

**DISPLAY OUTFIT JUC(3)**

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**SUMMARY OF DATA**

**PURPOSE AND FITTING**

A 9 inch non watertight, P.P.I. display (Indicator, Azimuth/Range) for use with lightweight, Radar Type 975(1) used primarily in small ships for navigational purposes. As compared with the 12 inch displays, JUC(1) and JUC(2), no provision is made for Range and Bearing transmission. In such simplified fittings, Type 975(1) is arranged to work from 24 V d.c. and installations may be either permanent, or wiring arrangements may provide for fitting 'for-but-not-with' the major units, as also for portable fittings. Special cooling arrangements and anti-condensation heaters are not provided.

**MAJOR UNITS**

NSN	Description	Physical Data			
		Height	Width	Depth	Weight
5840-99-580-5686	Indicator, Azimuth/Range	27 in	20 in	19 in	78 lb
5840-99-580-6534	Power Supply	15 in	13 in	6 in	21 lb
6125-99-580-5931	Motor Generator	17 in	17 in	10 in	123 lb
6105-99-580-5932	Motor, Direct Current (Aerial)	12 in	8 in	8 in	7½ lb

**INDICATOR AZIMUTH/RANGE**

**RANGE**

Scales

- (1) 0.5-3.0 nautical miles (these scales continuously adjustable)
- (2) 6 nautical miles
- (3) 12 nautical miles
- (4) 24 nautical miles
- (5) 48 nautical miles

Discrimination: Short pulse, 35 yards;  
Long pulse, 70 yards.

Minimum Range: 35 yards.

Accuracy: Cal. rings, 1.5%; marker, 2.5%.

**BEARING**

Accuracy: Better than 1°

Discrimination: 6 ft aerial, 1.2°;

RECEIVER: Superheterodyne, with reflex klystron local oscillator. Coaxial crystal mixer, and tunable wideband T.R. cell. Klystron output is fed to the crystal mixer by a directional coupler. I.F. of 60 MHz is fed from the crystal mixer through the pre-amplifier and main I.F. system, the overall bandwidth being 10.5 MHz. Only the i.f. and associated c.r.t. circuits are contained in the Indicator, Azimuth/Range.

Intervals between  
cal. rings

- 0.5 mile
- 1 mile
- 2 miles
- 4 miles
- 8 miles

**MOTOR GENERATOR**

Designed for direct, ON-line starting when used with 6110-99-105-5417 Electronic Voltage Regulator. The output voltage is held constant at 180 V a.c. ± 2%, 1100 Hz.

**POWER SUPPLY**

This provides all derived power supplies other than for (a) the valve heater transformers, which are located in each individual unit.

- (b) The TR cell priming voltage.
- (c) The e.h.t. for the c.r.t.

It distributes 115 V, 50 Hz, 3 phase, generated by the Aerial Motor (580-5932) that drives the deflection coil motor in synchronism with the aerial.

**INPUT POWER SUPPLY**

24 V d.c., 450 W  
For a Complete Type 975(1) with JUC(3)

Current (Amp)  
Start    Run

.. .. . 160    32

**HEAT DISSIPATION**

Indicator, Azimuth/Range  
Power Supply  
Motor Generator

170 W  
70 W  
250 W

# RESTRICTED

BR 333(1)  
Original

## COMPASS SAFE DISTANCE

The safe distance from the appropriate grade of Compass is:

	GRADE		
	I	II & III	IV
Indicator, Azimuth/Range	8 ft	6 ft	4.5 ft
Power Supply	3 ft	2 ft	2 ft
Motor Generator	14 ft	8.5 ft	7 ft

## ASSOCIATED EQUIPMENT

5840-99-580-1392	Transmitter/Receiver, Radar	}	See BR 2351 TYPE 975
5985-99-580-1388	Aerial Outfit AZF		
5985-99-580-1387	Monitor, Aerial Radiation		

## PROCUREMENT SPECIFICATIONS

Display Outfit JUC(3)	22745
Indicator, Azimuth/Range	24525
Power Supply	22908
Motor Generator	22756
Motor, Direct Current	21394

## HANDBOOKS

Display Outfit JUC(3)	BR 2351(Addm.)
Type 975 (JUC(1),(2))	BR 2351

## ESTABLISHMENT LISTS

Display Outfits JUC(1), JUC(2), JUC(3)	E1351
Type 975(1), (2)	E1349
Aerial Outfits AZF, AZG	

## INSTALLATION SPECIFICATION

Types 975(1), (2)	}	8913
Aerial Outfits AZF, AZG		
Display Outfits JUC(1),(2),(3)		

