

# POCKET STUDIO COMP



OPERATION MANUAL



TEMPODEVICES.COM

FOR YOUR INFORMATION



**WELCOME** to the Pocket Studio Compressor (PSC) operation manual. This guide will explain everything you need to know to get the most out of your device.

The PSC is an all-analog OTA-type compressor, performing somewhere between a VCA and an optical compressor.

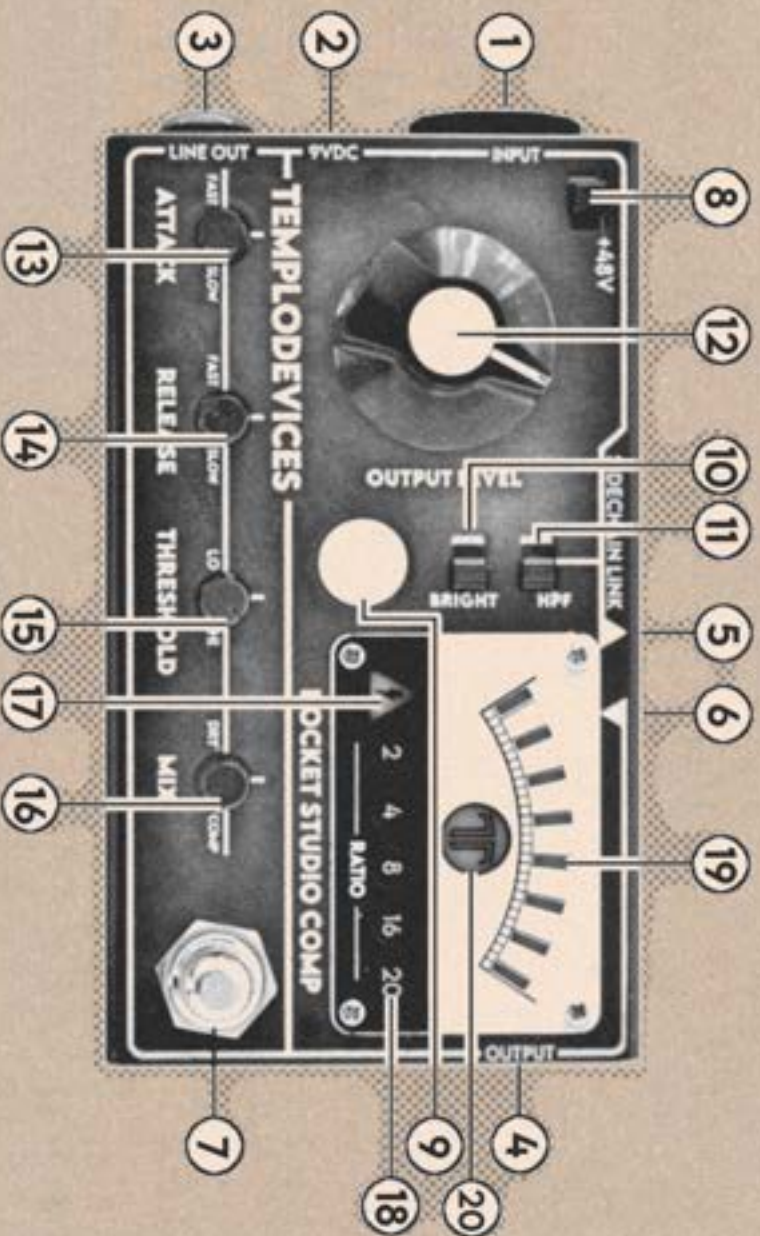
We will begin with the parts and functions of the unit then move on to understanding compression and various use cases.

Thanks for choosing Templo Devices!

