Owners Manual















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Manual revision 1.1 - Sept 2023

Introduction

Congratulations on your new O-Face!

The ancient yin-yang symbol describes the interconnection and balance between opposite but complimentary forces. Similarly, the O-Face is the harmonious union of an analog heart with a digital brain, forming a whole in which each part is a compliment to the other.

At its heart is a carefully designed 100% analog overdrive circuit with four separate gain stages. It has a unique soft-clipping diode arrangement that was painstakingly selected only after testing a great many different diodes and configurations. This gives it both high-output and a very soft diode clipping knee for a super smooth tube-like sound.

The digital brain then expands the capabilities well beyond what is possible with analog alone. This gives the O-Face full MIDI control, programmable presets, tap-tempo for hands-free speed control, and a tap-hold feature that ramps the modulation speed and depth to a configurable set-point.

On top of being a fantastic sounding and versatile overdrive, it also adds an industry first: optical knob modulation for each one of the overdrive controls. This means that any or all of its three Gain, Tone, and Volume control knobs can be set to oscillate independently, allowing it to create an enormous array of different modulation sounds.

The three knob modulations can be toggled on or off with a single button press, and the oscillation waveforms are highly configurable. Each one has independent control over its own speed, depth, wave-shape, and phase, and the illuminated ring in each toggle button pulses exactly as the waveform, giving a perfect visual indication of each oscillation.

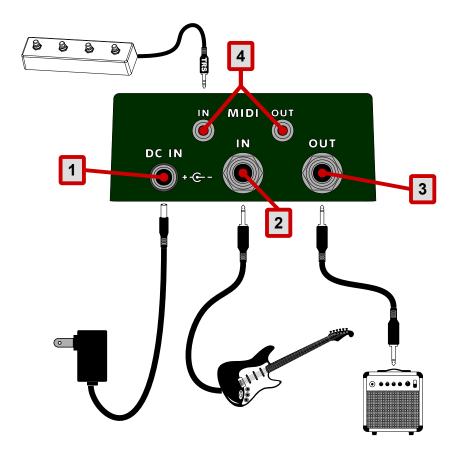
Finally, as with all of our pedals, the O-Face was dreamed up, designed, built by hand to the highest quality standards, tested, and individually numbered right here in Eugene, Oregon, USA. We worked very long and hard to bring you this truly one-of-a-kind sonic experience in pedal form, and we hope that you enjoy it immensely in the years to come.

(C) *

Go make noise!

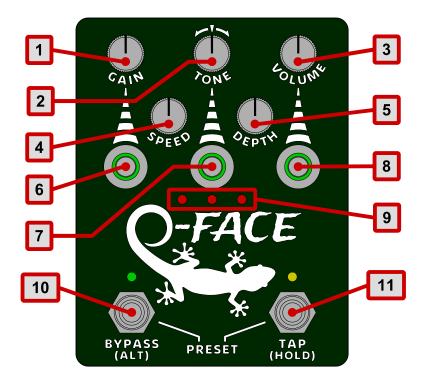
Gecko Pedals Founder, Designer, Builder

Top Panel



#	Description
1	DC IN is a power jack for supplying DC power from an AC/DC adapter. Ensure that the polarity is correct (barrel center is negative, sleeve is positive), and that the adapter can supply 9-12V and at least 100mA.
4	IN is the input jack for connecting input signal from an instrument or from the previous pedal in the pedal chain.
5	OUT is the output jack for connecting to other equipment, such as an amp, recorder, or mixer, or the next pedal in the pedal chain.
6	 MIDI jacks are for interfacing with other MIDI capable equipment. IN is for receiving MIDI messages from other equipment. OUT is for sending MIDI messages to other equipment. Messages received at the IN jack will normally be passed thru to the OUT jack along with any messages generated by the pedal itself.

Front Panel



#	Description			
1	GAIN adjusts the overdrive gain.			
2	TONE adjusts the overdrive tone, with center being neutral.			
3	VOLUME adjusts overdrive output volume.			
4	SPEED adjusts the oscillation speed of the modulations.			
5	DEPTH adjusts the oscillation depth of the modulations.			
6	GAIN MODULATION toggles the gain modulation.			
7	TONE MODULATION toggles the tone modulation.			
8	VOLUME MODULATION toggles the volume modulation.			
9	PRESETS indicate which preset is currently active.			
10	BYPASS switches the effect on or off, or hold to access alternate control functions. Press simultaneously with TAP to toggle presets.			
11	TAP press repeatedly to set the modulation speed, or hold to ramp to the configured set-point for speed/depth.			

