

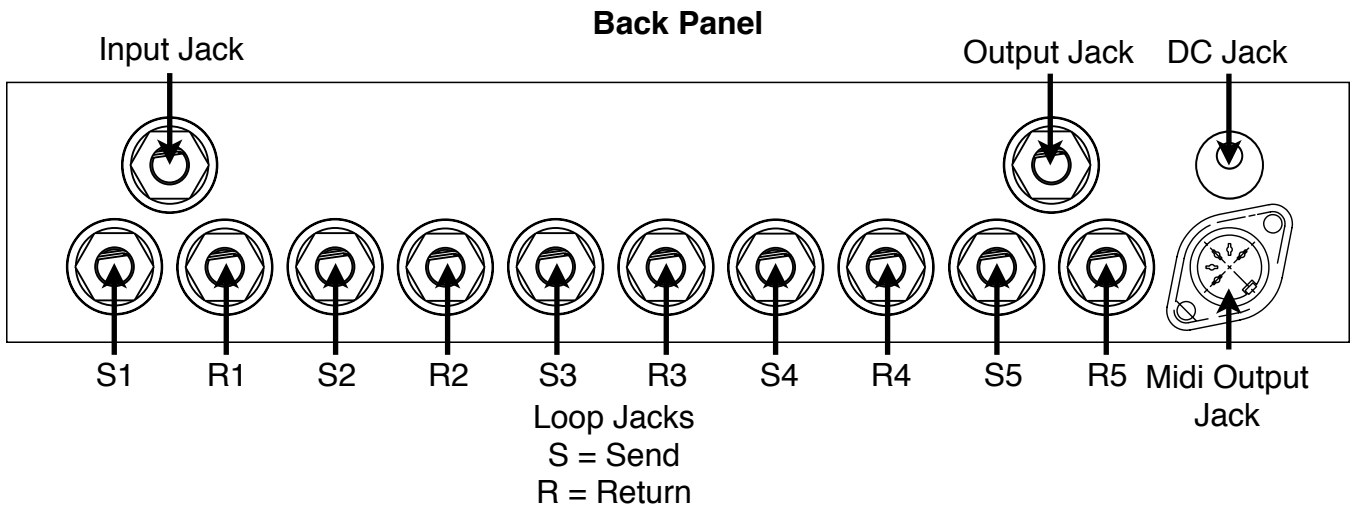
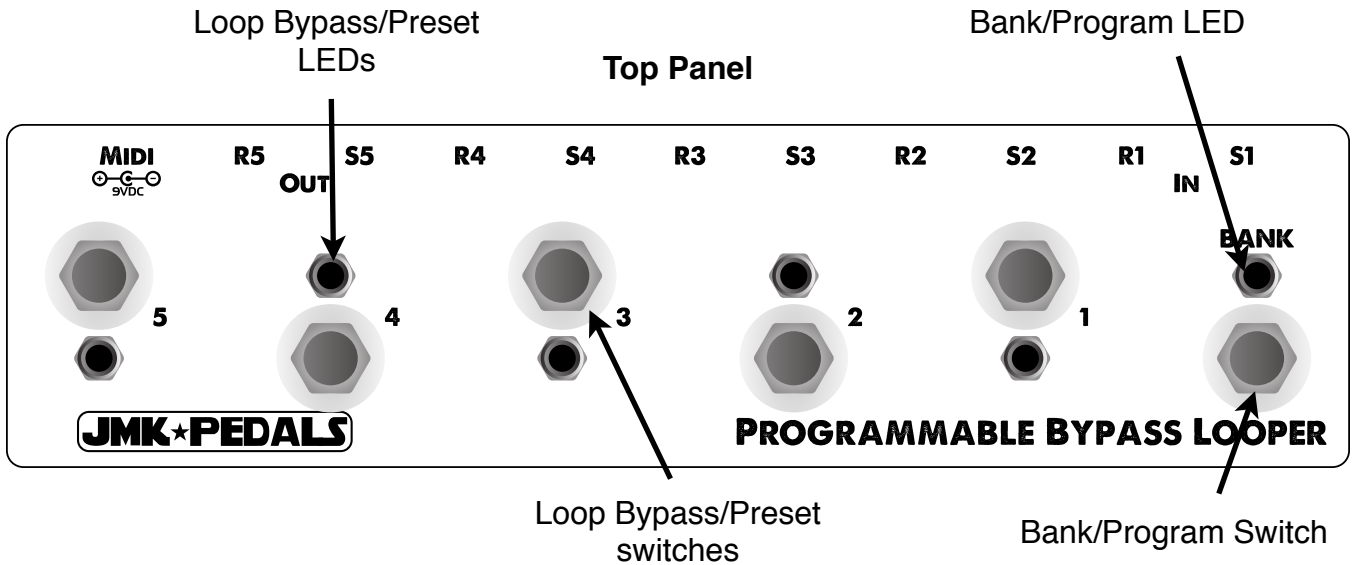
JMK PEDALS PROGRAMMABLE BYPASS LOOPER

