

MIXING  
CONSOLES

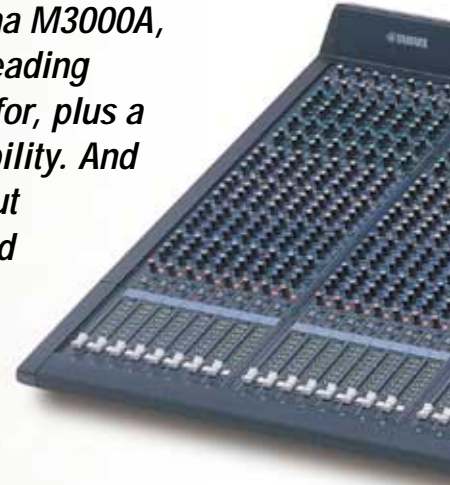
**M3000A**  
-24/-40C/-56C



# The Yamaha M3000A—Superior

The superior quality and versatility of Yamaha professional audio consoles should be no surprise to anyone who is familiar with sound reinforcement. The Yamaha M3000A, however, is bound to raise a few eyebrows. It offers the same industry-leading standards of audio quality and rugged reliability that Yamaha is famous for, plus a number of innovative features for unprecedented versatility and applicability. And best of all, its wide selection of input configurations—24, 40 and 56 input models—are available at prices that are sure to make the budget-minded professional smile.

Read on and learn how Yamaha has, once again, redefined the leading edge of sound reinforcement.



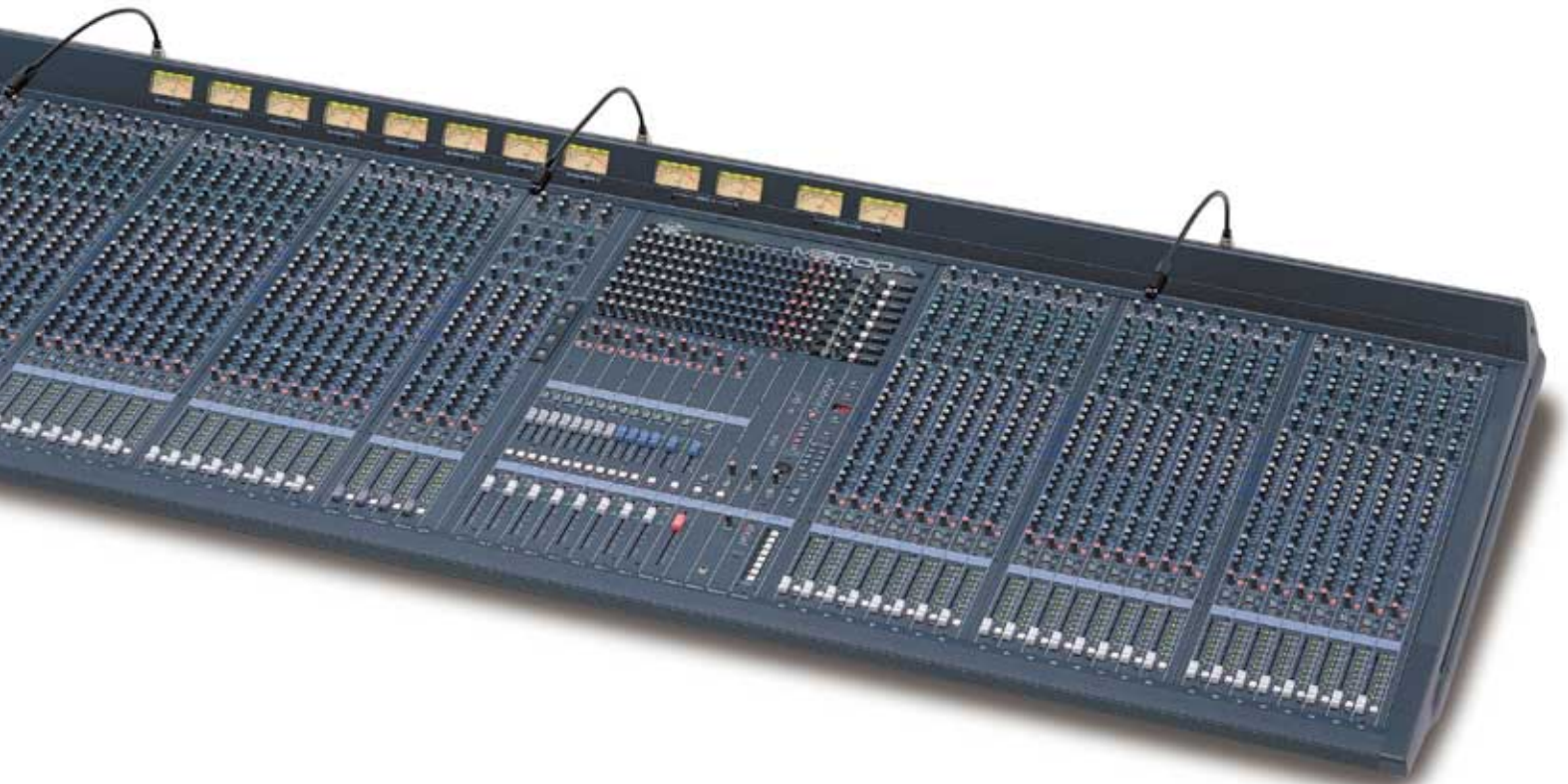
- 56, 40 or 24 mono channel configurations, both with 4 stereo channels.
- All mono inputs feature switchable phantom power, 26dB pad switches, 44dB gain trim, phase switch, sweepable high-pass filter and fully-sweepable 4-band EQ.
- 16 mix busses with Yamaha's GA (Group/Aux) Diversity system on mix busses 1 through 8.
- Mix busses 1 through 16 switchable for pre- or post-fader operation in 4-buss groups.
- Mix sends 13/14 and 15/16 configured as stereo sends with pan/balance controls.
- 3-point signal indicators on all channels with SIGNAL, NOMINAL, and PEAK LEDs.
- All channels assignable to 8 VCA groups with full-length VCA master faders and mute switches.
- Balanced outputs for all 16 mix busses, the stereo buss, and the 8 matrix submixes.
- 20 x 8 submix matrix mixes signals from all 16 mix busses, the stereo buss, and stereo matrix sub inputs.
- Insert patch points on all input channels, all mix busses, and the stereo outputs.
- Memory for up to 128 mute scenes with 8 direct recall switches and numeric keys for fast access to scenes.
- Scene direct recall switches can alternatively be used as 8 mute group switches.
- MIDI-controlled scene recall or complete mute automation.
- Dual stereo outputs with independent level control.
- VCA EXTERNAL I/O connector allows linking two M3000As, or an M3000A with another VCA-compatible Yamaha console.
- All PFL/AFL switches are combined with an LED that lights when the switch is on. Lock type push switches are also two-tone for quick switch position recognition.
- High-performance external power supply (two power supplies can be parallel connected for automatic switchover in case of failure).

