

Synthesized AM/FM Signal Generator

- 10 KHz to 1040KHz frequency range
- AM, PM and FM modulation
- -127dBm to +6dBm output level
- Self Test and Calibration capabilities
- 25W reverse power protection
- 100 location memory for storing Frequency, modulation and output level data
- Optional GPIB interface



B1240

SPECIFICATIONS

Frequency:

Range: 10KHz to 1040MHz
 Display Resolution:
 10Hz (10KHz to 520MHz), 20Hz (520MHz to 1040MHz)
 Accuracy: $\pm 1.5 \times 10^{-6}$ after 20 minutes of warm up

Output Characteristics:

Output level Range: -127dBm to + 6dBm
 Display Resolution: 0.1dB
 Accuracy: ± 1 dB (> -10dBm), ± 2 dB (< -10dBm)
 Amplitude Flatness:
 < 0.5dB (10KHz to 1040KHz, -10dBm to +6dBm)
 Output impedance: 50 Ω
 Amplitude Units: dBm and dB μ
 Output Protection: 25W of reverse power

Spectral Purity:

Spurious:
 Better than -35dB at carrier frequency < 62.5MHz and 0dBm
 Better than -25dB at carrier frequency > 62.5MHz and 0dBm
 Residual Modulation: FM: 7Hz, AM: 0.05%

Modulation

FM:

Deviation:
 0 to 100KHz (1Mz to 1040MHz)
 Carrier Freq. x 10% (below 1MHz)
 Resolution:
 10Hz (0 to 10KHz deviation)
 100Hz (10KHz to 100KHz deviation)

Accuracy: $\pm 5\%$ for 1KHz or 400Hz modulation
 Frequency Response: ± 0.5 dB (50Hz to 50KHz)
 Distortion: < 2% THD (1KHz Mod., Max deviation and Carrier Freq. > 250KHz)

PM:

Range: 0 to 10 Radians
 Resolution: 0.01 Radians
 Frequency Response: ± 1 dB (10KHz to 10KHz)
 Deviation Accuracy: $\pm 5\%$ at 1KHz Modulation

AM:

Range: 0 to 99%
 Resolution: 0.5%
 Accuracy: better than $\pm 4\%$ of depth setting + 1% at 1KHz
 Frequency Response: $\pm 0.5\%$ (50Hz to 50KHz)
 Envelope Distortion: < 3% THD (at 70% mod and 1KHz)
 Modulation Oscillator: Frequency: 1KHz and 400Hz

External modulation Input:

Range: 10Hz to 50KHz
 Input Level: 0.9V to 1.1V RMS (With Modulation ALC)
 Input Impedance: 100K Ω (Approx.)

Memory:

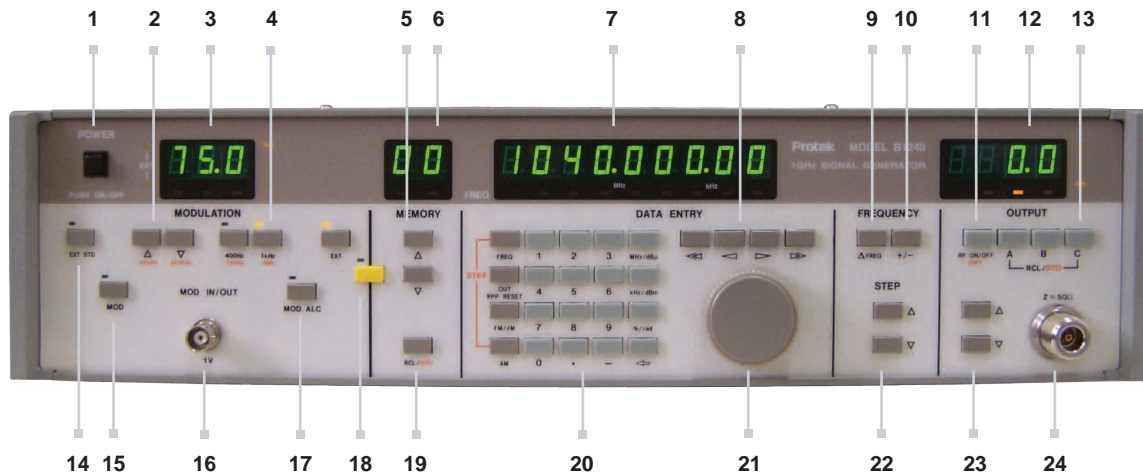
Locations 0 to 19 store Frequency, Modulation and Output level data; Locations 20 to 99 store Frequency data only;
 3 independent memories for storing output level data.

