

Chapter 9

PROTECTION UNIT, ROTAX, TYPE F 5402

LIST OF CONTENTS

	Para.		Para.
<i>Introduction</i>	1	<i>M.V. rectifier protection circuit</i> ...	8
Description	2	<i>A.C. line to line protection</i> ...	9
<i>Operation</i>	4	Servicing	11
<i>L.V. rectifier protection circuit</i> ...	5	<i>Insulation resistance test</i> ...	12

LIST OF ILLUSTRATIONS

	Fig.
<i>Type F5402 protection unit</i>	1
<i>Diagram of internal connections</i>	2

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 midjet 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

RESTRICTED

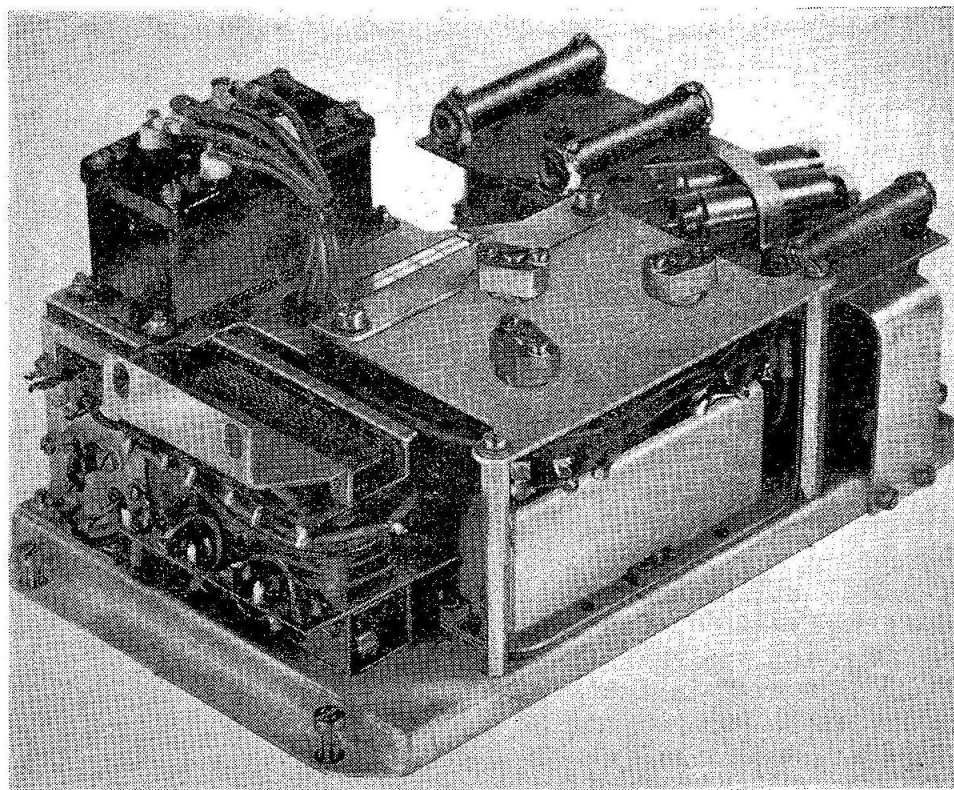
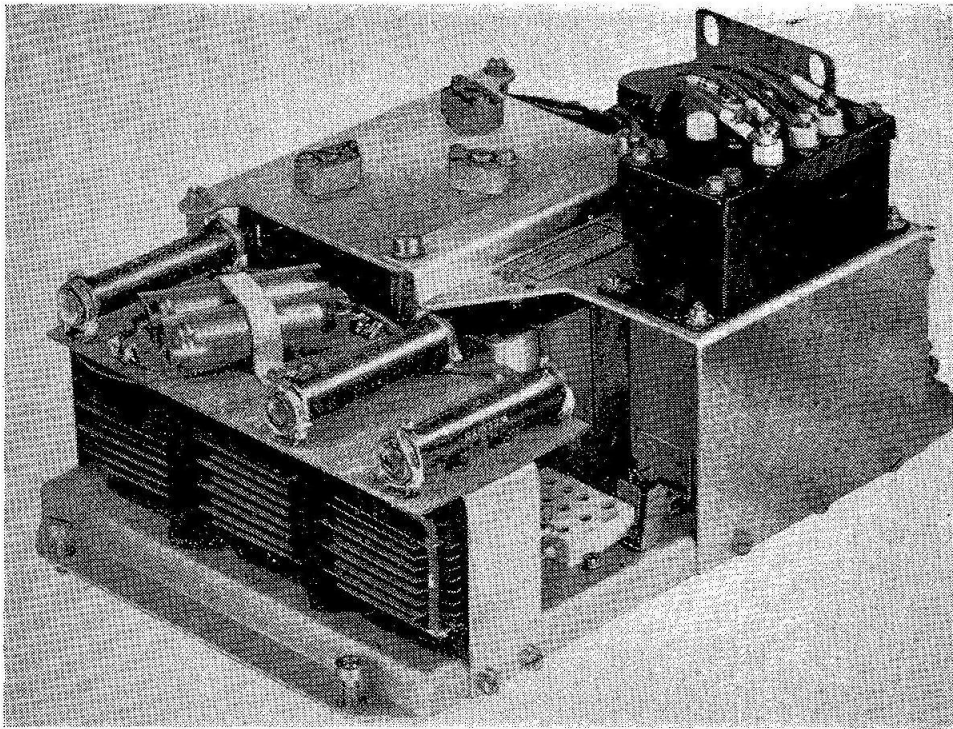


Fig. 1. Type F5402 protection unit

RESTRICTED