INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSON

IMPORTANT SAFETY INSTRUCTIONS
READ AND SAVE THESE INSTRUCTIONS

WARNING - When using electric products, basic precautions should always be followed, including the following:

1. Read all the instructions before using the product.
2. Do not use this product near water - for example near a bathtub, washbowl, kitchen sink, in a wet basement, or near a swimming pool, or the like.
3. This product should be used only with a cart or stand that is recommended by the manufacturer.
4. This product, either alone or in combination with an amplifier and headphones or speakers, may be capable of producing sound levels that could cause permanent hearing loss. Do not operate for long period of time at high volume level or at a level that is uncomfortable. If you experience any hearing loss of ringing in the ears, you should consult an audiologist.
5. The product should be located so that its location or position does not interfere with its proper ventilation.
6. The product should be located away from heat sources such as radiator, heat registers, or other products (including amplifiers) that produce heat.

7. Clean only with a damp cloth. Before cleaning the unit, turn off the power and unplug the power cord from the outlet.
8. The power supply cord of the product should be unplugged from the wall outlet during lightning storms or when left unused for a long periods of time.
9. Use only with attachments/accessories specified by the manufacturer.
10. The product should be serviced by qualified service personnel when:
    A. The power supply cord or the plug has been damaged; or
    B. Objects have fallen, or liquids has been spilled into the product; or
    C. The product has been exposed to rain; or
    D. The product does not appear to be operate normally or exhibits a marked change in performance; or
    E. The product has been dropped, or the enclosure damaged.
11. Do not attempt to service the product beyond that described in the user maintenance instructions. All other servicing should be referred to qualified service personnel.

For the USA

This product may be equipped with a polarized line plug (one blade wider than the other). This is a safety feature. If you are unable to insert the plug into the outlet, contact an electrician to replace your obsolete outlet, Do not defeat the safety purpose of the plug.

For Canada

For Polarized Line Plug:
Caution: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.
Attention: POUR …VITER LES CHOCS …LECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JASQUí AU FOND.

For the U.K.

IMPORTANT: THE WIRES IN THIS MAINS LEAD ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE:
BLUE: NEUTRAL
BROWN: LIVE
As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in you plug, proceed as follows.
The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.
The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.
Under no circumstances must either of the above wires be connected to the earth terminal of the three pin plug.

MO-FX
TIME SYNCHRONIZED FX

English v1.0

Welcome to the "Hands On" world of Electrix. We would like to thank you for purchasing MO-FX, Time Synchronized FX for DJs, producers and remixers.

MO-FX is unique in its ease-of-use and its focus on directly affecting a range of input signals from turntables to CD's to Synthesizers. MO-FX combines four powerful digital signal processing modules with an innovative multiband signal bus approach to create unique, performance oriented effects. There are no menus to navigate, multi-function buttons to cross reference, nor cryptic procedures to follow. In fact, chances are you could put aside this manual and get along just fine without it.

Use MO-FX to re-mix your vinyl live. MO-FX has a built in phono pre-amp so you can insert MO-FX between the turntable and the mixer and add time synchronized effects to the mix. As an added bonus, this setup allows you to cue the effect before it goes to the house by using the cueing feature of a mixer.

MO-FX's unique future / retro case was designed to allow both desktop and rackmount installation. This concept makes MO-FX's control surface optimum for live performance as well as studio use.

▸ **INVENTORY**

In the Electrix box you should find:

- *1 Electrix MO-FX*
- *1 Manual*
- *1 Rackmount kit (shipped attached to product)*
- *1 Warranty Card*
- *1 EIC Power Cable appropriate for your region*

If you are missing anything, please contact your Electrix dealer.

1.1 WHAT TO PLUG IN

Here's the simplest way to get sound out of the Electrix MO-FX:

Plug in the AC here.

Turn it on.

Use these line level outputs to connect to the mixer or power amplifier.

Turn on the phono pre-amp.

Plug in the turntable here.

