

SPHERE™

E-Series

Installation Manual

8.4" Color Touchscreen

TSV-E5

Premier products for Russound
Sphere™ Certified Professionals

R Russound®

SAFETY INSTRUCTIONS



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.

POWER CORD NOTICE FOR INTERNATIONAL OPERATION: For 240V, 50Hz operation please select the power cord for your area. Select the plug for your area at one end and a IEC320 connector at the other. It is not necessary to make any other changes. If you have any questions, please call Russound at 1.800.638.8055 or 603.659.5170.

Safety Instructions:

For your safety, please read and follow these precautions before installing or using this product:

1. Read instructions. Read and understand all the applicable instructions before installing or operating the product.
2. Retain instructions. Keep this manual in a convenient place for reference.
3. Heed warnings. Be aware and heed all warnings on the product and in the instructions.
4. Follow instructions. Install and use this product only as described in the instructions. Don't try to use this product in ways it wasn't designed for.
5. Use indoors only. Don't expose this product to the weather or harsh environmental conditions such as continuous sunlight, excessive humidity, or rain.

6. Keep product dry. Don't use the product near water; for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool. Also, do not handle the product when your hands are wet or damp.
7. Mounting options. This product should be mounted to a wall, desk stand, or VESA compliant mount as recommended by the manufacturer.
8. Avoid heat. Locate the product away from heat sources such as radiators, heat registers, stoves or other appliances (including amplifiers) that produce heat.
9. Maintain ventilation. Locate the product so as not to interfere with its proper ventilation. Don't use the product on a bed, sofa, rug, or similar surface that may block the ventilation openings, or in a bookcase or cabinet that may impede the flow of air through the ventilation openings. Spacing of 1-2 inches above and below the unit should be sufficient.
10. Use the right power source. Don't connect the product directly to electrical line voltage. Use only the power adapter provided with the product, described in the operating instructions, or as marked on the product.
11. Ground product properly. Make sure the product's means of grounding or polarization is not defeated.
12. Cable protection. Cables 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 wall ports and the point where they exit from the appliance.
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. To remove all power (supply mains) from the appliance, remove the plug from the wall outlet.
14. Keep product clean. From time to time, wipe off the product with a clean soft cloth. Don't use abrasive materials, thinners, alcohol or other chemical solvents or materials. Spray the cleaner on the cloth, not directly on the unit.

15. Avoid spills and foreign objects. Make sure liquids and objects don't get into the product enclosure through any openings, or around the buttons on the face of the unit.

16. Get professional service. Have the product serviced only by qualified service personnel when:

- The cables or the plug has been damaged
- Liquids have spilled or objects have fallen into the product
- The product doesn't appear to operate normally
- The product is damaged

Don't attempt to service the product yourself. Doing so will void the warranty.

Precautions:

- Power – WARNING: BEFORE TURNING ON THE POWER FOR THE FIRST TIME, READ THE FOLLOWING SECTION CAREFULLY.
- 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 unit's cabinet, take it to a qualified service person for inspection.
- Location of Unit – Place the unit in a well-ventilated location. 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.
- Care – The TSV-E5 screen area is a touch sensitive LCD (liquid crystal display) screen. It is important to take proper care of the screen to maintain the best image contrast and color viewing for the product's life. Do not use sharp objects to touch the screen. To clean the touchscreen, periodically wipe off the front panel with a soft, dry cloth. Do not use rough material, thinners, alcohol or other chemical solvents or cloths since this may damage the finish.

If you have any questions, call Russound at 1.866.888.7466 or 603.659.5170.



Conforms to
UL60065
Certified to
CAN/CSA
IEC60065

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PRODUCT OVERVIEW

The TSV-E5 is a full-featured color touchscreen for Russound E-Series multiroom systems. It includes a comprehensive suite of features with enhanced source control functions and display options. Mounting options allow the TSV-E5 to be conveniently located virtually anywhere.

Intended for use as an integrated control interface for the multiroom system, the TSV-E5 allows complete control of all sources from one location. Its display is large enough to provide easy access to all system features, yet small enough to fit most multiroom applications.

For maximum convenience, TSV-E5 touchscreens can be used anywhere system keypads would be. Using Power over Ethernet (PoE), the TSV-E5 connects with a single CAT-5e cable to provide enhanced information and zone control.

The touchscreen will also support IR commands sent with the HHR-E5 and RFR-E5 (in local IR mode) remote controls.

The TSV-E5 offers the following features:

- Large-format 8.4" (21.3 cm) color display
- Alarm Clock and Sleep Timer
- IP Camera support
- Connection via single CAT-5e cable
- Remote IR receiver input
- IR pass-through connection with second CAT-5e cable (wall mount only)
- Optional plasma filter

Unique to the TSV-E5:

- Can display digital video feeds from IP-based cameras
- In conjunction with the SMS3, you can add, change, or delete selections from pre-existing themes, as well as change the ratings to play songs more or less often
- A number of web widgets to show news, weather and sports
- Very little configuration to function as soon as it is powered up with a previously configured ACA-E5 system

Considerations

Images from several models of IP-based cameras can be viewed and controlled from the TSV-E5. They can be also assigned to two doorbell events enabling the user to view images from the camera when a doorbell is pressed. There is a system limit of 4 IP cameras, with no more than two camera widgets displayed per TSV-E5.

To utilize the pass-through IR signals the TSV-E5 will need to be connected to the keypad port corresponding to its assigned zone. If there is another keypad on that same zone a Russound SA-ZX3 splitter must be used. Pass-through IR signals and an exterior IR receiver are only available if the TSV-E5 is mounted on the wall.

The ACA-E5 must be fully programmed and configured with the SCS-E5 software BEFORE initializing the TSV-E5. A DHCP router with a NAT/Firewall must be utilized as the network connection, and it should also have an outside internet connection to allow for system updates and support.

New terms

Widget: A widget is a means of having information or controls in a convenient one touch tool. Common examples of widgets include weather guides, news feeds, sports score trackers, clocks, and system controls, as well as a means of monitoring your IP cameras. The TSV-E5 has a select group of widgets available to be configured on the home screen.

Ferrite Bead: Keeps any signal noise or interference from traveling down the cable and affecting adjacent equipment. The included ferrite bead must be attached to the CAT-5e cable close to the connection with the TSV-E5.

PoE: Power over Ethernet technology allows power for the touchscreen to be carried over a single CAT-5e cable. The power supply can be located anywhere between the router and the TSV-E5, wherever a suitable AC outlet is available. One PoE power supply is included and required for each TSV-E5 in operation. The maximum distance between the router and the TSV-E5 is 250' (76.2 m), and includes the connection to the PoE power supply.

Installation Requirements

Prior to installation of the TSV-E5, plan for the following:

Cabling

- CAT-5e cable for system control and information (a pre-finished stranded cable with RJ-45 termination is suggested for best operation for non wall-mounted options between the wall port and TSV-E5)
- Optional: CAT-5e cable for IR pass-through from remote controls to sources (on-wall mounting only)
- Optional: Shielded 4-conductor, 2-twisted-pair signal cable for connecting a remote IR receiver (on-wall mounting only)

Local network

- DHCP (Dynamic Host Configuration Protocol) Router with NAT/Firewall - should be 100 Base T or greater speed - gigabit recommended
- The network router must have enough ports to provide one for each TSV-E5, the ACA-E5, all IP cameras, and any other IP addressed devices on the system - the router can be expanded with the addition of a multiport switch

Power

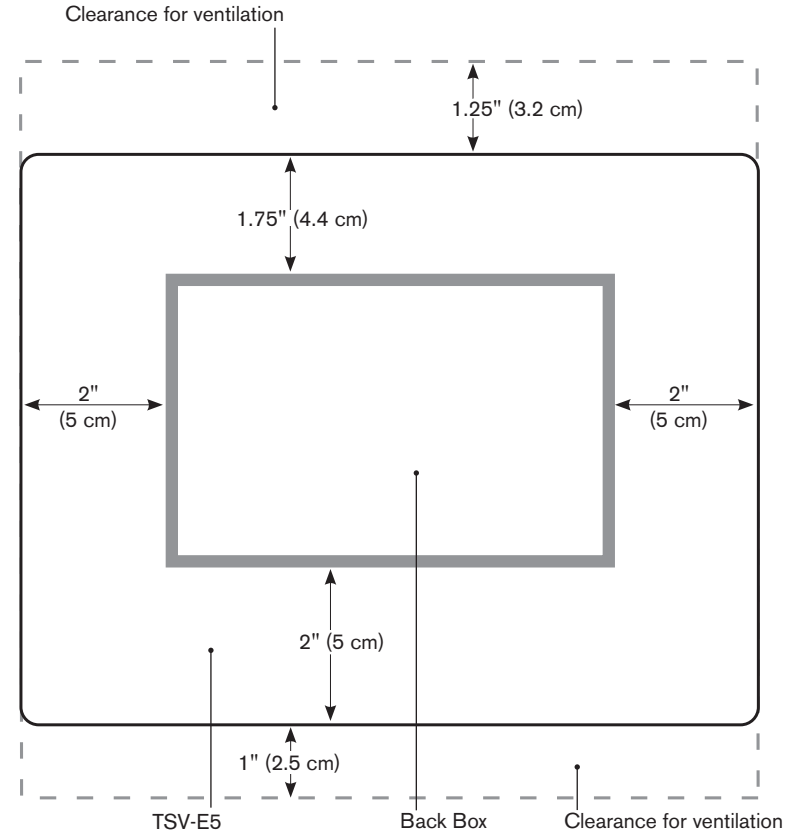
- An AC receptacle at the router for the included 48-volt PoE power supply (1 for each TSV-E5)

Note: The power supply is not IEEE 802.3af compliant.

