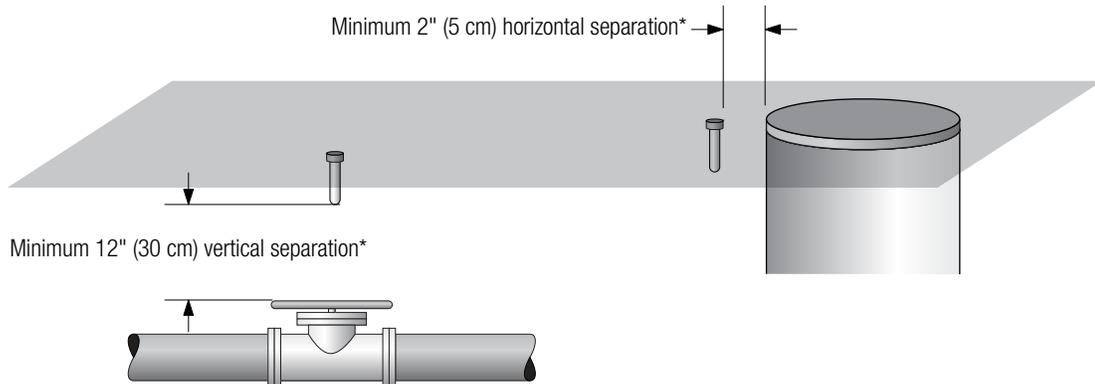


# 3M™ Electronic Marking System (EMS) Near-Surface iD Marker

## Installation Instructions



### 1.0 Introduction

1.1 3M™ Near-Surface iD Markers provide an accurate, convenient, long lasting method of marking underground and street-access facilities. Its size and shape allow for easy installation in asphalt, concrete or dirt, without extensive digging or drilling. 3M iD Markers enable you to return to the exact location of the marked underground feature and ensure positive identification by reading the stored data and unique serial number in each iD Marker.

### 2.0 Removable Identification Number Tag

2.1 Prior to burying the iD Marker, remove the identification number tag and attach it to “as-builts,” or facility documentation, as required by company procedure.

### 3.0 Writing Information To iD Markers

3.1 Second generation iD Markers launched in the first quarter of 2012. Please make sure your Dynatel iD enabled locator has the latest software. The latest PC-Tools can be downloaded at [www.3m.com/dynatel](http://www.3m.com/dynatel).

3.2 If the iD Marker is intended to contain specific facility information, write the information to the iD Marker prior to burying. Near-Surface iD Markers must be in a vertical position to write information into them.

3.3 Place the iD marker in the soil, or a non-metallic holder such as a cardboard box with a hole in the top to hold the iD marker for writing.

3.4 Hold the 3M™ Dynatel™ iD enabled Locator receiver over the top of the iD marker. The maximum distance between the iD marker and the receiver during writing is 6 inches (15 cm).

3.5 For iD Marker writing instructions, please refer to the following Operator’s Manuals: *3M™ Dynatel™ EMS-iD Locator 1420*, *3M™ Dynatel™ Cable/Pipe/Fault Locator 2250M/2273M Series* or *3M™ Dynatel™ Cable/Pipe/Fault Locator 2550/2573 Series*.

### 4.0 Installing the iD Marker

4.1 Place the marker vertically into the soil or pavement.

4.2 Maintain a vertical separation from metallic objects of at least 12 inches (30 cm).

- 4.3 A minimum horizontal separation distance of 2 inches (5 cm) from metallic objects should be maintained.

***IMPORTANT: The Near-Surface iD Marker cannot reliably re-radiate the locator's signal at a depth greater than 3 feet (0.9 m). If using an E-model locator in countries following CE limitations, or equivalent, the maximum depth is 0.6 m (1.96 ft). This is the maximum allowable distance between the Near-Surface iD Marker and the locator tip.***

- 4.4 Fill hole using soil, or other suitable materials such as concrete or asphalt.

## 5.0 Specifications

Specifications	
Read Depth (max)	
Locator, US-Version	3 ft (0.9 m)
Locator, E-Version	0.6 m (1.96 ft)
Program Distance (max)	6 in (15 cm)
Vertical Separation from Facility (min)	12 in* (30 cm)
Horizontal Separation from Facility (min)	2 in* (5 cm)
Distance Between iD Markers (min)	3.5 ft (1.06 m)
Marker Diameter	0.78 in (2 cm)
Marker Length	3 in (7.6 cm)

\* Target size and material dependent. Depth estimation may be adversely affected when placing the marker above a large metallic object, such as a manhole cover. To improve depth estimation accuracy, increase the vertical separation from the metal object or perform a field test for depth accuracy.

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