

Overview

Successor to the epoch-making 02R Digital Recording Console, with the same sonic quality as the DM2000 plus advanced features and performance tailored to audio production.



Rear Panel

Features

- Precise 24-bit/96-kHz audio and high-performance head amps.
- Generous mixing capacity with up to 56 inputs and 18 mix buses (8 group buses, 8 auxiliary buses and a stereo bus) in the same compact desktop dimensions as the original 02R.
- 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.
- Four Mini-YGDAI expansion slots for easy I/O expansion in a variety of formats.
- Compatible with Windows or Macintosh versions of Studio Manager version2 Software, allowing your PC and Console to work together seamlessly.
- A variety of Yamaha VCM effects and high-resolution REV-X reverbs.
- Included in the THX pm3™ Studio Certification Program Approved Equipment List.

Specifications

Functional Specifications

Mixing Capacity	Input Mixing Channels		56 mono	Input Channel Functions	DCA Rollout	No	
	AUX Buses		8		MUTE Group	8 (Mute Group Master)	
	Group Buses		8		Number of Inserts	1	
	Matrices		0		Direct Out	Yes	
	Stereo Buses		1		Output Channel Functions	PEQ	4 Band Full PEQ
	Mono Buses		0			GEQ	No
	Cue Bus		1 (Solo)			Dynamics 1	Compressor
			Output Channel Delay	Yes			
Local Connectors	Analog Input	XLR	16 (Input A 1-16)	FX	MUTE Group	0 (4 Mute Group Master)	
		TRS	8 (Input 17-24), 16 (Input B 1-16), 1 (2 TR In Analog 1)		Number of Inserts	1	
		RCA pin	1 (2 TR In Analog 2)		Quick Pro Preset	No	
	Analog Output	XLR	1 (Stereo Out)		Number of FXs	4 (1 for multi channel effect)	
		TRS Phone	8 (Omni Out)	Number of FX Programs	67		
		RCA pin	1 (Stereo Out)	GEQ	Available Channels	No	
	MY Slots		4	Recording	USB Memory Recording	No	
	ADAT I/O		0		DVS Recording	No	
					USB Audio Stream	No	
	Digital In	AES/EBU	1	Broadcast Functions	5.1 Surround Panning	Yes	
		Coaxial (IEC 60958)	2		Surround Monitor	Yes (Bass Management support)	
	Digital Out	AES/EBU	1		Mix Minus	Yes	
		Coaxial (IEC 60958)	2	L-Mono / R-Mono / LR-Mono	No		
	GPI		2 in / 8 out	Monitor	Solo Mode	Yes (Mixdown Solo)	
	Word Clock I/O		In / Out		Oscillator	Sine 100Hz / Sine 1kHz / Sine 10kHz / 1kHz/400Hz / Pink Noise / Burst Noise	
	MIDI I/O		In / Out / Thru	Other Functions	Port to Port	No	
	USB TO HOST		1		Dual Console	No	
	Meter Bridge		Optional MB02R96		Timecode Reader/Display	Yes (Display on Automix window)	
	Ethernet		No (Control via USB TO HOST)		Timecode Chase (Event List)	No (Automix support)	
	Lamp		0		Automix	Yes	
	Talkback In		0 (Built-in Mic)		GPI/MIDI	Yes	
	Video Out		No		Wireless Mic Monitoring	No	
	TC In		Yes		RTA	No	
	Fault Output		No		Output Port Delay	No	
	Phones		1		Cascade	Yes	
	AC Inlet		1		User Level	No	
					Help File	No	
			Channel Link		No		
			User Interface		Display	Non-touch display	
				Centralogic Section	No		
				Faders	24+1		
				Selected Channel Encoders	PEQ (controls for 4 bands), Dynamics, Pan, Routing		
				Channel Encoder	Yes (for Pan, Send Level, or an assigned parameter)		
				Channel Name / Color Display	No		
				Custom Fader Banks	Yes (User Assignable Layer)		
				User Defined Keys	16		
				User Defined Knobs	No		
				Touch and Turn Knob	No		
			Monitor Level Knob	Yes			
			Rack-mounting	No			
			Software	Editor	02R96 V2 Editor running on Studio Manager V2		
				StageMix	No		
				MonitorMix	No		
				Nuendo Live: Control integration	No		
				Console File Converter	No		
Mixing Capacity	Number of Scenes		99	Scene Memory	Recall Safe	Yes	
	Focus Recall		No		Fade Time	Yes	
	Preview		No		Selective Load / Save	No	
	Global Paste		Yes		Event List	No	
	Overlay		No		Isolate	No	
	Tactile Control Keys		Yes		Gain Compensation	No	
	Silk		No		Digital Gain	No	
	ATT		Yes		HPF	21.2Hz ~ 20kHz	
	PEQ		4 Band Full PEQ		Dynamics 1	Gate	
	Dynamics 2		Comp		Dynamics 2	Comp	
	Input Delay		Yes (frame delay support)		Input Delay	Yes (frame delay support)	
Pan		CENTER NOMINAL or LR NOMINAL	Pan	CENTER NOMINAL or LR NOMINAL			
DCA Group		0 (8 Fader Group Master)	DCA Group	0 (8 Fader Group Master)			

