

# PM 502



- Powered Mixer with 5 Mic/Line and 3 Stereo channels
- 2 x 450 W RMS at 4 Ω
- 32 editable HQ effect presets
- Onboard MP3 audio player
- 100V Direct Drive option

This innovative product comes in a very modern and user-friendly design. It combines finest analogue input circuitry and operating surface with the advantages of its digital master and amplifier section making for a new dimension of flexibility in its class. The acoustical performance meets all the expectations that you have come to expect on a quality product from Dynacord. Its feature package includes: 5 MIC/LINE input channels with compressor/limiter and talk-over function, 3 Stereo Inputs including Jack, RCA and USB connectors, onboard player for MP3 or WAV audio files, high quality effects section with 32 editable presets, 3 Master outputs with 7-band EQ each and flexible signal routing options, delay line for Master-B (150 msec/50 m), headphones control, LPN speaker processing, class-D 2 x 450 W RMS / 2 x 600 W / 4 Ω program power, micro-controlled power supply (100–240 V), Direct Drive option for 100 V speaker lines, comprehensive protection package, live and install connectivity, optional rack mount kit.

The PM 502 is an extremely versatile tool for a multitude of live and installation applications. It will be the ideal choice for entertainers, DJs and small bands looking for a compact and light-weight solution for live applications or rehearsal venues. The digital USB interface also allows for basic recording and the onboard MP3-Player on the front, makes background music during breaks, a smooth and easy transition.

The input structure of the PM 502, along with the entire feature package and connectivity, positions this mixer at the heart of many installations ranging from bistros, small clubs, lounges, boutiques, hotel bars and lobbies to churches, mosques and a wide range of similar applications.

### Parts included

Quantity	Component
1	PM 502
1	Power cord
1	User manual
1	Important safety instructions

