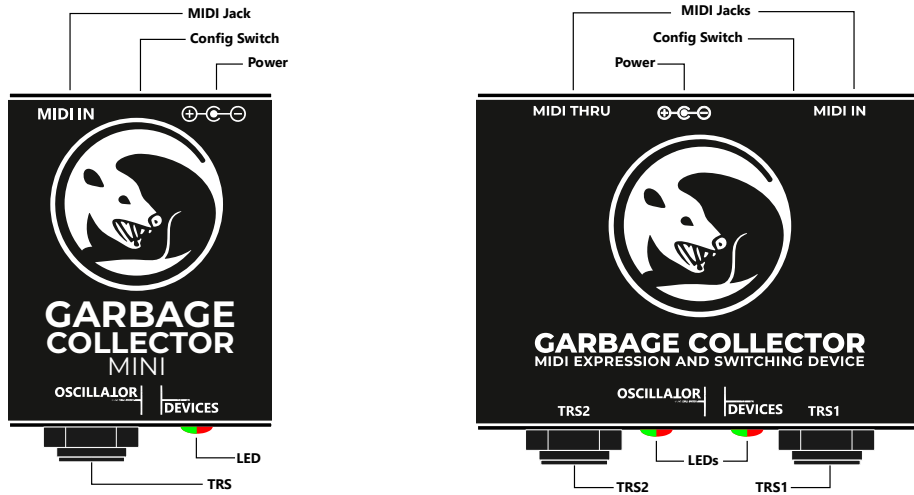
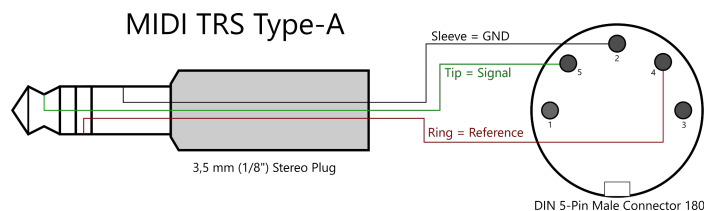
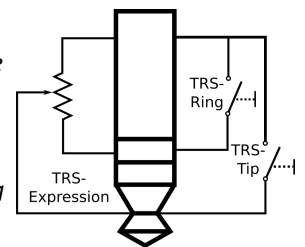


# GARBAGE COLLECTOR

## Quick Reference



- **TRS:** 1/4 " stereo jack sockets. When used as switch, the *tip* and *ring* are open and close individually to the *sleeve*. As an expression out, the wiper is on the *tip* and connected to the *sleeve* and *ring* via the potentiometer.
- **Power:** Power supply 9-18V. 2.1mm barrel connector, center negative (Boss-Style).
- **Config Switch:** If the switch is pressed shortly while the device is switched on, *tip*, *ring* and *tip+ring* are closed in sequence. If the switch is held, the expression function is activated and it is slowly moved from heel to toe and back again.
- **MIDI In/Thru:** 1/8" stereo jack sockets according to MIDI standard for MIDI TRS (**MIDI TRS-Type A**).



Please disconnect all devices from the power supply, before making any connections.

**Caution:** In the delivery state, under no circumstances should there be more than +5V or negative voltages be applied to the TRS sockets. Refer to the user manual for support of more than +5V and negative voltages.

## MIDI Commands (Expression)

The following commands apply to the use of TRS1/2 as expression out. The change from switch to expression and back is done automatically. The expression out has 256 steps. Command 16/17 or 36/37 distributes the entire range over 128 steps. The high-resolution commands 18/38 and 19/39 can be used to set a precise value.

| CC          |             |       | Function  |
|-------------|-------------|-------|---|
| TRS1 (EXP1) | TRS2 (EXP2) | #     |   |
| 16          | 36          | 0-127 | Expression out from heel (0) to toe (127)             |
| 17          | 37          | 0-127 | Expression out from toe (0) to heel (127)             |
| 18          | 38          | 0-127 | Expression out from heel (0) to middle position (127) |
| 19          | 39          | 0-127 | Expression out from middle position (0) to toe (127)  |

