

Group C A.1961 (INTERCOM.) INSTALLATION

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Introduction

1. This group describes the installation of the A.1961 intercommunication system. The equipment operates in conjunction with the V.H.F. equipment described in Group A, the mic.-tel. services being common to both installations. Brief notes on the operation of the system as well as notes on the servicing that can be done in situ and instructions for the removal and refitting of the main units are included in this group. Full details of the amplifier and associated equipment are given in A.P. 2876E, Vol. 1. Fig. 1 shows the location of the intercom. units and switches, and fig. 2 is a wiring diagram showing the interconnections between units, relays, switches etc.

DESCRIPTION

2. A.1961 intercom. system is designed to provide a means of inter-

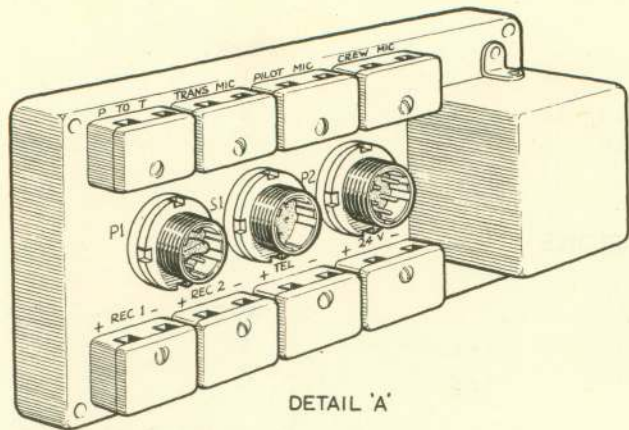
communication between crew members. It consists of an amplifier, Type A.1961, and a junction box, Type 154, together with the necessary mic.-tel. sockets and switching arrangements. The amplifier is a three valve audio amplifier operating directly from the aircraft's 24 volt supply. A motor generator incorporated in the unit supplies 260 volts H.T. for the valve anodes.

3. Two switches, labelled INTERCOM., ON/OFF and NORMAL/EMERGENCY on panel A on the starboard side of the cabin control the 24v. supply and the normal/emergency operation of the intercom. system respectively. In the NORMAL position of the NORMAL/EMERGENCY switch the amplifier, Type A.1961, is used for intercom. In the EMERGENCY position the pilot's and observer's mic.-tel. services are

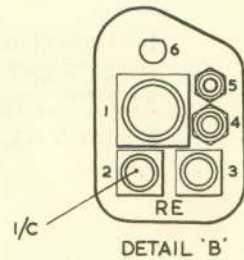
connected to the V.H.F. transmitter-receiver in use and the audio frequency stages of that set are used for intercom. purposes.

4. An external intercom. point is provided for the use of ground personnel during engine running, servicing etc. The connecting plug is located on the underside of the port outer wing near the leading edge. A spring-loaded flap covers the plug when not in use.

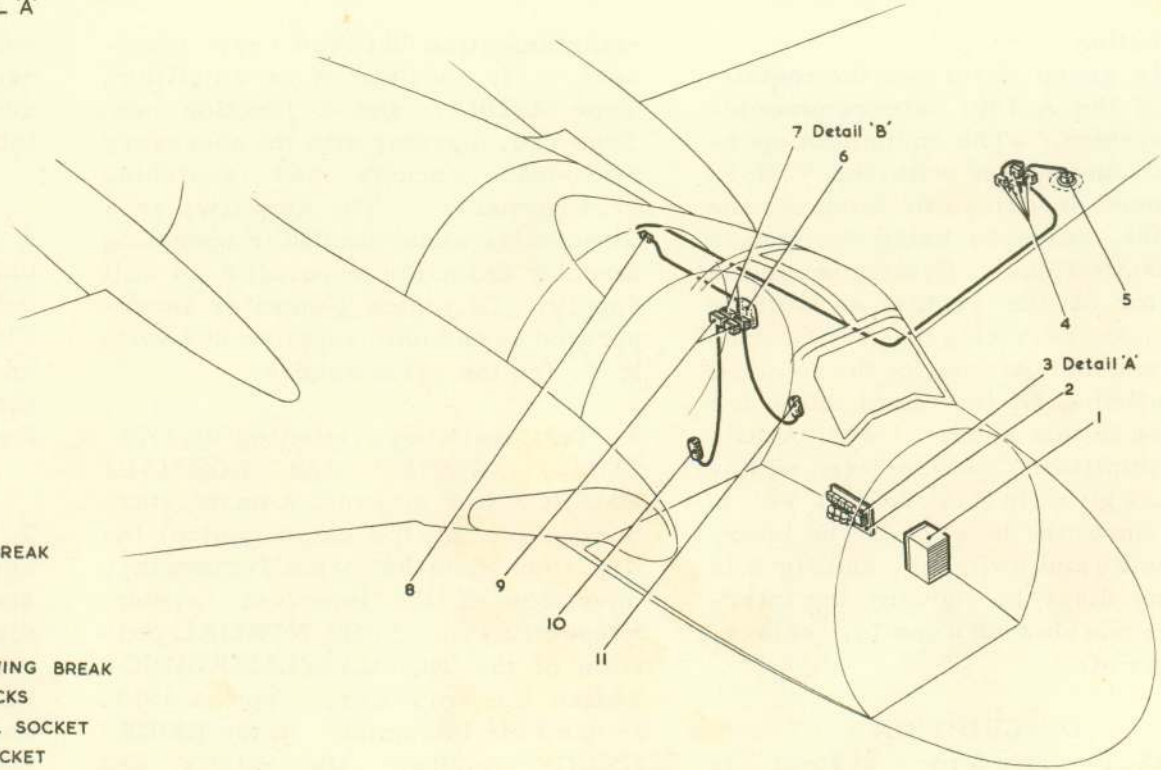
5. Mic.-tel. sockets for the observer and pilot are located on the left shoulder strap of their respective ejection seat harness. The seat sockets are connected to the aircraft mic.-tel. system via a further plug and socket connection on the seat gun and terminal blocks on fuse box C at the rear of the pilot's seat.



