VR Legend Console

User Manual

527-136
Issue 3

As part of our policy of continual product improvement, we reserve the right to alter specifications without notice.

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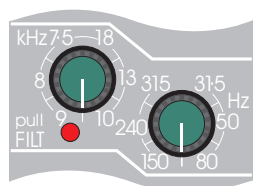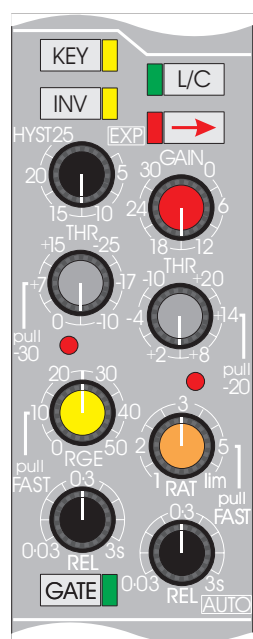
*Channel Strip
Input Filter Module*

*Channel Strip
Dynamics Module*

Input Filters

These are 12dB/octave high and low pass filters, with frequency ranges from 31.5Hz to 315Hz and 7.5kHz to 18kHz respectively.

The filters can be switched into the channel path independently.

Dynamic Control

Full limiter/compressor and gate/expander facilities are available with a fully flexible sidechain (each of which can be individually switched in or out of circuit).

The gate/expander has rotary controls for a 50dB gate range, a 70dB threshold range, release from 30ms to 3s, switchable attack time and variable hysteresis.

Hysteresis makes the threshold level different for signals which are rising or falling in level and allows precise triggering on the wanted signal while still allowing the correct amount of signal 'tail' through.

The expander has a 2:1 expansion ratio.

Switched controls are provided for an external key input and invert (for ducking). The external key input is accessed from the patchbay.

The limiter/compressor has rotary controls for release times from 30ms to 3s with an end stop, a 50dB threshold range, a ratio of 1:1 to limiting and up to 30dB of gain make-up.

Attack time is program dependent with a switch for fast impulse response.

The Release control incorporates a switch for automatic programme dependent release.

'Anti pumping and breathing' circuitry allows the unit to operate on the source musically whilst retaining absolute control over the dynamic range.

The equaliser module can be inserted into the sidechain of the dynamics module for de-essing, etc.
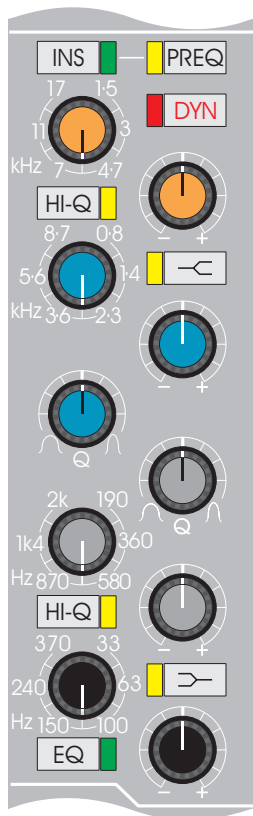
Inserts

Inserts can be positioned in either the channel or monitor path independently of the equaliser.

Pre-equaliser and pre-dynamics configuration is also possible.

Formant Spectrum Equalisers

The unique sound of AMS Neve equalisers is the result of years of research and extensive studio experience.

The equaliser provides 4-band parametric equalisation, with overlapping frequency ranges.

The two mid-bands have variable controls for Q (from 0.5 to 9), gain (18dB cut and boost) and frequency.

The high and low frequency controls provide variable gain (18dB cut and boost) and frequency controls with switchable Q (either 0.71 to 2) and peaking/shelving characteristic.

Channel Strip
Equalisation Module
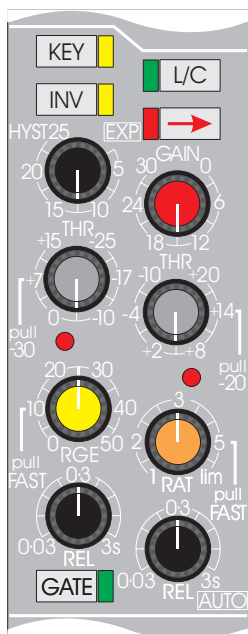
VRL Channel Strip Dynamics Module

Gate/Expander

To enable the Gate/Expander

➤ Press the GATE push-button on the dynamics module.

The GATE push-button LED will illuminate and the Gate/Expander is placed in the signal path.

