

VINTAGE REVOLUTION

PedalPro™ Owner's Manual

firmware rev. 6.05

OMPP003A - Rev.1.0 - EN EU — Copyright © 2014 Vintage Revolution

1.1 MESSAGE TO THE USERS

Thank you from all of us at Vintage Revolution for purchasing the PedalPro – a multi-effect platform we hope will prove to be the best investment of your musical career.

Our objective in designing the PedalPro was simple: to eliminate compromise. No more knobs and sliders. No more DSPs. We wanted a complete solution that seamlessly integrated digital and analogue technology, thereby giving users access to the rich, unbeatable sound of pure analogue effects, and the world of usability brought about by digital technology.

And with the PedalPro – that's exactly what you'll find. PedalPro is the world's first digitally-controlled analogue multi-effect device. No less than 14 classic analogue effects are integrated into this user-friendly platform, each entirely controlled, stored and recalled via a central digital interface.

Not only does PedalPro allow you to control your analogue effects with a precision never before possible, it pioneers new features and capabilities never-before-seen in either digital or analogue effects.

We believe that this device will exceed even your wildest expectations. And – it's even easy to use. We have deliberately designed the PedalPro so that you could, if need be, learn the ropes just by using it. But this easy-to-use guide will take away any remaining guesswork, while ensuring you are aware of all its amazing capabilities.

Enjoy your purchase.

From the team at VR

1.2 SUMMARY OF FEATURES

- **14 analogue effects** that can be used simultaneously and in any number of configurations without any sound degradation.
- **Fast and silent preset change**. Change preset in 40ms, no clicks, no booms.
- **Control of your analogue effects in real-time** with an expression pedal.
- **An analogue effect chain that is reconfigurable** bringing unprecedented flexibility.
- **No sound degradation** or the noise typical of multi-effect rigs due to no DSPs, buffers or signal losses; the implementation of a super accurate circuit layout; and the selection of the best components on the market.
- **True analogue, relay bypass** available for every single effect or the whole of the PedalPro.
- **Pre and post loops** that allow for the inclusion of external effects and a **MIDI out** connection that allows to transmit MIDI program change messages and MIDI CC11 (expression).
- **Storage of up to 500 presets** – complete machine configurations – and 18 favourites, for easy jumping between sets.
- **Preset manager software** that enables you to completely manage, rename, and even email an unlimited number of presets from your computer.
- Access to effects' **parameters never before accessible**.
- **Designed as a completely upgradeable** unit upon which you can simply build and add features via USB or VR firmware upgrades.



CAUTION: To reduce the risk of electric shock, do not remove cover or back. No user serviceable parts inside. Refer servicing to qualified service personnel.

WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

The lightning flash symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated 'dangerous voltage' within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

This product has been designed and manufactured to meet strict safety and quality standards. It is very important that you are aware of the following installation and operation precautions:

1. **Read and keep these instructions and heed all warnings**
   You should read all the safety and operating instructions carefully before operating this apparatus. Retain this manual for future reference and adhere to all warnings in the manual or on the apparatus.
2. **Water and moisture**
   The presence of electricity near water can be dangerous. Do not use the apparatus near water – for example next to a bathtub, a sink, in a wet basement or near a swimming pool, etc.
3. **Object or liquid entry**
   Take care that objects do not fall and liquids are not spilled into the enclosure through any openings. Liquid filled objects such as vases should not be placed on the apparatus.
4. **Ventilation**
   Do not place the apparatus on a bed, sofa, rug or similar soft surface, or in an enclosed bookcase or cabinet, since ventilation may be impeded. A minimum distance of 50 mm (2 inches) around the top and the bottom of the apparatus is recommended to provide adequate ventilation. Always install the apparatus according to the instruction provided by the manufacturer.
5. **Heat**
   Locate the apparatus away from naked flames or heat producing equipment such as radiators, stoves or other appliances (including amplifiers) that produce heat.
6. **Climate**
   The apparatus has been designed for use in moderate climates.

To reduce the risk of fire or electric shock, unplug the apparatus when there is high probability of lightning.

7. **Racks and stands**
   Only use with a rack, stand, bracket or table that is recommended for use with audio equipment. If the equipment is on a portable rack it should be moved with great care to avoid injury from tip-over.
8. **Cleaning**
   Unplug the unit from the mains supply before cleaning. The case should normally only require a wipe with a soft, damp, lint-free cloth. DO NOT use paint thinners or other chemical solvents for cleaning, which will destroy prints and paintwork. DO NOT use alcohol or household cleaning products. DO NOT USE WATER.
9. **Power sources**
   Only connect the apparatus to a power supply of the type described in the operating instructions or as marked on the apparatus, and install the unit near the power outlet (socket). Appliance coupler is considered as disconnect device. It shall remain readily operable..
10. **Power-cord protection**
    Power supply cords should be routed so that they are not likely to be walked on, bent, stretched or pinched by items placed upon or against them, paying particular attention to cords, plugs, convenience receptacles and the point where they exit from the apparatus.
11. **Grounding**
    Ensure that the safety purpose of the polarised or grounding-type plugs of the apparatus is not defeated. If the provided plug does not fit into your outlet, contact a qualified electrician to replace the obsolete outlet.

The apparatus MUST BE EARTHED. Use a three wire type power cord like the one provided with the apparatus.

12. **Abnormal smell**
    If an abnormal smell or smoke is detected from the apparatus, turn the power off immediately and unplug the unit from the wall outlet. Contact your dealer immediately.
13. **Servicing and maintenance**
    None of the parts inside the enclosure of this apparatus is serviceable by the user. DO NOT open the enclosure and DO NOT attempt to modify the internal circuitry. All servicing and maintenance beyond what described in this manual should be referred to qualified service personnel.
14. **Damage requiring service**
    The apparatus should be serviced by qualified service personnel when:
    - Objects have fallen onto, or liquid has been spilled into the apparatus, or
    - The apparatus has been exposed to rain, or
    - The apparatus does not appear to operate normally or shows a marked change in performance, or
    - The apparatus has been dropped and/or the enclosure damaged.

3.1 DECLARATION OF CONFORMITY

Vintage Revolution B.V., The Netherlands, declares that the following product:

PedalPro digitally-controlled analogue multieffect, mod. PP003A

conforms to the following Product Specifications:

Safety: EN 60065 / IEC 60065
EMC: EN 55103-1, EN 55103-2

The product complies with the requirements of the Low Voltage Directive 73/23/EEC and the EMC Directive 89/336/EEC as amended by Directive 93/68/EEC.

3.2 RoHS COMPLIANCE

This device has been manufactured in compliance with Directive 2002/95/EC on the Restriction of the Use of certain Hazardous Substances in Electrical and Electronic Equipment (RoHS).

3.3 DISPOSAL



This marking indicates that this product must not be disposed with other household waste throughout the EU. To dispose of your product, please use your local return and collection system, or contact the retailer where the product was purchased or Vintage Revolution B.V.

4.1 ABOUT THIS MANUAL

This electronic format manual makes easy work of exploring the expansive features of the PedalPro. Electronic manuals make it easier to search for specific information, browse the contents, access new or revised editions and, thanks to contextual links, immediately access any related information either within the manual, or on our website (hyperlinks to an internet website* are followed by the symbol). They are also, obviously, better for the environment and mean no bulky paper manuals gathering dust in your studio. For updates to the manual or latest versions, add-ons and manuals of related products, check the Vintage Revolution website .

4.2 BOX CONTENT

The following items should be included in your PedalPro package:

- The PedalPro™ digitally-controlled analogue multi-effect.
- USB flash drive containing: Owner's Manual, PedalManager Software Suite for Mac OS X, factory preset list.
- Power cord.
- USB cable.
- Registration card (you can also register your PedalPro online at www.vintage-revolution.com).

4.3 SHIPPING, STORING AND TRANSPORTING

Great care was taken in the manufacturing and packaging of your PedalPro. Everything should be included and in perfect working order. Should any parts be missing however, please contact the dealer from whom you purchased your PedalPro. They will facilitate the resolution of your issue as quickly as possible.

Damaged units should never be sent directly to us. Please inform the dealer from whom you acquired your PedalPro of the damage, as well as the transportation company that delivered it to you. You must follow the steps above in order to retain the validity of your warranty.

To ensure the optimal protection of your PedalPro during transportation or use, we recommend using a suitable case such as a flight case. Always use the original packaging when storing, shipping or returning your unit.

** Accessing a website via a hyperlink requires an internet connection.*

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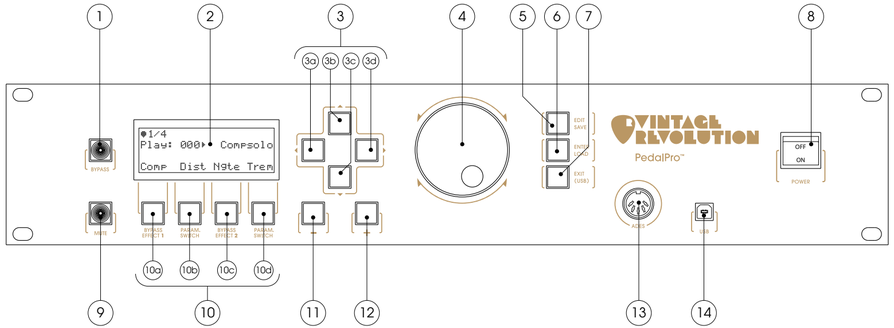


1. Bypass key – Press it to completely bypass the PedalPro in your sound chain. The button will light up to indicate that the machine is bypassed. This is a true analogue relay bypass, just like every bypass in the PedalPro.

2. Display - Shows presets names, effects parameters, machine configurations and other info.

3. Arrow keys – Use the four arrow keys (**3a** to **3d**) to move between different areas of a menu page. The **LEFT** and **RIGHT arrow keys** (**3a** and **3d**) are also used to toggle between the full preset list and the favourite preset list. The **UP** and **DOWN arrow keys** (**3b** and **3c**) can be used to scroll the preset lists.

4. Selection dial – Use the selection dial to scroll preset lists or change the value of effect parameters. Spin it faster to jump quickly through the range of available values; slow it down to set the precise value of the parameter.

5. EDIT/SAVE - Press the **EDIT/SAVE** key to access the value of effects' parameters (Edit mode). After you have created/modified a preset, press the **EDIT/SAVE** key to save the preset (Save mode).

6. ENTER/LOAD - Use this key to load a preset from the list or to confirm the preset's name when creating/modifying presets

7. EXIT/(USB) - Press **EXIT/(USB)** to exit from the Edit mode. When navigating menus, press **EXIT/(USB)** to go one level up in the menu structure. Hold the **EXIT/(USB)** for 2 seconds to enter the USB communication mode.

8. Power switch - Turns the power on and off.

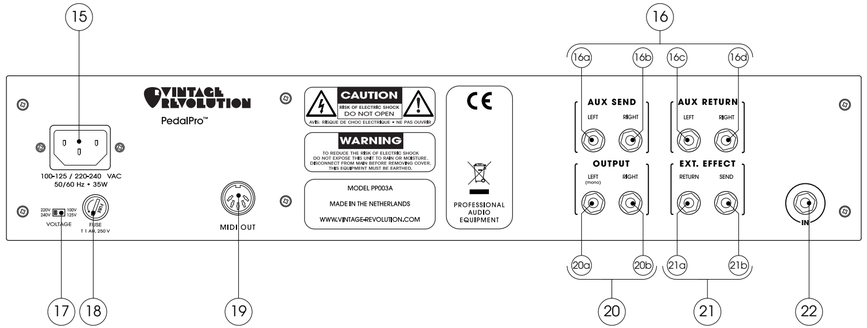
9. Soft Mute key – Press the Soft Mute key before switching guitar or entering tuner mode. The button will light up to indicate that the output is muted and you can now change the guitar – or the external effects - connected to the PedalPro. If you are in the one of the four main menus this buttom will give you access to the tuner mode.

10. Multifunction keys – Multifunction keys (**10a** to **10d**) are soft-programmable. Their functions vary with the menu page and the operating status of the unit. In effect menus, the multifunction keys **BYPASS EFFECT 1** (**10a**) and **BYPASS EFFECT 2** (**10c**) are used to switch on/bypass effects, while the two **PARAM. SWITCH** keys (**10b**, **10d**) are used to control some of the effects' parameters as explained below.

11, 12. Page - and Page + – Use <-> and <+> keys to move between menu pages.

13. ADES/MIDI-IN connector - Connect here your MIDI controller

14. USB connector - Connect your computer to the PedalPro using this connector in order to manage presets, upgrade the firmware or use the sophisticated possibilities of the PedalManager software.



15. Power input - Connect only the power chord supply with the PedalPro to this input. The other end of the chord must be connected to an earthed main socket.

16. AUX SEND & RETURN post-loop connectors - These connectors allow you to post-loops two external pedals or one stereo effect. Please refer to the section on AUX Connections, on page 45, for more information on routings and signal levels.

17. Voltage Selector - Select the AC voltage corresponding to your local AC power.

Check carefully that the switch is in the position corresponding to the local AC power BEFORE FIRST POWERING THE UNIT and AFTER MOVING TO A DIFFERENT COUNTRY. SEVERE damages to the unit can ensue if the switch in set in the wrong position!

18. Fuse holder - T1 AH 250V. Always replace with a fuse of the correct value.

19. MIDI OUT connector - Connect MIDI-controlled units here and use your PedalPro as MIDI controller, integrating external units MIDI program change into the presets of your PedalPro.

20. OUTPUT connectors - Use mono jack cables to connect these 1/4" outputs into guitar amplifiers, inputs of mixers or recording device. For mono rigs use the LEFT connector only (see 'Setup Guide' on page 8).

21. EXTERNAL EFFECT pre-loop connectors - To connect an external effect (i.e. a stompbox) into the PedalPro effects chain, connect the SEND connector (**21b**) to the input connector of the external effect and the RETURN connector (**21a**) to its output connector (see section 'Connecting external effects' on page 10).

22. INPUT connector - Connect your instrument to this high-impedance mono input connector.

7.1 MOUNTING THE UNIT

In a 19" rack

- The PedalPro is a standard 2U 19" module. Find a suitable space in your rack and use the mounting screws provided.

On a flat surface

You can also rest your PedalPro on a flat, dry, solid surface of sufficient size.

Avoid resting your PedalPro on the floor – its mechanical and electrical components may not withstand shocks from inadvertently kicking or stepping on it.

⚠ ***Avoid overheating the unit by ensuring good ventilation. Make sure that cooling apertures on the top and bottom panels are unobstructed. Avoid installing the PedalPro directly above or below heat-radiating devices, such as power amplifiers and tube gear.***

7.2 CONNECTING TO THE MAIN

- Use the power cord supplied to connect your PedalPro to the main. Plug one end of the cord into power connector 15 and the other end into an earthed main socket.

⚠ ***The machine should have come to you with the switch already set for the voltage currently in use in your country. Please check whether this is the case by inspecting the position of switch 17 on the back panel. Use only VR supplied power cords. Vintage Revolution cannot be held responsible in the case of ensuing malfunctioning or failure.***

7.3 CONNECTING YOUR INSTRUMENT

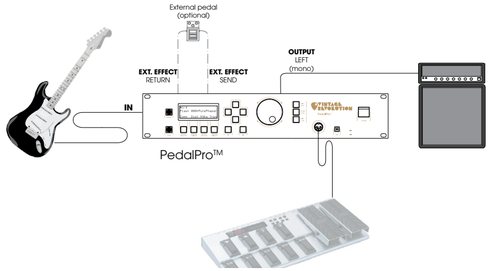
- Connect your instrument to the **input** jack (**22**) on the rear panel.

⚠ ***If you connect your guitar or another instrument when the PedalPro is on, first turn your amplifier(s) off, or press the Soft Mute key 9. The yellow light on the Soft Mute key 9 indicates that the processor is now muted. You should also do this when switching instruments.***

7.4 CONNECTING AMPS / MIXERS

Mono set-up

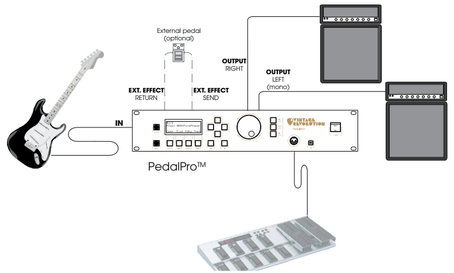
The diagram below shows you how to connect the PedalPro to a mono power amplifier, a mixer using a mono input, or a mono amp/speaker rig.



- Connect a single mono instrument cable between the **OUTPUT LEFT (mono)** connector (**20a**) of the PedalPro and the input of your amplifier.

Stereo set-up

The diagram on the next page shows you how to connect the PedalPro to a stereo amplifier, to a mixer using a stereo input, or to a stereo amp/speaker.

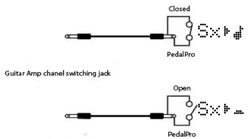


- Connect a single mono instrument cable between the **OUTPUT LEFT (mono)** jack (**20a**) of the PedalPro and the input of one amplifier, and another mono instrument cable between the **OUTPUT RIGHT** jack (**20b**) and the input of the second amplifier.

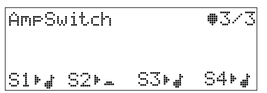
⚠ ***Connecting your amplifier/s and the PedalPro to different grounded AC outlets may result in a hum ground loop. To avoid HUM ground loops, connect your gear properly to AC mains: make sure that the PedalPro power chord plug, as well as any amplifier and external effect power chord plugs are plugged into the same grounded AC outlet.***
It's important to check that the AC source is properly rated to handle this amount of gear or you could overload it. In situations where your amplifiers and PedalPro must be connected to different sockets, you may need an audio isolation transformer.

7.5 CONNECTING AMP SWITCHING (optional)

If the Amp switching boards are installed in your PedalPro (HARDWARE UPGRADE-B) you can program up to 4 switches for each preset. Each switch can connect to a mono jack cable as indicated in the following figure:



To enter the Amp switching configuration page, press the **multi-function key** (**10d**) labelled '**Ext**' on page 2 of the main menu and browse to page 3/3 using the button <+>



- To activate (♪) or deactivate (♪) the switches S1-S4 press the corresponding buttons below the text (**10a-10d**).

If you save the preset the amp switching configuration will be saved too and recalled every time you load this particular preset.

7.6 CONNECTING EXTERNAL EFFECTS (LOOPS)

PedalPro features PedalPro features **pre** and **post loops** that allow you to include external effects in your rig.

By connecting to the **EXT. EFFECT SEND** (**21b**) and **RETURN** (**21a**) jacks, you will place your external pedal in the pre-loop as indicated in Fig. 8-1. See chapter 8, 'Signal Flow', or the section 'Routing Options - An Overview', on page 30, for details on where the external effects is located in the effect chain.

- To connect an external pedal in the pre-loop of your PedalPro loop, use a TRS or a TS cable to connect the **EXT. EFFECT SEND** jack (**21b**) to your external effect's Input, and another one to connect the effect's Output to **EXT. EFFECT RETURN** jack (**21a**).
- To enter the external loop page, press the **multifunction key** (**10d**), labelled '**Ext**', on page 2 of the main menu.

The display of the PedalPro will now show:



Ext_effect – External effect loop. Indicates whether the external loop is switched on (☝) or off (⛔).

- To switch the external effect loop on or off and thus add or remove it from your effects chain, press the **BYPASS EFFECT 1** key (**10a**)**.**

To explore the additional features of the post-loop connections, please refer to the section 'AUX Connections (Post-loop)', on page 45.

8. SIGNAL FLOW

Swappable analogue effects - A world first

While PedalPro's effects are arranged with the goal of maximising the pleasure you can get out of your machine – only you can decide on the right order for your effects.

For the first time ever in any analogue multi-effect processor, PedalPro allows you to reposition some effects in the chain. PedalPro's filters can be positioned at the end of the chain, before the distortion, cascaded or in parallel, on the left, and right channels, or on the same channel. Post effect blocks include Chorus, Flanger, Delay and a post-loop section. For more information and routing options, please refer to chapter 9.4 'Post Effects', on page 39.

Few examples of this revolutionary feature of your PedalPro are shown below.

Please see the filters routing section, on page 30, for more information and for a complete overview of the effect chain configurations (or 'Route types') available.

