

THE DEFINITIVE GUIDE TO USING YOUR TRACKER METAL DETECTOR

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Note: This book covers the entire Treasure Tracker line manufactured by Bounty Hunter Corporation.

Stay tuned for the next update of this book which will include online all diagrams, graphics and photos.

The Tracker Series includes the following four metal detectors:

- 1. Tracker I-D**
- 2. Tracker II**
- 3. Tracker III**
- 4. Tracker IV**

BY MICKEY COCHRAN

The Author, Publisher, and Manufacturer of Bounty Hunter Products take no responsibility for any injuries, mishaps, or legal action that may concur when utilizing Bounty Hunter Equipment or applying any of the techniques listed in this book. It is the sole responsibility of the reader to take every precaution necessary when pursuing metal detecting as a hobby.

RECOMMENDATIONS:

1. Always gain permission when detecting on private property.
2. Learn all of your state and federal laws and know how they apply to metal detecting.
3. Be careful to wear protective clothing especially to guard yourself from the elements.
4. Wear gloves at all times when recovering metal objects.
5. Do not wear headphones when it is critical to be able to hear any oncoming traffic or imminent threats from wild animals.
6. Pace yourself and try to take a restful break at least every hour.

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INTRO:

Metal detecting is one of the most interesting, and can be one of the most profitable hobbies you will ever delve into. The hobby itself revolves under many different areas of the general term of "Treasure Hunting". With this book, we will explore all of these major areas that will enhance your capabilities and possibilities of applying your Tracker Metal Detector.

There are four different models that consist of the Tracker Metal Detector line: Tracker I-D, Tracker 2-D, Tracker III and the Tracker IV. The differences in these four models are in the features offered. Otherwise, all four of these models operate on the same principles of application.

Many uses await you and your Tracker metal detector: relic hunting, coin-shooting, cache hunting, gold prospecting, jewelry hunting and even practical applications for household chores. The techniques offered in this book will increase your capability to minimize the learning curve that is normally encountered when first acquiring a metal detector. Not only will you gain in learning to operate your detector more efficiently, but you will also realize the many possible applications for your Tracker.

In combination with your operations manual, this book will give you a solid foundation in applying and operating your Tracker metal detector effectively.

I've been detecting since the early 1970s and have found the hobby to always be intriguing every time I've gone on an outing; whether hunting within city limits or going on expeditions into the mountains, I've always found many valuables along with historically interesting items. One of my main purposes in pursuing the hobby is a love for history. Many others will have their own personal reasons for submerging themselves in the hobby of metal detecting. After you have been "in the field" with your Tracker, in sufficient time, your own motivations for being there will take form. Let's face it, there is nothing more exciting than pulling money or jewelry out of the ground, and yet, it certainly doesn't have to have historical value to be fun to find.

So, grab your Tracker and prepare for a journey that will engage your devoted interest for many years to come!

Tracker Detecting Basics

Congratulations on your purchase of the Bounty Hunter Tracker metal detector. With this book, you'll discover that your new Tracker metal detector can be applied in a variety of ways. You'll gain many years of enjoyment and eliminate frustration by learning to operate and apply your unit properly. We'll start with a general description of each Tracker metal detector.

The Tracker I-D has two controls: a Sensitivity On/Off switch and a Discriminate control. It's amazing how many ways this unit can be manipulated with only these two controls. The Tracker 2-D has these same two controls along with one extra one for manually ground balancing. The Tracker III or IV also has these two controls along with a toggle switch which adjusts for three modes of operation: 'Tone Discrimination', 'All Metals' and 'Full Discrimination'. From the surface, all of these Trackers may seem easy to operate. Even though, mastering any one of these units may take 100's of hours of in-the-field application. The more you learn, the more profitable each detecting excursion becomes.

Our first concern is understanding how your particular Tracker reacts to different metals and what you should be watching and listening for while operating your unit.

The Tracker metal detector is one of the easiest detectors to learn to operate yet, it is a difficult one to master. There are two controls on the Tracker I-D and the Tracker III or IV that allow you to adjust its Sensitivity and Discrimination level and a third control on the Tracker 2-D that allows you to adjust the Ground Balance manually. With only these few controls you will be able to manipulate your unit in many different ways predetermined by specific applications.

