

**3M** Science.  
Applied to Life.™

# Trace the underground.

**3M™ Locating and  
Marking System.**



Stress-free management and maintenance of underground assets requires tools you can depend on. 3M's integrated locating and marking solutions are engineered to help bring you peace of mind as you take on your toughest challenges.

[3M.co.uk/LocatingAndMarking](https://www.3m.co.uk/LocatingAndMarking)

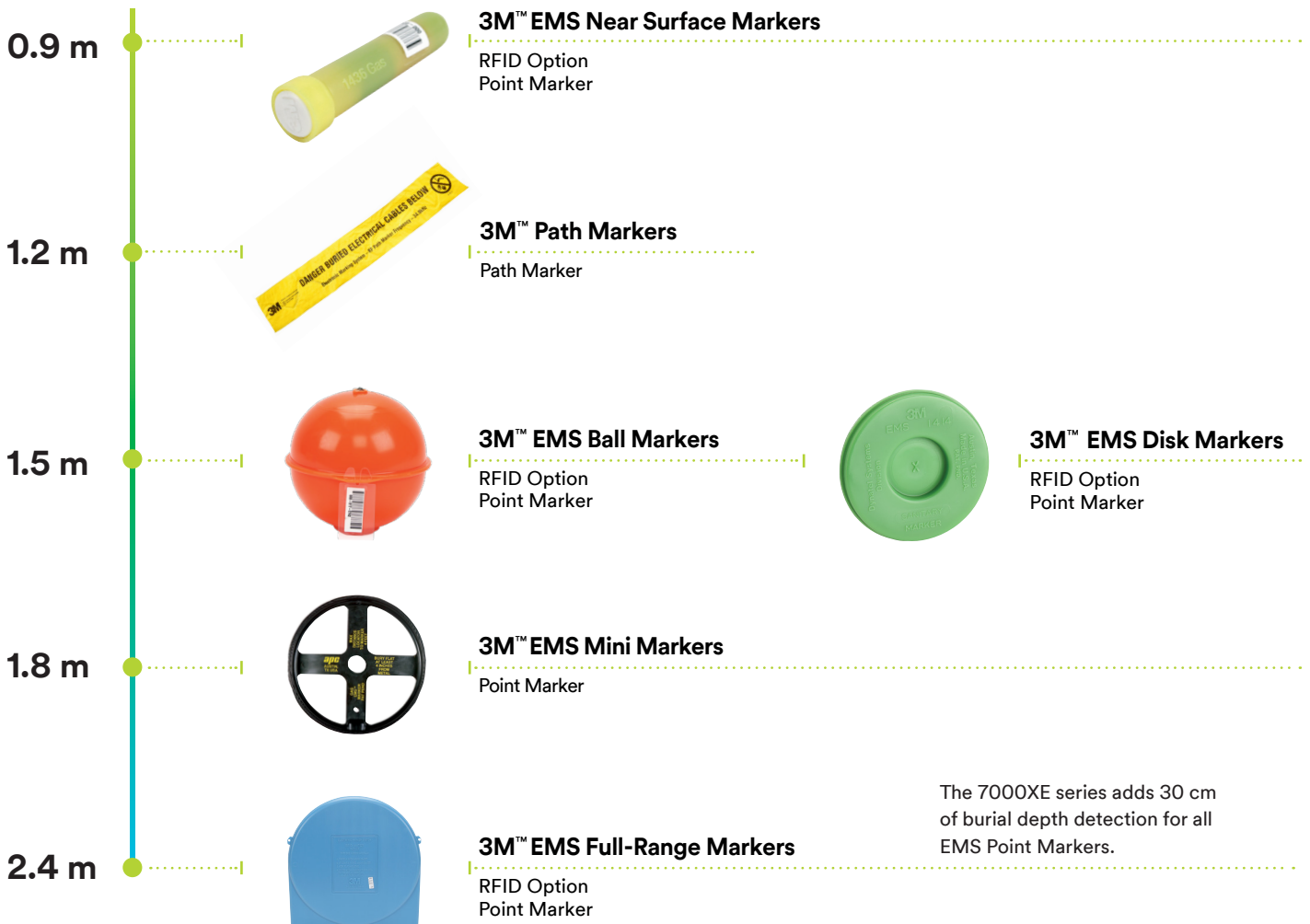
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# Marker burial depth chart



Save time and money by quickly pinpointing the location of buried assets with 3M™ Point and Path Markers and our Electronic Marking System (EMS) technology. Designed to be placed in various ranges of burial depths, our markers protect your critical assets wherever they are.