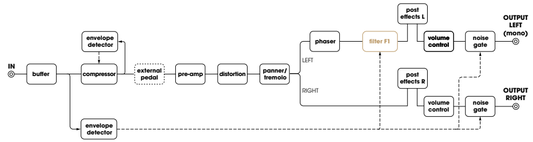


Fig. 8-1. *Example 1. Effect chain configuration: Route type 01.*

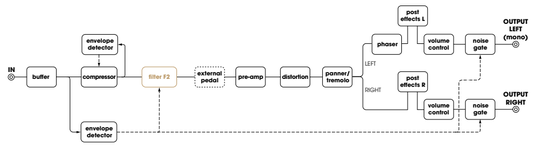


Fig. 8-2. *Example 2. Effect chain configuration: Route type 06.*

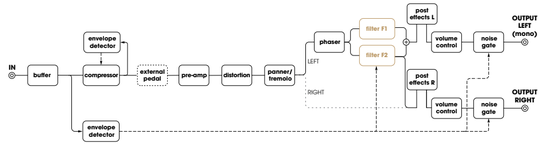


Fig. 8-3. *Example 3. Effect chain configuration: Route type 04.*

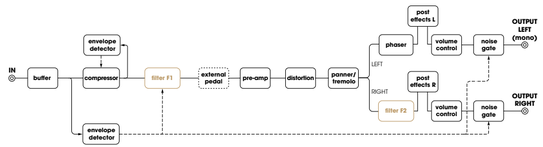


Fig. 8-4. *Example 4. Effect chain configuration: Route type 08.*

9.1 WORKING WITH PRESETS

PedalPro is a breakthrough in analogue multi-effects not just because it is practically the first, but because of how it allows you to store your sounds.

Sounds are stored as presets – of which the PedalPro has the capacity to store no less than 500 complete machine configurations. 18 can be stored as favourite presets, for quick access to the sounds you use most often. Via a USB connection, an unlimited number of presets can be stored, saved, transferred, and even emailed using the preset library software on your computer.

What you can store in a preset

In a word: everything – all the parameters of every effect on your PedalPro. The entire configuration of your machine can be stored in one preset. Even two MIDI program change messages of a MIDI effect connected to the PedalPro can be stored in a preset.

A preset holds the following information:

- The effects chain, including which effects are active and which are bypassed, and the position of the swappable effects in the chain.
- The settings of all the effects' parameters.
- The status (active/bypassed) of pre and post loops.
- All the MIDICC routing links and Tap Tempo settings
- The Amp switching settings.

Restoring your factory settings

PedalPro comes preloaded with 500 presets. All are user-editable and available for you to experiment with and/or replace with your own sounds. Should you want to re-set or re-load the original factory presets, you will find them available on the USB drive that comes with your PedalPro.

See the section 'Restoring your default preset list', on page 15.

9.1.1 Saving a preset

Once you are happy with the sound you've created and want to store it for future use, you're ready to save it as a preset.

- Press **EDIT/SAVE** (**5**). The screen will show the current preset location and the name of the current preset.



Presets 000 to 199 were created by VR and come pre-installed in your PedalPro. To protect these presets from being accidentally overwritten, Save protection is turned on by default – indicated by the symbol . With Save protection on, PedalPro will NOT allow you to assign a new preset to those numbered between 000 and 199.

- If you want to overwrite one of the presets 000 to 199, turn off 'Save protection' by pressing the multifunction key **10a**. Once the protection is off, your newly-created preset can overwrite the factory preset. The 'Save protection' switch has no effect on presets 200 to 499 and these presets can be overwritten at any time.
- You now have the option of editing the preset name. To do this, use the **selection dial** (**4**) to scroll through the available characters, and the **LEFT** and **RIGHT arrow keys** (**3a, 3d**) to move to the previous or following character of the name.
- You can also change the preset number in order to move it to a specific location. Press the **DOWN arrow key** (**3c**) to move to the preset number ('Position'). Change the number using the **selection dial** (**4**). The third line of the screen shows you the current position of the preset selected.
- Press **SAVE** (**5**) to save your newly-created preset in the position you have chosen.
- Press **ENTER** (**6**) to confirm.

TIPS & TRICKS - VR SPECIAL CHARACTERS

A set of VR-designed special characters can be added to the name of the preset you have just saved to remind you of the particular features of that preset.

These must be added when you are assigning the name of the preset, and can be found by scrolling to the end of the alphabetical letters used to name your preset.

SYMBOL	MEANING
	SINGLE COIL – indicates that this is a preset to be used with your single coil guitar.
	DUAL COIL – indicates that this is a preset to be used with your dual coil guitar.
	STEREO PRESET – indicates that the effect chain of this preset has a stereo output.
	EXPRESSION PEDAL - indicates that this preset was created to be used with an expression pedal

9.1.2 Recalling/loading a preset

- To recall and load a preset, scroll through the preset list using the **UP** and **DOWN arrow keys** (**3b**, **3c**). You can also scroll through the list using the **selection dial** (**4**).
- Press **ENTER** (**6**) to load the preset.

9.1.3 Exploring a preset

This feature allows you to explore the current settings of the different effects in a preset. You can do this either in ***Play Mode***, i.e., when the effect has been loaded, or in ***List Mode*** i.e., when simply scrolling through the list of presets.

In Play Mode

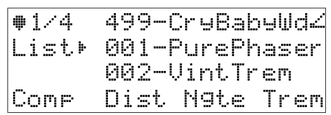
When in Play Mode the screen will look like this:



- Press **Page -** (**11**) or **Page +** (**12**) to scroll through the four pages of the main menu.
- Using the appropriate **multifunction key** (**10**), select one of the effects, and enter the effect's menu. You will now see the settings for the effect of the preset you are currently playing. See the section 'Working with PedalPro's effects', on page 19, for more details on the effects' parameters.
- Some of the effects, for instance the filters, have more than one page of settings. This is indicated on the top right corner of the screen. To access the different pages of the effects' settings, scroll through the pages using **Page -** (**11**) or **Page +** (**12**).
- To exit the effect's menu pages, simply press **EXIT** (**7**) and you will return to the main menu.

In List Mode

You can also explore the parameters of any preset, without actually loading it. To do this, start from Play Mode and scroll through the preset list (List Mode) using the **selection dial** (**4**). When in List Mode, the screen will look like this:



- Use the **selection dial** (**4**) or the **UP** and **DOWN arrow keys** (**3b, 3c**) to scroll through the presets until you find the preset you want to explore (the preset will be pointed at by the arrow next to the word `List' on the screen).
- Press **Page -** (**11**) or **Page +** (**12**) to move through the four pages of the main menu until the effect you want to explore appears on the bottom line of the screen.
- Press the **multifunction key** (**10**) corresponding to the effect's configuration page(s). The settings for that effect in the preset will now be visible. See the section `Working with single effects' for an explanation of all the effects parameters.
- To exit the effect's menu pages, simply press **EXIT** (**7**). You will return to the main menu.

9.1.4 Editing a preset

Parameter or switch?

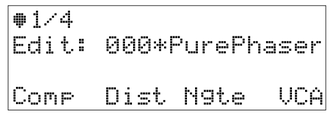
Before editing your presets it's important to first understand the difference between two PedalPro functions: the ***switch*** and the ***parameter***.

A ***switch*** is indicated with the symbol ▸ placed after the function or effect name. This indicates that the function can be directly switched on (☝) or off (⌁) using one of the multifunction keys 10, without entering into Edit Mode.

A ***parameter*** is indicated with the symbol ⁝. This indicates that it can only be adjusted by entering into Edit Mode.

- To edit a preset you must first **load it**, i.e., enter Play Mode.
- Press **Page -** (**11**) or **Page +** (**12**) to scroll through the four pages of the main menu, until you see the page where the effect you want to edit is indicated on the bottom line of the display.
- Press the **multifunction key** (**10**) corresponding to the effect you want to modify to enter the effect's menu.
- To change the parameters of that effect, press **EDIT** (**5**). You are now in ***Edit Mode***.
- Use the **selection dial** (**4**) to modify the values of the parameters (indicated by the blinking cursor). Move between parameters using the **arrow keys** (**3**). The sounds produced by your PedalPro will change in real time as you modify each parameter.
- Turn the effect's features on or off simply by pressing the appropriate **multifunction key** (**10**). Please refer to the section 'Working with PedalPro's effects', on page 19, for a detailed explanation of the features of each effect and how to access them.
- Once you are happy with how the effect sounds, press **EXIT** (**7**) to exit from the parameters page and return to the list of presets.

The preset list will now look like this:



The header `***Edit***' and the asterisk (*) after the preset's number indicate that the PedalPro configuration for the loaded preset has been modified, but not yet saved in a preset.

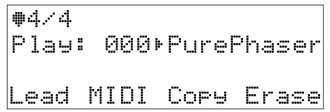
You will also note that, for as long as the asterisk is present, you are not able to scroll through the list of presets using either the **selection dial** (**4**) or the **UP** and **DOWN arrow keys** (**3b**, **3c**). These functionalities will remain locked until the modifications to the preset are either saved or discarded.

- To save changes to the preset, press **SAVE** (**5**) and confirm `yes' by pressing **ENTER** (**6**).
- To discard the changes, press **EXIT** (**7**) again and return to Play Mode.

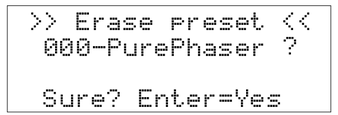
How to Use Your PedalPro: Presets

9.1.5 Erasing a preset

- To erase a preset from the PedalPro memory and free that memory space, first **load** the preset.
- Press the **Page -** (**11**) or **Page +** (**12**) to go to page **4/4** of the main menu.
- Press the **multifunction key** (**10d**), labelled `**Erase**' on the display.



You will see the following confirmation screen:



- Press **ENTER** (**6**) to **confirm** that you wish to delete the preset, or press **EXIT** (**7**) to **cancel** the action.
- You can also erase a preset simply by saving a new preset in the same location. See the section 'Saving a preset', on page 12.

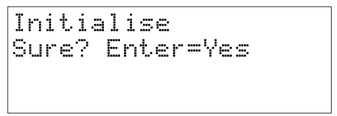
Presets can also be erased using your computer and the PedalManager software that came with your PedalPro. Please refer to the software help file for more information.

9.1.6 Initialising your presets

You have the option to **completely erase** PedalPro's preset memory.

> ⚠ ***WARNING: THIS PROCEDURE DELETES ALL EXISTING PRESETS IN YOUR PedalPro AND CANNOT BE UNDONE. Make sure you have first stored any presets you want to keep in your computer using the PedalManager software. This procedure will also reset the settings on page 2 of the MIDI menu.***

- **Switch off** the PedalPro and wait until the display backlight is off.
- Now **switch on** the PedalPro **while pressing** the **BYPASS key** (**1**) on the unit, keeping it pressed until the `Initialise' message appears on the display (it takes about 5 seconds).



- Press **ENTER** (**6**) to confirm, and wait until the process is complete.
- To interrupt the procedure simply **switch off** the PedalPro, or press **EXIT** (**7**).

9.1.7 Restoring the default preset list

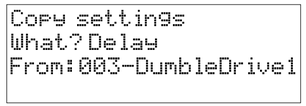
The USB flash drive included with your PedalPro contains a file called `presets.vrf'. This file contains the factory presets that came preloaded in your PedalPro.

- To restore the default factory presets of your PedalPro, locate the file in the USB drive, and upload it to your PedalPro using VR PedalManager software included. Please refer to section 12 on page 54 of this manual, or to the PedalManager User Manual for more information.

** In the directory `Default' of the USB drive, or download it from VR website.*

9.1.8 Copy settings of a preset

This feature allows you to copy some specific settings of a known preset into the one you are editing.



If you wish to copy the delay settings from your DumbleDrive sound select Delay in the list of what to copy and browse the preset list till you find the preset you wish to copy from. Press Enter when you are ready and the settings will be instantly uploaded in your preset.

What can you copy ?

1) Aux/Ext - All the settings of the pre and post loop excluding the amp switches

2) Delay - All the delay settigns including the modulation parameters

3) Chs/Fls - All the Chorus/Vibe/Flanger settings

4) GroupDist - All the settings that includes Compressor, Distortion, Filters, NoiseGate, VCA, Phaser, Boost and Amp switching settings.

5) Tempo&Rou - All the settings used for the Tap Tempo and the Midi routing

How to Use Your PedalPro: Presets

9.2 WORKING WITH FAVOURITE PRESETS

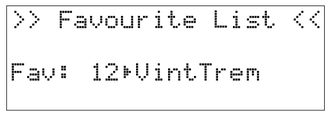
PedalPro allows you to select up to 18 onboard presets as part of a favourite presets list.

This list ensures you have quick and easy access to your preferred presets or those you need for a certain gig.

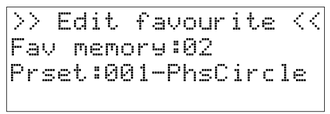
9.2.1 Adding/replacing a preset from the favourite list

To add or replace a preset in your favourite list you must first be in Play Mode.

- Press the **RIGHT arrow key** (**3d**) to enter the favourite list and therefore ***Favourite List Mode***.



- Press **EDIT** (**5**). The screen will change to ***Edit Favourite Mode***. The cursor will blink under the number next to the 'Fav memory' indicator.



- Use the **selection dial** (**4**) to choose which of the eighteen favourite presets memory positions you want to modify/replace. The number of the memory position selected is indicated by the 'Fav memory' indicator.
- Press the **DOWN arrow key** (**3c**). The cursor will now blink to indicate which of the 500 presets in the PedalPro main memory will be saved in the favourite preset memory position you have selected.
- Use the **selection dial** (**4**) to select the preset you want to add to your favourite list (in the example shown, preset '`001-PhsCircle`' will be saved in the favourite preset memory position 02).
- Press **EXIT** (**7**) **twice** to exit and then press **SAVE** (**5**) to store your new favourite preset list.

9.2.2 Recalling/loading a favourite preset

To recall and load a favourite preset, you must first be in Play Mode.

- Press the **RIGHT arrow key** (**3d**) to enter the favourite list and therefore ***Favourite List Mode***.
- Scroll through the favourites list with the **UP** and **DOWN arrow keys** (**3b**, **3c**), or using the **selection dial** (**4**).
- Press the **ENTER** (**6**) to load the selected favourite preset.

QUICK TIP: *Your favourites list can be accessed directly via MIDI program change and bank select. See page 49 of this manual*

9.2.3 Editing a favourite preset

The sound of a favourite preset cannot be edited directly when playing in Favourite List Mode.

- Return to Play Mode by pressing the **LEFT arrow key** (**3a**) – and exiting Favourites List Mode. You will notice that the same preset selected under the Favourites List Mode is now selected in Play Mode (note: the preset number Play Mode may be different from its number in Favourite Mode, but the preset is actually the same).
- Follow the instructions in the section 'Editing a preset', on page 14, to edit your preset and save it. The changes are automatically carried over to the preset in your favourite list.

9.2.4 Deleting a favourite preset

- Simply replace the link with another preset as described in the section 'Adding/replacing a preset from the favourite presets list', on page 18.

How to Use Your PedalPro: Favourite Presets

9.3 WORKING WITH PEDALPRO'S EFFECTS

PedalPro has ten top onboard analogue effects, each with various parameters that can be modified to alter the sound you produce. Many of these parameters have never before been accessible in analogue effects.

The first three pages of PedalPro's main menu give you access to the configuration pages of all fourteen on-board analogue effects and of pre- and post loops.



Compressor, Distortion and Pre-amp, Noise Gate, Tremolo/Panner are on page 1/4 (1 of 4) the main menu.



Phaser, Filters, Volume controls, and **External effect (loops) controls** are on page 2/4 of the main menu.



Chorus, Flanger and **Delay** can be accessed on page 3/4 of the main menu.

9.3.1 Compressor

A compressor is used to control the dynamic range of a signal. Using an 'envelope detector', the compressor detects the signal level of the input signal. Then, by automatically reducing the gain when the level of the input signal is higher (louder) than a certain threshold, the compressor ensures that the dynamic range of the compressed signal is lower than the dynamic range of the input signal.

Three different compressor model

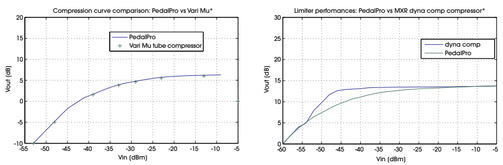
PedalPro has three different Compressors model: **tubegen**, **vary-mu** and **limiter**.

When the Compressor is operating in **limiter mode**, a hard knee compression ensures a long sustain, rendering the output dynamic range extremely small. This mode is great for a long solo sustain and will produce a sound similar to a MXR dyna comp* compressor, VOX 1903*, or Keeley Compressor*.

When the Compressor is operating in **tube compression mode**, the soft knee gently controls the sound peak while the low-medium level sound passes through. This is great for the rhythm phrase. You can use the Tubegen compressor type to produce a sweet peak control, or the Variable Mu®* compressor for more sustain on the medium volume notes, typical of a Variable Mu® tube compressor.

The vary-mu compressor type is designed for medium-strong compression – up to 1:4 - 1:30. The Tubegen compressor type is designed for light-medium compression 1:3 - 1:22.

PedalPro's compression curves

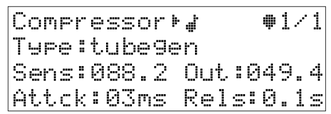


*All trademarks are property of their respective owners and used for reference only.

PARAMETERS

- To enter the Compressor configuration page, press the **multifunction key** (**10a**) labelled '**Comp**' on page 1 of the main menu.

The diagram below shows you the screen of the Compressor configuration page:



Compressor – Compressor effect switch. Range: on (), off ()

- To switch the Compressor on or off and thus add or remove it from your effects chain, press the **BYPASS EFFECT 1** key (**10a**).

Type – Compressor model. Range: tubegen, vary-mu, limiter

The parameter Type indicates the compressor model used. This can be set to either 'limiter' to operate in Limiter Mode, or to 'tubegen' or 'vary-mu' to operate in tube compression mode, with either a sweet peak control ('tubegen') or more sustain on the medium volume notes ('vary-mu').

- To change the compressor model, press **EDIT** (**5**) when in the Compressor configuration page, and use the **arrow keys** (**3**) until the cursor blinks under the compressor type name.
- Use the **selection dial** (**4**) to select between the limiter, tubegen and vary-mu compressors.

Sens – Sensitivity. Range: 0-100%

This parameter sets the desired amount of compression.

- To change the value of Sens, press **EDIT** (**5**) when in the Compressor configuration page, and use the **arrow keys** (**3**) to position the blinking cursor next to the Sens value.
- Use the **selection dial** (**4**) to set the desired amount of sensitivity.

Out – Output Level. Range: 0-100%, in increments of approximately 0.4%

The Output Level is the output volume level of the compressor, and acts as a make-up.

Adjust this level according to the Sensitivity selected. In practice, a high level of compression (a high Sensitivity) prefers a lower Output Level, and a low level of compression (a low Sensitivity) prefers a higher Output Level.

- To change the compressor Output Level, press **EDIT** (**5**) when in the Compressor configuration page, and use the **arrow keys** (**3**) to position the blinking cursor on the Out value.
- Use the **selection dial** (**4**) to set the desired amount of Output Level.

Attck – Attack time. Range: 3ms, 8ms, 13ms, 22ms, 31ms, 40ms, 57ms, 83ms.

Attack determines how quickly the compressor intervenes on the sound.

- To change the value in *milliseconds* of the Attack, press **EDIT** (**5**) when in the Compressor configuration page, and use the **arrow keys** (**3**) to position the blinking cursor on the Attck value.
- Use the **selection dial** (**4**) to set the desired amount of Attack.

Rels – Release time. Range: 0.1s, 0.2s, 0.3s, 0.5s, 0.7s 0.8s, 1s, 1.8s

The Release determines how quickly the compressor releases the control of the dynamic after the sound signal level has been compressed (reduced).

- To change the value in *seconds* of the Release, press **EDIT** (**5**) when in the Compressor configuration page, and use the **arrow keys** (**3**) to position the blinking cursor on the Rels value.
- Use the **selection dial** (**4**) to set the desired amount of release.

TIPS & TRICKS - COMPRESSOR

Select one of the three compression types according to the amount of compression you want to achieve.

