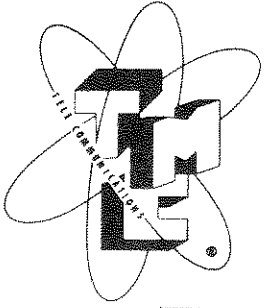


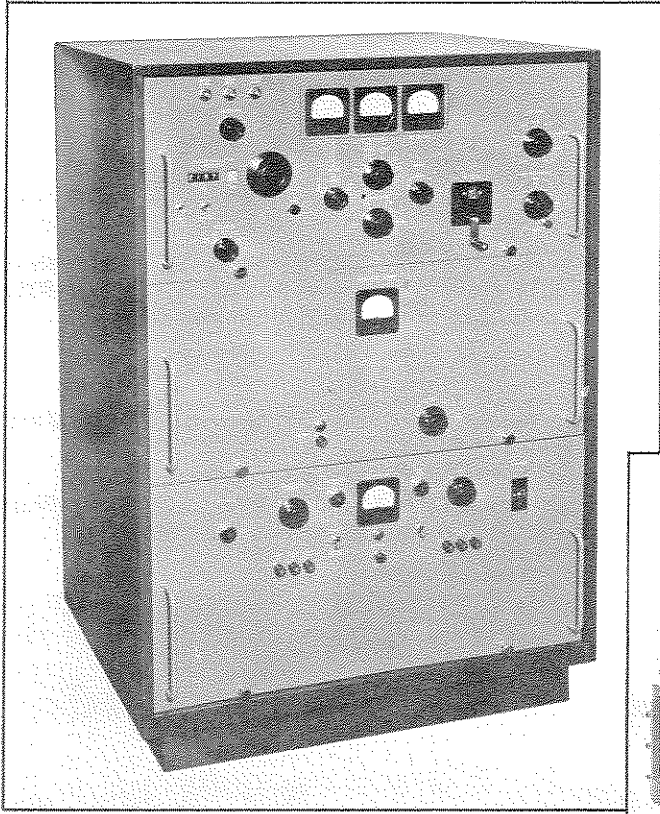
*Cathy Rick*



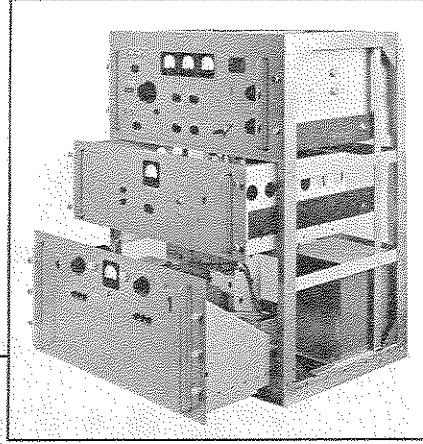
**SALES SERVICE BULLETIN NUMBER 174B**

**Radio Transmitter, Model GPT-750**

*When you buy a radio transmitter, you should buy the best.*



TMC Radio Transmitter,  
Model GPT-750



The TMC Radio Transmitter, Model GPT-750 was designed for radio telephone, telegraph, frequency shift and facsimile operation on all frequencies within the range of 2 to 32 Mcs. This transmitter with its complete band switched extended range and higher power completely obsoletes older transmitters such as the BC-610 yet occupies no more space and utilizes the same mounting centers. Every effort has been made in the design and manufacture of this transmitter to suppress spurious VHF emissions.

This transmitter is rated at a full Kilowatt input for amateur and ICAS and at 900 watts output CW or FS and 500 watts output radio telephone continuous commercial service. The equipment is constructed on a building block basis. Combinations are available which provide for all the commonly used services. The Model GPT-750 may be used to match any antenna load from 50 to 1200 ohms by use of the TMC Antenna Tuning Unit, Model TAC (Bulletin 163).

A desk mounted remote-control amplifier is available as an accessory which contains a speech clipping amplifier and provides for low level microphone input, keying input and remote control of plate power supply. This equipment has been designated Model RTC, Remote Control Amplifier (Bulletin 183).

