



TTR 16K-3

TTR 16KD-3

POWER RACK



ATTENTION

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION

WARNING: SHOCK HAZARD – DO NOT OPEN
AVERTISSEMENT : RISQUE D'ÉLECTROCUTION - NE PAS OUVRIR

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK DO NOT
EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE

AVERTISSEMENT : NE PAS EXPOSER CE MATÉRIEL À LA PLUIE OU L'HUMIDITÉ
AFIN DE RÉDUIRE LE RISQUE D'INFLAMMATION OU DE CHOC ÉLECTRIQUE






PROTECTING EARTHING TERMINAL. THE APPARATUS SHOULD BE
CONNECTED TO A MAINS SOCKET WITH A PROTECTIVE EARTH CONNECTION
BY 3 POLE POWER CORD.

PROTECTION PAR MISE À LA TERRE. CET APPAREIL DOIT ÊTRE RACCORDÉ
À UNE PRISE DE COURANT AVEC MISE À LA TERRE PAR UN CORDON
D'ALIMENTATION À 3 BROCHES.

1. SAFETY PRECAUTIONS AND GENERAL INFORMATION

RCF S.p.A. thanks you for purchasing this product, which has been designed to guarantee reliability and high performance.

The symbols used in this document give notice of important operating instructions and warnings which must be strictly followed.

	CAUTION	Important operating instructions: explains hazards that could damage a product, including data loss
	WARNING	Important advice concerning the use of dangerous voltages and the potential risk of electric shock, personal injury or death.
	IMPORTANT NOTES	Helpful and relevant information about the topic
	SUPPORTS, TROLLEYS AND CARTS	Information about the use of supports, trolleys and carts. Reminds to move with extreme caution and never tilt.
	WASTE DISPOSAL	This symbol indicates that this product should not be disposed with your household waste, according to the WEEE directive (2012/19/EU) and your national law.

IMPORTANT NOTES

This manual contains important information about the correct and safe use of the device. Before connecting and using this product, please read this instruction manual carefully and keep it on hand for future reference. The manual is to be considered an integral part of this product and must accompany it when it changes ownership as a reference for correct installation and use as well as for the safety precautions. TT+ Audio will not assume any responsibility for the incorrect installation and / or use of this product.

SAFETY PRECAUTIONS

All the precautions, in particular the safety ones, must be read with special attention, as they provide important information.

- This is a professional product.
 - WARNING** This product is intended for instructed person as defined in IEC 62368-1 3rd Ed.
 - WARNING** Into the product are present sources classified as ES2, including audio signal, as defined IEC 62368-1 3rd Ed.
- This equipment is not suitable for use in locations where children are likely to be present.
 - WARNING** This equipment is not suitable for use in locations where children are likely to be present.
- Power supply from mains.
 - The mains voltage is sufficiently high to involve a risk of electrocution; install and connect this product before plugging it in.
 - Before powering up, make sure that all the connections have been made correctly and the voltage of your mains corresponds to the voltage shown on the rating plate on the unit, if not, please contact your RCF dealer.
 - This is a CLASS I device. The metallic parts of the unit are earthed through the power cable.
 - WARNING** Protective earthing conductor of the equipment to be connected to the installation protective earthing conductor by means of the power cord.
 - Protect the power cable from damage; make sure it is positioned in a way that it cannot be stepped on or crushed by objects.
 - To prevent the risk of electric shock, never open this product: there are no parts inside that the user needs to access.
 - Be careful: in the case of a product supplied by manufacturer only with POWERCON connectors and without a power cord, all power cords and plug assemblies shall be in compliance with the requirements of the IEC 62368-1 and certified and suitable for use in the particular countries where the product shall be installed.
- Make sure that no objects or liquids can get into this product, as this may cause a short circuit. This apparatus shall not be exposed to dripping or splashing. No objects filled with liquid, such as vases, shall be placed on this apparatus. No naked sources (such as lighted candles) should be placed on this apparatus.
- Never attempt to carry out any operations, modifications or repairs that are not expressly described in this manual. Contact your authorized service centre or qualified personnel should any of the following occur:
 - The product does not function (or functions in an anomalous way).
 - The power cable has been damaged.
 - Objects or liquids have got in the unit.
 - The product has been subject to a heavy impact.

