

# 02R96 Version2

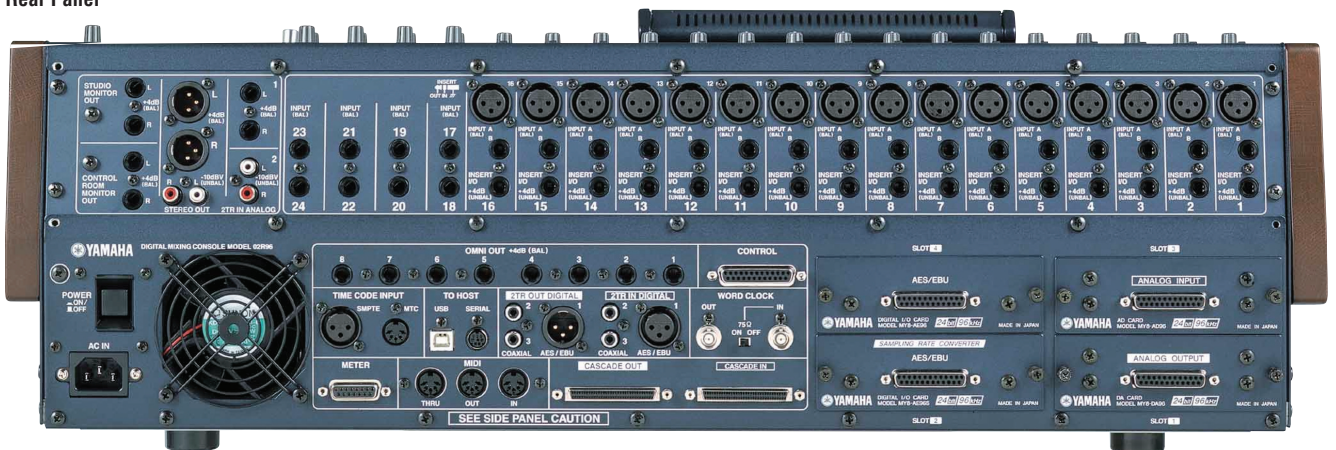
## Digital Mixing Console



# 02R96 Version2



Rear Panel



\*Peak Meter Bridge MB02R96 & Wood Side Pad SP02R96 are options.

### *A comprehensive update of the legendary 02R.*

- Precise 24-bit/96-kHz audio and high-performance head amps.
- Generous mixing capacity with up to 56 simultaneous inputs and 20 mix buses in the same compact desk-top dimensions as the original 02R.
- Powerful channel functions with flexible control and digital patching.
- Four advanced multi-effect processors include surround effects.
- Scene memory and auto-mix functions for efficient workflow.
- Versatile channel pairing and grouping functions enhance mixing efficiency.
- Comprehensive interface with 25 touch-sensitive 100-mm motor faders.
- 16 microphone/line inputs with balanced XLR/TRS jacks that feature top-performance head amplifiers for outstanding audio quality.
- Four mini-YGDAI expansion slots for easy I/O expansion in a variety of formats.
- Advanced Studio Manager application for Windows or Macintosh computers supplied.

