SPECIFICATIONS

YAMAHA

01V 96 VCM
DIGITAL MIXING CONSOLE

GENERAL SPECIFICATIONS

Internal processing	32bit (Accumulator 58bit)
Number of scene memories	99
Sampling frequency	Internal: 44.1kHz, 48kHz, 88.2kHz, 96kHz
	External: Normal rate: 44.1kHz-10% - 48kHz+6% / Double rate: 88.2kHz-10% - 96kHz+6%
Signal delay	Less than 1.6ms CH INPUT to STEREO OUT (@Sampling frequency = 48kHz) / Less than 0.8ms CH INPUT to STEREO OUT (@Sampling frequency = 96kHz)
Fader resolution	100mm motorized x17
Total harmonic distortion * Input GAIN=Min.	CH INPUT to STEREO OUT / Less than 0.05%, 20Hz to 20kHz @+14dB into 600ohms / Less than 0.01%, 1kHz @+24dB into 600ohms (@Sampling frequency = 48kHz) / Less than 0.05%, 20Hz to 40kHz @+14dB into 600ohms / Less than 0.01%, 1kHz @+24dB into 600ohms (@Sampling frequency = 96kHz)
Frequency response	CH INPUT to STEREO OUT / 0.5, -1.5dB, 20Hz - 20kHz @+4dB into 600ohms (@Sampling frequency = 48kHz) / 0.5, -1.5dB, 20Hz - 40kHz @+4dB into 600ohms (@Sampling frequency = 96kHz)
Dynamic range (maximum level to noise level)	110dB typ. DA Converter (STEREO OUT) / 106dB typ. AD+DA (to STEREO OUT) @fs=48kHz / 106dB typ. AD+DA (to STEREO OUT) @fs=96kHz
Hum & noise level ** (20Hz-20kHz) Rs=150ohms Input GAIN=Max Input PAD=0dB Input PAD=0dB Input sensitivity=-60dB	-128dB Equivalent Input Noise. / -86dB residual output noise. STEREO OUT STEREO OUT off. / -86dB (90dB S/N) STEREO OUT / STEREO fader at nominal level and all CH INPUT faders at minimum level. / -64dB (68dB S/N) STEREO OUT / STEREO fader at nominal level and one CH INPUT fader at nominal level
Maximum voltage gain	74dB CH INPUT (CH1-12) to STEREO OUT/OMNI (BUS) OUT / 40dB CH INPUT (CH13-16) to STEREO OUT / 74dB CH INPUT (CH1-12) to OMNI (AUX) OUT (via pre input fader) / 74dB CH INPUT (CH1-12) to MONITOR OUT (via STEREO BUS)
Crosstalk (@1kHz) Input GAIN=min	80dB adjacent input channels (CH1-12) / 80dB adjacent input channels (CH13-16) / 80dB input to output

* Total Harmonic Distortion is measured with a 6dB/octave filter @80kHz.
** Hum & Noise are measured with a 6dB/ octave filter @12.7kHz;equivalent to a 20kHz filter with infinite dB/octave attenuation.

Power requirements	Japan:	AC100V 50/60Hz, 90W
	North America:	AC120V, 60Hz, 90W
	Other Areas:	AC220-240V, 50/60Hz, 90W
Dimensions (W x H x D)		436 x 150 x 548 mm (17-3/16" x 5-5/16" x 21-1/4")
Weight		15kg (33.1lbs.)

LIBRARIES

	Number of factory presets	Number of user libraries
Effect library (EFFECT 1–4)	53	75
Compressor library	36	92
Gate library	4	124
EQ library	40	160
Channel library	2	127
Input patch library	1	32
Output patch library	1	32

ANALOG INPUT CHARACTERISTICS

Input terminal	PAD	GAIN	Actual load impedance	For use with nominal	Input level Sensitivity	Input level Nominal	Input level Max. before clip	Connector
CH INPUT 1 to 12	0	-60dB	3kohms	50-600ohm Mics & 600ohm Lines	-70dB	-60dB	-40dB	A:XLR-3-31 type (Balanced) B:TRS phone jack (Balanced)
	0	-16dB			-26dB	-16dB	+4dB	
	20	-26dB			-6dB	+4dB	+24dB	
CH INPUT 13 to 16		-26dB	10kohms	600ohm Lines	-36dB	-26dB	-6dB	TRS phone jack (Balanced)
		+4dB			-6dBV	+4dB	+24dB	
CH INSERT IN 1 to 12			10kohms	600ohm Lines	-6dB	+4dB	+24dB	TRS phone jack (Unbalanced)
2TR IN [L, R]			10kohms	600ohm Lines	-10dB	-10dB	+10dB	RCA pin jack (Unbalanced)

ANALOG OUTPUT CHARACTERISTICS

Output terminal	Actual source impedance	For use with nominal	Output level Nominal	Output level Max. before clip	Connector
STEREO OUT L, R	150ohms	600ohm Lines	+4dB	+24dB	XLR-3-32 type (Balanced)
OMNI OUT 1 to 4	150ohms	10kohm Lines	+4dB	+24dB	TRS phone jack (Balanced)
MONITOR OUT L, R	150ohms	10kohm Lines	+4dB	+24dB	TRS phone jack (Balanced)
CH INSERT OUT 1 to 12	600ohms	10kohm Lines	+4dB	+24dB	TRS phone jack (Unbalanced)
2TR OUT [L, R]	10Kohms	600ohm Lines	-10dBV	+10dBV	RCA pin jack (Unbalanced)
PHONES	100ohms	8ohm Lines	4mW	25mW	ST phone jack (Unbalanced)
		40ohm Lines	12mW	75mW	

DIGITAL INPUT CHARACTERISTICS

Terminal	Format	Data length	Level	Connector
2TR IN DIGITAL	IEC-60958	24bit	0.5Vpp/75ohms	RCA pin jack
ADAT IN	ADAT *1	24bit	—	OPTICAL

DIGITAL OUTPUT CHARACTERISTICS

Terminal	Format	Data length	Level	Connector
2TR OUT DIGITAL	IEC-60958 Consumer use	24bit	0.5Vpp/75ohms	RCA pin jack
ADAT OUT	ADAT	24bit	—	OPTICAL

CONTROL I/O CHARACTERISTICS

Terminal		Format	Level	Connector
TO HOST USB		USB	0V - 3.3V	B type USB connector
MIDI	IN *1	MIDI	—	DIN Connector 5P
	OUT	MIDI	—	DIN Connector 5P
	THRU	MIDI	—	DIN Connector 5P
WORD CLOCK	IN	—	TTL/75ohms	BNC Connector
	OUT	—	TTL/75ohms	BNC Connector

*1. MIDI IN can use as TIME CODE IN MTC.

