

# XPRESSION FX

## Two-way Expression Pedal Splitter

### User guide



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## Safety and care

- Remove power from all devices to be connected before connecting or disconnecting
- Dismantling the device may damage the device. There are no user serviceable parts inside the device.
- Only use the provided AC to DC power adapter or other certified adapter. Only use the correct polarity of the provided reversible DC power adapter. Negative centre (tip) is the correct polarity. The power adapter is supplied in the correct configuration. Do not reverse the connection.
- Due to the nature of modulation, some modulated parameters, particularly at the ends of modulation, can cause a loud and/or irritating audio signal. Permanent high volume audio signals can damage hearing and equipment.
- Should the device malfunction, a reboot or restore to default settings, may resolve the problem. Otherwise the manufacturer should be contacted. There are no user serviceable parts inside the device.
- Avoid contact with, and environments, known to cause adverse effects with electronics and small moving parts, such as liquids, dust, sand, high humidity, high temperature and vibrations.
- Avoid excessive force when operating controls and connecting cables
- Disconnect the device during lightning storms and /or times of power outages
- **This device can output 0 – 5 volts on both of its output sockets, and does output 0 -5 volts at all times on its input socket. Damage can be caused to this modulating device if greater than 5 volts is applied to the output expression socket. Damage can be caused to other devices if they are not able to accept 0 -5 volts from either socket. Consideration must be taken when connecting and using it.**

If in doubt contact Oz inventions at [contact@ozinventions.com](mailto:contact@ozinventions.com)

## Warranty

The device is warranted for use in Australia.

If the product is defective as a result of faulty workmanship or materials, Oz Inventions will at their discretion repair or replace the product for a period of 3 months from purchase.

Proof of purchase is required and Oz Inventions at their discretion are required to inspect the product and reserve the right to update or improve the product including hardware and software during the period of inspection and /or repair.

The warranty is void if the product is opened or dismantled in any way

Warranty claims should be directed to [contact@ozinventions.com](mailto:contact@ozinventions.com)

## Power

The device requires a 9 – 12 volt DC power supply with a current capability of 50mA. The DC polarity is negative in the centre (tip).

## Introduction

Xpression fX two-way splitter – TRS, from Oz Inventions, adds features to, and provides universal connectivity, to a simple TRS or RTS expression pedal. It is designed for use with effects units, keyboards and MIDI controllers that have an expression pedal socket, sometimes called a control socket, or foot controller socket.

### Functions

- The device enables an expression pedal to drive two separate effects units, keyboards or MIDI controllers.
- Each output can be turned ON or OFF independently.
- The minimum and maximum depth for each output can be set independently
- The sweep direction for each output can be reversed independently
- The depth can be set to stay at the one position regardless of movement of the connected expression pedal

The device is polarity compatible with most effect units, keyboards and MIDI controllers with expression sockets or with CV sockets.

Manufacturer	Polarity
Arturia®	CV
Behringer®	RTS
Boss®	TRS
Digitech®	RTS
EHX®	TRS
Eleven rack®	TRS
Line 6®	TS
M-Audio®	TRS
Mooger Fooger®	TRS
Pigtronix®	TRS
Strymon®	TRS
TC Electronic®	TRS
TC Helicon®	TRS
Yamaha®	RTS
Zoom®	RTS

Table 1 – Common Polarities

## Reset

Reset the device by applying power whilst holding both switches backwards. Minimum and maximum depth settings will be erased.