External Gate/Expander Trigger

To enable the gate to be triggered by an external device or any other path signal

➤ Press the KEY push-button.

The KEY push-button LED will illuminate.

A dedicated patch input to the Gate/Expander is provided.

The compressor operation is not affected.

Invert

Allows the user to close the gate when a signal of the required level is present.

Used as a 'ducker' (i.e. cutting out background noise) or for muting severe breakthrough from another source.

To close the gate when a signal of the required level is present (i.e. invert the external trigger control)

➤ Press the INV push-button.

The INV push-button LED will illuminate.

Hysteresis

Hysteresis is the difference in dB between the muted gate level and its un-muted level. Varying the hysteresis allows more precise triggering of the wanted signal while at the same time allowing the correct amount of signal tail to pass through.

✍ *10dB of hysteresis is a good starting value for setting the gate.*

To adjust hysteresis

➤ Turn the HYST rotary control.

Hysteresis is present at all times.

To switch the circuit into a 2:1 ratio expander

➤ Turn the HYST rotary control to the EXP position (i.e. fully anti-clockwise).

Threshold

Provides threshold control over 70dB in two overlapping ranges.

To set the difference in dB between the muted gate level and its un-muted level

➤ Turn the THR rotary control to the desired value.

To change the threshold range by -30dB

➤ Pull up the THR rotary control.

The associated red LED will illuminate to confirm the action.

-30dB will be added to the panel values.

➤ Adjust the THR rotary control as desired.

Gate range (mute depth)

Allows users to set the range (mute depth) of the gate over a 50dB range.

To set the range of the gate

➤ Turn the RGE rotary control to the desired value.

To change the attack time from 1ms to 100us
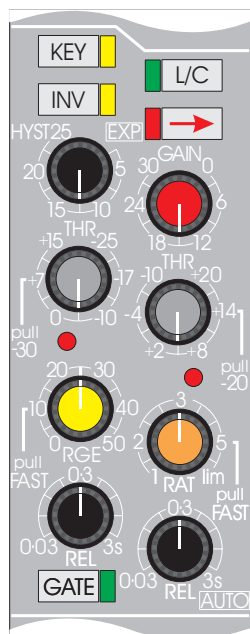
➤ Pull up the RGE rotary control.

Gate/expander release time

The release time for the gate/expander is continuously variable from 30ms to 3s.

To set the gate/expander release time

➤ Adjust the REL rotary control as desired.

VRL Channel Strip Dynamics Module

Limiter/Compressor

To enable the Limiter/Compressor

➤ Press the L/C push-button.

The L/C push-button LED will illuminate to confirm selection and the Limiter/Compressor is placed in the signal path.

Stereo pair linking

Allows the user to link the limiter/compressor to the module located immediately to its right-hand side, forming a stereo pair.

The link can also be made if the limiter/compressor is not in circuit (so that it can be used for a stereo/quad link even if it is not actively processing).

To form a stereo pair or establish quad ganging

➤ Press the push-button.

The associated LED will illuminate to confirm selection.

Gain make up

Gain make-up of up to 30dB allows the user to maintain an optimum signal to noise ratio throughout the path (even under heavy compression).

To adjust gain

➤ Turn the GAIN rotary control.

Gain is present at all times.

Threshold ranges

The threshold level can be controlled over 50dB in two overlapping ranges.

To establish the threshold level

➤ Turn the THR rotary control to the desired value.

To change the threshold range by -20dB

➤ Pull up the THR rotary control.

The associated red LED will illuminate to confirm the action.

-20dB will be added to the panel values.

➤ Adjust the THR rotary control as desired.

Compression Ratio

Allows users to select the compression ratio with an arranged law between 1:1 and limiting (1 and lim).

To establish the compression ratio

➤ Turn the RAT rotary control to the desired value.

To change the attack time from 1ms to 100us

➤ Pull up the RAT rotary control.

✎ *Pulling up the ratio control nominally increases the impulse attack time from 1ms to 100us, however the attack time is actually programme dependent, normally having a 7ms time constant (with faster time constants applied to transient programme material).*

Release time

Allows users to establish the release time from 30ms to 3s with automatic 'hold' and impulse release circuits to remove pumping and breathing effects.

To adjust the release time

➤ Turn the REL rotary control to the desired position.

