In the late 1920’s, Dr. Gerhard Fisher, a German immigrant who studied electronics at the University of Dresden, obtained the first patent ever issued on aircraft radio direction finders. He was working as a Research Engineer in Los Angeles, California at the time and his work attracted the interest of Dr. Albert Einstein. After a demonstration of Dr. Fisher’s equipment, Einstein enthusiastically and correctly predicted the world-wide use of radio direction finders in the air, on land and at sea.

When using such direction finders during those early years, aircraft pilots found that errors would occur in their bearings when metal objects came between the transmitter and receiver, or whenever they passed over certain areas. Different pilots flying different planes always observed the same errors over the same places. When Dr. Fisher investigated this phenomenon, he found these errors to be the result of highly conductive, mineralized soils. Dr. Fisher concluded that a portable electronic prospecting instrument could be developed that used the same principle to detect the presence of small buried objects and ore deposits.

He continued his research into this phenomenon, and in 1931 he founded Fisher Research Laboratory in a garage behind his home at 1505 Byron St. in Palo Alto, California. He and four employees began producing the “Metallascope,” starting each unit as a new order came in. The “Metallascope” was a rugged, easy-to-use metal detector. By today’s standards, it was perhaps an ungainly device: two large, flat wooden boxes containing simple copper coils, five vacuum tubes, and a few assorted components. It soon captivated the imagination of the country, and within a short time, the world.

**U.S. MACON CRITICAL TOOL FOR DR. FISHER**

Around 1933, the U.S. Navy hired Dr. Fisher to install a radio direction finder aboard the dirigible, the USS Macon. It was aboard the Macon that Dr. Fisher discovered that large metal buildings and mineralized mountains cancelled out the instrument’s direction finding capabilities leading him to the discovery of the first metal detector. Dirigibles served the U.S. Navy as floating bases for scout planes during the 1930’s, but the program was eventually abandoned. It became obvious that the highly touted U.S. Navy dirigible program had a fatal flaw: dirigibles had a tendency to crash during severe weather.

In 1934, sales had increased to the point where the garage was no longer large enough, Fisher Research Laboratory moved to a small building at 745 Emerson St. in Palo Alto. Shortly thereafter, Dr. Fisher was granted a patent for his “Metallascope.” The “Metallascope” was soon reimbursed the Metallascope, and in 1935, became an accepted standard for all types of electronic metal detectors. As early as 1934, Fisher was using a method to detect small buried objects and ore deposits.

In 1939, just prior to World War II, Fisher moved to an even larger building at 1961 University Ave. in Palo Alto. During World War II and the subsequent Korean Conflict, the company was called upon to contribute its technical competence to the war effort, but the Metallascope business was never neglected. With the increasing popularity of the Metallascope, and with Fisher’s patent reissues expiring, numerous competitors began producing similar equipment. Due to relentless efforts to incorporate every available technical advancement - in particular, by keeping close contact with countless users to utilize their vast fund of field experience in the design of new models - Fisher maintained its position as the world leader in the metal detection industry.

In 1961, Fisher moved to 1961 University Ave. in Palo Alto. By 1967, sales had increased to the point where the garage was no longer large enough, Fisher Research Laboratory moved to the now famous 1505 Byron St. in Palo Alto. Shortly thereafter, Dr. Fisher’s laboratory moved to a small building at 745 Emerson St. in Palo Alto. Shortly thereafter, Dr. Fisher was granted a patent for his “Metallascope.” The “Metallascope” was soon reimbursed the Metallascope, and in 1935, became an accepted standard for all types of electronic metal detectors. As early as 1934, Fisher was using a method to detect small buried objects and ore deposits.

In 1939, just prior to World War II, Fisher moved to an even larger building at 1961 University Ave. in Palo Alto. During World War II and the subsequent Korean Conflict, the company was called upon to contribute its technical competence to the war effort, but the Metallascope business was never neglected. With the increasing popularity of the Metallascope, and with Fisher’s patent reissues expiring, numerous competitors began producing similar equipment. Due to relentless efforts to incorporate every available technical advancement - in particular, by keeping close contact with countless users to utilize their vast fund of field experience in the design of new models - Fisher maintained its position as the world leader in the metal detection industry.

In 1939, just prior to World War II, Fisher moved to an even larger building at 1961 University Ave. in Palo Alto. During World War II and the subsequent Korean Conflict, the company was called upon to contribute its technical competence to the war effort, but the Metallascope business was never neglected. With the increasing popularity of the Metallascope, and with Fisher’s patent reissues expiring, numerous competitors began producing similar equipment. Due to relentless efforts to incorporate every available technical advancement - in particular, by keeping close contact with countless users to utilize their vast fund of field experience in the design of new models - Fisher maintained its position as the world leader in the metal detection industry.

In 1939, just prior to World War II, Fisher moved to an even larger building at 1961 University Ave. in Palo Alto. During World War II and the subsequent Korean Conflict, the company was called upon to contribute its technical competence to the war effort, but the Metallascope business was never neglected. With the increasing popularity of the Metallascope, and with Fisher’s patent reissues expiring, numerous competitors began producing similar equipment. Due to relentless efforts to incorporate every available technical advancement - in particular, by keeping close contact with countless users to utilize their vast fund of field experience in the design of new models - Fisher maintained its position as the world leader in the metal detection industry.

In 1939, just prior to World War II, Fisher moved to an even larger building at 1961 University Ave. in Palo Alto. During World War II and the subsequent Korean Conflict, the company was called upon to contribute its technical competence to the war effort, but the Metallascope business was never neglected. With the increasing popularity of the Metallascope, and with Fisher’s patent reissues expiring, numerous competitors began producing similar equipment. Due to relentless efforts to incorporate every available technical advancement - in particular, by keeping close contact with countless users to utilize their vast fund of field experience in the design of new models - Fisher maintained its position as the world leader in the metal detection industry.
Dear Treasure Hunting Enthusiast,

Welcome to the world of treasure hunting—brought to you like no other company can. Inside these pages, you’ll read stories about recent finds of long-buried treasures. Long-buried because our latest technological breakthroughs have just opened up a whole new world of lost treasures to you.

Whether you are considering your first venture into treasure hunting, or you’re a seasoned pro looking for the latest technology, pay close attention because a lot has changed in just the last few years. Our rapid pace of technological innovation is turning old hunted-out sites into fertile hunting grounds and improving the odds of great finds for more people than ever.

While the virtues of practice and developed skill can never be underestimated, beginners and intermediate users can now get more than ever out of the hobby—more because more power, more features, and more new technologies are now available in every type of metal detector we manufacture.

