4. VR SERIES STEREO MODULE

4.1. Routeing

The stereo module has the same multitrack routeing buttons as the mono module. To route left and right channel outputs, two buttons must be pressed. The left is routed to the selected odd numbered busses, and the right to the selected even numbered busses. Since there is only one path through the module, there is only one set of main 2-track routeing buttons, which are located near the bottom of the module.

Stereo I/O Module
Multitrack Routeing Section
4. Stereo Module

4.2. Input Section

The stereo module has line level inputs only. There is a single stereo +/−10dB level trim and a +/−6dB offset trim (both detented). The phase of either channel may be inverted, and the two channels may be interchanged using the L→R switch. Pressing the MONO L switch routes the left channel input to both left and right signal paths through the module. MONO R behaves similarly, and pressing both buttons combines the left and right inputs into a mono mix and routes that through both signal paths.

4.2.1. Filter Section

This is the same as the mono module.
4.3. Meters

The mono module’s dynamics section is replaced with a twin bargraph meter which may be switched between four points on the module signal path:

1. Input – prior to any module controls;
2. Normal position – which is pre-filters;
3. Post M–S – which is immediately pre-EQ;
4. Output.

When in the output position, both left and right meters show the level on the multitrack bus of the same number as the module. When the DIRECT switch is pressed, this changes to left and right outputs of the channel as they appear on the jackfield.

The main meter follows master track send and track return selection in the same way as the mono modules. In overdub mode the meter picks up the multitrack send only.

4.4. Auxiliary Sends

The auxiliary sends are the same as the mono module, except that the PAN controls become BAL controls.
4.5. Insertion And EQ Section

The insertion point switching is the same as that of the mono module. When the insertion is switched pre-EQ it also comes before the M-S decoder. In this way the insertion point may be either M-S format or decoded M-S when using an M-S source. Note that the right channel’s insertion jack is in series with the jack in the standard (mono) jack strip.

The EQ section is a simplified form of the mono channel’s, the range of the filters is the same, but the Q is fixed.
4.6. Direct Output

Normally, the multitrack bus corresponding to the channel number is connected via the TRACK trim control to the multitrack output (send). Pressing the DIRECT switch on a mono module connects the channel output to the multitrack send instead. The selected signal also appears on the jackfield.

In the case of the stereo module, it is the right channel that is connected to the multitrack send when the DIRECT switch is pressed, though both left and right channel outputs appear on the patch panel.

One of the uses of the direct button on a mono module is to allow the channel to be used as a group master. This is not possible on the stereo module, which does not have the equivalent GROUP switch. In practice, it is unlikely that you would want to use a stereo channel as a mono group master anyway. Instead, the main reason for the direct function is in providing channel outputs on the patchfield in parallel with the multitrack routing.
4.7. M–S Matrix

The M&S switch allows Mid and Side encoded stereo inputs to the module to be decoded into separate left and right signals. The decoder is located immediately before the equalizer in the signal path, and there is a meter point at its output. The decoder assumes that the mid (sum) signal is encoded on the left channel, and that the side (difference) signal is left minus right, and is encoded on the right channel.

Note that because the phase and L→R switches and offset balance control come before the decoder, using these controls in this mode may have unexpected results. For example, pressing L→R results in a phase reversal in the right channel, or pressing the right channel phase switch results in a left–right swap.

Stereo I/O Module
Meter & Mono/Stereo Control
4.8. **Meter Select Switches**

The meter select switches are described in the meter section. (See paragraph 4.3 in this section). These switches are not included in the console *Recall* system.

4.9. **Width Control**

The width control adjusts the width of the sound image within the stereo picture. It is variable between a narrow mono source, through stereo to a wide expanded image. As an example of its use, imagine stereo effects recordings of footsteps and of a train passing being dubbed to picture. When the effect is being panned to follow the picture moving across the screen, the footsteps will want to appear as a point source, so the width is set towards mono whereas the train will want to fill the whole picture, and so the width is set towards wide.

The width control works by adding out of phase information to the left and right channels. Low frequency, out of phase signals can cause problems, particularly when disc cutting, so a switched 200Hz high-pass filter is provided.
4.10. Balance And Skew

The standard stereo module is fitted with a single left/right balance control which may be switched in or out of circuit. Optionally, the stereo module may be ordered with a front/back balance control which pans the stereo signal between stereo pair 1&2 and stereo pair 3&4.

Pressing the **SKEW** button changes the balance control to a skew control. Skew works similarly to the balance control, but provides a steady mono compatible signal at the cost of introducing crosstalk.

4.11. Solo, PFL And Cut

If either channel or monitor solo safe is selected on the console, the stereo channels will also be solo safe, i.e. to achieve a destructive solo on the stereo modules, both channel solo safe and monitor solo safe must be deselected. Individual stereo channels may still be made safe with the **RET** switch.

PFL is provided as a mono mix of the stereo signal.

The **CUT** function works in the same way as on the mono modules.