

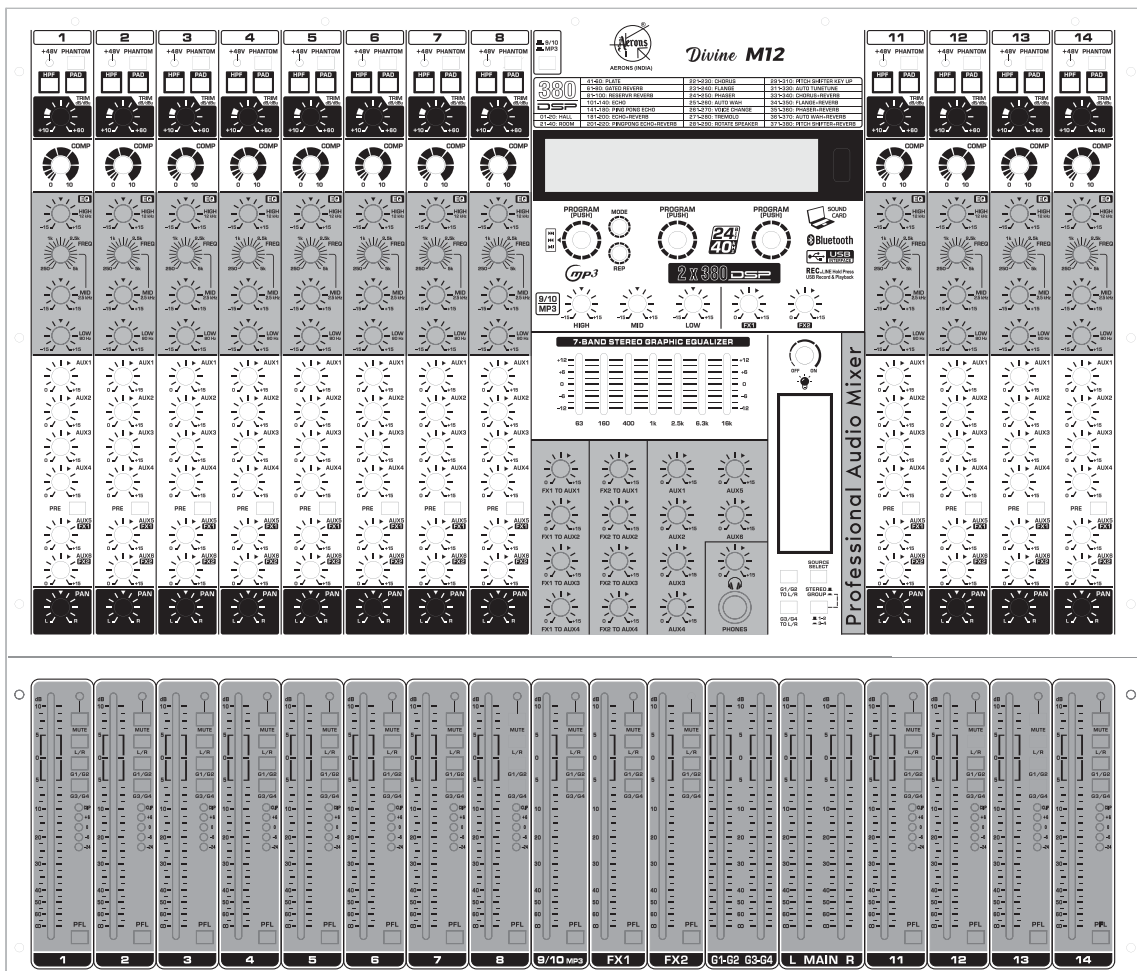


**AERONS (INDIA)**

# Divine Series

**PROFESSIONAL ANALOG MIXING CONSOLE**

*Divine Series : Where Analog Meets Perfection*



## **USER MANUAL**

*Divine M12 / Divine M16 / Divine M24*

## SAFETY INSTRUCTIONS

**CAUTION:** To reduce the risk of electrical shock, do not remove the cover (or back). No user serviceable parts inside; refer servicing to qualified personnel.



