

# The Minelab Musketeer Advantage Instruction Manual

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## Introduction

Congratulations on purchasing the *Musketeer Advantage*. This metal detector has been designed for general-purpose treasure hunting and the main features include **lightweight construction, sharp target response, simplified controls** for easy operation, and **substantial depth capabilities**.

Your *Advantage* detector is designed to locate valuable metal objects in high trash areas. These conditions are commonly encountered by treasure hunters in places that have been inhabited for long periods or by armies using the areas as camping grounds or battlefields.

The *Advantage* detector has been designed to serve the needs of both the speed hunter and the slow motion hunter. Units may be moved at a “rapid hunt” pace or at a much more “leisurely” pace while enjoying the sharp target response in either mode – without sacrificing depth capabilities. You will be surprised at how well the depth capabilities of the *Advantage* will challenge units currently on the market!

The operating frequency of your *Advantage* has been set at 5 kHz. This frequency has been chosen for its high level of sensitivity to large ferrous targets as well as coins, jewellery, and other valuable non-ferrous objects, while still being able to accurately discriminate against trash.

With the *Advantage* detector, Minelab has set out to provide you with a high performance, easily operated, lightweight detector, which is available at a realistic price. To be a successful treasure hunter you must completely understand your detector’s features and operation, research your intended hunt area, and respect the environment while you are hunting. We at Minelab are confident that the *Advantage* will provide you with hours of enjoyment for all types of hunting; whether it is on the beach, in the country, or in a competition hunt.

If you have any questions or comments we would like to hear from you. Please contact your local Authorised Minelab Dealer or write to us directly.

**We wish you every success in your treasure hunting.**

## List of Parts

The box in which your *Musketeer Advantage* is shipped should contain the following items. When you first receive your *Musketeer Advantage*, please check that all of these items are in the box:

Part Description	Part Number
<i>Advantage</i> Control Box	
TS800 Slimline Coil	2021-0045
Or TS1000 Slimline Coil	2021-0046
Two-Piece Shaft Assembly	8012-0022
Black Armrest	8011-0002
Armrest Cover	8001-0013
Alkaline Battery Pack	0311-0021
Nylon Bolt 1.5" x 1/4" (1 off)	4001-0001
Nylon Bolt 2" x 1/4" (2 off)	4001-0003
Nylon Wing Nut 1/4" (3 off)	4002-0003
Teardrop Washer (4 off)	4005-0006
Velcro Tape - Felt	8507-0001
Velcro Tape - Hook	8507-0002
Warranty Card	5303-0001
This Instruction Manual	4901-0038

**Since there may be a range of options available in this detector type, equipment may vary according to the model or country of issue. Certain descriptions and illustrations may differ (in this manual) from the exact model that you have purchased. In addition, Minelab reserve the right to respond to ongoing technical progress by introducing changes in design, equipment and technical features at any time.**

## Accessories

To further enhance your *Advantage* and give you greater capacity and versatility, the following items are available for you to purchase:

Part Description	Part Number
• TS800 Slimline Coil	2021-0045
• TS1000 Slimline Coil	2021-0046
• Rechargeable NiMH Battery Pack	0311-0019
• Mains NiMH Charger	Region Specific*
• 12V NiMH Vehicle Battery Charger	0302-0038
• Control Box Hip Mount Bag	3001-0034
• RPG Headphones	4523-0018
• Blue Minelab Cap	5306-0013
• Blue Minelab Polo Shirt, Blue Minelab Jacket	Size Specific*

\* Ask dealer for correct part number

## Assembling Your Musketeer Advantage

Please follow these simple instructions to assemble your new *Musketeer Advantage*. Refer to the drawings to identify parts and how they are positioned. If you have any difficulties, please contact your dealer for further instructions.

### Armrest / Upper Shaft Assembly

- Remove the black nylon bolt and wing nut (1) from the armrest (2).
- With the cup of the armrest positioned up (so that your arm rests in the cup and your hand comfortably grips the foam handgrip), slide the armrest (2) onto the end of the black upper shaft (3).
- Push the nylon bolt (1) through the holes and tighten the wing nut by hand.

