



• NASHVILLE <sup>TN</sup> USA •

# Bad Cash

## Flexible Overdrive

### User Manual



Thank you for purchasing the Bad Cash Flex Drive.

The **Thorn Bad Cash - Flex Drive** is a highly flexible overdrive pedal designed to deliver a wide range of tones, from smooth bluesy drive to intense rock grit. With a comprehensive set of controls, including **Drive**, **Damping**, **Headroom**, **Volume**, **Bass**, **Mid**, **Treble**, and **Presence**, this pedal offers precise tonal shaping to suit various musical styles. Whether you're looking for a classic overdrive or something more aggressive, the **BAD CASH** allows you to dial in your perfect sound.

The **Symmetry I/O** switch lets you adjust the distortion's character, while the **Class AB/A** switch provides further tonal flexibility, giving you the option to choose between two different circuit types for distinct tonal responses.

The **Thorn Bad Cash - Flex Drive** is an essential tool for guitarists seeking a versatile overdrive pedal that offers a rich array of tonal options and precise control over their sound.

#### Controls

**1 – 1/4" (6.35 mm) mono output:** Use an instrument / patch cable to connect to your next pedal or the input of the amplifier.

**2 – 9-18 VDC power supply jack:** Connect a regular pedal power supply unit with a 5.5 x 2.1 mm barrel plug, center negative. Battery operation is not possible. Do not connect more than 18 V!

**3 – 1/4" (6.35 mm) mono input:** Use an instrument cable to connect your guitar or the previous pedal in your effects chain.

**4 – DRIVE control:** The Drive control adjusts the input gain of the signal, i.e. the signal level before it is affected by the other controls. Increasing the gain produces a more pronounced overdrive/distortion effect.

**5 – DAMPING control:** The Damping control is a variable filter that reduces the low frequency content before the signal enters the overdrive circuit. Allowing all of the low frequency content to be processed can make the bottom end sound loose and flabby. Reducing (damping) the low frequency content at the input will keep the bottom end tight and responsive. In general, higher DRIVE settings sound better with increased DAMPING (i.e. less low frequency in put into the circuits). Lower DRIVE settings with less DAMPING give a more open low end character. There is no damping at the lowest setting (7 o'clock).

7 o'clock position: „minimum damping = maximum bass“

5 o'clock position: „maximum damping = tight bass“

**6 – HEADROOM control:** The Headroom control (in conjunction with the Gain control) contributes to the overall amount of distortion applied to the signal by setting the clipping threshold of the output stage.

7 o'clock position: „maximum headroom = minimum distortion“

5 o'clock position: „minimum headroom = maximum distortion“

**7 – VOLUME control:** The volume control determines the signal level sent to the output jack.

**8 – Tone Stack controls:** This is an active tone stack that can boost or cut **BASS**, **MID** and **HIGH** frequencies. The bands are interactive, i.e., a boost or cut on the **BASS** control (for example) will also have some effect on the behavior of the **MID** control. In this sense, it is similar to the tone stack in a typical guitar amplifier.

7 o'clock position = lowest cut of the respective frequency band

12 o'clock position = flat / neutral response (no cut or boost)

5 o'clock position = highest boost of the respective frequency band


The **PRESENCE** control can be used to tame the upper extremes of the high frequency range.

**9 – SYMMETRY switch:** This switch toggles between asymmetrical (O) and symmetrical (I) clipping. This determines the type of clipping applied to the signal to achieve distortion. Symmetrical clipping clips the positive and the negative peaks of the audio waveform equally. Asymmetrical clipping also clips both peaks, but in unequal proportions. Symmetrical clipping is generally perceived to sound smoother than asymmetrical clipping, which has more of an edgy and ragged „bite“.

**10 – CLASS switch:** The Class AB/A switch changes the output distortion characteristics. You can choose between the response characteristics of a push-pull (Class AB) or a single-ended (Class A) power amplifier. In general, Class AB provides a smoother tone, whereas Class A has a more raw and edgy response.


**11 – ON/OFF footswitch & LED:** This footswitch activates the pedal (LED above the switch is lit) or switches it to True Bypass (LED off).

## Specifications

- Input: 1/4" (6.35 mm) mono (TS) jack, impedance = 470 k $\Omega$   
Output: 1/4" (6.35 mm) mono (TS) jack, impedance = 2.2 k $\Omega$
- Power supply: 9 - 18 VDC, 5.5 x 2.1 mm barrel plug, center negative   
Battery operation is not possible.  
Do not connect more than 18 V!  
Current draw: max. 18 mA
- Dimensions: 3.70" x 4.72" x 1.50" (94 x 120 x 38 mm)
- Weight: 0.88 lbs (400 g)

## Safety precautions

### Power Requirements

Please only use a power supply adapter approved by the manufacturer (9 - 18 VDC and center negative polarity). 

Only use power supplies that have been approved by the relevant authorities and that meet UL, CSA, VDE or CCC standards. Unplug the power adapter when not in use or during thunderstorms.

We recommend pedal-specific, transformer-isolated wallwart power supplies or multiple isolated-output supplies. Pedals will make extra noise if there is ripple or unclean power. Switching-type power supplies, daisy chains and non-pedal specific power supplies do not filter dirty power as well and will let unwanted noise through. DO NOT RUN AT HIGHER VOLTAGES!

### Storage and handling

- Do not use excessive force to operate the control elements of the pedal.
- Do not drop the pedal, and avoid placing the pedal in locations where it may be subject to shock or vibrations.
- Do not modify the pedal without authorization.
- Do not place the pedal in locations exposed to direct sunlight or excessively high or low temperatures.
- Do not place the pedal in wet locations or places with high humidity.
- Do not place the pedal in excessively dusty or dirty locations.

### Cleaning

Clean only with a soft, dry cloth. If necessary, lightly moisten the cloth. Do not use abrasive cleaners, cleaning alcohol, paint thinners, wax, solvents, cleaning fluids, or chemical-impregnated wiping cloths.

### Connections

Always disconnect the power supply from the pedal and any other equipment before connecting or disconnecting signal cables. Also make sure to disconnect all connection cables and the power supply before moving the pedal.

### Warranty

This device has a limited warranty of 2 years to the original owner.

Should you encounter any issues, please visit [www.thorn-soundlabs.com/warranty](http://www.thorn-soundlabs.com/warranty)



### RECYCLING

This product carries the selective sorting symbol for Waste Electrical and Electronic Equipment (WEEE). This means that this product must be treated in accordance with European Directive 2012/19/EU in order to be recycled or dismantled to minimize its impact on the environment.

The user has the option of returning the product to a competent recycling organization or to the retailer when purchasing new electrical or electronic equipment.



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