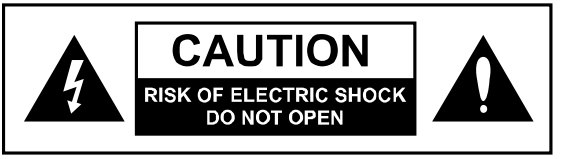
MODFACTOR

User Guide



WARNING
TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE
AVIS: RISQUE DE CHOC ELECTRIQUE-NE PAS OUVRIR.

WARNING

Use only with supplied power supply.
Avoid spilling liquids onto/into the unit.
Do not expose to excessive heat or moisture.
Do not open – there are no user serviceable parts inside.

This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



Complete MF UG Part # 159021 Rev E
MF UG Contents Part # 141141 Rev E
This manual covers software version 5.2 and above.

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Introduction

Congratulations on choosing an Eventide Effects Processor. For years we've dreamed of putting our rack mount effects in the hands of performing musicians and, in particular, at the feet of guitar players. ModFactor is the latest realization of that dream; bringing true studio-quality audio, massive processing power, world-class effects, and unmatched flexibility to your live sound.

A Few Words of Advice

Factor Effects pedals pack an unprecedented degree of processing and flexibility into a small package. Our goal in creating the Factor family was to give you the power to transform your sound. From the start, we recognized that the key to realizing this goal was to give you the flexibility to bend and twist this power in the service of your creativity.

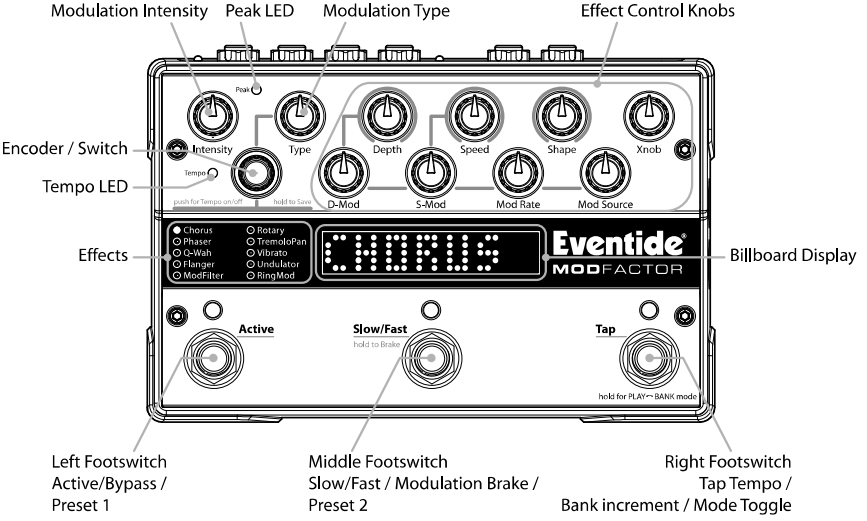
We've worked hard to make ModFactor easy to use. We've done our best to design an intuitive User Interface to manage and control the awesome power and flexibility packed into every Factor Effects processor. We hope that you will take the time to master it.

We know that you're eager to get going and hope that you'll read this User Guide. However, if you read nothing else, please read The Basics.

Key Features

- Eventide's 10 best modulation effects
- 27 individual effects types
- Support for instrument and line level connectivity
- External Expression Pedal and Aux Switch for external control
- 40 User Presets - Instant access to any 2 Presets at a time
- Bright, easy-to-read Billboard Display
- Extensive MIDI functionality
- Software upgrades via USB

Overview



The Basics

There are a few basic concepts that you'll have to grasp to use ModFactor successfully. If you read nothing else, please read this section.

The Effects

There are ten distinct modulation algorithms which we call "Effects." Select an Effect by turning the Encoder knob. Only one Effect can be active at a time.

Controlling the Effects

Each Effect has parameters that can be modified by turning the ten Control Knobs. The control knobs allow you to set modulation type, rate and depth, feedback, intensity and adjust other parameters that change the sound of each Effect. Also, certain aspects of the Effect can be controlled by the Footswitches.

Using the Footswitches

The Footswitches can be used in two ways- Play Mode and Bank Mode.

In Play Mode, the Footswitches are used to control certain aspects of the Effects, like Tap Tempo, Slow/Fast and Brake. In Bank Mode, the Footswitches are used to instantly recall saved versions of the Effects.

Before we describe the Footswitch modes, we'll need to define some terms.

The Presets

ModFactor lets you save an Effect after you've adjusted the Control Knobs. An Effect along with a particular setting of its parameters is called a "Preset." ModFactor lets you save up to 40 Presets. Instructions on saving Presets are covered later in this User Guide.

The Banks

ModFactor lets you quickly switch between two Presets. In Bank Mode, just press either the Left or Middle Footswitch to instantly call up your Preset.

Presets are stored in pairs and each pair of Presets is called a Bank. There are a total of 20 Banks to hold the 40 Presets. The Preset Banks are accessed by tapping the Right Footswitch in Bank Mode.

Play and Bank Footswitch Modes

To switch between Play and Bank mode press and hold the Right Footswitch for a few seconds. Notice that the Billboard display changes.

In Play Mode, the Billboard displays an animated representation of the current modulation (the LFO sweep).

In Bank Mode, you'll see the word "BANK", a number, a colon, and another number. For example, [BANK 1:1] indicates Preset 1 of Bank 1. A RED LED over either the Left or Middle Footswitch indicates that an Effect/Preset is Active.

Each time that you press and hold the Right Footswitch, the mode will change from one mode to the other.

Using Play Mode

When you're in Play Mode, the Footswitches are used to control the Effect that's currently loaded. The Left Switch toggles Bypass/Active, the Middle Switch toggles Slow/Fast (or Brake) and the Right Switch lets you tap a Tempo. An ORANGE LED located above the Left Footswitch indicates that the Effect/Preset is Active (not Bypassed).

Using Bank Mode

Go to Bank mode. The Billboard displays the number of the current Preset - for example you might see [BANK 1:1]. This means that you're in Bank 1 and that Preset 1 is loaded. If the Preset is Active (not Bypassed), you'll also notice that the Left Footswitch LED is solidly lit. If Preset 2 is currently loaded and Active, the LED above the Middle Footswitch will be solidly lit.

Try alternately pressing the Left and Middle Footswitches to load the Presets in the active Bank. The Billboard displays either Preset 1 or Preset 2 from the same Bank and the associated Footswitch LED is lit RED.

To bypass the currently loaded Preset, press the Footswitch associated with the lit LED. The LED will turn OFF and the Billboard will briefly display [BYPASS] and then display the Preset # that's in Bypass. Press the same switch again to enable the Preset. The Billboard briefly displays [ACTIVE] to indicate that the Preset is enabled.

Changing Banks

In Bank Mode, 2 of the 40 Presets are instantly accessible. In order to access the other 38 Presets, you'll have to change Banks.

ModFactor gives you the ability to turn Banks on and off. This ability is important for performance – you can choose to only activate the Banks and Presets that you'll need. ModFactor ships with all Banks (1-20) Active.

Let's try changing Banks. First, be sure that you're in Bank Mode. Now, tap the Right Footswitch. As you tap, the display will increment through the Bank numbers from 1 to 20. When a new Bank is displayed, the Bank is cued and 2 new Presets are ready to go. To load the new Preset however, you must press one of the other 2 Footswitches. Press the Left Footswitch to load Preset 1 from the new Bank or press the Middle Footswitch to load Preset 2.

ModFactor Power Up

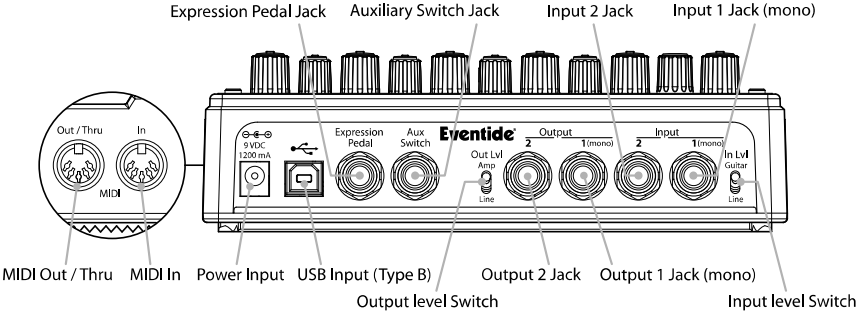
When ModFactor turns on it remembers what it was last doing and powers up in the same mode, running the same Effect, with the same parameter values, same tempo, same system settings, etc. With power off, relays connect ModFactor's inputs directly to its outputs.

Can Two Effects Be Used Simultaneously?

No. When you load an Effect it runs on both channels. Effects can be used as Stereo In/Stereo Out, Mono In/Stereo Out, or Mono In/Mono Out. ModFactor is smart enough to know what cables are connected and to automatically route the signals for your set up.

Connections

ModFactor is designed to be flexible and can support both instrument and line-level inputs and outputs. Rear panel toggle switches allow you to independently select input and output levels. Audio Inputs and Outputs accept standard mono (unbalanced) ¼" phone plugs.

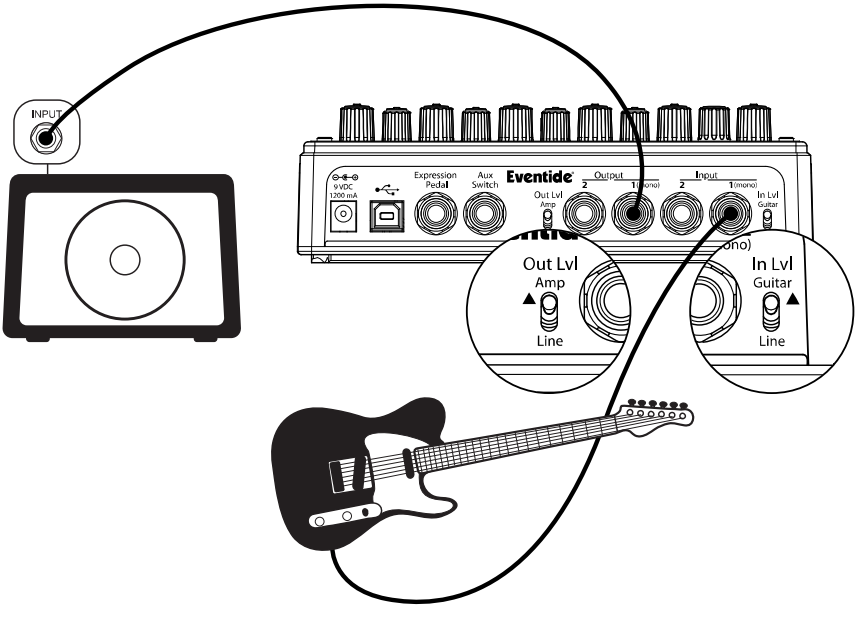


ModFactor can be connected directly to your guitar, behind another pedal, in your Amp's effects loop or to your mixer's send/return or insert. Given the variety of guitars, effects pedals, amps and mixers, we can't describe a 'best' setup. The setup should be driven by you and the sound that you're going for. That writ, here are some suggestions and typical setups.

