

DML2000-XR & DML2000-XRM Specifications

The World's Most Sensitive Magnetic Locator



- **Audio Output - Variable Frequency (20 – 3,200) Hertz**
- **Visual Display – Model DML2000-XRM Only
3½ Digit LCD Panel Meter (0 to ± 1999)**



Figure 1 - DML2000-XRM

- **Six Sensitivity Settings**
- **40 Hours of operation from 4 “AA” Alkaline batteries (increases to over 80 hours when lithium batteries are used).**
- **Low Battery Indicator - RED Flashing LED**
- **Optional Analog/Data Logger output – available upon request**
- **Weighs only 1.8 pounds, (0.82 Kg)**

Dunham & Morrow decided to introduce an upgrade to their model DML2000 magnetic locator in January 2011. This upgrade was named the DML2000-XR magnetic locator, where the XR stands for eXtended Range. If you are happy with the old style, the sensitivity settings #1 through #4 are unchanged, and setting #5 is the same as the old setting #6. Sensitivity setting #6 now has a sensitivity that is more than double that of the old unit.

The prototype DML2000-XR was designed in response to an inquiry from Ray Gill of Abilene Well. Following is a copy of his response: **We received the extended range locator on 1/19/2011. We have already run a test with it and found the range to be 3 to 5 foot further away from the oil well surface casing than any of our other units. The unit is light as a “Feather” compared to our other units. Thanks for your help in the extended range field and send us an invoice – Ray Gill**

At the same time that we introduced our new eXtended Range DML2000-XR magnetic locator, we took another leap forward in our service department.

If you visit our website www.magneticlocator.com and click on the **SERVICE** tab, you will note that we have added 3 new buttons: **Tips & Tricks**, **Troubleshooting**, and **Repair Parts**. Hopefully you will find these new buttons informative and helpful. The **Tips & Tricks** button provides information that can help you find your targets in difficult situations and tips that can help your locator last a lifetime. If you are having problems with any of your Dunham & Morrow magnetic locators, the **Troubleshooting** guide can help you identify the likely cause of that problem and at the same time it provides recommendations on how to fix that problem. The **Repair Parts** list, speaks for itself.

TIPS TO HELP YOUR LOCATOR LAST A LIFETIME

1 – FINDING TARGETS BURIED BENEATH ASPHALT OR REINFORCED CONCRETE

Whenever you need to search for a target buried under asphalt or reinforced concrete; lift-up the locator so the sensor tip is between 8 inches to 1 foot above the ground. The magnetic field of small surface targets or buried rebar drops off faster than the magnetic field of a survey pin, or a manhole cover, thus making these targets easier to detect.

2 – WORKING NEAR CHAIN LINK/ CYCLONE FENCES

When you are searching for a target near a chain link fence, step away from the fence. Walk along parallel to the fence about 8-10’ away and you’ll find that the magnetic field of the fence drops away fast. You will hear the field of the fence and the posts increase and decrease as you walk along, but the signal of the survey pin will be much stronger and unique. You will have no difficulty distinguishing your survey pin from the fence.

3 – THE INSTRUMENT AUDIO OUTPUT WARBLER

WARNING! - DO NOT DIG IN THIS AREA. The WARBLER is an indication of nearby energized power lines.

4 - BATTERIES

The number one problem with all locators is the **BATTERIES**. It’s easy to forget that batteries contain acid and when they are old and weak, they leak. When batteries leak, acid corrosion eats away at the battery terminals and the unit stops working. To avoid problems, remove and replace the batteries every six months even if the low battery indicator light is not flashing. If you are going to store the unit for any length of time, remove the batteries and install new, fresh batteries when work resumes. For best protection keep your electronics **DRY** at all times.

5 – YOUR LOCATOR IS NOT A SHOVEL

Occasionally I have locators returned with broken cases. In some instances, the operator simply ran over the unit with his truck. In other cases, the operator used the locator to expose his target and not satisfied with holding the unit by the aluminum sensor tube, he decided to extend his leverage by grasping the instrument’s case. This is an invitation to disaster and in every instance the problem is still “operator error”. There is a natural tendency to want to confirm the accuracy of your search and you do this by exposing the survey marker or whatever target your locator zeroed in on. Here you stand with a locator in your hand, a strong audio output signal ringing in your ear and a narrow ended tool just inviting you to dig. But don’t. The consequences could easily be a broken locator with an expensive repair bill.

A Note from the Dunham & Morrow Design Team

It should be comforting to know that your DML2000 Magnetic Locator uses the same technology as the magnetometers we designed and built for Hubble Space Telescope. Those instruments have been working failure free for more than a quarter of a century and you can reasonably expect your DML2000 to last just as long if you follow these few tips.