been damaged; or
 - B. Objects have fallen, liquid has been spilled into the appliance; or
 - 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.
17. 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.

Precautions:

1. Power – WARNING: BEFORE TURNING ON THE POWER FOR THE FIRST TIME, READ THE FOLLOWING SECTION CAREFULLY.
2. Do Not Touch The Unit With Wet Hands – Do not handle the unit or power cord when your hands are wet or damp. If water or any other liquid enters the cabinet, unplug the unit from power immediately and take it to a qualified service person for inspection.
3. Location of Unit – Place the unit in a well-ventilated location. Take special care to provide plenty of ventilation on all sides of the unit especially when it is placed in an audio rack. If ventilation is blocked, the unit may overheat and malfunction. Do not expose the unit to direct sun light or heating units as the unit internal components temperature may rise and shorten the life of the components. Avoid damp and dusty places.
4. Care – From time to time you should wipe off the front and side panels of 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.



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INTRODUCTION

Thank you for choosing the Russound® CAA66 controller amplifier to enhance your home with distributed audio.

The CAA66 caters to homeowners who want more control over their multiroom systems with such capabilities as infrared (IR) tools to manage the system from anywhere in the house. More source inputs, simplified programming and user adjustable sound controls make listening to music throughout the home easier than ever.

Key features include:

- Six sources delivered to any one of six zones for sharing music throughout the home.
- Simplified programming and control via IR library and intelligent IR learning capabilities for quick setup.

- Scalable to 36 zones by connecting multiple CAA66 units, to make whole-house audio available to larger homes. Your system can grow as your home grows.

The CAA66 kit ships with a remote control (SRC1) and elegant keypads (KPL or KP6 models) for home audio one-touch control. From each keypad, the user can adjust bass, treble, balance and volume. The system supports multiple keypads per zone for convenient access and includes an RS232 connection for integration with home automation systems.

Russound's controller/amplifiers meet the needs of homeowners who want to experience true audio fidelity throughout the home. And with the CAA66, customers have more home audio choices at a cost-effective price.

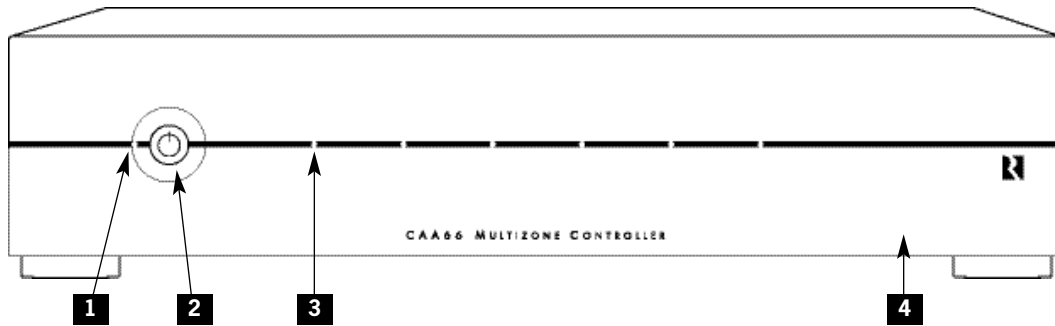


COMPONENT GUIDE

CAA66 FRONT PANEL

The CAA66 front panel consists of a split molded piece with a removable bottom half. This bottom piece hides the Programming Center buttons. The power switch has a push on/push off action with a blue LED

“power on” indicator to the left which illuminates when the unit is on. The six zone LEDs light up amber when the zones are active.



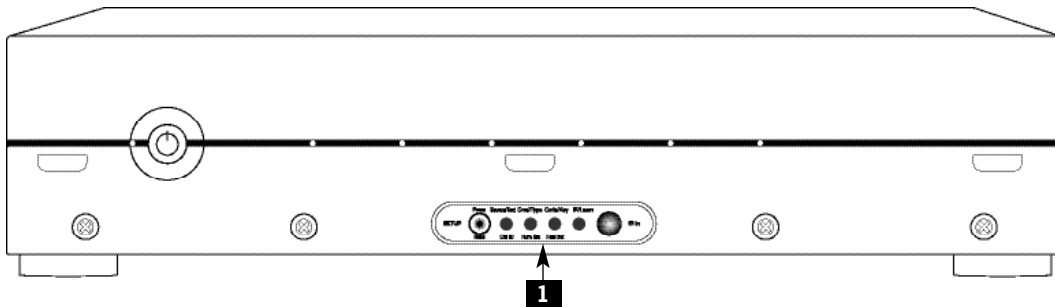
- 1** POWER ON/OFF LED - Indicates power on when illuminated
- 2** MAIN POWER SWITCH - Turns power on and off
- 3** ROOM LED INDICATORS - Indicate when a room is on (amber) or off (not lit)
- 4** REMOVABLE COVER - Covers the Programming Center buttons on the controller

The CAA66 front panel bottom half hides the Programming Center.

The Programming Center is used to perform the controller setup and source setup procedures. These are explained in detail in the Installers section of this manual. The Programming Center button LEDs light at different rates and in different colors during these proce-

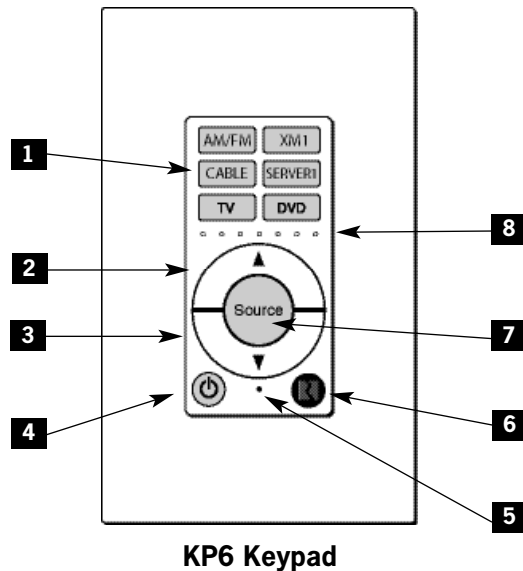
dures to indicate programming steps. It also contains an IR receiver window for remote control use during programming.

Note: It is important to properly remove the panel to prevent damage. See page 15 for complete instructions.



- 1** PROGRAMMING CENTER - used to perform the controller setup and source setup procedures

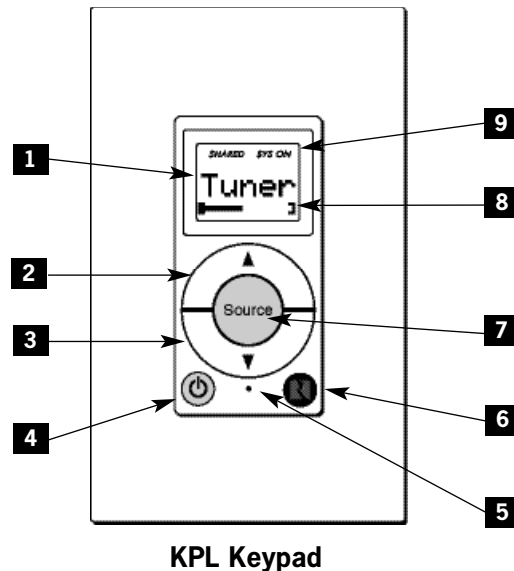
COMPONENT GUIDE KP6 KEYPAD



- 1** SOURCE NAME - Six clear windows with replaceable source name labels. Current source selected is backlit amber.
- 2** VOLUME UP - Raises the volume for the room/adjusts User Menu options.
- 3** VOLUME DOWN - Lowers the volume for the room/adjusts User Menu options.
- 4** POWER - Turns zone ON or OFF when pressed once. When OFF, press and hold will turn OFF all zones. Power button remains lit when OFF if any other zone in the system is ON.
- 5** IR CONFIRMATION/LOUDNESS LED - Blue LED blinks to confirm IR signal reception, and remains lit when Loudness feature is enabled.
- 6** IR RECEIVER - Receives IR signals and passes them to the controller and source equipment. Also used when the keypad is operated using the CA System remote controls.
- 7** SOURCE SELECT - Press and release scrolls through the available sources. Press and hold brings up the USER MENU for Loudness, Bass, Treble, etc.
- 8** VOLUME LEVEL - Volume level indicator LEDs light up from left to right to indicate volume level. Also used to indicate user option settings.

COMPONENT GUIDE

KPL KEYPAD



- 1** LCD PANEL - 5-character amber backlit display shows source name, volume and zone status.
- 2** VOLUME UP - Raises the volume for the room/adjust User Menu options.
- 3** VOLUME DOWN - Lowers the volume for the room/adjust User Menu options.
- 4** POWER - Turns zone ON or OFF when pressed once. When OFF, press and hold will turn OFF all zones.. Power button remains lit when OFF if any other zone in the system is ON.
- 5** IR CONFIRMATION/LOUDNESS LED - Blue LED blinks to confirm IR signal reception, and remains lighted when Loudness feature is enabled.
- 6** IR RECEIVER - Receives IR signals and passes them to the controller and source equipment. Also used when the keypad is operated using the CA System remote controls.
- 7** SOURCE SELECT - Press and release scrolls through the available sources. Press and hold brings up the USER MENU for Loudness, Bass, Treble, etc.
- 8** VOLUME LEVEL - 21-segment volume level bars increase from left to right to indicate volume level/indicates user option settings.
- 9** SYSTEM INFO - SYS On indicates other active zones and SHARED indicates the selected source is in use in another zone.

COMPONENT GUIDE KPSC KEYPAD

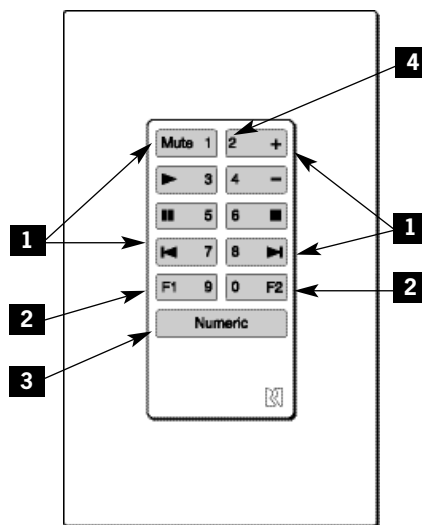
KPSC Source Control Keypad

The KPSC keypad connects to a KP6 or KPL keypad to add source control and numeric capability. The amber backlit buttons provide primary source controls when pressed, such as stop, play, next, etc.

When the Numeric button is pressed, it becomes backlit in red, and changes the buttons to numeric entry (0 - 9). Pressing the Numeric button also sends a Prefix command of "Disc."

A second press of the Numeric button sends a Suffix command of "Enter" and puts the keypad back into the primary control mode. If the button is not pressed the second time, a 3-second time out will send the Suffix command and exit Numeric mode.

The F1 and F2 favorite buttons are programmed by a press and hold. They save current input and volume level settings for recall, and can be overwritten with another press and hold.

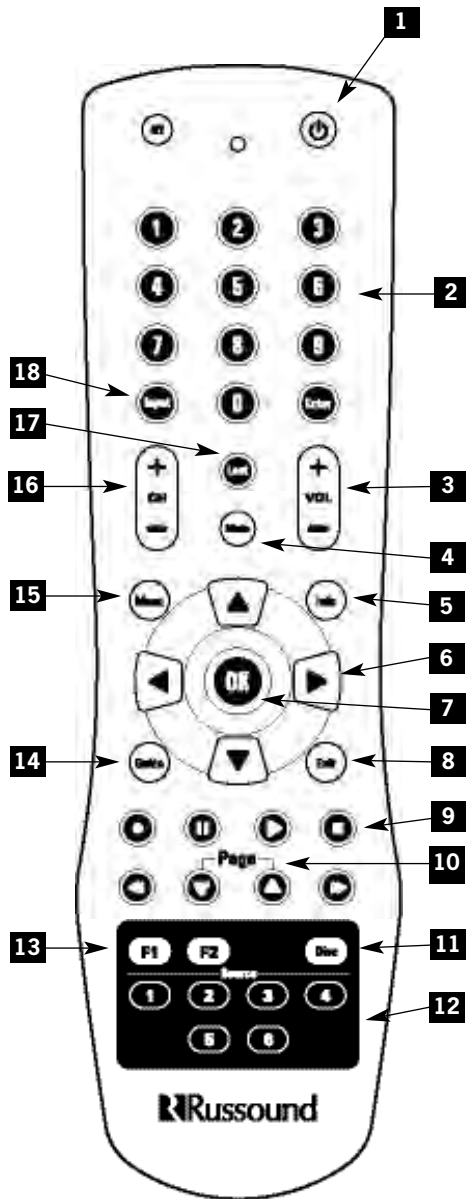


KPSC Keypad

- 1** PRIMARY SOURCE CONTROLS - Functions on outer edge of buttons are default or normal operation for each selected source. These include play, stop, forward, back, pause, etc.
- 2** FAVORITES - Set and recall two favorite settings of source and volume.
- 3** NUMERIC VALUE SHIFT - Press to shift buttons to numeric control or entry. Also issues Prefix command "Disc" and Suffix command "Enter"
- 4** NUMERIC CONTROLS - Once numeric control is initiated, the primary control buttons now represent the numeric value when pressed (0-9).

COMPONENT GUIDE

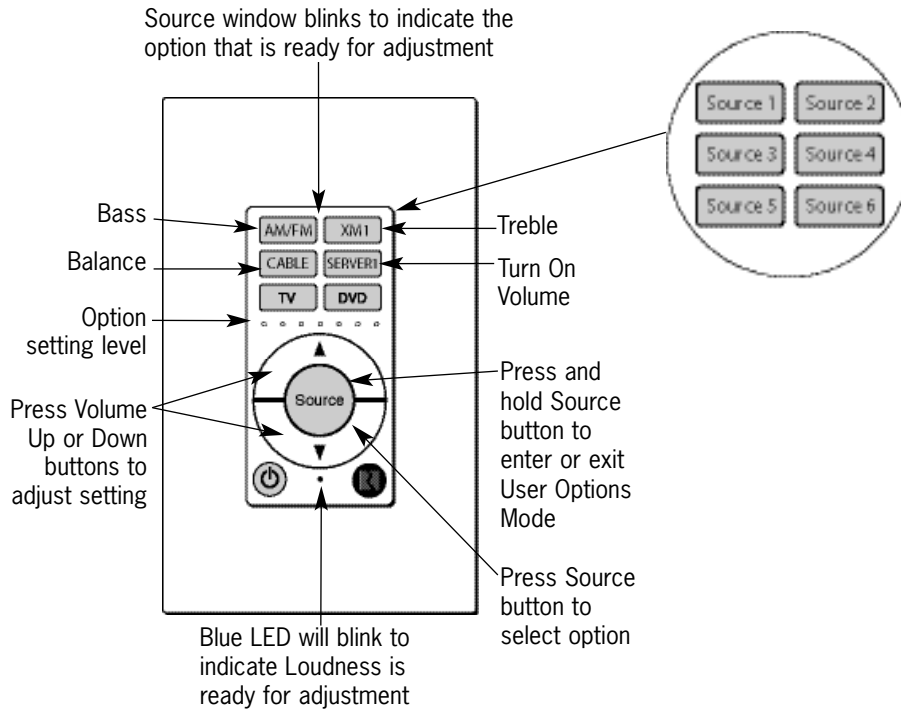
SRC1 SYSTEM REMOTE CONTROL



- 1** POWER - Turns on or off selected zone.
- 2** NUMERIC INPUT - Number buttons for direct input of frequency, channel, etc.
- 3** VOLUME UP/DOWN - Raises or lowers the volume in the zone.
- 4** MUTE - Mutes/unmutes zone audio output.
- 5** INFO - Displays current channel and program information.
- 6** CURSOR KEYS - Moves the cursor in the program guide and menu screens.
- 7** OK - Chooses the highlighted menu option. Performs "Enter" function for devices.
- 8** EXIT - Exits out of the selected component's menu or guide.
- 9** TRANSPORT KEYS - Controls components (Play, Pause, Stop, Forward, etc.).
- 10** PAGE UP/DOWN - For use with cable or satellite boxes.
- 11** DISC - Directly selects a disc using Numeric IR.
- 12** SOURCE KEYS - Selects specific sources.
- 13** FAVORITES - Selects and saves favorite presets.
- 14** GUIDE - Displays the program guide.
- 15** MENU - Accesses the menu of the selected component.
- 16** CHANNEL UP/DOWN - Incrementally scrolls through channels or tuned stations.
- 17** LAST - Recalls the last channel or page back one screen in the main menu.
- 18** INPUT - Switches sources on zone keypad.