# MIDI Commands (Switch)

| CC       |           |          |           | Function |  |    |  |    |                                    |
|----------|-----------|----------|-----------|----------|--|----|--|----|------------------------------------|
| TRS1-Tip | TRS1-Ring | TRS2-Tip | TRS2-Ring | #        | Basic functions and NO                 | #  | NC                                     | #  | Toggle                             |
| 10       | 20        | 30       | 40        | 00       | Set „Open“                             |    |  |    |                                    |
|          |           |          |           | 01       | Set „Closed“                           |    |  |    |                                    |
|          |           |          |           | 02       | Single Pulse NO                        |    |  |    |                                    |
|          |           |          |           | 03       | Single Pulse NC                        |    |  |    |                                    |
|          |           |          |           | 04       | Toggle (Open → Close/Close → Open)     |    |  |    |                                    |
|          |           |          |           | 10       | Pulse NO MIDI clock 1/4                | 30 | Pulse NC MIDI clock 1/4                | 50 | Toggle MIDI clock 1/4              |
|          |           |          |           | 11       | Pulse NO MIDI clock 1/8                | 31 | Pulse NC MIDI clock 1/8                | 51 | Toggle MIDI clock 1/8              |
|          |           |          |           | 12       | Pulse NO MIDI clock triplets           | 32 | Pulse NC MIDI clock triplets           | 52 | Toggle MIDI clock triplets         |
|          |           |          |           | 13       | Pulse NO MIDI clock 1/16               | 33 | Pulse NC MIDI clock 1/16               | 53 | Toggle MIDI clock 1/16             |
|          |           |          |           | 14       | Pulse NO MIDI clock dotted 1/8         | 34 | Pulse NC MIDI clock dotted 1/8         | 54 | Toggle MIDI clock dotted 1/8       |
|          |           |          |           | 15       | Pulse NO MIDI clock 1/32               | 35 | Pulse NC MIDI clock 1/32               | 55 | Toggle MIDI clock 1/32             |
|          |           |          |           | 16       | Pulse NO MIDI clock 1/2                | 36 | Pulse NC MIDI clock 1/2                | 56 | Toggle MIDI clock 1/2              |
|          |           |          |           | 17       | Pulse NO MIDI clk every whole note     | 37 | Pulse NC MIDI clk every whole note     | 57 | Toggle MIDI clock every whole note |
|          |           |          |           | 18       | Pulse NO MIDI clk every 2nd whole note | 38 | Pulse NC MIDI clk every 2nd whole note | 58 | Toggle MIDI clock every 2nd note   |
|          |           |          |           | 19       | Pulse NO MIDI clk every 3rd whole note | 39 | Pulse NC MIDI clk every 3rd whole note | 59 | Toggle MIDI clock every 3rd note   |
|          |           |          |           | 20       | Pulse NO MIDI clk every 4th whole note | 40 | Pulse NC MIDI clk every 4th whole note | 60 | Toggle MIDI clock every 4th note   |
|          |           |          |           | 21       | Pulse NO MIDI clk every 5th whole note | 41 | Pulse NC MIDI clk every 5th whole note | 61 | Toggle MIDI clock every 5th note   |
|          |           |          |           | 22       | Pulse NO MIDI clk every 6th whole note | 42 | Pulse NC MIDI clk every 6th whole note | 62 | Toggle MIDI clock every 6th note   |
|          |           |          |           | 23       | Pulse NO MIDI clk every 7th whole note | 43 | Pulse NC MIDI clk every 7th whole note | 63 | Toggle MIDI clock every 7th note   |
|          |           |          |           | 24       | Pulse NO MIDI clk every 8th whole note | 44 | Pulse NC MIDI clk every 8th whole note | 64 | Toggle MIDI clock every 8th note   |

## MIDI Channel

The **Garbage Collector** ships in omni mode (i.e. it responds to every channel).

The **Garbage Collector's** MIDI channel can be set in two ways. With the Config-Switch, or with a MIDI command.

To change the MIDI channel using the Config-Switch, follow the steps below

1. Disconnect the device from the power supply
2. Carefully press the Config-Switch with a pointed object (pen, pencil or small screwdriver) and restore the power supply while the button is pressed.
3. After the boot process is complete, the device starts to flash (TRS1 green LED). Press the button according to the number of the desired channel (e.g. twice for channel 2). The **Garbage Collector** acknowledges this by emitting short flashing pulses corresponding to the number of the channel.
4. Once the desired channel is set, press the button and hold it down until both green LEDs are lit.
5. Disconnect the supply voltage. The next time the **Garbage Collector** is started, it reacts to the selected MIDI channel.

To put the **Garbage Collector** in omni mode skip step 3.

To change the MIDI channel via MIDI, the following commands are sent directly one after the other.

**For the complete set of functions and commands refer to the full user manual at**

<https://oscillatordevices.com/garbage-collector>