Controls Overview

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GAIN controls how much the incoming instrument signal is amplified. The higher the gain the more the signal will sound clipped and distorted.



TONE controls the frequency filtering of the incoming instrument signal. In center position, the signal is neutral. With the knob turned left of center the signal is low-passed, sounding deeper or darker. With the knob turned right of center, the signal is high-pass filtered, sounding higher or brighter.



VOLUME controls the output volume of the signal. This allows the amplified signal to be be reduced down to any desired output level.



SPEED controls the global modulation speed of the modulations. The modulation frequency increases as the knob is turned to the right. See the Modulations section of the manual section for more information.



DEPTH controls the modulation oscillation amplitude. This sets how much a control will be changed during oscillations. See the Modulations section of the manual for more information.



MODULATIONS pushbutton switches toggle the modulation on or off for their associated control knob. Each of the **GAIN**, **TONE**, and **VOLUME** controls can be modulated and each has its own modulation toggle button.



BYPASS turns the effect on or off. When the effect is off, the pedal is bypassed and the instrument signal will be unchanged by any overdrive or modulation effects.

BYPASS (ALT)

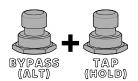
When held down, the **ALT** mode is activated. Many controls have an alternate function while **ALT** switch is held held down.



TAP sets the modulation speed to the interval between presses. Note that the configured subdivision multiplier will also affect the speed (2X by default). See the Tap-Tempo section of the manual for more information.

TAP (HOLD)

When held down, the **HOLD** mode is activated and the modulation speed and depth will ramp to a pre-configured set point



PRESETS are activated by pressing both of the **BYPASS** and **TAP** switches together at the same time. Press them repeatedly to cycle through the presets until the desired preset is active.

See the Presets section of the manual for more information.



RESET - Press all 3 modulation pushbuttons together to reset all modulations, neutral tone adjustments, and tap-hold set-points back to their default settings. This is an easy way to get a fresh start.

Modulations

One of the things that makes the O-Face truly unique is that it provides a very versatile system for applying modulations to any of its main overdrive controls. When a modulation is activated for a control, it has the effect of the knob being automatically rotated back and forth.

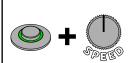
Each modulation is highly configurable, with each having independent control over its own relative **speed**, relative **depth**, **phase**, and **wave shape**. This independent control allows nearly endless combinations and opportunities to create some really one-of-a-kind sounds.

Changing the **SPEED** and **DEPTH** knobs alone will set the **global** oscillation speed or depth settings, which will affect all of the active modulations equally. Holding a modulation button while changing the **SPEED** and **DEPTH** knobs will instead set the **relative** modulation speed or depth for that modulation alone, allowing some modulations to have more or less effect than others.

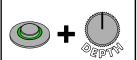


Press any of the pushbutton switches to toggle modulation on or off for its associated control knob pointed to by the striped arrow above it.

- **GAIN** modulation oscillates between higher and lower gain states. This affects both the output level and the amount of signal distortion.
- **TONE** modulation oscillates between high-pass and low-pass filtering, like a fluctuating parametric EQ. This creates vibrato or wah-like sounds.
- VOLUME modulation oscillates between high and low output volume, which creates a tremolo effect.

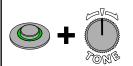


Hold any modulation pushbutton down while turning the **SPEED** knob to adjust its relative speed. The speed will normally lock to a set of multipliers that always sync with the global speed. With **ALT** pressed, the relative speed is freeform and will not always stay in sync with the global speed or other modulations.



Hold any modulation pushbutton down while turning the **DEPTH** knob to adjust its **relative** depth, changing how much effect it will have relative to the other modulations.

With **ALT pressed**, the depth knob will instead set the waveform **phase**, which allows offsetting when the oscillations will peak relative to the others.



Hold a modulation pushbutton down while turning the **TONE** knob to adjust the modulation **wave shape** as follows:

At 7 O'Clock (full-left) the shape is a square wave.

At 10 O'Clock (mid-left) the shape is a clipped sine wave.

At 12 O'Clock (center) the shape is a sine wave (**default**).

At 2 O'Clock (mid-right) the shape is a triangle wave.

At 5 O'Clock (full-right) the shape is a sawtooth wave.

NOTE: The wave shape is not limited only to these 5 shapes, and will instead transition seamlessly anywhere between them.