Location

The TSV-E5 should be located where it would be most convenient for the user to view and use. For most users, a wall-mounted unit would typically be at standard thermostat height of 58-60" (1.5 m). Additional mounting options are available.

The body of the TSV-E5 extends beyond each edge of the back box. Refer to the placement detail at right for dimensions. An open space above and below the unit shall be left unobstructed to provide proper ventilation for the unit. During operation the back of the touchscreen will be warm to the touch. This is normal and does not indicate a product malfunction.



Placement Dimensions
(Minimum Clearance)

Prewiring

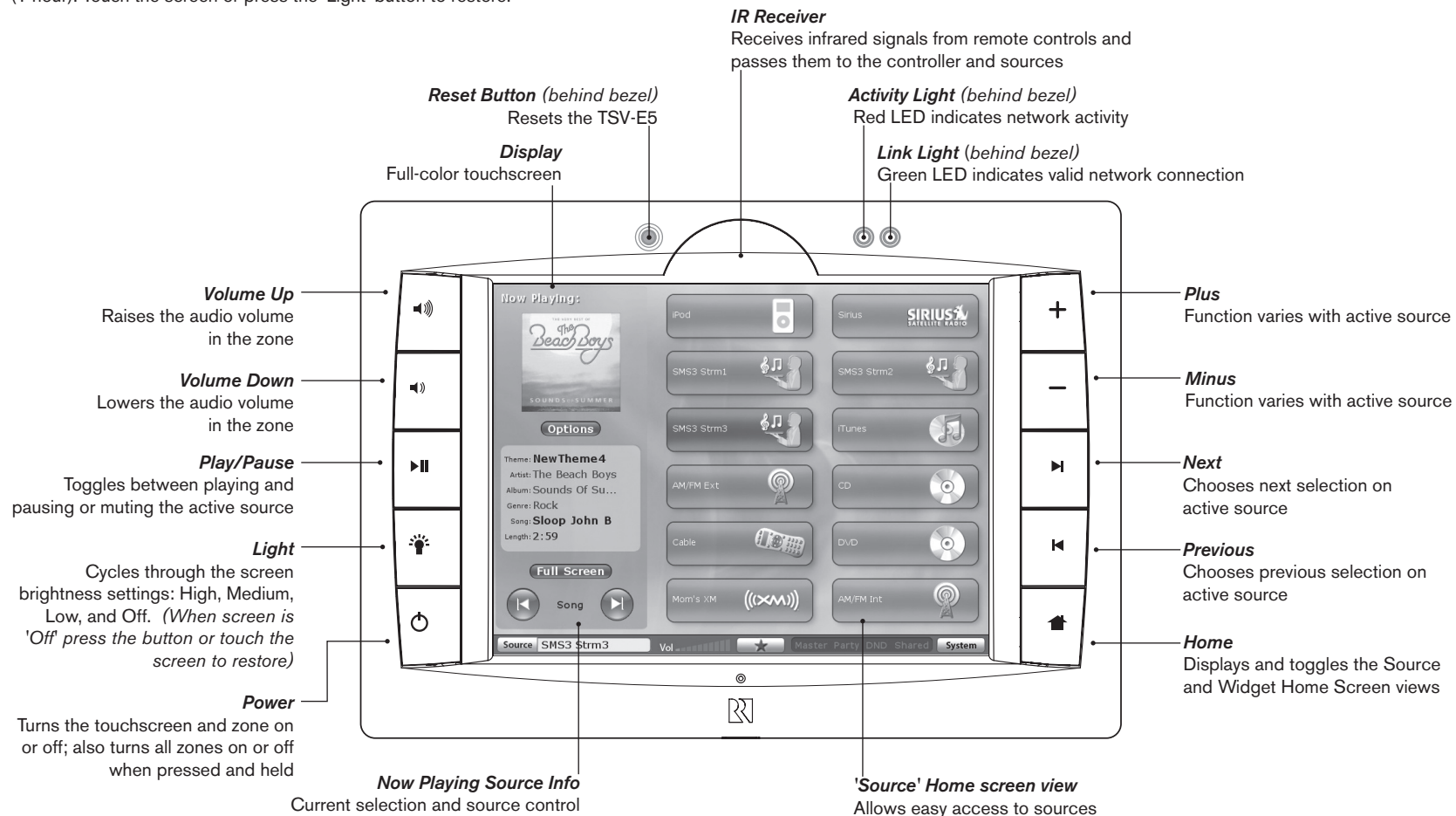
The TSV-E5 uses one CAT-5e Ethernet cable for all zone and system functions. A second CAT-5e cable can be connected to pass IR signals to source equipment and other devices such as lighting and environmental controls. This option is only available for a wall-mounted TSV-E5.

Important: The total length of the control CAT-5e cable(s) between the TSV-E5 and the router can not exceed 250' (76.2m)

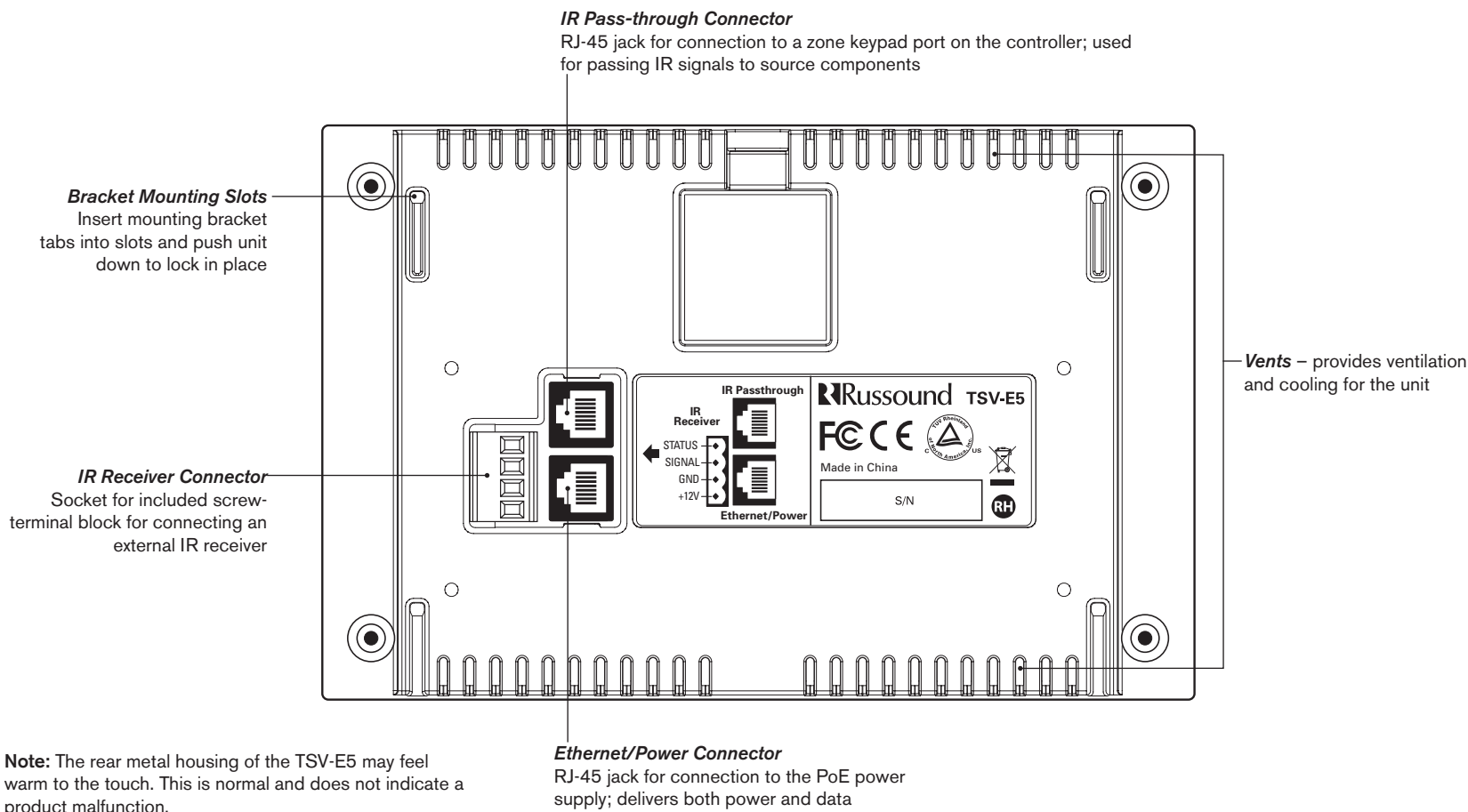
1. Run a CAT-5e cable from the router to the PoE power supply, then to the location of the TSV-E5. If using IR pass-through, run a second CAT-5e cable from the system controller to the touchscreen location.
2. To use a remote IR receiver with the TSV-E5, run shielded 4-conductor, 2-twisted-pair signal cable from the IR receiver to the touchscreen. (This option is only applicable with the in-wall mounting option.)
3. Label all cables at both ends to identify them.
4. For a desktop or VESA mounted installation, run the CAT-5e cable from the router to an RJ-45 wall plate near the touchscreen location.

Note: When running CAT-5e and signal cables, avoid AC power wiring. If you have to run the cables parallel to electrical wiring, space the cables more than 12" (0.3 m) from the AC power lines.

Note: The screen will time out (go black) after a period of non-use (1 hour). Touch the screen or press the 'Light' button to restore.