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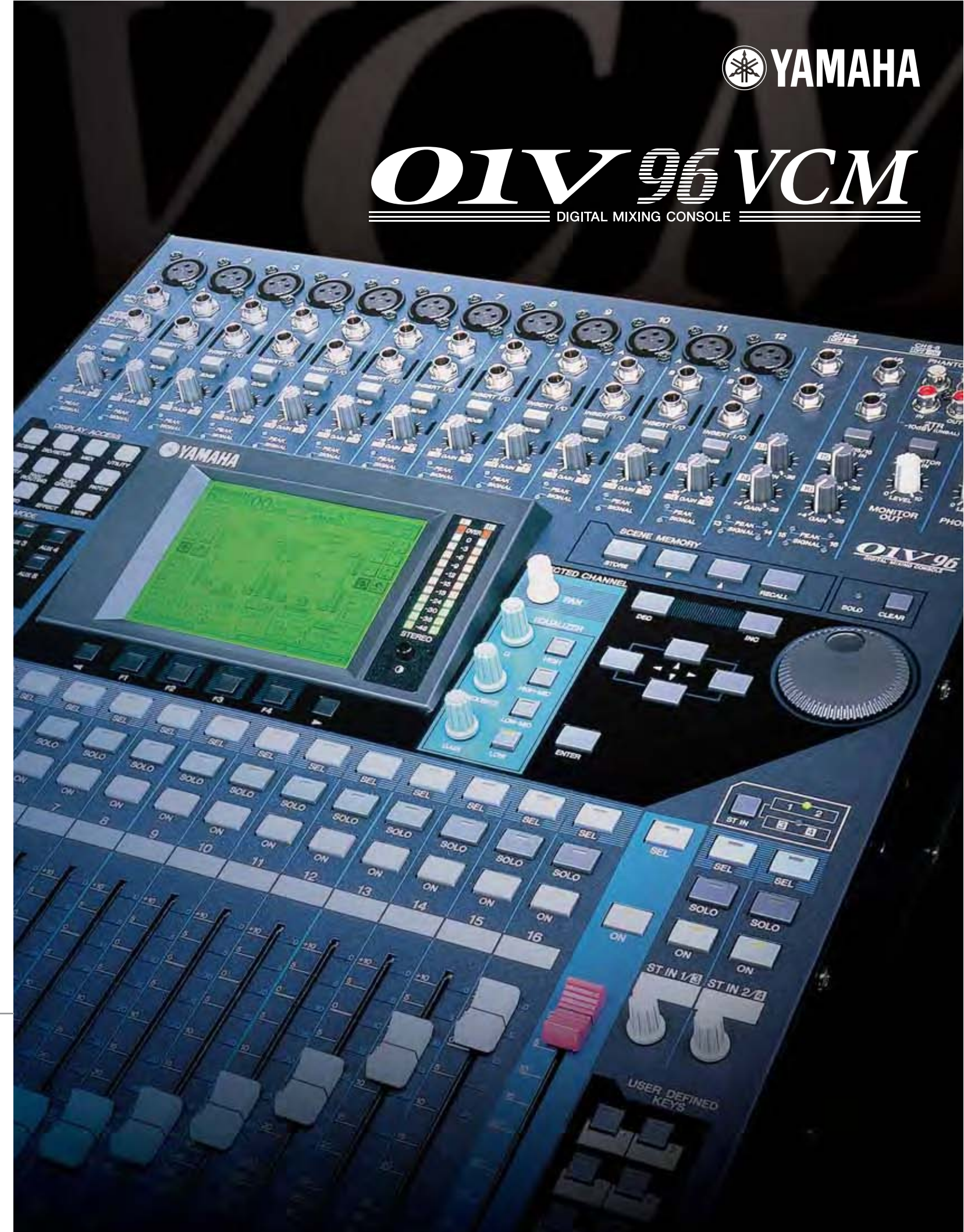
Cutting-edge Performance and Processing Capability

You simply won't find another digital console that offers this level of performance flexibility in a package this compact and affordable. The 01V96VCM will comfortably fit in the space and budget of the small studio while delivering sonic quality, effects, control, and compatibility that are second to none.

Built-in VCM Effects

Previously available as "add-on" effect packages for top-line digital consoles, Yamaha's highly regarded VCM Channel Strip processors and REV-X reverb are now standard features on the 01V96VCM. These extraordinary effects are based on innovative Virtual Circuit Modeling technology that actually models the original analog circuitry — right down to the last resistor and capacitor. VCM effects are capable of capturing subtleties that simple digital simulations cannot even approach, going beyond simple simulation and delivering the truly musical performance that makes classic analog gear invaluable even in today's digital production environment. The 01V96VCM includes the Channel Strip package with COMP276, COMP260, and EQ601 effects that bring vintage analog compression and EQ to life in the digital domain. It also includes the same REV-X algorithm that is behind the unmatched performance of Yamaha's stand-alone SPX2000 signal processor, delivering the most natural reverb and ambience available anywhere.

CHANNEL STRIP

This compressor and EQ effects faithfully captures the unique saturation effect of analog circuitry. Includes five models that employ VCM technology to recreate the sound and characteristics of classic compression and EQ units from the 70's. Fine-tuned by leading engineers, and featuring carefully selected parameters in a simple interface.

