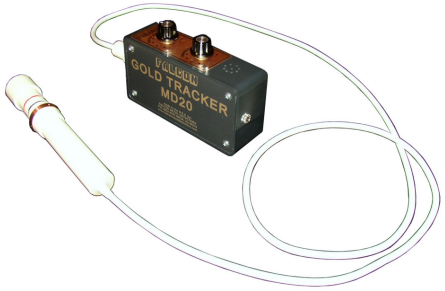
OWNER'S MANUAL

MD20

GOLD TRACKER



NOTHING HUNTS LIKE A FALCON

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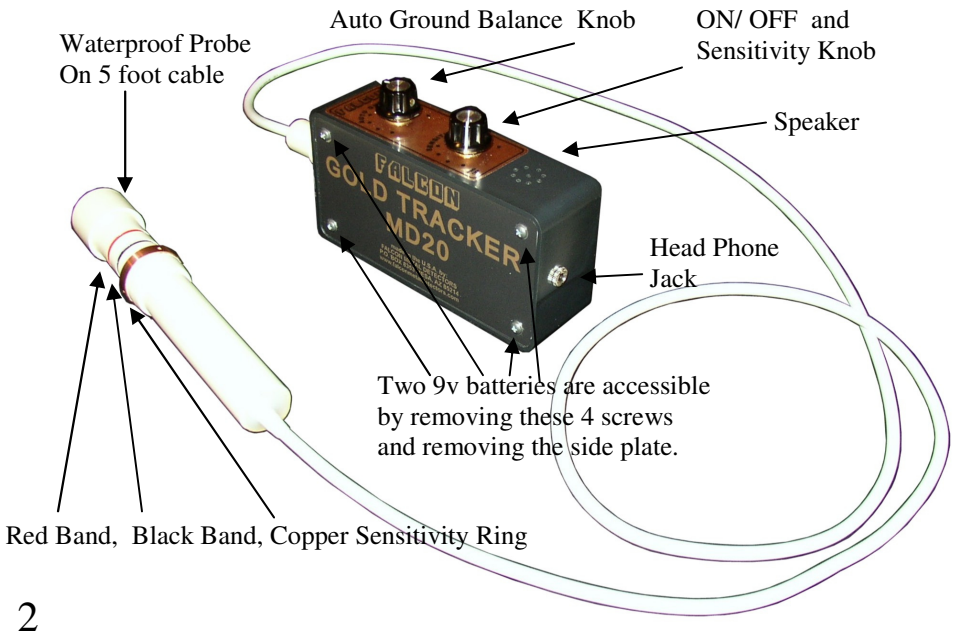
INTRODUCTION

The Falcon Gold Tracker model MD20 is a unique metal detector designed to find gold, even extremely small pieces of gold. Built upon the technology of the MD10SP, the MD20 has increased probe sensitivity and the controls have linear enhancements to provide ease and precision of setting. The MD20 has a waterproof probe on a 5 foot cable. Threading the cable through the optional handle allows the user to search standing up. Operating at 300 KHz and using High Q components, the Falcon has superior sensitivity to all other probes.

To be found with your Falcon, a metal or mineral target must exist in an electrically conductive form and in sufficient concentration. Gold, silver, and other metals are found in such form both in nature and man made objects. The Falcon responds to all metals. Its ability to detect and pinpoint small nuggets have given it the label GOLD TRACKER. While the Falcon does not discriminate between metals, it gives separate responses to minerals vs. metals.

The Falcon may even respond to the electro magnetic field of the earth as seen by waving the probe in the air with the sensitivity at maximum. This effect will be minimal during normal use. The Falcon is a motion detector and needs to be moved slowly over the target for maximum sensitivity.



INSTALLING BATTERIES

To install batteries, remove four screws on the side panel of the electronics case and install two 9v batteries. Alkaline batteries are recommended because their superior discharge characteristics give longer and more consistent operation. Be careful not to disturb the electronics when changing batteries. Always replace both batteries. One battery drives the sensing electronics while the other drives the audio signaling.

CONTROLS AND THEIR FUNCTIONS

AUTOMATIC GROUND BALANCE KNOB: This control provides for coarse sensitivity setting and enables the detector to adjust automatically for changing ground mineralization. See Operating Instructions.
SENSITIVITY CONTROL KNOB: This control is used to fine tune the Ground Balance control. Adjusting the sensitivity too high may cause unstable operation. See Operating Instructions.
SEARCH PROBE: The probe is a highly efficient shielded search coil. It is much smaller and lighter than conventional search coils and gives ultra sensitivity to tiny objects such as placer deposit, tiny nuggets, and pockets of black sand.
SENSITIVITY RING: The copper sensitivity ring on the probe is used to increase or decrease the sensitivity and focus. See Modes of Operation.

MODES OF OPERATION

Normal Mode (Black Band)
The Copper Sensitivity Ring should be placed behind the black band for normal operation. This setting will allow the sensitivity to be adjusted easier and the unit will be more stable. This mode is recommended for pinpointing coins, jewelry, and relics.