Our team of engineers decided five years ago to break with convention and redefine the state of the art in metal detectors. You will find the result of that endeavor today in many forms, including the industry’s best ergonomics, great user interfaces, and revolutionary advances in target separation capability.

Join the treasure hunt today! If you need advice or have any questions, please contact us direct or visit your local dealer. Share photos and stories of your finds with us; we would love to feature them in upcoming issues.

Happy Hunting,
Choosing the Right Detector

by Don Hinks
Gettysburg Electronics
Gettysburg, Pennsylvania

For over 35 years I have been a supplier of quality metal detectors at my store in downtown historic Gettysburg. Since 1972, I have sold more than 8000 metal detectors to satisfied customers, one at a time, personally instructing them in the proper use of the detector that they have chosen. Since the late 1960’s I have been an avid detectorist myself, using everything from the primitive heavy tube type instruments to the lightweight state-of-the-art computerized discriminating detectors of today.

For these last 35 years, I have strived to assist each customer in making the right decision when he or she chooses the best detector for their specific use and price range. With our large selection of new metal detectors on display, it can be bewildering to the first time user. To help the customer make the right choice, I first ask the customer what they plan to primarily use the detector for, and where will they be using it. No one specific model of detector will excel in every situation.

Customers come into the store seeking detectors for many purposes. The most popular uses are for coin shooting, relics, jewelry and gold prospecting. Some other uses include scuba diving and cache hunting. Commercial and industrial uses occur as well, such as security (walk thru and hand held wands), surveyor (locating property stakes) and utility use for locating buried pipes or cables. Knowing the primary use of the detector determines what detector is best suited to fill their needs. There is no “one detector fits all.”

Coin Shooting
Coin hunting is a popular hobby all over the world. Coins have been in circulation since before the time of Christ. Coins, rings, jewelry, and other valuables have been lost daily for centuries. Unfortunately, these good targets are usually lying in the midst of large amounts of trash such as nails, scrap iron, aluminum foil, pull tabs, bottle caps, screw caps, pop tops, etc. Some detectorists don’t mind recovering everything but the vast majority of coin shooters don’t want to dig these unwanted targets. Most coin hunters desire to only recover coins, rings and jewelry, and other valuables. Some machines are better than others at achieving this.

To avoid becoming discouraged by digging too much trash, the first recommendation I make is to select an instrument with good discrimination. This will narrow down the number of unwanted targets. Fortunately nearly all quality handheld hobby detectors produced today, have some form of variable discrimination that will eliminate certain undesirable objects.

Approximately 70% of the metal detectors that we stock have either a digital readout or meter that will indicate likely coin targets, some even identifying the probable coin denomination. They also will identify probable pop top and tab targets.

This is known as “target identification” or “target ID.”

Some discriminating detectors do not have a digital readout or meter to help identify targets. This type of machine usually has a linear type of discrimination adjustment that selectively eliminates targets as you increase the control. Typically this linear setting first deletes iron, then foil, and so on up the scale of targets. The danger in increasing the level of discrimination to eliminate pull tabs is that at that level of discrimination many gold rings could be eliminated, and unless the instrument features dual discrimination or some type of notch discrimination, nails and numerous other rings could be lost as well.

Metal Detector’s Code of Ethics
1. Always check Federal, State, County and local laws before searching.
2. Respect private property and do not enter private property without the owner’s permission.
3. Take care to refill all holes and do no damage.
4. Remove and dispose of any and all trash and litter found.
5. Appreciate and protect our inheritance of natural resources, wildlife and private property.
6. Act as an ambassador for the hobby, use thoughtfulness, consideration and courtesy at all times.
7. Never destroy historical or archeological treasures.
8. All treasure hunters may be judged by the example you set; always conduct yourself with courtesy and consideration for others.
**Coin, relic & saltwater beach hunting specialist**

**CZ-3D**

**Accessory Coils:**
- 5” CZ Coil . . . . . MSRP $89.95
- 10”/11” Series Coil MSRP $129.95

- Deep, Accurate 4-Tone Target ID
- Dual frequency Fourier Domain signal analysis, Engineered to Take you to Deep Treasure!
- Enhanced Target Mode for More Coins & Relics
- High Performance Beach Unit - Salt Mode for Wet Sand Operation
- Superior Depth in Mineralized Soils
- Operating frequency: 5 and 15 kHz

**1270-X**

**Accessory Coils:**
- 5” Series Coil . . . . . MSRP $89.95
- 10” Series Coil MSRP $129.95

- Extreme Depth
- Excellent See-Through in Iron Trash
- Enhanced Sensitivity to Relics
- Deep Seeking All-Metal or Enhanced Disc. Modes
- Trigger Switch for Rapid Dual-Discrimination Operation or Precision Pinpointing
- Operating frequency: 8.2 kHz

**1270X 8” Coil**

**MSRP $699.95**

**Coin, relic & saltwater beach hunting specialist**

**CZ-3D**

**Accessory Coils:**
- 5” CZ Coil . . . . . MSRP $109.95
- 10”/11” Series Coil MSRP $129.95

- Deep, Accurate 4-Tone Target ID
- Dual frequency Fourier Domain signal analysis, Engineered to Take you to Deep Treasure!
- Enhanced Target Mode for More Coins & Relics
- High Performance Beach Unit - Salt Mode for Wet Sand Operation
- Superior Depth in Mineralized Soils
- Operating frequency: 5 and 15 kHz

**1270-X**

**Accessory Coils:**
- 5” Series Coil . . . . . MSRP $89.95
- 10” Series Coil MSRP $129.95

- Extreme Depth
- Excellent See-Through in Iron Trash
- Enhanced Sensitivity to Relics
- Deep Seeking All-Metal or Enhanced Disc. Modes
- Trigger Switch for Rapid Dual-Discrimination Operation or Precision Pinpointing
- Operating frequency: 8.2 kHz

**MSRP $699.95**

**Legendary relic hunting performance**

In summary, for coin shooting I recommend an instrument with good discrimination that can effectively identify a large portion of worthless junk in the ground. Although some successful coin shooters use discriminating instruments without target ID, I recommend that if it is within your price range, or even a little higher than you had planned, purchase a unit with a digital readout or a meter. Consider at some point, buying a second, smaller coil, for use in hunting trashy areas. Smaller coils have better separation and work well in trashy areas.