▶ MOFX BLOCK DIAGRAM

Input
Insert
Jack Logic
Overdrive to FX Bus
Dry Kill
Dry Kill Logic
Overdrive Engage
OD
Flanger Engage
Flanger
Tremolo Engage
Tremolo
Delay
Delay Engage
Bypass
Output
DSP
Crossover
Band Select
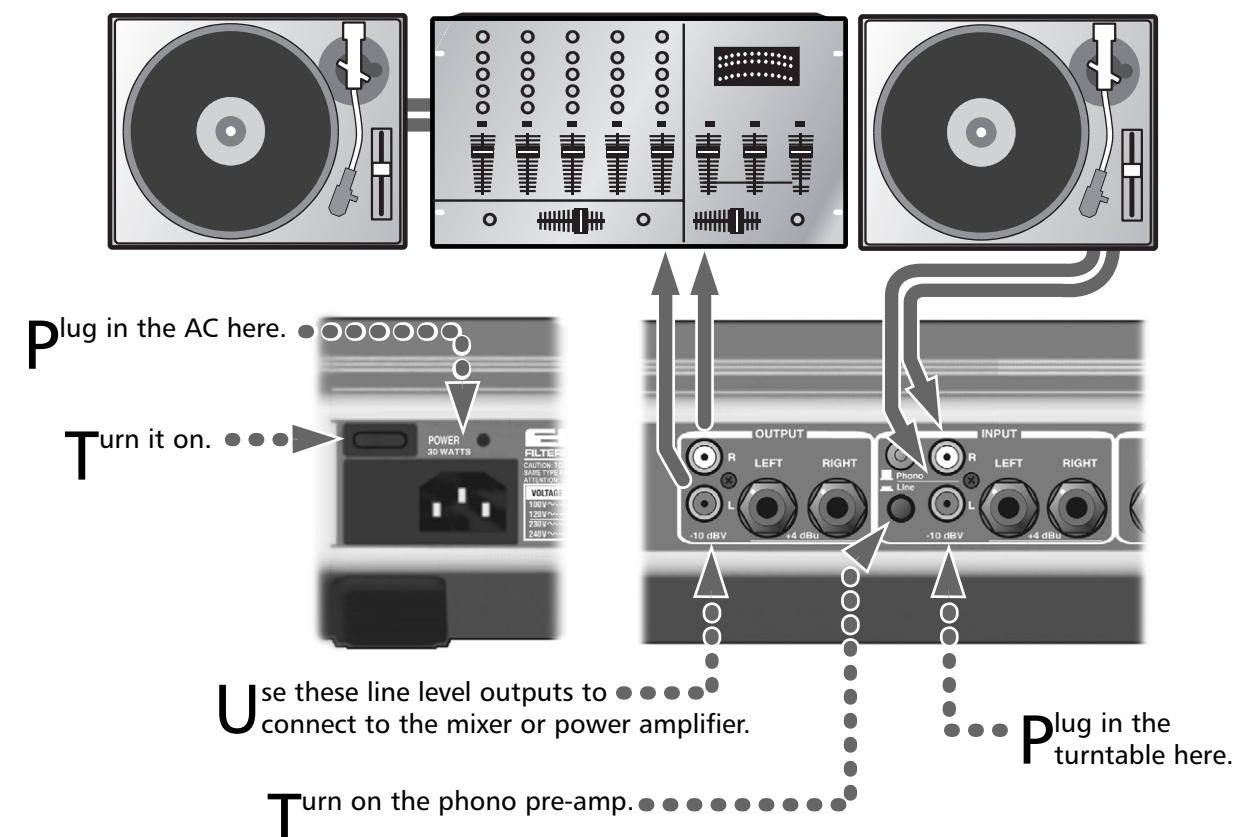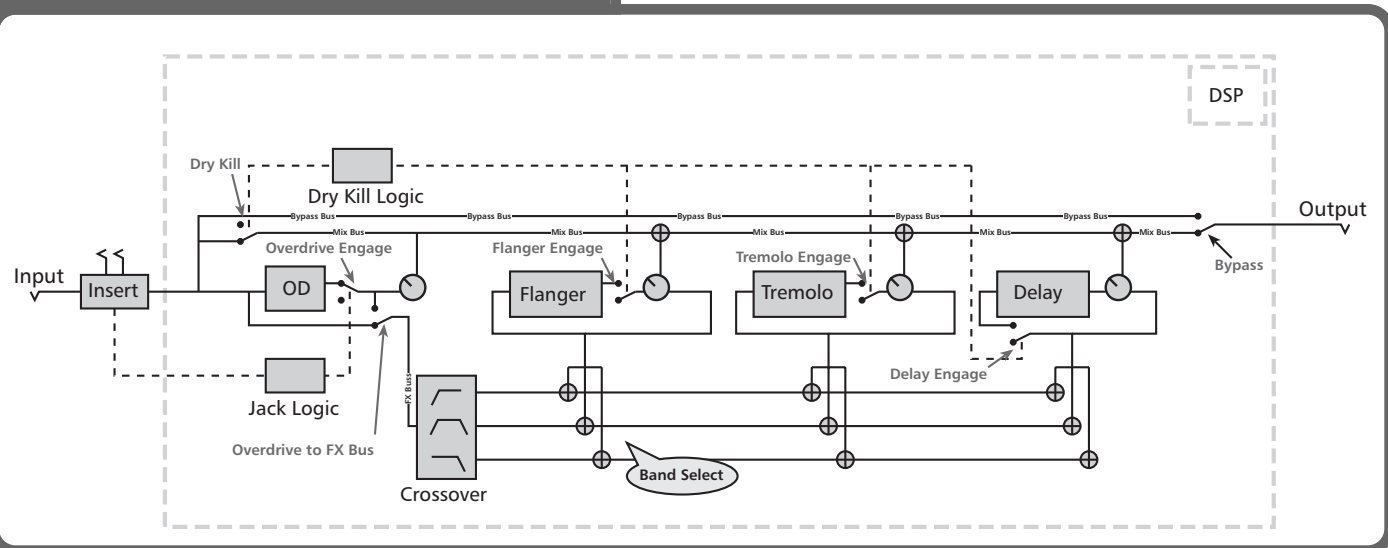
1.2 WHAT TO DO

MOFX is a Performance oriented Multi Effect unit specially designed to give artists immediate and creative control over their effects.

Effect mix to the outputs.

Use the momentary button to play the effect. As you tap it, the effect will momentarily kick in. When you engage an effect block the momentary button switches its function and mutes the effect.

Toggles between Mono Delay or Stereo Ping Pong modes

Toggles mono Tremolo or stereo Auto Pan.

This button will lock the blocks LFO or delay to the Tap Tempo. When the syncro feature is engaged the rate / time control will allow you to select multiples or divisions of the Tap Tempo.

Tap the tempo in here. If you send MIDI clock to the MOFX, Tap Tempo will default to the MIDI tempo. But you can always take over by simply tapping a new tempo.

Each effect block can be driven by a selectable frequency range. Use this button to toggle through the 7 possible frequency selections.

Deals with the Dry signal. Thru: passes dry. Kill: mutes the dry. Auto: mutes the dry whenever an effect block is engaged.

7

English

You may have noticed there are no input or output controls on MO-FX. MO-FX was designed like this to make it convenient to set up. If you are using a line-level input, set the output of the source so that MO-FX's Input Level LED sticks in the orange and rarely goes into the red. This is the optimum level for MO-FX. MO-FX will give you "Unity Gain" when bypassed. "Unity Gain" means that signals running through it are not boosted or reduced in gain.

DISTORTION / INSERT

The Distortion / Insert block differs from the other processing blocks on MO-FX in three ways:

• It is the only processing block that can function both in series, with the other blocks, and in parallel.
• You can use this block to trigger external effects by connecting them to MO-FX's stereo insert jacks. Once connected, engaging the Distortion block will insert the external effect into the signal path in addition to the distortion effect.
• When the drive control is set fully counter clockwise the block bypasses itself allowing you to use the momentary and engage buttons to control the insert jacks only.

