# 3M Dynatel™

1420-iD Electronic Marker System Marker Locators 1420E-iD Electronic Marker System Marker Locators





New-to-the-world technology for locating underground utilities without any doubt. 3M™ Dynatel™ 1420/1420E-iD Electronic Marker System (EMS) Marker Locators are microprocessor-based systems that incorporate advanced digital signal processing techniques to quickly and efficiently locate underground facilities — even years after construction or maintenance.

Designed to be more accurate, faster and more integrated than ever before, the 3M Dynatel EMS iD Marker Locators allow you to accurately and easily:

- Locate, read and write to ID markers
- Pin-point the exact depth and location of all existing models of properly installed underground passive EMS markers
- Direct depth reading of ID markers
- Locate two different marker frequencies simultaneously

Advanced features detect more information about underground utilities. A new feature exclusive to the 3M Dynatel EMS iD Marker Locators is the ability to read, write and lock programmed information into the new 3M 1400 Series EMS iD Ball 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 ID markers can all be read, stored with date/time stamp and transmitted back to your PC through a standard RS232 serial port for enhanced resource management.



Accurate even in congested areas. 3M Dynatel EMS iD Marker Locators are unaffected by metal conduit or pipe, metallic conductors, fences, AC power or electronic markers for other utilities. Multiple ID markers located at close proximity can be read individually using the new system.

A simple, easy-to-use system. Lightweight and compact, the 3M Dynatel EMS iD Marker Locators are rugged, ergonomic and require very little operator training. A large backlit digital liquid crystal display (LCD) screen and soft-key operation make them easy to understand and use for more precise locates. A"memory" feature remembers operator set-up from previous use. A standard RS232 communications port allows interfacing to an external computer for uploading/downloading of data, unit configuration and remote software upgrades. The system can run over 25 hours on eight AA alkaline batteries.



## Features of 3M<sup>™</sup> Dynatel<sup>™</sup> 1420/1420E-iD EMS Marker Locators

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

### Specifications of 3M Dynatel 1420/1420E-iD EMS Marker Locators

PHYSICAL SPECIFICATIONS	SIZE H x W x D in. (cm)	WEIGHT (INCLUDING BATTERIES)
Reciever	10.25 x 4.7 x 30 (26.7 x 11.8 x 76.2)	4 lb. (1.9 kg)
Shipping	N/A	11.5 lb. (5.3 kg)

ENVIRONMENTAL SPECIFICATIONS		
Operating Temperature	-4° F to 122° F (-20° C to 50° C)	
Storage temperature	-4° F to 158° F (-20° C to 70° C)	
Regulatory	CE	
Standard	IP54	

ELECTRICAL SPECIFICATIONS		
Marker compatibility	All 3M markers (telephone, gas, CATV, power, water, wastewater and general purpose)	
Dual marker mode	Any two marker frequencies simultaneously	
Detection range	Exceeds maximum marker depth specifications	
Marker read range	5 ft. (1.5 m) to all ID ball markers 4 ft. (1.2 m) to water and power markers on 1420E version only	
Marker write range	1 ft. (30 cm)	
Marker depth measurement accuracy	+/- 10% +/- 2 in. (5 cm) up to marker depth specifications	
Display type	Backlit graphic liquid crystal display (LCD) screen	
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	0.25 W	
Headphone jack	Standard mini-jack	
Serial port	Standard RS232 serial with DB9 connector	

#### Ordering for 3M<sup>™</sup> Dynatel<sup>™</sup> 1420/1420E-iD EMS Marker Locators

#### ORDERING INFORMATION

To order, select the 1420 or 1420E EMS-iD Marker Locator. For further information, contact your 3M sales representative.

PRODUCT NUMBER	DESCRIPTION
1420	EMS-iD Marker Locator with iD Read/Write
1420E	EMS-iD Marker Locator with iD Read/Write (OUS)



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