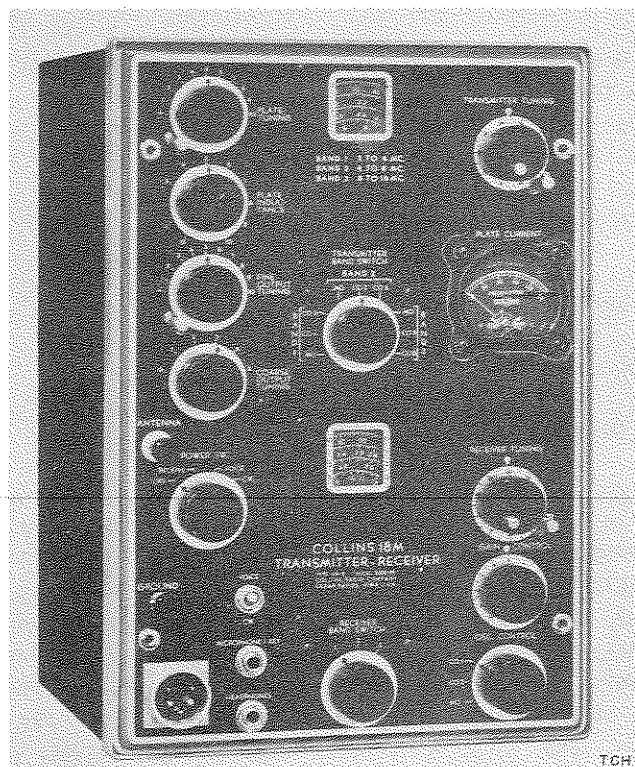


STATUS: Limited Standard
 CLASSIFICATION OF EQUIPMENT: Unclassified
 USING SERVICE: Navy
 DATE OF THIS SHEET: 23 May 52

AN/GRC-TYPE

SERVICE TYPE NUMBER: TCH
 TRANSMITTER AND RECEIVER EQUIPMENT



TCH

Transmitter and Receiver Equipment TCH is a-m (cw, voice) h-f, field and vehicular radiotelephone and radiotelegraph set. The transmitter may be keyed at speeds up to 30 wpm on cw.

This equipment covers its frequency range in three bands, using a master oscillator for continuously variable frequency operation over the entire range; crystal control on any two preset frequencies in the three bands. Crystal operation over the 8 to 16 mc band is not generally satisfactory.

The transmitter will operate into a wide range of antenna lengths. In temporary field installations various counterpoise arrangements are possible; an 8 to 10 foot rod (with suitable loading coil) is recommended for vehicular installation.

Collins Type 415E-3 Power Unit operates from a 12-v storage battery.

AN/GRC-TYPE		INSTRUCTION LITERATURE: Not Available
TCH	SERVICE TYPE NUMBER	CLASSIFICATION OF EQUIPMENT: Unclassified
TRANSMITTER AND RECEIVER EQUIPMENT		USING SERVICE: Navy
		DATE OF THIS SHEET: 23 May 52

MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Transmitter-Receiver Unit Collins Type 18M-5	14-1/4 x 9-5/8 x 9-3/4	25.5
1	Power Unit Collins Type 413B-1	9-1/2 x 22-1/4 x 12	95.0
1	Power Unit Collins Type 415E-3	6-3/8 x 6-5/8 x 3-1/2	8.5
1	Power Unit Collins Type 416T-1	6-1/4 x 6-1/2 x 7-1/2	18.0
1	Power Unit Collins Type 416T-2	6-1/4 x 6-1/2 x 7-1/2	18.0

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Field units or vehicles.

INSTALLATION: Ground, vehicular.

APPROXIMATE RANGE (IN MILES): Short.

CAN COMMUNICATE WITH: AN/ARC-2, -5, -8, -9, -21, -25, -26; AN/ARR-15; AN/ART-13; AN/CRT-3; AN/FRC-10; AN/FRR-3, -4, -7, -12, -28, -32; AN/FRT-5, -6, -15, -17, -18; AN/GRC-9, -13, -26; AN/GRR-2, -3, -5; AN/MRC-2, -6, -16, -20, -22; AN/PRC-7, -19, -20; AN/SRR-3, -8, -12, -13; AN/SRT-4; AN/TRQ-1; AN/URR-10, -22, -23; AN/URT-2, -3, -4; AN/VRC-1, -4; AN/VRR-2; BC-191, -312, -339, -342, -348, -401, -447, -610, -779, -794, -1004; MBS; MQ; OA-58/FRC, -59/FRC, -60A/FRT, -60B/FRT; R-62/PR, -80/PR, -96/SR, -129/U, -203/SR, -205/U, -206/PR, -208/FR, -209/FR, -210/U, -211/U, -213/SR, -274/FRR, -320/FRC, -388/URR; RAL; RAO; RAS; RBB; RBC; RBG; RBH; RBM; RBO; RBP; RBS; RC-52; RCF; RCG; RCH; RDE; RDM; REA; SCR-177, -188, -193, -244, -274, -281, -399, -499, -506, -536, -543, -585, -593, -607, -694, -704; T-4/FRC, -83/SR, -158/FRT, -159/FRT, -172/FR, -173/FR, -174/FR, -175/FR, -177/FR, -180/FR; TBA; TBC; TBK; TBL; TBM; TBN; TBO; TBU; TBW; TBX; TCB; TCC; TCE; TCH; TCK; TCP; TCS; TCZ; TDE; TDF; TDH; TDN; TDO; TEB; TEC; TEF; AR-88 (RCA); Collins 18S-4 (AF Model); Collins 32V-2, 75A-2; Fisher TS 25-3; Hammarlund SP-600-JX; Marconi TH-41-B; National HRO-50; Westinghouse Type MW; Wilcox 96D, 99A.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES: 2 - 16 in 3 bands.

Band 1: 2 - 4

Band 2: 4 - 8

Band 3: 8 - 16.

TYPE MODULATION: Am.

TYPE OF SIGNAL: Voice, cw.

POWER OUTPUT: Transmitter: Cw, 15w; voice, 5w.

Receiver: 200 mw maximum into 500 ohm load.

POWER REQUIREMENTS: 102 w, 12 v, dc; or 160 w, 24 v, dc; or 150 w, 32 v, dc;
or 115 v, dc or ac.

PHYSICAL CHARACTERISTICS

Information on TCH Transmitter and Receiver Equipment not available.