

Chapter 2

ACTUATOR CONTROL BOX, DE HAVILLAND, TYPE Q1089

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LEADING PARTICULARS

Actuator control box, Type Q1089

Overall dimensions—

<i>Height</i>	9 $\frac{1}{8}$ in.
<i>Length</i>	8 $\frac{1}{8}$ in.
<i>Width</i>	7 $\frac{1}{8}$ in.
<i>Weight</i>	6 lb.

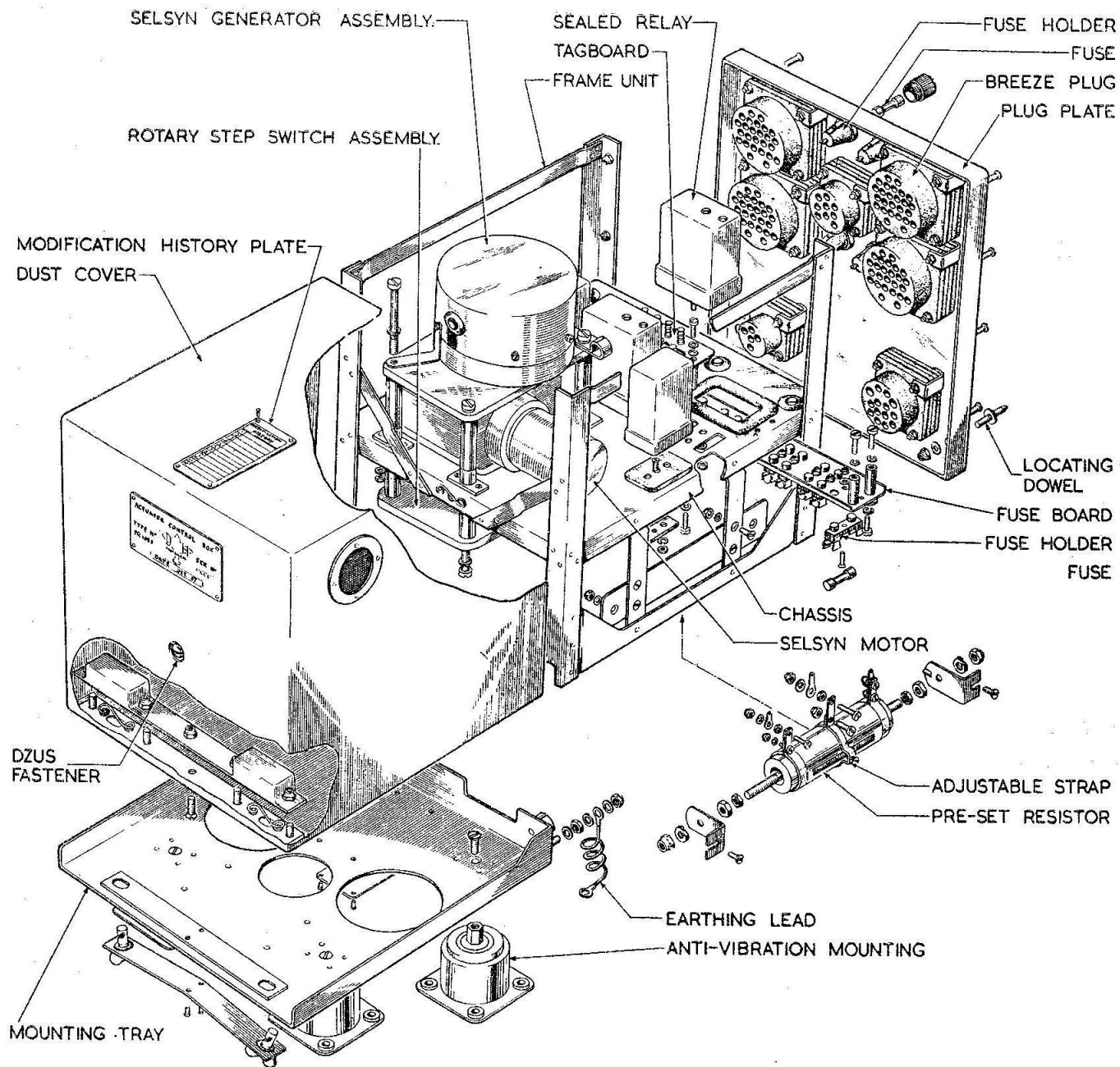


Fig. 1. Actuator control box

Introduction

1. The actuator control box, Type Q1089, is designed to work in conjunction with a synchronizing switch unit and four propeller control channels, to provide a steady signal drive to the magnetic amplifiers which in turn provide the necessary power to drive the actuator.

2. The actuator control box (fig. 1) consists of a Selsyn generator, driven by a motor with four speed-control resistors for pre-selection of the appropriate matching resistance; a motorized step switch unit which powers the

actuators for propeller r.p.m. control through a stand-by control system, with its own phase-reversal relay for reversing the output from the step switch; three relays common to all propellers, for collective alteration to r.p.m. and isolating normal control current when a master propeller is feathered; and six connecting plugs. The control box is mounted on a quick-release tray which in turn is mounted on the aircraft by four anti-vibration mountings; the whole unit is fitted with a dust cover. A theoretical circuit diagram is given in fig. 4.

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