## The Most Dynamic Buss System Available

Most mixing consoles have a fixed buss system: say 4 groups busses, 3 or 4 auxiliary busses, a stereo buss, and maybe a mono buss. The numbers and variations are endless, but you're stuck with the configuration you initially purchased. If your buss requirements change, you need a new console. And if your buss requirements change from project to project, you'll need a console with way more capacity



# *in Sound Quality and Versatility*



than any single job requires. The M3000A's GA (Group/Aux) Diversity system gives you the flexibility to match the console's buss configuration to a wide range of signal-routing requirements. 8 of its 16 mix busses can be switched from auxiliary send status to group type operation in 2-buss groups, so you can have 2 groups and 14 auxiliary sends, 6 groups and 10 auxiliary sends, or any other combination the job requires.

## **Features For Unmatched Control Flexibility**

In addition to the GA Diversity system, the M3000A expands the limits of console control versatility with several innovative features. A scene memory with MIDI-control capability, for example, lets you store and instantly recall mute settings for all input channels and mix busses output from the panel controls, or from an external MIDI device. You can even use a MIDI sequencer or a computer running MIDI sequencing software for total mute automation. Then there's VCA grouping: all input channels can be individually assigned to any of 8 VCA groups, then the corresponding VCA master fader will simultaneously control the relative levels of all assigned channels via VCAs built right into the

channel strips so that no signal degradation occurs. And how about a 20 x 8 submix matrix output that can provide as many as eight independent mixes of the signals on the M3000A's 16 mix busses, the stereo buss, and matrix sub inputs?

We have no way of knowing exactly what you need from a mixing console, but we have spared no effort or expense in ensuring that the M3000A offers the versatility you need to get any job done with maximum ease and efficiency.

## **Clean Signals From Input To Output**

Many mixer circuits must handle low-level signals - the head amplifiers, for example - and must be designed with extra care or they can be a major source of noise and distortion. Other critical design criteria include inter-stage matching, internal impedance, circuit layout, grounding, component selection, and a veritable plethora of other factors that affect performance and the mixer's overall "sound". Here's where Yamaha technology makes a real difference. Whether you're using microphone or line input, Yamaha's high-performance circuitry gives you an exceptionally clean, quiet signal from input to output. But then there's RF rejection. RF

(Radio Frequency) noise generated by motors, video monitors, and digital equipment of almost any kind can make the cleanest, quietest circuitry virtually worthless. The M3000A boasts outstanding RF noise rejection, so you can use it just about anywhere without picking up unwanted interference that can degrade your signal.

## **Specs You Can Trust**

Yamaha never has "tweaked" specifications. Never will. It's amazing how mediocre specs can be made to look impressive by simply optimizing test conditions. The electrical specifications we publish are all brutally honest, measured under the stated and/or industry-standard conditions. When in doubt, we urge you to use the most sensitive sound measurement devices available: your own ears. They'll tell you who you can trust.

