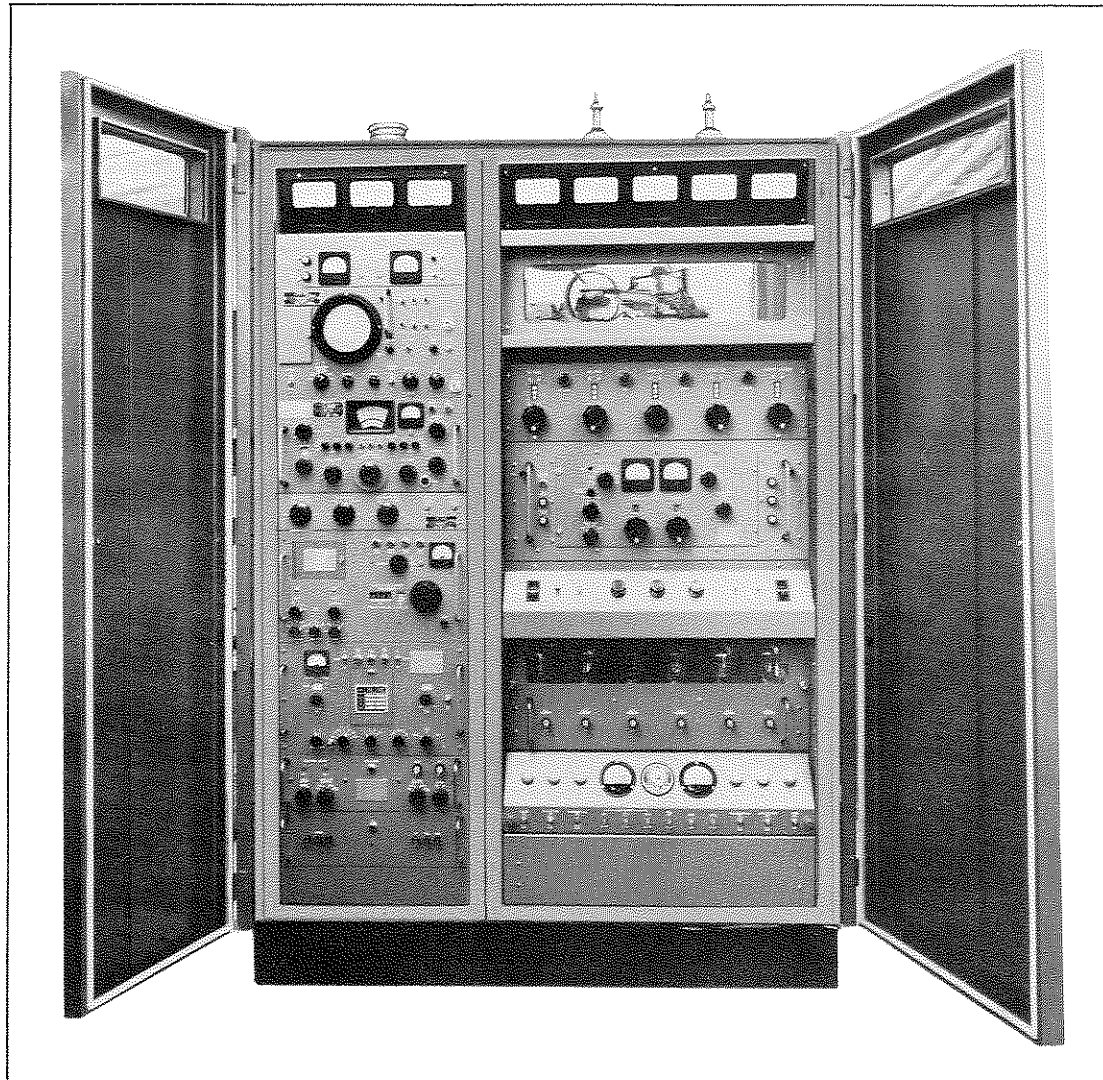


SALES SERVICE BULLETIN NUMBER 207C

Radio Transmitter, Model GPT-10K

AN/FRT-39

NEW



PH-873R

Model GPT-10K Transmitter, Radio

The TMC Model GPT-10K Transmitter, Radio, is a conservatively rated general purpose transmitter capable of providing 10,000 watts PEP output throughout the range of 4 to 28 megacycles.

All Power Amplifier stages are linear, and a ceramic type tube is used in the final for increased efficiency. The transmitter is designed primarily for single sideband service, but may be used for many types of transmission due to its large power reserve and versatility. For example;

1. CW (Keyed Carrier)
2. Frequency Shift Telegraphy
3. Single Sideband suppressed carrier
4. Double Sideband suppressed carrier
5. Independent Sideband (separate intelligence)
6. Single or Double Sideband, AM, or MCW.

TMC's highly efficient modular type construction is used throughout and sectional design permits shipping in reasonably small containers.

