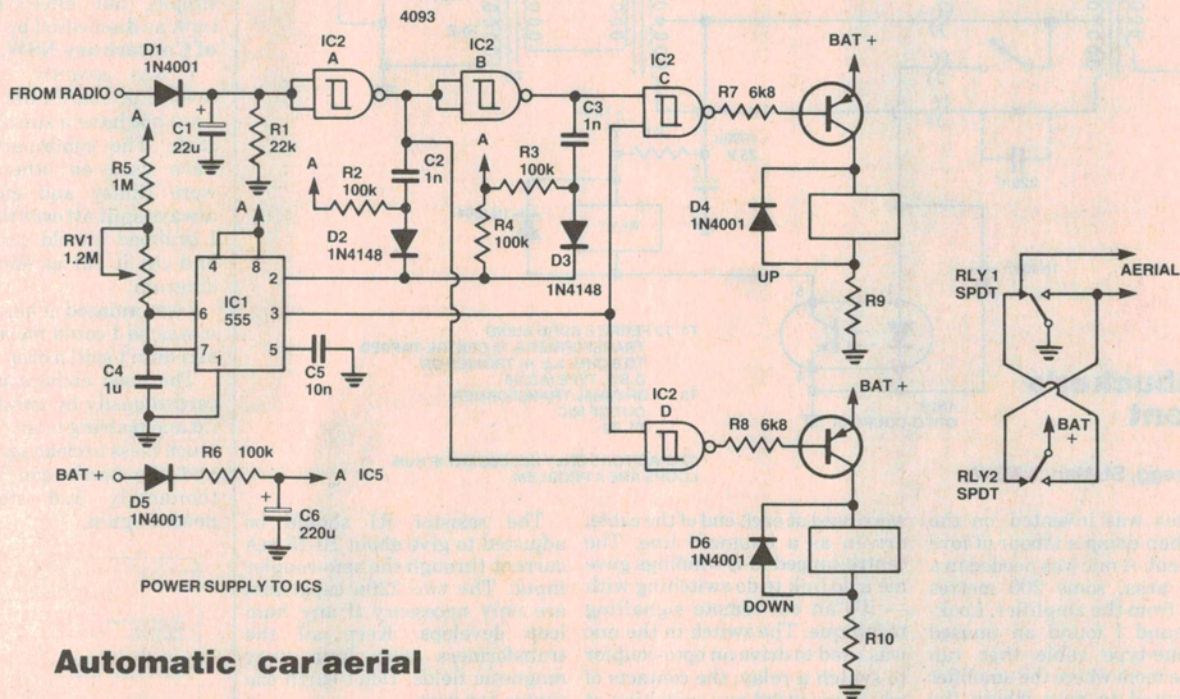


These pages are intended primarily as a source of ideas. As far as reasonably possible all material has been checked for feasibility, component availability etc, but the circuits have not necessarily been built and tested in our laboratory. Because of the nature of the information in this section we cannot enter into any correspondence about any of the circuits, nor can we produce constructional details.



Automatic car aerial

This circuit will impress your friends and deter those dastardly vandals who seem determined to make us drive around with bent coat-hangers for radio aerials, says **Steve Gagen of North Balwyn Victoria**.

Electric car aerials can be bought quite cheaply, but they require a switch to make the aerial go up and down. You don't always remember to retract the

aerial when leaving your car, and that's when the vandals strike.

The circuit takes its signal directly from the on/off switch of the car radio. When the radio is turned on, C1 rapidly charges up, and a negative going pulse from IC2a triggers the 555. The positive signal from the radio gates the 555 to the 'up' relay, turning it on for a time determined by R5,

RV1 and C4 (adjustable between 1.1 and 2.4 seconds).

When the radio is turned off, R1 and C1 allow about a five second delay before the aerial retracts. This stops the aerial going up and down as you operate the self starter which cuts power to all accessories in most cars.

The diode-resistor-capacitor network in the IC power supply is to remove transients which may cause false triggering. It should

be left connected to the battery at all times, and not wired through the ignition switch. Since the ICs will draw less than 10 mA, battery drain is insignificant. The rating of the relays should be at least 5 A, preferably 10 A, since electric car aerials start with a tremendous current surge.

R9 and R10 should be chosen to suit the relay. I have chosen the wiring for SPDT contacts, but DPST relays could also be used.