**WARNING:** To reduce the risk of fire or electrical shock, do not expose this appliance to rain or moisture.



This symbol, wherever it appears, alerts you to the presence of uninsulated dangerous voltage inside the enclosure - voltage that may be sufficient to constitute a risk of shock.



This symbol, wherever it appears, alerts you to the important operating and maintenance instructions in the accompanying literature. Read the manual.

### DETAILED SAFETY INSTRUCTIONS:

All the safety and operation instructions should be read before the appliance is operated.

**Retain Instructions:**

The safety and operating instructions should be retained for future reference.

**Heed Warnings:**

All warnings on the appliance and in the operating instructions should be adhered to.

**Follow instructions:**

All operation and user instructions should be followed.

**Water and Moisture:**

The appliance should not be used near water (e.g. near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool etc.).

**Ventilation:**

The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa rug, or similar surface that may block the ventilation openings; or placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.

**Heat:**

The appliance should be situated away from heat sources such as radiators, heat registers, stoves or other appliances (including amplifiers) that produce heat.

**Power Source:**

The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

**Grounding or Polarization:**

Precautions should be taken so that the grounding or polarization means of an appliance is not defeated.

**Power-Cord Protection:**

Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords and plugs, convenience receptacles and the point where they exit from the appliance.

**Cleaning:**

The appliance should be cleaned only as recommended by the manufacturer.

**Non-use Periods:**

The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.

**Object and Liquid Entry:**

Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

**Damage Requiring Service:**

The appliance should be serviced by qualified service personnel when:

- the power supply cord or the plug has been damaged; or
- objects have fallen, or liquid has been spilled into the appliance or
- the appliance has been exposed to rain; or
- the appliance does not appear to operate normally or exhibits a marked change in performance; or
- the appliance has been dropped, or the enclosure damaged.

**Servicing:**

The user should not attempt to service the appliance beyond that which is described in the Operating Instructions.

All other servicing should be referred to qualified service personnel.

## **INTRODUCTION**

Please read this guide carefully before starting use, so you will be able to take full advantage of the superlative features of this mixer.

## **LIST OF CONTENTS**

1. CONTROLS AND CONNECTORS .....	1-4
2. CABLE CONNECTIONS .....	5
3. TECHNICAL SPECIFICATION .....	6
4. 380 DSP EFFECTS .....	7
5. TROUBLESHOOTING .....	8



## 1. BALANCE INPUT

Electronically balanced inputs accept a standard XLR male connector. +48V Phantom Power is available on each input Mic socket.

## 2. LINE INPUT

For inputs and outputs this refers to a line level signal. This is a higher voltage signal than 'mic level'.

## 3. PHANTOM +48V

This switch toggles phantom power on and off. When the switch is on, the mixer supplies +48V phantom power to all channels with XLR mic input jacks. Turn this switch on when using one or more phantom-powered microphone condensers.

## 4. FILTER PASS

Pressing this button activates a high-pass filter, which only lowers the bass frequency. Use this in live PA situations to reduce stage rumble or popping from microphones.

## 5. PAD SWITCH

Engaging this switch will reduce the sound input to the unit. If you hear distortions or see LED lights on, activate the button.

## 6. TRIM Control

Adjust the input signal level to achieve the best balance between signal-to-noise ratio and dynamic range. Adjust the gain so that the indicator lights up all 9 lamps only occasionally and briefly during the highest input peaks. The 60 to +10 scales represent different mic input ranges. The 40-10 scale is the guide range for setting input levels.

## 7. COMPRESSOR

Adjust the compressor value settings from 0-10dB.

## 8. EQ 4-BAND FIXED-FREQUENCY

The stereo channel has a 4-band fixed-frequency equalizer set at: LOW shelving at 12 kHz. For mono channels, the circuit has center detent positions.