## **Rugged & Reliable**

From connectors to controls to chassis, the GA consoles are built to last. Whether used in an installation or taken on the road, these attractively-finished, rugged consoles will keep on performing with the utmost reliability.

# MONO & STEREO INPUT CHANNELS

MONO INPUTS



STEREO INPUTS



## ■ Inputs

The M3000A has 56, 40 or 24 mono and 4 stereo input channels with balanced XLR-type microphone/line inputs. Phantom power is independently switchable for all mono inputs, providing direct compatibility with high-performance phantom-powered condenser microphones and DI boxes.

Stereo line sources can be directly connected to either of 4 stereo input channels (a total of eight inputs) via switchable "A" or "B" inputs: the "A" inputs are balanced XLR type connectors, and the "B" inputs are standard RCA pin jacks type for compatibility with the widest possible range of line sources.

## ■ Channel Insertion

Insert send/return patch points are included on all mono channels for convenient insertion of compressor/limiters (a must for top-quality vocal sound), equalizers, or any other outboard equipment you might need to apply to individual channels.

## ■ Input Controls & Level Matching

Gain trim controls with a 44dB range on all mono inputs, and independent 40dB gain controls for the A and B inputs on the stereo channels, facilitate optimum level matching with a wide range of sources. The mono inputs additionally feature 26dB pad switches and phase switches for easy input phase correction.

## ■ Filters & Flexible 4-band Channel EQ

All mono channels feature a switchable high-pass filters, sweepable from 20 Hz to 400 Hz to effectively eliminate rumble and other low-frequency noise. The mono channels also feature a very flexible 4-band equalizer which provides sweepable frequencies for all four bands as well as switchable bandwidth for the HI MID and LO MID bands. The stereo channels offer fixed-frequency 4-band equalization with switchable HI MID and LO MID bandwidth. EQ bypass switches are provided on all channels so equalization can be punched in or out as required without having to change settings.

## ■ Eight Group/Aux Sends

The M1 through M8 "Mix Send" controls feed the M3000A console's unique GA Diversity system. When a FIX/VAR switch in the master section is set to the "VAR" position, the corresponding pair of send controls (1/2, 3/4, 5/6, or 7/8) function as auxiliary sends: i.e. the send control adjusts the level of the signal sent to the corresponding mix buss, and the send switch (M1 ... M8) simply turns the corresponding send on or off. If a FIX/VAR switch is set to the "FIX" position, the corresponding send controls then function

as post-fader group sends: The send control is bypassed, and the send switch functions as a group assign switch. For even further flexibility the M1 through M4 control group and the M5 through M8 control group can be independently switched for pre- or post-fader send.

## ■ Eight Aux Sends

The M9 through M12 controls function as mono auxiliary sends, feeding the corresponding mix buss. The remaining four sends are configured as dual stereo sends (13/14 and 15/16) with balance controls. These controls can be switched to receive the pre- or post-fader signal in groups of four (i.e. the four mono sends as one group and the two stereo sends as the second group).

## ■ Stereo Assign & Pan/Balance Controls

Stereo assign switches and pan controls on each mono channel - stereo assign switches and balance controls on the stereo channels - assign the corresponding channel signal to the console's stereo buss.

## ■ 3-point Level Indicators

All mono and stereo channels feature 3-point level indicators for accurate monitoring of pre-fader signal levels. SIGNAL, NOM (nominal), and PEAK LEDs provide a broader "view" of channel signal levels than the usual one- or two-LED indicators.

## ■ Channel Faders, Pre-fader Listen, & Channel ON Switches

Smooth, noise-free 100-mm linear faders make it easy to set up the optimum balance between channels, while PFL (Pre-Fader Listen) switches allow convenient solo monitoring of the channel's pre-fader signal. All channels additionally feature channel on switches that can be used to switch the channel signal into or out of the mix without changing any other settings.

## ■ VCA Group Assign

A feature taken directly from Yamaha's industry-leading PM3500 series mixing consoles, VCA grouping allows channels to be grouped and assigned to any of eight VCA master faders in the master section without actually re-routing the channel signals, thus maintaining unsurpassed signal quality. The VCA GROUP switches (1 ... 8) next to each channel fader assign the channel to the corresponding VCA master fader. The high-performance VCAs (Voltage Controlled Amplifiers) are located immediately before the channel faders, and thus function in essentially the same way as the channel faders themselves, adjusting the level of the channel's post fader signal.

# MASTER CONTROLS



## ■ GA Diversity FIX/VARI Switches

The core of the GA console's innovative GA Diversity system, these switches determine whether the corresponding pairs of sends on the input channels - M1 through M8 - function as auxiliary or group sends (see "Eight Group/Aux Sends" for more details).

