

*Master Sounds*

FX  
Operation Manual



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# 1: Important safety instructions - Read first

**READ THE INSTRUCTIONS** - Read and retain these instructions for future reference. Adhere to all warnings printed here and on the console and its power unit.

**COVERS** - Do not remove the power unit cover. Operate the console with its cover correctly fitted. Refer servicing work to authorised personnel only.

**MAINS POWER** - Connect the console power unit to a mains power supply only of the type described in this user guide and marked on the unit. The power source must provide a good ground connection. Do not remove or tamper with the ground connection in the power cord. Use the power cord with a sealed mains plug appropriate for your local mains supply as provided with the console. Route the power cord so that it is not likely to be walked on, stretched or pinched by items placed upon or against it.

**INSTALLATION** - Install the console and its power unit in accordance with the instructions printed in this user guide. Do not connect the output of power amplifiers directly to the console. Use audio connectors and plugs only for their intended purpose.

**VENTILATION** - Ensure adequate ventilation around the console and its power unit. Do not obstruct the ventilation slots or position the unit where the air flow required for ventilation is impeded.

**MOISTURE** - To reduce the risk of fire or electric shock do not expose the equipment to rain or moisture or use it in damp or wet conditions. Do not place containers of liquids on it, which might spill into any openings.

**ENVIRONMENT** - Locate the units away from direct sunlight and any equipment which produces heat, such as power supplies, amplifiers and heaters. Protect from excessive dirt, dust, heat and vibration when operating and storing. Avoid tobacco ash, drinks spillage and smoke, especially that associated with smoke machines. Do not mount the power supply on any surface subject to resonance or vibration.

**HANDLING** - To prevent damage to the controls and cosmetics avoid placing heavy objects on the console surfaces, scratching the surface with sharp objects, or rough handling and vibration. Protect the controls from damage during transit. Use adequate packing if you need to ship the unit.

## 2: Overview

The new MasterSounds FX unit is designed to perfectly integrate with the entire MasterSounds DJ mixer catalogue, maximising the use of both the Aux send system and mix insert feature in a way no other FX unit can. FX offers three products in one box - an analogue emulating FX section with analogue output, an analogue filter unit, and an analogue distortion system. Analogue emulation provides 8 high quality FX, 3 delays, 3 reverbs, a subtle noise effect, and a pitching delay.

The FX are designed to blend into the mix rather than dominate the music, though there is considerable scope for adjustment of various effect parameters (delay regen, filter frequency etc) using the additional controls provided. The interface is pure MasterSounds, with effect selection on a rotary control (though there is a 3-bit binary LED counter), giving the unit a classic feel.

Below the FX section is an analogue filter, offering 3 filter types (high-pass, low-pass and band-pass) along with controls to adjust the cut-off frequency and resonance.

As the Filter section uses the insert function found on MasterSounds mixers, the entire mix is routed through it, expanding the feature set of each mixer. When the Filters are switched off the output from the FX processor is still fed through the low-pass section, providing additional scope for effect manipulation. The high-pass and low-pass filters are each activated by pressing the large illuminated switches and selecting both switches the filter to band-pass. Zero crossing detection circuits help to minimise filter clicks during activation. Finally, the stereo distortion circuit is a sophisticated DC controlled, analogue asymmetric signal clipper, operated by a single rotary control. Additional circuitry monitors the level of the pre and post clipped signal, automatically applying make-up gain when needed, indicated by the side-chain LED. The distortion control adjusts the level from off (fully CCW) to subtle warmth (mid way) to hard clip (fully CW), but because the clipping is asymmetric it retains some warmth and character.

Both Aux In and Insert connections are on ¼" TRS jacks, with the Aux In being fully balanced. Two pairs of high quality balanced Neutrik leads are supplied with the unit, as well as a universal power supply, enabling plug and play use anywhere in the world.

### 3: Front panel controls



**TIME** – Select the FX time signature you wish to achieve by turning the rotary dial.

**FX SELECT** – Rotate the FX select knob from 1-8. Each number represents a different effect. (See FX section on pg 6 for a description of each effect).

Effect No	Effect Type	Time	Parameter	Filter	FX Description
FX1	Stereo Pitched Delay	Delay Time	Feedback	HPF Frequency	Analog style delay with high-pass filter
FX2	Delay Non Pitched	Delay Time	Feedback	HPF Frequency	Mono delay with high-pass filter
FX3	Delay Pitched Echo	Delay Time	Feedback	HPF Frequency	Mono delay with reverb on feedback
FX4	Reverb	Hall Size	LF Level	HF Level	General purpose reverb
FX5	Bass Reverb	Reverb Size	LF Level	HF Level	Reverb with huge low-end response
FX6	Gated Reverb	Reverb Size	Threshold	HF Level	Gated reverb with adjustable gate
FX7	Gated/Delay Noise	Delay Time	Filter Resonance	Filter Frequency	Gated and delayed noise with band-pass filter
FX8	Pitched Repeat	Pitch	Filter Resonance	Filter Frequency	Pitched repeat with HPF and res

FX NO	LIGHT CODE		
1	○	○	○
2	●	○	○
3	○	●	○
4	●	●	○
5	○	○	●
6	●	○	●
7	○	●	●
8	●	●	●

Below the FX Select Knob shows 3 LED indicator lights with the FX number and light code shown in the diagram above.

**PARAMETER** – You can select the amount of feedback/LF level, filter resonance or threshold each effect has by turning the knob from MIN (no feedback) to MAX, where the effect will have greater sustain in the mix.

**FILTER** – The filter knob enables high pass filtering on each effect, from LOW to HIGH. **WARNING!** When set to LOW effects can be very powerful. Experiment with FX frequency in the mix by tweaking the filter knob on the fly.