DETAIL 'A'



DETAIL 'B'

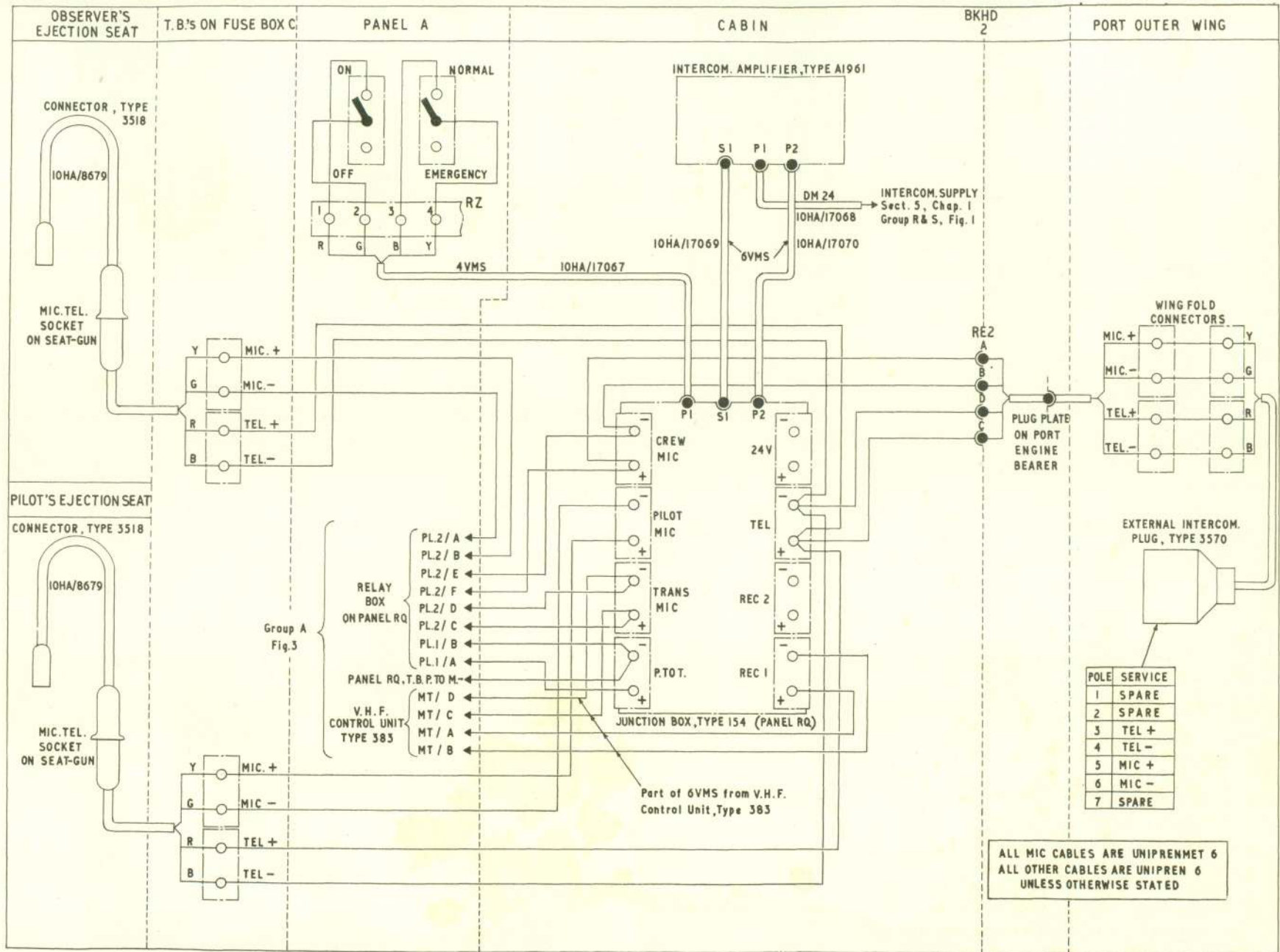


- 1 INTERCOM AMPLIFIER, TYPE A, 1961
- 2 PANEL 'RQ'
- 3 JUNCTION BOX, TYPE 154
- 4 WINGFOLD INTERCOM CONNECTOR BREAK
- 5 EXTERNAL INTERCOM PLUG
- 6 SEALING PLATE 'RE'
- 7 PILOT'S MIC/TEL TERMINAL BLOCKS
- 8 EXTERNAL INTERCOM CONNECTOR WING BREAK
- 9 OBSERVER'S MIC/TEL TERMINAL BLOCKS
- 10 OBSERVER'S EJECTOR SEAT MIC/TEL SOCKET
- 11 PILOT'S EJECTOR SEAT MIC/TEL SOCKET

Fig. 1 A.1961 (Intercom.) installation

RESTRICTED

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POLE	SERVICE
1	SPARE
2	SPARE
3	TEL +
4	TEL -
5	MIC +
6	MIC -
7	SPARE

ALL MIC CABLES ARE UNIPRENMET 6
ALL OTHER CABLES ARE UNIPREN 6
UNLESS OTHERWISE STATED

Fig. 2 A.1961 (Intercom.) wiring

RESTRICTED

6. The amplifier, Type A.1961, is located between the pilot's rudder pedals immediately forward of the control column. It is secured in an anti-vibration mounting tray bolted to the false floor. The connectors are routed under the pilot's right heel rest and aft under panel AF, over the nose wheel tunnel. Panel RQ which includes the junction box, Type 154, and the press-to-transmit relay box, is at floor level on the port side of the cabin below the pilot's seat.

SERVICING

7. Servicing in situ of the intercom. installation is confined to a check of the wiring and units for security and damage. The amplifier should be securely attached to its mounting tray with the knurled locknut screwed firmly home. The connecting plugs and sockets at the amplifier and junction box should be examined for signs of corrosion or damage and the locking rings should be checked tightened. The amplifier mounting tray should be checked for the condition of the anti-