## Technical specifications

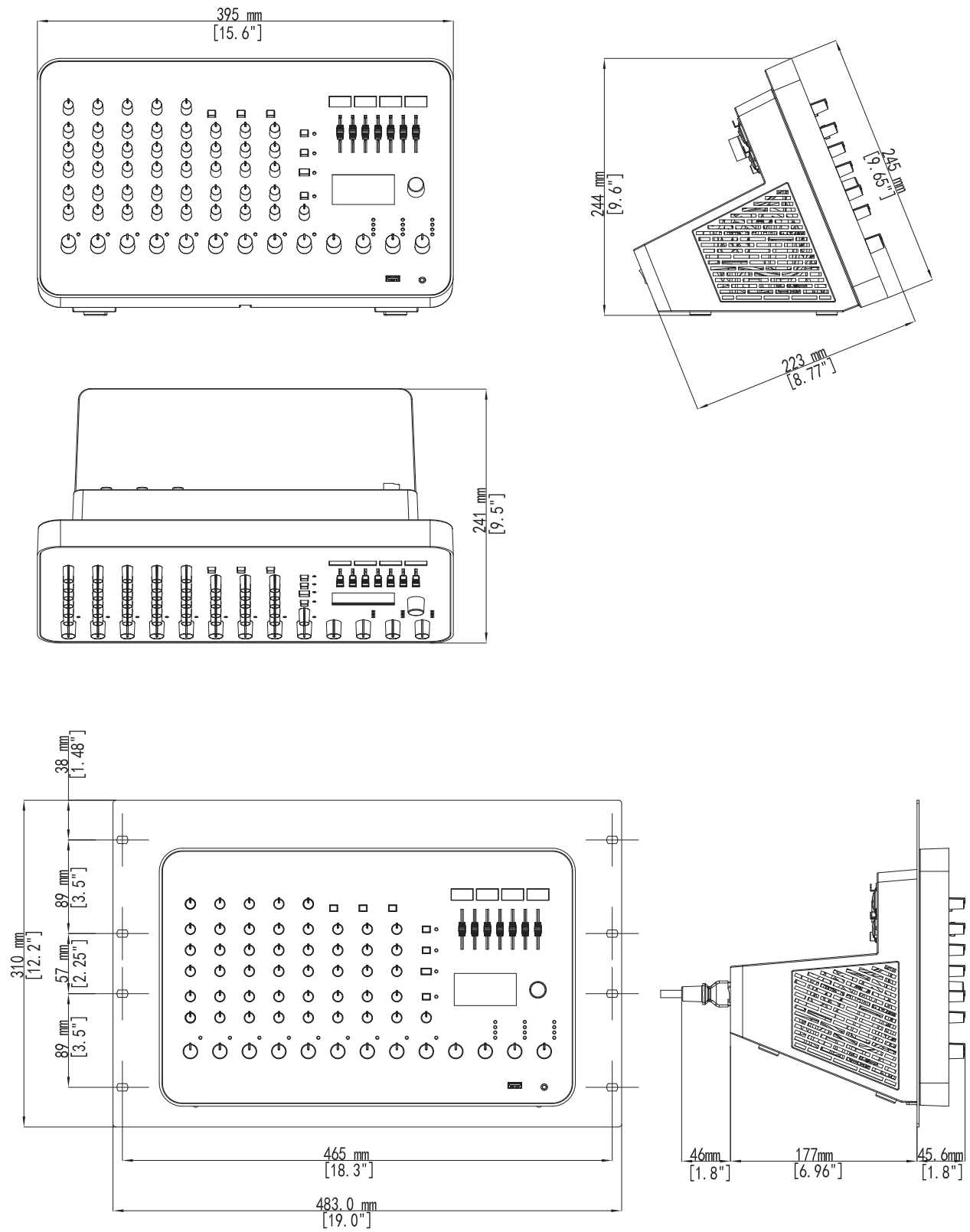
Channels (mono + stereo)	5 + 3
Microphone inputs	5 x XLR/Jack socket
Auxiliaries (FX, AUX)	1 Post, 1 Pre
Max. single channel output power, dynamic headroom, IHF-A	
• into 4 $\Omega$	640 W
• into 8 $\Omega$	350 W
Max. dual channel output power, dynamic headroom, IHF-A	
• into 4 $\Omega$	2 x 600 W
• into 8 $\Omega$	2 x 340 W
Max. single channel output power, continuous, 1 kHz, THD = 1%	
• into 4 $\Omega$	500 W
• into 8 $\Omega$	280 W
Max. midband output power, 1 kHz, THD = 1%, dual channel	
• into 4 $\Omega$	2 x 450 W
• into 8 $\Omega$	2 x 270 W
Rated output power, 20-20000 Hz, THD < 0.5%, one channel loaded	
• into 4 $\Omega$	400 W
• into 8 $\Omega$	240 W
Max. output power, Direct Drive mode (bridge configuration), continuous, 1 kHz, THD = 1%	
• into 12 $\Omega$	680 W
Max. output voltage, power amplifier, 1 kHz, no load	
• Dual channel mode	52 V <sub>rms</sub>
• Direct Drive mode	100 V <sub>rms</sub>
THD, at 1 kHz, MBW = 22 kHz	
• MIC input to master A L/R outputs, +10 dBu, typical	< 0.015%
• MIC input to speaker output	< 0.15%
DIM 30, MIC input to speaker output, 3.15 kHz, 15 kHz	< 0.05%
IMD-SMPTE, MIC input to speaker outputs, 60 Hz, 7 kHz	< 0.15%
Frequency response, -3 dB, ref. 1 kHz	
• Any input to any Mixer output	15–22000 Hz
• Any input to Speaker output	20–22000 Hz
Crosstalk, 1 kHz	
• Amplifier Ch1/Ch2	< -85 dB

