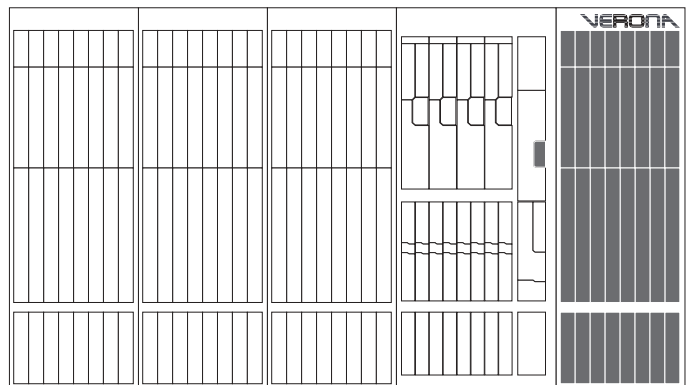


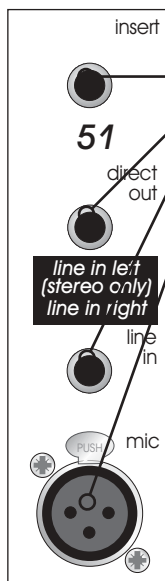


Multi Function Input Channel



Multi Function Input Channels

Rear Panel



The Verona channel inputs are located on the rear of the console. Each multifunction channel provides:

- one insert point on a single TRS jack socket;
- two quarter-inch TRS balanced line in jack socket inputs;
- one mic XLR female.

The insert point operates on the XLR microphone input only (i.e. not on the line inputs) and is unbalanced and conventionally wired insert where:

- Tip** - Channel Signal Send
- Ring** - Channel Signal Return
- Sleeve** - Signal Common Ground

The insert points operate at a nominal level of 0dBu and acts only upon the MIC input.

Balanced XLR and Jack inputs are conventionally wired:

- XLR** - 1. Screen - 2. Hot Signal - 3. Cold Signal
- TRS** - T. Hot Signal - R. Cold Signal - S. Screen

Front Panel

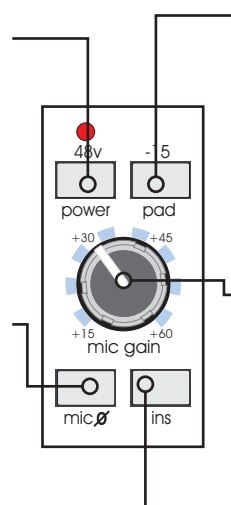
The actual number of multifunction input channels on your Midas Verona will depend upon your choice of frame. However, each frame functions in essentially the same way.

48v Power - When depressed, the Verona will apply 48 volts phantom power the channel's microphone input to power condenser microphones, direct inject boxes or other devices that require phantom power.

The red phantom power LED will light to indicate that phantom power is being applied.

Mic Ø - The microphone phase switch causes a 180 degree phase change (with respect to the input) to occur in the input amplifier inverting the phase of the microphone signal to the channel. This is generally desirable when trying to sum two signals that are out of phase which would lead to cancellation (especially at low frequencies). For example, when trying to use microphone signals from both the top and bottom head of a snare drum.

Note: On stereo channels, the phase switch has no effect upon the left and right line inputs.



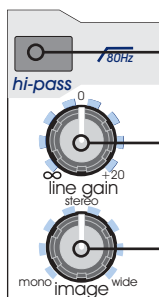
Mic Pad - The Pad switch provides 15dB attenuation on the input to allow the connection of high output microphones and line level signals (to the microphone input) without overloading the channel's input amplifier.

Note: On multifunction channels, the Pad switch has no effect upon the left & right line level inputs.

Mic Gain - The microphone gain is continuously variable from +15dB to +60dB (effective channel input gain 0dB to +45dB with pad enabled). The pre-fade channel input level can be monitored on the in-channel LED meter (discussed later in this section).

Ins - The insert switch enables the channel insert point by connecting the insert return to the channel signal path. This allows for the insertion of dynamic processors or effects into the signal path (for example, compression, limiting or gating of microphone signals).

Note: On stereo channels, the channel insert has no effect upon the left and right line inputs.



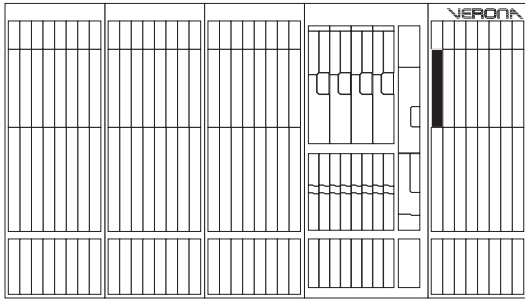
Hi-Pass - The high pass switch enables an 80Hz high pass filter on the microphone input. This is commonly used to remove handling noise, bass rumble through coupling with the stage or mains hum. Note: On stereo channels, the channel HPF has no effect upon the left and right line inputs.

