

3M Infrastructure Protection
3M™ Dynatel™ Locating and Marking Systems



Quickly & Accurately Identify Underground Assets

The full line of 3M Dynatel locators and markers helps you quickly and accurately identify underground assets. From finding the exact path and estimated depth of underground utilities, to locating buried passive markers, to reading and writing information directly to the iD version markers, to locating plastic pipes and conduits, 3M offers the precision tools needed to manage your assets.

Certain 3m Dynatel Locators interface with select GPS/GIS field mapping instruments. Together, these tools provide a complete locating and marking solution with the performance and reliability you trust from 3M.



A complete system for damage prevention, locating, marking and mapping vital underground assets.

A Reputation of Excellence.

When you choose a quality 3M™ Dynatel™ Locator, you get outstanding performance and reliability, along with toll-free technical phone support and a service centre dedicated to excellence. Our service centre provides calibration, repair, upgrades and modifications for safety, performance and reliability.

Easy to Use.

Dynatel locators require little training and are simple to use. Digital LCD readouts and push-button operation make the units easy to interpret for precise locates. A bar graph on the receiver indicates received signal and proximity to the cable, and an automatic “memory” feature stores operator setup from previous use.

Precisely locates faults.

We earned our reputation for fault locating, and we continue to advance this technology today. 3M™ Dynatel™ Cable/Fault Locators identify and measure points of cable damage where there is metallic contact to earth via a conductor or cable shield. They utilise our proven fault detection method with enhanced speed, sensitivity, and noise rejection. Our multi-antenna design provides high accuracy and performance.

3M™ Dynatel™ Locators Calibration & Repair Service

3M Australia introduces this new service to reduce the turn around time of the locators when they need to be repaired or calibrated. This service is provided by a local well equipped partner with specially trained and authorised technicians. This will ensure 3M Dynatel Locators are repaired and calibrated to 3M specifications as quickly as possible.

3M™ Online Store

Now is easier to buy products from 3M Dynatel Locating and Marking systems than ever. Just visit the official 3M online store at: www.shop3m.com.au



For more information about 3M Dynatel Locating and Marking Systems products or services please contact your 3M representative or visit/call:

www.3m.com.au/waterinfrastructure

call 136136



Photo courtesy of Minneapolis/St. Paul Metro Transit

3M™ National Accredited Underground Asset Location Course

This training course is intended for contractors and organisations who install or maintain underground services and need the skills and knowledge to accurately locate and/or mark those assets with 3M Dynatel equipment, and therefore avoid damage to buried underground assets. Qualification issued on completion: RIICCM202A – Identify, locate and protect underground services, a core competency from RIIC30909 – Certificate III in Civil Construction.



The most difficult
locates
just got
easier

3M™ Dynatel™ Locators

Pipe, Cable, and Electronic Marker Locators

3M Dynatel Locators combine simple interfaces, large backlit high-resolution graphics, excellent balance and ergonomics with precision locating capabilities to help you quickly and accurately identify underground assets.

Dynatel Locators can be used to trace pipe and cable paths, locate sheath faults, provide accurate pipe, cable or Sonde depth measurements, locate buried electronic markers, read/write to 3M iD Markers and interface with GPS instruments to create accurate maps of underground facilities.

Dynatel Locators are available in a range of configurations from fully-featured pipe, cable, fault and electronic marker locators to basic cable avoidance systems.

	Cable/Pipe	Cable/Pipe/Fault
M Series Advanced locator	Model 2220M 2250M	
iD Series Advanced locator Locates all EMS markers and reads/writes to iD markers	Model 2250M-iD 2550-iD	Model 2273M-iD 2573-iD
GPS compatible		



3M™ Dynatel™ Pipe/Cable Locator 2500 Series

Pipe/Cable and Marker Locators 2550-iD

Cable/Pipe/Fault and Marker Locators 2573-iD

Designed to be fast, accurate and integrated, the 3M™ Dynatel™ 2500 Series Locators and fault finders represent an advancement in locating and fault finding technology for the field professional. Offering a broad feature set with advanced digital processing, the 2500 Series locators combine simple interfaces with precision locating capabilities. All 2500 series locators offer six active frequencies and a maximum transmitter output of 12 watts providing a solution for virtually all challenging locate applications encountered in the field.

