

Update on Gold Trax to read before reading Finch report

Discovery Electronics Gold Trax Module has been revised and unfortunately the revision did not occur in time to be part of Gary Finch's field test. The report as written was thorough, concise, and very accurate with regards the module Gary had at the time. Here are the features and changes now on the latest version:

1. Audio Iron Indication - When operating in the no-motion all metal mode, with auto-tune activated, iron and other ferrous targets now produce a broken or "chirping" audio signal. This allows more effective nugget hunting in the all metal mode.
2. Keypad Selectable Autotune Speed - The autotune retune speed in the all metal mode can now be easily adjusted from the keypad.
3. More Sensitivity - the maximum sensitivity has now been increased by 4 steps over the original program. This effectively adds 1-4 inches more depth to the unit.
4. Smoother overall performance - Less false audio and iron LED signals. More accurate audio indication of ferrous targets, and fewer false ferrous indications on small gold targets.

Also, please note that the 6x9 elliptical coil will be out about the first of March. It has a manufactures suggested retail of \$99.95

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Treasure Baron Gold Trax Module Field Test Report

Everyone knows that to get the best performance from a VLF metal detector it must be properly ground balanced, and the higher the degree of ground mineralization, the more critical accurate ground balance becomes.

No one is more aware of this fact than gold hunters who use metal detectors! Small gold flakes and nuggets can be difficult targets under the best of conditions, and virtually impossible to find in extreme mineralization.

The Minelab detectors have made quite a name for themselves with their microprocessor-controlled automatic ground balancing circuits, and the White's Spectrum and Garrett CX detectors also have the same capability. Of course these are expensive top-of-the-line detectors, and many detectorists just can't afford to spend that much on a metal detector.

Enter discovery Electronics, with a new module called the Gold Trax for their Treasure Baron which has the best ground tracking and balancing I've seen yet on any metal detector! Why the best? Performance and price! And automatic ground tracking isn't the only reason to own the Gold Trax Module; it has a host of other useful features that enhance the performance of the Baron.

Thanks to the efforts of Ron Shearer at Discovery I was able to test a Gold Trax Module from the first production run; it even had George Payne's initials marked on the circuit board, which indicates that he personally inspected and tested it. My own inspection of the board showed the typical high quality of all Discovery Electronics products: top quality components, careful assembly, and excellent solder joints on all components. Installation in the detector was quick and easy. The Gold Trax module installs in the same location as the Pro Hunter module. The directions are very clear and it's a breeze. I immediately noticed that Discovery had corrected the two minor complaints I had about the Treasure Baron when I field tested it previously: the push-in DIN-type coil connector has been replaced by a locking DIN connector, and the searchcoil cable has been lengthened enough to allow hip mounting the case on the left side while running the cable through my rear belt loops. Rapid response to customer input is one big point in Discovery's favor; the other major metal detector manufacturers would do well to copy their example, rather than making excuses for obvious flaws in design!

The instructions I received with the module were very complete, although the amount of information might have overwhelmed the average detectorist. They have already rewritten the manual, and included helpful graphics on the different key sequences that really simplify them.

Again, this is another good example of their ongoing commitment to aid their customers in every way possible.

Now let's get into the Gold Trax module and see what it has to offer, because it's loaded with new features and really opens up a lot of bright new horizons for the Treasure Baron owner.

For the purpose of clarity I'm going to list it's features first, then go into the control functions of the keys.

Gold Trax Features

- * Selectable ground tracking-TRAX [tracking] or FIX
- * 8 different ground tracking speeds
- * Selectable Iron Target Tracking Inhibit feature
- * Automatic Ground Tracking operates in both motion and no-motion modes
- * Manual ground balance adjustment if desired
- * Ground Balance Offset adjustment for enhancing target response and eliminating "hot rocks"
- * Iron indicating LED
- * Adjustable audio threshold in all metal mode
- * Adjustable sensitivity in all metal mode
- * Full time LED battery check
- * Rugged, high quality keypad with good tactile feedback and positive response

This list does not include all the features of the Gold Trax module, but these are the major features.