-Scott Strange

FEATURE MAP

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FEATURE MAP

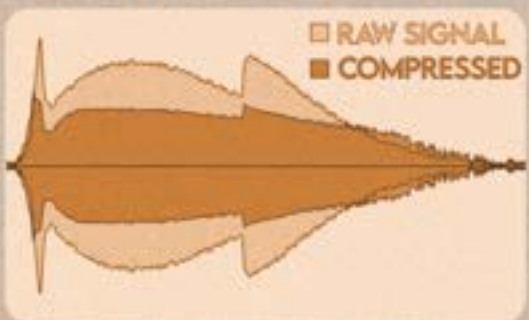
FEATURE MAP

FOR YOUR INFORMATION

<b>INPUTS/OUTPUTS</b>	<ul style="list-style-type: none"> <li>1- COMBO 1/4" OR XLR INPUT</li> <li>2- 9VDC POWER INPUT JACK</li> <li>3- 1/4" OUTPUT</li> <li>4- XLR OUTPUT</li> <li>5- SIDECHAIN SEND/ STEREO LINK</li> <li>6- SIDECHAIN RETURN/ INSERT (DUCKING)</li> </ul>
<b>SWITCHES</b>	<ul style="list-style-type: none"> <li>7- BYPASS FOOTSWITCH</li> <li>8- PHANTOM POWER SWITCH</li> <li>9- RATIO SELECTION BUTTON</li> <li>10- BRIGHT SWITCH (ADD HF)</li> <li>11- SIDECHAIN HIGH PASS FILTER</li> </ul>
<b>CONTROLS</b>	<ul style="list-style-type: none"> <li>12- MASTER OUTPUT VOLUME</li> <li>13- ATTACK CONTROL</li> <li>14- RELEASE CONTROL</li> <li>15- THRESHOLD (SENSITIVITY)</li> <li>16- DRY/COMPRESSED MIX CONTROL</li> </ul>
<b>DISPLAYS</b>	<ul style="list-style-type: none"> <li>17- PHANTOM POWER INDICATOR</li> <li>18- RATIO DISPLAY</li> <li>19- GAIN REDUCTION VU DISPLAY</li> <li>20- COMPRESSION/BYPASS INDICATOR</li> </ul>

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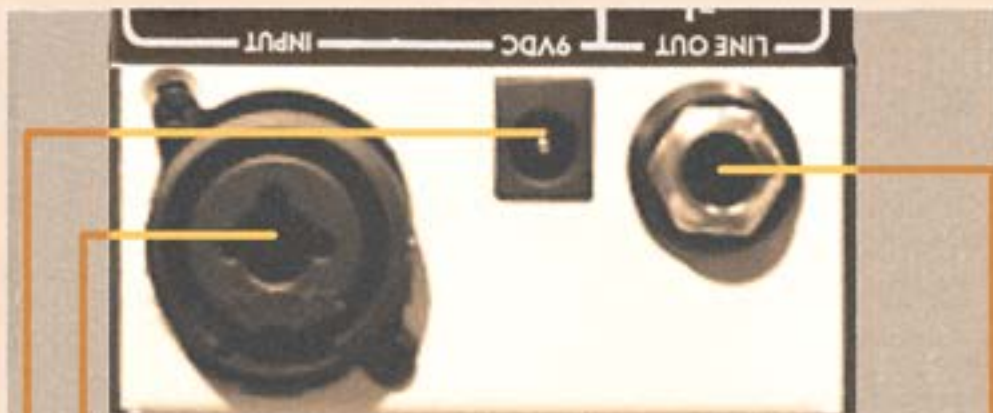
**AUDIO COMPRESSION** When we say compression in music, we are talking about *dynamic range compression*. Essentially shrinking the gap between the loudest and quietest parts of an audio signal. When the signal gets too loud, the compressor turns it down. This has the effect of making an audio signal more consistent in volume, which can make it sound smoother.



*How does the PSC do this?* Basically, the input signal is split. One version goes through an electronic volume control and out. The other is called the side chain and is used to control the volume of the main signal. **Attack** is how quickly it works, **Release** is how long it holds the volume down for, and **Threshold** is the minimum signal necessary to trigger it.



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Firstly, you will need to connect your input, output and power supply.

**INPUT**

The combo input accepts either a high impedance 1/4" TS connection or XLR cable from a microphone or other low-impedance source.

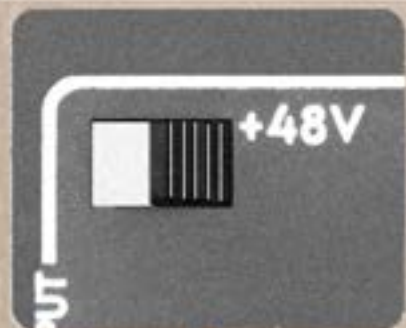
**OUTPUT**

The PSC has both a 1/4" output and ultra-low-impedance XLR output that can be used simultaneously, such as to an amp and recording console at the same time.