To switch the release control to a triple time constant programme dependent release time

➤ Turn the REL rotary control in a clockwise direction until it can not be turned any further (i.e. 3s).
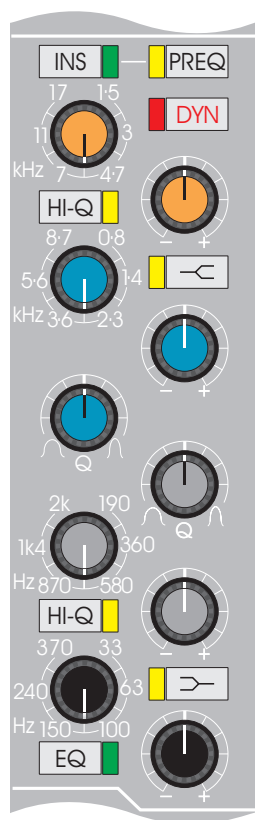
*VRL Channel Strip
Equalisation Module*

Insertion

Provides users with an independently switchable patch insertion.

To switch the insertion facility into the signal path

➤ Press the INS push-button.

The INS push-button LED will illuminate to confirm selection.

To switch the insertion out of the path

➤ Press the INS push-button again.

The LED will cease to be illuminated.

✐ *The insertion will provide an output regardless of the INS key state.*

To switch the insertion facility in/out of the monitor path

➤ Press the INS push-button located adjacent to the small fader.

The INS key LED will illuminate to confirm selection.

To switch the insertion out of the monitor path

➤ Press the INS push-button adjacent to the small fader again.

The LED will cease to be illuminated.

✐ *The insertion will provide an output regardless of the INS push-button state.*

Insertion pre/post-equaliser and dynamics

When selected insertion is normally post-equaliser.

To switch the insertion pre-equaliser and dynamics

➤ Press the PREQ push-button.

The PREQ push-button LED will illuminate to confirm selection.

Equaliser

The equaliser consists of four continuously-variable overlapping frequency bands with a peaking characteristic.

Users can switch from peak to shelving.

Frequency control ranges

Low:	33Hz to 370Hz
Mid1:	190Hz to 2kHz
Mid2:	0.8kHz to 8.7kHz
High:	1.5kHz to 17kHz

Q varies with gain

Q automatically varies with gain on all bands in peaking and shelving modes (as gain is increased so is Q).

Rotary controls

The tops of the rotary controls EQ_module are colour coded to distinguish the controls for each band of EQ.

Low	Black
Mid1	Light grey
Mid2	Pale blue
High	Orange

To switch the equaliser into the circuit

➤ Press the EQ push-button.

The integral LED will illuminate to confirm selection.

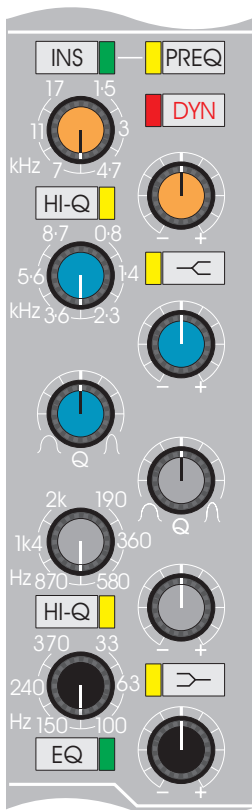➤ Adjust EQ frequency as desired using the rotary controls.

Mid Band Q

The mid band equalisers (pale blue and light grey rotary controls) have variable Q adjusted across a range of 0.5 to 9.

The rotary controls have a centre detent at Neve FSE traditional settings.

To adjust mid band Q

➤ Turn the Q rotary controls to the desired position.

VRL Channel Strip Equalisation Module

High and Low Band Q

The Q and characteristics of the high and low bands can be switched from 0.71 to 2.

To switch the Q and characteristics of high/low bands from 0.71 to 2

➤ Press the desired HiQ push-button.

The HiQ push-button LED will illuminate to confirm selection.

Peak and Shelving

The high and low band equalisers are switchable from peak to shelving.

To switch high band EQ from peak to shelving

➤ Press ⬚ the push-button.

The integral LED will illuminate to confirm selection.

To switch low band EQ from peak to shelving

➤ Press ⬚ the push-button.

The integral LED will illuminate to confirm selection.

Cut/Boost

All four bands have a smooth rotary control each for adjusting cut or boost over an 18dB range.

To adjust cut or boost in an equaliser band

➤ Turn the appropriate cut/boost rotary control to the desired position.

Sidechain Equalising

Allows users to insert the module equaliser into the control Sidechain of the dynamics unit.

To insert the equaliser into the control sidechain of the dynamics unit

➤ Press the DYN push-button in the equaliser module.

The DYN push-button LED will illuminate to confirm selection.