Line Gain - The line gain is continuously variable from off (-inf) to +20dB allowing for low level line signals to be trimmed to obtain the optimal signal level. The pre-fade input signal level can be monitored using the in-channel LED meter (discussed later in this section).

Image - The image control controls the stereo image of the channel and is continuously variable from mono through Left-Right stereo to a wide stereo image. The wide stereo image uses phase cancellation techniques to create a 'wider' sounding signal by removing an amount of signal common to both the left and right signals.

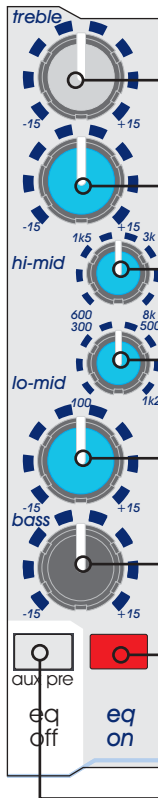
Note: The Line and MIC inputs are summed together and can be used simultaneously sharing the channel controls.

Multi Function Input Channels



Channel Equalisation

The Verona's multifunction channels each have treble and bass shelving EQ and hi and lo-mid sweep EQ stages for tonal control.



Treble - The treble shelving EQ gain is continuously variable from -15dB to +15dB.

Hi-Mid Gain - The Hi-mid gain is continuously variable from -15dB to +15dB.

Hi-Mid Frequency - The centre frequency of the hi-mid EQ is continuously variable from 600Hz to 8kHz allowing the operator to select the desired centre frequency for the equaliser.

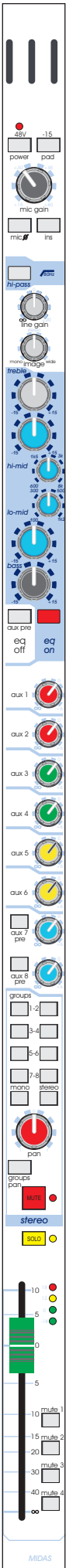
Lo-Mid Frequency - The centre frequency of the lo-mid EQ is continuously variable from 100Hz to 1.2kHz allowing the operator to select the desired centre frequency for the equaliser.

Lo-Mid Gain - The Lo-mid gain is continuously variable from -15dB to +15dB.

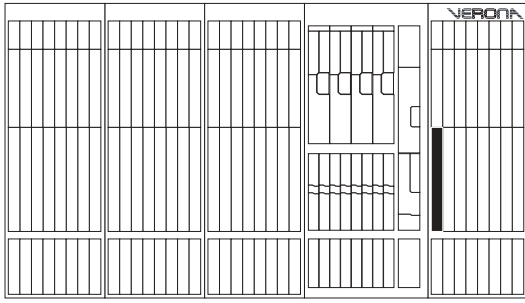
Bass Gain - The bass shelving EQ gain is continuously variable from -15dB to +15dB.

EQ On - The channel equalisation stages are enabled by depressing the EQ on switch. Otherwise the settings of the channel EQ will have no effect.

EQ Off (aux Pre) - When depressed, auxiliary sends 1 through 6 will be sourced pre-equalisation. Otherwise auxiliary sends will be sourced post EQ. The use of this option depends upon how the auxiliary sends are to be used. Aux sends 7-8 can be linked to the pre EQ off switch, as well as 1-6, via an internal jumper (refer to the service manual or contact your authorised Midas service agent).



Multi Function Input Channels



Auxiliary Outputs

Note: Multifunction L and R channel signals are summed into a **mono signal** to be routed to the auxiliary busses by the channel aux sends.

The Verona has eight (8) auxiliary outputs which can be used for effects sends, monitor sends or as extra assignable outputs from the

console.

Pre-Fade auxiliary (aux) 1-6 sends are sourced after the channel Insert, Mute and EQ but before the channel fader (and EQ if the Aux Pre EQ switch is depressed). As a result, the actual level sent to the aux buss is proportional to the aux send control only.

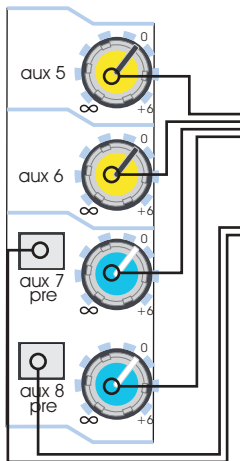
Post-Fade aux sends are sourced after the channel Insert, Mute, EQ and channel Fader. As a result, the actual level sent to the aux buss is proportional to the aux send control AND the channel fader.

