SIX-FOUR-TWO

INSTRUCTIONS FOR USE

INTRODUCTION

The MTR Six-Four-Two is a 6 channel, four and two output 'in-line' mixer with channels 2 to 6 also operating as output tracks. It is designed primarily for use with four track cassette or reel-to-reel recorders, and will also double as a 6/2 keyboard, drums, stage or installation mixer.

CONNECTIONS

1) Mic: 6mm jack input sockets for unbalanced high impedance mics, but will also work with lo impedance (600 ohm) will accept line level signals with the input gain reduced a little.

2) Line In: Two mono input sockets, connect to any line level source such as synths, keyboards, guitars, d.i. boxes etc.

3) Tape Line In: 6mm jack inputs, connect to the four line out sockets on your 4 track recorder. These can also be used for other line level signals.

4) Tape Line Out: 6mm jack outputs, connect to the 4 line in sockets on your recorder.

5) Insert S/R: Stereo send and return sockets on each channel/track, for connecting to and from external signal processors e.g. Eurorack, noise gates etc. The tip is send, ring is return and screen is common. A stereo cable of suitable length should be fitted with a stereo jack plug at the mixer end, and the other end with two mono plugs connected to the in and out sockets on the external processor.

6) Aux 1 Sub: Mono output from the Aux 1 send controls. Connect to studio headphones or speakers for foldback when controls are pre-fade, or as effects unit when post-fade.

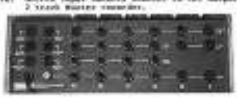
7) Aux 2 Send: Mono output from the Aux 2 send controls. Connect to the input of 'overall' processors such as a reverb unit.

8) Aux 2 Return: Mono input, connect to the output of 7) above. Can also be used as an extra line level input if not needed to return reverb signals etc. into the mixer.

9) Monitor Out: Stereo output socket, connect to your stereo monitoring system (perhaps your existing Hi-Fi).

10) Stereo Out: This is the main stereo output of the desk, connect to 2 track Master recorder for P.A. systems etc.) Tip is left, ring is right.

11) 2 Track In: Stereo input socket, connect to the outputs of your 2 track Master recorder.



CONTROLS AND OPERATION

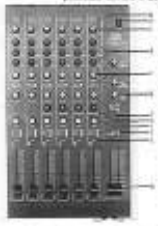
a) Power: Mains on/off switch, the red illuminates when the power is turned on.

b) Mic/Line & Mic/Tape Switch: As described 1d), this series selects between the Mic or line input sockets. On channels 2 to 6 it selects between mic inputs and the four tape returns from the recorder, since these 4 line-in sockets are connected to the recorder's 4 outputs.
The mic sockets on all six channels will accept line level signals with the input gain reduced slightly.
When overdubbing, with a signal coming into a tape line-in socket from the recorder and the switch in the Mic position, the signal off tape goes direct to the Monitor Mixer & Pan, bypassing the rest of the channel. (To hear this on headphones, the Aux 1 button should be on Tape Out).
In the case that the Mic sockets and all other functions are fully operational, but of course the Aux 1 select button isn't in the position of Aux. 2a, in fact a pre-recorded track and a new part together in phase on channel 1 or 2 (and the Aux 1 send from this channel) for the new part.

c) Gain: This adjusts the level of the incoming signal from the Mic and line inputs, in order to get the best signal to noise performance. See also 2) and 4).

d) Hi, Mid, Lo: These controls offering boost and cut over the sound frequency range with a wide bandwidth. Remember that cutting as well as boosting can help to improve sounds, and that adjusting boosting gains to the overall gain of above boosting gains is to be required, it's probably better to make changes to the original sound source.

e) Aux 1: Used in conjunction with the Series mechanism, this provides either a pre-fade mix from the channels/tracks for foldback (mon), or a post-fade send to an effects unit usually during mixdown. When used post-fade the effects output should be returned via a spare input channel, reverb as required. Make sure that the Aux 1 send on this channel is at zero, to avoid creating a feedback loop.



f) Aux 2, controls a variable post-fade send to an effects unit, needed on several channels at once, and usually reverb.

g) Aux 2 Return: Sets the level of an incoming signal from the effects unit. It is routed to channels or tracks as to add by the Aux 1 Pre & Post Switches as or if overload.

h) Monitor Output & Pan: These four dual controls on the in line channels allow each track to be balanced and positioned in the Monitor Mix, feeding the Monitor Out on the rear panel. They operate only when the Mic/Tape Switch has is on Mic and there is a signal coming off tape.

i) Aux 2 Monitor Switches: Pan sets the position of each channel/track in the stereo picture when mixing down to stereo for using the mixer as a 6 into 2), and in also used for track monitoring. To route to track 1 , press the 1a2 button and rotate the pan fully left. For track 2, rotate fully right. With the pan central the signal will go equally to 1a2. For track 3, release the 1a2 button and press 3a4 with the pan fully left. Pan fully right for track 4.
Mon Jack buttons are 'on' the signal goes directly to the 1a2 outputs, bypassing the tracks. Use this position for stereo mixdown (Mic/Tape buttons on Tape) and for 6 into 2 operation.
Should you ever wish to send a signal to all four tracks at once, route the channel to 1a2, pan central, and patch a lead with a jack to jack lead from the channel insert send (socket 5) to a spare input channel central to 3a4, pan central.

j) P.F.L: This led, which takes it's feed after the input and e.q. stages, will flash as the input signal means it's overload point, warning of impending distortion. It is normal to have the led flash occasionally - if it gives continuously reduce the input gain (c) or incoming signal.

k) Faders: This adjusts the level of each channel/track. Initially, set the Faders in the 0db mark and increase the input gain until the P.F.L. (j) flashes now and then.

l) Mix/Playback: With the output of your 2 track Master recorder permanently connected to the 2 Track In socket (11), a finished mix can be played back through the monitors by pressing this button. Mixing values should be adjusted on the recorder. 3/8 compatibles can also be made while using a three head machine/tape machine. You could mix six this facility is check a demo mix-up through a cassette.

m) Mix Phones: This socket is a duplicate of the Main Mix output, and would usually be used by a musician doing his own engineering. Volume is set on the control under the MTR logo.

n) Aux 1 Phones: The Aux 1 controls feed this socket, providing a foldback (mon) signal. The socket is stereo but wired mono to avoid having to rewire your headphones.

NOTE: If you have more than two new parts to add at once and tracks is still an unrecorded track, derive the one send of old and new parts as follows: use channels 1a2 and their Aux 1 sends as usual, and plug the third part into channel 1 (track 1). Connect a mono jack to jack lead from 2's insert point (tip) to the mic input of, say, channel 6 and use the Aux send from 6.
The pan system can also be used to get double e.g. and double stereo mono mix signal.

SPECIFICATIONS

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