True Automatic Ground Balancing

Most detectorist today should understand the difference between factory preset ground balance and true automatic ground balance, but just in case you are still a little foggy on this, I'll explain it one more time.

Metal detectors with factory preset ground balance have a fixed ground balance point and are adjusted for worst case mineralization. This is not true automatic ground balance, because this adjustment is fixed and never varies. In contrast, a true automatic ground balance circuit constantly tracks ground mineralization and varies the ground balance adjustment to provide the very best performance possible for any ground conditions.

Typically a detector with true automatic ground balance will use a microprocessor-controlled circuit running on a control program to provide and handle all the electronic functions necessary, in the same way that a lot of modern machines are controlled. The most common term for this type of control is "computerized", although this term is not always technically correct. The White's Eagle and the Minelab detectors were the first units to really popularize microprocessor-controlled detectors. Other manufacturers have followed suit, with varying degrees of success.

Like all electronic circuits, microprocessor-controlled circuits have their advantages and disadvantages.

The real key to the success of any microprocessor-controlled metal detector is the program.

The microprocessor-controlled circuitry of the Gold Trax does just what it's name implies: it automatically tracks and cancels ground mineralization. The tracking speed is selectable by the operator if desired; 8 different tracking speeds are available, ranging from very slow to very fast.

The factory preset tracking speed proved to be a very good choice for moderate to high mineralization and it should do a good job in most areas.

The gold Trax does an excellent job of tracking and cancelling negative ground minerals without mistakenly locking onto low conductivity targets like small ferrous trash bits and attempting

TO CANCEL THEM.

THIS IS A VERY IMPORTANT FEATURE BECAUSE OTHER

auto ground tracking detectors have had this problem. The Gold Trax is the best in this respect of all auto ground tracking detectors I've tested. There are basically three different methods you can use to initially set up the automatic ground track feature, and they all work well.

The first is the good old "turn on and go" method. Just turn the detector on, lower the coil to the ground in an area free of metal targets, and begin scanning as you normally would when hunting. The detector will be operating with the factory preset program values: factory preset audio threshold, auto ground tracking and iron inhibit on, and a sensitivity setting of 80%. Within a few seconds the Gold Trax will properly ground balance the detector and you can hunt as you normally would. This method obviously has the benefit of simplicity, but it's not as fast as the factory recommended Turbo method.

To use the Turbo ground balancing method, turn the detector on, lower the coil to the ground, press and hold the mode switch with your free hand to the all metal retune position [to the left] while scanning the ground. In 1-2 seconds the Gold Trax will ground balance and you can continue to hunt. This is the recommended method and it was also my favorite. The third method could be necessary in areas of very light mineralization where the Gold Trax might have difficulty locking on the ground. [I never found it necessary to use this method, but it's also included in the instructions.] Hold the coil in the air away from the ground or any metal, hold the in the all metal retune position for 1-2 seconds, then lower the coil to the ground and hold it at your normal search height for 1-2 seconds, then release the Mode switch. The LED will flicker or go off if the Baron is correctly ground balanced.

Remember, this will only be necessary when negative ground mineralization is extremely light.

Have you noticed anything about these initial ground balancing methods? That's right, with the exception of extremely light mineralization, it's not necessary [nor is it desirable] to ground balance in the air or "pump" the coil up and down several times to set up the ground balance.

The Gold Trax is simpler to set up and an improvement over other automatic ground tracking detectors which require initial "air" ground balancing or "pumping" the coil.

Manual ground balance can also easily be done when desired: just turn off the automatic ground tracking and you can manually ground balance the Gold Trax via the key pad. This will be covered later in the explanation of key functions. Another handy option is the fixed preset ground balance setting, which is the best choice for beach hunting or other positively mineralized ground.

Target Tracking Inhibit

This is a great feature, and I think it ought to be on every auto ground tracking detector! All auto ground tracking detectors have relatively little difficulty ignoring conductive metal targets while tracking and balancing out negative ground. Small ferrous targets are another matter entirely.