## 9. AUX

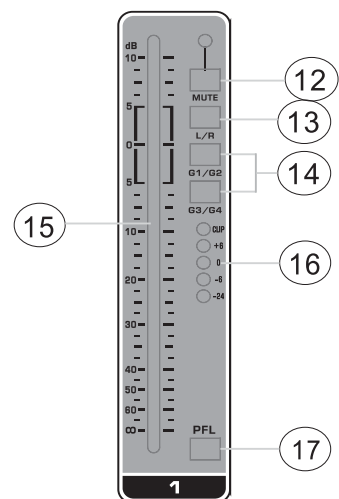
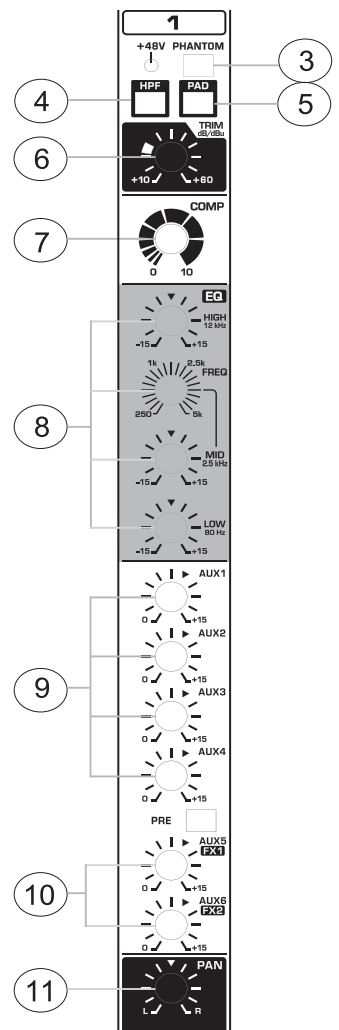
This is normally derived after the EQ section and channel fader (PRE-FADER, POST-EQ), and is therefore unaffected by the fader position and routing status. This makes the send particularly suitable for foldback or monitor feeds, which need to be controlled separately from the main PA mix. All pre-fader sends may be selected internally to be PRE-FADER, PRE-EQ.

## 10. FX Control

The FX aux send offers a direct route to the built-in effects processor because it is post-fader and post-mute.

## 11. PAN

The pan control sends continuously variable amounts of the post-fader signal to either the left or right main busses. In the center position, equal amounts of signal are sent to both the left and right busses.



**12. MUTE**

Press this button to turn off the channel signal. The red LED light indicates that the channel is muted.

**13. SWITCH MIX**

Press this button to enable the master fader.

**14. SUB GROUP SWITCH**

These switches determine the group to which each channel's signal is sent. Press the switch in to output the signal to Group 1-4. Switches G1-G2, G3-G4: Assign the channel's signal to the GROUP 1 to 4 buses.

**15. CHANNEL FADER**

This function adjusts the volume of the signal for each channel and adjusts the output volume along with the master fader. The normal operating position is at the "0" mark, providing 4dB of gain above that point, if required.

**16. LEVEL METERS**

This indicator lamp shows the volume level of the channel.

**17. PFL LED**

You can monitor the signal of the channel with the PFL switch turned "ON" using headphones. When the PFL switch is on, other channels are automatically muted.

**18. AUX OUT**

This jack is used to send a signal to another device.

**19. SUB GROUP BALANCED OUT**

This jack is used to connect to a speaker monitor.

**20. STEREO OUT**

These are XLR type balanced output jacks that output the mixed stereo signal. The signal level is sufficient to drive the main speaker. Connect this to the power amplifier using the STEREO master output before exiting. This jack can be used to connect to an electric amplifier for directing the speaker.