**RESONANCE** – This knob adds resonance to the filter frequency knob. When the knob is set to MIN and the filter frequency knob is turned clockwise the filter will sound very natural. Turning the knob clockwise will add resonance to the sound giving a more dramatic filter sweep in both HPF & LPF modes.

**DISTORTION** – The distortion knob adds distortion to the signal when turned clockwise from MIN to MAX, and is linked to the filter, so will not work if one of the filter buttons isn't selected. **WARNING!** The **DISTORTION** knob is very powerful if set above MIN while the **RESONANCE** is set around MAX. Take time to learn this feature.

**SIDE CHAIN** – When the DISTORTION knob is turned clockwise you will see the SIDE CHAIN flash with a red LED (you will still be able to hear the distortion circuit when the side chain doesn't flash, and may need to add more input trim to the signal to enable side chain). This indicates that the circuit is being driven (see the overview section of the manual for a description on how the circuit works).

**FILTER FREQUENCY** – This is the main control knob of the FX unit and lets you control the amount of filtration sent to the EFFECTS section and FILTER section.

Use the filter frequency knob to adjust the HPF, LPF & BPF (see below) when each filter is activated, from 20Hz to 20kHz. Have fun tweaking the frequency whilst adjusting the RESONANCE & DISTORTION knobs to create intricate filtered effects.

**HPF ON** – Switch the HPF (high pass filter) on and off by pressing the HPF button which illuminates the red LED.

**LPF ON** – Switch the LPF (low pass filter) on and off by pressing the HPF button which illuminates the red LED.

**BPF** – Switching both HPF & LPF on at the same time activates the BPF (band pass filter).

The filter frequency knob is linked to the EFFECTS section, and by turning the knob from 20Hz to 20kHz you adjust the amount of selected effect that's sent to the main mix. There are 2 ways to use the FILTER FREQUENCY knob. You can set up the AUX send knob on your MasterSounds DJ mixer to the desired level, then use the FILTER FREQUENCY knob to add the desired effect into the mix. At 20, no effected sound will be heard, and by turning the knob clockwise the effect will be added to the mix.

You can also adjust the FILTER FREQUENCY knob prior to opening the AUX knob on your MasterSounds DJ mixer. For instance, if you want to create a delay in the mix simply select the delay you wish on the FX SELECT knob, then set the FILTER FREQUENCY knob to the desired frequency and turn the AUX knob to hear the effect in the mix.

You can turn on the HPF, LPF or BPF when adding effects to the mix. This creates a filter over the desired effect. Turn the FILTER FREQUENCY knob clockwise to hear the effect, then press the desired filter. Experiment with the RESONANCE & DISTORTION controls to create stunning filtered FX. You can also experiment with the PRE button on your MasterSounds mixer. The PRE button switches the Aux send feed from Post Fader to Pre Fader (i.e. set to Pre Fader it will still send to the Aux Mix Buss with the rotary fader down). Try experimenting with this feature to create some great pre fader effects.

## 4: Rear panel controls



Each MasterSounds FX is supplied with four quality TRS jack leads. These are for connecting to your MasterSounds DJ mixer, and back into the FX.

**To set up your FX unit** simply follow the instructions below:

Insert two of the supplied TRS jack leads to the AUX OUT on the rear of your MasterSounds DJ mixer: L for the left channel and R for the right channel. Then connect the leads to the corresponding L & R on the AUX RETURN of the FX unit.

Once you have connected the AUX RETURN, insert two of the supplied TRS jack leads to the AUX RETURN/INSERT on the rear of your MasterSounds DJ mixer, once again L for the left channel and R for the right channel. Then connect the leads to the corresponding L & R on the INSERT of the FX unit.

Press the **INSERT ON** button on the rear of your MasterSounds DJ mixer, Plug in the FX unit's supplied power supply and attach to the mains. The FX unit doesn't have an on/off switch.

## 5: Warranty

MasterSounds warrants that the Mixer shall be free of defects in workmanship and materials for a period of twelve months from the date of purchase. In the event that the product fails to operate as intended, MasterSounds will repair or replace the product subject to the following conditions.

1. That the failure was not due to improper installation, operation, cleaning or maintenance, accident, damage, misuse, abuse, or non-approved modifications to the Mixer.
2. The warranty does not cover normal wear and tear or any other event, act, default or omission outside MasterSounds control.
3. Faulty products must be returned to MasterSounds or an authorised service agent along with the original invoice or proof of purchase, and the mixer must be returned packed in the original shipping box. Please contact MasterSounds before shipping a faulty unit.
4. The warranty applies only to the original purchaser and is not transferrable.
5. At their sole discretion, MasterSounds may either repair the defective product or replace with an equivalent service exchange item.
6. This warranty constitutes the purchaser's sole remedy. MasterSounds shall not be liable for any other repair or replacement cost or any damage or loss directly or indirectly related to the malfunction of this mixer.



MasterSounds FX complies with the European Electromagnetic Compatibility directives 2014/30/EU and the European Low Voltage directives 2014/35/EU.

## 6: Technical specification

Dimensions	80W x 190D x 80H
Weight	0.8KG
Packed Dimensions	290W X 220D 180H
Packed weight	1.8KG

### Power Requirement

External Power Supply	Universal 90V – 265V AC 50/60Hz 12V 5W MAX
DC Internal Power Rails	+/- 18V DC

### Audio Performance

Noise	<-95dBu 20Hz to 20kHz un-weighted
Distortion THD+N	0.003% Insert IN to Insert OUT 0dBu
Maximum Signal Level	±21dBu
Frequency Response	10Hz – 50kHz +0/-1dB
Filter Range	20Hz to 20kHz

MasterSounds reserves the right to change the specification without notice.



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 UNION AUDIO

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