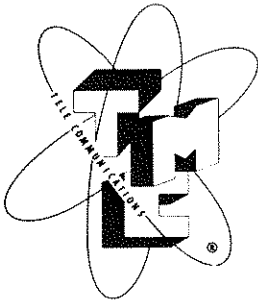


SALES SERVICE BULLETIN NUMBER 179C

Communication Receiver, Model GPR

Series 90

(R-825/URR)



The TMC Model GPR-90 Receiver is a professional double conversion superheterodyne, general purpose communication receiver, covering the frequency range of .54 to 31 megacycles in six accurately calibrated bands.

The GPR-90 contains all of the basic features that must be inherent in good receiving equipment, such as:

1. Low noise.
2. Excellent Sensitivity.
3. Good mechanical construction and shielding.
4. Finest components, conservatively used.
5. Professional communications wiring and circuitry.
6. Highly stable HFO and BFO.
7. Accuracy in Calibration.
8. Ease of servicing.

In addition, the GPR-90 incorporates many new and novel features such as broad-banded feramic input transformer, a grounded grid input stage, low intermodulation, delayed AVC, audio selectivity and excellent audio response.

The unit is available in an attractive metal cabinet for desk mounting or with a 3/16" panel and dust cover for rack mounting.

TECHNICAL SPECIFICATIONS:

FREQUENCY RANGE: .54 to 31 megacycles in 6 bands.

MAIN BAND CALIBRATION: BAND 1. .54 to 1.4 Mc.
2. 1.4 to 3.3 Mc.
3. 3.2 to 5.6 Mc.
4. 5.4 to 9.6 Mc.
5. 9.4 to 17.8 Mc.
6. 17.3 to 31.5 Mc.

BAND SPREAD CALIBRATION:	BAND (Meters)	FREQUENCY (Mc)
	160	1.8 to 2.0
	80	3.5 to 4.0
	40	7.0 to 7.3
	20	14.0 to 14.35
	15	21.0 to 21.45
	11	26.95 to 27.54
	10	28.0 to 29.7

TYPE OF RECEPTION: AM, CW, MCW and SSB signals. FS when used with appropriate audio type frequency shift converter.

TUNING SYSTEM: Accurately calibrated main tuning dial with "Conelrad" markings plus auxiliary dial with full electrical bandspread.

ANTENNA INPUT CIRCUIT: 75 ohms unbalanced, 300 ohms balanced with built-in ferrite transformer providing accurate matching.

ANTENNA TRIMMER: Front panel control permits peaking of antenna circuit.

BFO CIRCUIT: High stability variable BFO.

