



DIGITAL RECORDING CONSOLE
O2R
Version 2



As development of the O2R Digital Recording Console continues, Yamaha announce the Version 2.0 System Software, providing increased functionality for music recording and postpro applications. Since its debut in 1995, the O2R has become the de facto standard digital recording console. Many of the new functions and refinements are the direct result of recording and postpro customer feedback. Available in autumn 1997

Improved Automation

New copy, move, timecode offset, and timecode capture functions enhance the powerful onboard automix system.

Surround Sound

Onboard surround sound makes the O2R the obvious choice for sophisticated surround sound production.

More Digital Sends

Bus outs, aux sends, channel direct outs, and the stereo output can be assigned to the YGDAI digital outputs.

Remote Control

MIDI Remote provides remote equipment control using the O2R's tactile faders and buttons, and includes preconfigured templates for use with the ProMix 01, O2R, O3D, ProR3, REV500, and Pro Tools.

24bit Recording

Using two recorder tracks per channel, highresolution digital audio can be recorded at the maximum wordlength of 24 bits.

Specifications

General Specifications

Total Harmonic Distortion*1	not more than 0.2% 20Hz- 20kHz(analog output) @+14dB into 600ohms
Frequency Response*1	+1-3dB 20Hz- 20kHz @+4dB into 600ohms
Dynamic Range	110dB(Typical) DA Converter (STEREO OUT)
	105dB(Typical) AD+DA (Mic/Line IN to STEREO OUT)
Hum & Noise Level*2	-128dB Equivalent Input Noise (20Hz- 20kHz) Rs=150ohms, Input Gain=Max, Input Pad=0dB, Input Sensiivity=-60dB
Crosstalk @1kHz	70dB adjacent input channels
	70dB input to input
AD Conversion	20-bit linear 64 times oversampling(Input 1- 24)
DA Conversion	20-bit linear 8 times oversampling(ST OUT, C-R MONI OUT)
	18bit linear 8 times oversampling(STUDIO MONI OUT, AUX SEND1- 8)
Internal Signal Processing	32 bits (Dynamic Range 192dB)
Sampling Frequency	Internal 44.1/48kHz External 32kHz(-6%)- 48kHz(+6%)
Equalizer	4-band Full Parametric Equalization f:20Hz- 20kHz (120 points),G:+/-18dB(0.5dB step),Q:0.1- 10(41 points) All four stages type:shelving/filter - LOW,HIGH (40 IN,Internal EFF RTN1,2,ST OUT)
Fader	100mm Motor Faderx21
Memory	Scene(Total Recall) 64 Ch Library 128 EQ Library 128(40 presets+88 user presets) Dynamic Library 128(40 presets+88 user presets) Effect Library 128(40 presets+88 user presets) Auto Mix 16(512KB)
Display	320x240 pixel backlit LCD panel LCD
Stereo Meter	21-elements x 2 LED

Dimensions & Weights	662.7(*700.7)Wx221.5(**334.9)Hx685(**691.5)D mm/30kg *When fitting Wood Side Pads W02SP(1.7kg) **When fitting Peak Meter Bridge MB02(3.0kg)
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*1 fs: internal 48kHz

*2 measured with a 6dB/octave filter@12.7kHz(equivalent to a 20kHz filter with infinite dB/octave attenuation)

Analog I/O Standard

Input Terminal	PAD	GAIN	Input Impedance	Source Impedance	Input Level			Used Connectors
					Sensitivity	Nominal Level	Maximum Non-clipping Level	
CH INPUT Mic/Line 1- 16 A:1- 8, B:1- 16	0	-60	A:3kohms B:4kohms	50- 600ohms Mics & 600ohms Lines	-70dB (0.245mV)	-60dB (0.775mV)	-40dB (7.75mV)	A:XLR-3- 31type(B)or B:TRS Phone Jack(B)
		-16			-26dB (38.8mV)	-16dB (0.123V)	+4dB (1.23V)	
	20	-6dB (388mV)			+4dB (1.23V)	+24dB (12.3V)		
CH Input Line17- 24		-40	4kHz	600ohms Lines	-50dB (2.45mV)	-40dB (7.75mV)	-20dB (77.5mV)	TRS Phone Jack(B)
		+4			-6dB (338mV)	+4dB (1.23V)	+24dB (12.3V)	
Insert IN Mic/Line1-8			10kohms	600ohms Lines	-10dB (245mV)	+0dB (0.775mV)	+20dB (7.75V)	TRS Phone Jack(U)
2Track Input(L,R)			10kHz	600ohms Lines	+4dB (1.23V)	+4dB (1.23V)	+24dB (12.3V)	TRS Phone Jack(B)
			10kohms	600ohms Lines	-10dBV (316mV)	-10dBV (316mV)	+10dBV (3.16V)	RCA Pin Jack(U)

Output Terminal	Output Impedance	Load Impedance	Output Level		Used Connectors
			Nominal Level	Maximum Non-clipping Level	
STEREO OUT(L,R)	150ohms	600ohms Lines	+4dB(1.23V)	+24dB(12.3V)	XLR-3- 32type(B)
	600ohms	10kohms Lines	- 10dBV(316mV)	+10dBV(3.16V)	RCA Pin Jack(U)
STUDIO MONITOR OUT(L,R)	150ohms	10kohms Lines	+4dB(1.23V)	+24dB(12.3V)	TRS Phone Jack(B)

C-R MONITOR OUT(L,R)	150ohms	10kohms Lines	+4dB(1.23V)	+24dB(12.3V)	TRS Phone Jack(B)
AUX SEND1- 6	600ohms	10kohms Lines	+4dB(1.23V)	+20dB(7.75V)	Phone Jack(U)
INSERT OUT Mic/Line1-8	600ohms	10kohms Lines	0dB(0.775mV)	+20dB(7.75V)	TRS Phone Jack(U)
PHONES	100ohms	8ohms Phones	1mW	25mW	Stereo Phone Jack
		40ohms Phones	3mW	110mW	

*(B) Balance type (U) Unbalance type

*0dB=0.775Vrms, 0dBV=1Vrms

Digital I/O Standard

Terminal Name	Format	Level	Used Connectors
STEREO OUT DIGITAL AES/EBU	AES/EBU	RS-422	XLR-3-31type
COAXIAL	S/P DIF	0.5Vpp/75ohms	RCA pin Jack
2TR IN DIGITAL 1 AES/EBU	AES/EBU	RS-422	XLR-3-32type
2,3 COAXIAL	S/P DIF	0.5Vpp/75ohms	RCA pin Jack
WORD CLOCK IN	-	TTL/75ohms	BNC
WORD CLOCK OUT	-	TTL/75ohms	BNC
TC IN	SMPTE	Nominal-10dBV/10kohms	RCA pin Jack
MTC IN	MIDI	-	DIN 5 pin
MIDI IN-OUT-THRU MIDI	-	-	DIN 5 pin
TO HOST	-	-	Mini DIN 8 pin
METER	-	RS-422	D-sub 15 pin

***Specifications and appearance subject to change without notice.