Model Two

Distribution Signal Level Meter

- 5 to 870 MHz Standard Frequency Coverage
- Full Scan, Single Channel, and Spectrum Modes
- Data Logging
- Large, High-Resolution Display
- Rugged, Simple to Use, and Cost Effective

Overview

The Model Two™ signal level meter is designed to provide optimal features at a reduced cost. Amplitude measurements are fast and efficient. Carrier amplitudes are displayed individually, as a group (up to 12 "favorites"), or as a full-span display. This meter also features a single-channel spectrum mode which displays the presence of interfering beats in addition to the carrier amplitudes. The meter lets you take the direct power measurement of QAM signals, data logging, and also includes a voltmeter function.

Five user-defined channel plans may be stored. The Model Two can perform a complete test of all channels in the selected user channel plan, to specified limits at the press of a single key. It can also be set to automatically perform level, spectrum, tilt (favorite), and limit tests at programmed intervals, unattended.

The Model Two can save files for level, tilt, spectrum, scan, limit test, and auto-test measurements. These files can be recalled to view the recorded data. Scan, spectrum, and limit files can be viewed graphically. Files may be uploaded to a PC through the optional ToolBox™ software for analysis and printing.

The Model Two is the ideal signal level meter for HFC installations. It is durable, has many features, and is simple to use in a wide range of conditions. Its tough, plastic shell and protective jacket make the Model Two highly resistant to damage from shock and impact. When not in use, the meter and its accessories are contained in a carrying case.

The Model Two is rugged and convenient to use. It weighs only 1.45 pounds and can be carried and operated with one hand. All measurement functions are accessible via a single keystroke, and, with the fast setup function, settings for each measurement mode can be accessed at the press of a single key, without going through nested menus. Other functions are simplified through the combination of dedicated function keys and "soft keys."

Model Two *Distribution Signal Level Meter*

Building on the success of the Model One™, the Model Two distribution signal level meter introduces many new features and enhancements. These include expanded FCC level testing, one-button programmable test sequences, a 50% increase in battery life (with fast charging), enlarged LCD screen, and many others.

Performance Enhancements

MORE LEARNED CHANNEL PLANS

The Model Two can retain up to five user-defined channel plans. This is a convenience for contractors who work in several systems with differing channel lineups. Plans can be automatically learned (from eight base plans) at a cable drop, or downloaded from PC files using the optional ToolBox software. The operator can select key channels in each user plan to be included in a tilt/favorite channel plan. A separate tilt/user plan can be configured for each user plan.

AUTOMATED FCC PROOF OF PERFORMANCE TEST, WITH DATA EVALUATION

At the press of a key, the Model Two performs all FCC Part 76 level-related tests including:

- Visual carrier levels
- Relative visual/aural carrier levels
- Difference between maximum and minimum visual carrier levels

DIFFERENCE BETWEEN ADJACENT VIDEO CARRIER LEVELS

Measurements can be executed immediately or programmed to occur at timed intervals, unattended, as an FCC 24-hour variation test. The Model Two can be programmed to score test results against FCC limits, or limits set by the user.

EXPANDED, FLEXIBLE DATA STORAGE

Level, tilt, spectrum, scan, and limit test measurement files may be saved. Auto-test files are saved automatically. Any combination of up to 35 level, tilt, spectrum, or scans, or up to 25 limit test measurement files may be saved on the Model Two. These can be uploaded to a PC and saved using the optional ToolBox software.
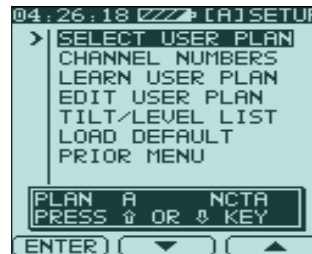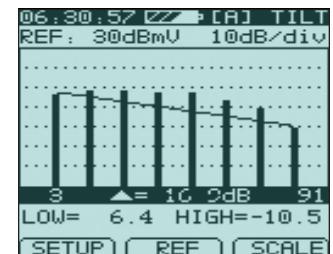

Learn and edit up to 5 channel plans.

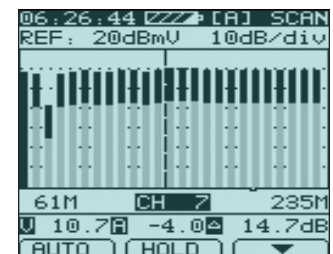Choose from 8 base channel plans.
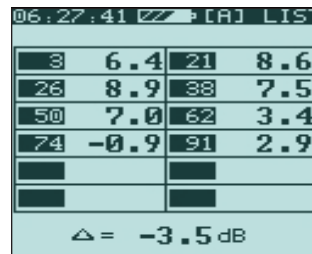
Display favorite channels and tilt in tabular form.

Display favorite channels and tilt as a graph.

Single channel display, with Δ V/A.

Scan all channels and zoom-in 5 levels of magnification.

Log amplitude data to files,
user-selectable. Upload to
PC using ToolBox software.

Up to 7 user programs
can be stored for
recall when needed.
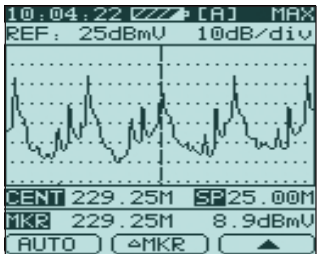
Display RF spectra
with spans of 2.5 to
62.5 MHz or full span.
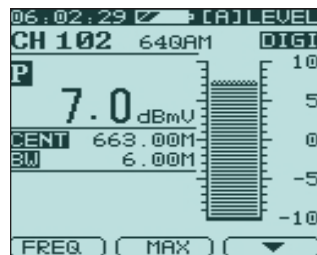
QAM power available
in numeric (shown)
or graphic displays.

