

**TYPE 1002**

**1002**

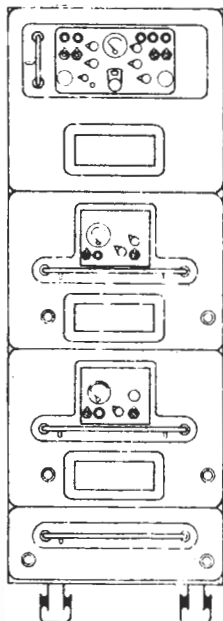
SUMMARY OF DATA

**PURPOSE**

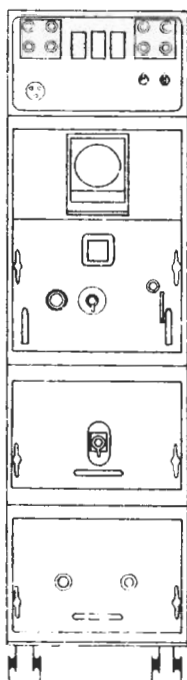
Type 1002 is a submarine radar designed to give combined surface and air warning, together with an accurate ranging facility.

**BRIEF DESCRIPTION**

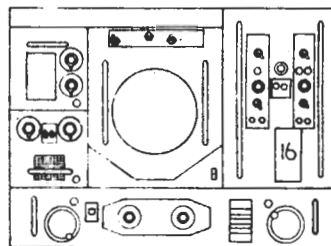
The Type 1002 consists of the three major equipments illustrated, together with Aerial Outfit AKS(2) and Aerial Outfit AKU(3). Either aerial may be connected to one of the transmitters in Panel 77A at any one time. Sector Selection is available with the WC aerial, AKU(3). There is a PPI display (Display Outfit JP3) in the Radar Office for use primarily with the warning combined aerial, AKU(3). There is also an A-scan display (Display Outfit JT1) for use with the ranging aerial, AKS(2).



TRANSMITTER RECEIVER  
RADAR 77A



DISPLAY OUTFIT JT1



DISPLAY OUTFIT JP3

**ELECTRICAL CHARACTERISTICS**

- Transmitter Frequency : 9650 MHz  $\pm$  50 MHz
- Power Output : 30 kW nominal
- Pulse Repetition Frequency : 400-500 Hz  
or  
2000-2500
- Pulse Duration : 1  $\mu$ s or 0.2  $\mu$ s
- Intermediate Frequency : 30 MHz
- Receiver Bandwidth : 2 MHz at -3dB (Narrow)  
8 MHz at -3 dB (Wide)

**MAJOR UNITS**

<u>AP No.</u>	<u>Description</u>
AP 63215 or 5840-AP 173243	Transmitter—Receiver, 77A , 77A/A
AP 62167 or 5840-AP 173244	Cabinet Assembly Design 62, Control
AP 62172 or 5840-AP 173245	Cabinet Assembly Design 63, RF
AP 62181 or 5840-AP 173246	Cabinet Assembly Design 64, Rectifier
AP 61364 Display or 5840-AP 173251	Cabinet Assembly Design 28
AP 61360 Range Calibrating	Cabinet Assembly Design 27
AP 61327 Rectifying or 5840-AP 173250	Cabinet Assembly Design 26
5840-AP 173040 or AP 173123* or AP 173253	Cabinet Indicator
5840-AP 173042 or AP 173120	Generator Sweep
5840-AP 172291 or AP 173122	Mixer Unit
5840- AP 173041 or AP 173121	Indicator Plan Position
5840-AP 173044	Range and Bearing Unit
5840-AP 173045 or AP 173254	Cabinet Control Power Supply
5840-AP 173046	Power Supply
5840-AP 204150	Servo Amplifier Mark 4 AC

**PHYSICAL DATA**

	Height	Width	Depth	Weight
Panel 77A, 77A/A	158 cm (62.5 in.)	57 cm (22.5 in.)	61 cm (24 in.)	408 Kg (900 lb)
Panel JT1	162.5 cm (64 in.)	47 cm (18.5 in.)	61 cm (24 in.)	317.5 Kg (700 lb)
Panel JP3	68.6 cm (27 in.)	86.4 cm (34 in.)	66.0 cm (26 in.)	239 Kg (527 lb)

**POWER REQUIREMENTS**

180 V 500 Hz or 200 V 400 Hz	Type 77A, JT1, JP3
230 V 50 Hz or 115 V 60 Hz	Fan motor
115 V 400 Hz, 1 phase	Magslip
115 V 60 Hz three phase	Aerial Motor
220 V dc or 115 V 60 Hz 24 V dc	Anti-condensation heaters

**POWER SUPPLY OUTFITS**

Porpoise Class, Outfit DUL  
'T' Class Conversions, Outfit DXF

**ASSOCIATED DISPLAY OUTFITS**

JT1 and JP3

**ASSOCIATED AERIAL OUTFITS**

AKU(3) and AKS(2)

**HANDBOOK**

BR 2945

**ESTABLISHMENT LIST**

E 1133

**INSTALLATION SPECIFICATION**

B821