

PT 1800

## FEATURES

- features
  - Lightweight- 46 lbs.
  - Fully modular dual monaural design (from power switch to AC line cord).
  - High efficiency (50% input to output).
  - Positive locking detachable dual AC line cords.
  - Compact - only 12.75" deep.
  - Rugged, quiet, 100 CFM thermally controlled cooling system.
  - Compression circuit for long term excessive high frequency signals.
  - Remote sequential power on/off feature.
  - Clipping eliminator circuit.
  - Protection Features:
    - Short circuit
    - Excessive high frequency
- Thermal
- Clipping eliminator
- DC offset
- Soft start/Input mute
- Separate L/R AC line fuses
- Controls
  - Dual power switches
  - Dual sequence switches
  - Dual 11 detent level controls
  - XLR phasing switch
  - Series mono switch
  - Dual mono switch
  - Clipping eliminator switch
  - Ground lift
- CSA, CE approved

## SPECIFICATIONS

<b>Power Output:</b>		<b>CMRR:</b>	>70db @ 1kHz
Both channels: driven (20Hz-20kHz)		<b>Maximum Current Draw:</b>	
8 ohm/ch.	600 watts		30 A (4Ω
4 ohm/ch.	900 watts		rated power)
2 ohm/ch.	1100 watt	<b>Display:</b>	7 LED indicators per
Power Output: Series mono operation			channel, 1 green on,
(20Hz-20kHz)			5 yellow signal, 1 red
8 ohm	1800 watts		clip/protect
4 ohm	2200 watts	<b>Cooling:</b>	Rear to front w/100
<b>Signal to Noise Ratio:</b>			CFM maximum
	>100dB	<b>Connections-</b>	
	(from rated power	<b>Input:</b>	XLR, barrier strip
	@ 4Ω/A weighted)	<b>Output:</b>	5 way binding posts,
<b>Frequency Response:</b>			2 sets/channel
	20Hz to 20kHz	<b>Size (HxWxD):</b>	5.25" (3u) x 19" x
	±0.5dB		12.75" (133mm x
<b>Channel Separation:</b>	>55db @ 1kHz		483mm x 324mm)
<b>Slew Rate:</b>	25V/μs	<b>Net Weight:</b>	46lbs. (20.9 Kgs.)
<b>THD:</b>	4Ω 20-20kHz	<b>Shipping Wt.:</b>	55lbs. (25 Kgs.)
	(at 900W) < 0.5%		
<b>IM Distortion:</b>	<0.1%		
<b>Damping Factor:</b>	>200 @ 1kHz		
<b>Sensitivity:</b>	1.5 V rms		
<b>Gain:</b>	32dB		
<b>Input Impedance:</b>	15 Kilohms		
	Unbalanced		
	30 Kilohms		
	Balanced		

Due to ongoing research and development, all specifications and features effective 4/96 are subject to change without notice.

# Crest Pro 9200

Power Specifications	8Ω stereo*	4Ω stereo*	2Ω stereo*	8Ω bridged**	4Ω bridged**
<b>9200</b>	1,300 W	2,200 W	3,250 W	4,400 W	6,500 W
<b>8200</b>	825 W	1,450 W	2,250 W	2,900 W	4,500 W
<b>7200</b>	590 W	1,000 W	1,650 W	2,000 W	3,300 W
<b>5200</b>	290 W	525 W	850 W	1,050 W	1,700 W

8Ω, 4Ω Stereo and 8Ω Bridged Mono Power ratings @ 1 kHz, <.05% THD+N both channels driven. 2Ω stereo and 4Ω Bridged Mono Power ratings @ 1kHz, <. 1% THD+N

## FEATURE OVERVIEW:

- Dramatically reduced net weight
- Latest generation of high speed, wide-bandwidth output devices
- Dual, variable speed fans
- Balanced XLR inputs
- Speakon® and 5-way binding post speaker outputs
- Mode selector switch for stereo, parallel and bridged-mono operation
- Input sensitivity selection
- Recessed, stepped attenuators
- Front panel circuit - breaker switch
- Five year warranty\*

## TOURCLASS/PROTECTION CIRCUITS

**ACL™ (Active Clip Limiting)** prevents speaker damage by providing gentle gain reduction when the signal approaches the clipping threshold.

