



Disaster Area Designs

www.disasterareadesigns.com

DPC-5 Operation Manual

Firmware revision 1.15c

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Thank you for purchasing the Disaster Area DPC-5 Pedal Controller. The DPC-5 is a compact effects switching system with built-in MIDI control. It is designed to switch up to five separate effects loops and to change presets on several external MIDI devices simultaneously, to simplify tone changes in a live or studio setting.

CONNECTIONS:

Connect your guitar using a 1/4" shielded instrument cable to the Buffered Input or Unbuffered Input jack. If the Buffered Input jack is used, the Unbuffered Input may be used as an "insert" to connect an additional always-on device. The buffer signal is sent through the "ring" terminal, and the bypass relay matrix is fed by a signal on the "tip" terminal. Volume pedals and compressors are popular choices for the insert.

The next five pairs of 1/4" jacks are the sends and returns for the effects loops. The top (black) jacks are the send channels, and the lower (red) jacks are the returns. The send jacks may be used to feed additional amplifiers, and are muted when their associated relays are "off."

The final two jacks in the main section are the outputs. The main output is on the top (black) and the tuner output is on the bottom (red.) When the pedal is set to tuner mute, the main output is shorted to ground through a relay and its output is muted. The tuner output is always active, and is fed from the output of the buffer matrix. It will not be active if the unbuffered input is used for the guitar input.

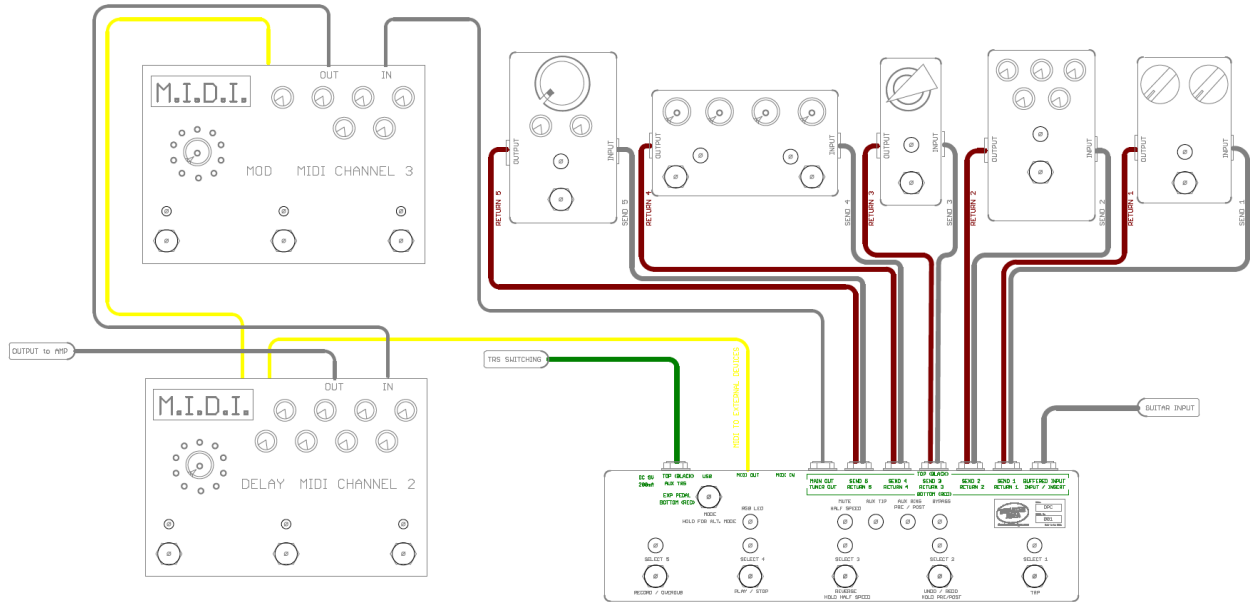
The MIDI input and Output are described in the MIDI section below.

The USB-Mini-B jack is used for firmware update and customization. The MIDI jacks will not be functional if the USB is connected. Additionally, the USB connection can cause noise or interference with the guitar signal when connected.

The TRS Amp / Pedal control and Expression pedal jacks are next. TRS AC is the top (black) jack, and the Expression pedal is the lower jack (red.)

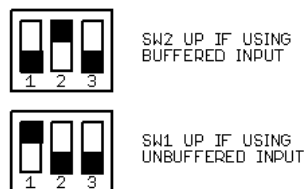
The TRS AC jack may be set to control an amplifier or pedal. It may switch the Tip and Ring contacts to the Sleeve contact. This jack may also be used for controlling a momentary type switch for tap tempo, or for toggling the "favorite" setting on certain Strymon pedals with the DSC adapter cable.

