Fault Mapper™ Cable Length Meter & Fault Locator Alphanumeric TDR Model CA7024



CE

The Fault Mapper™ Model CA7024 is a hand-held, alphanumeric, TDR (Time Domain Reflectometer) Cable Length Meter and Fault Locator, designed to measure the length of electrical and communication cables. It can also indicate the distance to a fault in the cable (open or short), given access to only one end of a two or more conductor cable.

By incorporating fast-edge step TDR technology, the Model CA7024 measures cable length and indicates the distance to open or short circuit faults, to a range of 6000 ft or 2000m (user selectable), on virtually any type of cable. The Model CA7024 indicates the cable length or fault distance and description, alphanumerically on a 128 x 64 graphical LCD.

An internal library of standard cable types enables accurate measurement without the necessity of entering Velocity of Propagation (Vp) information, and the Model CA7024 automatically compensates for different cable impedances.

The Model CA7024 incorporates an oscillating tone generator that is detectable with a standard tone receiver for use in tracing cables and identification of cable location. The Model CA7024 also displays a “Voltage Detected” warning and sounds an alarm when connected to a cable energized by more than 10V, which prohibits testing.

Features

- Hand-held Cable Length Meter and Fault Locator
- Detect opens and shorts and the distance to them from one end of the cable
- Measure cable length up to 6000 ft or 2000m (user selectable)
- Automatic cable impedance compensation
- Built-in library of most common cables and their Vp (Velocity of Propagation)
- Manual selection of Vp for all cables not found in library
- User-programmable cable library with 15 positions
- Vp setting displayed along with length and cable type (if in library)
- Built-in tone generator for tracing and locating cables
- Large high-visibility blue electroluminescent backlit display

Applications

- Determine length of cables on reels, coils or in boxes
- Determine cable runs in wall, conduit and other surfaces
- Detect opens and shorts in cables and the length to them
- Trace cables to identify runs and location



Model CA7024 checking the length of power cable on a reel.



Model CA7024 includes meter, soft carrying case, BNC pigtail cable with alligator clips, four x 1.5V AA batteries and user manual

Specifications

MODEL	CA7024
MEASUREMENTS	
Range @ Vp = 70%	6000 ft or 2000m (user selectable)
Resolution	0.1 to 100 ft, then 1 ft (0.1 up to 100m, then 1m)
Accuracy*	±2% of Reading
Minimum Cable Length	12 ft (4m)
Cable Library	Built-in, user selectable & user programmable
Vp (Velocity of Propagation)	Adjustable from 20 to 99%
Output Pulse	5V (peak to peak) into open circuit; nanosecond rise Step Function
Output Impedance	Automatic compensation
Tone Generator	Oscillating tone 810 to 1110Hz
Voltage Warning	Triggers @ >10VAC/DC
GENERAL	
Display Resolution	128 x 64 pixel graphical LCD
Display Backlight	Blue electroluminescent
Power Source	4 x 1.5V AA Alkaline batteries
Auto-Off	After 3 minutes
Languages	English, French, German, Spanish, Portuguese, Italian
Battery Life	Standby mode >4000 hrs Continuous testing >7.5 hrs
Storage Temperature	-4° to 158°F (0° to 70°C); 5 to 95% RH non-condensing
Operating Temperature	32° to 112°F (0° to 40°C); 5 to 95% RH non-condensing
Dimensions	6.5 x 3.5 x 1.5" (165 x 90 x 37mm)
Weight	12 oz (350g)
SAFETY	
Safety Ratings	EN 61010-1, EN 60950, EN 61326-1
CE Mark	Yes

**Measurement accuracy of ±2% assumes the instrument setting for Velocity of Propagation (Vp) of the cable under test to be accurately set, and homogeneity of the Velocity of Propagation (Vp) along the cable length.*

Construction



ORDERING INFORMATION — CATALOG NO.

Fault Mapper™ Model CA7024 (Alphanumeric TDR) . . . . . **Cat. #2127.80**

Tone Receiver/Cable Tracer Model TR02 . . . . . **Cat. #2127.75**

Tone Receiver/ Cable Tracer Model TR02



Model TR02

Features

- Compatible with AEMC Models CA7024, CA7026 and CA7028
- Contains a frequency selective hi-gain, hi-impedance amplifier for clear pick-up
- Rugged, moisture resistant mylar cone speaker
- Convenient operation from a standard 9V battery
- Volume control adjustment
- Audio output jack for head phones
- Pen size, fits into your pocket

Applications

- Locate cable runs
- Detect breaks in cables
- Find cables in panels



Model TR02 used to find cables in a panel.

The Tone Receiver/Cable Tracer Model TR02 is a small, hand-held tracer that will aid in the identification of tone carrying wires without piercing their insulation. It has a self-contained amplifier and a rugged, moisture resistant mylar cone speaker. When used in conjunction with the tone transmitter function of the Models CA7024, CA7026 or CA7028, wire tracing and locating is quick and efficient.

One button turns the unit on and, while it is depressed activates the receiver. A volume control allows you to set the speaker loudness to a desirable level. An audio output jack facilitates the use of an optional, commercially available ear piece which inhibits the Model TR02's internal speaker. This provides quiet operation in office environments while allowing the operator to hear the signal clearly.

Construction



Specifications

MODEL	TR02
GENERAL	
Power Source	9V Alkaline Battery
Dimensions	5.12 x 1.26 x 1.26" (130 x 32 x 32mm)
Weight	3.18 oz (90g)

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