Chapter 4

A.R.I. 23126

LIST OF CONTENTS

LIST OF TABLES

LIST OF ILLUSTRATIONS

Introduction

1. The A.R.I.23126 is an H.F./M.F. communication receiver, Type AD118M. The receiver, intended for direct control only, is fitted at the signaller's station (fig.1). Normally the receiver is connected to the starboard fixed aerial, which can be earthed when the A.R.I.5874 is transmitting (Chap.3).

DESCRIPTION AND OPERATION

Receiver

2. The receiver is composed of a number of individual units mounted on one main chassis assembly and includes a crystal oven.

3. Three separate tuning scales are provided on the front panel of the receiver. Two scales are for use on the H.F. ranges and the third is for use on the L.F. ranges. The H.F. scales are in the form of perforated metal tapes which pass horizontally across the scale windows in tne receiver panel.

4. The L.F. scale is situated below the H.F. scales and is of the more orthodox dial type calibrated in the two L.F. ranges.

Controls

5. The functions of the various controls are clearly engraved on the front panel. Two 'CW' positions are provided on the system switch. The one nearest to the OFF position gives a bandwidth of 1 Kc/s, and is for use when reception is subject to interference. The second 'CW' position gives a bandwidth of 6 Kc/s for general reception.

Volume control

6. The L.F. gain control is preset to provide the standard output required to feed into I/C amplifier. Control of the

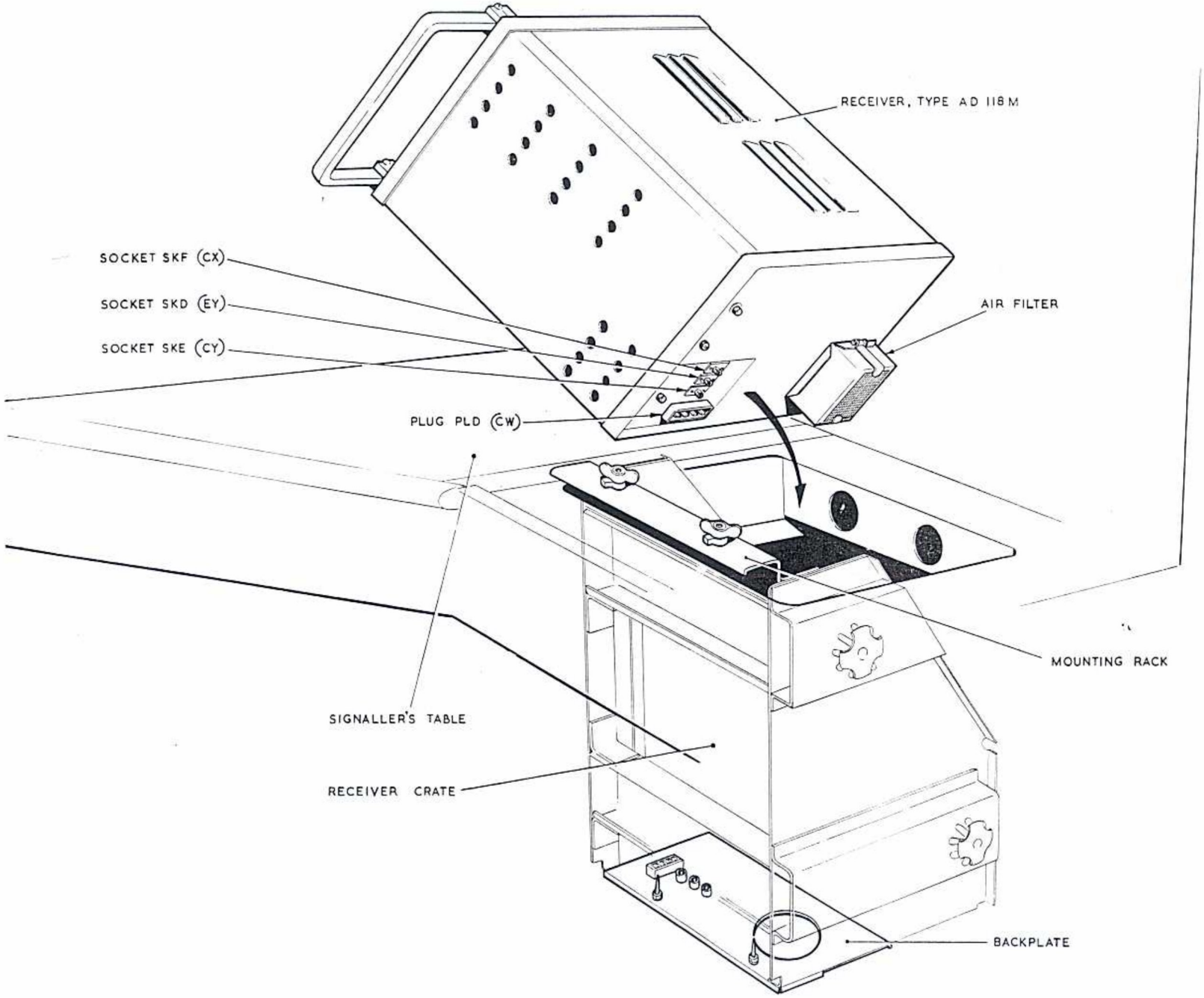

Fig.1 Location of equipment

L.F. output is then provided by the volume control on the I/C control units (Chap.2) Automatic gain control is provided by the RT switch position. At the CW position the volume level is adjusted by means of the H.F. control.

Aerial earthing relay

