

# Test all of your cables and wirings...

Identify and locate their faults



**C.A 7024**  
Fault Mapper™  
Alphanumeric TDR

**C.A 7026**  
Fault Mapper™ Pro  
Graphic TDR

**C.A 7028**  
Wire Mapper™ Pro  
LAN Tester

- Location and identification of faults
- Extended measuring range: up to 3.500 m
- All types of cables: electric, coaxial, multipair...
- Backlit graphic or alphanumeric LCD display
- Compact instruments: easy to carry and use

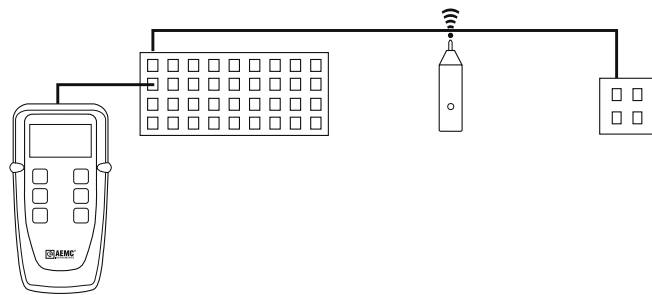
The full range of functions offered by the **le Fault Mapper™ C.A 7024**, the **Fault Mapper™ Pro C.A 7026** and the **Wire Mapper™ C.A 7028** make them ideal for communication engineers and technicians, for the teams assigned to detect faults in the field of telecommunications, for linemen, and for enterprises in the communications sector.

The **Wire Mapper™** can also be of use to IT managers and administrators working to locate faults or to upgrade an existing network installation.



### Built-in «Cable tracer» function

In addition to their TDR functions, the **C.A 7024** and **C.A 7026** like the **C.A 7028**, have a sound frequency generator (810 Hz to 1110 Hz) that can be used in conjunction with a sound probe to facilitate locating faults and identifying pairs in a harness.

