

TYPE 55M

SUMMARY OF DATA

PURPOSE

Main transmitting set fitted in submarines for Ship-Ship and Ship-Shore communication.

TYPE OF TRANSMISSION

C.W. and M.C.W. (Low power transmissions on C.W. only).

FREQUENCY RANGE

1.5 - 3 Mc/s (low power) and 3 - 19 Mc/s (main power)

MAJOR UNITS

Patt. No.	DESCRIPTION	Physical Data			
		Height	Width	Depth	Weight
54948A	Panel 3PJ, H/F Aerial Tuning and Machine Controlling	5'0"	1'6"	1'6"	396 lb
54949A	Panel 3PJ, H/F Transmitting	5'0"	1'6"	1'6"	300 lb
54950A	Panel 3PJ, Smoothing and Intermediate, Rectifying	3'6"	1'0"	1'3"	140 lb
54951A	Panel 3PJ, Main Rectifying	3'6"	1'10"	1'3"	184 lb
54952	Stand for Panels, 3PJ, Rectifying	2'0"	2'8"	1'3"	112 lb
2687	Transformer, 180/13,000V, 3/4.6 kVA 500 cycles	1'10"	1'10"	1'5½"	200 lb

The total weight of the equipment is approximately 20 cwt. The office space required is approximately 4'9" by 5'0".

BRIEF DESCRIPTION

The various components of the transmitter are built into four panels. The transmitter is a four stage master controlled set, consisting of a Master Oscillator and three stages of amplification including the Output Stage. All four stages use pentode valves in push-pull. Output and the third stage are supplied from independent main and intermediate rectifiers fed from a 500 cycle supply, while the second and Master stages are fed from a low power rectifier circuit supplied from a 50 cycle supply. M.C.W. transmissions are obtained by removing the smoothing components in the main H.T. rectifier circuit thus modulating the anodes of the output stage valves. Low power transmissions can be made from 1.5 to 3 Mc/s using only the 50 cycle supply. The R.F. main power output to the aerial is of the order 300 - 1000 watts depending on the frequency. The low power output is of the order of 15 watts.

POWER REQUIREMENTS

- (a) 180 volts 500 cycles
- (b) 230 volts 50 cycles
- (c) 220 volts D.C.

These supplies are obtained either from A.C. Supply Outfit DXA or from a Power Board and a Motor Alternator supplied.

HEAT DISSIPATION IN OFFICE

4 kW

AERIAL SYSTEM

Main or Emergency as fitted in Submarines.

REMARKS

No Voice facilities are available. The associated Wavemeter is Wavemeter Outfit GR or GY.

HANDBOOK

B.R. 1452

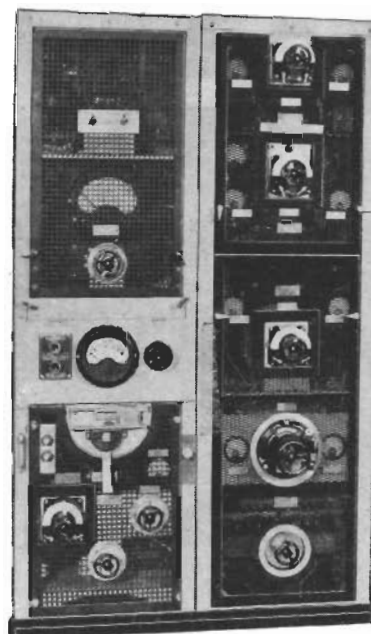
ESTABLISHMENT LIST

E822

INSTALLATION SPECIFICATION

B592

PANEL 3PJ
H/F AERIAL
TUNING &
MACHINE
CONTROLLING



PANEL 3PJ
H/F
TRANSMITTING

VIEW OF TRANSMITTER PANELS

THE 55 SERIES TRANSMITTER

Although normally thought of as a Submarine main transmitter, the 55 was fitted in large ships and small ships too in different variants.

The 55M {**first modification**} was fitted into Submarines *Taku, Talisman, Tarpon, Tetrarch, Thetis, Thistle, Tigris, Torbay, Triad, Tribune, Trident, Triton, Triumph, Truant and Tuna.*

An experimental set, the 55X {**first experimental set**} went into submarines *Undine, Unity and Ursula.*

Type 55V {**the V signifying either Leaders or small craft of between 500 and 3000 tons**} was fitted in the Gunboats *Aphis, Cicala, Cockchafer, Falcon, Gannet, Gnat, Ladybird, Moth, Peterel, Robin, Sandpiper, Scarab, Seamew, Tarantula and Tern.*

Finally, the Type 55CH {**CCS – central control system, and HF Portion only fitted**} became established sets in the Cruisers *Bonaventure, Dido, Euryalus, Hermione, Naiad, Phoebe and Sirius.*