ScotchMark™ Electronic Marker System

Full-Range Marker for gas, water and wastewater applications

Find your underground facilities the first time

The Full-Range Marker provides an accurate, convenient, long-lasting method of marking underground facilities. Electronic marking eliminates time and money spent searching for “lost” facilities. The marker also acts as a digging shield over buried facilities, lessening the chances of a costly dig-in. And, unlike surface markers such as stakes, flags or paint, the full-range marker cannot be inadvertently removed or worn away by weather.

The full-range marker is buried over key facilities during construction or maintenance. Later, the marker is easily and accurately located using a EMS II Marker Locator, which consists of a compact electronics package and a lightweight hand-held probe. The locator transmits a signal to the buried marker. The marker reflects the signal back to the locator, and its exact location is indicated with both a visual meter reading and an audible tone. The marker has a range of up to eight feet (2.44 m) from marker to locator.

Built for durability

The full-range marker is a passive antenna encased in a water-resistant polyethylene shell which is impervious to minerals, chemicals and temperature extremes normally found in underground plant environments. Eyelets on the marker allow the installer to attach the marker to a pipe, conduit or splice case with a tie-down strap (optional) if desired.

On the mark for every application

The ScotchMark™ System is the most dependable way to mark virtually any type of facility, including:

Gas
• buried valves or valve boxes
• tees
• road crossings
• buried anodes
• service stubs
• snow-covered installations

Water
• valve boxes
• service stubs
• road crossings
• pipeline paths
• meter boxes
• tees
• main stubs
• snow-covered installations

Wastewater
• service stubs
• laterals
• pipeline paths
• clean-outs
• road crossings
• snow-covered installations

Easy to use, and accurate in congested areas

The ScotchMark system is accurate even in congested areas. The locator is not affected by metal conduit or pipe, metallic conductors, fences, or AC power. There is no danger of finding another utility’s markers, because each ScotchMark marker is tuned to a specific frequency for your utility, and the locator is preset only to that frequency. Use of the locator and markers requires only a few minutes of training.

ScotchMark™ Electronic Marker System

<table>
<thead>
<tr>
<th>Features</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accurate even in congested areas</td>
<td>Helps eliminate mislocates</td>
</tr>
<tr>
<td>Doubles as a digging shield</td>
<td>Helps eliminate costly dig-ins</td>
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<tr>
<td>Underground marker</td>
<td>Able to identify underground facilities for years to come, regardless of topographic changes</td>
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</table>
The ScotchMark family of products

Other ScotchMark Markers are available for a variety of applications. These include:

- Mid-range marker – applicable to depths of six feet (1.8 m). Marker spokes help stabilize marker’s position after placement for accurate locating.
- Disc marker – for mounting under non-metallic lids or covers such as valve boxes. It is not intended for direct burial and can be read at depths up to five feet.
- 4” ball marker – applicable to depths of five feet (1.5 m). A unique self leveling feature allows the marker to be in the correct position for accurate locating.
- Near-surface marker – designed for applications of up to two feet (0.61m) from marker to locator probe. It installs easily in street surfaces for marking flush-mount facilities prior to repaving.

All ScotchMark markers are color-coded to APWA standards and tuned to a specific frequency for each utility, minimizing the chance of accidentally locating other utilities’ buried markers.

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ScotchMark™ Electronic Marker System

### Physical Specifications

<table>
<thead>
<tr>
<th></th>
<th>15” diameter x 0.65” thick</th>
<th>(38.10 cm x 1.65 cm)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Size</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>Net: 1 (0.45 kg) each</td>
<td>Shipping 27lbs. (12.24kg)/carton</td>
</tr>
<tr>
<td><strong>Packaging</strong></td>
<td>25 markers/carton</td>
<td></td>
</tr>
<tr>
<td><strong>Range</strong></td>
<td>8’ (2.44m) from locator probe</td>
<td></td>
</tr>
<tr>
<td><strong>Color</strong></td>
<td>Color-coded for each utility to APWA standards</td>
<td></td>
</tr>
</tbody>
</table>

### Environmental Specifications

<table>
<thead>
<tr>
<th></th>
<th>-40° to 150°F</th>
<th>(-40° to 66°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operating temperature</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Storage temperature</strong></td>
<td>-40° to 167°F</td>
<td>(-40° to 75°C)</td>
</tr>
</tbody>
</table>

### Ordering Information

To order, contact the 3M order department at the toll-free number below and specify part number from the following chart:

<table>
<thead>
<tr>
<th>APWA Color Code</th>
<th>Gas</th>
<th>Water</th>
<th>Wastewater</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-Range Marker</td>
<td>1254</td>
<td>1252</td>
<td>1253</td>
</tr>
</tbody>
</table>

Phone: 800-722-6721 or 512-984-1038
Fax: 800-828-9329 or 512-984-2210

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Important Notice

**WARRANTY AND REMEDY.** This product will conform to 3M published specifications and be free from defects in materials and workmanship for a period of one year from the date of purchase. In addition, 3M provides the following Conditional Lifetime Warranty for its Electronic Marker Products: When installed in accordance with 3M’s installation instructions, 3M warrants 3M™ 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™ Test and Measurement instruments or Scotchmark EMS Electronic Marker 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 applications or that have been repaired or altered by others. 3M MAKES NO OTHER WARRANTY INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. If the Marker is found to be defective within the stated warranty period, your exclusive remedy shall be, at 3M’s option, to repair or replace the Marker or refund the purchase price. 3M will not be liable for any special, incidental, or consequential damages arising from use of this 3M product, regardless of the legal theory asserted.

3M
Corrosion Protection Department
6801 River Place Blvd.
Austin, TX 78726-9000
http://www.3M.com/corrosion

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