2500 Series

- Trace view mapping: graphic display of the cable direction and position
- Five locating modes: Trace View, Directional Peak, Directional Null, Single (Special) Peak, and Induction Peak locate modes
- Six active frequencies: 577, 1k, 8k, 33k, 82k, 200k (133k for Export models)
- All frequency mode in direct connection (four frequencies simultaneously)
- Four induction frequencies: 8k, 33k, 82k, 200k (133k for Export models)
- Transmitter has a 12 Watt (maximum) power output
- Fault finding option
- Electronic marker locate/read/write and alert mode option
- GPS communication capability for GIS mapping of pipe/cable path and electronic markers



**Powerful,
accurate,
and fast.**

New to the 2500 Series

Trace View mode display helps simplify locating.

The new Trace View mode presents an innovative and intuitive user interface that graphically shows the position and direction of the utility being located, simplifying path tracing applications. The unique multi-antenna array of the 2500 Series locators provides the highest level of accuracy, even in congested locates.



3M™ Dynatel™ Cable/Pipe Locators 2250M/2273M Series

Cable/Pipe Locators 2250M

Cable/Pipe and Marker Locators 2250M-iD

Cable/Pipe/Fault and Marker Locators 2273M-iD

For cable/pipe locating, the Dynatel M series has a highly accurate multi-antenna design for various user-selected locating modes—Directional Peak, Multi-Directional Null, Induction Peak, plus an ultra-sensitive Special Peak mode for extreme depths. They come equipped with several built-in features that allow accurate cable and pipe locating:

- Locate cable and pipe path
- Measure cable/pipe or Sonde depth
- Measure signal current in the cable or pipe
- Identify cable and cable pairs
- Tone shorts and grounds in aerial cable
- Locate energized power cable

The receiver includes a unique “expander” function that makes peaks and nulls more pronounced for fast tracking and pinpointing of position.

The unique Directional Peak mode combines the response from four peak antennas to indicate left/centre/right direction to the cable/pipe while the bar graph and numeric display indicate the sharp and accurate dual-peak response.

Semi-automatic gain set with manual fine tuning provides maximum flexibility and control.

The Multi-Directional Null mode shows null signal response with automatic gain and utilizes the multiple antenna design to show cable/pipe location and direction on a unique compass-like graphic user interface on the high-resolution display.

For fault locating, the Dynatel locator 2273M performs all the functions of the 2250M plus the ability to find underground faults.



**Peak antenna
directional
guidance delivers
pinpoint accuracy.**

2250M/2273M Series

- Four locating modes: Directional Peak, Directional Null, Single (Special) Peak, Induction Peak, locate
- Four active frequencies, 577, 8k, 33k, 200k (133k for Export models)
- All frequency mode in direct connection (four frequencies simultaneously)
- Three induction frequencies available: 8k, 33k, 200k
- Tone mode 577Hz and 200kHz pulsed at 8Hz
- Transmitter has 3, 5, and 12 Watt (maximum) power output options
- Fault finding option
- Electronic marker locate/read/write and alert mode option.
- GPS communication capability for GIS mapping of pipe/cable path and electronic markers



3M™ Dynatel™ Advanced Pipe/Cable Locator 2220M

A new addition to the 3M Dynatel Locators 2200M series, the 2220M locator is designed to provide a simple and accurate solution to locate buried pipes, cables, and Sondes in even the most challenging field conditions. The rugged, highly sensitive receiver uses two active trace frequencies and provides a bar graph, signal strength and direction indication to the pipe/cable. In addition, the receiver is designed to detect passive power and auxiliary frequencies that do not require the use of a transmitter.

