SIGNAL FLOW

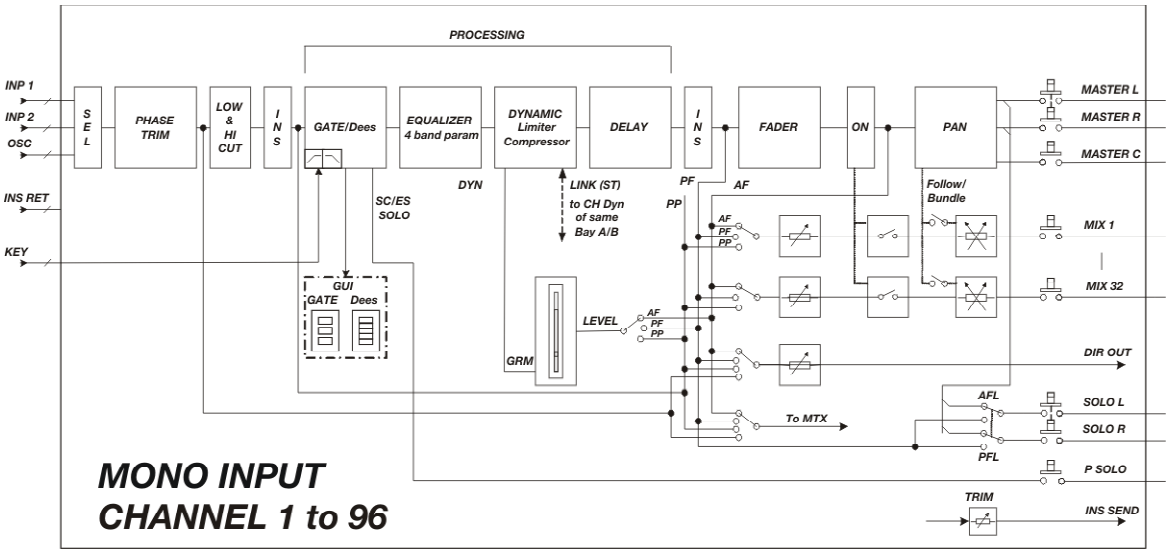


Figure 4-1: The Signal Flow In An Input Channel.

Only one of the two insert points can be used per channel at any time.

INPUT CHANNEL STRIP

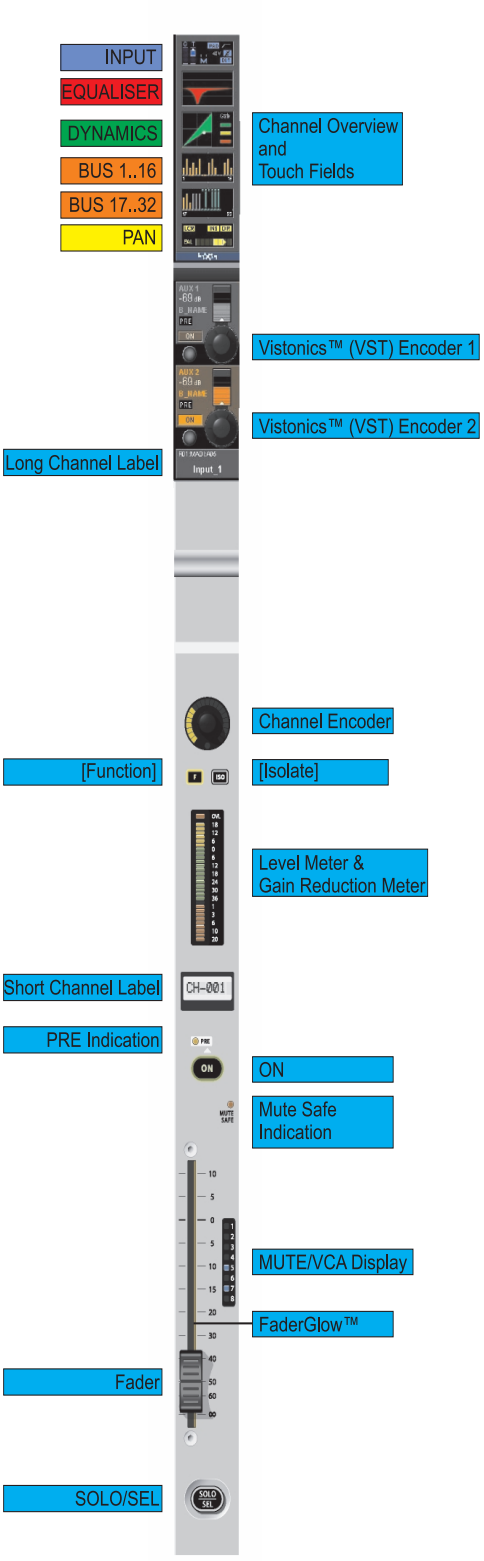


Figure 4-2. Input Channel Strip.

The Level Meter reads from -36dB to +18db, The GRM (Gain Reduction Meter) reads from -1 to -20dB.

