

3M 1420

3M Dynatel 1420 ID Locator User Manual

Model: 1420 | Brand: 3M

1. INTRODUCTION

The 3M Dynatel 1420 ID Locator is a robust and reliable device designed for accurately locating buried electronic markers. This locator is essential for professionals in utility, telecommunications, and construction industries to identify and trace underground infrastructure marked with 3M EMS markers.

This manual provides comprehensive instructions for the proper setup, operation, maintenance, and troubleshooting of your 3M Dynatel 1420 ID Locator to ensure optimal performance and longevity.



Image: The 3M Dynatel 1420 ID Locator. This yellow handheld device features a digital display for readings and an array of control buttons for user interaction. It is specifically designed for locating buried electronic markers.

2. SETUP

2.1 Unpacking

Carefully unpack all components from the shipping carton. Verify that all items listed below are present:

- 3M Dynatel 1420 ID Locator unit
- User Manual (this document)
- Any included accessories (e.g., carrying case, cables, if applicable)

Inspect the unit for any signs of shipping damage. If damage is found, contact your supplier immediately.

2.2 Powering On and Battery Installation

The 3M Dynatel 1420 ID Locator is battery-powered. Batteries are not included with the unit and must be installed prior to first use.

1. Locate the battery compartment on the device. Refer to the diagram in the quick start guide (if provided) for exact

location.

2. Open the battery compartment cover.
3. Insert the required batteries, ensuring correct polarity (+/-) as indicated inside the compartment. The device typically uses standard alkaline or rechargeable batteries (e.g., D-cell or C-cell, depending on model revision).
4. Close the battery compartment cover securely.
5. Press the Power button to turn on the locator. The display should illuminate, indicating the unit is ready for operation.

3. OPERATING INSTRUCTIONS

3.1 Basic Operation

The 3M Dynatel 1420 ID Locator is designed for intuitive use. Follow these steps for basic marker locating:

1. **Power On:** Press the power button to turn on the device. Allow a few seconds for the system to initialize.
2. **Select Marker Type:** Use the navigation buttons to select the type of 3M EMS marker you intend to locate (e.g., Water, Gas, Telecom, Power, Sewer, General Purpose). The display will show the currently selected marker type.
3. **Scan Area:** Hold the locator in an upright position, approximately 6-12 inches (15-30 cm) above the ground. Walk slowly over the area where the marker is expected to be buried.
4. **Interpret Readings:**
 - The display will show signal strength and depth readings as you approach a marker.
 - A higher signal strength indicates proximity to the marker.
 - The depth reading provides an estimate of how deep the marker is buried.
5. **Pinpoint Location:** Once a strong signal is detected, move the locator in a cross-pattern (X-Y axis) to pinpoint the exact center of the marker. The locator will typically provide an audible tone or visual indicator when directly over the marker.
6. **Verify Marker ID:** For advanced markers, the locator may display the unique ID of the marker, allowing for verification against records.

For detailed information on specific marker types and advanced features, refer to the full technical manual available on the 3M website or contact 3M technical support.

4. MAINTENANCE

Proper maintenance ensures the longevity and accuracy of your 3M Dynatel 1420 ID Locator.

- **Cleaning:** Wipe the exterior of the locator with a soft, damp cloth. Do not use abrasive cleaners or solvents. Ensure no moisture enters the display or battery compartment.
- **Battery Care:**
 - Replace batteries when the low battery indicator appears on the display.
 - Remove batteries if the unit will not be used for an extended period to prevent leakage.
 - Dispose of used batteries according to local regulations.
- **Storage:** Store the locator in a cool, dry place, away from direct sunlight and extreme temperatures. Use the original carrying case (if provided) for protection during transport and storage.
- **Calibration:** While the 3M Dynatel 1420 ID Locator is designed for reliable performance, periodic calibration or service by authorized 3M service centers may be recommended to maintain optimal accuracy.

5. TROUBLESHOOTING

This section addresses common issues you might encounter with your 3M Dynatel 1420 ID Locator.

Problem	Possible Cause	Solution
Locator does not power on.	Dead or incorrectly installed batteries.	Check battery polarity. Replace with fresh batteries.
Weak or no signal detected.	Marker too deep, incorrect marker type selected, or interference.	Ensure correct marker type is selected. Scan closer to the ground. Move away from large metallic objects or strong electromagnetic fields.
Inaccurate depth readings.	Environmental interference or improper scanning technique.	Ensure the locator is held upright and steady. Avoid scanning near other buried utilities or metallic structures.
Display is dim or flickering.	Low battery power.	Replace batteries immediately.

If you encounter issues not listed here or if the suggested solutions do not resolve the problem, please contact 3M technical support.

6. SPECIFICATIONS

Key technical specifications for the 3M Dynatel 1420 ID Locator:

Feature	Detail
Model Number	1420
Brand	3M
Power Source	Battery Powered
Item Weight	11 Pounds (approximately 4.99 kg)
Package Dimensions	18 x 15 x 8 inches (approximately 45.7 x 38.1 x 20.3 cm)
Included Components	MARKER LOCATOR (main unit)
UPC	051115135897
Date First Available	January 3, 2014

7. WARRANTY AND SUPPORT

3M products are manufactured to high standards and are backed by 3M's commitment to quality. For specific warranty information regarding your 3M Dynatel 1420 ID Locator, please refer to the warranty card included with your product or visit the official 3M website.

For technical assistance, service, or to inquire about replacement parts, please contact 3M Customer Service or your authorized 3M distributor. Contact information can typically be found on the 3M website or on your product packaging.

