

TYPE TBL (R)

SUMMARY OF DATA

PURPOSE

A medium power (200 watts (C.W.) 100 watts (M.C.W.) 50 watts (Voice) H.F. and M.F. A.M. transmitter. It is fitted as a main transmitter in certain cruisers, destroyers and frigates.

TYPE OF TRANSMISSION

C.W. M.C.W. (on M.F. band only) and Voice.

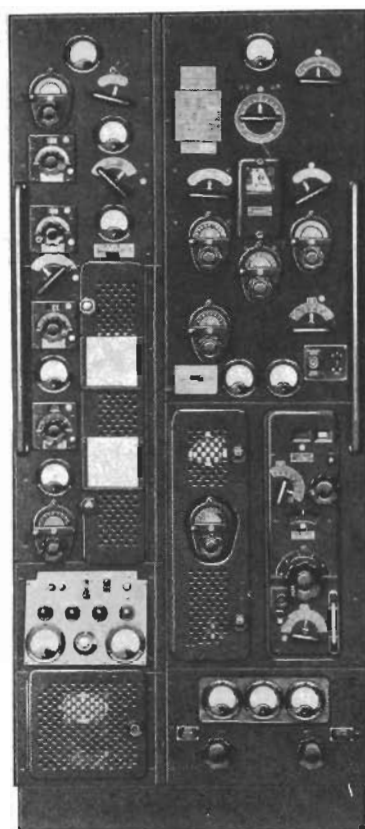
FREQUENCY RANGE

175 - 600 kc/s and 2 - 18.1 Mc/s.

MAJOR UNITS

Type TBL is an American set and may be either of Westinghouse or R.C.A. manufacture. Types TBL2, 3, 5, 6, 7, 10, 11 and 12 are manufactured by Westinghouse and Types TBL4 and 8 are manufactured by R.C.A.

U.S. Navy Ref. No.	DESCRIPTION	NO. OFF					
		TBL 2	TBL 3	TBL 4 & 8	TBL 5	TBL 6	TBL 7, 10, 11, 12
CAY52059/52060	Transmitter 110/220 volts for TBL2	1	-	-	-	-	-
CAY52084/52083	Transmitter 110/220 volts for TBL3	-	1	-	-	-	-
CRV52178/52181	Transmitter 110/220 volts for TBL4 - 8	-	-	1	-	-	-
CRV52131/52132	Transmitter 110/220 volts for TBL5	-	-	-	1	-	-
CAY52131A/52132A	Transmitter 110/220 volts for TBL6	-	-	-	-	1	-
CAY52247/52248	Transmitter 110/220 volts for TBL7, 10, 11 & 12	-	-	-	-	-	1
CC21229/21230	Motor 110/220 volts for TBL2	1	-	-	-	-	-
CC21232	Generator 2000V D.C.	1	-	-	-	-	-
CC21233	Generator 250/1000V D.C.	1	-	-	-	-	-
CC21229A/21232A	Motor 110/220 volts for TBL3 and 5) Motor Generator	-	1	-	1	-	-
CC21232	Generator 2000V D.C.) Unit	-	1	-	1	-	-
CC21233A	Generator 250/1000V D.C.) CC21426/21427	-	1	-	1	-	-
	) for TBL-5						
CC21229B/21232B	Motor 110/220 volts) Motor Generator Unit	-	-	-	-	1	1
CC21232A	Generator 2000V D.C.)	-	-	-	-	1	1
CC21233B	Generator 250/1000V D.C.) CC21426A/21427A	-	-	-	-	1	1
CBP21546/21340	Motor Generator Set 110/220 volts for TBL4	-	-	1	-	-	-
CGU21948/21950	Motor Generator Set 110/220 volts for TBL8	-	-	1	-	-	-
CAY21234/21235	Controller magnetic 110/220 volts for TBL2	1	-	-	-	-	-
CAY21234A/21235A	Controller magnetic 110/220 volts for TBL3 & 5	-	1	-	1	-	-
CAY21713/21719	Controller magnetic 110/220 volts for TBL6, 7, 10, 11 & 12	-	-	-	-	1	1
CAE21541/21543	Controller magnetic 110/220 volts for TBL4 & 8	-	-	1	-	-	-
CAY53036	Filter Unit 115/230 volts D.C. for TBL2	1	-	-	-	-	-
CAY53036A	Filter Unit 115/230 volts D.C. for TBL3, 5, 6, 7, 10, 11 & 12	-	1	1	1	1	1
CRV53073/53075	Filter Unit 110/220 volts D.C. for TBL4 & 8	-	-	1	-	-	-
CRV50055 or A.P.12523	Speech Amplifier Unit	1	1	1	1	1	1
	Amplifier 10 watts output	1	1	1	1	1	1



PHYSICAL DATA

Types TBL2,3,5,6,7,10,11 & 12

	Height	Width	Depth	Weight
Transmitter	7' 1"	2' 6½"	2' 3½"	840 lb
Motor Generator	2' 0"	5' 1"	1' 4½"	800 lb
Controller Magnetic	1' 8½"	1' 1½"	14½"	52 lb
Filter Unit	1' 6½"	1' 4½"	9"	56 lb
Speech Amplifier Unit	1' 4"	1' 4"	1' 3½"	77 lb

Types TBL4 & 8

	Height	Width	Depth	Weight
Transmitter	7' 0½"	2' 10½"	2' 4½"	870 lb
Motor Generator	2' 0½"	5' 4"	1' 1½"	920 lb
Controller Magnetic	1' 8½"	1' 5"	1' 4½"	95 lb
Filter Unit	1' 6½"	1' 5"	7½"	67 lb
Speech Amplifier Unit	1' 4"	1' 4"	1' 3½"	77 lb

TBL-2,3,5,6,7,10,11 & 12 - TRANSMITTER

BRIEF TECHNICAL DESCRIPTION

Transmitter

Frequency 175 - 600 kc/s and 2 - 18.1 Mc/s.
 Frequency Control Master Oscillator (temperature controlled)
 Output 200 watts (C.W.) 100 watts (M.C.W.) and 50 watts (Voice)
 Keying Up to 100 words per minute.

The transmitter consists of two entirely separate radio frequency circuits to cover the M.F. and H.F. bands. The two circuits use common valves for all stages except the Master Oscillator. The H.F. circuit consists of Master Oscillator, Master Oscillator Doubler, 1st and 2nd Intermediate Amplifiers and Power Amplifier. The M.F. circuit also contains a M.C.W. Oscillator which can only be used on the M.F. band.

POWER REQUIREMENTS AND CONSUMPTION

There are two types of TBL equipments, one for use on a nominal 115 volts D.C. Supply which is fitted in 100/110 volt ships and the other for a nominal 230 volts D.C. supply which is fitted in 220 volt ships.

Consumption:- 220 volts D.C. - 3.6 kW

110 volts D.C. - 3.4 kW

The Speech Amplifier Unit requires a 110V 50/60 c/s A.C. Supply with a consumption of 125 watts, obtained from a convenient 230V 50/50 c/s source via transformer Patt. W7163.

AERIAL SYSTEM

Ships main aerial.

REMARKS

The associated wavemeter is Wavemeter Outfit CN.

HANDBOOK

ESTABLISHMENT LIST

INSTALLATION. SPECIFICATION

U.S. Navy

AE18, AE19

B219