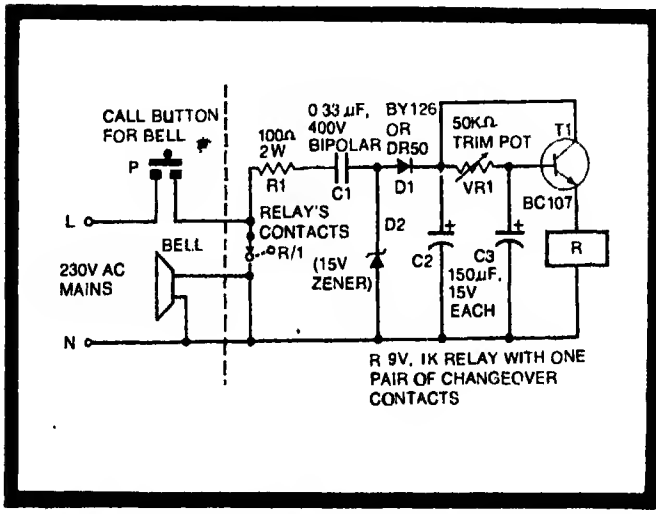
Protect the Calling Bell and Ears Too

Do you get annoyed by the continuous ringing of your calling bell when someone in a hurry, or may be just a child making mischief, sends you running to the front door as if in response to a fire alarm. Often it is for a trivial reason.

You can, if you wish, now feel at ease and also protect your bell's coils which may not be built for the 'fire-alarm' use by using the circuit shown below.

When the call-button for ringing the bell is pressed by someone, the bell is energised but simultaneously the protection circuit also gets powered. Components R1, C1, D1, D2 and C2 form a transformerless DC power supply arrangement. Components VR1 and C3 form a delay circuit whose output is applied to the base of transistor T1. After the pre-fixed delay—the maximum time for which you would like the bell to ring—the relay connected as a load to the transistor is energised. The relay contacts which normally remain closed, open on energisation and disconnect the power supply from the bell. The trim pot VR1 may be adjusted to obtain a desired delay period.

You would notice, as soon as the call button is released by the visitor, the power to the relay is also removed and relay's R/1 contacts come to their normally closed position.



And if the call button is pressed for less than the pre-fixed time, the circuit does not interfer at all.

The whole circuit can be assembled in a small box and fixed just near the bell or buzzer so that it may not be conspicuous at all.

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