INPUT CHANNEL TOUCH FIELDS

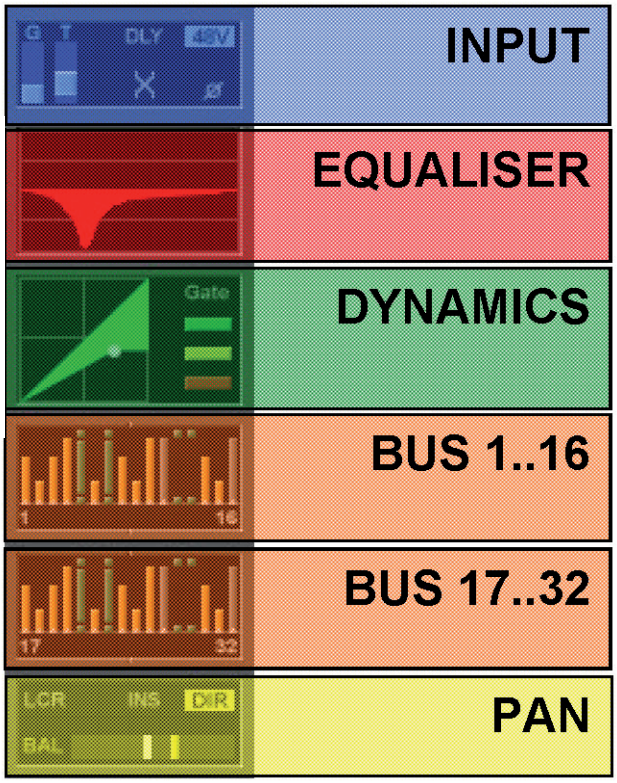


Figure 4-3.

Change A Parameter Of An Input Channel

* Press the desired touch field, the corresponding VST area will open,
* change the parameter.
* Press the touch field again to go back the default VST view OR
* Press another touch field.

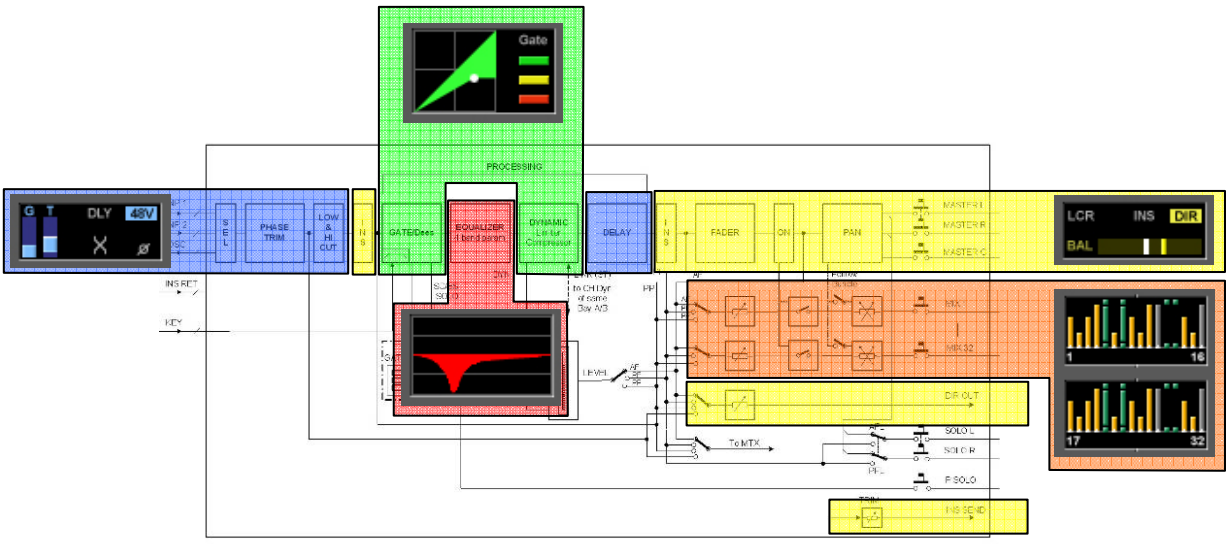


Figure 4-4: the relationship between touch fields and channel functions.