- **Compressor 276 (mono)/Compressor 276S (stereo):**
  Recreate the fast response, frequency characteristics, and tube-amp saturation of the most in-demand analog compressors for studio use.
- **Compressor 260 (mono)/Compressor 260S (stereo):**
  Features faithful modeling of the solid-state VCA and RMS detection circuitry of the late 70's for live sound reinforcement applications.
- **Equalizer 601:**
  Delivers the unique characteristics of 70's analog EQ circuitry, featuring graphical editing capability on both the console and PC displays.

REVERB

These reverb effects employ the latest "REV-X" algorithms first introduced in Yamaha's SPX2000 Professional Multi Effect Processor. The REV-X programs feature the richest reverberation and smoothest decay available, based on years of dedicated research and development.

- REV-X Hall, REV-X Room, and REV-X Plate programs are provided, with new parameters such as room size and decay envelopes that offer unprecedented definition and finer nuance control.
- The REV-X Hall and REV-X Room programs have a very open sound, while REV-X Plate delivers a brighter tonality that is ideal for vocals.
- All models deliver dense, warm reverb that does not interfere with the natural timbre of the source.

REV-X (HALL)   REV-X (ROOM)

REV-X (PLATE)

Still Small and Professional —Now with VCM Effects

The 01V96VCM delivers the performance and reliability of Yamaha's acclaimed digital live sound and production consoles in a remarkably compact design that is perfect for home and professional applications where space is limited or maximum portability is required.
It may be small but it can handle up to 40 inputs, and can be cascaded if more are required. And now, in addition to the many improvements that were implemented in the 01V96 Version 2, the 01V96VCM comes with a selection of Yamaha's unsurpassed VCM effects built in.
Of course the entire console — effects included — features 24 bit/96 kHz operation for ultimate resolution and sound quality that will satisfy the most demanding applications.

The Team and the Technology Behind the Sound

The division known at Yamaha as "K's Lab" ("K" for "Kunimoto") was established in 1987 to develop new modeling technology that would become the next phase in synthesizer evolution after the FM and PCM tone generators that were the mainstay of the synthesizer world at the time. Research and development has continued relentlessly ever since, and in 2001 the K's Lab team began aiming it's formidable technological capabilities at physical modeling for effects, and that's when Mr. Kunimoto's goal began to take on primary importance.

The Birth of VCM

It took more than two years of concentrated work, but by 2003 K's Lab had refined and re-purposed physical modeling to the point where it was ready for practical implementation ... in the form of Virtual Circuit Modeling. VCM is the cornerstone of Yamaha's Add-On Effects, and achieves it's stunning sonic and musical performance by actually modeling the individual characteristics of the multitude of parts and components that contributed to the final sound of the original analog circuits.

Engineer interviews — Steve Levine

Recording and mixing engineer, worked for many artists including Culture Club, The Beach Boys, Honeyz, and Gary Moore.

"I am very impressed with the Rev-X reverbs. These reverbs sound so good, a match for any current hardware reverb unit - the Rev-X room simulation is the best "room sound" I have heard since the famous Quantec room simulator."

"The vintage EQs & compressors really extend the range of EQ & compression options available. The original DM2000 EQs have been praised in the press for their sonic purity & accuracy now you have available EQs and compressors that add that "special vintage colour" that many artists, producers & engineers wish to add to their tracks, but without the sound of crackling pots !!!"

Super High Fidelity

24 bit/96 kHz Performance Takes Digital Sound To the Next Level

Digital audio technology has come a long way since the early days of 16 bits at 44.1 kHz — a format that many considered to be the reason for "harsh", "cold" sound. The entire industry is now settling on 24 bit/96 kHz digital operation for significantly superior sonic quality. The 01V96VCM does give you a choice — you can work at 44.1 kHz, 48 kHz, 88.2 kHz, or 96 kHz, depending on the needs of each individual project. But when you want the truly transparent, incredibly dynamic sound of 24 bits at 96 kHz, the 01V96VCM is ready to deliver. It even includes a comprehensive range of superb 96 kHz compatible stereo effects with 32 bit internal processing.

Connection with 96 kHz Recorders & Workstations

Although the 01V96VCM handles 96 kHz audio as standard, most of the currently available digital recorders and workstations can handle 96 kHz audio only in double channel mode (using two tracks to make one). In this configuration the 01V96VCM uses one channel per (96 kHz) track, but twice the number of I/O connections must be used. MY8-AT/TD/AE cards work in double channel mode to handle 16 channels of 44.1/48 kHz audio or up to 8 channels of 96 kHz audio in double channel mode. With the latest equipment that handles 96 kHz audio as standard (in double speed mode like the 01V96VCM) you can make standard connections using the MY8-AE96 card. The MY8-AE96 card can work either in double speed or double channel mode.

Mixing Versatility

24 Analog & Digital Channel Inputs ... Expandable to 40

Right out of the box the 01V96VCM gives you 16 analog channel inputs — 12 with high-performance microphone head amplifiers — and eight digital channel inputs via a built-in ADAT optical interface. Without going any further you're ready to handle a comprehensive mix of analog and digital inputs.

All the 01V96VCM input connectors are top-mounted for easy access in any application. The first 12 analog channels feature high-performance head amplifiers for microphone or line input that deliver a pristine signal to the console's precision 24 bit/96 kHz A/D converters. The 48-volt phantom power for condenser microphones is switchable in 4-channel groups, while trim controls and pad switches facilitate optimum level matching with the source, and channel inserts make it easy to insert external analog processing gear into the pre-A/D signal path.

Inputs 13 through 16 accept balanced/unbalanced line-level signals singly (each input has an independent trim control) or in pairs for stereo input. When you need more, Yamaha offers a range of Mini-YGDAI expansion cards that can simply be plugged into the 01V96VCM expansion slot to provide additional I/O in a variety of formats: ADAT, AES/EBU, TDIF, CobraNet, EtherSound, MADI or analog.

20-bus Configuration

The 01V96VCM offers a main stereo program bus, eight individual mixing buses, two solo buses, and eight auxiliary buses — a total of 20 in all. This gives you plenty of signal-routing options to adapt to just about any mixing requirements.