## ■ Mix Buss Masters

The first eight mix buss master strips - M1 through M8 - receive either the aux signal or the group signal from the channel sends, depending on the setting of the corresponding GA Diversity FIX/VARI switch. Mix masters M9 through M16 receive the auxiliary signal from the corresponding channel send controls. While M9 through M12 have independent controls, M13 through M16 are configured as dual stereo masters (M13/14 and M15/16). Each of these mix master control groups has its own linear fader as well as a "TO STEREO" switch and pan control (balance controls on the stereo pairs) which assign the mix buss signal to the console's stereo buss. "TO MATRIX" switches assign the corresponding mix master signal to the console's matrix mix (below). The mix buss master strips AFL (After-Fader Listen) switches for convenient solo monitoring, and ON/EDIT switches equivalent to those on the input channels.

## ■ Mix Outputs, Inserts & Sub Inputs

All 16 mix busses feed balanced XLR type outputs. They also feature insert patch points for auxiliary signal processing, as well as sub inputs which allow external line-level signals to be individually added to the mix signals as required.

## ■ Dual Stereo Masters

The stereo buss feeds two stereo output pairs: stereo A and stereo B. The main linear stereo fader feeds the balanced stereo A outputs, with AFL listen capability and a "TO MATRIX" routing switch. The stereo B signal feeds a second balanced output pair via the rotary stereo B level control.

## ■ Submix Matrix

The matrix mix concept was a Yamaha innovation which has virtually become an industry standard in professional audio consoles. The M3000A features a 20 x 8 matrix mix which allows the 16 mix buss signals, the stereo A signals, and the matrix L and R sub input signals to be mixed to eight balanced outputs for extra stage monitor mixes, zoned speaker mixes, or just about any type of mix the job requires. All eight matrix mixes include mix on/off switches and AFL switches.

## ■ VCA Group Masters

The eight VCA group masters include a 100-mm linear fader which controls the assigned channel VCAs (see "VCA Group Assign"), a VCA mute switch which mutes the assigned channel VCAs, and a nominal level LED.

A VCA EXTERNAL I/O connector allows two M3000A consoles to be connected - or an M3000A can be connected to any other VCA-compatible Yamaha console such as the PM3500 - for linked VCA group control.

## ■ 128 MIDI Scene Memory/8 Mute Groups

The M3000A console the channel, mix master, and stereo A on/off functions are electronically controlled by a microcomputer and MIDI interface. Up to 128 mute "scenes" can be stored in memory and recalled either via the panel controls or an external MIDI device. Eight DIRECT RECALL switches can be used for instant recall of the most often-used scenes, while others can be recalled via the numeric keys. The memory contents can be checked and edited at any time without actually affecting the mix.

A utility function allows the DIRECT RECALL switches to be re-assigned for "mute group" switching, which allows multiple mute scenes to be engaged at the same, adding the mute assignments for all active scenes.

In addition to recalling complete scenes, external MIDI control can be used to individu-

ally turn the applicable channels and busses off or on as required. A MIDI sequencer or computer, for example, could be used for complete mute automation. And since the M3000A also transmits MIDI program change messages whenever a scene is recalled, it can be linked to MIDI-controllable signal processors so that appropriate effects are recalled automatically. Furthermore, scene data can be dumped to a MIDI data recorder or other storage device for long-term storage.

## ■ Flexible Monitoring & Metering

Convenient monitoring is provided by balanced monitor outputs and phones output with independent level controls. In addition to monitoring the stereo buss, the monitor signal can be derived from either of the M3000A's two 2TR IN tape inputs. There's also a L+R switch which sums the left- and right-channel signals for mono monitoring.

A total of 12 large, illuminated VU meters with built-in peak-reading LEDs provide accurate visual level monitoring. Eight of these can be switched to display the levels on mix busses 1 through 8 or 9 through 16, or the levels at the eight matrix outputs. The remaining four display the stereo A L and R and cue L and R levels.

## ■ Oscillator/Talkback Module

In addition to a panel microphone connector, level control and switch for talkback, the M3000A includes a versatile oscillator which provides pink noise as well as 10 kHz, 1 kHz, and 100 Hz sine waves for precise calibration and testing. The oscillator signal is assignable to the mix busses in pairs or groups of four (1/2, 3/4, 5/6, 7/8, 9 through 12, and 13 through 16) and/or the stereo buss.

## ■ Lamp Connectors

Connectors for up to three Yamaha LA1800 console lamps are provided on the M3000A rear panel.

## PW3000MA Power Supply

A newly developed, high-performance PW3000MA power supply unit is available as an optional accessory for the M3000A mixing console. Two PW3000MA units can be parallel connected so that if one fails the other will automatically take over — with no need for any extra automatic switchover equipment.



