

THE EX-8 EXPANDER UNIT

The add-on EX-8 unit expands your SYSTEM 8 instantly by eight channels. All EX-8 channels have *all* the facilities provided on standard SYSTEM 8 channels and identical layout. All buss outputs are mixed *before* the EX-8's output jacks. The EX-8 is really a small 8 buss mixer with no monitoring or metering.

Connexion of the EX-8 to your SYSTEM 8 is made using the tie-jack system. The EX-8 may be used in conjunction with the products of other mixer manufacturers. Outputs are unbalanced at 0 dB level ($0 \text{ VU} = 1.23\text{v} = 4 \text{ dBv}$). If in doubt about connexion details, refer to a qualified service technician.

INSTALLATION

The unit is self-powered with its own MPS8 (MPS8P) power supply unit. It is connected to a SYSTEM 8 main mixer Model 164, 128, 168 or 1616 by the BUSS TIE LINE system, using standard $\frac{1}{4}$ -inch jack connectors (3 pole type) and twin-core screened cable (*illustrated further on*).

Outputs from the EX-8 are at nominal 0 VU level (1.23v, +4 dBv) and are buffered.

The EX-8 is usually placed alongside the mixer. Alternatively, longer tie-line connectors will allow the EX-8 to be placed further away.

The EX-8 can be mechanically joined to the main unit as follows:

1. Remove bases of both units.
2. Remove left-hand side plate from the main unit and right-hand side plate from the EX-8.
3. Remove the wood trim from both these side plates.
4. Secure the side plates together, flat face to flat face, using bolts and nuts through the now vacant trim fixing holes.
5. Fit the combined side plate on the main unit. Place it face up on the workbench.

6. Place the EX-8 in position alongside, and locate the side plate in it. Replace the fixing screws to hold it.
7. Carefully turn the assembly over and refit both bases.

The strength of the assembly is sufficient for table-top and flight-case use. Floor stands should be arranged (when in use) to support both the main unit and the EX-8.

A stronger arrangement is made when a one-inch square tube is fitted across the assembly inside the armrest.

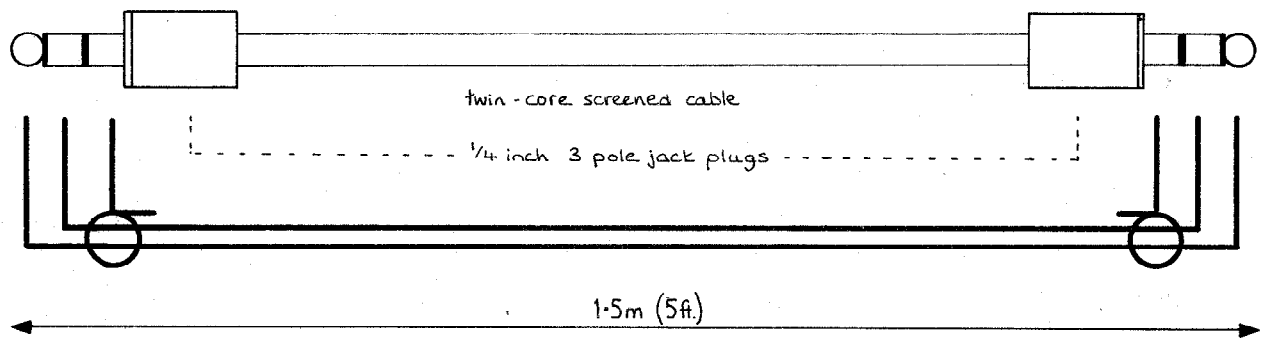
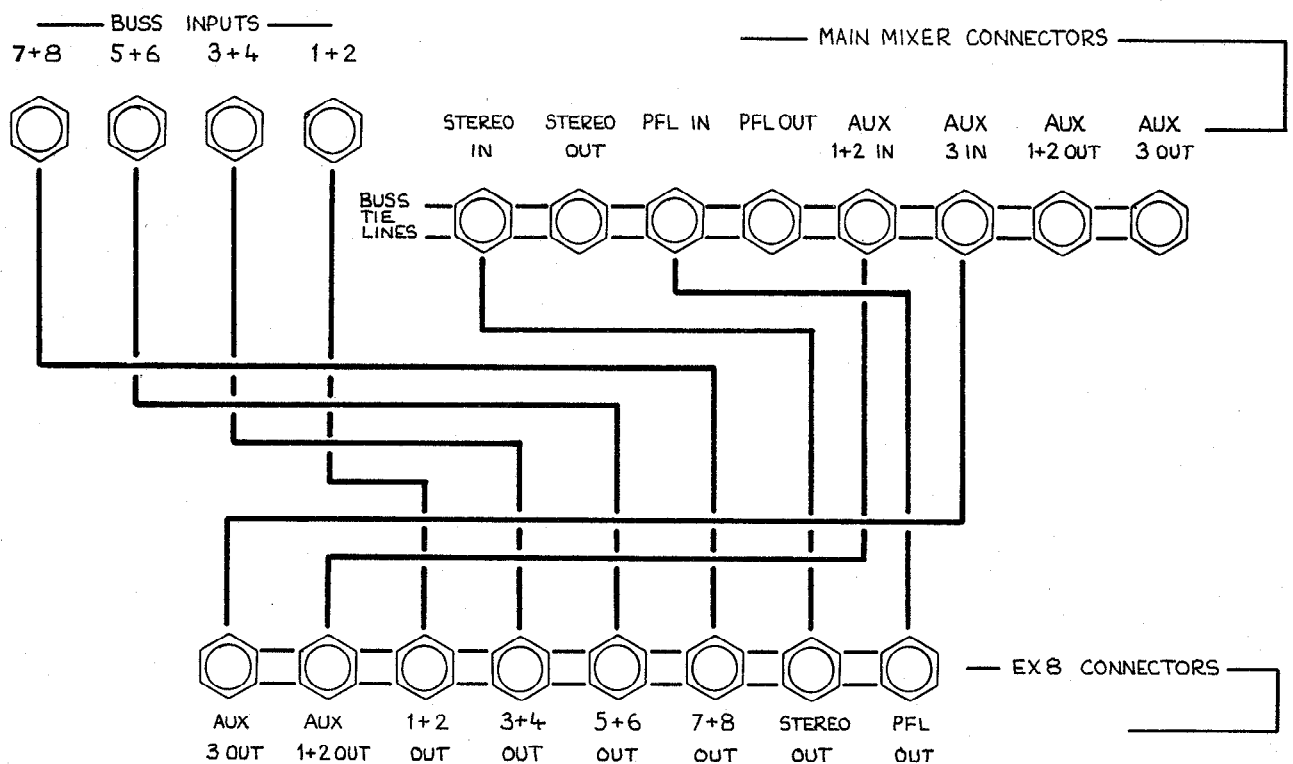


