

# 3M™ Dynatel™ Advanced Pipe/Cable Locator 2220M

A new addition to the 3M™ Dynatel™ Locators 2200M series, the 2220M locator is designed to provide a simple and accurate solution to locate buried pipes, cables and Sondes in even the most challenging field conditions. The rugged, highly sensitive receiver uses two active trace frequencies and provides a bar graph, signal strength and direction indication to the pipe/cable. In addition, the receiver is designed to detect passive power and auxiliary frequencies that do not require the use of a transmitter.

## A Reputation of Excellence

When you choose a quality 3M Dynatel locator, you get outstanding performance and reliability, along with a 24/7 technical support and a service center dedicated to excellence. Our service center provides calibration, repair, upgrades and modifications for safety, performance and reliability.



3M™ Dynatel™ Advanced Pipe/Cable Locator 2220M



### Product Features

Two active frequencies (8 kHz, 82 kHz)

Dual frequency output

Passive power, Sonde locating

Single and dual peak modes with direction

### Product Applications

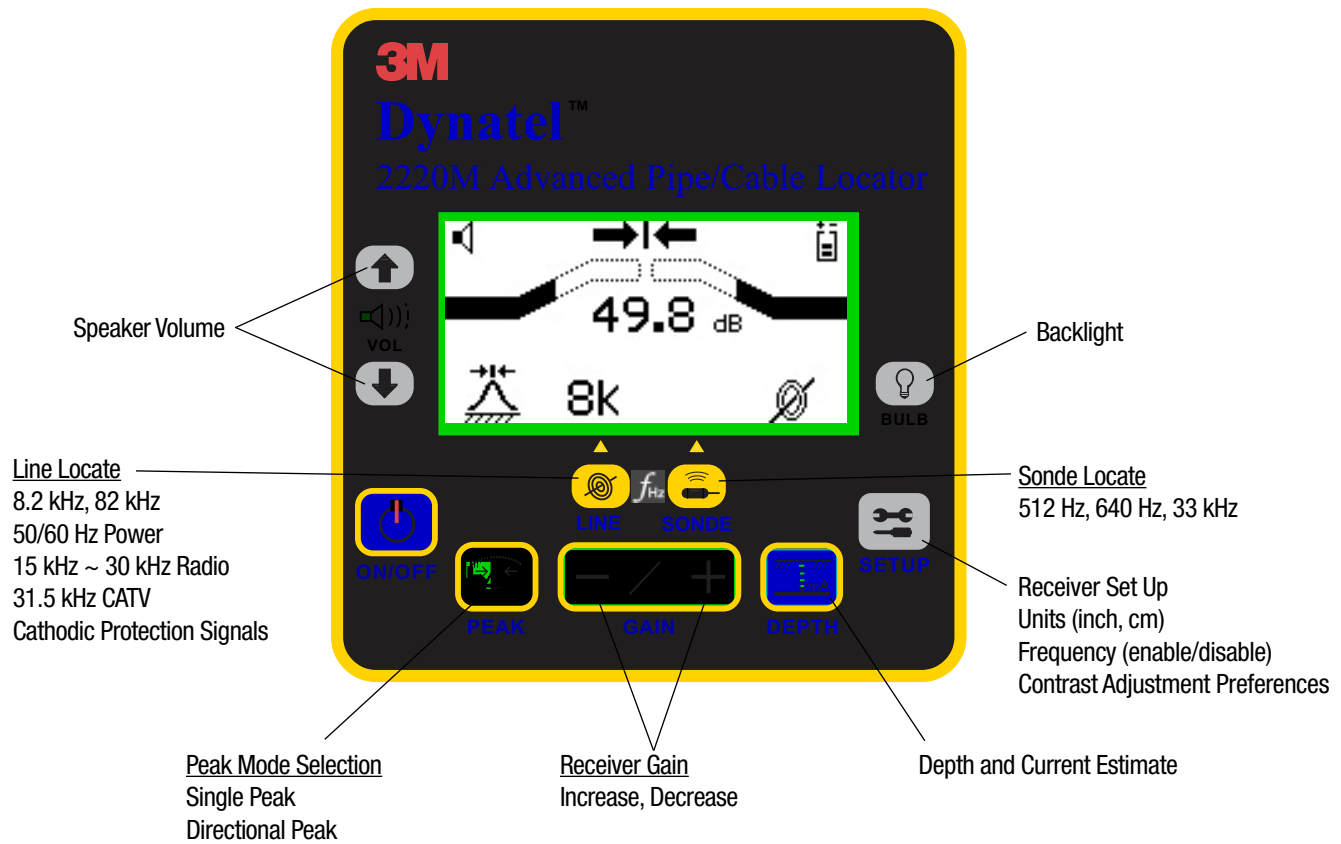
Locates pipes, cables and tracer wire

Detects power signals

Locates Sondes and pipeline inspection cameras

Detects cathodic protection signals





## 3M™ Dynatel™ Advanced Pipe/Cable Locator 2220M

### Key Features

### Benefits

Transmitter	
<b>Super Induction Mode</b>	Maximum induction for challenging locates
<b>Two operator-selectable frequencies</b>	Optimizes unit performance in varying conditions
<b>Dual frequency mode</b>	Allows user to select optimum frequency from receiver
<b>Output signal level indication</b>	Operator can distinguish between target pipe and other pipes in congested areas
<b>Auto load matching</b>	Automatic adjustment of output voltage to maximize signal
<b>High and normal output level</b>	Two output levels for long distance locates and other varying pipe conditions
<b>Output protected up to 240 Vac</b>	Prevents inadvertent damage to unit; operates while attached to live circuits
Receiver	
<b>Single and Dual Peak Modes with Direction</b>	Verify cable location and indicates direction to pipe
<b>Backlit Graphic Display</b>	Allows operation in low-light conditions
<b>Push-button digital depth readout (of pipe or Sonde) in inches and feet/inches or centimeters</b>	Easy, quick and accurate depth measurements
<b>Measures signal current in cable</b>	Helps identify target cable regardless of depth or in congested areas
<b>Visual and audible pipe/cable locates</b>	Provides accuracy under varying field conditions
<b>50/60 Hz frequency settings</b>	Optimized for primary or secondary
<b>100/120 Hz CPS</b>	Detects cathodic protection signals
<b>31.5 kHz Auxillary frequency</b>	For locating CATV cables
<b>512 Hz, 640 Hz, 33 kHz Sonde frequencies</b>	Detects frequencies from Sondes and remote transmitters
<b>RS232 Port</b>	Allows for downloading software updates from website

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## Products

Product Description	Included In Package