Surround Panning

Surround is becoming an important part of modern sound production. The 01V96VCM features 6.1, 5.1 and 3-1 surround panning modes so you can create surround mixes without having to sacrifice features or performance in other areas.
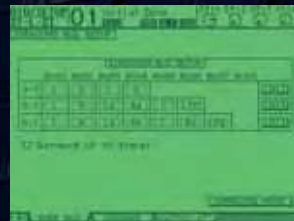
SURROUND MODE   SURROUND CH EDIT

INPUT CH1-16 SURROUND   SURROUND BUS SETUP

Advanced Input Functioning

Channel Strips With Precision 100-mm Motor Faders

The 16 channel strips on the 01V96VCM panel provide access to the most essential operations for the corresponding channels. Depending on the currently selected layer, the channel strips will control channels 1 through 16, channels 17 through 32, or the eight AUX sends and eight buses (the "Master Layer"). Also, the channel faders will function according to the settings in the FADER MODE section. In addition to a 100-millimeter motor fader, each channel strip includes a channel ON/OFF key, a SOLO key, and a SEL key that assigns the channel as the console's "selected channel". Detailed panning and EQ control for the currently selected channel is available via the SELECTED CHANNEL controls. The master STEREO fader is also a 100-mm motor type, with its own ON and SEL keys.

Selected Channel Controls

The SELECTED CHANNEL controls include the hands-on panning and EQ controls for the currently selected channel, with analog-style buttons and knobs for direct, easy access to the parameters. Need to adjust the high-mid frequency a little? Just tap the HIGH MID key and turn the FREQUENCY knob until you get the sound you want.

Fast, Flexible Digital Patching

All available inputs, outputs, effects, and channel inserts can be assigned to any of the console's channels or outputs via the 01V96VCM's remarkably versatile, easy-to-use digital patching system. For example, any of the effect processors can be assigned to an auxiliary bus for send-type operation, or inserted directly into any input channel as required. A direct out function also allows the signal from any of the input channels to be routed directly to any digital or analog output. The eight auxiliary buses can also be patched to anywhere in the system. Centralized control means you'll never have to run around to physically re-patch cables whenever you need to reconfigure the system, while patch setups you might want to use again can be stored in the 01V96VCM –patch library– for instant recall at any time.

INPUT PATCH

Advanced Solo Functions

When the Fader Solo Release function is active, touching any fader releases the current "solo"ed channel (s). In addition, the Pre-fader with Pan Mode allows you to monitor the post-pan pre-fader signal.

Effects & Advanced User Interface

Internal Effects Fully Support 96-kHz Processing

You could use external digital effect processors with the 01V96VCM, but what's the point when it already features built-in top-performance 24 bit/96 kHz effect processors? Also, you run the risk of lower audio quality if you have to convert down to a lower sampling rate for effect processing — which is exactly what's going to happen if you use hardware or software processors that don't offer 24 bit/96 kHz performance anywhere in your signal chain. That's why Yamaha included a comprehensive range of 96 kHz compatible stereo effects in the 01V96VCM. You can use two effects simultaneously at 88.2/96 kHz, and up to four effects at lower sampling frequencies.

FX1 LIB

Top-quality Compression, Gating, EQ and Delay

All input channels on the 01V96VCM feature flexible, independent compression and gating/ducking processors for dynamics control. All bands on the 4-band parametric channel equalizers are fully sweepable from 20 Hz to 20 kHz, with bandwidth variable from 0.1 to 10 and a ±18dB gain range for extraordinary equalization flexibility. The channel delays also go well beyond the norm, with a maximum delay of 452 milliseconds (96 kHz mode). Even the stereo bus, eight mix buses, and eight aux buses have individual compression and EQ!
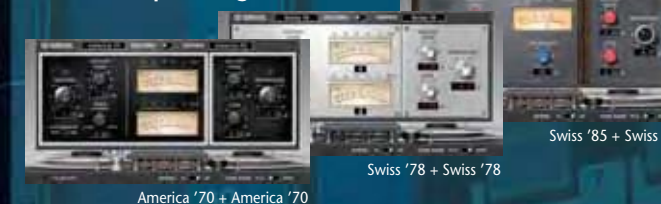
COMP EDIT   EQUALIZER EDIT

ADD-ON EFFECTS Capability

Optional ADD-ON EFFECTS can be added to the console's built-in effects for expanded processing capabilities. ADD-ON EFFECTS packages that can be used with the 01V96VCM include the Master Strip Package with stunning simulations of classic analog tape decks, and the Vintage Stomp package with faithful models of prized stomp boxes from the 70's that helped shape the sound of music history. You can edit these effects from the 01V96VCM as well as from your personal computer via the graphic STUDIO MANAGER Version 2 interface. The combination of the 01V96VCM and ADD-ON EFFECTS offers a totally integrated production environment that puts all the processing power you're ever likely to need right at your fingertips.

*AE-041 (Surround Post Package) can not be used with the 01V96VCM.

Master Strip Package

Swiss '85 + Swiss '85

Swiss '78 + Swiss '78

America '70 + America '70

Vintage Stomp Package

DUAL PHASER   MAX100   VINTAGE PHASER

Advanced Layer and Bus Operation

Fader Mode

The FADER MODE keys allow the 01V96VCM faders to be instantly switched between fader and auxiliary level control. Since the faders feature fast, precise motor-drive mechanisms, they immediately respond by moving to the appropriate settings for the selected mode.

Layer Switching for Fast Access to 32-channel, Aux/Bus Fader + User-assignable Configuration

One of the advantages of digital control is that it allows extraordinary power and flexibility to be packed into minimum space. The 01V96VCM has 17 physical 100-millimeter motor faders. The first 16 can be instantly switched to handle input channels 1 through 16, 17 through 32, auxiliary sends 1 through 8 and buses 1 through 8, or user-assignable configuration via the console's LAYER switches.

In the user-assignable layer, a new added feature in version 2, you can create a mixed fader configuration of input and output channels, or you can use the faders as Fader Group Masters.

