SEARCHER FAMILY

- Monitoring and Drive-Outs
- Walking down the source of leakage
- Near field preventative maintenance measurements
- Testing Installations for excessive leakage



For 15 years, Trilithic's Searcher Series Leakage detectors have been the standard of the Cable Industry. Today, over 20,000 of these instruments are in daily use by systems all over the world to control system leakage, perform government-mandated proof of performance tests, and to identify the small leaks in a system that may warn of reverse ingress problems. All Searcher Series detectors are shipped ready to perform the full range of leakage control applications:

- Monitoring and Drive-Outs
- Walking down the source of leakage
- Near field preventative maintenance measurements
- Testing Installations for excessive leakage

Hand Held and Vehicle Use

Every Searcher Series instrument is shipped with a sturdy, lockable vehicle mount. Connections to vehicle power and whip antenna configure the Searcher detector for convenient drive-out operation. The detector may be easily removed from the mobile mount for CLI measurements using the optional AFS[™] series calibrated dipole. When tracking down a leak source on foot, the operator may use the provided flexible rubber antenna or the optional near field probe for close-in inspection and fault diagnosis.

Searcher Family Leakage Detectors

The Searcher Plus is an accurately calibrated leakage receiver, providing readings in micro volts per meter (μ V/m) for CLI measurements. Offering the very best value in all aspects of CLI compliance including monitoring, locating, near field maintenance and absolute field level measurement.

The Super Plus leakage receiver is designed for the new era of digital program services and overbuilt systems. Its high immunity to "false alarms" from other signal sources (even leaks from other systems) make the Super Plus the perfect instrument for identifying leaks in noisy or overbuilt areas. Because the Super Plus only responds to carriers that have been "tagged" by a CT-2 (Channel Tag) or CT-3 Tagged Carrier Inserter, it rejects the effects of ignition noise and power line interference.

Searcher Plus GT is the first Leakage Measurement Receiver built specifically for systems employing digital set top terminals that cannot tolerate "tagged" leakage carriers. The GT provides enhanced "false alarm" resistance and many of the features of the Super Plus without the use of a tagged leakage test signal.

SEARCHER FAMILY Leakage Detectors

SPECIFICATIONS

SEARCHER PLUS (P/N 2010773000)	
Frequency Range: Single frequency	108.0000 to 157.2500 MHz
Selectivity	Typical 15 KHz at -3 dB
Measurement Accuracy	+/-1.5 dB @ 25° C (77° F) +-3.0 dB @ -18° C to 49° C (0° to 120° F)
Alarm Indication	Audio tone with pitch proportional to full scale meter deflection. Detected audio super-imposed on alarm tone.
Meter Functions	2–2000 $\mu V/m$ in 2 ranges, normal amplitude tracking. When detector is set to HOLD mode, the peak reading is held 5 seconds before auto-reset.
Power	Internal Rechargeable NiMH battery 13.8 VDC vehicle power through mobile mount (SMB-1)
Weight	1 lb. (0.45 kg) without mobile mount
Dimensions	1.75" x 3.25" x 6.0" (H x W x D) (44mm x 83mm x 152mm)

SEARCHER PLUS GT (P/N 2010438000)	
Frequency Range:	Single frequency between 108 to 157.25 MHz
Selectivity:	Typical 6 KHz at -3db
Input Sensitivity:	2 $\mu V/m$ in x 1 mode; 20 $\mu V/m$ in x 10 mode
Meas Accuracy:	+/-1.5 dB @ 25° C (77° F) +/-3.0 dB @ -18° C to 49° C (0° to 120° F)
Alarm Indication:	Audio tone with pitch proportional to meter deflection
Meter Functions:	2–2000 $\mu\text{V/m},$ normal amplitude tracking. When detector is set to HOLD mode, the peak reading is held 5 seconds before auto-reset.
Power:	Rechargeable NiMH battery, internal charger operates from 13.8 VDC vehicle power.
Weight:	1lb. (0.45kg) without mobile mount
Dimensions:	1.75" x 3.25" x 6.0" (H x W x D) (44mm x 83mm x 152mm)



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SEARCHER FAMILY

SPECIFICATIONS

SUPER PLUS (P/N 2010686000)

Frequency Range:	Single frequency between 108 to 157.25 MHz
Selectivity:	Typical 6 KHz at -3db
Input Sensitivity:	<.5 $\mu V/m$ in SUPER mode, used with CT-2 or CT-3 2 $\mu V/m$ in x 1 mode 20 $\mu V/m$ in x 10 mode
Meas Accuracy:	+/-1.5 dB @ 25° C (77° F) +/-3.0 dB @-18° C to 49° C (0° to 120° F)
Alarm Indication:	Audio tone with pitch proportional to meter deflection
Meter Functions:	2–2000 μV/m, normal amplitude tracking. When detector is set to HOLD mode, the peak reading is held 5 seconds before auto-reset.
Power:	Rechargeable NiMH battery, internal charger operates from 13.8 VDC vehicle power
Weight:	1lb. (0.45kg) without mobile mount
Dimensions:	1.75" x 3.25" x 6.0" (H x W x D) (44mm x 83mm x 152mm)

CT-2 and CT-3 Channel Taggers for the Super Plus

When several cable systems operate in the same area, it is often difficult to determine which system is the source of a detected leak. Channel Tag tag inserters by Trilithic solve this problem by imposing a low frequency amplitude modulation onto the system video carrier used for leakage testing. The modulation is undetectable by TV receivers and non-baseband convertors, but is detectable by the Super Plus and some other Trilithic leakage detectors.

INCLUDES THE FOLLOWING:

Calibrated Leak Detector (customer specified tag frequency)

Mobile Mount (SMB-1) with Vehicle power adaptor

Flexible Rubber Antenna

Passive 50 Ohm Near Field Probe (NFP-1)

Users Manual

OPTIONAL ACCESSORIES:

AFS-2 Calibrated halfwave dipole antenna P/N 2010436000

APM-2 Permanent mount, vertical quarter wave whip antenna P/N 2010649000

APM-3 Permanent mount, vertical quarter wave whip antenna P/N 2010650000

AVM-2 Magnetic base, vertical quarter wave whip antenna P/N 2010380000

AVM-3 Permanent mount, vertical quarter wave whip antenna P/N 2010379000

CT-2	P/N 2010670001 Modulates one of the standard video carriers in the systems midband channel line-up.
CT-3	P/N 2010762000 Generates a tagged carrier at a customer-specified frequency. Used when a suitable video channel is not available.

Either CT model occupies 1 U (1.75") of rack space