Typical Setups

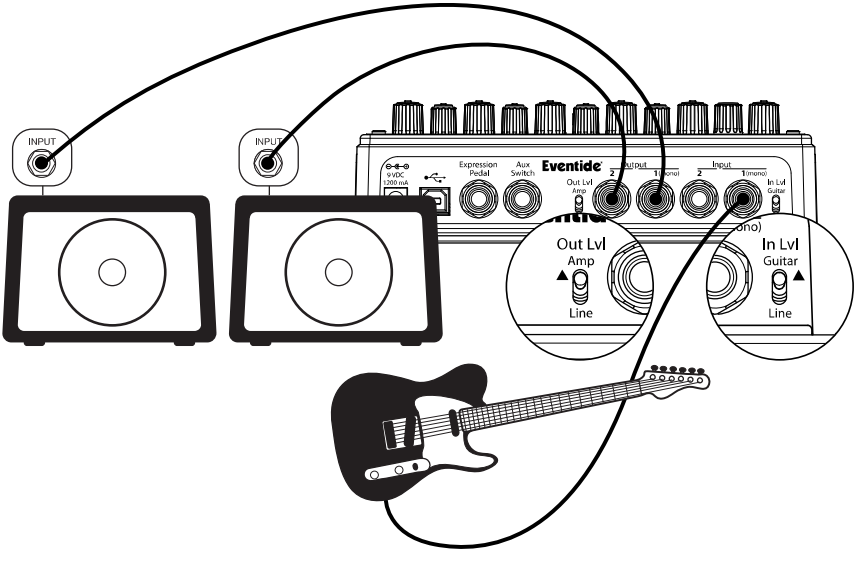
The following are some suggested ways of connecting to your rig and suggested I/O level switch settings:

Guitar > ModFactor > Amp - Mono In/Mono Out



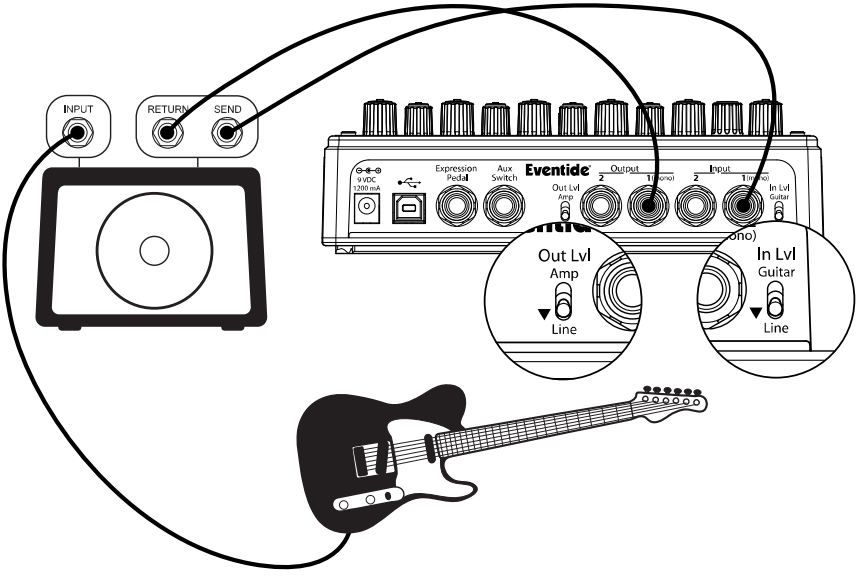
This is the simplest way to connect ModFactor. Connect your guitar cable to ModFactor Input 1 and a cable from ModFactor Output 1 to your amp. Input and Output Level switches (In Lvl & Out Lvl) should be set to GUITAR and AMP.

Guitar > ModFactor > Amp 1/Amp2 – Mono or Stereo In/Stereo Out



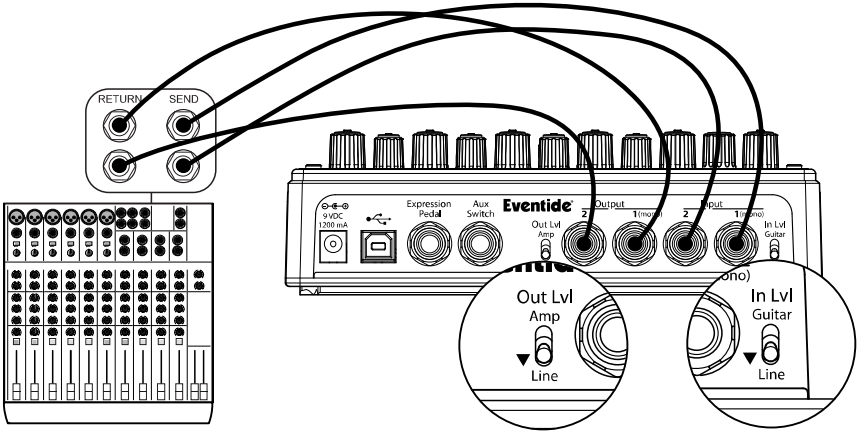
Connect your guitar cable to ModFactor Input 1 and a cable from ModFactor Output 1 to one amp and a second cable from ModFactor Output 2 to the other amp. Input Level switch (In Lvl) should be set to GUITAR and Output Level switch (Out Lvl) set to AMP.

Guitar > Amp Effects Send > ModFactor > Amp Effects Return



If your Amp has an Effect Loop, you can connect ModFactor's Input to the Amp Effect Loop Send and ModFactor's Output to the Amp Effect Loop Return. Most guitar amp's Effects Loop run at Line Level so set ModFactor's Input and Output Level Switches to "Line."

Mixer Effects Send> ModFactor > Mixer Effects Return



When connecting ModFactor to a Mixer, set ModFactor's Input and Output Level Switches to "Line."

Setting and Monitoring Levels

The ModFactor's output levels can be adjusted to optimize performance in most setups.

It is sometimes desirable to adjust the output level of a given Effect/Preset. For example, an effect like ModFilter may have changes in amplitude and, depending on a given Preset's parameter settings, you may find it too quiet or too loud. This is a consequence of the effect and not a question of level matching to best fit in a setup. For this reason, Output Level settings can be tweaked and saved with the Preset.

Setting Preset Output Level

To set Preset Output Level in PLAY Mode, hold down the Left Footswitch for 2 seconds. This puts the unit into Preset O/P Level Adjust Mode. While the Footswitch is pressed and held, the display will show "OP 0dB" (default). While continuing to hold the footswitch down, you can optionally turn the Encoder Knob to adjust Preset Output Level from -20dB to +6dB in 1dB increments. Preset must be saved to store this setting.

To set Preset Output Level in BANK Mode, press and hold the active Footswitch (the one corresponding to the loaded preset).

Monitoring Input Level

To make it easier to control input noise (hiss), we have added an input signal level monitor.

To access the meter, make sure the ModFactor is in PLAY Mode. Press and hold both the Left and Right Footswitches. A vertical bar will appear in the middle display, and a meter will light from left to right when there is an input signal present. For best signal-to-noise performance, each input signal peak should go past the bar in the middle. If it does not, it indicates that the input level is on the low side. In this case, a buffer or preamp should be used to boost the input level

Input and Output Swell

The expression pedal can be used to give a volume swell, either before or after the effect. This can be enabled either *globally*, meaning it is active all the time, or on a preset by preset basis. You might want to use it before the effect to disconnect or reduce the input, and listen to the effect die away, whereas after the effect it can be used as a volume control or to perform fadeouts. This swell is normally used for expression purposes, and only reduces the volume - it does not boost it.

You may want to disable any pedal parameter settings if you are using swell. This will be done automatically if using Global Swell.

To set the Swell value globally, see System Mode. If a Global Swell is active, the option of selecting it for presets will not be available.

Note that in Pre/Post and Wet/Dry Routing modes, Swell only affects the Wet channel.

Input and Output Swell are not active when the unit is Bypassed, but the unit will adopt the swell value on leaving Bypass. The Swell values are reset to maximum when a new preset is loaded.

Enabling/disabling Input Swell

1) Press and hold the active Footswitch as described above. The display will show the Output Level.
2) Press the Encoder once. The display will show ISW.OFF (default) or ISW.ON.
3) Turn the Knob to set it to ON or OFF as desired.
4) Release the Footswitch - the Preset will return to its previous Active or Bypassed state.
5) Remember to save the preset, or the change will be lost.

Enabling/disabling Output Swell

6) Press and hold the active Footswitch as described above. The display will show the Output Level.
7) Press the Encoder until the display shows OSW.OFF (default) or OSW.ON.
8) Turn the Encoder to set it to ON or OFF as desired.
9) Release the Footswitch - the Preset will return to its previous Active or Bypassed state.
10) Remember to save the preset, or the change will be lost.

Bypass

It's important to select the ModFactor Bypass function that works best with your setup. ModFactor gives you the choice of Bypass type – DSP Bypass or Relay Bypass. ModFactor's default Bypass setting is DSP Bypass.

DSP Bypass

ModFactor's default is [DSP] Bypass. When set to [DSP] Bypass, bypassing sends the audio at the DSP's inputs directly to the outputs without any effects processing. This type of bypassing works well in most situations.

Relay Bypass/True Bypass

Some guitar players prefer a "true bypass" in which the pedal's electronics are completely disconnected from the signal path. When [RELAY] Bypass is selected ModFactor uses relays to "hard wire" your inputs to your outputs. (In fact, whenever ModFactor's power is off, the relays are disabled and ModFactor's electronics are completely bypassed.)

Relay Bypass is not a good choice, however, if ModFactor's input is your guitar and you've connected ModFactor's output directly to a non-instrument level input device or have connected to your amp over a long cable. Non-instrument inputs are often low impedance (typically 10K ohm) and will load the guitar output and change its tone. DSP Bypass allows ModFactor to act as a buffer, providing a low impedance output (500 ohm) capable of driving any device input or cable length.

Note: Relay Bypass should not be used if the Input/Output Lvl switches are set opposite to one another. Specifically, if the Input Lvl switch is set for GUITAR and the Output Lvl switch is set to LINE or the Input Lvl switch is set for LINE and the Output Lvl switch is set to AMP, ModFactor will not have unity gain. In this case, using Relay Bypass will result in a level change whenever you Bypass ModFactor.

DSP+FX Bypass

ModFactor also supports a type of Bypass called DSP plus Effects ([DSP+FX]). When [DSP+FX] is selected, Bypass combines the audio at the DSP's inputs with the DSP's outputs AND stops feeding any new input signal to the DSP Effects inputs. DSP+FX makes it possible to Bypass an Effect without abruptly killing the tail of the Effect that you've been using.

Selecting Bypass Type

The Bypass mode is selected in System Mode under [BYPASS]. [DSP] is the default. Here's how to change it:

1) Press and hold the Encoder and Right Footswitch simultaneously for a few seconds to enter System Mode. Release the Encoder.
2) Turn the Encoder until [BYPASS] is displayed.
3) Momentarily press the Encoder.
4) Turn the Encoder until [BYP TYP] is displayed.
5) Momentarily press the Encoder.
6) Turn the Encoder to select [DSP], [RELAY] or [DSP+FX].
7) Press and hold the Encoder and Right Footswitch simultaneously for a few seconds to exit System Mode.

Note: ModFactor has been carefully designed to not mess with your tone in any of the Bypass settings.

Note: When connecting ModFactor to a computer, we suggest that you use a dedicated audio interface (e.g. a Firewire Interface) and to select the type of Bypass that works best for your application.

Note: When ModFactor is turned Off, the relays automatically Bypass the unit. This means that if power should accidentally go down while you're playing, your guitar signal will not disappear because of ModFactor. Of course, if power is down, you may have bigger problems.

Effect Levels

Mono/Stereo

ModFactor detects which input and output jacks have cables plugged in and routes audio I/O accordingly. With a Mono Input (Input 1) and Stereo Outputs, the dry contribution for both outputs comes from the Mono Input (Input 1). With Stereo Inputs, the dry contribution at Output 1 is from Input 1 and the dry contribution at Output 2 is from Input 2, thereby maintaining the original signal stereo image.