- This product does not contain user replaceable fuses. Fuses replacement is a service operation and must be performed by qualified personnel.
- The fuse on the AC mains input may be on the neutral, the AC mains shall be disconnected to de-energize the phase.
- If this product is not used for a long period, disconnect the power cable.
- If this product begins emitting any strange odours or smoke, switch it off immediately and disconnect the power cable.
- Do not connect this product to any equipment or accessories not foreseen. For suspended installation, only use the dedicated anchoring points and do not try to hang this product by using elements that are unsuitable or not specific for this purpose. Also check the suitability of the support surface to which the product is anchored (wall, ceiling, structure, etc.), and the components used for attachment (screw anchors, screws, brackets not supplied by RCF etc.), which must guarantee the security of the system / installation over time, also considering, for example, the mechanical vibrations normally generated by transducers. To prevent the risk of falling equipment, do not stack multiple units of this product unless this possibility is specified in the user manual.
- RCF S.p.A. strongly recommends this product is only installed by professional qualified installers (or specialised firms) who can ensure correct installation and certify it according to the regulations in force. The entire audio system must comply with the current standards and regulations regarding electrical systems.
- Supports, trolleys and carts.
 - The equipment should be only used on supports, trolleys and carts, where necessary, that are recommended by the manufacturer. The equipment / support / trolley / cart assembly must be moved with extreme caution. Sudden stops, excessive pushing force and uneven floors may cause the assembly to overturn. Never tilt the assembly.
- There are numerous mechanical and electrical factors to be considered when installing a professional audio system (in addition to those which are strictly acoustic, such as sound pressure, angles of coverage, frequency response, etc.).
- Hearing loss. Exposure to high sound levels can cause permanent hearing loss. The acoustic pressure level that leads to hearing loss is different from person to person and depends on the duration of exposure. To prevent potentially dangerous exposure to high levels of acoustic pressure, anyone who is exposed to these levels should use adequate protection devices. When a transducer capable of producing high sound levels is being used, it is therefore necessary to wear ear plugs or protective earphones. See the manual technical specifications to know the maximum sound pressure level.



OPERATING PRECAUTIONS


- Place this product far from any heat sources and always ensure an adequate air circulation around it.
- Do not overload this product for a long time.
- Never force the control elements (keys, knobs, etc.).
- Do not use solvents, alcohol, benzene or other volatile substances for cleaning the external parts of this product.


IMPORTANT NOTES


To prevent the occurrence of noise on line signal cables, use screened cables only and avoid putting them close to:

- Equipment that produces high-intensity electromagnetic fields
- Power cables
- Loudspeaker lines

  **WARNING! CAUTION! To prevent the risk of fire or electric shock, never expose this product to rain or humidity.**

 **WARNING! to reduce the risk of electric shock, do not disassemble this product unless you are qualified. Refer servicing to qualified service personnel.**

 **CAUTION: The product must be protected by an external 40A circuit breaker.**

 **CAUTION: To completely disconnect the product from the AC power supply, you must disconnect the plug. The plug in the installation must be easily accessible.**

CORRECT DISPOSAL OF THIS PRODUCT



This product should be handed over to an authorized collection site for recycling waste electrical and electronic equipment (EEE). Improper handling of this type of waste could have a possible negative impact on the environment and human health due to potentially hazardous substances

that are generally associated with EEE. At the same time, your cooperation in the correct disposal of this product will contribute to the effective usage of natural resources. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, waste authority or your household waste disposal service.