OPERATION USER OPTIONS SETTINGS

KP6 Keypad User Options Mode Operation



KP6 User Options Mode

The User Options Mode allows the user to adjust the audio properties of a particular zone. The audio features that can be adjusted are: Bass, Treble, Balance, Turn On Volume and Loudness. The top four Source windows and the blue LED blink to indicate the option is ready for adjustment.

To enter the User Options Mode, press and hold the Source button when the zone is on. A press and hold of the Source button (or a 9-second timeout) returns the keypad to regular operation.

The top left (Source 1) button will temporarily blink to indicate "Bass" is ready for adjustment. Subsequent presses of the Source button toggle through Treble (Source 2), Balance (Source 3), Turn On Volume (Source 4) and Loudness (blue LED).

Once an option is selected, the Volume Up/Down buttons are used to adjust settings. The volume indicator LEDs temporarily light to show the option setting.

Setting Loudness

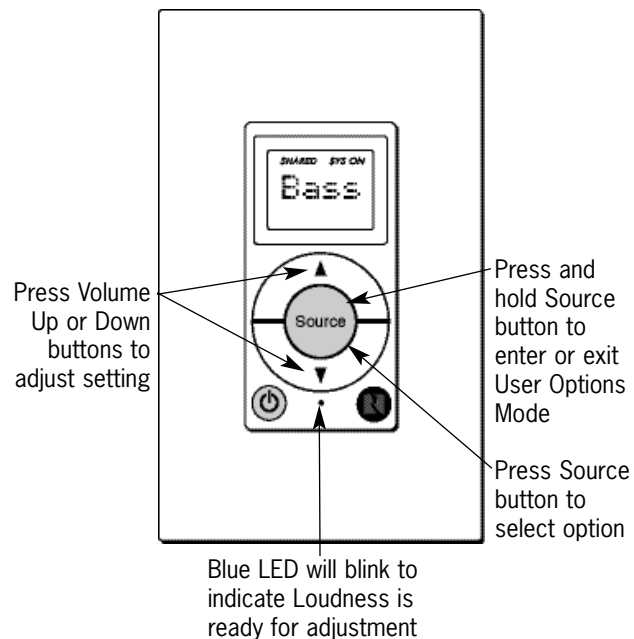
In User Option Mode, the blue LED will blink rapidly when Loudness is selected for adjustment. To turn Loudness ON, press the Volume Up or Down button once. The blue LED lights solid then blinks again. To turn Loudness OFF, press Volume Up or Down once. The blue LED goes dark for a moment, then blinks again.

When the keypad is in operation, the blue LED lights solid when Loudness is activated.

OPERATION

USER OPTIONS SETTINGS

KPL Keypad User Options Mode Operation



KPL User Options Mode

The User Options Mode allows the user to adjust the audio properties of a particular zone. The audio features that can be adjusted are: Bass, Treble, Balance, Turn On Volume and Loudness.

To enter the User Options mode, press and hold the Source button when the zone is on. Press and hold the Source button again (or a 9-second timeout) returns the keypad to regular operation.

The first option name (Bass) appears on the display to indicate it is ready for adjustment. Subsequent presses of the Source button toggle through Treble, Loudness, Balance, and Turn On Volume.

Once an option is selected, the Volume Up/Down buttons are used to adjust settings. The volume indicator bars indicate the option setting, along with setting numbers displayed on the LCD.

Options and Settings

1. Bass: -10 < Bass:Flat > +10
2. Treb (Treble): -10 < Treble:Flat > +10
3. Loud (Loudness) (more bass, fuller sound): On or Off (When Loudness is turned on, the blue LED lights solid)
4. Bal (Balance): Left 10 < Center > Right 10
5. OnVol (Turn on Volume) (default room volume level): 0 to 100 (in steps of 2)

INSTALLER GETTING STARTED

Unpacking the System Components

- Keep the original carton and packing materials for future shipment or storage.
- Check for any visible signs of damage. If you encounter any concealed damage, consult your Russound dealer before proceeding to install the unit.
- Retain the sales receipt as it establishes the duration of the limited warranty and provides information for insurance purposes.

CAA66 System Components:

- 1 (one) CAA66 Controller/Amplifier
- 6 (six) KP6 or KPL Keypads
- 1 (one) SRC1 System Remote Control
- 6 (six) 845.1 Micro Emitters

Tools needed for installation:

- Drill with a 1/2" x 6" drill bit
- Keyhole saw
- Flat head screwdriver (medium size)
- Phillips Screwdriver (cordless recommended)
- 110 punchdown tool (included)
- Modular RJ-45 crimper and connectors
- Pair of diagonal cutters or wire strippers
- Stud finder
- Steel wire fish tape
- Cable staples
- Single-gang electrical work boxes

System Installation Considerations

There are several factors to consider before installing the Russound CAA66 system:

- What are the intended listening zones?
- What system options and accessories might be required for features such as local sources, etc.?
- From where in each zone will the user prefer to control the system? Where will the keypads be located? Where will the speakers be located?
- Where will the source equipment be located? The CAA66 must have proper ventilation above and below for air circulation and heat dissipation. A rack-mount location may require fans and vents.

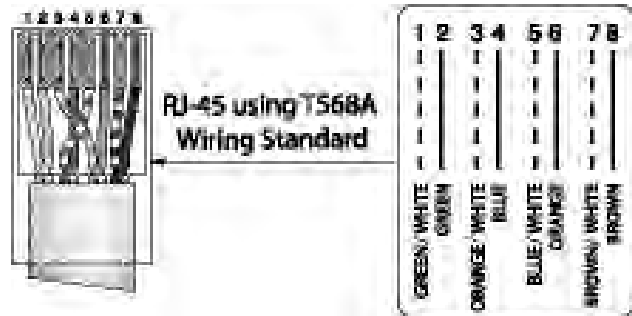
Connection Tips

- It is recommended that the CAA66 and the source equipment be plugged into a dedicated 20-amp circuit with an isolated ground. A power line conditioner can reduce interference problems caused by noise found in some electrical systems.
- Disconnect all live power cords before making 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/patch cords.
- Label all wires with room location at both ends of the wire.

INSTALLER WIRING INSTRUCTIONS

RJ-45 Connections

The CAT-5 T568A wiring standard shown on the right is used for the RJ-45 terminations.



Keypad Wiring

For the KP6 or KPL keypad, the following connections are used to terminate the CAT-5 wire to the 110 punchdown on the keypad:

<u>CAT-5 WIRE COLOR</u>	<u>TYPE</u>
Brown	+12V
Brown/White	+12V
Green	Ground
Green/White	Status In
Orange	Ground
Orange/White	IR Out
Blue	COM A
Blue/White	COM B

- To determine the amount of CAT-5 wire required for the system installation, first decide how many keypads will be used, then determine the distance between each intended keypad location to the planned CAA66 location. The maximum recommended wire run length is 250 feet for each KP6 or KPL keypad.
- Make sure that the entire wire path between keypads and CAA66 is clear and not obstructed by a floor ceiling joist, or masonry wall which can't be drilled through.

- Confirm ahead of time that you can drill an outlet hole easily and in an unobtrusive spot to connect wires with the CAA66.
- Label wires with keypad and room location. This simplifies CAA66 hook-up once the keypads and speakers are installed.

Speaker Wiring

Standard 16-gauge 4-conductor stranded speaker wire can be run up to to 125 feet; 14-gauge wire can be run up to 250 feet.

When running wire, pay particular attention to the following areas:

- Avoid locations concealing pipes, heating ducts and AC wiring in the general vicinity.
- Avoid running wires 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.

INSTALLER COMPONENT GUIDE

Controller Front Panel Removal

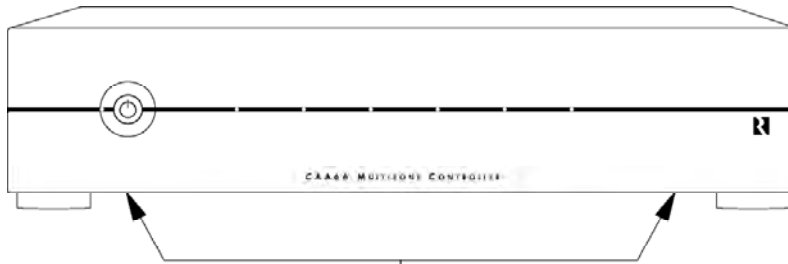
Front Panel Removal

The CAA66 front panel removable bottom half hides the Programming Center. It is important to follow the proper removal process to remove the panel without damage.

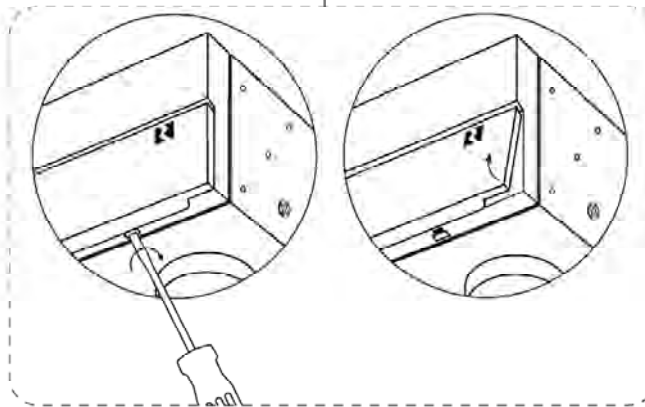
To remove the panel, you must be able to access the slots located underneath the front of the controller.

this may require moving it until the front edge hangs clear of the shelf.

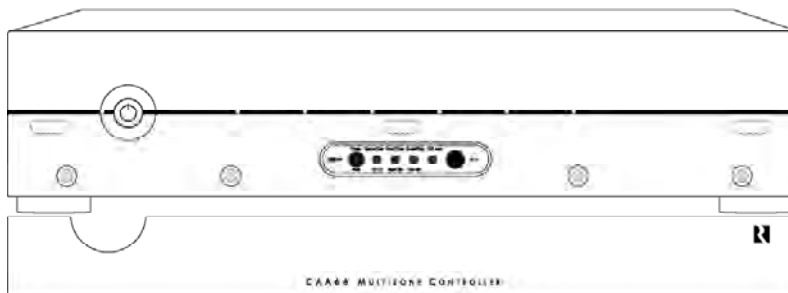
Place a flat screwdriver blade in the bottom slot on the left and right between the cover and the controller. Twist the blade, then lift the bottom panel up and off.



Place a flat screwdriver blade in the bottom slot on the left and right between the cover and the controller. Twist the blade to loosen the cover from its catches.



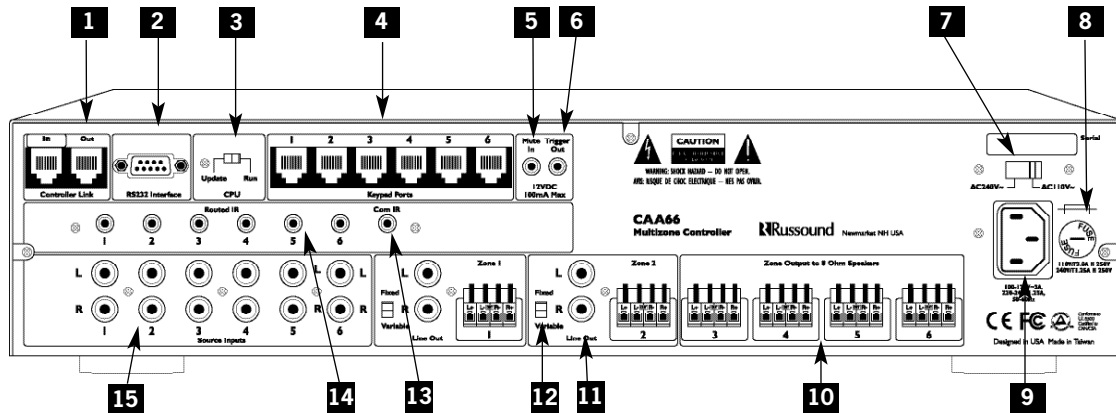
Grasp the panel on each side and gently lift the panel up and off.



Panel removed from controller

INSTALLER COMPONENT GUIDE

Controller Back Panel



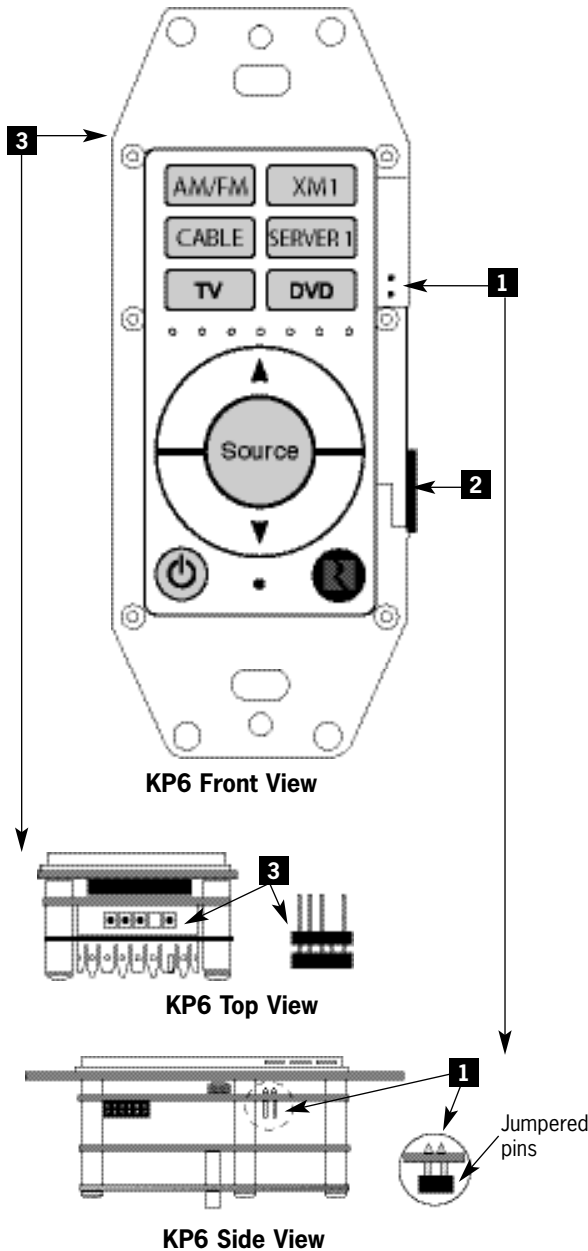
- 1** CONTROLLER LINK IN AND LINK OUT - Links multiple CAA66 controllers and peripherals.
- 2** RS-232 INTERFACE - The RS-232 Interface allows the zones to be controlled by PC or other devices that have an RS-232 Interface, allows for firmware updates and programming.
- 3** CPU UPDATE SWITCH - For firmware updates.
- 4** KEYPAD PORTS - One KP6/KPL Keypad Port for each of the six CAA66 Zones.
- 5** MUTE 12VDC TRIGGER IN - Applying 12VDC to the Mute 12VDC Trigger In jack will mute audio for assigned CAA66 Zones.
- 6** 12VDC TRIGGER OUT - 12VDC 100mA Trigger Out turns on when any zone is on, and turns off 5 minutes after the last zone is turned off.
- 7** AC-240V/AC-110V Switch - Switches A/C input voltage between 240VAC and 110VAC.
- 8** FUSE HOLDER - Holds a replaceable fuse for A/C input connection:
110VAC operation - F3A H 250V; 240VAC operation, T1.25A H 250V.
- 9** AC 120/240 INPUT - Grounded 3-terminal plug detachable power cord connection.
- 10** ZONE OUTPUTS - Detachable color-coded modular 8-ohm speaker connectors for each zone.
- 11** AUDIO OUTPUT - Audio line level output.
- 12** FIXED/VARIABLE SWITCH - Change line out between fixed and variable output.
- 13** COMMON IR OUTPUT - Output jack passes all IR signals from all keypads.
- 14** SOURCE IR OUTPUTS - Six source-specific IR Output jacks allow IR control of source equipment.
- 15** SOURCE INPUTS - Six pair of Audio Line Level input connections for CAA66 source components.

