



# TRICORDER II & III

## TRICORDER II and TRICORDER III FEATURES:

- ✓ SIGNAL LEVEL MEASUREMENT
- ✓ CALIBRATED LEAKAGE DETECTOR
- ✓ SMALL, LIGHTWEIGHT, CONVENIENT
- ✓ TWO YEAR WARRANTY

### Small, Light, Convenient

The TRICORDER II and the TRICORDER III combination signal level meter and calibrated leakage detector each weigh only three pounds, and are small enough to be carried and used in one hand. The package is optimized for convenient operation with such features as a side strap to reduce hand fatigue, spin knob control of all functions, and a large LCD display especially designed to be viewed from all angles and temperatures. There is no signal level meter more convenient or easier to use than the TRICORDER II and TRICORDER III, which incorporates synthesized, spin knob tuning and auto-ranging input attenuators. A range of standard channel plans are selectable from the front panel, or you can command the TRICORDER II or TRICORDER III to determine what channels are active on the system and build a plan of its own.



TRICORDER II

### TRICORDER II

The TRICORDER II performs all of the tests needed for quality installations on active distribution systems. The TRICORDER II measures signal levels and is a sensitive calibrated leakage detector. Options add the ability to data log records to memory and download to a PC or printer, and automatically store level data for FCC compliance.

### TRICORDER III

The TRICORDER III performs all of the TRICORDER II functions, plus carrier to noise ratio and Hum of any active channel. The TRICORDER III automatically measures carrier amplitude and noise, then displays the ratio in the display window.

Hum testing on active carriers is simple. The TRICORDER III allows you to select 60 Hz, 120 Hz or low frequency noise for detailed troubleshooting of power problems.



TRICORDER III

TRICORDER II & III



# TRICORDER II & III

## Choice of Power

The TRICORDER II and TRICORDER III operate for three continual hours per charge on its internal NiCad batteries which are field replaceable. The TRICORDER II and TRICORDER III may be operated in the leakage mode, while the batteries are charged from the optional mobile-mount (*MB-1*).

## Delta dB

With a push of the "DELTA" button, the delta function automatically computes the aural-to-visual level ratios for any channel. The function can also be used to determine the ratio between system pilot carriers or any other pair of user-specified carriers.

## Leakage Detection

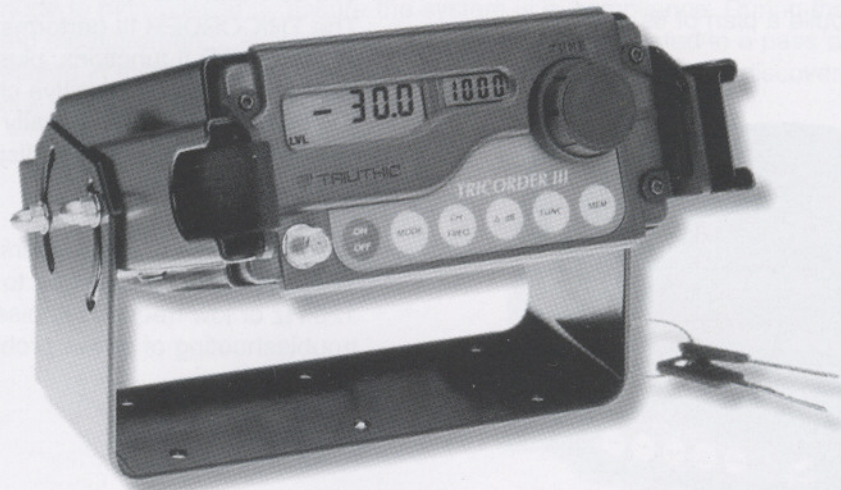
The standard TRICORDER II and TRICORDER III includes calibrated leakage measurement, and is equipped to recognize leakage test signals that have been "tagged" by a TRILITHIC *CT-2* or *CT-3 Channel Tag*, making the TRICORDER II and TRICORDER III immune to interference from power lines, automotive ignitions, and even leakage from overbuilt or adjacent systems.

The leakage detection frequency is front panel adjustable from 107 MHz to 157.25 MHz in 12.5 kHz steps. Calibrated leakage frequency is front panel adjustable from 115-140 MHz in 12.5 kHz steps. The TRICORDER II and TRICORDER III performs calibrated measurements on leaks as small as 5 uV/meters with the precision similar to a *Searcher Plus*. Quarterly drive outs are easily done with the optional mobile mount (*MB-1*), which includes connections for a monopole antenna and 12VDC supply.

