

# INSTALLATION INSTRUCTIONS

## RS41AV FOUR INPUT AUDIO/VIDEO REMOTE SWITCHER

### GENERAL INFORMATION

- The RS41AV is a low noise, wide bandwidth, unity gain, infrared remote controlled switcher for line level stereo audio and video baseband signals.
- It selects audio and video signals from any one of four sources and sends them to one output with no signal loss.
- It allows additional source selections for the inputs of A/V receivers, VCR's, TV monitors, etc.
- A hand-held programmer, model RC68+ (available separately), is the source of the four IR input switching commands for the RS41AV (see **Fig.4**). Normally the installer would "teach" these commands into a Xantech Learning Remote, Key Pad or other learning device for eventual use by the customer.
- The space saving "flat pack" design allows great flexibility in mounting and positioning.

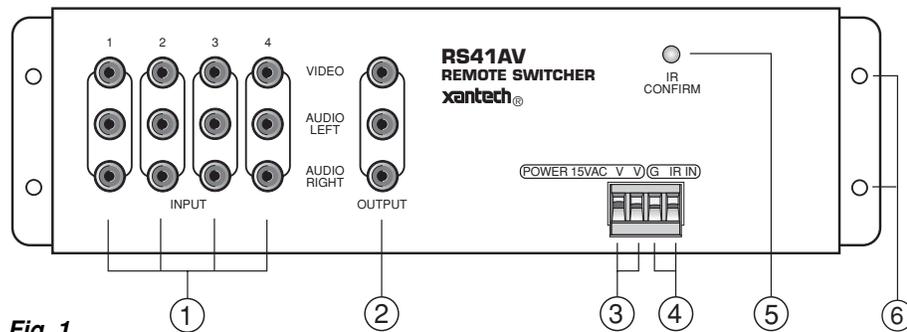


Fig. 1

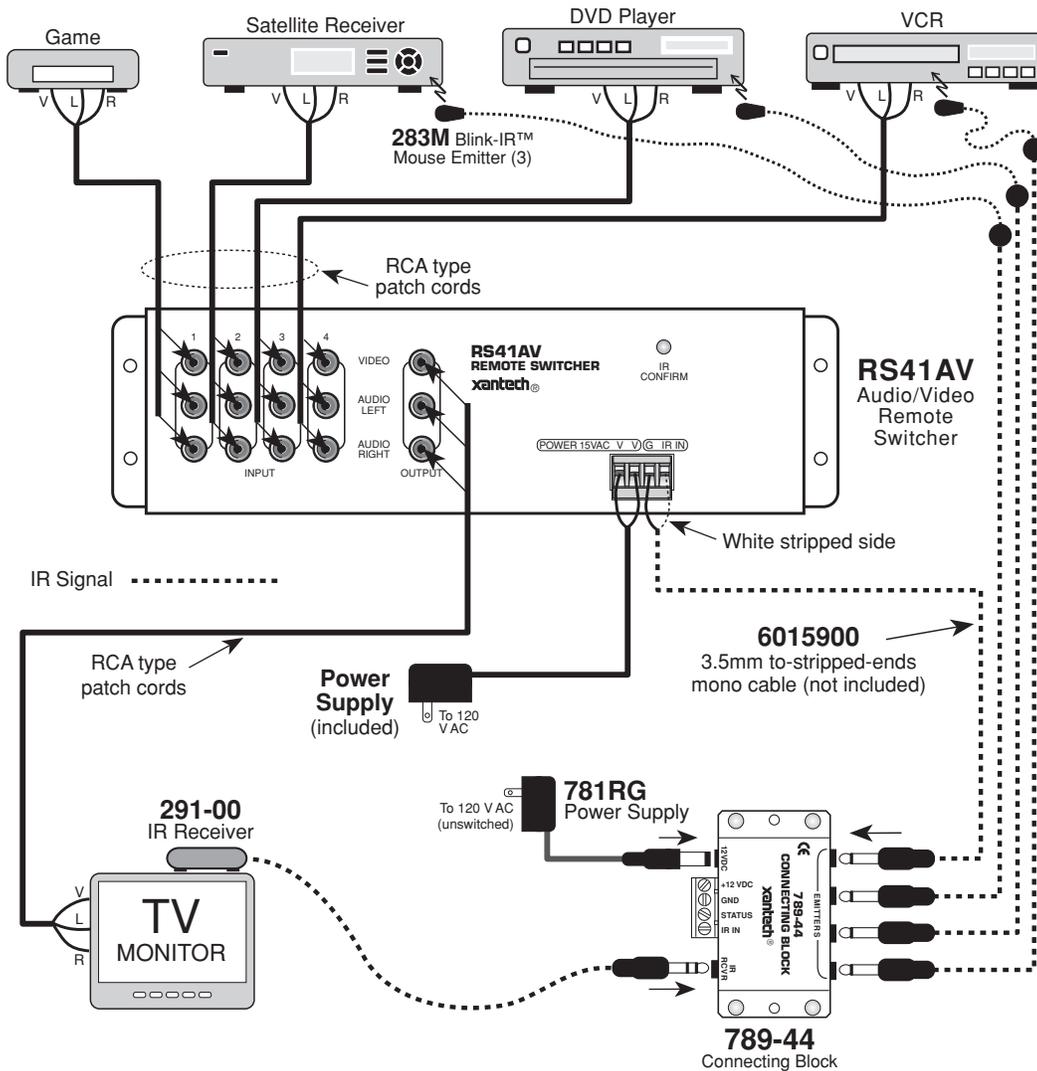
### RS41AV PANEL DESCRIPTIONS

1. **INPUT jacks.** Connect to the corresponding output jacks of the source components (satellite receiver, VCR, camcorder, laser disc player, TV surveillance camera, CD player, AM/FM tuner, cassette tape deck, etc.).
2. **OUTPUT jacks.** Connect to the corresponding input jacks of AV receivers, TV monitors, VCRs, etc.
3. **POWER 15VAC V V terminals.** Connect the leads of the 15V AC Power Supply (included) to these terminals (lead polarity is not required).
4. **G and IR IN terminals.** Input terminals for the IR control signal. Connect a 2-conductor cable from the emitter or signal output port of any Xantech Connecting Block, IR receiver, Key Pad, or Controller here. The positive lead connects to "IR IN" and the negative to "G".
5. **IR CONFIRM LED.** Lights continuously when power is applied. Flashes when RC68+ (and RC68) IR commands are received.
6. Mounting Holes.

## TYPICAL APPLICATIONS

### Additional Audio/Video Source Switching

**Fig. 2** shows a typical application where the RS41AV is used to provide more audio/video source selections for the Video input on a TV monitor. The four sources shown could be any combination of audio/video components.



**Fig 2** Additional Source Switching for a TV Monitor

Similarly, **Fig. 3** illustrates a system where the RS41AV is used to provide additional source selection capability for an A/V receiver. For instance, if a given A/V receiver only has six inputs, using the RS41AV would allow expansion up to a total of nine.

Note that, in this application, the RS41AV is controlled as part of a larger Infrared remote controlled system. The four sources shown could be any combination of audio/video components.