- For light-medium compression use the 'tubegen' compressor that produces compression from 1:3 to 1:22.
- For medium-strong compression that gives a medium amount of sustain, use the 'vary-mu' tube compressor that produces compression from 1:4 to 1:30.
- For strong compression (or limiter) that provides long sustains, use the 'limiter' compressor that produces compression from 1:12 to 1:40.

Preventing loud peaks (tube compression)

To prevent loud peaks due to excessive pick striking or to control the amplification distortion of a filter with a high resonance (Q), start with the following setting:

- ***Type***: tubegen; ***Sens***: 18.0; ***Out***: 30.0; ***Attck***: 3ms; ***Rels***: 0.1s.

These settings will produce a compression of 1:12.

If necessary, increase or decrease the sensitivity (***Sens***) until you obtain the desired compression level. Adjust the output level (***Out***) to regulate the output volume.

Embellishing (tube compression)

If you are playing arpeggios either with your pick or your finger and you want to embellish them by producing a smoother, more fluid effect, start with the following settings:

- ***Type***: vary-mu; ***Sens:*** 40.0; ***Out***: 50.0; ***Attck***: 13ms; ***Rels***:1s.

Increase or decrease the sensitivity level according to your guitar. If you prefer a faster-responding compressor, reduce the release time (***Rels***).

Long Sustain (limiter)

If you need a long sustain during your solo, start with the following settings:

- ***Type***: limiter; ***Sens***: 60.0; ***Out***: 30.0; ***Attck***: 3ms; ***Rels***: 1.8s.

Adjust the level of compression, by acting on the sensitivity (***Sens***) according to the solo phrase you are going to perform. Remember, when the sensitivity increases, the compression becomes very aggressive especially when you are playing multiple strings. In this case, you may want to increase the Attack time (***Attck***) until you get the desired sustain, with a reasonable gain reduction.

Adjust the output level according to the sound you want to produce. Use the output volume (***Out***) within a range of 30-70% if you don't need a gain boost in front of the distortion.

9.3.2 Distortion

Just about every existing distortion on the market uses pre-amplifiers with high gains, and a distortion section that produces distortion according to the input signal amplitude.

In PedalPro, we do it differently. The Distortion is implemented using the saturation of low-noise FETs instead of op-amps and diodes. The result is a smoother, tube-like second-harmonic distortion that is rich and full of punch, with a clearly-defined sound that is totally noise free.

Two additional features

Two additional features distinguish the PedalPro Distortion from existing distortions. These are the **bright switch** and the **low-pass filters**. With the bright switch engaged, you can create a screaming distortion. With the low-pass filters, you can alter the amount of high tones.

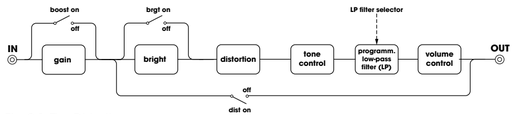


Fig. 9-1. The Distortion

The bright switch (parameter `***Brgt***') excites middle and high tones before the signal is distorted. The tone parameter (`***Tone***') blends the high tone with the low+middle tones after the distortion. When the tone is 50%, the amount of high tones and middle-low tones is the same. The low-pass filter selector (`***LP***') is a programmable low-pass filter that is placed right after the tone control. This last filter is used mainly to remove the high frequency.

Introducing the new blues-effect distortion

In standard distortions, even when it's possible to adjust the gain of the pre-amplification, additional noise and unwanted op-amp processing are unavoidable stages of the distortion process. The blues sound has never been as warm and clear as it should have been due to these unnecessary electronics – inherent problems with every distortion on the market.

The PedalPro makes it possible, for the first time, to bypass the Boost (pre-amplifier) and drive the Distortion by only the guitar signal. With the guitar signal pumped directly into the heart of the Distortion circuit, the result is a soft blues-style distortion, free of noise and with crystal-clear definition – an effect tailor-made for the blues player's musical repertoire.

PedalPro also allows you to bypass the Distortion, or both the Distortion and the Boost. The Distortion can also be driven by the output level of the Compressor – again allowing you to avoid the pre-amplification stage.

PARAMETERS

- To enter the Distortion configuration page, press the **multifunction key** (**10b**) labelled `**Dist**' on page 1 of the main menu.

The diagram below shows you the Distortion configuration page (greyed-out parameters are part of the Boost settings, see next section).



Dist – Distortion effect switch. Range: on (), off ()

- To add () or remove () the Distortion from your effect chain, press the **BYPASS EFFECT 1** key (**10a**).

Brgt – Brightness. Range: on (), off ()

When the brightness parameter is engaged, the sound passes through a high-pass filter with a cut-off frequency of around 800 Hz before entering the distortion stage.

This emphasises the middle and high tones of the distortion, creating a 'screaming' sound.

- To switch the Brightness mode on () or off (), press the **PARAM. SWITCH key** (**10b**).

Tone(%) – Tone. Range: 0-100%

- To change the tone, press **EDIT** (**5**) when in the Distortion configuration page, and use the **arrow keys** (**3**) to position the blinking cursor on the Tone(%) parameter. Adjust the value with the **selection dial** (**4**).

LP – Low-pass filter selector. Range: 0, 1, 2

The low-pass filter enables you to filter the output of the Distortion. You have the choice of between three different low-pass filters for a brighter sound at one end, or a fatter sound at the other. Choose the LP level according to your pick-ups, your amplifier speaker/cabinet, and the sound you want to produce.

- To change the low-pass filter, press **EDIT** (**5**) when in the Distortion configuration page, and use the **arrow keys** (**3**) to position the blinking cursor next to LP. Adjust the value with the **selection dial** (**4**).

OutD(%) – Output Distortion. Range: 0-100%

The Output Distortion parameter sets the amount of distortion applied.

- To change the amount of distortion, press **EDIT** (**5**) when in the Distortion configuration page, and use the **arrow keys** (**3**) to position the blinking cursor next to OutD. Adjust the value with the **selection dial** (**4**).

TIPS & TRICKS - DISTORTION

It's generally considered best practice to search for the right sound starting from a "neutral" distortion point (which will also depend on your pick-ups and amplifier).

- Start with the following parameter configuration: ***Brgt***: (on); ***Tone(%)***: 50.1; ***LP***: 1.
- Adjust the ***Brgt***, ***Tone***, and ***LP*** parameters to find the sound you are looking for.

Keep in mind that the low-pass filters (***LP***) allow you to alter the amount of high tones in your distortion without changing the amount of bass and middle frequency content.

- For a bright sound with plenty of high tones, set the low-pass filters to ***LP***: 1.
- For a sound that is less bright with stronger middle tones, set the low-pass filters to ***LP***: 2.

If you want a deeper, fatter sound (i.e., more low frequencies) without changing the amount of mid tones disengage the Brgt switch (***Brgt***: , off).

In the PedalPro, the amount of distortion is defined by the gain of the Pre-amplifier or Boost (see the Boost section).

- To counter a very loud pick-up and produce a gentler blues overdrive sound, use negative gain values. To do this, engage the Boost and set the gain to a negative value.
- A similar effect can be achieved by reducing the input level via the Compressor output level, while leaving the Boost off.

9.3.3 Boost (Pre-amp)

PedalPro has an ultra low-noise and low-distortion Boost (pre-amp). You can use it together with the Distortion as a distortion gain, on its own, or in combination with the other effects to really boost your sound.

PARAMETERS

Please note: the Boost parameters are on the same page as the parameters of the Distortion.

- To enter the Boost configuration page, press the **multifunction key** (**10b**) labelled '**Dist**' on page 1 of the main menu.

The screenshot below highlights the relevant parts of the Boost configuration page (greyed-out parameters are part of the Distortion settings, see 9.3.2):



Boost – Boost effect switch. Range: on (♪), off (𝄽)

- To add (♪) or remove (𝄽) the Boost (pre-amp) from your effect chain, press the **BYPASS EFFECT 2** key (**10c**).

G(dB) – Boost gain. Range: -06 dB to + 25 dB

The Boost gain can be set in decibels (dB).

- To change the boost (pre-amp) gain, press **EDIT** (**5**) when in the Boost/Distortion configuration page, and use the **arrow keys** (**3**) to position the blinking cursor on G(dB). Adjust the value with the **selection dial** (**4**).

TIPS & TRICKS - BOOST (PRE-AMP)

One great use for the stand-alone Boost is to use it to overdrive your tube amplifier.

- To produce a rich, warm, tube blues distortion, activate the Boost (set the ***Boost*** parameter to ♪) and adjust the amount of gain by acting on the ***G(dB)*** parameter. Turn off all other effects when in this configuration. The quality of the distortion will also depend on your amplifier as well as your cabinet.
- Keep in mind that while the Boost does not distort on its own, it will at some point saturate your tube amplifier, and thus distort your sound.

9.3.4 Noise Gate

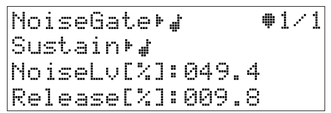
PedalPro's optical Noise Gate is distortion-free with amazing transparency and the option to set the amount of gating. Super-precise and unobtrusive, it intervenes only when you want it to and just as much, or as little, as you need it to.

One of its stand-out characteristics is that, despite the Noise Gate section being placed at the end of the sound chain (see figures in chapter 8 or in section 9.3.7), it is controlled by an envelope detector placed after the input buffer of the PedalPro. This means it is driven only by the signal of your guitar, not by the other effects in the chain, gating the signal at just the right moment. You can also alter the amount of attenuation you want, for a gentle noise gate with a low-noise attenuation.

PARAMETERS

- To enter the Noise Gate configuration page, press the **multifunction key** (**10b**) labelled '**Ngte**' on page 1 of the main menu..

The screenshot below shows you the Noise Gate configuration page:



NoiseGate – Stereo Noise Gate effect switch. Range: on (♪), off (𝄽)

- To add (♪) or remove (𝄽) the stereo Noise Gate from your effect chain, press the **BYPASS EFFECT 1** key (**10a**).

Sustain – Sustain switch. Range: on (♪), off (𝄽)

Use the Sustain to prevent the Noise Gate from cutting the natural decay of long notes. The Sustain switch essentially decreases the sound threshold at which the Noise Gate intervenes. While this switch *does not directly add sustain* to your sound, it is very useful when playing sustained notes with your Noise Gate switched on.

- To switch the Sustain on (♪) or off (𝄽), press the **PARAM. SWITCH key** (**10b**).

NoiseLv(%) – Noise level. Range: 0-100%

The Noise level (NoiseLv) defines the percentage of noise allowed. If NoiseLv is set to 50.0%, the level of noise will be reduced by about 50%. As you'll see in practice, this feature allows you to always set your Noise Gate at the right noise attenuation without destroying the attack of your sound.

- To change the Noise Level threshold, press **EDIT** (**5**) and use the **arrow keys** (**3**) to position the blinking cursor on NoiseLv(%). Adjust the value with the **selection dial** (**4**).

Release(%) – Release delay. Range: 0-100%

The Release parameter sets the amount of delay before the Noise Gate intervenes at the defined threshold.

- To change the Release threshold, press **EDIT** (**5**) and use the **arrow keys** (**3**) to position the blinking cursor on Release(%). Adjust the value with the **selection dial** (**4**).

TIPS & TRICKS - NOISE GATE

- One of the best ways to use the Noise Gate is to start by dialling in the following settings:

  NoiseGate: ♪(on); ***Sustain***: 𝄽(off); ***NoiseLv(%)***: 050.0; ***Release(%)***: 000.0

  This configuration reduces the amount of noise to half its value. Decrease the ***NoiseLv(%)*** till the audible noise level is acceptable or totally inaudible.

- To avoid the Noise Gate affecting the natural decay of your sustained note, engage the Sustain switch in presets that you use to play solos and licks. In this configuration, the Noise Gate is very sensitive to the smallest signal from your pick-ups – the sound will pass through the gate as soon as you touch the strings.
- To lengthen the time between your last played note and the moment the Noise Gate is triggered, increase the Release value. This is particularly useful when you are using the Noise Gate in combination with delay and distortion. In order to hear the delay effect you need to give the delayed sound time to pass through the Noise Gates after you've played it.

9.3.5 VCA

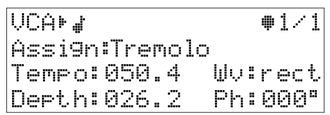
The PedalPro's ultra-low noise VCA (Voltage Control Amplitude) can either be used as tremolo, panner or as pre-volume pedal. When is used as tremolo or panner the user can choose among 7 modulating waveforms are. These include the classic sine, triangle, and square waves, as well as some exclusive, VR-designed waveforms such as 'vintage', which produces the same tremolo as a vintage Fender amplifier.

By varying the modulating waveforms, tempo, depth and phase of your Tremolo/Panner you can produce a wide range of effects.

QUICK TIP: *If your are using the VCA as a pre volume control (before the time based effects) use MIDICC#51 to control the level via an expression pedal.* This feature is handy for situations such as when playing with the attack of the guitar sound in order to produce a violin-like sound.

PARAMETERS

- To enter the Tremolo/Panner configuration page, press the **multifunction key** (**10d**) labelled '**Trem**' on page 1 of the main menu.



Assign – Tremolo/Panner/Volume pedal. If you select Volume Pedal, you can control the level before the time based effects and after the Compressor, DIstortion, Boost and pre- loop via an expression pedal (MIDICC#51)

Tempo – Speed of the modulator. Range 3 BPM (20 s) - 550 BPM (9.16 Hz)

- To change the Tempo of the modulating waveform, press **EDIT** (**5**), and use the **arrow keys** (**3**) to position the blinking cursor next to Tempo. Adjust the value with the **selection dial** (**4**).

Wv – Modulating waveform. Range: sine, trig, trap, rect, pcal, shlf, vntg.

The tremolo / panner modulating waveform parameter allows you to select from among the available modulating waveforms. All the classic waveforms are included, along with some exclusive, VR-designed waveforms. Available waveforms include: sine, triangle, trapeze, rectangle, pcal (phaser calibrated curve), shlf (shelf), vntg (vintage) (see Appendix A, at the end of this manual, for more details on the modulating waves).

- To change or select a modulating waveform, press **EDIT** (**5**), and use the **arrow keys** (**3**) to position the blinking cursor next to Wv. Adjust the value with the **selection dial** (**4**).

Depth – Depth of the VCA. Range: 0-100%

The depth parameter controls the depth of the tremolo/panner effect or the volume level according to the status of the Assign function

To alter the depth of the VCA effect, press **EDIT** (**5**), and use the **arrow keys** (**3**) to position the blinking cursor next to Depth. Adjust the value with the **selection dial** (**4**).

Ph – Phase of the modulator**.** Range: 0°, 90°, 180°, 270°

This parameter controls the phase of the modulating waveform. It is used to control the relative phase among effects that offer the possibility of selecting the Phase of the Modulator (Ph), e.g., the Tremolo/Panner, Phaser, Auto Filters, Chorus.

- To alter the phase of the Tremolo or Panner effect, press **EDIT** (**5**), and use the **arrow keys** (**3**) to position the blinking cursor next to Ph. Adjust the value with the **selection dial** (**4**).

TIPS & TRICKS - TREMOLO / PANNER

- The waveform vntg (Vintage) will produce the same tremolo as a vintage Fender amplifier. Setting the value of ***Depth*** to 50.0% on the analogue Tremolo of the PedalPro corresponds to setting the intensity potentiometer of your vintage Fender amplifier to a value of 10.
- The parameter ***Ph*** (phase of the modulating waveform) does not produce any effect if you are using the Tremolo/Panner on its own. If you use the Tremolo/Panner in combination with any other modulators (phaser, auto filters, etc) refer to the QUICK TIP box 'Phase of the modulating waveforms'.

QUICK TIP: Phase of the modulating waveforms

*The effect of the parameter **Ph** is audible only when more than one effect featuring this parameter (Tremolo/Panner, Filters, Phaser, and optional Chorus and Flanger) are simultaneously active.*

*By altering this parameter, you can set and keep constant the relative phase difference across the modulating waveforms of the effects. This makes sense only when **all running modulators are synchronised**. To do this, you must ensure that the **Tempo** parameter is set to the same value across all the running modulators.*

*To check out the effect of the **Ph** parameter, enable at least two effects using time-modulating waveforms, for instance the Tremolo and the Phaser. Switch both effects on (♩) and set them to the same **Tempo** using the appropriate selectors (see the section Tempo under each effect).*

*Using the **Ph** parameter you can now set the phase difference between the two – or more – waves. Start by setting both phases to 0° and experiment by changing one of the phases to 90°, 180° and 270°.*

***Note:** the **Ph** parameter will NOT produce any audible difference if you are only using one effect.*

9.3.6 Phaser

A phaser is an effect that uses a comb-like filter to create a series of notches in its frequency response. These are then usually time-modulated or swept across a range of frequencies.

The Phaser in the PedalPro is implemented using six custom-made optical resistors and produces a sound just like the shimmering tones typical of the 70's (and similar to the Morley Pro-Phaser*).

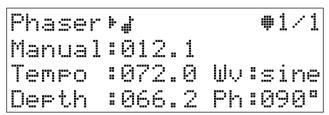
But the PedalPro Phaser outperforms any classic vintage equivalent. PedalPro uses six OP275 operational amplifiers that allow for a far greater transparency, an ultra-low noise output, and an incredible modulator flexibility.

The phase and the Phaser's modulating waveforms **is completely under your control**, and can be synchronised with any other phase-controlled effect.

PARAMETERS

- To enter the Phaser configuration page, press the **multifunction key** (**10a**) labelled '**Phasr**' on page 2 of the main menu.

The screenshot below shows you the screen of the Phaser configuration page:



Phaser – Phaser effect switch. Range: on (), off ()

- To add () or remove () the analogue Phaser from your effect chain, press the **BYPASS EFFECT 1** key (**10a**).

Manual – Manual phase shift selection. Range: 0-100%

When you set the ***Depth*** parameter (see below) to 0, the amount of phase shift then depends on the level assigned to the ***Manual*** parameter.

- To change the amount of manual phase shift to the signal, press **EDIT** (**5**), and use the **arrow keys** (**3**) to position the blinking cursor next to Manual. Adjust the value with the **selection dial** (**4**).

Tempo – Speed of the modulator. Range 3 BPM (20 s) - 550 BPM (9.16 Hz)

- To change the Tempo of the modulating waveform, press **EDIT** (**5**), and use the **arrow keys** (**3**) to position the blinking cursor next to Tempo. Adjust the value with the **selection dial** (**4**).

Wv – Modulating waveform. Range: sine, trig, trap, rect, pcal, shlf, vntg

The Phaser has many modulating waveforms from which you can choose. All the classic waveforms are included, along with some exclusive VR-designed waveforms. Available waveforms include: sine, triangle, trapeze, rectangle, pcal (phaser calibrated curve, linear phase sweep), shlf (shelf), vntg (vintage). (see Appendix A for more details on the modulating waves).

- To change or select a modulating waveform, press **EDIT** (**5**), and use the **arrow keys** (**3**) to position the blinking cursor next to Wv. Adjust the value with the **selection dial** (**4**).

Depth – Depth of the modulation. Range: 0-100%

The depth parameter controls the depth of the phaser effect.

- To alter the depth of the Tremolo or Panner effect, press **EDIT** (**5**), and use the **arrow keys** (**3**) to position the blinking cursor next to Depth. Adjust the value with the **selection dial** (**4**).

Ph – Phase of the modulator**.** Range: 0°, 90°, 180°, 270°

The phase of the modulator controls the phase of the modulating waveform. It is used to control the relative phase among effects that offer the possibility of selecting the Phase of the Modulator (Ph), e.g., Tremolo/Panner, Phaser, Auto Filters, Chorus. (For more details refer to the QUICK TIP box 'Phase of the modulating waveforms', on page 27).

- To alter the phase of the Tremolo or Panner effect, press **EDIT** (**5**), and use the **arrow keys** (**3**) to position the blinking cursor next to Ph. Adjust the value with the **selection dial** (**4**).

