
LUCAS WORKSHOP INSTRUCTIONS

WINDSCREEN WIPER MODEL DR3**IMPROVED CIRCUIT BREAKER ASSEMBLY****Supplementary Information to Section J-7, Para. 1 and 4 (d) (i)**

The temperature-current operated circuit breaker has now been superseded in all 12-volt self-parking DR3 and self-switching DR3A* motors by a thermostatic circuit breaker in which the magnetic field between the armature and yoke of the motor is utilised to give a snap action to the contacts.

The two designs can each be identified, without dismantling the motor, by reference to the method adopted to secure the contact breaker assembly to the yoke. The earlier design was secured by a single rivet. The design now fitted is secured by two pointed tags.

Test Procedure (12-volt units only)

The test procedure given in SECTION J-7, para. 4(d) (i) for circuit breakers of the earlier design is inapplicable to later units which should be checked as follows :—

Connect the motor to a 12-volt supply and keep this voltage constant throughout the test.

Under stall current conditions, the circuit breaker contacts should open within 35 to 240 seconds of switching on.

Note : Special factory equipment is used in production for assembling the circuit breaker to the motor yoke. This component is therefore not normally regarded as suitable for individual replacement. However, if replacement of the complete motor is impractical, the circuit breaker may be removed from the yoke and resetting attempted as described below. In this event, care must be taken on reassembly to see that the circuit breaker is rigidly secured to the yoke.

Method of Setting

The circuit breaker cannot be reset in situ. Therefore remove it from the motor yoke and, with a suitable tool, bend the moving contact blade carrier (ribbed steel strip) at necked point, using the projections provided for this purpose.

Refit the circuit breaker to the yoke and retest as above.

*Model DR3 : Fitted with reversing motor. On turning multi-contact panel switch to 'Park', motor armature reverses rotation and special crank pin eccentric (frictionally connected to crank and able to turn through 180°) alters cross head travel, allowing striker on crank to open limit switch contacts and bring motor to rest with wiper blades parked off screen.

Model DR3A : Fitted with non-reversing motor with or without limit switch. If limit switch is fitted (with contacts wired in parallel with simple 'On-Off' panel switch and opening at end of each wiping stroke), then, on turning panel switch to 'Off', motor comes to rest with wiper blades at edge of screen. If limit switch is not fitted, then simple 'On-Off' panel switch must be turned to 'Off' at end of stroke.

