

TYPE 983

SUMMARY OF DATA

PURPOSE Type 983 with Aerial Outfit AQT is used for accurate height-finding. When not required for height-finding it can be used to provide a warning of surface targets.

FREQUENCY	3000 Mc/s (10 cms)	PULSE LENGTHS	0.7 or 1.9 microseconds.
POWER OUTPUT	500 kW (peak)	BEAM WIDTH	5° horizontal (half field strength) 2.1° vertical (half field strength)
PULSE REPETITION FREQUENCY	500 pulses per second	INTERMEDIATE FREQUENCY	13.5 Mc/s.
POWER REQUIREMENTS	180V. 500 c/s - 4 kW 230V. 50 c/s 3 PH - 3.5 kW 120V. 333 c/s - 1 kW 120V. 1100 c/s - 2 kW 220V. D.C. - 17.5 kW 24V. D.C. - 1.5 kW	RECEIVER BAND-WIDTHS	4 Mc/s, 1 Mc/s or 0.5 Mc/s.

Common power supplies to Aerial Outfit AQT taken from Office Distribution Board.

MAJOR UNITS

(a) Transmitter and Modulator

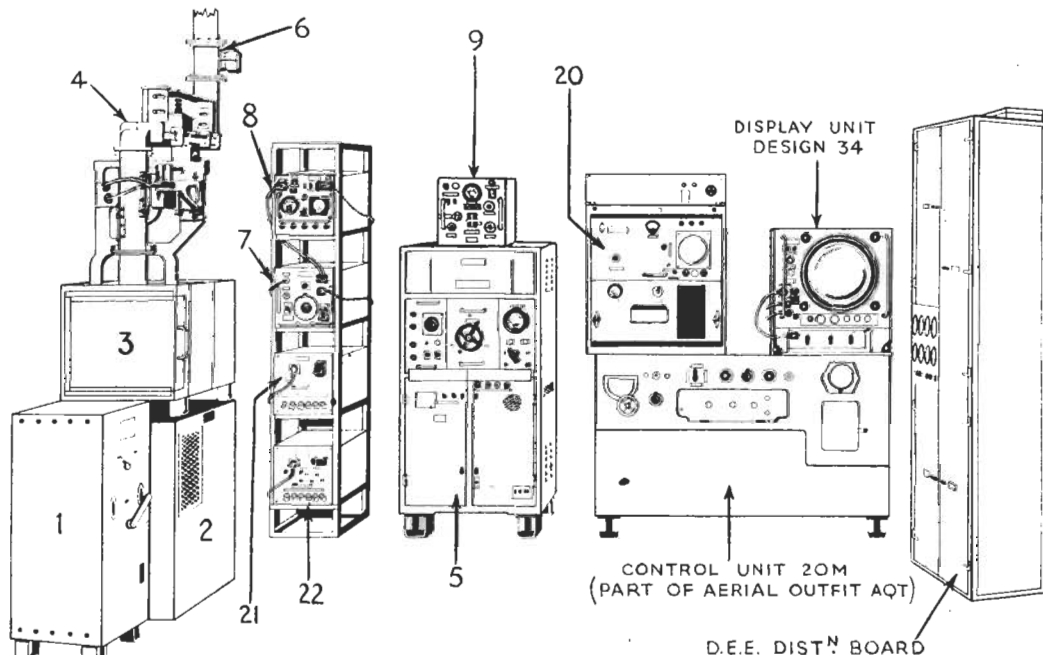
1. Patt. 53177 Air Conditioning Unit Des. 4
2. Patt. W7556 Soundproof Cabinet for Blower
3. Patt. W6177 Transmitter 9T
4. Patt. 58422 Output Unit Des. 3
5. Patt. 66501 Panel 3CC Rectifying and Modulating
6. Patt. 66584 Meter Unit, Field Strength (Waveguide)
7. Patt. 66765 Spectrometer Cavity Resonator Unit
8. Patt. 66766 Spectrometer Display Unit
9. Patt. 66848 Signal Generator (Noise)
10. Patt. W9199 Matching Unit Des. A
11. Patt. 58222 Frequency Changer Unit Des. 6
12. Patt. 58423 Switch Unit, Common Aerial
13. Patt. W5287A Wavemonitor G86
14. Patt. 55941 Temperature Control Unit 133°F (Mean)
15. Patt. 66502 Trigger Unit Des. 10
16. Patt. 53137 Attenuator Head Des. 1
17. Patt. 59310 Meter Unit Des. 7
18. Patt. 65539 Board Watchkeeping Des. 1
19. Patt. 66589 Neon Plate and Drive T.B. Des. 2