**IGM™ (Instantaneous Gain Modulation)** monitors speaker loads to detect conditions that may overstress output devices. This allows safe operation into nominal 2Ω speaker loads.

**AUTORAMP™** gradually increases gain to the attenuator level settings when the amplifier is turned on. This prevents abrupt turn-on level.

**Other protection features include:** short circuit, DC voltage, comprehensive thermal management and current in-rush turn-on/off; transient sub-sonic input.

## DESCRIPTION

Crest Audio Pro 200 Series amplifiers are designed to achieve unsurpassed sonic performance and long-term reliability under extreme stress in touring or fixed installation applications.

Absolute sonic accuracy is the hallmark of every Crest amplifier. Bass is solid and defined to the limits of audibility with ample current reserves. Wide-bandwidth output devices ensure detailed, transparent high frequency response. And, thanks to Crest's exclusive IGM™ circuit, the Pro 200 Series will drive 2Ω loads safely without compromising performance.

# Product Specifications

## Pro 200™ Series

		5200	7200	8200	9200
Stereo Power:	8Ω	290 W	590 W	825 W	1,300 W
	4Ω	525 W	1,000 W	1,450 W	2,200 W
	2Ω	850 W	1,650 W	2,250 W	3,250 W
Bridged Mono Power:	8Ω	1,050 W	2,000 W	2,900 W	4,400 W
	4Ω	1,700 W	3,300 W	4,500 W	6,500 W
Output Voltage RMS		52 V	75 V	90 V	113 V
8Ω and 4Ω Stereo Power ratings @ 1kHz, <0.05% THD+N both channels driven 2Ω stereo & 4Ω Bridged Mono Power ratings @ 1 kHz, <0.1%THD+N					
Frequency Response:	10 Hz – 100 kHz; +0, -2 dB at 1 watt				
Power Bandwidth:	10 Hz – 35 kHz; +0, -2 dB at rated 4Ω power				
Damping factor:	>300:1 8Ω @ 20 Hz to 1kHz				
Input CMRR:	> -85 dB @ 1kHz				
Gain:	selectable between x40 (32 dB) and x20 (26 dB)				
Input Sensitivity (x40) 4Ω rated power +/-3%:		1.12 V	1.58 V	1.87 V	2.35 V
Input Impedance	15kΩ Balanced				
Hum and Noise A-weighted @ 8Ω rated power		>-110 dB	>-110 dB	>-110 dB	>-113 dB
Crosstalk 1kHz @ 8Ω rated power		>-65 dB	>-70 dB	>-70 dB	>-70 dB
Class		A/B	H	H	H
Power Supply	Switched Mode				
Current Draw @ 120 VAC					
1/8 power	4Ω	875 W 7.3 A	875 W 7.3 A	1,250 W 10.5 A	2,200 W 18.4 A
	2Ω	1,380 W 11.5 A	1,400 W 11.7 A	1,875 W 15.7 A	3,350 W 27.9 A
1/3 power	4Ω	1,310 W 10.9 A	2,500 W 20.8 A	3,050 W 25.4 A	5,000 W 41.7 A
	2Ω	2,100 W 17.5 A	3,900 W 32.5 A	4,350 W 36.25 A	7,300 W 60.9 A
Thermal Emissions 1/3 power, 4Ω Bridged BTU/hr		7,165	13,308	14,843	24,909
Cooling	Back to front via 2 variable speed fans				
Input connectors	Balanced female XLR				
Output connectors	Speakon® connectors and five-way binding post				
Controls	Front panel:	twin recessed stepped attenuators, circuit breaker/power switch			
	Rear panel:	mode select, gain select			
LED indicators	Signal presence, ACL™ (Active clip limiting), Active status, Temp				
Construction	Aluminum Chassis				
Dimensions	3.5" x 19" x 12.25" (13.75" to rack ears) 89 mm x 483 mm x 311 mm (349 mm to rack ears)				
Weight	24 lbs. (10.9 kg)				

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## **Construction and Quality Control**

The Pro 9200 is built exclusively in Crest's own USA manufacturing facility, with internal components selected for premium quality and proven durability. Each modular subassembly is pre-tested, and the assembled Pro 9200 receives a rigorous "hot room" burn-in before thorough final checkout on precision test equipment.