▸ **Engage Button:** Toggles the Distortion circuit in and out. This also engages the analog insert jacks on the back.

▸ **Momentary:** Temporarily engages the Distortion block as well as the analog inserts on the back of MO-FX. This is useful for tapping patterns to create distorted hits and rhythms. Note: When an effect is engaged, the momentary will dis-engage it. When an effect is not engaged the momentary will engage it.

▸ **Level:** Sets the volume of the Distortion/Insert block to the stereo mix output. Unlike the other Wet/Dry Mix controls on MO-FX, the Distortion Level controls how much the output of the Distortion block is added to the outputs.

▸ **Drive:** Varies the amount of saturation the Distortion effect will create. When Drive is set to zero the distortion block is effectively bypassed. There are many cases where you might want to bypass the distortion block. For example, you may have a favorite Fuzz or phaser you'd like to use with your setup. Hook it up to MOFX's insert jacks and use the insert engage and momentaries to control the fuzz instead of MOFX's built in distortion.

▸ **Dist to FX:** When the distortion block is engaged, and "Dist to FX" is selected, Distorted signal is sent to the other effect blocks as well as the stereo output. The "Dist to FX" send is before the Distortion Level. Even when "Dist to FX " is selected the Distortion level control still changes the level of distortion to the outputs. This way you can send distortion to the effects without distorting the dry signal by turning down the Distortion level to zero. This allows for distorted delay, flange and tremolo effects. (You can use another block to band limit the distortion by engaging that block, setting its mix control to dry, and selecting the desired bands.)

FLANGE

▸ **Engage:** Toggles the flange effect in and out.

▸ **Momentary:** Temporarily engages the flange effect. This is useful for tapping patterns to create distorted hits and rhythms. Note: When an effect is engaged, the momentary will dis-engage it. When an effect is not engaged the momentary will engage it.

▸ **Mix:** Sets the Wet / Dry mix of the Flanger Block. MO-FX Mix controls feature an additional 9dB of Boost in the last 25% of the control range. This can help make the effect "stand out" in the mix. The Mix control gets the dry signal from the band select feature. That means that when the Mix is set to zero, and the block is engaged, you will hear only the bands you have selected with the band select.

▸ **Depth:** Controls the width of the flange effect. Depth is at zero at the 12 O'clock position. The depth control allow you to flip the phase of the flange's sweep by setting the depth to either positive or negative depth.

▸ **Regen:** Varies the amount of the flange sound that is regenerated or recycled back into the flange input. This gives you the jet airplane or tube-y sound.

▸ **Speed:** Controls the duration of the flange sweep from .1 Hz to 10 Hz. When Sync is engaged the speed control sets how many times the flanger will sweep every beat. For example a division of 1:8 will sweep the flanger 1 time over 8 beats or two bars. A division of 2:1 will sweep the flanger twice every beat. When the speed control is set to zero, the depth control will manually sweep the flanger.

▸ **Sync:** Toggles between tempo synchronized speed control and normal speed control. (See Time Synchronization Features pg.17)

▸ **Band:** Selects between 7 combinations of frequency bands the flange will effect. The combinations are represented by 3 LED for High, Mid, and Low. The combinations are: All bands, High, Mid, Low, Low+High, Low+Mid, High+Mid. Note: Every time the Band button is pressed MO-FX will cycle to the next combination. However, at any point in the cycle the Band button can be held down for 500ms and it will return directly to All bands.

TREMOLO

▸ **Engage:** Toggles the tremolo effect in and out.

▸ **Momentary:** Temporarily engages the tremolo effect. The momentary essentially reverses the state of the engage switch. When an effect is engaged, the momentary will dis-engage it. When an effect is not engaged the momentary will engage it.

▸ **Mix:** Controls the mix of the tremolo effect. MO-FX Mix controls feature a additional 9dB of Boost in the last 25% of the control range. The Tremolo Mix control functions in a similar fashion to that of a traditional Tremolo Depth control. The higher the effect Mix setting, the more the signal will fade in and out. The Mix control gets the dry signal from the band select feature. That means that when the Mix is set to zero, and the block is engaged, you will hear only the bands you have selected with the band select.

▸ **Auto-Pan:** Changes the tremolo effect, (mono sounding) to an auto-pan effect to produce a wide stereo effect. Auto-pan is selected when the LED around the Auto-Pan switch is lit. All other tremolo controls work in the same way except the effect alternates in the left and right channels.

▸ **Speed:** Controls the rate of the tremolo waveform. When Sync is engaged, speed controls how many times the tremolo will sweep every beat.

▸ **Waveform:** Selects from seven tremolo waveform types:
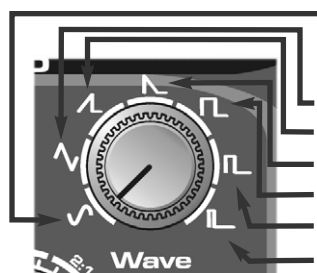
- Sine Wave - excellent waveform for auto-pan effects
- Triangle - More of a tremolo effect
- Ramp Down - Very Rhythmic
- Ramp-Up - useful for creating stutter effects
- Square 50% - best sounding at higher speeds
- Square 25% - Gives a chopping sound
- Square 12% - Dices up the music

▸ **Sync:** Toggles between tempo-synchronized speed control and normal speed control. Note: The Tremolo will resync every time this feature is engaged and you can use this to your advantage. Try hitting sync on an off beat (1+2+3+4+) with a 2:1 division and the square wave selected. The tremolo will now sync to the offbeats. (See Time Synchronization Features pg.8)

▸ **Band:** Selects between 7 combinations of frequency bands the tremolo will effect. The combinations are represented by 3 LED for High, Mid, and Low. The combinations are: All bands, High, Mid, Low, Low+High, Low+Mid, High+Mid. Note: Every time the Band button is pressed MO-FX will cycle to the next combination. However, at any point in the cycle the Band button can be held down for 500ms and it will return directly to All bands.