Tap-Tempo

The O-Face has a tap-tempo switch that provides a hands-free way to easily set the oscillation frequency for the modulations. Tapping the **TAP** switch repeatedly will set the oscillation speed to the interval between the switch taps.

There is also a tap tempo **subdivision** setting that is applied, causing the oscillation frequency to be up to 4X faster than the tap interval. This is very convenient when trying to tap in frequencies that are faster than it is reasonably possible to tap the switch.

The **default subdivision setting is 2X**, making the modulation frequency twice as fast as the tap rate. This provides a good balance to easily achieve both faster and slower oscillation speeds.

To change the tap-tempo subdivision multiplier, hold down the **TAP** switch while turning the **GAIN** knob.

tap (Hold)	Press the TAP switch repeatedly to set the oscillation frequency of the modulations. The time between each oscillation will be the tap interval divided by the current subdivision setting.		
TAP (HOLD)	 Hold the TAP switch and turn the GAIN knob to set the taptempo subdivision setting as follows: At 7 O'Clock (full-left) the frequency will be 1X, the same as the tap interval. At 10 O'Clock (mid-left) the frequency will be 1.5X faster than the tap interval, also known as dotted-eighth-note subdivision At 12 O'Clock (middle) the frequency will be 2X faster than the tap interval. At 2 O'Clock (mid-right) the frequency will be 3X faster than the tap interval. At 5 O'Clock (full-right) the frequency will be 4X faster than the tap interval 		

Tap Hold

The O-Face has a **TAP-HOLD** feature that allows the global modulation speed and/or depth to be ramped up or down to a user-defined set point when the **TAP** switch is held down. This provides an easy way to add dynamics and temporarily change the modulation settings on the fly.

The set point is configured by holding down the **TAP** switch while adjusting the **SPEED** and **DEPTH** knobs. Additionally, the the speed or depth part of the set point can be enabled or disabled by holding both the **TAP** and **ALT** switches and turning the **SPEED** and **DEPTH** knobs either right or left of center.

TAP (HOLD)	Hold down the TAP switch to enable the TAP-HOLD feature and ramp to the speed and depth set-point that is currently configured. Release the TAP switch to ramp back into normal operation.
TAP (HOLD)	Hold down the TAP switch and turn the SPEED knob to set the speed set point. If enabled, the oscillation speed will then ramp to this knob position when the TAP switch is held down.
TAP (HOLD)	Hold down the TAP switch and turn the DEPTH knob to set the depth set point. If enabled, the oscillation depth will then ramp to this knob position when the TAP switch is held down.
TAP (HOLD)	Hold down the TAP switch and turn the VOLUME knob to set how long it takes to ramp up to or back down from the set-point. • Knob full-left - ½ second ramp time. • Knob full-right - 5 second ramp time.
BYPASS (HOLD)	Toggle whether or not the speed will be ramped during a tap-hold. Turn the knob to the left of center to disable . Turn the knob to the right of center to enable .
BYPASS TAP (HOLD)	Toggle whether or not the depth will be ramped during a tap-hold. Turn the knob to the left of center to disable . Turn the knob to the right of center to enable .

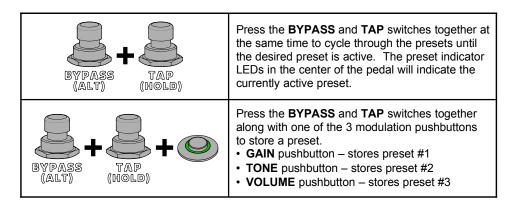
Presets

The O-Face has 3 programmable presets which can be cycled through by pressing the **BYPASS** and **TAP** switches together at once. The number of LEDs illuminated in the center of the pedal indicates which preset is currently active.

Each preset stores the complete pedal state, including all knob positions, modulation settings, the tap-hold speed/depth set-points, any tone adjustments that were applied, and the tap-tempo multiplier. This full state is recalled each time a different preset is activated.

To store a preset, hold down both the **BYPASS** and **TAP** switches together, and then press one of the 3 modulation pushbutton switches. From left to right, the three pushbuttons store preset #1, #2, or #3 respectively. When a preset has been stored successfully, the lights will momentarily flash, and then the new preset will be activated.

In addition to the 3 presets accessible through the hardware interface, up to 12 total presets are accessible through the MIDI interface. See the MIDI section of the manual for more information.