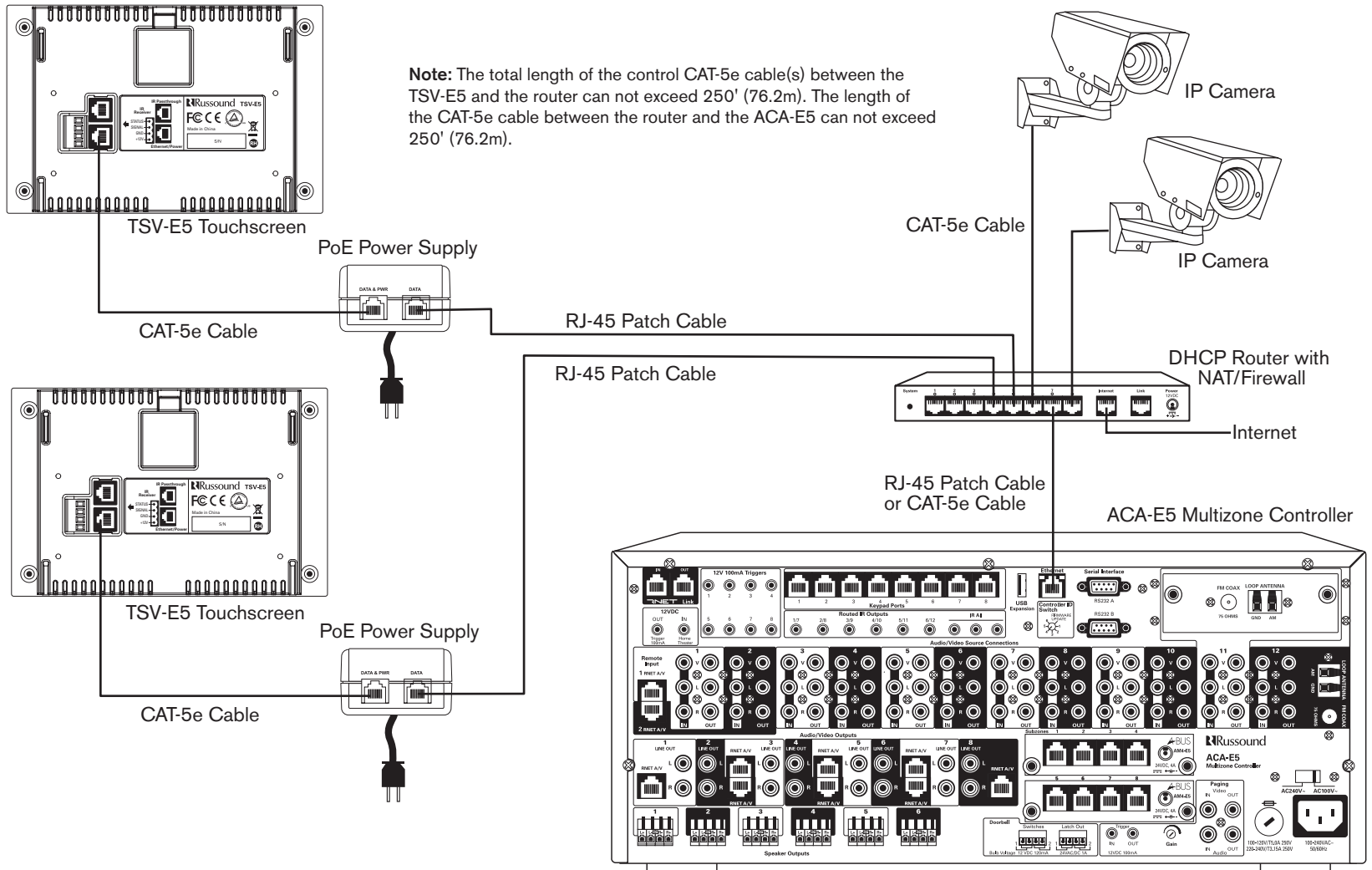


Front Panel Features / Functions



Rear Panel

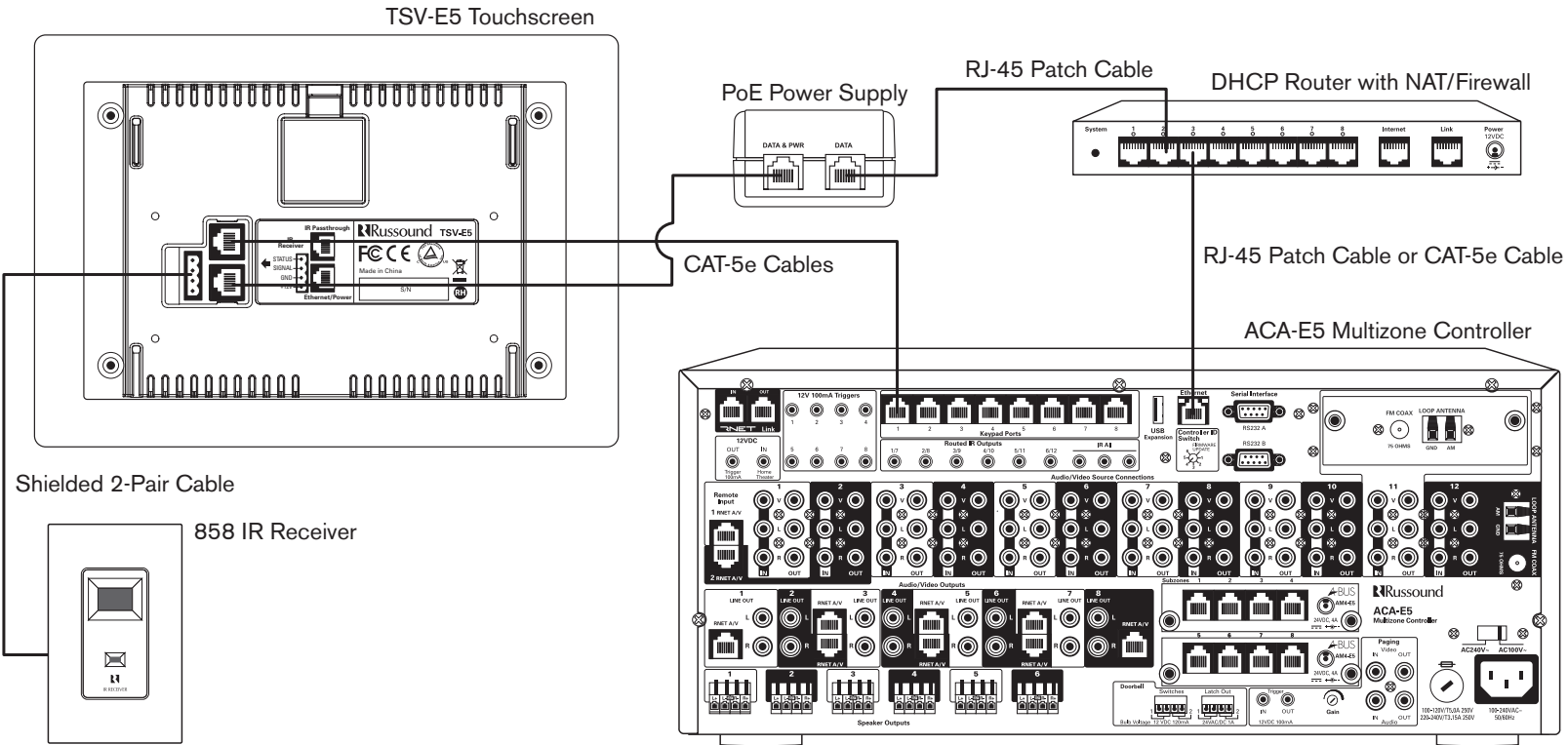
Note: The total length of the control CAT-5e cable(s) between the TSV-E5 and the router can not exceed 250' (76.2m). The length of the CAT-5e cable between the router and the ACA-E5 can not exceed 250' (76.2m).



TSV-E5 connection diagram
(Typical configuration)

WALL MOUNTED INSTALLATION WITH IR PASS-THROUGH

Note: The total length of the control CAT-5e cable(s) between the TSV-E5 and the router can not exceed 250' (76.2m). The length of the CAT-5e cable between the router and the ACA-E5 can not exceed 250' (76.2m).

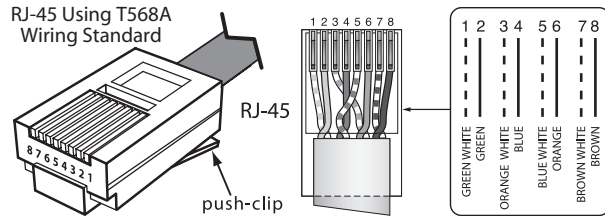


TSV-E5 connection diagram
(Wall Mount with optional IR Receiver and IR pass-through)

Connections

Note: Before making any connections, make sure the multiroom system is powered off.

Important: For each CAT-5e cable, crimp an RJ-45 connector on each end of the cable, following the T568A standard. The total length of the control CAT-5e cable(s) between the TSV-E5 and the router can not exceed 250' (76.2m)



CAT-5e cable -- TSV to PoE power supply

Connect one end of the cable to the Ethernet/Power jack on the TSV-E5. (If using a wall plate for a desktop or VESA installation, use a single pre-terminated stranded CAT-5e cable between the TSV-E5 and the wall plate.) Plug the other end of the cable into the PoE power supply's DATA/PWR jack. At the TSV-E5 end of the cable, snap the included ferrite bead around the cable 2" (5 cm) from the connector as shown in the instructions on page 12.

CAT-5e cable -- PoE to router

Connect one end of a CAT-5e cable to the DATA jack on the PoE power supply, and the other end to an available port on the router.

