



Brief Circuit Description

A three-wire bus connects multiple telephone stations together as a party line. Connect a 9VDC wall-plug AC/DC converter to the +9V and Common wires. The Telephone Power Supply (only one is required) produces +5V through a resistor on the Microphone Bus wire.

A hook switch (or push-to-talk switch) connects the microphone to the Mic. Bus when the handset is lifted from the cradle, and connects it to Common (to mute the local microphone) when the handset is not in use.

When someone talks, the microphone modulates the Microphone Bus. Each Telephone Station has an audio amplifier that amplifies the signal on the Mic. Bus and sends it to the earphone or loudspeaker. Carbon microphones work best, but electret can also be used. It is best not to mix microphone types on the same system because of differing audio levels.

Permission is granted to use this circuit for personal, non-commercial applications only.

Telephone System Schematic Diagram
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