DELAY

MO-FX's digital Delay can produce some wild sounds. Unlike most digital delays, it emulates the pitch shifting effect of analog delay but with the added fidelity of its digital signal path. By turning the regeneration control all the way up, you can use the Delay section as a simple sampler.

▸ **Engage:** Toggles the delay effect in and out.

▸ **Momentary:** Temporarily engages the delay effect. This is useful for creating short burst of delay for rhythmic accents. The momentary essentially reverses the state of the engage switch. When an effect is engaged, the momentary will dis-engage it. When an effect is not engaged the momentary will engage it.

▸ **Mix:** Sets the Wet / Dry mix of the Delay Block. MO-FX Mix controls feature a additional 9dB of Boost in the last 25% of the control range. This can help make the effect "stand out" in the mix. The Mix control gets the dry signal from the band select feature. That means that when the Mix is set to zero, and the block is engaged, you will hear only the bands you have selected with the band select.

▸ **Regen:** Controls the amount of delay signal that is regenerated or recycled back into the delay input and repeated. Extreme Regen settings will configure the delay for infinite looping. This is where the MO-FX delay gets crazy. To stop the looping turn the regeneration control completely to the left. This will clear the delay.

▸ **P-Pong:** Toggles the delay block from being a regular delay (when the LED around the button is not lit) to a Ping-Pong delay (when the LED around the button is lit). The Ping-Pong delay has different delay times for the left and right channel. The right channel's delay time is half of the left channel. This creates a delay sound that alternates right to left.

▸ **Speed:** Sets the length of the delay time from 2600 ms to 1ms. When Sync is engaged the speed control sets the number of delays per beat. For example 4:1 indicates a delay 4 times per beat, and 1:2 indicates delay times equivalent to every two beats.

Note: This control works in the opposite direction of typical delays. The delay time becomes shorter as the knob is turned to the right. This enables the delay to sound progressively faster as the knob is turned to the right as in the other effect blocks.

▸ **Sync:** Toggles between tempo synchronized speed control and normal speed control. (See Time Synchronization Features pg.8)

▸ **Band:** Selects between 7 combinations of frequency bands the delay will effect. The combinations are represented by 3 LED for High, Mid, and Low. The combinations are: All bands, High, Mid, Low, Low+High, Low+Mid, High+Mid. Note: Every time the Band button is pressed MO-FX will cycle to the next combination. However, at any point in the cycle the Band button can be held down for 500ms and it will return directly to All bands.

GLOBAL

TIME SYNCHRONIZATION

▸ **Tap Tempo/Sync:** The Tap Tempo Button, when used in conjunction with the effect block sync buttons, will synchronize the rate of each block's effect to the beat of the music. Tapping the button twice (or more) to the beat will establish the tempo of the song. Tapping 3 or more times can give a more accurate tempo as an average tempo is created from all the taps. The tempo is displayed by flashing the LED around the Tap Tempo button on the beat. The LED will also flash to the beat when MIDI clock is present. Note: If taps are more than 2 seconds apart the Tap Tempo will start calculating a new tempo. If you are having difficulty establishing a new tempo, wait for two seconds then tap a new tempo. This will clear the Tap Tempo averaging buffer, and the Tap Tempo LEDs will flash in time with the new tempo.

▸ **Sync Button:** The flange, tremolo and delay blocks each have a sync control. When the LED around a SYNC switch is lit, that effect block's speed control is synchronized to tempo (either Tap Tempo or MIDI clock). When the LED around the SYNC switch is off, the speed of the effect block is set from the speed control. When sync is on, the speed is set from two values:

1. Tempo (Tap or MIDI clock)
2. Setting of the division (using the speed control)

For example, if the tempo is 100 BPM and the speed control is set at a division of 1:1, then for a given effect block the speed is 100 BPM. If the division is set at 2:1, then the speed for a given effect block is 200 BPM. Note: MO-FX can only use one global tempo. However, each effect block with sync engaged can have a different beat division.

To switch from Tap Tempo back to MIDI sync, press and hold the Tap Tempo button for 1 second.

DRY

▸ **Thru:** The dry signal passes through MO-FX at the same level it entered regardless of effects being engaged or not.

▸ **Auto:** The dry signal is automatically cut when any effect is turned on with its engage or momentary button.

▸ **Kill:** The dry signal is "killed" at the output of the box. Only effect signals, (when they are engaged), are sent out of the box. Note: "on" is selected by pushing and holding the Kill Logic button for more than 500 milliseconds.

BYPASS:

Bypasses all effects and sends the dry signal out of the stereo mix output regardless of the Kill Logic setting.

2.2 BACK PANEL

▸ **Power Input:** This input will accept an IEC standard power cable. The internal power supply can be used in any region. The fuse drawer can be rotated to accommodate the different power ratings around the world. Check the chart printed near the power entry for fuse ratings.

▸ **Power Switch:** Turns the unit on and off. Note: When turning on the equipment be sure to turn the power amplifiers on last. This will ensure that the noise common to mixers and signal processors does not cause damage to the speaker system. When powering down, be sure to turn the power amplifiers off first.

▸ **Footswitch:** A standard momentary footswitch may be used to turn Bypass on and off. MO-FX can accept normally open or normally closed footswitches but the footswitch must be inserted before power up in order for MO-FX to recognize it. The Electrix 3 button footswitch adds extra funtionality. It allows remote control of Tap Tempo, Dry mode, and global bypass.

▸ **MIDI In/Out/Thru:** Connect MIDI devices here. See the MIDI Applications section for more detail.

▸ **MIDI Channel Select:** This selects the channel for both MIDI input and output.

▸ **Inserts:**

• **1/4" -TRS** - Here you can insert your own effects and use the Momentary / Engage controls on MO-FX to control them. MO-FX's pair of analog inserts operate at 0dBu, (the same level as the insert jacks on most mixers). The inserts are before all MO-FX effect blocks. MO-FX automatically senses when you insert 1/4" TRS plugs into its insert jacks. If you insert an effect into only one of the channels, MO-FX will automatically MONO itself whenever the Insert / Distortion is engaged. That way you can insert your favorite guitar pedal and rest assured that MO-FX will take care of the patching to keep everything working properly. *Note: The distortion drive control at 0 effectively bypasses the distortion gain blocks. This allows you to use your insert effects by engaging the Distortion/ Insert block without having to distort the signal.*

▸ **Input:**

• **Phono/Line Switch** - this switches the RCA inputs to accept phono or line level.