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Working with Effects: Phaser

TIPS & TRICKS - PHASER

- When you assign the value 0 to ***Depth***, the amount of phase shift depends on the ***Manual*** level (manual phasing). By adjusting the value of the ***Manual*** parameter, you can then:
  - › Produce nice distortion tones by combining the manual Phaser with the Distortion. In the Phaser configuration page, keep the value of ***Depth*** to 0 in this combination, and experiment with applying different values on the ***Manual*** parameter.
  - › Control your phase shift with an expression pedal via MIDICC#52. Set the expression pedal to control the manual phaser (i.e., assign the ***Phas_man*** parameter to the expression pedal*). The manual adjustment of the phase shift in real time will produce interesting sounds in stereo configuration.
- To produce a classic vintage phaser effect, assign the value 0 to ***Manual***. The effect will also vary according to the ***Depth*** settings and the modulating waveform (***Wv***) you have selected.
- To produce a medium/fast phaser - e.g., with a ***Tempo*** greater than 120 BPM - and with a low depth (less than 60%), use a combination of ***Manual*** level and ***Depth***. The Phaser will produce time varying phase shift, according to the ***Depth*** and the ***Manual*** settings. When working using this configuration, set the level of ***Depth*** to between 30 and 60 and adjust the ***Manual*** level according to the effect you want to create.
- Which waveform (***Wv***) form should you use? It depends on the effect you want to create. For a shimmering, slow-sweeping deep phaser, use 'pcal' (linear phase sweep) or 'trig' (triangle), setting the parameter ***Tempo*** to a low value. For a Leslie effect (vibrato), use 'sine' and a level of ***Tempo*** greater than 170. For an arpeggiator, use a 'shlf' (shelf) or 'rect' (Rectangle) and moderate ***Tempo***.
- The parameter ***Ph*** (phase of the modulating waveform) does not produce any effect if you are using the Phaser on its own. For use of the Phaser in combination with any other modulators (tremolo, panner, auto filters, etc) refer to the QUICK TIP box 'Phase of the modulating waveforms'.

9.3.7 Filters

The PedalPro is fitted with two different filters: Filter 1, referred to as '**F1**' in the on-screen configuration menu, and Filter 2, referred to as '**F2**'. Both are configurable via six different screens on your PedalPro.

Filter 1 is an inductor filter that produces a sound similar to a classic Crybaby, but with additional features and possibilities.

Filter 2 is a matched-pair transistor based filter, with a wide range of sound capabilities.

Nine routing possibilities

A programmable hardware analogue configuration means that both Filters can be physically connected, disconnected and moved to different points in your effect chain, depending on the sounds you want to produce. The result is no less than **nine different routing possibilities** (see next page).

Filter Modes

You have the option to use both Filters in stereo configuration or (dual) mono configuration, or completely independently. Both Filters can be used as **EQ, Auto** or **Envelope Modes**. Envelope Mode can work in '**positive**' or '**negative**' mode, further multiplying the number of sounds you can produce. Filter 2 has an additional feature that allows you to configure it as a low-pass filter or a band-pass filter.

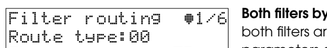
Parameters never available before

The Filters can be configured independently of each other and in every configuration the frequency sweep range of each Filter is individually controllable. Control the resonance (parameter **Q**), the phase, the envelope function, and other parameters you've never had access to before. When playing in EQ Mode, the filter frequency can be controlled in real time via MIDICC#80-81 to produce Wah sound with a specific resonance

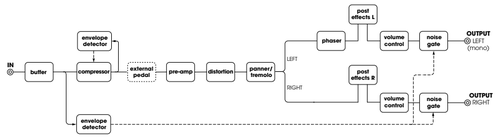
ROUTING OPTIONS - AN OVERVIEW

This section introduces the **nine routing options** for the analogue effects of your PedalPro. These can be selected by adjusting the parameter ***Route type*** on page 1/6 of the Filters configuration menu (see the section on the 'parameters of the filters' on page 32). In the screenshots below, FL indicates the filter configuration of the left channel, FR that of the right channel.

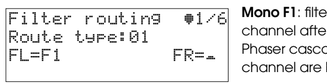
Route type: 00



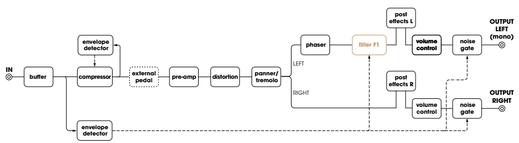
Both filters bypassed: In this configuration, both filters are true bypassed (OFF): the parameters on pages 2 to 6 of the filters' configuration menu will not produce any change to the output sound.



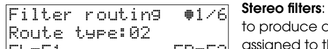
Route type: 01



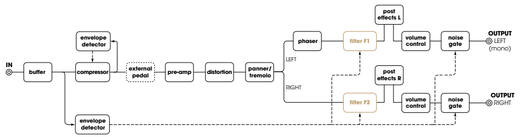
Mono F1: filter F1 is positioned on the left channel after the Distortion, Tremolo and Phaser cascade. The filter F2 and the right channel are bypassed.



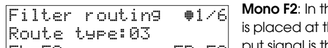
Route type: 02



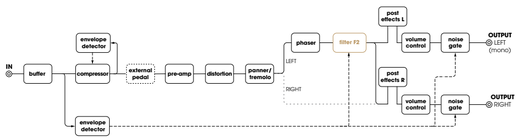
Stereo filters: This configuration is used to produce a stereo effect, with filter F1 assigned to the left channel, and filter F2 assigned to the right channel.



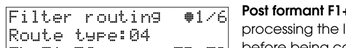
Route type: 03



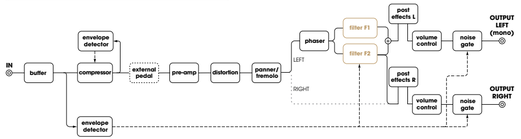
Mono F2: In this configuration, the filter F2 is placed at the end of the chain. The output signal is then sent to the left and right channels for further processing



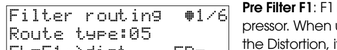
Route type: 04



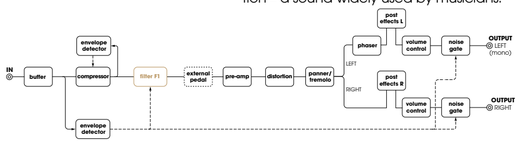
Post formant F1+F2: F1 and F2 are processing the left channel in parallel, before being combined. The right channel is processed only by F2.



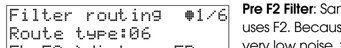
Route type: 05



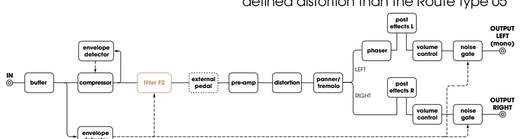
Pre Filter F1: F1 is placed just after the Compressor. When used in combination with the Distortion, it produces the same sound as if you plugged your Wah into your distortion – a sound widely used by musicians.



Route type: 06



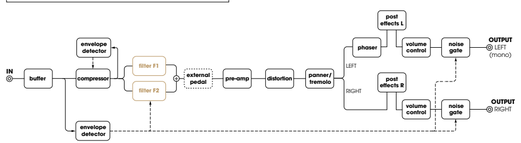
Pre F2 Filter: Same as route type 05 but uses F2. Because F2 has no inductor and very low noise, this configuration is perfect for solo distortion, providing a more clearly-defined distortion than the Route type 05



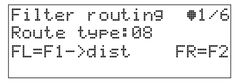
Route type: 07



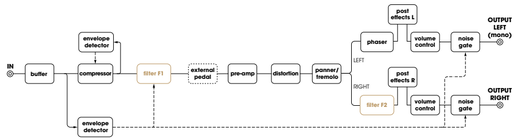
Pre formant F1+F2 filters: F1 and F2 in parallel after the Compressor. This is frequently used in combination with the Distortion and/or the Phaser.



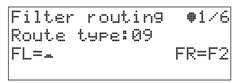
Route type: 08



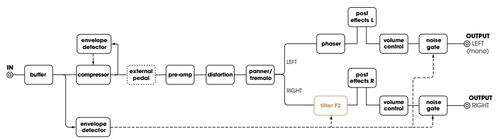
Pre F1 and post F2: This configuration is used for cascading the F1 and F2. The output of the cascade is available at the output of right channel.



Route type: 09



Post F2 on right channel: This layout is used to achieve a stereo effect in which there is no filter on the left channel, while the right channel is coloured by the filter F2.



PARAMETERS

Because of the number of different parameters and filter options available, the configuration of PedalPro's two Filters is spread over six menu pages, as follows:

Page 1/6 (Routing) defines the position of the filter(s) in the effect chain.

Page 2/6 (Configuration) defines the general control parameter of both filters, F1 and F2.

Page 3/6 (Auto F1) defines the parameters of filter F1, when F1 is in auto mode (e.g., auto wah, vowel generator).

Page 4/6 (Auto F2) defines the parameters of filter F2, when F2 is in auto mode (e.g., auto wah, vowel generator).

Page 5/6 (Envelope) defines the settings for both Filters when used in envelope mode.

Page 6/6 (EQ) defines the settings for both F1 and F2 and their relative resonances Q1 and Q2.

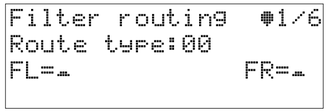
It is important to note that, while the menus are divided into sections related to specific sound application, you are NOT required to use the filters F1 and F2 in the same mode (e.g., you can use F1 in envelope mode and F2 in auto mode, or in any one of the other possible combinations).

- To enter the Filters configuration pages, press the **multifunction key** (**10b**) labelled '**Fltr**' on page 2 of the main menu.
- To scroll through the six pages of the Filters configuration menu, press **Page -** (**11**) or **Page +** (**12**).

> ⚠ ***Please note: Regardless of the filter sound you want to produce, you MUST set the parameters on pages 1 and 2 of the Filter configuration menu BEFORE working on the parameters in the dedicated menu page of the filter mode selected (pages 3 to 6).***

PAGE 1/6 - ROUTINGS

This menu allows you to select from the nine different routing possibilities, i.e., the nine different configurations of the PedalPro effects chain, whereby the F1 filter and the F2 filter are physically connected at different points of the chain (See section 'Routing Options - An Overview', on page 30, for details).

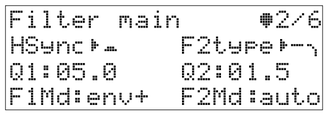


Route type – Effect chain routing selector. Range: 00 to 09

- To change the Route type, press **EDIT** (**5**); the cursor will blink next to the route type number. Adjust the value with the **selection dial** (**4**).

PAGE 2/6 - FILTER MODE CONFIGURATION

Page 2 is the main configuration page for your two filters, F1 and F2. The settings for F1 are on the left-hand side of the screen, and the settings for F2 are on the right.



HSync – HumanSync™ switch. Range: on (♪), off (▂)

With HSync engaged, the **auto filters** (that is, when filter F1 and/or filter F2 are set to auto mode) will sweep according to the settings on pages 3/6 (F1) and 4/6 (F2) – if the level of the signal from your guitar is above an adjustable threshold (Fsync_th can be set via MIDICC##74).

If the signal is below the threshold, the filter sweep will be paused. Once the signal from your guitar becomes louder than the threshold, the sweeping action begins. In this way, you can control exactly when the filter starts to sweep and when it stops, using your guitar.

- To engage HSync simply press the **PARAM. SWITCH** key (**10b**).

> **QUICK TIP: HSync**
>
> *With **HSync** engaged, if you assign the adjustable threshold parameter (**Fsync_th**) to an expression pedal via MIDICC#74 you can control the number of wah/vowel cycles that you are going to produce and these cycles are always synchronised with your strumming action.*
>
> *If you set the correct **Tempo** parameter either in the filter configuration page 3/6 (for F1) or 4/6 (for F2) or via midi tap tempo, the filter sweeping action will also be synchronised with your drummer (or your drum ma-*

Q1 – Resonance factor of filter F1. Range: 1 to 18, increments of 0.5

Q2 – Resonance factor of filter F2. Range: 1 to 16, increments of 0.5

The resonance factor (aka **Q**) characterises a filter's bandwidth relative to its centre frequency. Essentially, the higher the resonance Q, the more the filter will emphasise the frequencies around its centre frequency.

- To change the Q of F1 (Q1) or F2 (Q2), press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Q1 or Q2. Adjust the value with the **selection dial** (**4**).

F2type – F2 filter type selector. Range: Low-pass (⁻⁻) or Band-pass (∩)

The F2 Filter has an additional feature that allows you to select between two filter types: a low-pass filter and a band-pass filter

- To select between the two possible settings for F2type, press **PARAM. SWITCH** key (**10d**).

F1Md & F2Md – F1 and F2 mode selector. Range: auto, Equalizer (EQ), envelope positive (env+), envelope negative (env-)

You can choose to independently configure F1 and F2 in one of four modes:

1. **auto = auto mode** (for example, auto Wah). If this option is selected for either F1 or F2, or both, the parameters of page 3/6 and page 4/6 will define F1 and/or F2 modulator settings.

2. **env+ = envelope positive mode** (for example, touch wah). In this configuration, the filter will move according to the settings of page 5/6, and the filter frequency shift will **increase** proportionally to the playing strength. For more detail, see page 5/6 of the Filter configuration menu.

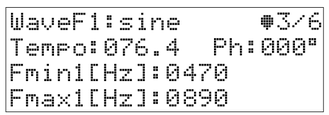
QUICK TIP - Wah: *Using the MIDICC#30 and #75 the filter 1 creates the Wah Pedal auto setting (routing=5,Q1=18,F1Md=EQ). This gives instant access to the Wah Pedal. Once the MIIDICC#30 is followed by 0 (Wah off) the filters are restored in the original configuration.*

3. **env- = envelope negative mode**. In this configuration, the Filter will move according to the settings of page 5/6 and the filter frequency shift will **decrease** proportionally to the playing strength. For more detail, see page 5/6 of the Filter configuration menu.
4. **EQ = Equalizer mode**. See page 6/6 for the settings of this page.

- To change the Filter Mode settings of F1 (F1Md) or F2 (F2Md), press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to F1Md or F2Md. Adjust the value with the **selection dial** (**4**).

PAGE 3/6 - AUTO MODE MODULATION SETTINGS FOR F1

This page is used to configure filter F1 when auto mode is selected for F1 (***F1Md*** set to auto on page 2/6).



WaveF1 – Filter F1 modulating waveform. Range: sine, trig, trap, rect, expo, shl1, shl2, shl3.

This parameter selects the waveform assigned to the individual modulator of each filter. You can choose from among the following possibilities (see 'Appendix A' on page 62 for more details on the modulating waveforms):

1. **sine** = sinusoidal
2. **trig** = triangle
3. **trap** = trapezoidal
4. **rect** = symmetric square waveform
5. **expo** = exponential
6. **shl1** = shelf waveform 1
7. **shl2** = shelf waveform 2
8. **shl3** = shelf waveform 3

- To change or select a modulating waveform for F1, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to WaveF1. Adjust the value with the **selection dial** (**4**).

Tempo – Speed of the F1 modulator. Range 3 BPM (20 s) - 550 BPM (9.16 Hz)

- To change the Tempo of the F1 modulating waveform, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Temp. Adjust the value with the **selection dial** (**4**).

Ph – Phase of the F1 modulator. Range: 0°, 90°, 180°, 270°

Parameter Ph controls the phase of the modulating waveform. It is used to control the relative phase of effects such as the Tremolo/Panner, Phaser, Filters (in auto mode), and Chorus, when used simultaneously. (For more details refer to the QUICK TIP box 'Phase of the modulating waveforms', on page 27).

- To alter the phase of the F1 modulator, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Ph. Adjust the value with the **selection dial** (**4**).

Fmin1(Hz) – F1 minimum frequency. Range: 370 Hz to 1968 Hz

Fmax1(Hz) – F1 maximum frequency. Range: 370 Hz to 1968 Hz

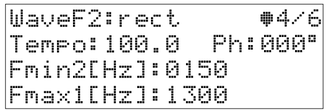
These values define the frequency range swept by filter F1 in auto mode.

- To change the value of Fmin1 or Fmax1, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Fmin1 or Fmax1. Adjust the value with the **selection dial** (**4**).

⚠ ***Please note: PedalPro will NOT allow you to set Fmax1 smaller than Fmin1.***

PAGE 4/6 - AUTO MODE MODULATION SETTINGS FOR F2

This page is used to configure filter F2 when auto mode is selected for F2 (***F2Md*** set to auto on page 2/6).



WaveF2 – Filter F2 modulating waveform. Range: sine, trig, trap, rect, expo, shl1, shl2, shl3.

This is the waveform assigned to the individual modulator of each filter. You can choose from among the following possibilities (see Appendix A, on page 62, for more details on the modulating waveforms):

1. **sine** = sinusoidal
2. **trig** = triangle
3. **trap** = trapezoidal
4. **rect** = symmetric square waveform
5. **expo** = exponential
6. **shl1** = shelf waveform 1
7. **shl2** = shelf waveform 2
8. **shl3** = shelf waveform 3

- To change or select a modulating waveform for F2, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to WaveF2. Adjust the value with the **selection dial** (**4**).

Tempo – Speed of the F2 modulator. Range 3 BPM (20 s) - 550 BPM (9.16 Hz)

- To change the Tempo of the F2 modulating waveform, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Tempo. Adjust the value with the **selection dial** (**4**).

Ph – Phase of the F2 modulator. Range: 0°, 90°, 180°, 270°

Parameter Ph controls the phase of the modulating waveform. It is used to control the relative phase of effects such as the Tremolo/Panner, Phaser, Filters (in auto mode), and Chorus, when used simultaneously. (For more details refer to the QUICK TIP box 'Phase of the modulating waveforms', on page 27).

- To alter the phase of the F2 modulator, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Ph. Adjust the value with the **selection dial** (**4**).

Fmin2 – F2 minimum frequency. Range: 150 Hz to 2697 Hz

Fmax2 – F2 maximum frequency. Range: 370 Hz to 2697 Hz

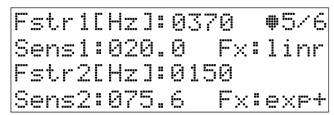
These values define the frequency range swept by filter F2 in auto mode

- To change the value of Fmin2 or Fmax2, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Fmin2 or Fmax2. Adjust the value with the **selection dial** (**4**).

⚠ ***Please note: PedalPro will NOT allow you to set Fmax2 smaller than Fmin2.***

PAGE 5/6 - ENVELOPE MODE MODULATION SETTINGS FOR F1 AND F2

This page is used to configure Filters F1 and F2 when in envelope mode (***F1Md*** and/or ***F2Md*** set to env+ or env- on page 2/6).



Fstr1(Hz) – Start frequency, filter F1. Range: 370 Hz to 1968 Hz

Sets the start frequency of the modulator sweep of filter F1 in envelope mode

- To change the value of the starting frequency of the modulator of F1, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Fstr1. Adjust the value with the **selection dial** (**4**).

Sens1 – Sensitivity of filter F1. Range: 0-100%

This parameter defines how much the force you put into your strumming action will affect the displacement of filter F1.

- To change the value of the sensitivity of F1, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Sens1. Adjust the value with the **selection dial** (**4**).

Fx – Displacement function, F1. Range: linear (lnr), positive exponential (exp+), negative exponential (exp-).

The parameter Fx - on the **second line** of the display on page 5/6 - defines the trajectory of the displacement of F1 as a function of your strumming force.

- To select or modify the displacement function for F1, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Fx on the **second line** of page 5/6. Adjust the value with the **selection dial** (**4**).

Fstr2(Hz) – Start frequency, F2. Range: 150 Hz to 2697 Hz

Sets the start frequency of the modulator sweep of filter F2 in envelope mode

- To change the value of the starting frequency of the modulator of F2, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Fstr2. Adjust the value with the **selection dial** (**4**).

Sens2 – Sensitivity of filter F2. Range: 0-100%

This parameter defines how much your strumming action will affect the displacement of filter F2.

- To change the value of the sensitivity of F2, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Sens2. Adjust the value with the **selection dial** (**4**).

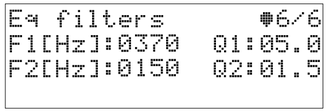
Fx – Displacement function, F2. Range: linear (lnr), positive exponential (exp+), negative exponential (exp-).

The parameter FX - on the **fourth line** of the display on page 5/6 - defines the trajectory of the displacement of F2 as a function of your strumming force.

