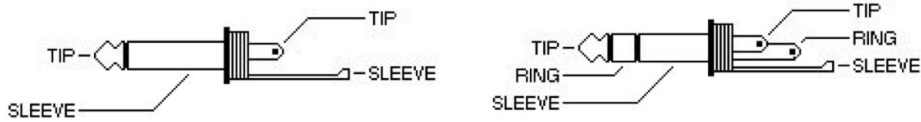


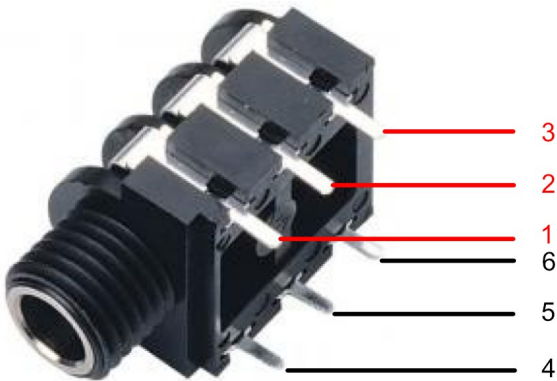
Connections

1. TRS Connections

TRS means Tip-Ring-Sleeve (or -shield) and describes the look of the TRS plug. There are mono or stereo versions. The mono version is called TS plug. Both are also called „Jack“.



Now you see the counterpart, a TRS connector. We normally use stereo connectors also for mono signals, so the middle pins (2/5) are often left free.



Our connectors are so called switching-connectors, it's quickly explained, here you see the pinout.

The ones on the upper side (pins 1-3) are the main connectors which have contact to the plug, if inserted. On the other side (pins 4-6) you see the pins which have contact to the upper pins only if no plug is inserted. If a plug is inserted, this connections (pins 4-6) are switched off and are dead, instead the connections coming through

the plug have now contact to the pins 1-3.

Connection of signals

- Pin 1: Ground connection or „sleeve“
- Pin 2: Signal connection „ring“
- Pin 3: Signal connection „tip“
- Pin 4: If no plug is inserted, pin 4 is connected to pin 1
- Pin 5: If no plug is inserted, pin 5 is connected to pin 2
- Pin 6: If no plug is inserted, pin 6 is connected to pin 3

In most cases only pins 1 and 3 are used for mono signals, the rest stays free, except you want to do switching functions.

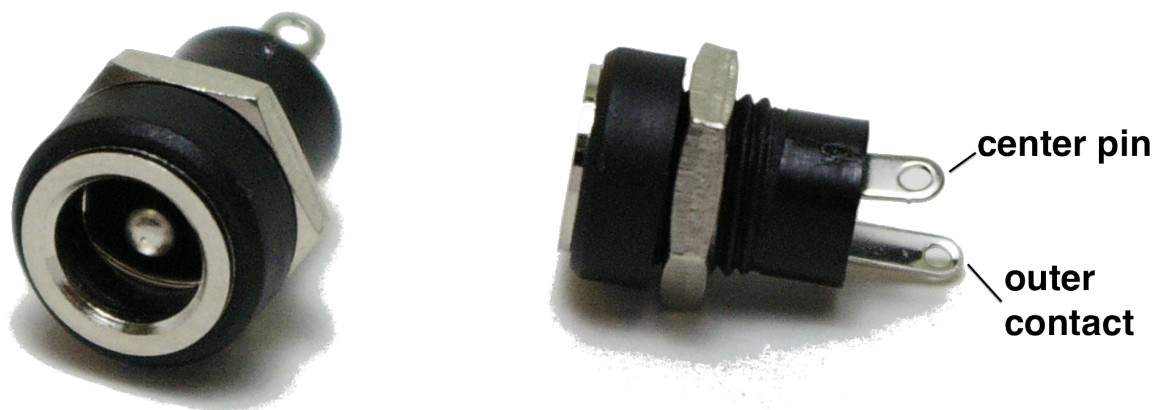
Cable colours

- Ground = black
- Signals = various colours

Building our kits happens on your own risk! If you don't have the skills or you are not 100% sure, please ask someone who is able to do it for you before you blow up your machine. It's a DIY kit and after we shipped it to you, it's out of our control. That means we are not responsible if you fuck it up. We cannot give a guarantee for a correct function. All our machines run on low voltage of 9V or 12V. Never handle with 110/230V or open power supplies!

2. Power Connector

We mostly use the Lumberg 1614-09 connector which works for power-supply-plugs titled as 2,1/5,5mm. It's body is made from plastic, so it's outer contact is isolated from the box where it's mounted.



The power connector has two poles: The center pin on the front is connected to the shorter pin on the back, the outer contact on the front is connected to the longer pin on the back.

We normally use the center pin (= short pin on back) for positive and the outer contact (=longer pin on back) for ground.

Most guitar effects and also their power supplies have opposite polarity. They use the center pin for ground and the outer contact for positive. You can also work with this kind of supplies, just change the cables on the back of the connector.

Cable colours:

Positive = red
Ground = black

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3. TRS Connections for the DroneSynth

In our DroneSynth we use the switching function of the TRS connectors for the control voltage signal (CV) which is used by the internal amplifier (VCA).

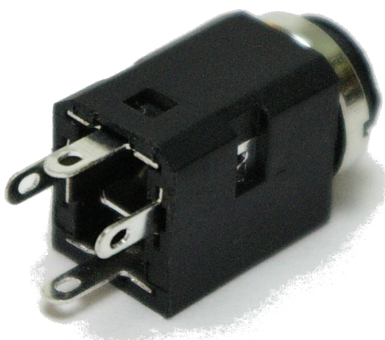
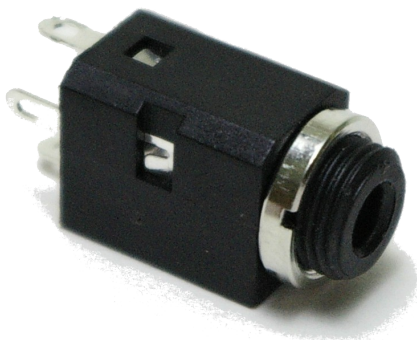
If the DroneSynth is used without external equipment (like ADSR envelopes or LFOs), the internally generated control voltage (marked on the board as „ZV“) is sent via a red wire to pin 6 of the TRS connector. As no plug is inserted it is switched to pin 3 of the connector. Then it will return via a yellow wire to the point on the board, which is marked as „CV“.

If you insert an external signal (from ADSR, LFO etc.) into the connector, the internal connection between pin 6 and pin 3 is opened and the external signal is used instead.

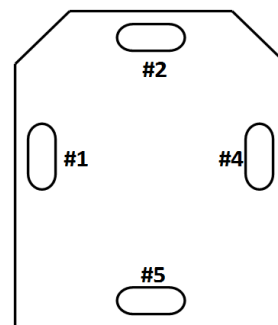
Without any CV-signal (internal or external) the VCA will be closed permanently, that means you won't hear any sound.

4. TRS Connections for the Noise To Brain Adapter (NTBA)

Here you see the rear view of the 3,5mm TRS connectors we use for the NTBA. The connectors are stereo with switching function. Please see the chart for colours and signals.



Connector Pin-Out



3,5mm TRS Audio-Connector

Connector Pin	Audio-Output	CV-Input	Gate-Input
#1	black (GND)	black (GND)	black (GND)
#2	blue (2nd Out)	n.c.	n.c.
#4	n.c.	Bridge to #1	red (Vcc)
#5	yellow (Main Out)	grey (CV)	green (Gate)

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