COMMON AERIAL OUTFIT EAL

EAL

SUMMARY OF DATA

PURPOSE

Common Aerial Outfit EAL enables six or more H.F. and M.F. receivers to be worked from a common wire or whip aerial over the frequency range 15 kHz to 30 MHz. The associated receiver outfits are CAY (B40, AP 57140C/D) and CAZ (B41, AP 57141A/B/C).

BRIEF DESCRIPTION

The Outfit is an integral part of a system of Common Aerial Working (C.A.W.) designed to give all-round coverage by the use of a single wire aerial for L.F./M.F. and two suitably sited whip aerials for H.F. R.I.S. filters (Item 1) are fitted in the downleads which terminate at junction boxes (Item 5) on an aerial exchange panel in the B.W.O. This panel carries the majority of the units comprising EAL, including a cross-over filter (Item 4) which provides L.F./M.F. and H.F. outputs simultaneously from one whip aerial. Two L.F./M.F. feeder lines, one from the wire aerial, the other from the low pass output of the cross-over filter, are provided for the Receiver Outfits CAZ and a further two feeders carrying H.F. signals from the two whip aerials connect to the Receiver Outfits CAY. All receiver outfits incorporate a three-way aerial selector switch and receivers of the same type are series connected. Two positions of the switch select one or other of the associated feeders, the third position is operative in the main wireless offices only and connects to a test line. This line is used for routine checking, the test signal coming from CT 82 Noise Generators installed in the offices for this purpose.

Interconnections on the aerial exchange panel are made by flexible connectors (Items 2 and 7) are through-terminate switch units (Item 3) are fitted in each line. These switches enable signals to be passed to subsequent offices or terminate the line by means of resistors (Item 6) thus isolating part of the chain for fault-finding purposes. They also permit emergency connections in the event of breakdown.

Common Aerial Outfit EAL also provides two emergency whip aerial positions, the aerial rods being stowed in the office until required.

MAJOR UNITS

Item	Pattern No.	Description	Quantity	
			Cruisers and above	Destroyers Frigates etc.
1	56152	Filter Unit, H.F., Design 12	5	5
2	62124	Connector, flexible, 12 in long, with two AP 62150 plugs	9	3
3	62126	Switch Unit, Design 75	8	4
4	62127	Filter Unit, Design 62, cross-over, 640 kHz	2	1
5	62128	Box, Junction, screened, single way for AP 13845 cable	37	22
6	62129	Resistor Unit, terminating	9	6
7	62147	Connector, flexible, 21 in long, with two AP 62150 plugs	2	2
8	63210	Connector, flexible, screened, 12 in long, with plug AP 62150 and plug 10H/181	10	10
9	64143	Connector, flexible, 4 ft long	2	1

In addition, two Emergency Aerials (Whip) comprising AP 66065 Base, insulating; AP 64031, Base for Aerial Rod; AP 68601/4/5/6/7/8, Aerial Rods and AP 23681A, Box, junction, are supplied with Outfit EAL. The aerial rods will be superseded by improved Patts. 64794/7/8/9 and 64895/6.

NOTE: For Aircraft Carriers, the quantities are increased above those for cruisers etc. in some cases.

Weights: The approximate weight of the items of office equipment associated with Outfit EAL are:-

Cruisers and above	60 lb
Destroyers and Frigates	40 lb

The weight of an emergency aerial is 22½ lb.

ASSOCIATED AERIALS

(a) Aerial Outfit AWN (Whip).
(b) Main Wire Aerial with Deck Insulator, Group OA.

HANDBOOK

BR 1615

ESTABLISHMENT LIST

E 1110

INSTALLATION SPECIFICATION

B 793.