Let's start off by learning to properly test your Tracker for all of its functions with what is known as an "air test". You will benefit first by learning to "air test" your unit indoors. To "air test" a unit requires that you set up your detector, after it is assembled, with the coil facing towards the ceiling off the edge of a wooden or nonmetallic table. To do this requires that your coil has enough slack in the coil cable to be able to rotate it towards the ceiling. It's also preferable to have this same slack in the field for easier tilting of the coil when hunting at different angles.

Make sure there is no other metal nearby or the "air test" cannot be properly performed. What do you need in preparation for this "air test"? Find a nickel, a dime, a copper penny, a quarter, a pull tab, a nail, any piece of small iron, a gold ring, and you'll be completely ready for the most important preliminary test before taking your unit out into the field.

Air Testing

When first turning the unit on, you will hear a "beep" that lets you know that there are batteries in the unit and all systems are go. If your batteries are completely dead, or if there are no batteries in the unit, you will not hear any tone when turning the unit on. I highly recommend using Alkaline batteries only. Not only will you gain more hours of operation, but the unit will perform at its maximum capability.

After turning the unit on, position your Sensitivity knob around the 5:00 position of a clock dial or a little more than three-quarters of a turn. This will guarantee that you will not get any false signaling or extraneous noises. False signaling can occur when operating your unit at maximum Sensitivity; this can be confusing for those who are just beginning the hobby. You will lose a little depth when operating the unit with the Sensitivity three-quarters of a turn; even though, your main concern should be to first learn how to detect at its lower, more stable Sensitivity setting. You can better take advantage of the unit's ability to detect deeper at higher Sensitivity settings after gaining more experience.

Okay. We now have the unit on the table with the Sensitivity at three-quarters of a turn. Where do we go from here?

Make sure your Discrimination control is turned off completely (Counterclockwise). All of the Tracker detectors are "Motion Detectors". With your Discrimination turned off completely, your detector is now in the All Metals Motion Mode.

(Tracker III or IV users: Make sure that your toggle switch is in the "center position" for All Metals Motion Mode.) When your Tracker is in All Metals Motion Mode, your coil has to be in movement when detecting above the ground; in this setting, you will be detecting every metal that the coil encounters including: iron, aluminum, silver, gold, brass, copper, etc.

You will only hear one tone instead of the two tones you normally hear when the Discrimination is turned on.

Now for the first audio output test. Take your sample quarter and wave it slowly, about three inches above the coil -- do not hold the quarter over the coil stationary. The target has to be moving before the Tracker will emit a tone. You'll notice that you are getting a high pitch tone from the speaker of the unit. Now grab your sample nickel and wave it in the same manner. This will also give you the same tone as the quarter did. In fact, try every sample of metal you have, and the detector will emit the same tone. As you know, the Discrimination is completely off, meaning that you will detect every type of metal and will get the same response from all of them. This setting is mostly used when hunting for relics, large caches, gold prospecting, plumbing parts, and landmark stakes. I will explain this in detail in upcoming chapters.

Pull Tab Reject

The second audio output test will require that you turn the Discrimination on clockwise three-quarters of a turn. (On the Tracker III or IV, to turn on the "Tone Discriminator" requires the toggle switch to be placed in the right position.) Now, we will repeat waving our samples over the coil to see what kind of tones are emitted. If you wave your nickel across the coil, the detector will emit a low tone, yet your quarter, dime and copper penny will emit a high tone. You'll also get the same low tone with your pull tab and gold ring samples. You're probably thinking: "Oh great! What good is a detector that does not differentiate a gold ring from a pull tab!" Let's not pass judgment too quickly. If you want to eliminate all of your pull tabs, this is a great setting to operate your unit in. If you do not dig any low tones, you will pick up all of your silver and copper coins, maybe some copper tubing, brass items, silver rings yet not have to dig any pull tabs in the process.

The most recurring item in the field is the ominous pull tab. Your Tracker does have the ability to give you a different tone for most of your gold rings and all of your nickels to differentiate them from a pull tab.

To get rid of the pull tab, while still detecting your gold rings and nickels, simply adjust your Discrimination knob around 12:00 on a clock dial or half way instead of three-quarters of a turn.

As you wave your pull tab over the coil, you'll notice that you're now getting a double-tone or broken tone on the pull tab. If you're not, adjust the Discrimination knob a little in opposite directions while waving the pull tab over the coil. When you do notice that you're achieving the broken tone, leave your Discrimination knob on that position.