2200M

- Single and Dual Peak modes with direction. Verifies cable location and indicates direction to pipe
- Two active frequencies (8k, 82k)
- Induction mode for situations with limited or no access to the facility
- High and normal output levels for long distance locates and other varying pipe conditions
- Measures signal current in cable which helps identify target cable in congested areas
- Push-button digital depth readout of pipe or Sonde
- Transmitter has 3 and 12 Watt (maximum) power output options
- Passive Power, Passive LF, Sonde (512, 640, 33k)
- Detects cathodic protection signals

Product Feature

Two active frequencies (8k, 82k)

Dual frequency output

Passive power, Sonde locating

Single and Dual Peak modes with direction

Product Applications

Locates pipes, cables and tracer wire

Detects power signals

Locates Sondes and pipeline inspection cameras



Innovative
technology for
locating underground
utilities



1420-iD EMS Locators

- Detects industry standard electronic markers frequencies
- 3M iD marker read and write capability
- Marker maximum read range up to 8 ft. (2.4m) depth²
- GPS communication capability for GIS mapping of pipe/cable path and electronic markers¹
- Electronic marker depth estimation for 3M-iD markers
- Light weight with excellent balance and ergonomics
- Large backlit, high-resolution graphic display



3M™ 1420EZ – Writer Station

The 1420 EZ-Stand can hold 10 Ball, Near-Surface or Disk Markers at a time. Using the 1420EZ-Writer – a special 1420E locator with special software – and a PC, all markers can be programmed at once. Now the process of writing to 3M iD markers is simplified by:

- Reducing the time spent in writing to markers is reduced from an average of 30 seconds per marker to an average of 12 seconds per marker
- Removes the requirement for specialized training to write 3M iD markers and simplifies the process for new users
- Offers a low-cost alternative to field writing of 3M iD markers
- Order code: 80611329881

Ordering Information

Locator features by model	80611334626	80611334527	80611140916	80611141401	80611141484	80611326812	80611140874
	2573-ID	2550-ID	2273M-ID	2250M-ID	2250M	2220M	1420
Pipe and cable locate	○	○	○	○	○	○	
Electronic marker locate/read/write	○	○	○	○			○
GPS compatible	○	○	○	○	○		○
Active frequencies	6	6	4	4	4	2	
Passive power	○	○	○	○	○	○	
Passive LF	○	○	○	○	○	○	
Sonde locating	○	○	○	○	○	○	○
Fault locate (A-frame)	○		○				
Transmitter output	12W	12W	5W	5W	5W	3W	
Dynacoupler size	4.5"	4.5"	3"	3"	3"	3"	
Direct connect cable (S/L Clips)	L	L	L	L	L	L	
Ground rod and pouch	○	○	○	○	○	○	
USB to Serial Adapter Cable	○	○	○	○	○	○	○
2200RB rechargeable battery	○	○					
Cigarette lighter adapter cable	○	○	○	○	○		
Carry bag	○	○				○	

