



ZR Series Amplifiers

features

- High efficiency Digital Power Processing™ amplifier**
- 2 ohm stable operation
- Variable speed ultra-quiet fan cooling
- LED level display, per channel, including signal present and clip indicators
- LED status display, per channel: Ready, Protect and Thermal Overload
- Standby LED indicates the amplifier is in 'standby' mode
- Level control defeat can be accessed from front panel
- Switched 40Hz/80Hz (12dB/octave cut) high-pass filters
- Switched (soft knee) clip limiters
- Individual ground lifts for each channel input
- Power switch, 3 positions: ON, OFF, Standby/Squencing
- Terminals for remote power sequencing (on/off)
- Input via Neutrik Combo® connectors
- Speaker outputs via 3 Neutrik Speakon® connectors and 5-way binding posts (ZR1000 and ZR1600 only)
- AC line cord (Detachable IEC Type)

OPTIONAL ACCESSORIES: ZR1000/ZR1600 ONLY

- Four input line/mic mixer module with zone assignment
- Single and dual zone paging modules with variable ducking and zone assignments
- Expanded mic / line level input module
- DSP control of 28 band graphic EQ, 5 band parametric EQ, variable high & low pass filters, crossover, adjustable limiting and adjustable delay via iON Media DSP tools module



power ratings (RMS)

1kHz <1% THD+N – BOTH CHANNELS DRIVEN

ZR500		ZR1000		ZR1600	
500 watts (bridged)	4	1000 watts (bridged)	4	1600 watts (bridged)	4
380 watts (bridged)	8	875 watts (bridged)	8	1270 watts (bridged)	8
250 watts x 2	2	500 watts x 2	2	800 watts x 2	2
190 watts x 2	4	435 watts x 2	4	660 watts x 2	4
120 watts x 2	8	260 watts x 2	8	400 watts x 2	8

20Hz to 20kHz <0.5% THD+N – BOTH CHANNELS DRIVEN

400 watts (bridged)	4	550 watts (bridged)	4	600 watts (bridged)	4
300 watts (bridged)	8	700 watts (bridged)	8	1200 watts (bridged)	8
200 watts x 2	2	275 watts x 2	2	300 watts x 2	2
150 watts x 2	4	300 watts x 2	4	600 watts x 2	4
95 watts x 2	8	225 watts x 2	8	350 watts x 2	8

Amplifiers

ZR500
ZR1000
ZR1600

ZR Series Amplifiers

specifications

PERFORMANCE:

THD + N:	referenced to 4 ohm rated power (117 VAC line voltage) <0.06% at -10dB referenced to rated power (4 ohm), 1kHz <0.2% at 1/8 rated power (4 ohm), 20-20kHz, 20kHz BW <0.5% at rated power (4 ohm), 20-20kHz, 20kHz BW <0.15% at rated power (4 ohm), 1kHz <0.05% at rated power (4 ohm)
IMD (DIM30 Method):	<0.05% at rated power (4 ohm)
IMD (SMPTE/DIN Method):	<0.2%, 60Hz/7kHz, 4:1, 35Vpeak at 4 ohm
Dynamic Headroom:	1.5dB above rated power
Power Bandwidth:	20 Hz to 20 kHz at 4 ohm and 8 ohm loads
Frequency Response:	20 Hz to 20 kHz +0dB/ -1dB
Signal to Noise:	100dB A-Weighted referenced to rated power (4 ohm), 20kHz BW
Crosstalk:	-70dB, 1kHz referenced to rated power (4 ohm)
CMRR:	>75dB at 1kHz
Sensitivity for rated power:	0.316Vrms
(Variable settings via jumper)	0.775Vrms 1.23Vrms; factory preset 2.45Vrms
Input Impedance:	50k balanced
Input Overload:	20dBu
Protection:	Thermal, Short Circuit, Over-Current & Over-Voltage, Self-Resetting
Stability:	Unconditionally stable into reactive loads
Duty Cycle:	Continuous operation at 1/3 rated power, 40°C/104°F
MTBF (warranted):	43,824 Hours

POWER REQUIREMENTS:

Mains Voltage (output power rated at nominal voltage):
 100vac, (50-60Hz) ±10%
 117vac, 60Hz ±10%
 234vac, 50Hz ±10%
 Mains Power Consumption Ratings
 Maximum Consumption@ rated power

1kHz sine wave, 4 ohm tap:	ZR500	ZR1000	ZR1600
117vac (60Hz)	440W / 4.8A	950W/10.6A	1.53kW/17.8A
234vac (50Hz)	442W / 2.4A	938W/5.35A	1.48kW/9.09A

