PURPOSE

I.F.F. Mark 10 Transponder for replying to I.F.F. Mark 10 Interrogators.

FREQUENCY

1030 MHz Reception
1090 MHz Transmission

POWER OUTPUT

300W (peak) approximately.

PULSE REPEITION FREQUENCY

Up to 4000 pulses per second (depending on interrogator).

PULSE LENGTH

1 microsecond approximately.

INTERMEDIATE FREQUENCY

59.5 kHz.

RECEIVER BANDWIDTH

8 kHz to 11 kHz at 6 dB down.

BEAM WIDTH

Omni-directional

POWER REQUIREMENTS

115V 50/60 c/s single phase 750 watts
115/230V D.C. or A.C. 350 watts

These figures allow for fitting of future equipment.

HEAT DISSIPATION IN OFFICE

750W approximately.
MAJOR UNITS

(a) American Items

(1) Receiver-Transmitter KT-569/1PX-5 (NRA) 
(2) Decoder KT-90/1PX-5 (NRA) 
(3) Radar Set Control C-107/1PX-5 (NRA) 
(4) Antenna AS-177/1PX (NRA) Part of Aerial Outfit AN 
(5) Test Set AN/MPM-66 (NRA) (Type 954(2) only)

(b) British Items

(1) A.R.64203 Cabinet Design 131 
(2) A.R.64205 Cabinet Design 133 Part of Accessory Outfit PPC

WEIGHT OF OFFICE EQUIPMENT

600 lb.

DIMENSIONS

6 ft high x 22 in. wide x 28 in. deep.

ASSOCIATED AERAL OUTFIT

Aerial Outfit AN (Antenna AS-177/1PX (NRA))

BRIEF DESCRIPTION

Types 954(1) and 954(2) are the airborne transponders for replying to I.F.P. Mark 10 interrogators. Both sets employ the same items of transponder equipment, but Type 954(2) included Test Set AN/MPM-66 (NRA) in addition and is fitted in cases where it is not possible to utilize the test set provided with Types 954(1) or 954(2). In Type 954(1) the test set space is available for additional units which may be fitted at a later date.

The interrogations are received as pulse pairs on a frequency of 1030 kHz. These interrogations are converted to video signals in the Receiver-Transmitter KT-569/1PX-5 from whence they are passed to the Decoder KT-90/1PX-5 which generates a single pulse for each correct interrogation. These pulses are fed to the modulator of the transmitter, the output of which is fed to the antenna and radiated on 1050 kHz as reply to the interrogations.

REMARKS

The main items of transponder equipment, although made in the United Kingdom, are of American design and have been supplied under the Mutual Defence Aid Programme. The cabinets for housing the office equipment have been designed in the United Kingdom.

HANDBOOK

B.8.215A

E LIST

E.1129

INSTALLATION SPECIFICATION

B532 Type 954(1) and (2) and Aerial Outfit AN.