#### OPTIONS

**MB02R96**  
Peak Meter Bridge

**SP02R96**  
Side Pad

**ME02R96**  
Automix Memory Expansion Kit for 02R96

# 02R96 Version2

## GENERAL SPECIFICATIONS

<b>Internal processing</b>	32bit (Accumulator=58bit)
<b>Number of scene memories</b>	99
<b>Sampling frequency rate</b>	Internal: 44.1kHz,48kHz,88.2kHz,96kHz External: Normal rate 44.1kHz(-10%) to 48kHz(+6%) Double rate 88.2kHz(-10%) to 96kHz(+6%)
<b>Signal Delay</b>	≤ 2.0 ms CH INPUT to STEREO OUT (fs=48 kHz) ≤ 1.1 ms CH INPUT to STEREO OUT (fs=96 kHz)
<b>Total harmonic distortion<sup>*1</sup></b> Input Gain=Min.	≤ 0.05%, 20Hz to 20 kHz @+14dBu into 600Ω ≤ 0.01%, 1kHz @+18dBu into 600Ω CH INPUT to STEREO OUT (@Sampling frequency = 96 kHz)
<b>Frequency response</b>	0.5, -1.5dB, 20Hz to 20 kHz @+4dBu into 600Ω (@Sampling frequency = 48 kHz) 0.5, -1.5dB, 20Hz to 40 kHz @+4dBu into 600Ω (@Sampling frequency = 96 kHz)
<b>Dynamic range</b> (maximum level to noise level)	110dB typ. DA Converter (STEREO OUT) 105dB typ. AD+DA (to STEREO OUT)
<b>Hum &amp; noise level<sup>*2</sup></b> (20Hz to 20kHz) Rs=150Ω Input Gain=Max Input Pad=0dB Input Sensitivity=-60dB	-128dBu Equivalent Input Noise -92dBu residual output noise. STEREO OUT STEREO OUT off STEREO OUT -92dBu(96dB S/N) STEREO OUT STEREO fader at nominal level and all CH INPUT faders at minimum level -64dBu(68dB S/N) STEREO OUT STEREO fader at nominal level and one CH INPUT fader at nominal level
<b>Crosstalk(@1kHz)</b> Input GAIN=min	-80dB adjacent input channels (CH1 to 24) -80dB input to output
<b>Power requirements</b>	Japan: AC100V 50/60Hz, 200W North America: AC120V, 60Hz, 200W Other Areas: AC220-240V, 50/60Hz, 200W
<b>Dimensions (W x H x D)</b>	02R96: 667 x 239 x 697 mm (26.3" x 9.4" x 27.4") With MB and SP: 700 x 352 x 762 mm (27.6" x 13.9" x 30.0")
<b>Weight</b>	34.0kg (75lbs)

\*1 Total Harmonic Distortion is measured with a 6dB/octave filter @80kHz

\*2 Hum & Noise are measured with 6dB/octave filter @12.7 kHz ; equivalent to a 20 kHz filter with infinite dB/octave attenuation.

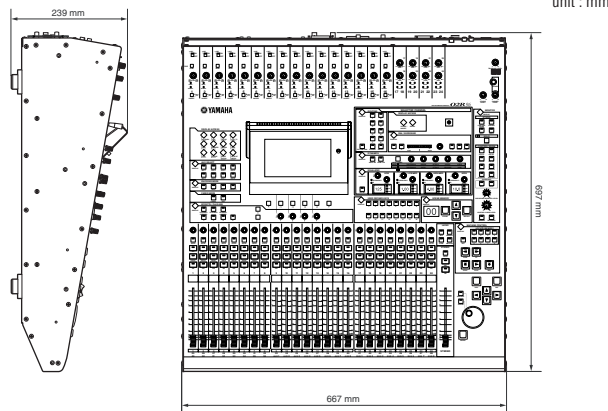
## CONTROL I/O SPECIFICATIONS

I/O Port	Format	Level	Connector in Console
TO HOST	Serial	-	RS422 Mini DIN Connector 8P
	USB	USB 1.1	0V ~ 3.3V B type USB Connector
MIDI	IN	MIDI	-
	OUT	MIDI	-
	THRU	MIDI	-
TIME CODE IN	MTC	MIDI	-
	SMPTE	SMPTE	Nominal - 10dB/10kΩ XLR-3-31 type (Balanced) <sup>*1</sup>
WORD CLOCK	IN	-	TTL/75Ω (ON/OFF) <sup>*2</sup> BNC Connector
	OUT	-	TTL/75Ω BNC Connector
CONTROL	-	-	D-SUB Connector 25P (Female)
METER	-	RS422	D-SUB Connector 15P (Female)

\*1 XLR-3-31 type connectors are balanced. (1=GND, 2=HOT, 3=COLD).

\*2 This switch is on the rear panel.

## DIMENSIONS



## ANALOG INPUT / OUTPUT SPECIFICATIONS

Input Terminal	Pad	Gain	Actual Load Impedance	For Use With Nominal	Input Level			Connector
					Sensitivity <sup>*1</sup>	Nominal	Max. before Clip	
CH INPUT A/B 1-16	0	-60dB	3kΩ	50-600Ω Mics & 600Ω Lines	-70dBu	-60dBu	-46dBu	A-XLR3-31 type (Balanced) <sup>*1</sup> B:Phone jack (TRS)(Balanced) <sup>*3</sup>
		-16dB			-26dBu	-16dBu	-2dBu	
CH INPUT 17-24		-34dB	4kΩ	600Ω Lines	0dBu	+10dBu	+24dBu	Phone jack (TRS)(Balanced) <sup>*3</sup>
		+10dB			-44dBu	-34dBu	-20dBu	
CH INSERT IN 1-16			10kΩ	600Ω Lines	-6dBu	+4dBu	+18dBu	Phone jack (TRS)(Balanced) <sup>*3</sup>
2TR IN ANALOG1(L,R)			10kΩ	600Ω Lines	+4dBu	+4dBu	+18dBu	Phone jack (TRS)(Balanced) <sup>*3</sup>
2TR IN ANALOG2(L,R)			10kΩ	600Ω Lines	-10dBV	-10dBV	+4dBV	RCA pin jack (Unbalanced)

\* 0dBu=0.775 Vrms.

