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# 3M™ Dynatel™ Locators

## 2200 Series

### Cable/Pipe Fault Locator 2250

### Cable/Pipe/Fault Locator 2273

The 2200 series locator is designed to find the path and estimated depth of buried cables and pipes. 2200 series locators have four active frequencies: passive frequencies for power, cathodic protection, CATV and auxiliary frequencies for long distance locating from remote transmitters. They also offer toning of aerial cable, direct readout of active duct probe, and cable/pair identification.

Receivers incorporate an "expander" function to make peaks and nulls more pronounced by enhancing the amplitude difference between two conductors carrying the same tone. Both the receiver and the transmitter feature a self-test routine that is executed each time the unit is turned on.

As with other locator models, the Dynatel locator 2273 performs all the functions of the 2250 locator plus the ability to find underground faults.



3M™ Dynatel™ Cable/Pipe/Fault Locator 2273



3M™ Dynatel™ Cable/Pipe/Fault Locator 2250

## 3M™ Dynatel™ Advanced Cable/Pipe/Fault Locator 2250 and 2273 Physical Specifications

Size	2250	2273
Transmitter	6.75" H x 11.25" W x 7.75" D (17.2 cm x 28.6 cm x 19.7 cm)	6.75" H x 11.25" W x 7.75" D (17.2 cm x 28.6 cm x 19.7 cm)
Receiver	25.5" H x 3.75" W x 10.75" D (64.8 cm x 9.5 cm x 27.3 cm)	25.5" H x 3.75" W x 10.75" D (64.8 cm x 9.5 cm x 27.3 cm)
<b>Weight</b>		
Transmitter	5.2 lbs. (2.4 kg)	5.2 lbs. (2.4 kg)
Receiver	4.1 lbs. (1.8 kg)	4.1 lbs. (1.8 kg)
Shipping	14.3 lbs. (6.5 kg)	21.5 lbs. (9.8 kg)





## 3M™ Dynatel™ Advanced Cable/Pipe/Fault Locator 2250 and 2273 Environmental Specifications

	2250	2273
Operating temperature	-4° to 122°F (-20° to 50°C)	-4° to 122°F (-20° to 50°C)
Storage temperature	-40° to 158°F (-40° to 70°C)	-40° to 158°F (-40° to 70°C)

## 3M™ Dynatel™ Advanced Cable/Pipe/Fault Locator 2250 and 2273 Features

Receiver	2250	2273
Peak mode	X	X
Null mode	X	X
Differential mode	X	X
Push button digital depth readout	X	X
Cable identification	X	X
Measures signal current in cable	X	X
Direct readout of active duct probe (sonde) depth	X	X
Visual and audible cable locates	X	X
Digital fault strength indicator		X
Graphic display	X	X
Ground level antenna	X	X
Expander amplifier	X	X
50/60 Hz power cable locate mode	X	X
Transmitter		
Four operator-selectable frequencies	X	X
Simultaneous signals	X	X
Built-in ohmmeter	X	X
Indicates presence of foreign and hazardous voltage	X	X
Built-in continuity test	X	X
Three tone application methods (direct connect, coupler, inductive)	X	X
Auto load impedance matching	X	X
High and normal output level	X	X
External DC operation (option 'A' only)		X
Sheath (earth return) fault-finding capability		X
Fault-locate and cable-locate tones applied simultaneously		X

