

# GOLD STRIKER

INSTRUCTION

MANUAL



REG. TM

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## 2. INTRODUCTION

Congratulations on purchasing Minelab Electronics Goldstriker. This detector is a further development of the highly successful GT16000, FT16000 and XT17000. The Goldstriker continues the Minelab tradition of true automatic ground balance detectors which allow more ground to be covered in less time. It has been known for a long time that for optimum performance the interfering signals received from the ground must be "balanced out" to allow the signal received from metal targets to be identified.

Before Minelab's True Automatic Ground Balance, this function was achieved by the operator interpreting the signals produced by the detector and adjusting the Ground Balance Control (usually a 10 turn control) to compensate for the noises caused by ground mineralisation. This is a highly skilled operation which required a great deal of concentration while detecting. Any lapse in concentration so that the ground balance was poorly adjusted would most likely result in a nugget being missed. The Goldstriker uses the computing power of a microprocessor to carry out this function.

Thus the Goldstriker has several advantages over the manual Ground Balance detector in that it is constantly adjusting the ground balance to keep it correct, it is much more precise and it never tires of Ground Balancing. This enables an inexperienced operator to be using the detector with optimum performance in a very short time and the experienced operator to be detecting accurately more ground than is possible with a manual machine.

We at Minelab have set out to produce the highest performance, most versatile detector available, and we wish you every success in your prospecting

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## 3. GENERAL DESCRIPTION

The Goldstriker consists of an electronic control box and a search coil which are attached to shaft. To operate the Goldstriker you hold the shaft and sweep the search coil over the ground in order to find buried metal. The control box contains a loudspeaker, or headphones can be plugged into the headphone jack. When you pass the search coil near a piece of metal the sound heard from loudspeaker or headphones will become louder and change pitch. The Goldstriker is a "motion" detector. This means that the search coil must be moving with respect to the metal that is to be detected. If the search coil is not moving with respect to the metal object there will be no audio response.

The depth below the ground's surface at which you can find metal objects depends entirely on the type of metal, its size and orientation in the ground, and the composition of the soil.

The Goldstriker's Automatic Ground Balance system will automatically compensate for signals caused by interfering ground mineralisation.

## 4. UNPACKING AND MECHANICAL SET UP

Unpack your Goldstriker and ensure the following parts are included:

Armrest, Nylon Nut and Bolt, Grey Upper Shaft, Grey Intermediate Shaft, Goldstriker Control Box, Black Fibreglass lower tube, Nylon Bolt, Nut and Spacer, Goldsearch DD 32 Coil with Skidplate, NiCad Battery Pack, Battery Charger, Nylon Carry Bag, Velcro Tabs, Instruction Manual, Field Guide and Warranty Card.

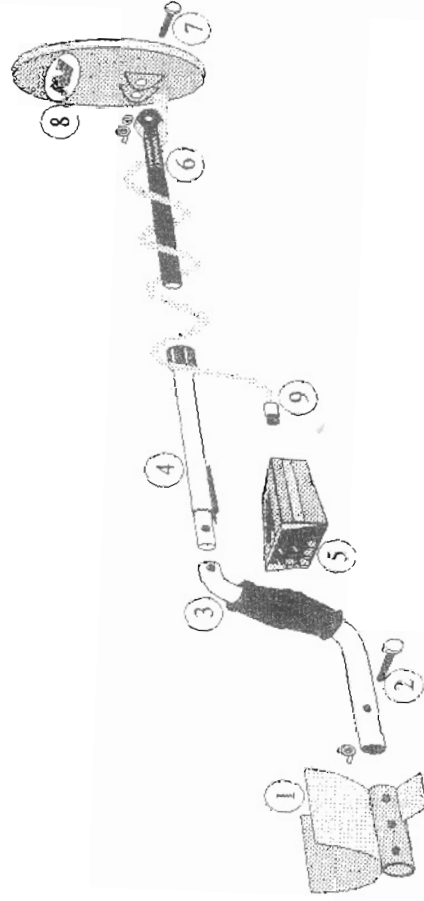


Figure 1. Goldstriker Assembly Diagram

Remove the Nylon Bolt (2) from the Armrest (1) Slide the Armrest (with support fins to the rear) over the back of the Grey Upper Shaft (3) so that holes line up at a convenient position. Push the Nylon Bolt through holes and tighten Nylon Wing Nut by hand.

