

Stereo Mixing Consoles



by



AUXILIARY 2 RETURN FADER

Sets the overall signal 'level' from 'Aux 2' return to the 'master fader'.

The Master Output Section

MASTER OUTPUTS

Master outputs are provided on Jacks and XLR's. The XLR's are balanced and wired as follows:-

Pin 1 - Ground

Pin 2 - Hot/+v

Pin 3 - Cold/-ve

The jacks are unbalanced.

Tape outputs are also provided which carry the same signal as the Jack and XLR output.

The advantage of the balanced outputs are that balanced signals are more immune to electromagnetic interference and ground differences, making them more suitable for long cable runs.



TAPE OUTPUTS

The 'tape outputs' are used to connect a recording machine for either live or tape to tape recording from the master outputs.

BARGRAPH METERS

Two 10 segment two colour LED bargraphs indicate the output signal level left and right. The left bargraph also indicates for 'pre fade listen'.

CLIP INDICATORS

Each 'Bargraph' meter has an accompanying 'clip' indicator. This illuminates when signal levels are too high.

STEREO HEADPHONES

Stereo jack socket for connecting headphones. This may also be used as an extra monitor output.

HEADPHONE LEVEL

Sets the output signal level of the headphones.

MASTER FADER

Sets the final mix output level to the 'Master outputs'.

MIC/LINE CHANNEL (MONO)



LINE INPUT CHANNEL (STEREO)

P r o f e s s i

HH have been established in the worlds pro audio market for over twenty years and during this time it has firmly established itself as a benchmark for professional audio products.

Feedback from musicians and recording engineers, supported by original design ingenuity, are the parameters applied by HH's development engineers to all new products

1996 sees the launch of three new multi use mixers which build upon the existing MISCARA designs

The new format MISCARA models offer various combinations of Mic/Line and up to 4 Mic/Stereo channel inputs



Special features

M1002S

- 8 Mic+5 stereo inputs available simultaneously
- 6 mic/line inputs
- 2 mic/stereo inputs
- 2 stereo auxiliaries
- 1 stereo tape input
- Rack option model number M1002SK

M1202SX

- 8 Mic+7 stereo inputs available simultaneously
- 4 mic/line inputs
- 4 mic/stereo inputs
- 2 stereo auxiliaries
- 1 stereo tape input
- Rack option model number M1202SK

M1602SX

- 12 Mic+7 stereo inputs available simultaneously
- 8 mic/line inputs
- 4 mic/stereo inputs
- 2 stereo auxiliaries
- 1 stereo tape input

Common features

- Inserts on mic/line channel (usable as a direct output)
- 3 band EQ on channels
- Pad switches on Mic channels
- 2 Aux. sends per channel (1 pre/1 post)
- Aux. 1 internally selectable pre/post
- Main outputs available on
 - 1) Balanced XLR. 2) Unbalanced jack.
 - 3) Phono's/RCA pin jacks
- PFL facilities
- LED metering with peak indicator
- Phantom power on Mic channels
- Internal power supply
- Headphone output
- Faders



Mono Channel Features

MIC INPUT

The Input socket has been designed to accept both balanced and unbalanced signals from microphones with an XLR input connector. Low impedance condenser mic's should be used to ensure the best possible results both from hand held vocals or closely miked acoustic instruments. High impedance mic's may of course also be used, however background noise may become unacceptable for delicate vocals.

LINE INPUT

The balanced line inputs are for all line level signals from electric guitars or basses, keyboards, drum and tape machines etc.

MIC/LINE PAD

This switches to 'Line' input or pads down the Mic signal when the input signal is too high.

GAIN

Controls the level of the input signal for optimum noise and distortion performance.

EQUALISATION

The MISCARA range has a three band EQ system where the Hi (high), MID (middle) and Lo (low) frequencies can be individually adjusted.

AUX I

The 'Aux 1' control is factory set for pre fader operation and is normally used for 'foldback' where 'Aux 1' directs the channel mix to 'Aux 1 send' which is the output to the 'foldback' (monitoring) system. The significance of 'Aux 1' pre fade is that the signal is unaffected by the channel fader position. Should 'Aux 1' need to be used for additional effects units in the post fade mode it will be necessary to change the connectors inside the mixer.

d m i x i n g

AUX 2

Aux 2 is post fader and operates via 'Aux 2 send'.