INPUT

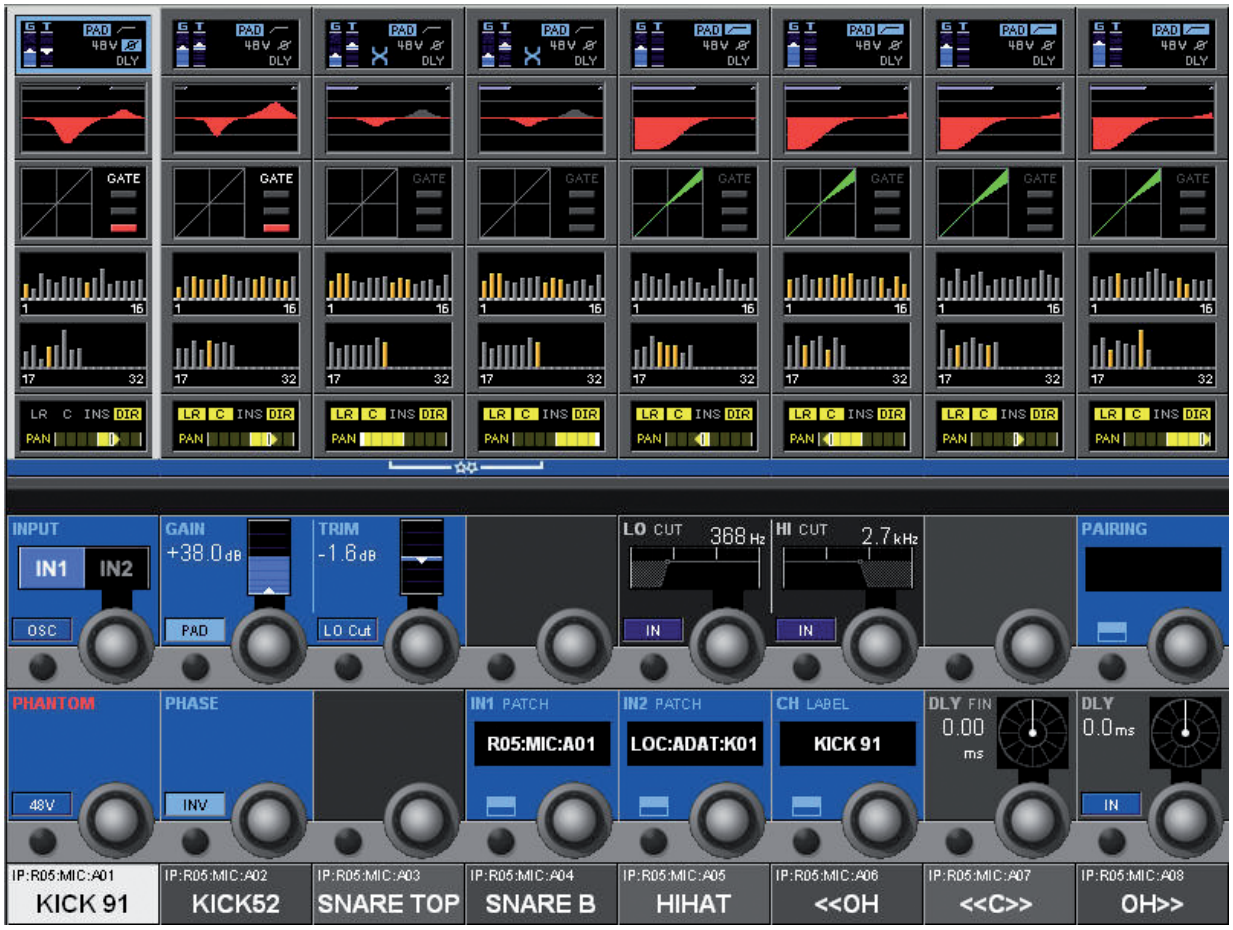


Figure 4-5: The Input Page.

INPUT field

Select source IN1 or IN2. If OSC is active, the central oscillator is patched to this channel and the selector is disabled.

Pressing the {IN1 PATCH} or {IN2 PATCH} VST config key  opens the Input Patch Configuration page.

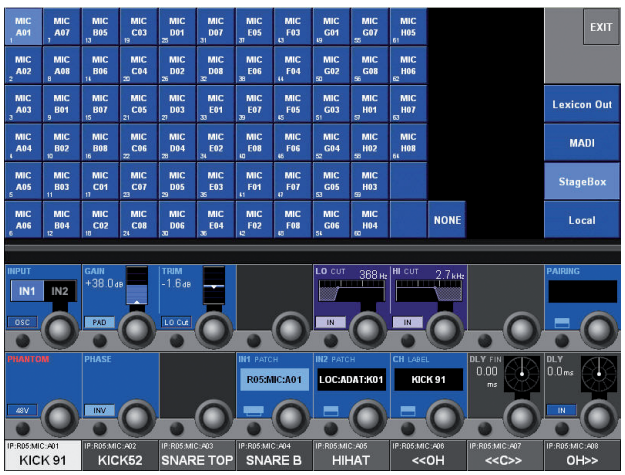


Figure 4-6. Input Patch Configuration Page.

GAIN field
{encoder} adjusts the analogue input gain in the range from +15 dB to +70 dB.
{PAD} reduces the input sensitivity by 20 dB.

TRIM field
Encoder adjusts the digital Input Gain in the range +18/-36 dB
{LO CUT} inserts the pre AD converter analogue low cut filter (only analogue inputs).

LO CUT field
Encoder adjusts the Low cut frequency in the range 20 to 600 Hz.
{IN} switches the Low Cut filter in and out.

HI CUT field
Encoder adjusts the High cut frequency in the range 1k to 20kHz.
{IN} switches the Hi Cut filter in and out.

FORMAT field
If the Channel is paired, the Encoder adjusts the Stereo format, which can be:
LR / RL / LL / RR / MONO.
If the channel is not paired, this field is not displayed.

PAIRING field
If the Channel is paired the label of the paired channel is visible.
{Its VST config button} enters the pairing configuration.

PHANTOM field
{48V} enables the Phantom Power (+ 48 V) for the XLR patched to this input.

PHASE field
{INV} inverts the phase of this channel (180 Degrees).

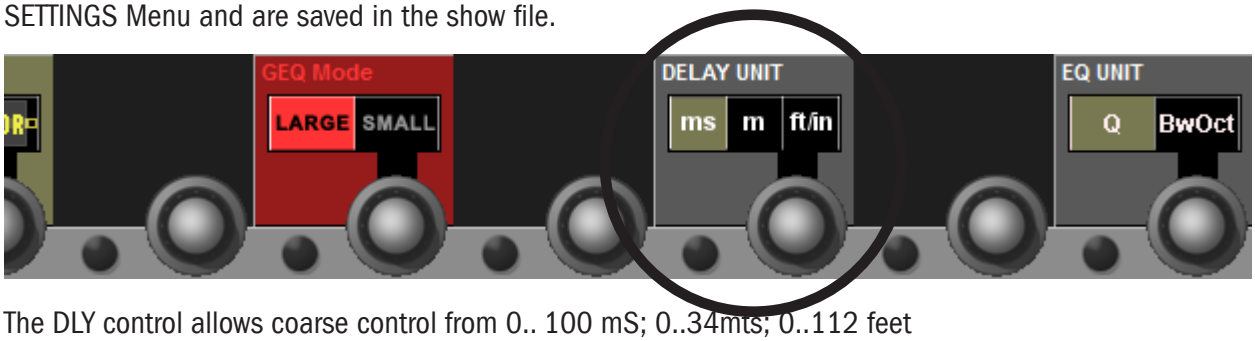
IN1 PATCH field
Displays the source name that is patched to IN1.
{Its VST config button} opens the IN1 patch page (see chapter 10).