CAT-5e cable -- Router to ACA-E5

Connect one end of a CAT-5e cable from an available port on the router, and the other end to the Ethernet port of the controller. Cable should not exceed 250' (76.2m). The master ACA-E5 must be connected to the same router that the PoE power supply is connected.

Note: In a multi-controller setting, there should only be one master ACA-E5 in the installation.

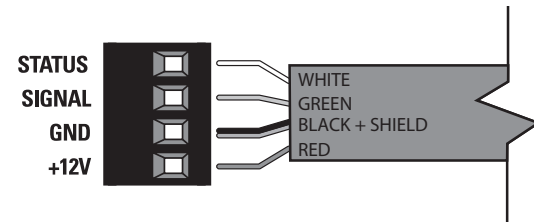
CAT-5e cable -- IR pass-through

If using an IR pass-through CAT-5e (or CAT-5) cable, plug it into the zone keypad jack on the system controller corresponding to the zone in which the TSV-E5 is located. Cable should not exceed 250' (76.2m). If there is also a keypad plugged into that zone on the controller, an SA-ZX3 splitter must be used.

IR Signal cable

To connect a remote IR receiver, connect the signal cable wires to the screw terminals on the IR receiver connector as shown. Use one twisted pair for voltage and ground, and the other twisted pair for IR signal and status. After connecting the wires, plug the connector into the socket on the rear of the TSV-E5.

Connect the other end of the signal cable to the leads or terminals of the IR receiver according to its installation instructions. Leave the cable shield disconnected at the IR receiver.



Note: When using an external IR receiver, you should disable the touch-screen's internal IR receiver to avoid conflicting signals. Select the Enable/Disable IR screen in Installer Options accessible from the System Screen, then press 'Disable'. A confirmation message will appear.

Power cord (PoE Power Supply)

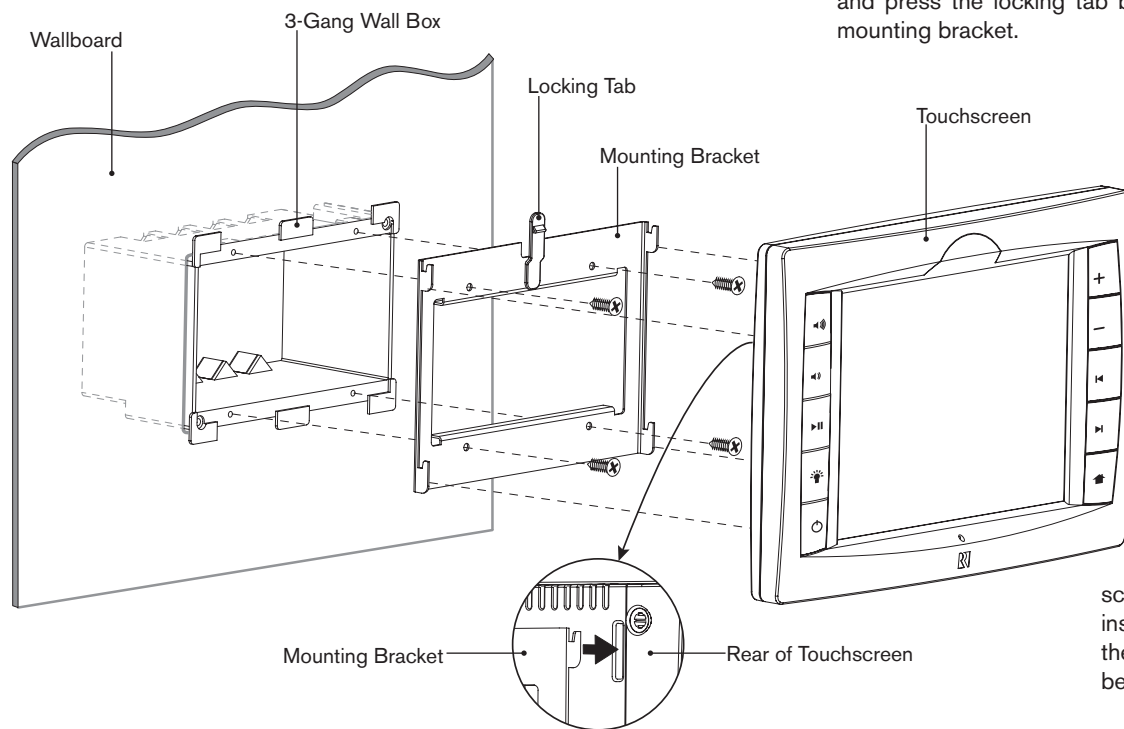
Plug one end of the power cord into the IEC receptacle on the PoE power supply and the other end into an AC wall receptacle, surge protector, or power conditioner.

INSTALLATION

On-Wall Mounting

The TSV-E5 comes with a mounting bracket, ready to mount to a 3-gang wall box. To mount the touchscreen on the wall:

1. Install a UL/CSA-approved 3-gang (53 ci.) plastic wall box where you want to install the touchscreen, with the applicable cable(s) pulled into the box. See detail on page 5 for clearance dimensions. Allow 3" (7.5 cm) above and below, and 2" (5 cm) on both sides.
2. Attach the mounting bracket to the wall box with the four screws provided, making sure the locking tab is at the top.

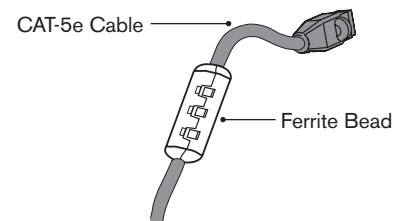


Wall Mount Assembly

3. Approximately 2" (5 cm) from the RJ-45 plug, close the ferrite bead around the data/power cable, making sure the locking tabs are fully engaged.
4. Connect the cable(s) to the touchscreen. Tuck any excess into the wall box.
5. Engage the slots on the rear of the touchscreen with the hooks on the mounting bracket and press down until the locking tab secures the touchscreen in place.

To remove the touchscreen, use your finger to reach over the top of the unit and press the locking tab back toward the wall. Lift the touchscreen off the mounting bracket.

The ferrite bead needs to be fully closed around cable with locking tabs engaged.



Touchscreen Bezel Removal: You will need a flat screwdriver to remove the bezel from the front of an installed touchscreen. Place the screwdriver blade in the slot between the bezel and the molding, located below the "R" on the bottom edge of the bezel.

Twist the blade until you see the bezel locking tabs releasing from the frame catch. The bezel can now be lifted from the touchscreen. To replace the bezel, center it over the front of the touchscreen and press firmly until the bezel clicks into place.

Setup Preparation

Use the SCS-E5 programming software to complete the system controller and source setup BEFORE powering up the TSV-E5. Check for the latest firmware versions of RNET source components by logging into the Doc Center at www.russound.com. E-series component firmware updates are available at www.russoundsphere.com. Perform any applicable updates to the system BEFORE continuing with the TSV-E5 setup.

Use the widget information worksheet at the back of this manual to record IP addresses for cameras or other IP devices accessed by the TSV-E5. IP cameras **must** have static addresses assigned to them. Also note any applicable information about the web widgets configured on the touchscreen.

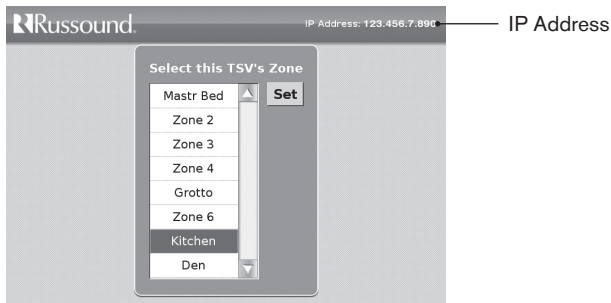
Initial Startup

After connecting and mounting the TSV-E5, turn the system controller on.

The TSV-E5 will first display a Russound main screen with a progress bar at the bottom. If the TSV-E5 cannot establish a network connection, it will display 'Searching for controller' and will continue trying to connect.

After booting up, the TSV-E5 will search the network for the system controller. If the TSV-E5 cannot find the controller, it will display an error message and try again. You will see a progress bar at the bottom of the screen as the TSV-E5 is loading system information.

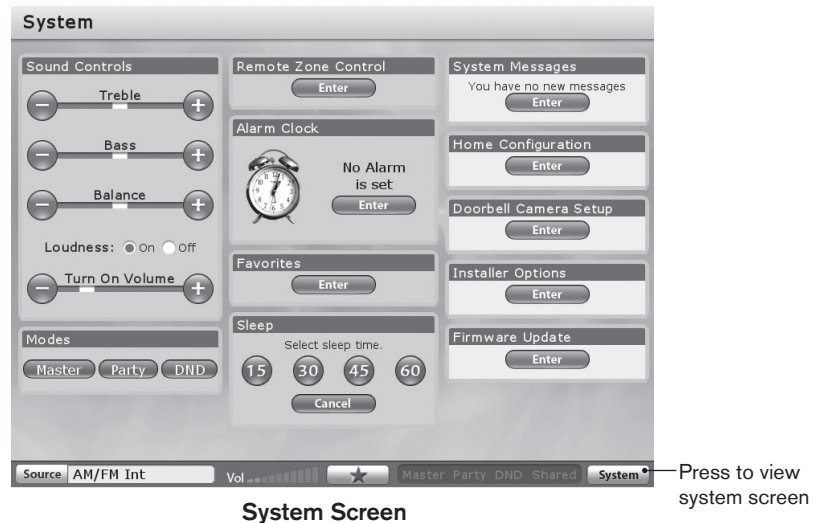
After locating the system controller, the default Zone Assignment screen will appear on the display. Touch the appropriate name/number to assign the TSV-E5 to a zone on the system, and press 'Set'. The TSV-E5 will continue the pairing process and will then finish by turning the zone off. Press the 'power' button to turn the zone on to continue with the setup.



