

QUICK START

Okay, you're in a hurry. Well this section's just for you. It explains enough of the HC 6S's workings to keep you out of trouble. It allows operation without reading the whole manual. Please read at least this section to ensure reasonable operation of the unit.

The HC 6S operates from either a common stereo or mono source, or from individual stereo sources. For a common stereo source, plug the left and right input plugs into the respective **MASTER INPUTS** jacks. The Inputs accept balanced or unbalanced sources. Just plug them in. This source is now routed to each of the six input channels to drive all of the Outputs.

For a single mono source feeding all headphones, connect it to one of the **MASTER INPUT** jacks and engage the **STEREO/MONO** switch. Set the overall input level with the **MASTER LEVEL**, and use the channel **LEVEL** controls for individual headphones. These Inputs may also be converted to balanced mono inputs by moving internal jumpers. See page Manual-4.

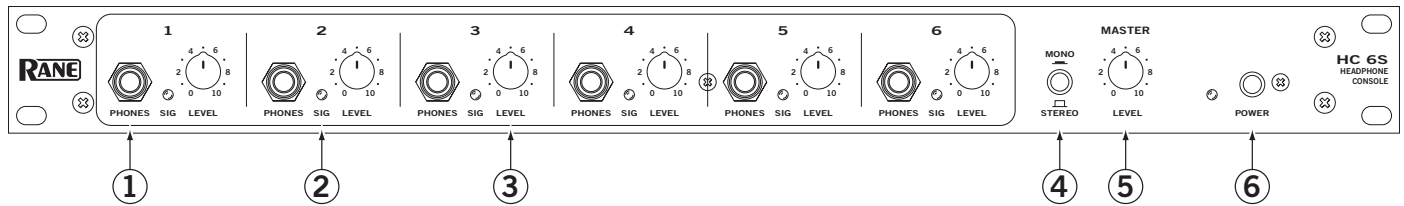
Use the separate stereo **IN** jacks when driving a pair of headphones with different program material than what is on the **MASTER INPUTS**. Connecting a plug into these jacks automatically disconnects that channel from the Master Input program material.

HC 6S CONNECTION

When first connecting the HC 6S to other components, *leave the power off*. This gives you a chance to make mistakes and correct them without damage.

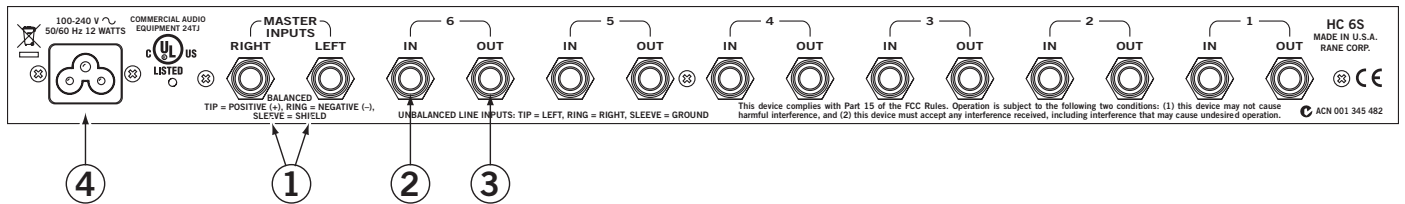
1. With the power switch in the *off* position, plug the power line cord into the rear panel.
2. Plug the outputs from a mono or stereo source into the **MASTER INPUTS**. For unbalanced systems use a standard ¼" TS cable. For balanced operation, use a stereo ¼" TRS connector with pin 2 (+) wired to the Tip; pin 3 (-) wired to the Ring; and pin 1 (ground) wired to the Sleeve. Please consult the RaneNote, "Sound System Interconnection" (enclosed) for additional wiring arrangements.
3. When rack mounting the HC 6S, you may wish to permanently wire the rear headphone Outputs to remote jack locations, such as in walls of a studio or other rooms. Use the front panel Outputs for local or control room monitoring.
4. You might also consider wiring the six direct stereo INs permanently to a patch bay or monitor mixer, but *only* if you do not plan to use the **MASTER INPUTS** as well. Whenever a plug is inserted into any individual stereo IN, the **MASTER INPUTS** are bypassed for that particular channel. So for maximum flexibility, we suggest that only the **MASTER INPUTS** be permanently wired and that the direct stereo INs be patched as necessary.

FRONT PANEL DESCRIPTION



- ① **Front panel PHONES Output jacks** are in parallel with the rear panel stereo OUT jacks. Use them to monitor any of the six channels for level or mix adjustments, or for easy access when the HC 6S is rack mounted. Plugging into these front jacks does *not* disengage the rear Outputs.
- ② **SIGnal present indicators** light (green) with any input signal above -20 dBu. See OPERATING INSTRUCTIONS (on page Manual-4) for complete details.
- ③ **Individual LEVEL controls** set the volume for each set of headphones, regardless of whether they are driven from the MASTER INPUTS or from the direct stereo INs. When using the front and rear panel headphone jacks together, this control varies the level of each headphone simultaneously.
- ④ **MONO / STEREO switch** converts the MASTER INPUTS from stereo to mono so that a single input cable drives both sides of the headphones.
- ⑤ **MASTER LEVEL** sets the volume simultaneously to all headphones driven from the MASTER INPUTS. This does not alter the volume on any headphones driven from the direct stereo INs.
- ⑥ **POWER switch.** Your basic, straightforward power switch. When the yellow LED is lit, the HC 6S is ready to go.

