

PARALLEL TELEPHONE WITH SECRECY

Often a need arises for connection of two telephone instruments in parallel to one line. But it creates quite a few problems in their proper performance, such as over loading and overhearing of the conversation by an undesired person. In order to eliminate all such problems and get a clear reception, a simple scheme is presented here (Fig. 1).

This system will enable the incoming ring to be heard at both the telephones. The DPDT switch, installed with each of the parallel telephones, connects you to the line in one position of the switch and

disconnects you in the other position of the switch. At any one time, only one telephone is connected to the line. To receive a call at the instrument, which is not connected to the line, you just have to flip the

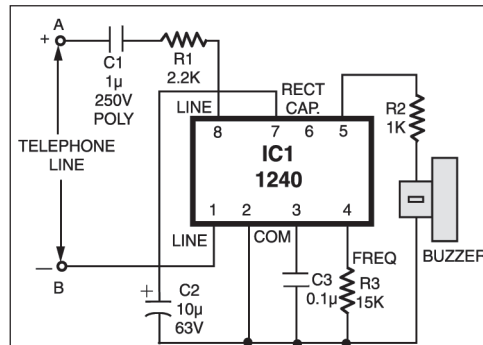


Fig. 2: Circuit diagram of external ringer

toggle switch at your telephone end to receive the call and have a conversation. As soon as the position of the toggle switch is changed, the line gets transferred to the other telephone instrument.

Mount one DPDT toggle switch, one

telephone ringer, and one telephone terminal box on two wooden electrical switchboards, as shown in Fig. 3. Interconnect the boards using a 4-pair telephone cable as per Fig. 1. The system is ready to use. Ensure that the two lower leads of switch S2 are connected to switch S1 after reversal, as shown in the figure.

Lab. Note: The external ringer for the project as shown in Fig. 2, was designed/fabricated at EFY Lab.

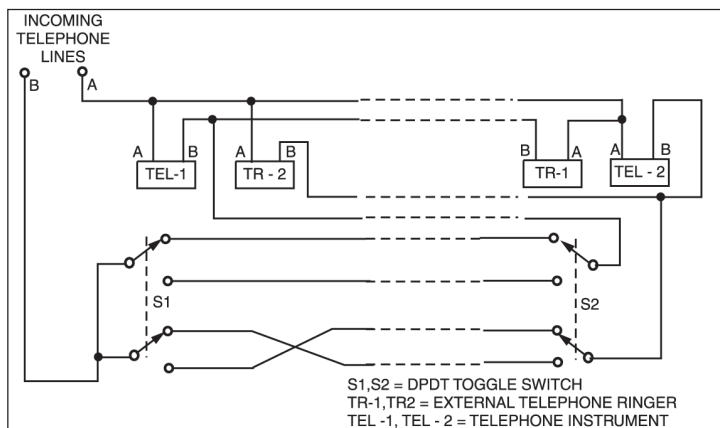


Fig. 1: Scheme for connecting two parallel telephones along with additional external ringers

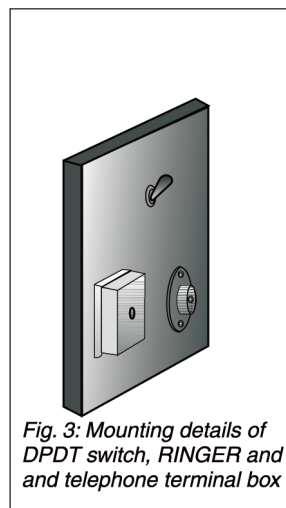


Fig. 3: Mounting details of DPDT switch, RINGER and telephone terminal box