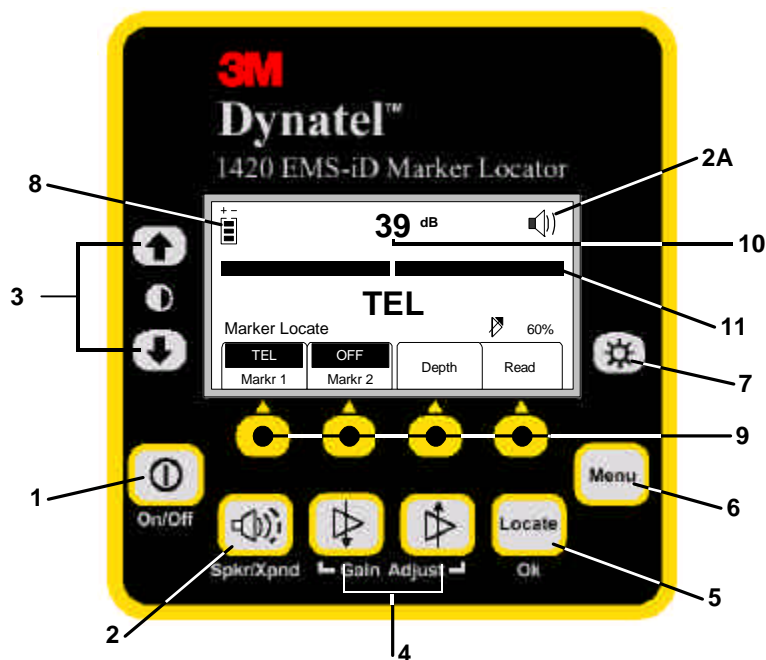


# 3M Dynatel 1420 EMS-iD Marker Locator



**POWER:** [1] Turns unit off and on.

**SPEAKER;** [2] Adjusts the volume of the receiver (off, low, med, and high).

**SPEAKER ICON [2A]:** Indicates the relative volume level of the receiver.

**CONTRAST:** [3] The arrows located above and below the contrast icon will adjust the contrast of the screen.

**GAIN:** [4] Adjusts the sensitivity of the receiver either up or down to maintain a satisfactory signal level.

**LOCATE/OK:** [5] Sets the receiver to trace mode for locating markers. Acknowledges setup entries.

**MENU:** [6] Displays setup screen for configuration of the unit, i.e.: clock, language, depth units, and marker data.

**BACKLIGHT:** [7] Toggles the backlight low, high, and off.

**BATTERY ICON:** [8] Indicates battery level.

**SOFT KEY: [SK]** There are four soft keys on the receiver. The function of each key is shown above the key on the display screen. The functions will change, depending on the operation mode of the receiver. For instruction purposes, the display command is followed by [SK] to identify it as a soft key.

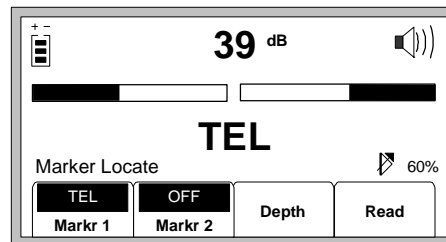
**SOFT KEY COMMAND:** [9] Definitions for each of the four soft key functions.

**SIGNAL STRENGTH:** [10] Digital reading of the signal the receiver is detecting.

**BAR GRAPH:** [11] Graphical representation of the received signal.

## Locating EMS Markers

1. Press Power [1]
2. Press Locate [5]
3. Press Marker [SK]
4. Press Markr 1 [SK Toggle] to select desired utility.
5. Markr2 should be OFF.
6. In an area where there are no markers, adjust the Gain Down [4] until the bar graph [10] opens.
7. The bar graph will close, the audio will be steady, and the signal strength (dB) will be maximum when the receiver detects a marker of the specified utility.



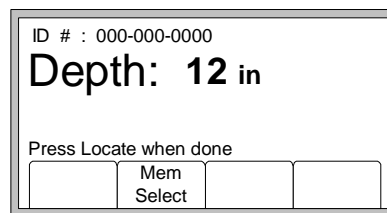
*Note: Only the marker types enabled in the setup menu will be shown. (See 1420 manual: Enabling/Disabling Marker types).*

## ID Marker Depth

1. Target the marker.
2. Lower the tip of the receiver to the ground.
3. Press depth [SK]
4. The receiver will examine the marker (Calculating signal, please wait...)

If the marker is an iD marker:

The receiver will display the depth of the marker, and its identification number.



## Depth of Passive, Non-iD Marker

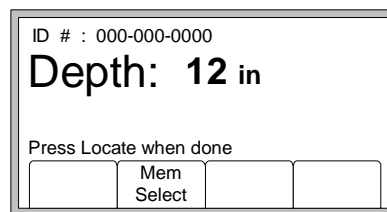
1. Target the marker.
2. Lower the tip of the receiver to the ground.
3. Press depth [SK]

The receiver will examine the marker (Calculating signal, please wait...)

The screen will instruct the operator to raise the unit 6 inches from the ground.

4. Raise the unit 6 inches
5. Press Depth [SK] again.

The estimated depth of the marker from the ground level will display on the screen.



## Reading iD Markers

The operator can retrieve the data from the iD marker by pressing Read [SK].

The receiver tip should be lowered to the ground to reach maximum read depth.