(b) Receiver Outfit CEL

20. Patt. 58363 Panel L53 (Receiving
21. Patt. 53197 Cathode Follower Unit Des. 5
22. Patt. 53198 Cathode Follower Unit 6 way
23. Patt. 57496 Amplifier Unit I.F. Des. 5
24. Patt. 58234 Cathode Ray Unit Des. 36
25. Patt. 58395 Oscillator G225
26. Patt. 58396 Amplifier Unit I.F. Des. 7
27. Patt. 58397 Cathode Follower Unit Des. 12
28. Patt. 58399 Control Unit Des. 37
29. Patt. 58400 Meter Unit Des. 4

NOTE

Items 10, 11 and 12 are components of Item 4
 Items 13, 14 and 15 are components of Item 5
 Items 23 to 29 inclusive are components of Item 20



VIEW OF TYPE 983 OFFICE EQUIPMENT

ASSOCIATED POWER SUPPLY OUTFIT

A.C. Supply Outfit DVJ (See separate Summary of Data Sheet)

ASSOCIATED AERIAL OUTFIT

Aerial Outfit AQT (See separate Summary of Data Sheet)

PHYSICAL DATA

Weight of single office equipment - 34 cwt.

Weight of double office equipment - 60 cwt.

(Types 982/3 combined)

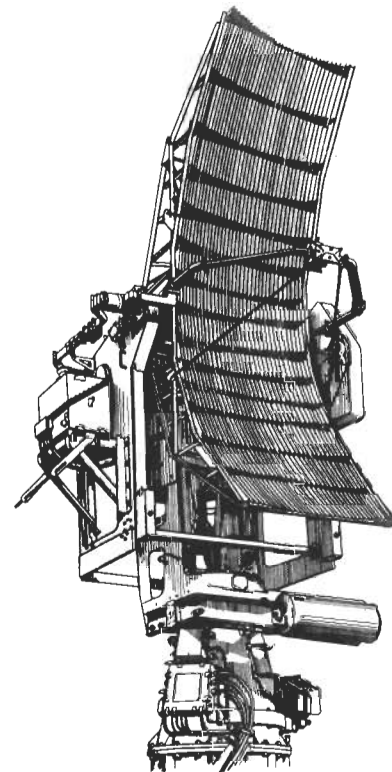
Dimensions of single office - 11' x 12'.

Dimensions of double office - 16' x 14'.

BRIEF DESCRIPTION

Type 983 uses essentially the same panels as Types 277 P/Q and 293 P/Q but has a different aerial and aerial control system. Type 983 is essentially an accurate height finding set. The aerial control system is similar to and closely interlinked with that of Type 982, the Type 983 aerial being trained on to the target by visual matching of a cursor with a plan display of Type 982 or 960. Height information is obtained from height finding Panel L48 (Display Outfit JS).

The radar office, besides containing the modulator, transmitter and receiver panels, also contains an indicator outfit and aerial control unit which are normally used only for initial setting up and monitoring purposes, most operational control being effected from the Radar Display Room. However, in the event of damage or breakdown, the office can be used as an emergency operating position, except for height finding.



AERIAL OUTFIT AQT

HANDBOOK

B.R.2161(1)(2)