Due to the relatively small phase difference between small ferrous targets and ground mineralization, auto tracking detectors have an innate tendency to lock onto these junk targets and attempt

to cancel them . When this happens your ground balance goes out the window!

Target Tracking Inhibit prevents the Gold Trax from locking onto ferrous targets without interfering with the audio and visual detection of them. In other words, if you have your discrimination set low enough to detect iron targets you will get a normal audio target response and visual response on the iron-indicating LED, but the Gold Trax will still track and balance out the mineralization without locking onto junk. As all nugget hunters know, old mining areas are usually loaded with small rusty ferrous targets that can really make life miserable. Some areas are so bad that the only method that works is to hunt in the all metal mode and dig every target, hoping all the while that a nugget or two is hidden by the junk. Needless to say, this gets old in a hurry! The Gold Trax Target Tracking Inhibit feature helps alleviate this problem considerably.

Ground Balance Offsets

You might ask, if the Gold Trax does such a good job of automatically balancing the ground, why would you want to manually offset the ground balance? As it turns out, there are some situations where this option can be quite useful. Often a slightly positive ground balance setting will produce better target response on small and deeply buried targets of low conductivity like gold nuggets.

Offsetting the ground balance can also help eliminate signals from hot and cold rocks when nugget hunting.

With the Gold Trax you can manually offset the ground balance setting and the Gold Trax will continue to track and balance out the ground mineralization, while still maintaining the selected degree of positive or negative offset. Nugget hunters will undoubtedly love this feature.

At this point it will be helpful to introduce the different keys that control the Gold Trax module and explain their different functions.

In the following explanation of control functions, it's important to keep in mind which ones are Gold Trax module functions and which are Treasure Baron control functions. The Gold Trax keypad is really quite simple and straightforward, but some keys have multiple functions.

To make sure that a key instruction has been accepted, watch the Iron LED: Whenever the program accepts a key instruction the LED will light momentarily. If the keypad operation requires multiple keys, the operator has 1.3 seconds after the first key is pressed to press the next key. If more than 1.3 seconds passes before the next key in the sequence is pressed, the keypad program will reset itself and the operation must be repeated.

Again, watch the LED while pressing the keys, it will light momentarily after each valid keypad entry. All this sounds more complicated than it really is.

When the detector is turned on, the Gold Trax powers up with the factory preset program: auto ground tracking on, target tracking inhibit on, no ground balance offsets, and all metal mode sensitivity 2 steps below maximum.

If you get confused while keying in adjustments, you can always

return to the factory preset program by pressing the CLR key twice in rapid succession. This is the clear all function, and clears all operator selected adjustments. Of course, you could also turn off the detector, wait 5-10 seconds, and then turn it back on.

The end result is the same- the program resets to the factory preset program. Here's a list of the functions that can be adjusted by the operator:

Automatic Ground Tracking: To turn it off, press the GRD key, then the OFF key. To turn it back on, press the GRD key, then the ON key.

To increase the tracking speed, first press and release the GRD key, then press and HOLD the SLEW key. While holding the SLEW key, press and release the ON key. Each time you press and release the ON key the ground tracking speed will be doubled. There are 8 steps in the tracking speed adjustment, so the fastest speed is 128 times as fast as the slowest speed. To decrease the tracking speed, use the same procedure but instead of pressing the ON key, press the OFF key to decrease the tracking speed by one step each time you press the OFF key. To clear all tracking speed changes, press the GND key, then press the CLR key. You have 1.3 seconds to press CLR after you release the GRD key. The LED will light if you did it correctly. With a little practice these key sequences become quick and natural. Anyone who has used any other microprocessor-controlled detector will quickly feel at home with the Gold Trax keypad, and even first timers should be up and running with a minimum of problems. If you have a problem, just stop a moment and think about what you might be doing wrong.

Manual Ground Balance

The auto ground tracking and balancing feature of the Gold Trax module works so well that it will probably be the preferred method in most hunting situations, but the Gold Trax also offers the option of manual ground balance if desired. All you have to do is turn off Auto Tracking by pressing the GND key, then press the OFF key.