Now grab your nickel and make sure you're still getting a solid low tone. You should also be able to achieve the same tone with your gold ring. Please take note, about 15%-20% of the gold rings you encounter will still emit the same tone as a pull tab. With this setting, you're at the maximum potential of eliminating 90% of your pull tabs while still detecting most gold rings, all nickels, all silver coins and all copper coins.

(Tracker III or IV Users: The Tracker III or IV also has the option to eliminate the tone for pull tabs completely by placing the toggle switch in the left position. In this position, the Tracker III or IV will eliminate everything but silver, copper, brass, etc.)

Take It To The Field

As you can see, we can achieve three different tones to determine by audio different types of metal. Audio is the most important reference point on the Tracker to determine what type of metal you're detecting. Your meter system will give you a visual reference of whether you're detecting metal or not and also assist you in determining the exact location of the metal (pinpointing). Whenever the meter moves to the right, from 10 to 0, the detector is letting you know that the coil is over some metal. The numbers are not representative of anything in particular such as inches. Again, you can use the meter system to assist you in pinpointing the target or to confirm that there is metal under the coil by visual reference. Note: you cannot tell what type of metal you're detecting or how deep it is with your meter system.

You have now gone through your initial step in learning to operate your Tracker. We have learned how to "air test" the unit, know what to expect from our audio output when detecting different types of metal, and how the meter can be used for pinpointing. This only covers the basic operation and features of the Tracker metal detector. It is now time to...take it to the field.

Now for some real fun! Let's take our Tracker detector and a small digging trowel outside and find some coins. If you have a yard, we'll start there. If you do not have a yard, we'll practice in the nearest park.

We'll first operate the unit with the Sensitivity control turned three-quarters of a turn and our Discrimination control also turned three-quarters of a turn. We will not dig any pull tabs if we only dig the high tones that are emitted. (Tracker III or IV users: place your toggle switch in the right position along with these specified settings).

Slowly sweep the coil from left to right in a half circle. Take another step and do the same. We are not going to dig a target until we get a repeatable high tone. Oh, you have one already? Great, let's dig and see what we've got! Is it your first coin? Don't be disappointed if it's not. You will find other strange pieces of metal besides coins if you're digging your high tones such as: brass, copper tubing, pipe fittings, etc. If you detect a can, it is usually because of the oxidation that occurs when metal has been buried for many years. This creates a "halo effect" and will not allow any detector to bypass it. Usually after you dig something like this, you can put it on top of the ground and the detector will not emit a positive tone any longer. This is the best way to tell if a piece of metal had oxidized. There are rusty iron objects and cans that will, even then, still emit a high tone.

Pinpointing

Let's keep sweeping the coil and learn how to pinpoint a target. As you sweep the coil in the half-circle format, you'll notice that sometimes you'll get a tone that seems to disappear. These are usually best ignored. If you cannot achieve a repeatable signal after waving the coil over the same spot a few times, it is most likely trash. If you do achieve a repeatable signal, it is time to learn how to pinpoint your target. Take your coil and sweep it at angles over the same spot as if you were drawing an "X". This will assist you in isolating your target to determine the exact spot to dig in without having to dig unnecessarily. Take your spade and draw a small circle around the exact area that you think the target is in.

Now, dig in and see if you have learned to pinpoint your target properly. As you dig, carefully pile the dirt to the side of the hole. Periodically, check the hole to see if you're still getting a signal and that it is still centered and not to the right or left of the hole.

If you lose the signal directly over the hole, check the pile of dirt and see if you may have already dug up the target. With practice, you should be able to isolate your target within a four to five-inch circumference. If digging in a manicured lawn, this will minimize any destruction that may concur in your detecting efforts.

At this point, you have come a long way with your Tracker. After detecting your yard or local park, you more than likely are even a few coins richer. There are many other applications for your Tracker; one of the most historically interesting is called...relic hunting.

Relic Hunting

What is a relic? Something that has survived the passage of time is a limited definition. A relic can be anything of historical value, personal value, associated cultural value -- in fact, anything that reflects another age. There truly is no price that can be put on a relic. Relics aren't being made today; they are being copied. Because a relic is impossible to define, we can only make allusion to what we are looking for when operating a detector.

When operating your Tracker for relic hunting, set your Sensitivity as high as it will go without gaining false signaling. Keep your Discrimination turned completely counterclockwise -- which is off. (Tracker III or IV users: Make sure your Toggle switch is in the center position). Again, this means you're operating in the All Metals Motion Mode. The reason we're operating in this mode is because a lot of relics are made of iron, and your detector will usually eliminate all iron objects in Discrimination Mode.