fig.10 **SYSTEM 8** Standard tie-line connector.



SYSTEM 8 EX8 connected by eight standard tie-line connectors.

TIE LINE SYSTEM

A system of input and output tie-jacks is provided to facilitate the connexion of the EX-8 expander unit, to allow SYSTEM 8 to be interconnected with other mixers, and to provide additional buss inputs and paralleled outputs. The system design allows free use of the tie-jacks as extra inputs without the need to sacrifice whole input and output sections. The CONNEXIONS part of this book gives full wiring details which use 3 pole $\frac{1}{4}$ -inch jacks throughout.

INPUT TIE-JACKS. Groups 1-8, Aux Sends 1, 2, 3, the L-R stereo mix and the PFL system, are all accessible via input tie-jacks. These enable connexion of the EX-8 expander unit, but can be used when, for any reason, you wish to patch a signal into the appropriate mix buss. *All tie-jack inputs are at 0 dB with no level-match option.* Other mixers' buss outputs may be patched into SYSTEM 8 via these input tie-jacks.

OUTPUT TIE-JACKS. These provide 0 dB outputs with no level-match option for Aux Sends 1, 2, 3, and the L-R stereo mix. Whilst effects units are connected to the main Aux Send 1, 2 and 3 outputs, the output tie-jacks of these Aux Sends can be used to connect cue systems, in addition to the cue system being fed from the mixer's main cue output. Or an effects device may be connected to give simultaneous access to two devices from one Aux Send. A tape-machine or cassette deck can be fed from the L-R stereo group output tie-jacks, so that a copy may be made in real-time with a master mix.

When the PFL system is cross-linked via the tie lines, you have access to the monitor output of the master mixer from the slave mixer and retain the one-shot ease of use.

System design preserves phase integrity throughout the tie lines. Outputs are buffered at line level (0 VU = +4 dBv = 1.23v) for use with screened lines of any length. Inputs are switched to prevent pick-up at unused tie line jacks.

An EX-8 connected to a main mixer increases your input capacity. Used in the straightforward method where corresponding circuits on the EX-8 and the main unit are joined one-to-one, you now have up to eight extra sources that can be mixed to any of the eight group outputs and the stereo output. This is the way to add echo return mixing facilities to a Model 1616, where all channels are used for tracks on remix.

This is not the end of the possibilities. It is quite acceptable for different hook-up systems to be created so long as you can follow the system and recall what you have done.

SOME RULES FOR TIE LINE CONNEXION:

*Circuits identified OUT and OP are mixer and expander OUTPUTS.
Circuits identified IN and IP are mixer and expander INPUTS.*

1. Only connect an output to an input, or vice versa, but NOT an output to an output or an input to an input.
2. Always use 3-pole (stereo) jacks, even if your application calls for only one of the two signals available.
3. When connecting outputs to external equipment, best performance is available when the external equipment input impedance is greater than 5000 ohms (5 kohms).
4. You won't have level control of incoming signals on the mixer panel, so adjust the signal level to a tie line input from the external equipment panel controls.