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### Chapter 9

## PROTECTION UNIT, ROTAX, TYPE F 5402

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#### Introduction

1. The F5402 protection unit provides protection for the U3102 transformer rectifier unit against consequential damage of essential components resulting from a short or open circuit occurring due to breakdown of any one rectifier arm. The unit is contained in the U3102 T.R.U., which is used with a Type 154 generator (Rotax N0603) in an aircraft a.c. generating system.

#### DESCRIPTION

2. The unit comprises a rectangular chassis mounting base, to which are fitted three midget relays (RL6, RL7 and RL8), one relay N.106996/1 (RL5), one resistance unit

ZA6203 and one transformer P3602 (TR6); two sub mounting panels fitted to the chassis base support a time delay relay F.7002, and three potentiometers N.105775 (RV2, RV6 and RV13). A mounting bracket at one end of the unit also supports three metal rectifiers (MR5, MR6 and MR7), and in addition, a glass board panel; fitted to this panel are two capacitors (C10, C11) and three resistors (R6, R8 and R10).

3. The component parts are positioned as shown in fig. 1; the circuit diagram is given in fig. 2.

#### Operation

4. The rotor of the generator N0603 is

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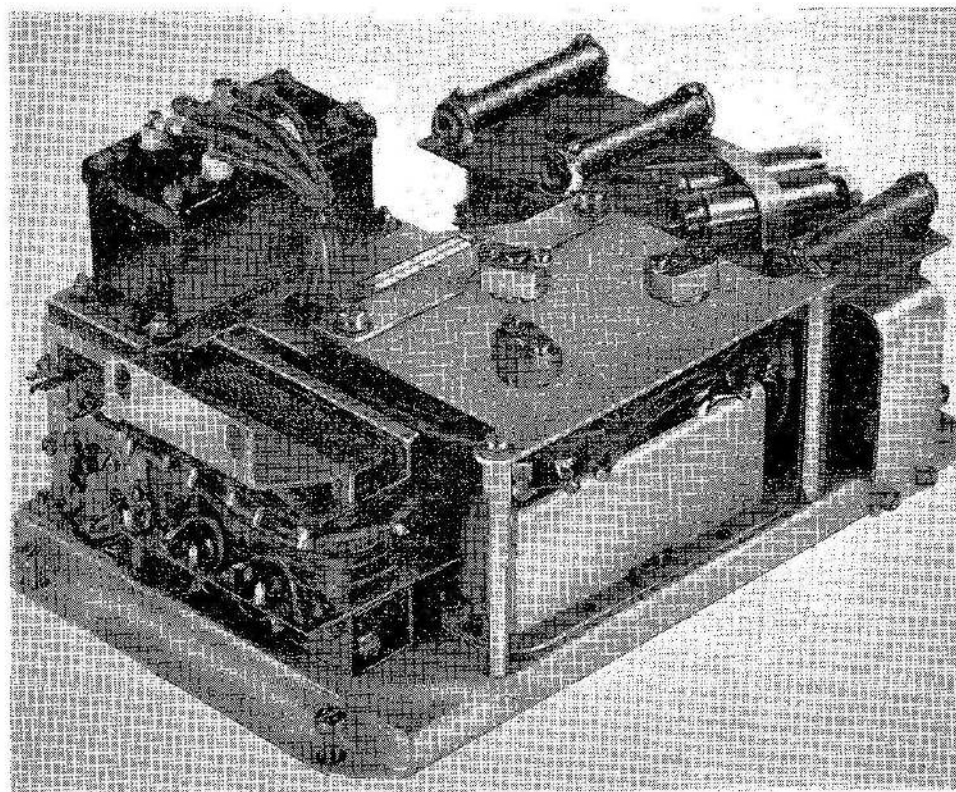
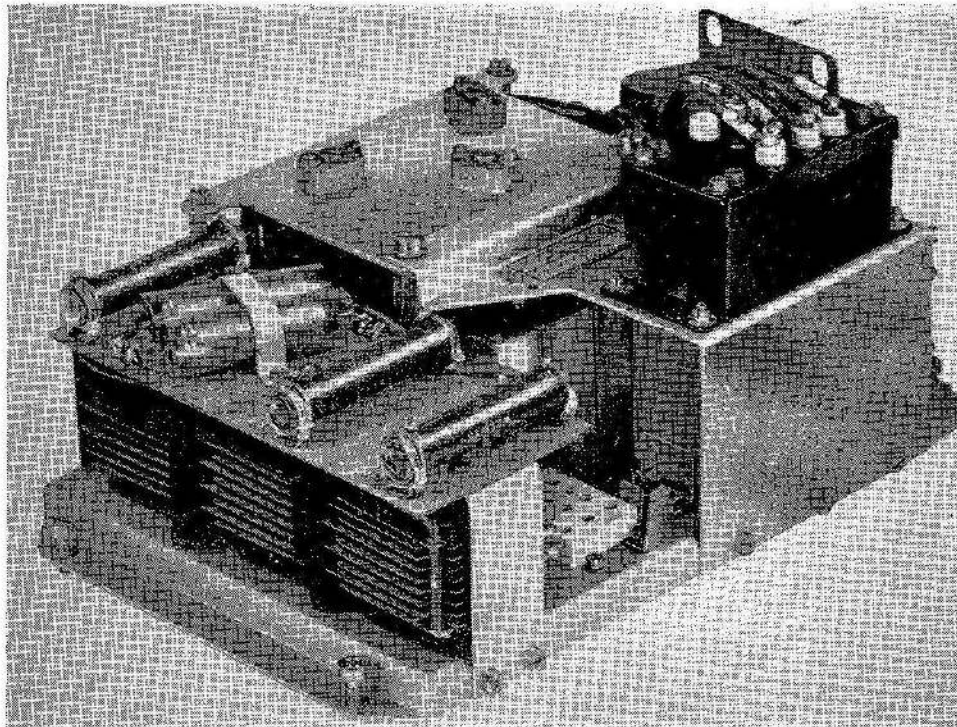


Fig. 1. Type F5402 protection unit

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