## MULTICHANNEL OPERATION

The GPT-750 is adaptable for multichannel operation by the stacking of Models RTF Master Oscillator-Amplifiers and in this manner additional pre-set frequencies are immediately available.

## SINGLE SIDEBAND OPERATION

The GPT-750 is adaptable for single sideband operation in conjunction with an SSB Exciter soon to be announced by The Technical Materiel Corporation.

## ORDERING INFORMATION

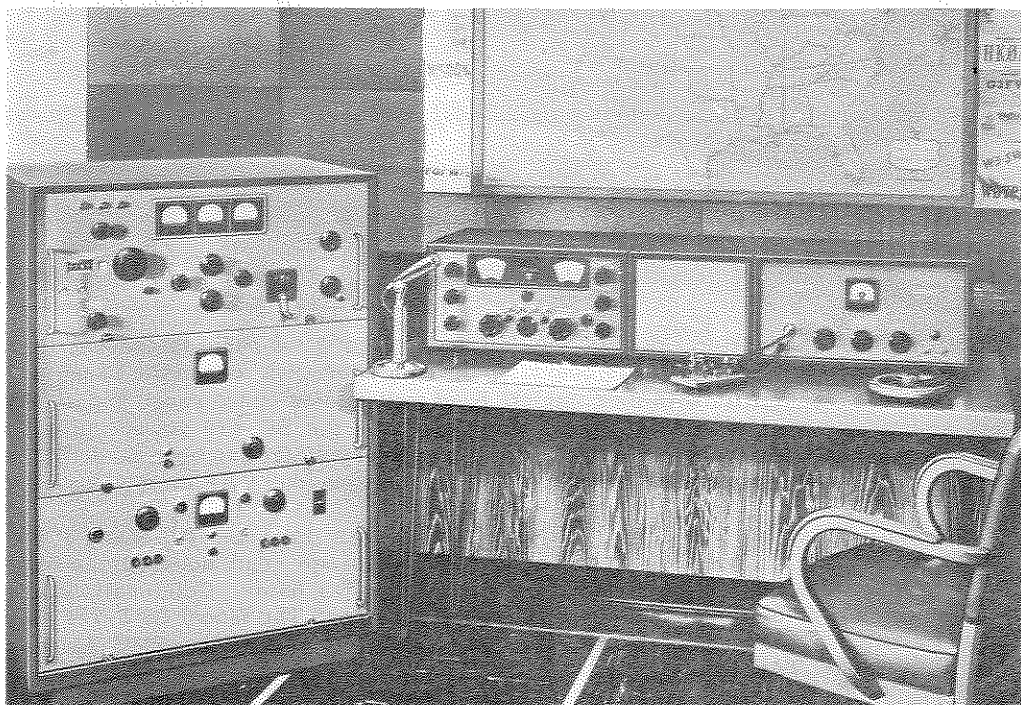
The Model GPT-750 consists of a number of individual component equipments as follows:

|           |                                  |
|-----------|----------------------------------|
| Model RTF | Master Oscillator - RF Amplifier |
| Model RTM | Radio Transmitter Modulator      |
| Model RTP | Radio Transmitter Power Supply   |

Frequency Shift transmission is provided by the TMC Model XFK, Frequency Shift Exciter (Bulletin 118). The XFK fits into a Panel-Chassis Assembly, Part A-959, which is mounted in the transmitter frame to replace the Modulator, Model RTM.

Standard combinations are as follows:

- Model GPT-750(A).....The basic transmitter for CW operation with built-in VFO, less modulator.
- Model GPT-750(B).....Same as above, with Model RTM modulator.
- Model GPT-750(C).....Same as combination A, with Model XFK, Frequency Shift Exciter and Part A-959 Panel-Chassis Assembly.