**21. MONO OUTPUT**

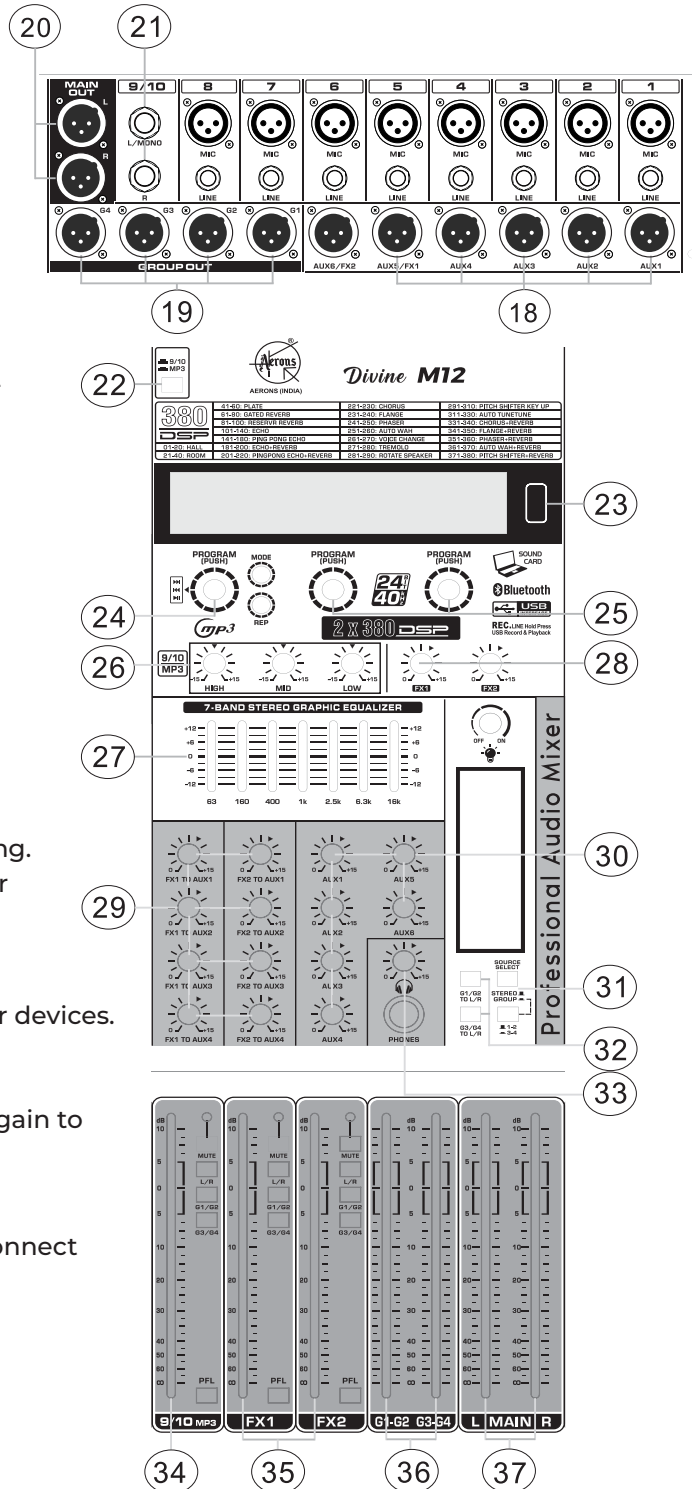
This jack is used to connect to control monitors or other devices.

**22. SWITCH MP3**

Press the MP3 key to start MP3 playback, and press it again to stop MP3 playback.

**23. MP3 JACK PLAYER**

this USB port can be used to play from a U-DISK and connect with the computer for playback and recording.



**24. MP3 Master Control**

Press and hold to pause, press again to resume, or press and hold again to enter recording mode. This will record the channel output signal directly to USB memory. To play the previous song, press briefly. Press and hold to decrease volume. Briefly press the current song to increase volume. Use the MODE function buttons to switch between LINE/BT/PC modes. Press and hold to change the rotation mode.

**25. PROGRAM DIAL**

You can choose an preset by rotating the PROGRAM control. The screen blinks with the specified number. To remember the selected preset, press the button; the flashing will stop.

**26. MP3 Equalizer**

A 3-band equalizer adjusts the levels for a 3-band MP3 player.

**27. STEREO GRAPHIC EQUALIZER**

A 7-band equalizer allows you to control the tone at each frequency for high-quality sound by precisely adjusting the final tone.

**28. CONTROL**

Adjusts the signal level sent to the FX bus.

