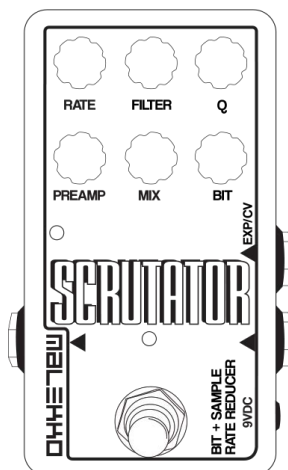


SCRUTATOR

USER MANUAL

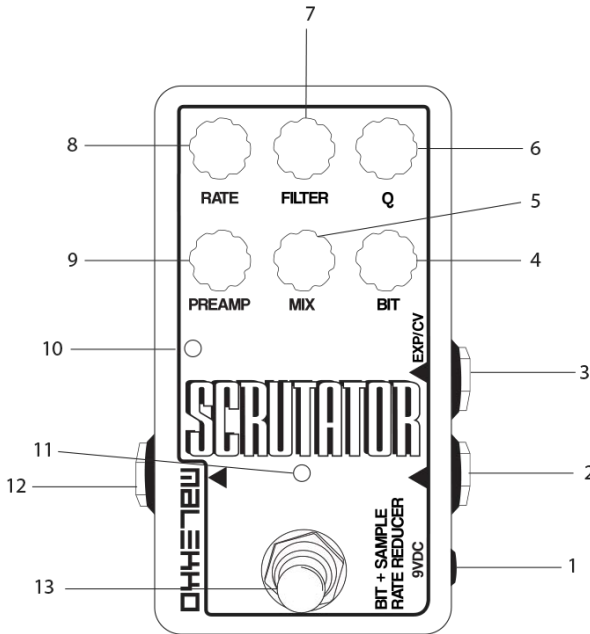
MALEKKO



The Scrutator is a unique, full featured Sample Rate and Bit Reducer pedal with modulation control and includes the following features:

- **Expression or CV input for controlling and modulating Bit, Rate, Filter, Q and any combinations of these settings**
- **Pre Amp control for input gain/attenuation**
- **Bit Rate reduction control from approximately 16bit to 2bit**
- **Sample Rate reduction control from approximately 48kHz to 300Hz**
- **Selectable 2 pole Bandpass or Lowpass Filter**
- **Q control for filter bandwidth and amplitude amount**
- **Clip LED indicates input clipping and adjustable with Pre Amp control**

CONTROLS AND CONNECTIONS



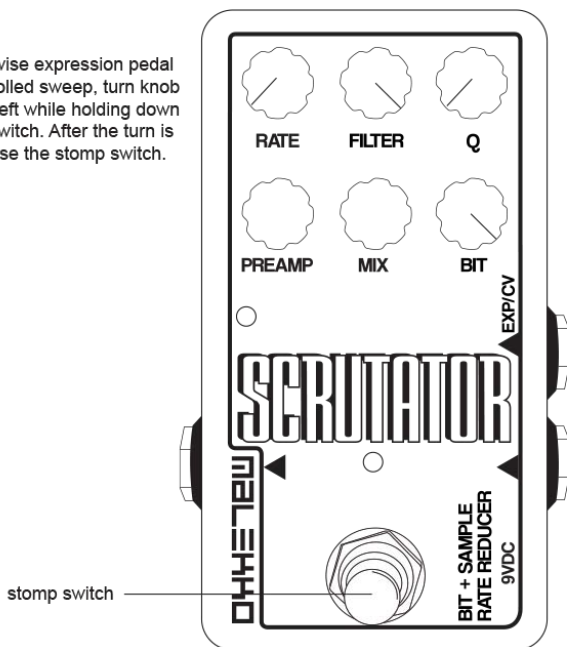
1. 9VOLT DC POWER JACK - only for use with standard 2.5mm neg-tip 200mA 9volt DC power supply.
2. INPUT JACK - Connect instrument cable
3. EXPRESSION JACK INPUT - Connect expression pedal. BIT, RATE, FILTER, and Q controls are all capable of being controlled by the EXP/CV input. You can choose any combination of these pots for external control.
4. BIT – Bit rate reduction. Approximately 16bit to 2bit .
5. MIX - Dry/effect mix control.
6. Q - Sets the bandwidth and amplitude amount of the filter.
7. FILTER - Sets frequency of low pass/band pass 2 pole filter.
8. RATE - Sample rate reduction. Approximately 48kHz to 300Hz.
9. PREAMP - Input gain/attenuation. Adjust per clipping LED. Unity gain approx 12 o'clock.
10. CLIP LED - Indicates input clipping. Adjustable with PREAMP control.
11. MAIN LED - Effect on/off
12. OUTPUT - Connect to amplifier
13. STOMP SWITCH - Turns effect on or off. Also used to assign expression/cv control and assign filter type selection.