**Recommended:** Coin Shooting Fisher Metal Detectors: F75*, F70*, F5*, F4*, F2, CZ-3D. *Highly Recommended

**Relic Hunting**

Being located in historic Gettysburg, PA, many of my customers are interested mainly in hunting Civil War relics. The use of metal detectors on National Park Service property is strictly prohibited anywhere in the United States, including the Gettysburg National Military Park. The use of detectors outside the NPS property is proper only with the permission of the property owner. The area around Gettysburg is dotted with many sites used as camping areas, hospital sites battle, skirmish, and winter camp sites, not to mention all the roads traveling too and from these areas. With proper research and permission to hunt, these areas can be productive.

The needs of the relic hunter are different than the needs of the typical coin shooter. For the relic hunter, the three most important factors are depth, depth and more depth. The depth capability of a machine is always important but even more so if you wish to be a serious relic hunter. Revolutionary War, Civil War, and War of 1812 artifacts, as a general rule, are usually much deeper than modern coins and quite often found in rough terrain such as woods, overgrown areas, croplands and pastures. Artifacts in plowed fields can be quite deep. Unexploded artillery shells can be several feet deep. Additionally, well known sites may have been detected for years and years, leaving only the very deepest targets remaining. If your machine can’t detect a small target 10’ deep, you may not recover anything.

While the coin shooter normally discriminates against all types of iron, most relic hunters desire iron objects. These can be cannonballs, artillery shells, bayonets, gun tools, weapons, as well as non ferrous bullets, buttons, buckles, spurs, etc. Discrimination and target identification are a plus in relic hunting but are not a necessity. Some of the finest and deepest relic hunting detectors do not have target ID. Because depth is important, you must have a machine that can cancel out ground mineralization with manual adjustments. Avoid machines that have factory preset ground balance because ground conditions can vary widely and you will need a machine that you can adjust to these various conditions.

In summary, serious relic hunters should consider purchasing the deepest instrument in their price range. Target identification is nice but not necessary. Get a machine with a manual ground balance adjustment. Use headphones to help hear deep targets and get the largest coil available to get maximum depth.

**Recommended Relic Hunting Fisher Metal Detectors:** F75*, F70*, F5*, F4*, F2, CZ-3D, 1270X*. *Highly Recommended

**Beach Hunting**

Beach hunters are typically looking for modern jewelry and coins, although some beaches can yield historic artifacts as well. Items dropped in the sand quickly disappear and without the aid of a metal detector they are very difficult to find. Beach hunting can be done on the dry sand or in the water where many rings are lost. Salt water beaches present special problems (mineralization) and you must determine if you will only shallow wade (with just the coil under water) or desire a totally submersible machine suitable for deep water wading or diving. All quality metal detectors have submersible search coils but not all control boxes are waterproof or suitable for the pressures of deep water diving.

In all types of beach hunting, the discrimination must be kept very low, eliminating only small iron (bobby pins and nails). Aluminum pull tabs and tin foil should not be discriminated or you will lose some gold and/or platinum rings as well. Some beach hunters operate with zero discrimination and dig everything. Use of a sand scoop will make target recovery fast and easy. If you only plan on hunting dry sand and very shallow water a good coin shooting machine will work well if you keep the discrimination set low. If you wish to go out into deeper water you will need a totally submersible machine. Some machines have a single tone for all targets and some have variable tones for different targets. It’s important to realize that most gold rings will read in the “middle” tones (above iron but below coins). An exception to this type of machine is the Pulse Induction (PI) which operates on totally different principles than most detectors, and these machines have little or no discrimination capabilities. All of these machines will work well in fresh water but salt water is a different story. Wet salt makes the ground conductive. All metal detectors work well in the dry ocean sand but most single frequency detectors become erratic in the wet salt sand or in the surf. The detector sees the...
Prospecting

For gold and silver are not detectable with a metal detector but nuggets (even some smaller than a BB) are detectable with the right type of metal detector. Nearly any machine will find a nugget if it is large enough, not too deep and not in highly mineralized soil. Every major manufacturer of metal detectors makes an instrument designed specifically for prospecting. If you are serious about detecting for gold you should consider purchasing one of these instruments. Units for prospecting normally operate at a higher frequency than most detectors because gold responds better to the higher frequencies. Gold is also commonly found in extremely mineralized ground called black sand. To detect gold effectively in these extreme conditions you need a machine that can balance out the high mineralization and maintain stability with a smooth threshold tone. Otherwise, small nuggets will not be detectable. In addition, special coil types are used on gold machines that enable the machine to cancel out the affects of the black sand. Pulse Induction machines also work well for gold hunting.

In summary, if you are really serious about prospecting with a metal detector you should consider purchasing an instrument designed specifically for that purpose. Your success rate will be much higher if you do. Extreme conditions warrant a machine that can handle them.

Recommended Prospecting Fisher Metal Detectors: F75, F70, F5*, F4, F2, CZ-3D*, CZ-21*, 1280X*. *Highly Recommended

Completely Submersible
**What to know about searchcoils**

**by Dave Johnson**  
Chief Designer, Fisher Research Labs

This essay pertains to induction balance searchcoils ("loops") of the types most commonly used on hand-held hobby-type metal detectors.

**Searchcoil shape**

Most searchcoils are round, but some are elliptical. This refers to the overall shape, not to the type of coil construction. In general, elliptical coils provide a broader sweep pattern over the ground, and narrower target response for better pinpointing. Round coils are easier to design and less expensive to manufacture, which is why they're the most common.

**Searchcoil type of construction**

The words "concentric" and "DD" (or "double-D") refer to the type of internal coil construction. Most searchcoils (whether round or elliptical) are of concentric construction. A concentric searchcoil has a large transmitter coil, and a smaller receiver coil in the center, usually in the same plane. This coil arrangement is relatively easy to manufacture and its symmetry helps to minimize electrical drift due to time and temperature. It also provides good discrimination on shallow targets.

Some searchcoils (whether round or elliptical) are of DD construction. Double-Ds comprise two overlapping D-shaped coils of approximately the same size, one being the transmitter and the other the receiver. The advantages of the DD are greater depth in mineralized soil, a broad sweep pattern, and narrower target response. Its primary disadvantages from a user's point of view are multiple responses on shallow targets and poor discrimination of flat iron objects. Designing and manufacturing them is more difficult because their lack of radial symmetry makes them prone to drift which the design and the manufacturing process must minimize. Manufacturing cost is higher because the coils cannot be wound on high-speed winding equipment.

