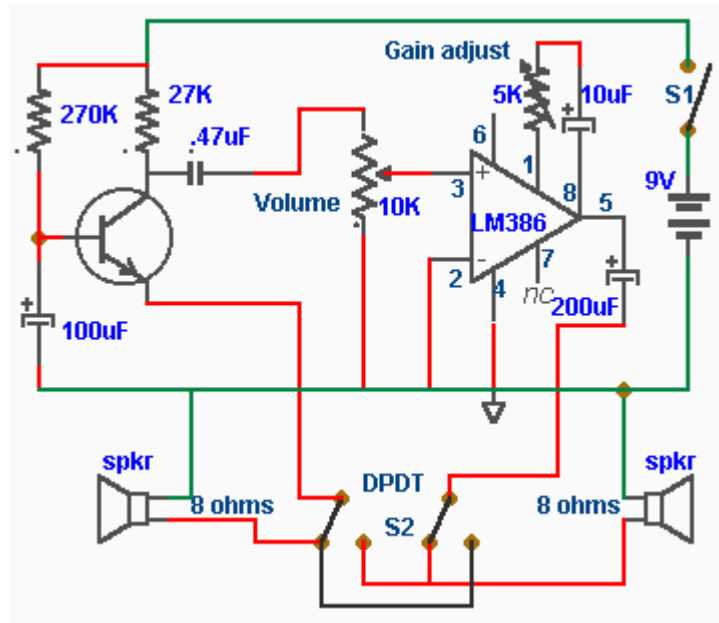


Doorphone Intercom



Notes:

For the first time, this circuit was designed by two authors, Mr Laurier Gendron of Burnaby in British Columbia, Canada, and myself. Please make sure you visit Laurier's web site, Handy Dandy Little Circuits. This page is also available in French by clicking on the flag.

In this doorphone circuit, an 8 ohm speaker is used both as a microphone and also an output device. The BC109C stage amplifies in common base mode, giving good voltage gain, whilst providing a low impedance input to match the speaker. Self DC bias is used allowing for variations in transistor current gain. An LM386 is used in non-inverting mode as a power amplifier to boost voltage gain and drive the 8 ohm speaker. The 10k potentiometer acts as the volume control, and overall gain may be adjusted using the 5k preset. The double pole double throw switch, reverses the loudspeaker positions, so that one is used to talk and the other to listen. Manually operating the switch (from inside the house) allows two way communication.