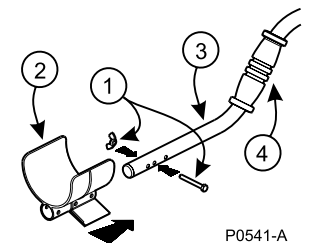


Figure 1 - Armrest Assembly

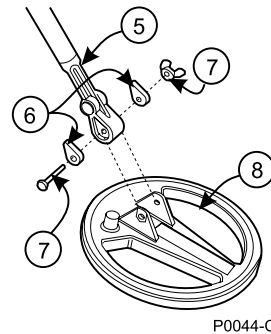
## Lower Shaft Assembly

- Unscrew the wing nut and remove the bolt (7) that is through the lower fibreglass shaft (5). Ensure the washers do not fall out (6).
- Remove the wing nut, bolt (7) and washers from the coil (8). These are spare parts.
- With the teardrop washers in place, push the lower shaft (5) into the bracket on the coil so that the holes line up.

### NOTE:

Ensure that the stainless steel spring clip located near the top of the fibreglass shaft is pointing toward the rear of the coil.

- Push the black nylon bolt (7) through the holes in the bracket on the coil from the cable entry side, then place the washer and wing nut on the other end of the bolt and tighten it by hand.

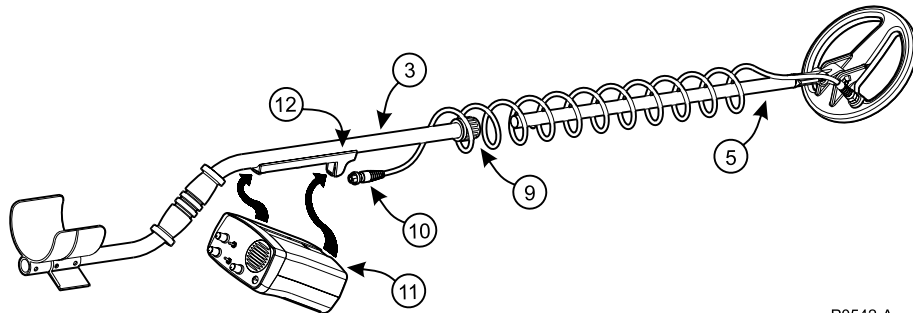


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Figure 2 - The coil and lower shaft assembly

## Completing the Shaft Assembly

- Slide the lower shaft assembly (5) into the upper shaft (3). Note that the black plastic locking nut (9) may need to be loosened to get the lower shaft assembly in place.
- Set the length of the shaft by locking the stainless steel spring clip into one of the holes provided, then tighten the plastic locking ring by hand.



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Figure 3 - Completing the shaft assembly

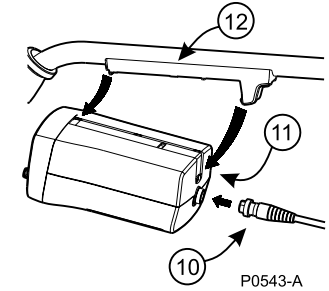
## Shaft Mount

- Position the control box so that the recess in the control box (11) is aligned with the leading edge of the mounting clip (12). Push the forward section of the control box upwards until the trigger “clicks” indicating the control box is secured.
- Firmly wind between 17 and 20 turns of the cable around the shaft until it reaches the control box.

### NOTE:

Leave enough slack at the bottom of the cable near the coil to adjust the coil position without straining the coil cable.

- Connect the cable connector (10) to the plug on the rear of the control box.
- Use Velcro tabs to secure cable in the correct position on the shaft maintaining slack at coil and control box



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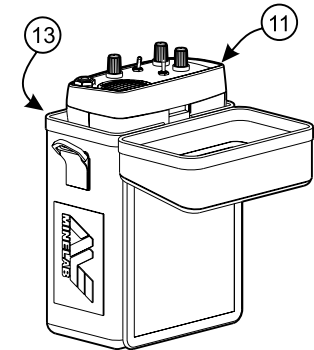
Figure 4 - Mounting the control box

## Hipmount

Hipmounting is an alternative to mounting the detector on the shaft and it significantly reduces the strain on your arm, enabling you to search for longer periods of time without undue fatigue.

To hipmount the detector you will be required to purchase the hipmount bag from your dealer.

- Check that there are charged batteries in the control box (11).
- Put the control box into the hipmount bag (13) as shown in Fig 5
- Place the hipmount bag in your preferred working configuration. The hipmount bag can be worn on the belt, or over the shoulder.
- Wind about 5 turns of the cable around the shaft. This will reduce the amount of excess cable.



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Figure 5 - Control box in hipmount bag

**NOTE:**

Leave enough slack at the bottom of the cable near the coil to adjust the coil position without straining the coil cable.

- e) Use Velcro tabs to secure the cable in position at the base of the shaft and where the cable leaves the shaft.
- f) Connect the cable connector to the rear of the control box.

