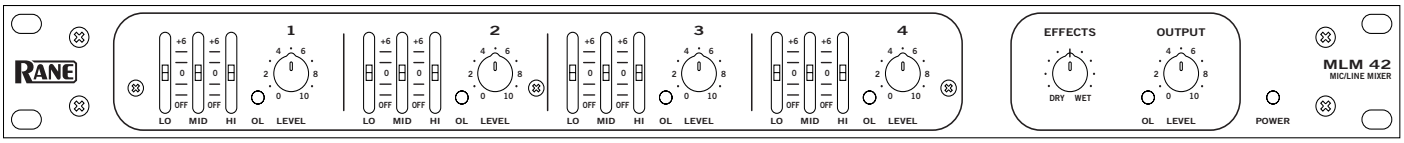


QUICK START

Sure this seems like a simple enough box. 4 Inputs, 2 Outputs and an Effects Loop. Fine. But at least read this section to get the best signal out of your unit and avoid potential problems. We'll be quick, promise!

Each Input section features microphone-level **XLR** and line-level ¼" **TRS** Inputs. *Use only one Input for each channel*. Both Inputs are balanced.

If you are using condenser mics, flip the **PHANTOM POWER** switches to the **ON** position. For dynamic mics and line-level devices, leave these switches **OFF**. Phantom Power only affects the XLR Inputs, not the ¼" TRS Inputs.

If an **Input Overload** indicator lights, this is your clue to turn down its **GAIN** trim on the rear of the unit.

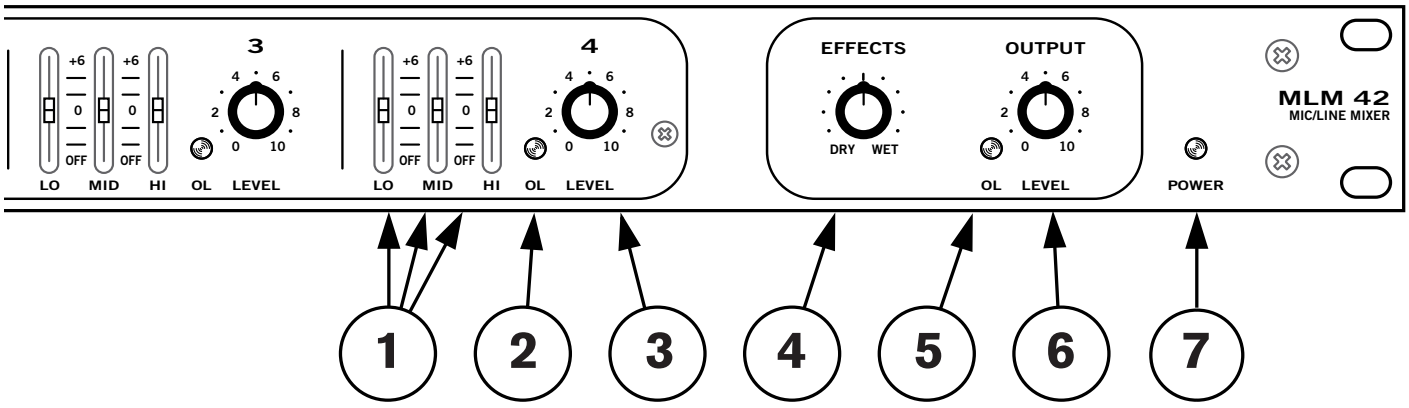
The **Output Overload** indicator shows the sum of the 4 Input channels, but is located before the **OUTPUT LEVEL** control. Therefore, the **OUTPUT LEVEL** control ***cannot*** correct an **Output Overload** condition. Instead, turn down the **LEVEL** of one or more of the Input channels. The **Output Overload** indicator should remain off.

The **OUTPUT MIC/LINE switch** changes the balanced XLR and TRS Outputs to either LINE-level or MIC-level. Be aware of what sort of signal your mixer or amplifier wants to see before you scare yourself.

Never connect anything except a Rane power supply to the thing that looks like a telephone jack on the rear of the unit. This is an AC input and requires special attention if you do not have a power supply ***exactly*** like the one originally packed with your unit. See the full explanation of the power supply requirements elsewhere in this manual.

WEAR PARTS: This product contains no wear parts.

FRONT PANEL DESCRIPTION



① **LO / MID / HI tone controls** on each input channel are *Accelerated-Slope*™, delivering more control, constant phase response, and less interaction between bands than normal tone controls. The LO/MID corner frequency is 300 Hz. The MID/HI corner frequency is 4 kHz. Each band allows 6 dB of boost and *full cut*.

② **Input Overload indicators** should remain off during the loudest expected program material. If you see one light up, turn down the rear panel Input GAIN.

