

# Revolution II

**Based on:**

Revv G2™

**Effect type:**

High gain preamp

**Build difficult:**

Average

**Amount of parts:**

High, total 76 components

**Technology:**

Dual OpAmp

**Power consumption:**

9V(22mA)

**Enclosure type:**

125b

**Get your board at:**

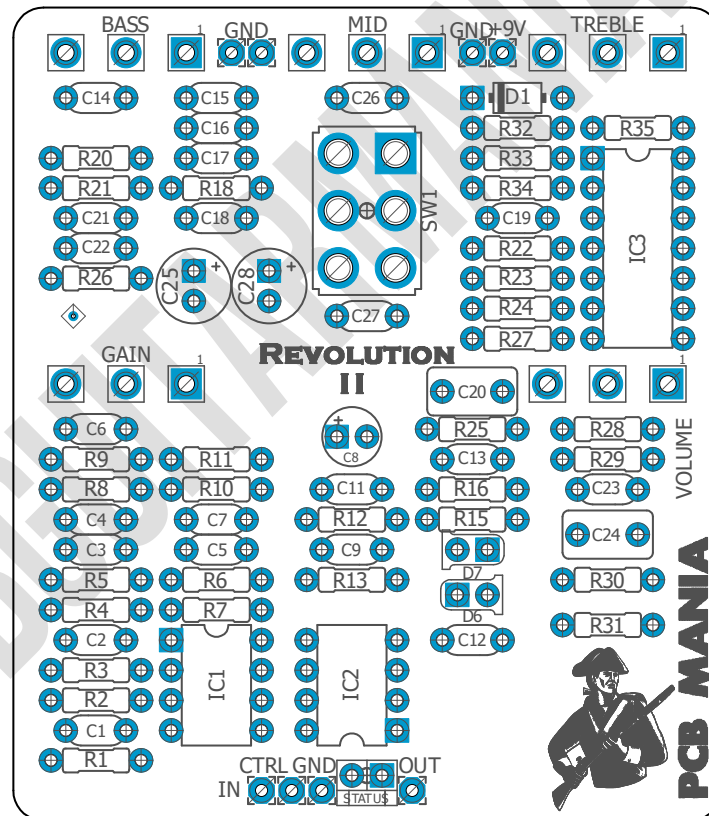
[Revolution II](#)

**Get your kit at:**

[Das Musikding \(Europe\)](#)

**Project overview:**

Here we have the Revolution II to complete the Revv inspired trilogy, and for sure the most versatile of the tree of them! It covers a wide gain spectrum that allows you to go from a clean transparent boost to a tight high gain overdrive!



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## Introduction

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To finish up the Revv™ pedal line up here comes the revolution two based around the G2. Supposed to be pedal with the lowest amount of gain for everything between slightly grit to hard rock. But don't get confused by that, when cranking the volume and the gain it's still pretty hot and can make some metal guys out there happy. Well at least it makes me very happy and I could totally crank it without getting oscillation or the need to add a buffer before to get rid of that. Actually it's the one I expected the less from what heard before in demos and surprised me the most once I had it in my hands. So you are not just building this to have all three but because it provides you with a lot of useful tones.

For the guys that have trouble with designing there own artworks but don't want to have bare enclosures - ask for a faceplate, we already offering the, for the revolution three and four.

## Controls

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- Gain
- Volume
- Bass
- Treble
- Mids