**Batteries**

Your *Musketeer Advantage* is supplied with a 12-volt battery pack to hold 8 “AA” alkaline batteries. If you have not already done so, you can purchase a rechargeable 12-volt NiMH battery pack, a mains charger and a car charger from your authorised Minelab dealer.

**Installation of Alkaline Batteries**

Ensure the detector is switched “Off” before opening the battery compartment.

- a) Remove battery pack from control box pulling back both release tabs on the battery pack housing.
- b) Slide open the lid on the battery pack.
- c) Place 8 “AA” alkaline batteries (14) into the base of the alkaline pack (15). Ensure they are aligned as shown in Fig 6 and as indicated inside the compartment.
- d) Slide the lid closed.
- e) Place the base of the battery pack at the rear of the battery compartment (A). Push the front edge of the battery pack firmly into position (B). The two battery clips will “click” into position to securely hold your battery pack in place (Fig 7).

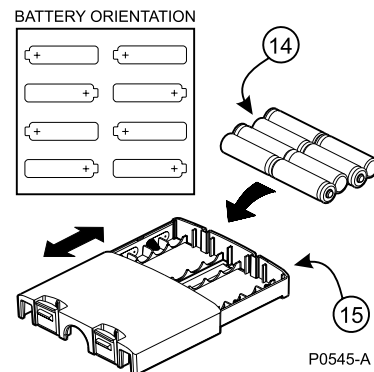


Figure 6 - Alkaline battery installation

**CAUTION**

High quality alkaline batteries should be used instead of standard carbon batteries as they will power your *Advantage* longer. The use of headphones will further extend battery life.

**Installation of NiMH Battery Pack**

- a) Ensure your NiMH pack is fully charged.
- b) Place the base of the battery pack at the rear of the battery compartment (A). Push the front edge of the battery pack into position (B). The two battery clips will “click” into position to hold the battery pack in place (Fig 7).

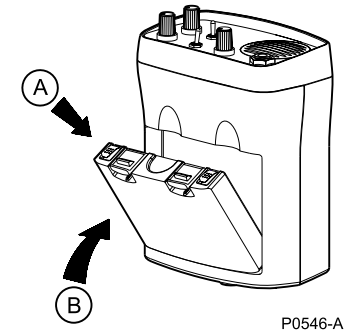


Figure 7 - Battery pack installation

**NOTE:**

The NiMH battery pack is factory sealed and does not open.

**Low Battery Warning and NiMH Recharging**

When the batteries are reaching the point at which they will no longer operate the *Advantage* will emit a distinct sharp “pip” from the speaker, approximately every 30 seconds. When this tone is heard, it is recommended that the NiMH battery pack be recharged or alkaline batteries be replaced as soon as possible to avoid missing any targets.

The NiMH battery pack can be recharged using either a mains powered charger or a 12V charger that can be plugged into the cigarette lighter of your vehicle. These accessories are available from your authorised Minelab dealer.

**CAUTION**

Check the mains charger voltage. Only use the appropriate mains charger for the country you are in.

## Using Your NiMH Chargers

- Plug the charger into the socket on the rechargeable battery pack.
- Plug the charger into the power source and switch on.
- A red light will appear on the charger, indicating that it has power (car charger only).
- A green light will appear on the battery pack during charging.
- A completely flat battery pack will take approximately 12 - 14 hours to fully charge.
- The green light on the battery pack will fade/dim once it is fully charged.
- A fully charged NiMH pack will give between 15 and 20 hours detecting time, depending on the number of targets found.

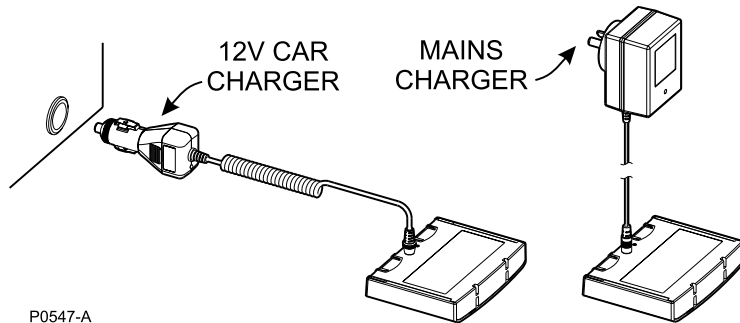


Figure 8 - Car & mains battery chargers

## The Musketeer Advantage

### Controls & Functions

This section gives detailed descriptions of the controls of the *Musketeer Advantage* and their function. Having knowledge of these controls means that you will be able to achieve the best performance possible with your detector. As you gain experience with your detector, it may be useful to refer back to this section.



