

Parallelizer

Stereo Line Mixer

OWNER'S MANUAL

Version 1.0x

Musicom  **AB**
Preserving Your Tone, Pure and Dynamic

1. Introduction

Thank you for purchasing the Musicom Lab Parallelizer.

Parallelizer is a parallel effect loop system that has 3 Mono SENDs and can mix 3 Stereo RETURNS and dry signal. You can preserve your dry signal by using the Parallelizer, which can result in loss of dry signal when using the digital effect pedals or when connecting the effect pedals in series.

The audio signal flow of the Parallelizer is all designed as an analog circuit. Also, components used for internal buffers, mixer circuits, etc. are high quality.

It has the MIDI IN function, which allows you to control the on/off function of the dry and each wet signal via external MIDI pedal.

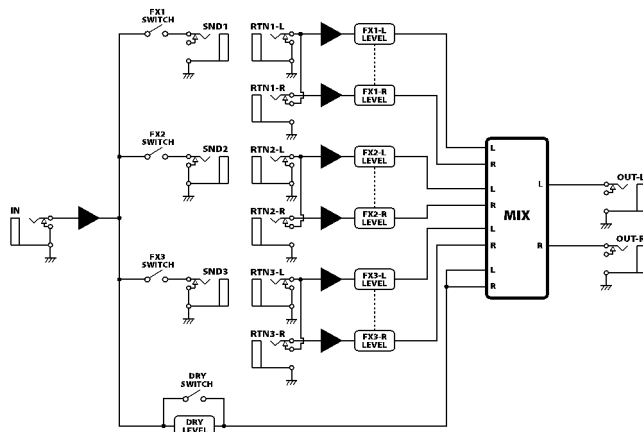
1.1 Main Features

- 3 x Mono SENDs, 3 x Stereo RETURNS and Dry.
- Adjust the effect level and dry level through each Knob.
- Operates in 4 modes (Manual, MIDI PC, MIDI CC, MIDI PC+CC)
- 128 memory locations (when using MIDI PC)
- The 9V power input is converted to a +/-12V internally for any level audio signal.
- Firmware update is available via MIDI.

1.2 Specification

Input/Return Impedance	.....	1 MΩ
Output/Send Impedance	.....	100 Ω
Maximum Audio Signal Level	.....	+18 dBu
Current Draw	.....	130 mA (DC9V)
Dimensions	.....	160 x 96 x 71 mm 6.3 x 3.8 x 2.8 inches
Weight	.....	570 g / 1.26 lb

1.3 Block Diagram



1.4 Front Panel

FX1 ~ FX3 Switches

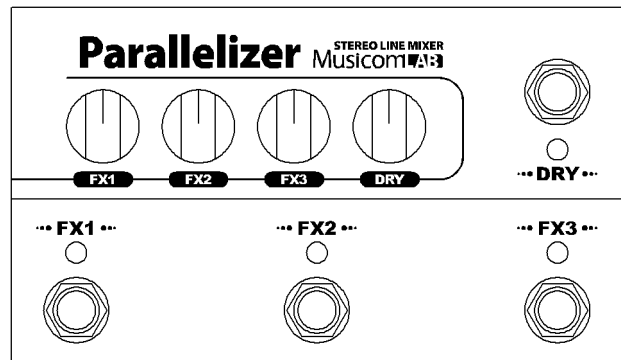
Turns on/off SND1 ~ SND3. When the LEDs above the switches are on, audio signal is output to that SND jack.

DRY Switch

Switches between 100% dry signal or value set on the DRY knob.

FX1 ~ FX3 Knobs

Controls the volume of wet signal from RTN-L and RTN-R jacks. Unity gain will be achieved with these knobs fully clockwise. On the other hand, rotating these knobs fully counterclockwise will mute the RTN signal.



DRY Knob

Controls the volume of dry signal. Unity gain will be achieved with this knob fully clockwise. On the other hand, Rotating these knobs fully counterclockwise will mute the dry signal.

When the LED below the DRY switch is on, the dry signal will be mixed as much as value set on the dry knob. On the other hand, when the LED below the DRY switch is off, the dry signal will be mixed 100%, regardless of the set value of the DRY knob.

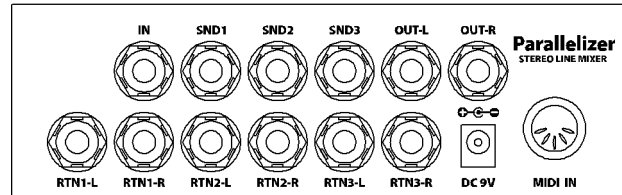
1.5 Rear Panel

IN Jack

This jack accepts input signals (coming from guitar, some other musical instrument, or another effect unit).