Now press and hold the SLEW key, and push either the ON or OFF key repeatedly to increment the ground balance up or down. Each press of the ON or OFF produces a ground balance change that is just barely noticeable in the pinpoint mode in a bench test.

Ground Balance Offsets

As noted previously, sooner or later you may want to use a ground balance offset for special situations.

Suppose, for example, that you are hunting for small gold nuggets in an area that is loaded with pockets of black sand and "cold" rocks. This type of mineralization will tend to null the detector threshold and ignore the weak signals from small nuggets. Operating with a positive ground balance offset will reduce the black sand and "cold rock" responses, while increasing the response from small conductive targets. Often this will be the difference between finding gold nuggets and total failure.

This is also true of areas where the ground matrix is composed of a bed of crushed and processed ore that has a slightly positive response. [This situation is sometimes found in roadbeds in old mining areas.] Here operating with a negative ground balance offset could improve your chances of finding a small nugget.

These same general guidelines also hold true for other types of hunting besides nugget hunting. Experienced coin hunters have known about and used ground balance offsets for years to improve detector response on small, deep coins in highly mineralized ground. Hey, it works!

To add positive ground balance offset, press and hold the SLEW key, then press the ON key. Each time you press the ON key while holding the SLEW key, the ground balance offset will be increased by one increment. When finished release the SLEW key, the keypad will reset and you're ready to hunt again.

To decrease the ground balance offset or add a negative offset, follow the same procedure, but use the OFF key instead of the ON key. To clear out all ground balance offsets, press the SLEW key and then press the CLR key. The Gold Trax will then return to automatic ground tracking with no ground offsets. The Gold Trax handles hot and cold rocks so well that you probably won't need to use offsets very often, but the capability is there if you need it.

Preset [Fixed] Ground Balance

The Gold Trax can be operated with fixed preset ground balance if desired. This may be the method of choice in areas of positive mineralization like salt water beaches, and is the factory recommended mode for salt water use.

The Gold Trax Auto Tracking program is designed for negative mineralization, and does not have enough range to track positive mineralization. The preset GB mode does a good job of this, and I experienced no problems with it.

Gold Trax Bench Test

Bench testing the Gold Trax was a pleasure! All keypad operations performed exactly as the instructions indicated and I did not have a single problem of any kind.

I really love this keypad! It's a high quality unit, with a good solid "click" feel when the keys engage. Everything works like it should, what more can I say?

The keypad program is a tribute to George Payne and the rest of the team at Discovery: it is extremely well thought-out and logical, and it integrates a large number of functions while retaining simplicity of operation. This goal is more difficult to achieve than most people realize, and the success or failure of any computer controlled device often hinges on the quality of the operating program.

The basic Gold Trax operating program is first rate in every respect, and works well.

—In conducting my bench tests, I was interested in three main areas: sensitivity, stability, and response to "hot rocks" and "cold rocks"! Most detectorists use the term "hot rock" for any rock that causes a detector response in the all metal mode, and this is not correct.

A so-called "hot rock" has a greater degree of POSITIVE mineralization than the ground matrix, while a "cold rock" has a greater degree of negative mineralization than the ground matrix. This is important to understand, because the techniques to overcome these problems are different.

Hot rocks are often pieces of low grade conductive ore, while cold rocks are usually composed of magnetite, which when decomposed

becomes black sand.

Now that's clear, back to the bench tests! I set up the detector with the factory default values: sensitivity 2 steps below maximum, factory preset audio threshold, disc. at 0, and no ground balance offsets. I tested the Gold Trax on a large number of cold rocks of different sizes, and 2 small hot rocks. The detector totally ignored all the cold rocks in both the Auto Ground Tracking and the Preset modes. Out of curiosity, I also tested the detector with my Fisher ferrite balancing wand, and there was no response at all.

Not only did it ignore the cold rocks, there was no faint static noise, nothing! This is truly excellent performance.

There was only a very soft response to the 2 hot rocks, and then only when they were within 2 inches of the coil.

They gave a soft "mushy" sound that was quite easy to distinguish from a good target.