## PW3000MA Specifications

### Power consumption

U.S. and Canadian model: 120V AC, 60Hz / 500W 600 VA  
European model: 230V AC, 50Hz / 500W  
Australian model: 240V AC, 50Hz / 500W

### Dimensions (H x D x W)

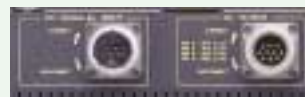
103.5 x 455 x 480 mm (4-1/16" x 17-5/16" x 18-7/8")

### Weight

15kg (33.1 lbs)

### Accessory

Connecting cable (1m) x 1

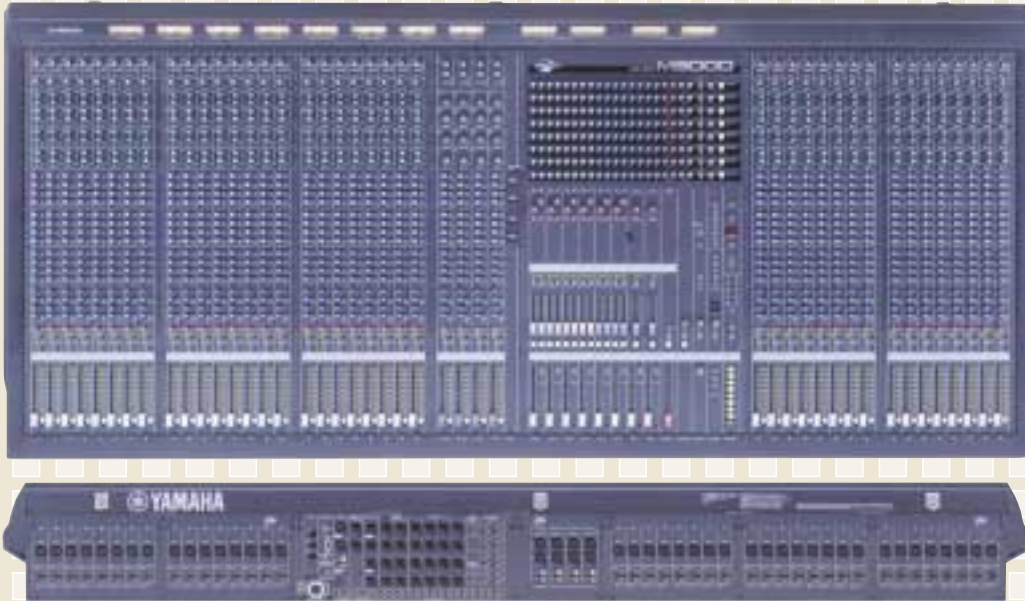


Rear Panel

M3000A-56C Front and Rear Panels



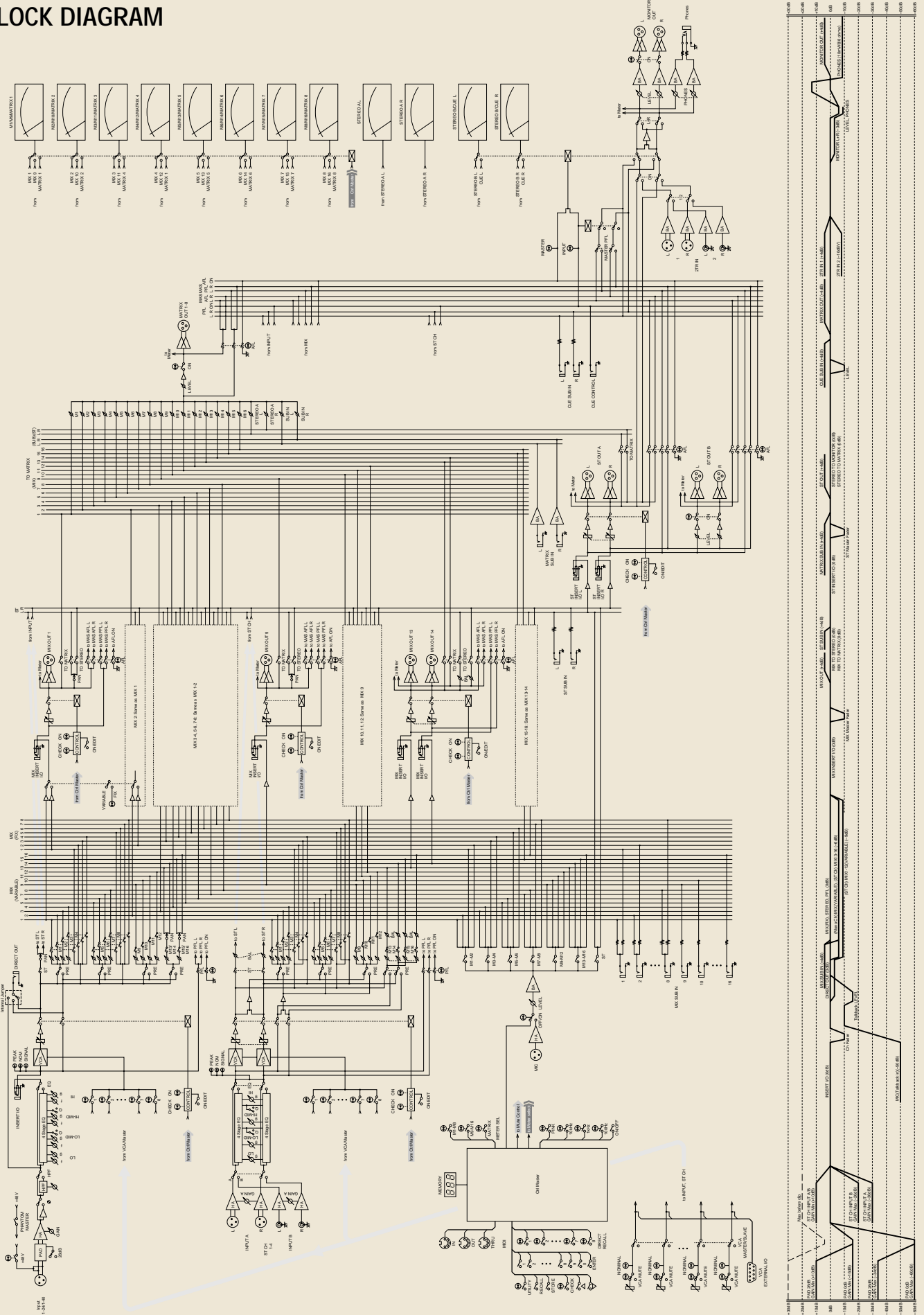
M3000A-40C Front and Rear Panels



M3000A-24 Front and Rear Panels



# BLOCK DIAGRAM





## Input specifications

Connection	PAD	Gain Trim	Actual Load Impedance	For Use With Nominal	Input Level			Connector In Mixer
					Sensitivity *6	Nominal	Max before Clip	
CH INPUT (1-24) (1-40) (1-56)	0	-60	3 k $\Omega$	50-600 $\Omega$ Mics & 600 $\Omega$ Lines	-86 dB (0.039 mV)	-60 dB (0.775 mV)	-40 dB (0.775 mV)	XLR-3-31 type *1
	26				-60 dB (0.775 mV)	-34 dB (15.5 mV)	-14 dB (155 mV)	
	0	-16			-42 dB (6.16 mV)	-16 dB (123 mV)	+4 dB (1.23 V)	
	26				-16 dB (123 mV)	+10 dB (2.45 V)	+30 dB (24.5 V)	
ST CH A INPUT [L, R] (1-4)	-30	+10	5 k $\Omega$	600 $\Omega$ Lines	-56 dB (1.23 mV)	-30 dB (24.5 mV)	-10 dB (245 mV)	XLR-3-31 type *1