PAN

This control directs the channel signal either right or left thus enabling the stereo image to be positioned as required.

PFL

The pre fade listen switch directs the 'pre fader' channel signal to the left hand 'bargraph'(VU) display and headphones, allowing channel 'Gain' to be set and cued. This is non destructive so may be used at any time during performances without affecting the main mix output.

FADER

The individual channel fader, sets the output level of the channel mix to be sent to the MASTER section.

INSERTS

Each mono channel has an individual 'Insert' jack mounted on the rear panel. Effects units can be inserted and enter the channel signal path after the 'gain' control.

Stereo Channel Features

MIC INPUTS

The Input socket has been designed to accept both balanced and unbalanced signals from microphones with an XLR input connector. The Mic input can be used simultaneously with the stereo line inputs

LINE INPUTS

Two inputs are provided a Stereo/Left and Mono/Right socket. This enables the stereo input to be used in 3 modes

- 1) Stereo-Using a stereo jack
- 2) Stereo-Using left and right mono jacks
- 3) Mono-Using a single mono jack

MIC GAIN

Controls the level of the Mic input signal for optimum noise and distortion performance.

LINE GAIN

Controls the level of the line input signal for optimum noise and distortion performance.

EQUALISATION

The MISCARA range has a three band EQ system where the Hi (high), MID (middle) and Lo (low) frequencies can be individually adjusted.

AUX 1

The 'Aux 1' is factory set for 'prefader' operation and operate similarly to the mono channel

AUX 2

'Aux 2' is post fader and operates via 'Aux 2 send'.

BALANCE

This control directs the channel either right or left, thus enabling the stereo image to be positioned as required.

PFL

Directs the 'pre-fader' channel signal to the headphones, this allows the 'Gain' to be set and cued.



FADER

The individual channel fader, sets the output level of the channel mix to be sent to the MASTER section.

Master Auxiliaries

AUXILIARY SENDS 1 & 2

Auxiliary sends 1 & 2 receive the signal from channel 'Aux's 1 & 2 controls respectively, the signal can then be sent to foldback or effects units.

STEREO AUXILIARY RETURNS

Two sets of stereo auxiliary returns receive the return signal from effects units. Each return has two inputs, one stereo (or mono left) and the other is mono (right).

TAPE INPUTS

A stereo tape, CD or DAT player may be connected via phono sockets left and right for playback.

TAPE TO MASTER

This controls the tape input level sent to the 'master fader'.

PHANTOM POWER

Each mic input has 'phantom power' available for use with professional 'balanced line' condenser microphones

AUXILIARY 1 RETURN BALANCE

Balance control for auxiliary 1 return.

AUXILIARY 2 RETURN BALANCE

Balance control for auxiliary 2 return.

AUXILIARY 1 RETURN FADER

Sets the overall signal 'level' from 'Aux 1' return 1 to the 'master fader'.

Technical Specifications

MIX NOISE

Master Down	-96dBu
Master Up	-83dBu
1 Channel OdB	-78dBu (M1602SX)
All Channels	-73dBu (M1602SX)
	-75dBu
	-70dBu (M1602SX)

AUX NOISE

Aux Sends Down	-85dBu
----------------	--------

DISTORTION

MIC CHANNEL (Fader OdB Ref+4dBu Output) <.005% TYP

MIC INPUT

Gain Max	73dB
Gain Min	28dB
Pad	-20dB
Bandwidth	30Hz-20kHz-1dB
E.I.N. (Equivalent Input Noise)	-129dB (150R source Z)
Maximum Input	+21dB

LINE INPUT

Gain Max	24dB
Gain Min	-25dB
Pad	10dB
Bandwidth	30Hz-20kHz-1dB

INSERT

Gain	4dB
------	-----

EQ

Hi	±12dB @ 12kHz (Shelving)
Middle	±12dB @ 2kHz (Peaking)
Low	±16dB @ 80Hz (Shelving)