Figure 9 - The Musketeer Advantage control panel

### Sensitivity Control and On / Off Switch



This knob is located in the middle left-hand side of the control box and allows the unit to be turned on and off as well as controlling the sensitivity. This control is often thought of in terms of a depth control and it is to a point, but it can also be used to make the unit more stable if interference caused by ground chemistry “mineralization” or electrical fields is experienced.

At its Maximum position, the detector may be noisy depending on electrical interference and ground mineralization. To get the best depth from your detector, this control should be set as high as you feel comfortable. If you can operate with some noise, then you are likely to get more depth. If you prefer your detector to run quietly, then turn the Sensitivity down until it is “just” quiet. It’s your choice!!

## Ground Adjust Control



This control allows you to adjust the ground balance of your *Advantage* in order to compensate for changes in the level of ground mineralization. At its most counter-clockwise position this control switches into the “Fix” position. When in this position the *Advantage* is a fixed ground balance detector and requires no ground control adjustment.

If while detecting in this setting the ground mineralization becomes high, the *Advantage* will produce “ground noise” or false signals. To reduce these noises it will be necessary to switch the detector out of the “Fix” position and manually adjust the ground balance.

Ground balance can be adjusted in either “Discriminate” mode or “All Metals” mode when the control toggle switch is in “Ground Adjust Enable” position.

### CAUTION

**You can not effectively ground balance the *Advantage* whilst in the “Pinpoint” position. Turning the ground adjust control while in this position will cause the detector to become erratic.**

To ground balance the *Advantage*, raise and lower the search coil approximately ½ - 6 inches (10 - 150mm) above the ground while listening for changes in sound. Start by having the “Ground Adjust Control” in its most clockwise position. Now slowly turn the Ground Adjustment counter-clockwise while continuing to raise and lower the coil, until the audio response from mineralization is eliminated.

In areas of extreme mineralization, you may not be able to completely “balance out” the effects of the ground mineralization. In this case, set the Ground Adjust control to the position where the sound varies the least as the coil is raised and lowered and then reduce the level of sensitivity to compensate for the excess mineralization.

## Discriminate / All Metals Switch



The Discriminate/All metals mode switch is located in the lower centre of the control panel and is used to select either “Discriminate” or “All Metals”.

In “Discriminate” mode the Discriminate control is active and can be adjusted so that *Advantage* can accept or ignore certain metal objects, as described in the Discriminate Control section. In this “hunt” mode, the coil must be moving over the ground to detect a target. If you stop moving the coil when over the target, the signal will “disappear”.

In “All Metals” mode, the Discriminate control has no effect and your *Advantage* will respond in the same way to all types of metal. The “All Metals / Ground Adjust Enable” mode is useful when searching for ferrous targets. “All Metals” mode allows pinpointing of targets in conjunction with the pinpoint switch. Pinpointing is discussed under “Pinpoint” on page 15 of the manual.

**It is recommended to search in “Discriminate” mode to achieve the best depth.**

## Discrimination Level Adjust

The Discrimination Level Adjust is located at the bottom right of the control panel. This control is used when in “Discriminate” mode to set the level of “discriminate” or “ignore” for unwanted metal targets.



Metal objects fall into two broad categories: ferrous and non-ferrous.

A magnet can be used to determine if an object is a ferrous or non-ferrous metal; ferrous metals will be attracted to the magnet while non-ferrous metals will not.

In “Discriminate” mode, the *Advantage* will discriminate most ferrous objects and only provide a signal for a non-ferrous object. If the Level Adjust is set to “1” as shown in Fig 10, page 14 (large ferrous objects may produce short “pops” or “clicks”). Non-ferrous objects will give a normal “signal beep” and be “accepted”.

Typical ferrous objects encountered by treasure hunters are nails, screws, washers, bits of wire, etc. These objects are generally not considered to be of value, so it is a distinct advantage to be able to ignore these objects while detecting in this setting. Objects that will cause the *Advantage* to produce a “signal beep” will be non-ferrous metals. This includes such items as aluminum foil, most jewellery, pull-tabs, coins, bottle tops, gold, silver, brass, etc. Not all of these non-ferrous objects are considered valuable. Therefore, by using the Discrimination Level Adjust, the *Advantage* can be adjusted to ignore some of the less valuable non-ferrous objects while still locating the more valuable targets.

