

**TYPE 1006 AND AERIAL OUTFITS
AKU, AZJ, AZK**

1006

SUMMARY OF DATA

PURPOSE

Radar Type 1006 is used in HM ships and submarines to provide range and bearing information for navigation, pilotage and surface surveillance purposes.

BRIEF DESCRIPTION

Each equipment consists of a transmitter unit, a primary power supply unit, a display unit and a scanner unit (Aerial Outfit). Various combinations of equipment and outfit versions are used to fulfil a specific application. The equipment operates on X-band frequencies, 9445 MHz for surface vessels and 9650 MHz for submarines with nine selectable ranges on the display unit between 0.5 and 64 miles or 0.5 and 96 miles, depending on the version of display outfit in use. Range calibration may be in data miles (1 mile = 2000 yds) or nautical miles (1 mile = 2026.6 yds). Some of the aerial outfits available are fitted with certain specially selected components and materials which permit operation at higher temperatures than those recommended for standard outfits. The scanner unit is installed in a position exposed to the weather conditions, the other units of the system are in a protected position. In submarines the transmitter, display unit and primary power supply unit are used in conjunction with Aerial Outfits AKU(2), (3) and (4). Surface vessels use Aerial Outfits AZJ(1), (2), (3) or (4) or AZK(1) or (2). Provision is made for the transmitter to operate with Display Outfits JHA series, JP series and JQ. Display Outfit JUD can be used independent of the transmitter unit, to present information from other radar sources.

TRANSMISSION CHARACTERISTICS

Frequency	9445 MHz + 15 MHz -30 MHz for surface role 9650 MHz ± 30 MHz for submarine role
Power output	25 kW (peak)
Pulse lengths	0.08 μs - short pulse 0.25 μs - medium pulse 0.75 μs - long pulse
Pulse repetition frequency (prf)	Low prf 800 Hz High prf 1600 Hz

RECEPTION CHARACTERISTICS

Linear and logarithmic Intermediate Frequency:-	60 MHz
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MAJOR UNITS

<u>NSN</u>	<u>Description</u>
5840-99-523-6693	Transmitter Unit (Surface)
5840-99-523-6692	Transmitter Unit (Submarine)
5840-99-523-6695	
or 5840-99-527-7925	Display Outfit JUD
5840-99-523-6694	Power Unit
5840-99-531-1103	Display Outfit JUD

ASSOCIATED AERIALS

<u>Physical Data</u>	
Outfit AZJ (1)(2)(3)(4)	228.6 cm (7 ft 6 in.)
Outfit AZK (1)(2)	304.8 cm (10 ft)
Outfit AKU (2)(3)(4)	

ASSOCIATED DISPLAYS

Outfit JUD (1)(2)(3)
Outfits JUA series, JP series and JQ

BR 333(1)
Original

RESTRICTED

POWER REQUIREMENTS

115 V or 440 V three phase 60 Hz or 220 V dc. Ship Supply
440 V three phase 60 Hz. Aerial Unit.

HANDBOOK

BR 4200

ESTABLISHMENT LIST

S1663 and S1905

INSTALLATION SPECIFICATION

B 1171 and B 3042