EXPRESSION PEDAL AND CV CONTROL

1. With the effect on, hold down the stomp switch.
2. While holding the stomp switch down, turn any (or a combination of all) of the following controllable effect knobs: RATE, FILTER, Q and BIT. This will activate assignment to expression or cv control. You must turn a selected knob completely left to activate a clockwise sweep and completely right to activate a counter-clockwise sweep.
3. Release the stomp and now the assignment has been made; this assignment will stay that way until you change it, regardless of unplugging the power or not. Your expression pedal or cv input will now adjust the selected controls.
4. You can define the range of effect assigned to the EXP/CV control by changing the knob setting. FOR INSTANCE: Starting at 12 o'clock, setting the knob counterclockwise (anticlockwise) to 7 o'clock will give you maximum positive sweep for that effect. Or Setting the knob clockwise to 2 o'clock will give you less overall negative sweep range for that effect.
5. A SETTING EXAMPLE: Hold down the stomp switch and turn the FILTER knob from a 12 o'clock position counter-clockwise to the left. Release the STOMP. Now your expression pedal will control the filter like a wah-wah pedal, opening and closing the filter. Turning the knob setting toward 12 o'clock will now reduce the overall range of the EXP/CV sweep.

For a clockwise expression pedal or CV controlled sweep, turn knob all the way left while holding down the stomp switch. After the turn is made, release the stomp switch.

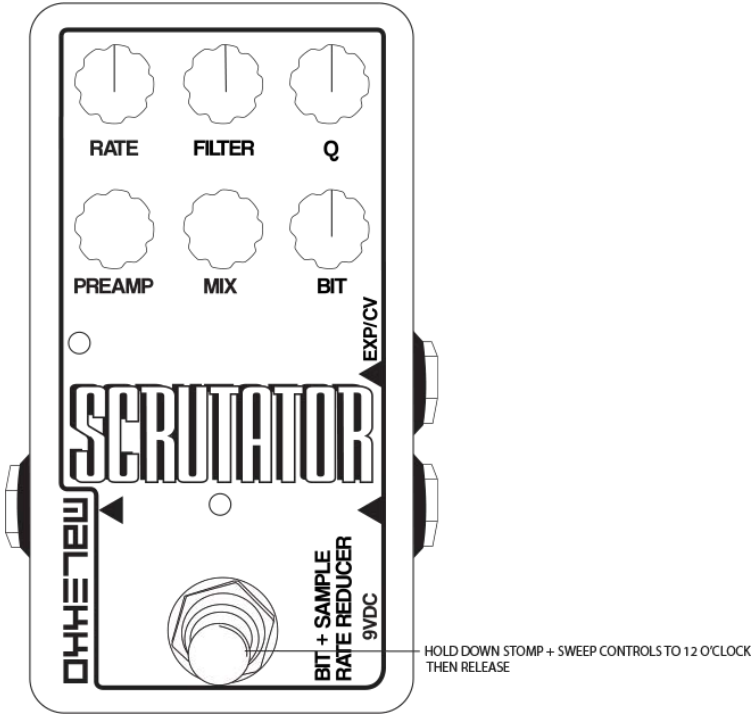
For a counter-clockwise expression pedal or CV controlled sweep, turn knob all the way right while holding down the stomp switch. After the turn is made, release the stomp switch.



