# TELEPHONE RECEIVER


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This simple telephone receiver without a dialling section can be connected in parallel to a telephone line. It can be easily assembled on a small vero board or a PCB. A geometry box made in the shape of a telephone receiver will be an excellent cabinet for it. No external power supply is needed, which makes the circuit handy.

The ringer section comprises R1, C1, and a buzzer. If your telephone has a loud ringer, this circuit can be avoided. A bridge rectifier consisting of diodes D1 through D4 protects the circuit from any polarity change in the telephone line. PNP transistor MPS-A92 (T1) is the main interface transistor. The output of T1 is regulated by zener diode ZD and capacitor C2 to get 6.8V for powering the amplifier section. This power is also used to bias the transmitter section.

The transmitter section comprises transistor BC548 (T2) together with a few discrete components and a condenser microphone. The transmit signal is fed to the base of interface transistor T1. The voice input for the amplifier comes directly from the positive end of the bridge rectifier.

The amplifier section is built around high-performance, low-wattage power amplifier IC LM386. This circuit is designed as a high-gain amplifier. A small 8-ohm speaker is good enough for the output.

After all soldering is done, adjust preset sets VR1 and VR2 to their middle position and connect the circuit to the telephone line in parallel. Adjust VR1 and VR2 for optimum reception as well as transmission.