Slide Grey Intermediate Tube (4) into Upper Shaft so that they "click" together, ensure box mounting clip is down.

Remove the tape that holds the Teardrop Washers in the Black Fiberglass Lower Tube (6). Remove the Nylon Bolt (7) from the bracket of the Coil (8). Push the end of the Black Fiberglass tube with the teardrop washers in to the bracket on the Coil so that the holes line up, ensure the Teardrop Washers remain in place and the clip at the other end of the shaft points away from the Coil decal. Push the Nylon Bolt through the holes in the Coil and Lower shaft. Note, the head of the Nylon Bolt will be held "captive" by the Coil Bracket. Place Nylon Spacer and Nylon Wing Nut on Bolt and hand tighten.

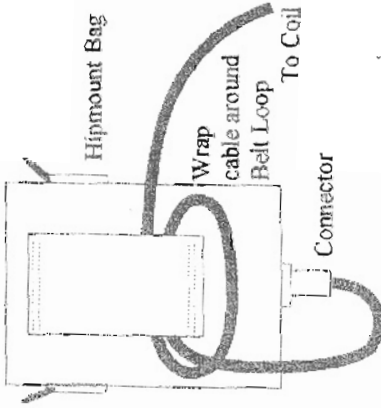
Slide the lower shaft assembly into the Intermediate shaft to a convenient length Ensure the clip snaps into place. Tighten Plastic Locking ring by hand.

#### 4.1. Shaftmounting

Slide the Control Box (5) into the clip on the Shaft until it "wedges" into place. Wind the Cable from the Search Coil around the shaft fairly tightly (but without strain), connect and screw the Cable Plug (9) to the socket on the Control Box. Experienced operators recommend that you use the Velcro Tabs to secure the Cable to the Shaft to prevent unnecessary movement and snagging on obstacles.

#### 4.2. Hipmounting

Hipmounting is easily achieved by putting the control box (5) into the Blue Hipmount Bag, which can be threaded onto your belt, or suspended from the strap provided. Only wind approximately 3ft of cable around the shaft as above.



Wrap one turn of cable through the belt strap on the Hipmount Bag before plugging the connector into the control box. This is to prevent tugs on the cable straining the connector. The rest of the cable should be left "free" to allow movement of the shaft while the control box is attached to your hip. Experienced users have found strap mounting most convenient if they spend a lot of time putting down and picking up the detector while working. Be careful not to tug or stress the cable in any way as this will deteriorate its electronic properties and introduce unwanted noise into the system.

## 5. BATTERIES

The Goldstriker is supplied with a Nickel-Cadmium Battery Pack. These batteries can be recharged many times, which can provide a substantial cost saving over Alkaline Batteries.

Prior to your first operation of the Goldstriker it is recommended that you charge the battery pack for 10 to 12 hours to ensure they provide peak performance in the field.

Note: When the detector is shipped the battery pack is stored in the battery compartment but not connected.

### 5.1. Installation

Ensure Detector is turned OFF before accessing the battery compartment.

To access the battery compartment slide the battery lid from the detector by pushing down on the front of the lid and sliding the lid out to the rear of the control box as shown in the diagram.

To connect the battery simply plug the connector from the control box into the socket on the battery.

To connect the Battery Charger unplug the battery from the control box and plug the Battery Charger in to the Battery Pack.

partially discharged. This effectively reduces the amount of time these batteries will operate your detector.}

If this happens to your NiCad battery pack the "memory" can be erased by repeatedly discharging the batteries until the battery low indicator is activated and then fully recharging them. If this cycle is repeated the "memory" effect will be erased.