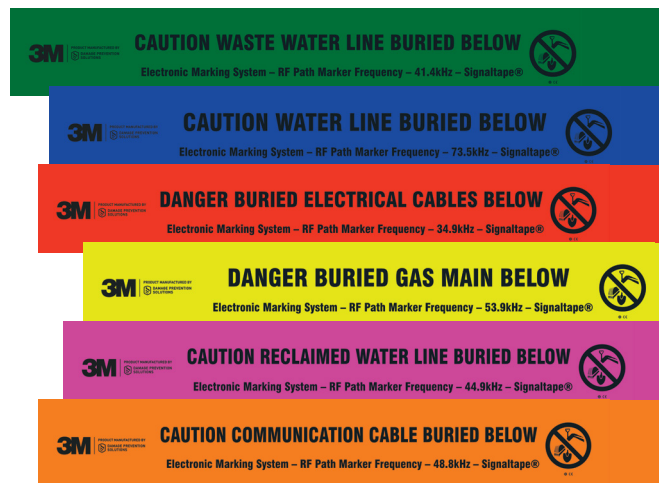
**Note:** burial depths are approximate. Review the marker specification sheet and locator compatibility for precise indication of burial depth for each of the marker models.

# 3M™ Path Marking Tape

## A maintenance-free solution for marking and locating

3M™ Electronic Marking System (EMS) Warning Tape 7900-XT Series and 3M™ EMS Caution Tape 7900 Series provide a virtually maintenance-free solution for marking and locating the path of underground plastic pipes and conduits. Together, they help eliminate problems and costs associated with tracer wire and test stations.

The 3M™ EMS Warning Tape 7900-XT Series and 3M™ EMS Caution Tape 7900 Series are both embedded with markers that are activated using the 3M™ Dynatel™ Locators 7000XE Series. The EMS Warning Tape 7900-XT Series also includes an additional high strength core material feature called extreme tensile (XT) which provides an early warning for excavators that an underground asset is below.



- ▶ Can be installed near or above buried assets
- ▶ Easy to follow, creating a detectable path above ground
- ▶ For use in open trench applications
- ▶ Does not require batteries and there's no need to hook up an external transmitter or spend time searching for access points
- ▶ The markers work independently, so even if a section of path marking tape is cut or removed, the other markers on the tape will continue to provide an accurate location
- ▶ Available in 6 frequencies, creating a unique identification for each utility type

	Depth	Length	Marker spacing	Tensile strength	Width	Telephone	Power	Gas	Water	Wastewater	Reclaimed water
3M™ EMS Warning Tape 7900-XT Series	Up to 1.2 m	152 m	2.4 m	13 kN	15 cm	7901-XT	7902-XT	7905-XT	7903-XT	7904-XT	7908-XT
3M™ EMS Caution Tape 7900 Series	Up to 1.2 m	152 m	2.4 m	1.6 kN	15 cm	7901	7902	7905	7903	7904	7908

The optimal depth for the XT early warning system is < 2 ft (60 cm) while the embedded EMS markers are locatable < 4 ft (1.2 m).

XT – Extreme Tensile, EMS – Electronic Marking System

# 3M™ EMS Point Markers

## Marking points of interest

Unlike surface features, maps and other methods of recording position, our Point Markers are a point of reference you can depend on.