7. The aerial earthing relay is fitted to the forward face of bulkhead B (fig.2). Operation of a press-to-transmit switch energises the relay to earth the aerial being used by the AD118M receiver.

Power supplies

8. The 28-volt, d.c. supplies via fuse BT7 and a control switch are connected into the receiver by a plug at the rear of the receiver case. A small rotary transformer mounted within the receiver case provides the H.T. supply and also helps in cooling by means of a small fan fitted at one end of the shaft. Air is drawn into the receiver case via a detachable filter unit.

SERVICING

General

9. Routine ground tests should be applied at regular intervals. Examine the power plug and connector at the rear of the receiver for signs of damage and corrosion.

Air filter

10. At regular intervals remove the air filter from the receiver cover by releasing the spring clips at each side and if necessary clean by tapping firmly with its intake side downwards. If dust accumulation is exessive clean by blowing with compressed air into the side opposite the air intake.

Fault finding procedure

11. Full details for fault finding procedure will be found in the publication listed in Table 1.

REMOVAL AND INSTALLATION

General

12. Before attempting to release connectors prior to removal of the receiver the precautions and general instructions outlined in Chapter 1 of this section should be noted.

13. Removal of the receiver is quite straightforward and therefore does not require any special instructions. Care should be taken not to damage the plug and socket connectors at the rear of the unit

TABLE 1

Major items of equipment

Equipment	Type	A.P. Reference
Communication receiver	AD.118M	◀ A.P.116D-0902-16 ▶
Aerial earthing relay	T.6140 (H.S.A.)	-

