

# SPECIFICATIONS

## MSR400

GENERAL		AMP SECTION	
Type	Biamp. 2-way Powered Speaker	Output Power	Bi-amplified system
Crossover Frequency	1.6kHz		LF: 225W/4Ω
Overall Frequency Response	50Hz–20kHz		HF: 75W/16Ω
Maximum SPL	121dB (1m)		Burst Power: 400W Total
Dispersion	90° (H)/40° (V)	Input Sensitivity /Impedance	MIC/LINE: -36dB/+4dB 10kΩ
Dimension (W x H x D)	406 x 652 x 351 mm (16" x 25-3/4" x 13-7/8")	Input/Output Connectors (all parallel)	1: XLR-3-31 balanced
Weight	23kg (50.7lbs)		2: XLR-3-32 balanced
SPEAKER SECTION			3: PHONE balanced
Components	LF: 12" cone HF: 1.75" V.C. Compression Driver	Controls	LEVEL CONTROL, EQ, LOW: (+/- 3dB at 55Hz), HIGH: (+/- 3dB at HF), POWER Switch (ON/OFF)
Enclosure	Bass-reflex Type	Indicators	Power ON: Green LED Clipping: Red LED
Material	PP	Power Requirement	U/C: AC120V 60Hz, H/B: AC230V 50Hz, A: AC240V 50Hz, K: AC220V 60Hz, CHN: AC220V 50Hz, TT: AC110V 60Hz
Optional Accessories	BBS251 Baton Bracket BCS251 Ceiling Bracket BWS251-400 Wall Bracket	Power Consumption	110W

## MSR800W

GENERAL		AMP SECTION	
Type	Powered Subwoofer	Output Power	500W at 100Hz. THD =1%, RL = 8Ω
Overall Frequency Response	40–120 Hz		Burst Power: 800W
Maximum SPL	122 dB (1 m)	Input Sensitivity/Impedance	+4dB/30kΩ
Dimension (W x H x D)	600 x 521 x 590 mm (23-5/8" x 20-5/8" x 23-1/4")	Input Connectors	XLR balanced (A&B)
Weight	45kg (99.1lbs)	Output Sensitivity/Impedance	+4dB/150Ω
SPEAKER SECTION		Output Connectors	Input (ch-A & B): XLR-3-31 (balanced) THRU Out (ch-A & B): XLR-3-32 (balanced) High Pass Out (ch-A & B): XLR-3-32 (balanced) (100Hz, 18dB/oct, +4dB)
Components	15" cone	Controls	MASTER LEVEL CONTROL, CUTOFF FREQ. Control: 80–100Hz (Variable), PHASE Switch: (NORM/REV), POWER Switch: ON/OFF
Enclosure	Bass-reflex Type	Indicators	Power ON: Green LED, Clipping: Red LED
Material	Birch Plywood	Power Requirement	U/C: AC120V 60Hz, H/B: AC230V 50Hz, A: AC240V 50Hz, CHN: AC220V 50Hz
Finish	Black Sprayed	Power Consumption	200W

## MSR100

GENERAL		AMP SECTION	
Type	2-way Powered Speaker	Output Power	100W at 1Hz. THD=1%, RL=6Ω
Crossover frequency	4kHz	Input Sensitivity	INPUT 1: -50dB/+4dB (with select SW) INPUT 2 & 3: -10dB
Frequency Response	50Hz–20kHz (-10dB)	Input impedance	LINE 1 & 2 & 3: 10kΩ
Maximum SPL	112dB (1m)	Connectors	INPUT 1: XLR-3-31 (balanced) INPUT 2 & 3: Phone (unbalanced) LINK OUT: Phone (unbalanced)
Dispersion	90° (H)/40° (V)	Link Out	-10dB/10kΩ
Dimension (W x H x D)	275 x 455.5 x 255 mm (10-7/8" x 18" x 10-1/8")	Controls	Level Control INPUT 1 & 2 & 3, Master Level, EQ LOW: ±3dB at 60Hz, HIGH: ±6dB at 10kHz POWER Switch (ON/OFF)
Weight	11kg (24.2lbs)	Indicators	Power on: Green LED, Clip: Red LED
SPEAKER SECTION		Power Requirements	US & Canadian Models: AC120V 60Hz European Models: AC230V 50Hz Australian Models: AC240V 50Hz
Components	LF: 8" Cone HF: 1" Compression Driver	Power Consumption	US & Canadian Models: 70W, European Models: 70W, AT Models: 70W
Enclosure	Bass-reflex Type	Optional Accessories	BWS50-260/320 Wall Bracket BWS251-300/400 Wall Bracket BCS251 Ceiling Bracket, BBS251 Baton Bracket
Material	PP		



### MSR100 POWERED SPEAKER

Compact in size but big in sound and versatile features, the MSR100 packs a powerful sonic punch — making it ideal for a wide range of applications in your stage setup.

- 0dB=0.775V
- Specifications and appearance subject to change without notice.
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# MSR SERIES POWERED SPEAKERS

POWERED SPEAKER  
MSR400

POWERED SUB WOOFER  
MSR800W

POWERED SPEAKER  
MSR100



# Great PA Sound Has Never Been Easier ... Or Better Looking

Much of the work in putting together a high-performance sound system involves power amplifier and speaker selection and setup. Here's a pair of solutions that can take you directly to great sound without the usual complications. The MSR400 powered speaker can be used alone or in combination with the MSR800W powered subwoofer to assemble sound reinforcement systems from modest to massive that will sound superb while delivering the power and coverage you need for success in just about any venue or at any event. They look great, too. So good, in fact, that they can be used as-is in many permanent installations without requiring any cosmetic cover-up. And, of course, they're more than rugged enough for demanding tour applications as well.

