**TYPE 983**

**SUMMARY OF DATA**

**Purpose**
Type 983 with Aerial Outfit A2Z 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 Hz/s (10 cm)

**Output Power**
500 W (peak)

**Pulse Repetition Frequency**
500 pulses per second

**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 Hz/s.

**Receiver Band-widths**
4 Hz/s, 1 Hz/s or 0.5 Hz/s.

**Power Requirements**
180V, 500 a/s = 4 kW
230V, 50 a/s 3 PH = 3.5 kW
180V, 333 a/s = 1 kW
180V, 1100 a/s = 2 kW
250V, d.c. = 17.5 kW
280V, d.c. = 15 kW

Common power supplies to Aerial Outfit A2Z taken from Office Distribution Board.

**Major Units**

(a) Transmitter and Modulator

1. Patt. 57977 Air Conditioning Unit Des. 4
2. Patt. 47556 Soundproof Cabinet for Blower
3. Patt. 46177 Transmitter 97
4. Patt. 59422 Output Unit Des. 3
5. Patt. 66001 Panel 3DC Rectifying and Modulating
6. Patt. 66586 Meter Unit, Field Strength (Wavelength)
7. Patt. 66795 Spectrometer Cavity Resonator Unit
8. Patt. 66796 Spectrometer Display Unit
9. Patt. 66888 Signal Generator (Noise)
10. Patt. 66919 Matching Unit Des. 4
11. Patt. 58252 Frequency Changer Unit Des. 6
12. Patt. 58923 Switch Unit, Common Aerial
13. Patt. 66876 Wave Monitor 983
14. Patt. 56561 Temperature Control Unit 135°F (Dead)
15. Patt. 66590 Trigger Unit Des. 10
16. Patt. 53137 Attenuator Head Des. 1
17. Patt. 59510 Meter Unit Des. 7
18. Patt. 65339 Board Watchkeeping Des. 1
19. Patt. 66599 Neon Plate and Drive T.S. Des. 2

(b) Receiver Outfit C2L

20. Patt. 59353 Panel L33 (Receiving
21. Patt. 59197 Cathode Follower Unit Des. 5
22. Patt. 59196 Cathode Follower Unit 6 "may
23. Patt. 56946 Amplifier Unit 1,F. Des. 5
24. Patt. 56924 Cathode Ray Unit Des. 36
25. Patt. 55395 Oscillator 1225
26. Patt. 55396 Amplifier Unit 1,F. Des. 7
27. Patt. 59397 Cathode Follower Unit Des. 12
28. Patt. 55999 Control Unit Des. 37
29. Patt. 59600 Meter Unit Des. 4

Note:
Items 10, 11 and 12 are components of Item 5
Items 13, 14 and 15 are components of Item 5
Items 23 to 29 inclusive are components of Item 20
ASSOCIATED POWER SUPPLY OUTFIT

A.C. Supply Outfit D/7 (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 - 36 cwt.
Weight of double office equipment - 60 cwt.
(Type 962/5 combined)
Dimensions of single office - 11' x 12'.
Dimensions of double office - 16' x 14'.

BRIEF DESCRIPTION

Type 963 uses essentially the same panels as Types 277 P/F, 295 P/F and has a different aerial and aerial control system. Type 963 is essentially an accurate height finding set. The aerial control system is similar to and closely interlinked with that of Type 982, the Type 963 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 L/8 (Display Outfit 26).

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.

HANDBOOK
B.316(11/12)

ESTABLISHMENT LIST
B.366W 207

INSTALLATION SPECIFICATION
B.574
TYPE 983

SUMMARY OF DATA

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

BRIEF DESCRIPTION
Type 983 uses essentially the same panels as Types 277 P/O and 293 P/O but has a different aerial and control system. Type 983 is essentially an accurate height-finding unit. Height information is obtained from height finding Panel LB (Display Outfit JS).

The radar office, besides containing the modulator, transmitter and receiver panels, also contains an indicator and electrical control panel 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.

MAJOR UNITS
(a) Transmitter and Modulator
1. AP 53177 Air Conditioning Unit Des. 4
2. APW 2595 Soundproof Cabinet for Blower
3. APYW177A Transmitter 8T
4. AP 58229A Output Unit Des. 3
5. AP 66001 Panel 3CC Rectifying and Modulating
6. AP66298 Meter Unit, Field Strength (Waveguide)
7. AP 66235 Spectrometer Cavity Resonator Unit
8. AP 66766 Spectrometer Display Unit
9. AP 68648 Signal Generator (Noise)
10. APW 11919 Matching Unit Des. A
11. AP 58222 Frequency Changer Unit Des. 6
12. AP 58232A Switch Unit, Common Aerial
13. AP W5287A Wave monitor G36
14. AP 55911 Temperature Control Unit 135°F (Mean)
15. AP 66002 Trigger Unit Des. 10
16. AP 53137 Aftercooler Head Des. 1
17. AP 58210 Meter Unit Des. 7
18. AP 65539 Board Watchkeeping Des. 1
19. AP 66883 Neon Plate and Drive T.B. Des. 2
(b) Receiver Outfit CEL
20. AP 58263 Panel LS3 (Receiving)
21. AP 53197 Cathode Follower Unit Des. 5
22. AP 53188 Cathode Follower Unit 6 way
23. AP 57696 Amplifier Unit I.F. Des. 5
24. AP 58234 Cathode Ray Unit Des. 36
25. AP 58395 Oscillator G225
26. AP 58396 Amplifier Unit I.F. Des. 7
27. AP 58397 Cathode Follower Unit Des. 12
28. AP 58399 Control Unit Des. 37
29. AP 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.
FREQUENCY
3000 MHz (12 Hz)

POWER OUTPUT
300 W (peaks)

PULSE REPLICATION FREQUENCY
380pps

POWER REQUIREMENTS
260 V 50 Hz  -  4 kW
270 V 50 Hz 3 Phase - 3.5 kW
110 V 220 Hz   -  1 kW
120 V 120 Hz   -  2 kW
270 V DC      -  12.5 kW
115 V 60 Hz   -  1.5 kW

PULSE LENGTHS
0.7 or 1.2 microseconds.

BEAM WIDTH
1' (horizontal half height strength)
0.5 vertical (half height strength)

INTERMEDIATE FREQUENCY
15.5 MHz

RECEIVER BAND WIDTHS
4 kHz, 5 kHz or 0.5 kHz.

Common power supplied to Aerial ByFit Q1 taken from Office Distribution Board.

ASSOCIATED POWER SUPPLY OUTFIT
A.C. Supply Outfit 3W (See separate Summary of Data Sheet)

ASSOCIATED AERIAL OUTFIT
Aerial Outfit A01 (See separate Summary of Data Sheet)

PHYSICAL DATA
Width of single office equipment - 60 cm
Width of double office equipment - 60 cm
(60 cm x 40) (60 cm x 40)
Dimensions of single office - 11 ft by 12 ft.
Dimensions of double office - 16 ft by 14 ft.

HANDBOOK
BR 333x(1)

ESTABLISHMENT LIST
1 3007

INSTALLATION SPECIFICATION
3 674

6.50