INSTALLER COMPONENT GUIDE

Keypad Update Port

The KPSC 12-pin header and the update jumper for the KP6 (and KPL) are located on the right side of the keypad when facing front. These are covered when a trim plate is installed.

Note: The update pins on the KP6 are accessed from the side when the keypad is not installed.



- 1** OS UPDATE/RUN JUMPER -The pins are jumpered when performing a firmware update on the keypad. The jumper is removed during normal operation.
- 2** KPSC PORT - 12-pin header for connection to KPSC source control keypad.
- 3** OS UPDATE PORT - Used to update the KP6 and KPL keypad operating system firmware. If an update is released, it will be available online through the Document Center on www.russound.com. Look in the "Firmware and Downloads" section under Multi-Zone product type. The Advanced Programming Cable is available from Russound, Part #2500-521065.

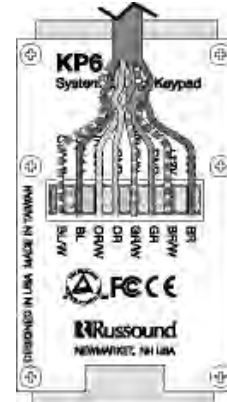
INSTALLER COMPONENT GUIDE

Keypad Rear Panel and Installation

CAT-5 to KP6/KPL Connection

The KP6/KPL keypad uses a 110-punchdown terminal on the back panel to provide simple installation and a strong connection for CAT-5 cable's eight conductors. Punchdown terminals require the use of a punchdown tool. Attach the CAT-5 cable to the 110-punchdown terminal on the KP6 keypad as shown, matching the conductor colors to the connection color guide. The keypad will not operate properly

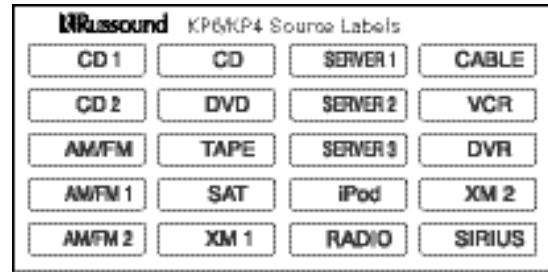
if the terminations deviate from the required connection order. Take care when using an impact 110 punchdown tool, as this may over-spread the contact points. Use of the impact tool may propel stray bits of wire and jacket into the keypad's chassis and possibly cause a short in the circuitry. Gently shake or blow air through the keypad chassis to remove stray wire before the keypad is installed into the junction box.



Source Label Installation

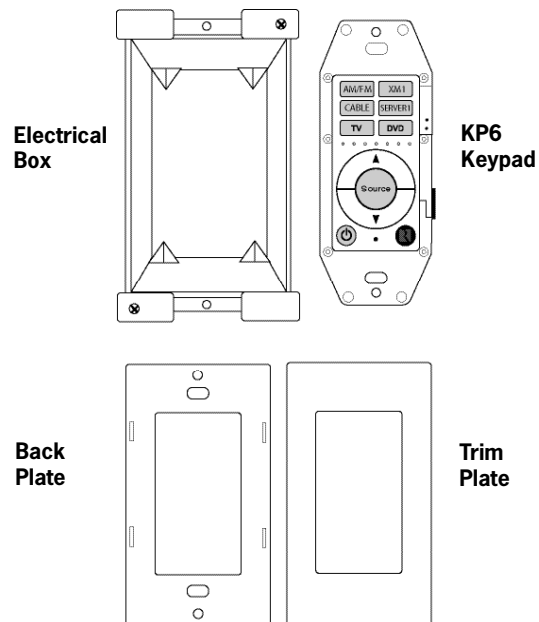
Note: Source labels must be inserted prior to installing the trim plate on the keypad.

1. Determine the system's source names and numbers (e.g., CD, Source 1).
2. Select the corresponding source name label from the included label sheets. Left-side labels are used for sources 1, 3 and 5; right-side labels are used for sources 2, 4 and 6.
3. Slide the label into the window slot until the source name is centered in the window.



Keypad Installation

1. Ensure it is possible to route the wire to the location you have chosen.
2. To install a single-gang keypad, you will need to use a UL/CSA approved plastic single-gang (18 ci) electrical box.
3. Route CAT-5 wire to the electrical box from the CA system controller.
4. Use a 110 punchdown tool to connect each wire to its corresponding color labeled on the punchdown terminal.
5. Mount the keypad in the electrical box. For the KP6 keypad, insert the source name labels in the appropriate slots before attaching the back plate and trim plate.

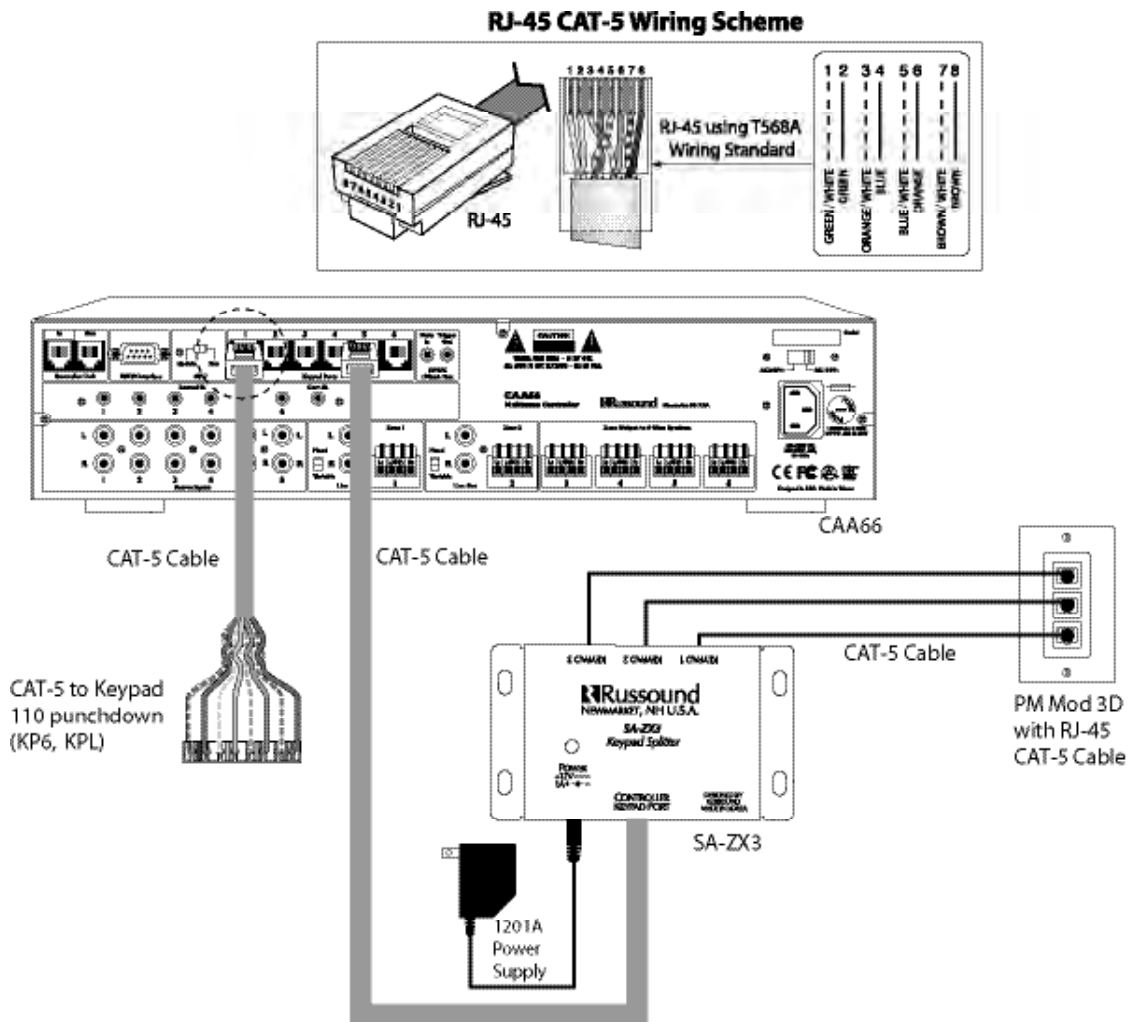


INSTALLER MAKING CONNECTIONS

Keypad Port Connection

The Keypad Ports are located on the back of the CAA66 in the top left of center. Connections at the Keypad Ports are made with RJ45 connectors using T568A CAT-5 wire configuration. For a clean installation when wiring from a Keypad Port, use an RJ45 CAT-5 patch cable to connect from the keypad port to an RJ45 wall plate (optional). Using the same RJ45 T568A CAT-5 wiring configuration, use CAT-5 from the RJ45 wall plate to the keypad.

If using more than one keypad in a zone, use an SA-ZX3 System Keypad Splitter (optional). The SA-ZX3 supports up to three keypads per zone and connects directly to the Keypad Port for that zone. The CAT-5 for the keypads is run to a wall plate, with RJ45 CAT-5 patch cables between the wall plate and the SA-ZX3. Always use the RJ45 T568A CAT-5 wire configuration when connecting keypads.



INSTALLER

MAKING CONNECTIONS

Source Audio and IR Connections

Source Audio Connections

The CAA66 supports up to six audio sources. The Source Inputs are located on the back panel. Connect each source using quality RCA signal cables. Connect the Left and Right Audio outputs from each source to the corresponding inputs on the CAA66 controller. Label each cable with the name of the selected source and the Source Audio input number located on the CAA66.

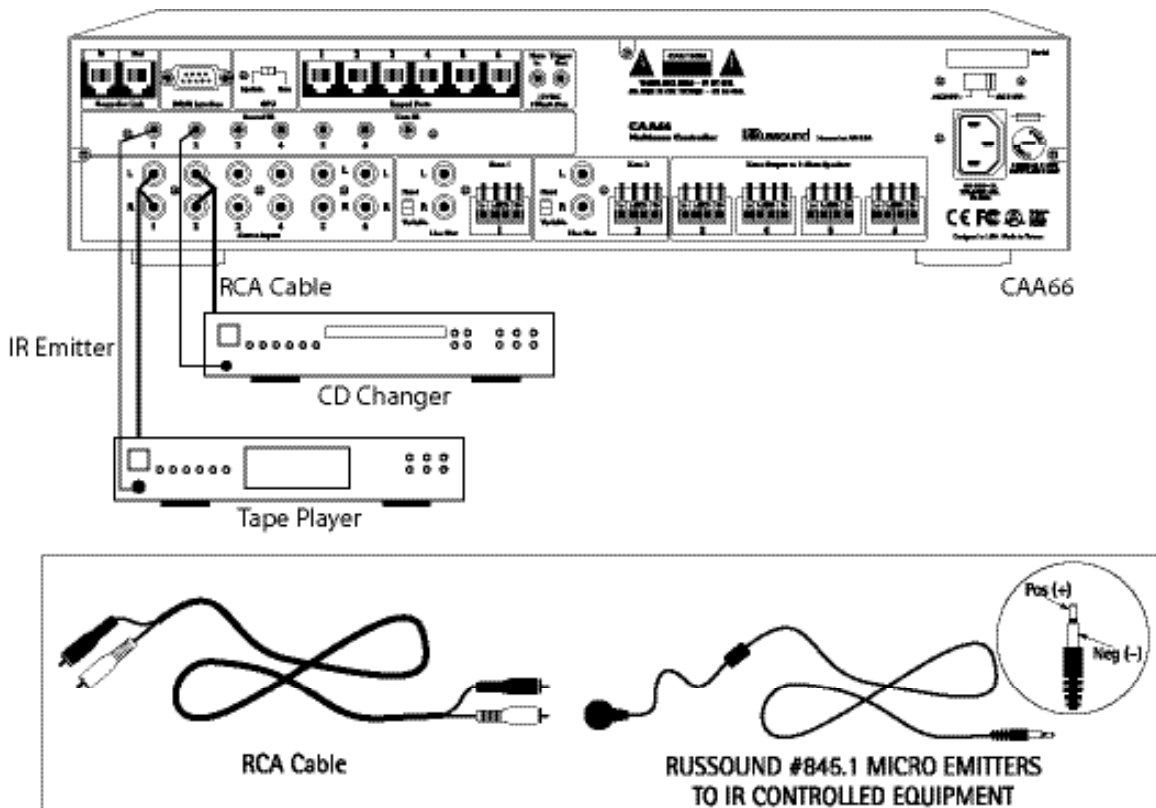
Source IR Connections

Each source component has a designated IR port on the back of the CAA66. This IR port is directly above the Source Audio Input Connections.

1. Using an IR emitter (the Russound 845.1 is recommended) attach the end of the emitter with the 1/8" plug to the IR emitter port above the source input.

2. Remove the adhesive back at the other end of the emitter and attach the emitter over the source component's IR window.

3. In order to control this source component with IR, the source must be selected at the keypad receiving the command.



INSTALLER MAKING CONNECTIONS

RNET Source Audio Connections

The CAA66 supports source control of Russound RNET components (ST2 Smart Tuner, SMS3 Smart Media Server) through the Controller Link ports via SRC1 remote control commands but provides no feedback to keypads.