Where do you hunt for relics? Remember, relics can be anywhere and are truly impossible to define. If hunting private property, always gain permission. Never hunt a state or federal park. These areas are usually off limits to detecting, rock hunting, fossil hunting, etc. The areas to hunt for relics can be old abandoned homes, plowed fields, remote woodlands, mountains, ghost towns, and if your home is fairly old, in your own backyard. Again, it is advised to always gain permission when hunting private property.

Depending on the area you're hunting, you may decide to operate your Tracker I-D in Discrimination Mode instead of All Metal Mode. This would be determined if you're hunting in an area where there is a lot of trash metal. For instance, old abandoned homes may have too many pull tabs to operate your unit in the All Metal Mode. By turning on your Discrimination around 12:00, as described earlier, you'll be able to eliminate most of them and isolate the more valuable targets. Remember, you will also be eliminating most all of your iron objects which could very easily be relics.

When hunting in more remote areas such as plowed fields, the trash items are minimized allowing you to use your Tracker in the All Metal Mode. This will increase the possibility of finding iron objects of historical value. If you ever find anything that you feel would be of historical significance for your local community, contact your local museum and let them know the exact location and depth of the item you found. This will enhance the local lore of your community and may even add another page to a history book.

If you find relic hunting interesting, you'll gain great benefit by researching your local library of local historical events that have occurred in your area. You may gain leads to new areas to hunt and at the same time, gain more knowledge of your local history. This knowledge will enhance your perspective and add a new dimension to the way you will view the surrounding area that you live in.

Relic hunting is one way to obtain historical riches. There is no price tag that can be placed on relics found. Although, there are applications for your Tracker that can have a high redemption value like...cache hunting.

Cache Hunting

What is a cache? Pronounced "cash", a cache can be many things. Hidden valuables such as: one's life savings, a coffee can of loose change, a strong box of paper money, a bag of jewelry are only a few samples that can be classified as a cache. A cache is usually not found in parks or ball fields but near old homes, camp sites, caves, remote countryside, etc.

To set up your Tracker metal detector for cache hunting requires that you turn off the Discrimination Mode. Sensitivity needs to be maximized for ultimate depth capability. (Tracker III or IV users: place the toggle switch in the center). Remember, if you're getting false signals, the Sensitivity will have to be cut back slightly. On the Tracker 2-D model, the false signaling can occur in the All Metals Mode by not being properly ground balanced. Refer to the special chapter in this book for Tracker 2-D users.

Now that we have our Tracker in the All Metals Mode, we are ready to approach our cache hunt. There are many reasons we have the Tracker in the All Metals Mode when hunting for caches:

I. A cache is usually buried one to four-feet deep. The Tracker will lose sensitivity once the Discrimination Mode is turned on.

II. Caches may be hidden in an aluminum or tin can, iron box, steel containers like a strong box -- all of these metals are eliminated once you turn on your Discrimination Mode even though there may be silver in the same metal container. If any of these type of metals, that normally would be discriminated out, come in between your coil and the precious metal you're attempting to find, the detector will not emit a tone unless you're in the All Metal Mode.

III. You will be able to permeate all surface trash when in the All Metals Mode, because you will be digging everything. The surface trash would have been a buffer to you in the Discrimination Mode, for you would not have gotten a signal in that same spot even though there might have been a jar of old silver dollars. Of course, this requires that you dig the surface trash and check the same spot where you've removed this same surface trash. This is in case the cache may have been screened out by this same trash.

Let's first examine our approach to cache hunting by creating the most likely sequence of encountering a hidden cache; this would be an old abandoned home site. Why is this? This goes into another complete aspect of treasure hunting: Research. Most of your cache hunting endeavors require common sense combined with research. If you consider the fact that during the Nineteenth Century there were not as many banks, that would mean choices were limited as to where to place your savings.

In fact, at the time, another factor is that banks were not necessarily a secure place to store your wealth; therefore, many people did not believe in banks. So, they had to store their hard-earned money and valuables in a place that they considered secure. Now, we need to put ourselves in their position. Where and how would we hide our valuables? How about the third fence post from the gate? What about at the base of the oak tree in the backyard? Or even, underneath the bedroom window to allow them to keep a vigilance during the evening? You are now beginning to see the possibilities.

Coin-Shooting

Coin-shooting is a true art form. It can take many years of practice to achieve mastery. There are many things to watch and listen for and to truly tune into your detector requires devoted persistence. Coin-shooting is the most popular application of metal detectors today.