IN2 PATCH field
Displays the Source name that is patched to IN2.
{Its VST config button} opens the IN2 patch page (see chapter 10).

CH Label field
Displays the channel label.
{Its VST config button} opens the channel label configuration page.

DLY & DLY FIN field

Encoder changes the input delay in milliseconds, metres, or feet & inches. These units are set in the SETTINGS Menu and are saved in the show file.



The DLY control allows coarse control from 0.. 100 mS; 0..34mts; 0..112 feet
The DLY FIN control allows fine adjustment in 0.02ms/.02 mtrs/0.1" steps.
{IN} enables the delay function.



Distance conversions assume a fixed temperature of 20°C/68°F. This is not adjustable.
Changing the unit controls (ms/ft etc) does not affect any current value and therefore will not affect audio.

STEREO CONFIGURATION

Pairing of input channels



Figure 4-7: The Pairing Page.

The available channels on the two fixed Layers A (upper row) and B (lower row) are displayed on the touch screen.
Pairing candidates are the unused left and right neighbours and the vertical neighbour in the same Bay. Existing Pairings will be shown greyed out. It is not possible to pair with a channel in the next bay.

HINT: Selecting an input channel [SOLO/SEL] moves this page to the desired channel in the corresponding bay.

Pair An input Channel

* Enter the pairing page by pressing {PAIRING}  in the Input Page, all possible pairing candidates will be shown.
* Select the desired pairing candidate, all channel parameters will be copied to the paring candidate, links will be set. The meter overview in Master screen shows the pairing information
* Optionally change the copy direction with <FROM>, <TO>.
* Leave the page with {EXIT} or {PAIRING}.

HINT: If a destination candidate is used in another pair you must first release that pairing.

Stereo Busses

Busses can be configured to work as a Stereo Bus. In this case the Bus Master is represented in one Strip on the surface. The advantage is that more masters can be directly accessed (rather than tying up two Output controls).
In the Encoder section stereo bus masters also use only 1 VST Field.

EQUALISER



Figure 4-8: The Equaliser Page.

General

The Equaliser contains 4 full parametric Bands. All four parametric Equaliser Bands operates over the full frequency range. The characteristics of the LF and HF bands can also be set to SHELF mode.
The red Equaliser Graph in the Equaliser touch field represents the overall frequency curve. It contains:

* Low Cut and High Cut Filters
* Equaliser with the 4 bands

Additionally, two blue bars at the top of the channel strip Equaliser touch field clearly indicate the Low and High Cut filter frequencies. (The filters are adjusted from within the INPUT Vistonics™ II page.)

Equaliser Band Highlight

If you touch one or more parameter encoders, the corresponding Equaliser band(s) will be indicated by the red overall graph being overwritten with a white graph that represents only the touched band(s). This is useful for identifying which part of a curve is associated with which EQ bands. The representation will return to the default when you leave the page.