AUX SEND

Output level	+4dB
--------------	------

MIC/STEREO CHANNELS

Stereo Gain	24dB
Input overload	>50V
EQ	(As mic channels)

MIC INPUT

Gain Max	+60dB
Gain Min	0dBdB
E.I.N.	-129dB (150R source Z)
Maximum Input	+21dB

TAPE INPUTS

(Ref + 4dBu @ Output/Fader OdB)	
Gain	16dB

TAPE OUTPUT LEVEL

+4dBu

MAXIMUM OUTPUT LEVELS

Main Outputs: Unbalanced	+22dBu
Balanced	+28dBu
Aux Output	+22dBu

POWER REQUIREMENTS

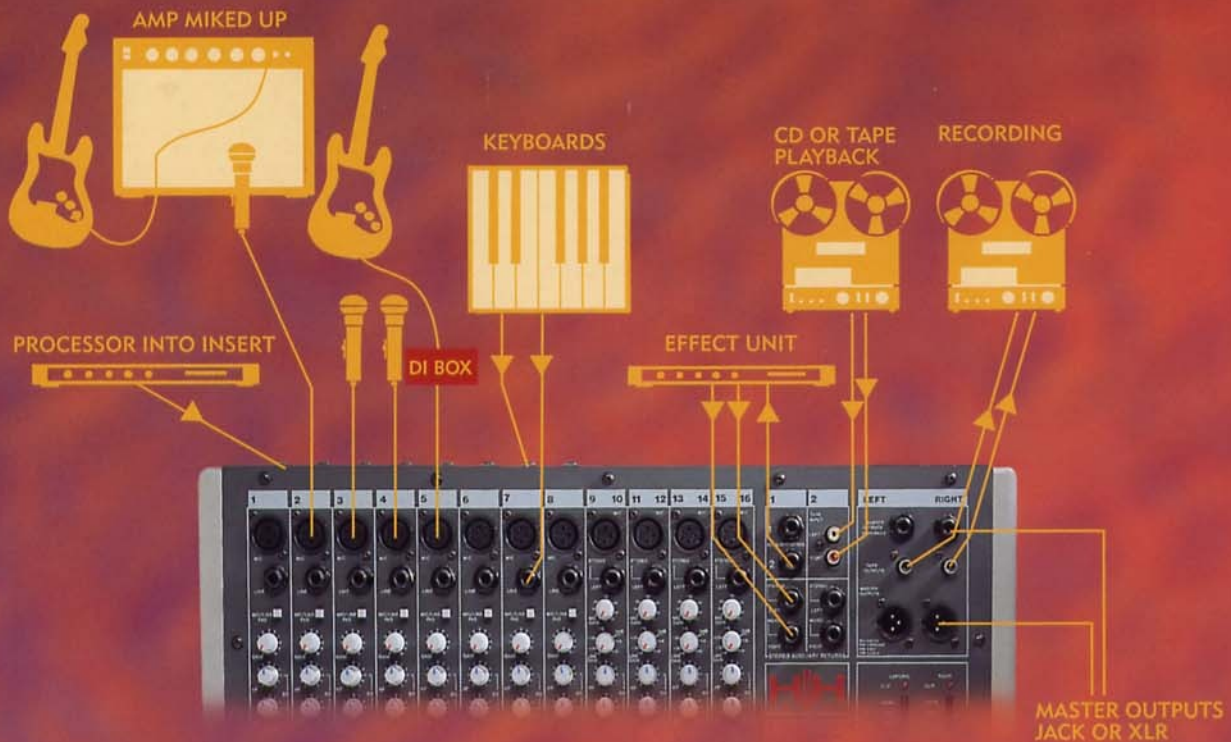
220/240V 40/60Hz 20Watts 100/120V 40/60Hz 20Watts

DIMENSIONS

Model	Width	Depth	Height	Weight
M1002S	436mm	400mm	87mm	6.5kg
M1202SX	436mm	400mm	87mm	6.5kg
M1602SX	548mm	400mm	87mm	8kg

(inc Knobs etc)

Set up Connections



In the interest of continuing product development HH Electronic reserve the right to amend technical specifications without prior notification