**Searchcoil size**

Most standard searchcoils are approximately 8 inches (20 cm) in diameter if round, or approximately 10 inches (25 cm) in length if elliptical. Larger searchcoils allow covering more area with each sweep, and offer a slight increase in depth on medium and large size targets. Unfortunately they are heavier, more difficult to pinpoint with, tend to lose small targets, and provide poor target separation. Small searchcoils provide superior target separation (important in trashy areas) and the ability to detect smaller targets (important in gold prospecting). Of course they don't cover as much ground as a standard size coil. However (and this may surprise you) small searchcoils usually have nearly as much depth capability as standard size searchcoils.

**What's on the market and why**

The least expensive metal detectors usually come equipped with a round concentric searchcoil. The more expensive recent models often come equipped with an elliptical and/or DD searchcoil. Older models, even expensive ones, frequently don't have a DD searchcoil available because DDs fell out of favor during the 1980s and 1990s as the knowledge of how to make DDs did not advance fast enough to keep up with the demands of higher performance circuit designs. Nowadays there seems to be a trend toward DDs as manufacturers have gained more confidence in their ability to design and make them.

**What users tend to prefer**

Double-Ds are usually preferred for relic hunting and gold prospecting. Concentrics are usually preferred when searching for modern coins in an area where there is also iron and aluminum trash.
The F4 is an outstanding metal detector

by Mark Ellington

I've always heard "The older you get, the faster time passes." Now that I'm in my mid 40's I've found that statement to be all too true. However, there are exceptions to this rule... Christmas, payday and waiting for a metal detector to arrive in the mail! I'm the first to admit, I become very "kid like" when I have a new machine on the way to my house. My wife is very "understanding" of this affliction of mine, only succumbing to the occasional "eye roll" when I constantly babble on about treasure hunting, old sites, coins and metal detectors.

The subject of this particular dose of excitement was the new Fisher F4. Fisher Research Laboratories, the oldest hobby metal detecting manufacturers in the world, was purchased by First Texas Products of El Paso Texas. First Texas also owns the Bounty Hunter and Teknetics brands. At first, a lot of folks in the metal detecting hobby didn't know what to make of the Fisher purchase...would First Texas continue the long tradition of high performance/high quality metal detectors? Would the "new" Fisher be introducing new exciting models? Luckily for us, the answer to both these questions is a resounding "YES!"

Assembly and First Impressions - My new F4 was shipped double boxed, which is a nice touch in my book. After unpacking it, I was immediately impressed by the high quality feel of the gold anodized rods and the heavy duty plastic arm cup. Assembly was a breeze, with all the poles locking securely in place. I noticed that the pole length adjustment has enough range to handle the needs of most detectoists. The fit, finish and feel of the F4 impress me as very high quality.

Like most folks, my first act after assembly of a brand sparkling new metal detector is to take a few "test swings" across the floor. I'm blown away by the light weight and balance of this machine! I'm also very impressed by the lack of any movement or flex in the shaft, even during "vigorous" swinging... nice and tight! I finally decided it's time to get down to business. I notice there are no batteries in the shipping box, so I assume none are included. Wrong assumption! I open the battery compartment and find two 9 volt alkaline cells installed "backwards" for shipping purposes. I carefully removed the batteries... (Be careful, they are pretty tight!) and installed them. Finally! The moment of truth:

Display and Controls - A light press with my right thumb brings the F4 to life. The F4 makes use of membrane type buttons that offer a light "click" for feedback. The LCD display is clear and sharp with a centrally located conductivity ID number. Along the top is an arc of various common targets, ranging from iron to $1. An LCD "arrow" points to the detected target, making for quick and easy identification. To the left of the conductivity ID is a "on the fly" depth gauge that displays the depth of the currently detected item in 2" increments. On the right is a battery meter, constantly monitoring the power level of the nine volt cells. The faceplate itself looks great. The red, gold and black color scheme is very "pleasing to the eye" and all the buttons are logically placed and clearly marked.

The face of the detector has nine touch pads and one ground balance knob. Available controls are: Off/On, Sensitivity up and down, All metal auto tune, Pinpoint, Disc, Notch and Discrimination/Threshold up and down. The "Disc" button toggles the F4 between an "all metal discrimination mode" and a "discrimination mode". All metal discrimination allows all targets to be heard and identified using both the visual ID indicators and the 4 tone audio ID. The "discrimination mode" activates the discrimination circuits, allowing you to eliminate any targets you wish all the way through zinc penny. My experience with the F4 is that the "all metal discrimination" mode provided outstanding detection depth, while "discrimination" mode did a great job of getting rid of unwanted trash items.

Test Garden and "Real Life" Use - I grabbed a few test targets and gave them a swing in front of the DD coil. The 4 tone audio from the internal speaker is very clear and distinct. The corresponding ID numbers, and target icons seem to be dead on the money (pun intended). The F4 seems to be marketed as a "mid range" metal detector, but the air testing I did was comparable to many detectors I've had that cost much more.

Every time I get a new detector, my first destination is my "test garden". I've had it planted for several years with a large variety of targets buried at different depths. The F4 with the double-DD coil was able to correctly identify closely located targets with a precision that nearly rivals my F-75. Very impressive! Depth is much better than I expected from a mid-level machine, and I was able to run it at maximum sensitivity in my yard without any false signals. Pinpointing was a breeze with the toggle on/off style pinpoint button. Entering the pinpoint mode changes the central ID numbers into an "inches of depth" reading. The numbering combined with the great VCO audio made it very easy to size up your targets and avoid large trash items.

My next stop was a local school yard. In my opinion, school yards are the best place to learn a new metal detector. Targets are plentiful, and digging is easy. The F4 felt "custom made" for this type of

Combining the best in analog and digital technology

• Frequency shift for eliminating electrical interference and crosstalk.
• Advanced software-based motion discrimination with notch for searching trashy areas.
• All metals auto-tone mode for deep-searching in non-trashy areas.
• Visual target ID by category & 0-99 indication, both discrimination & auto-tone modes.
• Target ID confidence bargraph
• High-resolution manual ground balance with continuous ground balance readout
• Ground balance range goes all the way to salt.
• Continuous display of ground mineral concentration and phase
• Push-button static pinpoint with variable audio pitch and visual depth reading
• Independent gain and threshold knobs provide complete control over sensitivity
• Two 9-volt alkaline batteries last approximately 40 hours; included
• Operating frequency: 7.8 kHz

Great all purpose detector

F4 11" DD Coil

F5 10" Elliptical Coil

F4 11" DD Coil

• 11-Segment digital target identification and 4-tone audio I.D.
• 2-digit numeric target value
• One-touch notch immediately eliminates unwanted targets
• Fisher's deep-seeking auto-tone mode with manual ground balance
• One-touch pinpoint
• Coin depth indicator
• Two 9-volt alkaline batteries; included
• Operating frequency: 5.9 kHz

Accessory Coils:

MSRP $549.00

MSRP $449.00

F5 10" Elliptical Coil

• 5" DD Coil . . . . . . . MSRP $159.00
• 8" DD Coil . . . . . . . MSRP $119.99
• 10" DD Coil . . . . . . . MSRP $199.00

F4 11" DD Coil

Fisher Labs: World Treasure PROFdetectors
hunting. The 11” DD coil cuts a wide swath allowing you to cover ground quickly without fear of missing targets. One of the beautiful things about a Double-D type coil is the great heel to toe ground coverage. I was immediately rewarded for my detecting efforts with coin after coin. The high tone audio “sang out” to me on copper pennies, dimes and quarters. Another cool thing I discovered is that the visual ID number stays locked on the last target detected, allowing you to hunt by sound, then refer to the meter afterwards.

