

# *White's Electronics, Inc.*

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## OPERATORS INSTRUCTIONS



*Manufacturers of OREMASTER*

MINERAL AND METAL  
DETECTORS

ELECTRONIC  
MAGNETOMETERS

SUPER GEIGER AND  
SCINTILLATION COUNTERS

ULTRA VIOLET  
LIGHTS

Instructions  
for the  
Oremaster Mobile Magnetometer

1. Install the metal bracket on the vehicle the Magnetometer is to be used on. If the driver is to observe the meter, the bracket should be installed on the left side of the vehicle. If a passenger is to watch the meter it should be installed on the right side. The bracket is of universal design to fit on either the left or the right side and to fit almost all cars.

2. Mount the Magnetometer on the bracket and adjust the bracket so the Magnetometer faces the operator, for the easiest and most convenient viewing. Fasten the wing nut securely.

3. Turn the Range Control switch to Zero.

4. Turn the motor vehicle, the instrument is mounted on, until the vehicle is pointing north or south. The Magnetometer reading should be 0. If it is not take a small screwdriver and carefully adjust the small screw on the front of the meter until the meter hand reads 0. Turning the screw to the right moves the meter hand to the right and turning it to the left, moves the hand to the left. Be sure not to force the screw past its rotation stopper. This adjustment is made with the Off-On switch on the Off position.

You are now ready to use the Instrument for mobile prospecting to locate magnetic ore veins. As the instrument is designed for magnetic veins, it will not react to the black magnetic sands, which are so widely distributed over various areas, and are of no significant value. You will notice as you travel that the meter hand may be off 0 either on the + (positive) side or on the - (negative) side, a few divisions. This is normal. When traveling in an easterly direction, the magnetic pull of the North Pole may move the meter hand to the left of 0, and when traveling in a westerly direction, the hand may move to the right of 0. The pull of the North Pole will usually be from 1 to 2 divisions, on either side of 0.

As you approach a magnetic vein or deposit, the readings will be much higher, and the closer you get, the higher they will become. If the magnetic field is strong enough, the meter hand will move off the scale. If this occurs turn the Off-On switch to the On position. Notice if the meter hand is to the positive side (right), or to the Negative side (left). If the hand is on the (+) right, turn the sensitivity control knob, located on the left side of the Instrument to the + side; then very slowly turn the range control from 0 to the right until the meter hand returns to the center of the meter scale which is 0. One should drive slowly and carefully note the meter reading for a further increase or for a decrease. Whenever the reading again increases, you are still approaching a vein or deposit. If the reading has again increased to a full scale reading on the + (positive) side, (to the right) very slowly turn the Range Control to the right until the meter hand again reads 0 which is the center of the meter dial. This procedure is to be followed whenever the meter hand goes to the extreme right.

Whenever the reading starts to decrease, you have passed or are moving away from the deposit. When the meter hand starts to drop back to the left of Zero, stop the vehicle to check the area on foot.

You may then remove the Magnetometer from the mounting bracket, and holding it in the same upright position, being very careful not to turn the Magnetometer and to keep it facing the same direction, (turning the Instrument will

remove your meter reading), locate the zone or place in this area where the reading is the very highest. This will be the magnetic source or deposit.

When through with the instrument turn the Range Control back to 0 and turn the Off-On switch to the Off position.

When starting to prospect with the instrument, should the meter hand move toward the left side of 0 for a full scale reading on the - (negative side) turn the sensitivity switch located on the left side of the instrument to the - (negative side) very slowly turn the Range Control knob to the right until the meter hand returns to 0 (center of the dial). Follow the same procedure for a negative reading as you followed for the positive reading to locate the magnetic deposit.

**Hazards to Consider:** In mobile prospecting, if you are receiving a high reading from a nearby magnetic ore body, and your direction of travel is changed, such as occurs on crooked roads, and those that wind in and out of draws, etc., your positive and negative readings will change, depending on which side of the deposit you are on, and which way the magnetic fields or force may be rotating. These occurrences must be taken into consideration with the use of the instrument.

We have a special shielded pocket Magnetometer to be used directly over a magnetic vein, after it has been found; if the magnetic field of the vein or deposit is too high for the mobile model, which is an exceptionally sensitive instrument. The Lodemaster Magnetometer model is lower in sensitivity and will stand a very highly magnetic vein, and operates the same as the Mobile model, but only on a vein. The meter is shielded with a special anti-magnetic shield, to react only over a vein or deposit, and to locate the most magnetic positions of the vein.

The Mobile Magnetometer incorporates a 1 1/2 volt heavy-duty flashlight cell, to control the Range control of the instrument, and will last for several hundreds of hours of prospecting use. This battery should be replaced when ever the meter cannot be zeroed with the control. When replacing the battery, be sure that the TOP of the battery faces the + mark on the battery holder, or the readings will be reversed. This battery is located behind the rear panel of the instrument, after first removing the 4 panel screws.

The Magnetometer is a very sensitive instrument and should be operated accordingly. On rough roads, one should drive slowly and carefully to cushion the instrument from excessive road shocks. Occasionally check the wing nut to be sure it does not become loose. If the instrument is to be used in the rain, a plastic cover should be placed over the instrument.

In case service is required, always return the instrument to the laboratory.

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