## TRICORDER Series Options

### Calibrated Leakage Measurement

This option is available as a retrofit to existing units which equips the TRICORDER II or the TRICORDER III to perform annual CLI measurements. The leakage bar graph of the uncalibrated TRICORDER is replaced with a numerical display which reads in microvolts per meter. Sensitivity is rated at 5 uV/m when used with a TRILITHIC AFS series calibrated dipole antenna.





# TRICORDER II & III

### Data Logging

The Data Logging option is useful for both FCC testing and routine, daily system documentation. The TRICORDER II and TRICORDER III perform the FCC mandated 24 hour level variation test unattended, on battery power. The interval between measurements can be set from 1 minute to the FCC-mandated 6 hours.

The data logging function can also be used to record signal levels at subscriber drops and key test points in the system. The TRICORDER II or TRICORDER III's non-volatile memory can hold the aural and visual carrier levels of up to 116 channels at up to 24 test sites, which may be uploaded to a PC or serial printer. As the TRICORDER II or TRICORDER III scan the channel plan selected, it notifies the operator of any visual carriers that do not meet user-settable level limits and any aural-visual carrier ratios that exceed FCC specifications. Each data record is stamped with the date and time the record was logged and labeled with a seven-digit tracking number entered by the operator.

### Drop Verifier

The DROP VERIFIER option allows a user to quickly verify that audio/video levels found at the "TAP", "BLOC" (ground block), or the "SET" fall within user specified limits. The TRICORDER II and TRICORDER III auto scans the user memories, comparing each memory to a minimum and maximum limit that has been preset using *TRIS SETUP* software, for the "TAP", "BLOC" (ground block), and "SET". After the scan is completed, the TRICORDER II and TRICORDER III will display "PASS" or "FAIL" for the location selected.

### FCC Evaluator Option

The new FCC EVALUATOR is an internal firmware option that analyzes data logging records for compliance with all FCC amplitude-related requirements. At the end of the analysis the FCC EVALUATOR generates a "PASS" or "FAIL" message on the TRICORDER II or TRICORDER III's display, and assembles a full FCC compliance report for uploading to a PC or printer. The operator can also recall the levels of all carriers that failed the tests onto the LCD display, with a message that indicates which tests were failed.

## SLM Mode

<b>Freq Range</b>	5 - 1000 MHz
<b>Meas Range</b>	-30 dBmV to +60 dBmV, with 0.1 dB resolution
<b>Meas Accuracy</b>	+/- .75 db @ 25 c
<b>Tuning Modes</b>	Single frequencies, selected in steps as small as 50 kHz: all channels specified in the 10 user memories: or all channels in any of the on-board channel plans.
<b>Channel Tuning Plans</b>	NCTA, HRC, IRC and AIR (standard VHF/UHF), plus two user-defined plans, L1 and L2 (PAL B/G and others available)
<b>Delta DB</b>	Video/Audio or Mem1/Mem2, +/-1.5 db @ 25 c, +/-3.0 dB over temperature
<b>HUM</b> (TRICORDER III ONLY)	Selectable filters: 60 & 120 Hz. Bandpass, and 600 Hz. Lowpass 0+ 5% (.1% resolution) +/- .5% @ 25 c (lowpass) +/-1.5% over temp (lowpass)
<b>Carrier to Noise:</b> (TRICORDER III ONLY)	+20 dBmV video carriers allows reading to 43 dB automatically corrected for 4MHz bandwidth. +/-2.0 dB @ 25 c

## Data Logging and Retrieval

<b>Data Records</b>	Maximum of 24 records, containing video/audio, and delta levels for up to 116 channels
<b>Data Retrieval</b>	Download via RS-232 to local or remote printer or PC
<b>Time Between Measurement</b>	1 to 360 minutes, user-adjustable

## Calibrated Leakage Mode

<b>Freq Range</b>	115 to 140 MHz in 12.5 kHz steps
<b>Sensitivity</b>	2 uV/m in mobile mount (MB-1) w/AVM Series antenna
<b>Measurement Range</b>	2 to 1999 uV/m with 1 uV/m resolution