**POWER**

To ensure maximum flexibility, the PSC is designed to run on a variety of power supplies. Using our **HOWEVER** power supply configuration, you can use 9-12V DC power supplies of **ANY POLARITY**. Which means standard pedal supply as well as center positive supplies. You may also install an internal 9V battery.

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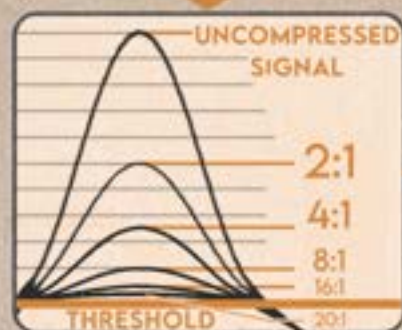
**PHANTOM**

When the +48V switch is pushed to the right, Phantom power is sent to the XLR input. This allows you to power condenser microphones. This switch also changes the mic gain to better match the mic type.

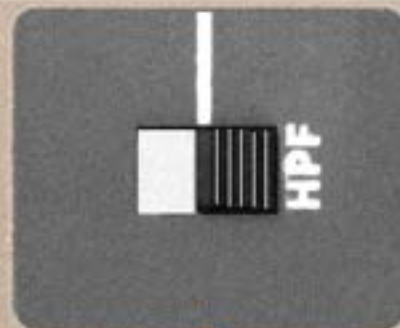
**Warning:** Phantom power may damage mics that aren't rated for it.

Ratio determines the amount of gain reduction. A ratio of 2:1 means that for every 2dB your signal would pass the threshold, it will now only go over it by 1dB. If 4:1 the signal above the threshold is reduced 4 times, and so on...

**Higher Ratio = More Squish**

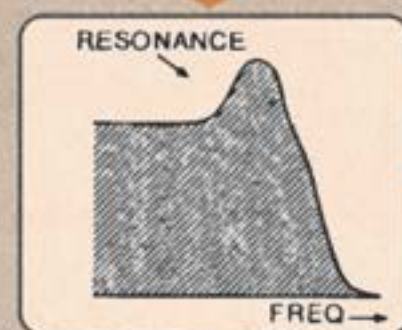
**RATIO**

FOR YOUR INFORMATION

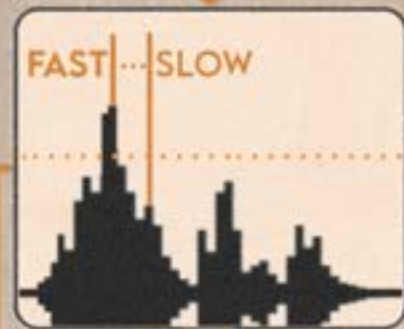
**HIGH-PASS**

When the HPF switch is pushed to the right, the low-frequency content going to the side-chain is greatly reduced. This means the compressor will be less triggered by low frequencies. Commonly used when recording drums to reduce the impact of the kick drum on overall compression.

When using compression, there is usually some high frequency loss. By pushing the Bright switch to the right, the Pocket Studio Comp introduces a high frequency boost after the compression, to compensate for this loss.

**BRIGHT**

FOR YOUR INFORMATION

**ATTACK**

is how quickly the compressor responds after the signal crosses the threshold. If you set a fast attack time the PSC will kick in almost immediately so that the loud transient at the start of the signal will be compressed. With slower attack, it allows the transient to sneak through before compression kicks in.

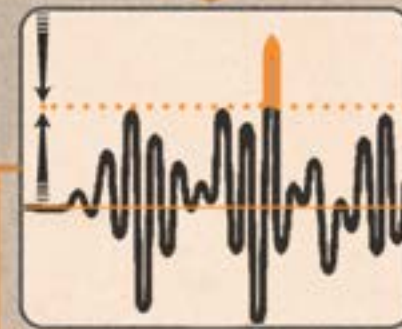
Release sets how long it takes for the volume to come back up to the original level it was at before compression.

**RELEASE**

Faster Release = Faster volume comes back up

Slower Release = Longer the signal stays compressed

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**THRESHOLD**

is the limit after which the PSC starts compressing. If a signal stays below the threshold, then the compressor won't touch it - but as soon as it goes over this invisible line, the compression begins.

The lower the threshold, the more sensitive it is.