• Channel to channel	< -78 dB
Microphone mute switch attenuation	> 100 dB
Channel VOL and FX/AUX send attenuation	> 85 dB
CMRR, MIC input, 1 kHz	> 80 dB
Input sensitivity, all level controls in max. position	
• MIC	-65 dBu (435 $\mu$ V)
• LINE (mono)	-45 dBu (4.35 mV)
• LINE (stereo)	HI: -27 dBu (34.6 mV), LO: -11 dBu (218 mV)
• CD (stereo)	-27 dBu (34.6 mV)
Max. level, mixing desk, input VOL down, output VOL up	
• MIC inputs, GAIN at min. position	+11 dBu
• Mono line inputs, GAIN at min. position	+30 dBu
• Stereo line inputs	+26 dBu
• PHONES output	+21 dBu
• MASTER A, B, AUX outputs	+11 dBu
Input impedances	
• MIC	2 k $\Omega$
• CD	10 k $\Omega$
• All other inputs	> 15 k $\Omega$
Output impedances	
• PHONES	47 $\Omega$
• All other outputs (impedance balanced)	150 $\Omega$
Equivalent input noise, MIC preamp, A-weighted, max. gain, 150 $\Omega$	-129 dBu
Noise, channel inputs to MASTER A L/R outputs, MBW = 22 kHz, A-weighted	
• MASTER VOLUME down	-99 dBu
• MASTER VOLUME center, all channel volume down	-90 dBu
• MASTER VOLUME center, all channel volume center	-85 dBu
Signal-to-noise ratio, power amplifier, A-weighted, 450 W, 4 $\Omega$	104 dB
Output stage topology, amplifier	Class D
Equalization	

