

FLM 82 Stereo Line Mixer

General Description

The FLM 82 Line Mixer consists of four pairs of Inputs (stereo), Master A and B Outputs and two AUX LOOP jacks which may be used as direct Aux Outputs. Additionally, the FLM 82 provides FLEX BUS IN and FLEX BUS OUT connectors so that this module may be combined with other Rane Flex Series mixer modules to create mixers of any complexity and flexibility.

Four tip-ring-sleeve stereo inputs are provided on the rear of the FLM 82. Each of these is connected to a concentric mix (input) LEVEL control on the front of the unit. These concentric pairs may be used individually or together to set the input level of each stereo pair. Adjacent to each of the Input Level controls is another concentric knob which provides the ability to set independent AUX SEND Levels from each pair of Inputs. These Aux Send signals may be either “pre fade” or “post fade”. This selection is made via internally mounted slide switches located beneath the top cover.

A MASTER Output control is provided to allow users to set Master A and B Output Levels independently. This control governs the balanced MASTER OUTPUTS on the rear of

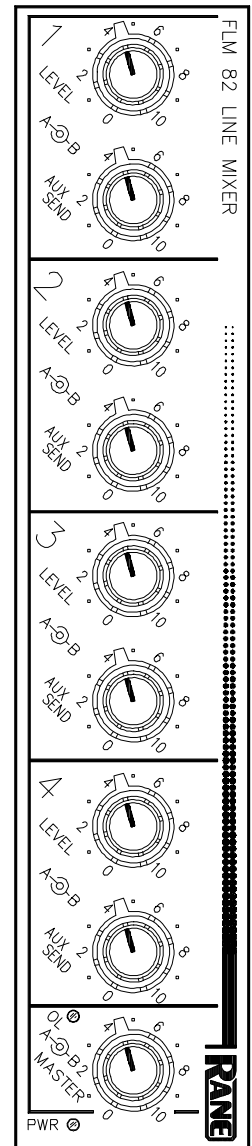
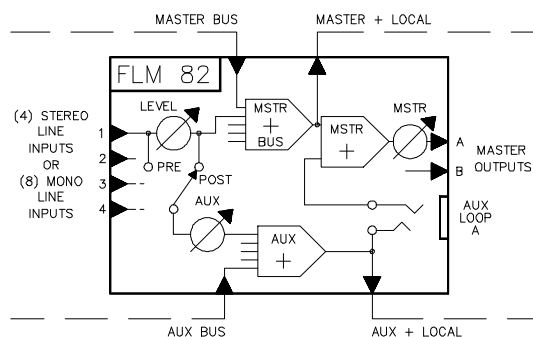
Features

- **FOUR STEREO INPUTS**
- **TWO MASTER OUTPUTS**
- **TWO AUX OUTPUTS**
- **BUS COMPATIBILITY WITH ALL FLEX MIXER MODULES**
- **STEREO / MONO SWITCH**
- **AUXILIARY LOOP JACKS**
- **DUAL MASTER LEVEL CONTROL**
- **PRE - POST AUX SEND SELECTION**
- **DUAL AUX SEND FADERS**
- **DUAL INPUT FADERS**

the unit and does not affect signal applied to the FLEX BUS OUT connector.

A STEREO / MONO switch is located on the rear panel to allow summing of the A and B MASTER OUTPUTS as well as the A and B AUX LOOPS. In the MONO mode, A and B Master and A and B Aux signals will be identical. The FLEX BUS OUTPUTS, including Master and Aux, remain independent in either mode.