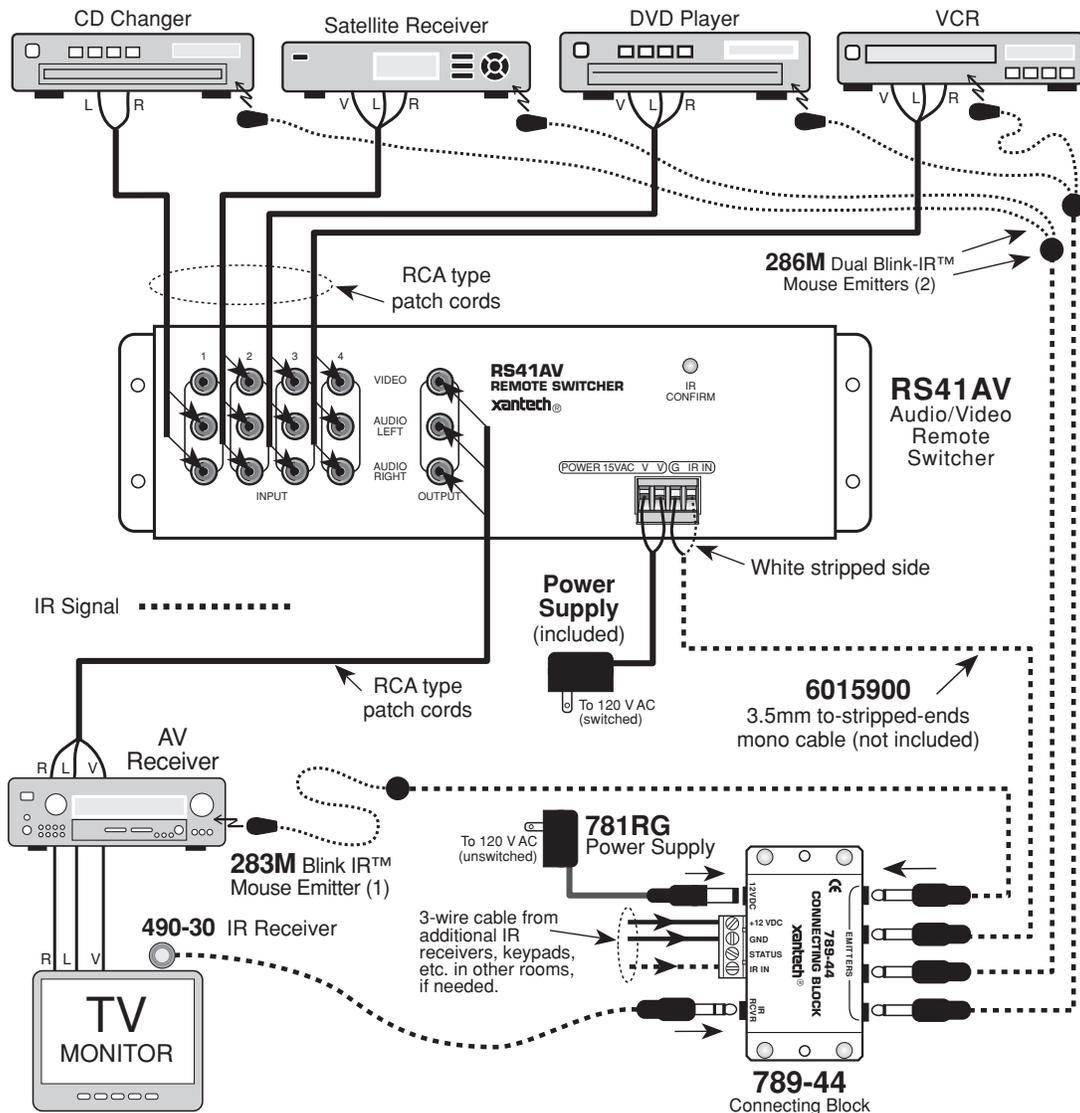


Fig. 3 Expanding the Source Switching of an AV Receiver

## INSTALLATION

1. **Code Groups:** If more than one RS41AV is used in a given system, or it is included in an IR controlled system with other Xantech products that respond to RC68+ commands, different code groups can be assigned to avoid mutual interaction.

**NOTE:** As received from the factory, the RS41AV is set to code group 20. Refer to the RC68+ instructions for code group setting procedures.

2. Typically a programmable remote controller, such as a Xantech learning remote control or keypad, is "taught" each of the RS41AV commands (from the RC68+, Fig.4) plus the specific input command for the A/V receiver or TV monitor to which the RS41AV is connected. These commands are placed in a "sequence" or "macro". A single key press will then select the desired source connected to the RS41AV.

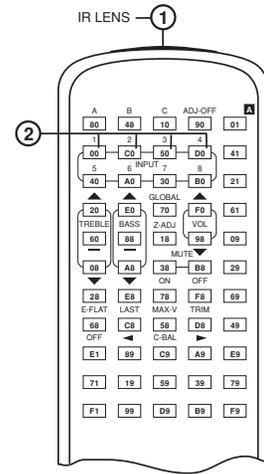
For "sequence" or "macro" programming, follow the instructions that come with the learning device

- The power supply for the RS41AV may be connected to the switched AC outlet on the rear of an A/V receiver, if an A/V receiver is used in the system.
- Fig. 3** assumes the use of an A/V receiver having baseband video switching capabilities.