Specifications

2/2

General Specifications

Internal processing	32bit (Accumulator=58bit)
Number of scene memories	99
Sampling frequency rate	Internal : 44.1kHz, 48kHz, 88.2kHz, 96kHz External: Normal rate 44.1kHz (-10%) to 48kHz (+6%) Double rate 88.2kHz (-10%) to 96kHz (+6%)
Signal Delay	Less than 2.0 ms CH INPUT to STEREO OUT (@fs=48 kHz) Less than 1.1 ms CH INPUT to STEREO OUT (@fs=96 kHz)
Total harmonic distortion*1 CH INPUT to STEREO OUT Input Gain=Min.	Less than 0.05%, 20Hz to 20kHz @+14dBu into 600Ω Less than 0.01%, 1kHz @+18dBu into 600Ω (@fs=48kHz) Less than 0.05%, 20Hz to 40kHz @+14dBu into 600Ω Less than 0.01%, 1kHz @+18dBu into 600Ω (@fs=96kHz)
Frequency response CH INPUT to STEREO OUT	20Hz - 20kHz, 0.5, -1.5dB, @+4dBu into 600Ω (@fs=48kHz) 20Hz - 40kHz, 0.5, -1.5dB, @+4dBu into 600Ω (@fs=96kHz)
Dynamic range (maximum level to noise level)	110dB typ, DA Converter (STEREO OUT) 105dB typ, AD+DA (to STEREO OUT)
Hum & noise level*2 (20Hz to 20kHz), Rs=150Ω	-128dBu Equivalent Input Noise -92dBu residual output noise. STEREO OUT(STEREO OUT off) -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)
Crosstalk (@1kHz) Input Gain=Min.	-80dB adjacent input channels (CH1-24) -80dB input to output
Phantom Power	+48V
Power requirements	Japan: AC100V 50/60Hz North America: AC120V, 60Hz Other Areas: AC220-240V, 50/60Hz
Power consumption	200W
Dimensions (W x H x D)	667mm x 239mm x 697mm (26.3" x 9.4" x 27.4") With MB and SP: 700mm x 352mm x 762mm (27.6" x 13.9" x 30.0")
Weight	34.0kg (75lbs) With MB&SP:39.4kg (86.9lbs)

*1 Total harmonic distortion is measured with a 18dB/Oct filter @80kHz.

*2 Hum & noise level is measured with a 6dB/oct filter @12.7kHz; equivalent to 20kHz filter with infinite dB/Oct attenuation.