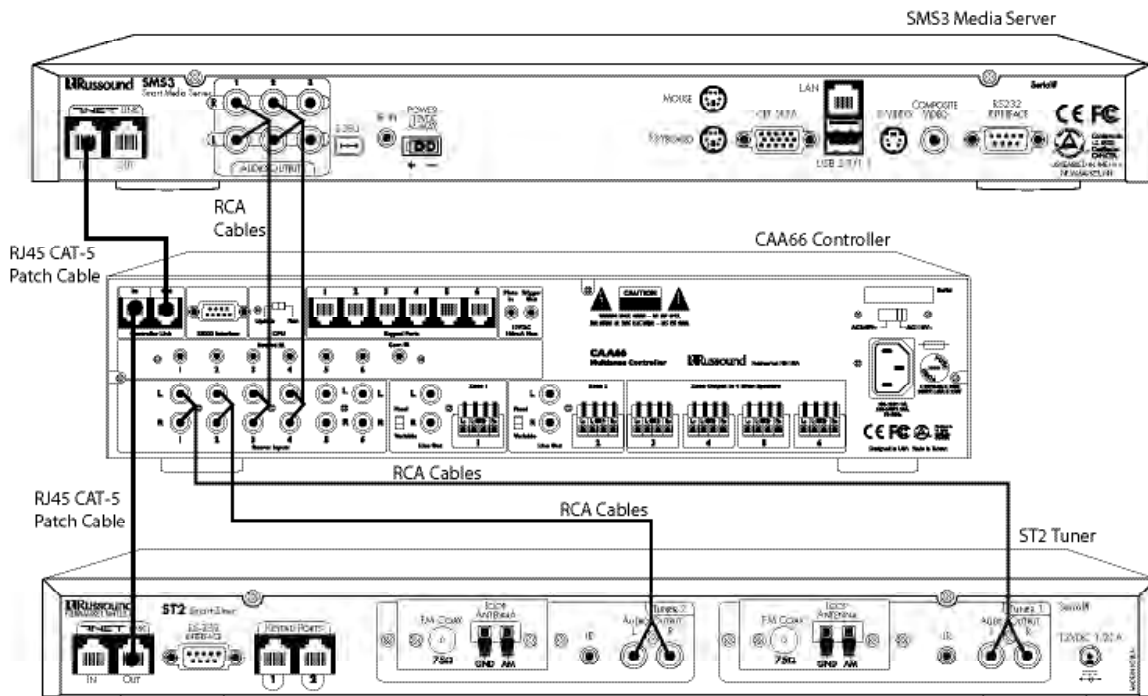
Using quality RCA signal cables, connect the Left and Right Audio outputs from each RNET source to the corresponding inputs on the CAA66 controller. Label each cable with the name of the selected source and the Source Audio input number located on the CAA66.

RNET Source Audio Input Connections

RNET Link In/Out Connections

The RNET components are linked to the controller and each other using RJ45 patch cables connected to the Link In and Link Out ports.

When used with the KPL keypad, there will be no RNET source information sent to the keypad display.



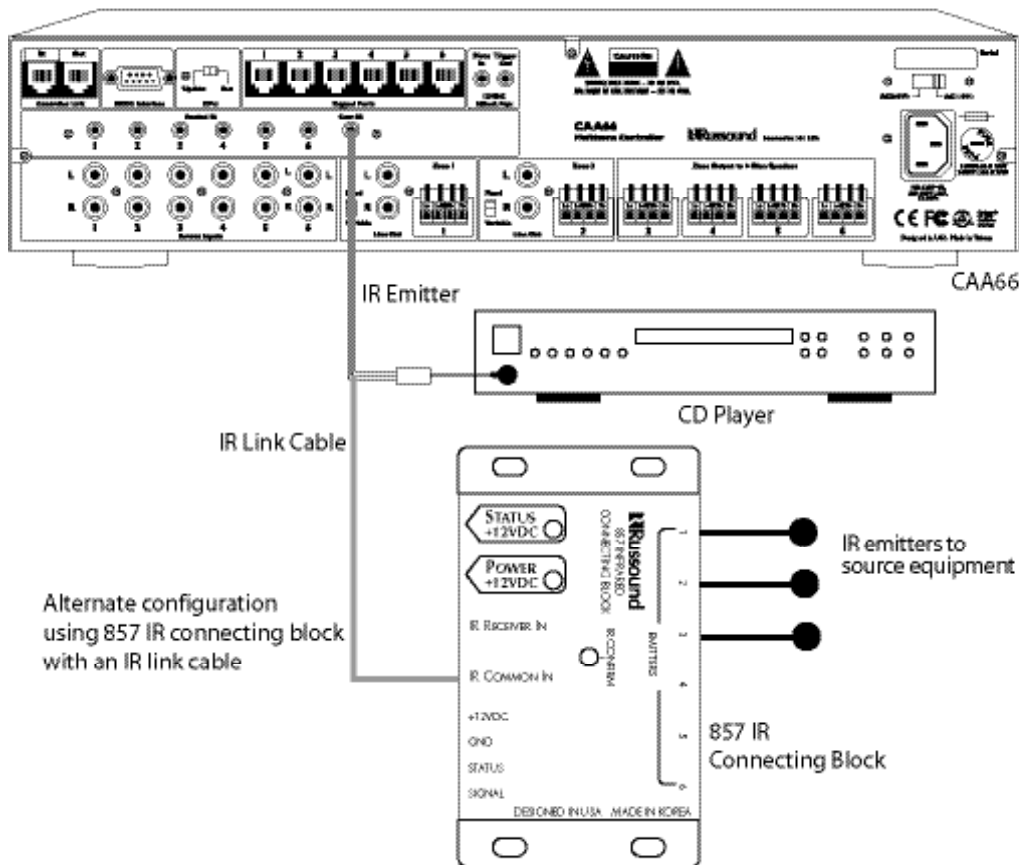
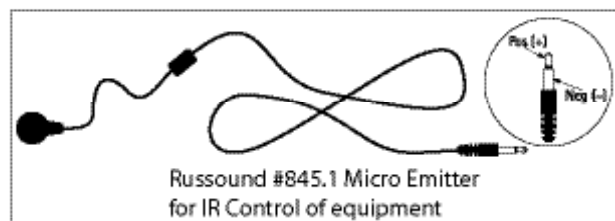
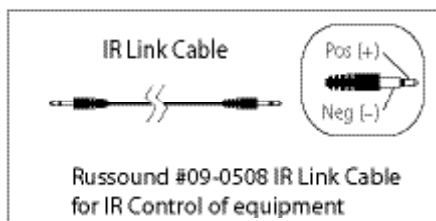
INSTALLER MAKING CONNECTIONS

Common IR Connection

Common IR Connections

The Common IR jack on the rear of the CAA66 allows control of any source equipment without that source being selected on the keypad. The connection for the Com IR jack is made using an IR emitter with a 1/8" plug or IR link cable.

The Russound 845.1 single IR emitter is recommended, or use an IR connecting block such as the Russound 857 which allows multiple units to be controlled through the COM IR Port.



INSTALLER MAKING CONNECTIONS

Speaker Connections

The speakers are connected to the CAA66 using modular snap 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.

Note: An 8 Ohm minimum speaker is required for each amplified output.

1. Pull the speaker wire conductors apart so they're separated for the first two inches from their ends.
2. Using a wire stripper, remove 1/4 inch of insulation from each conductor. Twist the strands in each conductor into tight spirals.
3. Remove the modular four-color connector for Zone 1. The color code is as follows:

WHITE -- L+ (left channel positive)

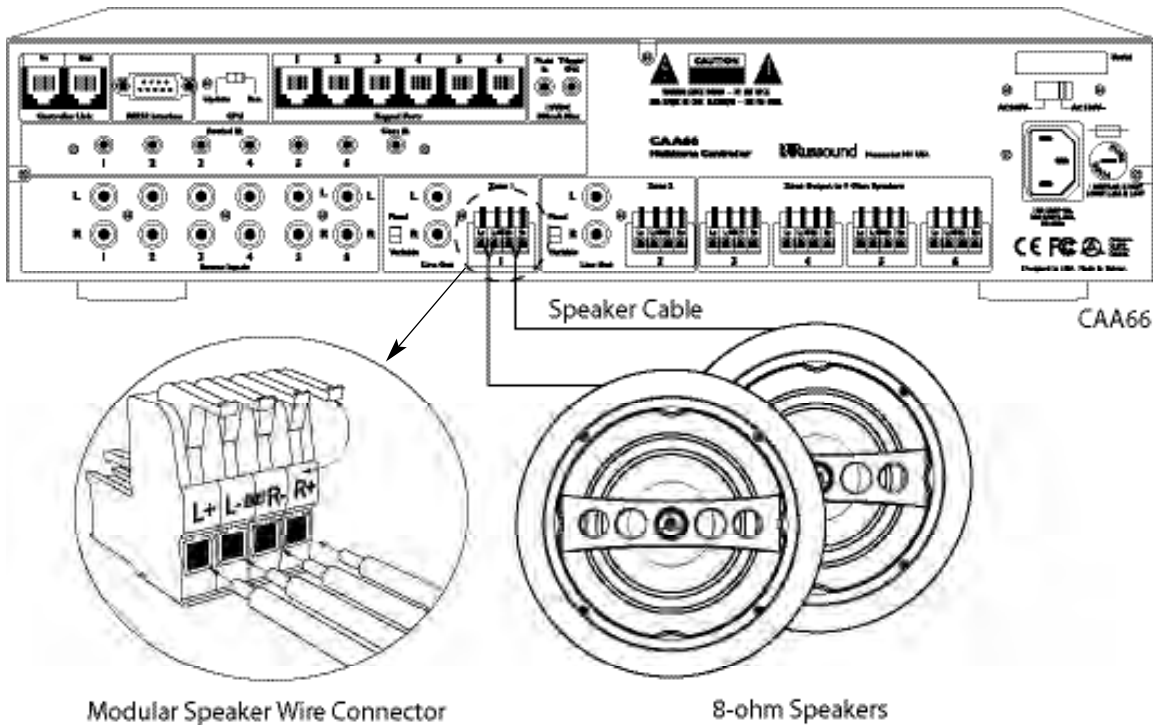
GREEN -- L- (left channel negative)

BLACK -- R- (right channel negative)

RED -- R+ (right channel positive)

Lift the black 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. Insert the modular connector into its designated output on the back of the CAA66.

4. Complete the same steps for the remaining zones. Label each set of speaker wires with the zone and location.



INSTALLER

MAKING CONNECTIONS

Zone Fixed/Variable Audio Outputs

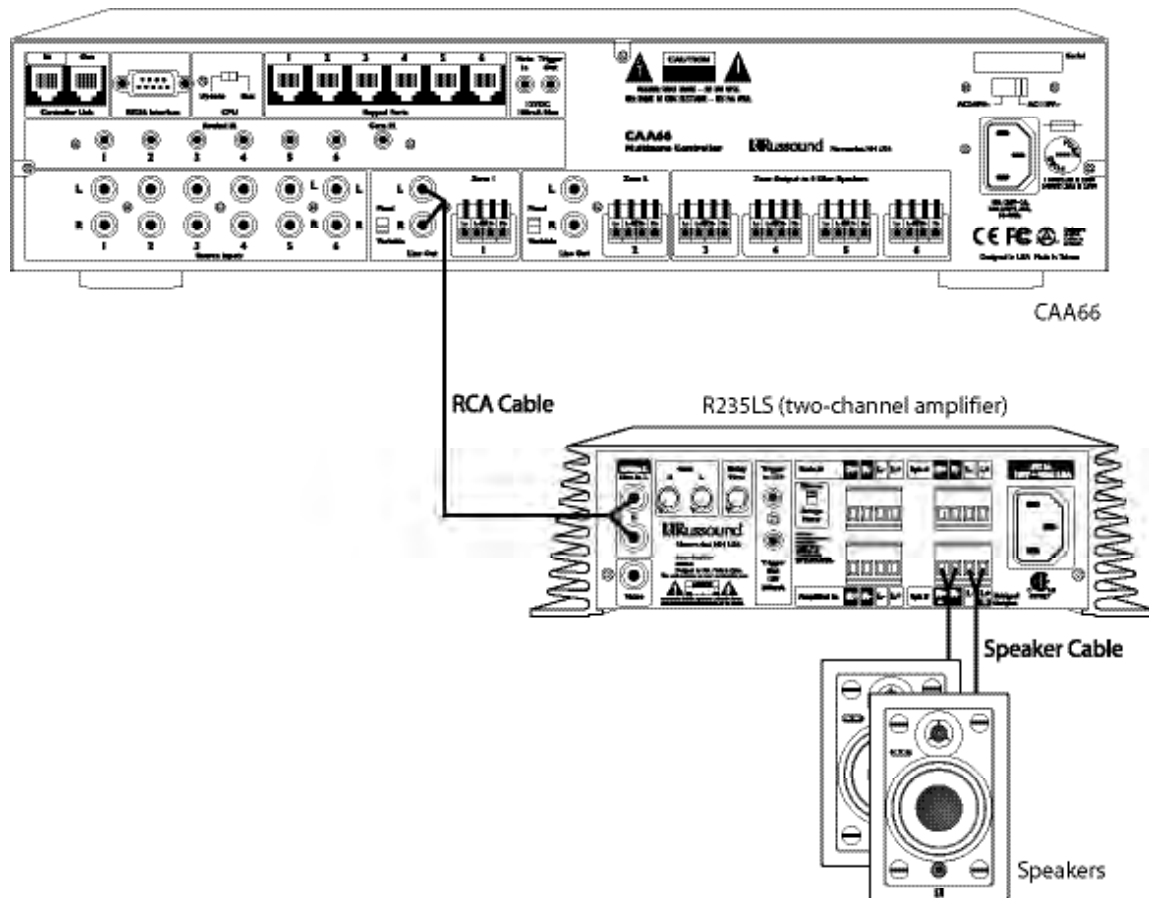
Zone Fixed/Variable Audio Output

The CAA66 has two line Audio outputs, on Zone 1 and Zone 2. Each of these zone audio output connections features a stereo line out RCA connection plus a switch to allow for either a fixed or a variable line level output.

When set to Variable, the keypad volume level affects this output. In the Fixed position, the keypad volume level will not change the output level.

The fixed or variable audio outputs can be used if additional amplification is desired (e.g., Russound R235LS two-channel amplifier). Use quality RCA signal cables to ensure a constant quality audio signal.

Note: If set to Fixed, turning the keypad off will not turn off the audio output.



