RESTRICTED

RADAR TYPE 992Q

SUMMARY OF DATA

PURPOSE

Target indication set for use with Adnas Mk. 1 for Otr 2 and as replacement for earlier Types 992.

BRIEF DESCRIPTION

Radar Type 992Q is a high-power, L-band medium range surveillance radar using radar, solid state techniques and a parametric amplifier. The frequency band is covered by three intermingled, water-cooled magnetrons. The equipment is fully interlocked and can be remotely controlled.

FREQUENCY


P.R.F. 100, 200, 250 kHz
Manually fixed Pulse
Synchronizing Outfit

RECEIVER

Separate, high accuracy receiver

RECEIVER BANDWIDTH

400 kHz logarithmic

HEAD AMPLIFIER I.F. OUT

13.5 kHz

AERIAL

Outfit (ADN1)

Beam width - horizontal 14°
Tilt - 15° above horizontal

PULSE DURATION

2 ms fixed

R.F. PEAK POWER OUTPUT

115 kW

MONITORING

The cabinet monitors the transmitter performance to ensure that all equipment is functioning correctly.

1. A waveform monitor to check the signal.
2. A general purpose oscilloscope to display the output waveform.
3. A service receiver to check the performance of the transmitter.

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6.53
MAJOR UNITS

The transmitter is assembled in two cabinets mounted horizontally on their sides, one above the other. These are, from bottom to top:

A.P.17646 (GUARD-MODULATOR) (Cabinet 1) (bottom)
containing:-
A.P.17676 Magnetron and its assembly.
A.P.17646 Modulator Sub-assembly, Transformer.
A.P.17647 Modulator Sub-assembly, Charging and Protection.
A.P.17648 Modulator Sub-assembly, Charging and Filter.

A.P.17650 (GUARD, TRANSMITTER) (Cabinet 2) (middle)
containing:-
A.P.17695 Power Supply Low Voltage.
A.P.17665 Waveguide Assembly (including T-8 sections).
A.P.17679 Transmitter Sub-assembly, Cavity and Fusing.
A.P.17680 Transmitter Sub-assembly, Regulator M.I.
A.P.17681 Transmitter Sub-assembly, Generator M.I.
A.P.17684 Power Supply 115 V.

A.P.17655 (GUARD, CONTROL) (Cabinet 3) (top)
containing:-
A.P.17628 Wheel and A.E.C.
A.P.17699 Control Modulator.
A.P.17673 Generator Traction.
EG and G-99-570-005 Parametric Amplifier (with 5840-99-572-2095 Control, Amplifier)

The Transmitter, Monitor and the High Accuracy Receiver are assembled in two cabinets, one above the other. The Transmitter, Monitor is at the top.

ADVISORY 52-17644 CABINET MOUNTING, TRANSMITTER

CONTAINING:
5840-99-572-2095 MONITOR, PERFORMANCE
A.P.17685 CABINET RECEIVER AND MONITOR
CONTAINING:
5840-A-17685 Power Receiver and Monitor
5840-A-17686 Generar Power Supply

PHYSICAL DATA

<table>
<thead>
<tr>
<th>Modulator - Transmitter Assembly (Cabinet Monitor and Monitor)</th>
<th>Weight</th>
<th>Width</th>
<th>Depth</th>
<th>Weight</th>
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<tr>
<td>67 lb.</td>
<td>25 lb</td>
<td>25 lb</td>
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POWER REQUIREMENTS AND CONSUMPTION

Input 400 V, 60 Hz, 9 kw to Modulator - Transmitter Assembly

COOLING

9000 transmitter - Modulator 600 ft³/min 40 gat/hour

HANDBOOKS

B.4.25949 (1-1) Series 9 volumes
B.4.2594S (1-1) Series 13 volumes, 19 Volumes Aerial Outfit 1001
B.4.2595 High Accuracy Receiver Outfit 2501

INSTALLATION SPECIFICATION

ESTABLISHMENT LISTS

51451, 51459 (Outfit 401), 5174 (V.C. Outfit Size 107, No. 1, 51539 (Outfit 2501)

6.54