**29. Stereo AUX Return Jacks**

The stereo AUX return jack is typically used to return the effect mix (created using the after-fader signal) by connecting the output from an external effects device. If only the left jack is connected, AUX returns automatically to mono.

**30. AUX VOLUME CONTROL**

This control adjusts the volume of the AUX sound when sending the AUX signal to a connected jack.

**31. Source Select**

You can use this button to select a signal from the stereo L/R, group 1-2 buses or group 3-4 buses for LED indicator.

**32. G1/G2 G3/G4 L/R Switch Change**

When this button is pressed, it send the G1/G2/G3/G4 signals to the L/R master mix output.

**33. Phones Control**

Use this control to adjust the output level for the headphone.

**34. MP3 Volume Fader**

This fader controls the volume level of the MP3 player.

**35. FX Fader**

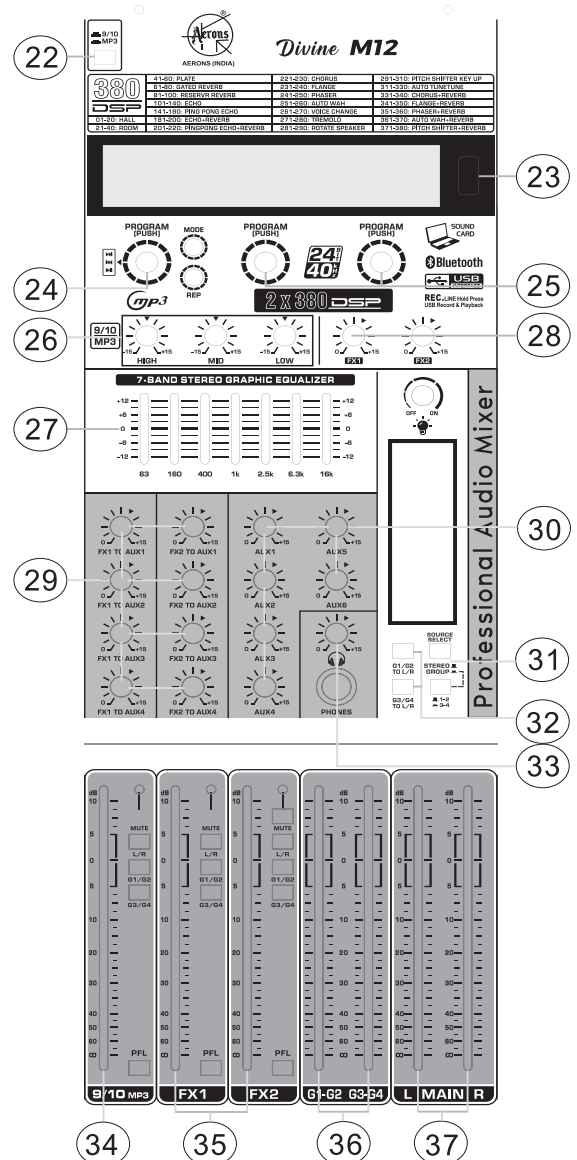
Controls the level of the input effect signal.

**36. Sub Group Fader**

This fader is used to adjust the level of a subgroup of channels.

**37. Main Output Faders**

These master faders control the signal level at the main outputs.

