

Power Bar

High End Mains Distribution Panels



T+A



The sound quality of a any first-rate Hi-Fi system is determined by several factors: although the equipment itself is crucial, the sound is also affected very strongly by the attendant accessories. The effect of equipment racks and shelves, speaker cables, signal leads, mains leads and - especially - mains distribution panels is very considerable, and is often drastically underestimated. T+A has already developed a range of superior mains leads and distribution panels, and is now proud to introduce the latest generation of High-End distribution panels of the highest possible quality. There are two types: each features two sockets for pre-amplifiers and power amplifiers, and three or five sockets for source devices.

Very high currents can flow in a distribution panel, potentially generating powerful magnetic fields. For this reason T+A Power Bars are made of pure, high-quality aluminium throughout. The main case is produced using a sophisticated extrusion tool, is extremely rugged and torsionally rigid, and provides a stable base for all the sub-assemblies and individual sockets. The end-caps and base plates are machined from solid, using stout aluminium plates up to 10 mm thick. Each Power Bar is mounted on four spikes for accurate positioning, ensuring that the unit is stable and completely de-coupled mechanically.

Sophisticated High-End systems may consist of a vast range of different components, and invariably consume very high currents. This places considerable demands on the domestic mains supply as well as on the method of distributing mains power to the individual machines in the system. Domestic mains power almost always carries severe interference caused by the large number of devices in the household, but high-frequency interference induced in the mains leads from external sources is equally harmful. The third important factor is mutual effects between the individual system components. It is important to shield the Hi-Fi system from all these influences. T+A Power Bars are designed and equipped to suppress and effectively eliminate the various forms of interference. Direct mains-borne interference is eliminated by a ferrite ring filter which can be fitted over the Power Bar's mains connecting lead, and current-compensated common mode chokes on the input circuit board. X and Y capacitors dissipate any interference signals.

The design of the whole system provides effective shielding from induced external HF interference, since the Power Four mains lead features an extra woven shield around the internal conductors and insulators. The shield is connected to the earth conductor at the plug, and is permanently connected to the Power Bar's aluminium case.

The entire case acts as an enclosed Faraday cage. Plastic cases are totally ineffective in terms of shielding, and that is why we use a special, thick-walled aluminium extrusion for this component. It is also absolutely essential to use mains leads with supplementary shielding - such as our Power Three or Power Four - to feed power to the sources.

Nearly all systems comprise several different types of device, such as pre-amplifier, power amplifier, CD player or streamer, i.e. machines with analogue or digital mains power supplies. Even if these machines' internal mains power supplies are shielded, it is inevitable that they will have some effect on the mains distribution panel. For this reason there are sockets for analogue devices and for devices with digital mains power supplies, and we again de-couple each individual source device socket separately by means of supplementary RF ferrite ring filters.

Both Power Bars are equipped with a VDR surge suppressor, which self-destructs if excess voltage occurs ($> 275 \text{ Veff}$), thereby protecting the system. We deliberately omitted a mains switch in order to keep the resistance of the entire distribution panel as low as possible. Light-emitting diodes warn if the mains plug is inserted with incorrect phase, or if the surge protector has been triggered.

All the sockets are wired in a star-type cabling from the central connecting point, ensuring that all devices connected to the panel have the same, clearly defined reference potential.

- 1 Power Four high-performance mains lead with $3 \times 1.5 \text{ mm}^2$ pure copper stranded conductors and silver-plated external woven braid shield. A supplementary ferrite ring can also be fitted.
- 2 Current-compensated common mode chokes effectively shield the input side from all forms of mains-borne interference.
- 3 The sockets for the source devices are de-coupled from each other by separate RF ferrite ring filters.
- 4 The woven braid cable shield is earthed to the aluminium case to provide overall shielding for the entire system.
- 5 Radial wiring from the central input point for the earth wire, outer cable and neutral wire.
- 6 High-strength, torsionally rigid, solid aluminium profiled extrusion. End-caps and base plates machined from the solid.





Power Bar 2+5



Power Bar 2+3

Specification

Nominal current	16 A
Maximum load	3500 W
Surge protection	from 275 V _{eff}
Discharge capacity	2500 A at 20 μs
Mains connecting leads	Power Four 2.0 m (other lengths available)
Finish	Silver-anodised aluminium, 43
LED indicators	Blue = mains phase reversed Red = surge protection triggered none = working normally
Power Bar 2+5	
Dimensions (H x W x L)	9 x 16 x 65 cm / 3.5 x 6.3 x 25.6 inch
Weight	4.3 kg / 9.5 lb
Power Bar 2+3	
Dimensions (H x W x L)	9 x 16 x 53 cm / 3.5 x 6.3 x 20.8 inch
Weight	3.8 kg / 8.4 lb