## 3M™ Dynatel™ Advanced Cable/Pipe/Fault Locator 2250 and 2273 Electrical Specifications

Receiver	2250	2273
Frequencies Trace and Modes	Active: 577 Hz, 8 kHz, 200 kHz Passive Power: 50/60 Hz, user-selectable: L50/L60-5th harmonic, H50/H60-9th harmonic, 100/120-rectified power Auxiliary: 'T' model: 31.5 kHz, 512 Hz, 560 Hz; 'P' model: 31.5 kHz	Active: 577 Hz, 8 kHz, 200 kHz Passive Power: 50/60 Hz, user-selectable: L50/L60-5th harmonic, H50/H60-9th harmonic, 100/120-rectified power Auxiliary: 'T' model: 31.5 kHz, 512 Hz, 560 Hz; 'P' model: 31.5 kHz
Depth	Range: 0 to 30' (0 to 9 m) Accuracy: $\pm 10\% \pm 1$ digit for 0 to 60" (0 to 1.5 m) $\pm 15\%$ for 60" to 180" (1.5 to 4.5 m) $\pm 20\%$ for 180" to 360" (4.5 to 9 m)	Range: 0 to 30' (0 to 9 m) Accuracy: $\pm 10\% \pm 1$ digit for 0 to 60" (0 to 1.5 m) $\pm 15\%$ for 60" to 180" (1.5 to 4.5 m) $\pm 20\%$ for 180" to 360" (4.5 to 9 m)
Power	Six alkaline "AA" (LR6) cells	Six alkaline "AA" (LR6) cells
Battery Life	35 hours, typical	35 hours, typical
Transmitter		
Output Frequencies Trace Mode Sheath Fault Mode Tone Mode Induction Mode	577 Hz, 8 Hz, 33 kHz, 200 kHz 577 Hz and 200 kHz pulsed at 8 Hz 33 kHz, 200 kHz	577 Hz, 8 Hz, 33 kHz, 200 kHz 10/20 Hz for sheath fault; 577 Hz and 33 kHz for tracing 577 Hz and 200 kHz pulsed at 8 Hz 33 kHz, 200 kHz
Output Voltage (Maximum) Trace Mode Sheath Fault Mode Tone Mode	70 Vrms	70 Vrms 70 Vrms Normal setting: 10 Vrms, High setting: 60 Vrms
Output Power	Normal setting: Limited to 0.5W High setting: Limited to 3W or 5W with External DC power (Option 'A' only)	Normal setting: Limited to 0.5W High setting: Limited to 3W or 5W with External DC power
Output Protection	240 Vrms	240 Vrms
Power	Batteries: Six alkaline "C" (LR14) cells; External DC: 9-18 V DC (1A) (Option 'A' only)	Batteries: Six alkaline "C" (LR14) cells; External DC: 9-18 V DC (1A) (Option 'A' only)
Typical Battery Life	Normal output level: 50 hours High output level: 10 hours	Normal output level: 50 hours High output level: 10 hours

## 3M™ Dynatel™ Advanced Cable/Pipe/Fault Locator 2250 and 2273 Ordering Information

			Cable/Pipe Locate	Fault Locate	Transmitter Output	Direct Connect Cable - small clips	Direct Connect Cable - large clips	Coupler Size	Cigarette Lighter Adapter Cable
2250 Series Kits	80-6108-4727-1	2250-U3P3	x		3W		x	3"	
	80-6108-4721-4	2250-U3T3	x		3W	x		3"	
2273 Series Kits	80-6109-9352-1	2273-U5P3/A	x	x	5W		x	3"	x
	80-6109-9353-9	2273-U5T3/A	x	x	5W	x		3"	x
	80-6108-4745-3	2273-U3P3	x	x	3W		x	3"	
	80-6108-4739-6	2273-U3T3	x	x	3W	x		3"	

# 3M™ Dynatel™ Advanced Cable/Pipe/Fault Locator 2250 and 2273 Accessories and Spare Parts Ordering Information

## Standard Accessories

9012	Small Clip ¼" (6.4 mm) Direct Connect, 5-foot Transmitter Cable, Telephone
2876	Large Clip 5/8: (15.9 mm) Direct-Connect Transmitter Cable for Most Cable/Fault Locators
8006	Ground Rod
3014	Earth Contact Frame (2273 models)
9026	Earth Contact Frame Cable (2273 models)
3001	3" (7.6 cm) Dyna-Coupler

## Optional Accessories

3019	3" (7.6 cm) Cable Locator Coupler Accessory Kit
1196	6" (15.2 cm) Dyna-Coupler with Pouch
1196/C	6" (15.2 cm) Dyna-Coupler with Pouch and Coupler Cable
9043	Ground Extension Cable
9011	Coupler Cable
3229	Active Duct Probe, 33kHz
2200	Soft Carrying Bag
2200RB	Rechargeable Auxillary Battery for 5 watt units (Option 'A' Only)
2892	Small Clip ¼" (6.4 mm) Direct-Connect Transmitter Cable for All Cable/Fault Locators
4001	4.5" (11.4 cm) Dyna-Coupler
4519	Dynatel™ Locator Coupler Accessory Kit
3019	3" (7.6 cm) Cable Locator Coupler Accessory Kit

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