There's also a ST IN layer switch that switches between the stereo 1/2 or 3/4 inputs for the stereo layer controls. Having all controls right in front of you at all times not only saves space, it also means that all operations can be carried out without having to move away from the monitoring "sweet spot".

Scene & Memory

Scene Memory

Complete console setups can be memorized and instantly recalled via the 01V96VCM SCENE MEMORY controls. Memory is provided for up to 99 scenes. In addition to recalling scenes from the panel controls you can recall them remotely via MIDI program change messages, providing a handy degree of automation capability. The current scene number – 01 through 99 – is shown on the LCD panel. Additional scene memories can be managed via a computer running the supplied STUDIO MANAGER software.

With version 2, you can copy and paste channel or parameter settings from the current scene into other scenes. This feature can be useful if you have already programmed several scenes, but want to edit certain parameters in all scenes.

Enhanced User Interface

Large LCD Panel

The new 01V96VCM display is a high-resolution 320 x 240 dot LCD panel that provides easy visual access to all of the consoles functions and parameters. Many parameters are displayed graphically so you can see what's happening at a glance — EQ curves and compression parameters are especially "readable" in this format.

Display Access

The DISPLAY ACCESS keys determine which type of data will be shown on the LCD panel — a total of 12 selectable categories. This approach minimizes the need to scroll through on-screen lists when you need access to a particular type of data.
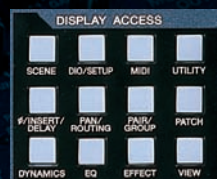
Data Entry

Large cursor, INC/DEC, and enter keys are complemented by a data entry dial that lets you spin in desired values quickly and easily. The data entry dial also doubles as a shuttle/scrub dial for recorder or DAW control.

Expandable Data Libraries

Setting up EQ, compression, and other parameters for a mix from scratch can be a daunting task, so Yamaha has provided an extensive selection of presets in a range of "libraries" that can simply be selected and used unmodified, or edited to suit specific requirements. Libraries are provided for effects, compression, gating, EQ, I/O patching, and channel setups. Of course, your own setups can be added to the libraries for instant recall whenever they are needed.

EFFECT LIBRARY
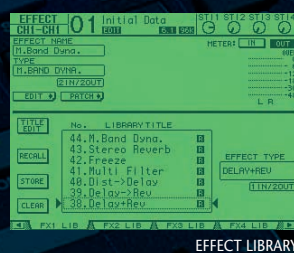
User Defined Keys

These 8 keys can be assigned to control any functions you choose. You could, for example, use them to recall input patch setups, to arm MTR tracks for recording, or to handle locator functions. And, when the REMOTE layer is selected, the USER DEFINED KEYS are automatically assigned to Pro Tools® control functions by default. The Instant Group Assignment function enables you to also use these keys to quickly set up fader groups and mute groups.

Enhanced Integrated DAW Control

The 01V96VCM has been designed to seamlessly integrate with leading digital audio workstations to create a complete production and mixing environment. Extensive support is provided for Digidesign's Pro Tools® system as well as Steinberg's Nuendo® 4 and Cubase 4 — for full control of mixing and processing parameters by using the 01V96VCM selected channel section, as well as transport/track-arming control and access to editing functions — directly from the 01V96VCM control surface. There's also a "General DAW" mode that provides compatibility with other workstations.

Versatile I/O Facilities

Rear Panel

The rear panel is home to balanced analog stereo and monitor outputs as well as four balanced "omni" outputs. The optical IN and OUT connectors for the 01V96VCM's built-in ADAT interface are also located on the rear panel. There are also digital 2-track inputs and outputs featuring coaxial connectors. On-board sample rate conversion allows CD players and other digital sources connected to the digital input to be monitored or routed to an input channel without having to be synchronized to the system clock. A range of synchronization and control options are available via word clock inputs and outputs, MIDI connectors, and a USB "TO HOST" connector which can be used for computer control via the supplied Studio Monitor software. The rear panel also has an expansion slot which will accept a wide range of Yamaha mini-YGDAI expansion cards that can add up to 16 additional channels in a variety of formats.

Built-in ADAT Optical Interface

The 01V96VCM comes with an industry-standard ADAT optical digital I/O interface built right in — no options necessary. The ADAT "Lightpipe" optical I/O is standard on a wide range of current digital sound gear, so you can simply plug in via optical cables for 8 digital inputs and 8 digital outputs that will handle your digital signals without compromise. Additional optical I/O capacity can be added via the 01V96VCM expansion slot, as necessary.

01V96VCM Cascade Link

When you really need high capacity — particularly for sound reinforcement applications — the 01V96VCM offers "01V96VCM Cascade Link" capability that allows two 01V96VCM units to be cascaded to create up to an 80-channel mixing system at an unbelievably affordable price!

CASCADE IN PATCH
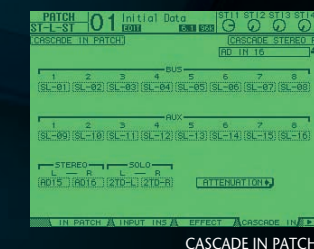
For PC operating—
STUDIO MANAGER Version 2

STUDIO MANAGER Version 2 Software Included

The 01V96VCM comes supplied with Yamaha's STUDIO MANAGER Version 2 software application for both Macintosh and Windows platforms. In the Version 2, the STUDIO MANAGER has developed into a total management software. In addition to the features of its predecessor, including complete access to all parameters for either on-line or off-line control, as well as the program's visual interface which makes it easy to relate on-screen controls to the corresponding console functions, the STUDIO MANAGER Version 2 provides a number of enhancements that make this already indispensable program more flexible and powerful than ever. It has now become a truly multi-client platform that can accommodate, for example, cascaded 02R96VCM and / or 01V96VCM, and various Yamaha editors such as the SPX2000, to realize total recall of settings in the connected equipment. By simply connecting your personal computer to the TO HOST port (USB), you can manage data entirely through your computer. You can also open/close STUDIO MANAGER Version 2 windows from the 01V96VCM.

