

SUMMARY OF DATA

PURPOSE

A general purpose low-power transmitter fitted in all classes of ships to replace Types TCS, 607E, 608E and 60EQR.

TYPE OF TRANSMISSION

HF Transmitter CW, MCW and Voice.

MF Transmitter CW and MCW.

Maximum keying speed of both transmitters 30 bauds.

FREQUENCY RANGE

HF Transmitter 1.5-16 MHz.

MF Transmitter 330-550 kHz.

BRIEF TECHNICAL DESCRIPTIONHF Transmitter AP 100333

Frequency Control	Crystal or Master Oscillator
Frequency Stability	Crystal ± 0.02% M.O. ± 0.1%
Output	40 Watts
Audio Input	-15 dB to + 10 dB relative to 1 mW to 600 ohms.

The oscillator stage is switchable between any of eight crystals or a variable frequency oscillator which covers the range in three bands. A buffer/multiplier stage feeds three CV428 valves in parallel which constitute the power amplifier. The AF section comprises a preamplifier, a driver and two CV428 modulator valves in push-pull. Modulation depth is maintained at a constant level by an automatic gain control circuit. An RC oscillator is provided for MCW working.

MF Transmitter AP 100334

Frequency Control	Master Oscillator.
Frequency Stability	± 0.1%.
Output	15 Watts

An electron coupled Hartley oscillator is used for the MO. A buffer amplifier stage precedes the power amplifier which comprises three CV428 valves in parallel. Anode modulation for MCW working is provided by a push-pull audio oscillator with a frequency of 800-1200 Hz.

Power Unit AP 100336

The Unit contains three conventional rectifier and smoothing circuits driven from two mains transformers and provides all the power supplies for the receiver and one or other of the two transmitters. The main operating controls are located on the Unit with a local/remote switch and an outlet for connections to a CCX, permitting full remote control of the equipment.



TYPE 618, CAS AND POWER UNIT

MAJOR UNITS

PATTERN NO.	DESCRIPTION	PHYSICAL DATA			
		Height	Width	Depth	Weight
1. 100333	Transmitter, HF	14-1/16 in	13-1/16 in	14 1/2 in	70 lb
2. 100334	Transmitter, MF	14-1/16 in	13-1/16 in	14 in	73 lb
3. 100336	Power Unit	14-7/8 in	9-3/16 in	22 in	135 lb

(Dimensions include rack)

Type 618 comprises items 1, 2 and 3.

Type 618H comprises items 1 and 3.

Type 618L comprises items 2 and 3.

The associated receiver is Receiver Outfit CAS AP 100335 which also takes its power from AP 100336 Power Unit.

POWER REQUIREMENTS AND CONSUMPTION

Input 110-120 V or 220-245 V A.C. 50 Hz single phase.
Voltage

Loading Receiver 180 Watts Approx.
Stand by 240 Watts Approx.
TX Ready 410 Watts Approx.
Voice 555 Watts Approx.
Key down, MCW 600 watts (maximum consumption)

When an A.C. 50 Hz supply is not directly available, A.C. Supply Outfits DWH, DWJ and DWK will be used from the 24 V, 110 V and 220 V D.C. supplies respectively.

CONTROL CIRCUITS

Type 618/H/L and Receiver Outfit CAB are designed to work with Control Outfits KH series.

HEAT DISSIPATION

Receiver, Power Unit and one Transmitter 550 watts (max.) approximately.

AERIAL SYSTEM

Wire or whip depending on particular ship installation.

REMARKS

When the equipment is fitted for emergency purposes, the normal 230 V 50 Hz supply will be used with the facility to switch to emergency supply when necessary.

HANDBOOK

1565 (Type 618 and Receiver Outfit CAS)

ESTABLISHMENT LISTS

11049 (Type 618 and CAS)

11051 (A.C. Supply Outfits DWH/J/K)

INSTALLATION SPECIFICATION