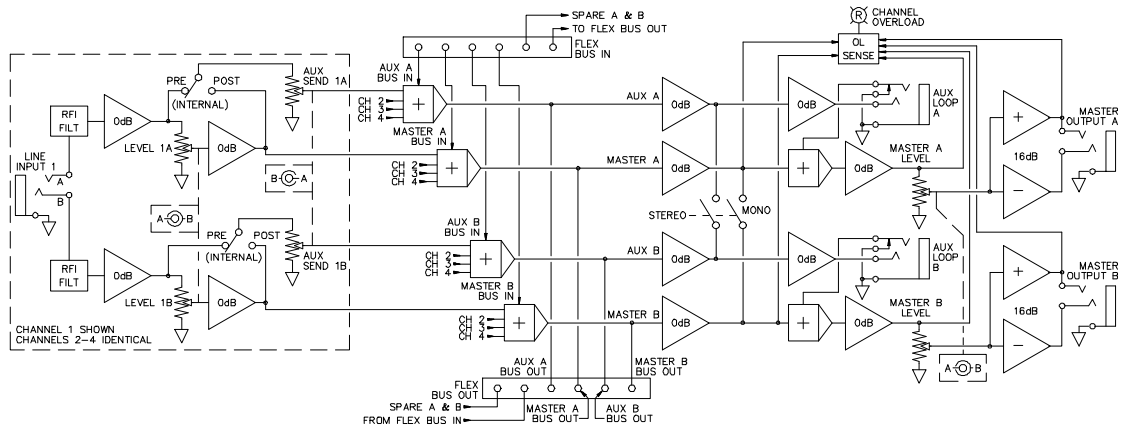
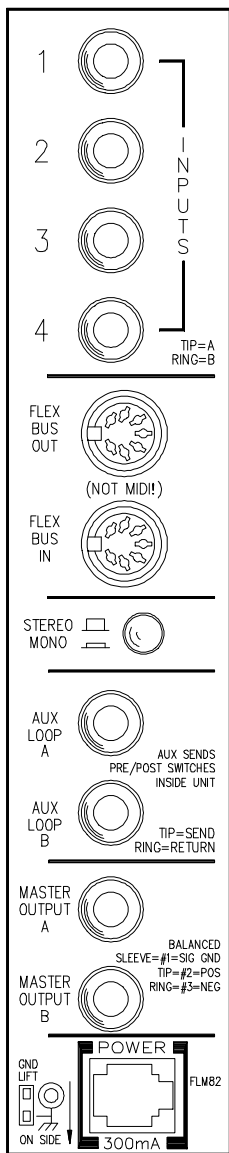
AUX LOOPS are provided on the rear panel as well. These may be used to insert effects or other signal processing gear between the Aux Sends and the MASTER OUTPUTS or they may be used for direct output of the Aux Sends from the unit.



Parameter	Specification	Limit	Units	Conditions/Comments
Line Input Gain Range	Off to 0	0.5	dB	
Master Output Gain Range	Off to +16 Bal; +10 Unbal	1	dB	
Aux Loop Output Gain Range	Off to 0	0.5	dB	
Aux Return Gain	0	0.5	dB	
Signal-To-Noise Ratios	re +4dBu, 20kHz BW, Bal			Master Out Set Unity (about “6”)
	100	2	dB	All Input Levels Min
	94	2	dB	One Input Level Max
	88	2	dB	All Input Levels Max
Frequency Response	10-100kHz	+0/-3	dB	
THD+Noise	0.01	.005	%	+4dBu, 20-20kHz
Crosstalk	80 (1kHz)	2	dB	Any Input to Either Output
	54 (20kHz)	2	dB	Any Input to Either Output
Aux Pre/Post Switches	Yes: 8			Separate; Internally Mounted
Maximum Current	300		mA	RMS Current From Remote Supply

Rear Panel

Block Diagram



Application Information

Many larger systems require that there be not only a good selection of microphone inputs but many line inputs as well. A good example of this would be a small to medium church reinforcement system where there are podium mics, choir mics, etc. A system like this will also normally have need for a few pairs of stereo line inputs for tape players, organs, maybe even a CD player. Placing an FLM 82 on the FLEX BUS with one or two FPM 44s, an FMI 14 or two, and an FMM 42 MASTER MODULE could be just the ticket

for this application and many others. Each FLM 82 on the bus would provide up to four stereo line input pairs along with all of the mic inputs provided by the other modules.

Many medium to large systems will also have sub-mixing requirements for different zones. The FLM 82 could be very useful in such a situation. Here we might have a master mix provided by the mix levels on microphone modules. In addition to this mix, the line output signals of the mic level modules could be applied to one or more FLM 82s for delivery to specific building areas. This allows a different mix depending on listener requirements and other considerations.

The **Flex Users Guide** should be consulted for full system implementations of the FLM 82. This publication also guides you in using the FLM 82 as not only a four-to-one stereo mixer but as a six-to-one mixer as well. Further technical specifications of the Flex Series may be found in the **Flex Overview Data Sheet**

The FLM 82 can be extremely useful to musicians where several stereo effects devices need to be mixed together to create certain otherwise unattainable sounds. When used in conjunction with the FPS 28 PROGRAM SPLITTER, the FLM 82 handles this task very conveniently. Again, consult the **Flex Users Guide** for details (with pictures, even!).