### **Pro 9200 Features**

- Dramatically reduced net weight
- Latest generation of high speed, wide-bandwidth output devices
- Dual, variable speed fans
- Balanced XLR inputs
- Speakon® and 5-way binding post speaker outputs
- Mode selector switch for stereo, parallel and bridged-mono operation
- Input sensitivity selection
- Recessed, stepped attenuators
- Front panel circuit - breaker switch

### **TOURCLASS/PROTECTION CIRCUITS**

ACL™ (Active Clip Limiting) prevents speaker damage by providing gentle gain reduction when the signal approaches the clipping threshold.

IGM™ (Instantaneous Gain Modulation) monitors speaker loads to detect conditions that may overstress output devices. This allows safe operation into nominal 2Ω speaker loads.

AUTORAMP™ gradually increases gain to the attenuator level settings when the amplifier is turned on. This prevents abrupt turn-on level.

Other protection features include: short circuit, DC voltage, comprehensive thermal management and current in-rush turn-on/off; transient sub-sonic input.

Rated power bridge mode 4 Ohms:	6,500 Watts @ 1 kHz at <0.1% T.H.D.
Rated power bridge mode 8 Ohms:	4,400 Watts @ 1 kHz at <0.1% T.H.D.
Rated power (2 x 2 Ohms):	3,250 Watts per channel @ 1 kHz <0.1% T.H.D. both channels driven
Rated power (2 x 4 Ohms):	2,200 Watts per channel @ 1 kHz at <0.05% T.H.D. both channels driven
Rated power (2 x 8 Ohms):	1,300 Watts per channel @ 1 kHz at <0.025% T.H.D. both channels driven
Rated power (1 x 2 Ohms):	4,200 Watts @ 1 kHz at <0.1% T.H.D.
Rated power (1 x 4 Ohms):	2,550 Watts @ 1 kHz at <0.05% T.H.D.
Rated Power (1 x 8 Ohms):	1,450 Watts @ 1 kHz at <0.025% T.H.D.
Minimum load impedance:	2 Ohms
Maximum RMS voltage swing:	113 Volts
Frequency response:	10 Hz - 100 kHz; +0, -3 dB at 1 Watt
Power bandwidth:	10 Hz - 30 kHz; +0, -3 dB at rated 1000 Watts 8 Ohm power
T.H.D. (2 x 2 Ohms):	<0.1% @ 2,350 Watts per channel from 20 Hz to 20 kHz
T.H.D. (2 x 4 Ohms):	<0.1% @ 1,950 Watts per channel from 20 Hz to 20 kHz
T.H.D. (2 x 8 Ohms):	<0.1% @ 1,200 Watts per channel from 20 Hz to 20 kHz
Input CMRR:	>-85 dB @ 1 kHz
Voltage gain:	x 40 (32 dB) or x 20 (26 dB)
Crosstalk:	>-70 dB @ 1 kHz at rated power @ 8 Ohms
Hum and noise:	>-113 dB, "A" weighted referenced to rated power @ 8 Ohms
Slew rate:	>10V/us
Damping factor (8 Ohms):	>300:1 @ 20 Hz - 1 kHz
Phase response:	+5 to -15° from 20 Hz to 20 kHz
Input sensitivity:	(x 40) 2.35 Volts ±3% for 4 Ohm rated power, 2 Volts ±3% for 1 kHz 2 Ohm rated power
Input sensitivity:	(x 20) 4.7 Volts ±3% for 4 Ohm rated power, 4 Volts ±3% for 1 kHz 2 Ohm rated power
Input impedance:	15 k Ohms, balanced
Current Draw @ 1/8 power:	3,350 Watts @ 2 Ohms; 2,200 Watts @ 4 Ohms
Current Draw @ 1/3 power;	7,300 Watts @ 2 Ohms, 5,000 Watts @ 4 Ohms
Thermal emissions @ 1/3 power:	24,909 @ 4 Ohms bridged
Class:	H
Country of manufacture:	United States

