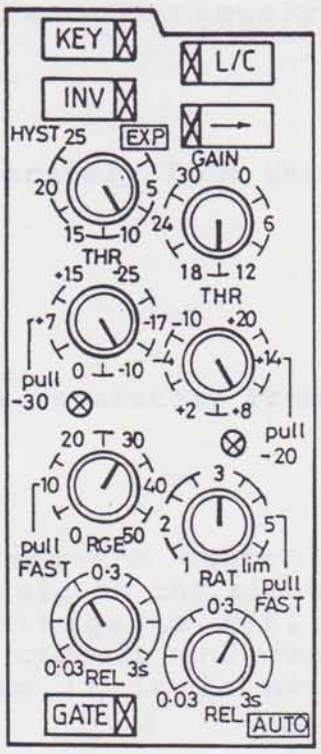
2.2 Dynamics Section



The dynamics unit is set out with the gate/expander on the left hand side of the module and the limter/commpressor on the right.

The gate/expander controls are:

<KEY>

Pressing this button provides a dedicated patch input to the gate only, enabling the gate to be triggered by an external device or any other path signal. The compressor operation is not affected. When **<KEY>** is selected the associated LED lights.

<INV>

This button inverts the external trigger control so that the gate closes when a signal of the required level is present. This can be used as a 'ducker' or for muteing severe breakthrough from another source.

HYST

Hysteresis is the difference in dB between the gate mute level (set by the threshold control) and its unmute level. Varying hysteresis allows more precise triggering of the wanted signal whilst still allowing the correct amount of signal tail through. (10dB of hysteresis is usually a good starting value for setting the gate). The fully anti-clockwise position switches the circuit into a 2:1 ratio expander.

THR

Provides threshold control over 70dB in two overlapping ranges. Pulling the pot adds -30dB to the panel values and this action is indicated by a red LED.

RGE

Sets the range (mute depth) of the gate over a 50dB range. Pulling the knob changes the attack time for the circuit from 1ms to 100us.

REL

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

<GATE>

Switches the gate/expander into circuit separately from the limiter/compressor.

The limiter/compressor controls are:

<L/C>

Switches the limiter compressor into circuit separately from the gate/expander.

< -> >

When the arrow button is pressed, it links the control voltage of the limiter/compressor to the next module to the right for stereo or quad ganging. The control voltage is still generated if the limiter/compressor is not in circuit and can therefore be used for a stereo/quad link even if it is not actively processing.

GAIN

Gain makeup of up to 30dB is provided to enable an excellent signal to noise ratio to be maintained throughout the path even under heavy compression.

THR

Threshold level can be controlled over 50dB in two overlapping ranges. Pulling the pot adds -20dB to the panel values and this action is indicated by a red LED.

RAT

Controls the compression ratio with a conveniently arranged law between 1:1 and limiting. Pulling the pot nominally changes the impulse attack time from 1ms to 100us. However the attack time is programme dependent, normally having a 7ms time constant, with faster time constants being applied to transient programme.

REL

The release time can be varied from 30ms to 3s with the additional benefit of automatic 'hold' and impulse release circuits to remove pumping and breathing effects. The fully clockwise position switches the release control to a triple time constant program dependent release time.

Gain Reduction LED

A simple metering function is performed by the tri-coloured LED labelled 'Gain rdn'. The LED indicates green for a small gain reduction, orange for medium and red for large (1, 5, and 10dB respectively).