CARE AND MAINTENANCE

To ensure a long-life service, this product should be used following these advices:

- **If the product is intended to be set up outdoors, be sure it is under cover and protected to rain and moisture.**
- **Always use a dry cloth to clean the exterior surfaces of the speaker and always do it when the power is turned off.**



CAUTION: to avoid damaging the exterior finishes do not use cleaning solvents or abrasives.

2. DESCRIPTION

TTR 16K Rack is a rugged flight case on wheels, designed to house the essential electronics required to power TT+ GTX and GTS line array and subwoofer systems. The 11U Rack features an internal suspended cage, sliding doors, four pivoting wheels, and two handles on each side for enhanced mobility and accessibility. Designed for touring and installed sound applications, this rack ensures secure equipment mounting, efficient cable management, and easy transport in demanding professional audio environments.

It includes three **XPS 16K** or **XPS 16KD** (Dante version) power amplifiers, a **PD 32A EU** power distributor for the EU version or a **PD 30A US** for the US version, and an **SD 6/4** input box for efficient signal management.

All components are pre-wired for immediate “plug and play” operation, ensuring a streamlined setup and reliable performance in demanding audio environments.

For further details, please refer to the user manuals of the specified devices.

XPS 16 K

XPS 16K (**XPS 16KD** as its Dante version) is a four-channel power amplifier designed for touring and installed sound systems, featuring advanced processing and flexible routing with AES/EBU, digital, and analog I/O. Delivering 4 × 4000 W Class D continuous power at 2.7 ohms, it combines 40-bit floating-point processing at 96 kHz with 32-bit internal routing, packing extreme power density into a compact 2U chassis.

Optimized for high-performance speakers, the XPS 16KD offers ready-to-use configurations and presets while also supporting linear mode with advanced tuning capabilities.

Each output channel includes:

- Up to 4000 ms delay (equivalent to 1372 m / 4501 ft)
- Comprehensive EQ filters
- Crossover and FIR filter options
- Multiband compressor
- RMS and thermal limiters

The XPS series delivers rider-friendly, premium sound with full RNet remote management, an intuitive large touchscreen interface, an exceptional signal-to-noise ratio, ultra-low distortion, and an extreme dynamic range.

PD 32A EU

PD 32A EU is an AC power distribution unit designed to supply power to three XPS 16K amplifiers and auxiliary services within a 2U rackmount chassis.

KEY FEATURES

- Power Input: Connected via a 1.5m power cord with a 32A CEE 5-pin plug.
- Power Link Output: Includes a 32A CEE 5-pin socket for linking power to a second rack when operating at 230V.

Front Panel:

- One AUX Schuko power outlet for additional devices.
- Three P-COM 8 connectors for amplifiers outputs distribution to speaker groups.

Back Panel:

- Two powerCON AUX inlets for additional auxiliary power connections.

Designed for touring and installed sound applications, the PD 32A ensures reliable and efficient power distribution within professional audio systems.

PD 30A US

PD 30A US is an AC power distribution unit designed to supply power to three XPS 16K amplifiers within a 19” rack, while also providing auxiliary power outputs.

KEY FEATURES

Construction:

- 2U rackmount chassis, 370mm deep, made of 1.5mm sheet metal.

Power Input:

- Powered by a 1.5m cord with a 30A five-pole NEMA L21-30P plug.
- Supports both 120V N-L and 208V L-L power configurations.

Amplifier Power Distribution:

2. DESCRIPTION

- Each XPS 16K amplifier is protected by an individual 30A breaker.
- Outputs terminate in Neutrik NAC3FC-HC connectors.
- The three power sends have different lengths for optimized rack wiring.

Auxiliary Power Outputs:

- Front auxiliary (AUX 1): A double NEMA 5-15 socket, protected by a 20A breaker.
- Rear auxiliaries (AUX 2 & AUX 3): Two Neutrik PowerCON NAC3MPB connectors, each fused and powered from phases Y and Z.

Additional Features:

- Three neon indicators display phase presence.
- Six NL4 Speakon cables optimize internal rack wiring, connecting the amplifier outputs to three P-COM 8 connectors on the front panel

SD 6/4

SD 6/4 is an input signal distribution box designed to manage and route audio signals efficiently within a professional sound system.