USER MANUAL
REV 1.0: 12/30/2013

INTRODUCING THE JMK PROGRAMMABLE BYPASS LOOPER

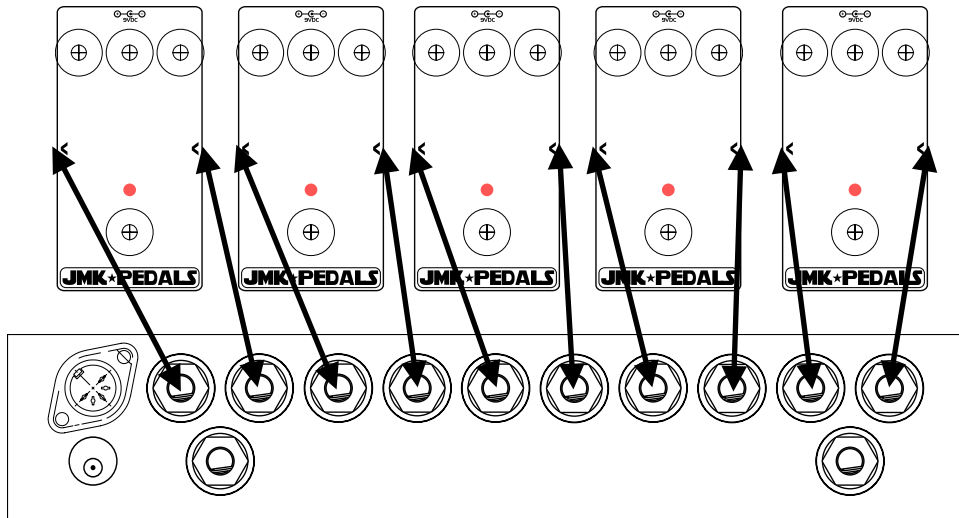
- 5 True Bypass loops for switching either single or multiple effects in and out of a signal chain. These loops feature relay controlled true bypass, which completely removes unused effects from the chain, as well as operating with little or no noise or popping.
- Four banks hold five programmable presets in each bank. These presets are made up of any combination the five true bypass loops in sequential (1-5) order.
- Each Preset gives the ability to allow a user to switch several effects on or off at once without having to do the typical 'tap dancing act' that conventional bypass units still rely on. Each set of combinations is accessed using five loop switches with dual colour LEDs that indicate both which preset and which loops are on or off.
- The '*first*' bank is dedicated to be used in 'manual mode.' Manual mode allows the user to turn each of the five true bypass loops on or off as a typical bypass unit would allow. There are no presets in this mode, which allows a user to simply choose a combination of loops on the fly without needing to program.
- The bank switch cycles through the five banks available (manual mode plus preset banks A through D) and is also used for programming each preset. It is accompanied by an RGB LED indicating which bank is currently active with five different colors.
- The Programmable Bypass Looper is easy to program! You only need to use your feet to program any preset - you can do so while standing and holding your instrument.
- The fifth loop can also be set, using internal jumpers, to be used as a switch for an external device. This feature is designed to be used to switch functions on an amp on or off, or for switching on any device that uses an open/closed latching switch between tip and ground.
- The Programmable Bypass Looper also features a Midi Output option, which allows the user to program a midi controllable unit to work in conjunction with the presets in each of the 4 programmable banks of the Programmable Bypass Looper. In Manual Mode, Midi Output is inactive. Currently, there is no midi input support available.
- For power, the Programmable Bypass Looper runs on standard 9VDC tip negative power supplies. The estimated amperage use of the unit is under 400mA.