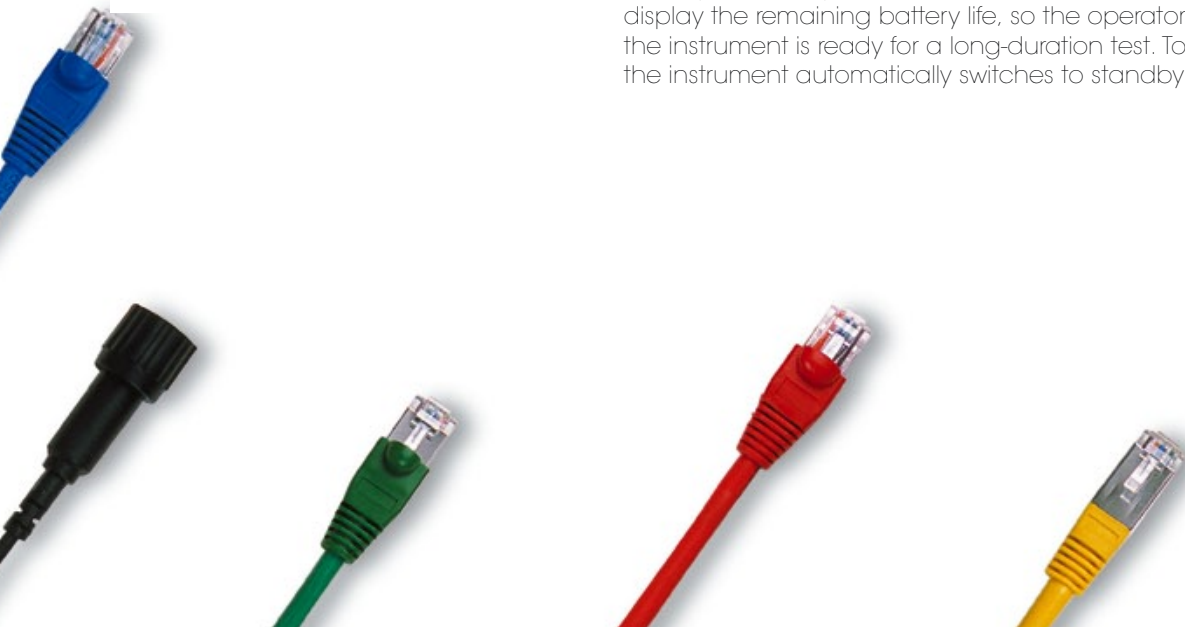


### Rugged, practical instruments

To meet the most severe requirements of outdoor use, the instruments are encased in a rugged, reinforced fireproofed ABS housing. The backlit display screen is made of impact-resistant ABS. Waterproof and dustproof (IP54), the instruments are designed and built in conformity with international quality standards. In addition, their small size makes them easy to carry and use.

### Battery charge level indication

When powered up, the **C.A 7024**, **C.A 7026** and **C.A 7028** automatically display the remaining battery life, so the operator knows whether the instrument is ready for a long-duration test. To save power, the instrument automatically switches to standby after 3 minutes of non-use.



Professional and inexpensive, the **Fault Mapper™ C.A 7024 (digital)** and the **Fault Mapper™ Pro C.A 7026 (graphic)** are portable time-domain reflectometers (TDR) designed to detect and locate faults in shielded, coaxial, and communication cables over maximum distances of 2,000 m and 3,500 m, respectively.

The **Wire Mapper™ C.A 7028** is a professional wiring tester and fault identifier for data and voice networks and installed copper connecting wires.

**C.A 7024 / C.A 7026** Fault Mapper™ and Fault Mapper™ Pro Alphanumeric or graphic TDR

**Extended measuring range...**

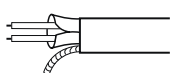
The **Fault Mapper™ C.A 7024** and the **Fault Mapper™ Pro C.A 7026** detect and locate common cable faults. They combine low cost with high quality and reliability. They cover their full measurement range (C.A 7024 : 2,000 m / 6,000 ft; C.A 7026: 3,500 m / 11,700 ft) on all types of cables. In other words, they make full use of their capabilities when used on high-loss cables, such as twisted pairs and telephone wires, over long distances.



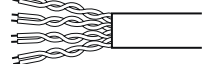
Coaxial cable



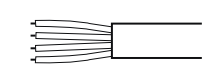
Shielded cable



Twisted pairs



Multiconductor cable



**...on all types of cables**

The **C.A 7024** has an built-in library of common cable characteristics, which the user can easily select, so there is no need to look up the propagation velocity of each cable. For cables not catalogued in the internal library, the operator can select the relative propagation velocity manually in a range from 20 to 99%. Thanks to its automatic compensation device, there is no need to select the impedance of the cable.

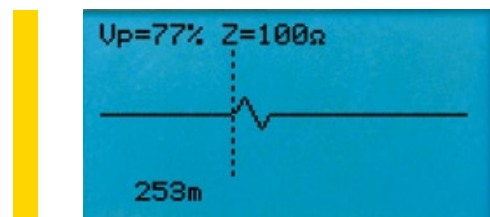
The **C.A 7026** is suited to all types of communication cables. Their impedance can be selected from among 50, 75, and 100Ω, typical of metallic communication cables, in particular coaxial cables and twisted pairs. The relative propagation velocity can be adjusted from 20 to 99% in 1% increments.

**Effective fault detection**

The **Fault Mapper™** clearly and directly indicates the nature of the fault detected (open-circuit or short-circuit) and the distance to the fault.



In addition to short-circuits and open-circuits, the **Fault Mapper™ Pro** detects shunts, junctions, deterioration caused by infiltration of water, and other impedance anomalies.



**A new technology for fast and accurate measurements**

The **Fault Mapper™** uses the Fast Edge Step TDR technology for improved range and resolution. The short rise time of the test pulse yields better resolution for the short ranges. The energy contained in the pulse ensures maximum range in all cables.