Setup

Touch the 'System' button on the bottom bar to access the system screen. This screen provides several tools for selecting system options and setting up features.

Note: There is a slight color change on the button when the touchscreen recognizes a touch.



System Screen

After the installer verifies all sources are present on the source screen, the following sequence is recommended to continue the setup:

1. IP camera widget creation and doorbell assignment if applicable
2. Widget creation - choose widgets to appear on each TSV-E5
3. Home screen configuration - move widgets to desired layout on screen
4. Test system controls (Sound Controls, Alarm Clock, Modes)
5. Explain operation to the users

The following pages will give you a brief description of the elements available on the System screen and then how to add widgets to the home screens.

System Controls and Tools

All system controls and settings are accessible from the 'System' button on the lower right corner of the screen.

Modes

Touch the appropriate mode button to set the mode. The state will be visible on the system bar at the bottom of the screen.

Master—Starts a party and sets this TSV-E5 as the master, or moves master control of the system from another keypad or touchscreen to this TSV-E5 when in Party mode.

Party—When the system is not in Party mode, places the system in Party mode and sets this TSV-E5 as the master. When Party mode is active, will remove this TSV-E5 from participating in Party mode.

DND—Sets the local zone in Do Not Disturb mode.



Sound Controls

Treble and Bass—Touch '-' to decrease or '+' to increase the level.

Balance—Touch '-' to shift the balance to the left speaker or '+' to shift it to the right speaker.

Loudness—Touch 'On' for loudness compensation or 'Off' to turn it off.

Turn On Volume—Touch '-' to decrease or '+' to increase the volume heard when the zone is turned on.

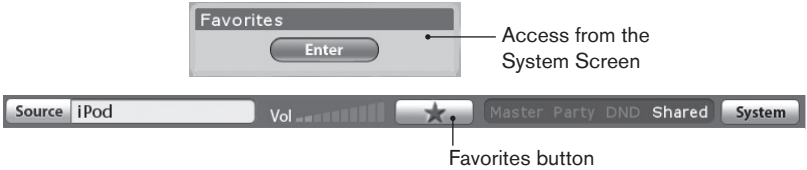


Favorites List

The user can create a list of up to 32 favorites. These can be themes, sources, or preset channels. Add to the list as follows:

- **Save a favorite** - A press and hold of the 'Star' button, saves currently playing source, channel or theme. The keyboard will appear for name changes if you choose. Press 'Save', and a confirmation message will confirm the favorite is saved.
- **Edit or Delete favorite** - Press a purple button next to the favorite's name and the keyboard will appear for edits to be made and saved. Pressing the purple 'Delete' button removes it from the list.
- **View Favorites** - Press the 'Star' button or the 'Enter' button on the Favorites box on the system screen.

Once the entries are in the list of favorites they can be assigned to a favorites widget (see Widget Creation). If the list is full a favorite must be deleted before a new one can be added.



Favorites screen

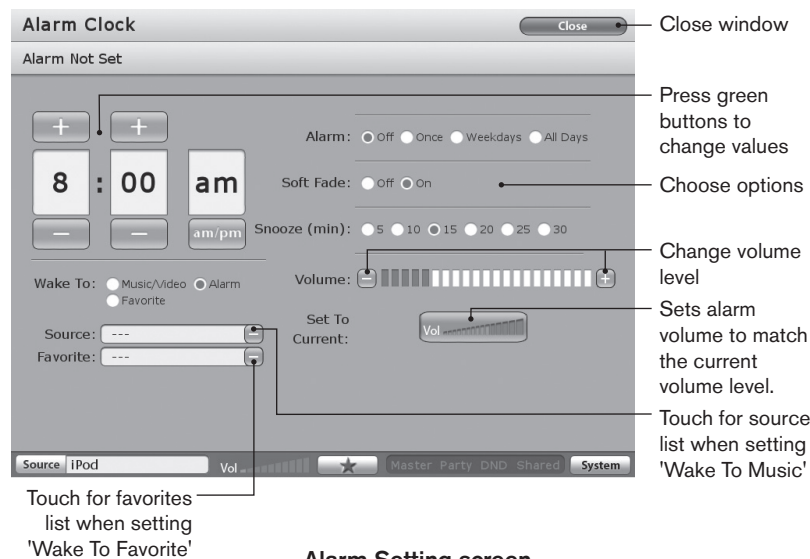
Remote Zone Control

Touch 'Enter' to access the Remote Zone Control screen. From this screen the user can remotely power another zone on or off, change the source or adjust the volume from the touchscreen. Press 'Close' to return to the System screen.



Alarm Clock

Touch 'Enter' in the Alarm Clock Widget to access the Alarm Clock screen and set the alarm functions.



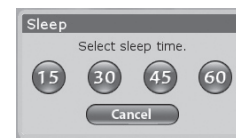
Alarm Setting screen

Snooze - Activate by touching the 'Snooze' area of the screen, the >|| hard button or the pause button on the HHR-E5 or RFR-E5 remote control.

Turn Alarm Off - Press the 'power' hard button on the panel or the remote.

Sleep Timer

From the System screen, touch the appropriate button (15, 30, 45, 60) to set the timer to turn off the zone. The message line above the buttons will indicate the remaining time before the zone turns off.



System Messages

From the system screen you can see if there are any system messages. Text above the enter button will show if there are messages to be viewed. Press 'Enter' to access the messages. Press the 'closed envelope' to view the message. Press the envelope icon to close the message. Press the 'Delete' button to remove the message.



Firmware Updates

From the System page, you can check for any updates for the TSV-E5. Press the 'Enter' button, and the system will check for updates and automatically install them. This should be done periodically (3 month interval suggested). If there are no new updates to install, the screen will display the message "Your TSV-E5 is currently up to date" and display a large Exit button to press.

If there are new updates, the TSV-E5 will download and check the files, then display a Reboot button. Press the 'Reboot' button and do not power off during the update and reboot.



Installer Options

The installer options can be accessed by a press and hold of the Installer Options 'Enter' button on the system page.

Screen Calibration

Calibrates the accuracy of touches on the screen. The touchscreen was tested and calibrated at the factory. It may be necessary to recalibrate the screen after a significant period of use. A stylus will be needed to complete the process. Touching 'Run' will bring up the calibration screen. Follow the instructions and upon finishing the system will automatically reset and take you back to the home screen.

Configure TSV-E5 Zone

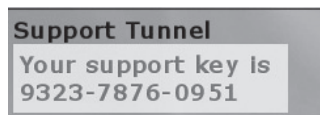
If it is necessary to move the TSV-E5 to another zone, this option will allow assignment to the new zone. Press 'Zone', choose the zone and press 'Set'.

Enable / Disable IR

This option allows the internal IR receiver to be disabled or re-enabled. The default setting is IR enabled. Press 'Enable' or 'Disable' and select the appropriate option. A confirmation message will appear after a state change.

Support Tunnel

This allows a support tunnel to be opened to the system. Press 'Open'. A support key is shown and should be given to the installer or support technician. After the session is finished, press 'Close' to exit.



Note: The Factory initialization and Production tests options are shown but are utilized at Russound prior to shipment. Performing a factory initialization will return the TSV-E5 to its factory defaults. If you do a factory initialization, follow the prompts to run through the tests, or skip them as appropriate. Production tests can be utilized to troubleshoot potential hardware problems.



Installer Options Screen

Saving Settings

When you have finished setting up all the TSV-E5s on the system, use the SCS-E5 software to back up the system configuration.

In SCS-E5, you must be in Online Mode and select Complete System Backup from the Tools menu. The TSV-E5 settings will be saved along with the controller settings. Write down all IP addresses for the cameras or any other IP devices that are connected to the system. Give the camera information to the user in case the widgets are accidentally deleted.

Widgets

Widgets can be shortcuts to favorites, news and weather information, selected RSS feeds, as well as a means of monitoring the IP cameras. Widgets can be added or deleted from individual units or all the TSV-E5s on the system. The home screen has two options/views: the source view or the widget view. A repeated press of the 'Home' button will toggle between views, and the system will remember which was the last choice. If the widget view is the desired option, the customer may want the Home Screen configuration customized for each TSV-E5 on the system. Keep that in consideration when adding widgets.

All widget additions, deletions, and layout configurations are accessed by first pressing the 'System' button, then pressing 'Enter' in the Home Configuration box.

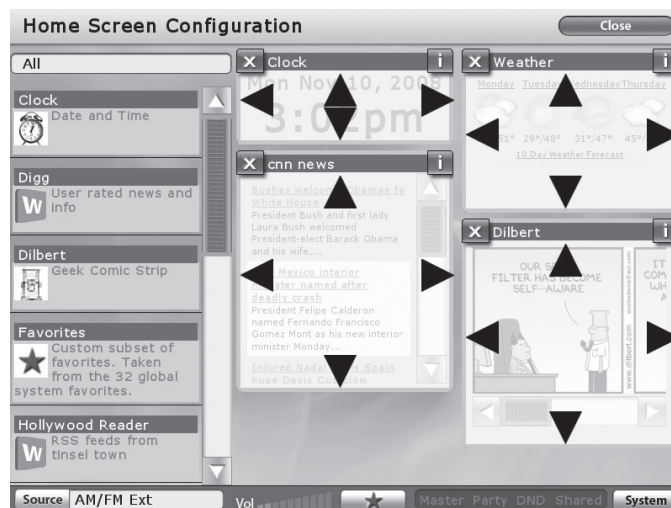
Add Widgets - To add a widget, touch the appropriate widget type from the list on the left. Press 'add a new version' if it appears (shows if there are other versions of that widget type already active on the system). The widget will appear on the active screen. Add information to configure the widget. (e.g., for the weather widget - type in the zip code in the zip code field and then a name to identify it). There is an option to Cancel, Save, or Save to All. The 'Save to All' option will make the widget visible on all TSV-E5 screens on the system. The 'Save' option just adds the widget to the screen you are using.