PROGRAMMABLE BYPASS LOOPER DIAGRAMS

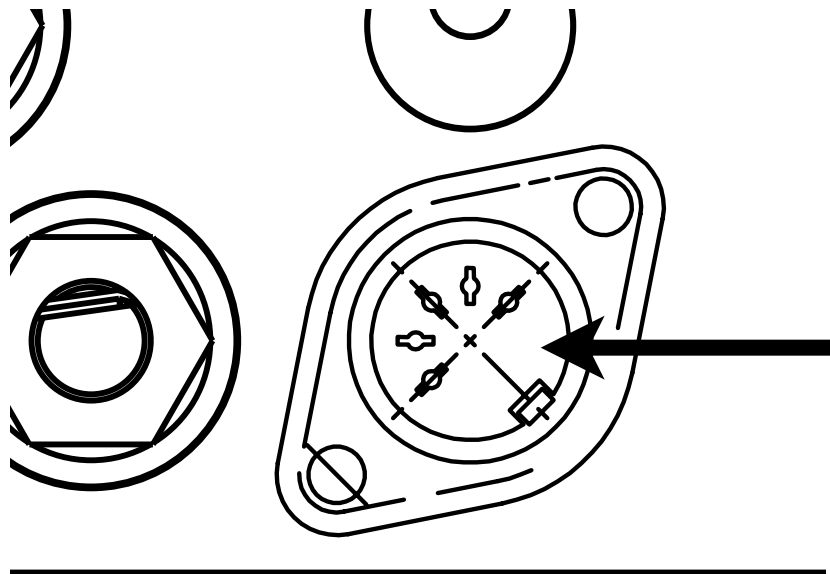


HOW TO SETUP YOUR PROGRAMMABLE BYPASS LOOPER

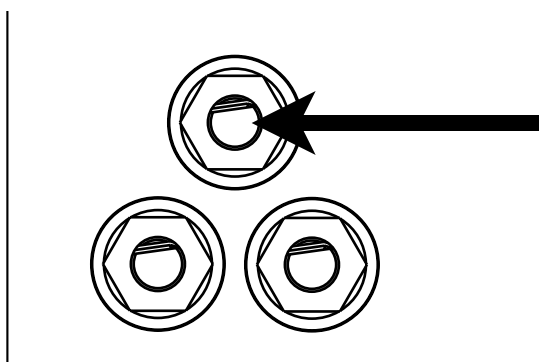
- Step One: Each Loop has a Send and Receive jack. Use a patch cord to connect each Send Jack of each loop to the input of each pedal you want in the loops. Use more patch cords to connect the Receive Jack of each loop to the output of pedal that corresponds. Make sure each Pedal is active. (There is no rule that requires the user to put only one effect in a loop)