SND1 ~ SND3 Jacks

These jacks connect to effect pedal input. Each effect pedal is fed with SND signal when the FX switch is turned on.



RTN1-L/R ro RTN3-L/R Jacks

These jacks connect to the left and right outputs of effect pedals.

Note : Use only left RTN jack for mono signal (RTN1-L, RTN2-L, RTN3-L).

OUT-L/R Jacks

These output jacks are used to connect this unit to amplifier or other devices.

MIDI IN Connector

MIDI IN connector receives MIDI messages from an external MIDI device.

DC9V Power Connector

This is the main power input for the Parallelizer. The Parallelizer requires a **DC9V** supply. The current draw is approximately **130mA** at **DC9V (Center Negative)**.

Note : Do not supply power higher or lower than DC9V. Internal electronic components may be damaged.

2. Operation Mode

The Parallelizer operates in 4 different modes.

Refer to page 4 '**Set Operation Mode**' for changing the Operation mode.

2.1. Manual mode

In this mode, MIDI IN is deactivated and each function is controlled only by the foot-switches.

The last combination of switches before power off is automatically recalled when power up.

2.2 MIDI Program Change mode

There are 128 Program Change numbers and each one corresponds to a memory within the Parallelizer. The Parallelizer can store different on/off combinations for each Program Change. When the Parallelizer receives a MIDI Program Change on the same MIDI channel as the Parallelizer, the Parallelizer automatically recalls the stored on/off combinations.

To edit and save a on/off combination in the Parallelizer's memory,

1. Send a MIDI Program Change on the same MIDI channel as the Parallelizer.
2. Set the Parallelizer switches to the desired combination.
3. Press and hold the DRY switch to save this combination into the memory.
The LEDs will turn on and off sequentially.

Note : If the LEDs don't turn on and off sequentially when attempting to save, the MIDI channel may not match or MIDI connection may not be good.

2.3 MIDI Control Change mode

The Parallelizer can be controlled via MIDI Control Changes. Each MIDI Control Change includes a controller number which specifies the Parallelizer which to turn on or off.

The Parallelizer can select from four different groups of Control Change numbers.

Refer to page 5 ‘Set Group of Control Change Numbers’.

2.4 MIDI Program Change + Control Change mode

In this mode, the Parallelizer can be controlled via both MIDI Program Change and Control Change.

In other words, on/off combinations can be recalled via the MIDI Program Change and each switch can be switched on/off via the MIDI Control Change.

3. Set Operation Mode

1. Apply power while holding down FX1 and FX2 switches. The FX1 and FX2 LEDs will flash.
At this moment, the two switches can be released.
2. The four LEDs display the current operation mode.
3. Press Switches FX1, FX2, FX3 and Dry according to this table.

OPERATION MODE	FX1 LED	FX2 LED	FX3 LED	DRY LED
Manual mode	ON	OFF	OFF	OFF
Program Change mode	OFF	ON	OFF	OFF
Control Change mode	OFF	OFF	ON	OFF
Program Change + Control Change mode (Factory Default)	OFF	OFF	OFF	ON

4. Press and hold the DRY switch to save new Operation mode into the memory.
The Parallelizer will restart automatically.

4. Set MIDI Channel

1. Apply power while holding down FX2 and FX3 switches. The FX2 and FX3 LEDs will flash.
At this moment, the two switches can be released.
2. The four LEDs display the current MIDI channel.
3. Press Switches FX1, FX2, FX3 and Dry according to this table.

MIDI Channel	FX1 LED	FX2 LED	FX3 LED	DRY LED
1 (Factory Default)	OFF	OFF	OFF	OFF
2	OFF	OFF	OFF	ON
3	OFF	OFF	ON	OFF
4	OFF	OFF	ON	ON
5	OFF	ON	OFF	OFF
6	OFF	ON	OFF	ON
7	OFF	ON	ON	OFF
8	OFF	ON	ON	ON
9	ON	OFF	OFF	OFF
10	ON	OFF	OFF	ON
11	ON	OFF	ON	OFF
12	ON	OFF	ON	ON
13	ON	ON	OFF	OFF
14	ON	ON	OFF	ON
15	ON	ON	ON	OFF
16	ON	ON	ON	ON

4. Press and hold the DRY switch to save new MIDI channel into the memory.
The Parallelizer will restart automatically

5. Set Group of Control Change numbers.

1. Apply power while holding down FX1 and FX3 switches. The FX1 and FX3 LEDs will flash.
At this moment, the two switches can be released.
2. The four LEDs display the current group of Control Change numbers.
3. Press Switches FX1, FX2, FX3 and Dry according to this table.