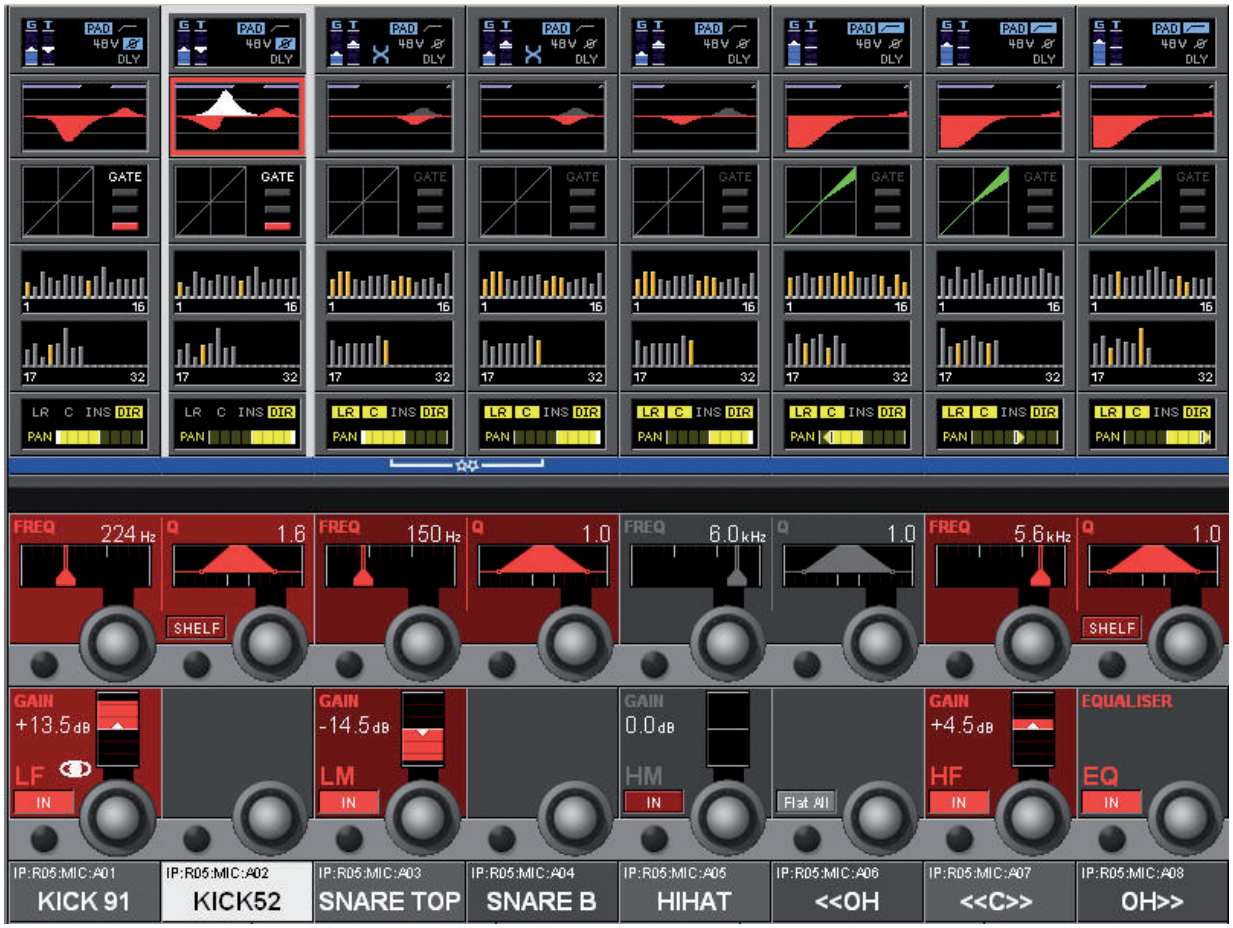


Figure 4-9: The Equaliser Page After Touching An LF Encoder.

BAND Field

All four bands contain a GAIN, FREQ, Q encoder and an IN switch.

GAIN

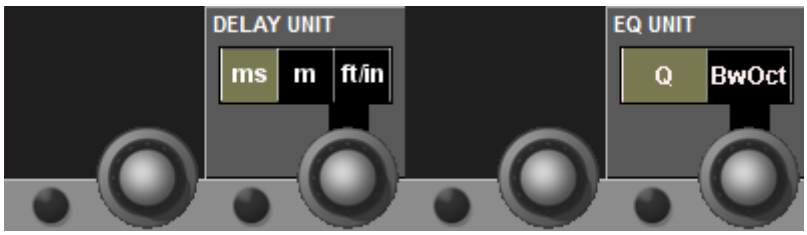
Encoder adjusts the Gain in the range +/- 18 dB. {IN} enables the Equaliser band.

FREQ

Encoder adjusts the frequency in the range 20 Hz .. 20 kHz.

Q

This control may be set to operate as Q or BANDWIDTH in the SETTINGS menu. These settings are saved in the show file.



IN Switch

The channel Encoder adjusts the Q (Width) in the range 0.7 .. 15, or bandwidth from 0.2 to 4 octaves. Q may only be adjused in BELL Mode.

Changing the unit controls (ms/ft etc) does not affect any current value and therefore will not affect audio.

{IN} enables this Equaliser band.

SHELF Switch

{SHELF} changes the response characteristic to SHELF. (12dB/oct)

EQUALISER Field

{IN} enables the full Equaliser section (without filters). For preparation, all Parameters including the band IN switches can be set, even if the Equaliser is switched off.