For its part, the **Fault Mapper™ Pro** has an automatic measurement scale linked to the position of the cursor. The instrument automatically selects the appropriate range from among its five measuring scales. This function cuts the time needed to locate a fault.

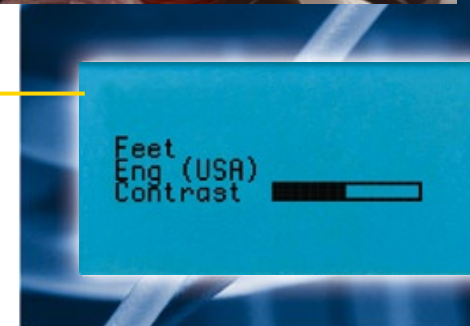


Test of telephone lines using a C.A 7026 on a switchboard

Check of the length of cable on a reel using the **C.A 7024**



Any faults detected and all messages are displayed in the language selected by the user at the time of configuration (French, English, German, Spanish, Portuguese, Italian).



**An operating mode suited to the situation**

For simple faults, the **C.A 7026** can be used in either single-pulse or continuous mode. For more complex faults, its continuous mode facilitates the detection of intermittent faults.

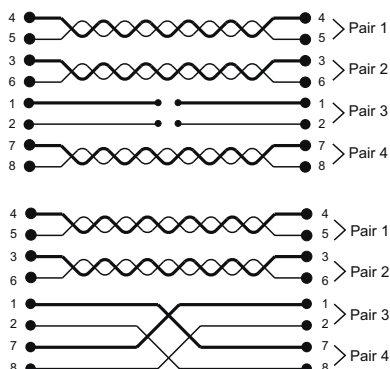
**Voltage alarm and stopping of test**

Before each test, the **C.A 7024** and the **C.A 7026** check the voltage of the cables to which they are connected. If the instrument detects a voltage greater than about 10 V AC/DC, it warns the user and stops the test. The **Fault Mapper™ Pro** is also protected against overvoltages up to 250 V AC/DC.

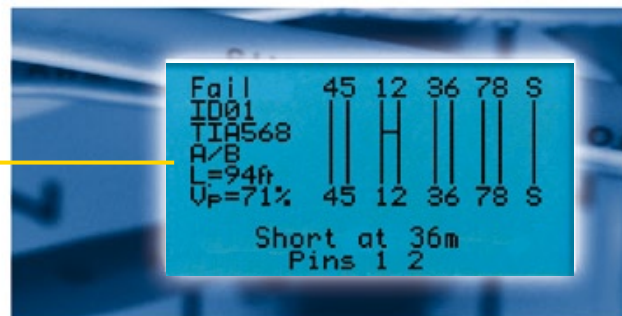
## Cutting-edge technology

Le Wire Mapper™ C.A 7028 includes a unique function called EDT™ (End Discrimination Technology). This function considerably reduces the costs of commissioning installations, because the wiring diagram displayed on the screen clearly indicates the nature and position of the fault detected.

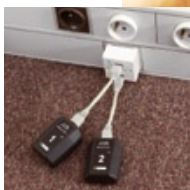
*The instrument clearly and precisely indicates all faults in the cables, and their lengths, on its graphic screen.*



«ID01» means that the cable terminated by identifier n. 1 has a short-circuit on its 1-2 pair.



Examples of diagrams of identification of open-circuit and crossed pairs in cables



## Wiring subject to many international standards

The Wire Mapper™ measures the length of the cable before or after installation, identifies all common faults on horizontal wiring diagrams installed as per TIA568 A/B, ISO, EN, USOC and RNIS standards: open-circuit, short-circuited, crossed, separated or inverted pairs, and shield/screen continuity.

*Here the Wire Mapper™ C.A 7028 is used to locate, on a switchboard, the cable serving an office several tens of meters away.*

## A whole network tested by a single instrument

The remote identifiers of the C.A 7028 are active and inform the remote operator when a test is over and whether it is PASS/FAIL. The instrument is delivered with an identifier bearing the number «1». Using additional identifiers («2» to «9»), the Wire Mapper™ can test and identify up to 10 links from the switchboard.