By turning the Discrimination Level Adjust control clockwise some non-ferrous objects of increasing conductivity will be ignored. The *Advantage* uses the electrical conductivity of the object to determine the type of metal detected and, based upon the Discrimination Level Adjust setting, will either ignore or accept the object.

The following diagram shows some common objects and where the Discriminate control has to be set to ignore them.

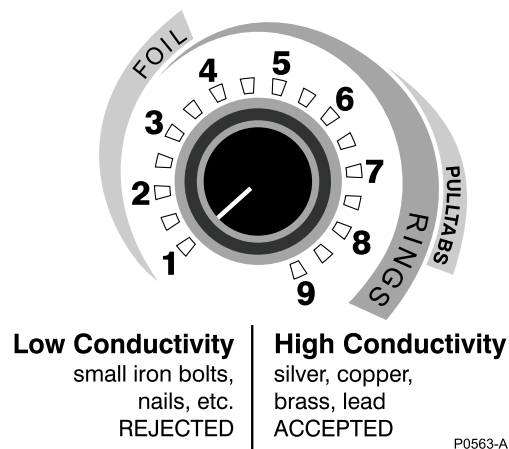


Figure 10 - Discrimination Level Adjust control examples

As you can see from the diagram, items such as gold rings cover a large area of the Discriminate control. This is because fine rings are less conductive than heavier rings and the higher the purity or Carat (K) rating the higher the conductivity. Therefore, if you set the Level Adjust control to ignore pull-tabs you will also ignore some fine rings and other jewellery.

The setting of the Discrimination Level Adjust is relative to the types of objects that you wish to hunt for, and the amount of trash that you are prepared to detect. If you do not want to dig old bottle caps but want to dig brass buttons or copper coins, the Discrimination Level Adjust control is set higher (approximately at number 7 in Figure 10) but most fine white gold rings, foil and some yellow gold rings will also be ignored.

Once you have learned where certain trash items are eliminated and where valuable items are accepted you are then able to decide where to set the Discrimination Level Adjust control. You should only use as much discrimination as is required to eliminate the common junk items you do not want while still accepting the valuable items you do.

Always remember that another person detecting behind you who is willing to dig a little more trash will find the items you have passed over.

### Pinpoint



Pinpoint is the ability to locate exactly where in the ground your target is. By Pinpointing accurately you are sure to save time and can remove the target with minimal disturbance to the environment of the area.

Pinpoint is not normally used while searching. Its purpose is to locate the precise position of the target after it has been discovered in one of the search modes.

The Pinpoint feature works only while the *Advantage* is in the “All Metals” mode. While in the All Metals / Pinpoint mode the *Advantage* is a “non-motion” detector. This means that the coil does not have to be moving to detect a target. Sometimes when in this mode the Audio volume may become loud and erratic. If this occurs you will need to retune by pressing and releasing the “Threshold Reset” function. If this does not solve the problem you may then need to check the Ground Balance as described on page 12 or reduce the Sensitivity of the detector slightly.

### Threshold Reset

Threshold Reset is located at the centre of the control panel. The switch is spring loaded and will flip back into its normal position when you release it. This control is only operational while the *Advantage* is in the “All Metals” mode and used in conjunction with the Pinpoint mode as described below to assist in accurate target location.



When the approximate location of the target has been determined in the “Discriminate” mode, switch to the “All Metals / Pinpoint” position. The Audio volume will be at its loudest when you are able to hold the coil stationary over the target area.

Press and release the switch up to Threshold Reset function. Gently move the coil sideways until you find the position where the Audio is at its loudest (Note: Do not lift your coil up, as you may lose the target completely). Repeating this process will refine your search even further if required.

Mark a line on the ground going from the tip to the toe of the coil (this is the most sensitive part of the coil). The open design of the coil makes marking the ground very easy. As shown in Figure 11, turn 90 degrees to the line and repeat the pinpointing procedure until you are directly above the target. Mark another line on the ground as before. Where the two lines cross you should find your target.