REMOVING AN EXPRESSION PEDAL AND CV CONTROL ASSIGNMENT

1. Hold down the stomp.
2. With the stomp down, turn the knob with the assigned setting to 12 o'clock.
3. Release the stomp. Now that parameter is no longer assigned to the EXP/CV control and it is in manual mode.

NOTE: Unplugging the EXP/CV input will put the pedal in manual mode, but the assignments stay until you zero them out.



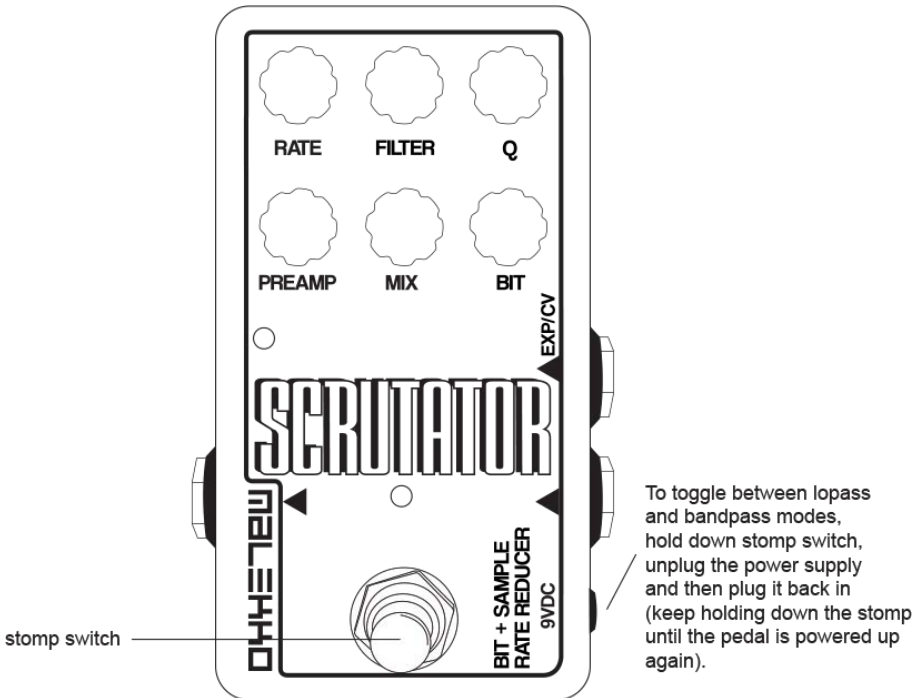
CHANGING FILTER MODES

The Scrutator includes both Low pass and Band pass filter modes. The default shipping mode is Low pass. In order to switch between these two modes:

1. Unplug the power supply.
2. Hold the stomp switch down and plug the power supply back in (keep holding the stomp until the pedal is powered up).
3. Now the pedal is the other filter mode.

Making this filter selection does not affect the EXP/CV assignments, and once the filter has been selected, it will remain that way until you change it, regardless of unplugging the power or not.

NOTE: The easiest way to determine filter mode is to set the FILTER pot all the way clockwise and listen to the selections. Low pass will allow all frequencies through and band pass will be very thin sounding, because you are filtering out all the frequencies below that highest setting.



BASIC OPERATION AND SAFETY

1. Connect to an industry standard 9 Volt DC power supply! Incorrect voltage and AC power supplies will damage your pedal and void the manufacturer's warranty! We also recommend using our Malekko 9 Volt Wall Wart, available through our website.
2. Do not use this apparatus near water.
3. Clean only with dry cloth.
4. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
5. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
6. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
7. Unplug this apparatus during lightning storms or when unused for long periods of time.
8. No user serviceable parts inside. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
9. **WARNING:** To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
10. Refer to labels on the unit, including bottom cover, or other markings and pertinent information.

WARRANTY

This product is covered by the Malekko Heavy Industry warranty, for one year following the date of purchase. This warranty covers any defect in the manufacturing of this product. This warranty does not cover any damage or malfunction caused by incorrect use – such as, but not limited to, power cables connected backwards, excessive voltage levels, or exposure to extreme temperature or moisture levels.

The warranty covers replacement or repair, as decided by Malekko Heavy Industry. Please visit our website malekkoheavyindustry.com to obtain full warranty information and to register your product for coverage.