

SUMMARY OF DATA

PURPOSE

A general purpose low power (50 watts) MF and HF AM transmitter for communication between ship/ship, ship/shore and ship/air. It is fitted as one of the main wireless transmitters and broadly speaking, replaces Types 60 DR/FR/EQR and any other general purpose MF and HF low power transmitters.

TYPE OF TRANSMISSION

On HF CW, MCW or Voice (using Main Power Supply)

CW or ICW (using Emergency Power Supply)

On MF CW or MCW (using Main Power Supply)

CW or ICW (using Emergency Power Supply)

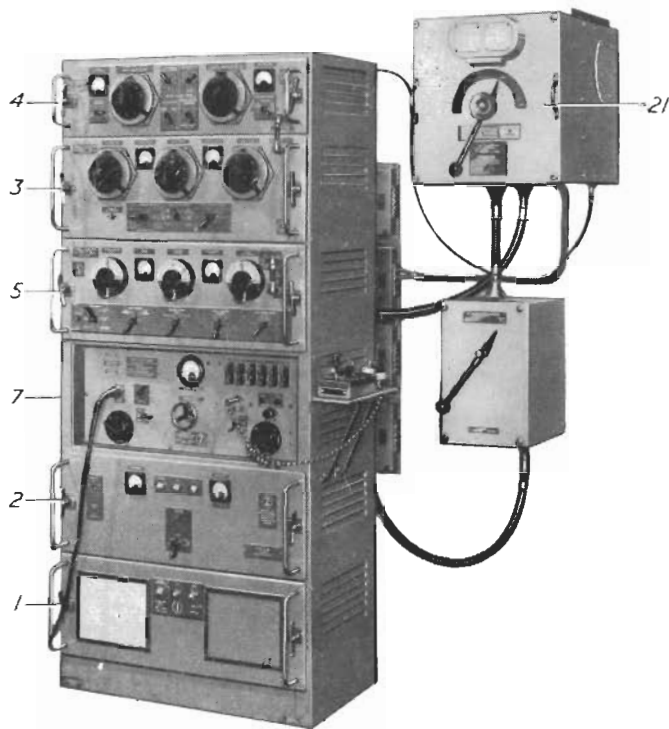
FREQUENCY RANGE

200 - 500 kHz.

1.5 - 24 MHz.

MAJOR UNITS

Types 602, 602E, 602D and 602ED comprise the following units:-



GENERAL VIEW OF EQUIPMENT

Unit	Part. No.	DESCRIPTION	PHYSICAL DATA			
			Height	Width	Depth	Weight
1	W8358	Rectifier Unit SE13	10½ in	2 ft 5 in	1 ft 5 in	130 lb
2	W8359	Modulator and Rectifier Unit Des. A	10½ in	2 ft 4½ in	1 ft 2 <sup>13</sup> / <sub>16</sub> in	140 lb
3	W8360	Transmitter 5AB	10½ in	2 ft 4½ in	1 ft 5 in	80 lb
4	W8361	Aerial Tuning Unit for TX 5AB	7½ in	2 ft 4½ in	1 ft 3½ in	40 lb
5	55055	Transmitter 4AD	10½ in	2 ft 4½ in	1 ft 2½ in	69 lb
7	55056	Framework and Control Panel for Type 602	5 ft 6 in	2 ft 5½ in	1 ft 3 in	300 lb
21	56770	Switch Aerial C0 for Types 601, 602/E	1 ft 5 in	2 ft 4½ in	11½ in	110 lb

Units 1, 2, 3, 4 and 5 are separate panels housed in Unit 7. Unit 21 is external.

## ANCILLARY EQUIPMENT

Patt. No.	DESCRIPTION	REMARKS
-	Battery Outfit BBy	} Only fitted with Types 602E - 602ED
55229	Motor Alternator, 450 watts 230 V 50 Hz, 21/30 V D.C. Supply.	
55230	Starter, Contactor Type for 500 watts Motor Alternator, 24 V D.C. Supply.	
W6435B	Board Distributing, Single phase A.C.	Only fitted when Type 602E/ED is fitted as a main transmitter in an office not fitted with an A.C. Supply Outfit.
53325	Rectifier Unit, Des. 46	Only fitted in cruisers and above and ships fitted with Wireless and Voice Control Outfits (KHA Series)
58025	Condenser Unit, Des. 4	Only fitted in cruisers and above.
65416	Attenuator Unit, Des. 29	Only fitted with Wireless and Voice Control Outfits (KHA Series)

## BRIEF DESCRIPTION OF MAJOR UNITS

### Transmitter 4AD, Patt. 55055

Frequency - 200 - 500 kHz.

Frequency Control - Master Oscillator

Output - 40 watts (approx)

Keying - Maximum of 120 words per minute

The transmitter has four stages, Master Oscillator, Doubler, Amplifier and the Aerial Tuning Stage. For a brief description of the other major units see data sheet on Types 601 and 601D.

## POWER REQUIREMENTS AND CONSUMPTION

Power Supply - 230 volts 50 Hz, single phase A.C. either from Main Power Supply or from Emergency Power Unit.

Power Consumption - 350 watts on CW or ICW.  
600 watts on MCW or Voice.

## CONTROL CIRCUITS

Type 602/E can be operated in 'Local Control' for use with any of the Standard Voice and wireless Control Outfits.

## HEAT DISSIPATION

500 watts

## AERIAL SYSTEM

The Aerial Tuning circuits will accommodate any aerial of 30 ft or longer including whip aerials.

## REMARKS

A 'Man Aloft' board is provided on the front of the Aerial Change-over Switch.

Wavemaster Outfit GN or GJ is not required for the calibration of Transmitter 5A3 since the accuracy of the partial Crystal Control Circuit is of the same order as these wavemeters. Calibration is effected by making use of the Crystal Oscillator. A wavemeter is, however, required for calibrating Transmitter 4AD. Wavemeter Outfits GY or JN can be used for this purpose.

The Aerial circuit CANNOT be tuned without breaking wireless silence. The MF Transmitter 4AD CANNOT be tuned without breaking wireless silence, but the HF Transmitter 5AB can be tuned and tested using the Dummy Load and the Aerial earthed.

## **HANDBOOK**

BR 1467(1)(3)

## **ESTABLISHMENT LIST**

E696

## **INSTALLATION SPECIFICATIONS**

B657 - General Fitting  
B551 - Fitting in HMS VANGUARD