Why would this be the most popular detecting pastime? If a coin is old enough, it's usually worth much more than the effort it takes to dig it. There are many other reasons to coin-shoot besides finding pieces of metal authorized by a government as being money. Money defines the age it was minted in. Coin collecting, as a hobby, is enjoyable in itself. The challenge of hitting the field with a metal detector to find collectible coins, is more interesting and less costly than having to buy your coins for your collection from a coin dealer.

To set up our Tracker to find strictly coins, we will adjust the Sensitivity as high as it will go without getting false signals and adjust our Discrimination at three-quarters of a turn. When only digging the high tones, this will eliminate everything but silver, copper, and brass.

You'll be amazed at all the coins you'll find in this setting. The only problem with this setting is that we are also eliminating our nickel. If you want to dig nickels without digging a lot of pull tabs, set up your unit as we described in the "Air Test" to give you a broken tone on the pull tabs and a solid low tone on your nickel. Set your Discrimination at around 12:00 and experiment until you get a solid low tone on your nickel and a broken or double-tone on your pull tab.

Even after adjusting to these specifications, you will still pick up a few pull tabs that will emit a low tone, especially the pull tabs that only have the lip left after being broken in half. These are called "Beaver Tails" and cannot be differentiated from a nickel by your Tracker. They both will emit a solid low tone.

Speaking of coin-shooting, I'm reminded of a local story that involves a Tracker I-D. One buyer of a Tracker I-D metal detector had tried out his detector upon receiving it the same day. He chose to give it its first trial run in his own back yard. Oddly, he had just moved into the home after having it built in a new housing development. Because of this, his back yard was all dirt and hadn't even been landscaped. Remember, this is a new housing area where you would not expect to find anything old or of value. Shortly after turning the unit on, he had received a tone from the unit and decided that it would be a good idea to dig the target to see how the unit was working. When he opened the small tin box that he dug up he found that there was one \$5 Gold Coin and an 1800s dime. The dime turned out to be extremely rare; he sold it wholesale for \$13,000.00. The \$5 Gold Coin went for \$6,000.00. Not bad for his first swing of a Tracker metal detector.

Coin-shooting is obviously lucrative. Yet, another use for the Tracker that is tremendously profitable is...jewelry hunting.

Jewelry Hunting

Now this can be, without a doubt, well worth the effort when applying your Tracker. I've found many rings, both gold and silver, in my time and feel that with practice you will too.

Jewelry items are like coins, they can be lost as coins, just about anywhere there is dirt or grass and people have dwelled there. To concentrate on just finding jewelry requires that you set up your detector to eliminate 95% of the pull tabs you encounter by setting your Discrimination adjustment at around 12:00. This will mean that 85% of your gold rings will be found and all of your silver rings will be found if you're only digging the solid low tones and high tones while avoiding the broken tones.

The main problem with hunting for gold rings is that you'll dig many "Beaver Tails", pull tabs, nickels, etc. before finding your first gold ring.

Only the low tone emitted by your Tracker will determine that you may have encountered a gold ring but the odds are tremendously against you because of the thousands of pull tabs and "Beaver Tails" that are in your way that also may emit a low tone. Even though, this should be looked upon as a challenge instead of a drudgery.

Silver rings will emit a high tone, as do copper and silver coins, and are easier to find.

Gold chains, as gold rings, can also pose a problem when detecting. Chains are the hardest to find out of all jewelry items. Small chains are next to impossible to detect at any depth unless they are piled up. This would allow your detector to have more to detect than just one thin side of the chain.

Up to now we've covered a lot of applications for your Tracker metal detector. Most all of these applications can be a lifetime study in itself. Most certainly, all of them predetermine the setup of your controls on your Tracker. Now let's delve into one of the most pursued forms of "Treasure Hunting" in all of history...gold prospecting.

Gold Prospecting

Metal detectors have been instrumental in creating another gold rush in the last two decades. Older gold mines that have long closed down have reopened using metal detectors as the main tool for gold retrieval. Today, metal detectors are used in every aspect of gold prospecting. From searching out the mother lode to finding "placer" deposits, metal detectors have been found to be indispensable.

Your Tracker was designed to have the capability to eliminate highly mineralized soil conditions commonly encountered when prospecting. It will even permeate "black sand", a high content of iron ore in soil, while still detecting gold nuggets.