The power jack is 2.1mmID, center negative, 9V DC 200mA minimum. The DPC-5 may be powered by one of the high-current outputs on the Voodoo Labs Pedal Power series power supplies, or with an optional DC power supply.



Typical DPC-5 Connection Diagram

Revision 1b and higher boards have a group of DIP switches inside, accessible by removing the rear panel screws. SW1 routes the tuner buffer to the Unbuffered input jack, and SW2 takes the tuner signal from the Buffered input. If using the Unbuffered input jack, the user can choose to set SW1 to ON and enabling the tuner, or setting it to OFF to disable the tuner send and maintain a pure straight-wire path for the input signal. Regardless of the chosen switch setting, *only one* of these switches should be ON at any time. Having both set to ON can cause crosstalk or excessive noise and should be avoided.

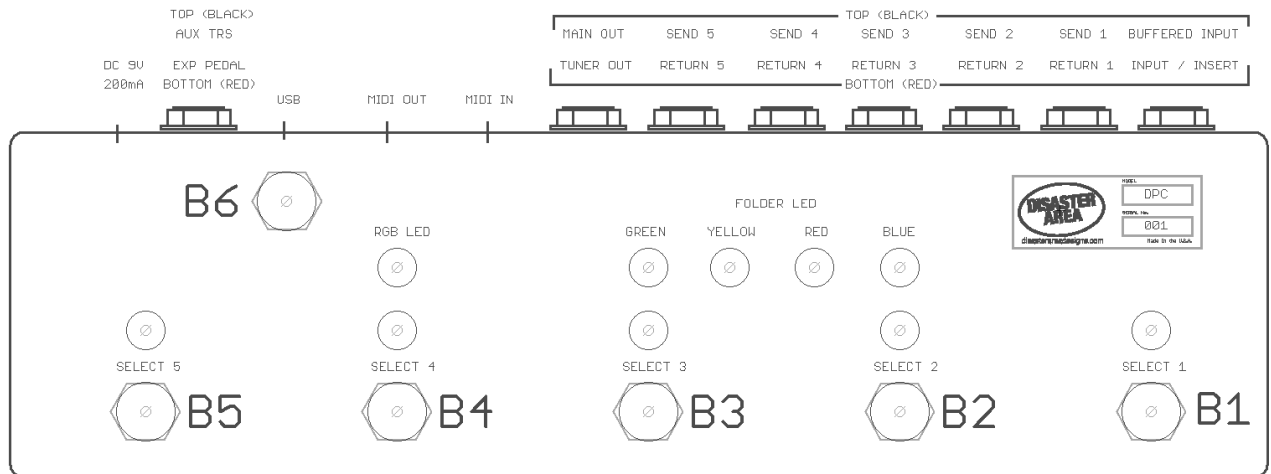


DIP Switch Settings

SETUP AND USE:

The upper switch (button 6) is the mode / config switch. The lower five switches are the preset / select switches. Throughout this document, they may be referred to as B1-B6.

The button mapping is as follows:



The DPC-5 features a configuration menu that allows changing some of the parameters of the controller. To enter Config Mode, press and hold B6 at power-up. To perform a factory reset, press and hold B1 + B5 at power-up. **WARNING!** A factory reset will erase all presets and custom configurations saved in the DPC-5 memory!

CONFIG MODE

Config Mode has two available pages. Tap B6 to change pages.

Expression / Tap Setup (indicated by RGB LED red)

Tap the select buttons to assign Expression destinations and tap controls

B1 Enable / Disable Tap Tempo for External MIDI A & B

B2 Expression Roller Assign: Aux Red = Expression for External MIDI A & B, Aux Blue = Expression for External MIDI C & D, Select 2 LED = Looper Level

B3 Expression Jack Assign: Aux Yellow - Expression for External MIDI A & B, Aux Green = Expression for External MIDI C & D, Select 3 = Looper Level, All 3 on = Tap Tempo or R2R dual remote switch

B4 TRS Setting: LED Off = Latching TRS amp control, LED On = TRS Tap (sends taps to TRS jack,) LED Blinking = Momentary TRS amp control for devices that require pulse / momentary control such as TC Electronics Stereo Chorus + Flanger or Bogner Ecstasy pedals

B5 Enable / Disable Tap Tempo for External MIDI C & D

Mode Cycle Setup (indicated by AUX LED green)

Tap the select buttons to enable / disable the modes available to cycle during normal use.

