

Cable capers

PSI high performance audiophile grade cable

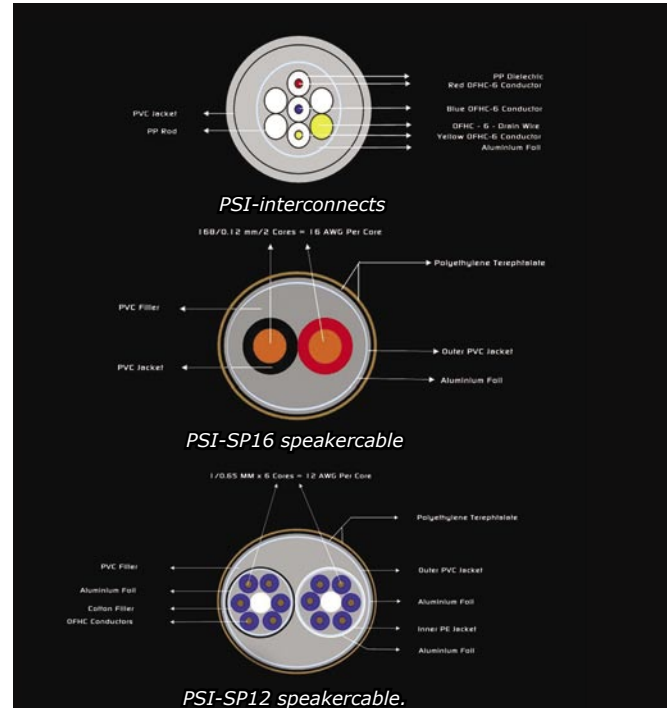
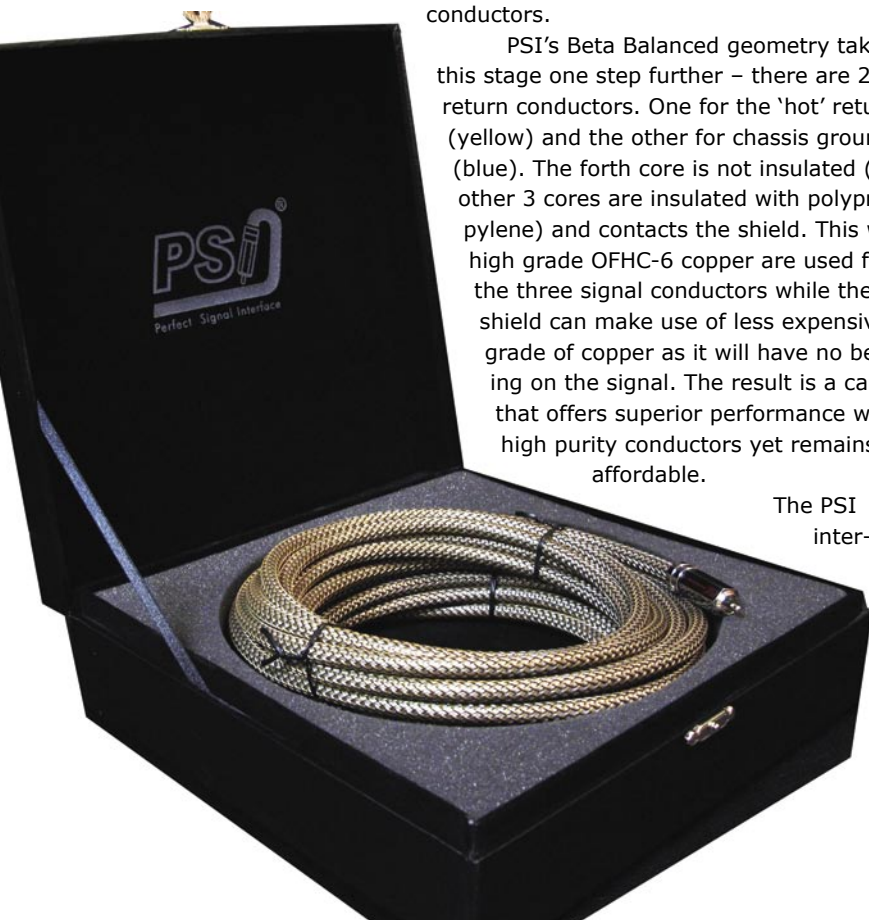
Performance ICE enthusiasts should take a closer look at PSI cables from the UK. Designed ground up for mobile audio applications, PSI employs 'Beta balanced geometry' for improve noise rejection, low capacitance, better shielding and phase coherency.

For many years, balanced RCA cable configuration has been popular with high-end home audio applications. In car audio balanced is practically unheard of, till now. In normal RCA interconnects, the cable is usually a coaxial design – the center core transmit the signal while the shield that wraps around the signal core is the return. In an environment where RFI (radio frequencies interference) is low, like in a home audio system, this design will not usually pick up interference. Even then, audio grade cables are no longer using this configuration except for the lowest grade of interconnects – eg the free cable that comes with your CD player.

The proliferation of electronics in a car inevitably increases the amount of electronic interference. As a result, with normal core plus shield interconnects, the shield picks up an inordinate amount of electronic gunk, distorting the signal. With a balanced cable design, instead of using the shield for the signal return, a second core is wound together with the signal core and act as the return. So the two cores, a signal and the signal return is then shielded by the braid. The shield is connected to one end of the return and floated, i.e. not connected, at the other end. This way, the shield can be grounded while the return signal does not pass through the shield. This way, there can be symmetry of the cable design for the signal and return with the shield doing what it was designed for in the first place – to shield the signal from interference. This is the basis of a 'balanced' cable design – one where the signal and return uses identical conductors.

PSI's Beta Balanced geometry takes this stage one step further – there are 2 return conductors. One for the 'hot' return (yellow) and the other for chassis ground (blue). The forth core is not insulated (the other 3 cores are insulated with polypropylene) and contacts the shield. This way, high grade OFHC-6 copper are used for the three signal conductors while the shield can make use of less expensive grade of copper as it will have no bearing on the signal. The result is a cable that offers superior performance with high purity conductors yet remains affordable.

The PSI inter-



connects also recognizes the importance of the dielectric – the insulation that wraps around the signal conductors. The best dielectric is air and as such, the design of the conductor uses a loose polypropylene jacket, which allows air to enter and act as the dielectric.

The speaker cables also employs Beta Balanced Geometry design. Solid core speaker cables have been a common cable design for home audio but as for car audio, it can be a little impractical. The use of solid core conductors could mean the sacrifice of cable flexibility, an important consideration for in-car installation. However the benefit of solid core is something not to be sneezed at - it does make a very big difference. If you want a superior speaker cable, PSI-SP12, a 12-gauge speaker cable is your only option at this moment. Home audio solid core cables with its snake like trunking is even more impractical! SP-12 as the name implies is a 12-gauge conductor each with six individually insulated solid core conductors. There are two layers of shielding offered by the SP12 – a foil that wraps the six cores and another shield for the whole cable ensuring an form of interference is screened off. If flexibility is an absolute must, a more flexible 16 gauge stranded version is available – the SP16.

For more information on PSI cables, please contact Auto Tomorrow @ 6345-3275