Series 5700, Communication Station, Using the GPT-750(B)

## SPECIFICATION FILES

### TECHNICAL SPECIFICATIONS

|                                    |   |
|------------------------------------|---|
| FREQUENCY RANGE:                   | 2 to 32 Mcs, band switched.   |
| POWER RATING:                      | Full 1000 Watts input, amateur and ICAS, CW, FS or phone.<br>900 Watts CW or FS, 500 Watts Radio-Telephone output for Continuous Commercial Service.        |
| FREQUENCY CONTROL:                 | Built in high stability master oscillator as used in TMC Models VOX and PMO, plus three crystal positions (HC-6U holders) selectable by front panel switch. |
| MASTER OSCILLATOR CHARACTERISTICS: |   |
| FREQUENCY RANGE:                   | 2 to 4 Mcs continuously variable.   |
| OSCILLATOR CALIBRATION:            | Direct reading in cps.  |
| READABILITY AND RESETABILITY:      | 20 cps per megacycle to a previously calibrated frequency.  |
| FREQUENCY CALIBRATION:             | Oven controlled 100 kcs Oscillator provides crystal check points.<br><br>100 Kcs oscillator may be calibrated against a primary standard.                   |
| ZERO BEAT INDICATION:              | 50 Kcs check points on Neon Light Null Indicator.<br><br>Additional check points provide more accurate calibration aurally by means of headphones.          |
| STABILITY:                         | Better than 20 cps per Mc for a 30 degree change in ambient.  |
| LINE VOLTAGE EFFECT:               | Not more than 10 cps for a $\pm 10\%$ variation.  |
| CRYSTAL OSCILLATOR CHARACTERISTIC: |   |
| FREQUENCY RANGE:                   | 2 to 4 Mcs.   |
| MODULATION CHARACTERISTICS:        | Capable of 100% sine wave plate modulation with less than 10% distortion.   |
| NOISE LEVEL:                       | Better than 40 db down.   |
| FREQUENCY RESPONSE:                | Uniform within $\pm 1.5$ db from 100 to 5000 cps.   |
| OUTPUT IMPEDANCE:                  | 30 to greater than 150 ohms unbalanced.   |

**AUDIO INPUT:**

1. 600 ohm balanced or Carbon Microphone.
2. Low level Microphone when used with Model RTC.

**TUNING:**

All tuning and band switching from front panel.  
(No plug-in frequency components).

**TUBE COMPLEMENT:**

|  | RTF<br>Chassis | RTP<br>Supply | RTM<br>Modulator |
|--|----------------|---------------|------------------|
|  | 2 each 4-250A  | 2 each 872A   | 2 each 810       |
|  | 1 each 6146    | 2 each 5R4GY  | 2 each 6L6       |
|  | 1 each 6BF5    | 1 each 6X4    | 1 each 12AT7     |
|  | 2 each 6AH6    | 2 each OB2    | 1 each OA3       |
|  | 2 each 12AT7   |               | 1 each 5R4GY     |
|  | 2 each OA2     |               |                  |
|  | 3 each 12AU7   |               |                  |
|  | 2 each 6C4     |               |                  |
|  | 1 each 6BE6    |               |                  |
|  | 1 each 4HTF4   |               |                  |

**COOLING:**

Forced filtered air (Double Blowers).

**OVERLOAD & BIAS  
PROTECTION:**

Automatic protection.

**TEMPERATURE HUMIDITY:**

Designed to operate in any ambient temperature between the limit of 0 degrees and +50°C for any value of relative humidity up to 75%.

**AVERAGE PLATE  
EFFICIENCY:**

60 to 75%.

**PRIMARY POWER:**

115/230 volts 50/60 cy. AC, approx. 2100 watts.

**ACCESSIBILITY:**

Tube changes and repairs accomplished from the front of the equipment.

**RUGGEDNESS:**

Transmitter is designed for mobile application.

**CABINET:**

Steel, pressurized type

**SIZE:**

Height 47", Width 34", Depth 27"

**WEIGHT:**

695 lbs.

**COMPONENTS &  
CONSTRUCTION**

Equipment manufactured in accordance with JAN specifications wherever practicable.

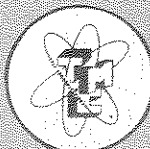
P. P.

# THE TECHNICAL MATERIEL CORPORATION

700 FENIMORE ROAD

MAMARONECK, NEW YORK

CABLE  
TEPEI  
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COMMUNICATION ENGINEERS

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