Killdry – Send/Return Loop

If you've connected your ModFactor using an effect send/return loop (either your amp's or a mixer's), ModFactor's Killdry feature can be enabled. For some Effects (Chorus, Vibrator, Undulator and RingMod), when Killdry is enabled, the Intensity Control works as a Master Effects Level Control.

When Killdry is enabled, ModFactor does not send any dry signal to the outputs; only the Effect. Note that when Killdry is enabled, Bypassing will mute the Effect rather than Bypass it.

Killdry's factory default is disabled. It can be enabled in the [BYPASS] menu of the System Mode. Here's how:

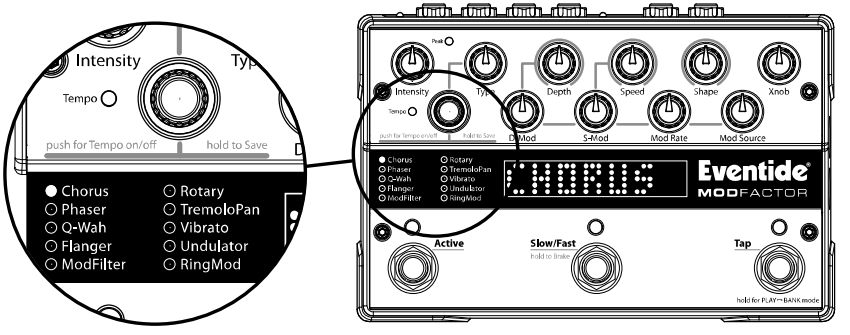
1) Press and hold the Encoder and Right Footswitch simultaneously for a few seconds to enter System Mode. Release the Encoder.
2) Turn the Encoder until [BYPASS] is displayed.
3) Momentarily press the Encoder.
4) Turn the Encoder until [KILLDRY] is displayed.
5) Momentarily press the Encoder.
6) Turn the Encoder to select either [YES] or [NO].
7) Press and hold the Encoder and Right Footswitch simultaneously for a few seconds to exit System Mode.

Peak LED

The Peak LED lights to indicate that the input signal level is near clipping. Occasional flashing is OK. If Peak LED is lit solidly, reduce the input level either by reducing the signal level fed to ModFactor or by setting the rear panel input switch to the Line position.

The Effects

ModFactor has ten distinct modulation Effects – Chorus, Phaser, Q-Wah, Flanger, ModFilter, Rotary, TremoloPan, Vibrato, Undulator, and RingMod.



Selecting Effects

The Effects can be selected by turning the Encoder. Using the Encoder to select Effects is a good way to get a feel for what ModFactor can do.

Turn the Encoder to step through and load each of the Effects. As each Effect is selected, the Effect is loaded, the green LED to the left of the Effect name is lit and the Billboard displays the Effect name.

Each of ModFactor's Effects offers a world of possibilities. For example, there are several types of Flangers, Phasers, etc. For each of the ten modulation Effects, use Type to select.

Chorus

Chorus is an effect that is designed to take a single voiced instrument and give it the sound of many instruments playing together. This is achieved through randomly modulating several delay lines to create pitch and timing imperfections and then panning these voices in the stereo field.

Phaser

Phaser is an effect created by a series of digital filters. When the output of the filters is mixed with the dry signal sharp notches are created in the frequency spectrum of the output; by modulating the center frequencies of the filters the notches move giving a sense of motion to the effect.

Q-Wah

The Q-Wah effect simulates a classic wah wah pedal when **Shape** is set to pedal or an auto wah when set to envelope. Using **Depth** and/or other wave shapes creates more complex wah sounds. **Intensity** will increase the Q or "Slinky-ness" of the wah effect.

Flanger

Flanger is similar to Phaser, however the use of delay lines in place of filters creates notches that are harmonically related to each other.

ModFilter

ModFilter is a set of modulated filters. **Intensity** controls a combination of base filter frequency and Q, while **Depth** controls the frequency offset of the left and right channels to create a stereo image.

Rotary

Simulates the sound of a rotating speaker for that popular Leslie effect. ModFactor offers two types of rotary simulations – a standard-sized and an over-sized ("giant") cabinet.

TremoloPan

Tremolo is an effect that is created by modulating the level of the incoming audio with an LFO. With this effect, as you turn **Xnob** knob, it will shift the phase of the right channel's LFO creating a tremolo that will move from left to right in the stereo field. When the **Xnob** is full clockwise, the right channel will be 180 degrees out of phase with the left creating an autopanner. Both outputs will have to be connected for this to function correctly.

Vibrato

Vibrato is an effect that simulates the pitch change you get by modulating a guitar string or using a whammy bar. Modulating the rate with an Expression Pedal or envelope will create some insane vibratos.

Undulator

Undulator is a classic Eventide effect that combines two delays, two detuned voices, and a FM modulated tremolo. By turning up the **Intensity** you can increase the dry/effect ratio.

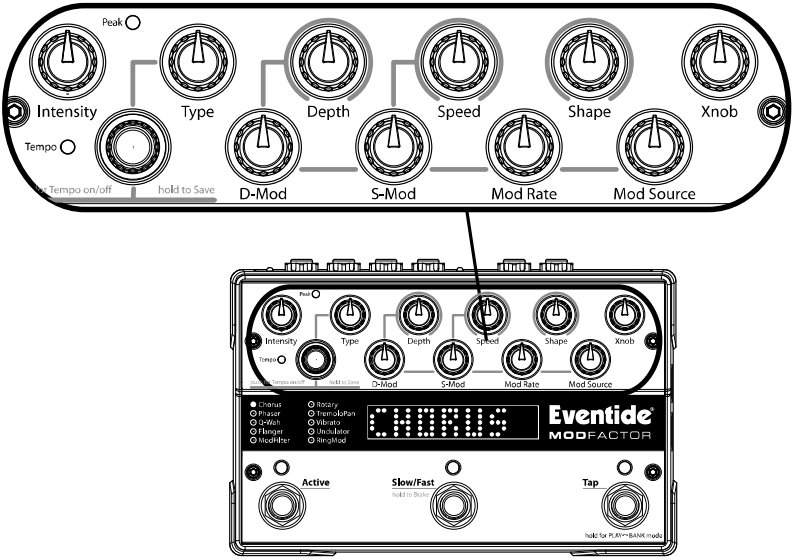
RingMod

Ring Modulator is an effect created by multiplying an input signal by an audio frequency waveform; the result is a waveform containing the sums and differences of those frequencies and their partials. This creates a waveform with complex (and possibly enharmonic) bell-like overtones.

By using the **S-Mod** control to modulate this carrier frequency you can create useful and interesting sounds. By engaging the **Sync to Tempo/Pitch** feature, the **LFO** rate control displays note values instead of Hz, by selecting the tonic of your scale or something similar you can ensure that the output of this process will be harmonically related to the notes you play. The **Depth** parameter slightly detunes the right and left voices creating a stereo field. Note that the **Mod Rate** knob controls Sensitivity for this effect.

Control Knobs/Effect Parameters

When an Effect is selected using the Encoder, the Effect's parameter values are set by the current position of the ten control knobs. Whenever a control knob is turned, the Billboard displays the parameter's name and value. The controls are arranged in two rows and grouped according to their functions.



ModFactor uses 2 LFO's (Low Frequency Oscillators) to create classic or FM/AM modulated versions of many popular modulation effects. The primary LFO drives the main effect and is controlled by the three top row controls, **Depth**, **Speed** and **Shape**.

Top row knobs control the primary parameters of the effects. The two leftmost top row knobs control important aspects of the effects. The leftmost knob, **Intensity**, ranges from subtle to dramatic. The knob immediately to its right, **Type**, selects the type of effect – i.e. the "type" of Flanger, "type" of Phaser, etc.

Lower row knobs (**S-Mod, D-Mod**, **Mod Rate** and **Mod Source**) control the secondary LFO which in turn modulates the Speed and Depth of the primary LFO. The **S-Mod** knob controls the amount of Frequency Modulation applied to the primary LFO and the **D-Mod** knob controls the amount of Amplitude Modulation.

With **S-Mod/D-Mod** knobs set fully counterclockwise, the secondary modulation is disabled and ModFactor creates high quality renditions of classic modulation effects. As the **S-Mod/D-Mod** knobs are turned up a small amount of movement will be added to the effect to give it

a controlled organic feel. Increase the amount of **S-Mod/D-Mod** for complex and interesting and even extreme modulation effects.

The availability of expression pedal and envelope mod shapes allows the modulation rate to be controlled dynamically by your playing as well.

Intensity

Controls the intensity of the effect from 0 to 99%.

For TremoloPan type Bias, Intensity controls the amount of Drive. For high input levels, setting Drive to high levels can cause overload distortion.

For TremoloPan type Opto, Intensity controls input slew rate (Edge) and, depending on the input signal, may only have a subtle effect.

Type

Selects the type of effect. For example, ModFactor has 4 distinct types of Phasers – Negative, Positive, Feedback and Biphase.

EFFECT	TYPE			
CHORUS	LIQUID	ORGANIC	SHIMMER	
PHASER	NEGATIVE	POSITIVE	FEEDBACK	BIPHASE
Q-WAH	WAH-WAH	V-WAH		
FLANGER	POSITIVE	NEGATIVE	JET	THRU-0
MODFILTER	LOPASS	BANDPASS	HIPASS	
ROTARY	STANDARD	GIANT		
TREMELOPAN	BIAS	OPTO		
VIBRATO	MODERN	VINTAGE	RETRO	
UNDULATOR	PITCH	FEEDBCK		
RINGMOD	DC	AC		

Depth

Sets the modulation sweep range from narrow to wide. In Play Mode, the Billboard displays an animated graphic that indicates the sweep range. With Depth set to minimum, the graphic displays a vertical bar at the leftmost of the display. As Depth is increased, the bar sweeps farther to the right. With Depth set to maximum, the vertical bar traverses the full length of the Billboard display.

Speed

Sets the modulation sweep rate. In Play Mode, the Billboard displays an animated graphic sweeps back and forth at the modulation sweep rate.

Note: If Envelope or ADSR is selected for the Shape parameter, the modulation is driven by the amplitude of the audio input and the Speed control becomes a Sensitivity control.

Note: If Slow Mode is enabled, an “S” prefix is added to the Speed Parameter value.

Shape

Selects the shape (or source) of the modulation. The choices are:
SINE, TRIANGL(E), PEAK, RANDOM, SQUARE, RAMP, SQUARE, SMP/HLD, ENVELOP or ADSR.

In addition, the Expression Pedal (EXP PDL) can be chosen as a source. When EXP PDL is chosen, the current preset's pedal mapping is ignored.

Xnob

The Xnob control is effect type dependent and works as follows:

EFFECT - TYPE	XNOB Function
CHORUS – LIQUID	Feedback
CHORUS – ORGANIC	Manual Delay Offset [MDO]
CHORUS – SHIMMER	Feedback
PHASER – NEGATIVE/POSITIVE/FEEDBACK	Filter Stages
PHASER – BIPHASE	Forward/Reverse
Q-WAH	Base Frequency
FLANGER	Manual Delay Offset [MDO]
MODFILTER	Width (STEREO ONLY)
ROTARY	Tone
TREMELOPAN	Width (STEREO ONLY)
VIBRATO – MODERN/VINTAGE	Width (STEREO ONLY)
VIBRATO – RETRO	Filter Stages
UNDULATOR – PITCH	Spread
UNDULATOR – FEEDBCK	Feedback
RINGMOD	Tone

Modulating the Modulation

The bottom row knobs are used to modulate the primary modulation.