The F4 has a very unique notching system that allows you to either choose the item you want to reject manually, or by waving a troublesome trash item in front of the coil, then hitting the “notch” button. Both methods work great and completely discriminated out the unwanted target. Another way to use “notch” is to crank up the discrimination as high as you want it to go (all the way through “zinc”), then “notch” back in a desired item. This is what I opted to do for my school yard hunt. Discrimination was maxed out through zinc, and nickels “notched” back in. This made for a VERY productive coin hunt! Nickels came in the D dead on the “30” mark, while still rejecting most pull tabs and pencil eraser bands. For the clad coin hunter on a limited time frame, this mode of hunting is outstanding. Your “coins per minute” count will undoubtedly skyrocket with the sheer volume of ground you can cover, while avoiding the trash items. I ended the school hunt with a rail apron FULL of coins of all denominations including a couple of Susan B. Anthony dollars and a Sacagawea dollar.

Conclusion - I’ve gained more and more respect for the F4 during the 40 hours I’ve logged on it so far. In my opinion, this detector is a great multi-purpose machine that would be an excellent addition regardless of whether you’re a “seasoned pro” or just getting started in the hobby. Don’t think that the F4 is just a “Clad Killer”. Although it does excel at that type of hunting, I’ve recovered several wheat cents and a few pieces of silver since I’ve been using it. The F4 is incredibly “quiet” until you hit a target, and the audio feedback with 4 distinct tones is very good. All-metal depth is incredible and quite easy to ground balance.

Durability doesn’t seem to be an issue. I hate to admit it, but while hunting, I stopped to adjust my headphones, leaving the F4 against my side. Before I could catch it, it fell straight to the ground with a couple of bounces on impact. I just knew I had killed it for sure, but it never missed a beat! This tough little detector was no worse for the wear. The plastics Fisher has chosen for the unit seems to be very, very resilient.

Coil availability is a huge plus! The F4 comes shipped with the 11” Double-D elliptical coil and available for purchase at very reasonable prices are 4”, 8” and a 10”. An incredible selection that will cover most hunting needs!

My personal opinion is that the F4 is an outstanding metal detector. It is very much a “turn-on-and-go” type detector, but with enough power to satisfy even the most discerning hobbyist. Between the F-75 and the F4, Fisher has proven they are serious about the high performance hobby market.
F-75 Peak Performance
Disc 6 & mandatory monotone relic hunting justification

Intelligent Hunting Advice by Thomas J. Dankowski

When the F-75 is placed on a Disc setting of 6 and monotone, this set-up configuration allows (under MOST circumstances) the best iron see-thru ability in locating non-ferrous targets in areas that are loaded with ferrous (usually nails) targets. The older the site, the more nails will be present and subsequently, the more good targets will be masked. Most detectors will shut down under these scenarios. The F-75 and the T-2 are the only detectors currently available on the market that begins to tackle this type of extremely common scenario with some unmasking success.

With F-75 Disc on 6 and monotone audio, the moment you invoke a different tone option, say 2-tone, 3-tone, 4-tone, etc., the audio portion of the Disc, even though Disc is set on 6, will instantly become a Disc setting of 1.5. What does this mean? Any target that is between a Disc level of 6 thru 15 will now audibly report as a low tone (iron tone). BIG PROBLEM for a multiplicity of reasons:

- Any target that is ABOVE a 15 VDI reading MIGHT report a higher tone depending on what tone option is invoked. Most folks do not dig iron and most folks WILL miss masked non-ferrous targets when multitone are selected. To explain. I will use an example that happened to me. I recently recovered a badly masked Barber dime. When I first detected this severely hand-scraped dime, the F-75 was in monotone, Disc 6, PF and Sens on 99. In monotone the audio AUDIBLY sounded good. I was going to dig this target but the VDI was terrible. It would NOT lock on to anything close to resembling a higher conductive piece of silver. I then invoked 2-tone leaving ALL other settings alone. Now the dime was constantly audibly reporting as low-tone (iron tone) even as I rotated my body around the target. The VDI was jumping all over the board, but mostly in the iron ID range. I made the decision to NOT recover the target, primarily due to low iron-tone and walked away. Several hours later, I decided to go back and recover this target (and MANY other similar responding targets) with F-75 back in monotone. The results were one 2” nail, two 1/2” long nails, and one Barber dime. Yep, MOSTLY iron, but certainly not ALL iron. The 2-tone mode did not lie. Justification is = the composite of the 4 targets (3 nails & F dime) were higher in conductivity than any one of the nails individually but TOTAL conductive composite WAS HIGHER than any nail (or combination of nails) would have cumulatively registered. Because I (and the detector) knew that the detected target (suspected co-locate/composite of multiple targets under coil) were higher than the conductivity of most nails yet STILL ID’d in the Fisiron range, this target was needing recovery. Good thing! Selecting any other tone option and the detector would audibly report the composite as low-tone/iron-tone. Yes, the F-75 will still unmask more nonferrous targets than other detectors if 2-tone or multiple tones are selected. However, a substantially greater level of unmasking performance can be ascertained when the unit is placed in monotone. The same results can be achieved on the T-2 with a Disc setting of 21. Having the ability to adjust how MUCH iron you choose to discriminate is a major attribute. Small iron items such as nails, will Disc out at a fairly low iron Disc range. This is approximately 10% of the F-75’s capabilities. In addition:

- On both the T-2 & F-75, running a higher Sens gain in the trash (especially iron) presents a MUCH enhanced resolution on non-ferrous targets amongst iron. This is a paradoxical contradiction; what is, but should NEVER be. Next time you find a non-ferrous target amongst high iron trash concentration (with high Sens settings), drop the Sens and see what happens. The non-ferrous target audio resolution will decrease and possibly even disappear completely. It depends how badly masked the non-Fe target is. The more masking, the higher the Sens needs to be on the T-2/F-75 (this is a typo!)