Remove Widgets - To remove a widget from the touchscreen, touch the 'x' on the upper left border of the widget. This will remove the widget from the home screen, but not delete the widget type from the list.

Customize Layout - Once all of the widgets have been added to the screen, the layout can be customized. While still in the Home Configuration, the widget has an arrow on each border. Touch the arrows and move the widget to the desired location. The specific home screen layout is not communicated to other TSV-E5s. The initial layout will be any widgets that are added to all TSV's. Go to each TSV-E5 to change that layout.

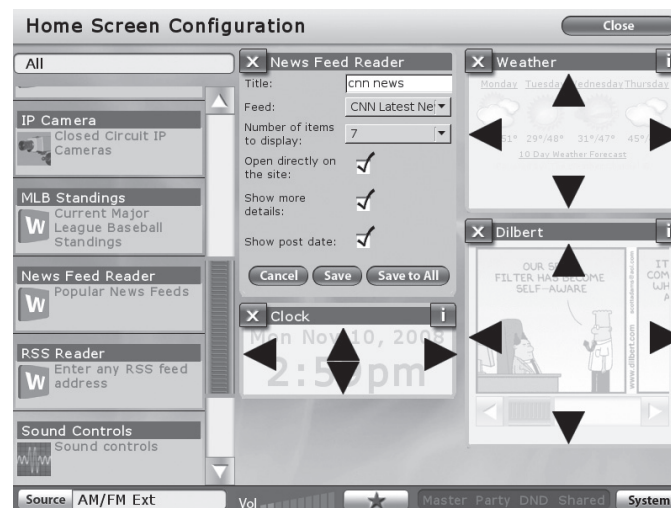
Exit Configuration Page - Press the 'Close' button at the top of the screen to return you to the system page. The changes you made to the configuration will be saved. Press the 'Home' button to view the widget screen.

Linked text - The web widgets may display links. Touching a link will bring up a browser window to view more information. To return to the home screen, press the 'Close' button on the browser window.



Home Screen Configuration

Press arrows to move widgets to desired location



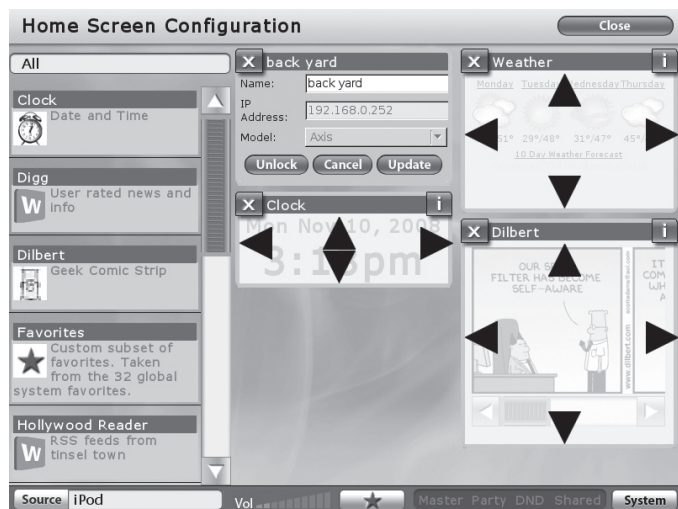
Home Screen Configuration

View widget information

IP Camera Widget Creation

You will need the IP address information for each of the cameras. There is a four camera limit per ACA-E5 system and a two camera widget limit per TSV-E5.

1. From the System Main Screen, choose Home Screen Configuration. Choose IP Camera.
2. Enter the name of the camera, the IP address, and choose the model from the list.
3. Choose 'Save' or 'Save to All'. 'Save to All' will create a camera widget for this camera on all TSV-E5s on the system. Once added to the system, each camera is available in the IP camera configuration screen. You can add or delete the camera widgets from each TSV-E5 home screen.
4. Repeat for all cameras. You can have up to two camera widgets on screen or you can have one widget and use the arrow keys on the widget to cycle through the cameras.



Home Screen Configuration
Add a new IP camera widget

Important: Back up the ACA-E5 configuration with the SCS-E5 software after finishing all widget and home screen configurations on the TSV-E5s in the system.

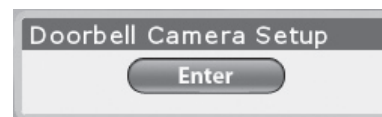
In SCS-E5, you must be in Online Mode and select Complete System Backup from the Tools menu. The TSV-E5 settings will be saved along with the controller settings. When configuring the cameras, they need to have static IP addresses, so the TSV-E5 will recognize them. Write down all IP addresses for the cameras or any other IP devices that are connected to the system. Give the camera information to the user in case the widgets are accidentally deleted.

Doorbell Cameras

Access this feature from the System screen. A widget for this camera must already have been created. Cameras can be selected for one or both doorbell stations. A doorbell event will cause the image from the camera to appear on the TSV-E5 for 40 seconds. Touching the image while on screen will keep the image there.

Choose Doorbell Camera Setup

1. Select Doorbell 1 or 2.
2. Choose the camera from the list.
3. Repeat for the second doorbell if applicable. Close the window.



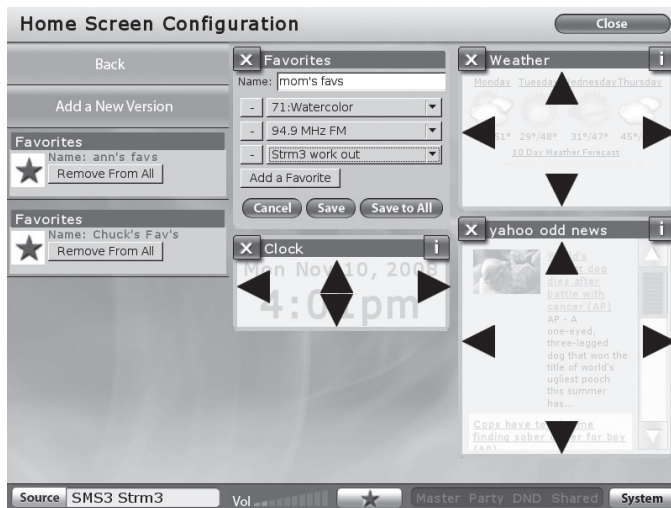
Doorbell configuration (optional)
Access from the system screen

The zone must have doorbell events enabled in the SCS-E5 configuration software to allow sound and visibility of that event on the TSV. No other programming is necessary other than the assignment of the cameras to the doorbells above.

Favorites Widget

Create a widget to allow quick access to your favorites. You must have previously saved your favorite themes, channels, and presets to the Favorites list. You can create multiple 'favorite' widgets and give them custom names (e.g., Dad's Favorites):

1. Press the 'System' button to bring up the System screen.
2. Press the 'Enter' button in the Home Configuration box.
3. Select the Favorites widget from the list at left. Press 'Add a New Version' if applicable.
4. Touch the name box and the keyboard will appear. Name the widget and press 'Save'.
5. Pressing 'Add a Favorite' will bring up the list of favorites. Touching an item from the list adds it to the widget. Repeat as needed.
6. Choose from 'Save to All' or 'Save' to add the Widget to the TSV-E5 home screen.
7. Favorites can be added to an existing widget by pressing the 'i' button in the Home Screen Configuration screen - then pressing the 'Update' button.

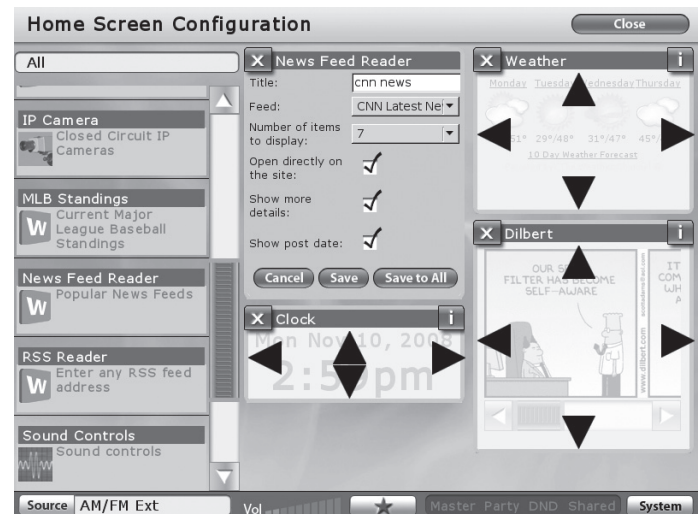


Home Screen Configuration
Add a new favorites widget

Web Widgets

Add a weather or news widget to the home screen. Choose one of the web widgets by pressing the appropriate box. Choose selections from a dropdown list if provided. If prompted for a name - press on the white box and the keyboard will appear on the screen. Type in the entry and then press 'Save'. Finish with the option in the box and press 'Save' or 'Save to All' and the widget will be placed on the screen.

- To configure the Weather widget, type the zip code in the zip code field then enter an identifying name.
- The RSS Reader allows the user to create a custom RSS feed widget. Type in a name, press 'next' and then type in the full address for the feed.
- Existing widgets can be edited by pressing the 'i' button and making changes - then pressing the 'Update' button.
- No guarantees are made for the longevity of the feed addresses. If a feed becomes unavailable there will be a notification on the screen.