D-Mod

Controls the amount of modulation of the Depth parameter. Analogous to AM (Amplitude Modulation). Full counter-clockwise is OFF.

S-Mod

Controls the amount of modulation of the Speed parameter. Analogous to FM (Frequency Modulation). Full counter-clockwise is OFF.

Mod Rate

Sets the secondary LFO rate – determines how fast the D-Mod and S-Mod "wiggle" their targets. Ranges from 1/8 to 8X the Speed value.

Note: If Envelope or ADSR is selected as the Mod Source, the modulation is driven by the amplitude of the audio input and the S-Mod control becomes a Sensitivity control.

Mod Source

Selects the secondary LFO modulation source. The choices are:
SINE, TRIANGL(E), PEAK, RANDOM, RAMP, SQUARE, SMP/HLD, ENVELOP or ADSR.

In addition, the Expression Pedal (EXP PDL) can be chosen as a source. When EXP PDL is chosen, the current preset's pedal mapping is ignored.

Catchup

You would expect that when you turn a Parameter Control Knob, the parameter's value would change instantly and, unless Catchup is enabled, it does. Instant changes, however, may not be desirable for all situations and users. Consider the following example:

You have just loaded a Preset and the Preset's value for Speed is 0.10 Hz (very slow modulation). Now, let's say that the Speed Control Knob happens to be at the full clockwise position corresponding to a speed of 5.00 Hz (fast sweep). If you'd like to tweak the speed by a small amount (for example, from the Preset's value of 0.10 Hz to 0.20 Hz), you would reach down and turn the knob only to find that the speed at first abruptly jumps from 0.10 Hz to 5.00 Hz and then decreases to the desired value as you continue to turn the knob. If this happens as you're playing, it could be a tad distracting.

ModFactor's Catchup feature is designed to prevent parameter values from abruptly changing when the knob positions don't correspond to the Preset values. When Catchup is ON and a Control Knob is turned, the parameter value doesn't change instantly. Instead, the display alternates between the Preset value and the word "TURN" (displayed accompanied by either a left or right pointing arrows as appropriate). The parameter (and hence the Effect) does not change until the knob position passes the current parameter value at which point TURN and the arrow disappear, the parameter name and value are displayed, and the knob becomes active.

Returning to our example, if Catchup is ON, Speed will not change until the Control Knob is turned from its full clockwise position to nearly its full counterclockwise position where it corresponds to the 0.10 Hz value. At that point, the Control Knob becomes "live." The result is that abrupt changes in the sound of the Effect are avoided.

Catchup's factory default is OFF. To turn Catchup On/Off:

1) Press and hold the Encoder and Right Footswitch simultaneously for a few seconds to enter System Mode. Release the Encoder.
2) Turn the Encoder until [UTILITY] is displayed.
3) Momentarily press the Encoder.
4) Turn the Encoder until [KNOBS] is displayed.
5) Momentarily press the Encoder.
6) Turn the Encoder to select either NORMAL(OFF) or CATCHUP (ON).
7) Press and hold the Encoder and Right Footswitch simultaneously for a few seconds to exit System Mode.

Expression Pedal

An external Expression Pedal can be connected to the rear panel ¼" phone jack. The Expression Pedal can be set up to control any combination of the eight parameters. For proper operation the Expression Pedal should be a simple resistive potentiometer with a maximum value of between 5k Ohms and 20k Ohms.
Refer to **www.eventide.com/AudioDivision.aspx** for information on recommended expression pedals

Because different pedals can have different electrical characteristics, it is a good idea to "calibrate" your Stompbox to match the pedal. This can be done automatically, either all the time, or only when wanted. To turn calibration On/Off:

1) Press and hold the Encoder and Right Footswitch simultaneously for a few seconds to enter System Mode. Release the Encoder.
2) Turn the Encoder until [UTILITY] is displayed.
3) Momentarily press the Encoder.
4) Turn the Encoder until [PEDAL CAL] is displayed.
5) Momentarily press the Encoder.
6) Turn the Encoder to select either ON or OFF.
7) Press and hold the Encoder and Right Footswitch simultaneously for a few seconds to exit System Mode.

When Calibration is ON, the unit will remember the highest and lowest values it sees and will use these as pedal up and pedal down. Typically you will turn it ON, move the pedal between its maximum and minimum values a few times, then turn it OFF. Be aware that some pedals can be a bit quirky and pressing hard and pressing gently may give different values. For this reason we suggest turning calibration OFF when you're happy with the setting. When Calibration is OFF, the values will be remembered and will not be changed by moving the pedal.

The Expression Pedal settings can be adjusted simply by pressing the Pedal to the full heel or full toe position and turning the Control Knobs. You'll notice that whenever you move the Pedal, the Green LED next to currently active Effect blinks. This indicates that Pedal programming is "live." To program, press the heel completely down and adjust the knobs to get the sound that you want for the heel down position. You must turn the knobs to create the assignment. Knobs that are not turned are not assigned. Now, press the toe completely down and change the settings of any or all of the knobs. Parameters associated with any knobs that are moved will be mapped to the Pedal. Now, when you rock the pedal back and forth, you'll hear the sound change between the two settings.

After a few seconds of pedal and knob inactivity, the LED will stop flashing. When the LED is solidly lit, you can turn any of the Parameter Control Knobs to change the sound without changing the Expression Pedal mapping.

When the Expression Pedal is used, the BillBoard will display the changing value. If the Expression Pedal has been set up to control a single parameter, the display will show the parameter name and value in the same way as if you were turning the Control Knob. If the Expression Pedal has been set up to control multiple parameters, the display indicates the pedal value (from 0 to 100) and the parameters that are changing. In this display, the ten parameter Knobs are shown as dots and, when the Pedal is used, the column above each dot is used to indicate that the Pedal is controlling that parameter.

Since any number of parameters can be programmed to respond to the pedal, it's important to learn how to un-assign parameters. Let's say that you've programmed the Pedal to control

Depth from 0 to 3 and Speed from 1.00 Hz to 2.00 Hz. Now, you'd like to un-assign Depth and have it fixed at 2 rather than have it change when the Pedal moves. Here's what you do:

1) Press the Pedal to full heel and turn the Depth knob to 2.
2) Press the Pedal to full toe. Turn Depth away from 2 and back to 2.

Remember, you must move the Parameter Control Knob to create the Pedal assignment. If a Parameter was previously assigned to the Pedal, the only way to un-assign it is to set the same value for the heel and toe by turning the knob.

The Expression Pedal settings are not saved automatically. If you want to be able to recall your Expression Pedal setting, you must perform the Preset Save operation.

If you load a Preset and the Expression Pedal is not connected, the parameter values will be same as they were the last time the Preset was used.

Note: Expression Pedal programming can be disabled in System Mode under the Utilities menu. Since programming the Expression Pedal is so easy, it is possible to inadvertently change settings that you've created. By setting Pedal Lock ([PDLOCK]) ON, accidental changes to the Expression Pedal settings are prevented."

Note: You can set the minimum value to be greater than the maximum value. When you do so, as the Pedal moves towards the toe, the Parameter value will decrease.

Note: The Expression Pedal input supports control voltage inputs from 0V to 3V. Care must be taken to avoid ground loops. If you hear a "hum" only when you've connected a control voltage source to ModFactor's Expression Pedal input jack, then it is likely that the device generating the control voltage is grounded to a different ground than your audio ins and outs. Ground loops are notoriously difficult to track down and beyond the scope of this User Guide to diagnose

To remove all pedal assignments

In PLAY Mode, hold down the Left Footswitch for 2 seconds. This puts the unit into Preset O/P Level Adjust Mode. While continuing to hold the footswitch down, press the encoder until you see NO EXP. Then, without releasing the footswitch, turn the encoder until you see SURE?. If you are sure, turn it a little further until you get back to OP LEVEL. If there are no pedal assignments, NO EXP will not be shown.

Operating Modes

ModFactor's footswitches are multi-purpose and operate in one of three modes, Play Mode, Bank Mode, and System Mode. In normal use, ModFactor is in either Play Mode or Bank Mode. Pressing and holding the Right Footswitch switches between Play and Bank Mode.

System Mode is used to set up MIDI, external controls and various system parameters.

Play Mode

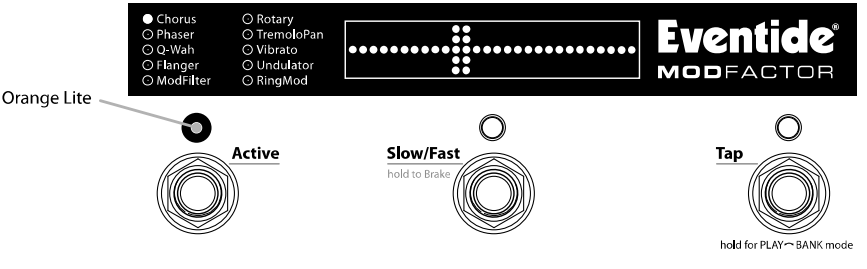
In Play Mode, the Billboard graphically displays an animated representation of the modulation and the three Footswitches are used to control the Effect. Note: The animated display can be turned off in System Mode. When the animated display is OFF, the billboard displays the current Effect Name in Play Mode.

Modulation Display

The animated graphic consists of two elements –

1) a solidly lit horizontal row of LEDs that represents the full range of modulation

2) a vertical bar that sweeps back and forth at the modulation rate. With Depth set to 0 (full counterclockwise), the bar sits at the left most column of the display. As Depth is increased, the bar sweeps further across the display. With Depth set to max, the vertical bar traverses the full range of the display.



Play Mode Footswitches

Active Footswitch

The "Active" footswitch is used to toggle between Active and Bypass. The Active LED is lit orange when the Effect is in use. When Bypassed, the Active LED is off.

Slow/Fast [Brake] Footswitch

The Slow/Fast [Brake] footswitch is dual purpose. Pressing and releasing the switch toggles the slow mode on and off. When **Slow** mode is engaged the LFO's will slow down by a predetermined factor simulating the speed change of a Leslie speaker cabinet. When **Slow** mode is active the Slow/Fast LED is lit orange.

Whether **Slow** mode is on or off, pressing the performance switch engages a **Brake** mode for as long as the switch is pressed. **Brake** mode slows the LFOs at a constant rate while the switch is pressed. When the switch is released, **Brake** the LFOs return to their previous rate.

Note: If the time between pressing and releasing the performance switch is less than 1 second, **Slow** mode will be toggled. If it is greater than 1 second, **Slow** mode will not be toggled.

Tap Footswitch

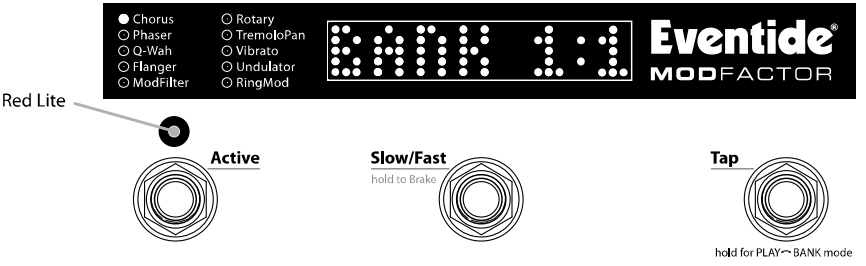
The "Tap" footswitch is used to tap tempo if Tempo is ON. While tapping with Tempo ON, the updated tempo value is displayed by the Billboard in BPM. While tapping with Tempo OFF, the updated value is displayed in Hz.