To operate your Tracker for finding gold nuggets requires that you turn off your Discrimination control. (Tracker III or IV users: place toggle switch in the center) Most gold prospecting is done in remote areas that are usually known to have produced gold. This will make it easier to detect in the All Metal Mode because of the minimal trash metal encountered.

Usually, if you're getting a repeatable signal, it will mean that it is worth digging.

The main objective in discovering gold with your Tracker, is determining a prime location to hunt. This will more than likely be the determining factor of whether you find gold or not.

The most important approach to gold prospecting, especially if you're a novice, would be lots of research. It's a good idea to spend some time understanding how gold forms and where you're likely to find it through research.

The Tracker metal detector comes standard with a waterproof coil allowing for more versatility when gold prospecting. A lot of nuggets and flakes of gold are discovered in stream beds. These nuggets and flakes usually originated from an outcrop in higher regions that were washed down by rain to be eventually carried away by streams. When prospecting with a metal detector it is very difficult to find the flakes of gold because of their small size. Nuggets are easily detected and can be found in stream beds, especially where a stream slows down or takes a sharp turn.

Gold nuggets can also be found in dry river beds, mountain sides, and even in deserts. How many nuggets you find will be dependent on how serious you are about acquiring the necessary knowledge to make it a profitable hobby. Successful gold prospecting can take many years of devoted study and practice.

The Tracker metal detector is a tremendous tool and requires the expertise only derived from many hours of practice in all areas of application. Where do the possible uses stop for the Tracker metal detector? Read on about the many...other ways to use your Tracker.

Other Ways to Use Your Tracker

There are other applications outside of the "Treasure Hunting" category which will reveal to you the many other practical ways for using your Tracker.

1. You can use your Tracker for finding survey landmarks or stakes that delineate property lines. To do this, you need to keep in mind what types of metal they are made of. Most landmarks and stakes are made of iron. Because of this, you cannot operate your Tracker in the Discrimination Mode for you will not be able to detect iron objects. Fortunately, there usually is not a lot of trash metal to contend with when hunting for landmarks, and you should have no trouble operating in the All Metals Motion Mode.

2. Plumbing is also another application. If you ever need to find a shutoff valve or possibly a pipe, that is not too deep, your Tracker may also fill your needs. Again, you have to consider what type of metal you're detecting. If your shutoff valve is made of brass, you will be able to detect it in the Discrimination Motion Mode. If any of your plumbing fittings you're looking for are made of iron or galvanized steel you will have to operate in the All Metals Motion Mode to be able to detect them.

3. Finding nails in boards before breaking or wearing out your saw blade on it, is also an excellent application for your Tracker. Remember, your Tracker will usually not pick up a nail in the Discrimination Motion Mode -- use the All Metals Motion Mode. Many lumber yards are using the Tracker for this same purpose.

4. If you're into archery, you know how expensive it can be to lose metal arrowheads. The Tracker has been used effectively to recover arrowheads for many serious archers.

5. Studs in walls can be found in the All Metals Mode because of the nails used to hang the drywall. If you're looking for a sturdy place to hang that heavy picture frame, pull out your Tracker.

6. Sharp trash metal can be cleared out of play areas or swimming areas for further safety.

These are only a few other possible applications for your Tracker metal detector. I'm sure you will think of other practical ways to use your Tracker for good effect. The possible applications are truly endless!

We now need to consider the finer aspects of tuning by learning...ground balancing for the Tracker 2-D. This will not apply to the Tracker I or Tracker III or IV since they have automatic ground balancing.

Tracker 2-D Ground Balancing

Explanation:

The Tracker 2-D has one added control that the Tracker I does not possess: Manual Ground Balance for the All Metal Mode.

The Tracker 2-D has automatic ground balancing when the Discrimination is turned on. The Tracker 2-D's Ground Balance adjustment only applies when the Discrimination is turned off (All Metal mode).

All detectors operate with compensation for the mineral conditions or matrix of the soil, whether automatic or manual. The Tracker I-D, Tracker III and Tracker IV have automatic ground balancing which is preset at the factory; whereas, the Tracker 2-D has manual adjustment for ground balancing.

The main benefit of manual ground balancing:

You will be able to fine tune your Ground Balance control to give you maximum performance in highly mineralized soil conditions.