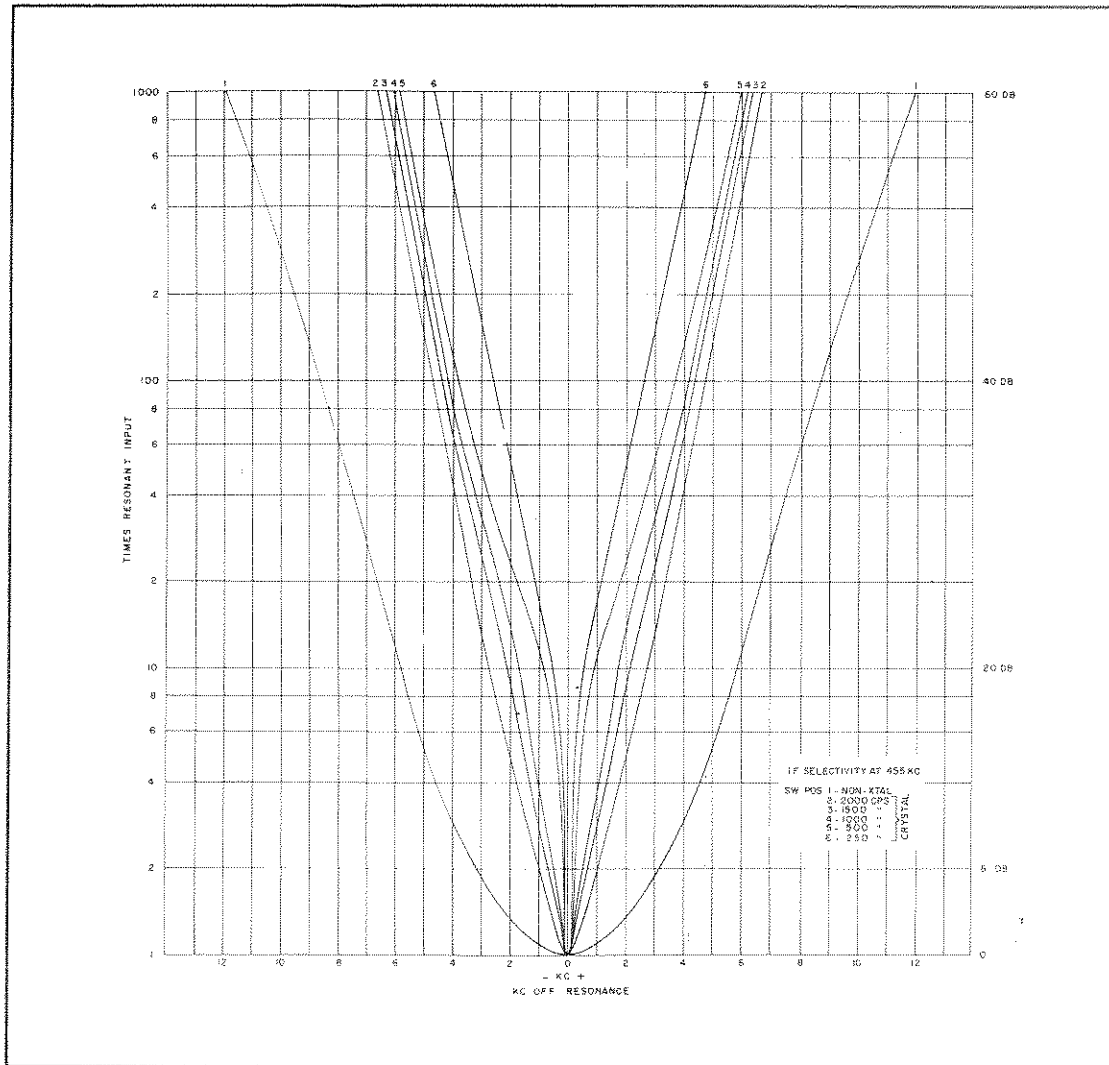
CRYSTAL CALIBRATOR: Provides 100 Kc markers throughout the tuning range.

SENSITIVITY: Better than 1 microvolt from 1.5 to 31 Mc for AM, CW, MCW, FS and SSB signals. Intentionally desensitized to 5 microvolts from .54 to 1.5 Mc. ALL measurements are for a 10 db signal to noise power ratio at FULL RATED OUTPUT.

IMAGE RATIO: Average 85 db.

STABILITY: Better than .002%, first three bands and .003% remainder of range. These figures are after warm-up at a normal ambient and will hold for usual operating periods.

AVC CHARACTERISTICS:	With an 80 db change in the input signal, the output remains constant within 12 db.
SELECTIVITY:	Variable in six steps from 200 cycles to 5 kilocycles, 5 crystal and 1 non-crystal position.
OUTPUT IMPEDANCE:	4, 8, 16, and 600 ohms.
HUM LEVEL:	Better than 60 db.
OUTPUT POWER:	2 watts high quality audio output.
INPUT POWER:	115/230 volts, 50/60 cycles, approximately 90 watts.
NOISE LIMITER:	A highly effective Noise Limiter circuit is provided.
METERING:	Calibrated "S" meter.
AUDIO SELECTIVITY:	Specially designed Audio Selectivity control with variable bandwidth.
FRONT PANEL CONTROLS:	Main Tuning Dial Bandspread Dial Range Selector Antenna Tune Xtal Phase RF Selectivity Audio Gain Calibrate Receive/Send AVC/MANUAL Noise Limiter BFO ON/OFF Audio Spread Phone jack. RF Gain BFO Pitch Audio Selector Dial Locks
REAR PANEL FACILITIES:	Antenna connections Fuse Loudspeaker connections Relay Standby connections Phono ON/OFF Phono input SSB Selector switch
ACCESSORY FACILITIES ON REAR PANEL:	115 VAC outlet. Utility power socket provides 6.3 V .6 amp., 250 V .01 amp Coaxial IF output for SSB Audio input for SSB
DIVERSITY OPERATION:	The model GPR-D is available for diversity application. Provisions are made for external control of the HFO, BFO, and IFO.