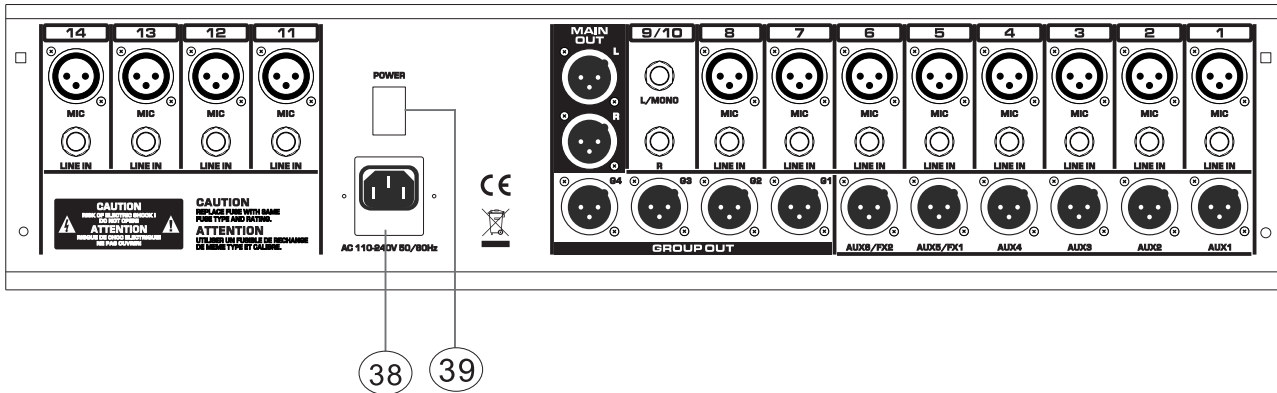


### 38. POWER SWITCH

Press the top of this rocker switch to turn on the mixer. The front panel power LED will glow if the mixer is plugged into a suitable live AC mains supply.

### 39. POWER JACK

This is used for the power adapter. Before you plug the AC power cord into the mixer, make sure that the voltage of your unit matches the voltage of your local mains supply.



## Warning:

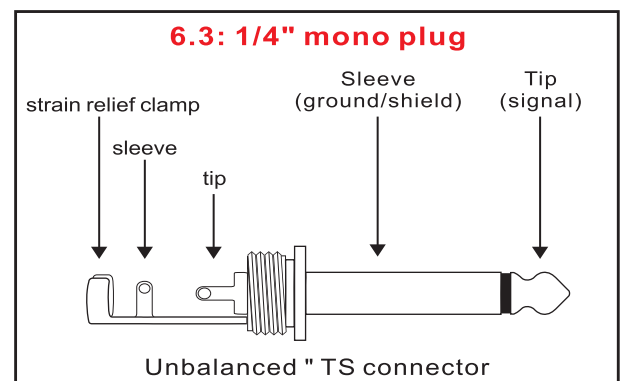
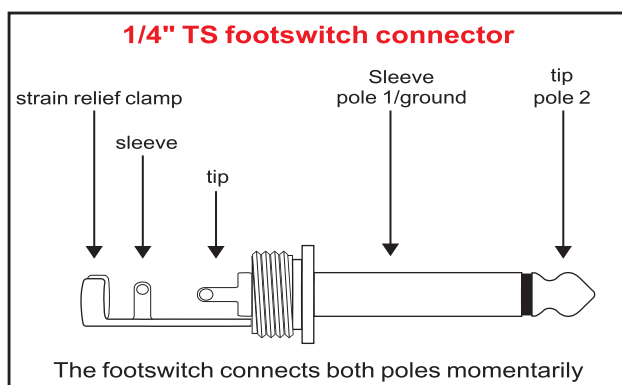
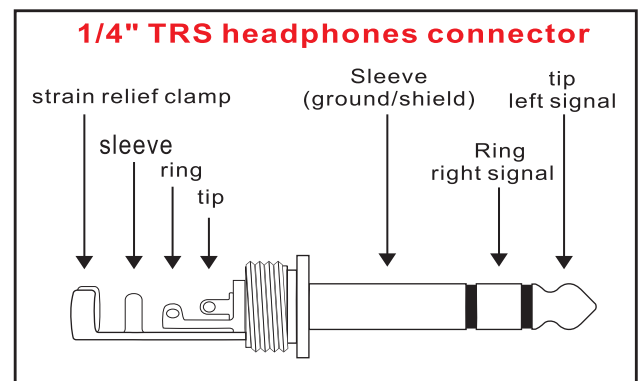
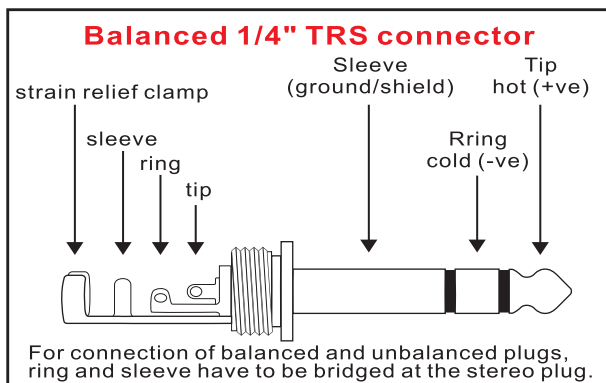
Ensure proper ventilation around the unit to prevent overheating.