OVERALL EFFICIENCY: at 1kHz sine wave 117 VAC

ZR500	ZR1000	
8 ohms stereo, 1/3 Power (63.4 Watts total):	60% Efficient	8 ohms stereo, 1/3 Power (150 Watts total):
4 ohms stereo, 1/3 Power (100 Watts total):	57% Efficient	4 ohms stereo, 1/3 Power (234 Watts total):
8 ohms stereo, Full Power (190 Watts total):	73% Efficient	8 ohms stereo, Full Power (450 Watts total):
4 ohms stereo, Full Power (300 Watts total):	68% Efficient	4 ohms stereo, Full Power (700 Watts total):
4 ohms bridged-mono (500 Watts total):	60% Efficient	4 ohms bridged-mono (1000 Watts total):
ZR1600		
8 ohms stereo, 1/3 Power (200 Watts total):	71% Efficient	
4 ohms stereo, 1/3 Power (400 Watts total):	70% Efficient	
8 ohms stereo, Full Power (600 Watts total):	81% Efficient	
4 ohms stereo, Full Power (1200 Watts total):	78% Efficient	
4 ohms bridged-mono (1600 Watts total):	67% Efficient	

REGULATORY COMPLIANCE:

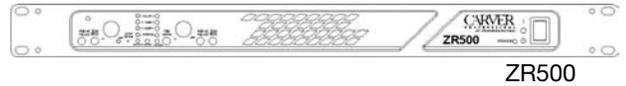
ETL/C Mark to: UL6550, 2nd Edition
 Pending CE Certification to: EN55103-1 & EN55103-2

PHYSICAL:

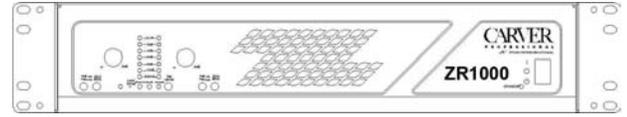
Cooling Method: Variable speed ultra-quiet fan cooling
 Operating Environment: -10 degrees C to 40 degrees C, up to 85% RH
 Storage Environment: - 40 degrees C to 70 degrees C, up to 93% RH

Dimensions & Weight:

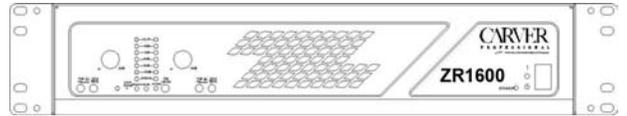
ZR500	
1.7" H (1U) x 19.0" W x 17.25" D	Net Weight: 19lbs / 8.16kg
44mm x 483mm x 438mm	Shipping Weight: 27lbs. / 12.25kg
ZR1000	
3.5" H (2U) x 19.0" W x 17.25" D	Net Weight: 24lbs / 10.88kg
89mm x 483mm x 438mm	Shipping Weight: 32lbs. / 14.51kg
ZR1600	
3.5" H (2U) x 19.0" W x 17.25" D	Net Weight: 29lbs / 13.15kg
89mm x 483mm x 438mm	Shipping Weight: 37lbs. / 16.8kg



ZR500



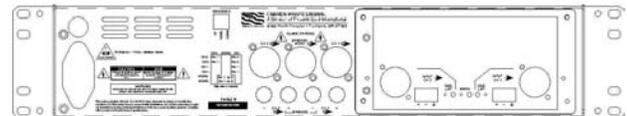
ZR1000



ZR1600

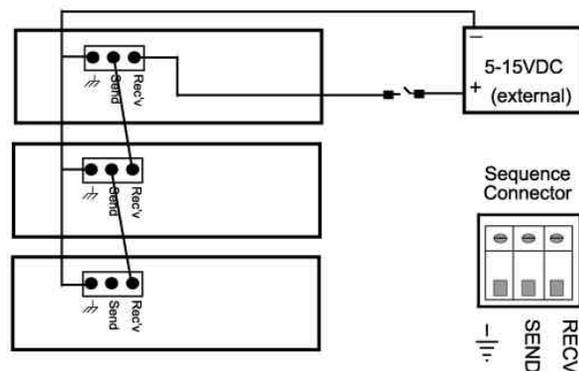


back - ZR500



back - ZR1000/ZR1600

REMOTE POWER SEQUENCING DIAGRAM



Carver Professional
 9300 North Decatur • Portland, OR 97203
 tel: 503.286.9300 • fax: 503.978.3302
 email: carverpro@phoenixgold.com
 www.carverpro.com



* 180 Day Performance Guarantee is available in the United States only.
 **Digital Power Processing™ is a registered trademark of TriPath Technologies