

TYPE 965Q/R

965Q/R

SUMMARY OF DATA

PURPOSE

Air-warning, Moving-Target-Indicating (MTI) Radar for Frigates. In the MTI Mode Clutter is Suppressed.

FREQUENCY

216 - 224 MHz
($\lambda = 1.4$ metres approx)

POWER OUTPUT

450 kW peak.

P.R.F.

To reduce the effect of interference from other radars, one of five available pulse intervals is selected:-

2580 μ s, 2590 μ s, 2600 μ s, 2610 μ s, 2620 μ s ($\pm 3 \mu$ s). In the non MTI mode the P.R.F. is set by Pulse Synchronising Outfit RSE.

PULSE DURATION

4 μ s (nominal) for MTI working.
10 μ s for non-MTI working.

STAGGER

The pulse spacing is varied using P.T.M. For each Pulse Interval there is a Corresponding Stagger Time:-

	μ S	μ S	μ S	μ S	μ S	
Pulse Interval	2580	2590	2600	2610	2620	($\pm 3 \mu$ s) ($\pm 2 \mu$ s)
Stagger	± 516	± 518	± 520	± 522	± 524	

AERIAL AND RECEIVER OUTFITS

	Ae Outfit	Rx Outfit
Type 965Q(1)	AKE(1)(3) Single Stack	CEQ(1) for auto detection
Type 965Q(2)	AKE(1)(3)	
Type 965R(1)	AKE(2)(4) Double Stack	CEQ(1) for auto detection
Type 965R(2)	AKE(2)(4)	

AERIAL BEAMWIDTH

- a. Horizontal 12°
- b. Vertical 40° (approx.)

AERIAL ROTATION SPEED

10 rev/min.

I.F. BANDWIDTH

- a. Short pulse (MTI) 360 kHz at -3 dB points
- b. Long pulse 120 kHz at -3 dB points.

INTERMEDIATE FREQUENCY

13.5 MHz

POWER SUPPLYS

- a. Transmitter
230 V, 50/60 Hz, 3 ϕ , 3-wire, 6 kVA
or 400 V, 3 ϕ , 4-wire.
220 V d.c. or 115 V a.c., 800 W for anti-condensation heater.
- b. Receiver/Signal Processor (Rx/S.P.)
230 V or 115 V, 50/60 Hz, 400 W
115 V, 50/60 Hz, 150 W, for anti-condensation heater.

MAJOR UNITS

1. 5840-99-521-1373 Receiver/Signal Processor (Rx/S.P.)
2. Types 965M/P and Q/R have identical Transmitter Cabinet Assemblies.

PHYSICAL DATA

	Height	Width	Depth	Weight
Tx	79 in 200.7 cm	106½ in 269.9 cm	29 in 73.7 cm	3300 lb 1496.8 kg
Rx S.P.	66 in 167.6 cm	24 in 61 cm	27 in 68.6 cm	600 lb 272.15kg

BRIEF DESCRIPTION

Type 965Q/R improves upon Type 965M/P by providing the choice of the MTI mode of operation when its use is advantageous. To achieve the MTI mode, the Receiver has a Coherent Oscillator (COHO) to provide the coherence in phase between transmission and reception. The COHO is phase locked to the transmitter pulse. Additionally, a highly stable local (STALO) r.f. oscillator is used to produce the i.f.. A P.R.F. Discrimination (PRFD) Control gives a choice of 5 pulse intervals to reduce the effect of interference pulses from other radars.

HANDBOOKS

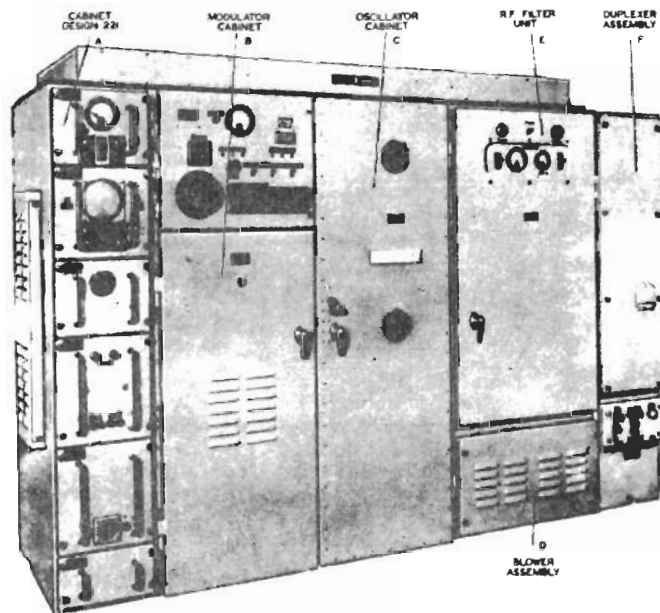
- BR 8569 Series for Type 965Q/R
- BR 1186 Aerial Outfit AKE1
- BR 2342 Aerial Outfit AKE2
- BR 2367 Bearing Transmission Outfit TRA Series
- BR 2436 Radar Data Distribution Outfit PFA
- BR 2318 Interference Suppression Outfit RIS
- BR 2429 High Accuracy Receiver Outfit CEQ
- BR 2355 } Radar Type 944 I.F.F.
- BR 2330 }
- BR 1379 }

ESTABLISHMENT LIST

E1295 Type 965 (all Variants)

INSTALLATION SPECIFICATION

B847



TRANSMITTER - GENERAL VIEW