- The mandatory monotone instruction is primarily for iron nail pits. Long description: If a non-ferrous target is collocated in very close proximity to iron/multiron scenario then as you rotate your body around the composite target the audio will be bouncing between all of the different tones (same with VDI) and each tone being exceptionally short in duration. You may even encounter a multi-tone audible reporting in ONE sweep of the coil! Surely enough to confuse most detectorists into a NON-recovery decision as the target is audibly confusing and is not a clean or solid repeatable sounding target (most masked targets are not clean audio targets). Each of the multi-tones reporting will be audibly shorter in duration. A kind of a ratty sounding, bouncing signal. NOW, when monotone is selected/invoked, this SAME composite target(s) will audibly report a LONGER duration SINGLE-tone audible presentation (instead of several shorter-in-length different tones in one sweep of the coil) that will less-likely confuse the operator and authorize the operator to make a much better profiling of the composite target audio signature, with the end result being a more intelligible target recovery decision from less audible fatigue. Tech Terms; A better signal-to-noise ratio correlation. I’d rather hear ONE longer monotone vs. several shorter multi-tones in rapid succession (in a single coil sweep). NOW IMAGINE sweeping the coil in a iron nail pit with 2 or 3 or especially 4 tones selected. A hellishly jag band!! Try and make non-fatigued intelligent audio decisions under this common scenario! The VDI is extremely jumply in iron pits and SO WOULD BE THE MULTI- TONES!!! At least in monotone, as the VDI is presenting extreme variances, the one monotone will be CONSTANT and STABLE, even as the conductivity of the multi-target scenario varies dramatically, even with only one sweep of the coil.

For Accessory Coils please go to page 24 -29

* coil covers available for purchase, please ask customer service representative for complete details
Discrimination mode “Sensitivity” and “Depth” in single-frequency VLF metal detectors

by Dave Johnson
Chief Designer, Fisher Research Labs

Some metal detectors are "more sensitive" than others, and "how deep" a particular metal detector can detect a specific metal object depends on many variables.

"Air test sensitivity" refers to the maximum repeatable distance achievable in air using a standard metal test piece (typically a US nickel coin), with the searchcoil that's standard with that model. In a location without electrical interference, the machine adjusted to just barely eliminate background chatter. If ground balancing is available on the machine, it must be done using ferite. ……..A properly done "air test" provides an indication of a machine’s potential to "go deep" on buried objects. Because of interference from magnetic iron minerals in the ground, actual detection depth will usually be much less than what's achieved in an "air test". (NOTE: for maximum depth on buried objects, search in the all-metal ground balanced mode, which is much less affected by iron minerals.)

"Sensitivity control". A control labeled "sensitivity". It actually controls either gain or threshold, or a combination of both, depending on the machine. If both, the "sensitivity" controls either gain or threshold, or a combination of both, as indicated by the name (example: "Discrimination mode "Sensitivity" and "Depth")

"Audio threshold control". Determines the signal strength level corresponding to the threshold of audibility. A negative threshold setting is used to silence signals by a fixed amount so that only signals stronger than that amount will be heard. Positive threshold settings are used to silence internal "circuit noise" and electrical interference. Machines which have no threshold control have an internal threshold which allows silent operation, or a control labeled "sensitivity" which actually controls threshold. ……..Some models allow positive threshold settings. In most cases the positive range controls the loudness of a minimum detectable signal, a separate internal threshold determining what will or will not be detected.

"Gain control". This makes signals bigger or smaller. Gain settings make signals bigger, and therefore signals which were originally weaker can more easily exceed the audio threshold, and be heard. If the gain setting is too high, electrical interference or internal circuit noise may cause constant audio chatter. ……..Lower gain settings reduce the size of signals, so that relatively weak unwanted signals (electrical interference, deep internal fragments, aluminum foil sheets, etc.) can be silenced.

The effects of discrimination. "Discrimination" between different metal objects is done using a different set of signals than the ones used for detection. Since the overall purpose of discrimination is to eliminate response to certain classes of objects beginning with metallic iron, magnetic iron minerals in the ground will tend to make nonferrous metal signals look more ferrous, increasing the probability of their being rejected by the discrimination circuit. Some machines provide data on the amount of iron or other metals. A negative threshold setting may bring image closer to the earth, increasing the effective depth of detection and discrimination on that site.

Interactions between controls. There are many different combinations of which have some effect on "air test sensitivity". The most common pattern (nearly universal in older all-antique machines) is that "air test sensitivity" decreases slightly as discrimination is increased. Most of our recent designs do discrimination entirely in software, where control settings are actually data which don't necessarily do the same things to signals that circuit components used to. In the case of the T2 and F75, those differences were confining to some users. In general if a T2 or F75 seems too noisy, the solution is to set the discrimination level to the iron range; and if that doesn't do the job, also reduce the sensitivity settings. In the F70 and F5 which are more recent designs, the interactions between control settings and signals are even more complex, but we did a better job of hiding the details thereby giving the user an improved sense of predictability.

Electrical interference. In many (probably most) machines, elimination of electrical interference is best achieved by setting the discrimination level to the top of the iron rejection range, then reducing the threshold setting (if threshold sensitivity available; it may be labeled "sensitivity"). Even if the machine chatters in air, while actually in motion searching the ground it will usually quiet down, except for occasional random pops which don't like to repeat themselves. (Frequency shifts found on some machines are beyond the scope of this essay.)

How much depth should I get? There is no single answer to that question. In a few places, you may get in-ground depth almost as good as in an air test. There are also a few places with so much iron or salt mineralization that most detectors are not even usable. In most soils, the best discriminators will usually detect coins to a depth of 7 inches or more, and will usually provide usable discrimination and target ID to a depth of 5 inches or more. In other places, the target may not be detected or only "unmasked" because of the multiplicity of problems are introduced as a good target (say a coin) is moved somewhat/somehow handicapped. First, negative discrimination (example above), BUT, the detector engineers. How do you correct and compensate for infinite unknowns? These may be categorized and classified as "two targets are too close to each other". For example: Digging for one coin, a second coin may be miles beneath the Earth's surface. Egyptian sunken cities are dozens of feet deep. The solution to this problem is the most common and well known non-ferrous target ID. Typically, it is a coin-sized object, which, in turn can be identified as a coin. Of note: Coin-sized objects can be miles beneath the Earth's surface.

