

DRAFT: MS38-MKII
“QUICK-START” MANUAL
(Revised 1/29/98)

When you first pick up a new piece of equipment, quite a lot of information can be gleaned from just looking at the front and rear panels. With the MS38-MkII, all you need to know is right there in front of you.

THE REAR PANEL

Beginning at the far right are the INPUT connectors; these are balanced and line-level. There are two for each channel: an XLR-3F(pin-2 high) and a three-circuit (TRS tip-high) 1/4" phone jack, wired in parallel; either will work. Depending on the Mode you are using, these accept either the conventional stereo Left and Right signals or the Mid and Side component signals.

In the middle of the panel are the INSERT jacks. Also balanced and line-level, these 1/4" phone jacks present Send and Return insert patchpoints for the Sum (Mid) and Difference (Side) signal paths. When no connectors are inserted, the Returns are *half-normalled* from the Sends.

Next to the left are the OUTPUT connectors. Like the inputs, a parallel set of XLR-3M and 1/4" phone jacks, balanced and line-level, is provided for each channel. They are designated as Left and Right or M+S (Mid plus Side) and M-S (Mid minus Side), depending on the Mode of operation.

Finally, at the far left is the power supply connector. Just plug in the provided AC external transformer and you're ready to go.

THE FRONT PANEL

Here, we begin at the far left. Two LED's indicate the setting of the adjacent MODE pushbutton.

- When the button is *out* the unit is in the stereo, or *XY mode*. In this mode, normal Left and Right stereo signals at the inputs are first converted to their Sum and Difference components and then processed through the MS Matrix.

- When the button is *in* the unit is in the conventional *MS mode*. In this mode, component Mid and Side (or Sum and Difference) signals at the inputs are sent to the MS Matrix for processing.

The status of the INSERT pushbutton is indicated by its two adjacent LED's. When this button is *out* the input signals proceed directly to the MS Matrix for processing. When the button is *in* the input signals are first routed through any external signal processing connected via the Insert jacks on the rear panel. It is important to remember that any signal processing accomplished via the insert patch points will affect the signals prior to entering the MS Matrix and will therefore be represented at the outputs, in either Mode of operation.

The WIDTH control represents the heart of the MS Matrix processing: It is via this knob that the stereo width of the input signals can be manipulated.

- In the *XY or Stereo Mode*, when the knob is fully counter-clockwise, the output of both channels is the monophonic *sum* of the two input signals. When the knob is fully clockwise, the output of both channels is a monophonic signal, out-of-phase between the two channels, representing the *difference* between the two input signals. In between these two extremes, any degree of stereo width can be selected simply by rotating the knob: more mono to the left, more stereo separation to the right.

- In the *MS Mode* when the knob is fully counter-clockwise, the output of both channels is simply a monophonic signal, representing the MID signal. When fully clockwise, the output at both channels is again a monophonic signal, representing the SIDE signal, equal in amplitude but out-of-phase between the two channels. As before, between these two extremes any degree of stereo width can be selected simply by rotating the knob: more mono to the left, more separation to the right. (The M+S output represents the Sum of the input signals and the M-S output represents the Difference. When inputting component Mid and Side signals, the M+S output will be the stereo channel represented by the *positive lobe* of the Side microphone signal.)

To the right of the logo is the BYPASS pushbutton. When this button is *in* (the normal setting) the signals at the input pass through the MS38-MkII with all the processing you select. When the button is *out* there is a

hard-wired bypass of all the circuitry, and inputs are routed directly to the outputs. This is useful for quick A/B comparisons and also allows for the MS38-MkII to be left patched in the signal chain even when not being used.

Finally, at the far right is a red LED to indicate that power is being provided to the unit. There is no power switch.