- To select or modify the displacement function for F2, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Fx on the **fourth line** of page 5/6. Adjust the value with the **selection dial** (**4**).

PAGE 6/6 - EQUALIZER MODE

On this page you can configure filters F1 and F2 when you are in equalizer mode (***F1Md*** and/or ***F2Md*** set to EQ on page 2/6).



F1(Hz) – Enhanced frequency, F1. Range: 370 Hz to 1968 Hz

This is the frequency at which filter F1 produces the maximum output level.

- To change the value of enhanced frequency of F1, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to F1(Hz). Adjust the value with the **selection dial** (**4**).

Q1 – Resonance factor, filter F1. Range: 1 to 18 dB

The resonance factor characterises a filter's bandwidth relative to its centre frequency. Essentially, the higher the resonance Q, the more the filter will emphasise the frequencies around its centre frequency. For user's convenience, Q1 and Q2 can be edited on either page 2/6 or page 6/6 and the values across the two pages will be kept in sync.

- To change the Q of filter F1 (Q1), press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Q1. Adjust the value with the **selection dial** (**4**).

F2(Hz) – Enhanced frequency, F2. Range: 150 Hz to 2697 Hs

This is the frequency at which filter F2 produces the maximum output level.

- To change the value of enhanced frequency of F2, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to F2(Hz). Adjust the value with the **selection dial** (**4**).

Q2 – Resonance factor, filter F2. Range: 1 to 16

- To change the Q of filter F2 (Q2), press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Q2. Adjust the value with the **selection dial** (**4**).

Working with Effects: Filters

TIPS & TRICKS - FILTERS

Because the Filters of your PedalPro can work in so many different ways, you may need some time before you will be completely familiar with all the sound possibilities they offer and discover the many, many different sounds they can produce.

We recommend the approaches explained below when determining the sound you want to produce and how to do it.

What sound do I want to create?

1. Decide which filter to use: F1, F2, or combination (see also the chapter 'Routing Options - An Overview' on page 30).
   - For the classic Wah sound, use filter F1 or refer to 10.6
   - For a deeper Wah sound, use filter F2.
   - To generate vowels, use both filters.
2. Decide which filter(s) mode to use:
   - For an auto-Wah using either one of the two filters, use auto mode.
   - For Vowel Sounds produced by both filters, use auto mode.
   - To set either one of the two filters, or both of them, as an envelop filter or envelope vowel, select env+ or env- (envelope modes). In an envelope filter, the force you put into your strumming action will directly influence the frequency displacement (sweeping action) of the filter.

How do I create this sound?

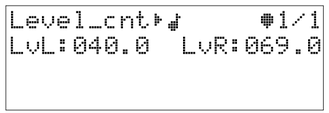
- Choose your routing configuration by switching on the filters and choosing between the different routing options on page 1/6 of the filter configuration menu.
- Adjust the ranges of the parameters according to the mode of the filter:
  - › If the mode of a filter is set to auto, adjust the parameters on pages 2 and 3 (for F1), or 2 and 4 (for F2) of the filter configuration menu.
  - › If the mode of F1, F2, or both is set to envelope (e.g., env+ or env), adjust the parameters on pages 2 and 5.
  - › If the mode of F1, F2, or both is set to equalizer, adjust the parameters on pages 2 and 6 of the filter configuration menu.
- If you want to control one of the filter's parameters with an expression pedal, use the proper MIDICC number as indicated in page 50 of the manual.

9.3.8 Volume Controls

PedalPro™ has stereo, channel-independent post Volume Controls that give you tight, precise control of what goes into your amplifiers. When you use them as a volume pedal, the left and right volumes are assigned to the same MIDICC#71

PARAMETERS

- To enter the Volume configuration page, press the **multifunction key**



Level_cnt – Volume controls effect switch. Range: on (), off ()

- To enable () or disable () the analogue Volume Controls for the left and right channel in your effect chain, press the **BYPASS EFFECT 2** key (**10c**).

LvL – Volume control, left channel. Range: 0-100%

This parameter controls the total output level on the left channel.

- To change the total output level of PedalPro's left channel, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to LvL. Adjust the value with the **selection dial** (**4**).

LvR – Volume control, right channel. Range: 0-100%

This parameter controls the total output level on the right channel.

- To change the total output level of PedalPro's right left channel, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to LvR. Adjust the value with the **selection dial** (**4**).

9.4 POST EFFECTS

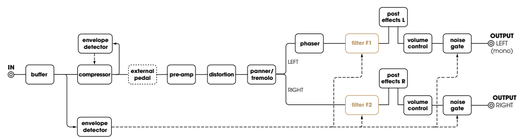
The post effects include all the BBD based effects like chorus, flanger and delay and post loops (AUX SEND/RETURN).

All post effects are entirely analogue and designed using the most advanced analogue components, ensuring an unbeatable sound quality. Plus, with an expression pedal connected via a MIDI Foot Controller, you can control - while you play - fundamental parameters including the Wet/Dry ratio, the Delay time, the Delay feedback delay, the Flanger feedback and many more (see the MIDI section on page 49-50).

For those who need to add an external stereo digital effect or two extra analogue pedals at the end of the effect chain (just before volume control and noise gate) the PedalPro features a set of stereo AUX send/return connectors. If you use a digital external processor, the internal preamplifiers and mixers will allow to match the signal dynamic of your external effect up to +7dBu and to benefit of a full analog path of your unprocessed signal. In this way, with the mixing ratio under your control, the analogue quality and harmonic richness of your sound is always preserved.

The post effects include the following effects/modules:

1. Chorus;
2. Flanger;
3. Chorus and Vibe;
4. Delay with left/right routing options;
5. De-tuner for modulating the delay;
6. Auxiliary (AUX) mixer, providing additional loop options.



The post effects of your PedalPro are at the end of the PedalPro's effect chain, just before stereo volume controls and noise gates.

POST EFFECTS ROUTING OPTIONS

The following routing configurations are available for the effects of the expansion board. The routing can be changed by accessing the Delay configuration menu (see section below).

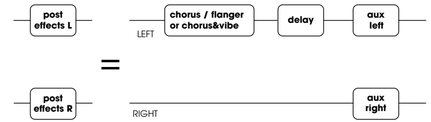


Fig. 9-2. Post effects with the delay on the left channel.

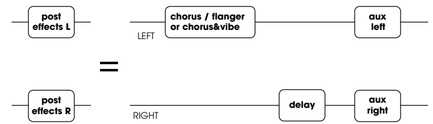


Fig. 9-3. Post effects with the delay on the right channel.

Working with your post effects

The Chorus, Flanger and Delay configuration menus are accessible from page 3 of the main menu, where two options are available: '**ChFl**' and '**Dly**'.



Post Effects

9.4.1 Chorus, Vibe, Flanger

PARAMETERS

- To enter the Chorus, Vibe and Flanger configuration pages, press the **multifunction key** (**10a**) labelled '**ChFl**' on page 3 of the main menu.

Owing to the large number of available parameters, the configuration of the analogue Chorus, Vibe and Flanger is spread over four menu pages as follows:

Page 1/4 (Modulation) defines the modulation type.

Page 2/4 (Chorus) defines the settings for the Chorus.

Page 3/4 (Vibe) defines the settings for the Vibe.

Page 4/4 (Flanger) defines the settings for the Flanger.

- To scroll through the four pages of the Chorus. Vibe and Flanger configuration menu, press **Page -** (**11**) or **Page +** (**12**).

The scheme of the Chorus (with Vibe) and of the Flanger circuits below will help you to understand the parameters of the analogue Chorus and Flanger.

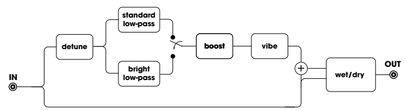


Fig. 9-4. The Chorus with Vibe

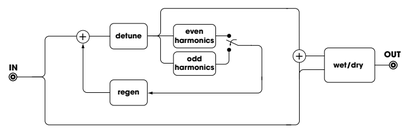
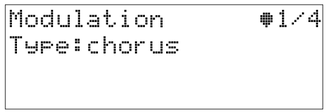


Fig. 9-5. The Flanger

PAGE 1/4 - MODULATION TYPE

This menu allows you to select the modulation type.

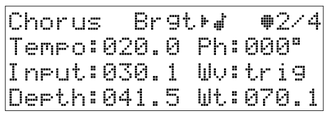


Type – Modulation type selector. Range: none, chorus, ch&vib, flanger

- To change the modulation type, press **EDIT** (**5**). The cursor will immediately blink next to the modulation type. Adjust the value with the **selection dial** (**4**).

PAGE 2/4 - CHORUS CONFIGURATION

To use the Chorus of the Expansion Board, set the parameter ***Type*** on page 1/4 to either 'chorus' or ' ch&vibe'. Adjust the Chorus settings on page 2/4.



Brgt – Bright selector. Range: on (, Bright Low-pass), off (, Standard Low-pass)

- Press the **PARAM. SWITCH** key (**10d**) to select the low-pass filter type, bright () or standard/off ().

Tempo – Speed of the Chorus modulator. Range: 3 BPM (20 sec) - 550 BPM (9.16 Hz)

- To change the Tempo of the modulating waveform, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Tempo. Adjust the value with the **selection dial** (**4**).

Input – Range: 0-100%.

The Input parameter defines the input gain of the analogue Chorus effect.

- To alter the input gain of the Chorus, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Input. Adjust the value with the **selection dial** (**4**).

Depth – Depth of the Chorus modulation. Range: 0-100%

- To alter the depth of the Chorus effect, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Depth. Adjust the value with the **selection dial** (**4**).

Ph – Phase of the Chorus modulator**.** Range: 0°, 90°, 180°, 270°

The phase of the modulator controls the phase of the modulating waveform. It is used to control the relative phase among effects that offer the possibility of selecting the Phase of the Modulator (Ph), such as the Tremolo/Panner, Phaser, Auto Filters, etc. This parameter is particularly useful when the Chorus is used in combination with the Vibe, as it gives you the option to synchronise their tempos.

- To alter the phase of the Chorus modulator, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Ph. Adjust the value with the **selection dial** (**4**).

Wv – Modulating waveform. Range: sine, trig, trap, rect, expo, shl1, shl2

The chorus modulating waveform parameter allows you to select from among the available modulating waveforms. All the classic waveforms are included, along with some exclusive, VR-designed waveforms. Available waveforms include: sine, triangle, trapeze, rectangle, and shlf (shelf) (see Appendix A for more details on the modulating waveforms).

- To change or select a modulating waveform, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Wv. Adjust the value with the **selection dial** (**4**).

Wt – Wet/dry ratio control. Range: 0-100%

The Wet parameter allows you to control the ratio between Chorus signal (wet) and input signal (dry) in the Chorus output signal.

- To alter the wet/dry ratio of the Chorus, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Wt. Adjust the value with the **selection dial** (**4**).

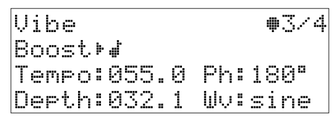
TIPS & TRICKS - CHORUS

- Set ***Bright:*** (standard/off) for a more natural chorus sound (similar to the Boss CE-1*). Use ***Bright:*** (bright low-pass/on) if you are looking for a sound with plenty of high and middle tones.
- Start by using an input gain of 100% (set ***Input:***100.0). If you normally use the chorus on its own, input 100% works well with both single and double coil pickups. If you usually combine your chorus with other effects, slightly reduce the input gain.
- By setting a ***Tempo*** of between 25 and 40 BPM, ***Depth:*** 100.0 (or 100%) and ***Wv:*** trig, a sweet slow chorus sound will be produced like that of a Boss CE-1*.
- To produce a Vibrato sound, increase the speed (parameter ***Tempo***) starting from 85 BPM and reduce the value of ***Depth***. Use a sine waveform (set ***Wv:*** sine)

PAGE 3/4 - VIBE CONFIGURATION

This completely new effect is produced by amplitude-modulating the amount of detuned signal produced by the chorus, before it is mixed with the dry signal.

This effect sounds greatly enhances either a fast chorus (for a 'Lesley' sound) or a very slow chorus (below 40 BPM). Select modulation ***Type:*** ch&vib on page 1/4 and use the settings for the Vibe on page 3/4 in combination with the Chorus settings on page 2/4.



**All trademarks are property of their respective owners and used for reference only.*

Boost – Range: on (𝅘𝅥𝅯), off (𝄽)

- Press the **PARAM. SWITCH** key (**10b**) to turn the Boost on (𝅘𝅥𝅯) or off (𝄽).

Tempo – Speed of the Vibe modulator. Range: 3 BPM (20 sec) - 550 BPM (9.16 Hz)

- To change the Tempo of the Vibe modulating waveform, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Tempo. Adjust the value with the **selection dial** (**4**).

Depth – Depth of the Vibe modulation. Range: 0-100%

- To alter the depth of the Vibe effect, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Depth. Adjust the value with the **selection dial** (**4**).

Ph – Phase of the Vibe modulator**.** Range: 0°, 90°, 180°, 270°

The phase of the modulator controls the phase of the modulating waveform. It is used to control the relative phase among effects that offer the possibility of selecting the Phase of the Modulator (Ph), e.g., the Tremolo/Panner, Phaser, Auto Filters. This parameter is particularly useful when the **Vibe is used in combination with the Chorus**, as it gives you the option to synchronise their tempos.

- To change the phase of the Vibe modulator, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Ph. Adjust the value with the **selection dial** (**4**).

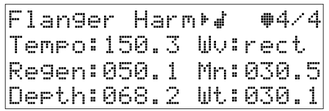
Wv – Modulating waveform. Range: sine, trig, trap, rect, expo, shl1, shl2

The modulating waveform parameter allows you to select from among the available modulating waveforms. All the classic waveforms are included, along with some exclusive, VR-designed waveforms. Available waveforms include: sine, triangle, trapeze, rectangle, and shlf (shelf) (see Appendix A for more details on the modulating waves).

- To change or select a modulating waveform for the Vibe, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Wv. Adjust the value with the **selection dial** (**4**).

PAGE 4/4 - FLANGER CONFIGURATION

To add the Flanger of the Expansion Board to your effect chain, set the parameter ***Type*** on page 1/4 to either 'flanger'. Adjust the Flanger settings on page 4/4.



Harm – Harmonics selector Range: even harmonics (𝅘𝅥𝅯), odd harmonics (𝄽)

This switch allows you to select whether to use even or odd harmonics to create the flanging effect (see Tips&Tricks box in this page).

- Press the **PARAM. SWITCH** key (**10d**) to select the even harmonics (𝅘𝅥𝅯) or the odd harmonics off (𝄽).

Tempo – Speed of the Flanger modulator. Range: 3 BPM (20 sec) - 550 BPM (9.16 Hz)

- To adjust the Tempo (speed) of the Flanger modulating waveform, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Tempo. Adjust the value with the **selection dial** (**4**).

Regen – Flanger feedback control. Range: 0-100%

The Regen parameter controls the amount of signal that is fed back into the Flanger effect.

- To change the Regen level of the Flanger, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Regen. Adjust the value with the **selection dial** (**4**).

Depth – Depth of the Flanger modulation. Range: 0-100%

- To alter the depth of the Flanger, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Depth. Adjust the value with the **selection dial** (**4**).

Wv – Modulating waveform. Range: sine, trig, trap, rect, expo, shl1, shl2

The modulating waveform parameter allows you to select from among the available modulating waveforms for the Flanger. All the classic waveforms are included, along with some exclusive, VR-designed waveforms. Available waveforms include: sine, triangle, trapeze, rectangle, and shlf (shelf) (see Appendix A for more details on the modulating waves).

- To change or select a modulating waveform for the Flanger, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Wv. Adjust the value with the **selection dial** (**4**).

Mn (Manual) – Flanger delay manual adjustment. Range: 0-100%

The Manual parameter allows you to controls the amount of delay applied to the flanged signal.

- To vary the amount of delay of the Flanger, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Mn. Adjust the value with the **selection dial** (**4**).

Wt – Wet/dry ratio control. Range: 0-100%

The Wet parameter allows you to control the ratio between flanged signal (wet) and input signal (dry) that goes into the Flanger output signal (see Fig. 9-5, on page 40).

- To alter the wet/dry ratio of the Flanger effect, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Wt. Adjust the value with the **selection dial** (**4**).

TIPS & TRICKS - FLANGER

- A high ***Mn*** (Manual) value in combination with small amount of ***Depth*** will produce a sound with a higher frequency content.
- Even harmonics (***Harm*** 𝅘𝅥𝅯) produce a jet-like sound.
- Odd harmonics (***Harm*** 𝄽) produce a watery sound.
- When using a highly rhythmic modulating waveform (for instance, when Wv is set to 'rect' or one of the 'shlf' waveforms) use a small ***Depth*** value (below 40%) and find the sweet spot by adjusting the ***Mn*** parameter.

9.4.2 Delay

PARAMETERS

Because of the number of parameters that can be accessed and adjusted, the configuration of the analogue Delay and Detuner is spread over three menu pages as follows:

Page 1/3 (Routing) defines the Delay routing and range.

Page 2/3 (Delay) defines the settings for the Delay.

Page 3/3 (Modulation) defines the settings for the Delay modulation.

The scheme of the Delay circuit below will help you to understand how to control the parameters of the analogue Delay and Detuner of your PedalPro. The Expansion board provides you with three different analogue circuits for delaying your signal according to the type of sound you are after. A dedicated circuit for each delay range will provide a noiseless delay and amazing sound definition.

- To enter the Delay and Detuner configuration pages, press the **multifunction key** (**10a**) labelled '**Dly**' on page 3 of the main menu.
- To scroll through the three pages of the Delay and Detuner configuration menu, press **Page -** (**11**) or **Page +** (**12**).

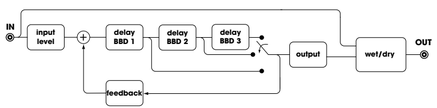


Fig. 9-6. The Delay

PAGE 1/3 - DELAY ROUTING AND RANGE

The menu on this page allows you to position (or route) your delay on either the left or right channel. If you use the PedalPro in a mono configuration, select 'left' to insert the Delay in your effect chain (see Fig. 9-2 and Fig. 9-3, on page 39).



Routing – Routing selector. Range: none, left, right

- To change the routing, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Routing. Adjust the value with the **selection dial** (**4**). When '**none**' is selected, the **Delay effect is deactivated**.

Range – Available delay range. Range: 23-99 ms (short), 40-409 ms (medium), 61-614 ms (long)

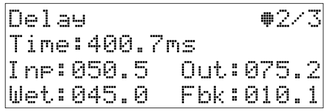
- To set the available delay range, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Range. Adjust the value with the **selection dial** (**4**).

TIPS & TRICKS - DELAY

- For short delays (doubling echo, slapback, reverberation emulator) set the ***Range*** parameter to 'short'; this gives you access to an analogue delay with an adjustable range of 23-99 ms.
- For medium delays (slapback and infinite loops) set the ***Range*** to 'medium'; you can select your analogue delay from a range of 40-409ms.
- For long delays (infinite loops, small phrase loops) set ***Range*** to 'long'; this produces an analogue delay with a range between 61-614 ms.
- Finally, adjust the amount of delay applied, within the range that you have just selected, on page 2/3 of the Delay configuration menu (parameter ***Tempo***).

PAGE 2/3 - DELAY CONFIGURATION

This is the configuration page for the parameters of the Delay.



Time – Amount of delay applied. Range: 23-99 ms (short), 40-409 ms (medium), 61-614 ms (long)

- To change the amount of delay, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Time. Adjust the value with the **selection dial** (**4**).

Inp – Input signal level selector. Range: 0-100%

The Inp (input) parameter controls the level of the signal at the input of the Delay effect.

- To adjust the input signal level, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Inp. Adjust the value with the **selection dial** (**4**).

Wet – Wet/dry ratio control. Range: 0-100%

The Wet parameter allows you to control the ratio between delayed signal (wet) and input signal (dry) in the Delay output signal.

- To alter the wet/dry ratio of the Delay, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Wet. Adjust the value with the **selection dial** (**4**)..

Out – Delay output level. Range: 0-100%

The Out parameter controls the output level of the analogue Delay effect..

- To adjust the output level of the Delay, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Out. Adjust the value with the **selection dial** (**4**).

