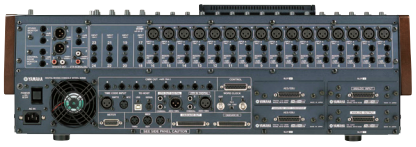
Overview

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 1/2

Functional Specifications

Mixing Capacity	Input Mixing Channels		56 mono
	AUX Buses		8
	Group Buses		8
	Matrices		0
	Stereo Buses		1
	Mono Buses		0
	Cue Bus		1 (Solo)
Local Connectors	Analog Input	XLR	16 (Input A 1-16)
		TRS	8 (Input 17-24), 16 (Input B 1-16), 1 (2 TR In Analog 1)
		RCA pin	1 (2 TR In Analog 2)
	Analog Output	XLR	1 (Stereo Out)
		TRS Phone	8 (Omni Out)
		RCA pin	1 (Stereo Out)
	MY Slots		4
	ADAT I/O		0
	Digital In	AES/EBU	1
		Coaxial (IEC 60958)	2
	Digital Out	AES/EBU	1
		Coaxial (IEC 60958)	2
	GPI		2 in / 8 out
	Word Clock I/O		In / Out
	MIDI I/O		In / Out / Thru
	USB TO HOST		1
	Meter Bridge		Optional MB02R96
	Ethernet		No (Control via USB TO HOST)
	Lamp		0
	Talkback In		0 (Built-in Mic)
	Video Out		No
	TC In		Yes
	Fault Output		No
	Phones		1
	AC Inlet		1
Scene Memory	Number of Scenes		99
	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
Input Channel Functions	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
	Input Delay		Yes (frame delay support)
	Pan		CENTER NOMINAL or LR NOMINAL
	DCA Group		0 (8 Fader Group Master)

Input Channel Functions	DCA Rollout	No
	MUTE Group	8 (Mute Group Master)
	Number of Inserts	1
	Direct Out	Yes
Output Channel Functions	PEQ	4 Band Full PEQ
	GEQ	No
	Dynamics 1	Compressor
	Output Channel Delay	Yes
	MUTE Group	0 (4 Mute Group Master)
	Number of Inserts	1
	Quick Pro Preset	No
FX	Number of FXs	4 (1 for multi channel effect)
	Number of FX Programs	67
GEQ	Available Channels	No
Recording	USB Memory Recording	No
	DVS Recording	No
	USB Audio Stream	No
Broadcast Functions	5.1 Surround Panning	Yes
	Surround Monitor	Yes (Bass Management support)
	Mix Minus	Yes
	L-Mono / R-Mono / LR-Mono	No
Monitor	Solo Mode	Yes (Mixdown Solo)
	Oscillator	Sine 100Hz / Sine 1kHz / Sine 10kHz / 1kHz/400Hz / Pink Noise / Burst Noise
Other Functions	Port to Port	No
	Dual Console	No
	Timecode Reader/Display	Yes (Display on Automix window)
	Timecode Chase (Event List)	No (Automix support)
	Automix	Yes
	GPI/MIDI	Yes
	Wireless Mic Monitoring	No
	RTA	No
	Output Port Delay	No
	Cascade	Yes
	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

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	PAD	GAIN	Actual source impedance	For use with nominal	Input level: Sensitivity	Input level: Nominal	Input level: Max. before clip	Connector
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*
		-16dB			-26dBu	-16dBu	-2dBu	
	26				0dBu	+10dBu	+24dBu	
CH INPUT 17-24		+34dB	4kΩ	600Ω Lines	-44dBu	-34dBu	-20dBu	TRS Phone Jack*
		+10dB			0dBu	+10dBu	+24dBu	
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: Nominal	Output terminals: Max. before clip	Connector
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