## Controls and sockets overview

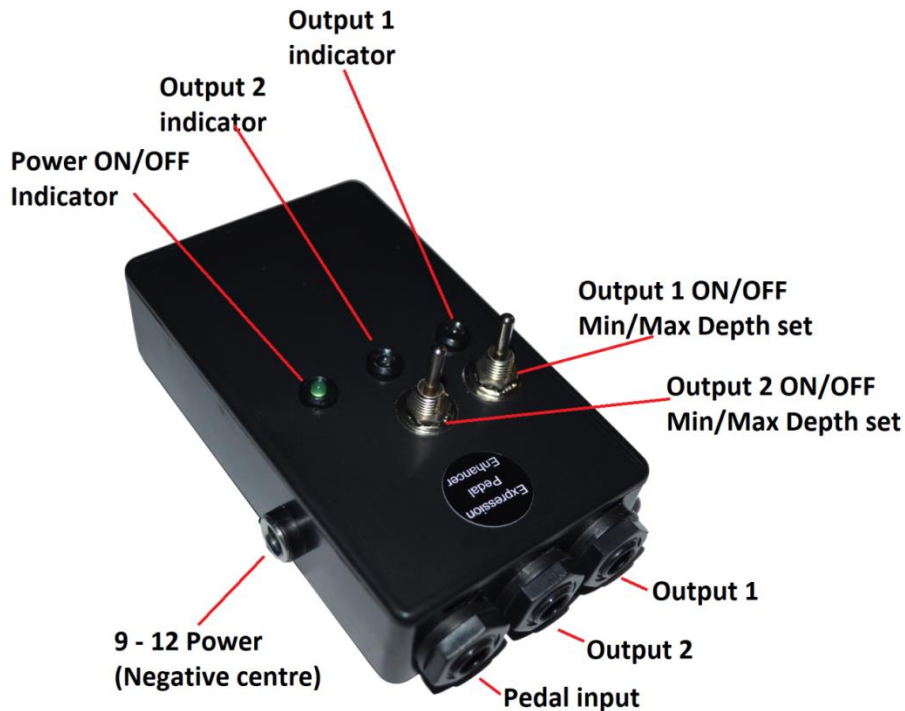


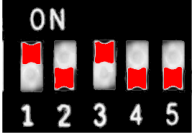
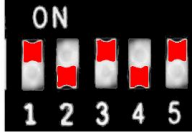

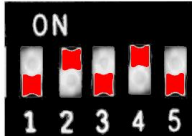


Figure 1 Controls, sockets & power

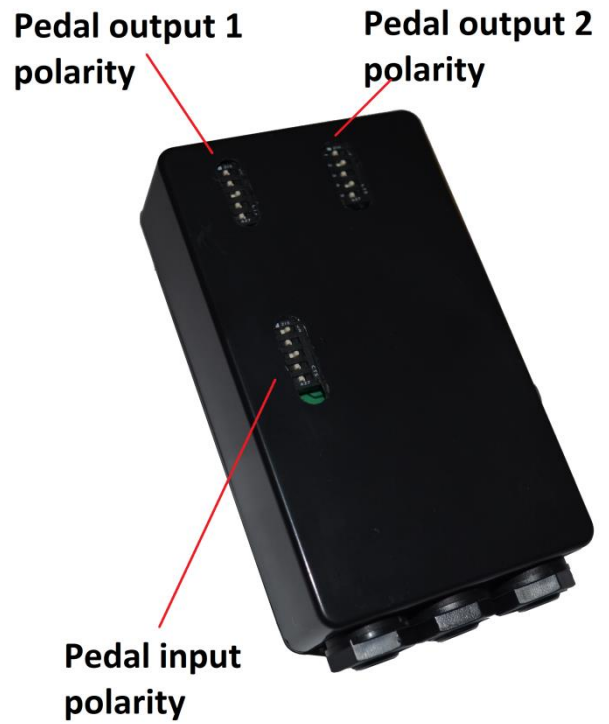
- 9 – 12 volt power – Any certified 9 – 12 volt power supply with a minimum supply current of 50mA and a polarity with negative tip/centre is suitable. Power ON/OFF indicator illuminates when power is applied
- Pedal Input – A TRS or RTS expression pedal with an electrical resistance of 10 – 250kohms is suitable. Selective via dip switches
- Output 1 – 100kohm configurable for TRS, RTS, TS & CV via dip switches (Factory setting is TRS)
- Output 2 – 100kohm configurable for TRS, RTS, TS & CV via dip switches (Factory setting is TRS)
- Output 1 ON/OFF– Output is turned ON & OFF alternatively when momentary switch is pushed away from the sockets.  
Set sweep length - Hold pedal in start position > Hold switch until flashing > move pedal to end position > Release switch > the sweep length is now set.  
Set minimum & maximum depth - Hold pedal at minimum depth required > Connect power > Hold switch & do not release > Move pedal to maximum depth required > Release switch. The minimum & maximum depth is now set.
- Output 2 ON/OFF– Output is turned ON & OFF alternatively when momentary switch is pushed away from the sockets.  
Set sweep length - Hold pedal in start position > Hold switch until flashing > move pedal to end position > Release switch > the sweep length is now set.  
Set minimum & maximum depth - Hold pedal at minimum depth required > Connect power > Hold switch & do not release > Move pedal to maximum depth required > Release switch. The minimum & maximum depth is now set.
- Output 1 indicator – Illuminates when output switch 1 is pushed away from the sockets and indicates that output 1 is active
- Output 2 indicator – Illuminates when output switch 1 is pushed away from that sockets and indicates that output 1 is active