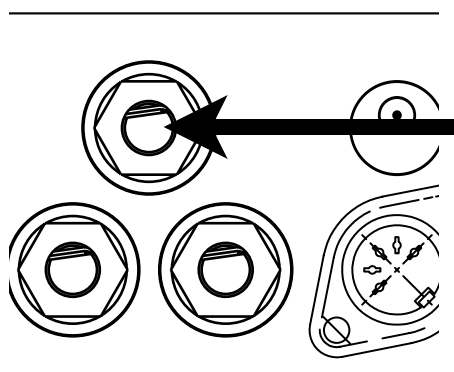
- Step Two: Connect the Midi Output Jack to the Midi Input Jack of any pedal you wish to control via Midi using a typical 5 pin Midi cable. If you want to control multiple pedals, you must use the Midi Output Jack of the first device you have connected to and connect each subsequent device in Series. (This step is optional)



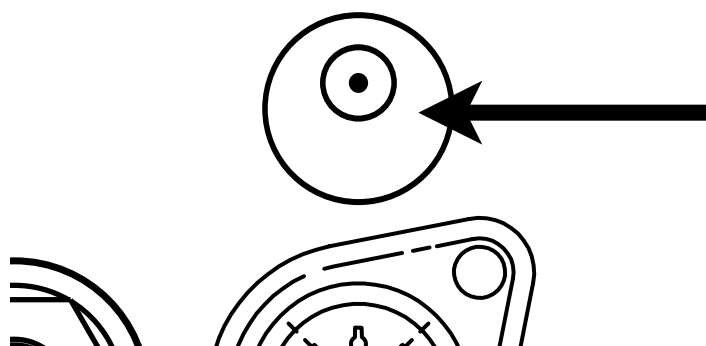
- Step Three: Plug your instrument signal into the Input Jack of the Programmable Bypass Looper. You can directly connect your instrument (Guitar, Bass, Etc.) to the Programmable Bypass Looper, **or** you can connect from another pedal or device used inline. The Programmable Bypass Looper does not need to be first in the signal chain.



- Step Four: Plug the Programmable Bypass Looper's Output into the next device you want in your signal chain. This could be another pedal or device, or it could be an amplifier or DI box sent to FOH.



- Step Five: Connect the proper power to each pedal being used, including the Programmable Bypass Looper. The Programmable Bypass Looper requires a power supply of 9V DC, and uses a tip negative polarity. It is recommended to use a power supply that supplies 400mA of current or more.



HOW TO OPERATE THE PROGRAMMABLE BYPASS LOOPER

Once the Looper is setup, your instrument is plugged in, and your amplifier is turned on, you will need to learn to use the Programmable Bypass Looper. We've done our best to make it's operation is as intuitive and simple as possible. There are a few key features that you will need to understand.

- The Bank switch cycles through the Banks. On powering the unit, the Programmable Bypass Looper will default into Manual Mode. Each time you press the Bank switch, you cycle up into a new Bank: pressing once will move you from from Manual Mode to Preset Bank A, pressing the Bank switch again will move you from Preset Bank A to Preset Bank B, and so on. Once reaching Preset Bank D, pressing the Bank Switch will send you from Preset Bank D back to Manual Mode again. As you select each mode, the Bank LED changes to one of five different colours.
- The Bank switch also functions as the Programming Switch. Each of the 20 available presets can be programmed to utilize a combination of the effects you have plugged into the Programmable Bypass Looper. When in Programming Mode, the Bank LED will blink. In Manual Mode, there is no programming or Midi.
- In Manual Mode, each Loop switch functions as an on/off switch for each Loop, essentially letting the Programmable Bypass Looper function as a high quality, relay based, true bypass looper.
- In each Preset Bank, each Loop switch now functions as a Preset Selection switch, with each switch working to turn off the previous preset, and turn on the new preset
- Each Loop LED is a bi-colour LED, which means that when a loop is active, the LED will be one colour, and when a Preset is selected, the LED will be another colour, and when both a loop is active and a preset is selected using the same switch, the LED will a combination of those first two colours.