3M™ Dynatel™ Accessories

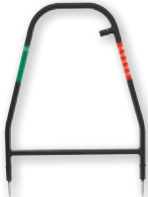
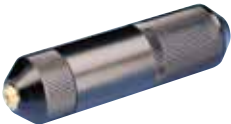
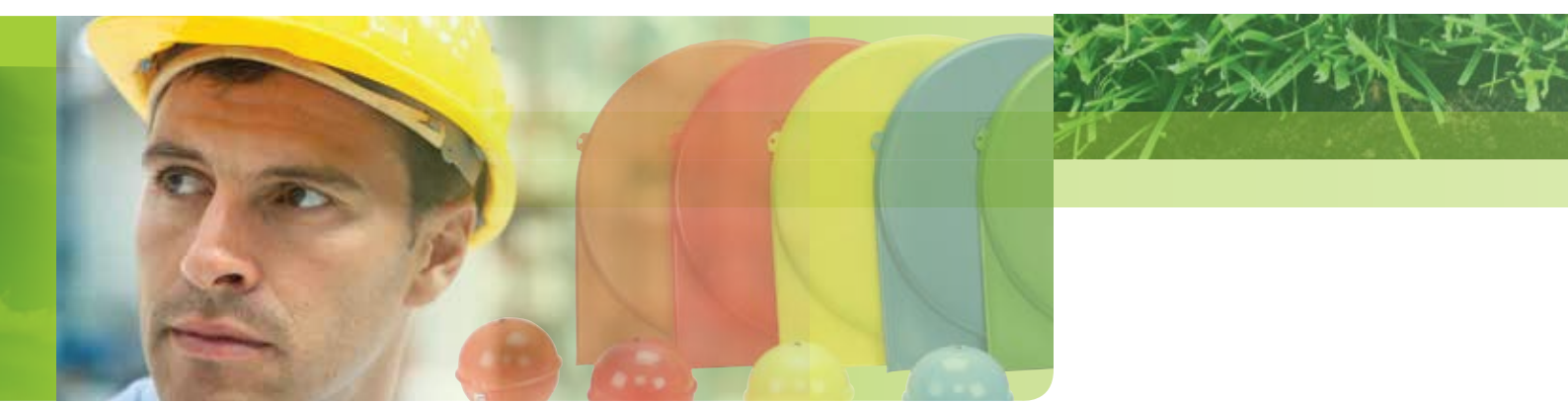
Image	Product	Description
	3M™ 6" (15.2 cm) Dyna-Coupler with pouch, 1196/C	Permits coupling of RF trace tone to large diameter cables, bundle cables, and cables enclosed in accessible non-metallic ducts. For use on cables and conduits with a maximum diameter of 6.9" (17.5 cm).
	3M™ Small Clip 1/4" (6.4 mm) Direct Connect, 5-foot Transmitter Cable, Telephone 9012	Two lead, 5' (1.5 m) cables used for direct connection to conductor and ground. The 9012 cable has smaller Telco style alligator clips with an insulation piercing needle incorporated.
	3M™ Small Clip 1/4" (6.4 mm) Direct-Connect Transmitter Cable For All Cable/Fault Locators 2892	Two lead, 10' (3 m) cable used for direct connection to cable and ground.
	3M™ Large Clip 5/8" (15.9 mm) Direct-Connect Transmitter Cable For Most Cable/Fault Locators 2876	Two lead, 10' (3 m) cable used for direct connection to cable and ground.
	3M™ Ground Extension Cable 9043	Extends ground capability to 12' (3.7 m).
	3M™ Earth Contact Frame 3014	Used only when locating sheath (earth return) faults. It indicates direction to the fault and is color coded to correspond with the Receiver's indicator.
	3M™ Earth Contact Frame Cable 9026	For use with the 3014 Earth Contact Frame for sheath (earth return) fault location; 4' (1.2 m) in length.
	3M™ Ground Rod 8006	For applying ground capability. Stainless steel.

Image	Product	Description
	3M™ Active Duct Probe 3229 33 kHz Sonde (includes metric adapter)	Active mini-transmitter that allows the user to trace the path of many types of non-metallic underground facilities. Compatible with 2200 series locators.
	3M™ 4.5" (11.4 cm) Dyna-Coupler, 4001	Permits coupling of RF trace tone to cables with a maximum diameter of 4.5" (11.4 cm).
	3M™ Coupler Cable 9011	For use with any Dynatel Transmitter, Receiver, or Coupler: 12' (3.7 m) in length.
	3M™ Dynatel™ Locator Coupler Accessory Kit 4519	The 4519 Accessory Kit contains a 4001 4.5" (11.4 cm) Dyna-coupler and a 9011 Coupler Cable with a case that can be attached to the transmitter.
	3M™ 3" (7.6 cm) Cable Locator Coupler Accessory Kit 3019	The 3019 Accessory Kit contains a 3001 3" (7.6 cm) Dyna-coupler and a 9011 Coupler Cable with a case that can be attached to the transmitter.
	3M™ Soft Carrying Bag 2200M	Soft carrying bag for the 2200M and 2500 series product locators.