To turn Tempo ON or OFF, press the Encoder. When Tempo's state changes, the Billboard will briefly display the appropriate message either "TMP ON" or "TMP OFF." When Tempo is ON, the Tempo LED flashes at the current tempo.

Bank Mode

In Bank Mode, the Billboard displays the Bank and Preset Number of the currently running Preset. The Left and Middle Footswitches are used to instantly select or Bypass either Preset 1 or Preset 2. Presets are stored in pairs and each pair of Presets is called a Bank. There are a maximum of 20 Banks - a total of 40 Presets.

The Billboard displays the current Bank and Preset number. Banks are numbered from 1 to 20 and Presets are numbered 1 and 2.



Note: The 40 Presets can be based on any of the Effects. You can choose to have all 40 presets based on Chorus. Or, two based on Chorus, three based on Flanger, five based on Vibrato, etc. - or any combination.

Loading Presets

The Preset numbers correspond to the Left and Middle Footswitches.

To Bypass the Preset, simply press the Footswitch corresponding to the loaded Preset. Press again and the Preset becomes active.

The following attributes are saved with Presets and recalled when Presets are loaded:

1) Parameter knob values.
2) Tempo/Tap value.*
3) Tempo On/Off status.
4) Expression pedal mapping.

* Note: ModFactor can be set up to change the Tempo value when a Preset is loaded or to ignore the value saved with the Preset. While Tempo values are always saved with the Preset, you may prefer to have your current Tempo stay the same as you switch from Preset to Preset. Turn GLOBAL TEMPO ON to do that. With GLOBAL TEMPO ON, the Tempo values saved with the Preset are ignored and the current Tempo value is used. Global is described later in this User Guide.

Selecting Preset Banks

In Bank Mode, the Right Footswitch is used to select the current Bank. Tap the Right Footswitch to increment through the active Banks. When a Bank is displayed, the associated pair of Presets is cued but the new Preset is not yet loaded. The next time that either the Left or Middle Footswitch is pressed, the corresponding Preset will load from the cued Bank.

Note: If the previous loaded Preset is in Bypass when the footswitch is pressed, the newly loaded Preset will be Active.

Note: Edited Presets will be lost if they are not saved before loading another Preset.

Active Banks

If 40 Presets are more than you need, and you'd like to make it quicker and easier to find and load your Presets, the number of active Banks can be limited. Only the Banks that are active will show up when loading. While only active Banks can be loaded, Presets can always be saved to all Banks. Inactive Banks are not erased and can be made active at any time.

You can limit the number of active Banks by selecting a range of consecutive Banks that are active. For example, if you can set Banks 1 to 5 as active or Banks 8 to 12 or any range of consecutive Banks. For this reason, it is important to consider the order in which you save your Presets to best suit your needs. Save groups of Presets in consecutive Banks.

The factory default sets the full range of Banks from 1 to 20 active. To limit the number of active Banks:

1) Press and hold the Encoder and Right Footswitch simultaneously for a few seconds to enter System Mode. Release the Encoder.
2) Turn the Encoder until [UTILITY] is displayed.
3) Momentarily press the Encoder.
4) Turn the Encoder until [BANKS] is displayed.
5) Momentarily press the Encoder.
6) Press the Right Footswitch and turn the Encoder to set the upper limit.
7) Press the Left Footswitch and turn the Encoder to set the lower limit.
8) Press and hold the Encoder and Right Footswitch simultaneously for a few seconds to exit System Mode.

Tempo

Tempo ON/OFF

Tempo is turned ON or OFF by momentarily pressing the Encoder. When Tempo is ON, the Tempo LED flashes at the Tempo rate. With Tempo OFF, the Tempo LED is OFF.

Tap Tempo

In Play Mode, the Tap Footswitch can be tapped to set the tempo. While tapping, the Billboard displays the updated Tempo.

Note: When using an Aux Switch to tap tempo, the Billboard will display the tempo value in both Play and Bank Modes.

Adjusting Tempo

The Encoder can be used to set or tweak the Tempo value in BPM if Tempo is ON or in Hz if Tempo is OFF. To use the Encoder, first press the Tap Footswitch (you must be in Play Mode) so that the Billboard displays the Tempo value. Whenever the Tempo value is displayed, the Encoder can be turned to adjust the Tempo. While adjusting, the Billboard displays the updated Tempo and the parameter Control Knobs are disabled.

Global Tempo

Tempo is always saved with each Preset. Often however, it's useful to set the Tempo for all of the Presets that you're using. To do this, use the System GLOBAL Tempo command. When GLOBAL TEMPO is ON, the Tempo value saved with the Preset is ignored and the current Tempo value is used for all Presets.

Turning GLOBAL TEMPO ON or OFF. The factory default is OFF.

1) Press and hold the Encoder and Right Footswitch simultaneously for a few seconds to enter System Mode. Release the Encoder.
2) Turn the Encoder until [GLOBAL] is displayed.
3) Momentarily press the Encoder.
4) Turn the Encoder until [TEMPO] is displayed.
5) Momentarily press the Encoder.
6) Turn the Encoder to select [ON] or [OFF].
7) Press and hold the Encoder and Right Footswitch simultaneously for a few seconds to exit System Mode.

Edited Preset Indication

In Bank Mode, whenever a Preset's parameter values are changed, an LED dot is lit at the upper rightmost corner of the BillBoard display.

Preset parameters can be changed by:

a) turning a Control Knob,
b) selecting an Effect by turning the Encoder,
c) receiving a MIDI command or,
d) moving the Expression Pedal

Saving Presets

To save a Preset:

1) Press and hold the Encoder for a few seconds. The current Bank# and Preset# are displayed. Release the Encoder.
2) Turn the Encoder to select the desired Bank# and Preset#. Preset locations are displayed as "BANK#:#" where the first number is the Bank number from 1-20 and the second number is the Preset number (or slot) either 1-2. When saving, all Banks are available even if you've limited the number of active Banks.
3) To save the Preset, press and hold the Encoder a second time. The Billboard displays "SAVED."
4) After a short time, the Save mode is exited.
5) To exit Save without saving, press and release the Encoder again without holding it or press any Footswitch at any time. Upon exiting Save mode without saving, the Billboard displays "NO SAVE."

Note: You must press and HOLD the Encoder to save. If you press and release quickly, the new Preset will not be saved. This is intentional. When you save a new Preset, you overwrite the old Preset. ModFactor is designed to assure that saving is a deliberate act. The Preset number corresponding to the currently running Preset will flash as a warning that saving in this location will overwrite the currently loaded Preset.

Organizing Your Presets in Banks

When you save a Preset, you should consider if there is a companion preset with which it will be used. For example, if you have a pair of Presets that you plan to use together in the same song – one for the verse, one for the chorus – placing them in the same Bank will let you instantly switch from one to the other.

Loading a Preset from a Bank is instantaneous (one tap) while getting to a Preset from different Bank takes at least two taps. Also remember that if you plan to limit the number of active Banks, you should store groups of Presets in consecutive Banks. For example, if you need 6 presets for gig #1 and a different set of 4 presets for gig #2, you might save gig #1 Presets in Banks 1-3 and gig #2 Presets in Banks 4 and 5. Then, for gig #1, you can set the range of active Banks from 1 to 3 and, for gig #2, set the range of active Banks from 4 to 5.

Note: When saving to a location other than the active slot, the saved Preset location becomes the active slot. In other words, if Bank 1:1 is currently active and, after changing the parameters to get a new sound, you decide to save the new sound to location Bank 9:1, Bank 9 becomes the active Bank.

Dumping (Backing-up) Presets and System Settings

The currently loaded effect, your stored Presets and your system settings can be dumped to a MIDI device or to a computer using the MIDI's SysEx facility. SysEx dump is a MIDI System Exclusive Message that can be sent from ModFactor and recorded by a MIDI sequencer or computer. ModFactor's Presets and System Settings can then be restored at a later time. This is a useful way to backup saved settings or to reconfigure the unit as it was on your previous project. The process takes a couple of seconds.

To Dump Presets &/or System Settings:

1) Press and hold the Encoder and Right Footswitch simultaneously for a few seconds to enter System Mode. Release the Encoder.
2) Turn the Encoder until [MIDI] is displayed.
3) Momentarily press the Encoder.
4) Turn the Encoder until [DUMP] is displayed.
5) Momentarily press the Encoder.
6) Turn the Encoder to select [ALL], [CURRENT], [PRESETS] or [SYSTEM].
7) Wait until dump is complete.
8) Press and hold the Encoder and Right Footswitch simultaneously for a few seconds to exit System Mode.

Note: If [CURRENT] is selected only the currently loaded Preset is dumped. If [PRESETS] is selected, all 40 stored Presets are dumped. If ALL is selected all Presets and System settings are dumped. If SYSTEM is selected, only System settings are dumped.

Restoring Presets and System Settings

Presets and System settings are restored via MIDI's SysEx facility. ModFactor must be set to the desired SysEx ID number (from 1 to 16). To set the MIDI SysEx ID number (factory default is 1):

1) Press and hold the Encoder and Right Footswitch simultaneously for a few seconds to enter System Mode. Release the Encoder.
2) Turn the Encoder until [MIDI] is displayed.
3) Momentarily press the Encoder.
4) Turn the Encoder until [SYS ID] is displayed.
5) Momentarily press the Encoder.
6) Turn the Encoder to choose SysEx ID from [1] to [16].
7) Press and hold the Encoder and Right Footswitch simultaneously for a few seconds to exit System Mode.

Auxiliary Switches

The rear panel Aux Switch stereo phone jack supports up to three independent momentary switches using Tip, Ring and Tip+Ring. Aux Switches do not disable ModFactor's Footswitches – the local Footswitches are always active. Aux Switches can be programmed to perform a number of functions and they make it easy to connect a dedicated Tap Tempo switch or Slow/Fast/Brake switch or Preset Switch.

As noted above, the ModFactor has two operating modes, Bank and Play. An Aux Switch can be used to instantly toggle between the ModFactor's Bank and Play Modes. Alternately, some users may want to have all six switch functions immediately available (3 from each Footswitch Mode). A set of three Aux Switches can be connected and assigned accordingly.

Aux Switches can also be assigned to parameter values allowing you to switch between two parameter values. For example, you could assign an Aux Switch to toggle between S-MOD value 0 and 5. To program the Aux Switches see the System Mode section of this User Guide.

Notes:
1) You must use a stereo phone ¼" plug to connect Aux Switches.
2) Toggle switches are not supported. Only momentary switches will work properly.
3) Simultaneously pressing the switch assigned to the Tip and the switch assigned to the Ring will trigger the function assigned to the Tip+Ring. The Aux Switches should be pressed independently.

Refer to www.eventide.com for information on recommended Aux Switches

MIDI

ModFactor supports MIDI In, Out, Thru. MIDI can be used to:

1) Load and bypass Presets
2) Select Banks
3) "Brake"
4) Change parameter values
5) Set tempo from MIDI clock
6) Enable ModFactor's knobs and switches to control other MIDI devices
7) Dump (backup) Presets and/or system settings to a computer

ModFactor automatically selects either USB or DIN5 as MIDI Inputs and Outputs. If USB is connected, DIN5 MIDI activity (including MIDI thru) is ignored. MIDI setup is described in System Mode and a MIDI implementation map can be found later in this User Guide.

Routing

In most cases, the ModFactor will be connected in one of the ways described earlier. For more advanced users, it offers a number of extra routing modes, which control the functions of the inputs and outputs. These are usually associated with dedicated wiring and amplifiers and can be selected from the UTILITY/ROUTING section of System Mode. These modes will usually be set to match your hardware configuration and will not normally be changed otherwise.