DYNAMICS

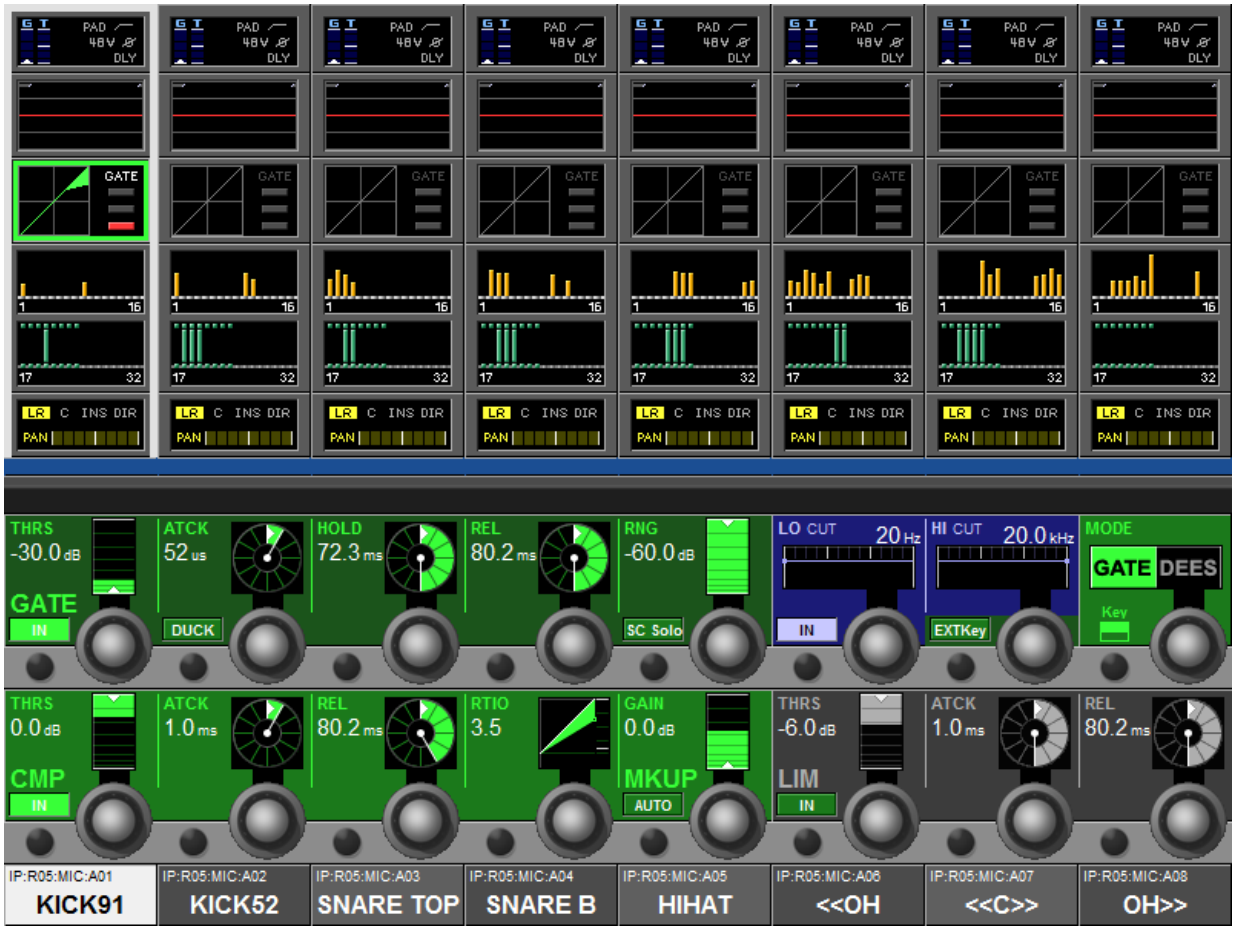


Figure 4-10: The Dynamic Page In GATE Mode.

General

The Dynamics section contains a GATE with key filter a Compressor and a Limiter. Alternatively the Gate can be set to operate in De-esser mode.

GATE Function

The Gate contains a side-chain input with filters, a Key listen SOLO and it can also operate in ducking mode.

State Indication

The Gate status is indicated on the right side of the Dynamics touch field:

* ON green
* HOLD yellow
* OFF red

THRS Field
Encoder adjusts the threshold value between -40 db to +18db.
{IN} enables the GATE.

ATCK field
Encoder adjusts the attack time in the range 10µS to 957mS.
{DUCK] sets the GATE to inverse mode (ducking mode). (Was {INV} in software prior to V4.7).
Engaging this button inverts the gain control function of the Gate and allows an external sidechain signal to be used to reduce the level of the main channel signal, by the amount set using the RNG control, and with the time constants set with the ATK, HOLD and REL controls.

HLD field
Encoder adjusts the hold time in the range 2.2mS to 2S.

REL field
Encoder adjusts the release time in the range 2.2mS to 3.7S.

RNG field
Encoder adjusts the attenuation RNG value in the range 0 to -60dB.
{SC SOLO} switches the side-chain signal to the solo bus.

LO CUT
Encoder adjusts the frequency of the side-chain signal Lo Cut filter.
{IN} enables the Low cut filter.

HI CUT
Encoder adjusts the frequency of the side-chain signal Hi Cut filter.
{EXT Key} enables an external key signal, which is selected via the {KEY} key associated with the MODE field below; otherwise the internal signal is used for triggering the gate.

MODE field
Encoder switches the operational mode between GATE or Deesser.
{Key} opens the key signal patch page -see chapter 10.

DE-ESS Function

A de-esser is normally used to reduce the sibilance (“s” components) in a singer’s voice.
Soundcraft Vi Series™ includes a real de-esser function that works as a dynamically controlled filter. The filter can be set using the FREQ and Q encoders.
If the de-esser is active, the signal level will be reduced only in the band set by the filters, when the signal in this band exceeds the required threshold.

