

RESTRICTEDBR 333(1)
Original**COMMON AERIAL OUTFIT EAM****EAM****SUMMARY OF DATA****PURPOSE**

Common Aerial Outfit EAM enables up to nine HF transmitters to work into any one of three aeri-als over the frequency range 2. to 24 MHz. The outfit is only fitted in cruisers.

BRIEF DESCRIPTION

The Outfit comprises equipment to provide a system of HF transmitter common aerial working in cruisers. It consists of a specially designed aerial system and the ancillary equipment for up to nine transmitters of the Type 601-5 series to work into it. The transmitters are standard, although in the LTR they are housed in special "half size" cabinets. R.F. outputs from the transmitters are routed through transmission lines to filter cabinets (one filter cabinet per transmitter). The filter cabinets are the main units in this common aerial, the r.f. current passing through them is measured, switched and filtered, the line impedance (65 ohms) being maintained throughout. The switching ensures that the output is routed to the filter and aerial corresponding to the transmitted frequency. The output current is passed out of the filter to the common line and aerial via special busbars situated at the rear of the filter cabinets. The aeri-als are as follows:

Aerial	Description	Frequency
A1	Functions as a shunt-fed folded monopole with the main mast as the earthed element	2-4.5 MHz
A2	Functions as a shunt-fed folded monopole with the funnel as the earthed element	4.5-17.5 MHz
A3	Specially designed dipole mounted on the main mast.	17.5-24 MHz

Emergency arrangements include dual feeders port and starboard, from each busbar to each aerial for substitution in emergency. Two whip aeri-als are provided for emergency use, one with Type 602 HF portion in the UTR and the other with any of the transmitters in the LTR. These aeri-als are not normally rigged, but this can be done quickly as the bases and feeders are already installed.

MAJOR UNITS

Item	Pattern	Description	Qty.	Physical Data			
				Height	Width	Depth	Weight lb
1	63354	Cabinet, design 108	10	6' 8"	1' 8"	2' 4"	420
2	63355	Cabinet, design 109	1 [*]	2' 6"	1' 10"	3'	280
3	63356	Cabinet, design 110	1 ^δ	2' 6"	1' 10"	3'	265
4	63357	Cabinet, design 111	1 ^λ	2' 6"	1' 10"	3'	305
5	63358	Aerial-switch drawer	10	2' 4"	1' 6"	1' 3"	98
6	63359	Filter Drawer 17.5-24 MHz	10	2' 3"	1' 5"	1'	63
7	63360	Filter Drawer, design 2	10	2' 1"	1' 4"	1'	70
8	63361	Filter Drawer, design 3	10	2'	1' 2"	1' 4"	82
9	63362	RF Wattmeter-drawer	10	1' 6"	1' 11"	8"	53
10	63363	Storage Drawer	1	2' 4"	1' 2"	9"	28 ¹ / ₂
11	64182	Aerial-matching transformer	1	1' 10 ³ / ₄ "	1' 4 ¹ / ₄ "	1' 11 ¹ / ₂ "	74 ¹ / ₂
12	64183	Aerial-matching transformer design 2	1	1' 10 ³ / ₄ "	1' 4 ¹ / ₄ "	1' 11 ¹ / ₂ "	75
13	64184	Aerial-matching transformer design 3	1	1' 8 ¹ / ₂ "	1' 5"	10 ¹ / ₄ "	60
14	64185	Dipole-unit design 83	2	8'	3' 2"	1' 11"	49
15	64886	Box junction	6	9 ⁵ / ₈ "	5 ¹ / ₂ "	8 ⁵ / ₈ "	11 ³ / ₄
16	64888	Aerial Bus Bar Assembly	3	8'	8"	10"	15

* One Item 2 is supplied for each associated Type 603(2)

δ One Item 3 is supplied for each 2 (or part of 2) associated Types 601(2)

λ One Item 4 is supplied for each associated Type 601(2).

In addition, two Whip Aerial Outfits (Emergency) for Common Aerial Outfit EAM, comprising AP 66065 Base, Insulating; AP 63041 Base for Aerial Rod; AP 64794/7/8/9 and AP 64895/6 Aerial Rods; AP 70936 Coaxial Socket, are supplied with Outfit EAM. The weight of the emergency aerial is 22¹/₂ lb.

HANDBOOK

BR 1380

ESTABLISHMENT LIST

E 1121

INSTALLATION SPECIFICATION

B 814

RESTRICTED