INSTALLER MAKING CONNECTIONS

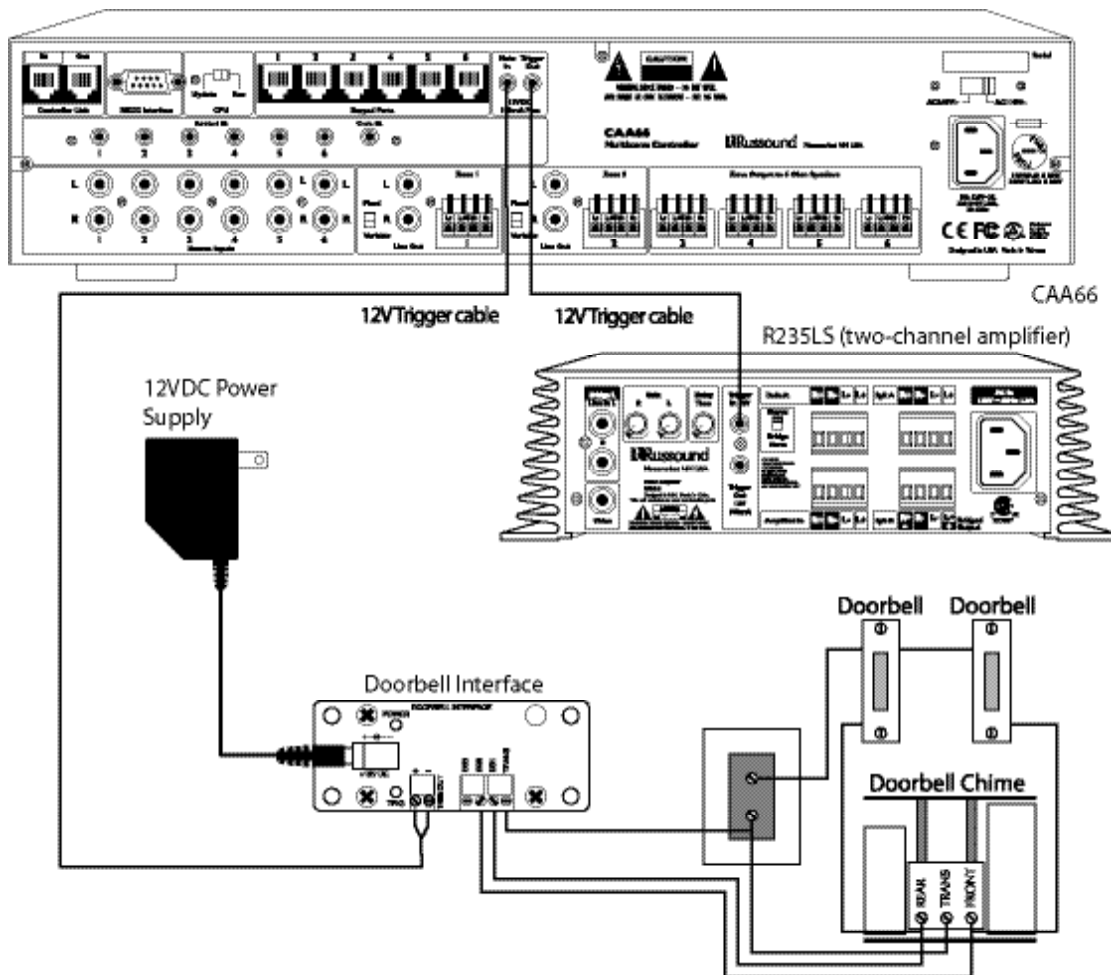
12VDC Mute Trigger In/System Trigger Out

12VDC Mute Trigger In

When 12VDC is applied to the Mute In, the system will fully mute all zones in the system. The connections for the trigger are made using a two-conductor cable with 1/8" male mini-plug jacks. The tip is positive (+) and sleeve is negative (-). This allows for the connection of an external paging or muting device. **Note:** The CAA66 will not accept a paging audio input; however, if used with an independent paging system with 12V trigger out, that can be used to trigger the mute.

12VDC System Trigger Out

Trigger Out 12VDC output is used for triggering an external amplifier or other component. The connections for the output are made using a two-conductor cable with 1/8" male mini-plug jacks at each end. The tip is positive (+) and sleeve is negative (-). The System Trigger Out supplies 12VDC when the first keypad is turned on. The 12 VDC is removed 5 minutes after the last keypad is turned off.



INSTALLER

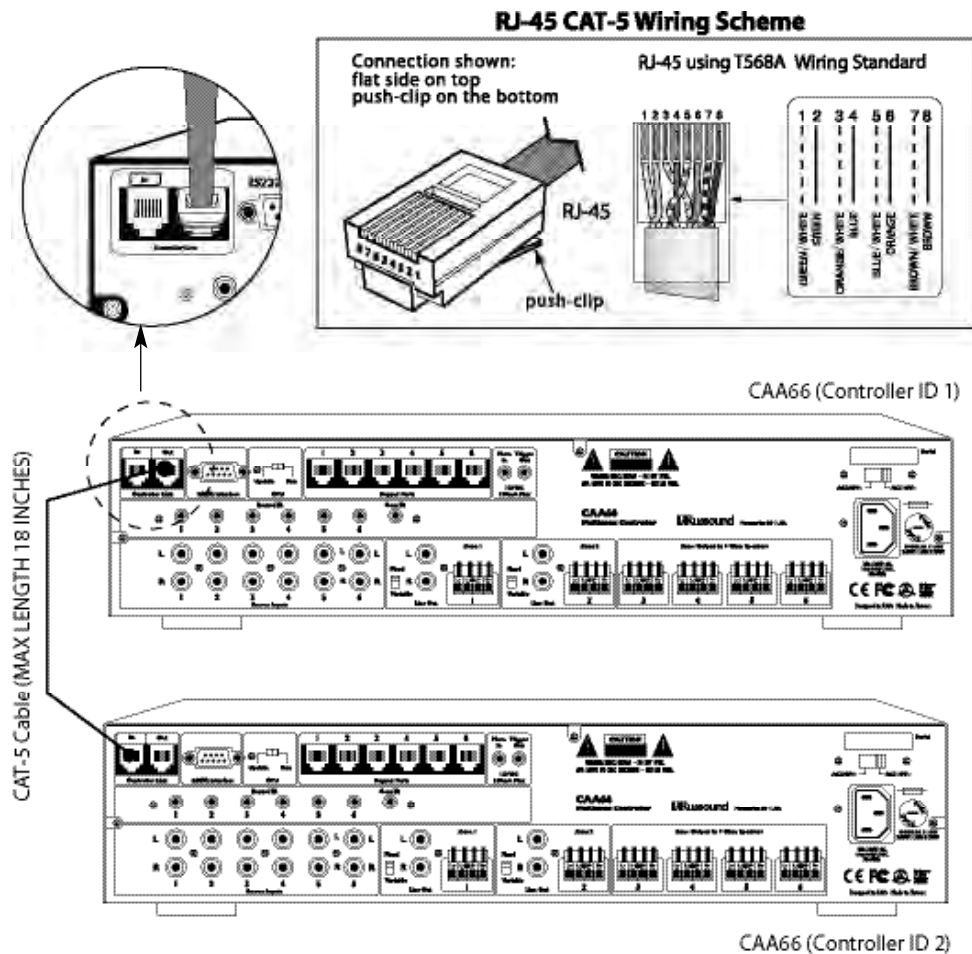
MAKING CONNECTIONS

Controller Link In and Link Out

Controller Link In/Out

The Controller Link In and Link Out can be used to connect up to six CAA66 controllers. The connection is made using a CAT-5 patch cable from the Link Out of the master CAA66 and into the Link In of the next controller. Along with data signals, the Controller Link In and Link Out jack passes the six source IR signals. The CAT-5 patch cable should not exceed 18 inches in length to avoid potential cross-talk between the source-specific IR repeating signal lines.

Note: If two or more CAA66 controllers will be connected using the Controller Link In and Link Out ports, each controller must have a unique Controller ID prior to being connected through the Link In and Out ports. The Controller ID assignment must be performed during the Controller Setup section of the Installation menu.



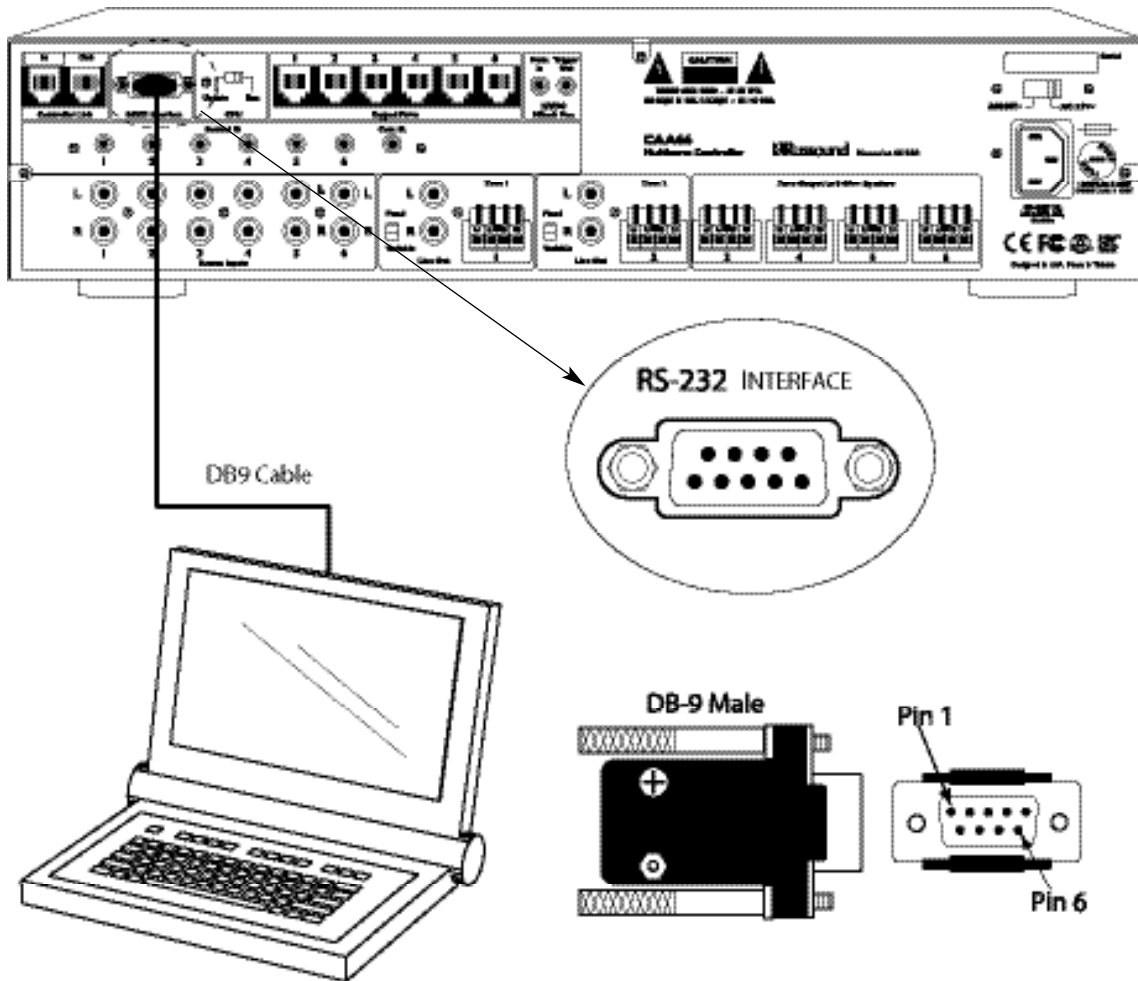
INSTALLER MAKING CONNECTIONS

RS-232 Interface

The CAA66 supports RS-232 communication with various third party automation systems or PC for control and firmware updates of the controller. The RS-232 com port is located on the back of the CAA66 and uses a DB-9 cable connection.

For firmware updates, be sure the CPU Update switch next to the the RS232 interface is set in the "Update" position.

For RS-232 protocol, firmware updates and the backup PC application, see the Document Center at www.russound.com. Look for the Technical Documents under Multi-source/Multi-zone products.



INSTALLER

INITIAL HARDWARE INSTALL TEST

Before proceeding to the system programming section, it's important to conduct an initial test to determine that the hardware components are working properly.

- 1.** Connect the speaker wires from Zone #1 to the CAA66 Zone #1 speaker output connectors.
- 2.** Connect a keypad (KP6, KPL) to Keypad Port #1 on the rear of the CAA66.
- 3.** Connect a source to the Source #1 Input on the CAA66 using RCA Audio patch cables.
- 4.** Plug an 845.1 IR emitter into the Source #1 IR Output Jack and adhere the emitter end to the source equipment's IR window.
- 5.** Plug in the main power cords for the CAA66 and the source.
- 6.** Turn on the main power switch on the CAA66 and the source.
- 7.** Manually command the source to provide audio or use the source remote control.
- 8.** Press the power button on the KP6 or KPL keypad and select Source #1.
- 9.** To be sure of proper placement of the IR emitter on the source component, aim the source remote control at the keypad for Source #1 and try to control the source. Adjust the emitter over the source's IR receiver if necessary.

Congratulations – you should now hear the source through the speakers in Zone #1.

If there is no sound, follow these diagnostic steps:

- 1.** Check the source to see that it is operating properly.
- 2.** Check the RCA Audio cable connections from the source to the Source #1 Input on the CAA66.
- 3.** Check the speaker connections and verify that they are correct and are connected to the Zone #1 speaker outputs.
- 4.** Check to see that the keypad is connected to the Zone #1 Keypad Port and verify the CAT-5 is properly terminated at both ends.

If none of these steps produce successful results, call Russound Tech Support for further assistance.

INSTALLER PROGRAMMING OVERVIEW

Programming Center

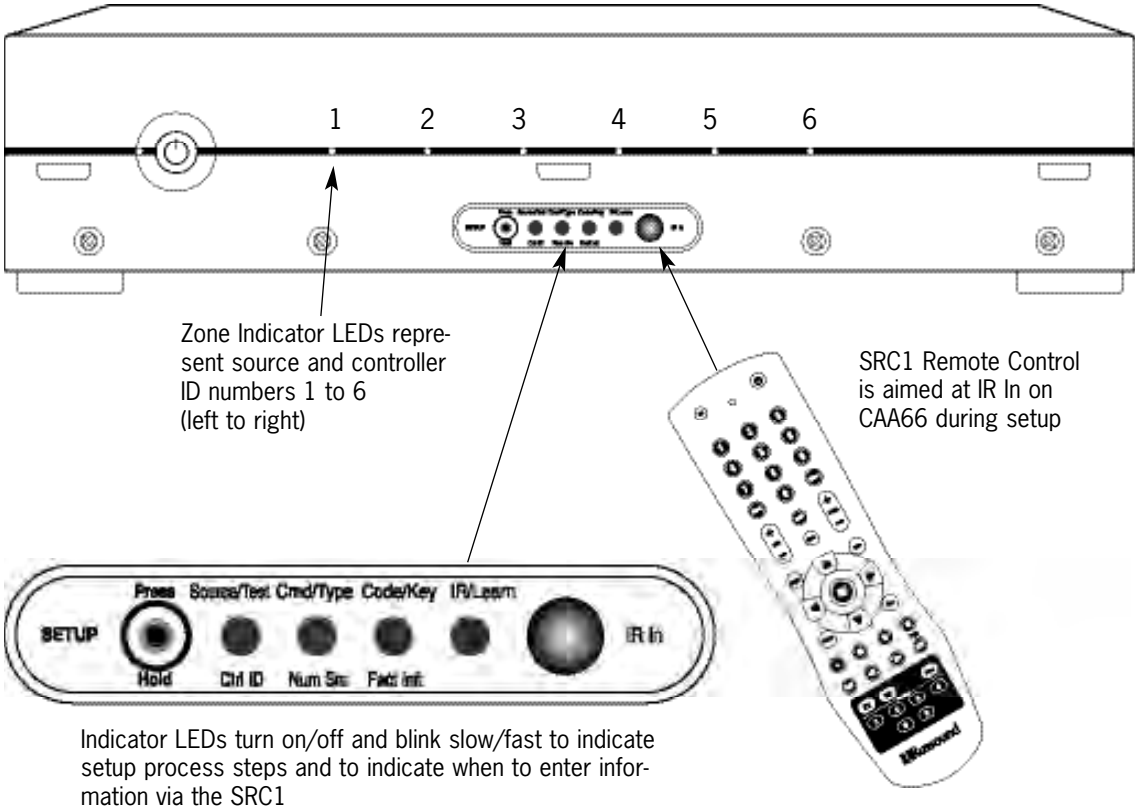
The CAA66 and its connected sources are configured through the Programming Center, located on the front of the CAA66 behind the removable lower panel. The LEDs are dual purpose with different colors to indicate different modes.