Do not place the mixing console near a radiator or power amp.

## Cable Connections

You will need a significant number of cables for various connections from the console. The illustration below shows these cable connections.

Make sure to use only high-quality cables.





# TECHNICAL SPECIFICATIONS

## MICROPHONE INPUTS

Type	XLR, electronically balanced, discrete input circuit
<b>Mic E.I.N. (20 Hz - 20 kHz)</b>	
@ 0 $\Omega$ source resistance	-134 dB / 135.7 dB A-weighted
@ 50 $\Omega$ source resistance	-131 dB / 133.3 dB A-weighted
@ 150 $\Omega$ source resistance	-129 dB / 130.5 dB A-weighted
Frequency response	<10 Hz - 150 kHz (-1 dB), <10 Hz - 200 kHz (-3 dB)
Gain range	+10 to +60 dB
Max. input level	+12 dBu @ +10 dB Gain
Impedance	approx. 2.6 k $\Omega$ balanced
Signal-to-noise ratio	110 dB / 112 dB A-weighted (0 dBu In @ +22 dB gain)
Distortion (THD+N)	0.005% / 0.004% A-weighted
<b>Line input</b>	
Type	¼" TRS connector electronically balanced
Impedance	approx. 20 k $\Omega$ balanced 10 k $\Omega$ unbalanced
Gain range	-10 to +40 dB
Max. input level	30 dBu

## FADE-OUT ATTENUATION' (CROSSTALK ATTENUATION)

Main fader closed	90 dB
Channel muted	89 dB
Channel fader closed	89 dB

## FREQUENCY RESPONSE

<b>Microphone input to main out</b>	
<10 Hz - 90 kHz	+0 dB / -1 dB
<10 Hz - 160 kHz	+0 dB / -3 dB
<b>Stereo inputs</b>	
Type	¼" TRS connector, electronically balanced
Impedance	approx. 20 k $\Omega$
Max. input level	+22 dBu
<b>EQ mono channels</b>	
Low	80 Hz / $\pm 15$ dB
Mid	100 Hz - 8 kHz / $\pm 15$ dB
High	12 kHz / $\pm 15$ dB
<b>EQ stereo channels</b>	
Low	80 Hz / $\pm 15$ dB
Low Mid	500 Hz / $\pm 15$ dB
High Mid	3 kHz / $\pm 15$ dB
High	12 kHz / $\pm 15$ dB
<b>Aux sends</b>	
Type	XLR, electronically balanced,
Impedance	approx. 120 $\Omega$
Max. output level	+22 dBu

## Main outputs

Type	XLR, electronically balanced and ¼" TRS balanced
Impedance	approx. 240 $\Omega$ symm. / 120 $\Omega$ unbalanced
Max. output level	+28 dBu +22 dBu

## Control room outputs

Type	¼" TRS connector, unbalanced
Impedance	approx. 120 $\Omega$
Max. output level	+22 dBu

## Headphones outputs

Type	¼" TRS connector, unbalanced
Max. output level	+19 dBu / 150 $\Omega$ (+25 dBm)

## DSP

Converter	24-bit Sigma-Delta, 64/128-times oversampling
Sampling rate	40 kHz

## MAIN MIX SYSTEM DATA<sup>2</sup>

### Noise

Main mix @ $-\infty$	
Channel fader @ $-\infty$	-101 dB -100 dB
Main mix @ 0 dB,	
Channel fader @ $-\infty$	-93 dB -96 dB -87 dB
Main mix @ 0 dB,	
Channel fader @ 0 dB	-81 dB -83 dB -80 dB