As shown in the illustration, the left hand unit houses those units used for mode selection and control. These units are the TMC Model SBE which provides excitation, mode selection and oven frequency control: The TMC Model VOX, Master Oscillator, for FS or CW operation and frequency check: The TMC Model XFK Frequency Shift Exciter: as well as distortion measuring equipment, control and meter panels.

The right hand unit contains rectifiers and the final amplifier as well as additional meters, controls and indicators.

ALDC (Automatic Load and Drive Control) and inverse feedback are used to improve linearity and suppress unwanted transmission products. Frequency change is accomplished in a minimum period due to complete bandswitching throughout.

TECHNICAL SPECIFICATIONS:

FREQUENCY RANGE:	4 to 28 megacycles, bandswitched.
OUTPUT POWER:	10,000 watts, 2 tone PEP, 35db 3rd order. 5,000 watts, 2 tone PEP, 40 db 3rd order. 5,000 watts, CW or FS.
OPERATING MODES:	CW, MCW, SSB, ISB, DSB, FS.
TUNING:	All tuning and bandswitching controls are on the front panels. (No plug-in components)
OUTPUT IMPEDANCE:	72 ohms unbalanced, 600 ohms balanced, Pi-L network.
FREQUENCY CONTROL:	1. Built-in high stability Master Oscillator for CW and FS operation. 2. 10 oven controlled crystal positions plus external oscillator position. 3. 3 additional oven controlled crystal positions in the Model XFK.
DISTORTION PRODUCTS:	Better than 40 db down relative to PEP output, including third order. (See output power).
UNWANTED SIDEBAND REJECTION:	1000 cycle single tone, 60 db down.
HARMONIC SUPPRESSION:	Second harmonic at least 50 db from PEP output, third harmonic at least 65 db from PEP output.
CARRIER INSERTION:	-55 db to full output.
ALDC:	An automatic Load and Drive Control is provided to limit distortion during high drive peaks or load changes.

AUDIO INPUTS: 600 ohm balanced, -20 to +10 dbm continuously adjustable, for full RF output.

AUDIO RESPONSE: (Each Sideband) A. Flat within plus or minus 1.5 db, 350 to 3300 cycles. *
 B. Flat within plus or minus 1.5 db, 350 to 7500 cycles. *
 * depending upon filter ordered with Model SBE.

VOX OPERATION: Voice control with anti trip features. Adjustable gain and squelch.

METERING: Large size illuminated meters accurately indicate operation of all circuits.

DISTORTION MEASURING: Built-in analyzer.

PRIMARY POWER REQUIREMENTS: 208/230 volts AC, 50/60 cycles, 3 phase. Approximately 13,000 watts.

SAFETY FEATURES: Overload and bias protection with automatic re-cycling and alarm. Safety interlocks at all high voltage points.

COOLING: Filtered, forced air cooling. Semi-pressurized cabinet.

TEMPERATURE AND HUMIDITY: Designed to operate in any ambient temperature between the limits of 0 and 50 degrees C for any value of humidity up to 90%.

TUBE COMPLEMENT:

GPT-10K	1 ea.	4CX5000A	RFA &	1 ea.	5ADP7
	6 ea.	872A	P.S.	2 ea.	5651
			(con't)	1 ea.	OA2
RFB-1 &	1 ea.	5R4		1 ea.	5Y3
P.S.	1 ea.	6X4		1 ea.	6AS7G
	2 ea.	OA2		1 ea.	12AX7
	1 ea.	6CL6			
	1 ea.	6146			
	1 ea.	PL 172			
			VOX	1 ea.	5V4G
TTG	2 ea.	12AT7		1 ea.	OA2
	4 ea.	12AU7		1 ea.	6BE6
	1 ea.	6X4		3 ea.	12AU7
				6 ea.	6AQ5
SLM	2 ea.	6U8A		1 ea.	6C4
	1 ea.	6X4		1 ea.	6AB4
	1 ea.	OA2			
			XFK	1 ea.	6J6
RFA &	1 ea.	12BE6	if used	3 ea.	12AU7
P.S.	1 ea.	12AT7		2 ea.	6BE6
	1 ea.	6BE6		1 ea.	2E26
	1 ea.	6AH6		1 ea.	5U4G
	2 ea.	6BH6		1 ea.	6X4
	1 ea.	12AL5		2 ea.	OB2
	4 ea.	6U8			
	2 ea.	6AU6			
	4 ea.	12AU7			

SIZE: 56'' wide x 43½'' deep x 84'' high.

WEIGHT: 2800 pounds.

COMPONENTS AND CONSTRUCTION: Equipment is manufactured in accordance with JAN/MIL specifications wherever practicable.

ADDENDUM:	<u>TMC Model</u>	<u>Sales Service Bulletin Number</u>
	SBE	195
	VOX	134
	XFK	118

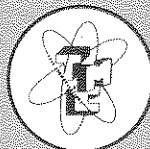
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IN CANADA:
TMC (CANADA) LTD.
OTTAWA, ONTARIO

COMMUNICATION ENGINEERS