# OneHome™ Audio Integration Note Management and Control Solutions Audio Integration Note Manufacturer: Russound Model Number(s): ST2 (AM/FM/XM/SIRIUS) Comments: Document Revision Date: 9/20/2006

## **OVERVIEW AND SUPPORTED FEATURES**

IMPORTANT: This note covers the integration of the ST2 in a OneHome system, where the tuner is a source into a receiver or other non-Russound zone controller.

If you are using the ST2 in conjunction with a CAV6.6 or other R-Net zone controller, then refer to the Integration Note for the zone controller instead.

The ST2 is a dual AM/FM (/XM or /Sirius optional) tuner capable of playing two separate stations at the same time.

The tuner includes an RS-232 connection which is used to connect to the **One**Home system to provide communications, enabling reliable two-way control.

#### THE TUNER SUPPORTS THE FOLLOWING FEATURES:

Basic Tuning Control: Arbitrary station selection, seek up/down, AM or FM.

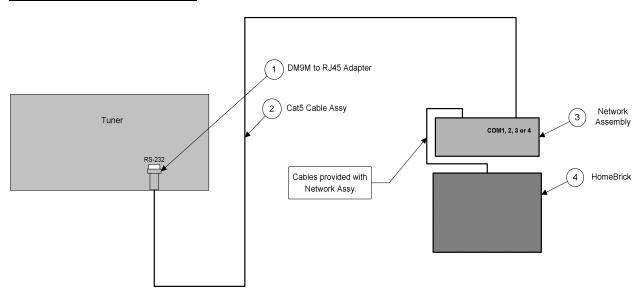
Built-In OneHome Interface: The built-in OneHome AM/FM tuner interface is automatically enabled.

## **INSTALLATION OVERVIEW**

- 1. During the rough-in phase install the necessary power and A/V cabling for the tuner.
- Also during the rough-in phase, run a Cat5 wire from the location of the tuner back to the Network
   Assembly of the OneHome system to provide the serial connection needed to control the tuner. Refer
   to the RS-232 Connection Options Integration Note for other serial connection options.
- 3. Install the tuner and other home audio or theater components.
- 4. Test the tuner with the audio / video equipment to ensure that the stations tune and play correctly.
- Program the tuner IDs for the ST2: this is explained under ST2 Programming.
- 6. Connect the **One**Home system to the tuner electrically. See the connection diagram for more information.
- 7. Configure the **OneHome** system for the tuner and confirm communication between the tuner and the **Home**Brick.

Test the system by changing stations from the Viewer interface.

# **CONNECTION DIAGRAMS**



## **BILL OF MATERIALS**

#	Device	Manufacturer	Part Number	Protocol	Connector Type	Notes
1	DB9M to RJ45 Adapter	HomeLogic	HA-CB-307	RS-232	DB-9 Male X RJ-45 Female	
2	Cat5 Cable Assy.	Installer	N/A	RS-232	RJ-45 Male X Wire	
3	Network Assembly	HomeLogic	HW-NA-18X4	RS-232	RJ-45 Female X DB-9 Female / USB	
4	HomeBrick	HomeLogic	HW-HB-1080	RS-232	DB9 Male / USB	

# **ST2 PROGRAMMING**

Once the equipment is installed and connected you must program the ST2 according to Russound guidelines. Special steps that relate to HomeLogic are provided below:

#### **ST2 AND ST2-XM TUNER SOURCES**

You will need to know the **Tuner ID** for each tuner. Since each ST2 had two built in tuners, there are two IDs that you must know for each ST2.

The ST2-AM/FM Dual tuner: factory defaults for the Tuner IDs are tuner #1 = 1, and tuner #2 = 2.

The ST2-AM/FM/XM tuner: factory defaults are the XM tuner is #1 and the AM/FM tuner is #2.

The ST2-AM/FM/Sirius tuner: factory defaults are the Sirius tuner is #1 and the AM/FM tuner is #2.

Consult the ST2 documentation for instructions on checking or changing the tuner IDs.

## FIRMWARE VERSIONS

We have confirmed proper operation of the **One**Home system using several different firmware versions. Please consult the table below.

ST2	ST2-XM	ST2-Sirius
2.00.03	N/A	N/A
3.00.10	3.00.10	N/A
3.00.10 3.00.10		3.02.01

Russound provides separate instructions for updating the firmware for their equipment: check the Russound Web site, or call their tech support for help at (866) 888-7466.

#### **DETERMINING FIRMWARE VERSION OF THE ST2**

Step	Instructions	Comments
1	Cycle power to the ST2. Then press and hold the TNR SEL btn	TUNER SETUP appears in the display
2	Press MEM <sup>^</sup> several times until SYSTEM INFO appears in the display	The display cycles through SOURCE NUM, etc.
3	Press BAND	BUILD TIME appears in the display
4	Press MEM^ several times until VERSION appears in the display	
5	Press BAND	The version appears in the display

# **HOMELOGIC CONFIGURATION DETAILS**

The following table provides settings used in the HomeLogic Configurator when connecting to a ST2 Tuner. Please refer to the Configurator Reference Guide for more details.

In the table below:

Select the appropriate item from the list (or drop-down) in the Configurator. o "<Select>"

o "<User Defined>", etc. Type in the desired name for the item.

Devices	Variable Name	Setting	Comments
Communication Devices	Name	<pre><user defined=""> (Default: Russound RNet)</user></pre>	
	Туре	Serial Port	
	Communication Type	Russound RNet	
	Location	<user defined=""> (Not Required)</user>	
	Com Port	<select></select>	
Audio Tuners	Name	<pre><user defined="">(Default: Radio)</user></pre>	Tuner 1
	Device Type	<select> (Default: Russound ST2-AM/FM Tuner)</select>	(See Note 1)
	Location	<user defined=""> (Not Required)</user>	
	Comm Device	<select> (Default: Russound RNet)</select>	
	Device ID	<select> (Default: 1)</select>	(See Note 2)
Audio Tuners	Name	<user defined="">(Default: <b>Radio</b>)</user>	Tuner 2
	Device Type	<select> (Default: Russound ST2-AM/FM Tuner)</select>	
	Location	<user defined=""> (Not Required)</user>	
	Comm Device	<select> (Default: Russound RNet)</select>	
	Device ID	<select> (Default: 2)</select>	(See Note 2)
<audio controllers="" zone=""></audio>	Add an Audio Zone Contro	Iller: refer to the Integration Note for your particular receive	er or zone controller. (See Note 1)

#### Notes:

- 1. Each ST2 includes two separate tuners. Add two tuners to the HomeLogic Configurator one for each tuner in the ST2. Select ST2-AM/FM, ST2-XM, or ST2-Sirius as appropriate.

  2. The default Tuner ID of the first is 1 and the default Tuner ID of the second is 2. See **ST2 Programming** for details.

# **COMMON MISTAKES**

- 1. Improper programming of the ST2. Make sure you complete programming of the Russound equipment, and that it functions properly as a stand-alone system, before attempting to connect and control from the **One**Home system.
- 2. Improper firmware versions installed on the ST2 tuner. Due to various enhancements (such as the XM radio, the release of the SMS server, etc.), Russound has changed the firmware of the devices. Consult the table above, and make sure your versions match one of those listed.
- 3. Improperly setting the RNet IDs for ST2 tuners. Each ST2 has two tuners, and each has a Tuner ID. The Tuner ID must match the corresponding ID set in the Configurator.