### 3M™ EMS Markers:

- ▶ Operate in all soil types; under asphalt, cement, and wet or dry soil
- ▶ Provide easy positive identification with each utility having its own frequency
- ▶ Colour-coded to APWA standards

### 3M iD Markers can be customised to include customer-specific information:

- ▶ Facility data
- ▶ Material type and size
- ▶ Type of application
- ▶ Placement date

Access all of this information in the field through a 3M™ Dynatel™ iD capable locator, or by uploading and using with your GIS system.

	Detection/read range	Type	Telephone	Power	CATV	General purpose	Water	Wastewater	Gas
3M™ EMS Near Surface Marker	0.9 m	EMS	1432	1433	–	–	1434	1435	1436
	0.6 m	iD	1432-XR/iD	1433-XR/iD	1437-XR/iD	1438-XR/iD	1434-XR/iD	1435-XR/iD	1436-XR/iD
3M™ EMS Ball Marker	1.8 m	EMS	1401-XR	1402-XR	1407-XR	1408-XR	1403-XR	1404-XR	1405-XR
	1.5 m	iD	1421-XR/iD	1422-XR/iD	1427-XR/iD	1428-XR/iD	1423-XR/iD	1424-XR/iD	1425-XR/iD
3M™ EMS Mini-Marker	1.8 m	EMS	1255	1256	–	–	1257	1258	1259
3M™ EMS Full Range Marker	2.7 m	EMS	1250	1251	–	–	1252	1253	1254
	2.4 m	iD	1250-XR/iD	1251-XR/iD	–	1248-XR/iD	1252-XR/iD	1253-XR/iD	1254-XR/iD
3M™ EMS Disk Marker	1.5 m	EMS	1411-XR	1412-XR	1417-XR	1418-XR	1413-XR	1414-XR	1415-XR
	1.5 m	iD	1411-XR/iD	1412-XR/iD	–	1418-XR/iD	1413-XR/iD	1414-XR/iD	1415-XR/iD



**3M™ EMS and iD Near Surface Marker**

Ideal for marking at shallow depths of 0.6-0.9 m



**3M™ EMS and iD Ball Marker**

Self-leveling feature, suited for depths of 1.5-1.8 m



**3M™ EMS Mini-Marker**

Designed for maintaining a stable position after placement at depths of 1.8 m



**3M™ EMS and iD Full-Range Marker**

Suited for deep applications of up to 2.4-2.7 m



**3M™ EMS and iD Disk Marker**

Ideal for marking at shallow depths of 1.5-1.8 m

# 3M™ Dynatel™ Locator XE Series

3M™ Dynatel™ Locator 1420XE

3M™ Dynatel™ Locator 7420XE

3M™ Dynatel™ Locator 2550XE/2573XE

3M™ Dynatel™ Locator 2550XE-iD/2573XE-iD

3M™ Dynatel™ Locator 7550XE/7573XE

Our latest innovation, the Dynatel XE Series Locators allow you to quickly locate underground assets. They are equipped with Bluetooth® wireless technology receivers, along with improved software and GPS capabilities. All models are available both as full kits including transmitter and as stand-alone locators.



- ▶ Receiver with Bluetooth® wireless technology
- ▶ Integrated USB port is compatible with USB Type-C connector
- ▶ Internal GPS data can be saved internally or directly to a memory stick compatible with USB Type-C connector
- ▶ 3M iD Marker write/read/locate capabilities
- ▶ EMS Path Marking Antennas
- ▶ Multiple EMS antennas for maximum locate capabilities
- ▶ Large LCD display with image-driven graphical interface
- ▶ Integrated tone functions
- ▶ Dynatel Locators 2573XE, 2573XE-iD, and 7573XE include fault locating
- ▶ 12 W transmitter