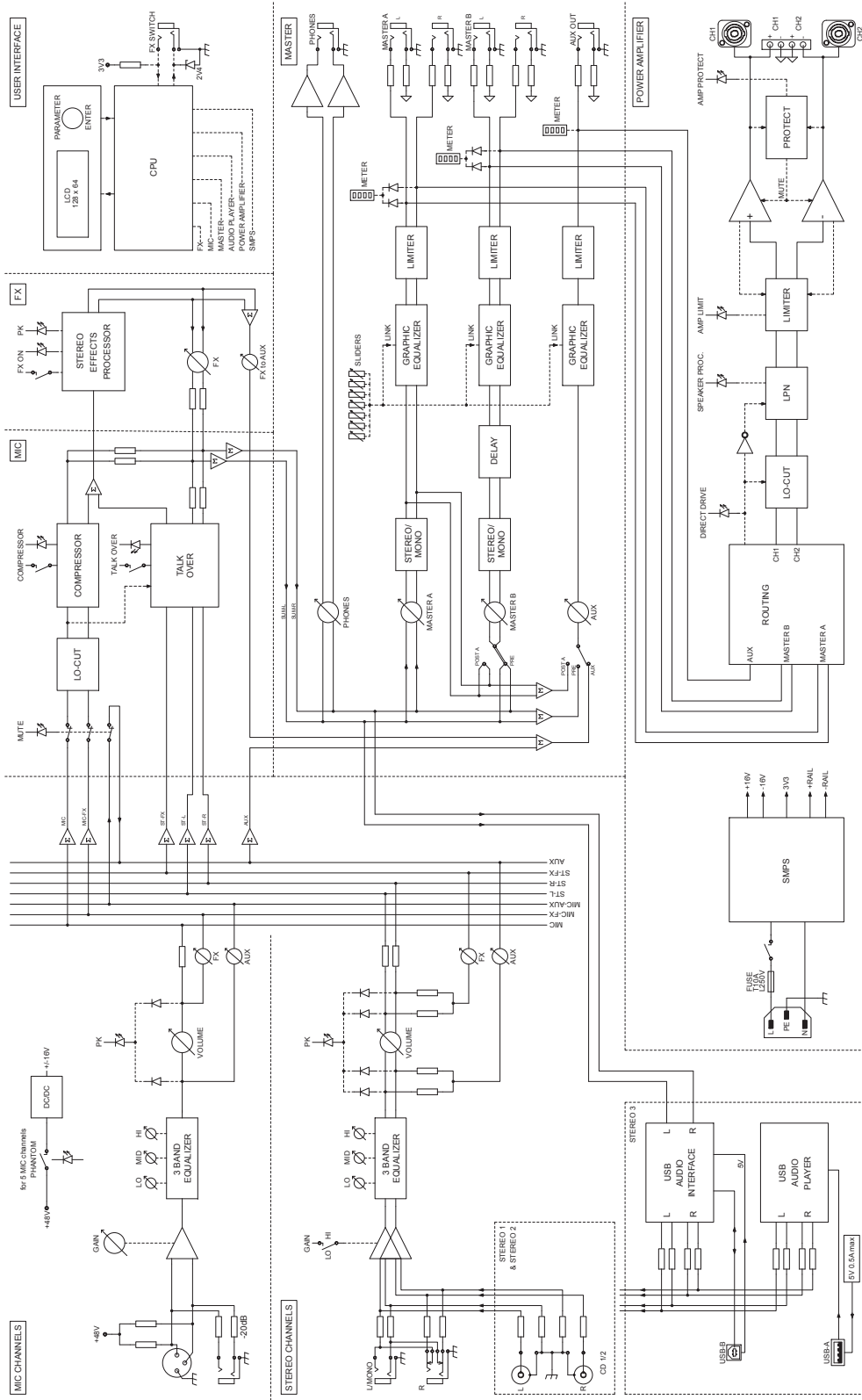
• Low shelving filter	±15 dB / 60 Hz
• Mid peak filter	±12 dB / 2.4 kHz
• High shelving filter	±15 dB / 12 kHz
Master EQ 7-band (63, 160, 400, 1k, 2.5k, 6k, 12k Hz)	±10 dB / Q = 1.5
Filter	
• Low-cut filter, microphone processing (switchable)	80 Hz, 18 dB/oct. or 150 Hz, 12 dB/oct.
• Low-cut filter, amplifier (engaged in Direct Drive mode)	50 Hz or 70 Hz, 18 dB/oct.
• Speaker processing	LPN, switchable
Delay MASTER B, selectable	0–145 ms (0–50 m)
Effects	
• Type	Stereo 24/48-bit multi effects processor
• Effect presets	32 factory presets, user editable
• Remote control	Footswitch
Display	128 x 64 pixels, LCD
Audio player (USB at front panel)	
• Switching mode power supply (µC controlled)	FAT 32
• Supported audio file formats	MP3, WAV
• Interface	USB2.0, female type A
• USB power supply, max. rated current (short circuit proof)	5 V, 500 mA
Digital audio interface (USB at rear panel)	
• Channels	2 in, 2 out
• AD/DA conversion	16-bit, delta-sigma
• Sampling rate	32/44.1/48 kHz
• PC interface	USB2.0, female type B
Protection	
• MASTER A, B, AUX outputs	Adjustable peak limiters, -10 – +11 dBu
• Amplifier	Audio limiters, high temperature, DC, HF, short circuit, peak current limiters, turn-on delay, back EMF
• Switching mode power supply (µC controlled)	Inrush current limiters, mains over/undervoltage, mains over current, high temperature
Cooling	Continuous speed controlled fan
Phantom power, switchable	48 V DC

AC power input	100–240 V AC, 50–60 Hz
Power consumption, at 1/8 maximum output power, 4 Ω	180 W
Safety class	I
Operating temperature	5° to 40° C (40° to 105° F)
Product dimensions (Width x Height x Depth)	395 x 244 x 241 mm Rack-mount: 483 x 223 x 310.3 mm (7 HU)
Net weight	4.9 kg
Shipping weight	6.4 kg

\* Device in rated condition: MIC GAIN 15 dB, STEREO GAIN LO, all channel and master controls in center position, 100 V Direct Drive mode: Off, LPN HIGH, amplifier load 8 ohms, dual channel, mains voltage 230 V/50 Hz or 120 V/60 Hz, unless otherwise specified.