B1 Enable / Disable Red Preset Mode

B2 Enable / Disable Green Preset Mode

B3 Enable / Disable Blue Preset Mode

B4 Enable / Disable Looper and MIDI Modes:

Select 4 LED = Looper Mode status, RGB Green = 2-Channel MIDI Mode, RGB Red = 4-Channel MIDI Mode, RGB off = no MIDI mode

B5 Enable / Disable Manual Mode

Press and hold B6 to save the configuration. The DPC-5 will remember the saved settings even when powered down.

Hold B6 at boot to enter Config Mode.

Tap B6 to move between Config 1 and Config 2 modes.

HOLD B6 to save the config and enter play mode.

LED Indicators:	BTN5	RGB	BTN4	Folder GRN	Folder YEL	BTN3	Folder RED	Folder BLU	BTN2	BTN1
Config 1	Tap C&D		Off = TRS Latching On = TRS Tap Blink = TRS momentary	EXP A&B	EXP C&D	Looper Level	EXP A&B	EXP C&D	Looper Level	Tap A&B
				GRN + YEL + BTN3 = Tap Tempo / R2R						
Config 2	Yellow Manual Mode	RED 4-channel MIDI Mode GRN 2-channel MIDI Mode	Looper Mode	ON in this mode		Blue Preset Mode		Green Preset Mode		Red Preset Mode

MIDI Channels: A = 2 B = 3 C = 4 D = 5
2-channel MIDI Mode accesses only channels A & B

PRESET MODES:

The DPC-5 has the ability to engage multiple bypass loops and MIDI programs with a single tap. This collection of settings is called a “preset.” If you prefer to control your loops manually, the preset modes may be disabled.

The DPC-5 has five presets per bank, and each folder contains three banks for a total of sixty (60) presets accessible from the DPC-5 itself. 127 presets may be saved and accessed by using an external MIDI controller.

The current preset bank may be selected by tapping button B6 to cycle through the red, green, or blue modes. The folder may be selected by pressing buttons B1 + B2, then tapping buttons B1-B4 to choose a folder. Tap button B5 to save the folder and return to the play mode.

To select a preset, press any select button B1-B5 while the DPC-5 is in the red, green, or blue preset mode. Pressing the currently selected preset puts the DPC-5 into its bypass state. The bypass state may be set up as an additional preset or “favorite” sound.

The bypass loops and MIDI programs for each preset are edited separately. To edit the bypass loops and save them to a preset, follow the procedure below:

DPC-5 Loop Edit Preset Save				
Start from any preset mode	RED	GREEN	BLUE	
Press-hold B6 to enter Loop Edit Mode	RGB turns Yellow			
Tap buttons B1-B5 to select the desired loops				
Tap button B6 to cycle through the TRS relays (if enabled)				
Press-hold any button B1-B5 to enter Loop Save Mode	RGB starts flashing			
Tap button B6 to select bank	RED	GREEN	BLUE	WHITE
If RGB is flashing white, the current state will be saved in the BYPASS location.				
Tap buttons B1-B4 to select the desired folder	FOLDER GRN	FOLDER YEL	FOLDER RED	FOLDER BLU
Tap button B5 to set preset to Loop Don't Care. If Loop Don't Care is set, no loops will change when this preset is recalled.				
Press-hold any button B1-B5 to SAVE PRESET to that location				
OR				
Send a MIDI Program Change message from an external MIDI controller to save to that program number				
OR				
Press-hold B6 to exit without saving.				

MIDI:

The DPC-5 has its own MIDI channel (channel 1) and can send commands on four additional channels (2, 3, 4, and 5.)

The DPC-5 sends MIDI program change in red, green, and blue mode. In order to correctly control your MIDI devices, each device must be configured correctly.

For Strymon devices, set the Globals as listed below. The Eventide H9, Space, and Factor series pedals or the Line 6 M9 may be controlled using MIDI channel 5.

Timeline	BYPASS	BUFBYP	BigSky	BYPASS	BUFBYP
	LPEXIT	PLAY		MIDICH	4
	MIDICH	2		MIDICT	OFF
	MIDICT	OFF		MIDIPA	OFF
	MIDIPA	OFF		MIDITH	ON
	MIDITH	ON			
Mobius	BYPASS	TRUEBYP	H9 / Space	RECV CH	5
	MIDICH	3	Timefactor	RECV CTL	
	MIDICT	OFF		PEDAL	C1
	MIDIPA	OFF		TAP	C64
	MIDITH	ON		ACTIVE	C23

Pressing the currently selected preset sends Program Change 0 on channel 1 and recalls the bypass preset. As described earlier, the bypass preset may be edited and used as an additional preset or “favorite.”

When the DPC-5 receives a program change message, the bypass loops will change state to match the preset saved in that location and the DPC-5 will send MIDI program change commands on channels 2-5 to control your external devices. This feature allows you to map presets on several devices to a single MIDI program on your external controller.