On the T-75 and T-2 you MUST invoke 4-tone which will then cause all signals to report as a hi-tone. On the 3500 setting on the 3rd highest tone region (vs. mid- tone) and the new coins will remain in the T-75 elliptical slice. On the F-70/F-75 only the NEW coins will report as a high-tone and some of the older coins might report as high-tone. Most of the older coins would then audibly report as mid-tone (just like the aluminum soda tabs.

On your Disc on 4 or 0 on the F-75, all coins will report as good targets in the iron range. With F-75 Disc on 6, MOST (not all) coins will report as a crack-practice- pop or tickle (not a solid audio) which, in turn can be ignored. Axe heads, hammers, gun barrels and other large iron targets will give a good audio with Disc on 6 on the F-75 but MOST fields we hunt are not loaded with axe heads, gun barrels and harpoons. If you have Disc on 4 or 0 and a iron target, it will audibly report as a hi-tone. With this in mind, if you are recovering Mercury dimes at say the 11" depth range, you may audibly report as a hi-tone. With this in mind, if you are recovering Mercury dimes at say the 11" depth range, you may audibly report as a hi-tone. With this in mind, if you are recovering Mercury dimes at say the 11" depth range, you may audibly report as a hi-tone. With this in mind, if you are recovering Mercury dimes at say the 11" depth range, you may audibly report as a hi-tone. With this in mind, if you are recovering Mercury dimes at say the 11" depth range, you may audibly report as a hi-tone. With this in mind, if you are recovering Mercury dimes at say the 11" depth range, you may audibly report as a hi-tone.

On sites where the discriminator doesn't do the job, also reduce the discrimination level to the iron range; and if that doesn't do the job, also reduce the discrimination level to the top of the iron range. Discrimination mode "Sensitivity" and "Depth".

The F-75/T-2 have a tendency to up-average non-ferrous target ID numbers when near disintegrated iron or bad minerals. VERY common occurrence. It is partial silent masking coupled with a response. I have several documented experiences exactly relating to this. Let's say that you discovered a "weak" coin at 12" depth. Normally without being masked, it would VDI at 7 but masked it may now VDI at 3 or 4. Unmasked VDI common result. In both cases, the detector reports hi-tone. No problems. On a slightly corroded butter knife, VDI will VDI at 28 in open air and audibly report as a hi-tone. With this same knife in the dirt, in a natural setting and partially masked, IT TOO will up-average just like the silver dime, to, say a VDI of 47. Himmeeemmm, now the nickel looks like a soda tab to the detector and the unit will now report the slightly masked nickel as a mid-tone. All of this holds true for other medium conductivity objects such as relics & gold jewelry.

If you are recovering Mercury dimes at the 11" depth range, you may want to ALSO recover the 11" depth range博物馆者为许多的为这些的对应的名称。The T-2 & F-75 electronic design architect is notorious for not averaging nonferrous targets in the presence of iron & iron oxides. Not a problem considering other single freq units would remain completely silent. All the targets have a difficult time triggering. D'gcs do the best ID job, but not immune to EASY-YA-ID-ing nickels.

The F-75/T-2 have a tendency to up-average non-ferrous target ID numbers when near disintegrated iron or bad minerals. VERY common occurrence. It is partial silent masking coupled with a response. I have several documented experiences exactly relating to this. Let's say that you discovered a "weak" coin at 12" depth. Normally without being masked, it would VDI at 7 but masked it may now VDI at 3 or 4. Unmasked VDI common result. In both cases, the detector reports hi-tone. No problems. On a slightly corroded butter knife, VDI will VDI at 28 in open air and audibly report as a hi-tone. With this same knife in the dirt, in a natural setting and partially masked, IT TOO will up-average just like the silver dime, to, say a VDI of 47. Himmeeemmm, now the nickel looks like a soda tab to the detector and the unit will now report the slightly masked nickel as a mid-tone. All of this holds true for other medium conductivity objects such as relics & gold jewelry.

If you are recovering Mercury dimes at the 11" depth range, you may want to ALSO recover the 11" depth range museum者为许多的为这些的对应的名称。The T-2 & F-75 electronic design architect is notorious for not averaging nonferrous targets in the presence of iron & iron oxides. Not a problem considering other single freq units would remain completely silent. All the targets have a difficult time triggering. D'gcs do the best ID job, but not immune to EASY-YA-ID-ing nickels.

If you are recovering Mercury dimes at the 11" depth range, you may want to ALSO recover the 11" depth range museum者为许多的为这些的对应的名称。The T-2 & F-75 electronic design architect is notorious for not averaging nonferrous targets in the presence of iron & iron oxides. Not a problem considering other single freq units would remain completely silent. All the targets have a difficult time triggering. D'gcs do the best ID job, but not immune to EASY-YA-ID-ing nickels.
It is your choice for tone options. I have

Do not tilt the coil upward. Increase Sens

7
5
4

occurrence) which then you must back

probably from high volumes of tiny

are home-free, and have the most

are under the coil at the same time,

targets are under the coil at the same time,

will set a benchmark for its incredibly

The new Fisher F5 is a metal detector

12

Profiles

PRO

on the right. This
tells the user about the amount of
"treasure" in the soil, which can affect the
accuracy of the target ID circuits in the F5.

The other is the previously mentioned
"Phase" reading, and lastly there’s the
"Confidence" bar. The bar tells me how
"sure" the detector is that the target identified along the TID arc (Fe, Foil, Tab, etc.) is indeed what it says it is. It is yet another piece of information for the user to add to his/her list of “evidence” when investigating a possible goodly. Really deep targets, and targets partially “masked” by other junk items can fool even the best, so good practice is “when in doubt...DIG!”

