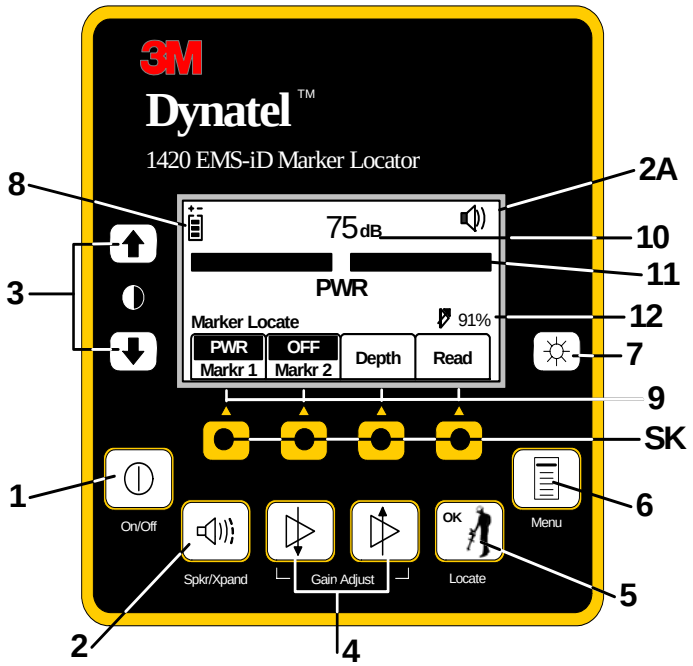
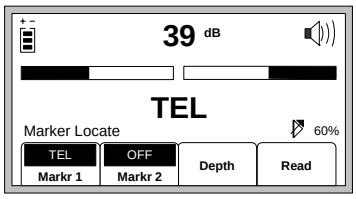
3M Dynatel™ 1420 EMS-iD Marker Locator
Marker Locating Quick Reference Guide



[1] POWER: Turns unit off and on.
[2] SPEAKER: Adjusts the volume of the receiver
[2A] SPEAKER ICON: Indicates the volume level of receiver.
[3] CONTRAST: Adjust contrast of screen
[4] GAIN: Adjust the sensitivity of the receiver
[5] LOCATE/OK: Sets the receiver to cable locate mode. Acknowledges setup entries (OK)
[6] MENU: Displays screens for configuration of the unit, i.e.: clock, depth units, etc.
[7] BACKLIGHT: Toggles the backlight low, high, and off.
[8] BATTERY ICON: Indicates battery level.
[SK] SOFTKEYS: The function of each Softkey is shown above the key on the screen.
[9] SOFT KEY COMMAND: Definitions for each of the four soft key functions.

[10] SIGNAL STRENGTH: Digital reading of the signal the receiver is detecting.
[11] BAR GRAPH: Graphical representation of the received signal.
[12] Gain Level: Displays the relative gain level.

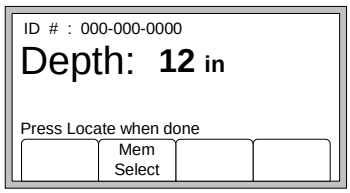
Locating EMS Markers



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).

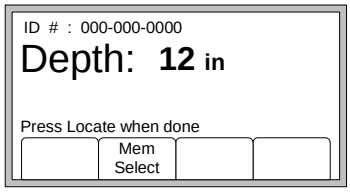
ID Marker Depth



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.

Telecom Access Division
6801 River Place Blvd.
Austin, TX 78726-9000
800-426-8688
http://www.3M.com/dynatel

78-8135-5022-1 Rev. A