RESTRICTED


SUMMARY OF DATA

PURPOSE

An associated radar set of either the C.W. E.F. G., W. 5 or G.W. Director Mk. 5, is fitted as part of the Medium Range System Mk. 8 or G.W. Director Mk. 31, fitted as part of the Guided Weapon System Mk. 21. On new installations, Type 262R is fitted in both a.c. and d.c. ships. When Type 262R units are fitted in modified Type H.Q. cubicles on a.c. ships the designation is Type 262[2]R, and on d.c. ships, Type 262[6]R.

BRIEF DESCRIPTION

Radar Type 262R is fitted in C.W. E.F. G., W. 5, in part of the M.R.S.C. The radar set is a very narrow beam radar set which is therefore not suitable for all-round searching and detection of targets. Range and bearing of the target is determined by the direction-finding system. The radar set operates on a single frequency in range, bearing, and elevation (range 1,750 yards about the main range, bearing ± 8°, elevation ± 7° per second). When the target is detected, the bearing stops automatically. The radar beam is locked-on to the target and the set provides auto ranging under all conditions of operation and auto-following as applicable.

The majority of the radar operating controls are on the Control Face. Certain controls are duplicated on the C.W. E.F. G., W. 5 console. It should be noted that the Auto-Maker Switch on the Control Face is at all times left in AUTO.

PERFORMANCE

Frequency: 3,900 - 9,000 MHz
Wavelength: 3.03 - 3.39 m
Power Output: Approximately 24 kW (peak)
Pulse Repetition Frequency: 250 pulses per second, or 540 pulses per second
Pulse Duration: 0.5 microsecond
Gain: 52° [± 6 dB down]
Intermediate Frequency: 34 MHz
Receiver Bandwidth: Greater than 3 MHz between 3 dB points

MAJOR UNITS

The sets are housed in watertight cubicles as follows:

Cubicle F3 - 1. AP 172180 Cabinet, Control
  2. AP 172165 Modulator unit
  3. AP 172151 Modulator unit
  4. AP 172183 Modulator unit
  5. AP 172162 Search unit

Cubicle F2 - 6. AP 172180 Control Door
  7. AP 172164 Auto Strobe unit
  8. AP 172167 Cathode Ray Unit

Cubicle B - 9. AP 172182 Cabinet, C.W.
  10. AP 172260 Transmitter-Receiver unit

Cubicle K - 11. AP 172183 Cabinet, P.W.U.
  12. AP 172166 Range Transmitting Unit

Cubicle K - 13. AP 172184 Cabinet, Blower
  13.[a] AP 54216 Blower unit for d.c. installations
  13.[b] AP 64173 Blower unit for a.c. installations
  13.[c] AP 112148 Control Unit fitted as integral part of C.W. E.F. G., W. 5 console

AERIAL OUTFIT

Aerial outfit APR C2 which consists of a parabolic reflector fed by a flare from the waveguide system. The aerial reflector relates at 1,950 K.B.W.

POWER REQUIREMENTS

80 V 60 Hz 3-phase for radar generator in a.c. ships.

220 V d.c. for radar generator on d.c. ships.

HANDBOOKS

BR 2302(a) and BR 2302(b) Series

ESTABLISHMENT LISTS

E 1282, E 1331