

3M™ Dynatel™

Electronic Marker System Marker Locator 1420-iD Electronic Marker System Marker Locator 1420E-iD

3M™ Dynatel™ Electronic Marker System (EMS) Marker Locators 1420-iD/1420E-iD are microprocessor-based systems that quickly and efficiently locate underground markers—years after construction or maintenance.

Designed to be accurate, fast and integrated, the 1420-iD/1420E-iD EMS marker locators allow you to accurately and easily:

- Locate, read and write to 3M iD markers
- Pinpoint the depth and location of all existing models of properly installed underground passive EMS markers
- Conduct direct depth reading of markers
- Locate two different marker frequencies simultaneously

Advanced features detect information about underground utilities

A feature exclusive to the 1420-iD/1420E-iD locators is the ability to read, write and lock programmed information into the 3M™ Electronic Marker System iD Markers. Information such as a pre-programmed unique identification number, facility data, owner information, application type, placement date and other details from up to 100 markers can all be stored with date/time stamp and transmitted back to your PC for enhanced resource management.

Accurate even in congested areas

The 1420-iD/1420E-iD locators are unaffected by metal conduit or pipe, metallic conductors, fences, AC power or electronic markers for other utilities. Multiple markers located at close proximity can be read individually using this system.



3M™ Dynatel™ Electronic Marker System
Locator 1420-iD



A simple, easy-to-use system

Lightweight and compact, the locators are rugged, ergonomic and require very little operator training. A large bright backlit digital liquid crystal display screen and soft-key operation make them easy to understand and use for more precise locates. A “memory” feature remembers operator set-up from the previous use. A standard RS232/USB communications port allows interface to an external computer for uploading/downloading of data, unit configuration and remote software upgrades. The system is estimated to operate for more than 25 hours on eight AA alkaline batteries.

Exclusive GPS system adds accuracy with ease

The 3M™ Dynatel™ Electronic Marker System Marker Locators 1420-iD/1420E-iD are now compatible with select GPS/GIS field mapping instruments for real-time mapping of marker placement. The customized Dynatel interface commands the GPS/GIS device allowing even a generalist field technician to perform real-time mapping. It’s a simple system for mapping marker placement and saving information directly into CAD and GIS systems. The electronic export of this information in GIS format creates an automated paperless system for records updating, making positive locates in the field easier than ever. Visit our website at <http://www.3m.com/dynatel> for more details.



3M™ Dynatel™ Electronic Marker System Locator 1420-iD

Features

Large backlit, high-resolution graphic display	Locator PC tools software
PC interface via standard RS232/USB	iD marker read/write capability
User-configurable features and interface	Dual marker frequency search-simultaneous
Detects all seven EMS marker frequencies	iD Marker depth estimation

Physical Specifications

	Size (H x W x D) CM (in.)	Weight (including batteries)
Receiver	26,7 x 11,8 x 76,2 (10.25 x 4.7 x 30)	1,9 kg (4 lb.)
Shipping	N/A	5,3 kg (11.5 lb.)



telephone gas catv/communication power water wastewater general

Environmental Specifications

Operating temperature	-20° C to 50° C (-4° F to 122° F)
Storage temperature	-20° C to 70° C (-4° F to 158° F)
Regulatory	CE (Export Models Only)
Standard	IP54

Electrical Specifications

Marker compatibility	All 3M markers (telephone, gas, communication, power, water, wastewater and general purpose)	
Dual marker mode	Any two marker frequencies simultaneously	
Detection range	Exceeds maximum marker depth specifications	
Marker read range	1420 Near Surface 3 ft. (.9 m) Ball 5 ft. (1.5 m) Full Range 8 ft. (2.4 m)	1420E Near Surface 0.6 m (2 ft.) Ball 1.2 m (4 ft.) telephone, gas, CATV, wastewater 1.0 m (3.3 ft) water, power Full Range 2 m (6 ft.)
Marker write range	30 cm (1 ft.)	
RFID Marker depth measurement accuracy	+/- 10% +/- 5 cm (2 in.) up to marker depth specifications	
Memory storage with date/time stamp	Read marker records	100
	Written marker records	100
	User defined iD templates	32
Marker depth memory storage	Five with date/time stamp	
Power	Battery type: eight AA size, alkaline Typical battery life: 25 hours	
Display	Large graphic high-contrast LCD with backlight	
Speaker	0.25W	
Headphone jack	Standard mini-jack	
Serial port	Standard RS232 serial with DB9 connector (USB adapter cable included)	

Ordering Information

Product Number	Description
1420	EMS-iD marker locator with iD read/write
1420E	EMS-iD marker locator with iD read/write (CE Approved Export Model)

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