# Bill of materials

| Resistors |       |
|-----------|-------|
| Part      | Value |
| R1        | 1m    |
| R2        | 470k  |
| R3        | 10k   |
| R4        | 47k   |
| R5        | 82k   |
| R6        | 33k   |
| R7        | 10k   |
| R8        | 82k   |
| R9        | 22k   |
| R10       | 33k   |
| R11       | 56K   |
| R12       | 10k   |
| R13       | 22k   |
| R15       | 4k7   |
| R16       | 56k   |
| R18       | 2k    |
| R20       | 4k7   |
| R21       | 100k  |
| R22       | 470k  |
| R23       | 10k   |
| R24       | 22k   |
| R25       | 1m    |
| R26       | 22k   |
| R27       | 1k5   |
| R28       | 470k  |
| R29       | 15k   |
| R30       | 2k    |
| R31       | 4k7   |
| R32       | 10R   |
| R33       | 20K   |
| R34       | 20K   |
| R35       | 1K5   |

| IC   |       |
|------|-------|
| Part | Value |
| IC1  | TL072 |
| IC2  | TL072 |
| IC3  | TL074 |

| Capacitors |       |
|------------|-------|
| Part       | Value |
| C1         | 22n   |
| C2         | 47p   |
| C3         | 4n7   |
| C4         | 2n2   |
| C5         | 1n    |
| C6         | 220nf |
| C7         | 120p  |
| C9         | 120p  |
| C11        | 22n   |
| C12        | 10n   |
| C13        | 1n    |
| C14        | 47n   |
| C15        | 100n  |
| C16        | 2n2   |
| C17        | 47n   |
| C18        | 10n   |
| C19        | 2n2   |
| C20        | 220nf |
| C21        | 10n   |
| C22        | 10n   |
| C23        | 47p   |
| C24        | 220nf |
| C26        | 100n  |
| C27        | 100p  |

| Electrolytics<br>Capacitors |       |
|-----------------------------|-------|
| Part                        | Value |
| C8                          | 4u7   |
| C25                         | 100u  |
| C28                         | 22u   |

| Potentiometers |       |
|----------------|-------|
| Part           | Value |
| BASS           | A100K |
| GAIN           | B1M   |
| MID            | B100k |
| TREBLE         | A50k  |
| VOLUME         | A50k  |

| Switches |               |
|----------|---------------|
| Part     | Value         |
| SW1      | DPDT<br>ON-ON |

| Diodes |               |
|--------|---------------|
| Part   | Value         |
| D1     | 1N5817        |
| D6     | RED LED 3MM   |
| D7     | RED LED 3MM   |
| LED    | 3mm Green LED |

# Shopping list

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| Resistors |       |                   |
|-----------|-------|-------------------|
| Qty       | Value | Parts             |
| 1         | 100k  | R21               |
| 1         | 10R   | R32               |
| 4         | 10k   | R3, R7, R12, R23  |
| 1         | 15k   | R29               |
| 1         | 1K5   | R35               |
| 1         | 1k5   | R27               |
| 2         | 1m    | R1, R25           |
| 2         | 20K   | R33, R34          |
| 4         | 22k   | R9, R13, R24, R26 |
| 2         | 2k    | R18, R30          |
| 2         | 33k   | R6, R10           |
| 3         | 470k  | R2, R22, R28      |
| 1         | 47k   | R4                |
| 3         | 4k7   | R15, R20, R31     |
| 1         | 56K   | R11               |
| 1         | 56k   | R16               |
| 2         | 82k   | R5, R8            |

| Capacitors |       |                    |
|------------|-------|--------------------|
| Qty        | Value | Parts              |
| 2          | 100n  | C15, C26           |
| 1          | 100p  | C27                |
| 4          | 10n   | C12, C18, C21, C22 |
| 2          | 120p  | C7, C9             |
| 2          | 1n    | C5, C13            |
| 1          | 220nf | C6                 |
| 2          | 220nf | C20, C24           |
| 2          | 22n   | C1, C11            |
| 3          | 2n2   | C4, C16, C19       |
| 2          | 47n   | C14, C17           |
| 2          | 47p   | C2, C23            |
| 1          | 4n7   | C3                 |

| Electrolytics Capacitors |       |       |
|--------------------------|-------|-------|
| Qty                      | Value | Parts |
| 1                        | 100u  | C25   |
| 1                        | 22u   | C28   |
| 1                        | 4u7   | C8    |

| Potentiometers |       |                |
|----------------|-------|----------------|
| Qty            | Value | Parts          |
| 1              | A100K | BASS           |
| 2              | A50k  | TREBLE, VOLUME |
| 1              | B100k | MID            |
| 1              | B1M   | GAIN           |

