

SpeakerCraft® SpeakerCraft Integration Guide

Manufacturer:	Pioneer
Model Number(s):	SC-71, SC-72, SC-75, SC-77, SC-79, SC-1123-K, SC-1223-K, SC-1323-K, SC-1523-K, SC-2023-K, SCLX57-K, SC-LX77-K, SC-LX87-K, VSX-70-K, VSX923-K.
SpeakerCraft App Version:	1.2 and above
Comments:	SC-75 Tested SC-LX-57-K Tested
Document Revision Date:	7/31/15

OVERVIEW AND SUPPORTED FEATURES

Pioneer A/V Receivers include an Ethernet port which is connected to a Local Area Network (LAN), allowing the **SpeakerCraft App** system to provide full two-way communication; enabling reliable control and providing feedback to the **SpeakerCraft App** system when changes occur at the receiver.

PIONEER RECEIVERS SUPPORT THE FOLLOWING FEATURES:

Basic Source and Volume Control: Select any available source and control volume with two-way feedback. Changes made at the receiver (turning the volume control, changing source) are immediately reflected in the **SpeakerCraft App**.

Onboard Tuner: The AM/FM tuner can be controlled from the standard AM/FM tuner interface in the Main Zone only. Note that the Pioneer receiver does not support normal “Seek” behavior, and instead the **Seek** buttons will toggle to the next/previous Pioneer internal preset. The onboard tuner is not available to the **MRA-664** for use as a source.

PIONEER RECEIVERS DO NOT SUPPORT THE FOLLOWING FEATURES:

Tuner Control in Auxiliary Zones: Pioneer only supports commands for toggling through Pioneer presets on additional zones. Functions for Tune or direct dial (used by **SpeakerCraft App** Global Favorites) are not available outside the Pioneer Main Zone.

Tuner Seek: Pioneer does not support a “Seek” or auto-tune command. The **Seek** buttons in SpeakerCraft App instead toggle through Pioneer internal presets.

Listening Modes & Tone Control: Control of Listening Modes such as DTS, Pro-Logic etc. is not available through settings pages or custom controls.

No Support of iPod Dock + NET/USB Music: Support for iPod, digital music over IP/USB, and internet radio features are not available the **SpeakerCraft App** interface.

Multiple AVR Zones: The **SpeakerCraft App** supports the functionality of **ONE AVR Zone**. When using supported A/V Receivers with Zone 2 (or Zone 3) outputs, these additional zones will not function correctly through the **SpeakerCraft App** system and are NOT supported.

Any feature not specifically noted as “supported” is not supported.

IMPORTANT NOTES!

Tuner Control Limitations:

1. The Pioneer on-board tuner only offers full control in the main zone. Auxiliary zones cannot be controlled externally beyond using seek to jump between Pioneer presets (A1-A9).
2. The Pioneer tuner will allow you to tune in 1-digit increments (example: 92.2 is a valid station on the Pioneer), which is generally not used in North America. This may cause confusion as the default Tune state in **SpeakerCraft App** uses a 2-digit increment. If the tuner becomes out of sync you may need to direct tune to a valid station (92.3, for example) to return the **SpeakerCraft App** tune button to proper function.
3. Pioneer Tuners allow a range of 87.5-108.0. The **SpeakerCraft App** interface will only display 87.7-107.9. This may cause 87.5 to show as 87.7, and 108.0 to show as 107.9 in the **SpeakerCraft App** interface.

HDMI 1-4 Assignment:

It is possible to configure HDMI 1-4 to remove their association with sources such as DVD, SAT/CBL etc. and use them as stand-alone sources. The inputs are provided to do so in the **SpeakerCraft App**, however:

- The Pioneer AVR must be programmed correctly to use these inputs
- If the feature is enabled, then the inputs DVD, SAT/CBL, DVR/BDR and VIDEO1 will no longer be valid inputs in the HD zone (they will be replaced by HDMI 1-4).

INSTALLATION OVERVIEW

1. During the rough-in phase install the necessary speaker and video cabling for the theater installation.
2. Also during the rough-in phase, run a Cat-5 wire from the location of the receiver back to the network switch location to provide the Ethernet connection needed to control the receiver. The **SpeakerCraft MRA-664** should already be connected to the same LAN.
3. Install the speakers, display and other theater components.
4. Program the receiver according to the manufacturer's documentation.
5. Test the receiver to ensure that the sources play correctly and that the audio and video operate as expected.
6. Configure the **SpeakerCraft App** system for the receiver and confirm communication between the receiver and the **MRA-664** Controller.
7. Test the **SpeakerCraft App** system by changing sources and volume to confirm that the correct source plays.