Automatic ground balancing on the Tracker I-D and Tracker III or IV has its advantages too -- especially when hunting beaches near saltwater. It can be lot easier to depend on the factory setting for salt condition than to have to learn how to manually ground balance for this type of highly mineralized condition. When in a hurry, it's also nice to be able to throw your detector in the All Metals Motion Mode without any further adjustment. So, depending on your use of your Tracker usually will determine the advantage of possessing one feature over the other.

Tracker 2-D Operation Only:

When using your Tracker 2-D in the All Metals Motion Mode, the Ground Balance will usually need to be adjusted only once in normal operation.

In other words, you need to adjust your Ground Balance to the soil conditions of the area you're hunting and, unless we change areas, usually we will not have to adjust it again. If you're gold prospecting, you may have to adjust more often depending on how many mineralized pockets of soil you encounter.

Refer to your Tracker 2-D instruction manual for further explanation on how to adjust your Ground Balance control.

If you're a Tracker III or IV owner it might benefit you to know of the special features your unit offers illustrated in the next chapter.

TRACKER III & TRACKER IV

FEATURES

The main feature that differentiates the Tracker III or IV from the Tracker I-D and 2-D is a three-position toggle switch. This toggle switch enables the user to either detect all metal, identify targets by tone or to fully reject trash -- all three positions require motion when targeting a metal object.

1. **TONE DISCRIMINATE:** This position operates the same as the Tracker I-D and 2-D with their Discrimination turned on. When operating the Tracker III or IV in this mode, you will achieve two tones depending where the Discrimination knob is tuned.

2. **FULL DISCRIMINATE:** This feature is unique to the Tracker III or IV only. When the toggle switch is set all the way to the left, in 'Full Discriminate', the detector will not emit any tones for pull tabs, gold rings, etc. This applies when the Discrimination knob is tuned at a higher position. When the Discrimination is tuned lower you will hear only a high tone on all types of metal.

3. **ALL METAL:** When the toggle switch is in the center position, the Tracker III or IV is in the 'All Metal Motion Mode'. All metals will be detected no matter where the Discrimination knob is tuned. The Discrimination shuts down completely.

Each one of these controls is used for special applications as is illustrated in previous chapters.

TECHNIQUES IN THE FIELD

After getting this far, you've learned the many ways to operate your Tracker, and yet there are many other aspects of detecting such as...utilizing special techniques in the field.

There are many approaches to operating your Tracker in the field. Let's first discuss the proper way that the coil should be swept. Your Tracker was designed to only target a piece of metal when the coil is in motion whether in the Discrimination Mode or in All Metals Mode. So how you swing your coil is very critical. The most effective way, both in increasing target accuracy and covering more territory, is by using the half-circle method.

Technique for Coil Motion--

The Half Circle Method:

Keep your coil always level with the ground. Never swing your coil as if it was a pendulum (by raising it off the ground on both ends of a swing).

Every step forward draw a half-circle in front of you as illustrated in the diagram below. This will maximize the territory you're covering and guarantee that you will not miss any targets in your path.

Digging Tools--

This can be a very critical decision. There are many choices and each one of them would be predetermined by what you will be looking for. For coin-shooting you can effectively use a knife, a small garden trowel, a probe (a long screwdriver for instance), etc. Whenever you are hunting a yard or a park you must consider using the most least conspicuous tool possible. Most coins are found 6 inches or less in the soil and do not justify a large shovel to dig them up.

Always remember, you're pursuing a hobby that requires a lot of respect for property and by using a small digging tool you will appear harmless in the field. When and if you are going to use your Tracker for larger objects besides coins, such as caches and relics, then you may have to resort to using a larger digging tool since you'll be detecting further depths.

Fortunately, most of this type of hunting is done in more remote areas and should not warrant having to be methodical in your digging approach to protect grass. Even though, always be careful to cover your holes wherever you hunt. Be respectful of property and always attempt to leave the area in the exact same condition as when you arrived.

BATTERIES

By utilizing certain techniques, you can add to the life of your batteries.

A. Use Headphones: By using headphones you're stressing the batteries far less and in consequence increasing their life.

B. Buy Quality Batteries: Alkaline batteries are your best choice for longer life and maximum performance.

C. Switching Batteries: By switching the left battery with the right halfway through their estimated life, you will be balancing the energy draw. One of the batteries drives the audio on your unit and has more drain on average than the other battery.

D. Store Batteries Properly: Never leave your batteries in the unit for long periods when not using your detector. Battery leakage can occur damaging the battery compartment and possibly the circuitry.

E. Rechargeables: 9-Volt Rechargeable batteries can be used in the Tracker but do not expect the same life or performance that a commercial battery provides.