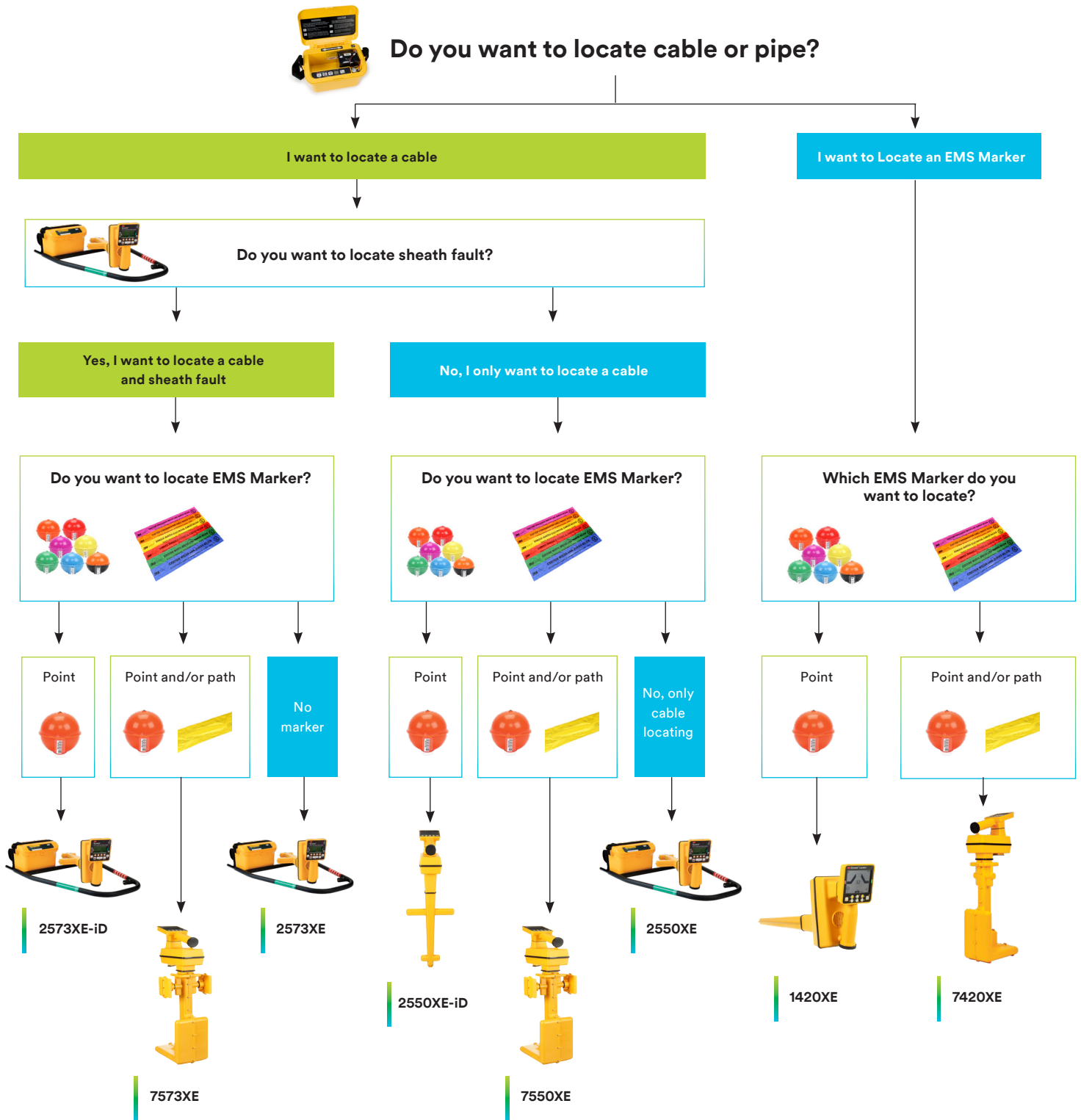


3M™ Dynatel™ Locators  
1420XE/7420XE Series

3M™ Dynatel™ Locator  
2550XE-ID/2573XE-ID Series

3M™ Dynatel™ Locator  
7550XE/7573XE Series





# 3M™ Dynatel™ Locator selection chart






The numbers above reference Dynatel Locator models.

Some kits have 3 or 12 W transmitters. 12 W transmitters can be useful with locates that have a weak signal. To pick specific kits please refer to the locator kit ordering information starting on page 10.