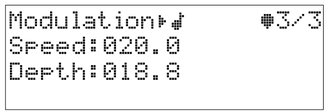
Fbk – Feedback control. Range: 0-100%

The Fbk parameter controls the amount of delayed signal that is fed back into the Delay effect.

- To change the feedback level of the Delay, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Fbk. Adjust the value with the **selection dial** (**4**).

PAGE 3/3 - MODULATION CONFIGURATION

By modulating the clock of the BBD delay stages, you can produce a shimmering delay that simulates vintage tape delays. To use this feature you must first configure the Delay using the parameters on page 1/3 and page 2/3, and then activate and adjust the Detuner on page 3/3.



Modulaiton– Range: on (☝), off (☁)

- When on this page, press the **BYPASS EFFECT 1** key (**10a**) to switch the Delay modulation (☝) or off (☁).

Speed – Speed of the modulation Range: 0-100%

- To change the speed of the Detuner, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Speed. Adjust the value with the **selection dial** (**4**).

Depth – Depth of the modulation. Range: 0-100%

- To alter the depth of the modulation effect, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Depth. Adjust the value with the **selection dial** (**4**).

9.4.3 AUX Connections (Post-loop)

On page 2 of the main menu the user can access the configuration for the external effects loop (pre-loop, see section 7.6, on page 10) or the AUX loop (post-loop).

The **AUX SEND** and **AUX RETURN** (**16a** to **16d**) jack connectors can be used for connecting either up to two external stomp box pedals (see Fig. 9-8, Fig. 9-9, and Fig. 9-10) or a DSP effect unit (see Fig. 9-11) at the end of the audio chain before the Noise gate and the Volume controls.

Like in the pre-loop, the post-loop connections are controlled by internal relays that electrically connect and disconnect the external effects to your post-loops according to the ***Aux type*** parameter which is part of your sound preset definition. Therefore in one sound preset your external effect may be part of your sound effect chain, while in an other sound preset your external effect is true bypassed.

ACCESSING POST LOOP OPTIONS

- On page 2 of the main menu, press the **multifunction key** (**10d**) labelled '**Ext**'.



Page 1/2 (Ext. effects, AUX type) activates and selects the post-loop routing.

Page 2/2 (AUX mixer) defines the settings for the auxiliary mixer*.

- To switch between the two pages of the External Effects and AUX Mixer loops configuration menu, press **Page -** (**11**) or **Page +** (**12**).

** **Aux_type** on page 1/2 must be set to 'Aux + Mixer' in order to activate the auxiliary mixer.*

PAGE 1/2 - AUX TYPE

On this page you can select which loops are enabled - and their position in the effects' chain - as well as the routing of the post-loop(s) connected to the auxiliary jack connectors **AUX SEND** and **AUX RETURN** (**16a** to **16d**).



Aux Type – Auxiliary loops routings. Range: none (all off), LoopL>OutL, LoopR>OutR, LoopL&R>Out, Aux + Mixer

The Aux type parameter allows you to decide how to route the **post loop(s)** connected between the **AUX SEND** jacks (**16a** and **16b**) and the **AUX RETURN** jacks (**16c** and **16d**). The diagrams in the next page of this manual will present an overview of the different routing options that can be selected.

The main difference with the loop between the EXT. EFFECT jacks is that the AUX SEND and RETURN jacks are positioned at the end of the effect chain, just before the output level control and the Noise Gate (see section 9.4). This makes the AUX loops ideal for connecting reverberation effects and other modulation effects. The routing options are shown in the next page.

- To set the available delay range, press **EDIT (5).** The cursor will blink directly next to AUX type. Adjust the value with the **selection dial** (**4**).

AUX LOOPS ROUTING OPTIONS - AN OVERVIEW

This figures below show the AUX loop (post-loop) routing options. These can be selected by adjusting the parameter ***Aux type*** on page 1/2 of the External effects configuration menu.

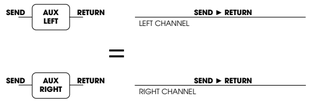


Fig. 9-7. Aux type: none

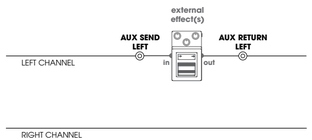


Fig. 9-8. Aux type: LoopL > OutL

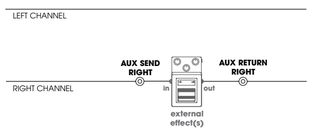


Fig. 9-9. Aux type: LoopR > OutR

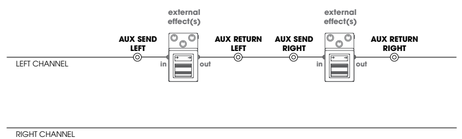


Fig. 9-10. Aux type: LoopL&R > Out

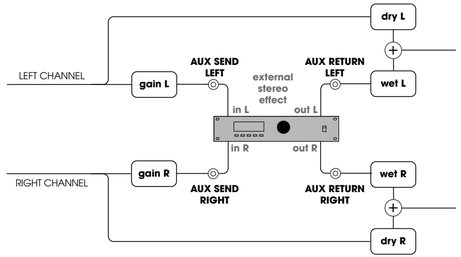


Fig. 9-11. Aux type: Aux + Mixer

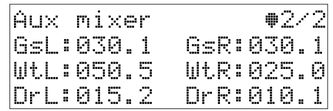
When the ***Aux type*** is set to be one of the following configurations: `LoopL>OutL', `LoopR>OutR', `LoopL&R>Out', then the **AUX SEND/RETURN** jacks (**16a** to **16d**) operate at instrument level.

If ***Aux type*** is set to `AUX+ Mixer' the **AUX SEND/RETURN** jacks (**16a** to **16d**) operate at up to +7dBu (line level). To accommodate DSP units operating at standard +4dBu the send signal levels can be individually adjusted using parameters ***GsL***, ***GsR*** (gain send level Left/Right). Using the parameter ***WtL*** and ***WtR*** (Wet Left/Right) the return signal levels are individually readjusted to instrument level and mixed with the analog signals by means of the ***DrL***, ***DrR*** (Dry level Left/Right) parameters. ***GsL***, ***GsR***, ***WtL***, ***WtR***, ***DrL***, ***DrR*** and ***Aux type*** parameters are part of your preset definition and therefore are saved in the preset (see next section).

When ***Aux type*** is selected to `none' all the effects connected to the **AUX SEND/RETURN** jacks (**16a** to **16d**) are true bypassed.

PAGE 2/2 - AUX MIXER

When the loop routing parameter ***Aux type*** on page 1/2 is set to `Aux + Mixer', you can adjust on this page the settings of the auxiliary mixer, so as to change how the sound of your PedalPro is blended with that of your external (stereo) effect. Fig. 9-11 should help identifying the AUX mixer's parameters and their effect on the sound chain.



GsL – Gain level, send left channel. Range: 0-100%.

The GsL (Gain send left) parameter controls the level of gain applied to the signal sent to the external effect via the **AUX SEND LEFT** jack (**16a**).

- To adjust the amount of gain on the left send channel, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to GsL. Adjust the value with the **selection dial** (**4**).

GsR – Gain level, send right channel. Range: 0-100%.

The GsL (Gain send right) parameter controls the level of gain applied to the signal sent to the external effect via the **AUX SEND RIGHT** jack (**16b**).

- To adjust the amount of gain on the right send channel, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to GsR. Adjust the value with the **selection dial** (**4**).

DrL – Dry level, left channel. Range: 0-100%.

The DrL (Dry left) parameter controls the amount of dry signal that is bypassing the external effect on the left channel.

- To adjust the amount of dry signal on the left channel, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to DrL. Adjust the value with the **selection dial** (**4**).

DrR – Dry level, right channel. Range: 0-100%.

The DrR (Dry right) parameter controls the amount of dry signal that is bypassing the external effect on the right channel.

- To adjust the amount of dry signal on the right channel, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to DrR. Adjust the value with the **selection dial** (**4**).

WtL – Wet level, left return channel. Range: 0-100%.

The WtL (Wet left) parameter controls the amount of wet signal coming from the external effect into the left channel, via the **AUX RETURN LEFT** jack (**16c**).

- To adjust the amount of wet signal on the left channel, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to WtL. Adjust the value with the **selection dial** (**4**).

WtR – Wet level, right return channel. Range: 0-100%.

The WtR (Wet right) parameter controls the amount of wet signal coming from the external effect into the right channel, via the **AUX RETURN RIGHT** jack (**16d**).

- To adjust the amount of wet signal on the right channel, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to WtR. Adjust the value with the **selection dial** (**4**).

TIPS & TRICKS - AUX MIXER

- If your external effect is a digital effect, **do not use** its internal mixer to mix the signal coming from the PedalPro (the "dry" signal) and the digitally-processed signal. Use instead the high quality AUX Mixer to mix the dry signal with the wet signal coming from your external digital effects. In this way the dry signal will bypass the digital effect conserving the crystal clear characteristic typical of the PedalPro
- Remember that the parameters on the Ext/AUX loops menu pages 1/2 and 2/2, including the AUX Mixer parameters, are preset parameters and not global parameters. That is, they can be saved as part of a preset and they can be defined differently on different presets. This enables you to use your external effects either in combination with the PedalPro effects, or on their own by simply creating a preset in which all PedalPro's on-board effects are bypassed and only the Ext and/or AUX loops are activated.
- You may keep your external effects always on. For each preset, the PedalPro will bypass them or activate them according to the preset parameters defined on Ext/AUX loops menu pages 1/2 and 2/2.

10 MIDI

The DIN-5 connector mounted in the front panel is compatible with ADES (bidirectional) and MIDI (in) protocols. The version to which this manual refers to is the MIDI in one. Therefore to control the PedalPro you can connect any MIDI out controller into the ADES connector (MIDI in).

The MIDI out of the PedalPro is used as MIDI thru. Therefore all the MIDI messages received will be copied to the MIDI out connector.

MIDI in messages are executed only when you are in any of the main pages 1/4-4/4. During manual editing, the MIDI commands are disregarded.



The MIDI in activity is monitored by the symbol ♪ on the third line of the display. If you turn on the Wah via MIDICC#30 this will affect the display on row 2 and you will be inhibited from editing the filter parameters



If you turn on Lead1 via MIDICC#31 this will show on the display and you will be inhibited from editing the settings of the following effects: filter, distortion, compressor, noise gate, pre and post loop, and amp switching. Leads parameters can be edited by accesing the Lead menu on the main page 4/4



If the Wah, Lead1 and Lead 2 are all turned on, the sound settings follow this priority list:

1-Wah (Highest priority)

2-Lead1

3-Lead2

If Wah, Lead1 and Lead 2 are all on, once you deactivate the Wah, the Lead1 will take over the settings. The Wah can be combined with any of Leads.

Activating or deactivating the Wah,Lead1 and Lead2 does not affect the settings of any modulation effects (VCA, Phaser, Chrous/flanger), the Delay and the post-loop(Aux)

10.1 MIDI IN IMPLEMENTATION

Program change	
First byte - Status	Second byte
CnH n=Midi Channel (1-16)	0-99

Bank Select		
First byte - Status	Second byte	Third byte
BnH n=Midi Channel (1-16)	00H	0-5*
BnH n=Midi Channel (1-16)	20H	Ignored

PedalPro preset cross reference table			
Loaded preset	Bank MSB	Bank LSB	Program change
0-99	0	Ignored	0-99
100-199	1	Ignored	0-99
200-299	2	Ignored	0-99
300-399	3	Ignored	0-99
400-499	4	Ignored	0-99
1-18 favourites	5	Ignored	0-17

** See how to link MIDICC commands to a* specific routing

Parameter switch		**Description**	**Range**	
MIDI CC	Name		Off	ON
12	Mid volume	On/Off mid volume control	0	127
13	Compressor	On/Off compressor	0	127
14	Boost	On/Off boost	0	127
15	Distortion	On/Off distortion	0	127
16	Brigth	On/Off distortion bright pre eq	0	127
17	Noise gate	On/Off noise gate	0	127
18	VCA	On/Off tremolo/panner	0	127
19	Phaser	On/Off phaser	0	127
20	Volume	On/Off end volume control	0	127
21	External_Pedal	On/Off pre-loop	0	127
22	Amp switch 1	On/Off amp switch1	0	127
23	Amp switch 2	On/Off amp switch2	0	127
24	Amp switch 3	On/Off amp switch3	0	127
25	Amp switch 4	On/Off amp switch4	0	127
26	Bright chorus	On/Off bright chorus	0	127
27	Boost chorus	On/Off boost chorus	0	127
28	Flanger harmonics	ODD/EVEN flanger harmonics	0	127
29	Delay modulation	On/Off delay modulation	0	127
Global switches				
30	Wah	On/Off Wah	0	127
31	Lead 1	On/Off Lead1	0	127
33	Lead 2	On/Off Lead2	0	127
34	Filters	On/Off if on assign filter routing *	0	127
35	Chorus/flanger	On/Off if on assign modulation routing *	0	127
36	Delay	On/Off if on assign delay routing *	0	127
37	Aux	On/Off if on assign aux routing *	0	127
38	Bypass	On= Bypass	0	127
39	Mute	On= Mute	0	127
88	Tap tempo	Tap tempo reset / set (momentary)	1 x 0>127	2 x 0>127

The global switches take control over the preset switch settings. If you load a preset either manually or via midi program change and none of the global switches are set, the effect switches will be assigned as defined by the preset.

Parameter		Midi range		Range	
MIDI CC	Name	Min	Max	Min	Max
40	Boost gain	0	127	-6dB	25dB
41	Compression model	0	127	Limiter	Tube
42	Compression sensitivity	0	127	0	100%
43	Compression output level	0	127	0	100%
44	Compression attack	0	127	3ms	83ms
45	Compression release	0	127	0.1s	1.8s
46	Distortion tone	0	127	0	100%
47	Distortion low pass filter	0	127	0	2
48	Distortion output level	0	127	0	100%
49	Noise gate level	0	127	0	100%
50	Noise gate release	0	127	0	100%
51	Depth VCA / mid volume	0	127	0	100%
52	Phaser manual	0	127	0	100%
53	Phaser depth	0	127	0	100%
54	Chorus depth	0	127	0	100%
55	Chorus wet/dry	0	127	0	100%
56	Chorus input level	0	127	0	100%
57	Vibe depth	0	127	0	100%
58	Flanger depth	0	127	0	100%
59	Flanger wet/dry	0	127	0	100%
60	Flaner regen	0	127	0	100%
61	Flanger manual	0	127	0	100%
62	Delay time	0	127	0	100%
63	Delay feedback	0	127	0	100%
64	Delay input level	0	127	0	100%
65	Delay output level	0	127	0	100%
66	Delay wet/dry	0	127	0	100%
67	Delay modulation speed	0	127	0	100%
68	Delay modulation depth	0	127	0	100%
69	Aux mixer wet stereo	0	127	0	100%
70	Aux mixer dry stereo	0	127	0	100%
71	Post volume control stereo	0	127	0	100%

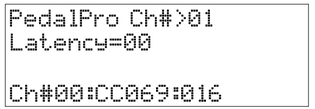
Parameter Wah/filters		Midi range		Range	
MIDI CC	Name	Min	Max	Min	Max
74	Fsynch_th	0	127	0	100%
75	Wah frequency	0	127	370Hz	1968Hz
76	Envelope sensitivity F1	0	127	0	100%
77	Envelope sensitivity F2	0	127	0	100%
78	Q1 resonance F1	0	72	0	16dB
79	Q2 resonance F2	0	62	0	18dB
80	Frequency F1 eq	0	127	370Hz	1968Hz
81	Frequency F2 eq	0	127	150Hz	2697Hz
82	Frequency F1 envelope start	0	127	370Hz	1968Hz
83	Frequency F2 envelope start	0	127	150Hz	2697Hz
84	Frequency F1 auto min	0	127	370Hz	1968Hz
85	Frequency F1 auto max	0	127	370Hz	1968Hz
86	Frequency F2 auto min	0	127	150Hz	2697Hz
87	Frequency F2 auto max	0	127	150Hz	2697Hz

If for example the delay is turned on via MIDICC 36 and a new preset is loaded, the delay remains on (independently from the preset delay switch status) and the delay settings of the new preset are uploaded. Therefore the global switches have higher priority with respect to the preset switch settings. The preset switch settigns can be edited manually from the PedalPro by accessing the corresponding effect pages.

⚠ ***If both Lead1 and Lead2 are turned on via a MIDICC command, Lead1 has an higher priority and will take over the controls. Once Lead1 is deactivated, the settings of Lead 2 are assigned.***

10.2 ASSIGN MIDI IN CHANNEL & MIDI IN MONITOR

To enter the MIDI menu configuration page, press the **multifunction key** (**10b**) labelled '**Midi**' on page 4/4 of the main menu.

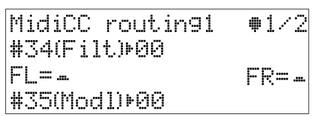


PedalPro Ch# – Assign the midi in channel of the PedalPro. This parameter is global. The last line of the display is a midi monitor to help you out during the MIDI configuration of your MIDI controller. The MIDI monitor shows only MIDICC and MIDI program changes that the PedalPro is listening to. During MIDI monitor the PedalPro commands are not executed.

Latency (00-03) - Some foot-controllers send several midi messages every time you change preset. These midi messages contain at least one program change and several switches status (MIDICC# 13-88). In this case to optimize the switching time among preset the best practice is to wait till all the midi messages are received. The waiting time is calculated from the first midi program change and is defined by: *Waiting time= 30ms+Latency*10ms.* As consequence latency shell be increase according to the number of midi messages. As an indication, bare in mind that 12 midi messages (e.g. 4 program changes and 12 MIDICC) can be handled with *Latency=0 => Waiting time =30ms*. For the sake of midi efficiency it is best to remove all the unused program changes sent from your controller.

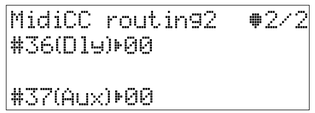
10.3 LINK MIDICC TO A SPECIFIC ROUTING

These two setting pages allow to link a MIDICC switch command to a specific routing. If for example you would like to turn on the filters with a specific routing configuration you need to set the parameter #34(Filt). To enter the 'Rout' menu configuration page, press the **multifunction key** (**10b**) labelled '**Rout**' on page 3/4 of the main menu.



#34(Filt) – Assign a specific filter routing when the MIDI CC#33 &127 are received. Bypass when the MIDI CC#33 & 0 are received. The filter routing list will affect the settings as indicate on page 33 of the manual. If the filter routing is set to 00 as indicated in the figure, the PedalPro assigns by default filter routing 5 (Filter F1)

#35(Modl) – Assign a specific modulation type when the MIDI CC#34 i&127 are received. Bypass when the MIDI CC#34 & 0 are received. The modulation routing list will affect the settings as indicate on page 40 of the manual. If

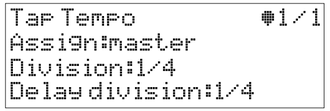


#36(Dly) – Assign a specific delay routing when the MIDICC#35&127 are received. Bypass when MIDI CC#35 & 0 are received. The Delay routing list will affect the settings as indicate on page 44 of the manual. If the delay routing 00 is set as indicated in the figure, the PedalPro assigns by default delay routing 1 (Delay left)

#37(Aux) – Assign a specific aux routing when the MIDI CC#36 &127 are received. Bypass when MIDI CC#36 & 0 are received. The Aux routing list will affect the settings as indicate on page 46 of the manual. If the aux routing 00 is set, the PedalPro assigns by default filter routing 5 (Aux+Mixer)

⚠ ***Linking MIDICC to a specific routing is required when the MIDI controller will turn on Filters or Chorus/Flanger or Delay or Aux for the first time and the default routing is different from the desired one. On a contrary, a saved preset with a specific routing configuration different from 00/none/no-loops-on will transfer the settings as default routing and does not require any MIDICC link editing***

10.4 TAP TEMPO



Assign – This parameter offers five different possibilities which allow you to assign the Tap Tempo to a group of time-based effects or to a specific effect or none, within the Preset you are editing: **Master**, **Delay**, **Tremolo**, **Filters**, **none.**

When the parameter Assign is set on **Master**, all the time based effects which are in your Preset will be synchronized at the same speed of your Tap Tempo.