Neutral Tone Adjustments

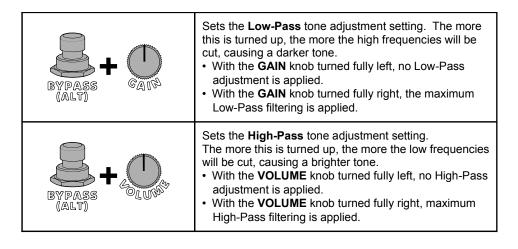
In order to provide as much tone-sculpting capability as possible, the O-Face includes a feature to adjust its center neutral core tone. This effectively sets how it will sound while the **TONE** knob is in its center position, giving it the versatility to sound great in nearly any rig.

If it sounds like there is overall too much deep low-end fuzz and growl for the setup, the low frequencies can be reduced by raising the **High-Pass** tone adjustment setting. Likewise, if it sounds too bright and screechy for the setup, the high frequencies can be reduced by raising the **Low-Pass** setting.

By default, no tone adjustment are applied, which creates the biggest, most wide-open full-range sound possible. From there, applying **High-Pass** adjustments will make it sound **brighter**, while applying **Low-Pass** adjustment will make it sound **darker**. Applying both simultaneously will result in a tone that is more restricted to only the midrange frequencies.

The tone adjustments are easily set by holding the **ALT** switch down while turning either the **GAIN** knob to set the **Low-Pass** adjustment, or the **VOLUME** knob to set the **High-Pass** adjustment.

IMPORTANT NOTE: For best results, tone adjustments should be made while the **TONE** knob is in its center position in order to most clearly hear how the adjustments are affecting the neutral tone.



Startup Config Settings

The O-Face has some startup menus to configure any persistent settings that are not able to be changed through the normal user interface. These startup menus allow configuration of:

- The save-state setting (default: save state, and restore at power-on)
- The MIDI channel (default: receive on ALL channels)
- The MIDI clock mode (default: receive clock messages)
- The Full Factory Reset

NOTE: It is also possible to change these settings through the MIDI interface. See the MIDI Startup Config Settings section for details.

Hold BYPASS (ALT)

((AL∀))
During Power-on

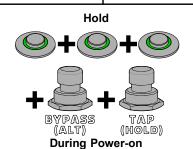
Hold **BYPASS** during power-on to enter into the **save-state** startup menu. Then:

- Press the **TAP** switch to toggle the save-state setting.
 - Tap LED on the state will be saved, and the pedal will startup back to the saved state when it next powers on.
 - Tap LED off the pedal will startup to a fresh default bypassed state each time the unit powers on.
- Press BYPASS switch again to save the setting and restart.



TAP (H⊚LD) During Power-on Hold **TAP** during power-on to enter the MIDI menu. Then:

- Press the right modulation pushbutton to move up one channel or the left modulation pushbutton move down one channel.
 - The channel will be displayed in binary on the preset and modulation pushbutton LEDs.
 - When no LEDs are lit, MIDI is disabled and messages will be ignored on all channels
 - When all LEDs are lit, MIDI messages will be received on ANY channel
- Press the **TAP** switch to change the MIDI clock mode:
 - Tap LED off Disable -incoming clock messages are ignored.
 - Tap LED on Receive incoming clock messages will set the modulation frequency.
 - Tap LED flashing Generate The O-Face will generate and send clock messages based on its own modulation frequency.
- Press BYPASS switch again to save the settings and restart.



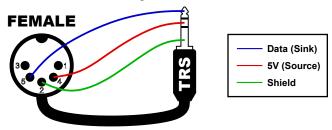
Hold down all 5 switches during power-on to perform a full **Factory Reset**. All presets, save-state config, and MIDI config will be restored to their original factory settings. When performed successfully, the LEDs will all quickly flash and the unit will restart to a fresh state.

MIDI

The O-Face allows full MIDI control through its MIDI input and output jacks. It will respond to Program Change (**PC**) and Control Change (**CC**) messages, and can ignore, receive, or generate MIDI clock messages.

MIDI Cable Wiring:

A 1/8 inch (3.5mm) MIDI adapter cable may be required to interface with other equipment that uses 5-pin DIN cables for MIDI. A **Type-A** adapter is required that is wired per the diagram below. Note that for a male DIN connector, pins 4 and 5 will be reversed from the diagram.



Program Change (PC) Messages:

Send program change messages to change the active preset.

PC#	Description
0	Turns off any active preset
1-8	Enables a preset 1-8 (4 to 8 are only accessible by MIDI)

Control Change (CC) Messages:

Control change messages can be used to set control and switch values and change modes and some settings. NOTE: Preset changes and physical control changes will override settings previously set by MIDI.

