



Key Features

- Precision circuits engineered for the PS15-R2/RS15 systems permit increased sound pressure and operational reliability.
- Servo controlled VCEQs provide precise dynamic control without spectral imbalance.
- Two inputs and three outputs enable a single PS15 TDController-R2 to manage multiple PS15-R2 and RS15 products.
- User configurable for passive or active (bi-amp) operation of the PS15-R2 Loudspeaker.
- Comprehensive indicators and controls.

The PS15 TDController-R2 is an advanced analogue processor that allows the PS15-R2 Loudspeaker and optional RS15 Subwoofer to achieve exceptional performance from such compact packages. The PS15 TDController-R2 provides crossover, sensed amplifier control and system equalisation optimised for the PS15-R2 and RS15.

The PS15 TDController-R2 also features user-selectable passive or active (bi-amp) operation of the PS15-R2 Loudspeaker. One PS15 TDController-R2 has two inputs and three outputs, including summed sub out, minimising installation cost and complexity.

Like all NEXO processors, the PS15 TDController-R2 provides precision dynamic, voice coil temperature and diaphragm displacement protection through the use of selective Voltage Controlled Equalisers (VCEQs), reducing levels only at frequencies when and where necessary.



NEXO is one of the world's leading sound reinforcement loudspeaker manufacturers. Founded in 1979, the company is dedicated to crafting practical solutions with solid engineering. Each new design begins with a proprietary sophisticated computer simulation process that allows every parameter to be extensively modeled and simulated, leading to breakthrough cost and performance gains. NEXO's comprehensive product line includes loudspeakers, analogue and digital control electronics and amplification; all designed to deliver consistent sound quality and long term reliability for a broad range of applications.

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PS15 TDCONTROLLER-R2 PRODUCT FEATURES

Audio Inputs	Two L&R Audio inputs. Electronically balanced, 50kOhm. Two XLR-3F connectors.
Sense Inputs	Three Amplifier Sense Inputs, 180 kOhm. 6 Pole Removable Strip Terminal. Passive Mode, PS15-R2 L&R, RS15. Active Mode, PS15-2 LF and HF, RS15.
Audio Outputs	Three audio outputs. Electronically balanced, 50 Ohm. Three XLR-3M connectors. Passive Mode, two PS15-R2 L&R, one Mono (L+R) RS15. Active Mode, one PS15-R2 LF, one PS15-R2 HF, one Mono (L+R) RS15.
Controls	Front panel: Overlap/Crossover switch, Two Bass EQ trimmers (+/- 3 dB), Three Peak Limiter Adjust trimmers. Three Gain trimmers (+/- 6dB). Back panel: Gain switch (back panel), 3 positions for Amps with Gain : -6 / 0 / +6 dB. Internal: Active/Passive Mode switch. Three Protection trimmers.
Indicators	Speaker Protect LEDs. Amp Sense & Peak LEDs. Active Mode LED. Power ON LED.
Dimensions	1U 19" Rack. 190mm (7.5") Depth.
Weight	2.9kg (6.6 lbs) net.

SYSTEM SPECIFICATIONS PS15 TDCONTROLLER-R2

Input Level	+28dBm max into 600 Ohms.
Output Level	+22dBm.
Noise	-88 dBm (22 Hz - 22 kHz, UnWeighted).
THD+N	< 0.03% Typ. 0.05 Max for +18dBm Output.
Power Supply	110/220 Volts (External Rear Panel Switch), 50/60Hz. Earth-Lift (back panel).

SYSTEM OPERATION

Applicable Products	The PS15 TDController-R2 is precisely matched to the PS15-R2 & RS15 cabinets and includes sophisticated protection systems. Use of either product without a properly-connected Controller will result in poor sound quality and may damage the components.
Sub-bass	Active two-way operation of the PS15 Loudspeaker in passive mode or three-way operation in active mode with the RS15 Subwoofer is included in the PS15TDController-R2.

SHIPPING & ORDERING

Packaging	PS15 TDController-R2 is packaged as a single product.
Shipping Weight & Volume	4 kg (8.8 lbs) / 0.011 cubic metres.

As part of a policy of continual improvement, NEXO reserves the right to change specifications without notice. E&OE September 2009.

Architectural and Engineering Specifications

The 1RU PS15 TDcontroller R2 shall be configurable from a combination of 2x inputs and 3x outputs with each output providing crossover, parametric EQ, and mid-filter limiters for NEXO PS15-R2 products. The unit shall have electronically balanced analogue inputs and outputs. Each input must provide LF shelving filter to compensate ground or stacking effects, ± 6 dB LEVEL TRIM controls for each output must be independent and directly accessible through front-panel potentiometers. All crossover, protection parameters, and EQ are factory optimized and can't be user-accessed. The controller must model the loudspeakers in real time and this modeling shall include loudspeaker temperature and displacement. Protection shall be selective, acoustically transparent and not allow PS15-R2 loudspeakers to exceed speaker-dependent thresholds. The controller shall have 3x inputs providing feedback from amplifier output to allow real time protections on real voltage. The device shall change between passive and active switching through internal jumper connections. Maximum input shall be 22dBu with CMRR 90dB@1kHz and THD+N 0.05%@1kHz at +18dBm output. A 3-position, rear panel gain control switch shall be adjustable between -6/0/+6dB. The Output Section shall display +28/+22/+16dBm into 600 Ω load with Rear Panel switch on +6/0/-6dB (respectively). LEDs shall indicate status for; Power ON (green), Amp-Sense & Peak LED's (green/Red), Temperature & Displacement (yellow) and RS15 (VLF) displacement protection (also yellow). The unit shall have the following front panel controls: Overlap/Crossover Switch; 2x Bass EQ trimmers; 3x Peak Limiter Adjust trimmers; 3x Gain trimmers, and the following LED indicators: Power On; Active Mode; Amp-Sense; Amp Peak; Speaker Protect. The unit's rear panel shall have the following controls: 3-position Amp Gain switch; Active/Passive mode switch; 3x Protection trimmers; Earth Lift. The 1RU device shall weigh 3.3kg(7.3lbs), be steel-constructed, with a blue paint finish and exterior dimensions of 483mmW, 44mmH and 210mmD (19" x 1.75" x 8.5"). Input power shall be 110/220VAC, 50-60Hz. The analog loudspeaker management controller shall be the NEXO PS15 TDcontroller R2. The unit shall be UL approved and comply with electrical international standard (CB scheme) based upon the European standard EN60065. The unit shall fulfill the electromagnetic requirement of the harmonized standards EN55013, EN55020 and of the requirement of the FCC PART 15 CLASS B regulation. Other analog loudspeaker management controllers shall be acceptable, provided independent laboratory test results verify these specifications are equaled or exceeded.

LIMITED WARRANTY

NEXO loudspeakers and electronics are covered against defects in workmanship or materials for a period of two (2) years from the original date of purchase. At the option of NEXO the defective item will be repaired/replaced with no charge for materials/labour. The item is to be adequately packaged and dispatched, pre-paid, to a NEXO authorised distributor/service centre. Unauthorised repair shall void the warranty. The NEXO warranty does not cover cosmetics or finish and does not apply to any items which in NEXO's opinion have failed due to used abuse, accidents, modifications or any type of misuse. All images and text herein are the property of NEXO SA, and deemed accurate, although specifications are subject to change without notice.