Enhanced Sensitivity Mode (Red Band)
The Copper Sensitivity Ring may be moved forward to the rear edge of the red band to increase sensitivity. Moving the Copper ring beyond the red band will result in unstable operation and continuous sounding. Note, in this mode the probe will be more susceptible to interference and may need occasional readjustment of the sensitivity knob. This mode is generally preferred for detecting tiny specs of gold.

OPERATING INSTRUCTIONS

1) Advance the **Ground Balance** knob to the 1 o'clock position.
2) Adjust **Sensitivity Ring** for desired mode. (See Modes of Operation)
3) Turn unit on using the **Sensitivity** knob and advance it to the 1 o'clock position.
4) Make sure that no metals are near the probe tip. Advance the **Ground Balance** knob until the alert tone sounds then back it up slightly until the alert tone stops.
5) Advance the **Sensitivity** knob until the unit barely sounds. Just a slight hum or mosquito sound will give maximum sensitivity. The unit may be operated in the silent mode (no hum) and still be very sensitive. Remember the more sensitive you have adjusted your unit, the more false signals may occur. Experience will make this adjustment easier.
6) As the unit warms and stabilizes (1 to 2 minutes) the knobs may need to be readjusted using steps 4 and 5..
7) Should the alert tone sound continuously, back the **Ground Balance** knob and the **Sensitivity** knobs counterclockwise until alert stops. Should the unit continue to sound with the two knobs fully counter clockwise, back the **Sensitivity Ring** away from the rings and probe tip. If the sound cannot be stopped without turning the unit off, call your dealer or the factory.

TIPS

The Falcon probe can be used in the NORMAL mode for pin pointing coins, jewelry, relics, or other targets without touching them. Using metal probes to locate targets can damage the surface of the target, the Falcon will not.

The larger the target the deeper it can be found with the Falcon. Small sounds may indicate a small target near the surface or a large target down deep. Use headphones to hear the small "whimpers" that may yield big rewards. When headphones are plugged in, the speaker is turned off.

Metal targets buried in the ground for a long time will have an oxidation layer "halo" around them. This layer is electrically conductive with the target and may create a virtual target much larger than the piece of metal creating it. Once the target is dug up the oxidation layer is destroyed. Many times small targets are "lost" because the signal becomes too small for the traditional detector to sense. The Falcon can help locate those "lost" targets.

Remember the Falcon sounds on all metal targets, not just gold.

POSITIVE AND NEGATIVE RESPONSES

A **positive response** (signal going toward the target) indicates a **metal** such as gold, silver, copper, etc.

A **negative response** (signal moving away from the target) indicates a **mineral** such as iron oxides, black sand, etc.

For example, while scanning a pan of sample material, the Falcon may give a signal as the probe is passed over an area. By pushing the probe toward the signal area and pulling it away, one can determine whether the signal is caused by metal or mineral based on the direction of signaling over the target.

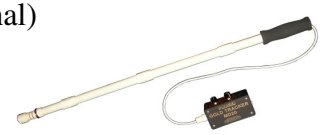
Specimens often contain detectable amounts of both mineral and metal. The automatic ground balance feature will allow the metal to sound while minimizing the effects of the mineral resulting in a positive response for the metal.

CAUTIONS

- Do not leave your Falcon in direct sunlight or in extreme heat (such as the dashboard of your vehicle) The internal components and the outer case may be damaged when subjected to extreme temperatures and void the warranty.
- Do not dig with the probe tip. Such mechanical forces can cause damage to the unit and may detune the probe.
- Do not kink the probe cable, store with 6 inch bend radius.
- To remove the cable from the electronics box, hold both connector pieces and use a gentle twist and pull.
- The probe and 5' cable are waterproof, however, do not immerse electronics in water. Water damage to the electronics will void the warranty.
- Use extreme care when changing batteries not to damage or alter electronic components.
- Remove batteries when storing your Falcon for a long period to prevent possible battery corrosion from damaging your unit.

SPECIFICATIONS

- TYPE: All Metal Motion Detector
- OPERATING FREQUENCY : 300KHz
- DIMENSIONS: 1.75" x 3.25"x 5.5"
- WEIGHT: 12 oz
- PROBE: Waterproof probe on 5 foot cable.
- BATTERIES: 2 9-volt alkaline
- BATTERY LIFE: 40 to 50 hours
- TARGET ALERT: Built in speaker and headphone jack. Note: when using headphones speaker is disabled.
- CONTROLS: Ground Balance and Sensitivity
- ACCESSORIES : (optional)
  Headphones
  Holster
  Handle



WARRANTY

For terms of Warranty, refer to your Warranty card. To be valid, your warranty must be registered with the factory in accordance with the instructions contained in the warranty. Units to be returned as defective under warranty must be authorized by the factory and be assigned a return authorization number (RA#) prior to being returned. Postage or freight on returned units must be prepaid by the sender. Units received out of warranty will be repaired with a charge for parts, labor and handling and returned to the customer COD. Warranty becomes void if repaired or serviced by any other than FALCON authorized service center.