

# SOUND & VISION®

from "A/V Connectors from A to Z" in the July/August 2003  
**S&V**. Copyright © 2003 by Hachette Filipacchi Media U.S.,  
Inc.; all rights reserved.

## AUDIO ANALOG



**RCA** By far the most common type of A/V jack and plug, the two-wire RCA connector was standardized in the early days of radio by — guess who? RCA connectors are coaxial, with the signal-carrying conductor surrounded by an outer conductor shield connected to a ground. Occasionally referred to (confusingly) as “phono” plugs/jacks, mostly by old-timers, they’re also used to carry digital audio and analog video signals. RCA audio jacks and plugs are often color-coded in pairs: red for right-channel (“r” for right and red) and black or white for left-channel. Sometimes other colors are assigned to center- and surround-channel RCA jacks. All are electrically identical. RCA audio cables are often bundled in stereo pairs inside a single outer jacket.



**XLR** A three-wire connector — plus (+), minus (–), and shield — the XLR (or “microphone”) plug or jack is most commonly found in professional and broadcast equipment but is also used in some high-end consumer audio gear, usually for line-level connections between preamplifiers and power amps. By convention, three-pin male XLR connectors (whether panel-mounted or at cable ends) are outputs, while female connectors are inputs. XLR cabling is used for balanced-line connections, which makes very low-level signals sent over long distances less susceptible to the noise and hum that can be caused by electromagnetic or radio-frequency interference from machinery, automotive electrical systems, and so on. In typical consumer setups the advantages are usually small.



**Phone/Mini-phone** The 1/4-inch phone jack and plug got its name from its origins in early telephone switchboards (think Lily Tomlin). This connector is usually found on A/V gear in three-wire (stereo) form — left-channel, right-channel, and ground — as a front-panel headphone jack and the plug for a full-size headphone set. Phone connectors are also commonly used in professional and broadcast gear in two-wire form (signal and ground) for mono signals and occasionally for balanced signals in a mono three-wire form (+, –, shield). Identical in function to phone connectors, mini-phone plugs and jacks (1/8-inch diameter, bottom photos) are usually found in stereo form as headphone connectors for portable gear.