Accuphase

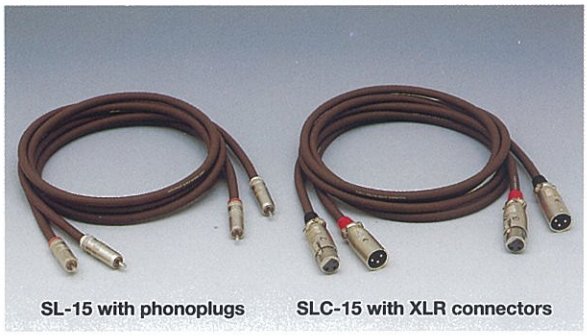
AUDIO CABLE

SR SERIES

SL-10/SL-15/SL-30
SLC-10/SLC-15/SLC-30

ACCUPHASE AUDIO CABLES

The two most important requirements for audio cables can be defined as follows: a) not to cause any transmission loss by forming an LCR circuit, and b) not to introduce a sonic character of their own. The reasons why something as simple as a cable can have a sonic character have not yet been fully explored, but it is clear that the choice of material and the purity of the conductor have a considerable impact. The lower the specific electrical resistance and the higher the purity, the smoother the flow of electrons becomes, making the transmission of electrical signals more faithful. This is an easily understood fact. Furthermore, experiments using the same conductor have shown that the material and configuration of the insulation also has a subtle influence on the sonic result. The insulator between the conductors acts as a dielectric, causing the cable to become an electrical circuit with complex LCR distribution characteristics. Therefore it is not sufficient to choose a good conductor, but close attention must be paid also to the material and the design of the insulation. Small differences in electric potential between the two poles of a cable will lead to minute vibrations that affect the sound quality of a signal passing through it. The totality of these phenomena are thought to cause what is commonly the "character" of a particular cable.



SL-15 with phonoplugs SLC-15 with XLR connectors

SR (Super Refined) Series

Extremely thin twisted wire of outstanding purity (7N) assures low DC resistance and high sound quality

The copper used for this cable is 99.99999% pure (7N), which is the highest level of purity currently available for this type of application. This assures almost ideal transmission characteristics, letting the music emerge with utter clarity and natural ambience. In order to minimize the possibility of noise induction in the shield, the conductors are separately shielded. The plugs are plated with rhodium to provide optimum contact and reliability. The cable is available with RCA-type phono plugs or with XLR connectors, in lengths of 1, 1.5, and 3 meters.

Conductor of extremely thin twisted wire with outstanding purity (7N)

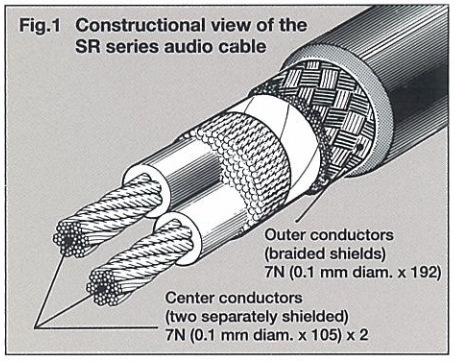


Fig.1 Constructional view of the SR series audio cable

As shown in Fig. 1, the center conductors and shield are made of pure copper. Each of the two separately shielded conductors comprises a total of 105 twisted wires, with a diameter of 0.1 mm and 7N purity (99.99999%). This yields an exceptionally low DC resistance of 0.0225 ohms/m, while keeping the cable supple and flexible. The braided outer shield is also made of pure copper (7N) and consists of 192 wires, also with a diameter of 0.1 mm, to reliably shut out any external noise.

Separate-shield design

As shown in Fig. 2, the SR series audio cable employs two separately shielded center conductors. In the cable with RCA-type phono plugs, the ground line passes through one of the inner shields and the outer shield in parallel, making the electrical resistance even smaller and contributing to high transmission quality.

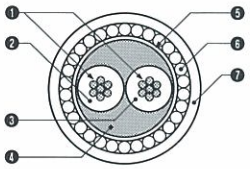


Fig. 2 Cross-sectional view of the SR series audio cable

Foamed polyethylene dielectric

The dielectric for a shielded cable must have low inductivity and high electrical resistance. It should also be supple and flexible, to allow the cable to bend easily. For these reasons, the Accuphase audio cables use foamed polyethylene which excels in all of these respects. Polyethylene has a dielectric constant of 2.3, and the foaming process increases this still further. This design reduces stray capacitance between the conductors and improves the suppleness of the cable.

Rhodium-plated RCA-type phono plugs for highest reliability

Since plugs must withstand many cycles of being plugged in and out, their hardness and resistance to abrasion are important characteristics. Resistance to sulphur gases produced for example by heating appliances is also vital. The high-quality rhodium-plating ensures that all these requirements are fully met. Rhodium is one of the hardest precious metals, and even a film as this as 1 μm can withstand as much as 100 million plugging cycles.

XLR connectors

Accuphase has long been a strong advocate of balanced signal transmission because of the inherent advantages of this principle, such as immunity against induced noise. All our amplifiers and CD players therefore are equipped with XLR the connectors (also called Cannon connectors). Recently, this philosophy has spread to models from other companies. Accuphase now offers optimum 3-pin cables for balanced connections. The model lineup is shown in the accompanying table. The pin (1) is connected as the shield.

Specifications

Item \ Type	Phonoplugs			3-P XLR connectors		
	SL-10	SL-15	SL-30	SLC-10	SLC-15	SLC-30
Cable length	1.0 m	1.5 m	3.0 m	1.0 m	1.5 m	3.0 m
Dielectric	Foamed polyethylene					
Center conductors	High-purity copper (7N), 0.1 mm dia. ×105, DC resistance 22.5 m ohms/m					
Outer shield conductor	High-purity copper (7N), 0.1 mm dia. ×192, DC resistance 16.5 m ohms/m					
Total DC resistance of center conductors (m ohm)	33.0	49.0	97.0	46.0	68.5	136.0
Capacitance between outer and center conductors (pF)	100.0	150.0	300.0			
Capacitance between two center conductors (pF)				105.0	157.5	315.0
Inductance between two center conductors (μH)	0.41	0.62	1.23	0.77	1.16	2.31
Insulation resistance (M ohms/km)	40					
Jacket	Grayish brown PVC, 7.5 mm dia					

Model No.	Cable length	Type of plug	Cables of set
SL-10	1.0 m	Phonoplug	2
SL-15	1.5 m	Phonoplug	2
SL-30	3.0 m	Phonoplug	2

Model No.	Cable length	Type of plug	Cables of set
SLC-10	1.0 m	3-P XLR connector	2
SLC-15	1.5 m	3-P XLR connector	2
SLC-30	3.0 m	3-P XLR connector	2

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