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## Boss OD-1 OverDrive pedal schematic diagram

Boss **OD-1 OverDrive** was one of BOSS' first compact effects pedals, and offered a number of new features including silent FET switching to eliminate pops and clicks, rubber panels on top and bottom, quick-access battery compartment and recessed knobs. The OD-1 was first sold in 1977 and was discontinued in 1985. The pedal was very popular, thanks to its smooth responsive overdrive tones that guitarists couldn't resist. The <u>OD-2</u> and <u>SD-1</u> took over from the OD-1 later, but many guitar players still use this effect because of its pure sound. The OD-1 (like the OD-2 and SD-1) uses asymmetrical clipping, for a smoother, warmer, less edgy distorsion effect.

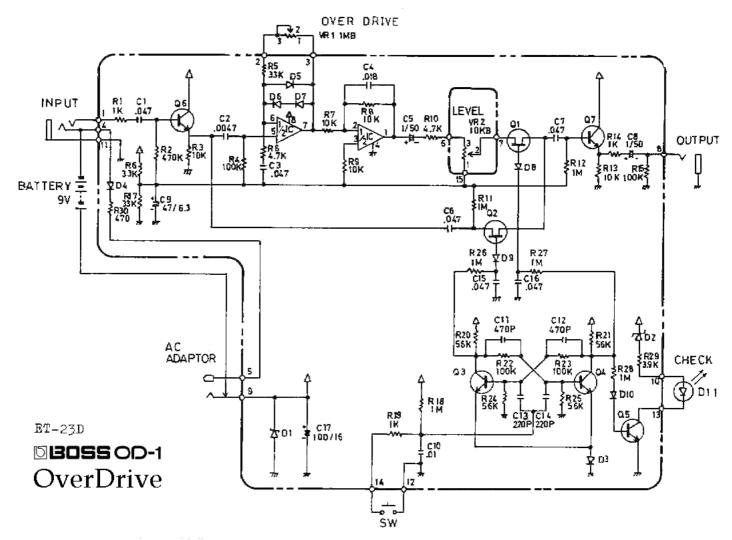


Fig. 1: Boss OD-1 OverDrive guitar pedal schematic diagram

- 2 Controls: Level and Overdrive
- Connectors: Input, Output, AC Adaptor
- Input Impedance: 470kohm
- Output Impedance: over 10kohm
- Signal/Noise Ratio: over 80dB
- Recommended AC Adaptor: ACA Series
- Current Draw: 3.5mA DC 9V
- Dimensions: 70(W) x 55(H) x 125(D)mm
- Weight: 400g

The original OD-1 OverDrive was made with the RC3403ADB op-amp IC. Some early pedals from 1978 used a NEC uPC4741C quad operational amplifier.

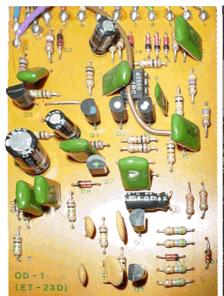
Later models used different versions of the 4558 8-pin dual op-amp: NJM4558D, uPC4558C, uPC4558C, TL4558P, JRC4558DD, JRC4558DD, JRC4558DD and C4558C.

## ICs, transistors and diodes used in the OD-1 OverDrive:

- IC: RC3403ADB, uPC4741C, NJM4558D, uPC4558C, uPC4558C, TL4558P, JRC4558D, JRC4558DD, JRC4558DC or C4558C (depending on your model)
- Q1: 2SK30ATM-Y (N-channel JFET transistor)
- Q2: 2SK30ATM-GR (N-channel JFET transistor)
- Q3, Q4, Q5: 2SC945-P 2SC1815-Y (NPN silicon transistors)
- Q6, Q7: 2SC732TM-GR (NPN silicon transistors)



- D1: RD11EB-3 (500mW 11V Zener diode)
- D2: RD5.1EB-3 (500mW 5.1V Zener diode)
- D3-D10: 1S2473 or 1S1588 (switching diodes)
- D11: SLP135B (LED)



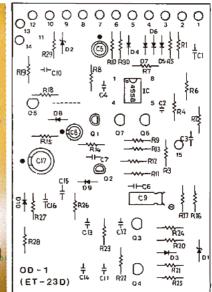


Fig. 2: Boss OD-1 OverDrive circuit board - component side (ET-23D version)

Boss CE-2 Chorus CE-2B Bass Chorus Arion SCH-1 Chorus Pearl CH-02 Chorus Boss BF-2 Flanger Pearl FG-01 Flanger
Boss OD-2 Turbo OverDrive
Boss SD-1 Super Overdrive
Boss MT-2 Metal Zone
Boss HM-2 Heavy Metal

CS-2 Compression Sustainer Boss DM-2 Analog Delay Boss DD-2 Digital Delay Boss OC-2 Octave Boss NF-1 Noise Gate
Boss GE-7 Equalizer
Boss GE-7B Bass Equalizer
Boss TR-2 Tremolo

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