

Marking your spot with the 3M™ Electronic Marker System.

The main element of the 3M Electronic Marker System (EMS) is a durable, passive marker that can be buried over key facilities during construction or used to mark existing facilities during maintenance. After installation, EMS saves both time and money by eliminating the search for “lost” facilities.

With EMS, you can find power, gas, water, wastewater, CATV and telephone utilities in the heaviest of traffic. Unlike surface markers such as stakes, flags or paint, an EMS marker is not affected by overgrown vegetation or vandalism, and can't be worn away by weather.

Two types of locators are available for locating markers: the 3M™ EMS Marker Locator or the 3M™ Dynatel™ Cable/Fault Locator with the Dynatel 2205/2206 Marker Locating Accessory for simultaneous cable and marker locating.

Find it fast

It takes just minutes to learn to use EMS, and finding buried markers is just as easy. The locator transmits an RF signal to the buried marker. The marker reflects the signal back to the locator, and the location is indicated with both a visual meter reading and an audible tone.

Markers that last

With our Full-Range, Mini, Ball, and Near-Surface Markers, there is a marker to meet every need. A four-inch disc marker is also available for marking handholds. It easily attaches to lids or covers over flush-mounted facilities.

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.

The safe choice

There is no guesswork with the electronic marker system. 3M locators 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 color-coded to APWA standards for visual reference and each utility has its own specific frequency. EMS signals provide positive identification of each utility, thus reducing the risk of accidentally locating and excavating other buried facilities.



Near-Surface Marker Ideal for marking underground and street-access facilities up to two feet in depth. Its 3½-inch long cylindrical size and shape allows for easy installation in asphalt, concrete or rock without extensive digging or drilling.



Ball Marker Engineered for narrow trench applications up to five feet in depth, the 4-inch diameter ball marker has a unique, patented self-leveling feature that ensures an accurate, horizontal position regardless of how it is placed in the ground. (Contains a mixture of Propylene Glycol and water which is approved for use in pharmaceuticals, cosmetics and as a food additive. The mixture is readily biodegradable and will not harm humans, wildlife or the environment.)



Mini-Marker Designed for marking applications at depths up to six feet, marker spokes in the 8¼-inch diameter mini-marker help stabilize it in the correct position after placement.



Full-Range Marker The full-range marker is suited for deep applications up to eight feet. Its 15-inch diameter makes it ideal for use as a digging shield over sensitive underground facilities.

Specifications for 3M™ Electronic Marker System

	Telephone	CATV	Power	Water	Wastewater	Gas
Near-Surface Marker Product Number Color	1432 Orange	N/A	1433 Red	1434 Blue	1435 Green	1436 Yellow
Ball Marker Product Number Color	1401-XR Orange	1407-XR Black/Orange	1402-XR Red	1403-XR Blue	1404-XR Green	1405-XR Yellow
Disk Marker	1411-XR Orange	N/A	1412-XR Red	1413-XR Blue	1414-XR	1415-XR Yellow
Mini-Marker Product Number Color	1255 Orange	N/A	1256 Red	1257 Blue	1258 Green	1259 Yellow
Full-Range Marker Product Number Color	1250 Orange	N/A	1251 Red	1252 Blue	1253 Green	1254 Yellow
Marker Locator Product Number	1264/2205-TEL 2206	N/A	1263/2205-PWR 2206	1266/2205-WTR 2206	1265/2205-WWTR 2206	1267/2205-GAS 2206

	Net weight	Shipping weight	Range (dependent on marker type)	Standard Packaging
Near-Surface Marker	0.055 lbs. (0.025 kg)	3.75 lbs. (1.71 kg)	2 ft. (0.6 m) from locator probe	50/cs.
Disk Marker	1.4 oz. (39.7 g)	5 lbs. (2.3 kg)	5 ft. (1.5 m) from locator probe	50/cs.
Ball Marker	0.7587 lbs. (0.35 kg)	25.0 lbs. (11.4 kg)	5 ft. (1.5 m) from locator probe	30/cs.
Mini-Marker	0.31 lbs. (0.142 kg)	17.0 lbs. (7.7 kg)	6 ft. (1.8 m) from locator probe	50/cs.
Full-Range Marker	1.75 lbs. (0.8 kg)	30.9 lbs. (14.0 kg)	8 ft. (2.4 m) from locator probe	25/cs.
Marker Locator 1264/1263/1265/ 1266/1267 2205/2206	5.5 lbs. (2.5 kg)	12.0 lbs. (5.4 kg)	N/A	1/cs.
	2.3 lbs. (1.1 kg)	4.0 lbs. (1.8 kg)	N/A	1/cs.

Applications

Telephone	CATV	Power	Water	Wastewater	Gas
<ul style="list-style-type: none"> • Cable paths • Buried splices • Buried service drops • Load coils • Conduit stubs • Fiber optic facilities • Branch splices 	<ul style="list-style-type: none"> • Cable paths • Fiber optic facilities • Buried service drops • Road crossings • Buried splices 	<ul style="list-style-type: none"> • Cable paths • Service drops • Conduit stubs • Buried splices • Road crossings • Branch splices • Buried transformers 	<ul style="list-style-type: none"> • Pipeline paths • Service stubs • Clean-outs • Road crossings 	<ul style="list-style-type: none"> • Pipeline paths • Service stubs • PVC pipeline • Buried valves • Road crossings • Tees 	<ul style="list-style-type: none"> • Pipeline paths • Main stubs • Service stubs • Tees • Road crossings • Valve boxes • Meter boxes