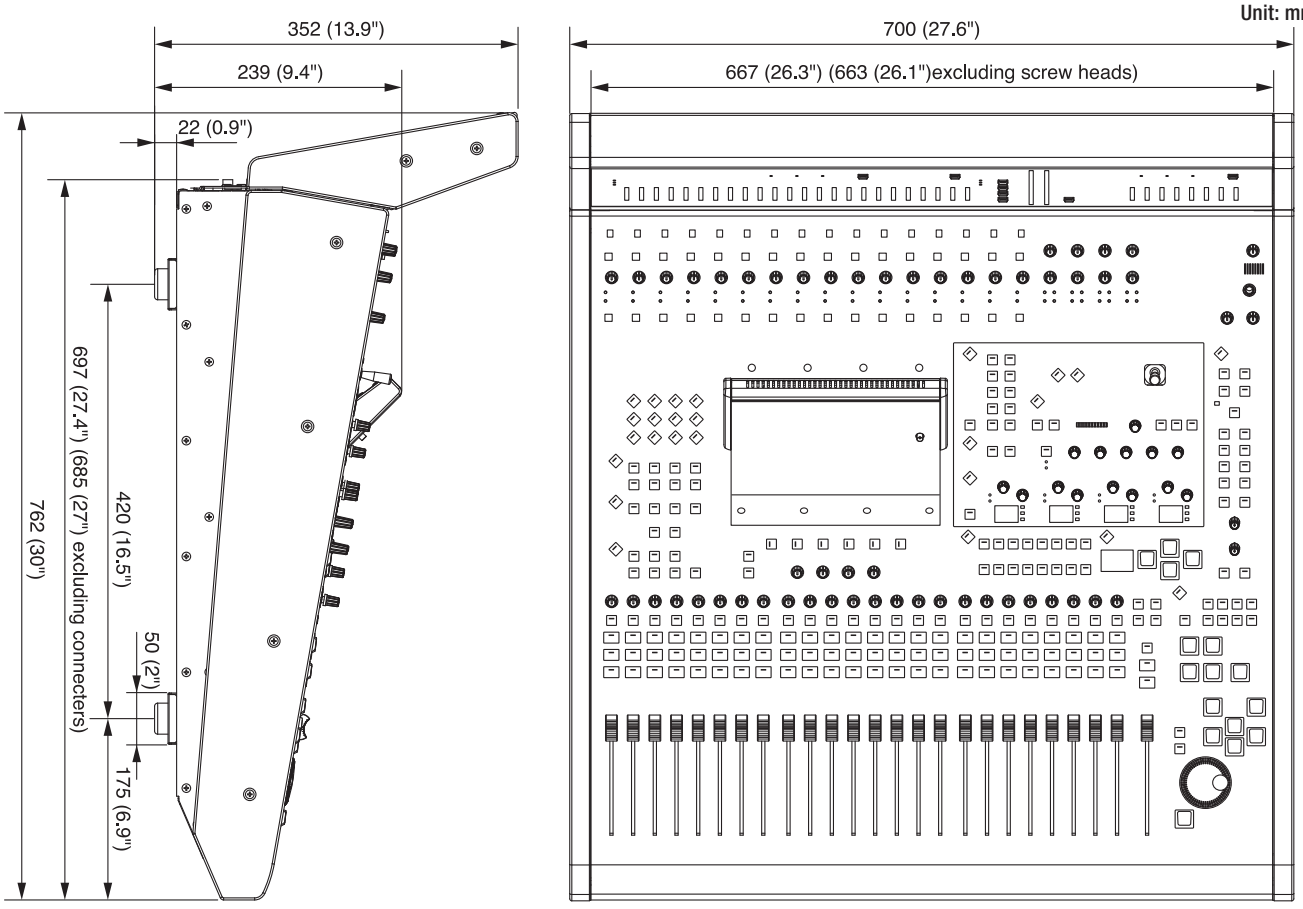
Terminal		Format	Data length	Level	Connector
2TR OUT DIGITAL	1	AES/EBU (Professional use)	24bit	RS422	XLR3-32 type
	2	IEC-60958 (Consumer Use)	24bit	0.5Vpp/ 75Ω	RCA Pin Jack
	3	IEC-60958 (Consumer Use)	24bit	0.5Vpp/ 75Ω	RCA Pin Jack
CASCADE OUT		—	—	RS422	D-sub Half Pitch Connector 68Pin (Female)