*The Wire Mapper™ can also be used to check that a cable already installed is free of faults.*



## Safety first

Before checking an installed wiring network, the Wire Mapper™ alerts the operator if telephone services are active on the cable tested (10 Mbps, 100 Mbps, Token Ring, etc.). This prevents accidental testing of an active LAN network and eliminates the associated risk of damage to the network or to the instrument.

Type of instrument	C.A 7024 Fault Mapper	C.A 7026 Fault Mapper Pro	C.A 7028 Wire Mapper Pro
	Alphanumeric TDR (time-domain reflectometer)	Graphic TDR	LAN wiring tester
Maximum distance	2 000 m - 6000 ft	3500 m - 11700 ft	150 m - 500 ft
Types of cables tested	shielded, coaxial, twisted pairs, multiconductor		UTP & STP (SSTP & FTP) as per TIA568 A/B, ISO, EN, USOC and RNIS standards
Cable selection	internal library	Automatic impedance selection	UTP, STP
Relative propagation velocity	manual selection for the cable to be tested, from 0 to 99%		
Cable impedance	automatic selection	selected from among 50, 75, and 100 Ohm	
Faults detected	open circuits and short-circuits	short-circuits, open circuits, shunts, junctions, deterioration caused by infiltration of water and other impedance anomalies	open-circuit, short-circuited, crossed, or separated pairs, short-circuits between pairs, pair inversions, and shield/screen continuity end of installed link or connecting wire containing faults; fault detection
Measurement	display of distance to fault		location with a sound-emitting probe
	length of cables (in m or ft)		
Test modes	Single pulse	pulse mode: one test pulse emitted for each press continuous mode: several test pulses per second	Length of cable or link (in m or ft)
Resolution	0.1 m up to 100 m, then 1 m	Approximately 1% of range selected	
Accuracy	+/- 2% if relative propagation velocity correctly configured	+/- 1% of range if relative propagation velocity correctly configured	+/- 5% of length
Display	alphanumeric LCD screen 128 x 64 pixels	graphic LCD screen 128 x 64 pixels	
Protection / Safety	voltage alert (> 10 V AC/DC) and test stopped		alerting of active services on the cable
Cable location and identification	built-in sound frequency generator		
Dimensions	165 x 90 x 37 mm		emitter: 165 x 90 x 37 mm identifier: 65 x 52 x 25 mm
Mass	350 g		350 g / 40 g
Environmental conditions	Storage temperature: -20 to +70°C (-4 to +158°F) Operating temperature: 0 to +40°C (32 to +112°F)		
Protection	IP 54 - ABS housing		
Delivery condition	test wires with alligator clips / carrying case		2 RJ 45 cords / 1 identifier / carrying case
Power supply / Battery life	4 AA batteries (1.5 V) / 7.5 h in continuous use; 4,000 hours on standby		4 AA batteries (1.5 V) / > 100 hours in continuous use
Standards	safety: IEC61010-1/EN 60950 - EMC: BS/EN 61326 -1 - CE		

## To order

**C.A 7024** — Fault Mapper™ — alphanumeric TDR — P01.1296.01

**C.A 7026** — Fault Mapper™ Pro — graphic TDR — P01.1297.01

**C.A 7028** — Wire Mapper™ Pro — LAN tester — P01.1295.01

## Accessories

Set of identifiers n. 2 to 5 for **C.A 7028** — P01.1019.94

Set of identifiers n. 6 to 9 for **C.A 7028** — P01.1019.95

Carrying bag — P01.2985.32



[www.test-meter.co.uk](http://www.test-meter.co.uk)

is a trading name of

PAT Training Services Ltd

Glendale's House

607 York Road

Leeds

LS9 6NW

Tel: 0113 248 9966 Fax: 0113 248 4276

[admin@test-meter.co.uk](mailto:admin@test-meter.co.uk)