Analog Input Specifications

Input terminal	Actual source impedance		For use with nominal	Input level			Connector	
	PAD	GAIN		Sensitivity	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* B:TRS Phone Jack*
	26	-16dB			-26dBu	-16dBu	-2dBu	
CH INPUT 17-24		+34dB	4kΩ	600Ω Lines	0dBu	+10dBu	+24dBu	TRS Phone Jack*
		+10dB			-44dBu	-34dBu	-20dBu	
INSERT IN 1-16			10kΩ	600Ω Lines	-6dBu	+4dBu	+18dBu	TRS Phone Jack**
2TR IN ANALOG 1[L,R]			10kΩ	600Ω Lines	+4dBu	+4dBu	+18dBu*	TRS Phone Jack*
2TR IN ANALOG 2[L,R]			10kΩ	600Ω Lines	-10dBu	-10dBV	+4dBV	RCA Pin Jack**

Analog Output Specifications

Output terminal	Actual source impedance	For use with nominal	GAIN SW	Output terminals		Connector	
				Nominal	Max. before clip		
STEREO OUT[L,R]	600Ω	10kΩ Lines	—	-10dBV	+4dBV	RCA Pin Jack**	
	75Ω	600Ω Lines	—	+4dBu	+18dBu*	XLR3-32 type*	
STUDIO MONITOR OUT[L,R]	150Ω	10kΩ Lines	—	+4dBu	+18dBu*	TRS Phone Jack*	
C-R MONITOR OUT[L,R]	150Ω	600Ω Lines	—	+4dBu	+18dBu*	TRS Phone Jack*	
OMNI OUT 1-8	150Ω	10kΩ Lines	—	+18dB (default)	+4dBu	+18dBu	TRS Phone Jack*
				+4dB	-10dBu	+4dBu	
INSERT OUT 1-16	600Ω	10kΩ Lines	—	+4dBu	+18dBu	TRS Phone Jack**	
PHONES	100Ω	8Ω Phones	—	4mW	25mW	ST Phone Jack**	
		40Ω Phones	—	12mW	75mW		

Digital Input Specifications

Terminal	Format	Data length	Level	Connector
2TR IN DIGITAL	1 AES/EBU	24bit	RS422	XLR3-31 type
	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 68Pin (Female)

