

3M[™] Electronic Marker System (EMS) Full-Range Markers

The 3M[™] Full-Range Marker provides an accurate, convenient, long-lasting method of marking underground facilities. Electronic marking saves time and money spent searching for buried facilities prior to excavation. The marker also acts as a digging shield over buried facilities, lessening the chances of damage. And, unlike surface markers such as stakes, flags or paint, the full-range marker cannot be inadvertently moved or worn away by weather.

The addition of the new 3M-iD markers provides additional functionality by enabling facility data to be stored in the marker. The pre-programmed unique serial number integrates with back office mapping and GIS systems when used for mapping new and legacy assets and points of special interest for construction and maintenance applications.

The full-range marker is buried over key facilities during construction or maintenance. Later, the marker is easily and accurately located using a 3M™ Dynatel™ Locator. The locator transmits a signal to the buried marker. The marker returns the signal to the locator, indicating the marker's exact position, while the locator provides both a visual reading and an audible tone.

| Features | Benefits |
|----------------------------------|---|
| Accurate even in congested areas | Helps eliminate mislocates |
| Underground marker | Protected from damage from above-ground environment |
| Doubles as a digging shield | Eliminates costly dig ins |
| Easy to Use | Minimal training |
| RFiD capability | Positive identification using facility information |

| Physical Specifications | |
|------------------------------------|--|
| Size | 15" diameter x 0.65" thick (38.10 cm x 1.65 cm) |
| Weight | Net: 1 lb. (0.45 kg) each/ Shipping: 27 lbs. (12.24 kg)/carton |
| Packaging | 25 markers per carton |
| 3M iD Markers Read Range | With a 'U' model (U.S.) locator: 8 ft. (2.4 m) With a 'E' model (Export, CE) locator: 2 m |
| 3M Passive Markers Detection Range | 8 ft (2.4 m) |

| Environmental Specifications | |
|-------------------------------------|--------------------------------|
| Operating Temperature | -4°F to 122°F (-20°C to 50°C) |
| Storage Temperature | -40°F to 158°F (-40°C to 70°C) |

Second Generation iD Markers with 4X Memory launching 1Q 2012



3M[™] Electronic Marker System(EMS) XR/iD Full-Range Markers



3M™ Full Range Markers

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| Image | Product | Application | Stock Number | | | |
| | 3M™ iD Full-Range Marker 1248-XR/iD | General purpose and reclaimed water | 80611321284 | | | |
| | 3M™ EMS Full-Range Marker 1250 | Telecommunications industry | 80610221017 | | | |
| | 3M™ iD Full-Range Marker 1250-XR/iD | Telecommunications industry | 80611321235 | | | |
| | 3M™ EMS Full-Range Marker 1251 | Power industry | 80610221295 | | | |
| | 3M™ iD Full-Range Marker 1251-XR/iD | Power industry | 80611321243 | | | |
| | 3M™ EMS Full-Range Marker 1252 | Water industry | 80610221519 | | | |
| | 3M™ iD Full-Range Marker 1252-XR/iD | Water industry | 80611321250 | | | |
| | 3M™ EMS Full-Range Marker 1253 | Wastewater industry | 80610221501 | | | |
| | 3M™ EMS Full-Range Marker 1253-XR/iD | Wastewater industry | 80611321268 | | | |
| | 3M™ EMS Full-Range Marker 1254 | Gas industry | 80610221550 | | | |
| | 3M™ iD Full-Range Marker 1254-XR/iD | Gas industry | 80611321276 | | | |

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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. 3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE. If the iD Marker is found to be defective within the warranty period, your exclusive remedy shall be, at 3M's options, to repair or replace the iD Markers or refund the purchase price. 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. 3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE. If the Electronic Marker is found to be defective during the normal lifetime of the product, your exclusive remedy shall be, at 3M's options, to repair or replace the Electronic Markers or refund the purchase price. 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.



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