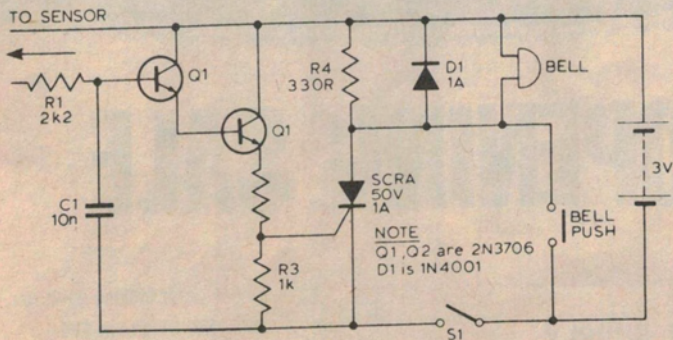
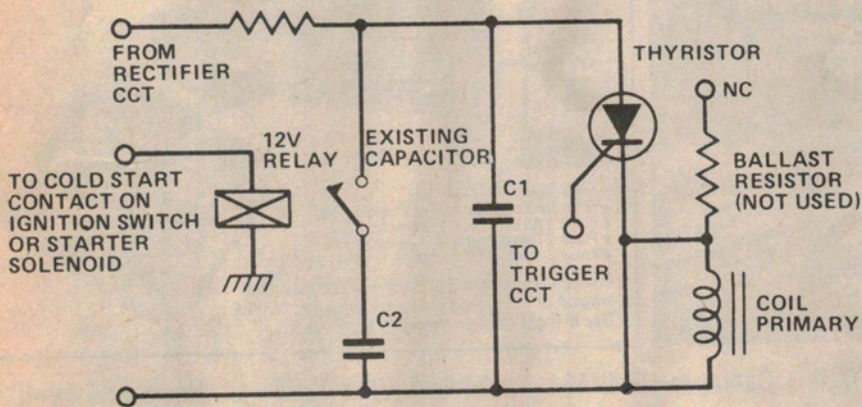


## 'Cold-start' For CD Units

Many cars are fitted with cold-start coils, which operate at full current only on starting, then are fed via a ballast discarded when CD ignition is fitted, and the coil is run at 'full power' all the time. It's a simple matter to arrange for the cold-start circuit to operate a relay inside the CD unit which switches in a second capacitor C2 across the main

one, thus increasing the energy of the spark when the engine is starting. After starting, C2 is no longer in circuit and the main capacitor C1 alone supplies current to the coil, thus alleviating any charging problems with attendant loss of power at high revs.

RLA is any 12 volt relay, and C2 can have the same value as the existing capacitor C1, usually 470n or 1 $\mu$ 0.



## Rain Alarm/Door Bell

With S1 open the circuit functions as a doorbell. With S1 closed, rain falling on the sensor will turn on Q1, Q2 and the thyristor will trigger activating the bell. R4 provides the holding current for the

thyristor while D1 prevents any damage to the thyristor from back EMF in the bell coil. The sensor is made from 3 square inches of copper clad board with a razor cut down the centre. C1 prevents any pickup in the sensor leads.