

# KPAK2600 Technical Data Sheet

## Introduction

K-PAK2600 is a three-way, active control and amplification unit specifically designed for the K-RIG Groundstack loudspeaker system. It houses all signal processing and three individual amplifiers in a road-rugged enclosure with built in cable storage compartment with suspension system and passive heat sink along with two demand-sensitive fans for added reliability.

## Features

- 3-way, 2300W Control and Amplification system for use specifically with KT2.0 and KT2.15 speaker cabinets
- High Frequency, 200W, Class AB, push-pull, low intermodulation amplifier with transformer balanced outputs
- Mid frequency, 500W, Class AB, high efficiency, switch mode, low intermodulation design amplifier
- Subwoofer, 1600W, high efficiency, current enhancing, switching amplifier
- Complete, on board speaker management system including equalization, time alignment, crossover filters, amplifier overdrive protection, harmonics and output level controls
- AC soft start circuitry with ON/OFF AC breaker switch provides thorough power protection
- Passive heat dissipation design with demand-sensitive forced cooling back-up system
- Removable front cover provides storage of all AC and speaker cables
- Bass Character- Attack or extension switch alters the low frequency character
- Includes all speaker cables for a single stack K-RIG system



## Application

Specifically designed as the amplification and control elements for the K-RIG loudspeaker systems

- Portable PA
- Dance clubs
- Reproduced music

### High Frequency Amplifier Specification

Type	Class AB, Push Pull, Low IM Design, Transformer Balanced Output
Rated Continuous Power	200W
Distortion	<0.05%
Operating Bandwidth	1.4kHz to 20kHz

### Mid Frequency Amplifier Specification

Type	High efficiency, Current-Enhancing, Switched-Rail Amplifier
Rated Continuous Power	500W
Distortion	<0.05%
Operating Bandwidth	180Hz to 1.4kHz

### Low Frequency Amplifier Specification

Type	High efficiency, Low Frequency, Current-enhancing Switch Mode
Rated Continuous Power	1800W
Distortion	<0.05%
Operating Bandwidth	20Hz to 200Hz

### Signal Input

Input Sensitivity	1V RMS
Input Impedance	20k $\Omega$ (balanced)

### Speaker Output

Speaker Output	Speakon 8pin (Mid/Hi), 4pin (Sub)
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### Power

Power Connector	Neutrik PowerCon®
Operating Voltage	100 to 120V@60Hz   205 to 240V@50Hz   225 to 260V@50Hz
Recommended Amperage	20A 115V   10A 230V   10A 250V

### Physical Dimensions

Height	719 mm (28.30")
Width	478 mm (18.81")
Depth	305 mm (12.00")
Weight	38 kg (83.78lbs)

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## Architectural Specifications

The power amplification and control system shall contain three amplifiers, crossover filters, equalization circuits and protection circuits. It shall have solid-state circuitry, using complementary silicon semiconductors. The amplifier shall operate from 50-60 Hz AC power, with voltages 115, 230, or 250 Vac. The amplifier shall contain three independent channels. Each channel shall have independent protective circuitry against short circuit. A muting circuit shall provide muting after turn-on, and shall mute after turn-off or loss of power, to protect the load against turn-on or turn-off thumps. Self-resetting thermal shutdown shall protect the circuitry against overheating and a front panel resettable circuit breaker shall protect against AC overloads.

Each channel of the amplifier shall typically be capable of meeting the following performance criteria, with all channels driven simultaneously, unless otherwise stated: Bass Channel Output power 1800 watts rms @ 4 ohms with an operating Range 20 Hz to 200Hz, Mid Channel Output power 600 watts @ 4 ohms with an operating range 180 Hz to 1.4 kHz, High Frequency Channel Output 200 watts @ 8 ohms with an operating range 1.4kHz - 20kHz . All channels shall produce less than < 0.05% distortion when driven at the rated power levels. The input sensitivity for shall be 1 Vrms. Input impedance shall be 20 kilo ohms balanced. The amplifier shall have built-in fan cooling, with automatic operation to provide airflow over convection heat sink when the units operating temperature reaches 50°C. The amplifier shall have the following controls, indicators, and connectors: high frequency and low frequency level control, bass character switch, harmonics level control and output level, balanced XLR input and XLR output through connector. It shall have LED indicators that show power present, signal present, mid-high limit and thermal overload. It will have a NL8 Speakon for the Mid/High speaker outputs and a NL4 Speakon for the low speaker output. In addition, the chassis shall feature a front mounted AC switch and circuit breaker and a Neutrik PowerCon connector for connecting AC cable.

The amplifier shall be housed in its own custom built roadcase, 719 mm high, 478 mm wide and 305 mm deep with a detachable cover that can provide storage for speaker and AC cables. Weight shall be 38 kgs.

## Dimensional Drawings