vibration mountings ensuring that the unit does not foul adjacent structure under normal vibration. The terminal block connections on the junction box, Type 154, should be examined for security and signs of fraying and damage.

8. The external intercom. point should be inspected for damage and cleanliness, and the mic. -tel. sockets on the shoulder straps of the ejection seats should also be checked for security and cleanliness and for traces of moisture. The plug and socket connections on the seat gun structure should be similarly inspected ensuring that they are firmly mated with the 'click' ring inside the rim of the plug in position.

WARNING

When the mic. -tel. sockets on the ejection seats are being serviced. care should be taken not to disturb the ejection seat firing mechanism.

REMOVAL AND INSTALLATION

9. To remove the amplifier, Type A.

1961, first unscrew the six 2 B.A. mush/hd. screws securing the cover over the front face of the unit. Disconnect the three plug and socket connections and loosen the lock-nut at the base of the unit, releasing the carrying handle. The unit can now be withdrawn from its mounting. When refitting, ensure that the carrying handle is secured under the latch-piece before tightening the lock-nut.

10. Before removing the junction box, Type 154, it will be necessary to remove the pilot's ejection seat. Removal of the ejection seats is described in A.P.4288, Vol.1. When this has been done, unscrew the three connecting plugs and sockets and disconnect all leads from the terminal blocks ensuring that the leads are adequately identified to avoid confusion when re-connection. Unscrew the four 2 B.A. rd/hd. bolts securing the junction box to the support bracket and remove the unit. Reverse the procedure when refitting ensuring that all terminal block connections are correctly made.

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