HOW TO PROGRAM A PRESET IN A PRESET BANK

- Select a Bank in which to program a Preset
- Select a Preset switch to be programmed. A Preset may already be programmed, or it may be blank. A preset **must** be selected to program, and the selected preset will be the one that is programmed.
- Hold the Bank switch for approximately 3 seconds to enter program mode
- Use the 5 Loop switches to determine which loops are turned off or on. Each loop LED will be turned off or on to reflect the loop's off or on status.
- Hold the Bank switch for approximately 3 seconds to Save your preset.
- To Exit Program Mode, simply hold the Bank switch for approximately 3 seconds. This will also save your preset at the same time.

USING THE MIDI OUTPUT

Using the Midi Output of the Programmable Bypass Looper will allow you to utilize the Midi functions of any effects you utilize. Here is some useful info to help you understand how this functions:

- First, ensure that the Midi Output of the Programmable Bypass Looper is connected via a 5 pin Midi Cable to the Midi Input of whatever effect you desire to control.
- Select a Preset Bank via the Bank switch.
- As you choose a Preset from the Bank you are currently in, A Midi Program Change (PC) message is sent via your Midi Cable.
- When you select a new Preset, either from the Bank you're currently in or in another Bank, a new PC Message will be sent to your Midi connected unit.

Preset PC Message Change List					
Bank	Preset	Midi Program	Bank	Preset	Midi Program
A	1	001	C	1	011
A	2	002	C	2	012
A	3	003	C	3	013
A	4	004	C	4	014
A	5	005	C	5	015
B	1	006	D	1	016
B	2	007	D	2	017
B	3	008	D	3	018
B	4	009	D	4	019
B	5	010	D	5	020

** Please Note: Midi Devices often start with Program 000, so keep in mind that your Preset saved in the first slot in the effect device memory bank might get skipped.

SETTING THE MIDI OUTPUT CHANNEL

In order to send a Program Change message via Midi, you need to make sure that the midi device you are trying to change and the device you are controlling it with (the Programmable Bypass Looper for example) are using the same Midi Channel. There is a potential for 16 different channels of midi communication, and you can set your Programmable Bypass Looper to 'speak' on any of those 16 different channels. Here's a description on how to set your channel:

Midi Channel	Dip Switch 1	Dip Switch 2	Dip Switch 3	Dip Switch 4
1	off	off	off	off
2	on	off	off	off
3	off	on	off	off
4	on	on	off	off
5	off	off	off	on
6	on	off	off	on
7	off	on	off	on
8	on	on	off	on
9	off	off	on	off
10	on	off	on	off
11	off	on	on	off
12	on	on	on	off
13	off	off	on	on
14	on	off	on	on
15	off	on	on	on
16	on	on	on	on

BYPASS/SWITCHING WITH LOOP FIVE

There are two ways to set up loop five to operate:

- Loop five can operate in 'Loop Mode' as a normal true bypass loop, just as loops one through four would operate
- Loop five can operate in 'Switching Mode' as a switching device typically used for toggling an amp channel, or reverb, or some other device or function which utilizes a remote switch.

Keep in mind that when in 'Switching Mode' instead of 'Loop mode' that the signal passes from loop four to the output. This means that you can still use the first four loops in the standard format, and simply control your switched device as needed.

While in 'Switching Mode,' the two jacks for loop five change from 'send' and 'return' to the following function:

- The Send Jack is 'open,' meaning that the tip of the jack is disconnected from Ground when the switch is off. When the switch is turned on, the send jack becomes 'closed,' meaning that the tip of the jack is connected to ground.
- The Return Jack operates in reverse from the send jack. The Return jack is 'closed' when the switch is off, and is 'open' when the switch is on.

Consult your device or amp for the required switching scheme needed to determine if the Programmable Bypass Looper is capable of handling your switching needs, and which jack to utilize. Currently, TRS switching jacks are not supported, so keep that in mind if when using this element of the Programmable Bypass Looper.

SETTING LOOP FIVE FOR SWITCHING OR BYPASS

Setting loop five for Switching or Bypass simply requires 3 shunts, which connect three sets of two pins on the 2x4 pin header located on the Audio Board. They need to be set in one of the following configurations:

