

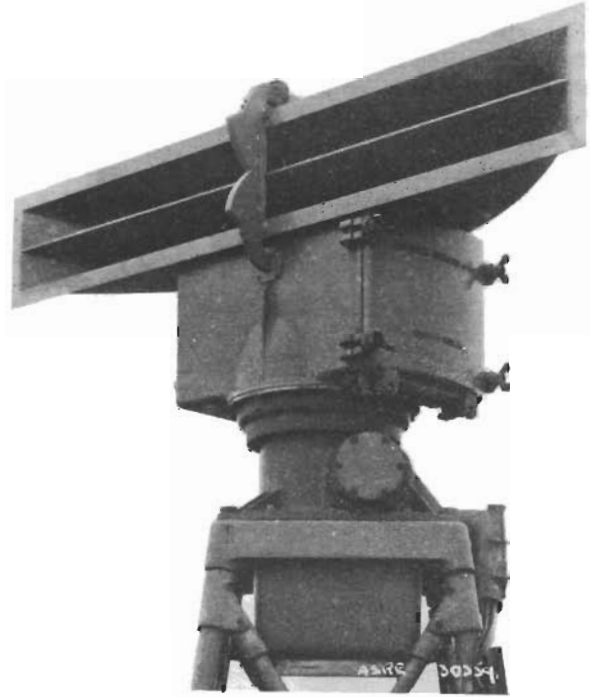
TYPE 974

SUMMARY OF DATA

PURPOSE

A high definition warning surface radar set used principally for pilotage and navigation.

FREQUENCY 9345 - 9405 Mc/s.
 WAVELENGTH 3.2 cms.
 POWER OUTPUT 7 kW (peak)
 PULSE REPETITION FREQUENCY 1000 pulses per second.
 PULSE LENGTH
 0.14 microsecond on 1 and 3 mile ranges.
 0.26 microsecond on 10 and 25 mile ranges.
 RECEIVER BANDWIDTH 10 Mc/s flat to within 3 dbs.
 BEAM WIDTH Vertical 23° Horizontal 1.6°
 AERIAL ROTATION SPEED 24 revs. per minute.



AERIAL OUTFIT AKL

POWER REQUIREMENTS AND CONSUMPTION

A.C. Ships 440 volts 60 c/s 3 phase 1 kW.
 1.9 amp per phase (running)
 5 amp per phase (starting)
D.C. Ships 110 or 220 volts D.C. 1 kW.

HEAT DISSIPATION

Receiver Unit	240 watts	Power Supply Unit	370 watts
Display Unit	105 watts	R.F. Head	50 watts
Power Pack for Remote Display	100 watts	Motor Scanner Drive	260 watts

MAJOR UNITS AND PHYSICAL DATA

Part No.	Description	No. of			Physical Data			
		A.C. Ships	110V D.C. Ships	220V D.C. Ships	Height	Width	Depth	Weight
100002	R.F. Head	1	1	1	Fitted in Aerial Outfit AKL			
100005	Receiver-Unit D.C.	-	1	1	2' 10"	1' 7"	10½"	85 lb
100006A	Display Unit 12 in. D.C.	-	1	1	1' 6½"	1' 4½"	2' 1½"	165 lb
100007	Power Supply Unit 440V 3ph AC.	1	-	-	1' 7"	2' 8"	1' 7"	264 lb
100008	Power Supply Unit 220V D.C.	-	-	1	1' 7"	2' 8"	1' 5"	217 lb
100009	Azimuth Stabilisation Unit	1	1	1	7½"	1' 3"	6"	20 lb
100014	Receiver-Unit A.C.	1	-	-	2' 10"	1' 7"	10½"	85 lb
100015A	Display Unit 12 in. A.C.	1	-	-	1' 6½"	1' 4½"	2' 1½"	165 lb
100026	Power Supply Unit 110V D.C.	-	1	-	-	-	-	-
100012	Power Pack for Remote Display	1	1	1	1' 10"	1' 0"	11½"	50 lb
Aerial Outfit AKL								
100000	Reflector Unit	1	1	1	3' 2"	4' 2"	16½"	63 lb
100001	Pedestal Unit D.C.	-	1	1				78 lb
100013	Pedestal Unit A.C.	1	-	-				78 lb
100003	Motor Scanner Drive 440V A.C. 50 c/s	1	-	-				33 lb
100004	Motor Scanner Drive 220V D.C.	-	-	1				33 lb
100268	Motor Scanner Drive 110V D.C.	-	1	-	33 lb			

ASSOCIATED AERIAL OUTFIT

Aerial Outfit AKL consisting of Reflector Unit, Pedestal Unit and Motor Scanner Drive. It houses the R.F. head.

ASSOCIATED POWER SUPPLY OUTFIT

The necessary power supplies (80V 1000 c/s A.C.) are derived from power supply units included as part of Type 974 and has not been allowed a separate designation.

BRIEF DESCRIPTION

Type 974 is a radar set which gives high definition of surface targets up to a maximum range of 25 miles. It is capable of ranging down to 20 yards with a range discrimination of 25 yards on shorter ranges. The range accuracy is of the order of 2% of the indicated range. Control of the equipment is effective from the main display unit. Only one remote display unit (Display Outfit JU) can at present be fitted.

The Operations Room contains the Receiver Unit, Main Display Unit and Azimuth Stabiliser Unit. The R.F. head which comprises the Modulator, Transmitter and R.F. section of the Receiver is housed in the Aerial Outfit AKL.

REMARKS

Type 974 is the Commercial Decca Marine Radar Type 12, modified for service use.

HANDBOOK

B.R.1983

ESTABLISHMENT LIST

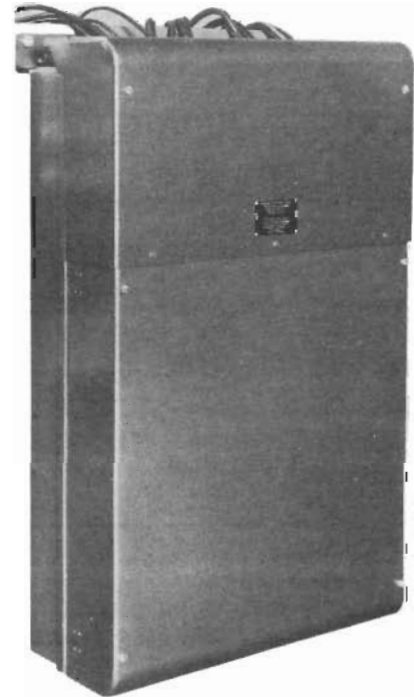
E.1031

INSTALLATION SPECIFICATION

B.728



MAIN DISPLAY UNIT



RECEIVER UNIT