### 5.2. Battery Alternatives

If you are in the field and the NiCad batteries lose their charge, you can replace them with 8 x "AA" penlite batteries by using the optional "Alkaline Adaptor Kit". Always use high quality Alkaline batteries with this kit. DO NOT USE CARBON BATTERIES. We cannot guarantee the correct operation of the Goldstriker with Carbon batteries

## 6. THE CONTROLS

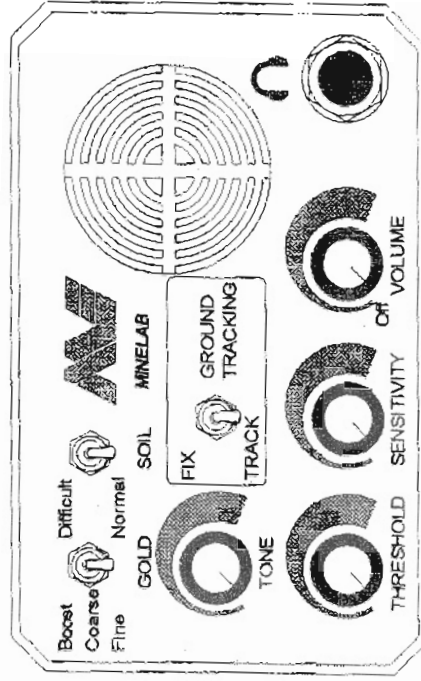


Figure 4. Goldstriker Control Panel

### 6.1. Gold Switch



Figure 5. Gold Switch

The Gold Switch is located in the top left corner of the Control Panel. This switch will make the detection of different sizes of gold nuggets easier. There are three positions: "Coarse", "Boost" and "Fine".

In the "Coarse" position, a detected signal increases the loudness of the response as is common in most detectors. There is a small change in the pitch to help segregate target signals from the background.

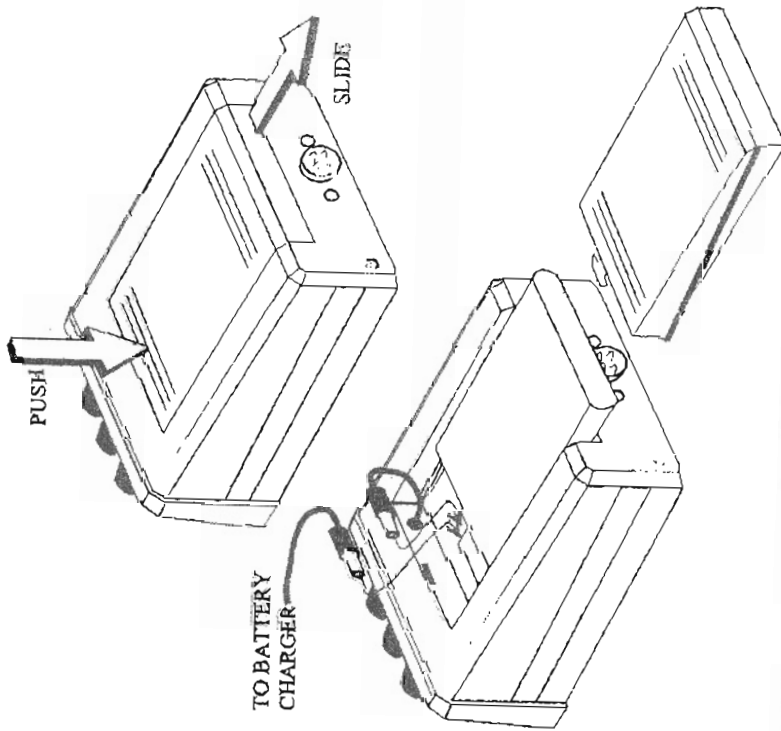


Figure 3. Battery removal and installation.

The Goldstriker has an automatic "battery low" warning system. When the battery life is critically low, a distinct sharp "pip" will sound at about 20 second intervals through the headphones or loudspeaker. These signals are quite distinctive and indicate that the batteries have about 10-15 minutes useful life left from when the sound first started.

The Goldstriker's NiCad batteries can be recharged from the supplied mains powered charger.

It is recommended that the NiCad batteries be discharged until the battery low warning has been activated. This will ensure a long life from the NiCad batteries and prevent them from acquiring a "memory".

[ NiCad batteries can develop what is termed "memory" when they are repeatedly partially discharged. After some time the batteries will only operate until they are