\* 0dBV=1.00 Vrms.

\* +48V DC(phantom power) is supplied to CH INPUT(1-24) XLR type connector via each individual switch.

\*1 Sensitivity is the lowest level that will produce an output of +4 dB (1.23 V) or the nominal output level when the unit is set to maximum gain. (All faders and level controls are maximum position.)

\*2 XLR-3-31 type connectors are balanced (1=GND, 2=HOT, 3=COLD).

\*3 Phone jacks are balanced (Tip=HOT, Ring=COLD, Sleeve=GND).

\*4 Phone jacks are wired: Tip=OUT, Ring=IN, Sleeve=GND

\* In these specifications, 0 dBu = 0.775 Vrms, 0 dBV=1.00 Vrms.

\* All input AD converters (except INSERT I/O 1-16) are 24-bit linear, 128-times oversampling.

\* +48 V DC (phantom power) is supplied to CH INPUT (1-16) XLR type connectors via individual switches.

Output Terminal	Actual Source Impedance	For Use With Nominal	Gain SW *	Output Level		Connector
				Nominal	Max. before Clip	
STEREO OUT(L,R)	600Ω	10kΩ Lines	-	-10dBV	+4dBV	RCA pin jack (Unbalanced)
	150Ω	600kΩ Lines	-	+4dBu	+18dBu	XLR3-32 type (Balanced) <sup>*3</sup>
STUDIO MONITOR OUT(L,R)	150Ω	10kΩ Lines	-	+4dBu	+18dBu	Phone jack (TRS)(Balanced) <sup>*3</sup>
C-R MONITOR OUT(L,R)	150Ω	600kΩ Lines	-	+4dBu	+18dBu	Phone jack (TRS)(Balanced) <sup>*3</sup>
OMNI OUT 1-8	150Ω	10kΩ Lines	+18dBu (default)	+4dBu	+18dBu	Phone jack (TRS)(Balanced) <sup>*3</sup>
			+4dBV	-10dBV	+4dBV	
INSERT OUT 1-16	600Ω	10kΩ Lines	-	+4dBu	+18dBu	Phone jack (Unbalanced) <sup>*4</sup>
PHONES	100Ω	8Ω Lines	-	4mW	25mW	Stereo phone jack (TRS)(Unbalanced) <sup>*4</sup>
		40Ω Lines	-	12mW	75mW	

\* +18dBu, +4dBV selectable (Internal SW)

0dBV=1.00 Vrms.

0dBu=0.775 Vrms.

\*1 The maximum output level of each OMNI OUT can be set internally.

\*2 XLR-3-32 type connectors are balanced (1=GND, 2=HOT, 3=COLD).

\*3 Phone jacks are balanced (Tip=HOT, Ring=COLD, Sleeve=GND).

\*4 Phone jacks are wired: Tip=OUT, Ring=IN, Sleeve=GND

\*5 PHONES stereo phone jack is unbalanced (Tip=LEFT, Ring=RIGHT, Sleeve=GND).

\* In these specifications, 0 dBu = 0.775 Vrms, 0 dBV=1.00 Vrms.

\* All output DA converters (except INSERT OUT 1\_16) are 24-bit, 128-times oversampling.

## DIGITAL INPUT / OUTPUT SPECIFICATIONS

Terminal	Format	Data Length	Level	Connector
2TR IN DIGITAL	1 AES/EBU	24bit	RS422	XLR3-31 type (Balanced) <sup>*1</sup>
	2 IEC-60958	24bit	0.5Vpp/75Ω	RCA pin jack
	3 IEC-60958	24bit	0.5Vpp/75Ω	RCA pin jack
CASCADE IN	-	-	RS422	D-sub Half Pitch Connector 68P (female)
2TR OUT DIGITAL	1 AES/EBU <sup>*1</sup> (Professional Use)	24bit <sup>*3</sup>	RS422	XLR3-32 type (Balanced) <sup>*4</sup>
	2 IEC-60958 <sup>*2</sup> (Consumer Use)	24bit <sup>*3</sup>	0.5Vpp/75Ω	RCA pin jack
	3 IEC-60958 <sup>*2</sup> (Consumer Use)	24bit <sup>*3</sup>	0.5Vpp/75Ω	RCA pin jack
CASCADE OUT	-	-	RS422	D-sub Half Pitch Connector 68P (female)