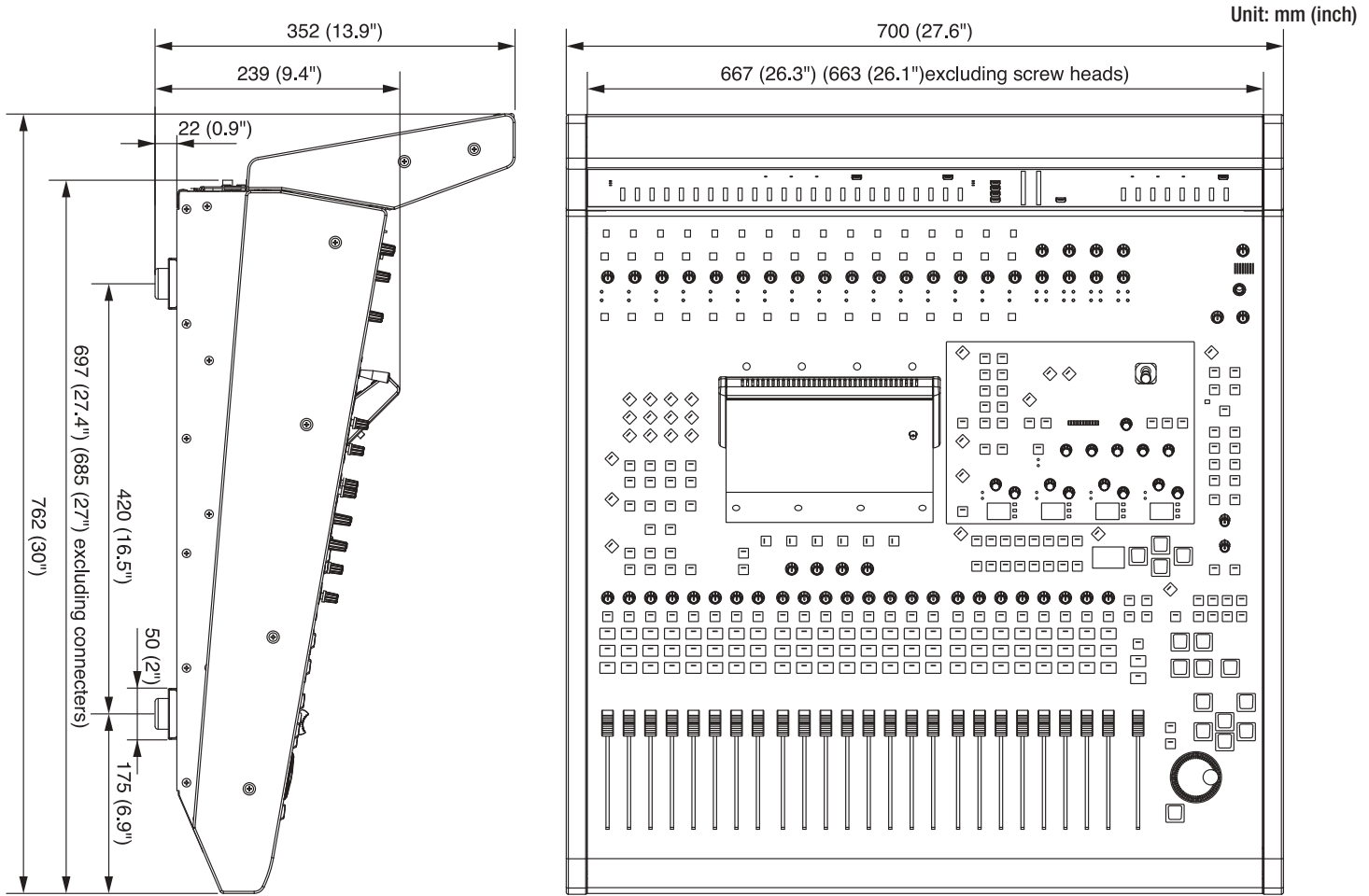
Digital Output Specifications

Terminal	Format	Data length	Level	Connector
2TR OUT DIGITAL	1 AES/EBU (Professional use)	24bit	RS422	XLR3-32 type
	2 IEC-60958 (Consumer Use)	24bit	0.5Vpp/ 75Ω	RCA Pin Jack
	3 IEC-60958 (Consumer Use)	24bit	0.5Vpp/ 75Ω	RCA Pin Jack
CASCADE OUT	—	—	RS422	D-sub Half Pitch Connector 68Pin (Female)

Control I/O Specifications

Terminal	Format	Level	Connector	
TO HOST	Serial	—	Mini DIN Connector 8P	
	USB	USB1.1	0 V~3.3 V	B Type USB Connector
MIDI	IN	MIDI	—	DIN Connector 5P
	OUT	MIDI	—	DIN Connector 5P
	THRU	MIDI	—	DIN Connector 5P
TIME CODE IN	MTC	MIDI	—	DIN Connector 5P
	SMPTE	SMPTE	Nominal -10dB/10kΩ	XLR3-31 Type*
WORD CLOCK	IN	—	T TL / 75Ω (ON/OFF)	BNC Connector
	OUT	—	T TL / 75Ω	BNC Connector
CONTROL	—	Open collector	D-Sub Connector 25P (Female)	
METER	—	RS422	D-SUB Connector 15P (Female)	