The CAA66 has two main programming modes: **Controller Setup Mode** and **Source Setup Mode**. The bottom row of functions are used in Controller Setup Mode (Ctrl ID, Num Src and Fact Init) and are accessed with a press and hold of the Setup button. The top row of functions are used in Source Setup Mode (Source/Test, Cmd/Type, Code/Key and

IR/Learn) and are accessed with a press of the Setup button.

The SRC1 system remote control is used to enter information during the setup procedures, and the LEDs show solid, blinking or off to indicate what is being programmed and when to enter information. The six zone LEDs on the front of the controller are used to represent the numbers 1 through 6 during Controller setup and sources 1 through 6 during Source setup.

To exit either setup mode, press the Setup button until no LEDs are illuminated in the Programming Center.





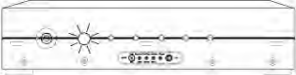
INSTALLER PROGRAMMING OVERVIEW

Controller Setup Controller ID Menu


Controller ID Procedure

The Controller ID procedure sets the ID number of the controller in multi-controller systems.


To enter Controller ID Menu:

1.  Press and hold Setup button
2.  Ctrl ID LED (green) turns ON
3.  Zone LED (amber) turns ON and corresponds to current Controller ID #


Option

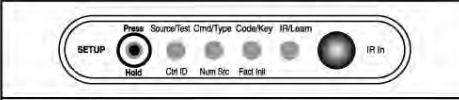
CHANGE Controller ID #:  Enter Controller ID # using SRC1 remote control
Zone LED (amber) changes to new Controller ID #

Option







PROCEED to next menu (Number of Sources):  Tap Setup Button 1 time
Num Src LED (yellow) turns ON

Option

EXIT Controller Setup:  Tap Setup Button 3 times
All Setup LEDs OFF



Legend/Key

-  LED OFF
-  LED ON
-  LED blinks SLOW
-  LED blinks FAST
-  Setup Button
-  SRC1 Remote Control buttons

INSTALLER PROGRAMMING OVERVIEW




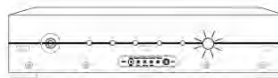
Controller Setup Number of Sources Menu

Number of Sources Procedure

The Number of Sources procedure sets the number of sources (connected to the controller) for the keypads to toggle through.

To enter Number of Sources Menu:


From Controller ID procedure:

1.  Tap Setup Button 1 time
2.  Ctrl ID LED (green) turns OFF
3.  Num Src LED (yellow) turns ON
4.  Zone LED (amber) turns ON and corresponds to current number of sources


From User Mode:

1.  Press and Hold Setup Button
- b.  Ctrl ID LED (green) turns ON
- c.  Tap Setup Button 1 time


Option

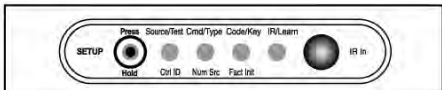
CHANGE Number of Sources:  Enter number of sources using SRC1 remote control
Zone LED (amber) changes to new number of sources #

Option







PROCEED to next menu (Factory Initialization):  Tap Setup Button 1 time
Fact Init LED (orange) turns ON

Option

EXIT Controller Setup:  Tap Setup Button 2 times
All Setup LEDs OFF



Legend/Key

-  LED OFF
-  LED ON
-  LED blinks SLOW
-  LED blinks FAST
-  Setup Button
-  SRC1 Remote Control buttons

INSTALLER PROGRAMMING OVERVIEW

Controller Setup Factory Initialization Menu

Factory Init Procedure

The Factory Initialization procedure returns the controller to its factory settings and erases all programming and user settings.

To enter Factory Init Menu:

From Number of Sources:

1. Tap Setup Button 1 time

From User Mode:

1. Press and Hold Setup Button
- Tap Setup Button 2 times

2.
 - Num Src LED (yellow) turns OFF
 - Fact Init LED (orange) turns ON

3. To PERFORM Factory Initialization:
 - Press MUTE, then OK using SRC1 remote control



4. Fact Init LED (orange) blinks SLOWLY TWICE at start of Factory Initialization. All Setup LEDs will be off during Fact Init. Factory Init takes a few minutes to complete.

5. Factory Initialization COMPLETE when:

- Ctrl ID LED (green) turns ON
- Num Src LED (yellow) turns ON
- Fact Init LED (orange) turns ON

6. **CYCLE POWER ON CONTROLLER**

Option

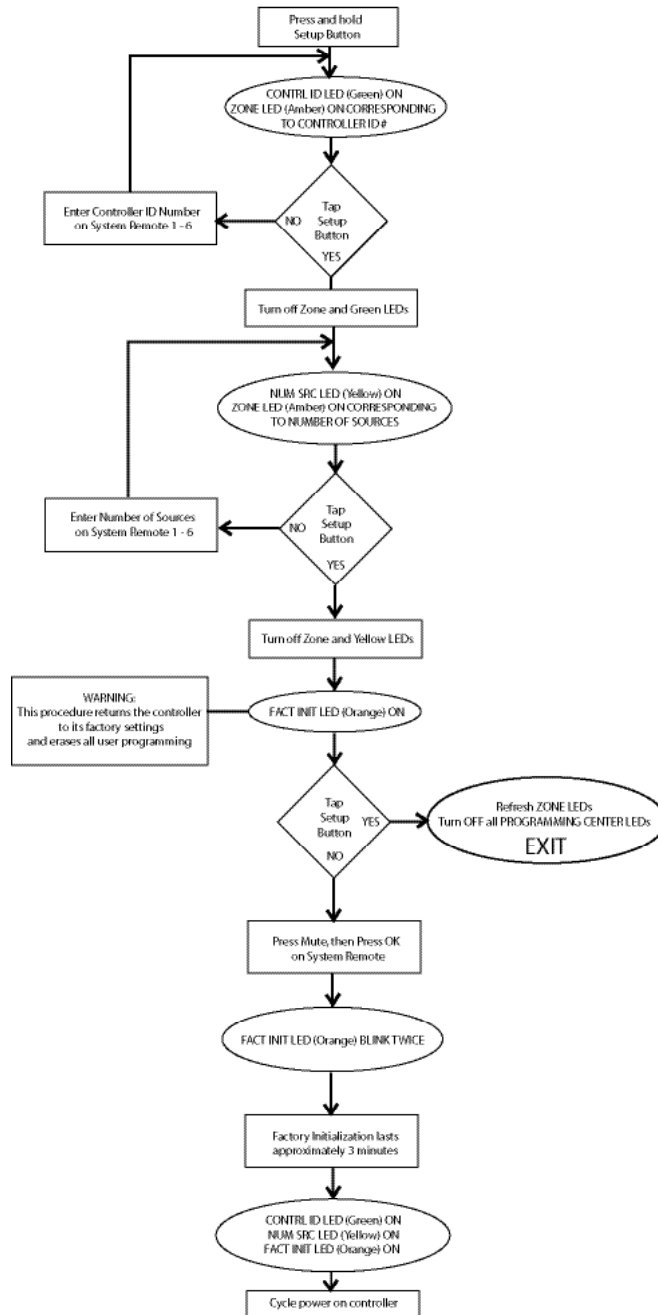
- EXIT Controller Setup: Tap Setup Button 1 time

Legend/Key

- LED OFF
- LED ON
- LED blinks SLOW
- LED blinks FAST
- Setup Button
- SRC1 Remote Control buttons

INSTALLER PROGRAMMING OVERVIEW

CAA66 Controller Setup Procedure





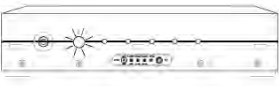




INSTALLER PROGRAMMING OVERVIEW

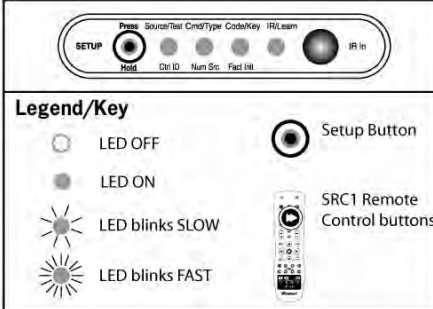
Source Setup Source Setup Menu

Source Setup Procedure







The Source Setup procedure is used to assign a command type for IR control. Steps include source number assignment, command type entry and UEI device code choice. If needed, Learned IR is performed in this procedure.

To enter Source Setup Menu:

1.  Press Setup button
2.  Source/Test LED (green) blinks SLOW
3.  Zone LED (amber) turns ON corresponds to source number being configured
4.  Enter number of the source to be configured (1-6) using SRC1 remote control
5.  Source/Test LED (green) turns OFF
6.  Cmd/Type LED (yellow) blinks SLOW to indicate Program Mode
7.  Enter Command Type 2-digit number from chart (right) using SRC1 remote control (See options below)




Legend/Key

-  LED OFF
-  LED ON
-  LED blinks SLOW
-  LED blinks FAST
-  Setup Button
-  SRC1 Remote Control buttons

Command Type	Device Name	Command Type	Device Name
00	Clear	07	DVD
01	TV	08	Tuner
02	Cable	09	Amplifier
03	Video Accessory	10	CD
04	Satellite/DSS	11	Home Control
05	VCR	98	RNET Source
06	Laser Disk	99	Learn IR

Valid Command Type Code Entries

Option	Option	Option	Option	Option	Option
RNET Source 98 (page 35)	UEI Library 01 - 11 (page 36)	Learn IR 99 (page 37)	Invalid Entry ## (page 38)	Clear Codes 00 (page 39)	EXIT  Tap Setup Button 2 times





INSTALLER PROGRAMMING OVERVIEW

Source Setup RNET Command Type Option 98 Menu

RNET Command Type Procedure

The RNET Command Type procedure is used to assign a command type for Russound RNET source components such as the ST2 Tuner and SMS3 Media Server.

In Source Setup Menu (after entering source # to be configured):

1.  Cmd/Type LED (yellow) blinks SLOW to indicate Program Mode
2.  Enter command type 98 using SRC1 remote control
3.  Cmd/Type LED (yellow) turns OFF
4.  Source/Test LED (green) blinks SLOW to indicate it's ready to configure new source

Option


PROCEED to next source: Return to Source Setup Menu (page 34)

Option







EXIT Source Setup: Tap Setup Button 1 time

Command Type	Device Name	Command Type	Device Name
00	Clear	07	DVD
01	TV	08	Tuner
02	Cable	09	Amplifier
03	Video Accessory	10	CD
04	Satellite/DSS	11	Home Control
05	VCR	98	RNET Source
06	Laser Disk	99	Learn IR

Valid Command Type Code Entries



Legend/Key

-  LED OFF
-  LED ON
-  LED blinks SLOW
-  LED blinks FAST
-  Setup Button
-  SRC1 Remote Control buttons









INSTALLER PROGRAMMING OVERVIEW

Source Setup UEI Library Command Type Option 01 - 11 Menu

UEI Library Command Type Procedure

The UEI Library Command Type procedure is used to assign a command type and device code for source components that are listed in the UEI Device Code Library at the back of this manual.


In Source Setup Menu (after entering source # to be configured):

1.  Cmd/Type LED (yellow) blinks SLOW to indicate Program Mode
2.  Enter command type 2-digit number (01-11) using SRC1 remote control
3.  Cmd/Type LED (yellow) turns OFF
4.  Code/Key LED (orange) blinks SLOW to indicate Device Code Mode
5.  Enter 4-digit device code from UEI Library (pgs. 44-46) using SRC1 remote control
6.  Code/Key LED (orange) turns OFF
7.  Source/Test LED (green) blinks FAST
8. **To test code:**
 Press one or more command buttons using SRC1 remote control to verify proper device code selection

Command Type	Device Name	Command Type	Device Name
00	Clear	07	DVD
01	TV	08	Tuner
02	Cable	09	Amplifier
03	Video Accessory	10	CD
04	Satellite/DSS	11	Home Control
05	VCR	98	RNET Source
06	Laser Disk	99	Learn IR


Valid Command Type Code Entries


Test Pass Options

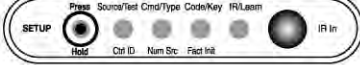
PROCEED to next source:  Tap Setup Button 1 time

EXIT Source Setup:  Tap Setup Button 2 times







Test Fail Options

REPEAT Source Setup procedure (page 34):  Tap Setup Button 1 time

EXIT Source Setup:  Tap Setup Button 2 times



Legend/Key

<ul style="list-style-type: none">  LED OFF  LED ON  LED blinks SLOW  LED blinks FAST 	<ul style="list-style-type: none">  Setup Button  SRC1 Remote Control buttons
---	---











INSTALLER PROGRAMMING OVERVIEW

Source Setup Learn IR Command Type Option 99 Menu





Learn IR Command Type Procedure

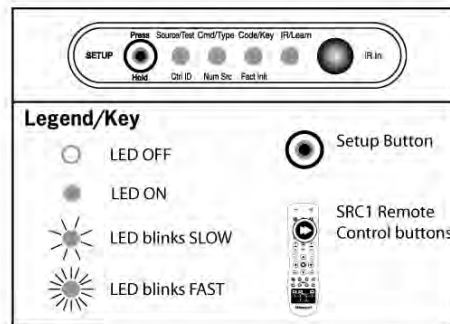
The Learn IR Command Type procedure is used to learn in source control commands when a source component is not listed in the UEI Device Code Library at the back of this manual, or when not all keycodes are assigned from that Library. **The source's factory remote control is required for this procedure. Note: for Numeric IR use with KPSC keypad, the Prefix command "Disc" and Suffix command "Enter" must be learned in from the SRC1 remote control with this procedure.**

In Source Setup Menu (after entering source # to be configured):


1.  Cmd/Type LED (yellow) blinks SLOW to indicate Program Mode
2.  Enter command type 99 using SRC1 remote control
3.  Cmd/Type LED (yellow) turns OFF
4.  Code/Key LED (orange) blinks FAST waiting for button to learn
5.  Press button to learn (play, stop, etc.) using SRC1 remote control
6.  IR/Learn LED (red) blinks FAST to indicate Learn IR Mode (active for about 8 seconds)
7.  Aim component remote control at IR In window on CAA66 within 2-4 inches. Press same button to learn (play, stop, etc.).
8.  Code/Key LED (orange) turns OFF
9.  IR/Learn LED (red) turns ON for 1 second, then OFF
10.  Source/Test LED (green) blinks FAST to indicate Test Mode. Proceed to Test Learned Key.

To Test Learned Key:


11.  Press learned button using SRC1 remote control
12.  IR/Learn LED (red) blinks ONCE
13.  Source/Test LED (green) turns OFF
14.  Code/Key LED (orange) blinks FAST waiting for next key.
15. Test PASS: Source responds to command. Return to **step 4** for different key, same source.
Test FAIL: Source doesn't respond to command. Return to **step 4** for same key, same source.