Marker Solutions for the Gas, Power, Water/Wastewater, and Communications Industry

The 3M™ Electronic Marker System helps eliminate guesswork. 3M markers operate even in the presence of metal conduit or pipe, metallic conductors, fences, AC power lines and electronic markers of other utilities. All EMS markers are colour-coded to APWA standards for visual reference and each utility has its own frequency. For example, telephone utility markers are all orange in colour. EMS signals provide positive identification of each utility, thus helping to reduce the risk of accidentally locating and excavating other buried facilities.



Markers that Last

With our Full-Range, Mid-Range, Ball and Near-Surface Markers, there is a marker to meet almost every need. Markers are passive antennas with no internal power source to run down. Their water-resistant, polyethylene shells are impervious to minerals, chemicals and the temperature extremes normally found underground. A four-inch Disk marker is also available for marking handholes. These markers easily attach to non-metallic lids or covers over flush-mounted facilities.

3M™ iD Markers

3M iD markers are designed to not only provide an accurate, convenient, long-lasting method of marking underground assets, but also iD markers may be programmed to include customer-specific information such as facility data, type of application, material type and size, placement date and other important details.

3M™ Ball Marker.

Engineered for narrow trench applications up to 5' in depth, the 4"-diameter ball marker has a unique self-leveling feature that helps ensure an accurate, horizontal position regardless of how it is placed in the ground. The ball contains a mixture of water and propylene glycol (a common additive in toothpaste, hair gels etc. and generally recognized as safe for use in foods by USDA). The mixture is readily biodegradable in the environment and will not harm humans, wildlife or the environment in this application.



3M™ Near-Surface Marker.

The near-surface marker is ideal for marking underground and street-access facilities up to 2' for Passive (Non-iD marker) and 3' for iD marker in depth. Its 3.5" long cylindrical size and shape allows for easy installation in asphalt, concrete or rock without extensive digging or drilling.



3M™ Full-Range Marker.

The full-range marker is suited for deep applications up to 8'. Its 15"-diameter makes it ideal for use as a digging shield over sensitive underground facilities.



The Smart Choice

A feature exclusive to the Dynatel EMS locator is the ability to read, write and lock programmed information into 3M™ Electronic iD Marker System. 3M iD Locators are able to pinpoint the depth and location of existing models of properly installed underground passive EMS markers — easily differentiating between standard frequencies. Detailed information can be read, stored with date/time stamp and transmitted back to your PC for enhanced resource management through a standard RS232 serial port or USB port. As referenced in a previous section, the iD Locators are now compatible with selected GPS/GIS instruments to greatly simplify the mapping process.



Please go to www.3m.com.au/waterinfrastructure for more details.