Typical uses of auxiliaries are:

Application	Pre/Post Fade	Reason
Stage Monitors	Pre (Post-EQ)	The level in the monitor stays constant so that the engineer can change the FOH level without affecting the performer.
Effects Sends	Post	The level sent to the effects is proportional to the level on the fader so the balance between wet (processed) and dry (un-processed) sound stays the same even when the channel level is changed
Multi Track Recording	Pre (Pre-EQ)	The recording is made at constant level without any equalisation so that changes in the mix level and EQ can be set in post-production. (You can also use the Direct Out for this but the output will be at unity).
Mixed Recording	Post (Post-EQ)	If the aux is set to unity, the FOH mix is replicated on the aux output including EQ but excluding PAN.

Aux sends 1 through 6 are always globally switchable pre or post fader. However, Aux 7 and 8 may individually be sourced either Post Fader or Pre Fader using the selector switch on the channel and can not be pre-EQ.

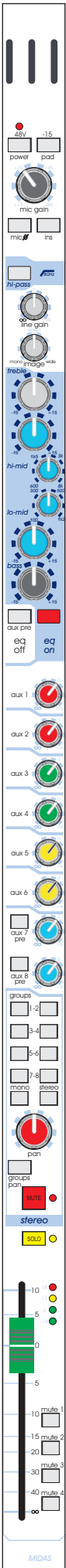
Please note that, for illustration puposes, auxiliary 1 through 4 sends have been omitted but work in the same manner as auxiliary 6 (illustrated).



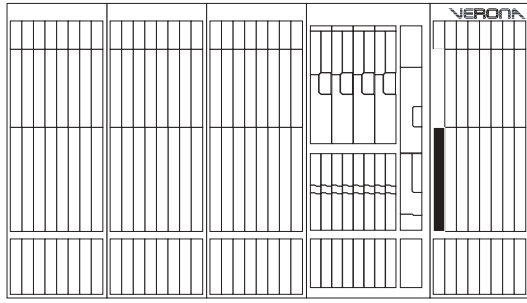
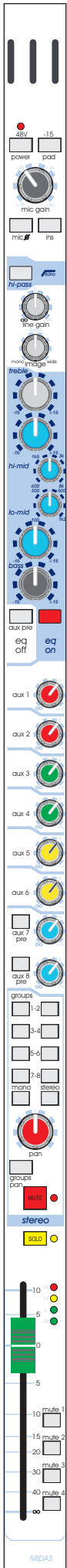
Aux Send Level - The auxiliary send level is continuously variable from off (-inf) to +6dB.

Aux 7/8 Pre - Both aux 7 and aux 8 are assignable Pre or Post fader. When depressed, the auxiliary is sourced pre-fader (i.e. the channel fader has no effect upon the level of the signal sent to the auxiliary).

NOTE: Stereo modules can equally be used for mono signals (plugged in via the microphone socket). The EQ on the stereo channels has fixed frequency high and low sections which are optimised for vocals.



Multi Function Input Channels



Pan and Routing

The Verona is a flexible mixing console with eight group buss outputs plus stereo and mono outputs.

Groups

Signal can be routed to any of the eight group busses by depressing the corresponding group select switch.

Group sends are post channel equalisation, mute and fader.

The group sends can be configured in either of two modes:-

1. Pre-Pan (mono)

The stereo signals are sent to the busses as a **mono sum of L & R** regardless of the pan control.

2. Post-Pan (stereo)

Each pair of groups behave as if they were **stereo** groups. The relative odd and even numbered send level is controlled by the pan control.

This configuration is made by depressing the 'Groups Pan' key for stereo group operation or released for mono group mode.

This selection is on a channel-by-channel basis and so some may be assigned to the groups as mono or as stereo depending upon the desired usage which is especially useful if the stereo input is to be used as a mono input.

For example:

Application	Config.	Reason
Multitrack Recording	Mono	Inputs can be sent to a particular input on the multitrack recorder without affecting the stereo image used at FOH.
Alternative/Delay Output	Stereo	The Group would behave in the same manner as the stereo output allowing for separate level control but retaining the original stereo image from FOH.

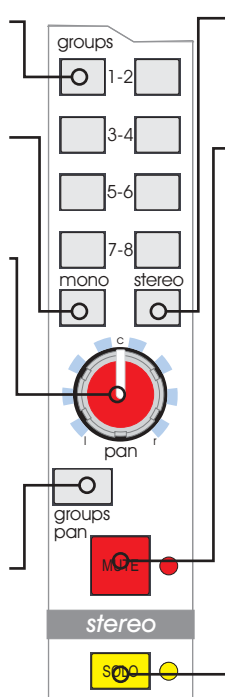
Group 1-8 - Depressing the group switch routes the channel signals as described above.

Mono - Depressing the mono switch routes the channel signals to the mono buss (post-EQ and fader).