When the parameter Assign is set on **Delay, Tremolo or Filters**, only the chosen effect will be synchronized at the same speed of your Tap Tempo while the other time-based effects will continue to work at the tempo you set manually.

When the parameter Assign is set on **none** your Preset will not be affected by the Tap Tempo.

- To change the ***Assign*** parameter, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Assign. Adjust the value with the **selection dial** (**4**).

Division – This parameter allows you to subdivide the tempo of all your time-based effects (except the Delay), according to the main tempo set with the Tap Tempo. You can subdivide the **Effects** tempo in **1/4** note, **1/8** note or **.1/8** note (.1/8note = 3/16 note).

- To change the ***Division*** parameter, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Division. Adjust the value with the **selection dial** (**4**).

Delay division - This parameter allows you to subdivide only the **Delay** tempo according to the main tempo set with the Tap Tempo. You can subdivide the Delay tempo in **1/4** note, **1/8** note or **.1/8** note (.1/8note = 3/16 note).

- To change the ***Delay division*** parameter, press **EDIT** (**5**). Use the **arrow keys** (**3**) to position the blinking cursor next to Delay division. Adjust the value with the **selection dial** (**4**).

Tap Tempo allows you to set the tempo to one or all the time-based effects (modulation and delay) by sending two momentary MIDICC#88. Make sure that the tap tempo switch on your controller is set momentary.
Once the tap tempo is set, the tempo will be assigned to each preset according to the assign and division parameters.

Setting the Tap Tempo

- If the measured Tempo between two MIDICC#88 is within the range 60BPM to 300 BPM the tempo is set .

Resetting the Tap Tempo

- If you send only one MIDICC#88 after approximatelly one second, The

10.5 LEADS

The leads are two global sound patches created by a specific configuration of Compressor, Pre_EQ (Filters) ,Boost, Distortion, Pre_loop, Amp switching and Noise gate which the user can access by sending one MIDI CC command. All other parameters/effects which are not part of the lead patch are not subjected to changes. Therefore if you are playing a preset with distortion and delay, a lead recall will change the distortion while the delay settings remain unchanged. Once the lead is de-activated all he parameters modified by the leads are restored into the original preset configuration.

10.5.1 ACCESSING LEAD SOUNDS VIA MIDI CC

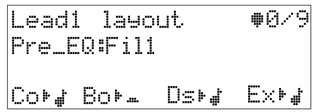
To activate/deactivate the leads you need to send the corresponding MIDI CC (Lead 1= MIDI CC31, Lead 2= MIDI CC33)

Lead 1 has priority on Lead 2. If both Leads are turn on, you play with Lead 1. Once Lead 1 is turned off, Lead 2 is in control.

10.5.2 EDITING LEADS

When you enter the Lead pages, the setting of the Lead effects are temporarily assigned so that the user can have an immediate feedback on the sound and how the changes will affect the final lead sound. Once you exit the Lead pages the setting are stored just as a standard preset and can be recalled after powering off the unit.

To enter the Lead menus configuration page, press the **multi-function key** (**10b**) labelled `**Lead**' on page 4/4 of the main menu.
Each lead sound can be tuned by adjusting the parameters in the following 5 pro-



Pre_eq – This parameter offers 3 different possibilities (Filter 1, none, Filter 2) allowing pre frequency shaping normally used in combination distortion. It has the same functionality as the mid boost available in standard amps but with the possibility of programming the shape and the frequency position of the boost to create a personal distortion sound.

Co – Activating/deactivating compressor

Bo – Activating/deactivating boost

Ds – Activating/deactivating distortion

Ex – Activating/deactivating external effects in the pre-loop



Ng – Activating/deactivating noise gate

Nlev(%) – Noise gate level Range: 0-100%

Nrl(%) – Noise gate release Range: 0-100%

Dvol(%) – Distortion volume Range: 0-100%

Bgn(%) – Boost gain: -6dB +25dB%

Cvol(%) – Compressor out volume: 0-100%

Csen%) – Compressor sensitivity: 0-100%



Brg– Activating/deactivating distortion bright.

F1(Hz) – Enhanced frequency, F1. Range: 370 Hz to 1968 Hz. This is the frequency at which filter F1 produces the maximum output level.

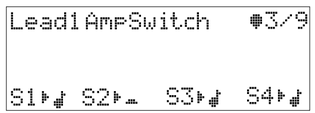
F2(Hz) – Enhanced frequency, F2. Range: 150 Hz to 2697 Hz. This is the frequency at which filter F2 produces the maximum output level.

Q1 – Resonance factor, filter F1. Range: 1 to 18 dB

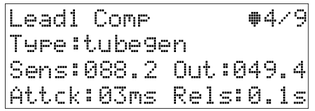
Q2 – Resonance factor, filter F2. Range: 1 to 16

Dtone(%) – Distortion post tone control. Range: 0-100%

LP – Distortion post low-pass filter selector. Range: 0, 1, 2



S1-S4– Activating/deactivating amp switches (requires amp switching installation boards)



Type – Compressor type. Range: tubegen, vary-mu, limiter

The parameter Type indicates the compressor type used. This can be set to either 'limiter' to operate in Limiter Mode, or to 'tubegen' or 'vary-mu' to operate in tube compression mode, with either a sweet peak control ('tubegen') or more sustain on the medium volume notes ('vary-mu').

Sens=Csen – Compressor sensitivity. Range: 0-100%. This parameter sets the desired amount of compression.

Out=Cvol – Output Level. Range: 0-100%, in increments of approximately 0.4%

Attck – Attack time. Range: 3ms, 8ms, 13ms, 22ms, 31ms, 40ms, 57ms, 83ms.

Rels – Release time. Range: 0.1s, 0.2s, 0.3s, 0.5s, 0.7s 0.8s, 1s, 1.8s

Lead 2 is defined by the lead pages 5/9-9/9 and contains the same parameters/switches of the Lead 1

> ⚠ ***MIDICC commands from 13-17 and 22-25 are effetive only when the lead sounds are turned off. On a contrary, sending MIDICC parameters from 40-50 and 78-81 while a Lead is enganged, will modify the lead sound and store it in the temporary memory. Once you reboot, the lead parameters will be restored according to the lead setting pages setting 0/9-9/9***

10.6 WAH VIA MIDICC

To turn on/off the wah you need to send MIDICC#30. Use MIDICC#75 to control the frequency via an expression pedal. If you use the MIDICC#30 the filter routing is assigned to type 5 (filter F1 before the distortion). For more information on the effect layout refer to page 31

11. WORKING WITH PRESETS ON YOUR COMPUTER

PedalPro not only stores 500 presets in its internal memory, it can be connected to your computer via a USB port and accessed using the PedalManager software.

VR's PedalManager software is available for Windows™ and Mac OS X, and gives you access to advanced preset management options. You can manage an unlimited number of presets directly from your computer. Organise, reorder, select favourite, re-name, archive, share over the internet, categorise, and upload your presets all via a user-friendly interface. You can also store your presets on the USB flash drive bundled with your PedalPro, and carry them with you.

You then simply choose the 500 presets and 18 favourite presets you want to use, and download them directly onto your PedalPro.

Using the PedalManager for Windows™ or Mac OS X

The PedalManager software can be found on the USB flash drive that came with the unit. It is also available as a free download, together with its upgrades and new releases, on the VR website.

- To run the PedalManager, copy it into any directory on your computer. There is no need to perform any installation and no drivers are needed. For your convenience, you might want to create a short-cut on an accessible location in your computer (eg. the desktop).
- Connect the PedalPro to your computer using the USB cable supplied.
- Start the PedalManager by double-clicking on the programme icon found in the directory where you copied the software, or on the short-cut you have created.
- Turn on the PedalPro. Press the **EXIT (USB)** key (**7**) for two seconds. The PedalPro is now in USB Remote Terminal mode. On your computer screen, the PedalManager will show that a PedalPro has been detected and is connected. You are now ready to start managing your presets via the PedalManager.

Please see the PedalManager user manual for a detailed explanation on how to use the software and its features.

** Please check the VR website for system requirements and the latest PedalManager release.*

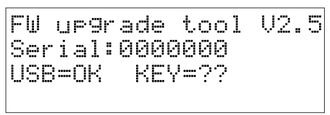
Once you've finished working with the PedalManager and are ready to exit the USB terminal mode, simply switch off the PedalPro.

12. INSTALLING A NEW FIRMWARE

Besides managing your presets collection, VR's PedalManager software also allows you to flash a new firmware onto your PedalPro. New firmware releases will be made available on the VR website and a notification email will also be sent to registered users.

Moreover, when you purchase an expansion firmware package for your PedalPro, you will receive via email a new firmware tailored to your machine. Please follow the instructions below to install the new firmware on your unit.

- Connect the PedalPro to your PC/Mac using the USB cable supplied. DO NOT switch on your PedalPro yet;
- Start the PedalManager by double-clicking on the programme icon to be found in the directory where you downloaded or copied the software, or on the short-cut you've created on your desktop. The PedalManager software does not need to be installed and can be run from any location in your PC/Mac (portable application);
- With the PedalPro **switched OFF**, press and hold the down the **down arrow** key (**3c**) and switch on the PedalPro (while still holding the **down arrow 3c**).
- The PedalPro is now in '**Firmware Upgrade**' mode (shown as 'FW upgrade' on the PedalPro's display). Your computer should immediately recognise that a new device has been connected. On your computer screen, the PedalManager will show that a PedalPro has been detected and is connected in FW upgrade mode. Meanwhile, the PedalPro will show the screen below. The communication between the computer and the PedalPro can now take place.



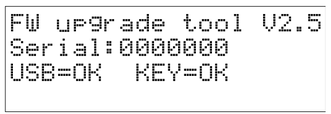
This screen shows the following important information about your PedalPro:

- ***Serial -*** this is the 8-digit serial number unique to your PedalPro (assigned by VR).
- ***USB*** - this field shows the status of the USB connection with your PC/Mac computer.
- ***KEY*** - this field shows whether or not your PedalPro can receive a firmware upgrade. Before the upgrade can take place, the PedalPro must be unlocked by supplying the 30-digit **Firmware Unlock Key** in the appropriate field of the PedalManager software. You will receive your 30-digit key together with your new firmware.

How to perform a firmware upgrade

- On the **Firmware tab** of the PedalManager click on '**Load Device Firmware File**' and browse to find the file with the new firmware in the location where you stored it in your computer.
- Copy the **Firmware Unlock Key** you have received from VR with your new firmware in the 'Firmware Unlock Key' pop-up window.

The PedalManager communicates with the PedalPro and checks whether the file contains the correct firmware for your PedalPro. If the check is successful, a confirmation message will appear on your computer screen.



- On the PedalManager, click on '**Write Firmware**' and wait for the confirmation that the upgrade has been successful.
- Repeat the procedure if you need to upload more than one firmware (the exact procedure depends on the type of firmware upgrade will be included in the firmware package you have received).
- Switch your PedalPro off, disconnect the USB cable and switch on the PedalPro.

13. TECHNICAL SPECS

ANALOGUE INPUT

Connector	Neutrik ® 1/4" jack, unbalanced
Impedance	1 MOhm

ANALOGUE OUTPUT

Connectors	2 x Neutrik ® 1/4" jack, unbalanced
Impedance	510 Ohm

Ext. Effects

Connectors	2 x Neutrik ® 1/4" jack, unbalanced
Output impedance (SEND)	< 600 Ohm

AUX

Connectors	2 x Neutrik ® 1/4" jack, unbalanced
Impedance AUX SEND	640 Ohm
Impedance AUX RETURN	1 MOhm (with all effects in PedalPro bypassed)

CONTROL CONNECTIONS

USB	USB 2.0, type B
ADES™ /MIDI-IN	5-pin DIN 180°
MIDI Out	5-pin DIN 180°

COMPRESSOR / LIMITER

Parameters

Compressor Types	Tubegen (general purpose tube compressor), Vary-mu, Limiter
Threshold Levels	0-100%, resolution 0.39%
Output Levels	0-100%, resolution 0.39%
Attack Time	3 ms, 8 ms, 13 ms, 22 ms, 31 ms, 40 ms, 57 ms, 83 ms
Release Time	0.1 s, 0.2 s, 0.3 s, 0.5 s, 0.7 s, 0.8 s, 1 s, 1.8 s

Specs

Noise performance	Typical noise level @1kHz < -110 dBV (input shorted, preset 'VarymuComp' loaded); Typical noise level @1kHz < -102 dBV (input shorted, preset 'SustComp' loaded)
Technology	Ultra low-noise matched-pair transistors

BOOST (PRE-AMPLIFIER)

Parameters

Gain	0 dB to 25 dB, resolution 1 dB

Specs

Noise	-110 dBV @ 25 dB gain -118 dBV @ 15 dB gain -120 dBV @ 9 dB gain
Distortion	0.0005%
Technology	THAT®1512 (High performance audio amplifier) and opto-resistors

DISTORTION

Parameters

Output level (distortion level)	0-100%, resolution 0.39%
Tone control	0-100%, resolution 0.39%
Bright switch	ON/OFF
Low-pass filter	0=7.5 kHz, 1=4.8 kHz, 2=3 kHz

Specs

Noise	–104 dBV @ Out 100%, tone 50%, gain 21 dB –90 dBV @ Out 100%, total gain 46 dB
Technology	Low noise JFET and digital potentiometer

VCA

Parameters

Modulating waveform	sine, trig, trap, rect, pcal, shlf, vntg

Modulation speed range (Tempo)	3 BPM (20 s) to 550 BPM (9.16 Hz)
Phase control of modulating waveform	4 values: 0°, 90°, 180°, 270°
Depth	0-100%, resolution 0.39%
Specs	
Bandwidth	30 Hz to 20 kHz
Noise	-108 dBV (input shorted)
Technology	Ultra low noise matched pair transistors

PHASER

Parameters	
Modulating waveform	sine, trig, trap, rect, pcal, shlf, vntg.
Modulation speed range (Tempo)	3 BPM (20 s) to 550 BPM (9.16 Hz)
Phase control of modulating waveform	4 values: 0°, 90°, 180°, 270°
Depth	0-100%, resolution 0.39%
Specs	
Bandwidth	10 Hz to 20 kHz
Noise	-115 dBV (input shorted)
Phase shift	> 360°
Technology	Opto resistor

FILTER 1

Filter design	Inductor (Red Fasel Inductor)
Filter modes	Auto, Positive Envelope, Negative Envelope, Fixed frequency (manual mode)
Parameters in Auto mode	
Modulating waveform	sine, trig, rect, trap, expo, shl1, shl2, shl3
Modulation speed range (Tempo)	3 BPM (20 s) - 550 BPM (9.16 Hz)
Phase control of modulating waveform*	4 values: 0°, 90°, 180°, 270°
Minimum cut-off frequency	370 Hz – 1968 Hz, resolution 1.56 Hz
Maximum cut-off frequency	370 Hz – 1968 Hz, resolution 1.56 Hz
Q (resonance)	1 to 18, resolution 0.5
Parameters in Envelope mode (Positive and Negative)	
Start cut-off frequency	370 Hz – 1968 Hz, resolution 1.56 Hz
Sensitivity	0-100%, resolution 0.39%
Transfer curves available	linear, positive exponential, negative exponential
Q (resonance)	1 to 18, resolution 0.5
Parameters in configuration Fixed Frequency mode	
Fixed cut-off frequency	370 Hz – 1968 Hz, resolution 1.56 Hz
Q (resonance)	1 to 18, resolution 0.5
Specs	
Bandwidth	10 Hz to 20 kHz
Noise	Typical noise level < -100 dBV (filter settings Frequency = 1968Hz, Q = 18)

FILTER 2

Filter design	OTA transistor matched pair
Filter type	Low-pass / band-pass (selectable)
Filter modes	Auto, Positive Envelope, Negative Envelope, Fixed frequency (manual mode)
Parameters in Auto mode	
Modulating waveform	sine, trig, rect, trap, expo, shl1, shl2, shl3
Modulation speed range (Tempo)	3 BPM (20 s) - 550 BPM (9.16 Hz)
Phase control of modulating waveform	4 values: 0°, 90°, 180°, 270°
Minimum cut-off frequency	150 Hz – 2.697 kHz, resolution 2.48 Hz
Maximum cut-off frequency	150 Hz – 2.697 kHz, resolution 2.48 Hz
Q (resonance)	1 to 16, resolution 0.5
Parameters in Envelope mode (Positive and Negative)	
Start cut-off frequency	150 Hz – 2697 Hz, resolution 2.48 Hz
Sensitivity	0-100%, resolution 0.39%
Transfer curves available	linear, positive exponential, negative exponential
Q (resonance)	1 to 16, resolution 0.5
Parameters in Fixed Frequency mode	
Fixed cut-off frequency	150 Hz – 2697 Hz, resolution 2.48 Hz
Q (resonance)	1 to 16, resolution 0.5
Specs	
Bandwidth	10 Hz to 20 kHz
Noise	-109 dBV (input shorted) @ filter type = low-pass, cut off freq 1 kHz, Q = 0; -102 dBV (input shorted) @ filter type = low-pass, cut off freq 1 kHz, Q = 8; -94dBV (input shorted) @ filter type = low-pass, cut off freq 1 kHz, Q = 15.
Technology	Matched pair transistors and opto-resistors

CHORUS

Parameters	
Modulating waveform	sine, trig, rect, trap, expo, shl1, shl2, shl3
Modulation speed range (Temp)	3 BPM (20 s) to 550 BPM (9.16 Hz)
Phase control of modulating waveform	4 values: 0°, 90°, 180°, 270°
Bright switch	ON / OFF
Input	0-100%, resolution 0.39%
Depth	0-100%, resolution 0.39%
Wet	0-100%, resolution 0.39%
Technology	1 BBD (Bucket Brigade Delay)

FLANGER

Parameters	
Modulating waveform	Sine, trig, rect, trap, expo, shl1, shl2, shl3
Modulation speed range (Temp)	3 BPM (20 s) to 550 BPM (9.16 Hz)
Phase control of modulating waveform	4 values: 0°, 90°, 180°, 270°
Harmonics switch	ON / OFF
Manual	0-100%, resolution 0.39%
Depth	0-100%, resolution 0.39%
Wet	0-100%, resolution 0.39%
Regen	0-100%, resolution 0.39%
Technology	1 BBD (Bucket Brigade Delay)

CHORUS & VIBE

Parameters	
Modulating waveform	sine, trig, rect, trap, expo, shl1, shl2, shl3
Modulation speed range (Temp)	3 BPM (20 s) to 550 BPM (9.16 Hz)
Phase control of modulating waveform	4 values: 0°, 90°, 180°, 270°
Boost switch	ON / OFF
Depth	0-100%, resolution 0.39%
Technology	Optoresistor and BBD (Bucket Brigade Delay)

DELAY

Parameters	
Routing	none, left, right
Range	3 selectable: 23-99 ms, 40-409 ms, 60-614 ms
Time	Delay time in ms within the selected range
Input	0-100%, resolution 0.39%
Output	0-100%, resolution 0.39%
Wet	0-100%, resolution 0.39%
Feedback	0-100%, resolution 0.39%
Technology	3 BBDs (Bucket Brigade Delays)

MODULATION (DELAY)

Parameters

Speed	0-100%, resolution 0.39%
Depth	0-100%, resolution 0.39%

AUX & MIXER

Parameters

Aux type	None, Loop_L>OutL, Loop_R>OutR, LoopL&R>OutL, Aux + Mixer
Gain Send Left (GsL), Gain Send Right (GsR)	0-100%, resolution 0.39%
Wet Left (WtL), Wet Right (WtR)	0-100%, resolution 0.39%
Dry Left (DrL), Dry Right (DrR)	0-100%, resolution 0.39%
Technology	Ultra low-noise opamp

NOISE GATE (L, R)

Parameters

Noise Level	0-100%, resolution 0.39%
Release Level	0-100%, resolution 0.39%

Specs

Bandwidth	10 Hz to 20 kHz
Noise	-120 dBv (configuration: threshold 100%)
Attenuation	> 50 dB after 5 s
Technology	Opto-resistor and digital potentiometer

VOLUME CONTROL (L, R)

Parameters

Output level	0-100%, resolution 0.39%

Specs

Bandwidth	10 Hz to 20 kHz
Noise	-124 dBV, input shorted
Technology	Digital potentiometer

Technical Specs

EMC & SAFETY

Complies with	EN 55103-1 and 55103-2
Certified to	IEC 60065 / EN 60065

MISC

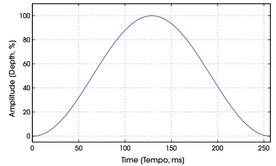
Chassis	Front: Painted Aluminium Other parts galvanised, painted steel
Display	20 x 4 character STN Positive LCD display
Dimensions	482.6 mm x 291.6 mm x 88 mm (19" x 11.5" x 3.5")
Weight	5.78 Kg (12.96 lb.)
Supply voltages	100 to 240 VAC, 50 to 60 Hz (manual select)
Power consumption	<30W
Warranty parts and labour	According to EU regulations
RoHS / WEEE	Fully compliant
Warranty Parts and Labor	According to EU regulations

SPECIFICATIONS SUBJECT TO CHANGE AND IMPROVEMENT WITHOUT NOTICE.