Option

PROCEED to next source Source Setup Menu (Page 34):  Press Setup Button 1 time

Option

EXIT Source Setup:  Tap Setup Button 2 times





INSTALLER PROGRAMMING OVERVIEW

Source Setup Invalid Entry of Command Type Option ## Menu

Invalid Entry Command Type Procedure

The Invalid Entry Command Type procedure allows you to re-enter a correct command type after entering an invalid number (not listed in chart).


In Source Setup Menu (after entering source # to be configured):

1.  Cmd/Type LED (yellow) blinks SLOW to indicate Program Mode
2.  Enter 2-digit command type using SRC1 remote control
3.  If number is invalid (not in chart) Cmd/Type LED (yellow) blinks FAST for 1 second
4.  Cmd/Type LED (yellow) blinks SLOW waiting for next command type entry


Command Type	Device Name	Command Type	Device Name
00	Clear	07	DVD
01	TV	08	Tuner
02	Cable	09	Amplifier
03	Video Accessory	10	CD
04	Satellite/DSS	11	Home Control
05	VCR	98	RNET Source
06	Laser Disk	99	Learn It

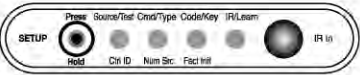
Valid Command Type Code Entries

Option
PROCEED to enter another command type:









Enter 2-digit command type using SRC1 remote control

Option
EXIT Source Setup:  Tap Setup Button 2 times



Legend/Key

-  LED OFF
-  LED ON
-  LED blinks SLOW
-  LED blinks FAST
-  Setup Button
-  SRC1 Remote Control buttons





INSTALLER PROGRAMMING OVERVIEW

Source Setup Clear Code Command Type Option 00 Menu

Clear Code Command Type Procedure

The Clear Code Command Type procedure allows you to clear the current command type of a selected source.

In Source Setup Menu (after entering source # to be configured):

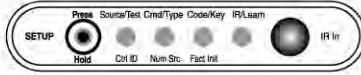
1.  Cmd/Type LED (yellow) blinks SLOW to indicate Program Mode
2.  Enter command type 00 using SRC1 remote control
3.  Cmd/Type LED (yellow) turns OFF
4.  Source/Test LED (green) blinks SLOW to indicate it's ready to configure new source

Option







EXIT Source Setup:  Tap Setup Button 1 time

Command Type	Device Name	Command Type	Device Name
00	Clear	07	DVD
01	TV	08	Tuner
02	Cable	09	Amplifier
03	Video Accessory	10	CD
04	Satellite/DSS	11	Home Control
05	VCR	98	RNET Source
06	Laser Disk	99	Learn IR

Valid Command Type Code Entries



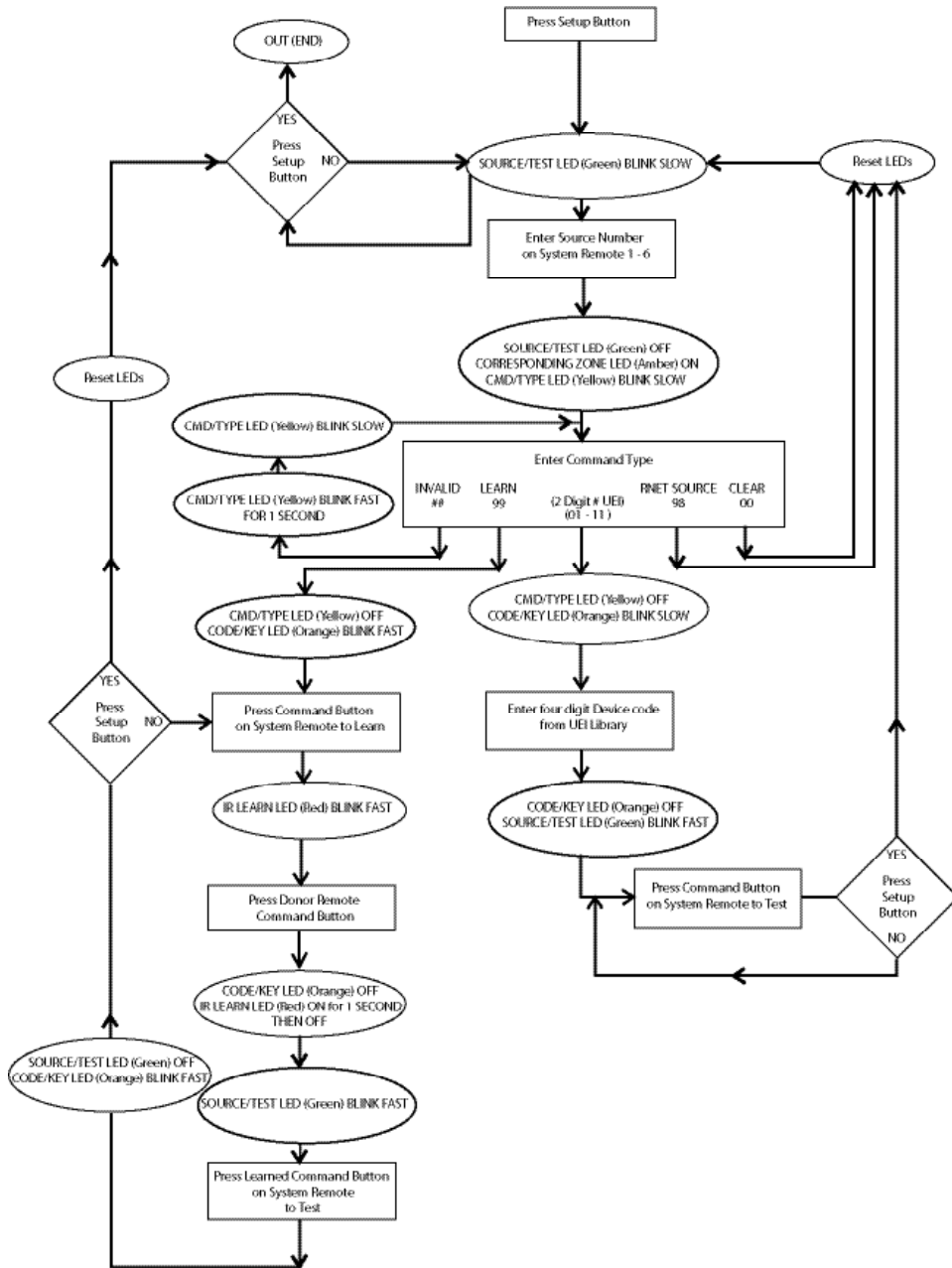
Legend/Key

-  LED OFF
-  LED ON
-  LED blinks SLOW
-  LED blinks FAST
-  Tap Setup Button
-  SRC1 Remote Control buttons

INSTALLER

CAA66 SOURCE SETUP FLOW CHART

CAA66 Source Setup Procedure



INSTALLER

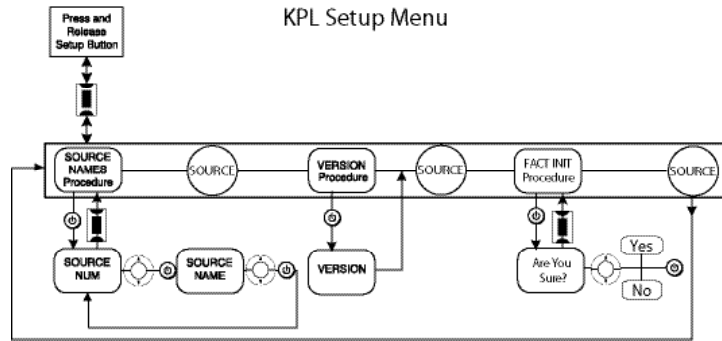
KPL SETUP AND DIAGNOSTIC MENUS

KPL Setup Menu

The KPL Setup menu is used to choose source names, check the version number and perform a Factory Initialization of the CAA66 controller. The menu is outlined in the diagram to the right.

To access the Setup Menu, press and release the Setup button on the right side of the keypad until “SrcNm” (source names) appears on the display. Press the Source button to toggle through the menu options, and use the Volume Up/Down buttons to scroll through the selections. Press the Power button to enter a selection.

When finished, press and release the Setup button again.

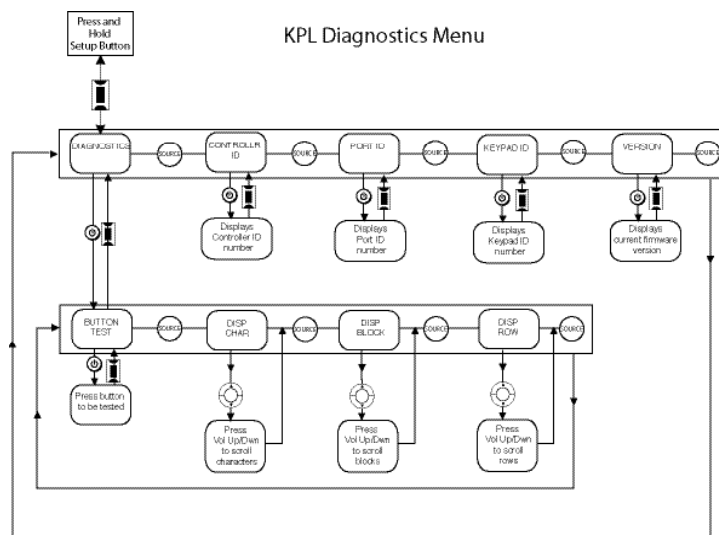


KPL Diagnostics Menu

The Diagnostics Menu allows the installer to run a diagnostic check on the keypad and to verify the firmware version of the keypad.

To access the Diagnostics Menu, press and hold the Setup button on the right side of the keypad until “Diags” appears on the display. The menus are outlined in the diagram to the right.

When finished, press and release the Setup button.



REFERENCE

SOURCE NAMES - KPL KEYPAD

5-Character Display	Description	5-Character Display	Description	5-Character Display	Description
Aux	Auxiliary	DSS	DSS Receiver	MSvr1	Media Server 1
Aux 1	Auxiliary 1	DSS 1	DSS 1	MSvr2	Media Server 2
Aux 2	Auxiliary 2	DSS 2	DSS 2	MSvr3	Media Server 3
Blues	Blues	DSS 3	DSS 3	MiniD	Mini Disk
Cable	Cable	DVDCh	DVD Changer	Mood	Mood Music
Cbl 1	Cable 1	DVDC1	DVD Changer1	MornM	MorningMusic
Cbl 2	Cable 2	DVDC2	DVD Changer2	MP3	MP3
Cbl 3	Cable 3	DVDC3	DVD Changer3	Oldes	Oldies
CDCh	CD Changer	DVD	DVD Player	Pop	Pop
CDCh1	CD Changer 1	DVD 1	DVD Player 1	RDoor	Rear Door
CDCh2	CD Changer 2	DVD 2	DVD Player 2	Relig	Religious
CDCh3	CD Changer 3	DVD 3	DVD Player 3	RepTV	ReplayTV
CD	CD Player	FDoor	Front Door	Rock	Rock
CD 1	CD Player 1	Hers	Her Music	Sat	Satellite
CD 2	CD Player 2	His	His Music	Sat 1	Satellite 1
CD 3	CD Player 3	www.	Internet Radio	Sat 2	Satellite 2
Clsc	Classical	iPod	iPod	Sat 3	Satellite 3
Cmptr	Computer	Jazz	Jazz	SatRd	Satellite Radio
Cntry	Country	Kids	Kids Music	Src 1	Source 1
Dance	Dance	LD	Laser Disk	Src 2	Source 2
DigCb	Digital Cable	MSvr	Media Server	Src 3	Source 3



REFERENCE

SOURCE NAMES - KPL/KP6 KEYPADS

5-Character Display	Description
Src 4	Source 4
Src 5	Source 5
Src 6	Source 6
Src 7	Source 7
Src 8	Source 8
Spec1	Special
Tape	Tape
Tape1	Tape 1
Tape2	Tape 2
TiVo	TIVO
Tuner	Tuner
Tun 1	Tuner 1
Tun 2	Tuner 2
Tun 3	Tuner 3
TV	TV
VCR	VCR
VCR 1	VCR 1
VCR 2	VCR 2
(XM)	<<<XM>>>
XM 1	XM 1
XM 2	XM 2

5-Character Display	Description
XM 3	XM 3
XMRad	XM Radio

KP6 Labels
AM/FM
AM/FM 1
AM/FM 2
CABLE
CD
CD1
CD2
DVD
DVR
iPod
RADIO
SAT
SERVER 1
SERVER 2
SERVER 3
SIRIUS
TAPE
VCR
XM1
XM2

REFERENCE

UEI LIBRARY IR CODES

Device Codes for TVs:

AOC	0030, 0019
Admiral	0093, 0463
Advent	0761
Aiko	0092
Aiwa	0701
Akai	0030
Alaron	0179
America Action	0180
Ampro	0751
Anam	0180
Apex Digital	0748, 0765, 0767
Audiovox	0451, 0180, 0092, 0623
Baysonic	0180
Belcor	0019
Bell & Howell	0154, 0016
Bradford	0180
Brockwood	0019
Broksonic	0236, 0463
CXC	0180
Candle	0030, 0056
Carnivale	0030
Carver	0054
Celebrity	0000
Changhong	0765
Cineral	0451, 0092
Citizen	0060, 0030, 0056, 0092
Concerto	0056
Contec	0180
Craig	0180
Crosley	0054
Crown	0180
Curtis Mathes	0047, 0747, 1147, 1347, 0054, 0154, 0051, 0451, 0093, 0060, 0030, 0056, 0145, 0166, 0016, 0702, 0466
Daewoo	0451, 0019, 0092, 0623
Daytron	0019
Denon	0145
Dumont	0017, 0019
Dwin	0720, 0774
Electroband	0000
Emerson	0154, 0236, 0463, 0180, 0178, 0179, 0019, 0623
Envision	0030
Fisher	0154
Fujitsu	0179, 0683
Funai	0180, 0179, 0171
Futuretech	0180
GE	0047, 0747, 1147, 1347, 0051, 0451, 0093, 0178, 0021
Gibraltar	0017, 0030, 0019
GoldStar	0030, 0178, 0056, 0019
Gradiente	0053, 0056
Grunpy	0180, 0179
Hallmark	0178
Harley Davidson	0179
Harman/Kardon	0054
Harvard	0180
Havermy	0093
Hitachi	0056, 0145, 0016
Infinity	0054
Inteq	0017
JBL	0054
JCB	0000
JVC	0053
KEC	0180
KTV	0180, 0030
Kenwood	0030, 0019
Konka	0628, 0632, 0638, 0703, 0707
LG	0056
LXI	0047, 0747, 0054, 0154, 0156, 0178
Logik	0016
Luxman	0056
MGA	0150, 0030, 0178, 0019
MTC	0060, 0030, 0056, 0019
Magnavox	0054, 1254, 0030, 0179, 1454
Majestic	0016
Marantz	0054, 0030
Matsushita	0250
Megatron	0178, 0145
Memorex	0154, 0250, 0463, 0150, 0178, 0179, 0056, 0016
Midland	0047, 0747, 0017, 0051
Minutz	0021
Mitsubishi	0093, 0150, 0178, 0019
Motorola	0093
Multitech	0180
NAD	0156, 0178, 0166
NEC	0030, 0056, 0019
NTC	0092
Nikko	0030, 0178, 0092
Onwa	0180
Optimus	0154, 0250, 0166
Optonica	0093
Orion	0236, 0463, 0179
Panasonic	0051, 0250
Penney	0047, 0747, 1347, 0156, 0051, 0060, 0030, 0178, 0021, 0056, 0019
Philco	0054, 0463, 0030, 0145, 0019
Philips	0054, 1454
Pilot	0030, 0019
Pioneer	0166, 0679
Portland	0019, 0092
Princeton	0717
Prism	0051
Proscan	0047, 0747
Proton	0178, 0466
Pulsar	0017, 0019
Quasar	0051, 0250
RCA	0047, 0747, 1047, 1147, 1247, 1347, 1447, 0090, 0051, 0093, 0019, 0679
Radio Shack	0047, 0747, 0154, 0180, 0030, 0178, 0056, 0019
Realistic	0154, 0180, 0030, 0178, 0056, 0019
Runco	0017, 0030, 0603
SSS	0180, 0019
Sampo	0030
Samsung	0060, 0030, 0178, 0056, 0019, 0702, 0766
Sansei	0451
Sansui	0463
Sanyo	0154
Scimitsu	0019
Scotch	0178
Scott	0236, 0180, 0178, 0179, 0019
Sears	0047, 0747, 0054, 0154, 0156, 0178, 0179, 0056, 0171
Semivox	0180
Semp	0156
Sharp	0093, 0688, 0689
Shogun	0019
Signature	0016
Sony	0000, 1100
Soundesign	0180, 0178, 0179
Squareview	0171
Starlite	0180
Supreme	0000
Sylvania	0054, 0030, 0171
Symphonic	0171, 0180
TMK	0178, 0056
TNCi	0017
Tandy	0093
Technics	0051, 0250
Technol Ace	0179
Techwood	0051, 0056
Teknika	0054, 0180, 0150, 0060, 0179, 0056, 0019, 0092, 0016
Telefunken	0056, 0702
Toshiba	0154, 0156, 0060, 1256
Vector Research	0030
Victor	0053
Vidikron	0054
Vidtech	0178, 0019
Wards	0054, 0030, 0178, 0021, 0179, 0056, 0019, 0016
Waycon	0156
White Westinghouse	0463, 0623
Yamaha	0030, 0019, 0769
Zenith	0017, 0463, 0092, 0016