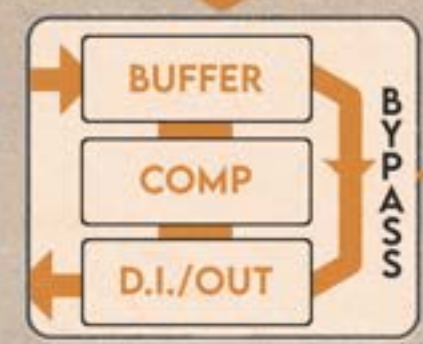
Mix pans between compressed signal in the fully clockwise position to dry signal in the fully counter-clockwise position. This allows for what is called parallel compression, providing the solid consistency of a compressed signal blended with the dynamics of the dry.

**MIX**

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**OUTPUT LEVEL**



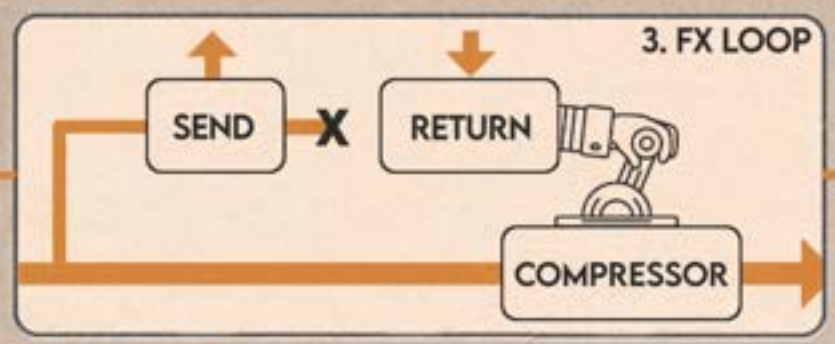
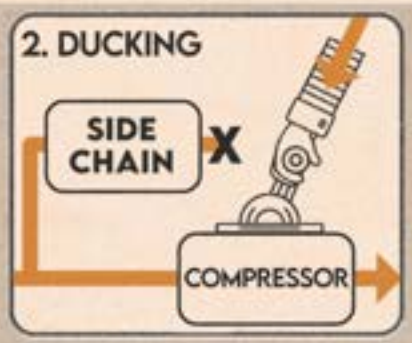
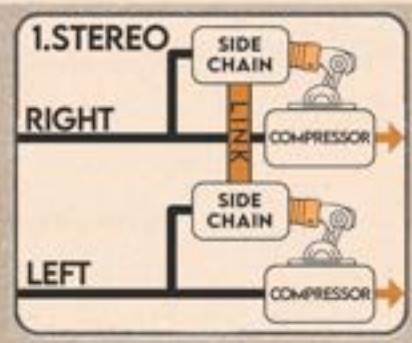
**OUTPUT LEVEL**

Compression involves reducing the volume of a signal. Afterwards it needs to be boosted back to a normal level. While technically a recovery gain, this control affects the total output volume when the effect is engaged. When bypassed, the Output Level control does not affect the signal.

**BYPASS**

The bypass footswitch controls a high-impedance, low-noise buffered bypass. The signal goes through the buffer, then either through the compressor or directly out. The XLR out is still active at all times, meaning that in bypass you can still use the PSC as a buffer, active D.I. and Phantom power supply.

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**SEND**

is a 3.5mm mono jack connected to the sidechain. Plug it into the send of another PSC to blend their sidechains together for stereo compression (FIG 1) You can also use it to send out to an FX loop such as an EQ and then back into the return to modify the sidechain. (FIG 3)

**RETURN**

Return is a 3.5mm mono *switching* jack. When a plug is inserted, the sidechain signal is interrupted (X), and is replaced with the signal from the inserted plug (FIG 2). This means you can use another sound source to control the compressor, which gives an effect called ducking, also known as sidechaining.

FOR YOUR INFORMATION

Compression can be nuanced and mysterious, but with a little practice, it can be your best friend.

**TIPS**

To better understand what the PSC is doing to your sound, it's a good idea to plug in an instrument and play with the settings while listening closely and keeping an eye on the VU meter.