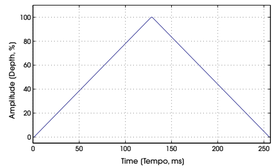
A. MODULATING WAVEFORMS

The following diagrams show models of the modulating waveforms available on PedalPro's analogue effects. The parameters amplitude (***Depth***), period (***Tempo***), and relative phase (***Ph***; see 'Phase of the modulating waveforms' on p.27) of these model waveforms can be adjusted on the effect's configuration pages. In the examples below ***Depth***=100%, ***Tempo***=235 BPM).

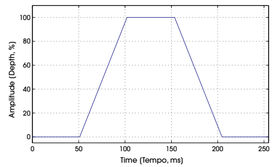
1. **sine (sinusoid) -** Tremolo, Panner, Phaser, Filters, Chorus*, Vibe*, Flanger*.



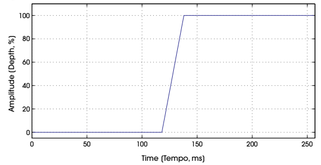
2. **trig (triangle) -** Tremolo, Panner, Phaser, Filters, Chorus*, Vibe*, Flanger*.



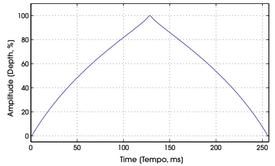
3. **trap (trapeze) -** Tremolo, Panner, Phaser, Filters, Chorus*, Vibe*, Flanger*.



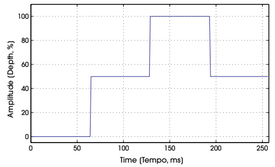
4. **rect (rectangle) -** Tremolo, Panner, Phaser, Filters, Chorus*, Vibe*, Flanger*.



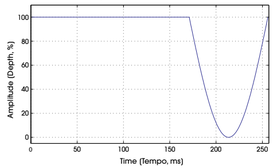
5. **pcal (phase calibrated) -** Tremolo, Panner, Phaser, Filters



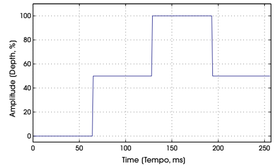
6. **shlf (shelf function) -** Tremolo, Panner, Phaser



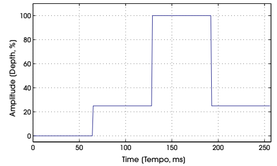
7. **vntg (vintage Fender tremolo) -** Tremolo, Panner, Phaser



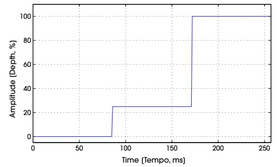
8. **shl1 (filter shelf waveform 1) -** Filters, Chorus*, Vibe*, Flanger*.



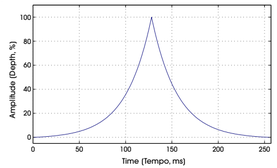
9. **shl2 (filter shelf waveform 2) -** Filters, Chorus*, Vibe*, Flanger*.



10. **shl3 (filter shelf waveform 3) -** Filters



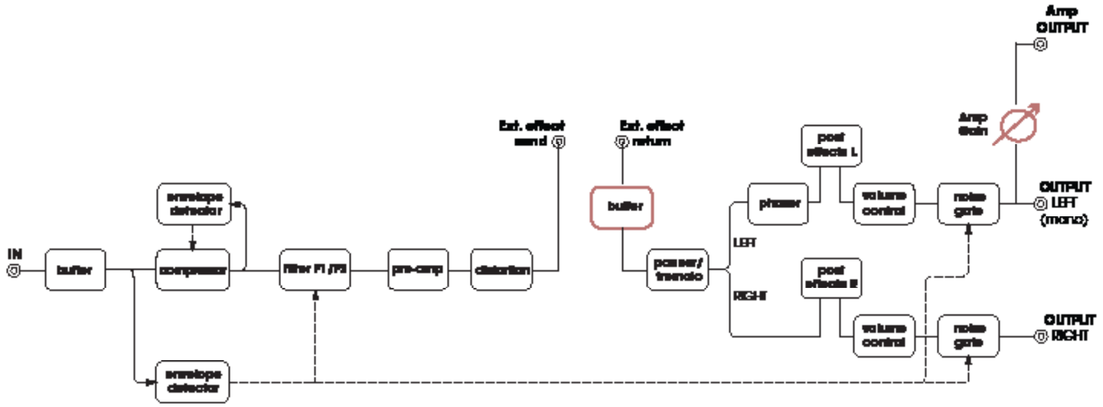
11. **expo (filter exponential waveform) -** Filters, Chorus*, Vibe*, Flanger*.



Appendix

Upgrade-A 4-wires cable method:

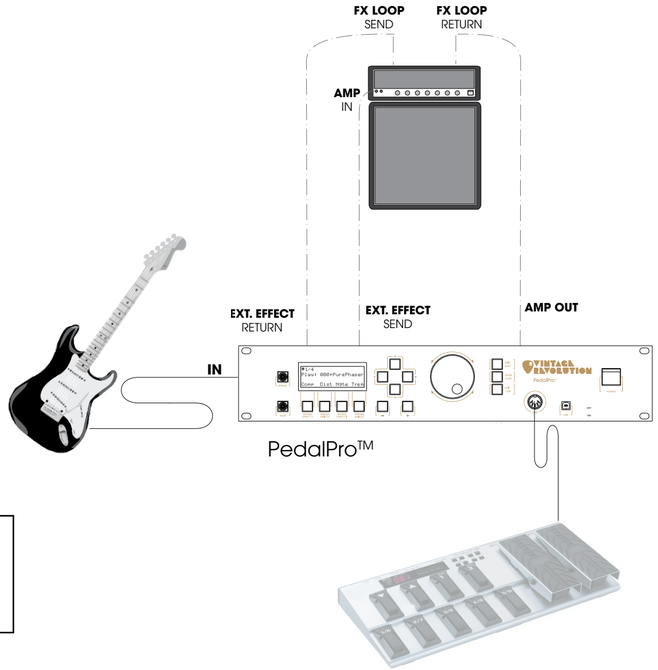
This customisation will place the pre-effect loop behind the PedalPro's boost/od/dist section, so that all of the PedalPro's effects and your amp's pre-amp will be in the correct order. A buffer will be installed in the EFF. RETURN to avoid volume drops from your pre-amp section. An extra out jack (LEFT AMP) will be installed on the back panel to provide a boosted copy of your OUTPUT LEFT if needed to avoid power loss from your amp



How to connect your amp with 4 cables method

The basic principle behind the 4 cable method is to use separatly the preamp and the amp sections from your guitar amplifier. This is only possibile if your amp has serial loop effect connection. Once you separate the preamp from your amp you can place the preamp before the modulation effects. Make sure that the preamp-send-signal (normally indicated in your guitar amp as channel volume) is not too high to saturate/distort the effects in the PedalPro. In practice just turn on the chorus of the PedalPro with chorus input and wet to100% and adjust the volume knob on your preamp untill you have no distortion. Any power loss can be compensated by the Amp gain knob placed in the back of your unit.

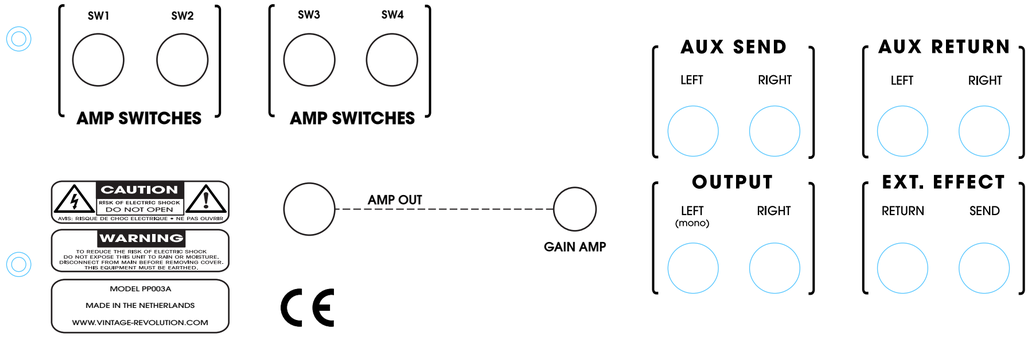
Since you are connecting the ground of your amp with the PedalPro in multiple points, you may experience HUM due to ground loop. In this case you need a ground isolator (DI) in between. Contact us to get a list of recommendable devices.



⚠ ***By default, each preset and Lead sound is set to be used in a normal amp configuration (page 8) . If you are using the 4 cable method engage the Ext_effect switch in the preset and in both Leads (page 10 and 53). By activating the Ext_effect the pre loop is turned on and the preamp section of your amp is chained in the PedalPro as shown on pages 64-65***

Upgrade - B Amp switches boards:

This customisation allows you to control up to 4 amp switches. Each board controls two amp switches. Each switch position can be stored individually either in the preset or in each lead sound.



Hardware upgrades

Position	Name	Description	Parameter
0	CompSoft	Soft compression	
1	JazzRoom2	Short delay & medium compression	
2	DumbDrive1	Dumble overdrive	
3	TubeDist0	Tube distortion F1 mid boost	
4	ScrnDist2	Tube distortion F2 mid boost	
5	WahDisDly	Wah+Distortion+Delay	80
6	CryBabyWd	Wah using filter F1	80
7	TouchWah+	Positive envelope wah	
8	TalkEnv1	Positive envelope F1+ negative envelope F2	
9	EnvelopeF1	Positive envelope F1+ negative envelope F2	
10	Sync wah	Sync Auto Wah	74
11	Chrs CE1	Chorus CE1	
12	Leslie2	Fast chorus & vibes	
13	MorphChrs	Chorus and delay	
14	Flange med	Medium flanger	
15	Arp-Flange	Rhythmic flanger	
16	InfPhase	Phaser and Delay	
17	PurePhaser	Slow phaser	
18	ArpPhaser	Rhythmic phaser	
19	PhsEllipse	Fast phaser	
20	VibeTrem	Vintage tremolo. depth -> Expr. pedal	51
21	DynaPan	Panner depth -> Expr Pedal	51
22	Dlt400Fb	400ms delay feedback -> Expr. pedal	63
23	In_dly	Long delay . delay input =>Expr. pedal	64
24	Dly time	Long delay . delay time=>Expr. pedal	62
25	BendDly	Medium bending delay	
26	Dly600Rep	600ms delay infinite repetition	
27	DlyAttk2	Pre volume pedal(VCA) => delay	51
28	Waterfall	Rhythmic phaser and delay	
29	CryBabyWd	Wah using filter F1	80
30	Talk i-yoh	Auto vowel i-yoh	
31	Rect i-yoy	Auto vowel i-yoh using sharp transitions	
32	Arp i-yoh	Rhythmic vowel i-yoh	
33	Talk a-way	Auto vowel a-way	
34	Talk oo-wa	Auto vowel oo-wah	
35	Talk i-yah	Auto vowel i-yah	
36	Talk ee-ah	Auto vowel ee-ah	
37	Talk ia-ah	Auto vowel ee-ah	
38	Sync wah	Auto wah . Start/stop -> Expr. pedal	74
39	Sync i-ya	Auto vowel i-yah, Start/stop -> Expr. pedal	74
40	SenseWah	Envelope wah , sensitivity => Expr. pedal	76
41	Envne9Fst	Neg. envelop , freq. start=> Expr. pedal	76
42	TouchWah+	Positive envelope wah	80
43	TalkEnv1	Envelope vowels	
44	TalkEnv2	Envelope vowels Envelope vowels	
45	SpaceFill	Auto wah F2, freq. max -> Expr. pedal	87
46	SpaceFil2	Auto wah F2, freq. max -> Expr. pedal	87
47	Qvar_Wah	Auto wah F1, Q1 -> Expr. pedal	78
48	Fmax_Wah	Auto wah F1, freq. max -> Expr. pedal	84
49	MorphTr	Auto wah F1, freq. max -> Expr. pedal	84

Posi-	Name	Description	Parameter
50	VinTrem	Vintage tremolo	
51	Vibe Trem	Tremolo, depth=> Expr. Pedal	61
52	TreGround	Deep tremolo with vntg waveform	
53	TreEarth	Medium tremolo with vntg waveform	
54	TreStone	Soft tremolo with vntg waveform	
55	TreVulcan	Medium tremolo with rect waveform	
56	Tre Liquid	Medium tremolo with shelf waveform	
57	TreControl	Soft tremolo with rect waveform	
58	TreSurface	Soft tremolo with trap waveform	
59	TreWave	Deep tremolo with sine waveform	
60	TreBreeze	Medium tremolo with trig waveform	
61	TreDeal	Deep tremolo with trap waveform	
62	DynaPan	Comp+panner, depth=> Expr. Pedal	61
63	PannerHit	Comp+panner medium depth	
64	RotorPan	Comp+panner, depth=> Expr. Pedal	61
65	PanSoft	Soft panner	
66	CrySpace	Wah and panner	80
67	FootPan	Foot panner, ped. up=left, ped. down=right	61
68	CompSoft	Soft compressor	
69	CompMed	Medium compressor	
70	CompVarymu	Medium compressor in Vary-mu mode	
71	AttackCom	Compressor, Attack=> Expr. Pedal	44
72	Limiter	Compressor in limiter mode	
73	PreampG	Boost, gain=> Expr. Pedal	40
74	DumbDrive0	Dumble overdrive	62
75	DumbDrive1	Dumble overdrive	
76	DumbDrive2	Dumble overdrive	
77	DynDrive1	Dynamic overdrive, sens(Co)=> Expr. Pedal	51
78	DynDrive2	Dynamic overdrive, sens(Co)=> Expr. Pedal	
79	CoolDrive	Fat drive with short delay	80
80	BluesKing1	Blues drive with short delay	
81	BluesKing2	Blues drive with medium delay	
82	BluesKing3	Blues drive with medium delay	
83	FusionDrv1	Fat fusion drive with medium delay	
84	FusionDrv2	Fat fusion drive with medium delay	
85	TubeDist0	Tube distortion bright with long delay	
86	TubeDist1	Tube distortion with long delay	
87	RockDist1	Fat rock distortion	
88	RockDist2	F1 mid boost and distortion	
89	ScrnDist1	F2 mid boost and distortion	
90	ScrnDist2	F2 mid boost and distortion	
91	ScrnDist3	F2 mid boost and distortion	
92	ScrnDist4	F2 mid boost and distortion	
93	ScrnDist5	F2 mid boost and distortion	
94	KingDist1	F1+F2 mid boost and distortion	
95	HeavyDist0	F1 mid boost ,distortion, manual phaser	
96	HeavyDist1	F2 mid boost ,distortion, manual phaser	
97	HeavyDist2	F1 mid boost ,distortion, manual phaser	
98	HeavyDist3	F2 mid boost ,distortion, manual phaser	
99	HeavyDist4	F2 mid boost ,distortion, manual phaser	

Postion	Name	Description	Parameter
100	MetalX	Metal distortion	
101	DstPhase	Distortion + slow phaser	
102	DstEvol	Distortion and negative envelope filter	
103	DstFickle	Distortion+ panner	
104	DistCave	Distortion+ rhythmic tremolo	
105	DstSpace	Distortion+ filter sweep, Fmax(F1)=>Ex. Ped.	85
106	DstWind	Distortion+slow sweep filter	
107	DstChorus	Distortion & chorus	
108	DstFlng	Distortion & flanger	
109	DstEvil	Distortion and negative envelope filter	
110	PurePhaser	Slow phaser with calibrate waveform	
111	Arr Phaser	Rhythmich phaser	
112	PhasClass1	Classic phaser	
113	PhasClass2	Classic phaser	
114	PhsEllipse	Fast phaser	
115	Phaser3D	Phaser & panner	
116	FootPhase	Phaser, manual(ph) => Expr. Pedal	52
117	DeepPhase	Phaser, depth(ph) => Expr. Pedal	53
118	PhsPulse	Deep phaser with sine waveform	
119	PhsFloat	Fast phaser	
120	PhsRythm	Rythmic phaser	
121	PhsFlow	Medium phaser with trig waveform	
122	PhsMoon	Slow phaser	
123	PhsAir	Fast phaser	
124	PhsFee1	Fast phaser	
125	PhsVibe	Deep phaser	
126	PhsLift	Medium phaser	
127	PhsTempest	Medium phaser	
128	PhsRest	Slow phaser	
129	PhsTone	Medium phaser	
130	PhsSurreal	Fast phaser	
131	PhsCircle	Ultra fast phaser	
132	Chrs CE1	Chorus CE-1	
133	Chrs Deep	Chorus CE-1 with exp waveform	
134	Chrs Brght	Chorus&vibe	
135	Dual Chrs	Chorus and delay modulation	
136	3D Chorus	Chorus and delay modulation on right ch.	
137	Bend Chrs	Chorus and delay modulation	
138	Bend Chrs	Chorus and delay modulation on right ch.	
139	Leslie 1	Leslie, Wet/Dry=> Expr. Pedal	55
140	Leslie 2	Leslie	
141	Leslie 3	Leslie, Wet/Dry=> Expr. Pedal	55
142	Morph Chrs	Chorus and delay modulation	
143	Ch_vibe	Slow chorus	
144	Flange nat	Slow flanger	
145	Flange med	Medium flanger	
146	MellowFlng	Mellow flanger	
147	JetFlange	Flanger with high regen	
148	BendFlang	Flanger + delay on right ch.	
149	Arp-Flange	Rhythmic flanger	

Position	Name	Description	Parameter
150	00-Flange	Flanger with odd harmonics	
151	ManFlange	Foot flanger, manual(ff)=>Expr. Pedal	61
152	Dly75	Short delay	
153	TapeDly	Short bending delay	
154	Dly400Fb	400ms delay, feedback(dly)=>Exp. Pedal	63
155	Dly time	Delay, delay time(dly)=>Exp. Pedal	62
156	BendDly	Medium bending delay	
157	Dly600Rep	Long 600ms delay	
158	Dly400Inf	Long 400ms delay	
159	JazzRoom1	Short delay and compression	
160	JazzRoom2	Short delay and compression	
161	Waterfall	Rhythmic phaser and delay	
162	InfPhase	Slow phaser and delay	
163	CryDly	Wah left and delay right channel	80
164	Nuage	Phaser+tremolo+delay right channel	61
165	Vowel3D	Phaser+tremolo+delay right channel	
166	DlyAttk1	Pre volume pedal(VCA) => delay	61
167	DlyAttk2	Pre volume pedal(VCA) => delay	61
168	DlyAttk3	Pre volume pedal(VCA) => delay	61
169	TremDly	Tremolo and delay	
170	SvntFlDly	Tremolo & flange & delay	
171	SvntDly	Tremolo and delay	
172	SvntFiTre	Tremolo & filter & delay	
173	My_board1	Special setting for 4 wires cable method	
174	My_board2	Special setting for 4 wires cable method	
175	My_board3	Special setting for 4 wires cable method	

VR SPECIAL CHARACTERS

SYMBOL	MEANING
	SINGLE COIL – indicates that this is a preset to be used with your single coil guitar.
	DUAL COIL – indicates that this is a preset to be used with your dual coil guitar.
	STEREO PRESET – indicates that the effect chain of this preset has a stereo output.
	EXPRESSION PEDAL - indicates that this preset was created to be used with an expression pedal