AUDIO-VISUAL EXTRA RINGER FOR PHONE

Many a times one needs an extra telephone ringer in an adjoining room to know if there is an incoming call. For example, if the telephone is installed in the drawing room you may need an extra ringer in the bedroom. All that needs to be done is to connect the given circuit in parallel with the existing telephone lines using twin flexible wires.

This circuit does not require any external power source for its operation. The section comprising resistor R1 and diodes D5 and LED1 provides a visual indication of the ring. Remaining part of the circuit is the audio ringer based on IC1 (BA8204 or ML8204). This integr- ated circuit, specially designed for telec- om application as bell sound generator, requires very few external parts. It is readily available in 8-pin mini DIP pack.

Resistor R3 is used for bell sensitivity adjustment. The bell frequency is controlled by resistor R5 and capacitor C4, and the repetition rate is controlled by resistor R4 and capacitor C3. A little experimentation with the various values of the resistors and capacitors may be carried out to obtain desired pleasing tone.

Working of the circuit is quite simple. The bell signal, approximately 75V AC, passes through capacitor C1 and resistor R2 and appears across the diode bridge comprising diodes D1 to D4. The rectified DC output is smoothed by capacitor C2. The dual-tone ring signal is output from pin 8 of IC1 and its volume is adjusted by volume control VR1. Thereafter, it is impressed on the piezo-ceramic sound generator.