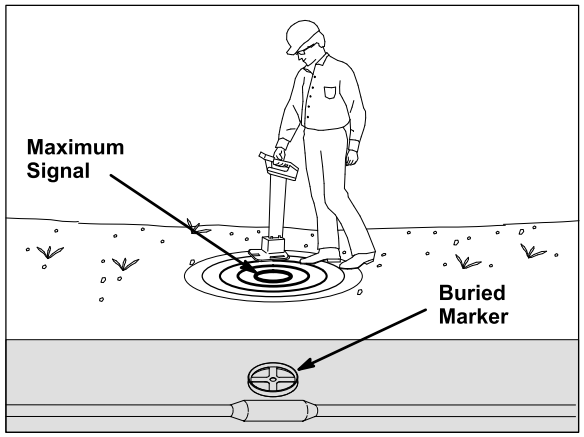


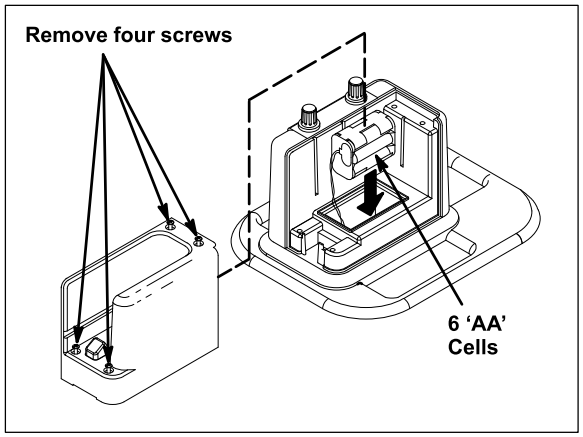
Important: *Pulsed audio indicates either the presence of a marker for a different utility, or strong interference noise.*

Note: *When using the 2200 Series Receiver to determine cable depth while the EMS Accessory is attached, always turn off the EMS Accessory and subtract 2.5 inches from the depth reading.*

CE

This product is in accordance with the requirements of the European directive 89/336/EEC

Battery Installation



Technical Information

Marker Frequencies:	CT	77 kHz
	GAS	83 kHz
	TEL	101.4 kHz
	WWTR	121.6 kHz
	WTR	145.7 kHz
	PWR	169.8 kHz
Battery Life:	40 hours, typical	
Batteries:	6 Duracell™ MN1500 AA Alkaline	
Temperature Range:	Operating -4° to 122°F (-20° to 50°C)	
	Storage -40° to 158°F (-40° to 70° C)	
	(remove batteries for long-term storage)	
Size	6.2"H X 8.5"W X 10.6"D	
	(15.8cm X 21.6cm X 26.9cm)	
Weight:	2.3 lbs. (1.1 kg)	
Shipping Weight:	4.0 lbs. (1.8 kg)	

Dynatel is a registered trademark of 3M
Duracell is a registered trademark of Duracell Inc.

3M

Telecom Systems Division

6801 River Place Blvd.
Austin, Texas 78726–9000

Printed in the U.S.A.

3M

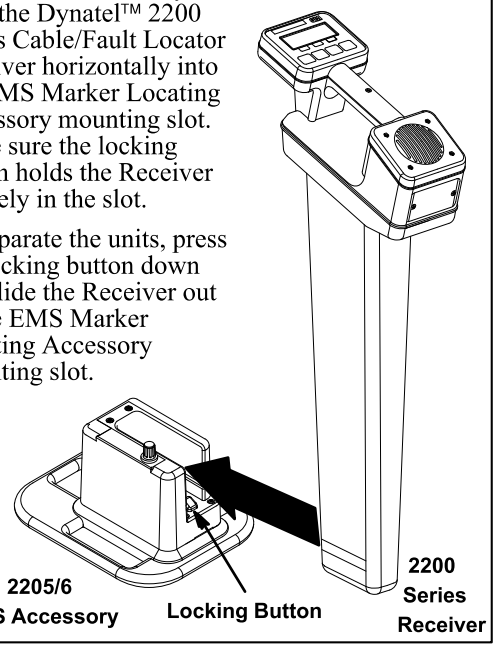
Dynatel™ 2205/2206
EMS Marker Locating Accessory

Operating Instructions

78-8097-4947-2 Revision A
June 1996

To attach the accessory, slide the Dynatel™ 2200 Series Cable/Fault Locator Receiver horizontally into the EMS Marker Locating Accessory mounting slot. Make sure the locking button holds the Receiver securely in the slot.

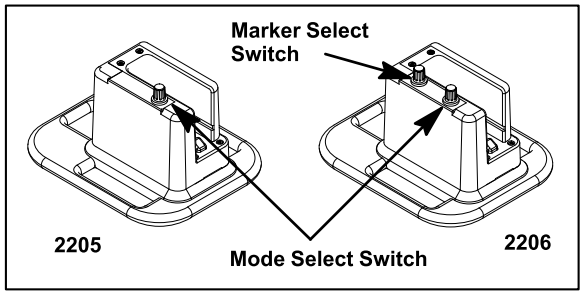
To separate the units, press the locking button down and slide the Receiver out of the EMS Marker Locating Accessory mounting slot.



Introduction

There are two models of the Dynatel™ EMS Marker Locating Accessory: the 2205 and 2206. Both models have a five-position **Mode Select Switch** for turning power on, testing batteries, selecting 577 Hz or 33 kHz for Normal Marker Locating, and selecting the Marker Alert Mode.

The 2206 has a **Marker Select Switch** that lets you locate Gas, Telephone, Communications, Wastewater, Water and Power markers. There are six models of the 2205, each manufactured to locate one of the six marker types.



Note: *To conserve battery life, power to the EMS Accessory's circuits automatically turns off after 75 minutes.*

Battery Test

Rotate the **Mode Select Switch** to **Batt Test** and listen for a tone **(solid tone = good; beeping tone = low; no tone = replace batteries)**.

Normal Marker Locating

1. Select the marker type with the **Marker Select Switch** (available on 2206 only).

2. Select either **577 Hz** or **33 kHz** (preferred) with the EMS Accessory's **Mode Select Switch**.

3. Turn on the Receiver and press f_{Hz} to match the frequency selected on the EMS Accessory.

4. Press to select the Peak mode when using a 2250 or 2273 Receiver

Note: *You can test the unit for proper marker locating operation by passing the probe three feet over a marker. You should see an increasing numeric indication and maximum bar graph closure.*

4. Walk over the area where you suspect a marker has been buried. Hold the probe close to the ground and move it from side to side. Move in the direction of increasing signal strength. When the Receiver bar graph is fully closed, press to automatically adjust the gain. The marker is located beneath where the test set indicates a peak or maximum signal.

5. To locate the next marker, reset the Receiver gain by turning the Receiver off, then on.

Marker Alert Mode

In this mode, the EMS Accessory can detect a marker while you trace a cable path.

1. Select the marker type with the **Marker Select Switch** (available on 2206 only).
2. Set the EMS Accessory's **Mode Select Switch** to the **Alert** Mode.
3. Use the Receiver as you normally would to trace the cable path by selecting 577 Hz, 33 Khz, or 50/60 Hz. Use Special Peak mode only when using a 2250 or a 2273 Receiver.
4. When the EMS Accessory detects a marker of the selected type, a buzzer sounds.
5. To pinpoint a marker, select the frequency on the 2205/6 and the Receiver that is not being used for tracing.
6. Move in the direction of increasing signal strength. When the Receiver bar graph is fully closed, press to automatically adjust the gain. The marker is located beneath where the test set indicates a peak or maximum signal.