• **RCA. -stereo** - When the Phono/Line switch is in the Line position, this input is optimized for a +4 dBu line level input signal. When the Phono/Line switch is set to Phono, the RIAA phono pre-amp will accept a range of cartridge output levels.

• **1/4" -stereo TRS Balanced** - This input is optimized for +4 dBu input signal. When using the 1/4" inputs on MOFX be sure to use the 1/4" outputs as well. This will ensure no noticeable signal loss.

Note: Connecting both RCA and 1/4 inch jacks to the Source input causes the level of the 1/4" input to drop. Make sure that when you are using the 1/4" inputs that nothing is connected to the RCA inputs.

▸ **Output:**

• **RCA -stereo** - The output level is nominally +4dBu
• **1/4"-stereo** - This output produces a balanced +4 dBu signal. Used balanced line for long runs (>25 feet) as they give a cleaner signal that is not susceptible to hum and noise like unbalanced lines are.
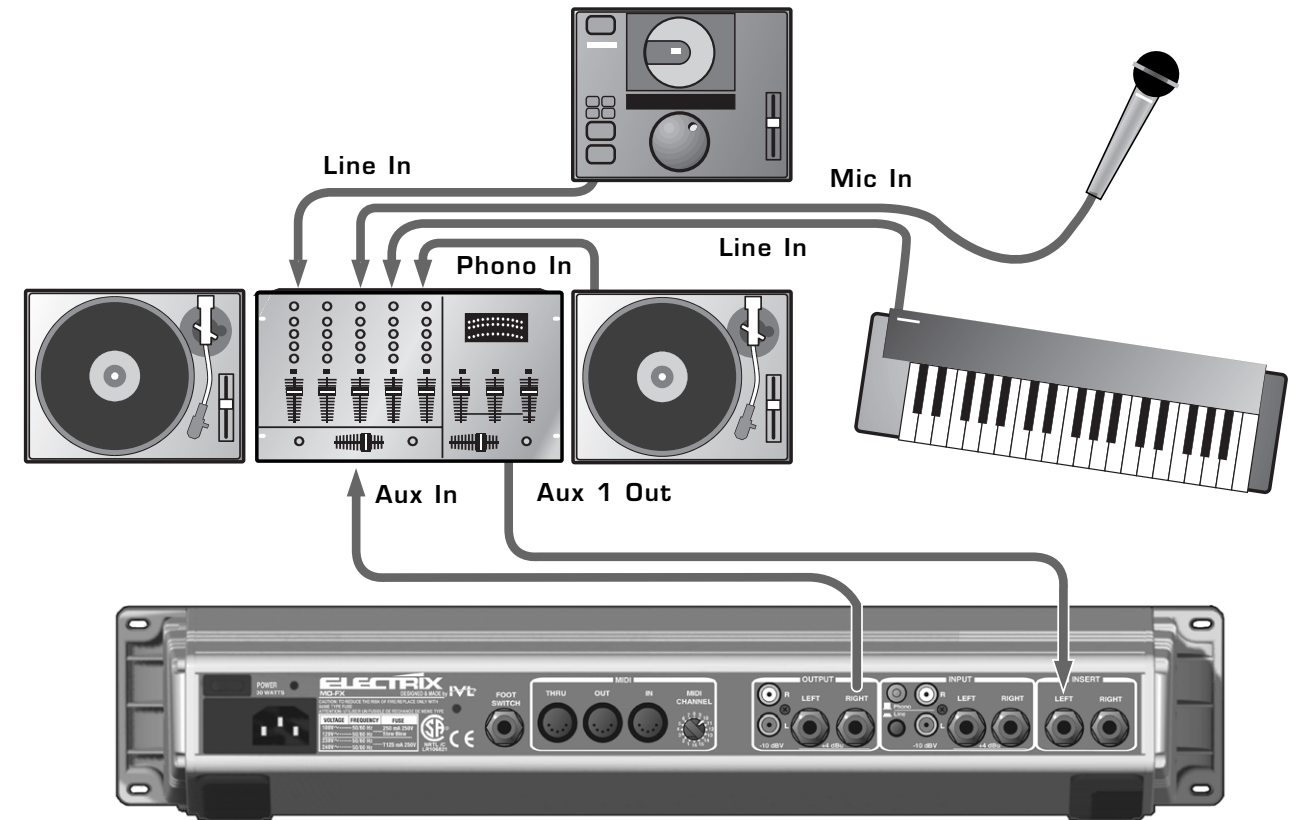
3.1 SET UP 1: PRE-MIXER