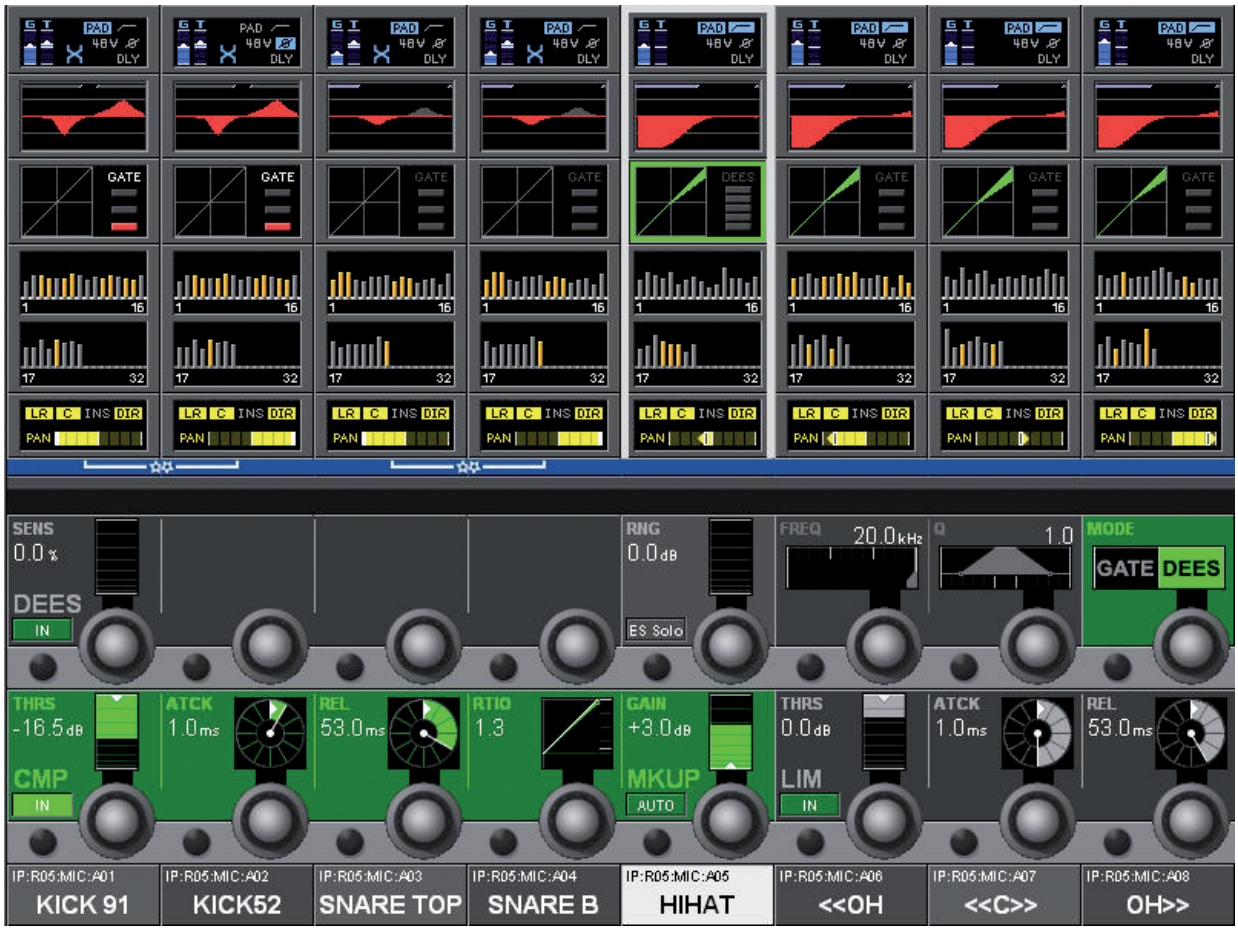


Figure 4-11: The Dynamic Page In DE-ESS Mode.

Gain Reduction Meter

The De-esser GRM, a 5-segment bar-graph is located on the right-hand side of the dynamic touch field on the screen.

SENS Field

Encoder adjusts the effect’s sensitivity value between 0 – 100%.
{IN} enables the DE-ESSER.

ES SOLO Field

{ES SOLO} switches the filtered processing signal to the solo bus.

FREQ Field

Encoder adjusts the centre frequency of the dynamic de-esser filter.

Q Field

Encoder adjusts the width of the dynamic de-esser filter.

MODE

Encoder selects the operational mode, either GATE or De-esser.

COMPRESSOR Function

THRS Field

Encoder adjusts the threshold value between -40 db to +18dB.
{IN} enables the COMPRESSOR.

ATCK Field

Encoder adjusts the attack time in the range 0.5mS to 98.6mS.

REL field

Encoder adjusts the release time in the range 5.5mS to 5S.

Ratio field

Encoder adjusts the ratio in the range 1:1 to 20:1.

MKUP

Makeup adjusts the overall output level from the Limiter and Compressor sections.

GAIN

Encoder manually adjusts the output level to compensate for gain reduction.
{AUTO} automatically adjusts the output level depending on the settingd of the THRS and RATIO controls.

LIMITER Function

THRS Field

Encoder adjusts the threshold value between -40 db to +18dB.
{IN} enables the LIMITER.

ATCK Field

Encoder adjusts the attack time in the range 10µS to 98.6mS.

REL Field

Encoder adjusts the release time in the range 5.5mS to 957mS.

BUS



Figure 4-12: The Bus Page.

General

The first Bus page contains the controls for busses 1-16, while the second page contains the controls for busses 17-32.

What these fields look like depends on the Bus configuration.

AUX (Mono)

Encoder adjusts the send level to this BUS. Pre indicates the PRE/post state. {ON} enables the send.

AUX (Stereo)

Left Encoder adjusts the send level to both busses, while the right encoder adjusts the pan to these busses.

HINT: If the channel is paired, the right encoder adjusts the Balance to the Busses. If the 'follow channel pan' option was activated in the bus configuration, there will be no function on the right encoder.

PRE indicates the pre/post state. {ON} enables the send.

GRP (Mono)

{ON} routes the signal to this bus.

GRP (Stereo)

{ON} route the signals to both busses.

Empty

If a bus has been configured as a Matrix, it is not visible in this page.

PANNING



Figure 4-13: The Panning Page In LR Mode.

General

This page contains the output functions of the input channel. This contains the panning, the routing to the masters, the insert point and the direct out function. The Pan can work in LR or in LCR mode. In LCR mode an additional width function is available.

PAN Function LR Mode

PAN Field

Encoder sets the channel pan to the masters. If the channel is paired, the balance can be adjusted.
See Audio Format / Pan / Panning, on pages 4-17 & 4-18.

MASTER LR

{ON} routes the channel signal to the Left and Right master busses.

MASTER C

{ON} routes the channel signal to the Centre master bus.

MODE

Switches the pan mode between LR or LCR. This field is not available for stereo-paired inputs.

PAN Function LCR Mode

If the Pan MODE is set to LCR an additional WIDTH field is displayed. (If the channel is paired, it is not possible to set the PAN mode to LCR.)



Figure 4-14: The Panning Section In LCR Mode.

PAN Field
Displays the pan setting. Encoder sets the channel pan to the three masters. See Audio Format / Pan / Panning on pages 4-17 & 4-18.

WIDTH Field
In LCR mode, the encoder adjusts the level of an additional amount of signal sent to both left and right outputs.

MASTER LCR
{ON} routes the channel signal to the Left, Right and Centre masters.

AUDIO FORMAT

General

The Soundcraft Vi Series™ can handle three types of audio format:

* MONO
* STEREO
* LCR

Input Channels

Soundcraft Vi Series contains up to 96 MONO Input channels. A STEREO Input can be built by horizontally or vertically pairing two input channels in the same bay.
Vertically and horizontally pairing can be used at the same time. See Pairing of input channels.

Mix Busses

The 32 MONO Busses can be configured to work as Mono or as odd/even paired Stereo Busses.