Sensitivity and good target response on good targets was excellent: a \$2" gold coin produced a good solid hit in the motion mode at 10 inches, and a \$5 gold coin at 12 inches. These were fairly loud responses, and not weak "whisper" signals.

Target responses at these distances in the no-motion all metal mode were softer, but definitely good targets.

Sensitivity to smaller targets was excellent; both a little 5 grain nugget in quartz and a very fine 10 grain 14K gold ankle chain gave a good signal in the motion mode at 3 inches away from the coil, and the same distance in the all metal mode. The 10 grain ankle chain is one of my own standard test pieces for gold detectors; many detectors won't give any signal on it at all, even with the chain brushing the coil. My testing indicates that the lower limit on the size of gold flakes you will be able to detect with the Treasure Baron/Gold Trax combination is about 2 grains; pieces smaller than this are ignored. I don't find this to be any problem, because I prefer other methods of recovery for the really small and fine gold anyway.

It's important to note that like all other gold detectors, turning up the discrimination on the Treasure Baron even slightly in the motion mode will cause the really small nuggets to be rejected, but this is to be expected.

I did not attempt to test and evaluate ground tracking accuracy and speed on the bench, because these factors can only be accurately tested and evaluated in the field, under actual hunting conditions.

In the moderately iron mineralized soil of my back yard, the 5 grain nugget and the 10 grain ankle chain were detected as deeply in the ground as they were in the air tests.

A larger 19 grain irregular nugget buried 6 inches deep was easily detected in both all metal and motion modes, with a good solid signal. Burying it at 7 inches resulted in a weak but good signals in both modes, and if it had been deeper than this I doubt I would have heard it under actual hunting conditions. I performed all these tests with the detector at factory preset sensitivity setting-2 steps below maximum. I tested these buried targets in both the Auto Tracking mode and the manual ground balance mode, and the results were identical. This tells me the Gold Trax does an excellent job of tracking and cancelling the ground mineralization.

One test I conducted was impressive: I spread 5 cold rocks on the surface and spaced them about 3 inches apart, and in the middle put the 19 grain nugget. Scanning them all I was able to get a signal on the nugget 3-4 inches above the ground, while virtually ignoring the cold rocks. Whether or not this can also be done in the field under actual hunting conditions remains to be seen, but these results would indicate that this may be feasible.

If you nugget hunt in the motion mode, I recommend a 0 discrimination setting at all times, while using the Iron LED and your ears to help sort out the small trash.

You can adjust the discrimination control to give a low tone on iron targets and a high tone on gold, and will still get larger gold nuggets, but will miss a lot of small stuff.

It's just like fishing; you can go out with a cane pole and redworms and catch a lot of little ones, or you can go bass fishing with a stout rod and big plugs and try for a trophy!

Whatever you catch they're all still fish, and you can eat them all. It just takes a lot more of the little ones to equal one big one! We get a lot bigger thrill from one big one, but still take them all home! [Sorry, but I just couldn't resist throwing in a little homespun philosophy!]

Off to the Gold Fields

I field tested the Gold Trax Module at a number of sites, but due to the length of this article I am going to report on two, since results were basically the same at all locations.

I'm fortunate to live only about 45 minutes from the old gold mining areas of North Carolina, so a nugget hunting field test doesn't have to be an all week-end affair. My first test site was in Davidson County near the village of Sid.

There were several old mines and diggings in this area and most of the old workings were done before 1900.

I'd previously found some very interesting information in an old North Carolina Geological Survey book that was published in 1910, and I'll quote the passage here: "The mine has been worked entirely for gold, which occurs very irregularly mixed through a large mass of quartz. Upon the knoll, in connection with the quartz occurs a light grey, massive rock, which may represent a rhyolite or acid tuff, probably the latter. This is filled with small quartz seams, said to carry good gold values.

A very large proportion of the gold is crystalline. The pockets that contain the gold crystals usually lie in a red siliceous clay, which has been derived from the rock in contact with a seam of quartz. Some of the pockets have furnished 500 to 600 dollars of crystalline gold. Gold has been abundantly panned just west of the knoll and along a small stream".

Now if this doesn't get your blood stirring, you're either dead or need to take up some less exciting endeavor like needlepoint or chinese checkers!