In this setup the sound source is connected directly to the inputs of the MO-FX. The output is then fed to the mixer. The advantage of this setup in a live situation is that the MO-FX effect can be auditioned (cued) while other sources are playing. A disadvantage of this setup is that only one sound source can be routed through MO-FX.
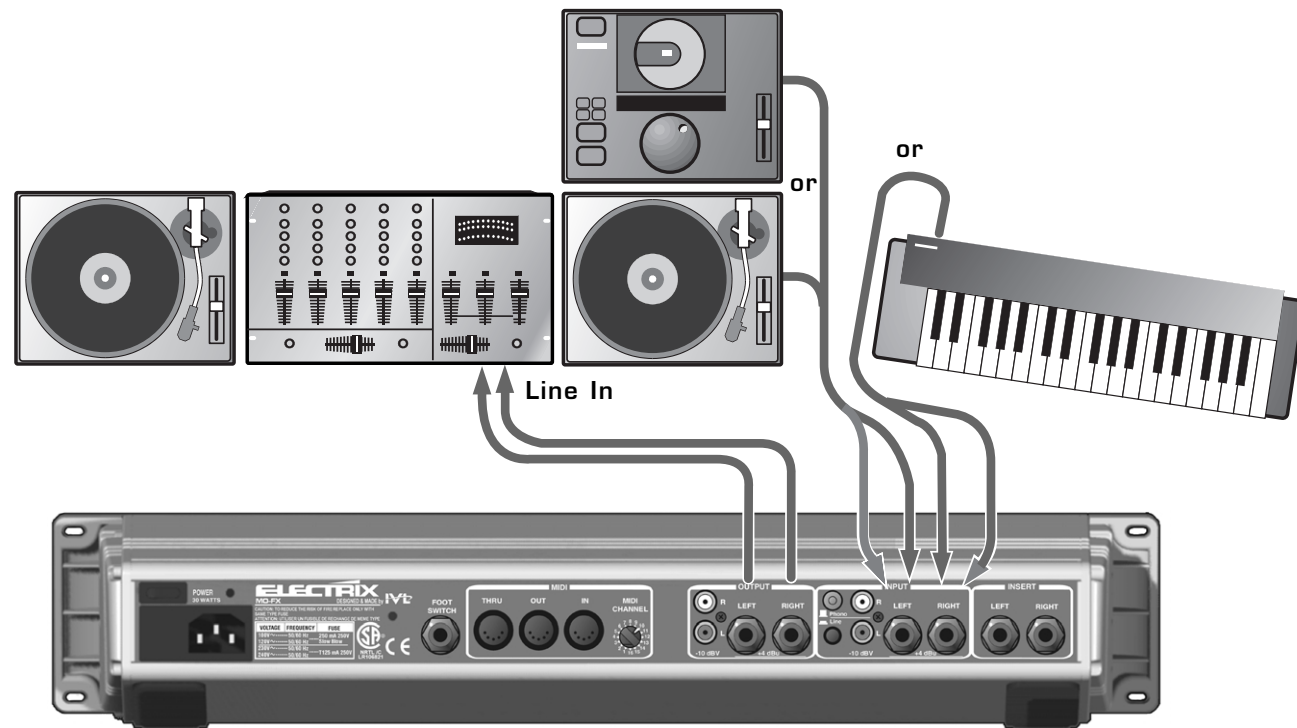
3.1 SETUP 2: MIXER WITH AUX SENDS

This setup requires a mixer that features auxiliary (aux) send and return capabilities. All sound sources are connected directly to the mixer inputs and MO-FX is fed its signal from the mixer's aux send. The main advantage of this setup is that it allows any or all of the sound sources to be processed through MO-FX at any time. You also have the ability to audition the effect if you connect the output of MO-FX to one of the mixer's line inputs instead of the aux return. This way, effects can be auditioned (cued) through the mixer while other sources are playing.

3.1 SET UP 3: POST MIXER

3.2 ARTIST APPLICATIONS

This is a simple setup for stereo processing of your entire mix. You'll want to use this setup only after you have explored all the sonic possibilities of MO-FX because cueing is not possible. The cueing limitation can be minimized by bringing in the effect gradually with MO-FX's mix controls and doing any adjustments from that point on. The 1/4" output has a servo driver circuit that, when used with 3 conductor balanced cables, is capable of driving longer cables to your power amp.

Line In

Phono In

Line Out

to Crossover / Power Amp
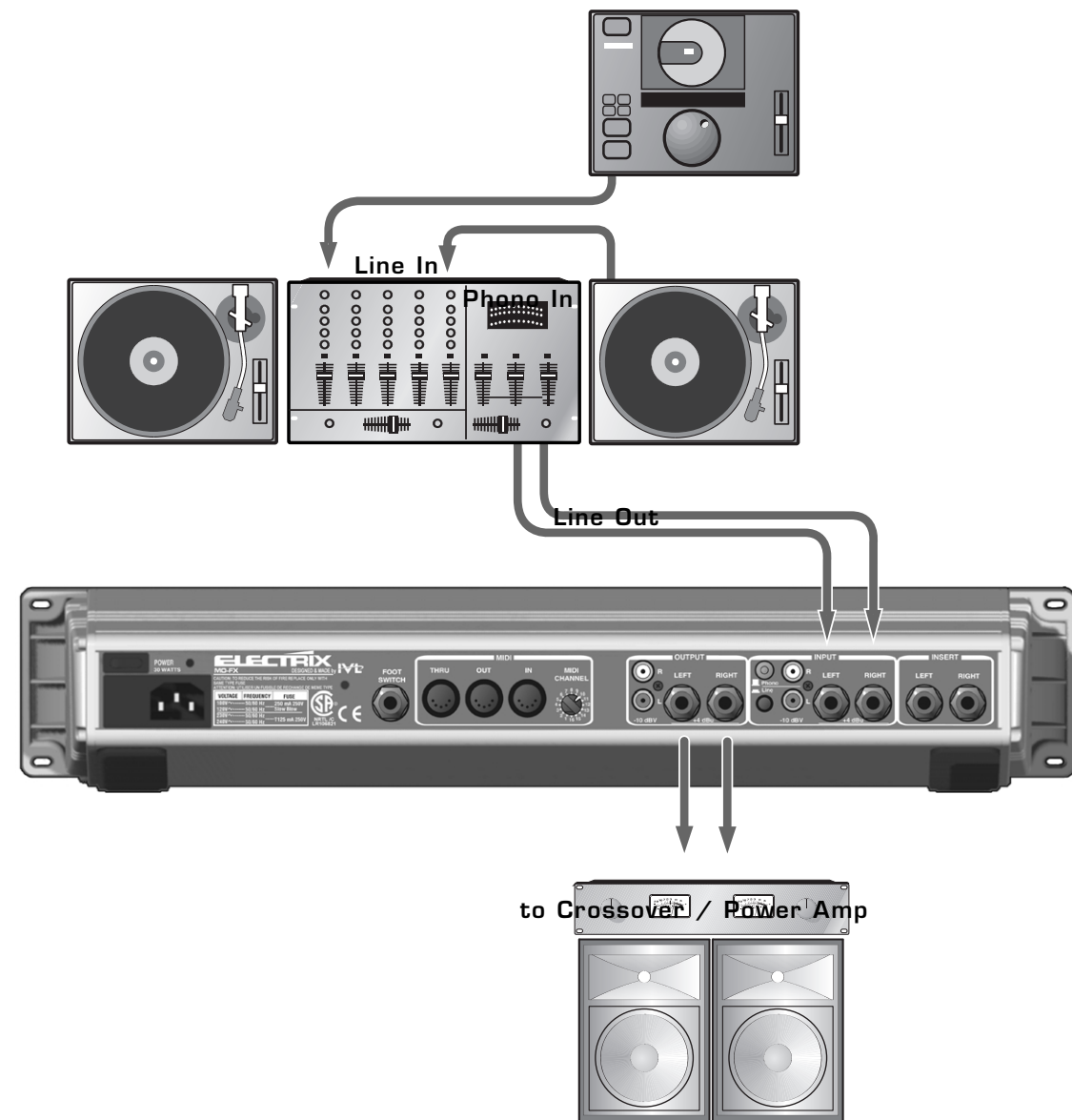
▸ Kick Shifting (Delay Based):