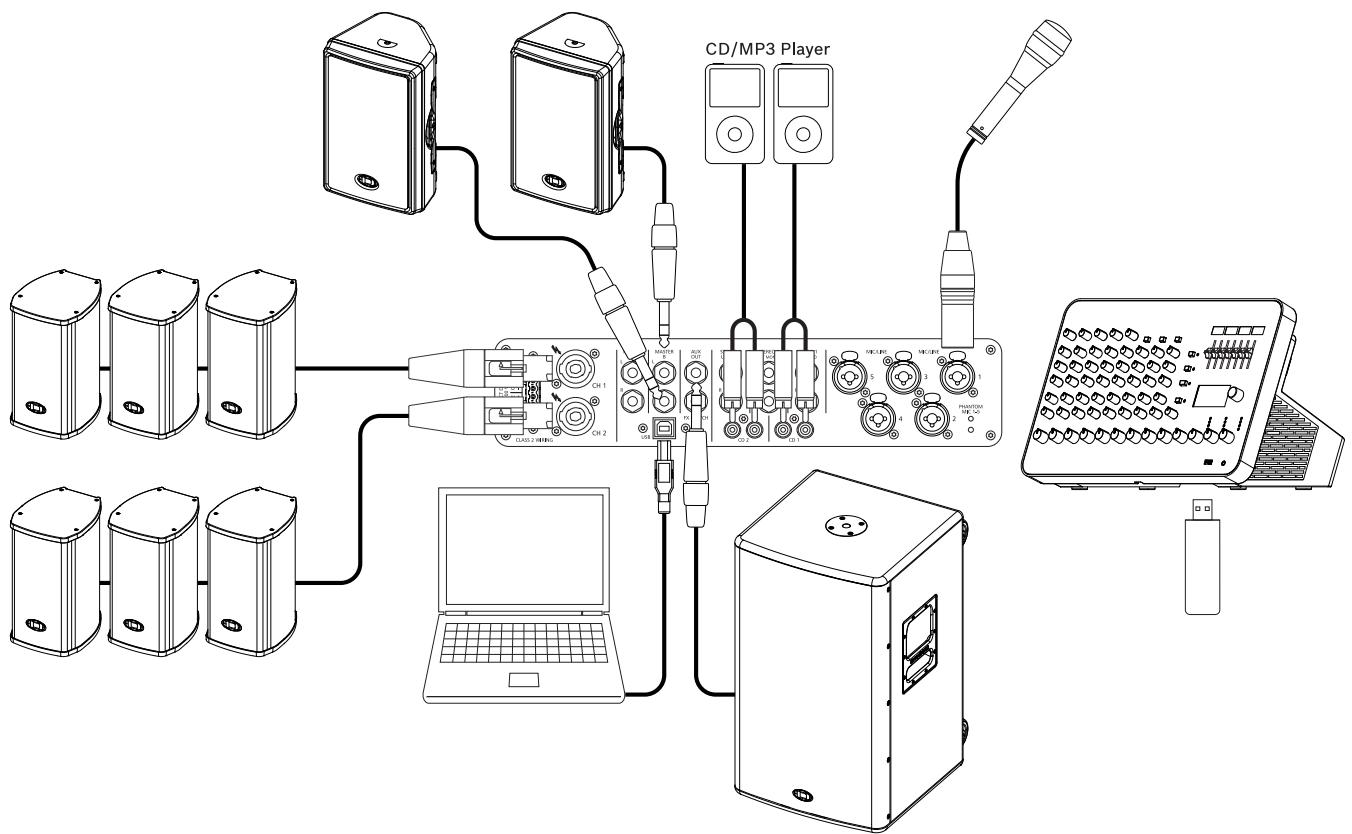


Dimensions



Circuit diagram

## Installation/configuration notes



*Setup example*

## Ordering information

### **PM 502 (100-240V)**

Powered Mixer with 5 Mic/Line and 3 Stereo-Channels, 2 x 450W RMS/4 Ohms, 32 editable HQ-effects presets, onboard audio player, USB interface, 3 masters, 3 x 7band EQ, 100V direct drive option, live and install connectivity.