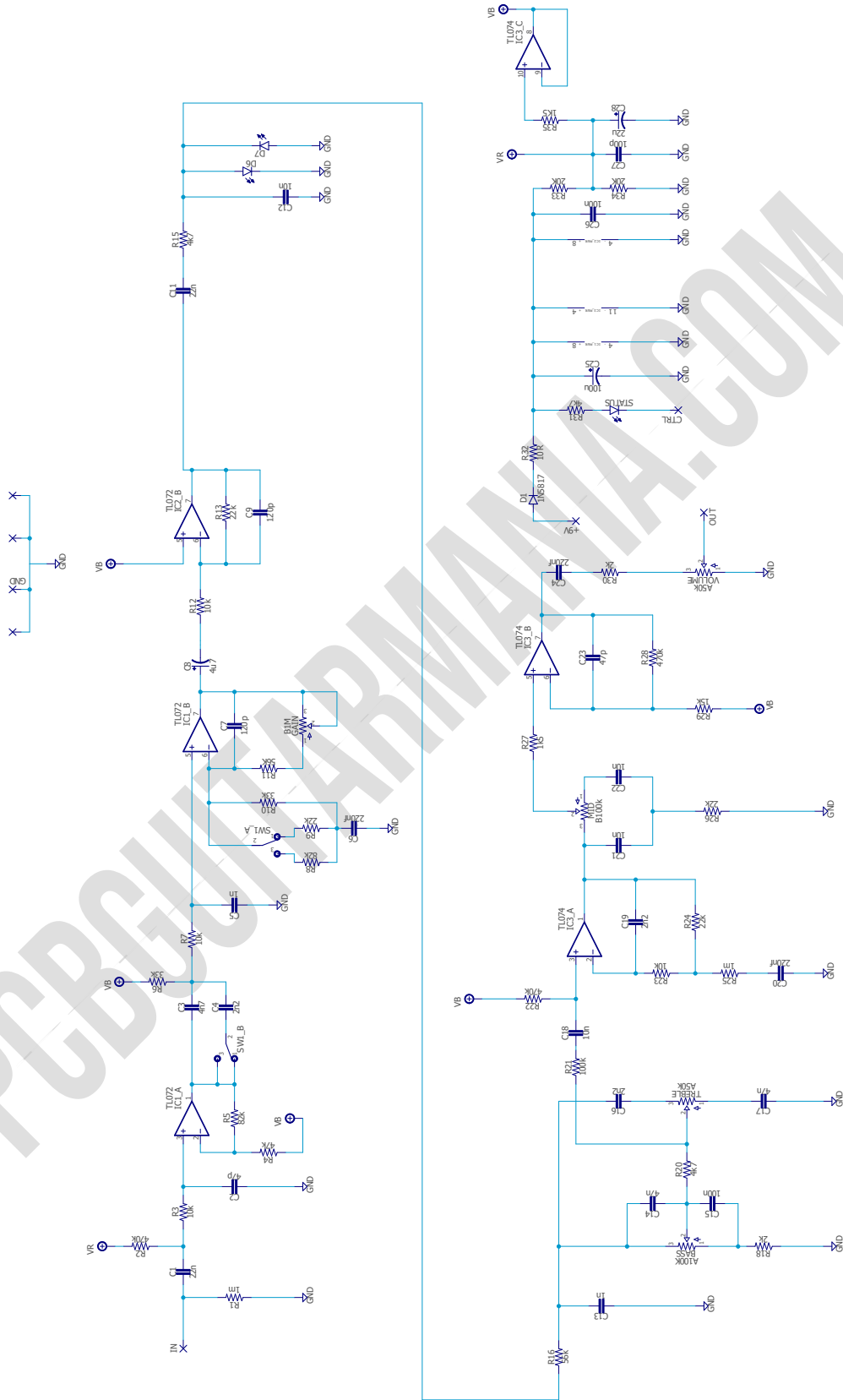
| IC  |       |          |
|-----|-------|----------|
| Qty | Value | Parts    |
| 2   | TL072 | IC1, IC2 |
| 1   | TL074 | IC3      |