This setting will allow you to move the bass or kick around in time, radically changing the feel of the track without affecting the driving nature of the kick. We will also be engaging the Tremolo block, but you will only be using the Delay section to control the bass shift. This setting depends on Tap Tempo to keep the Bass synchronized to the music so don't forget to tap in your tempo.

- Distortion Engage: Off

- Flange Engage: Off

- Tremolo Engage: On
- Tremolo Mix: 0%
- Tremolo Speed: 0
- Tremolo Sync: Off
- Tremolo Waveform: Sine
- Tremolo Band: High / Mid

- Delay Engage: On
- Delay Sync: On
- Delay Mix: 100%
- Delay Regen: 0
- Delay Speed: Start at 1:1, but mess with it to shift the bottom end around.
- Delay Band: Low
- Delay Ping Pong: Push for double time !
- Dry: Auto

▸ Wave Rider (Tremolo Based):

Use the tremolo to smoothly bring the top end, (things like high hats and shakers), in and out of the track to the tempo of the music. By using this effect you can change up the feel of the track all night long.

- Distortion Engage: Off

- Flange Engage: On
- Flange Mix: 0%
- Flange Speed: 0
- Flange Depth :0
- Flange Regen: 0
- Flange Band: Low / Mid

- Tremolo Engage: On
- Tremolo Mix: 100%
- Tremolo Speed: 1:4
- Tremolo Sync: On
- Tremolo Waveform: Sine
- Tremolo Band: High

- Delay Engage: Off

- Dry: Auto

▸ Manual Flange:

Here's a great way to get great manual flanger effects. Engage the flanger with the Depth at 0% the Speed at Zero and Regen at 40%. Now adjust the regen to taste, and use the depth control to manually sweep the flanger.

- Distortion Engage: Off
- Flange Engage: On
- Flange Mix: 70%
- Flange Speed: 0
- Flange Depth : 0 turn this knob to manually control the flanger
- Flange Regen: 40 % -adjust to taste
- Flange Band: All

- Tremolo Engage: Off
- Delay Engage: Off
- Dry: Auto

▸ Kill Box:

Here's a quick way to turn your MO-FX into a digital Kill Box. Use the momentaries to effectively eliminate their respective band. You may need to bring up the levels on your mixer to compensate for the slight level drop you will experience with this setup.

- Distortion Engage: Off

- Flange Engage: On
- Flange Mix: 0%
- Flange Speed: 0
- Flange Depth :0
- Flange Regen: 0
- Flange Band: Low

- Tremolo Engage: On
- Tremolo Mix: 0%
- Tremolo Speed: 0
- Tremolo Sync: Off
- Tremolo Waveform: Sine
- Tremolo Band: Mid

- Delay Engage: On
- Delay Mix: 0%
- Delay Regen: 0
- Delay Speed: 0
- Delay Sync: Off
- Delay Band: High

- Dry: Off

Electrix products are performance products. We have designed them to accurately transmit and receive your performance through MIDI. That means every knob and every switch can be automated. All you need to do is connect your MO-FX to a sequencer. MO-FX has MIDI Control Change messages assigned to all of it's functions. That means your performance will show up in your sequencer as MIDI CC's (Control Change Messages).

Note that a press and hold of the bypass button will dump the present state of the controls. MIDI CC #55 will request a dump of state.

▸ **Setting the MIDI Channel:** On the back of your MO-FX is a small rotary switch labeled MIDI channel. Use it to set the Transmit / Receive channel of your MO-FX.

4.2 MIDI CLOCK

The MO-FX can receive MIDI clock messages. It will re-sync it's Tap Tempo to the incoming MIDI clock for you automatically when it receives a MIDI clock start message. This could be a great convenience for you if have a Drum Machine or Groovebox to sync to. Just set up your MIDI clock source to transmit MIDI clock, connect up a MIDI cable from the source's MIDI OUT to the MO-FX's MIDI in and press start on your MIDI clock source.

▸ **Notes:**

▸ You can take over from MIDI clock at anytime just by tapping in a new tempo. To re-sync MO-FX to MIDI clock, press and hold the Tap Tempo Button for 600ms.

▸ Some devices do not transmit MIDI clock start messages. It may be necessary to manually tell MO-FX to respond to the incoming MIDI clock.

▸ To sync MO-FX to incoming MIDI clock, press and hold the Tap Tempo Button for 600ms.

▸ MIDI clock does not always indicate the down beat. Hit MO-FX's Tap Tempo button, while receiving MIDI clock to re-sync MO-FX to the down beat.

