

DISPLAY OUTFIT JUA (3)(4)(5)(6)(7)

JUA (3-7)

SUMMARY OF DATA

PURPOSE

Display Outfit primarily for use with radar Type 978.

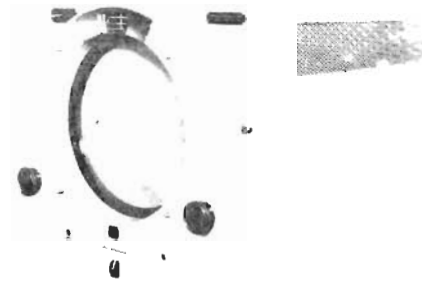
BRIEF DESCRIPTION

The Display Unit employs a 12 inch PPI display having six range scales viz: 1, 2.5, 5, 10, 20 and 40 nautical miles. Timebase linearity is to within 5% of the range of an echo or 2½% of the maximum of the scale in use. Calibration rings of adjustable brilliance are provided at intervals of 0.2, 0.5, 1, 2, 4 and 8 miles for the above ranges respectively (ie five markers for each range scale). Accuracy of calibration rings is within 2% of the indicated range or 50 yards. An adjustable range strobe having three range scales of 0.2-4 miles 400-18000 yards and 0.4-40 miles is switched independently of the timebase range. Remote indication of range scale is provided by switch contacts and of range marker by a magstrip transmitter coupled to the range strobe control. The accuracy of the range strobe is the same as for the calibration rings. An illuminated cursor enables the bearing of an echo anywhere on the display to be read to an accuracy of 1°. Azimuth stabilisation can be introduced into the magstrip transmission from the aerial to the display and a magstrip transmitter is coupled to the bearing cursor for remote bearing indication.

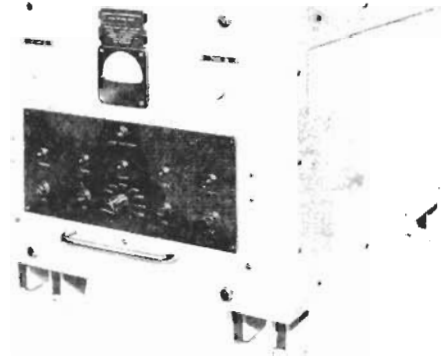
The signal circuits include facilities for variable differentiation and adjustable swept gain. A sensitivity control operates variable clipping for use with logarithmic receiver and a gain control for use with linear receiver. An additional control to provide swept clipping for log. receiver is also incorporated and this control can also be used to give swept video gain for linear receiver. A switch selects log. or linear inputs.

The Display Unit will accept sync. pulses of any amplitude between 7.0 and 30 V, positive polarity, at repetition frequencies between 750 and 2000 pps. The Unit, with its associated power pack, will operate with any radar provided the correct signals, sync, pulse, bearing data, ship's head marker and power supplies are available.

The basic unit of JUA, the Indicator Azimuth Range Track NSN 5840-99-972-4440, is a relative motion display which can be modified by the addition of True Motion Outfit QAA to provide a geographically stabilised display.



DISPLAY OUTFIT JUA(3)(7)



POWER SUPPLY

MAJOR UNITS

NSN Description	Physical Data			
	Height	Width	Depth	Weight
5840-99-972-4440 Indicator Azimuth Range Track ) JUA(3)	55.9 cm (22 in.)	44.5 cm (17.5 in.)	66.0 cm (26 in.)	72.6 Kg (160 lb)
5840-99-972-0943 Housing, Indicator ) Surface ships. Horizontal mounting. Convection cooled.	55.9 cm (22 in.)	44.5 cm (17.5 in.)	66.0 cm (26 in.)	72.6 Kg (160 lb)
5840-99-520-8372 Indicator, Azimuth Range Track ) JUA(7)	55.9 cm (22 in.)	44.5 cm (17.5 in.)	66.0 cm (26 in.)	72.6 Kg (160 lb)
5840-99-521-8130 Housing, Indicator ) Surface ships. Horizontal mounting. Convection cooled. Modified for use with Generator, electronic marker NSN 5840-99-520-8112. No True Motion facility.	81.3 cm (32 in.)	44.5 cm (17.5 in.)	66.0 cm (26 in.)	72.6 Kg (160 lb)
5840-99-972-4440 Indicator, Azimuth Range Track ) JUA(4)	81.3 cm (32 in.)	44.5 cm (17.5 in.)	66.0 cm (26 in.)	72.6 Kg (160 lb)
5840-99-972-4902, Housing, Indicator ) Surface ships. External exhaust forced ventilation. Used with Stand, Indicator NSN 5840-99-919-9043 or NSN 5840-99-919-9130	81.3 cm (32 in.)	44.5 cm (17.5 in.)	66.0 cm (26 in.)	72.6 Kg (160 lb)
5840-99-972-4440 Indicator, Azimuth Range Track ) JUA(5)	81.3 cm (32 in.)	44.5 cm (17.5 in.)	66.0 cm (26 in.)	72.6 Kg (160 lb)
5840-99-972-4902 Housing, Indicator ) Submarines SSN/SSBN class. External exhaust forced ventilation. Used with Cradle, Azimuth Range Indicator NSN 5840-99-972-5307.				

<u>NSN Description</u>	<u>Physical Data</u>				
	<u>Height</u>	<u>Width</u>	<u>Depth</u>	<u>Weight</u>	
5840-99-972-4440 Indicator, Azimuth Range Track ) 5840-99-972-4903 Housing, Indicator ) Submarines, modified "O" class. External exhaust forced ventilation. Used with Cradle, Azimuth Range Indicator NSN 5840-99-519-3516.	JUA(6) 55.9 cm (22 in.)	44.5 cm (17.5 in.)	72.4 cm (28.5 in.)	72.6 Kg (160 lb)	
5840-99-972-1932 Power Supply JUA(3), (4), (5), (6), (7).	43.2 cm (17 in.)	43.2 cm (17 in.)	55.9 cm (22 in.)	49.9 Kg (110 lb)	

**REMARKS**

- (a) 5840-99-919-9043 Stand, Indicator. Tilts to 15° from the horizontal.
- (b) 5840-99-919-9130 Stand, Indicator. Adjustable between the vertical and 15°, 30° or 90° from the vertical.
- (c) 5840-99-520-8112 Generator, Electronic Marker. Produces three markers, computer-controlled.  
The following units may be used in conjunction with the Indicator:
- (d) 5840-99-972-2452 Light excluding hood. CRT.
- (e) 5840-99-972-2467 Visor and cowl assembly, CRT complete.  
5840-99-523-3653 Visor CRT
- (f) 5840-99-972-2448 Reflection plotter, Radar data (Direct Plot facility).
- (g) 5840-99-972-1452 Plotting board, Radar data (for horizontal Indicator). \*  
5840-99-972-1453 Plotting board, Radar data (for tilted indicator).

\* Optical Plotting Attachment

**HANDBOOKS**

BR 1156

**ESTABLISHMENT LIST**

E 1201 (JUA)

**INSTALLATION SPECIFICATION**

B 882/R1



JUA(4)