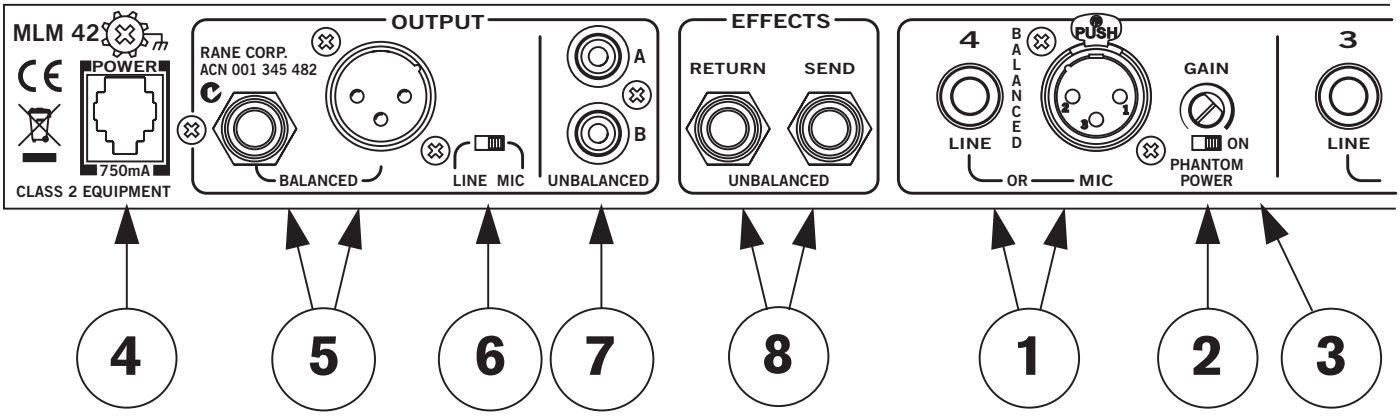
③ **Input LEVEL controls** set the volume for each channel. These work along with the rear panel GAIN controls for maximum signal. To achieve the smoothest mix possible, set the GAIN control on the rear panel to allow near full range operation of the mix Level control without lighting up the Input Overload indicator.

④ **EFFECTS DRY/WET control** adjusts the mix between the sum of the four Inputs (DRY) and the Effects Return jack (WET). When used with an external effects processor, the DRY/WET pan control adjusts how much processed, versus unprocessed, signal appears in the final output mix. See the EFFECTS LOOP section on page Manual-4 for more uses.

⑤ **Overload indicator** is located before the Output Level control. Therefore, the Output Level control *cannot* be used to correct an Output Overload condition. An Output Overload condition is corrected by turning down one or more of the Input LEVELs. This indicator should remain off.

⑥ **OUTPUT LEVEL control** determines the level going to all four Outputs.

⑦ **POWER indicator.** When the yellow LED is lit, the MLM 42 is ready to go.



① **INPUTS 1 through 4** feature MIC-level XLR and LINE-level ¼" TRS connectors. *Use only one of these Inputs for each channel*. Both Inputs are balanced. A mono ¼" TS plug may be inserted into the LINE input if necessary, but better results come from a balanced TRS plug. See the RaneNote, "Sound System Interconnection" included with this manual.

② **PHANTOM POWER switch** provides 15 volts to condenser microphones plugged in the MIC Input.

③ **GAIN trim control** sets the inital gain of the Input so the front panel LEVEL control has the most latitude without distortion. When the XLR MIC Input is used, the range of the GAIN is 12 to 50 dB and Phantom Power may be selected. When the TRS LINE Input is used, the range of the GAIN is 0 to 12 dB and Phantom Power is disabled.

④ **Remote POWER supply input and chassis ground screw.** The unit is supplied from the factory with an RS 1 remote power supply suitable for connection to this input jack. The power requirements call for an 18 volt AC center-tapped transformer only. *This is not a telephone jack. Never use a power supply with your unit other than the one supplied or a replacement approved by Rane Corporation.* Using any other type of supply may damage the unit and void the warranty. The #6-32 screw above can be used for chassis grounding. See the CHASSIS GROUNDING note below.

⑤ **¼" TRS and XLR Balanced OUTPUT** jacks are provided for convenience. Both connectors may be used simulaneously.

⑥ **OUTPUT LINE / MIC switch** changes both balanced XLR and ¼" TRS Outputs to either LINE-level or MIC-level. Many DJ mixers have microphone engage and talk-over functions associated with the microphone inputs. By connecting the MLM 42 directly to one of these microphone inputs, you are able to take advantage of these features.

⑦ **A & B Unbalanced RCA Outputs** provide connection to line-level inputs. The Outputs of A and B are identical.