Cooling: Two temperature dependant variable speed 80 mm high output DC fans

Controls: Two front panel attenuators, rear panel mode switch and gain select switch

Indicator LEDs: 2 ACL (clip limiting), 2 signal presence, 2 active status, 2 DC protect, 2 temperature limit

Protection: Thermal, DC, turn-on bursts, subsonic, incorrect loads

Connectors: XLR, Speakon and Binding Post speaker output, 120 Volt 30 amp twist lock connector, 240/230 Volt 20 amp IEC mains

Construction: 16 ga. steel with 5 mm aluminum front panel

Dimensions: 89 mm x 483 mm x 311 mm + 38 mm for rear support ears and connectors (3.5" x 19" x 12.25" + 1.5")

Net weight: 10.9 kg. (24 lbs.), Gross weight: 13.2 kg. (29.1 lbs.)

Warranty Five years parts and labor

All power measurements made at 120 VAC. 2 Ohm sine wave power is time limited by magnetic circuit breaker and is internal temperature dependant.

# HK Audio Premium PR:O 15

Modell	PR:O 8	PR:O 10 X	PR:O 12	PR:O 12 M	PR:O 15	PR:O 15 X
Belastbarkeit nominal (RMS)	300 Watt	300 Watt	400 Watt	400 Watt	400 Watt	400 Watt
Belastbarkeit Programm	600 Watt	600 Watt	800 Watt	800 Watt	800 Watt	800 Watt
Belastbarkeit Peak	1200 Watt	1200 Watt	1200 Watt	1200 Watt	1200 Watt	1200 Watt
Nennimpedanz	8 Ohm	8 Ohm	8 Ohm	8 Ohm	8 Ohm	8 Ohm
Max SPL	122 dB Halfspace (@10% THD)	126 dB Halfspace (@10% THD)	128 dB Halfspace (@10% THD)	128 dB Halfspace (@10% THD)	128 dB Halfspace (@10% THD)	128 dB Halfspace (@10% THD)
Empfindlichkeit 1W/1m	91 dB Halfspace	99 dB Halfspace	104 dB Halfspace	104 dB Halfspace	104 dB Halfspace	104 dB Halfspace
Frequenzgang +/- 3 dB	89 Hz – 19 kHz	95 Hz – 19 kHz	68 Hz – 19 kHz	70 Hz – 19 kHz	60 Hz – 20 kHz	60 Hz – 20 kHz
Frequenzgang -10 dB	63 Hz – 19 kHz	80 Hz – 19 kHz	60 Hz – 19 kHz	63 Hz – 19 kHz	53 Hz – 20 kHz	53 Hz – 20 kHz
Basslautsprecher						
Tief/Mittelton-lautsprecher	1x 8"	1x 10"	1x 12"	1x 12"	1x 15"	1x 15"
Hochtontreiber	1"	1"	1"	1"	1"	1"
Hochtonhorn	80° x 80° CD-Horn	90° x 60° CD-Horn	60° x 40° CD-Horn	60° x 40° CD-Horn	60° x 40° CD-Horn	60° x 40° CD-Horn
Hochtonschutz (passiv)	Dyn. Schutzschaltung	Dyn. Schutzschaltung	Dyn. Schutzschaltung	Dyn. Schutzschaltung	Dyn. Schutzschaltung	Dyn. Schutzschaltung
Trennfrequenz Passivweiche	2,5 kHz, 12 dB/ Okt.	2,2 kHz, 12 dB/ Okt.	2,2 kHz, 12 dB/ Okt.	2,3 kHz, 12 dB/ Okt.	2,2 kHz, 12 dB/ Okt.	2,2 kHz, 12 dB/ Okt.
Anschlüsse	2x Speakon NL4	2x Speakon NL4	2x Speakon NL4	2x Speakon NL4	2x Speakon NL4	2x Speakon NL4
Aufstellwinkel		35°		32°		42°
Hochständer-flansch	MonoTilt 3°	DuoTilt 3/7	DuoTilt 3/7		DuoTilt 3/7	DuoTilt 3/7
Flugpunkte	3x M8	3x M8	3x M8		3x M8	3x M8
Griffe		1, integriert	2, integriert	1, integriert	2, integriert	2, integriert
Rollen						
Gehäuse	MDF	MDF	MDF	MDF	MDF	MDF
Frontgitter	Metallgitter mit schwarzem Akustikschaumstoff	Metallgitter mit schwarzem Akustikschaumstoff	Metallgitter mit schwarzem Akustikschaumstoff	Metallgitter mit schwarzem Akustikschaumstoff	Metallgitter mit schwarzem Akustikschaumstoff	Metallgitter mit schwarzem Akustikschaumstoff
Oberfläche	Acryllack, schwarz	Acryllack, schwarz	Acryllack, schwarz	Acryllack, schwarz	Acryllack, schwarz	Acryllack, schwarz
Optionales Zubehör	Schutzhülle, Satellite Add-On M20, Distanzstange M20	Schutzhülle, Satellite Add-On M20, Distanzstange M20	Schutzhülle, Satellite Add-On M20, Distanzstange M20	Schutzhülle	Schutzhülle, Satellite Add-On M20, Distanzstange M20	Schutzhülle, Satellite Add-On M20, Distanzstange M20
Abmessungen (BxHxT)	27 x 42 x 27 cm	32 x 48,5 x 30 cm	40,5 x 59 x 37 cm	39 x 55,5 x 38 cm	47 x 62,5 x 43 cm	47 x 62,5 x 45,5 cm
Gewicht	9,7 kg / 21,4 lbs	12,5 kg / 27,6 lbs	18,2 kg / 40,1 lbs	16,3 kg / 35,9 lbs	22,6 kg / 49,8 lbs	21,4 kg / 47,2 lbs