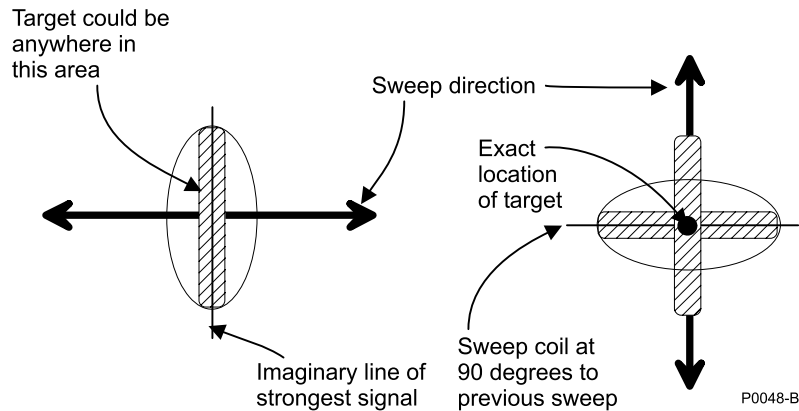


Figure 11 - Pinpointing the target with the Musketeer Advantage

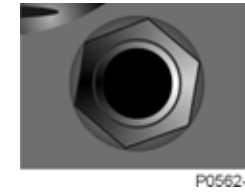
Sometimes the detector will produce its maximum volume for a broad area over a target. This generally indicates that the target is near the surface or is quite large. To successfully Pinpoint these targets you may need to lift the coil up off the ground to narrow the target response before going through the Pinpoint procedure. You should then be able to move the coil closer to the target and further refine your search.

After you have pinpointed and retrieved the target, the Sensitivity of the detector should be reset to normal by pressing and releasing the Threshold Reset switch.

Although it is possible to search for targets in the All Metals / Pinpoint mode it is not recommended. The Discriminate and All Metals / Ground Adjust Enable modes are much better for searching.

This is because in the All Metals / Pinpoint mode, the circuitry of the *Advantage* helps maintain a silent threshold by automatically reducing the Sensitivity when mineralization or targets are present. The detector will automatically restore its sensitivity after a period (approx. 15 - 20 seconds) from its last target. Alternatively the Threshold Reset switch can be activated to immediately restore the sensitivity of the detector. It is for this reason that the All Metals / Pinpoint mode is not recommended as a search mode.

### Audio Output



The audio output of the *Advantage* is available through either an inbuilt loudspeaker or via a 1/4" stereo headphone jack. When the headphones are plugged in, the loudspeaker is disconnected.

Headphones are recommended for serious treasure hunting as they are more sensitive to slight target signals than the loudspeaker and shield your ears from external noises which can be distracting. The use of headphones will also increase battery life.

Headphones used should be of a low impedance. The socket will accept most stereo headphones with a 1/4" jack. If the headphones have a “Stereo/Mono” switch, set it to “Stereo”.

## Basic Operating Instructions

### a) “Discriminate” Mode

- Install charged batteries.
- Set the All Metals / Discriminate mode switch to the “Discriminate” position.
- Set central toggle switch to Ground Adjust Enable.
- Turn the *Advantage* “On” by turning the Sensitivity control in a clockwise direction. Turn this control clockwise to your preferred level.
- Select the level of “discrimination” you wish to have by setting the Level Adjust control.

You are now ready to hunt.

### b) “All Metals” Mode

- Install charged batteries.
- Set the All Metals / Discriminate mode switch to the “All Metals” position.
- Set central toggle switch to Ground Adjust Enable.
- Turn the *Advantage* “On” by turning the Sensitivity control in a clockwise direction. Turn this control clockwise to your preferred level.

You are now ready to hunt.

## Practicing the Controls

We suggest you first take some time to become familiar with how your *Advantage* responds to various metal objects.

Gather a collection of different metal objects such as a rusted nail, pull-tab, brass button, aluminum foil, and some different types of relics, e.g. bullets, buckles, coins.

Take the unit outside, away from known electrical devices or metal objects and support the Musketeer so that objects can be easily moved past the coil. Then:

- a) Ensure the Mode Switch is in Discriminate.
- b) Turn the Discriminate control to approx. “1” position (Fig 10, page 14).
- c) Turn the Sensitivity Control to “maximum”. If excessive interference is encountered, turn the Sensitivity control counter-clockwise until you are comfortable with its stability.
- d) One at a time pass the test objects across the coil. The *Advantage* should “beep” on the non-ferrous ones, but not on most ferrous objects. Large ferrous objects may produce short “pops”, “clicks” or even “beeps”. To reject these items you may need to turn the Level Adjust knob further in a clockwise direction.
- e) Now turn the Level Adjust control progressively clockwise in steps and pass the objects over the coil and see when certain objects are rejected.

By experimenting with different settings of the Level Adjust control you will see where to set the *Advantage* to accept or reject the targets you wish to hunt for.