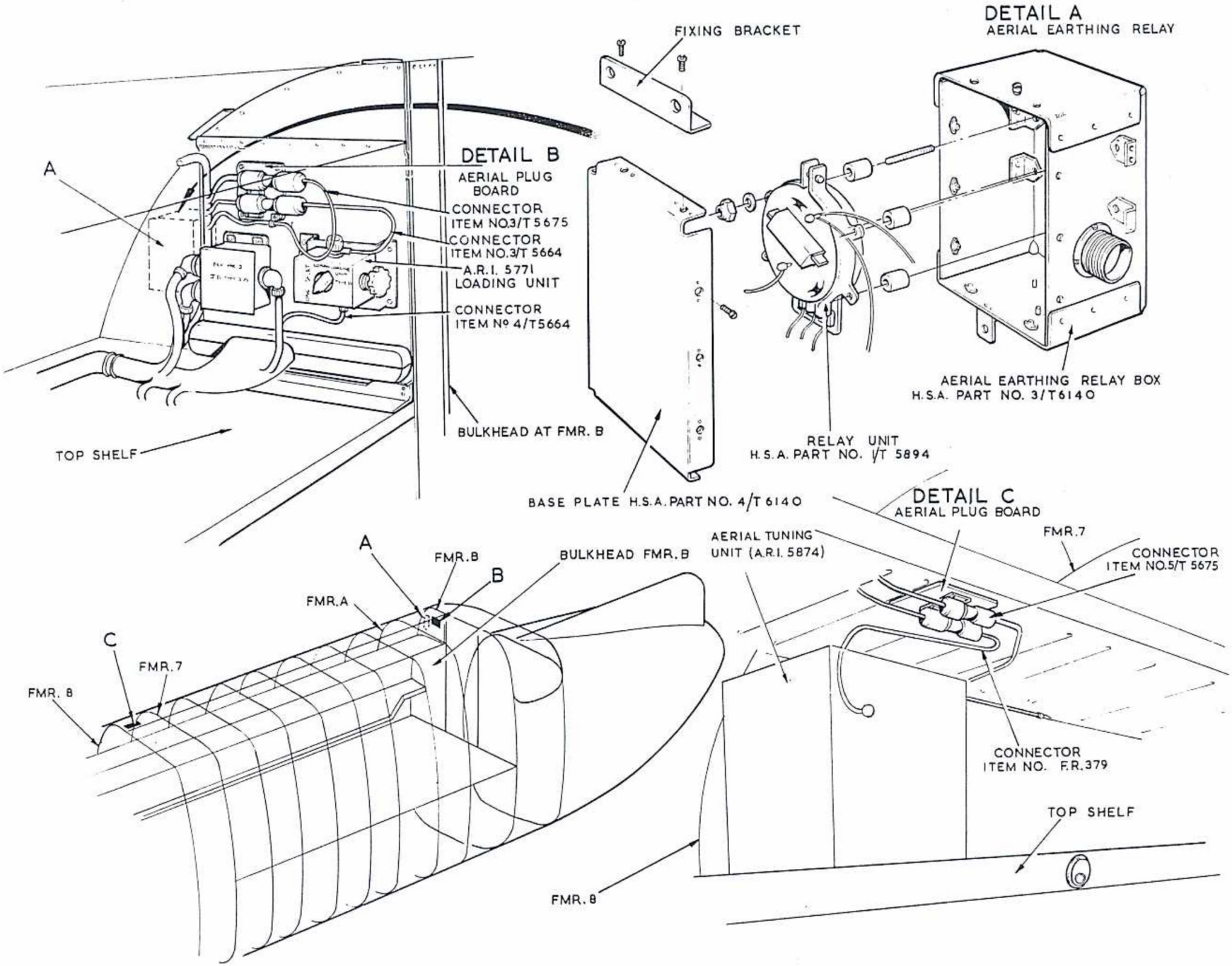

Fig. 2 Plug boards and earthing relay

TABLE 2

Connectors for A.R.I.23126

Item	Cable Form	Connecting
2/T5675	Uninyvin 22 (3)	◀ Supply switch to receiver-plug CW and earth point 36 ▶
3/T5675	Uniradio 43	Aerial plug board signaller's station to receiver (plug CX)
4/T5675	Uniradio 43	T.B.478 and T.B.711 to receiver (plug EY)
5/T5675	Uniradio 67	Aerial earthing relay to aerial plug board (sonics station)
6/T5675	Uniradio 67	Aerial earthing relay to aerial plug board (signallers station)