# 3M™ Dynatel™ Locator features by model

		3M™ Dynatel Locator XE-Series							
		2550XE	2550XE-iD	2573XE	2573XE-iD	7550XE	7573XE	1420XE	7420XE
Application	Pipe and cable locating 	✓	✓	✓	✓	✓	✓		
	Sheath fault (A-frame) 			✓	✓		✓		
	EMS point marking 		✓		✓	✓	✓	✓	✓
	EMS path marking 					✓	✓		✓

Functions	Transmitter active frequencies	577 Hz, 1 kHz, 8 kHz, 33 kHz, 82 kHz and 133 kHz						Not applicable	
	Transmitter inductive frequencies	33 kHz, 82 kHz and 133 kHz						Not applicable	
	Passive power	50 Hz or 60 Hz (5th and 9th harmonic)						Not applicable	
	Passive LF	15 kHz – 30 kHz						Not applicable	
	Sonde locating	33 kHz						Not applicable	
	EMS point marking <sup>1</sup> 8 utilities		✓		✓	✓	✓	✓	✓
	EMS path marking <sup>2</sup> 6 utilities					✓	✓		✓
	Receiver battery system	Chargeable Li-Ion battery + alkaline 8x AA size battery pack for backup							
	Receiver GPS	Internal GPS interface CEP50 (Autonomous Position Accuracy) ability to connect an external GPS device							
	Receiver Bluetooth® wireless technology	Dual-mode Bluetooth® 5.0 profiles support GAP, GATT, SPP							
Receiver USB Type-C® connector	Charging Li-Ion battery connect external headphone or external GPS device memory stick (storage locator data, such as burial depth, GPS, marker info, time and date stamp, etc.)								

Accessories	Transmitter output power 	0.5 watt and 3 watt (internal alkaline batteries)						Not applicable	
	Transmitter output power 	12 watt (external 3M™ rechargeable battery)						Not applicable	
	Dyna-coupler size 	3" and 4.5"						Not applicable	

✓ Standard feature

<sup>1</sup>Telephone, water, wastewater, gas, general purpose, power, power CE, CATV

<sup>2</sup>Telephone, water, wastewater, gas, general purpose, power



# 3M™ Locating and Marking Accessories



7000027975

## 3M™ Ribbed Battery Compartment Cap with liner for 3M™ Dynatel™ M-Series cable/pipe Locators

The cap screws onto the locator handle to help protect the battery.



7000058653

## 3M™ Rechargeable Battery

Two-lead, 10' (3 m) cable used for direct connection to cable and ground.



7000058654

## 3M™ 6" (15.2 cm) Dyna-Coupler with pouch

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).



7000058906

## 3M™ Rechargeable Battery Pack

For use with 3M™ Dynatel™ 7000XE and 2500XE Series Receiver.



7000057745

## 3M™ Small Clip 1/4" (6.4 mm) Direct Connect, 5-foot Transmitter Cable, telephone

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.



7000057744

## 3M™ 3" (7.6 cm) Dyna-Coupler

Permits coupling of RF trace tone to cables with a maximum diameter of 3" (7.6 cm).



7000058141

## 3M™ Small Clip 1/4" (6.4 mm) Direct-Connect Transmitter Cable for all cable/fault locators

Two-lead, 10' (3 m) cable used for direct connection to cable and ground.



7000031716

## 3M™ 4.5" (11.4 cm) Dyna-Coupler

Permits coupling of RF trace tone to cables with a maximum diameter of 4.5" (11.4 cm).



7000058140

## 3M™ Large Clip 5/8" (15.9 mm) Direct-Connect Transmitter Cable

Two-lead, 10' (3 m) cable used for direct connection to cable and ground.



7000031432

## 3M™ Coupler Cable

For use with any Dynatel Transmitter, Receiver, or Coupler: 12' (3.7 m) in length.