Pan - The pan control allows continuous reciprocal adjustment of the stereo image created by the channel. In the case of a mono microphone signal this will be a simple L-R pan, where, with a stereo signal this will be a balance allowing the user to determine the relative output power to each the Left and Right output. At all points the pan retains constant power (i.e. -3dB at the centre, 0dB at each extreme).

Groups Pan - As described above the Verona's group sends may be configured by depressing the 'Groups Pan' key for stereo group operation or released for mono group mode.

Note: That SIS is not available on stereo input channels.



Stereo - Depressing the stereo switch routes the channel signals to the stereo (main left and right) buss (post-EQ, pan and fader).

Mute - The mute switch mutes the channel signal. Note that signal will still be sent to the insert point and to the direct output. The mute status of the channel is indicated by the corresponding mute LED.

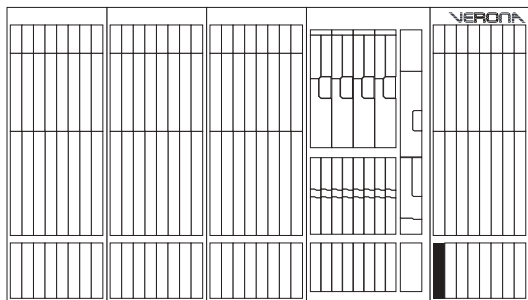
The channel can also be muted by the four (4) assignable mute groups which will be explained later in this section.

Solo - When depressed, the channel signal will be sent to the AFL stereo and PFL mono outputs. The solo LED indicator will illuminate to show that the channel solo is active.

The Left and Right Monitor and the PFL console outputs can be used, for example, when operating from within a booth to hear selected solos and not the whole FOH mix.

Note: If Solo In Place is activated on the console, any active solos will replace the master outputs completely until the solo is removed.

Multi Function Input Channels

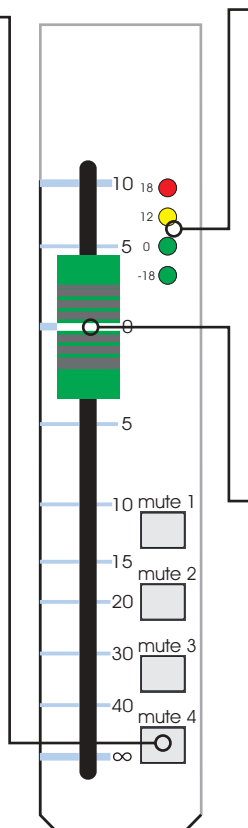


Mute 1,2,3 & 4 - The Verona has four (4) automute busses that can be controlled from the centre section of the console. To assign an input channel to an automute, switch in the desired mute switch.

Commonly, these are used to mute similar channels, for example:

Channels	Reason
Drum Mics	Allows the engineer to mute the whole drum kit at once.
Choir Overheads	Allows the engineer to quickly remove all choir mics at once
Orchestra Parts	Allows the engineer to zone mics together (e.g. Brass, Strings, etc.) and mute sections together if they were not playing.

Note that if any assigned automute or the channel mute is activated then the channel will be muted until all assigned automutes and the channel mute are removed (i.e. the mutes work like a logical OR where any single or combination of mutes will mute the channel output).



4 LED Meter - Each input channel contains in-channel monitoring allowing the user to monitor the input signal without the need for using the PFL.

The in-channel meter is especially useful when setting the microphone gain of a channel. Also, as the meter is post-EQ, it is possible to see the effect that the channel equalisation has upon the level. It may be necessary to turn the input gain down when excessive EQ is used to prevent the channel from overloading.

Note: The LED meter is Post-Insert and EQ but Pre-Fader and Mute.

Channel Fader - The channel fader allows for continuous adjustment of the channel level from off (-inf) to +10dB.

At 0dB, the output of the channel to the Stereo, Mono and Group busses will be at unity (i.e. no boost or cut in level from the input).

Multi Function Module hints & Tips

I want direct outs for recording but multi function channels don't have any . . .

The multi function channels don't have a specifically labelled direct output BUT, if you are using a microphone input and don't need to use the insert channel, you can insert a standard unbalanced quarter-inch jack lead into the insert point and use this as a direct output. This will work on the condition that you do not activate the insert point on the channel strip (the insert switch) as this will cause signal to the channel to be lost.

To see for yourself why this works, look at the block diagrams later in the manual.

I'm running monitors from FOH and I've run out of auxes for effects . . .

To add effects to a mono mic input on a multifunction channel, use the insert send of the channel into the effects unit input and the stereo outputs of the effects unit into the stereo line inputs of the same channel on the Verona. Use the mic gain for the mic and the line gain for the effect return level. Now the aux sends and channel fader will control both the mic level and effects return level.