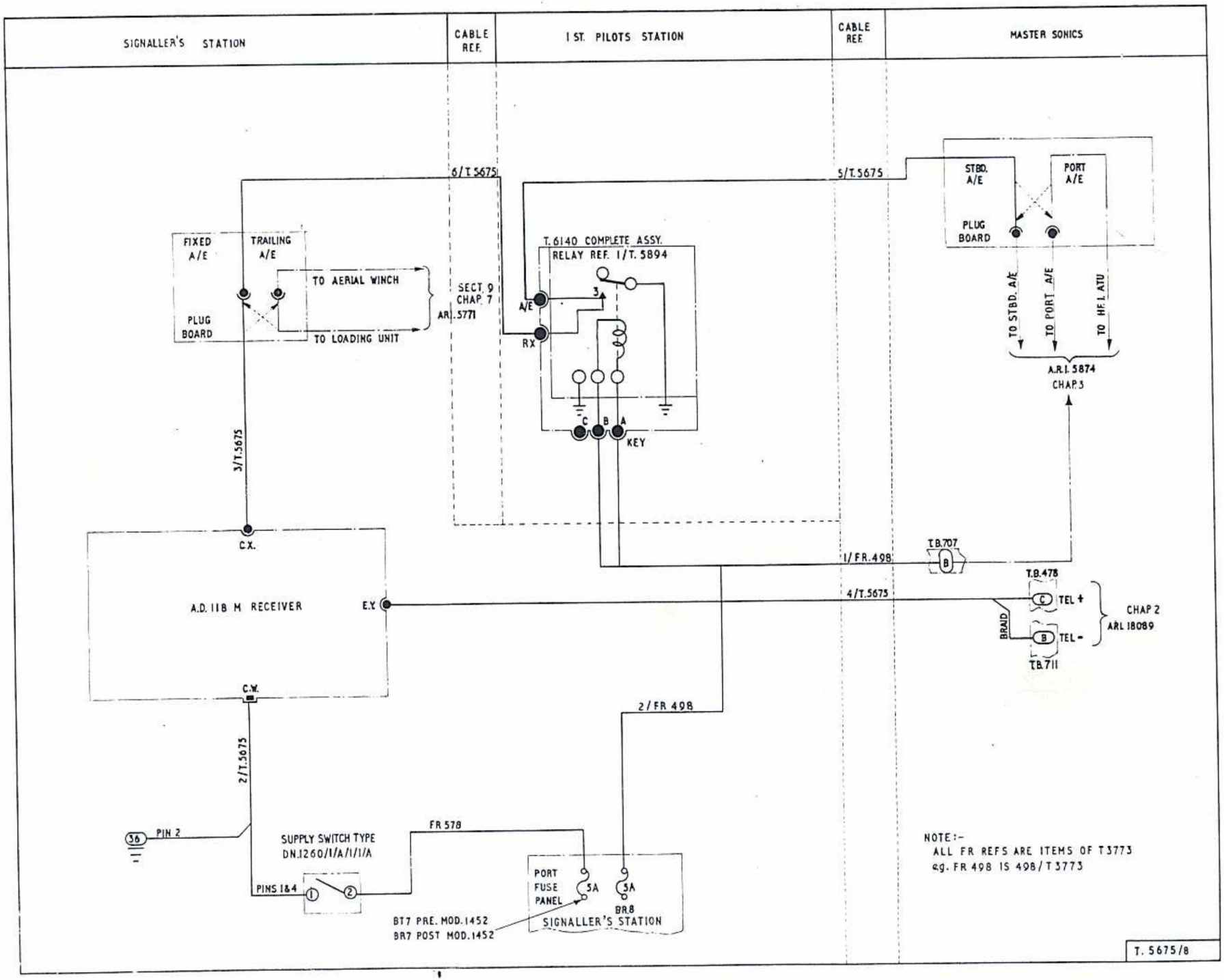

Fig. 3 A.R.I. 23126
◄ Mod. 1452 ►