Device Codes for Cable:

ABC	0003, 0008, 0014, 0017
Americast	0899
Bell & Howell	0014
Bell South	0899
Director	0476
General Instrument	0003, 0476, 0810, 0276
GoldStar	0144
Hamiln	0009, 0273
Jerrold	0003, 0012, 0014, 0276, 0476, 0810
Memorex	0000
Motorola	0476, 1106, 0276, 0810
Pace	0237
Panasonic	0000, 0107
Paragon	0000
Philips	0305, 0317
Pioneer	0144, 0877, 0533, 1877
Pulsar	0000
Quasar	0000
Regal	0273, 0279
Runco	0000
Samsung	0144
Scientific Atlanta	0008, 0477, 0877, 0017, 1877
Sony	1006
Starcom	0003
Supercable	0276
Tocom	0012
Torx	0003
Toshiba	0000
Zenith	0525, 0000, 0899

Device Codes for Video Acc:

AOL	1061
Magnavox	1818
Mitsubishi	1002
Panasonic	1120

REFERENCE UEI LIBRARY IR CODES

Philips	1818, 1061
Pioneer	1010
Princeton	0113, 0295
Samsung	1190, 1204
Sensory Science	1126
Sharp	1010
Sony	0850

Device Codes for SAT/DSS:

AlphaStar	0772
Chaparral	0216
Crossdigital	1109
Echostar	0775, 1005
Expressvu	0775
GE	0566
GOI	0775
General Instrument	0869
HTS	0775
Hitachi	0819
Hughes Net. Sys.	0749, 1142, 1749
JVC	0775
Magnavox	0724, 0722
Memorex	0724
Mitsubishi	0749
Motorola	0869
Next Level	0869
Panasonic	0247, 0701
Paysat	0724
Philips	0724, 0722, 1142, 0749, 1076, 1749
Proscan	0392
RCA	0566, 0143, 0855, 0392
RadioShack	0869
Samsung	1109
Sony	0639
Star Choice	0869
Toshiba	0749, 0790, 1749
Uniden	0724, 0722
Zenith	0856, 1856

Device Codes for VCRs:

Admiral	0048, 0209
Adventura	0000
Aiko	0278
Aiwa	0037, 0000
Akai	0041
America Action	0278
American High	0035
Asha	0240
Audiovox	0037
Beaumarck	0240
Bell & Howell	0104
Broksonic	0184, 0121, 0209, 0002, 1479
CCE	0072, 0278
Calix	0037
Canon	0035
Carver	0081
Cineral	0278
Citizen	0037, 0278, 1278
Colt	0072
Craig	0037, 0047, 0240, 0072
Curtis Mathes	0035, 0060, 0760, 0162, 0041, 1035
Cybernex	0240
Daewoo	0045, 0278, 1278
Denon	0042

Dynatech	0000
Electrohome	0037
Electroponic	0037
Emerex	0032
Emerson	0037, 0184, 0000, 0121, 1278, 1479, 0043, 0209, 0002, 0278, 0479
Fisher	0047, 0104
Fuji	0035
Funai	0000
GE	0035, 0060, 0760, 0048, 0240, 1035, 1060, 0807
Garrard	0000
Go Video	0432
GoldStar	0037, 0038, 1237
Gradiente	0000
HI-Q	0047
Harley Davidson	0000
Harman/Kardon	0081, 0038
Harwood	0072
Hitachi	0000, 0042, 0041
Hughes Net. Sys.	0042
JVC	0067, 0041
Jensen	0041
KEC	0037, 0278
KLH	0072
Kenwood	0067, 0041, 0038
Kodak	0035, 0037
LXI	0037
Lloyd's	0000
Logik	0072
MEI	0035
MGA	0240, 0043
MGN Technology	0240
MTC	0000, 0240
Magnasonic	0278, 1278
Magnavox	0035, 0039, 0081, 0000, 0149, 0563, 1781
Magnin	0240
Marantz	0035, 0081
Marta	0037
Matsushita	0035, 0162, 0454
Memorex	0035, 0037, 1037, 0048, 0039, 0047, 0162, 1162, 1262, 0000, 0240, 0104, 0209, 0454, 0479, 1237
Minolta	0042
Mitsubishi	0048, 0067, 0043, 0807
Motorola	0035, 0048
Multitech	0000, 0072
NEC	0067, 0104, 0041, 0038
Nikko	0037
Noblex	0240
Olympus	0035
Optimus	0037, 0048, 1048, 0162, 1062, 1162, 1262, 0104, 0454, 0432
Orion	0184, 0209, 0002, 0479, 1479
Panasonic	0035, 0225, 0162, 1062, 1035, 1162, 1262, 0454, 0616
Penney	0035, 0037, 0042, 0240, 0038, 1035, 1237
Pentax	0042
Philco	0035, 0209, 0479
Philips	0035, 0081, 1081, 1181, 0618
Pilot	0037
Pioneer	0067
Polk Audio	0081
Profitronic	0240
Proscan	0060, 0760, 1060

Protec	0072
Pulsar	0039
Quasar	0035, 0162, 1162, 0454, 1035
RCA	0035, 0060, 0760, 0048, 1035, 1060, 0807, 0149, 0042, 0240
Radio Shack	1037, 0000
Radix	0037
Randex	0037
Realistic	0035, 0037, 0048, 0047, 0000, 0104
ReplayTV	0614, 0616
Runco	0039
STS	0042
Samsung	0045, 0240
Sanky	0048, 0039
Sansui	0000, 0067, 0209, 0041, 0479, 1479
Sanyo	0047, 0240, 0104
Scott	0184, 0045, 0121, 0043
Sears	0035, 0037, 0047, 0000, 0042, 0104, 1237
Semp	0045
Sharp	0048, 0807, 0848
Shintom	0072
Shogun	0240
Singer	0072
Sonic Blue	0614
Sony	0035, 0032, 1032, 0000, 0636, 1232
Sylvania	0035, 0081, 0000, 0043, 1781
Symphonic	0000
TMK	0240
Tatung	0041
Teac	0000, 0041
Technics	0035, 0162
Teknika	0035, 0037, 0000
Thomas	0000
Tivo	0618, 0636
Toshiba	0045, 0043, 0845
Totevision	0037, 0240
Unitech	0240
Vector	0045
Vector Research	0038
Video Concepts	0045
Videomagic	0037
Videosonic	0240
Villain	0000
Wards	0035, 0060, 0760, 0048, 0047, 0081, 0000, 0042, 0240, 0072, 0149
White Westinghouse	0209, 0072, 0278, 1278
XR-1000	0035, 0000, 0072
Yamaha	0038
Zenith	0039, 0000, 0209, 0479, 1479

Device Codes for Laser Disc Players:

Aiwa	0203
Denon	0059, 0172
Funai	0203
Mitsubishi	0059
NAD	0059
Optimus	0059
Panasonic	0204
Pioneer	0059
Quasar	0204

REFERENCE

UEI LIBRARY IR CODES

Realistic	0203
Sony	0201, 0193
Technics	0204

Device Codes for DVD Players:

Aiwa	0641
Apex Digital	0672, 0755, 0794, 0795, 0796, 0797, 0830
Blue Parade	0571
Broksonic	0695
Daewoo	0784
Denon	0490, 0634
Emerson	0591
Enterprise	0591
Fisher	0670
GE	0522
Go Video	0715, 0783
Gradiente	0651
Harman/Kardon	0582, 0702
Hitachi	0573, 0664
Hiteker	0672
JBL	0702
JVC	0558, 0623, 0867
Kenwood	0534, 0682
Konka	0711, 0719, 0720, 0721
Koss	0651
Lasonic	0798
Magnavox	0503, 0675
Malata	0782
Marantz	0539
Microsoft	0522
Mitsubishi	0521
Onkyo	0503, 0627
Oritron	0651
Panasonic	0490, 0632
Philips	0503, 0539, 0646, 0854
Pioneer	0525, 0571, 0632
Princeton	0674
Proscan	0522
RCA	0522, 0571, 0822, 1022
Rowa	0823
Sampo	0698
Samsung	0573, 0820
Sansui	0695
Sanyo	0670
Sharp	0630
Sherwood	0633
Sony	0533, 1533
Sylvania	0821
Technics	0490
Techwood	0692
Theta Digital	0571
Toshiba	0503, 0695, 1045
Urban Concepts	0503
Yamaha	0490, 0545, 0817
Zenith	0503, 0591

Device Codes for Tuner/Amp:

ADC	0531
Aiwa	1089, 1405, 0158, 1388
Alco	1390
Anam	1609
Apex Digital	1257
Audiotronic	1189
Audiovox	1390
Bose	1229

Capetronic	0531
Carver	1089, 1189
Denon	1104, 1160, 1360
JBL	1306
JVC	0074
KLH	1390
Kenwood	1313, 1027, 1570, 1569, 0027
Koss	1366
MCS	0039
Magnavox	1089, 1189, 0531
Marantz	1089, 1189, 0039
Musicmagic	1089
Onkyo	0135, 0842, 1298
Optimus	1023, 0531
Panasonic	1518, 0039, 1288
Philips	1089, 1189, 1269, 1283
Pioneer	0014, 0531, 1023
Proscan	1254
Quasar	0039
RCA	1023, 1254, 0531, 1390, 1609
Samsung	1295
Sansui	1089
Sherwood	1653
Sony	1058, 1158, 1258, 0158
Stereophonics	1023
Sunfire	1313
Technics	1308, 1309, 1518, 0039
Thorens	1189
Venturer	1390
Victor	0074
Wards	0014, 0158
Yamaha	0176, 1176

Device Codes for Amp and Misc. Audio:

Aiwa	0010, 0159
GE	0078
Harman/Kardon	0892
Jerrold	0520, 0459
JVC	0331
Left Coast	0892
Marantz	0892
Optimus	0395
Philips	0892
Polk Audio	0892
Realistic	0395
Scientific Atlanta	0460
Sony	0010, 0159
Soundesign	0078
Starcom	0459
Victor	0331
Wards	0078
Yamaha	0354

Device Codes for CD Players:

Aiwa	0157
California Audio Labs	0029
Carver	0157, 0179
Classic	1297
DKK	0000
DMX Electronics	0157
Denon	0873
Emerson	0305
Fisher	0179
GPX	1296

Genexxa	0032, 0305
Harman/Kardon	0157, 0173
Hitachi	0032
JVC	0072, 1294
Kenwood	0826, 0626, 0028, 0037, 0681
Koss	1317
Krell	0157
LXI	0305
Linn	0157
MCS	0029
Magnavox	0157, 0305
Marantz	0626, 0029, 0157
Miro	0000
Mission	0157
NSM	0157
Onkyo	0868
Optimus	1063, 0032, 0000, 0179, 0305, 0037
Panasonic	0029
Philips	0626, 0157
Pioneer	1063, 0032, 0305, 1062
Polk Audio	0157
Proton	0157
QED	0157
Quasar	0029
RCA	0179, 0305, 0032, 1062
Realistic	0179
Rotel	0157
SAE	0157
Sansui	0157, 0305
Sanyo	0179
Scott	0305
Sears	0305
Sharp	0861, 0037
Sherwood	1067
Sonic Frontiers	0157
Sony	0490, 0000, 0100
TDK	1208
Technics	0029
Victor	0072
Wards	0157
Yamaha	0888, 1292

Device Codes for Home Control:

Audio Access	0154
Cablesare	0537
Comfortex	0400
Da-Lite	0780
Elero	0434
Evergo	0059
GE	0240
Gewa	0095
Holmes	1215
Hunter Douglas	0433
Lightolier	0184, 1204, 1205, 1206
Lite Touch	0084
Lutron	0597, 0318, 1239, 1597
One For All	0167
RadioShack	0240
Russound	1232, 1233
Sanyo	0336
Security System	0167
Somfy	0780
Universal X10	0167
X10	0167

TECHNICAL SPECIFICATIONS



CAA66 Controller/Amplifier

Dimensions:	17"W x 11.5"D x 3.9"H (43 x 29.2 x 10 cm)
Weight:	17 lbs. 12.5 oz. (8 kg)
Power Supply:	VAC 100-120 @3A or 220-240V @1.25A 50-60Hz
Fuse Rating:	110V input; F3.0A H 250V US and Canada 240V input; T1.25A H 250V Europe
Frequency Response:	20Hz-20kHz +0/-2.5dB
Watts per channel:	20W RMS into 8 ohms
Total Harmonic Distortion:	<0.10%
Signal to Noise Ratio:	>90.0 dB A-weighted / >88 dB unweighted
Audio Source Inputs:	6
Input Impedance:	50 kohms
Audio Zone Outputs:	6 speaker level (8 ohms) 2 line level
Max Source Audio Input:	2.2 Vrms
Zone Variable Line Audio Output:	2.5 Vrms
Zone Fixed Line Audio Output:	2.5 Vrms
Trigger Output:	12VDC 100mA Max
Trigger Input:	12VDC



WARRANTY & REPAIR

The Russound CAA66 is fully 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 at (603) 659-5170 for a Return Authorization number. Write this number on the shipping label and ship to:

Russound
ATTN: Service
5 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.









CAA66

Multisource Multiroom Audio Controller/Amplifier Installation Manual

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28-1199 Rev. 1 11/22/05