Editing windows with enhanced controllability

With the upgrade to Version 2, a number of new windows are provided. These include the "Master Fader Window" that shows only the master fader, and the "Meter Window" that shows meters for all 32 channels. In the "Layer Window," the master fader block now can be separated, while the fader level is shown by a numeric value as well as by graphic display. In the "Selected Channel Window," the gate type indication and long-stroke channel meter are added. The "Patch Edit Window" is now clearer to see and can be resized as desired, while it also shows both inputs/outputs to/from each effect block. In the "Library Window", you can now perform simultaneous operation of multiple scenes/libraries. The STUDIO MANAGER Version 2 also integrates the "Effect Editor Window" for controlling VCM Effects and other optional ADD-ON EFFECTS. Of course, settings for the main mixer functions can also be made off-line.

Selected Channel Window

Meter Window

Layer Window

Surround Editor Window

Master Fader Window

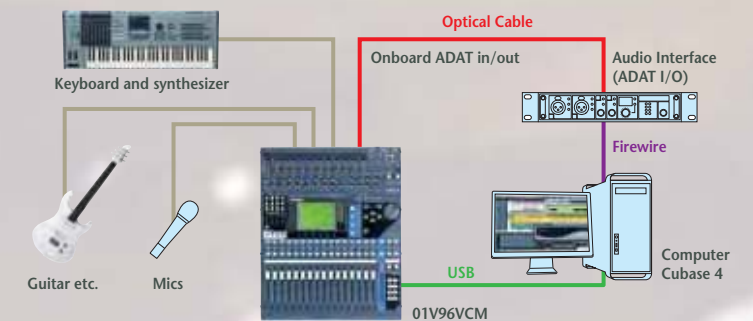Effect Patch Window

Patch Editor Window

Application Examples

Music production, sound reinforcement, broadcast, theater ...in nearly every application, the 01V96VCM has the performance and versatility to work wonders.
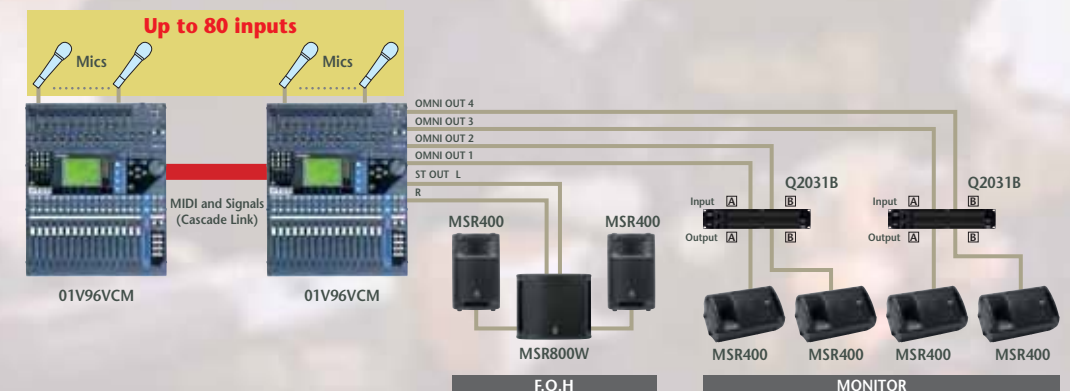
1. Music Production with Cubase

Although simple to set up, a system like this can provide advanced recording and production capability. Cubase 4 running on a personal computer interfaces to the 01V96VCM via a single USB cable for comprehensive transport and function control, while audio is transferred between the 01V96VCM and the audio interface via both the 8-channel optical ADAT interface (allowing simultaneous 8-channel recording at 96 kHz) and the 2-channel SPDIF interface for maximum routing and mixing versatility. VCM effects can be applied while recording or during mixdown.

Optical Cable
Onboard ADAT in/out
Audio Interface (ADAT I/O)
Keyboard and synthesizer
Firewire
Computer Cubase 4
Guitar etc.   Mics
USB
01V96VCM

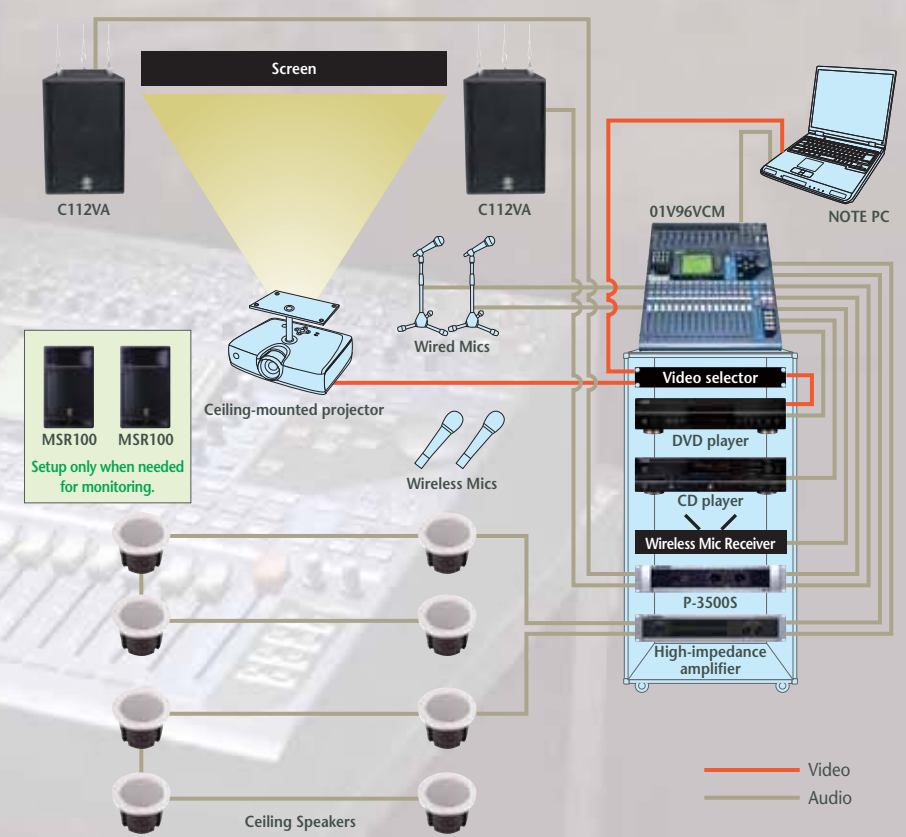## 2. Concert and Event Sound

Sound reinforcement applications generally require much more input and output capacity than studio production. If a single 01V96VCM won't do it, try cascading two 01V96VCM consoles — you now have up to 80 input channels plus plenty of output channels and processing capacity to handle house sound and monitoring. The built-in dynamics and VCM effects can be a tremendous advantage in this type of application, too.