1) Press and hold the ENCODER and Right Footswitch simultaneously for a few seconds to enter System Mode.
2) Turn the Knob until [UTILITY] is displayed.
3) Momentarily press the ENCODER.
4) Turn the Knob until [ROUTING] is displayed.
5) Momentarily press the ENCODER.
6) Turn the Knob to select [NORMAL] or [PRE.PST] or [WET.DRY].
7) Press and hold the ENCODER and Right Footswitch simultaneously for a few seconds to exit System Mode.

WARNING - depending on your external connections, changing routing modes can cause loud feedback !! Be sure that all amps are turned down before the change.

Normal

This is the normal mono/stereo connection scheme described earlier.

Pre/Post (PRE.PST)

PRE / POST mode allows you to change where your stompbox sits in your signal chain. For example, you may want it to at the beginning of your signal chain for a distortion effect (PRE), but for a reverb, you may want it to run at the end (POST). It can also be used to choose between placing an effect either before the amp or in an effects loop. This is set on a preset by preset basis by choosing between two options:

PRE - a mono signal sent to input 1 is routed through the effect to output 1, while input 2 is passed unchanged to output 2.
If KillDry is set, output 2 will be muted. When Bypassed, output 1 will always be dry.

POST - a mono signal sent to input 2 is routed through the effect to output 2, while input 1 is passed unchanged to output 1.
When Bypassed, if KillDry is set, output 2 will be muted. Output 1 will always be dry.

When in PRE/POST mode, you can pick from the above options:

11) Press and hold the active Footswitch (the one corresponding to the loaded preset). The display will show the Output Level.
12) Press the Encoder until the display shows PRE (default) or POST.
13) Turn the Encoder to set it as desired.
14) Release the Footswitch - the Preset will return to its previous Active or Bypassed state.
15) Remember to save the preset, or the change will be lost.

In PRE/POST mode, Input and Output Swell only affect the wet channel.

Wet/Dry (WET.DRY,STEREO)

In wet dry mode, either one or two inputs can be used. One output will be dry, meaning that the output is the same as the input (or mix if two inputs are used), whereas the other will be wet, using a mono output version of the effect. If only one input is used, this should be Input 1.

The wet connection can be selected on a preset by preset basis. This means that either output 1 will be wet, or output 2. A normal stereo output can also be selected.

. When in Wet/Dry mode, you can pick from the above options:

1) Press and hold the active Footswitch (the one corresponding to the loaded preset). The display will show the Output Level.
2) Press the Encoder until the display shows WET1 (default), WET2 or STEREO.
3) Turn the Encoder to set it as desired.
4) Release the Footswitch - the Preset will return to its previous Active or Bypassed state.
5) Remember to save the preset, or the change will be lost.

WET1 – Physical Output 1 will be wet, Output 2 will be dry. When Bypassed, if KillDry is set, Output 1 will be muted, while Output 2 will always be dry.

WET2 - Physical Output 2 will be wet, Output 1 will be dry. When Bypassed, if KillDry is set, Output 2 will be muted, while Output 1 will always be dry.

STEREO – this is the normal operating mode where both channels are Wet unless bypassed. It is here to allow you to return to normal stereo mode on a preset by preset basis. For example, in a two amplifier setup, you might want a shifter to come from one amp, but a reverb to feed both.

In WET/DRY mode, Input and Output Swell only affect the Wet channel.

System Mode

System Mode is used for settings that cover the overall system such as the Bypass, Aux Switch, MIDI, Expression Pedal, etc.

To Enter/Exit System Mode

Press and hold the Encoder and Right Footswitch simultaneously for a few seconds to enter and exit the System Mode. Upon exit you're returned to the previous mode, either Bank or Play. Upon entering System Mode, you're at the top-level menu selection. The Left and Right Footswitch LEDs will flash RED continuously to remind you that you're in this special mode. The Middle Footswitch LED, the Effect Indicator LED and Tempo LED are always OFF in System Mode.

At the top-level, turn the Encoder to scroll the choices, [BYPASS], [AUX SW], [MIDI], [GLOBAL] and [UTILITY]. Press the Encoder to select one of these choices.

System Mode Navigation

General navigation and access the System Mode menus/parameters are as follows:

1) **Push the Encoder** to step down into the menu tree.

2) **Turn the Encoder** to scroll thru menu items or parameter selections or values.

3) **Press the Middle Footswitch** to step up the menu tree to upper level menu options.

For menus with two fields, a **flashing arrow** pointing to the left or right indicates the default active field for editing. **Press the Left Footswitch or Right Footswitch** to select the active field. The **Left Footswitch** is used to select the left-hand field, the **Right Footswitch** is used to select the right-hand field.

Hint: While the Middle Footswitch can always be used to step up the menu tree, for menu items that are only one level deep, pressing the Encoder a second time will also step up to the top level.

System Menu Tree

The system mode is divided into five categories **[BYPASS], [AUX SW]**, **[MIDI], [GLOBAL],** and **[UTILITY]** which are the top-level menu items that appear when entering system mode. In the following, factory default settings are indicated in **(bold)**

[BYPASS] – Select Bypass Mode

After entering System Mode, turn the Encoder to select [BYPASS], then press the Encoder to enter Select Bypass Mode. Turn the Encoder to select either [BYP TYP] or [KILLDRY].

[BYP TYP] – Choose Bypass Type (**DSP**, RELAY, DSP+FX)

Press the Encoder to select. Turn Encoder to select DSP or Relay.

When [DSP] is selected, Bypass sends the audio at the DSP's inputs directly to the outputs without any effects processing.

When [RELAY] is selected, Bypass employs a pair of relays to "hardwire" the inputs to the outputs.

When [DSP+FX] is selected, Bypass combines the audio at the DSP's inputs with the DSP's outputs AND stops feeding any new input signal to the DSP Effects inputs. This is a handy way to Bypass an Effect without abruptly killing the tail of the Effect that you've been using.

Press the Middle Footswitch once to back-up one level to BYPASS menu.
Press the Middle Footswitch twice to go to top level System menu.

[KILLDRY] – Kill Dry Audio (NO, **YES**)

Press the Encoder to select. Turn Encoder to enable/disable KILLDRY.
When KILLDRY is enabled (YES), the dry signal is removed from the output and ModFactor only outputs a 100% wet Level. For some of the effects the Intensity control acts as a Wet/Dry Mix control. For these effects, if KILLDRY is YES, the Intensity control is disabled.

Press the Middle Footswitch once to back-up one level to BYPASS menu.
Press the Middle Footswitch twice to go to top level System menu.

[AUX SW] – Program Auxiliary Switches

Up to three Auxiliary Switches can be assigned as controls for the Effects parameters and system control. The three Aux Switches are connected to the rear panel ¼" stereo phone jack. ModFactor detects closures by sensing whether the tip, the ring or both the tip and ring are grounded. Note that you must use a stereo phone plug when connecting three Aux Switches.

The default assignments of the Aux Switches mirror the operation of the stompbox footswitches. If ModFactor is in the Play Mode, the Aux Switches act as the normal Bank Mode switches and, if ModFactor is in Bank Mode, the Aux Switches act as the normal Play Mode switches.

To assign the Aux Switches first press the Encoder to select AUX SW. You will see two fields (split display) of the Billboard display (left/right) showing Parameter

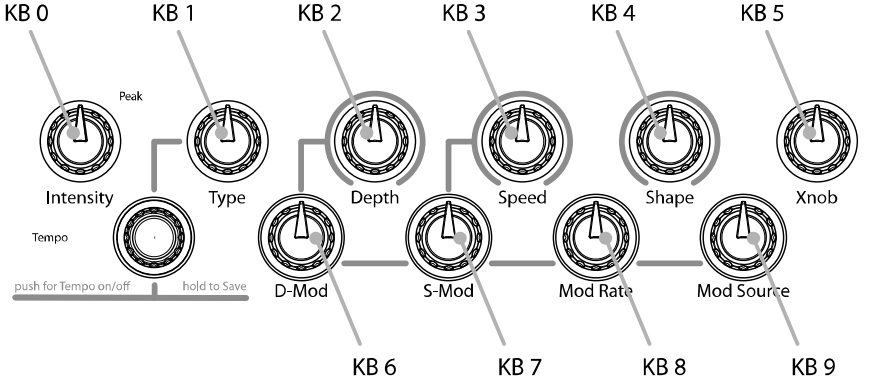
destination and Control source assignments. An arrow pointing to the left (Parameter) is flashing (if it's not, press the Left Footswitch to select this field) showing this to be the selected field for editing.

To assign the switches, first select the ModFactor parameter or function (the destination) that you want to externally control (Intensity for example) and then select the Aux Switch that you want to control it with (the source).

To Setup Parameter Destinations

Turn the Encoder knob to select an external control destination. Destinations include the ModFactor parameters and functions that can be controlled by one of the Aux Switches. The choices are:

BYP – Toggle Bypass/Active. (Bypass type selected in BYPASS)
BK + – Increment Bank number switch function.
BK - – Decrement Bank number switch function.
TAP – Tap tempo switch function.
BRK – Brake Function.
P/B – Toggle between Play and Bank Mode.
KB0…9 – Because of the limited space in the Billboard display, the Parameter Control Knob names cannot be meaningfully displayed. Instead, for display purposes, we've numbered the knobs from 0 to 9 indicate below.
FS1 – Left footswitch
FS2 – Middle footswitch
FS3 – Right footswitch



The notion of using an On/Off control source like an Aux Switch to control a variable parameter bears some explanation. Consider a variable parameter like Intensity.

After you've selected a Parameter Control Knob, you can set two values for the parameter; a minimum value [MIN VAL] and a maximum value [MAX VAL]. Each time the assigned switch is pressed, the parameter value instantly toggles between the minimum and maximum value.

When a Parameter Control Knob designator is displayed (KB0… KB9), pressing the Left Footswitch will display [MIN VAL]. Turn the associated Parameter Control Knob to set the minimum value. For example, if KB0 was selected, turn the Intensity Control Knob to set the

minimum value. The Billboard displays the knob value while you're turning the parameter knob and times out to display the selected [MIN VAL] when the knob is idle.

Push the Left Footswitch again to set the maximum value for the selected Parameter Control Knob. The Billboard will display [MAX VAL]. Turn the associated parameter knob to adjust the maximum value. The Billboard displays the knob value while you're turning the parameter knob and times out to display the selected [MAX VAL] when the knob is idle.

The parameters controlled in this mode are system-wide and will apply to all Effects and Presets. For example, you could assign an Aux Switch to Intensity (KB1) with [MIN VAL] set to 10% and [MAX VAL] set to 90%. Pressing the switch will toggle between these two intensity settings. If another Effect or Preset is chosen, the Aux Switch will affect the intensity for the currently loaded effect.

Note: When a Preset is loaded, the switches assume the MIN VAL for the assigned parameters. Pressing the switch for the first time after a Preset load, will toggle the parameter to MAX VAL.

Note: While it is possible to assign more than one external controller to any parameter, doing so is likely to cause confusion and is not recommended.

To Setup the External Control Source

Press the Right Footswitch to select one of three Aux Switches. There are two ways to select the Aux Switch - Manual Select or Learn Mode.

For Manual Select simply turn the Encoder to choose the Aux Switch. The choices are:

TIP - Aux switch jack tip connection
RNG - Aux switch jack ring connection
T+R - Aux switch jack tip + ring connection

There are also *momentary* (non-toggling) controls, named TI.P, RN.G and T+.R - these can only be used with the Knobs.