	+10				-16 dB (123 mV)	+10 dB (2.45 V)	+30 dB (24.5 V)	
ST CH B INPUT [L, R] (1-4)	-20	+10	10 k $\Omega$	600 $\Omega$ Lines	-46 dB (3.88 mV)	-20 dB (77.5 mV)	0 dB (0.775 V)	Phone Jack *3
	+10				-16 dB (123 mV)	+10 dB (2.45 V)	+30 dB (24.5 V)	
TALKBACK IN			10 k $\Omega$	50-600 $\Omega$ Mics	-66 dB (0.388 mV)	-50 dB (2.45 mV)	-20 dB (77.5 mV)	XLR-3-31 type *2
2TR IN 1 [L, R] 2TR IN 2 [L, R]			10 k $\Omega$	600 $\Omega$ Lines	-2 dB (0.616 V)	+4 dB (1.23 V)	+24 dB (12.3 V)	XLR-3-31 type *1
					-13.8 dB (158 mV)	-7.8 dB (316 mV)	+12.2 dB (3.15 V)	Phone Jack *3
CUE SUB IN [L, R] MATRIX SUB IN [L, R]			10 k $\Omega$	600 $\Omega$ Lines	-2 dB (0.616 V)	+4 dB (1.23 V)	+24 dB (12.3 V)	Phone Jack (TRS) *4
STEREO SUB IN [L, R] MIX SUB IN (1-16)					-6 dB (388 mV)			
CH INSERT IN (1-24, 40)			10 k $\Omega$	600 $\Omega$ Lines	-26 dB (38.8 mV)	0 dB (0.775 V)	+20 dB (7.75 V)	Phone Jack (TRS) *5
STEREO INSERT IN [L, R] MIX INSERT IN (1-16)					-10 dB (245 mV)			

0 dB=0.775 Vrms.

\*1 XLR connectors are balanced.

\*2 XLR connector is unbalanced.

\*3 Phone Jacks are unbalanced.

\*4 SUB IN Phone Jacks (TRS) are unbalanced (T=SIGNAL, R=GND, S=GND).

\*5 INSERT Phone Jacks (TRS) are unbalanced (T=OUTPUT, R=INPUT, S=GND).

\*6 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 level.