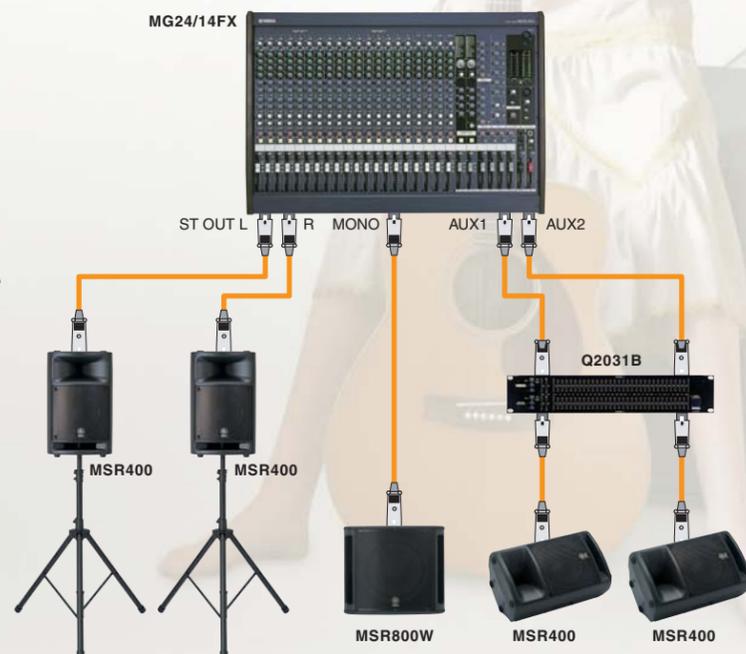
## The Case For Built-in Power

Whether for use on the road or in permanent installations, powered speakers offer numerous advantages over their separate counterparts. The most obvious is that you don't need separate external amplifiers or the extra connections required – you can plug your mixer's outputs directly into the speaker inputs. In a modest-size system this alone can eliminate an entire rack of amplifiers. But there are sonic advantages as well. Optimum matching of amplifiers and speakers involves much more than simple impedance figures, and can be a formidable engineering task given the vast number of choices available. In the Yamaha MSR400 and MSR800W the internal amplifiers have been ideally mated to their respective speakers in every way possible, delivering reproduction quality that only such stringent matching can achieve.



## SYSTEM EXAMPLE

In this system, the main house speakers are a pair of MSR400s with speaker stands and MSR800W subwoofer, driven directly from the mixer's main stereo and mono outputs. The MSR400s feature punchy bass and exceptionally clear midrange that delivers vocals with outstanding quality. The MSR800W subwoofer takes care of the ultra-lows so the audience hears – and feels – the full impact of the music. A second pair of MSR400s is used for stage monitoring, connected via a graphic equalizer for feedback control.



## M S R 4 0 0

### Bi-Amplification

The MSR400 is a bi-amplified 2-way system, featuring 400 watts maximum burst power that drives the 12" cone woofer and 1.75" V.C. compression driver. Frequency division is accomplished prior to the power amplifiers via a line-level electronic crossover, eliminating the problems with loss, distortion, and phase that are virtually unavoidable in conventional passive crossover networks. Another advantage of this type of system is that power can be optimally assigned to the low-frequency and high-frequency units for optimum efficiency as we all smooth, natural balance across the entire audio spectrum.

### Wide Input Range & EQ Control

The MSR400 accepts nominal input levels ranging from -36 dB to +4 dB, meaning that you can directly connect any source from microphones to professional line-level gear. Three parallel-connected connectors are provided – two balanced XLR-type connectors and one balanced phone jack – that can be used as either inputs or parallel outputs. The MSR400 also features an input level control for matching with the source signal. Low and high EQ controls can be used to adjust the respective bands over a plus-or-minus 3dB range.

### Versatile Placement

Speaker placement is as much a performance issue as it is a convenience and aesthetic issue. Proper placement will give you optimum sound as well as coverage while being as unobtrusive as possible. Of course, the more options you have the better. The MSR400 can be stacked or pole-mounted (there's even a pole-mount hole provided on the companion MSR800W Powered Woofer). And it's flyable so you can benefit from the unrivalled coverage and positioning precision that only ceiling suspension can provide.



## M S R 8 0 0 W

### For Sound You Can Feel

The MSR800W powered subwoofer is the perfect companion for the MSR400, extending the low end and completing the musical spectrum for maximum punch and impact. The high-quality birch plywood bass-reflex cabinet houses a 15" cone woofer powered by an ultra-efficient burst 800 watts amplifier, a configuration that can deliver the elusive 40 Hz through 120 Hz frequency range with precision and authority. Two balanced XLR connectors are provided for connection to the source, and that same signal can be directly passed on to the main speakers via a pair of XLR "THRU" outputs. Alternatively, the main speakers can be fed by the MSR800W's dual "HIGH PASS" outputs, high-pass filtered at 80 Hz through 100 Hz, depending on the setting of the cutoff frequency control, with a steep 18 dB/octave cutoff slope.



### Visual Clip Indication

Both the MSR400 and MSR800W feature LED power indicators as well as clip indicators that warn of impending clipping, allowing the engineer to make appropriate adjustments to the source level.