MIDI Control Change Numbers				FX1 LED	FX2 LED	FX3 LED	DRY LED
FX1:88	FX2:89	FX3:90	DRY:91 (Factory Default)	ON	OFF	OFF	OFF
FX1:92	FX2:93	FX3:94	DRY:95	OFF	ON	OFF	OFF
FX1:96	FX2:97	FX3:98	DRY:99	OFF	OFF	ON	OFF
FX1:100	FX2:101	FX3:102	DRY:103	OFF	OFF	OFF	ON

4. Press and hold the DRY switch to save new group of Control Change numbers into the memory.
The Parallelizer will restart automatically.

6. Factory Reset

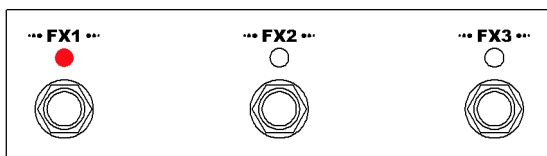
1. Apply power while holding down FX1, FX2 and FX3 switches. The FX1, FX2 and FX3 LEDs will flash and the only DRY LED will be on. At this moment, the three switches can be released.
2. Press the DRY switch to execute Factory Reset.
3. When the Factory Reset is successful, the LEDs will turn on sequentially and the Parallelizer will restart automatically.

7. Power Check Function

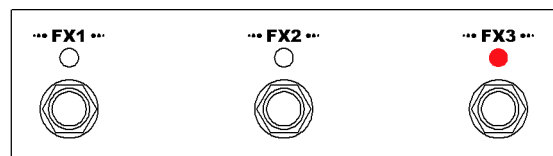
The Parallelizer must be supplied with a 9VDC power source.

For this reason, the Parallelizer has a function to show whether the supplied power is a 9VDC, higher voltage power or lower voltage power.

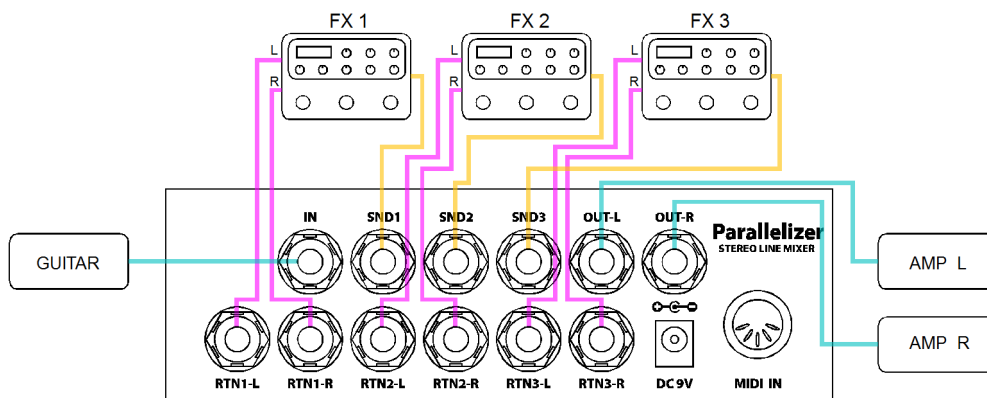
The FX1 LED will flash if the power is under 8.5V.



The FX3 LED will flash if the power is over 10V.



8. Basic Connection



Note : To prevent the volume boost due to overlay of dry signal, set your FXs to 100% wet signal or enable the kill-dry function.

SAFETY PRECAUTIONS



WARNING

- To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.
- Do not cause electrostatic discharge to the device.

CAUTION

- To reduce the risk of fire or electric shock, do not remove screws.
- There are no user serviceable parts inside.
- Refer servicing to qualified service personnel.

WARRANTY

Musicom Lab warrants this product against any defects that are due to defective parts or faulty workmanship for a period of one year from the date of original retail purchase. During this one year period, Musicom Lab will repair it without charge for parts or labor. However shipping charges to and from the repair location must be paid by the owner.

- This warranty applies only to the original owner and is not transferable.
- This warranty does not include damage to the product resulting from accident or misuse.
- This warranty shall not apply to any goods that have been repaired or altered by anyone other than the manufacturer.

Contact the following for support and/or repair service.

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