TUBE COMPLEMENT:

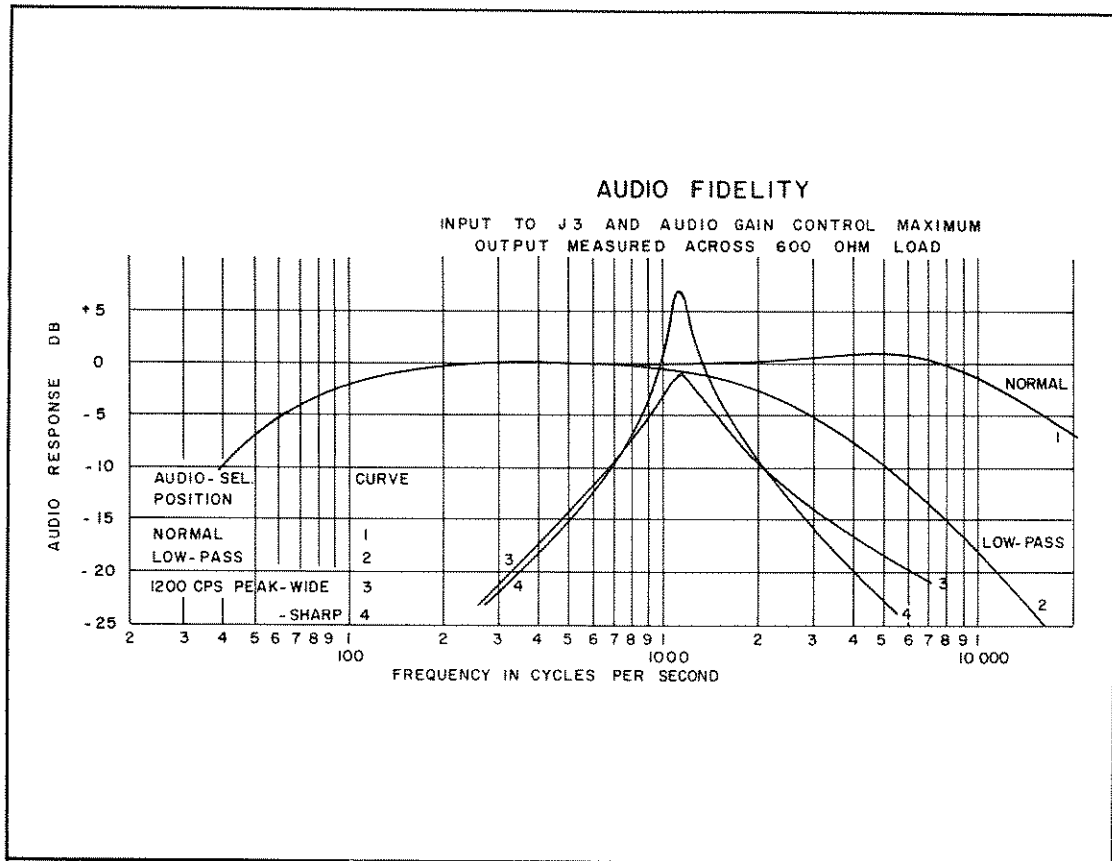
- 6AB4 Grounded Grid Input RF Amplifier
- 6CB6 2nd RF
- 6AU6 1st Converter
- 6AG5 Oscillator
- 6BE6 2nd Converter and Oscillator
- 6BA6 IF Buffer Amplifier
- 3- 6BA6 IF Amplifiers
- 6AL5 Detector and Noise Limiter
- 6AG5 BFO
- 12AX7 AVC and Audio Amplifier
- 6V6 Output
- OA2 Regulator
- 5U4G Rectifier
- 6AU6 Calibrator