7000043006

## 3M™ Ground Extension Cable

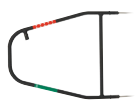
Extends ground capability to 12' (3.7 m).



7000006221

## 3M™ Dynatel™ Locator Coupler Accessory Kit

Contains a 4001 4.5" (11.4 cm) 3M Dyna-coupler and a 3M Coupler Cable 9011 with a case that can be attached to the transmitter.



7000031431

## 3M™ Earth Contact Frame

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.



7000058326

## 3M™ 3" (7.6 cm) Cable Locator Coupler Accessory Kit

Contains a 3001 3" (7.6 cm) Dyna-coupler and a Coupler Cable 9011 with a case that can be attached to the transmitter.



7000031433

## 3M™ Earth Contact Frame Cable

For use with the 3M™ Earth Contact Frame 3014 for sheath (earth return) fault location; 4' (1.2 m) in length.



7000006166

## 3M™ Soft Carrying Bag

Carrying bag for the 2500XE and 7000XE series locators.

# 3M™ Dynatel™ Locator Kits ordering information

For Europe	Point and path markers enabled	Cable/pipe locate	Fault locate	Electronic marker locate	Path marker locate	Transmitter output	Direct connect cable – small clips	Direct connect cable – large clips	Coupler size (inches)	220ORB rechargeable battery	Receiver rechargeable battery	Cigarette lighter adapter cable	Carrying bag
	Point markers enabled												
<b>7573XE Series Kits</b>													
7100253206	7573XE U12 Mkr/Pth Cb/Pp/Flt Loc 4.5" 12 W	x	x	x	x	12 W		x	4,5	x	x	x	x
7100253211	7573XE C12 Mkr/Pth Cb/Pp/Flt Loc 3" 12 W	x	x	x	x	12 W	x		3	x	x	x	x
<b>7550XE Series Kits</b>													
7100253208	7550XE U12 Mkr/Pth Cb/Pp Loc 4.5" 12 W	x		x	x	12 W		x	4,5	x	x	x	x
<b>7420XE</b>													
7100213472	7420XE ID Marker/Path Locator – Exp			x	x						x		
<b>2573XE Series Kits</b>													
7100253196	2573XE-ID U12 Mkr Cb/Pp/Flt Loc 4.5" 12 W	x	x	x		12 W		x	4,5		x	x	x
7100253203	2573XE-ID C12 Mkr Cb/Pp/Flt Loc 3" 12 W	x	x	x		12 W	x		3		x	x	x
7100253197	2573XE C12 Cb/Pp/Flt Loc 3" 12 W	x	x			12 W	x		3		x	x	x
<b>2550XE Series Kits</b>													
7100253524	2550XE-ID U12 Mkr Cb/Pp Loc 4.5" 12 W	x		x		12 W		x	4,5		x	x	x
7100253114	2550XE-ID C12 Mkr Cb/Pp Loc 3" 12 W	x		x		12 W	x		3		x	x	x
7100253198	2550XE C12 Cb/Pp loc 3" 12 W	x				12 W	x		3		x	x	x
<b>1420XE</b>													
7100213430	1420XE ID Marker Locator – Exp			x							x		
<b>XE-Series receiver only</b>													
7100213427	7573XE Mkr/Pth Cb/Pp/Flt Loc Only	x	x	x	x						x		
7100253207	7550XE Mkr/Pth Cb/Pp Loc Only	x		x	x						x		
7100213429	2573XE-ID Mkr Cb/Pp/Flt Loc Only	x	x	x							x		
7100253263	2573XE Cb/Pp/Flt Loc Only	x	x								x		
7100253199	2550XE-ID Mkr Cb/Pp Loc Only	x		x							x		
7100253062	2550XE Cb/Pp Loc Only	x									x		
<b>Transmitter only</b>													
80-6113-3471-7	2573E-T12 M-SERIES Transmitter Only, OUS 12 W					12 W	x	x		x		x	
80-6113-3476-6	2550E-T12 M-SERIES Transmitter Only, OUS, 12 W					12 W	x	x		x		x	

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