Up to 80 inputs
Mics   Mics
OMNI OUT 4
OMNI OUT 3
OMNI OUT 2
OMNI OUT 1
ST OUT L
R
MIDI and Signals (Cascade Link)
MSR400   MSR400
Q2031B   Q2031B
Input A B   Input A B
Output A B   Output A B
01V96VCM   01V96VCM
MSR800W   MSR400 MSR400 MSR400 MSR400
F.O.H   MONITOR

3. Small Multi-Purpose Hall Installation

Capable of providing solutions not only in the sound reinforcement and recording environments, the 01V96VCM is also widely used in fixed installations similar to that shown, and has already gained an excellent reputation in the industry for this type of application. In this example, the 01V96VCM provides a mixing solution for a multi-purpose hall suitable for small-scale exhibitions, conventions, concerts, and other similar gatherings. This hall features a pair of hardwired FOH C112VA speakers, multiple ceiling speakers used for background music and public announcements, and MSR100 speakers that can be setup whenever needed for monitoring during concerts. And even in situations where all of these speakers must be used together, the 01V96VCM — with its main Stereo Out complemented by four additional OMNI OUT channels — can cope with ease.

With the 01V96VCM, you also benefit from the flexibility and convenience only delivered by digital consoles — for example, the Scene Recall function allows settings for a wide range of different applications to be instantly loaded, while User Defined Keys provide one-touch shortcuts to oft-used functions. What's more, as the acclaimed REV-X reverb from the SPX2000 effect processor and equalizer effects are pre-installed, audio quality rivaling even that of live-music clubs with vintage outboard gear costing tens of thousands of dollars can easily be achieved. With this stunning range of choice functions packed into such a compact body, the 01V96VCM is just the ticket for fixed installations.

Screen
C112VA   C112VA   01V96VCM   NOTE PC
Wired Mics
Ceiling-mounted projector
MSR100 MSR100
Setup only when needed for monitoring.
Wireless Mics
Video selector
DVD player
CD player
Wireless Mic Receiver
P-3500S
High-impedance amplifier
Video
Audio
Ceiling Speakers

Options

ADD-ON EFFECTS

Software packages are available for adding unique and valuable effect programs to the 01V96VCM internal effect programs. With the 01V96VCM, You can add optional ADD-ON EFFECTS to the original collection of preset effects. You can edit, store and recall ADD-ON EFFECTS on the console in the usual way. In addition, a special GUI is available in the STUDIO MANAGER Version 2 editor to manage these effects.

MASTER STRIP PACKAGE (AE-021)

A tape saturation <open deck> package that faithfully captures the tape saturation of analog circuitry.

- Employs VCM technology to recreate both the analog circuitry and tape characteristics that shaped the sound of open-reel tape recorders.
- The Open Deck provides models of four machine types: Swiss '70, Swiss '78, Swiss '85, and American '70. You can even combine different record and playback decks for a wider range of variation.
- You also have a choice of "old" and "new" tape types, tape speed, bias, and EQ settings that can vary the "focus" of the sound, distortion, and saturation characteristics.

- ADD-ON EFFECTS can be only used with the PM5D/DM2000/DM1000/02R96/01V96.
- To use ADD-ON EFFECTS with the DM2000 Version 2, DM1000 Version 2, 02R96 Version 2 or 01V96 Version 2, please note the following.
1) The DM2000, DM1000, 02R96 or 01V96 must be Version 2 or higher.
2) Your personal computer must have a USB port and internet connection capability.
3) You must get web approval from Yamaha using the access key issued by the Yamaha approval server.
* When applying for web approval, use the CD-ROM and approval code within each ADD-ON EFFECTS package.

VINTAGE STOMP PACKAGE (AE-051)

In this package, virtual Circuitry Modeling technology delivers faithful models of the classic much-in-demand stomp boxes from the 70's that helped shape the sound of music history.

The names of programs or menus incorporated in ADD-ON EFFECTS are for descriptive purposes only. Reference to product names, trademarks, artists and songs is made for the sole purpose of identifying products and sounds studied for modeling and describing the sound nuances Yamaha attempted to create through use of its proprietary technology. Such reference does not constitute representations that they physically possess equal qualities, and does not imply any cooperation or endorsement by such manufacturers or artists. The products, trademarks are the property of their respective owners.

Available Mini-YGDAI card specifications

* Guidance on the use of Mini-YGDAI cards   http://www.yamahaproaudio.com/myguide/index.php