ORDERING INFORMATION:

- GPR-90 Desk Cabinet
- GPR-90R Standard 19" rack mount.
- GPR-90D Diversity receiver, 19" rack mount.

SIZE: (a) Cabinet
(b) Rock Mount

20" wide x 10" high x 15" deep.
19" wide x 8-3/4" high x 14" deep.



SHIPPING DATA:

WEIGHTS

NET	GROSS
52 lbs.	79 lbs.
	160 lbs.

DIMENSIONS

Carton - 25'' x 21'' x 16''
 Export - 27'' x 23'' x 18''

**COMPONENTS
AND CONSTRUCTION:**

Equipment manufactured in accordance with JAN specifications wherever practicable.

ACCESSORY EQUIPMENT:

MATCHING SPEAKER:

GPS-1 12'' wide x 10'' high x 8'' deep.
GPS-2 12'' wide x 10'' high x 15'' deep.

SPEAKER IMPEDANCE:

4 ohms.

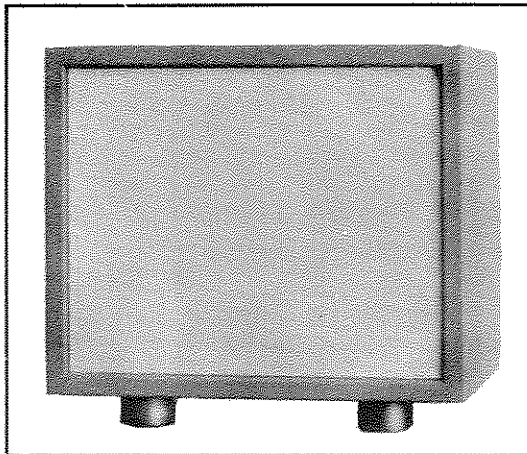
SHIPPING DATA:

WEIGHTS

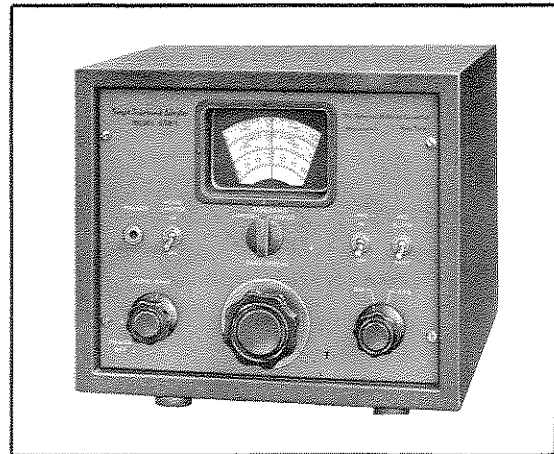
NET	GROSS
-1 9 lbs.	11 lbs.
-2 16 lbs.	19 lbs.

DIMENSIONS

-1	14-1/2''	x	11-1/2''	x	9''
-2	16''	x	13''	x	12-1/2''



MODEL GPS



MODEL GSB-1

SINGLE SIDEBAND ADAPTER:

The TMC Model GSB-1 Single Sideband Adapter is a filter type slicer permitting accurate, simple tuning of SSB signals and has a self contained audio amplifier. See Bulletin 194 for details.

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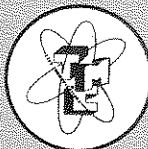
PH-535

THE TECHNICAL MATERIEL CORPORATION

700 FENIMORE ROAD

MAMARONECK, NEW YORK

CABLE
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COMMUNICATION ENGINEERS

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