Home Screen Configuration
Add a news feed widget

SYSTEM OPERATION

Power
ON

Press the 'power' button. The zone will turn on and return to the last source playing when the zone was powered off. Source control and information will be shown on the left third of the screen and the remaining area will show the home screen.

ALL ON can be achieved by first turning the zone on, and then a press and hold of the 'power' button until all enabled zones respond.

OFF

Press the 'power' button. The touchscreen and zone will turn off. If there is another keypad or zone active on the system the power button will remain lit.

ALL OFF can be achieved by first turning the zone off, and then a press and hold of the 'power' button until all zones respond.

Operation

Use your finger to touch any button or off-color linked text to change sources or view information. There is an slight color change on the button when the touchscreen recognizes a touch. A soft stylus may also be used.

A press of the 'Home' hard button (lower right) will toggle the source screen to the widget screen. In both options the left third of the screen will show the 'Now Playing' source with applicable song information and/or control.

Playing Music

Choose the source by pressing either one of the source buttons on the Home Page (Source view) or the source button (lower left) and the desired source from the list. The source will start playing and the display on the left third of the screen will change to reflect the now playing selection. If saved as a system Favorite, a tuner preset, theme or source can also be played by pressing the 'star' button on the lower system bar and choosing the appropriate favorite.

Source views for the RNET components can be expanded by pressing the 'Full Screen' button. This will allow searches for additional music, control of playlists, tuning, accessing the channel guides, etc.



Press button to select source - selection shows as darker color

Press to select source - choose from list

Source View Home Screen

Widget Usage

The widget view is accessible by pressing the 'Home' button once or if the source buttons are displayed, press the 'Home' button again. A scroll bar will appear on the right if there are more widgets configured for that TSV-E5 than can show on the space available. Pressing and moving the scroll bar will bring more widgets into view. Some widgets have links that will expand in a browser type format, which can be closed by pressing the 'Close' button at the upper left of the window.

IP Camera Use and Control

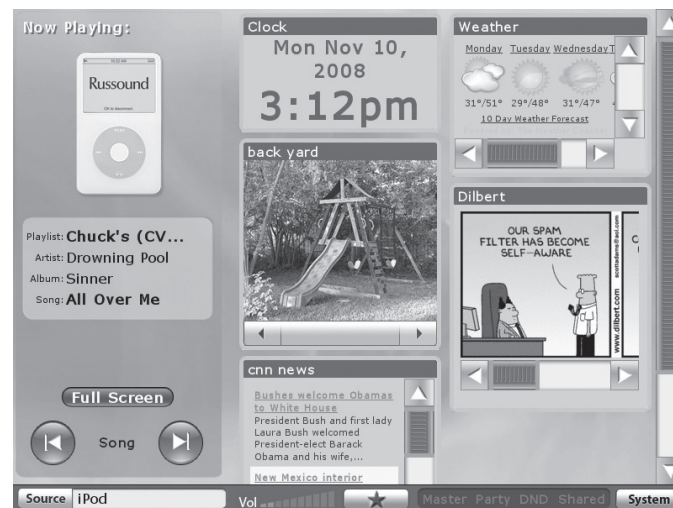
The camera images can be viewed in the small widget window or enlarged to fill the active area of the home screen.

In small mode, the name of the camera will be shown on the top border of the image. Touching the image will increase the size of the image to the large mode. By pressing the arrow buttons you can switch between cameras enabled on the system.

Touching the close button at the top will return the image to small mode, and make the rest of the home screen widgets available again.

For the cameras that support PTZ (Pan Tilt Zoom) control, those controls will be available at the bottom of the image area.

- Left Arrow - pans camera left
- Right Arrow - pans camera right
- Up Arrow - tilts camera up
- Down Arrow - tilts camera down
- Zoom Buttons – Plus: Zooms in toward subject, Minus: Zooms out from subject



Widget (Small) View



Full Screen (Large) View

SYSTEM OPERATION - SOURCE CONTROL

Basic Operation - SMS3 Media Server

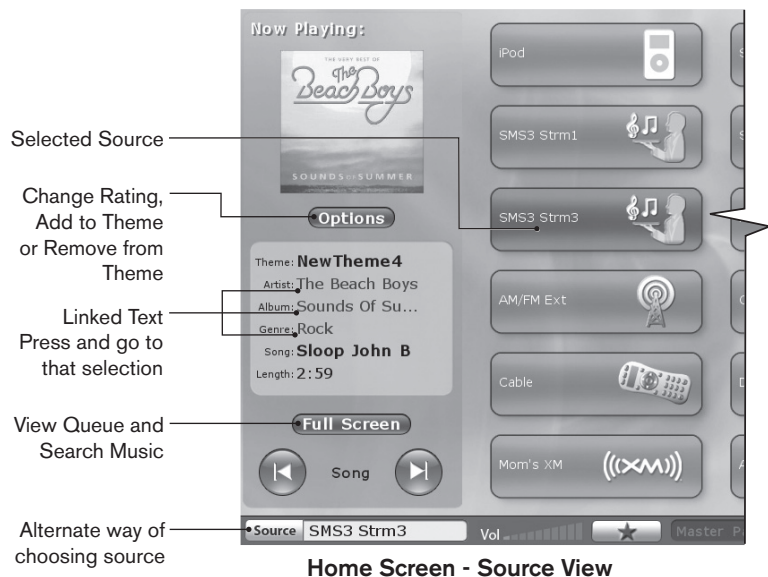
Choose one of the streams on the media server. Press the 'Options' button on the home page to add or remove the song from a theme, or change the song rating to play it more or less often.

What's Playing

Pressing the 'Full Screen' button will take you to the 'What's Playing' screen and show the queue. Buttons give you the options to play the song immediately, add it to a theme, or delete it from the queue. Pressing the theme button (upper right) will show a list of the available themes. Pressing any theme will change the music playing to that theme.

Hard Button Controls (right side) with the Media Server selected

- + Selects the next theme
- Selects the previous theme
- ▶ Selects the next selection in the queue
- ◀ One press restarts the current song.
Two presses returns to the previous song in the theme.
- 🏠 Returns user to the Home Screen



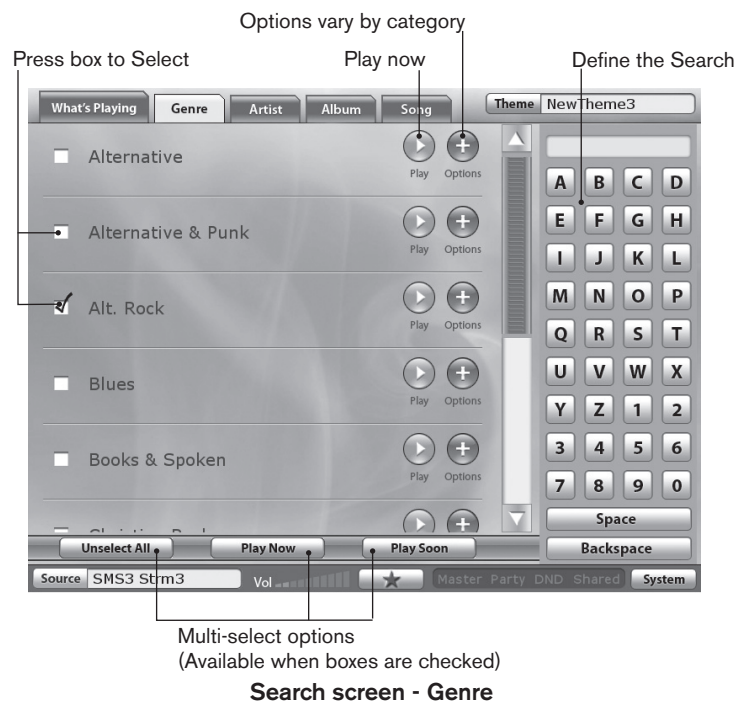
Home Screen - Source View

Search music

Search by Genre, Artist, Album or Song. Press one of the category tabs and filter the choices by pressing the letter keys on the keyboard to narrow the search. Touch the check box to choose your selections. Check multiple boxes and then press one of the bottom buttons to have the selections play now, or play soon. The 'Options' button offers other search possibilities and will allow you to add the checked selection to previously created themes.

Blue text is a link to the item or path back to the previous selection. Pressing the link will take you to that selection. On the Album page, clicking on the album image shows the album and track list.

You can add music by genre, album, song, artist to any of the pre-existing themes. New themes are created via the web/TV interface for the SMS3. From the "What's Playing" screen, you can add or remove the current selection to any pre-existing theme, by pressing the 'Options' button.

