

# SpeakerCraft Integration Guide

Manufacturer:	Integra, Onkyo
Model Number(s):	<b>Integra DTR40.4 / 50.4 / 70.4 / 20.3 / 30.3 / 40.3 / 50.3 / 70.3 / 80.3 / 40.1 / 50.1 / 70.1 / 80.1</b> <b>Onkyo TX-NR515 / 616 / 717 / 818 / 1010 / 3010 / 5010 / 1007 / 3007 / 5007</b>
SpeakerCraft App Version:	1.2 and above
Comments:	FW 1.09 (1091-0999-0210-9105)
Document Revision Date:	7/31/15

## OVERVIEW AND SUPPORTED FEATURES

Integra/Onkyo AV 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.

### INTEGRA/ ONKYO 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** interface.

**Satellite Radio Inputs:** Integra receivers have inputs for Sirius Satellite Radio. These inputs are supported and use the standard **SpeakerCraft App** Satellite Tuner interfaces.

**RDS:** The RDS, or Radio Data System, is supported in the **SpeakerCraft App** interface where available.

### INTEGRA RECEIVERS DO NOT SUPPORT THE FOLLOWING FEATURES:

**Streaming Audio Sources:** Digital music sources (USB, Ethernet, iPod etc.) are only available for source selection and volume control in the **SpeakerCraft App**.

**Surround Mode Control:** Is not supported in the **SpeakerCraft App**.

**Tone Control (Integra 70.4/50.4/40.4 Onkyo TX-NR515/616/717/818/1010/3010/5010):** These Integra/Onkyo models do not provide tone control (Bass/Treble).

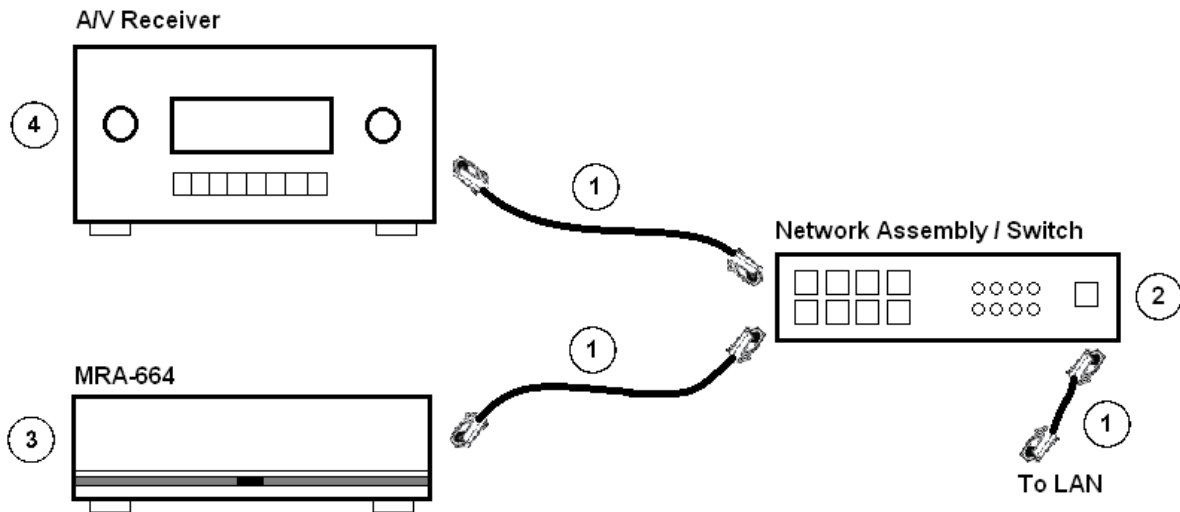
**Multiple AVR Zones:** The **SpeakerCraft App** supports the functionality of **ONE AVR Zone**. When using supported A/V Receivers with Zone 2 (or Zone 3) outputs, these additional zones will not function correctly through the **SpeakerCraft App** system and are NOT supported.

Any feature not specifically noted as "supported" is not supported.

## 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. If there are other Onkyo/Integra components in the system, (such as DVD player), those components can be connected to the A/V Receiver using the Integra **RI** connection. Beware that the RI link causes certain built-in behavior that cannot be disabled: when the Play command is issued to the DVD player, for example, the receiver automatically switches to the DVD source.
6. Test the receiver to ensure that the sources play correctly and that the audio and video operate as expected.
7. Configure the **SpeakerCraft App** system for the receiver and confirm communication between the receiver and the controller.
8. Test the **SpeakerCraft App** system by changing sources and volume to confirm that the correct source plays.

## 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	Integra/Onkyo A/V Receiver	Integra/Onkyo	See <b>Notes</b>	TCP/IP	RJ-45 Female	See <b>Model Number(s)</b> above

## INTEGRA/ONKYO ETHERNET CONFIGURATION

To enable reliable two-way control and feedback from the Onkyo/Integra AVR using Ethernet, **Network Control** must be enabled and a Static IP address assigned.

1. Enter the **Setup** Menu either via the remote or the front panel.
2. Use the **UP** and **DOWN** arrows to navigate to and select **7. Hardware Setup**
3. Use the **UP** and **DOWN** arrows to navigate to and select **6. Network**
4. Enter Settings as Follows using the **Arrow Keys**:

<b>DHCP: <i>Disable</i></b>	Disable DHCP to prevent the unit receiving a variable dynamic IP address.
<b>IP Address: (default) <i>192.168.0.50</i></b>	We recommended setting the Ethernet controlled AVR to 192.168.0.50,
<b>Subnet Mask: <i>255.255.255.0</i></b>	(Typical Setting)
<b>Gateway and DNS: (default) <i>192.168.0.1</i></b>	Set to Router LAN IP Address
<b>Network Control: <i>Enable</i></b>	Enables external control.
<b>Port: (default) <i>60128</i></b>	Port # required in software for control. This field is editable in both the AVR and <b>SpeakerCraft App</b> software. The numbers in both must match to allow communication.

5. Press **Return** to exit setup

## COMMON MISTAKES

1. Incorrect firmware version. The Integra/Onkyo receiver was tested and developed on FW 1.09 and other firmware versions may affect the external control protocol.  
To verify the Firmware version:
  - turn the unit **ON**
  - Press and hold the **Display** button and then press **ON** again.
  - The firmware version is displayed on the LCD screen.
2. No Satellite radio available for source/band selection on unit: Ensure that Satellite radio is enabled under **Setup>Hardware Setup>Tuner>Satellite Radio Mode**.
3. Configuring the unit to use DHCP will lead to eventual connectivity and control problems. It is recommended to set up the Integra/Onkyo unit with a Static IP address for reliable control. Please see the **Integra/Onkyo Ethernet Configuration** section above for instructions.
4. 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.