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Chapter 5

PROPELLER BRAKING CONTROL UNIT DE HAVILLAND, TYPE Q1094

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LEADING PARTICULARS

Propeller braking control unit, Type Q1094

Overall dimensions:

Height (including anti-vibration mountings)	4.19 in.
Depth	5.63 in.
Width	6.63 in.
Weight	3.0 lb.

Introduction

1. The braking control unit groups together all electrical components, not forming part of another assembly, which are concerned

with propeller braking, ground fine-pitch operation, and protection against ground-fine or braking-pitch in flight. Each individual control unit deals with one propeller only and can be removed independently.

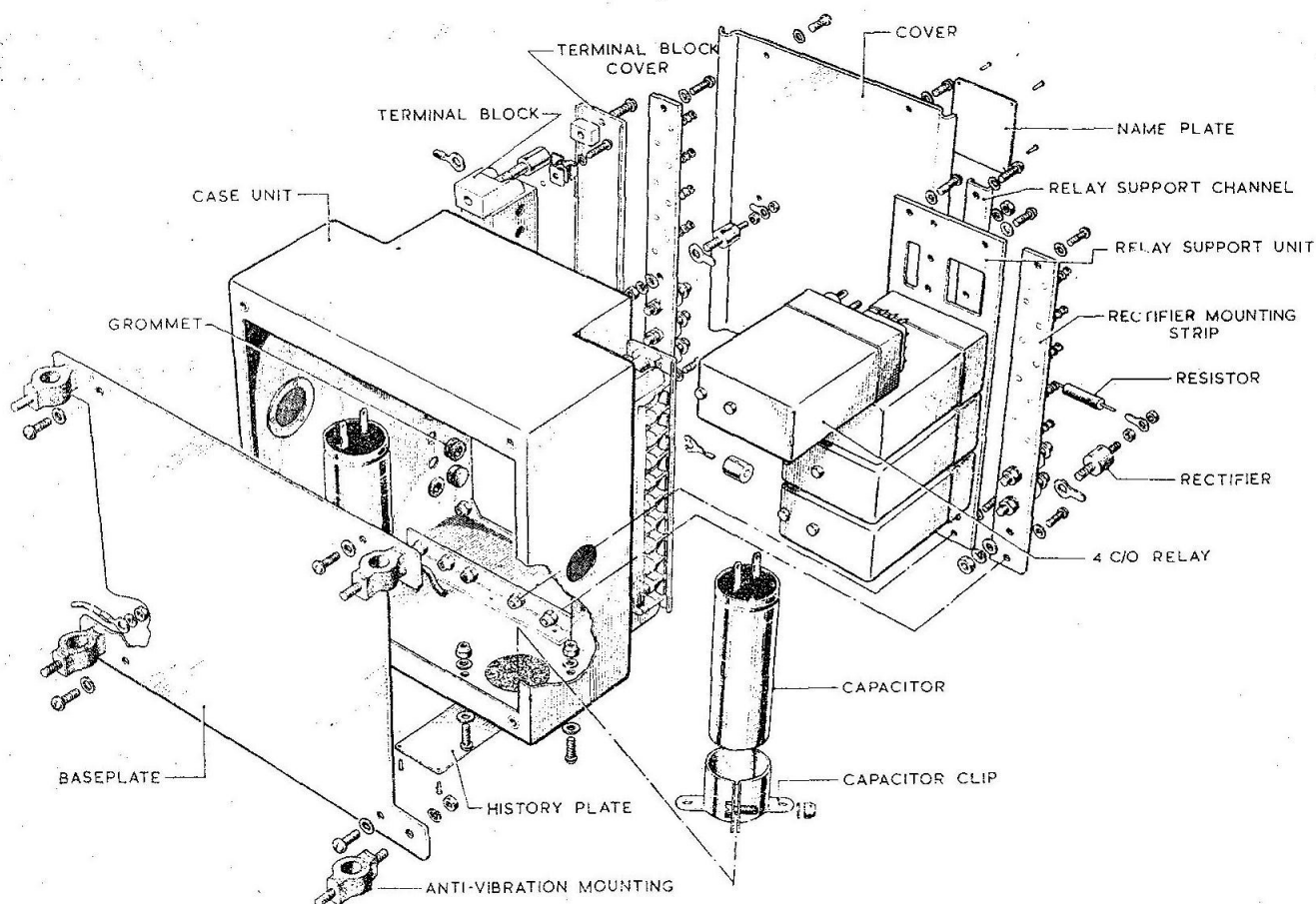


Fig. 1. Braking control unit (exploded view)

DESCRIPTION

2. The braking control unit (*fig. 1*) comprises the following main components: casing, terminal blocks, relay support and relays, rectifiers with mountings, capacitors, and internal wiring connections.

Casing

3. The casing consists of a case unit, a base plate, and a cover. The case unit manufactured from aluminium alloy is of square plan and carries a modification history plate on its front face; at its upper end it is recessed on each side to accommodate the terminal blocks, and at top and bottom a flange is formed to support the cover and base respectively. Two brackets are attached internally at front and rear to carry the relay support and the rectifier mounting strips; the front face has four drillings for the capacitor clip retaining bolts. Stiff clinch nuts are assembled to the case unit for the majority of screw attachments, and the case is drilled on its stepped sides for the passage of the back-wire leads. A ventilation aperture is provided on either side of the case unit and two insulating discs are cemented to the inside of the front face to avoid direct contact between capacitor-body and case unit.

4. The square aluminium alloy base plate has four corner lugs for the anti-vibration mountings and the plate has four additional corner drillings for the retaining screws.

5. The cover, constructed of aluminium alloy, is a flat oblong plate with two channels of semi-circular section along its longer sides. These channels mate with the lips of the terminal block covers and also give the plate added stiffness. The cover has six drillings for the attachment screws and bears the manufacturer's name plate, detailing the part number, serial number, and date.

Terminal blocks

6. Two 10-way quick-release terminal blocks are mounted externally on the stepped part of the case unit; each block is provided with a transparent cover as a protection against accidental electrical faults. The terminal blocks are of the single-row type, the permanent wire leads being led through drillings at the rear of the blocks and attached to the terminal screws by means of ring-tags. The spring-loaded quick-release connections are each identified by a metal coding label which forms part of the connection and is covered by a transparent P.V.C. sleeve.

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