Measure up to 120
Volts, AC/DC.

Simple, intuitive
set-up screens.

USER-DEFINED TESTING PROGRAMS

A great convenience for the operator, the Model Two's program capability allows groups of tests to be assembled into automatic procedures that can be executed with a single keystroke. Several programs can be stored in the Model Two and called up when needed. These may include level, tilt, spectrum, and limit tests. Limit test data may be automatically scored against specified limits and assembled into reports.

EXTENDED BATTERY LIFE, FAST CHARGING

The Model Two's battery provides six hours or more of continuous use between charges. One hour of fast charging from AC or vehicle power provides nearly three hours of extended operation.

LARGER LCD DISPLAY

The Model Two display has been enlarged and new screen graphics enhance readability and simplify operation.

WIDER CHANNEL SCANS

The Model Two can display up to 126 channels in a single view. A total of 150 channels can be displayed in two overlapping views. The settings for the currently-active measurement mode can be accessed at the press of a single key, without going through nested menus. This allows the operator to quickly make changes in the settings and return to measurement mode with no wasted time.

NEW LEVEL MEASUREMENT FEATURES

As an aid to troubleshooting, the operator can now choose LIVE, MAX, or Δ P-P (variation) signal level displays. LEVEL mode now measures both aural carriers on channels equipped for dual audio programming.

NEW SPECTRUM MEASUREMENT FEATURES

A Δ MARKER function is now included in spectrum and single-channel spectrum modes. MAX HOLD captures transient events.

Specifications

Frequency	**Range:** 5 to 870 MHz **Accuracy:** ±50 ppm @ 20° C ± 5° (68° F ± 9°) **Resolution:** 10 kHz	**Limit Test Parameters**	Any of the following may be enabled: **Min video:** 40 to 119 dBμV (-20 to +59 dBmV) **Max video:** 41 to 120 dBμV (-19 to +60 dBmV) **Max Δ video:** 2 to 30 dB **Min Δ V/A:** 0 to 15 dB **Max Δ V/A:** 5 to 30 dB **Max Δ ADJ:** 0 to 20 dB **24 hour video dev.:** 0 to 20 dB
Channel Type	**Analog TV:** TV **Digital TV:** QAM, QPSK **FM channel:** single frequency Dual audio channels	**Auto-Test**	**Number of programs:** 7 (max) **Tests:** level, tilt, spectrum, limit, and 24-hour video deviation (any or all tests may be used in an auto-test program) **Time intervals:** 1 to 23 hours **Test times:** 1 to 10 times
Level Measurement	**Range:** 30 to 120 dBμV, -30 to +60 dBmV **Accuracy:** >35 dBμV or –25 dBmV ±1.5 dB, 10 to 30° C (50° to 86° F) (LEVEL) ±3 dB, -10 to +40° C (14° to 104° F) (LEVEL) ±2 dB, 10 to 30° C (50° to 86° F) (SCAN) **Resolution:** 0.1 dB **Input impedance:** 75 Ω (unbalanced, BNC or F-type connector)	**Trunk Voltage Measurement**	**Input range:** 1.2 to 100 VAC, 1.0 to 100 VDC **Accuracy:** ±1.0 V **Resolution:** 0.1 V
Channel Scan	**Number of channels:** 150 (max) **Scanning speed:** 2.75 channels per second **Scale:** 1, 2, 5, 10 dB/div **Zoom:** 1x, 2x, 3x, 4x, 5x; five levels of magnification or full channel plan scan	**Power**	3.6 V, 3.5Ah NiMH battery **AC charger:** 100 to 240 VAC, 50/60 Hz, 1.8 A 7 VDC (max) Provides 6 to 8 hours of continuous operation **Charge time:** Less than 3 hours
Frequency Spectrum	**Bandwidth:** 2.5 MHz, 6.25 MHz, 12.5 MHz, 25 MHz, 62.5 MHz, and full span **Scale:** 1, 2, 5, 10 dB/div	**Display**	128 x 128 backlit LCD
Digital Channel Power (Average)	**Bandwidth:** 0.28 ~ 9.99 MHz **Center frequency:** 5 MHz (plus ½ channel bandwidth) to 870 MHz (minus ½ channel bandwidth) **Digital modulation:** QAM, QPSK	**Audio**	Built-in speaker
		Communication Port	RS-232C
Tilt Measurements	**Number of channels:** 4 to 12 **Resolution:** 0.1 dB	**Storage**	32 Kb of memory. Up to 35 complete scan files (150 channels max) or 25 complete limit test files (150 channels max); less if other files (level, tilt, spectrum) are saved.
		Weight	1.45 lbs (658 g)
		Dimensions (H x W x D)	8.58" x 3.74" x 1.93" (218mm x 95mm x 49mm) (dimensions do not include belt clip)

ACCESSORIES:

CL-6 vehicle power adapter
P/N 2071483000

CC-17 protective sleeve
P/N 2130856000

CC-18 holster with belt loop
P/N 2130854000

I/O-11 PC data cable
P/N 2071351000

I/O-15 precision RF coaxial test cable
P/N 2071527048

ToolBox software (includes I/O-11 PC data cable)
P/N 0930089000

INCLUDES THE FOLLOWING:

Protective rubber bumper

AC battery charger

Carrying case

User's manual

Shoulder strap