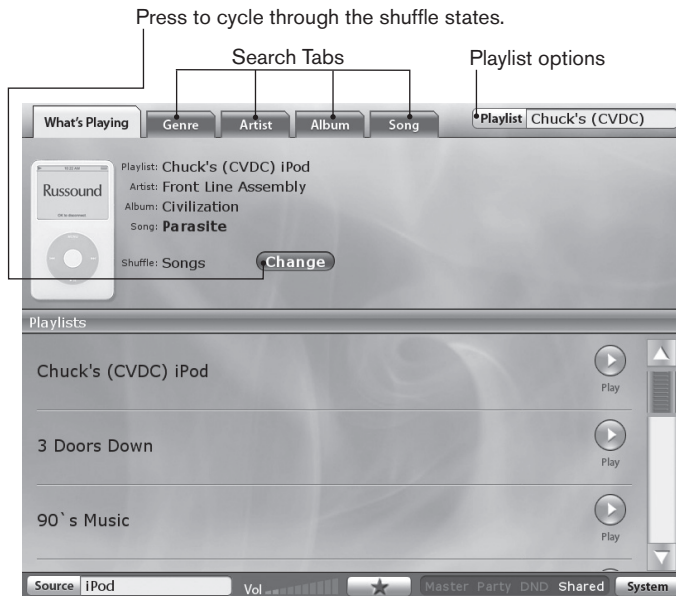


Search screen - Genre

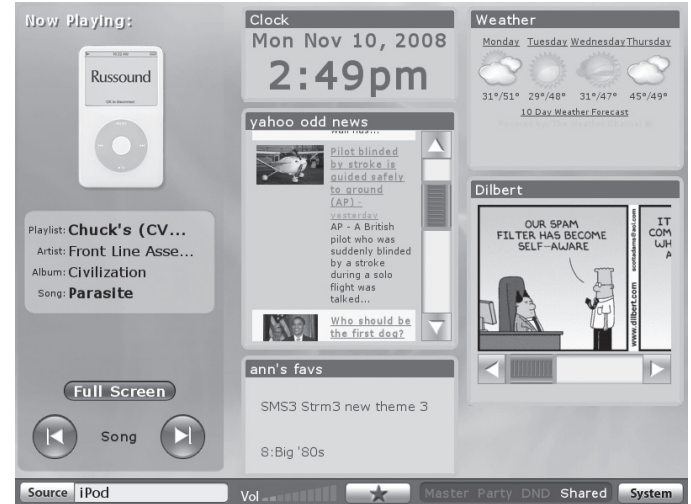
Basic Operation - iBridge Dock / iBridge Bay

Choose a source. Press the 'Full Screen' button to view search options. Search for and select music by genre, album, artist, and song. Choose a tab and the appropriate list will show. Press the 'Options' button for additional links.

Text in blue denotes links and paths. Pressing that text will take you to that particular link.



What's playing screen



Now playing screen (Widget view)

Hard Button Controls (right side) - with the iPod or iTunes selected

- + Selects the next playlist
- Selects the previous playlist
- ▶ Selects the next selection in the playlist
- ◀ Selects the previous selection in the playlist
- ⬅ Returns user to the Home Screen
- ⏮ A press and hold will search forward/reverse in the current song

SYSTEM OPERATION - RNET TUNER CONTROL

Operation - RNET Tuners (AM/FM, SIRIUS, XM)

Choose a tuner. Press the 'Full Screen' button from the home screen to view the Radio page. Press the tuning buttons or enter the channel/station number by pressing the number keys.

Save Presets

Press and hold a preset listing in one of the banks. The keyboard will show for custom naming of the preset, if desired. Make any changes and press 'Save' and you will be returned to the radio page. You can replace a previously assigned preset.

Edit Presets

Press the preset to change to that channel, then press and hold the preset name. Make changes with the keyboard and press 'Save'. Bank names can also be edited by a press and hold of the name.

Channel Guide (SIRIUS or XM tuners)

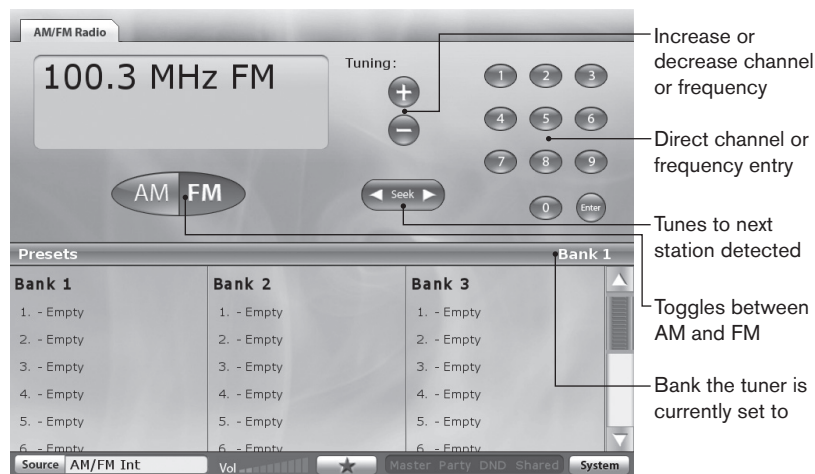
Press the channel guide to show the channel list. View all of the stations or sort by category. Pressing one of the channel listings will change the channel and return you to the radio page.

SIRIUS Channel Lock:

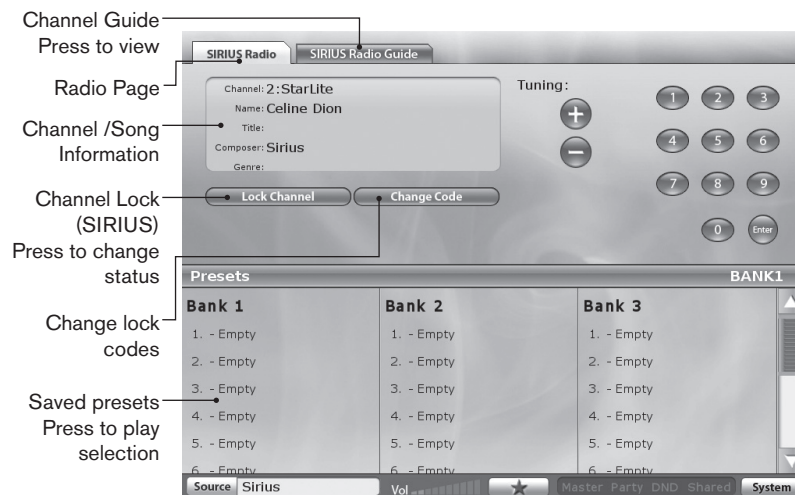
The 'Lock Channel' button gives you the option to lock the channel. Pressing the button will prompt for a 4 digit password to restrict access. The default code is 0000. If it is locked the user will be prompted for a numerical password to temporarily unlock it. If you want to change the password, press the 'Change Code' button. You are prompted for the old code and then for a new one. Navigating away from a locked channel restores the lock and again requires a password to listen to it. To permanently unlock the channel, press the 'Unlock Channel' button and enter the code.

Hard Button Controls (right side) with the RNET tuners selected

- Selects the next higher channel / frequency step
- Selects the next lower channel / frequency step
- Selects the next preset in the current bank
- Selects the previous preset in the current bank
- Returns user to the Home Screen
- A press and hold changes banks to the next or previous one.



AM/FM Main screen



SIRIUS Tuner full screen

Legacy (non-Russound) Source Control

Each source type when selected will have a set of buttons providing basic source control for that device. There are no full screen options.



Typical Legacy Home Screen (Cable)

[illegible]

TECHNICAL SPECIFICATIONS

TSV-E5 Color Touchscreen

- Display:** 8.4" (21.3 cm) diagonal color TFT LCD touchscreen
800 × 600 pixels
- Controls:** 10 hard buttons for common commands
Context-sensitive soft buttons on display
- IR control:** IR receiver with automatic gain control
- Ethernet/power cable:** CAT-5e, up to 250 feet (76 m)
- Ethernet/power connector:** 8P8C modular RJ-45 jack
- IR pass-through cable:** CAT-5e, up to 250 feet (76 m) (only with wall mount)
- IR pass-through connector:** 8P8C modular RJ-45 jack
- External IR receiver cable:** Shielded 4-conductor, 2-twisted-pair signal cable (only with wall mount)
- External IR receiver connector:** Removable 4-pole screw-terminal block
- Power requirement:** 48 VDC 420 mA 20 W power over Ethernet
Power Supply Included (not IEEE 802.3af compliant)
- Dimensions:** 10.31" W × 7.28" H × 1.87" D (26.2 × 18.5 × 4.75 cm)
Wall mount: fits UL/CSA-approved 3-gang (53 ci.) wall box
- Weight:** 3 lbs. (1.4 kg)

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SIRIUS satellite radio is a subscription-based service with a monthly provider fee and an activation charge. Listeners can subscribe by visiting SIRIUS on the web at www.SIRIUS.com or by calling SIRIUS at 888-539-7474.



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The warranty on Russound E-Series products is NOT VALID if the products have been purchased on the Internet, by telephone or mail order, or from an unauthorized dealer. **PROTECT YOUR WARRANTY.** Buy only from a Russound Sphere Certified integrator. If you have questions about a dealer or reseller, contact Russound Sales at 866.604.5245

The Russound E-Series TSV-E5 product is fully guaranteed against defects in materials and workmanship for three (3) 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 serviced by a Russound Sphere Certified Integrator and used in accordance with written instructions. If service becomes necessary, please contact your local Russound Sphere Certified Integrator to arrange for product return.

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

Products out of warranty will be subject to a minimum repair estimate. All repairs will be made on the basis of the retail value of the parts and labor. All service is to be performed by Russound.

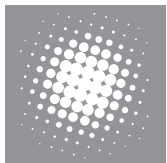
Russound Sphere Certified Integrator Instructions:

Prior to returning a unit for repair, contact Russound at 866.604.5245 to obtain a Return Authorization Number. Reference this RA# number on all correspondence and outer shipping label.

Ship to:

Russound
ATTN: E-Series Priority Service
5 Forbes Road
Newmarket, NH 03857

It is recommended that the product be packaged in a corrugated container with a minimum of three (3) inches of resilient material to protect the unit from damage during transit. Accidental damage and shipping damage are not considered defects.



SPHERE™

E-Series

Installation Manual

Russound, Inc.
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Newmarket, NH 03857
tel 866.604.5245 • fax 603.292.8352
www.russoundsphere.com

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28-1295 Rev. 1 07/31/09

8.4" Color Touchscreen

TSV-E5

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