- Use high quality low-loss cables for all A/V connections. For runs in excess of 10 feet, use low-loss RG-6 coax..

### RC68+ PROGRAMMER/REMOTE CONTROL

The RC68+ (and the RC68) programmer (available separately) contains the commands necessary to operate the RS41AV.

Use the commands 1, 2, 3, and 4 (item 2, Fig.4) to select the respective four source inputs on the RS41AV.



**Fig 4** RC68 Handheld Programmer (available separately)

## RS41AV SPECIFICATIONS

### AUDIO

Gain: ..... Unity  
 Input Overload: ..... 3.0 V RMS  
 Input Impedance: ..... > 25k Ohms (ea. input)  
 Output Impedance: ..... 1k Ohms  
 THD: ..... 0.04% at 1.0 V input level  
 Freq. Response: ..... 8 Hz - 50 kHz +/- 1 dB  
 Channel Separation:.. ..... > 75 dB (100 Hz to 10 kHz)  
 Input to Input Isolation:.. ..... > 85 dB (100 Hz to 10 kHz)  
 S/N Ratio ("A" WTD): ..... 100 dB (re 2V out)

### VIDEO

Gain: ..... Unity  
 Input Impedance: ..... 75 Ohms  
 Output Impedance: ..... 75 Ohms  
 Video Insertion Loss: ..... 50 Hz - 10 MHz < 1 dB  
 OUT-IN Isolation: ..... 50 Hz - 10 MHz > 55 dB

### GENERAL

A/V inputs/outputs: ..... RCA-type phono jacks  
 Power & IR Inputs: ..... Screw Terminal Plug-In  
 Factory Preset IR Code Group: ..... 20  
 Power Requirements: ..... 15V AC @ 300 mA (Power Supply included)  
 Dimensions: ..... 10" W x 3" D x 1 3/8" H