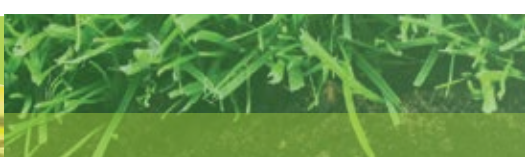


3M™ Electronic Marker System Specifications

	Telephone	Power	CATV	General	Water	Wastewater Purpose	Gas	Read Range*
Color	orange	red	black/orange	purple	blue	green	yellow	n/a
iD EMS iD Ball Marker Product Number	1421-XR/iD	1422-XR/iD	1427-XR/iD	1428-XR/iD	1423-XR/iD	1424-XR/iD	1425-XR/iD	5 ft. (1.5m)
EMS iD Near-Surface Product Number	1432-XR/iD	1433-XR/iD	1437-XR/iD	1438-XR/iD	1434-XR/iD	1435-XR/iD	1436-XR/iD	3 ft. (0.9m)**
EMS iD Full-Range Product Number	1250-XR/iD	1251-XR/iD	N/A	1248-XR/iD	1252-XR/iD	1253-XR/iD	1254-XR/iD	8 ft. (2.4m)
Non-iD Ball Marker XR Product Number	1401-XR	1402-XR	1407-XR	1408-XR	1403-XR	1404-XR	1405-XR	5 ft. (1.5m)
Near-Surface Marker Product Number	1432	1433	N/A	N/A	1434	1435	1436	2 ft. (0.6m)
Full-Range Product Number	1250	1251	N/A	N/A	1252	1253	1254	8 ft. (2.4m)

*Read range specifies maximum distance from locator probe using 3M™ Dynatel™ Locator 1420-iD. Read range may vary on export models—refer to product bulletins.

** When used with an Australian Locator (US-version).



3M™ EMS (Electronic Marking System) Caution Tape 7600 Series 3M™ Dynatel™ EMS Marker/Tape Locator 7420

Introducing 3M's Next Generation of Underground Infrastructure Asset Management

A Revolutionary Approach to Locating Plastic Pipes/Conduit Path

3M has over 30 years experience developing new and innovative solutions for locating buried assets. 3M pioneered electronic marker technology with EMS markers and programmable iD markers and continues to set the standard for innovation with its newest path marking technology.

Now, 3M has developed an effective way to locate the path of underground plastic pipes and conduits, eliminating the need, problems and costs associated with tracer wire and test stations.



System Benefits

- Eliminates need to install tracer wire
- No access points or connections required
- Locate without the need of a transmitter
- Unique identification for each utility type
- Low installed costs
- Tape does not provide a path for lightning
- Signal path maintained even if the tape is cut or damaged
- Product design life - 50 years

EMS Caution Tape

3M™ Electronic Marking System Caution Tape uses a new EMS marker technology embedded into a caution tape for installation near or above the buried facility and helps provide continuous path location. When energized using a 3M™ Dynatel™ 7000 Series Locator, the markers are activated. The markers require no batteries, and there is no need to hook up an external transmitter or search for access points.

The markers work independently, so even if a section of caution tape is cut or removed, the other markers on the tape would continue to provide accurate location.

Each version of 3M EMS Caution Tape is tuned to a frequency specific to the path of that utility (gas, telco, water, wastewater) and can be located to a maximum buried depth of three feet.

System Benefits

3M™ EMS Caution Tape for path marking is a perfect complement to 3M's existing line of EMS passive and iD markers (Near Surface, Ball and Full Range markers) which are used for marking points of interest, such as splices, service drops, valves, etc.

iD markers can be programmed to include specific information such as facility data, type of application, placement date and other important details.



3M™ Electronic Marking System (EMS) Caution Tape



3M™ Dynatel™ RFID Ball Markers

EMS Marker Tape/Locator 7420

Based on existing Dynatel technology platform, the new 7000 series locators will allow the user to locate existing EMS markers as well as read/write to iD markers.

It is as easy as selecting “path” marker locating for EMS Caution Tape or “iD/EMS” for point marker locating. The push of one button will provide the depth to any of the underground markers.