To use the Learn Mode to select the external control source, **Press the Right Footswitch again**. "**LEARN"** is displayed prompting you to press an Aux Switch for automatic assignment. Press the Right Footswitch again to exit LEARN mode and revert to manual source selection.

Press the Left and Right Footswitches to toggle between Source and Destination to make as many assignments as you wish.

The default patches for Aux Switch control are as follows:
[FS1<>TIP]
[FS2<>RNG]
[FS3<>T+R]

The other Aux Switch Control destinations ([BYP], [BK+], [BK-], [TAP], [BRK], [P/B], and [KB0]…[KB9]) are unassigned as indicated by [---].

Note: It is possible to assign the same Aux Switch to multiple destinations. In other words, you could assign [TIP] to control Bypass AND Tap AND Brake AND etc. The benefit of having the same switch control multiple functions can be very useful however, you should keep in mind that, if you have previously assigned a Switch to a control destination, you may want to clear the assignment before setting up a new assignment.

When done, **Press the Middle Footswitch** to go to top level System menu.

[MIDI] - MIDI Functions

After entering System mode, turn the Encoder to select [MIDI], then press the Encoder to enter the MIDI functions settings mode.

Turn the Encoder to scroll through the MIDI functions including MIDI Program maps, MIDI channel, MIDI Data Dumps, etc.

[RCV CH] – Set the MIDI Receive Channel (OFF, OMNI, 1-16)

Press the Encoder to select. Turn Encoder to set the MIDI Receive Channel option. You can select a MIDI Channel number, turn OFF MIDI receive or choose OMNI to receive on all MIDI channels.

Press the Middle Footswitch once to back-up one level to MIDI menu.
Press the Middle Footswitch twice to go to top level System menu.

[XMT CH] – Set the MIDI Transmit Channel (1, 2-16)

Press the Encoder to select. Turn Encoder to set the MIDI Transmit Channel.

Press the Middle Footswitch once to back-up one level to MIDI menu.
Press the Middle Footswitch twice to go to top level System menu.

[RCV CTL] - Receive Continuous Control Message

RCV CTL allows external MIDI Continuous Control messages to be used as assignable controls for the Effects parameters and system control.

The idea is to first select the ModFactor parameter or function that you want to externally control (Intensity for example) and then select either MIDI Bend or the MIDI CC with which you want to control it.

Here's how it works:
Press the Encoder to select RCV CTL. You will see two fields (split display) of the Billboard display showing Parameter destination and Control source assignments. An arrow pointing to the left (Parameter) is flashing (if its not, press the Left Footswitch to select this field) showing this to be the selected field for editing.

To Setup Parameter Destination
Turn the Encoder knob to select an external control destination - the ModFactor parameter or function which will be controlled from an external source. The choices are:

BYP – Bypass the unit
BK + – Increment Bank number switch function
BK - – Decrement Bank number switch function
TAP – Tap tempo switch function
BRK – Rotary Brake function
P/B – Toggle between Play and Bank Mode
PDL – MIDI Expression Pedal
ACT – Make unit Active
TOG – Toggle Bypass/Active

KB0…9 – Parameter Control Knobs
FS1…3 – Alternate Mode (AUX Switches act as Play Switches when the Stompbox is in Bank Mode, and Bank Switches when the Stompbox is in Play Mode)

ISW – Input Swell
OSW – Output Swell

After you've selected a Parameter Control Knob, you can set the parameter range that the MIDI CC will control by setting minimum and maximum parameter values.

When a Parameter Control Knob designator is displayed (KB0… KB9), pressing the Left Footswitch will display [MIN VAL]. Turn the associated Parameter Control Knob to set the minimum value. For example, if KB0 was selected, turn the Intensity Control Knob to set the minimum value. The Billboard displays the knob value while you're turning the selected parameter knob and times out to display the selected [MIN VAL] when the knob is idle.

Push the Left Footswitch again to set the maximum value for the selected Parameter Control Knob. The Billboard will display [MAX VAL]. Turn the associated parameter knob to adjust the maximum value. The Billboard displays the knob value while you're turning the selected parameter knob and times out to display the selected [MAX VAL] when the knob is idle.

MIDI CCs send values from 0 to 127. The minimum parameter value will be set when the MIDI CC sends a 0 and the maximum parameter value will be set when the MIDI CC sends 127. MIDI CC values between 0 and 127 are mapped to the selected parameter range.

The parameters controlled in this mode are system-wide and will apply to all Effects and Presets.

Note: You can set the minimum value to be greater than the maximum value. When you do so, when the MIDI CC's sends an increasing value, the parameter value will decrease.

Note: While it is possible to assign more than one external controller to any parameter, doing so is likely to cause confusion and is not recommended. Keep in mind that, if you have previously assigned a MIDI CC to a control destination, you may want to clear the assignment before setting up a new assignment. To clear, select the destination (parameter) and select the source (MIDI CC) as [---].

To Setup the External Control Source

Press the Right Footswitch to select the external control source field for editing. There are two ways to select an external control source - Manual Select or Learn Mode.

For Manual Select simply turn the Encoder to choose the MIDI Control Source. The choices are:

BND – MIDI Pitch Bend
CC0 - C99 - MIDI Continuous Controller messages from 0 to 99.

To use the Learn Mode to select the external control source, **Press the Right Footswitch again**. "**LEARN"** is displayed prompting you to send a MIDI message for automatic Control Source assignment. Press the Right Footswitch again to exit LEARN mode and revert to manual source selection.

Press the Left and Right Footswitches to toggle between Source and Destination to make as many assignments as you wish.

The default patch is unassigned [---] for all RCV CTL destinations.

Press the Middle Footswitch once to back-up one level to MIDI menu.
Press the Middle Footswitch twice to go to top level System menu.

[XMT CC] – Control knobs transmit MIDI Continuous Control

The default patch is as follows:

`PDL>C15, KB0>C22, KB1>C23, KB2>C24,…,KB9>C31`

XMT CC makes it possible to use ModFactor's Expression Pedal and Control Knobs as MIDI controllers.

Here's how it works:
Press the Encoder to select XMT CC. You will see two fields (split display) of the Billboard display showing Control source and Destination assignments. An arrow pointing to the left (Control Source) is flashing (if its not, press the Left Footswitch to select this field) showing this to be the selected field for editing.

To Select the Control Source
Turn the Encoder knob to select the Control Source. The choices are:

PDL – Expression Pedal.
KB0…9 – Parameter Control Knobs

To Assign the Control Source to a Destination
Press the Right Footswitch to select the MIDI Continuous Control that will be assigned to the ModFactor Control Source. The choices are:

OFF – Control Source unassigned.
C0 - C99 - MIDI Continuous Controller from 0 to 99.

Press the Left and Right Footswitches to toggle between Source and Destination to make as many assignments as you wish.

Press the Middle Footswitch once to back-up one level to MIDI menu.
Press the Middle Footswitch twice to go to top level System menu.

[RCV MAP] – Create a MIDI Program Change Receive Map

MIDI maps are an efficient way to instantly recall any of ModFactor's Presets using your favorite MIDI controller (pedal board, sequencer, etc.).

Press the Encoder to select and create a MIDI Program Change Receive Map. This function sets the corresponding Preset that is recalled when a MIDI Program Change message is received. (Referred to as Prg No. from here on.)

The left field displays the Prg No. (0-127) and right field displays either OFF or the Preset as Bank:Preset (1:1-20:2).

There are two ways to select the MIDI Prg No: manually or using Learn Mode. To select manually, with the left arrow flashing, simply turn the Encoder to select the desired Prg No. from 0 to 127.

To use Learn Mode, **press the Left Footswitch again.** In LEARN mode, the Prg. No. will be automatically set when a MIDI Program Change message is received. Pressing the Left Footswitch exits LEARN mode.

Press the Right Footswitch to select the Bank Preset field (indicated by a flashing right hand arrow) and **turn the Encoder** to select the Preset.

To map another Prg No. to another Preset, simply press the Left Footswitch again to select the desired Prg No. and then the Right Footswitch to map it to the desired Preset.

Default map: Prg No. 0-39 map to the 40 Presets starting with Bank 1:1.

Press the Middle Footswitch once to back-up one level to MIDI menu.
Press the Middle Footswitch twice to go to top level System menu.

[XMT MAP] – Create a MIDI Program Change Transmit Map

In Bank Mode, when a Footswitch is used to recall a Preset, a MIDI Program Change message can be transmitted from the MIDI Out jack or USB to control an external device (e.g. another Factor series Stompbox, an Eventide Eclipse, an Eventide H000FW, etc.).

To Create a MIDI Program Change transmit map **Press the Encoder** to access the MIDI transmit map for editing.

The left field displays the Bank Preset number (from 1:1 to 20:2). The right field displays either OFF or the Prg No. (0-127).

Press the Left Footswitch to select Preset/Effect field (indicated by a flashing left hand arrow pointing), **turn the Encoder** to select the Preset.

Press the Right Footswitch to select Prg No. field (indicated by a flashing right hand arrow pointing to MIDI Program Change #), **turn the Encoder** to select the corresponding number.

Default map: Prg No. 0-19 map to the 40 Presets starting with Bank 1:1.

Note: When a Factor Preset is recalled with a MIDI program change message, MIDI Program Change messages are not generated.

Note: MIDI Program Change Transmit must be enabled in order for ModFactor to transmit Program Change messages. MIDI Program Change Transmit is turned ON or OFF in the MIDI menu. Default is OFF.

Press the Middle Footswitch once to back-up one level to MIDI menu.
Press the Middle Footswitch twice to go to top level System menu.

[MIDICLK] – MIDI Clock Enable (ON, **OFF**)

Press the Encoder to select. Turn Encoder to set MIDI Clock Receive ON or OFF. If ON, MIDI Clock is used as a Tempo source. The display will flash if no MIDI Clock is found.

Press the Middle Footswitch once to back-up one level to MIDI menu.
Press the Middle Footswitch twice to go to top level System menu.

[CTL XMT] – MIDI Continuous Controller Transmit Enable (ON, **OFF**)

Press the Encoder to select. Turn Encoder to set MIDI Continuous Controller transmit ON or OFF.
This setting determines if Parameter Knobs transmit MIDI control messages.

Press the Middle Footswitch once to back-up one level to MIDI menu.
Press the Middle Footswitch twice to go to top level System menu.

[PGM XMT] – MIDI Program Change Transmit Enable (ON, **OFF**)

Press the Encoder to select. Turn Encoder to set MIDI Program Change transmit ON or OFF. If ON, a MIDI Program change message is transmitted whenever a Footswitch is pressed for Preset load.

Press the Middle Footswitch once to back-up one level to MIDI menu.
Press the Middle Footswitch twice to go to top level System menu.

[SYS ID] – MIDI SysEx ID (**1**-16)

Press the Encoder to select. Turn Encoder to choose the MIDI SysEx ID for Backup and Restore of Presets and System settings.

Press the Middle Footswitch once to back-up one level to MIDI menu.
Press the Middle Footswitch twice to go to top level System menu.

[OUTPUT] – MIDI Transmit/Thru Select (**XMT**, THRU, THRU+C, MERGE)

Press the Encoder to select. Turn Encoder to select MIDI output mode. This may be one of the following:

XMT to transmit ModFactor MIDI data

THRU to pass incoming MIDI data to the MIDI outputs.

THRU+C to pass incoming MIDI data to the MIDI outputs, mixed with any MIDIclock generated by the ModFactor.

MERGE to pass incoming MIDI data to the MIDI outputs, mixed with any MIDI messages generated by the ModFactor.

If THRU is selected, the ModFactor cannot generate any MIDI messages.
THRU+C and MERGE should NOT be used with heavy MIDI input.