Masters

The three Masters L, R, C can be used as LCR Masters if the Pan mode of the input channels is set to LCR mode, otherwise L and R works as stereo output and the C can be used as an independent Mono Master.

PAN/BAL

The following table shows the destination level in relation to the PAN/BAL settings

MODE	Left position		Middle position		Right position	
	Left	Right	Left	Right	Left	Right
PAN OFF	- 3 dB	- 3 dB	- 3 dB	- 3 dB	- 3 dB	- 3 dB
PAN ON	0 dB	- ∝	- 3 dB	- 3 dB	- ∝	0 dB
BAL OFF	0 dB	0 dB	0 dB	0 dB	0 dB	0 dB
BAL ON	+ 3 dB	- ∝	0 dB	0 dB	- ∝	+ 3dB

HINT: If the PAN or BAL function is switched off, the gain is the same as if you had set the Encoder to the middle position.
If all TRIM, Faders and so on are in the 0dB position the outputs from the L and the R Masters are 3 dB lower than a MONO Input signal.

MONO PAN

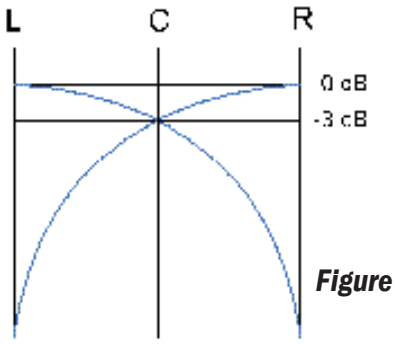


Figure 4-15a.

STEREO BAL

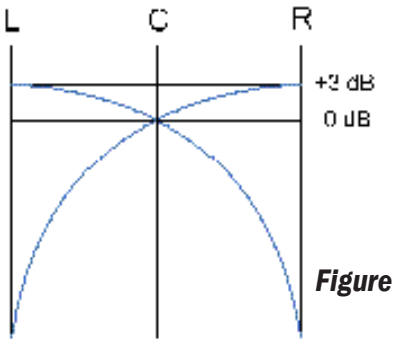


Figure 4-15b.

If a panning mode is set to LCR, then the WIDTH function will become active.

LCR PAN with WIDTH = 0

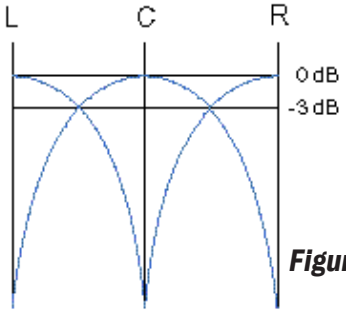


Figure 4-15c.

LCR PAN with WIDTH = 100

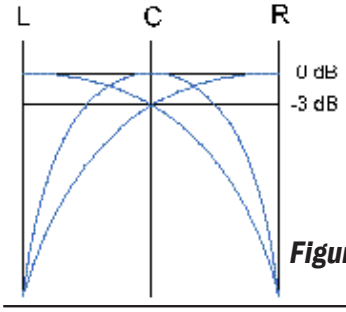


Figure 4-15d.

INSERT Function

Refer to Figure 4-13.

INSERT Field

Displays the label of the selected insert from the pool.
{Its VST config button}opens the Insert Pool select page.
Refer to page 10-6 for details about setting-up the Insert Pool.

POINT Field

Displays the actual point where the Insert is placed in the channel.
Encoder changes the point between:

* Pre Processing (EQ&DYN)
* Pre Fader.

TRIM Field

Encoder trims the insert send level in the range +- 18 dB.
{IN} activates the Insert.

Direct Out Function

GAIN field

Encoder sets the Direct Output send level.
{ON} activates the Direct Output.

POINT Field

Displays the actual point in the channel's signal path from where the Direct Output is taken.
Encoder selects the point between:

* Pre Filter
* Pre Processing
* Pre Fader
* Post Fader.

PATCH Field

Displays the patched Output.
Its {VST config button} opens the Direct Output patch configuration page (see page 10-8).

ACCESSING CHANNELS

Channels may be accessed using the faderstrips, and also by touching the meter screens on the master screen.

Soundcraft Vi6: Access 96 inputs using the 3 fixed (or user) layers, each accessing 32 channels.

Soundcraft Vi4: You can now access inputs 1-24, 33-56 and 65-88 using the 3 fixed layers.

Method 1: Use the Input Meter display on the touchscreen in the Control Bay to select the additional channels in groups of 8, and assign them temporarily to the right-hand 8 input faders. Note that the input channels that cannot be seen on the fixed layers A/B/C are indicated by a white box around these input meters. This method is good for quickly accessing any of the 96 channels in the default channel order (25-32, 57-64, 89-96), but has the disadvantage that changing to a different main Input Fader page will cancel these temporarily assigned channel assignments.

Method 2: Assign the desired channels to a User Fader page.

Using this method, the new channels can be placed anywhere within any of the User Input layers, and Method 1 can still be used in combination with this as an additional way of grabbing blocks of 8 channels.



Soundcraft Vi2:

Method 1: Press the Input Fader Page buttons D on the left of the fader panel. This gives 6 pages of faders, the first 3 (A,B,C) are fixed as Channels 1-9, 9-16 and 17-24 respectively, whilst the second 3 (USER 1, USER 2, USER 3) default to Channels 25-32, 33-40, 41-48 but can be customised with the associated Fader Page Setup button.

Method 2: Touch the Input Meter screen on the block of 8 meters corresponding to the channels required. This method temporarily takes priority over the setting made using the Input Fader Page buttons, and the last selected Input Fader page button flashes to indicate that it has been temporarily replaced by the meter selection.