GSI-Tympstar Operation
• **Hard Keys** - Designates all pushbuttons labeled on front panel keyboard.

• **Soft Keys** - Designates six pushbuttons below CRT whose function or parameter labels appear on lower portion of the CRT (Selectable parameters appear on screen directly above the appropriate soft key.)
Features

• Probe Tone Frequencies Available: 226 Hz - 678 Hz - and 1000 Hz

• Instrument measures Admittance (Y), and its components:
  – Susceptance (B)
  – Conductance (G)
  – Y and B tracings are highlighted by a bolder display than G.

• **SPECIAL:** Causes GSI 33 to initialize to GSI (or user programmed) default criteria for Reflex Decay test.

• **RETURN:** Allows operator to go back to next higher level in the soft key menu. Depressing RETURN while in CLEAR, PAGE, or PRINT mode restores user to the mode previously selected.

• **START:** Causes selected test sequence to begin in direction indicated by arrow.
Performing the B/G Admittance tests

- Select test mode by turning **POWER ON**, or by depressing **TYMP** hard key.
- Default test parameters are displayed above soft keys on the CRT.
  - Selectable Probe Tone Hz: 226, 678, 1000
  - Selectable Admittance Components: Y, B, G, B/G
- Select **BASELINE-OFF** if tymp test is performed with the following parameters:
- Always record B/G simultaneously with 226 Hz, 678 Hz, or 1000 Hz
Performing the B/G Admittance tests

After performing the B/G Admittance test for 226 Hz, the screen should show something similar to the following picture.
678 B/G Tympanogram
1000 B/G Tympanogram
Sweep Frequency
Tympanometry (MULTIPLE Hz)

- Depress SPECIAL followed by RETURN.
- The following screen should be seen.
MULTIPLE Hz

- Select test mode by depressing **MULTIPLE Hz** soft key.
- The following screen should be seen.
MULTIPLE Hz

• Make sure that the DELTA PLOT option on the screen is B. This will perform a Delta B test, where as a G will perform a Delta G test.
• Press START to initiate test.
• The tympstar automatically sweeps the frequency from 250-2000 Hz in 50 Hz interval at + 200 daPa
• Once this part is done you have to select the “Continue” on top of the soft key
• The GSI Tympstar automatically runs a 226 Hz Y tympanogram to determine the peak pressure
MULTIPLE Hz

- The GSI Tympstar automatically runs a 226 Hz Y tympanogram to determine the peak pressure.
- The ADMITTANCE soft key indicates which component is measured as a function of probe frequency at the start and peak pressures. (B is the best component for this test.)
MULTIPLE Hz

- After Tympstar automatically runs a 226 Hz Y tympanogram and determined the peak pressure, it sweeps the frequency again from 250-2000 Hz in 50 Hz interval at the peak pressure.
- $\Delta B$ and $\Delta \Phi$ are automatically calculated and plotted as a function of probe frequency on upper graph display by subtracting the peak $B$ value from the tail $B$ value.
- Resonant frequency is displayed as the $\Delta B$ crosses the Zero line.
MULTIPLE Hz

• Tymps may be obtained for frequencies below and above identified resonance point of the ear. To select probe tone frequency for next tymp:
  – Press PROBE Hz soft key.
  – Use arrows $\downarrow \uparrow$ to arrive at desired Hz.
  – Press SET Hz soft key to select probe tone.
Use $\leftarrow$ START or CONTINUE to run next tymp,