REAR PANEL DESCRIPTION



- ① **MASTER INPUTS** are automatic balanced/unbalanced Inputs, which accept either a 1/4" TRS (tip-ring-sleeve) plug for balanced operation, or a 1/4" TS (tip-sleeve) plug for mono operation. You do nothing different when hooking up balanced or unbalanced lines. The HC 6S is one smart dude. He *knows* what you are doing so you better watch out.
- ② **Direct Stereo INs** allow each stage to be driven separately, from any source. Whenever a plug is inserted into one of these Inputs, the MASTER INPUTS are disconnected from that stage (and only that stage). I told you the dude be smart!
 These are 1/4" TRS (tip-ring-sleeve) Input jacks, each accepting both left and right channels. If you plug a regular TS (tip-sleeve) into this jack, you will only connect the left channel.
 To feed this input with an unbalanced mono signal, use a TRS plug and wire the tip and ring together.
 To build a cable that will combine separate left and right cables into a single 1/4" TRS, follow the diagram below, connecting all shields. RCA connectors can be substituted for the 1/4" connectors.
 To use balanced mono sources, set the internal jumpers as shown on page Manual-4.
- ③ **Stereo Headphone OUTs** allow any headphone with an impedance from 32 to 600 Ω . Then kick back and enjoy. (Lower and higher impedance headphones may be used; they just won't be very loud.)
- ④ **Universal Voltage Input:** via a miniature IEC 60320 C6 appliance inlet. This mates with an IEC 60320 C5 line cord (USA domestic). Do **not** lift the ground connection! The wide voltage range of this input allows it to be powered almost anywhere in the world.

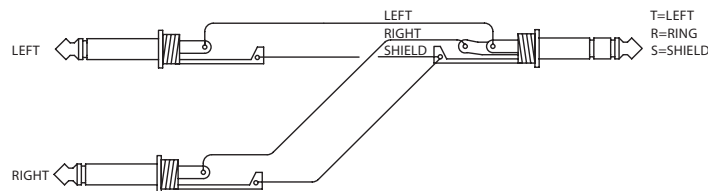


Figure 1. Dual Mono to Stereo TRS Wye Cable.

See ② above.

OPERATING INSTRUCTIONS

MASTER STEREO INPUTS

Apply a source program to the MASTER INPUTS and turn up the MASTER LEVEL until the green signal-present LEDs light up. Further adjustment of this control raises or lowers the volume level in all headphones simultaneously, i.e., all those being driven from the MASTER INPUTS. The MASTER LEVEL does *not* affect channels driven from the direct stereo INs.

INDIVIDUAL LEVEL CONTROLS

These adjust the level in each set of headphones to the desired loudness. When using a direct stereo IN, only this control affects the volume in the headset—the MASTER LEVEL is bypassed.

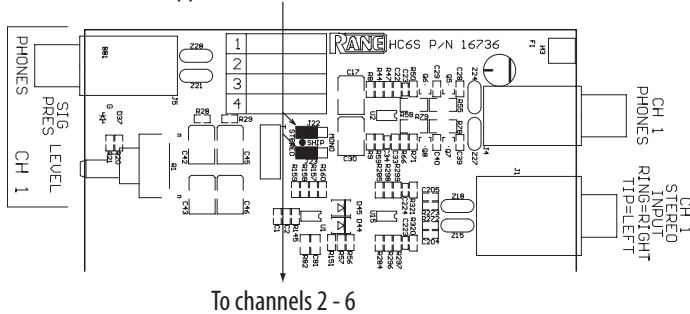
DIRECT STEREO INPUTS

These allow completely independent operation of up to six different stereo programs. These Inputs are stereo only, and wired to accept unbalanced signals, using the tip=left, ring=right convention. Unbalanced mono sources require using a stereo ¼" TRS plug and shorting the tip and ring together.

Any channel not directly driven is automatically driven from the MASTER INPUTS.

When using balanced mono sources, internal jumpers must be moved as in Figure 2 below. Jumpers are wired at the factory for stereo. Jumpers must be moved for balanced mono operation. Each jack is jumpered separate, so any combination of input types is possible within a single HC 6S. **SHOCK HAZARD WARNING:** Any service requiring access to the inside of the unit (including changing jumpers and switch settings) should be done by qualified service personnel.

Figure 2. Stereo Unbalanced / Mono Balanced Jumpers
Shipped as Stereo Unbalanced.



SIGNAL-PRESENT LEDS

These light up with any signal input above -20 dBu. They are located in the signal path after the MASTER INPUTS and before the individual LEVEL controls. This means that adjusting the MASTER LEVEL affects the SIG LEDs, while adjusting the individual LEVEL controls does not. When using a direct stereo IN, the LED responds to that Input only. This means these indicators aid in quickly identifying which stages are driven by the MASTER INPUTS and which by the direct stereo INs: Simply turn the MASTER LEVEL up and down and observe which LEDs respond. These are the channels being driven by the MASTER INPUTS.

STEREO / MONO SWITCH

This serves the basic function of allowing both Left and Right channels of all headphones to be driven from a mono MASTER INPUT. In some instances a stereo program can be confusing for live monitoring purposes, due to extreme separation and the increased difficulty in perceiving several different volume levels. Using the MONO / STEREO switch converts the system to mono operation to better suit these particular monitoring needs.

FRONT PANEL OUTPUT JACKS

These jacks parallel the rear OUTs, providing easy access patching into any channel for cueing or additional monitoring. When using more than six sets of headphones at once, keep two things in mind:

1. There are still only six LEVEL controls. Additional headsets must double up with those already in use. To avoid intolerable volume differences to two listeners on the same channel of the HC 6S, use headphones of the same make and model.
2. The HC 6S has limited power output. The more headphones you connect to it, the less power there is available to each set, and the more strain on the HC 6S. Blasting 10 or 12 sets of low impedance headphones is asking too much from the HC 6S. To lessen the power drain from the HC 6S, use only high impedance (100 Ω or greater) headphones when paralleling.