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DIFFERENCES BETWEEN THE 'A' AND 'B' VERSIONS OF THE SOUND TECHNOLOGY 3000 SERIES AUDIO TEST SYSTEMS

The following features are part of the "B" versions of the 3100 Generator and 3200 Analyzer. These features are not available with the "A" versions of both units.

3100B Audio Generator

1) SELECTED FREQUENCY SWEEP

The ability to define the exact frequencies contained in a frequency sweep has been added as a standard feature. The SELECTED FREQUENCY SWEEP function allows you to define and store up to 16 frequency sweep tables, each having up to 98 frequencies, where each frequency can be chosen from an array of 300 total frequencies.

The SELECTED FREQUENCY SWEEP is different from the other 3100B Generator frequency sweep capability (LOG FREQUENCY SWEEP). With the LOG FREQUENCY SWEEP mode, you define the start and stop frequencies of the sweep and the points-per-decade resolution. The 3100B then mathmatically determines those frequencies which will comprise the frequency sweep.

2) LEVEL OFFSET

The ST 3000 series is unique to the world in that you can design and store 32 different test sequences, or proofs, into the Generator. Those proofs are usually stored with a "0dBm/600" operating level. However, in the real world you would probably need to run the proof at a level other than 0dBm. The LEVEL OFFSET capability allows you to quickly and easily offset the level up or down relative to the stored 0dBm operating level.

All you need to do is access the Level LED while you are in the Autosequence (proof) mode. Then key-in a positive or negative level in dB. Once you re-start the proof, each segment the proof will run at relative to the offset level you have chosen!

3100B Generator, continued:

3) STOPPING and then RESTARTING an AUTOSEQUENCE

If you want to stop an Autosequence to printout intermediate results or possibly make an adjustment, you can do it. Simply insert panel no. 255 (a fictitious panel) anywhere in an Autosequence and the proof will stop there. Press START to continue.

4) EXPANDED PROOF MEMORY

The 3100B can store 32 proofs each having up to 50 steps. The generator configurations for each segment of the proofs are stored as "panel setups" and are given a "panel number". There is now generator memory to store up to 300 panel setups. Any of the 300 panel setups can be used throughout any of the 32 proofs.

For reference, the 'A' version of the 3100 Generator has memory sufficient for 16 proofs, each having up to 80 steps. Total panel setup memory is 90 panel setups.

3200B Audio Analyzer

1) GRAPHIC PRINTOUT CAPABILITY

The 3200B can automatically printout test results graphically to a standard dot matrix printer. Contained in the Analyzer memory is 75 different graph formats. The Analyzer looks at the acquired test results and chooses the graph format which will give the best resolution. Graphic printout is an option on the 3200B.

2) WOW AND FLUTTER MEASUREMENT

Wow and Flutter measurement is optionally available on the 3200B Analyzer. You can choose to measure to three different standards: NAB, JIS and DIN/ANSI. All can be measured either weighted or flat. Wow and Flutter can be measured against an incoming carrier frequency between 2.0 and 4.0 kHz. The 3200B's right hand digital display shows the exact carrier frequency.

Wow and Flutter is showed both digitally and on the analog meter. Dynamics are 2-sigma statistically averaged.

The bandwidth of the measured spectra is 0.5 Hz to 300 Hz. Residual Wow and Flutter is less than 0.0005%, NAB flat.

3200B Audio Analyzer continued:

3) SELECTABLE HI/LO INPUT IMPEDANCE

User definable high and low input impedances are standard on the 3200B Analyzer. Generally speaking, the low impedance is usually specified as 600 ohms, while the high impedance is usually 100K ohms each side to ground.

For reference, the 3100A is strictly high impedance on its inputs.

4) OPTIONAL WEIGHTING FILTERS

Front panel selection of an Optional filter has been added. At this time, the only factory available optional filter is CCITT P53/DIN 45405.

5) NOISE FLOOR DISCRIMINATION

Normally, the 3200B will read frequencies down to a one milli-volt level. When making low level signal-to-noise measurements, we can program the Analyzer to read frequencies above a certain user-defined level. This prevents storing data for each random frequency in a random signal. You can now key-in that threshold level on the front panel.

6) DEFINING RESISTANCE FOR WATTS MEASUREMENT

Front panel definition of the resistance for accurate Watts measurement is now available.

For reference, the 3200A only measures Watts into 8 ohms.

7) INCREASED MEMORY FOR STORAGE OF TEST RESULTS

The 3200B now stores up to 99 test catagories for a total of 600 measurement sets, each including up to 3 parameters (i.e. ThD, Frequency and Level).

8) SELECTABLE MEASUREMENT TIME DELAY/ADDING DATA SAMPLES

A measurement "cycle" consists of averaging a number of test samples and storing the results. The settling time requirements of some equipment may require a time delay between the start of the test and the beginning of the

3200B Audio Analyzer, continued:

8) SELECTABLE MEASUREMENT TIME DELAY/ADDING DATA SAMPLES, continued:

measurement cycle. Also, in a particularly noisy environment, it may be desirable to add more test samples to be averaged. Both of these may now be done through FSK, GPIB, or the front panel scroll buttons. A test delay of 0 to 9,999 msec may be added. 0 to 20 data samples may be added with a separate number specified for each of the 9 test categories. Adding data samples also spaces out the time between all samples - future contributing to data smoothing.