KEY FEATURES

Signal Inputs:

- Accepts input signals from either an S-COM 19 connector or six female XLR connectors located on the front panel.

Signal Distribution:

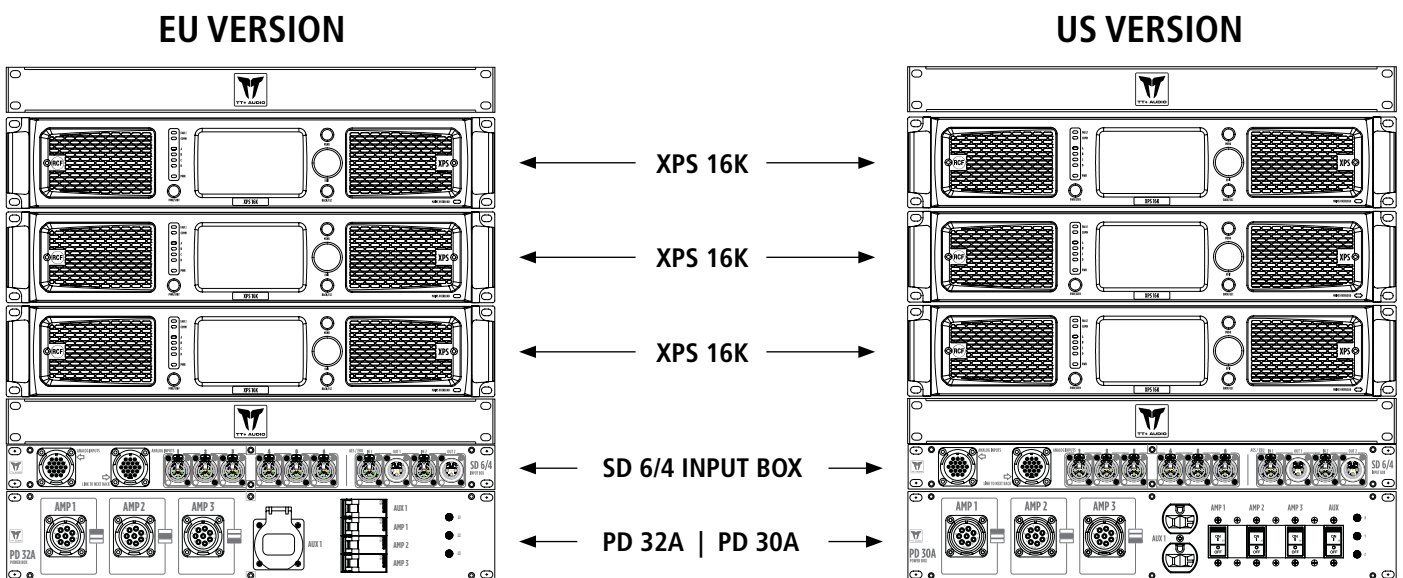
- Routes signals to ten male XLR connectors on the back panel.
- Inputs 1 and 2 are each paralleled to three XLR connectors on the back panel for flexible signal routing.

AES/EBU Connectivity:

- Features four AES/EBU IN/OUT connectors, which are directly linked to the back panel for seamless digital signal transmission.

The SD 6/4 ensures clean, organized, and reliable signal distribution, making it a key component in touring and installed audio systems.

For further details, please refer to the user manuals of the specified devices.



WARNING! CAUTION! Connections should be only made by qualified and experienced personnel having the technical know-how or enough specific instructions (to ensure that connections are made correctly) in order to prevent any electrical danger.

To prevent any risk of electric shock, do not connect the system when the amplifiers are switched on.

Before turning the system on, check all connections and make sure there are no accidental short circuits.

The entire sound system shall be designed and installed in compliance with the current local laws and regulations regarding electrical systems.

TTR RACK DIMENSION

