

Door Chime Controller

By L. Heaney

THIS CIRCUIT provides electronic control for an ordinary door chime. The chime sounds only for one *ding dong* at a preset rate regardless of how often the chime button is pushed. After twenty seconds or so the chimes are ready to operate again.

Operation of the circuit is straightforward. Bell-push 1 (front door) will trigger monostable 1 (gates 1a + 1b).

This in turn will trigger monostable 3 (gates 2c and 2d) whose output will switch the chime relay (RLA) on and off again at a rate determined by C5 and R11. Monostable 3 will then remain inhibited for the duration of the remaining output pulse from monostable 1, which is approximately 20 seconds and depends on the values of C3 and R5. The output of monostable 1 is also taken to Q1 and will illuminate LED1.

Bell-push 2 (back door) triggers monostable 2 (gates 1c and 1d) which

operates in a similar manner to monostable 1. The LEDs are fitted to the side of the chime unit and indicate whether the caller is at the front door or the back door. Diodes D1 to D4, resistors R1 to R4 and capacitors C1 to C4 are included to protect the circuit from any transients which may be induced, particularly on the lengthy leads to the door bells. The low current requirements mean that battery operation is practical.