| Switches |                |       |
|----------|----------------|-------|
| Qty      | Value          | Parts |
| 1        | DPDT ON-OFF-ON | SW1   |

| Diodes |               |        |
|--------|---------------|--------|
| Qty    | Value         | Parts  |
| 1      | 1N5817        | D1     |
| 2      | RED LED 3MM   | D6, D7 |
| 1      | Green LED 3mm | Led    |

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# Schematic



# Components Recommendations

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As many people like to experiment some pedals with higher voltage, always ensure the max tolerance of your **electrolytic capacitors** is over 25v.

This board has been tested using Film box capacitors for most of the values over 1nf, and ceramics discs for the ones under 1nf. However, high quality components such as Wima's Capacitors and Panasonic's electrolytics can deliver a better performance.

All the resistors used for testing this project are 1/4W Metal Film.

The BOM and Shopping list are exclusively regarding this project. It doesn't include all the hardware like the 3PDT bypass switch, audio/dc jacks, enclosure, etc.

## Build Notes

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If this is one of your first projects I recommend you to take a look on our [Pedal Building Guide](#)

For a successful and tidy build it's recommended the following order:

1. Resistors & diodes
2. Capacitors, starting with the smaller ones and the ceramic ones.
3. Electrolytic capacitors (always check the polarity)
4. Transistors
5. Wires
6. Potentiometers and switches
7. Off board wiring

## Wiring Diagram

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All our projects include a free 3PDT Board to make the wiring easier and tidier. Also all of our PCBs feature the status LED on board.

The pad named "Ctrl" or "LED" is the one that controls the status of the led, wire it to the "LED" pad on the 3PDT board, or in control slug of your 3PDT.

This board has been designed to match our EZ 3PDT PCB check it [here](#) to access to our [Pedal Wiring Guide](#)

# Drill Template

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This Project has been planned to fit into a 125b enclosure type.

Check the Attached “Drilling templates” to drill the box properly. The files are on Scale 1:1, ready to print in an A4 page.

## Licensing and Usage

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We really appreciate your trust and support buying this PCB, as well as your will to dive into the DIY electronics world. That’s why for us is really important that you can make this project work properly and to enjoy not only the building process, but also to experiment and play with it on your rig.

We try to reply to every question we receive on our email or in our social media, but we try to encourage all our customers to join our [PCB Guitar Mania – Builders Group](#) on Facebook, in order to post all your doubts, issues, suggestions or request, as well to share your builds and have some feedback from us and other fellow builders!

All of our projects have been tested following this same guide on their standard configurations. Although, not all of the variations and mods have necessarily been tested. These are suggestions based on the schematic analysis, and on the experiences and opinions of others. Feel free to share with us your opinions and suggestions regarding the mods your own personal experimentation.

These boards may be used for commercial endeavors in any quantity unless specifically noted. No attribution is necessary, though accreditation or a link back is always greatly appreciated.

If you are a builder planning to make your own run of pedals we also offer the service of custom made boards with your brand and logo, design according your specifications.

The only usage restrictions are that, first, you cannot resell the PCB as part of a kit without prior arrangement with us, and second, you cannot scratch off the silk screen, or other way of trying to hide our logos and the source of the PCBs. Like it’s written above, if you want to have your own designs, with your brand and logo we could certainly reach an agreement.

Follow us on [Instagram](#) and [Facebook](#) to stay in tune with the latest projects!