### Power supply

Mains voltage	230 V~, 50/60 Hz
Fuse	230 V ~: T 5 A H 250 V
Mains connection	Standard IEC receptacle

Measuring conditions:

- 1 kHz rel. to 0 dBu; 20 Hz - 20 kHz; line input; main output; unity gain.
- 2: 20 Hz - 20kHz; measured at main output. Channels 1 - 4 unity gain; EQ flat; all channels on main m channels 1/3 as far left as possible, channels 2/4 as far right as possible. Reference = +6 dBu.

# **380 DSP EFFECTS**

<b>01-20</b>	HALL
<b>21-40</b>	ROOM
<b>41-60</b>	PLATE
<b>61-80</b>	GATED REVERB
<b>81-100</b>	RESERVR REVERB
<b>101-140</b>	ECHO
<b>141-180</b>	PING PONG ECHO
<b>181-200</b>	ECHO+REVERB
<b>201-220</b>	PINGPONG ECHO+REVERB
<b>221-230</b>	CHORUS
<b>231-240</b>	FLANGE
<b>241-250</b>	PHASER
<b>251-260</b>	AUTO WAH
<b>261-270</b>	VOICE CHANGE
<b>271-280</b>	TREMOLO
<b>281-290</b>	ROTATE SPEAKER
<b>291-310</b>	PITCH SHIFTER KEY UP
<b>311-330</b>	AUTO TUNETUNE
<b>331-340</b>	CHORUS+REVERB
<b>341-350</b>	FLANGE+REVERB
<b>351-360</b>	PHASER+REVERB
<b>361-370</b>	AUTO WAH+REVERB
<b>371-380</b>	PITCH SHIFTER+ REVERB

# TROUBLESHOOTING

<p><b>Power doesn't come on.</b></p>	<ul style="list-style-type: none"> <li>• Is the power line properly plugged into an AC wall outlet .</li> <li>• Are the power line and AC wall outlet connected correctly .</li> </ul>
<p><b>No sound</b></p>	<ul style="list-style-type: none"> <li>• Are microphone, external devices, and speakers connected correctly .</li> <li>• Are the channel GAIN controls, channel fader, STEREO OUT Master fader and GROUP fader set to appropriate levels .</li> <li>• Are the speaker cables connected properly, or are they shorted .</li> <li>• If the above checks do not identify the problem, please contact the service center.</li> </ul>
<p><b>Sound is faint, distorted, or noisy</b></p>	<ul style="list-style-type: none"> <li>• Are the channel GAIN controls, channel fader, STEREO OUT Master fader and GROUP fader set to appropriate levels .</li> <li>• Are two different instruments connected to the XLR-type and phone jacks, or to the phone and RCA pin jacks on one channel . Please connect to only one of these jacks on each channel.</li> <li>• Is the input signal from the connected device set to an appropriate level .</li> <li>• Are you applying the effects at an appropriate level .</li> <li>• Are microphone connected to the MIC input jacks .</li> <li>• If you are using condenser microphone, is the PHANTOM +48V switch turned on .</li> </ul>
<p><b>No effect is applied</b></p>	<ul style="list-style-type: none"> <li>• Check that the EFFECT control on each channel is correctly adjusted.</li> <li>• Be sure that the FX control and EFFECT fader are correctly adjusted.</li> </ul>
<p><b>I want spoken words to be heard more clearly.</b></p>	<ul style="list-style-type: none"> <li>• Adjust the equalizers on each channel.</li> </ul>
<p><b>I want to output a monitor signal through speakers.</b></p>	<ul style="list-style-type: none"> <li>• Connect a powered speaker to the AUX jack, or to the AUX1 or 2 jack and turn the PRE switch on each channel on. Then adjust the output signal by using the AUX controls on each channel.</li> </ul>
<p><b>The level meter doesn't show the output signal level.</b></p>	<ul style="list-style-type: none"> <li>• Are the PEL switches for the channels that you are not using turned on .</li> </ul>



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