Now for some treasure hunting! Take the *Advantage* to the site you wish to hunt. Then:

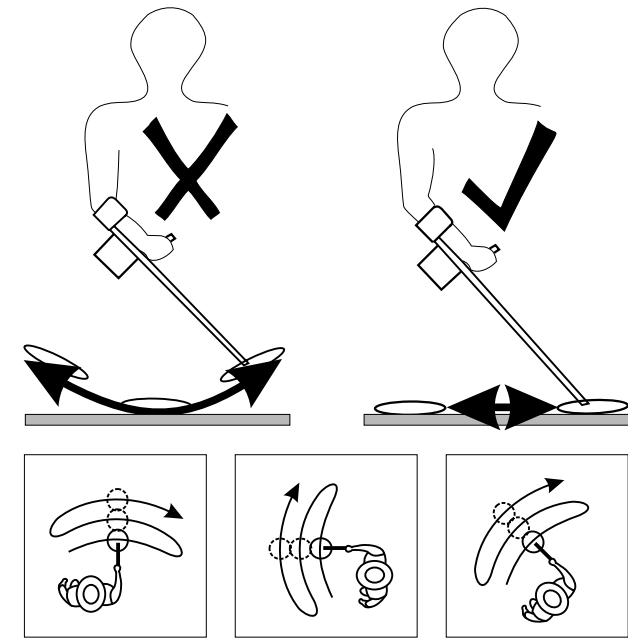
- f) Place the coil flat on the ground and flick the Mode Switch to “Discriminate”.
- g) Turn your Level Adjust knob to your preferred setting. Remember this is a trash to treasure ratio, so select it based on how much trash you are willing to dig to find your first good item. You can always turn it up or down during use.

- h) Now turn the Sensitivity control to “maximum”. If excessive interference is encountered, turn the Sensitivity control counter-clockwise until you are comfortable with its stability. Remember it is suggested that you hunt with sensitivity as high as possible without instability annoying you. This control can be altered during hunting if you encounter more random signals in one area than another.
- i) Lift the search coil approximately ½ - 1 inch (1 - 2.5 cm) from the ground — enough to take the weight off the coil. Now swing the search coil from side to side, **keeping the coil level and parallel to the ground surface throughout the swing (Fig 12, page 21).**
- j) Listen to the reaction to each target you find, noting the depth and condition of the ground as you recover it. Carry a small notepad to take notes and review these notes at some later time to improve your knowledge of how your *Advantage* performs.

As you become more experienced in using the *Advantage*, you will notice that your trash ratio will drop, even though you may not be increasing the discrimination level. This is because you have become more attuned to the target signals and know how the *Advantage* responds.

## Treasure Hunting Tips

Your *Musketeer Advantage* detector will perform at its best when the coil is kept in contact with the ground. If you are not yet an experienced operator, you should practice maintaining a constant coil height at the extremity of each swing; maintaining contact with the ground will make this easier. This is important as variation in coil height at the end of each swing can cause confusing sounds and will reduce detection depth.



P0188-A

Figure 12 - Sweeping the Coil

### NOTE:

Each sweep of the coil should overlap the previous one by 25%. This will ensure good ground coverage.

Keeping the coil in contact with the ground will increase detection depth and response to small objects.

## Environmental Concerns

Firstly, it should be pointed out that treasure hunting with a metal detector is the most environmentally friendly way to recover coins, rings and other treasure items. However, it is important to leave an area that you have searched in the same condition as you found it.

All holes that have been dug must be properly refilled. Not only is it environmentally unacceptable to not fill in your holes, it is also very dangerous. There are special tools to enable you to recover targets easily from grassed areas without digging large holes; talk to your detector shop or club for the preferred method of digging up your target.

Take away and properly dispose of any junk that you find or produce, such as nails, tin cans, or flat batteries. Leaving an area “scarred” can result in action being taken to prevent the use of metal detectors, which spoils this fascinating hobby for others as well as yourself.

## Detector Care

The *Advantage* is a high-quality electronic instrument, finely engineered and packaged in a durable housing. Taking proper care of it is mostly common sense.