The DPC-5 MIDI mode and at least one preset mode must be enabled in order to edit and save MIDI programs to a preset. If the MIDI mode is disabled, any previously edited MIDI programs will be transmitted when a preset is selected. If no programs are edited, the DPC-5 will send MIDI programs 1-60 on all four MIDI channels if presets are recalled.

The button functions in MIDI mode are as follows:

B6 Next Mode / Hold for PRESET 00 on current device

B5 Program Down on current device

B4 Program Up on current device

B3 Bypass / Engage current device (hold for “don’t care” on current device)

B2 Tap Tempo (taps to all enabled devices) / Hold for Performance Feature on current device

B1 Next Device (indicated by Folder LEDs) / Hold for MIDI Save

To edit the MIDI programs on your connected devices and save them to a preset, follow the procedure below:

DPC-5 MIDI Preset Save

Start from MIDI Mode RGB Violet

Tap button B1 to select each MIDI device in turn Folder LEDs light to show MIDI Device

Tap buttons B5 + B4 to change presets on the current MIDI device

Tap button B3 to bypass the current device

Press-hold button B3 to set the current device to MIDI Don't Care.
If MIDI Don't Care is set, the selected device will not change when this preset is recalled.

Press-hold button B1 to enter MIDI Save Mode RGB starts flashing

Tap button B6 to select bank RED GREEN BLUE WHITE
If RGB is flashing white, the current state will be saved in the BYPASS location.

Tap buttons B1-B4 to select the desired folder FOLDER GRN FOLDER YEL FOLDER RED FOLDER BLU

Press-hold any button B1-B5 to SAVE PRESET to that location
OR
Send a MIDI Program Change message from an external MIDI controller to save to that program number
OR
Press-hold B6 to exit without saving.

DPC-5 Function Chart Firmware v1.15c

Mode RGB LED Button 6 Button 5 Button 4 Button 3 Button 2 Button 1 Folder GRN Folder YEL Folder RED Folder BLU

Presets	<table border="1"> <tr> <td>Presets 1-3</td> <td>Red</td> <td>Next Mode</td> <td>Presets E-D</td> <td>Presets C-B</td> <td>Presets B-A</td> <td>Presets A</td> <td rowspan="3">Blinks for mute</td> </tr> <tr> <td>Presets 2</td> <td>Green</td> <td>HOLD FOR LOOP EDIT</td> <td>HOLD</td> <td>FOR</td> <td>MUTE</td> <td>HOLD FOR FOLDER SEL.</td> </tr> <tr> <td>Presets 3</td> <td>Blue</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	Presets 1-3	Red	Next Mode	Presets E-D	Presets C-B	Presets B-A	Presets A	Blinks for mute	Presets 2	Green	HOLD FOR LOOP EDIT	HOLD	FOR	MUTE	HOLD FOR FOLDER SEL.	Presets 3	Blue					
Presets 1-3	Red	Next Mode	Presets E-D	Presets C-B	Presets B-A	Presets A	Blinks for mute																
Presets 2	Green	HOLD FOR LOOP EDIT	HOLD	FOR	MUTE	HOLD FOR FOLDER SEL.																	
Presets 3	Blue																						

MIDI	Violet	Next Mode	Prog Down	Prog Up	Bypass	Tap	Next MIDI
		HOLD FOR PRESET 00			HOLD Don't Care	HOLD Feature	Device HOLD FOR SAVE
							Device D Device C Device B Device A

MIDI SAVE	Flashing	Change Bank	Folder 4	Folder 3	Folder 2	Folder 1	Lights	To	Show	Folder
	RED / VIO	HOLD TO EXIT	HOLD TO	SAVE	PRESET	HERE				
	GRN / VIO									
	BLU / VIO									
	WHT / VIO = BYPASS									

Loop Edit	Yellow	Tap for TRS select	Loop 5	Loop 4	Loop 3	Loop 2	Loop 1	TRS TIP	TRS RING
(Accessed only from a preset mode)		HOLD TO EXIT	HOLD TO	ENTER	LOOP	SAVE			

LOOP SAVE	Flashing	Change Bank	Don't Care	Folder 4	Folder 3	Folder 2	Folder 1	Lights	To	Show	Folder
	RED	HOLD TO EXIT	HOLD TO	SAVE	PRESET	HERE					
	GRN										
	BLU										
	WHT = BYPASS										

Manual	Yellow	Next Mode	Loop 5	Loop 4	Loop 3	Loop 2	Loop 1	Blinks for mute
		HOLD FOR MUTE						

Looper Control	White	Next Mode	Record	Play	Reverse	Half Speed	Undo	Pre / Post
			Overdub	Stop			Redo	HOLD Pre / Post