

RADAR TYPE 992Q

992Q

SUMMARY OF DATA

PURPOSE

Target indication Set for use with ADAWS Mk. 1 for GWS 2 and as replacement for earlier Types 992.

BRIEF DESCRIPTION

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

FREQUENCY

2944 - 3052 MHz  
in 3 bands:  
CV 2168 3034 - 3052 MHz  
CV 2169 2989 - 3007 MHz  
CV 2170 2944 - 2962 MHz

P.R.F. 750, 500, 250 p/s  
Normally from Pulse  
Synchronising Outfit

RECEIVER Separate, high accuracy receiver

RECEIVER BANDWIDTH 600 kHz logarithmic

HEAD AMPLIFIER I.F. OUT 13.5 MHz

AERIAL Outfit ADN(1)

Beam width - horizontal  $1\frac{1}{2}^{\circ}$   
- vertical  $30^{\circ}$   
Tilt -  $15^{\circ}$  above horizontal

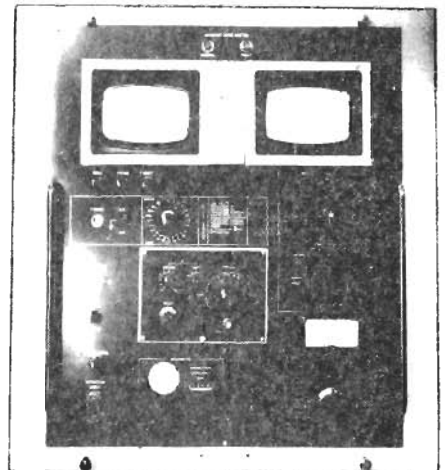
PULSE DURATION 2  $\mu$ s Fixed

R.F. PEAK POWER OUTPUT 1.75 MW

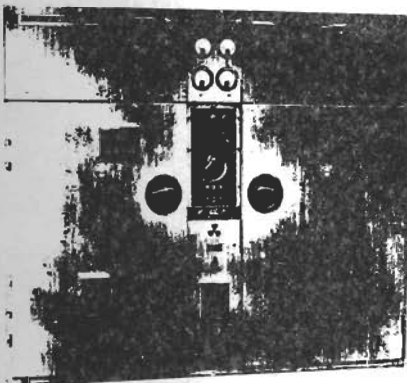
MONITORING

The Cabinet Monitor, Transmitter provides comprehensive facilities including:

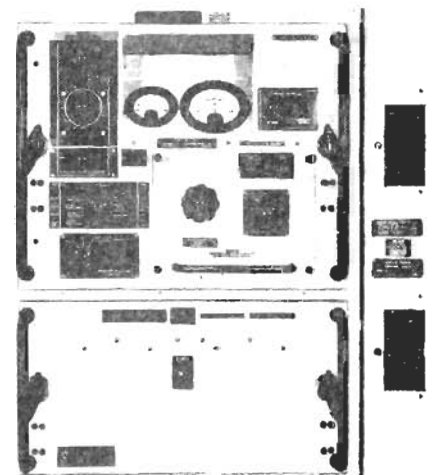
1. A waveform Monitor for the eleven principal waveforms.
2. A general purpose oscilloscope and attenuating probe.
3. A direct reading wavemeter for the Transmitter Frequency.



CABINET  
MONITOR-TRANSMITTER



TRANSMITTER, MODULATOR AND CONTROL CABINETS



CABINET  
RECEIVER & MONITOR

**MAJOR UNITS**

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

A.P.173450 CABINET, MODULATOR (Cabinet 1) (Bottom)

containing:- Magnetron and its assembly.  
A.P.173476 Modulator Sub-Assembly, Thyatron  
A.P.173477 Modulator Sub-Assembly, Charging and Protection  
A.P.173478 Modulator Sub-Assembly, Charging and Filter

A.P.173451 CABINET, TRANSMITTER (Cabinet 2) (Middle)

containing:- A.P.173461 Power Supply Low Voltage  
A.P.173463 Waveguide Assembly (including T-R switches)  
A.P.173479 Transmitter Sub-Assembly, Contactor and Fusing  
A.P.173480 Transmitter Sub-Assembly, Regulator H.T.  
A.P.173481 Transmitter Sub-Assembly, Generator H.T.  
A.P.173488 Power Supply 115 V.

A.P.173452 CABINET, CONTROL (Cabinet 3) (Top)

containing:- A.P.173458 Mixer and A.F.C.  
A.P.173460 Control Modulator  
A.P.173462 Generator Trigger  
5840-99-520-7015 Parametric Amplifier (with 5840-99-521-2595 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.

5840-99-520-1774 CABINET MONITOR, TRANSMITTER

containing:  
5840-99-522-4031 MONITOR, PERFORMANCE  
A.P.172855 CABINET RECEIVER AND MONITOR  
containing:- 5840-A.P.172857 Drawer Receiver and Monitor  
5840-A.P.172858 Drawer Power Supply

**PHYSICAL DATA**

	Height	Width	Depth	Weight
Modulator - Transmitter Assembly	67½ in	78½ in	28½ in	2400 lb
Cabinet Monitor Transmitter } Cabinet Receiver and Monitor }	55½ in	26½ in	25½ in	500 lb
				Rx. Mon. only

**POWER REQUIREMENTS AND CONSUMPTION**

Main Supply 440 V, 60 Hz, 3 ph., 9 kVA to Modulator - Transmitter Assembly

**COOLING**

	AIR	CHILLED WATER
992Q Transmitter - Modulator	600 ft <sup>3</sup> /min	40 gal/hour

**HANDBOOKS**

B.R.2499(1-5) series (3 volumes)  
B.R.2524(1)(2)(3) series, (3 volumes) Aerial Outfit ADN }  
B.R.2429 High Accuracy Receiver Outfit CEQ }

**INSTALLATION SPECIFICATION**

B1026

**ESTABLISHMENT LISTS**

S1481, E1439 (Outfit ADN), E1174 (W.G. Outfit Size 10 No. 1), S1519 (Outfit CEQ)