## Output specifications

Connection	Actual Source Impedance	For Use With Nominal	Output Level		Connector In Mixer
			Nominal	Max before Clip	
STEREO A OUT [L, R] STEREO B OUT [L, R] MIX OUT (1-16) MONITOR OUT [L, R] MATRIX OUT (1-8)	150 $\Omega$	600 $\Omega$ Lines	+4 dB (1.23 V)	+24 dB (12.3 V)	XLR-3-32 type *1
CH DIRECT OUT (1-24, 40) CH INSERT OUT (1-24, 40)	600 $\Omega$	10 k $\Omega$ Lines	0 dB (0.775 V)	+20 dB (7.75 V)	Phone Jack (TRS) *2
STEREO INSERT OUT [L, R] MIX INSERT OUT (1-16)	600 $\Omega$	10 k $\Omega$ Lines	0 dB (0.775 V)	+20 dB (7.75 V)	Phone Jack (TRS) *3
PHONES OUT [L, R]	100 $\Omega$	8 $\Omega$ Phones	1 mW	20 mW	Stereo Phone Jack *4
		40 $\Omega$ Phones	3 mW	75 mW	

\*0 dB=0.775 Vrms.

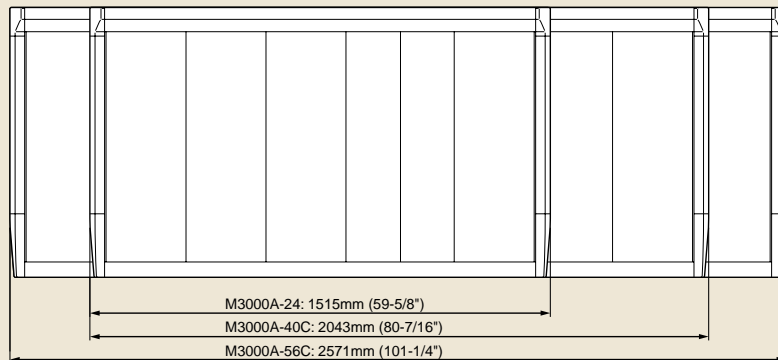
\*1 All XLR connectors are balanced.

\*2 CH DIRECT OUT Phone Jacks (TRS) are unbalanced (T=SIGNAL, R=GND, S=GND).

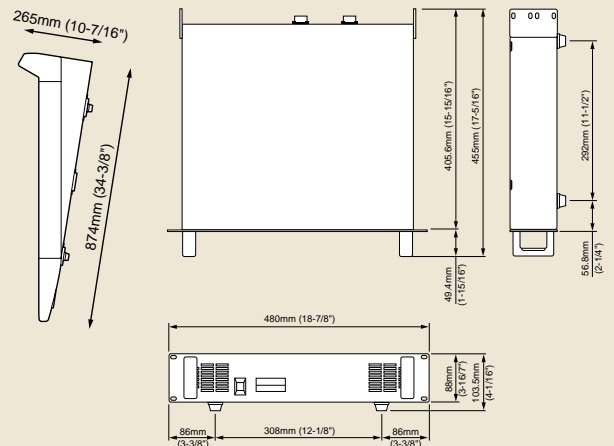
\*3 INSERT Phone Jacks (TRS) are unbalanced (T=OUTPUT, R=INPUT, S=GND).

\*4 Stereo Phone Jack is unbalanced.

## M3000A Dimensions



## PW3000MA Dimensions



## General specifications

<b>Total Harmonic Distortion (Master output)</b>	Less than 0.1% (THD + N) 20 Hz–20 kHz @ +14 dB 600 Ω
<b>Frequency Response (Master Output)</b>	0 + 1, -3 dB 20 Hz–20 kHz @ +4 dB 600 Ω
<b>Hum &amp; Noise (20 Hz–20 kHz) *1</b> Rs = 150 Ω	-128 dB Equivalent Input Noise. -97 dB Residual Output Noise. (MATRIX[1-8] Output) -99 dB Residual Output Noise. (OTHERS)
Input Gain = Max. Input Pad = OFF    Input sensitivity=-60 dB	
-64 dB (68 dB S/N)	MIX OUT Master Level control and one CH fader at nominal level.
-80 dB (84 dB S/N)	STEREO OUT Master fader at nominal level and all CH assign SW's off and all MIX to ST SW's off.
-75 dB (79 dB S/N)	MIX OUT (VARIABLE) Master Level control at nominal level and all CH assign SW's off.
-81 dB (85 dB S/N)	MIX OUT (FIX) Master Level control at nominal level and all CH assign SW's off.
-90 dB (94 dB S/N)	MATRIX OUT Master level control at nominal level and all Matrix Mix controls at minimum level.
<b>Crosstalk</b>	
-80 dB @	1 kHz adjacent inputs.
-70 dB @	1 kHz input to output. (CH INPUT)
-50 dB @	1 kHz input to output. (ST CH INPUT)
<b>Maximum Voltage Gain</b>	
70 dB	CH INPUT to DIRECT OUT
60 dB	CH INPUT to CH INSERT OUT
80 dB	CH INPUT to MIX OUT (VARIABLE, Pre Fader)
90 dB	CH INPUT to MIX OUT (VARIABLE, Post Fader)
84 dB	CH INPUT to MIX OUT (FIX; 1–8, Post Fader)
84 dB	CH INPUT to STEREO A OUT (CH to ST)
80 dB	CH INPUT to STEREO B OUT (CH to ST)
100 dB	CH INPUT to STEREO A OUT (VARIABLE, MIX; Post Fader) (via MIX to ST)
96 dB	CH INPUT to MATRIX OUT (VARIABLE, MIX; Post Fader) (via MIX to MATRIX)
70 dB	CH INPUT to MONITOR OUT (PFL)
47 dB	ST CH A INPUT to MIX OUT (VARIABLE; 1–12, Pre Fader)
54 dB	ST CH A INPUT to MIX OUT (FIX; 1–8)
44 dB	ST CH B INPUT to MIX OUT (FIX; 1–8)
70 dB	TALKBACK IN to MIX OUT
6 dB	SUB IN to STEREO B OUT, MONITOR OUT, MATRIX OUT
10 dB	SUB IN to STEREO A OUT, MIX OUT
6 dB	2TR IN 1 to MONITOR OUT
17.8 dB	2TR IN 2 to MONITOR OUT
<b>CH INPUT PAD SW</b>	26 dB
<b>CH INPUT GAIN control</b>	44 dB variable
<b>ST CH INPUT GAIN control</b>	40 dB variable (ST CH A INPUT) 30 dB variable (ST CH B INPUT)
<b>CH INPUT High Pass Filter</b>	12 dB/octave roll-off below 20–400 Hz at -3 dB point.
<b>CH INPUT Equalization</b>	
+15, -15 dB maximum	
HIGH	1k–20 kHz (peaking, Q=0.667)
HIGH-MID	400–8 kHz (peaking, Q=1.41/2.88)
LOW-MID	80–1.6 kHz (peaking, Q=1.41/2.88)
LOW	30–600 Hz (peaking, Q=0.667)