Control Panel of the 3M™ EMS Marker/Tape Locator 7420



3M™ EMS Marker/Tape Locator 7420



3M™ EMS Caution Tape 7600 Series Specifications

Description:	6 Mil PE film with 3M Markers for locating
Part Number:	7600 Series
Tape Material:	Polyethylene
Color(s):	Yellow, Orange, Blue, Green
Gauge(s):	6 Mil (+/- 10%)
Roll Width(s):	4" and 6" (0.10m and 0.15m)
Roll Length:	984 ft (300m)
Density*:	.920 g/cc (6.0 Mil)
Tensile at Break (psi) / (with markers attached):	MD 1307 (+/- 5%) TD 377 (+/- 5%)
Elongation (%):	MD 7.8 TD 12.7
Tear Strength (g):	MD 440 TD 1200
Physical Specifications:	
Weight(s):	22 lbs. @ 4" wide 27 lbs. @ 6" wide
Spool size: 4" wide 6" wide	19.5 in (.5m) dia x 8 in (.2m) 19.5 in (.5m) dia x 12 in (.3m)
Spool hole:	3.0 dia in
Environmental Specifications:	
Operating temperature	-4° F to 122° F (-20° C to 50° C)
Storage temperature	-4° F to 149° F (-50° C to 65° C)
Compatibility:	
3M™ Dynatel™ 7400 and 7500 Series Locators	
Maximum Buried Depth*:	
7600 Series CT-3 Tape	2 ft (0.6m)
* Using 3M™ Dynatel™ 7400 or 7500 Series Locators	



3M™ Electronic Marking System (EMS) Caution Tape 7600 Series

Ordering Information

Product Number	Product Description	3M ID
7420 EMS	Marker/Tape Locator/Read/Write	80611389232
7645-CT-GAS	7645-CT-GAS EMS Tape Yellow 150mm x 300m - 0.6m buried depth	80630003111
7642-CT-PWR	7642-CT-PWR EMS Tape Orange 150mm x 300m - 0.6m buried depth	80630003103
7644-CT-RW	7644-CT-RW EMS Tape Purple 150mm x 300m - 0.6m buried depth	80630003129
7641-CT-TEL	7641-CT-TEL EMS Tape White 150mm x 300m - 0.6m buried depth	80630003095

3M™ Dynatel™ EMS Marker/Tape Locator 7420

Product Specifications

Physical Specifications:

Locator	Size (H x W x D) IN (CM) 30" x 6.5" x 10.5" (76 x 17 x 27)	Weight (including batteries) 5 lb. (2.25 kg)
Shipping Box	Size (L x W x H) IN (CM) 33" x 17" x 12.5" (8 x 43 x 32)	7 lb. (3.2 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	FCC Part 15, CE (Export Models Only)
Environmental Standard	IP54

Compatibility:

3M EMS/iD Markers	All 3M markers (telephone, gas, communication, power, water, wastewater and general purpose)
3M EMS 7600 Series Caution Tape	All 3M path marking caution tape (telephone, gas, water, wastewater)

Range/Depth:

Maximum Write Range

3M iD Markers:

Near-Surface	6 in (15 cm)
Ball Marker	12 in (30 cm)
Full-Range	24 in (61 cm)

Maximum Read Range

3M iD Markers (with RFID Chip):

Near-Surface	3 ft (0.9 m)
Ball Marker	5 ft (1.5 m)
Full-Range	8 ft (2.4 m)

Maximum Detection Depth

3M Passive Markers (no RFID):

Near-Surface	3 ft (0.9 m)
Ball Marker	6 ft. (1.8 m)
Mid-Range	7 ft. (2.1 m)
Full-Range	9 ft. (2.75 m)

Maximum Detection Depth

7600 Series CT-3 Tape	3 ft (0.9 m)
Depth measurement accuracy	+/- (10% + 5 cm) or +/- (10% + 2 in) up to specified depth of marker or caution tape (Depth accuracy susceptible to high ambient noise conditions)

iD Marker Memory Storage:

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

Electrical Specifications:

Power	Rechargeable battery pack (12V2R4A) ¹
Battery life:	8 hours typical ²
Charging time	1.5 hours, with 90~240V AC adapter
Display	Large graphic high-contrast LCD with backlight
Speaker	0.25W
Headphone jack	Standard mini phone jack
Serial port	Standard RS232 serial with DB9 connector (RS232 to USB adapter cable included)

Notes:

1. It's recommended to use the rechargeable battery pack. However, a battery holder is provided for using 8-AA size Alkaline batteries for backup, which would have reduced battery life.
2. The battery life is measured for the 12V2R4 rechargeable batter pack at 73°F / 23°C, with 10% usage of the backlight and audio volume at medium level.