**SPEZIFIKATIONEN****Allgemeine spezifikationen**

Nominal Durchmesser:	18 inch / 457 mm
Anschlussimpedanz (Ohm):	8 ohm
Programm Power (Watt)	2000 W
Belastbarkeit:	1000 W
Empfindlichkeit (dB):	97.0 dB
Frequenzbereich:	35 - 1000 Hz
Nenndurchmesser Membran	380 mm / 14.96 inch
Maximale Auslenkung vor Schaden:	40 mm / 1.57 inch
Minimale-Impedanz (Ohm):	6.0 ohm
Schwingspulendurchmesser:	4.0 inch / 102 mm
Schwingspulen trägermaterial:	Copper
Spulenlänge:	23 mm / 0.91 inch
Layeranzahl:	2
Art von Schichten:	inside/outside
Obere Polplattenstärke:	15 mm / 0.59 inch
Konusdesign:	Curved
Surround Material:	Polycotton
Surround Design:	M-roll
Magnet:	Ceramic
Doppelbelüftung (Innen/Aussen):	Yes
Spinne	Dual with silicon based damping control

**Thiele - small parameters**

Resonanzfrequenz (Fs) (Hz):	33 Hz
Gleichstromwiderstand (Re) (Ohm):	5.00 ohm
Mechanische Güte (Qms):	8.30 Qms
Elektrische Güte (Qes):	0.34 Qes
Gesamt Q-Faktor (Qts)	0.33 Qts
Kraftfaktor (BL-Factor) (T x m):	23.50 T x m
effektiv bewegte Masse (Mms)(g)	180.0 g
Äquivalentes Luftnachgiebigkeitsvolumen (Vas) (Liter)	226.0 liters
effektive Membranfläche (Sd) (m2)	0.110 m2
Maximale lineare Auslenkung (Xmax) (mm):	8 mm
Schwingspuleninduktivität L @ 1kHz (Le1k) (mH)	1.80 mH
Halbraum-Wirkungsgrad $\eta_{1m}$ (eff) (%)	2.30%

**Montagehinweise**

Gesamtdurchmesser:	460 mm / 18.11 inches
Lochkreis Durchmesser:	438 mm / 17.24 inch
Lochdurchmesser:	8 mm / 0.31 inch
Ausschnittsgröße bei frontaler Montage	416 mm / 16.38 inch
Schallwandöffnung für rückseitige Montage:	418 mm / 16.46 inch
Vom Treiber verdrängtes Volumen (bei frontaler Montage)	6.5 liters / 0.26 ft3