Function		Transmitted	Recognized	Remarks
Basic Channel	Selectable	1-16	1-16	
Mode	Default	X	Mode 3	
	Messages	X	X	
Note Number		X	X	
Velocity	Note ON	X	X	
	Note Off	X	X	
After Touch		X	X	
Pitch Bender		0	0	Flange depth
Control Change	24	O	O	Distortion to FX, 0-63 (off), 64-127 (on)
	25	O	O	Distortion engage, 0-63 (off), 64-127 (on)
	26	O	O	Distortion level, 0-127
	27	O	O	Distortion "drive", 0-127
	29	O	O	Flange engage, 0-63 (off), 64-127 (on)
	30	O	O	Flange level, 0-127
	32	O	O	Flange speed, 0-127, note 1
	33	O	O	Flange Feedback, 0-127
	34	O	O	Flange band assign, note 2
	35	O	O	Flange band Synchro, 0-63 (off), 64-127 (on)
	37	O	O	Tremolo engage, 0-63 (off), 64-127 (on)
	38	O	O	Tremolo level, 0-127
	39	O	O	Tremolo depth, 0-127
	40	O	O	Tremolo speed, 0-127 note 3
	41	O	O	Tremolo Auto-pan 0-63 (off), 64-127 (on)
	42	O	O	Tremolo band assign, note 2
	43	O	O	Tremolo syncro, 0-63 (off), 64-127 (on)
	45	O	O	Delay engage, 0-63 (off), 64-127 (on)
	46	O	O	Delay level, 0-127
	47	O	O	Delay feedback, 0-127
	48	O	O	Delay time, 0-127 note 4
	49	O	O	Delay ping-pong, 0-63 (off), 64-127 (on)
	50	O	O	Delay band assign, note 2
	51	O	O	Delay syncro, 0-63 (off), 64-127 (on)
	52	O	O	Tap Tempo Mode, note 5
	53	O	O	Dry, 0=Thru, 1=Kill, 2=Auto
	54	O	O	Bypass, 0-63 (off), 64-127 (on)
	55	O	O	Dump Front Panel Request
	67	O	O	Tap Tempo, 127 Trigger
Program Change		X	X	
System Exclusive		O	O	
System Common	Song Position	X	X	
	Song Select	X	X	
	Tune Request	X	X	
System Real Time	Clock	X	O	
	Commands	X	X	
Aux Messages	Local On/Off	X	X	
	All notes Off	X	X	
	Active Sensing	X	X	
	System Reset	X	X	

Notes:

1. When flange syncro is "on" the values represent division settings: 0-17=8:1, 18- 35=4:1, 36-53=2:1, 54-71=1:1, 72-89=1:2, 90-107=1:4, 108-127=1:8

2. 0=all, 1=High, 2=Mid, 3=Low, 4= High+Low 5=Mid+Low, 6=Mid+High

3. When auto-pan/tremolo syncro is "on" the values represent division settings: 0-17=8:1, 18-35=4:1, 36-53=2:1, 54-71=1:1, 72-89=1:2, 90-107=1:4, 108-127=1:8

4. When Delay syncro is "on" the values represent division settings: 0-17=1:8, 18-35=1:4, 36-53=1:2, 54-71=1:1, 72-89=1.5:1, 89-107=2:1, 108-127=4:1

5. 0=Tap Tempo 1= MIDI Clock 2= automatically switches to MIDI clock upon receiving MIDI Clock Start message (FO)

Mode 1: OMNI ON, POLY   Mode 2: OMNI ON, MONO   0: YES
Mode 3: OMNI OFF POLY   Mode 4: OMNI OFF MONO   X: NO

INPUT	SOURCE	SOURCE	SOURCE
Connectors:	1/4" TRS	RCA(phono) (balanced)	RCA(line)
Max Input Level:	+16.0 dBu	-24.5 dBV	+16.0dBu
Impedance:	66KΩ	48.5KΩ	66KΩ

OUTPUT	EFFECT OUTPUT	
OUTPUTS		
Connectors:	1/4"TRS bal	RCA
Impedance:	450Ω	1K0Ω
Max Output Level:	+16.0 dBu	+16.0 dBu

PERFORMANCE	1/4"	PHONO	RCA
Dynamic Range:	>90db	>78db	<85db
THD:	<0.04%	<0.05%	<0.05%
Frequency Response:	10Hz-14.3kHz	10Hz-14.3kHz	10Hz-14.3kHz
A to D Conversion:	18bit/44.100 kHz Sampling rate		
D to A Conversion:	18bit/44.100 kHz Sampling rate		

POWER CONSUMPTION	VOLTAGE	FREQUENCY	FUSE
30 watts	100 V	50/60 Hz	250mA 250V Slow blow
	120 V	50/60 Hz	
	230 V	50/60 Hz	125mA 250V "T"
	240 V	50/60 Hz	

Actual measurements are subject to change

This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to part 15 of the FCC rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment on and off, the user is encouraged to try to correct the interference by one or more of the following measures:

• Reorient or relocate the receiving antenna.

• Increase the separation between the equipment and the receiver.

• Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

• Consult the dealer or an experienced radio TV technician for help.

The user may find the following booklet, prepared by the Federal Communications Commission, helpful: *"How to identify and Resolve Radio/TV interference Problems."*

This booklet is available from the US Government Printing Office, Washington, DC 20402, Stock No. 004-000-0034-4.

▶ *Caution:*

You are cautioned that any change or modifications not expressly approved in this manual could void your warranty.

▶ *For the customers in Canada:*

This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil Numerique de la Classe A respecte toutes les exigences du Reglement sur le materiel brouilleur du Canada.

▶ *Certificate of Conformity*

Electrix, (a div. of IVL Technologies Ltd.) hereby declares on their own responsibility that the following product:

Electrix MO-FX

that is covered by this certificate and marked CE-label conforms with the following standards:

• EN 60065   Safety requirements for mains operated Electronic and related apparatus for household and similar general use
• EN 55103-1   Product family standard for audio, video, audio-visual and entertainment lighting control apparatus for professional use.
        Part 1: Emission
• EN 55103-2   Product family standard for audio, video, audio-visual and entertainment lighting control apparatus for professional use.
        Part 1: Immunity

With reference to regulations in following directives:
    72/23/EEC, 89/336/EEC as amended by directive 93/68/EEC

Issued in Victoria, May 30, 1999 by Brian Gibson, Executive Vice-President, Research and Development