3M and Dynatel are trademarks of 3M Company.

Conditional Limited Warranty

3M provides the following Conditional Limited Warranty for its EMS Caution Tape 7600 Series Products: When installed in accordance with 3M's installation instructions, 3M warrants EMS Caution Tape for a period of five (5) years from the date of purchase of the product, to be free from defects in material and manufacture, provided EMS Caution Tape is located with 3M™ Dynatel™ Locators or other brand locators as may be designated by 3M in writing. This warranty does not extend to EMS Caution Tape that has been subjected to misuse or improper application or that have been repaired or altered by others. **Except where prohibited by law, 3M will not be liable for any indirect, special, incidental or consequential loss or damage arising from this 3M product, regardless of the legal theory asserted.**

Conditional Limited Warranty

3M provides the following Conditional Limited Warranty for its iD Electronic Marker Products: When installed in accordance with 3M's installation instructions, 3M warrants iD Electronic Markers for a period of ten (10) years from the date of purchase of the product, to be free from defects in material and manufacture, provided iD Electronic Markers are located with 3M™ Dynatel™ Locators or other brand locators as may be designated by 3M in writing. This warranty does not extend to iD Electronic Markers that have been subjected to misuse or improper application or that have been repaired or altered by others. **Except where prohibited by law, 3M will not be liable for any indirect, special, incidental or consequential loss or damage arising from this 3M product, regardless of the legal theory asserted.**

Conditional Lifetime Warranty

3M provides the following Conditional Limited Warranty for its Electronic Marker Products (non-iD versions only): When installed in accordance with 3M's installation instructions, 3M warrants Electronic Markers for the lifetime of the product, to be free from defects in material and manufacture, provided the Electronic Markers are located with 3M™ Dynatel™ Locators or other brand locators as may be designated by 3M in writing. This warranty does not extend to Electronic Markers that have been subjected to misuse or improper application or that have been repaired or altered by others. **Except where prohibited by law, 3M will not be liable for any indirect, special, incidental or consequential loss or damage arising from this 3M product, regardless of the legal theory asserted.**

Limited Conditional Warranty

Locating instruments (except accessories), manufacture dated test leads, and rechargeable batteries will conform to 3M's published specifications and will be free from defects in material and manufacture for a period of twelve (12) months from the date of purchase. Dry cell batteries included in any of 3M's products are warranted only to the extent the battery manufacturer determines such batteries are covered by its warranty. Accessories for locating instruments are warranted for ninety (90) days after purchase. This warranty does not extend to any of 3M's products which have been subjected to misuse, neglect, accident or improper applications, nor shall it extend to products which have been repaired or substantially altered outside 3M's manufacturing or repair facility, nor to any associated instruments, equipment or apparatus. Before utilizing any of 3M's products, BUYER should determine the suitability of the product for BUYER'S intended use. Except where prohibited by law, 3M shall not be liable for any special, incidental, or consequential damages based upon breach of warranty, breach of contract, negligence, strict liability or any other legal theory. This limitation does not apply to claims for personal injury.

This warranty is provided in addition to other rights and remedies you may have under law. Our goods come with guarantees which cannot be excluded under the Australian Consumer Law. You are entitled to replacement for a major failure and to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

For more information on 3M technologies, visit www.3m.com.au/waterinfrastructure



Infrastructure Protection Division

3M Australia Pty. Limited
Bldg A, 1 Rivett Road,
North Ryde NSW 2113
Call: 136 136
www.3m.com.au/waterinfrastructure

3M New Zealand Limited
94 Apollo Drive
Rosedale, Albany
North Shore City Auckland
Call: 477 4040

3M and Scotchmate are registered trademarks of 3M.
Please recycle. Printed in Australia and New Zealand.
© 3M 2012. All rights reserved.
12482-12-12