- **Do not leave batteries in the control box when the detector is not in use for a period exceeding two weeks.** Damage caused by leaking batteries would be severe and would void the warranty.
- **Batteries.** Flat or faulty batteries cause many detector problems. Ensure that you use only quality alkaline batteries and that they are replaced when the warning signal indicated through the headphones or speaker is heard.
- If temperatures are very high, **do not leave the detector in direct sunlight for longer than necessary.** Covering it when not in use will help protect it. Try to avoid leaving it in a closed trunk or in a car sitting in sunlight.
- While the control box has been designed to be water-resistant, it is not waterproof. Avoid wetting it unnecessarily. Use the hipmount bag to prevent water and dust ingress. **Never allow the box to come into contact with gasoline or other oil-based liquids.**
- **Keep the unit clean and dry** and avoid getting sand and grit into the shafts or the tightening nuts. Do not use solvents to clean the detector. Use a damp cloth with mild soap detergent.
- **Cables.** Ensure the coil cable is in good condition and not subject to undue stress.

## Trouble-shooting Guide

Fault	Solution
No Sound	Ensure the unit is turned "On" Check battery orientation and battery connections Ensure battery pack is correctly fitted Check headphones and their connection
Erratic Noises	Check battery charge and battery connections Ensure coil plug is tightened firmly Reduce the sensitivity by turning counter-clockwise Switch out of "Fix" ground balance position Check and adjust the ground balance Check headphones and their connection and lead Check for sand or grit between coil cover and coil
No Target Response	Ensure unit is turned "On" Check battery charge and battery connections Check coil connection Check headphones and their connection

In the unfortunate circumstance that you need to return your detector to Minelab for service, please fill out the Minelab Service Repair Form on page 27 and enclose it with the detector. Please supply as much detail as possible about the fault as this will assist our service engineers to rectify the problem quickly and efficiently.

## Specifications

These specifications are subject to change without notice.

Length	Extended	53" (1350 mm)
	Unextended	47" (1190 mm)
Weight	Control Box (excl. Batteries)	530 g
	TS800 Slimline Coil	500 g
	TS1000 Slimline Coil	650 g
Batteries	Alkaline Cells	Eight 1.5V "AA"*
	NiMH Battery Pack	12V, 1000 mAh
Coil Options	TS800 Slimline "Double D" waterproof	
	TS1000 Slimline "Double D" waterproof	
Headphones	Impedance	8 - 32 ohms
	Jack – Stereo / Mono	¼"
Frequency	Transmission, sinewave	5 kHz
Ground Rejection	Fixed	
	Manual Ground Adjust	Pot 1 turn
Search Modes	Discriminate, All Metals / Ground Adjust Enable, All Metals / Pinpoint	
Controls	On / Off, Sensitivity	Pot and switch
	Ground Adjust	Pot and switch
	Discriminate Level Adjust	Pot 1 turn
	All Metals / Discriminate Pinpoint	Switch 2 Pos. Switch 3 Pos.
Warranty	Control Box	2 years
	Coil	1 year
Patents	AUS 595835, others pending.	

\* Not included

### Warranty and Service

Minelab Electronics Pty Ltd warrants (subject to certain conditions) that its products are free from defect in materials and workmanship.

Minelab Electronics Pty Ltd also warrants that this product is fit for the purpose it is designed for as stated in this manual.

See Warranty Card for clauses and conditions.

#### Working for a Cleaner, Greener Future



For Consumers within the European Union: Do not dispose of this equipment in general household waste.

The crossed out wheeled bin indicated on this equipment is an indicator that this unit should not be disposed of in general household waste, but recycled in compliance with local government regulations or environmental requirements.

Please dispose of this equipment via a recycling service or centre, or by returning the unit to the respective Minelab or Halcro outlet as appropriate for your unit. This will enable the equipment to be disposed of in an environmentally safe manner.

Disposal of unwanted electronic equipment in landfilled waste may contribute to adverse long term environmental effect due to the leaching of contaminating and toxic substances contained within some electronic equipment.

#### Disclaimer:

The Minelab metal detector discussed in this operating manual has been expressly designed and manufactured as a quality hobbyist metal detector and is recommended for use in coin, treasure and general metal detection in non-hazardous environments. This metal detector has not been designed for use as a mine detector or as a live munitions detection tool.

#### Please note:

Since there may be a variety of options available for this detector, equipment may vary according to the Model or items ordered with your detector. Certain descriptions and illustrations may also differ (in this manual) from the exact Model that you purchased. In addition, Minelab reserves the right to respond to ongoing technical progress by introducing changes in design, equipment and technical features at any time.



#### THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES

Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

### Minelab Service Repair Form

Today's Date: .....

Detector Model: ..... Serial No.: .....

Purchased From: .....

Purchase Date: .....

Part(s) Supplied for Service: .....

Description of Fault: .....

Owner's Name: .....

Address: .....

Phone: Day ( ) ..... Home ( ) .....

Fax: ( ) ..... Email: .....