DEPTH CAPABILITY

The most commonly asked question of the novice detectorist is: How deep does my detector go? There are multiple factors that come into play when determining the depth capability of a detector. The following considerations, as they apply to the Tracker, may assist you in gaining an idea of the many influences.

I. Size of Object: This is the most important factor that will influence the depth of your Tracker. For instance, you may only be able to detect a quarter at 6-8 inches but a large container of hundreds of quarters can possibly be detected at 3 feet and upwards.

II. Matrix of the Soil: The mineral content of the soil you're detecting in will undoubtedly affect the depth capability of your detector.

III. Operator's Expertise: The more you practice with your Tracker the more likely you will tune in to your detector and begin to find deeper objects that beginners would walk right over.

IV. Sensitivity Control: Your Tracker's Sensitivity Mode can be adjusted to maximize depth, but you have to be careful not to ride your Sensitivity too high or you may also get a lot of false signaling.

V. Discrimination Control: Whenever you turn your Discrimination control on you will lose a little sensitivity, and when you do feel you need the extra depth, it is best to operate in the All Metals Motion Mode.

VI. Oxidation: The longer an object is buried, the more the conductivity. If for instance you were to bury a new quarter you would go only 6 inches or less on it as compared to a quarter that's been buried for 30 years you may detect upwards of 8 inches.

TECHNOLOGY OF METAL DETECTING

You should be, by now, a little curious about the wonders of the technology that drives a metal detector.

To illustrate the true complexity of how the Tracker accomplishes the task of finding metal, would require a few hundred pages and a large dictionary to decipher the terminology related to electronics

It is a good idea just the same to make an attempt to understand what basically makes a metal detector tick. This understanding might even improve your technique.

The batteries drive the circuitry to emit electromagnetic wavelengths into the soil where metal may or may not be present.

If there is metal, the electromagnetic wavelengths will be absorbed by the metal and will deplete the signal being emitted. This depletion of signal is recognized by the circuitry by a phase shift in the coil, depending on the alloy and size of the metal, the Tracker will then decide if it is to emit no tone (In Discrimination for iron, etc.), a low tone (nickels, "beaver tails", gold rings, etc.), or a high tone (silver, copper, brass, etc.)

This is only meant to be an overview of how the Tracker electronics function. Hopefully, this piques your interest in the wonders of metal detecting technology.

To truly tap into the full potential of your Tracker, always remember that ...practice makes perfect.

PRACTICE MAKES PERFECT

Don't get discouraged if you feel you aren't learning how to operate your Tracker as quick as you would like. Most of what you'll learn will depend on how much you practice. There are so many subtle aspects to detecting that cannot be learned from a book. As you work with your Tracker in the field, you'll acquire more and more knowledge that will accumulate and refine your skills with your Tracker.

I feel that no matter how many times I swing a coil, there's always something new to learn. Mastering the art of metal detecting can take many years of practice. The many interesting and valuable metal objects that you will dig up, and the many hours of enjoyment gained from swinging your Tracker coil, will make the learning process enjoyable and certainly not a drudgery.

After gaining the confidence in learning how to fully operate your Tracker and mastering the techniques described in this guide, you will find it easier to practice because you've bypassed many of the frustrations normally encountered in the field.

TAKING THE NEXT STEP

The Tracker I-D, Tracker 2-D, and Tracker III or IV, are excellent metal detectors that suffice for many types of uses. Today's Bounty Hunter and Teknetics technology offers the full spectrum of metal detectors which offer every feature imaginable.

These major developments and engineering feats surpasses the industry standard and make the hobby of metal detecting rewarding and especially more fun to pursue.

If you've gotten this far, and applied all experiments and techniques illustrated in this book, you are sufficiently prepared for most any type of in-the-field encounter. Again, most of the knowledge you gain will be in applying your Tracker not reading about it. So keep on digging and always remember the...

TREASURE HUNTER'S CODE OF ETHICS

1. Respect the rights and property of others.
2. Observe all laws, whether national, state or local.
3. Never destroy historical or archaeological treasures.
4. Leave the land & vegetation as it was. Fill in all holes.
5. All treasure hunters may be judged by the example you set. Always obtain permission before searching any site. Be extremely careful with your probing, picking up and discarding of trash, and

ALWAYS COVER YOUR HOLES!

The End.

**Bounty Hunter® Metal Detectors
First Texas Manufacturing Co.
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