*Note that pushing the switches toward the sockets has no functionality*

## Polarity Configuration

The default polarity configuration is TRS input & TRS output. Reconfigure the dip switches as shown below for different polarities.

Output 1 & Output 2	Input
<p>ON</p>  <p>1 2 3 4 5</p> <p>TRS</p>	<p>ON</p>  <p>1 2 3 4 5</p> <p>TRS</p>
<p>ON</p>  <p>1 2 3 4 5</p> <p>RTS</p>	<p>ON</p>  <p>1 2 3 4 5</p> <p>RTS</p>
<p>ON</p>  <p>1 2 3 4 5</p> <p>CV</p>	
<p>ON</p>  <p>1 2 3 4 5</p> <p>TS</p>	



## Connecting

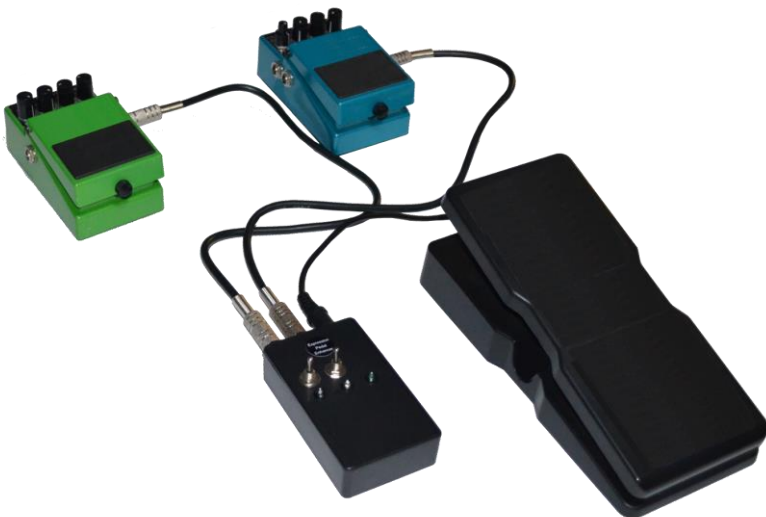


Figure 2 Connecting two effect units



Figure 3 Typical TRS cable

## Trouble shooting

Problem	Resolution
Power LED does not illuminate	Power supply must have polarity with negative to tip
Full modulation cannot be achieved	Effects units, keyboards and MIDI controllers must be able to accept 100Kohm expression pedals.
Operation is erratic	<ul style="list-style-type: none"><li>• Reset the device and/or</li><li>• Ensure input &amp; output polarity settings are correct</li></ul>

## Specifications

- 9 – 12 volt; Negative centre (tip)
- Current draw 20mA
- Electrical output resistance 10Kohm
- Jack type- ¼" (6.35mm) stereo (input & output)
- Output Polarity - TRS, RTS, TS, RS or CV (0 – 4v; 2mA maximum)
- Input Polarity – TRS or RTS
- 127 step sweep resolution
- Linear output sweep
- Dimensions - L 100mm x W 60mm x H 25mm
- Weight – 90 grams