- Attack only has a difference of about 20ms from slow to fast, so it's quite tricky to hear the difference. A fast attack is most noticeable on the initial burst of sound, or transient, like a snare drum hit or the initial string pluck.
- Optical compressors have an attack of around 10ms, which is halfway on the PSC attack control
- Release is a lot more noticeable, so if you want a subtle sound, go for a faster release. if you want a hard clamp that doesn't follow the dynamics as much, go for slow. Longer release time gives more sustain.
- If your input signal is triggering the compressor too much, you can turn up the threshold or click on the HPF switch to send less signal to the sidechain.
- The higher the Ratio, the higher the gain of the signal, so quiet sounds (such as ambient noise) will be greatly boosted, but will quiet down as soon as you play.
- When using a condenser mic, remember that when the effect is bypassed, so is the volume control so beware of a volume jump.

FOR YOUR INFORMATION

There are many ways to use the Pocket Studio Comp.

Mounted vertically, it fits neatly on a pedal board with all top-mounted jacks. When used on a desktop, the XLR jacks conveniently pass straight through. Here are some basic setting tips to get you started:

**GUITAR**

BRIGHT: ON HPF: OFF

**DRUMS**

BRIGHT: OFF HPF: ON

**VOCALS**

BRIGHT: OFF HPF: OFF

**PEDAL BOARD****DESKTOP**



FOR YOUR INFORMATION

You may run into issues while using your PSC. Here are some common problems and solutions:

**ISSUE** Not hearing any sound.

Make sure of the following:

- Your instrument is properly plugged in.
- Your instrument volume is up.
- There is power to your PSC and the ratio lights are on.
- The output volume control is set higher than zero.
- Your amplifier or interface is on and volume up.

**ISSUE** No compression

Make sure of the following:

- Pedal has power.
- Instrument is plugged in with volume up.
- The pedal bypass light is on. (Templo Devices logo on VU)
- Threshold control is set to more than zero.
- There is no plug in the sidechain return jack.
- Phantom is on if using a condenser mic.

**ISSUE** Volume or compression inconsistent

- Internal battery is dying. (if not using power supply)

**ISSUE** Pedal is on fire

- Check that you are not performing on the sun

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Here is a handy sheet to record your favourite settings or keep track during a recording session.

NAME _____				BRIGHT: <input type="checkbox"/> <input type="checkbox"/>	HPF: <input type="checkbox"/> <input type="checkbox"/>
				2 4 8	
ATTACK	RELEASE	THRESHOLD	MIX	16 20	
				BRIGHT: <input type="checkbox"/> <input type="checkbox"/>	HPF: <input type="checkbox"/> <input type="checkbox"/>
				2 4 8	
ATTACK	RELEASE	THRESHOLD	MIX	16 20	
				BRIGHT: <input type="checkbox"/> <input type="checkbox"/>	HPF: <input type="checkbox"/> <input type="checkbox"/>
				2 4 8	
ATTACK	RELEASE	THRESHOLD	MIX	16 20	
				BRIGHT: <input type="checkbox"/> <input type="checkbox"/>	HPF: <input type="checkbox"/> <input type="checkbox"/>
				2 4 8	
ATTACK	RELEASE	THRESHOLD	MIX	16 20	
				BRIGHT: <input type="checkbox"/> <input type="checkbox"/>	HPF: <input type="checkbox"/> <input type="checkbox"/>
				2 4 8	
ATTACK	RELEASE	THRESHOLD	MIX	16 20	
				BRIGHT: <input type="checkbox"/> <input type="checkbox"/>	HPF: <input type="checkbox"/> <input type="checkbox"/>
				2 4 8	
ATTACK	RELEASE	THRESHOLD	MIX	16 20	
				BRIGHT: <input type="checkbox"/> <input type="checkbox"/>	HPF: <input type="checkbox"/> <input type="checkbox"/>
				2 4 8	
ATTACK	RELEASE	THRESHOLD	MIX	16 20	
				BRIGHT: <input type="checkbox"/> <input type="checkbox"/>	HPF: <input type="checkbox"/> <input type="checkbox"/>

FOR YOUR INFORMATION

This device was dreamed up after I made a studio compressor for a friend who only used digital emulations of compressors. When I saw the sheer joy it brought him to have such warm smooth recordings, I knew instantly that I needed to design something that could give that same feeling to anyone who wanted it, in a more accessible format.

It only took two years of late nights, dead-ends and clever problem solving with my friend Dave (he had the best solves) to finally arrive at what you have in your hands. Truly a labor of love from inception to realisation. I hope after reading this booklet you understand and appreciate compression a bit more, and I truly hope this machine makes your life just a little bit more enjoyable.



All the best,  
**Scott Strange**  
&  
**Templo**

*Scott Strange*