### ST CH INPUT Equalization

+15, -15 dB maximum	
HIGH	20 kHz (peaking, Q=0.667)
HIGH-MID	3 kHz (peaking, Q=1.41/2.88)
LOW-MID	800 Hz (peaking, Q=1.41/2.88)
LOW	50 Hz (peaking, Q=0.667)

**Phantom Power +48VDC** is applied to balanced inputs (via 6.8 kΩ current-limiting/isolation resistors) for powering condenser microphones; may be turned ON or OFF via rear-panel phantom Master switch. When Master is ON, individual channels may be turned ON or OFF via +48V switches (with red LED) on each input channel.

### CH LED Indicators

PEAK	LED (red) built into each CH INPUT turns on when pre-Fader level reaches +18 dB.
NOM	LED (yellow) built into each CH INPUT turns on when pre-Fader level reaches 0 dB.
SIGNAL	LED (green) built into each CH INPUT turns on when pre-Fader level reaches -10 dB.

### ST CH LED Indicators

PEAK	LED (red) built into each ST CH INPUT turns on when pre-Fader [L+R] level reaches +18 dB.
NOM	LED (yellow) built into each ST CH INPUT turns on when pre-Fader [L+R] level reaches 0 dB.
SIGNAL	LED (green) built into each ST CH INPUT turns on when pre-Fader [L+R] level reaches -10 dB.

### Oscillator/Noise

Switchable sine wave @ 100 Hz, 1 kHz or 10 kHz (1% T.H.D. @ +4 dB output), or pink noise.

### Scene Memory

Direct Scene Memory recall switches (1–8)  
Switchable Scene Memory recall (1–128)

### VU Meters

12 illuminated meters  
(0VU= +4 dB output @ 600 Ω load)  
#1; MIX1 / MIX9 / MATRIX1  
#2; MIX2 / MIX10 / MATRIX2  
#3; MIX3 / MIX11 / MATRIX3  
#4; MIX4 / MIX12 / MATRIX4  
#5; MIX5 / MIX13 / MATRIX5  
#6; MIX6 / MIX14 / MATRIX6  
#7; MIX7 / MIX15 / MATRIX7  
#8; MIX8 / MIX16 / MATRIX8  
#9; STEREO A L  
#10; STEREO A R  
#11; STEREO B L / CUE L  
#12; STEREO B R / CUR R

### VU Meter Peak Indicators

LED(red) built into each VU meter turns on when output signal is above the level 3 dB lower than clipping level.

### Dimension

Height	265 mm (10-6/7")
Depth	874 mm (34-3/8")
Width	56C: 2571 mm (101-1/4") 40C: 2043mm (80-7/16") 24: 1515mm (59-5/8")

**Weight** 56C: 128 kg (282.2 lbs.), 40C: 108 kg (238.1 lbs.), 24: 85 kg (187.4 lbs.)

### Accessory

Connecting cable (3m) × 1

● 0 dB is referenced to 0.775 Vrms.

\*1 Hum & Noise are measured with a 6 dB/octave filter @ 12.7 kHz; equivalent to a 20 kHz filter with infinite dB/octave attenuation.

All specifications subject to change without notice.

For details please contact:

YAMAHA Web Site

<http://www.yamaha.co.jp/english>  
<http://www.yamaha.co.jp/product/proaudio/homeenglish/>

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