The estimate of \$500 to \$600 of gold in each pocket was made when gold was only \$20 per ounce, so these pockets must have contained 25 to 30 ounces of gold!

Best of all, the description of the location was so clear that on a scouting trip I was able to find and verify the location in 30 minutes. The only problem turned out to be deer hunters, but this

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was solved by hunting in the middle of the day. The old main shaft has been filled in with rock, and the entire hillside is littered with broken quartz.

I chose to hunt the hillside, hoping to hit a piece of rich float or a pocket. I set the Treasure Baron in the motion mode at zero discrimination, ground balanced the Gold Trax in the Turbo Mode, and carefully worked my way along the hillside. This wasn't as easy as it sounds, because the scrub brush was thick, and small potholes were everywhere on the slope.

After 2 hours the only targets I'd dug were a handful of brass shoe eyelets and .22 bullets. I decided to give it another hour, and then call it a day. Nugget hunting can be frustrating at times because nuggets are usually few and far between, even in good locations. Another hour of hunting only produced more .22 cases and a very old brass shoe buckle from a depth of 8 inches. But finally fatigue won out, and I packed it in for the day.

Although I didn't find any nuggets, I was well satisfied with the operation of the Gold Trax. The ease of operating the detector in the Auto Ground Tracking motion mode enabled me to concentrate on good targets, without constantly adjusting the ground balance and digging a lot of junk ferrous targets.

High Rock Lake

I had previously tested the Treasure Baron with the Pro Hunter module here with excellent results, and chose to hunt it again with the Gold Trax. I was interested in whether or not the Gold Trax module would have any real advantage over the Pro Hunter module in these highly mineralized conditions. [O.K., I'll admit I was also hoping to find some gold jewelry- Hey, gold is gold in any form!]

High Rock Lake is a manmade impoundment of the Yadkin River, and the water level is regularly lowered in fall and winter by letting water out of the dam. Thanks to the mild N. Carolina climate, shallow water hunting then is a feasible proposition with no interference from swimmers or boaters. Black sand and hot rocks here are fierce-much of High Rock Lake actually covers some old mines and prospects. Burying a nickel on the huntsite, I was able to get a good solid signal on it at 7" in the motion mode with sensitivity at the factory preset position.

After hunting for a while with low discrimination and digging a ton of small foil pieces and other assorted non ferrous junk, I decided to turn the discrimination up a little in the hope of finding something other than trash.

I started to pass by a broken signal that gave an Iron LED indication in one direction, but read good scanning in the other direction. I rechecked this target, pinpointed it, and recovered a small 14K gold earring from 5" deep.

I carefully checked the surrounding area, but couldn't come up with the mate to the earring. Concentrating my efforts below the waterline, I was able to recover an 18" fine gold chain and two gold rings; one a 10K medium mans wedding band, and the other a 14K ladies ring set with a nice blue topaz. The Gold Trax worked perfectly, smoothly balancing out the radical ground mineralization that makes hunting in these conditions difficult and often frustrating. I experimented with the ground tracking speed and sensitivity, but found that the factory default settings were about

right for the conditions and my scanning speed. Increasing the sensitivity all the way to maximum resulted in more false signals from trash and hot rock responses, and didn't produce any increase in the number of good targets recovered.

I was well satisfied with the Treasure Baron and the Gold Trax module at this location. I preferred the Gold Trax module over the Pro Hunter module in this area, because previously with the Pro Hunter module it was necessary to continually stop and adjust the ground balance setting maintain good performance. The Gold Trax module also seemed to provide better depth on good targets, although this may be a benefit of smoother operation rather than increased sensitivity. The bottom line is, the Treasure Baron/Gold Trax combination produced well under these conditions.

Hopefully by now you have a good idea of the many capabilities of the Gold Trax module. I tried my darndest to find a problem with it, but the only suggestion I could come up with has already been corrected by a program revision. That would be to have a keypad selectable variable speed autotune adjustment. This would be for the benefit of those who want to nugget hunt in the no-motion all metal mode. Of course that's one of the advantages of microprocessor control: functions can be added, deleted, or changed easily by just revising the microprocessor operating program. Discovery has already revised the Gold Trax program, and I've included the new features at the end of this article.