Display:

Carrier Frequency: 9-digit LED
 Modulation: 3-digit LED
 Output Level: 4 -digit LED
 Memory Location: 2-digit LED

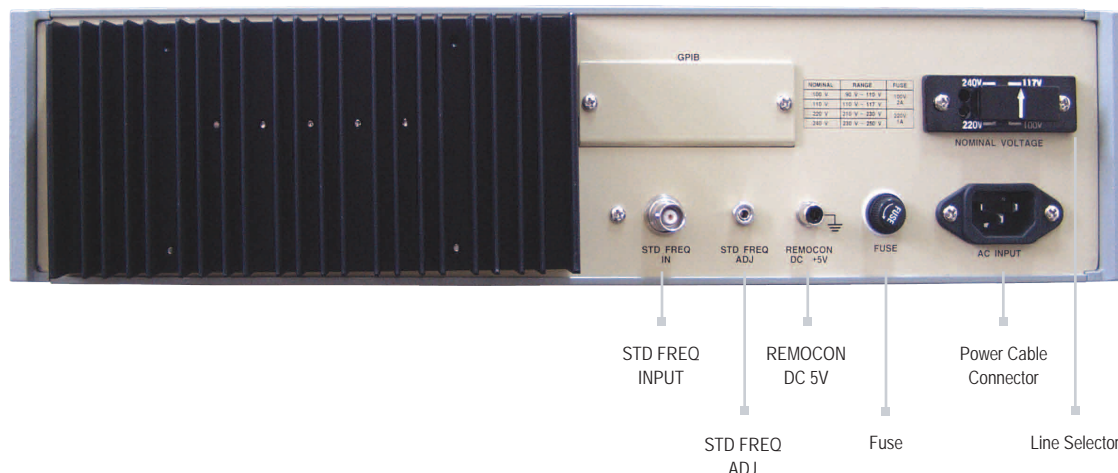
General Specifications

Input Power: 110/220V
 Frequency: 50/60
 Size: 4.7" (H) x 17" (W) x 17.7" (D)
 Weight: 26.5 lbs
 Standard Accessories:
 Operation manual, Line cord and Type N cable
 Optional Accessories:
 GBIB interface



- 1. Power On/off.
- 2. Increases ▲ or decreases ▼ the % mod or Mod Frequency by a preset value. In the second function selects 3.5KHz or 22.5 KHz FM deviation.
- 3. Displays % Modulation in AM and Frequency Deviation in FM.
- 4. Selects 400Hz or 1KHz modulation frequencies. In the 2nd function selects 75KHz deviation or 30% AM modulation.
- 5. Increments or decrements the memory address.
- 6. Displays the Memory Address.
- 7. Displays the RF Output Frequency.
- 8. Function cursor keys
The outer 2 keys selected the display to be changed; the inner 2 keys select the digit in the selected display to be changed.
- 9. The Delta Frequency is used to generate a new output frequency by adding or subtracting the delta value to the current frequency.
- 10. +/- keys determine if the Delta frequency is added or subtracted to the current frequency.
- 11. Turns the output on or off. In the second function selects the dB units.
- 12. Displays the RF Output Level.
- 13. These keys are used to store preset RF output levels in memory and recall them when needed.
- 14. When pressed, an External Reference frequency will be used.
- 15. Modulation On or Off key.
- 16. The Input connector for the external modulation signal when External Modulation is selected. The Modulation output signal is present at this connector when internal modulation is selected.
- 17. When this key is press, the input-modulating signal is kept at a constant level. (0.9V to 1.1V)
- 18. 2nd Function Key, Some keys on the front are dual function, pressing this key enables the second function.
- 19. Selects if data is being stored in or recalled from the displayed memory.
- 20. Keypad
Enter values for the RF Frequency, output level, Modulation or memory display when selected.
- 21. Rotary knob
Used also for entering Frequency, output level, Modulation or memory values in the selected display.
- 22. Frequency step keys
Increases ▲ or decreases ▼ the frequency by a Preset value.
- 23. These keys increase ▲ or decrease ▼ the output level by a Preset value.
- 24. 'N' type RF 50Ω output connector.

■ PANELS



- STD FREQ INPUT
- REMOCON DC 5V
- Power Cable Connector
- STD FREQ ADJ
- Fuse
- Line Selector