Order number **F.01U.297.641**

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### **PM 502 (CN)**

Powered Mixer with 5 Mic/Line and 3 Stereo-Channels, 2 x 450W RMS/4 Ohms, 32 editable HQ-effects presets, onboard audio player, USB interface, 3 masters, 3 x 7band EQ, 100V direct drive option, live and install connectivity.

Order number **F.01U.297.642**

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### **PM 502 (240 V)**

Powered Mixer with 5 Mic/Line and 3 Stereo-Channels, 2 x 450W RMS/4 Ohms, 32 editable HQ-effects presets, onboard audio player, USB interface, 3 masters, 3 x 7band EQ, 100V direct drive option, live and install connectivity.

Order number **F.01U.297.643**

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### **RMK 502**

Rackmount kit for PM 502

Order number **F.01U.290.510**

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# XRS

## LOUDSPEAKERS



The XRS series of high performance loudspeakers takes the legendary performance of the XR series and adds a more stylish, contemporary look that is at home in any entertainment environment.

Building on the enormous market acceptance of the very popular XR speaker series, the XRS series two-way injection moulded speaker enclosures have even more features and new aesthetics to suit both live sound reinforcement and permanent installation. From front-of-house to fold back, the dance floor to background fill, the XRS series with passive and powered options are designed with flexibility and performance in mind.

Including 8", 10" and 12" models, each have high quality compression drivers and represent a significant advancement in injection moulded box design while maintaining excellent audio quality and great value for money.

## XRS8

- Two-way passive speaker with one 8" woofer and one 1.5" driver.
- Highly durable poly propylene injection molded cabinet.
- Voice coil in the 8" woofer is made from 50mm copper cladding aluminium ribbon wire.
- Heavy duty protective grille.
- High frequency driver protection.
- 90°x 90° (HxV) dispersion horn.
- Supplied with foldback kit and U bracket.
- U bracket or eye bolt mounting options



## XRS8P

- Self powered version of XRS8.
- 100W and 50W power amp module.
- Mic level XLR input with volume, bass and treble control.
- Line level XLR input with volume, bass and treble control.
- Mix XLR line level output.
- Supplied with foldback kit.
- U bracket or eye bolt mounting options



## XRS10

- Two-way passive speaker with one 10" woofer and one 1.5" driver.
- Highly durable poly propylene injection molded cabinet.
- Voice coil in the 10" woofer is made from 75mm copper cladding aluminium ribbon wire.
- Heavy duty protective grille.
- High frequency driver protection.
- 90° x 90° (HxV) dispersion horn.
- Pole mount or eye bolt installation points.
- Supplied with foldback kit.
- Thru-put speakon connector.



## XRS10P

- Self powered version of XRS10.
- 100W and 50W power amp module.
- Mic level XLR input with volume, bass and treble control.
- Line level XLR input with volume, bass and treble control.
- Mix XLR line level output.
- Supplied with foldback kit.



XRS10P  
shown

## XRS12

- Two-way passive speaker with one 12" woofer and one 2" driver.
- Highly durable poly propylene injection molded cabinet.
- Voice coil in the 12" woofer is made from 75mm copper cladding aluminium ribbon wire.
- Heavy duty protective grille.
- High frequency driver protection.
- 90°x 90° (HxV) dispersion horn.
- Pole mount or eye bolt installation points.
- Supplied with foldback kit.
- Thru-put speakon connector



## XRS12P

- Self powered version of XRS12
- 300W and 100W power amp module.
- Mic level XLR input with volume, bass and treble control.
- Line level XLR input with volume, bass and treble control.
- Mix XLR line level output.
- Supplied with foldback kit.