	Model	Input	Output*1	Format	Note
Digital I/O Cards	MY16-AE	16	16	AES/EBU	Can handle 24 bit/96 kHz by double channel mode
	MY16-AT	16	16	ADAT	Can handle 24 bit/96 kHz by double channel mode
	MY16-TD	16	16	TASCAM	Can handle 24 bit/96 kHz by double channel mode
	MY16-CII	16	16	CobraNet	Can handle 24 bit/96 kHz by double channel mode
	MY16-ES64	16	16	EtherSound	
	MY16-MD64	16	16	MADI	
	MY16-mLAN	16	16	mLAN	Maximum 5 Nodes Can handle 24bit/96kHz by double channel mode
	MY8-AE96	8	8	AES/EBU	
	MY8-AE96S	8	8	AES/EBU	Sampling Rate Converter for input
	MY8-AE	8	8	AES/EBU	Can handle 24 bit/96 kHz by double channel mode
	MY8-AEB	8	8	AES/EBU (AES-3id)	Can handle 24 bit/96 kHz by double channel mode
	MY8-TD	8	8	TASCAM	Can handle 24 bit/96 kHz by double channel mode
	MY8-AT	8	8	ADAT	Can handle 24 bit/96 kHz by double channel mode
AD/DA Card	MY8-ADDA96	8	–	Analog	Can handle 24 bit/96 kHz by double channel mode
AD Cards	MY8-AD96	8	–	Analog In	
	MY8-AD24	8	–	Analog In	Can handle 24 bit/96 kHz by double channel mode
	MY4-AD	4	–	Analog In	

	Model	Input	Output*1	Format	Note
DA Cards	MY8-DA96	–	8	Analog Out	
	MY4-DA	–	4	Analog Out	
Third Party Cards	AuviTran AVY16-ES	16	16	EtherSound	
	AVIOM 16/o-Y1	–	16	A-Net	
	AVIOM 6416Y2	16	16	A-Net	
	OPTOCORE YG2	16	16	Optocore	
	Waves Y96K	8 in / 8 out, Effects and ADAT I/O			

The Waves Y96K DSP expansion card adds renowned Waves signal processors to compatible Yamaha digital consoles and workstations. The Y96K processor package includes the Renaissance Compressor and EQ, TrueVerb reverb, L1 Ultramaximizer, SuperTap delay, and DeEsser. These processors are all available in addition to the console's on-board effects.

*1. Selectable from STEREO/BUS/AUX/DIRECT OUT/INSERT OUT/CASCADE OUT (STEREO, BUS1-8, AUX1-8, SOLO). See the user's manual for further information.
- Details depend on each interface card.

Rack-Mount Kit

RK1

Block Diagram
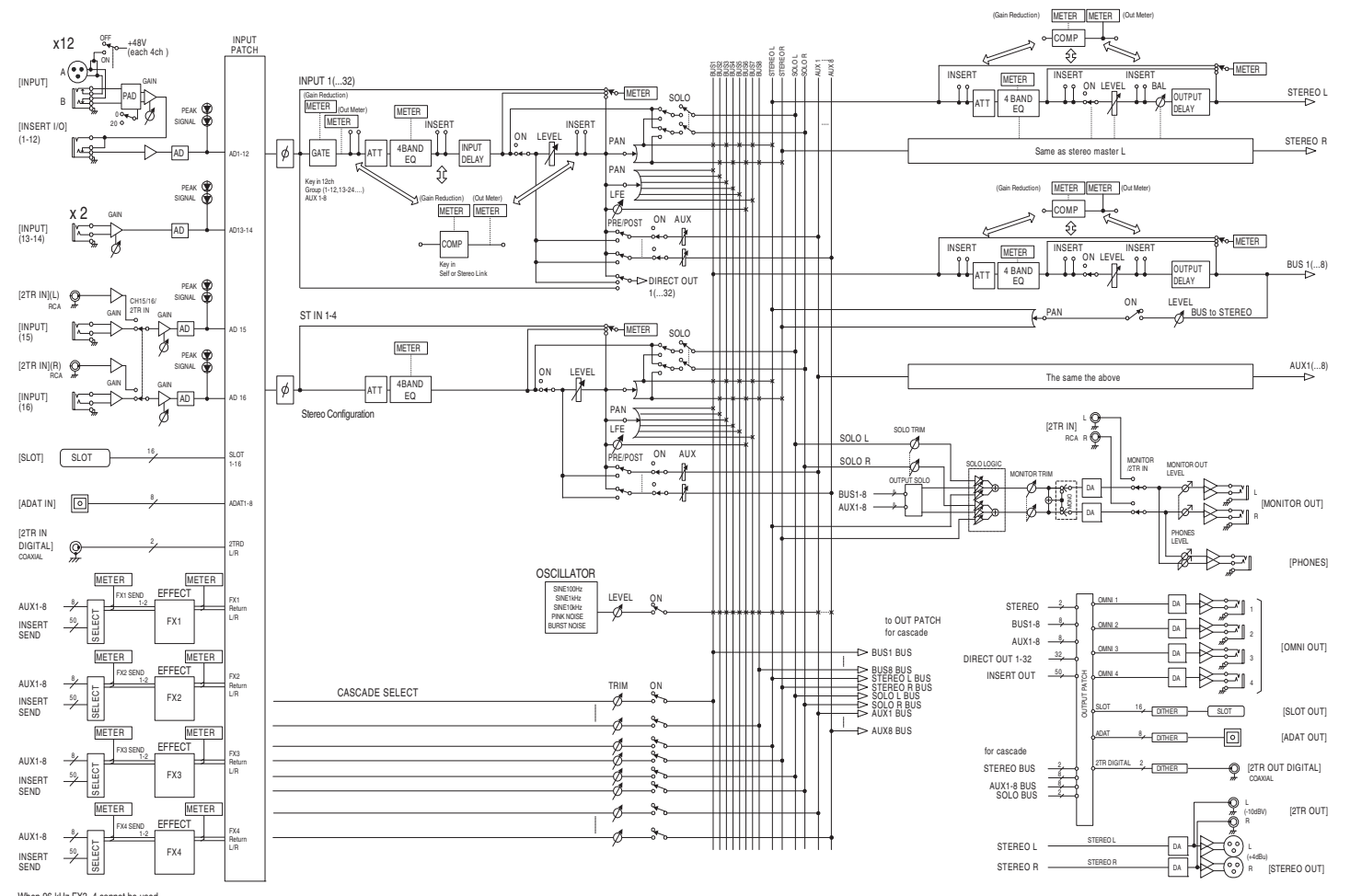
When 96 kHz FX3, 4 cannot be used.

Dimensions

150 mm (5-5/16")

540 mm (21-1/4")

436 mm (17-3/16") (430 mm (16-15/16") excluding screw heads)