<b>2220M-U3W Advanced Pipe/Cable Locator Util W/bag</b>	2220M Receiver, 3 Watt Transmitter, Large Style Direct Connect Cable, Carrying Bag, Ground Rod and Operating Manual
<b>2220M-U3W3 CPLR Advanced Pipe/Cable Locator Util with 3" coupler and bag</b>	2220M Receiver, 3 Watt Transmitter, Utility Style Direct Connect Cable, 3" Inductive Coupler, Coupler Cable, Ground Rod, Carrying Bag and Operating Manual
<b>2220M-C3W-Cplr Advanced Pipe/Cable Locator Comm W/3" Cplr and Bag</b>	2220M Receiver, 3 Watt Transmitter, Small Style Direct Connect Cable, 3" Inductive Coupler, Coupler Cable, Carrying Bag, Ground Rod and Operating Manual

## 3M Dynatel Accessories

Product Number	Description
<b>3001</b>	Dyna-Coupler, 3 in.
<b>1196</b>	Dyna-Coupler, 6 in.
<b>9011</b>	Dyna-Coupler cable 12 ft.
<b>8006</b>	Ground Rod
<b>2876</b>	Direct-Connect Transmitter Cable, 10 ft. (3 m) in length (large clips 5/8")
<b>9012</b>	Direct-Connect Transmitter Cable, 5 ft. (1.5 m) in length (small clips 1/4")
<b>2892</b>	Direct-Connect Transmitter Cable, 10 ft (3 m) in length (small clips 1/4")
<b>9043</b>	Ground Extension Cable
<b>2200M</b>	Soft Carrying Bag

## General Specifications

Receiver:	
Locating Modes Gain Adjustment	Special (Single) Peak, Dual Peak w/Direction, Depth & Current Semi-Automatic with Manual override
Frequencies	
Active	8 kHz, 82 kHz
Passive Power	50 Hz or 60 Hz
Passive LF	VLF 15 k ~ 30 kHz Broadband
Passive CATV*	31.5 kHz
Cathodic Protection	100 Hz or 120 Hz
Sonde/Auxiliary (Receive only)	512 Hz, 640 Hz, 33 kHz
Display Resolution	0.1 dB
Depth Display Range	0 to 30 ft. (9 m)
Depth Units	inch and ft-in, cm
Depth Accuracy**	+/- 2% +/- 3 in. (7.5 cm)      0 to 60 in. (1.5 m) +/- 6% +/- 3 in. (7.5 cm)      61 to 120 in. (1.5 m to 3 m) +/-10% +/- 3 in. (7.5 cm)      121 to 180 in. (3 to 4.5 m)
Cable Current Display	0.01 mA resolution Units: mA
Battery Type Typical Battery Life	8 AA size, Alkaline 30 hrs
Display	Large Graphic high-contrast LCD with backlight

\* American NTSC, television set on

\*\* Locators are tested in model field conditions with no adjacent signals. Actual operating conditions may result in decreased depth accuracy due to outside signal disruptions.

## General Specifications (continued)

### Receiver (continued):

Speaker	0.25 W
Headphone Jack	Standard Mini Jack
Serial Port	Standard RS232 serial with DB9 connector

### Transmitter:

Output frequencies	
Trace mode	8 kHz, 82 kHz
Induction mode	82 kHz
Output voltage (maximum)	
Trace	60 Vrms
Output power	Normal setting: Limited to 0.5 W High setting: Limited to 3 W @ 8 kHz, 1 W @ 82 kHz
Output protection	240 Vrms
Battery Type	Six C size, alkaline (LR14) cells
Typical battery life	Normal output level: 45 hrs. High output level: 7 hrs.

### Environmental:

Operating Temperature	-4°F to 122°F (-20°C to 50°C)
Storage Temperature	-4°F to 158°F (-20°C to 70°C)
Standard	IP54
Regulatory	CE

### Physical Specifications:

	Size (H X W X D) in. (cm)	Weight (Including Batteries)
Transmitter	6.75 x 11.25 x 7.75 (17.2 x 28.6 x 19.7)	5.2 lb. (2.4 kg)
Receiver	10.25 x 10.5 x 30 (26.7 x 26.1 x 76.2)	4.05 lb. (1.9 kg)
Shipping	N/A	17 lb. (7.9 kg)

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