ESTABLISHMENT LIST

E.529/507

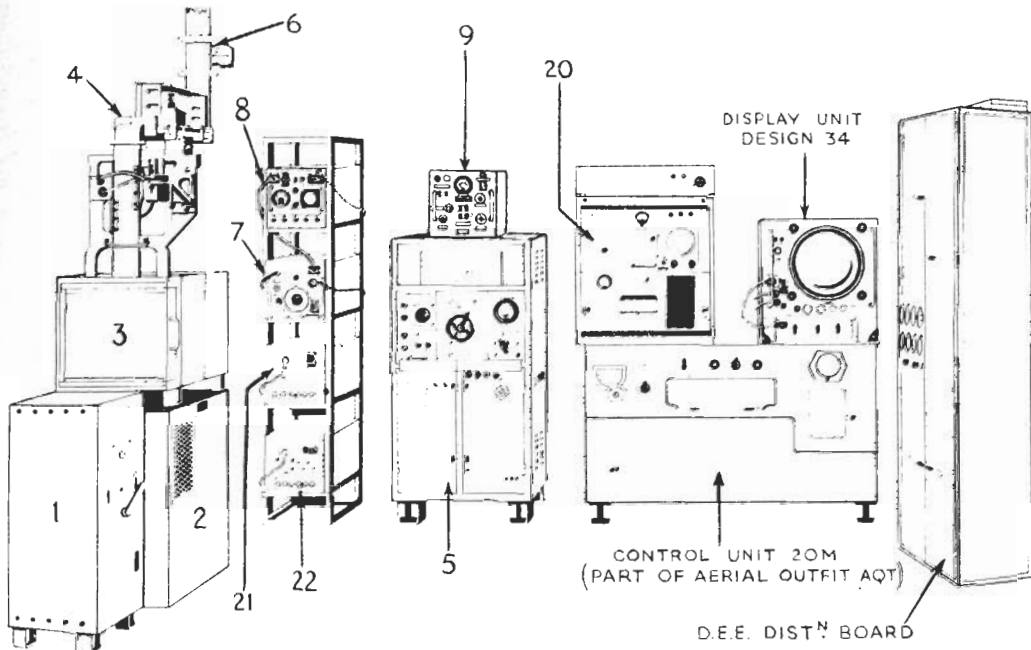
INSTALLATION SPECIFICATION

B.674

TYPE 983

983

SUMMARY OF DATA



VIEW OF TYPE 983 OFFICE EQUIPMENT

PURPOSE

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BRIEF DESCRIPTION

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MAJOR UNITS

- | (a) Transmitter and Modulator | (b) Receiver Outfit CEL |
|--|--|
| 1. AP 53177 Air Conditioning Unit Des. 4 | 20. AP 58363 Panel L53 (Receiving) |
| 2. AP W7556 Soundproof Cabinet for Blower | 21. AP 53197 Cathode Follower Unit Des. 5 |
| 3. AP W6177A Transmitter 9T | 22. AP 53198 Cathode Follower Unit 6 way |
| 4. AP 58422A Output Unit Des. 3 | 23. AP 57496 Amplifier Unit I.F. Des. 5 |
| 5. AP 66501 Panel 3CC Rectifying and Modulating | 24. AP 58234 Cathode Ray Unit Des. 36 |
| 6. AP 66584 Meter Unit, Field Strength (Waveguide) | 25. AP 58395 Oscillator G225 |
| 7. AP 66765 Spectrometer Cavity Resonator Unit | 26. AP 58396 Amplifier Unit I.F. Des. 7 |
| 8. AP 66766 Spectrometer Display Unit | 27. AP 58397 Cathode Follower Unit Des. 12 |
| 9. AP 66848 Signal Generator (Noise) | 28. AP 58399 Control Unit Des. 37 |
| 10. AP W9199 Matching Unit Des. A | 29. AP 58400 Meter Unit Des. 4 |
| 11. AP 58222 Frequency Changer Unit Des. 6 | |
| 12. AP 58423A Switch Unit, Common Aerial | |
| 13. AP W5287/A Wavemonitor G86 | |
| 14. AP 55941 Temperature Control Unit 133°F (Mean) | |
| 15. AP 66502 Trigger Unit Des. 10 | |
| 16. AP 53137 Attenuator Head Des. 1 | |
| 17. AP 59310 Meter Unit Des. 7 | |
| 18. AP 65539 Board Watchkeeping Des. 1 | |
| 19. AP 66589 Neon Plate and Drive T.B. Des. 2 | |
- NOTE Items 10, 11 and 12 are components of Item 4
 Items 13, 14 and 15 are components of Item 5
 Items 23 to 29 inclusive are components of Item 20.

FREQUENCY

3000 MHz (10 Hz)

POWER OUTPUT

500 kW (peak)

PULSE REPETITION FREQUENCY

500 p/s

POWER REQUIREMENTS

180 V 500 Hz	-- 4 kW
230 V 50 Hz 3 PH	-- 3.5 kW
120 V 333 Hz	-- 1 kW
120 V 1100 Hz	-- 2 kW
220 V d.c.	-- 17.5 kW
24 V d.c.	-- 1.5 kW

PULSE LENGTHS

0.7 or 1.9 microseconds.

BEAM WIDTH

5° horizontal (half field strength)
2.1° vertical (half field strength)

INTERMEDIATE FREQUENCY

13.5 MHz

RECEIVER BAND-WIDTHS

4 MHz, 1 MHz or 0.5 MHz.

Common power supplies to Aerial Outfit AQT taken from Office Distribution Board.

ASSOCIATED POWER SUPPLY OUTFIT

A.C. Supply Outfit DVJ (See separate Summary of Data Sheet)

ASSOCIATED AERIAL OUTFIT

Aerial Outfit AQT (See separate Summary of Data Sheet)

PHYSICAL DATA

Weight of single office equipment - 34 cwt
Weight of double office equipment - 60 cwt
(Types 982/3 combined)
Dimensions of single office - 11 ft by 12 ft.
Dimensions of double office - 16 ft by 14 ft.

HANDBOOK

BR 2161(1)(2)

ESTABLISHMENT LIST

E 1007

INSTALLATION SPECIFICATION

3 674