Control I/O Specifications

Terminal		Format	Level	Connector
TO HOST	Serial	—	RS422	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

Unit: mm (inch)



Options

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

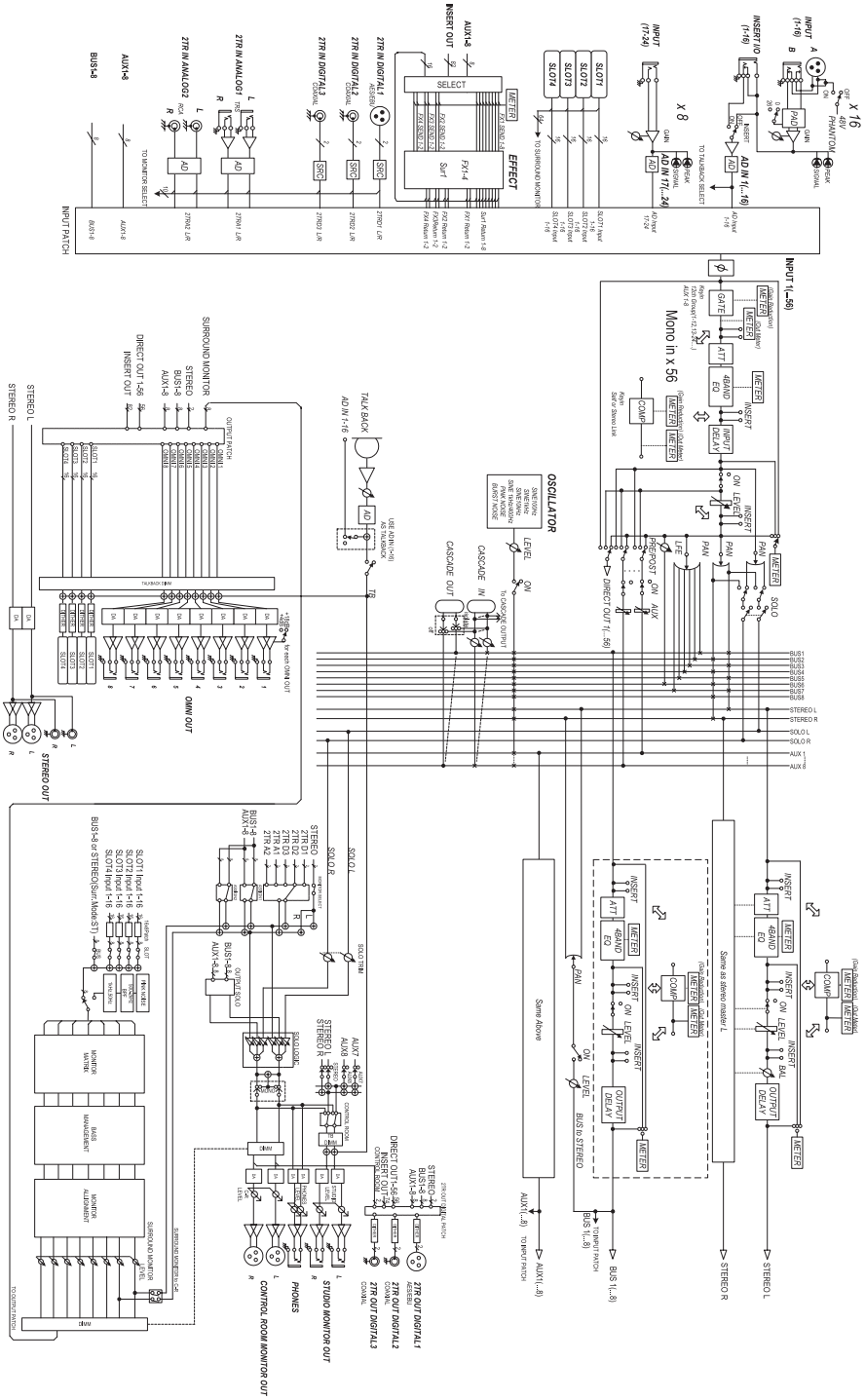
Software

- 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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