Control	CC#	Values	Description
Effects Control K	nobs		
Gain	1	0-127	0 – Min, 127 – Max
Tone	2	0-127	0 – Left Darkest, 127 – Right Brightest
Volume	3	0-127	0 – Min, 127 – Max
Speed	4	0-127	0 – Slowest, 127 – Fastest
Depth	5	0-127	0 – Min, 127 – Max
Bypass			
Bypass State	6	0-2	0 – Bypassed, 1 – Enabled, 2 – Toggle
Tap Tempo			
Тар	7	ANY	Simulate a new tap-tempo input

MIDI (continued)

Control Switch States	CC#	Values	Description	
Bypass Switch	8	0-127	0 – Released, 1-127 – Pressed	
Tap Switch	9	0-127	0 – Released, 1-127 – Pressed	
Gain Mod Switch	10	0-127	0 – Released, 1-127 – Pressed	
Tone Mod Switch	11	0-127	0 - Released, 1-127 - Pressed	
Vol Mod Switch	12	0-127	0 – Released, 1-127 – Pressed	
Gain Modulation Setting	igs			
Gain – Enabled	13	0-127	0 – Disabled, 1-127 – Enabled	
Gain – Speed Freeform	14	0-127	0 – Slowest, 127 – Fastest	
Gain – Speed Indexed	15	0-7	0 - 1/5, 1 - 1/4, 2 - 1/3, 3 - 1/2, 4 - 2/3 5 - 3/4, 6 - 4/5, 7 - 1:1	
Gain – Depth	16	0-127	0 – Min, 127- Max	
Gain – Phase Angle	17	0-127	0 – 0 degrees, 127 – 180 degrees	
Gain – Wave Shape	18	0-127	0 – Square, 32 – Clipped Sine, 64 – Sine, 96 – Triangle, 127 - Sawtooth	
Tone Modulation Setting	Tone Modulation Settings			
Tone – Enabled	19	0-127	0 – Disabled, 1-127 – Enabled	
Tone – Speed Freeform	20	0-127	0 – Slowest, 127 – Fastest	
Tone – Speed Indexed	21	0-7	0 - 1/5, 1 - 1/4, 2 - 1/3, 3 - 1/2, 4 - 2/3 5 - 3/4, 6 - 4/5, 7 - 1:1	
Tone – Depth	22	0-127	0 – Min, 127- Max	
Tone – Phase Angle	23	0-127	0 – 0 degrees, 127 – 180 degrees	
Tone – Wave Shape	24	0-127	0 – Square, 32 – Clipped Sine, 64 – Sine, 96 – Triangle, 127 - Sawtooth	
Volume Modulation Se	ttings			
Volume – Enabled	25	0-127	0 – Disabled, 1-127 – Enabled	
Volume – Speed Freeform	26	0-127	0 – Slowest, 127 – Fastest	
Volume – Speed Indexed	27	0-7	0 - 1/5, 1 - 1/4, 2 - 1/3, 3 - 1/2, 4 - 2/3 5 - 3/4, 6 - 4/5, 7 - 1:1	
Volume – Depth	28	0-127	0 – Min, 127- Max	
Volume – Phase Angle	29	0-127	0 – 0 degrees, 127 – 180 degrees	
Volume – Wave Shape	30	0-127	0 – Square, 32 – Clipped Sine, 64 – Sine, 96 – Triangle, 127 - Sawtooth	

MIDI (continued)

Control	CC#	Values	Description
Tap-Hold Function Set	tings		
Speed Setpoint Enable	31	0-127	0 – Disabled, 1-127 – Enabled
Depth Setpoint Enable	32	0-127	0 – Disabled, 1-127 – Enabled
Speed Setpoint	33	0-127	0 – Slowest, 127 – Fastest
Depth Setpoint	34	0-127	0 – Min, 127 – Max
Ramp Time	35	0-127	0 - Min (½ sec), 127 - Max (5 sec)
Neutral Tone Adjustme	ents		
Low-Pass Filtering	36	0-127	0 – No Filtering, 127 – Max LP Filtering
High-Pass Filtering	37	0-127	0 – No Filtering, 127 – Max HP Filtering
Tap-Tempo Subdivisio	n		
Tap Tempo Subdivision	38	0-4	0 – 1X, 1 – 1.5X (dotted eighth note), 2 – 2X, 3 – 3X, 4 – 4X
Presets			
Activate Preset	39	0-12	Value is the preset number to activate (1-12) or 0 to deactivate.
Toggle Preset Up	40	ANY	Toggle forward to the next preset
Toggle Preset Down	41	ANY	Toggle backward to the previous preset
Store Preset	42	1-12	Store the current state to preset # matching the given value passed (1-12)
Startup Config Setting	s		
Save State	43	0-127	0 – Disable Save State, 1-127 Enable
MIDI Clock Mode	44	1-2	0 – Disable, 1 – Receive, 2 – Generate
MIDI Receive Channel	45	0-17	0 – Receive on all channels, 1-16 Receive on single channel (1-16), 17 – MIDI Disabled
Reset			
Reset All	99	ANY	Reset the pedal to a default state, same as pressing all 3 modulation pushbuttons.