Other uses of the Gold Trax Module

One point I'd like to stress is that the Gold Trax module is good for much more than just prospecting! It adds a host of super features to the Treasure Baron, while not compromising any of the great depth, discrimination, and tone I.D. features already present in the Baron.

Whether you are nugget hunting, coin hunting, or relic hunting the Gold Trax just operates smoothly, silently and automatically in the background, keeping your ground balance always set at the optimum point for the best possible performance. Relic hunters should really love it, because they usually hunt with a low discrimination level, and only wish to know whether or not a target is iron.

The same goes for experienced coinshooters who like to hunt older sites at lower discrimination levels.

The Gold Trax is compatibly with the other Treasure Baron modules . For instance, I tested it with the Deep Hunter module and it worked well, although due to the increased power of the Deep Hunter Module operation in highly mineralized locations was noisy and occasionally erratic. I'm not necessarily recommending using the Gold Trax with the Deep Hunter module; I just want to make the point that it is possible.In my opinion the Gold Trax Module makes the Treasure Baron a far better all around detector than other auto ground tracking units like the Minelab detectors, which are really prospecting units with an added discrimination mode.I believe that auto ground tracking detectors are the "new wave" of the future; they simply have too much going for them for the experienced detectorists to ignore.

The Gold Trax also offers selectable tracking speed, manual ground balance if desired, visual iron target I.D., and the ability

ground balance if desired, visual iron target I.D., and the ability to operate with ground balance offsets for special hunting conditions. These would be noteworthy features in the most expensive units, but in an add-on module for a mid-priced detector they are truly amazing! One item I would like to see for nugget hunting is a small coil in the 4-5 inch range for the Treasure Baron. My latest information is that Discovery will be coming out with an elliptical 6x9 coil in a few weeks. Still, I personally would like to see a 4 or 5 inch round concentric coil, which would also be useful for coin and jewelry hunting.

Price versus Value

I bet I know what you're probably thinking about now! "This all sounds too good to be true, so the Gold Trax must cost a fortune, right?". Wrong! The retail price of the Gold Trax is \$269.95. Now this is retail, and if you can find a dealer with a kind heart you can usually get the module for 10% less. Have you priced a good microprocessor controlled nugget detector lately? You'll have to \$600 to \$800 for one! This is what I mean by price versus value; with the Gold Trax module you really get what you pay for in performance. With update chips, new and improved features can easily be added at nominal cost.

Overall Performance Rating

I honestly have to rate the Gold Trax Module as truly excellent in all respects. It turns the Treasure Baron into a prospecting detector that will hold it's own with most of the other popular nugget detectors.

It won't find tiny sub-grain pieces that the hottest nugget hunters like the Whites Goldmaster II and the Tesoro Diablo II will, but on the good side it won't drive you crazy responding to small hot rocks and the salt in your hand either.

Target response in the motion mode is so good that I believe it may open up some old areas that have been almost unhuntable due to small bits of ferrous trash and hot rocks. Most of the easy pickings in the better nugget hunting areas are long gone, but there are still a lot of good areas where nuggets are masked by trash and hot rocks waiting for the man with some patience and the right equipment. The dual tone target I.D. really helps in these areas; my advice is to set the discrimination just high enough to give a low tone on small ferrous trash. You may miss the tiniest pieces of gold, but you'll be able to weed out the nuggets from the junk, and these days that's the name of the game.

Unlike some other microprocessor controlled detectors, you don't have to sacrifice any depth or sensitivity with the Gold Trax module. Sensitivity and depth were actually slightly better with the Gold Trax when compared to the Treasure Baron equipped with the Pro Hunter module.

The Gold Trax is powerful, easy to use, and offers good value for the money.

In addition, it's good for a lot more than just nugget hunting or prospecting. I do think it needs a good small coil to be truly effective for all around nugget hunting and prospecting in all conditions.

All in all, I recommend the Gold Trax module.