



continues and the telephone can be used for normal conversation. After selection of the appliance mode of operation, if digit '1' is dialed, it is decoded by IC1 and its output is '0001'. This BCD code is then demultiplexed by 4-to-16-line demultiplexer IC2 whose corresponding output, after inversion by a CD4049 inverter gate, goes to logic 1 state. This pulse toggles the corresponding flip-flop

to alternate state. The flip-flop output is used to drive a relay (RL2) which can switch on or switch off the appliance connected through its contacts. By dialing other digits in a similar way, other appliances can also be switched 'on' or 'off.'

Once the switching operation is over, the 220-ohm loop resistance and 10kHz tone needs to be removed from

the telephone line. To achieve this, digit '0' (in DTMF mode) is dialed again to toggle flip-flop-1 to de-energise relay RL1, which terminates the loop on line and the 10kHz tone is also disconnected. The telephone line is thus again set free to receive normal calls.

This circuit is to be connected in parallel to the telephone instrument.