Controls Quick Reference

	I		I	
Bypass (ALT)	Toggle the pedal on o	r off	BYPASS + GATS	Set Low-pass tone adjustment Knob left – No adjustment filtering Knob right – Max Low-pass filtering, sounding darker
TAP (HOLD)	Press TAP repeatedly modulation oscillation Hold TAP to ramp to thold set-point.	speed.	BYPASS + OLUM	Set High-pass tone adjustment Knob left – No adjustment filtering Knob right – Max High-pass filtering, sounding brighter
BYPASS TAP (MGLB)	Toggle the PRESET		TAP (NOLO)	Set the Tap-hold speed set-point
CA165	Adjust overdrive GAIN	I	TAP (HOLD)	Set the Tap-hold depth set-point
	Adjust overdrive TON	E	TAP + OLUNG	Set the Tap-hold ramp time Knob left – ½ second ramp time Knob right – 5 second ramp time
	Adjust overdrive output VOLUME		TAP (HOLD)	Set the Tap-tempo subdivision Knob full-left – 1X speed Knob middle – 2X speed (default) Knob full-right – 4X speed
NO EERO	Adjust modulation SPEED		(A) + (A) (B) (B) (B) (B) (B) (B) (B) (B) (B) (B	Set relative modulation speed to an indexed even multiple value
	Adjust modulation DEPTH		O+	Set relative modulation depth
	Toggle MODULATION for the control above the button		O+	Set modulation wave shape
BYPASS TAP + (MOLB)		Store a PRESET . The preset number will match which modulation button is pressed starting from the left. The 1 st , 2 nd , or 3 rd button will store preset 1, 2, or 3		
BYPASS BYPASS		Set relative modulation speed to any freeform value		
Bypass (alt)		Set the modulation phase angle Knob full-left – 0 degrees (default) Knob full-right – 180 degrees		
BYPASS TAP + OPEN		Tap-Hold Speed Enable/Disable Turn knob left of center to disable speed set-point Turn knob right of center to enable speed set-point		
BYPASS TAP (MOLO)		Tap-Hold Depth Enable/Disable Turn knob left of center to disable depth set-point Turn knob right of center to enable depth set-point		
0+0+0		adjustmer		te by resetting all modulations, tone points to defaults. This is NOT a lets will be retained.

Troubleshooting

Issue	Solution
Unit does not power on	 Check that the power supply has center negative polarity and can supply at least 100mA of current at 9-12V. Check that the outlet or power strip that the supply is plugged into is live. Try a second power supply to ensure that the first is not faulty.
No effects are heard at the output, only the instrument sound	Check that the pedal is not bypassed. Effects are only heard while the pedal is enabled and the light above the BYPASS switch is illuminated.
Sound is heard when bypassed, but no sound when enabled	 Check that the input and output cables are not reversed. Sound may still be heard while bypassed even with the cables reversed, but not while enabled. Check that the GAIN and/or VOLUME knobs are not turned all the way down. If so, there may be too little output signal.
Something sounds off, or isn't working as expected, but unsure what is wrong	 Press all 3 modulation pushbuttons at once to reset the modulations, tone adjustments, and tap-hold settings back to their defaults and try again. Nuclear option: Hold down all 5 buttons during power-on to fully reset back to factory defaults and try again (warning: all presets and settings will be lost)
The manual writers at Gecko Pedals quit their jobs	Instead of the O-Face, let the writers create the manuals for pedals that are less breathtakingly amazing, and that have fewer marvelous features. Those manuals will be much easier to write, hopefully leading to better job satisfaction. Also, give yourself a pat on the back for reading to the end of this manual. It was a lot to absorb. Well done!