Tone Control:

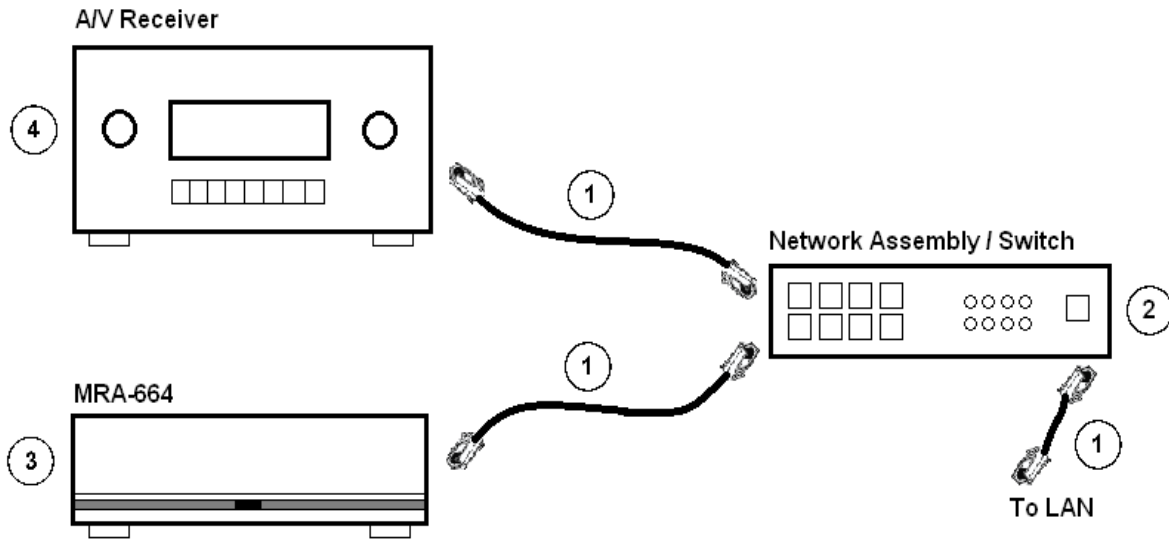
On some models, **Tone Control** is disabled by default, so the **SpeakerCraft App's** Bass and Treble sliders will not function. To enable **Tone Control**:

For the Main Zone:

1. Choose **Audio Parameter** on the remote control handset.
2. Scroll to **TONE**, which is set to **BYPASS** by default.

Use **Cursor Left** or **Right** to change it to **ON**.

CONNECTION DIAGRAM: ETHERNET CONTROL



BILL OF MATERIALS

#	Device	Manufacturer	Part #	Protocol	Connector Type	Notes
1	Cat-5 Cable	Installer	N/A	TCP/IP	RJ-45 Male to RJ-45 Male	Must terminate all 8 conductors
2	Network Assembly/Switch	Installer	N/A	TCP/IP	RJ-45 Female	
3	MRA-664 System Controller	SpeakerCraft	MRA-664	TCP/IP	RJ-45 Female	
4	Pioneer A/V Receiver	Pioneer	See Notes	TCP/IP	RJ-45 Female	See Model Number(s) above

PIONEER SETUP NOTES (ETHERNET)

1. Press the **Home** button to enter the Setup OSD.
2. Ensure **OSD Expert Mode** is enabled by entering **Operation Mode** sub menu.
3. Enter **System Setup**, and select **Network Setup**.
4. Select the **IP Address** sub menu.
5. Use *arrows* to select the desired field, **<enter>** to edit, edit field using arrows, and then **<enter>** again to save that field:
 - a. Use the arrows to set **DHCP** to **OFF**.
 - b. **IP Address: 192.168.xxx.050** (change as needed for your network range; SpeakerCraft recommends setting the 1st AV receiver to **x.x.x.50**, the second to **x.x.x.51**, and so on)
 - c. **Subnet Mask** (Typical): **255.255.255.000**
 - d. **Default Gateway** (Router IP-Default): generally **192.168.xxx.001**
 - e. **Primary DNS** (Router IP-Default): generally **192.168.xxx.001**

- f. **Secondary DNS** (typically not needed, may leave 000.000.000.000)
 - g. **Enable Proxy Server** is typically set to **OFF**.
6. Use the *arrows* to scroll down to **OK** and follow prompts to **Save Settings**.
7. Press **<Return>** to move back to the **Network Setup** menu if needed, and then enter **Network Standby**.
8. **Configure Network Standby** to **ON** and **Save Settings**.
9. From the **Network Setup Menu**, enter the **Port Number Setting** submenu.
10. Ensure that the device **Port 4** is listening for **#23**. Save any changes and exit the OSD menu.

COMMON MISTAKES

1. Failing to set **Network Standby** on **Ethernet Control**. If set incorrectly, the unit will not be able to be turned ON from an OFF state. See the **Pioneer Setup Notes** above for details on proper configuration.
2. If Main Zone tone controls are not working, the tone control mode may be set to **Bypass**. Adjust **Audio Parameters** on the Pioneer AVR.
3. To check firmware version on the unit, enable the OSD, and go to **System Setup: Other Setup: Software Update and Version**. Note you may need to be in **Operation Mode: Expert** to see these sections.
4. Configuring the unit to use DHCP will lead to eventual connectivity and control problems. It is recommended to set up the Pioneer AV Receiver with a Static IP address for reliable control. Please see the **Pioneer Setup Notes** above for instructions.
5. Attempting to configure multiple AVR zones. Even when using supported models that have second and/or third zones, only ONE AVR zone will work correctly with the **SpeakerCraft App** system.