Dimensions



Options

- Meter Bridge MB02R96
- Wooden Side Panels SP02R96
- Digital Audio Cable CA003

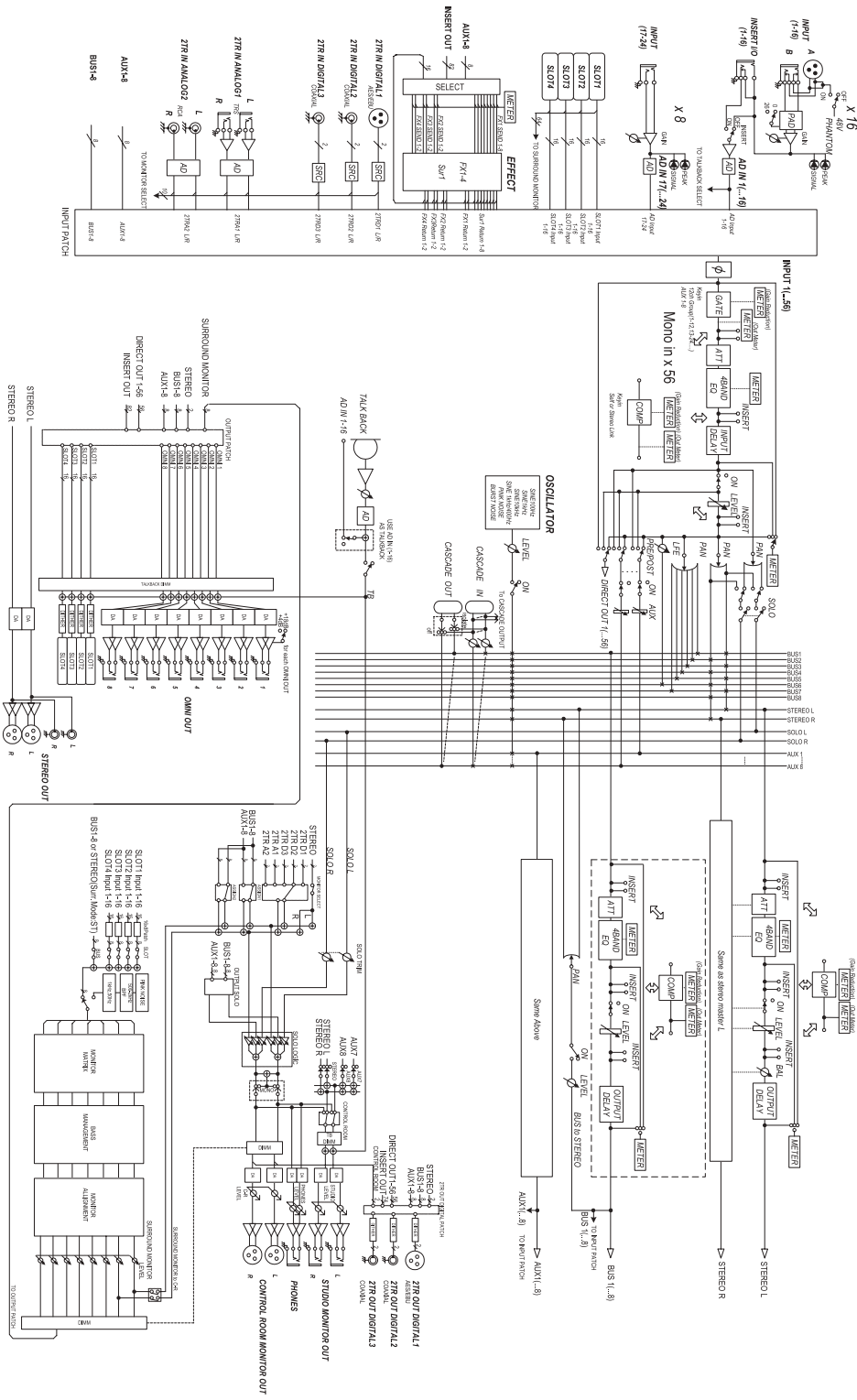
Software

- Studio Manager V2
- 02R96 Editor

Architectural and Engineering Specifications

The Yamaha 02R96VCM Digital Mixing Console shall operate at up to a 96kHz sampling frequency and include the same high-resolution head amplifiers as the DM2000VCM Digital Mixing Console. With 24 + 1 (Master) faders it shall provide a mixing capacity of up to 56 mono inputs, 8 groups, and 8 auxiliary buses. It shall provide 4 powerful effect processors that allow selection of VCM effects, REV-X reverb effects, iSSP surround processing, and more. All input channels shall include gate, compressor, 4-band PEQ, delay, and other facilities. Local I/O shall include 16 microphone/line inputs, 16 inserts, 8 outputs (TRS phone), 2 analog 2TR inputs (TRS phone/RCA), stereo outputs, studio monitor outputs, C-R monitor outputs, AES/EBU I/O, IEC-60957 I/O, cascade I/O, 4 Mini-YGDAI slots, word clock I/O, MIDI I/O, USB host, and Control connectors. Dimensions shall be 667 (W) x 239 (H) x 697 (D) mm. Weight shall be 34 kg.

Block Diagrams



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