## ACCESSORIES

- XR8PMA Pole Mount Adapter
- XR8UMB Universal Mounting Bracket
- XR10CVR Heavy Duty Cover
- XR12CVR Heavy Duty Cover
- XR10-12UB Universal bracket
- AMISLSB1 Wall Mount Brackets
- ATC303 Tripod Speaker Stand
- ATC304 Heavy Duty Tripod Speaker Stand
- ATC305 Winch Up Speaker Stand



# SPECIFICATIONS

	<b>XRS8</b>	<b>XRS10</b>	<b>XRS12</b>
<b>Drivers</b>	1 x 8" woofer 1 x 1.5" HF driver	1 x 10" woofer 1 x 1.5" HF driver	1 x 12" woofer 1 x 2" HF driver
<b>Frequency Response (-3dB)</b>	65Hz-18kHz	55Hz-18kHz	50Hz-18kHz
<b>Frequency Response (-10dB)</b>	60Hz-20kHz	50Hz-20kHz	40Hz-20kHz
<b>Sensitivity (dB 1W 1m)</b>	92 dB	95 dB	97 dB
<b>Impedance</b>	8 Ohm	8 Ohm	8 Ohm
<b>Recommended Max Power (Wrms)</b>	100 W	250 W	300 W
<b>Max Sound Level (dB 1m)</b>	118dB	125dB	128dB
<b>Dispersion (HxV)</b>	90° x 90°	90° x 90°	90° x 90°
<b>Harmonic Distortion</b>	1%	1%	1%
<b>Speakon compatible connectors</b>	1	2	2
<b>Dimensions (W x D x H)</b>	277 x 257 x 400mm	321 x 208 x 464mm	415 x 382 x 620mm
<b>Packing Dimensions (W x D x H)</b>	330 x 350 x 470 mm per item	375 x 355 x 535mm	465 x 435 x 680mm
<b>Net Weight</b>	6.5kg	10kg	18kg
<b>Shipping Weight</b>	8.5kg	12kg	20kg

	<b>XRS8P</b>	<b>XRS10P</b>	<b>XRS12P</b>
<b>Drivers</b>	1 x 8" woofer 1 x 1.5" HF driver	1 x 10" woofer 1 x 1.5" HF driver	1 x 12" woofer 1 x 2" HF driver
<b>Frequency Response (-3dB)</b>	65Hz-18kHz	55Hz-18kHz	50Hz-18kHz
<b>Frequency Response (-10dB)</b>	55Hz-18kHz	50Hz-18kHz	40Hz-20kHz
<b>Peak Sound Level (dB 1m)</b>	118dB	121dB	125dB
<b>TONE CONTROLS</b>			
<b>Bass control @ 100Hz</b>	12dB	12dB	12dB
<b>Treble control @ 10kHz</b>	10dB	10dB	10dB
<b>Output Power RMS</b>	100W(low) + 50W(high)	100W(low) + 50W(high)	300W(low) + 100W(high)
<b>DISTORTION (THD)</b>			
<b>Line</b>	0.02%	0.02%	0.02%
<b>Microphone</b>	0.04%	0.04%	0.04%
<b>Tweeter Dispersion (HxV)</b>	90° x 90°	90° x 90°	90° x 90°
<b>INPUT IMPEDANCE</b>			
<b>Line</b>	20kOhm	20kOhm	20kOhm
<b>Microphone</b>	10kOhm	10kOhm	10kOhm
<b>Connectors</b>	XLR 3	XLR 3	XLR 3
<b>Power Supply</b>	AC 115V/230V, 50/60Hz	AC 115V/230V, 50/60Hz	AC 115/230V, 50/60Hz
<b>Dimensions (W x D x H)</b>	277 x 265 x 407mm	325 x 308 x 478mm	415 x 391 x 600mm
<b>Packing Dimensions ( W x D x H)</b>	355 x 325 x 470mm	375 x 355 x 535mm	465 x 435 x 680mm
<b>Net Weight</b>	8.6kg	10.5kg	23kg
<b>Shipping Weight</b>	10.6kg	12.5kg	25.2kg