⑧ **EFFECTS SEND & RETURN** loop connects external effects processors or expands to other mixers. See page Manual-4.

IMPORTANT NOTE

CHASSIS GROUNDING

Units with outboard power supplies do not ground the chassis through the line cord. Make sure that these units are grounded either to another chassis which is earth grounded, or directly to the grounding screw on an AC outlet cover by means of a wire connected to the chassis grounding screw.

EFFECTS LOOP

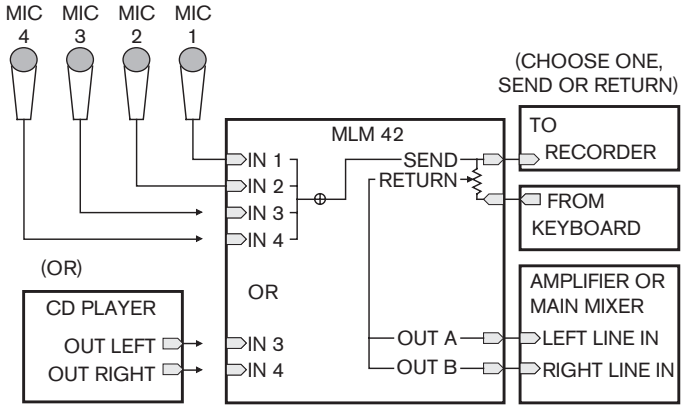
The Effects loop provides a means of processing the mix of the four Inputs. Send and Return are unbalanced ¼" TS (tip/sleeve), so keep cable runs to these jacks as short as possible to avoid hum and noise (under 10 feet [3 meters]). Typical effects processors include reverb, gate, compressor, limiter, EQ, etc.

The mix of the four Inputs appears on the EFFECTS SEND Output. This Output provides the input to the external processor.

The EFFECTS RETURN Input receives the output from the effects processor. To prevent loss of signal when a plug is not installed in the RETURN jack, this jack is a switching type. The SEND is internally connected to the RETURN when a plug is not inserted. The DRY/WET pan control allows the user to control how much processed verses unprocessed signal appears in the final output mix.

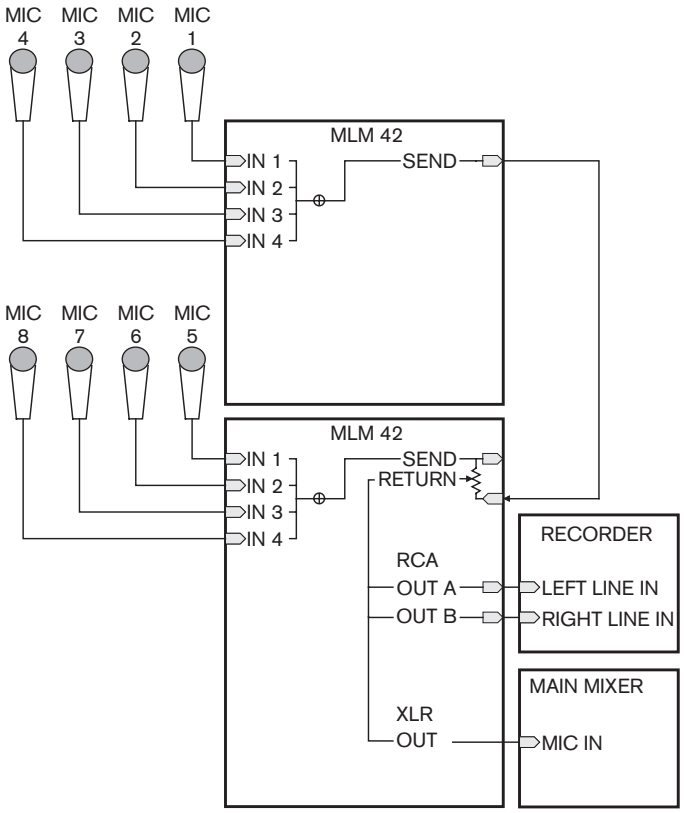
An alternative use for the EFFECTS loop is for Expand Output and Expand Input. For example, if you wish to use two mixers, the SEND Output of the first mixer can drive the RETURN Input of the second mixer. The relative mix level of mixer one versus mixer two is determined by the DRY/WET pan control of the second mixer.

Other applications for the EFFECTS loop may use only the SEND Output or only the RETURN Input. For example, a drum machine, keyboard or other mono source may be connected to the RETURN Input. The relative mix of the 4 Inputs versus the source present at the RETURN Input is determined by the DRY/WET pan control. The SEND may be used as a direct Output for recording.



4 Mic Mixer, or 2 Mics and a CD Player;

Send to a Recorder, or Return a 5th Input from another mono source.



Connecting two MLM 42's for 8 Mic Inputs