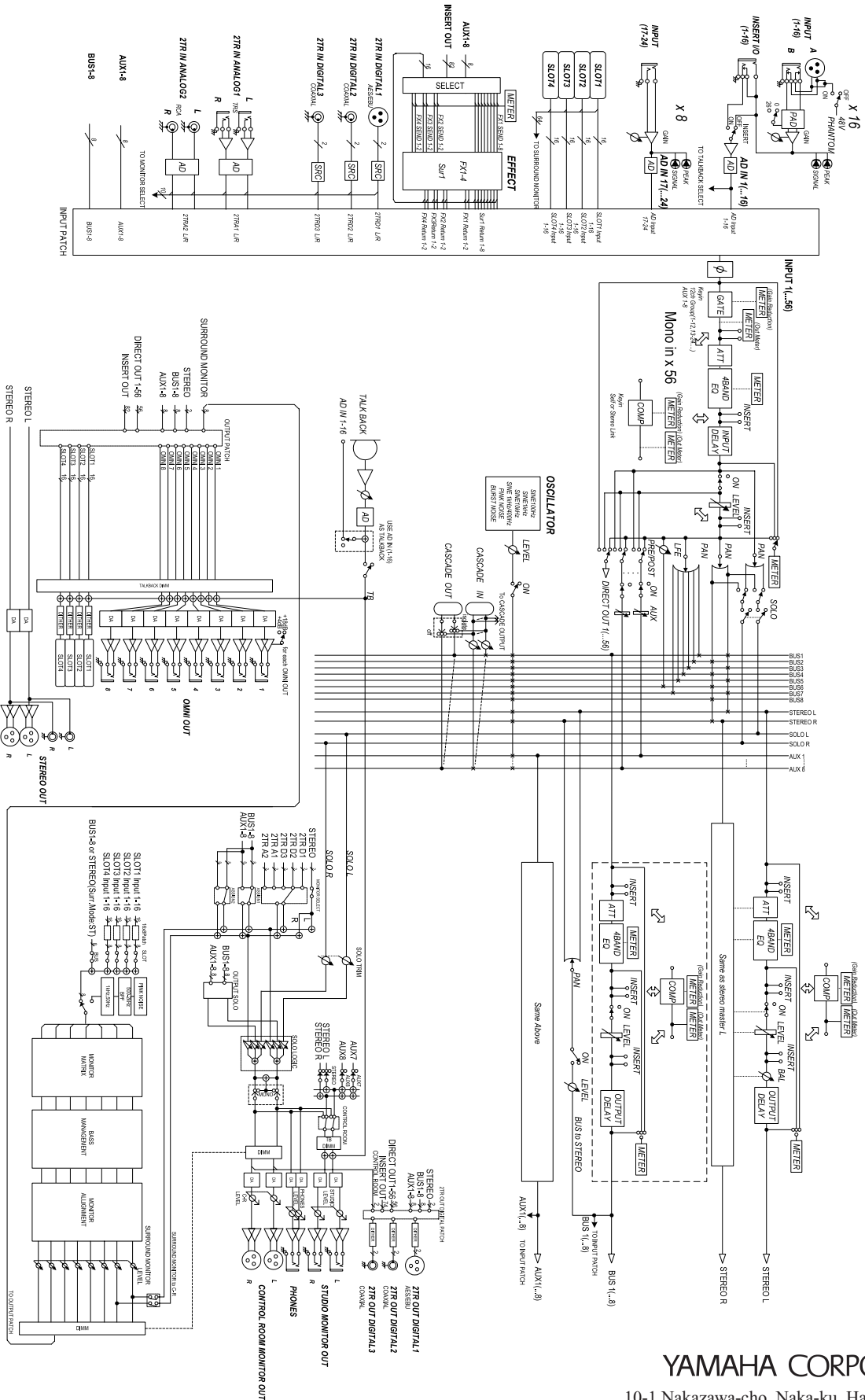
\*1 XLR-3-31 type connectors are balanced. (1=GND, 2=HOT, 3=COLD)

\*1 channel status of 2TR OUT DIGITAL 1...type: 2 audio channels, emphasis: NO, sampling rate: depends on the internal configuration

\*2 channel status of DIGITAL OUT 2, 3...type: 2 audio channels, category code: 2 channel PCM encoder/decoder, copy prohibit: NO, emphasis: NO, clock accuracy: Level II (1000 ppm), sampling rate: depends on the internal configuration

\*3 dither: word length 16 - 24 bit \*4 XLR-3-32 type connectors are balanced. (1=GND, 2=HOT, 3=COLD)

BLOCK DIAGRAM



• Specifications and appearance are subject to change without notice.