Press the Middle Footswitch once to back-up one level to MIDI menu.
Press the Middle Footswitch twice to go to top level System menu.

[DUMP] – Dump Select (**ALL**, CURRENT, PRESETS, SYSTEM)

Press the Encoder to select. Turn Encoder to set what is being backed up via SysEx Dump or Dump Request.

If ALL is selected, all saved Presets and System settings are dumped.
If CURRENT is selected, only the currently loaded effect is dumped.
If PRESETS is selected, all 40 Presets are dumped.
If SYSTEM is selected, all System Mode settings are dumped.

Press the Middle Footswitch once to back-up one level to MIDI menu.
Press the Middle Footswitch twice to go to top level System menu.

[GLOBAL] – Global Settings

[TEMPO] – Enable Global Tempo (ON, OFF)

Press the Encoder to select. Turn Encoder to set Global Tempo.

Tempo is always stored with Presets, but the stored value is not used if Global Tempo is ON. With Global ON, the current Tempo is used for all Presets.

Press the Middle Footswitch once to back-up one level to UTILITY menu.
Press the Middle Footswitch twice to go to top level System menu.

[ISW] – Enable Global Input Swell (ON, OFF)

Press the Encoder to select. Turn the Knob to set Global Input Swell ON or OFF. If Global Input Swell is ON, Input Swell will always be active, whether or not it was enabled in the current preset.

Press the Middle Footswitch once to back-up one level to UTILITY menu.
Press the Middle Footswitch twice to go to top level System menu.

[OSW] – Enable Global Output Swell (ON, OFF)

Press the Encoder to select. Turn the Knob to set Global Output Swell ON or OFF. If Global Output Swell is ON, Output Swell will always be active, whether or not it was enabled in the current preset.

Press the Middle Footswitch once to back-up one level to UTILITY menu.
Press the Middle Footswitch twice to go to top level System menu.

[UTILITY] - Utility Functions

After entering System mode, turn the Encoder to select [UTILITY], then press the Encoder to enter the Utility functions settings mode. Turn the Encoder to scroll through the following Utility functions. Press the Encoder to select and set:

[ROUTE] – Set the Routing Mode (NORMAL, PRE.PST, WET.DRY)

See p.35 for information on Routing Modes.

Press the Middle Footswitch once to back-up one level to UTILITY menu.
Press the Middle Footswitch twice to go to top level System menu.

[KNOBS] – Select how Knobs work (NORMAL, CATCHUP, LOCKED)

Press the Encoder to select. Turn the Encoder to select CATCHUP or lock the knobs.

In NORMAL mode, the Parameter Control Knobs are always active.

With CATCHUP selected, the Parameter Control Knobs must be turned to the position which corresponds to their current parameter value before they become active. See p.25 for more info on CATCHUP.

The knobs can also be LOCKED, to prevent inadvertent changes to your sound.

Press the Middle Footswitch once to back-up one level to UTILITY menu.
Press the Middle Footswitch twice to go to top level System menu.

[BANKS] – Select the Range of Active Preset Banks (1-20)

Press the Encoder to select. The BillBoard displays the lower and upper limits of the range of active Banks. The lower limit is shown at the left of the display [Lxx] and the upper limit [Hxx] at the right. A flashing arrow indicates whether the upper or lower limit is controlled by the Encoder. To set the upper limit, press the Right Footswitch and turn the Encoder. Press the Left Footswitch to and turn the Encoder to set the lower limit. Only Presets saved in the range of active Banks are available for loading using the Footswitches when in Bank Mode. All Presets may still be loaded using MIDI program change.

Press the Middle Footswitch once to back-up one level to UTILITY menu.
Press the Middle Footswitch twice to go to top level System menu.

[PDLOCK] – Enable Expression Pedal Lock (ON, OFF)

Press the Encoder to select. Turn the Encoder to set Pedal Lock ON or OFF.

With Pedal Lock OFF, the Expression Pedal can be programmed live at any time. With Pedal Lock ON, Expression Pedal programming is disabled and all Expression Pedal settings are locked.

The Pedal Lock feature is a good way to ensure that Expression Pedal settings do not change.

Press the Middle Footswitch once to back-up one level to UTILITY menu.
Press the Middle Footswitch twice to go to top level System menu.

[PDLCAL] – Auto-Calibrate Expression Pedal (ON, OFF)

Press the Encoder to select. Turn the Encoder to set Auto-Calibration ON or OFF. See p.26 for more info on Pedal Calibration.

Press the Middle Footswitch once to back-up one level to UTILITY menu.
Press the Middle Footswitch twice to go to top level System menu.

[LFO DISP] Animated LFO Display (ON, OFF)

Press the Encoder to select. Turn the Encoder to enable/disable the animated LFO display.

Press the Middle Footswitch once to back-up one level to UTILITY menu.
Press the Middle Footswitch twice to go to top level System menu.

[SER#] – Serial Number

Press the Encoder to display your ModFactor's unique serial number. You'll need to know this number to request support and to download software updates.

Press the Middle Footswitch once to back-up one level to UTILITY menu.
Press the Middle Footswitch twice to go to top level System menu.

[SW VER] - Software Version

Press the Encoder to display your ModFactor's software version.

Press the Middle Footswitch once to back-up one level to UTILITY menu.
Press the Middle Footswitch twice to go to top level System menu.

Restoring Factory Settings/Software Updates

Restoring Factory System Settings

To restore System settings, power up ModFactor while simultaneously pressing the Right Footswitch and the Encoder until [CLEAR SETUP] is displayed.

Restoring Factory Effects Presets and System Settings

CAUTION: This function will overwrite any Presets that you have saved.

To restore Factory Presets and all System settings, power up ModFactor while simultaneously pressing the Middle Footswitch and the Encoder until [INITIALIZING] is displayed.

Software Updates

ModFactor's software can be upgraded over USB. Information on software updating can be found at www.eventide.com.

H9 Control

The versions of ModFactor starting at version 5.0.0 make it possible to use ModFactor with MACOSX and Windows versions of Eventide's H9 Control application. This application can be used to manage factory and user Presets, create multiple Preset lists, and adjust the system settings (although it cannot be used to purchase new algorithms for ModFactor). Extensive information on downloading, installing and using H9 Control can be found at:

www.eventide.com/AudioDivision/Support/Stompboxes/h9.aspx.

In order to begin using H9 Control with your ModFactor pedal, connect it to the computer via USB cable and launch the application. H9 Control will then ask for your Eventide user name to ensure that the device is registered to you (if you have not already registered your pedal or created an Eventide account, please do so at eventide.com). Once it has verified the device's registration, you can begin using H9 Control with your ModFactor pedal.

MIDI Implementation Chart

Mode 1: Omni On, Poly Mode 2: Omni On, Mono O=Yes
Mode 3: Omni Off, Poly Mode 4: Omni Off, Mono X=No

	Function	Transmitted	Recognized	Remarks
Basic Channel	Default Changed	1-16 1-16	1-16 1-16	
Mode	Default Messages Altered	3 X X	1 X X	
Note Number	True Voice	X	X	
After Touch	Key's Channels	X X	X X	
Pitch Bender		O	O	
Control Change	0 : 127	O	O	CC0 - CC99
Program Change	True#	O	O	
System Exclusive		O	O	ID: XXh Bulk Dump/ Rcv only
System Common	Song Pos Song Select Tune	X X X	X X X	
System Real Time	Clock Commands	X X	O X	
Aux Messages	Local ON/OFF All Notes OFF Active Sense Reset	X X X X	X X X X	

Notes:

Specifications

Analog I/O

Input Impedance
500K ohms
Output Impedance
470 ohms
Recommended Load Impedance
10K ohms or greater

Connectors

Input 1 (mono) - ¼ inch mono phone jack
Input 2 - ¼ inch mono phone jack
Output 1 (mono) – ¼ inch mono phone jack
Output 2 – ¼ inch mono phone jack
Expression Pedal – ¼ inch mono phone jack
Aux Switch – ¼ inch stereo phone jack
USB – Type B Socket. Use USB 2.0 cables only.
AC Adaptor Jack
MIDI In – Five pin DIN (Female)
MIDI Out/Thru – Five pin DIN (Female)

Power Supply

9 VDC, 1200 ma, Tip hot (+)

Dimensions

English: 4.8" (H) x 7.5" (W) x 2.12" (D)
Metric: 122 (H) x 190 (W) x 54 (D) mm

Weight

ModFactor 2.15 lbs, 1 kG

Specifications subject to change without notice.

LIMITED WARRANTY

Eventide Stompboxes are built to exacting quality standards and should give years of trouble-free service. If you are experiencing problems which are not cleared up or explained as normal in the manual, your recourse is this warranty.

What the warranty does and does not cover

Eventide Inc. warrants the above-identified unit to be free from defects in workmanship and material under normal operation and service for a period of one year from the date of purchase, as detailed below. At our discretion within the warranty period, we may elect to repair or replace the defective unit. This means that if the unit fails under normal operation because of such defect, we will repair the defective unit at no charge for parts or labor. We also assume a limited responsibility for shipping charges, as detailed below.

IN NO EVENT WILL WE BE RESPONSIBLE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES CAUSED BY ANY DEFECT, AND SUCH DAMAGES ARE SPECIFICALLY EXCLUDED FROM THIS WARRANTY. Our sole obligation is to repair or replace the defective unit as described herein.

The warranty DOES NOT COVER any damage to the unit regardless of the cause of that damage. The unit is a complex piece of equipment that does not react well to being dropped, bounced, crushed, soaked or exposed to excessively high temperatures, voltages, electrostatic or electromagnetic fields. If the unit is damaged for these or other causes, and the unit is deemed to be economically repairable, we will repair it and charge our normal rates.

The warranty DOES NOT COVER shipping damage, either to or from Eventide.

Who is covered under the warranty

The warranty applies to the original purchaser of a new unit from Eventide or an Authorized Eventide Dealer. It is your responsibility to prove or to be able to prove that you have purchased the unit under circumstances which effect the warranty. A copy of your purchase invoice is normally necessary and sufficient for this.

Units with the serial number plate defaced or removed will not be serviced or covered by this warranty.

When the warranty becomes effective

The one-year warranty period begins on the day the unit is purchased from an Authorized Eventide Dealer or, if the unit is drop-shipped from Eventide, on the day shipped, plus a reasonable allowance for shipping delays. This applies whether or not you return your warranty registration form.

Who performs warranty work

The only company authorized to perform work under this warranty is Eventide Inc., Little Ferry, New Jersey. While you are free to give authorization to anyone else (or to work on it yourself), we will not honor claims for payment for parts or labor from you or from third parties.

Shipping within the 50 United States

You are responsible for getting the unit to our door at no cost to us. We cannot accept collect or COD shipments. We will return the unit to you prepaid, at our expense, using an expeditious shipping method, normally United Parcel Service.

Shipping outside the 50 United States

If you purchased the unit from a dealer in your country, consult with the dealer before returning the unit. If you wish to return the unit to us, please note the following:

1. The unit must be prepaid to our door. This means that you are responsible for all shipping charges, including customs brokerage and duties. When a unit is shipped to us it must be cleared through United States Customs by an authorized broker. You must make arrangements for this to be done. Normally, your freight forwarder has a branch in the United States which can handle this transaction.
2. All shipments will be returned to you collect. If this is impossible because of shipping regulations or money is due us, we will request prepayment from you for the appropriate amount. If you nominate a freight carrier, we reserve the right to select a substitute if necessary.

This warranty gives you specific legal rights and you may also have other rights which vary from location to location.

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