Hunting with the F5 is sheer, ecstatic joy. The weight and balance are great...the controls intuitive and useful...the ground and target information...actually practical. Minutes can turn into hours while hunting without the usual fatigue setting in...a testimony to a metal detector that has both the physical stuff right (weight, balance and ergonomics), as well as the abstract stuff...("Can I call it “mental and emotional” stuff? I have hunted with detectors in the past that “wore me out!” both physically and mentally due to bad physical design, constant chatter and horrible menu systems that made you have to dig through layer after layer to change something. NOT so with the F5:

Summary

The new Fisher F5 is a metal detector that will set a benchmark for its incredibly well designed interface. I can see new metal detectorists and veterans having a blast with it as well as anyone who just likes the feel of knobs better than button pushing their way through menus. All the control is there for the power user...but in a whole new way! “Intelligent simplicity” may sum up the F5 quite well! I find it very ironic that Fisher Labs, the “Oldest name in Metal Detecting” is on the cutting edge of the newest technology! I very vigorously tip my hat to Jerry Antion Saad who was Lead Engineer on the F5 project...and well supported by the legendary Dave Johnson, John Gardiner, Mark Krieger and Marvin Jones. A job well done on what is sure to become a favorite metal detector for a lot

Proud descendents of the Teknics Tradition

Performance, Quality, and Superiority

for more Intelligent Hunting advice go to:

www.fisherlab.com

www.fisherlab.com  •  1-800-685-5050  •  2009  • FISHER LABS - EL PASO, TX

41

685-5050

1-800-685-5050

www.fisherlab.com  •  1-800-685-5050  •  2009  • FISHER LABS - EL PASO, TX

www.fisherlab.com  •  1-800-685-5050  •  2009  • FISHER LABS - EL PASO, TX
Fisher F-75 Review

Mark Ellington

Fisher Labs

Mark Ellington says...are you ready for this? I'm going to open this F-75 review with a very bold statement. The new Fisher F-75 has the BEST user interface of ANY metal detector I've ever used...and I've used a bunch! The Fisher F-75 is yet another weapon in Fisher's ongoing "War on bad ergonomics and interfaces" that tend to plague the hobby industry. The absolute brilliance of the design makes me wonder "why in the world have I seen this before?" When I'm done, it's a very simple task to "thumb" it right back to my starting point.

Speaking of gain and threshold, the F-75 places these two control knobs side-by-side for a reason. There is a very synergistic relationship that has to be seen to be believed! High gain or high threshold...which will be best for your current hunting site? The flexibility offered for adapting to all your various hunt sites and their challenges are incredible. There is an amazing variety to hunt that is not a Zareen to our normal hunting site. It is a local farm that I hunt that is surrounded by an electric cattle fence. I have had to readjust this spot with ridiculously low settings on older detectors just to make it bearable. With the F-5, I can adjust the Threshold control to around -1 or -2 and still get very impressive depth!...Without the noise and clutter this spot usually bombards me with. Since using the F-5 in this pasture, I've recovered several old silver coins that I just could not hear with my older detectors!

The threshold control also does something else. Have you ever hunted a site that drove you nuts due to tiny bits of foil, rusted tin, etc.? By lowering the Threshold control, you can usually reduce the F-5's sensitivity to 'em! As a precaution, I tested this in my coin garden to see if it would have a major impact on the depth I could get on coin sized targets. Although there was a very slight loss of depth, I was still able to hear coin sized stuff within about 1/4 of an inch at the "zero" setting on the threshold (this was the adjustment to around -2 or -3, plenty to get rid of the tiny stuff on most sites). The audio on the F-5 is amazingly descriptive. You have the option to choose single, two, three or four tones. However, there's a lot more to the F-5 audio than just the rumbles you hear. There are some amazing tonal qualities that change according to the clarity of the signal, proximity of other targets, tone mode selected, etc. I'm reminded of a few old analog detector knobs I've owned that, although a single tone gave me a lot of information about the target due to the "little things" you hear in the audio. In other words, there's much more placed so you can "thumb" the controls. If I hear a deep target that is on the fringe of detection, I don't have to dig through layers of garbage to adjust the gain or threshold...a quick reach with the thumb of my detecting hand and I can ease the controls up quickly and efficiently! When I'm done, it's a very simple task to "thumb" it right back to my starting point.

Discrimination, Tones and Balance, it shows you that the design makes me wonder "why in the world have I seen this before?" When I'm done, it's a very simple task to "thumb" it right back to my starting point.

Before has there been this perfect storm of the past to control functions (like Fisher's "Zeroing"
and interfaces) that tends to plague the hobby industry. There is a very synergistic relationship that has to be seen to be believed! High gain or high threshold...which will be best for your current hunting site? The flexibility offered for adapting to all your various hunt sites and their challenges are incredible. There is a local farm that I hunt that is surrounded by an electric cattle fence. I have had to readjust this spot with ridiculously low settings on older detectors just to make it bearable. With the F-5, I can adjust the Threshold control to around -1 or -2 and still get very impressive depth!...Without the noise and chatter this spot usually bombards me with. Since using the F-5 in this pasture, I've recovered several old silver coins that I just could not hear with my older detectors!

The threshold control also does something else. Have you ever hunted a site that drove you nuts due to tiny bits of foil, rusted tin, etc.? By lowering the Threshold control, you can usually reduce the F-5's sensitivity to 'em! As a precaution, I tested this in my coin garden to see if it would have a major impact on the depth I could get on coin sized targets. Although there was a very slight loss of depth, I was still able to hear coin sized stuff within about 1/4 of an inch at the "zero" setting on the threshold (this was the adjustment to around -2 or -3, plenty to get rid of the tiny stuff on most sites). The audio on the F-5 is amazingly descriptive. You have the option to choose single, two, three or four tones. However, there's a lot more to the F-5 audio than just the rumbles you hear. There are some amazing tonal qualities that change according to the clarity of the signal, proximity of other targets, tone mode selected, etc. I'm reminded of a few old analog detector knobs I've owned that, although a single tone gave me a lot of information about the target due to the "little things" you hear in the audio. In other words, there's much more...
down and read the entire manual. I had a general idea of how this machine worked because of my early experience with Mike’s machine, and I spent several weeks reading “Fisher” forum site posts and contacting several other people I knew that had already traded their old machines (the very one that I have been using) for this new F-75. I gleaned a few secrets and suggestions, and reread the manual again. All of this occurred during my early hours of using the F-75. I instinctively thought that I should crank the sensitivity, you know, to see what the machine could do (in spite of what the manual instructs you to do), but I quickly learned that is not the approach you can use with this machine. Like other really sensitive machines, one must temper your belief that “more is better” and really follow the instructions in the manual. You really need to run the sensitivity as high as you can, but still keep the machine stable and relatively quiet. That may mean turning the sensitivity down but on this machine even “low” sensitivity can be much greater than what you are used to seeing on other machines. Trust me on this, pay no attention to what number setting you have it on, run it where its smooth and quiet, at least until you learn the machine and have a few hours under your belt. At some sites you can run it higher than at others; it depends on the conditions and interference encountered. Let the machine dictate where you set the controls so it runs smooth and quiet.

My primary passion is relic hunting so my observations will revolve around that aspect of the hobby. From what I can tell this machine really is a jack of all trades, good for relics, coins, beach hunting, gold hunting, it does it all. Reports posted on some of the metal detecting forums point out this as well. I will save all the boring details about the sites I visited, but they are sites that I have been hunting for years. Some I consider “picked clean” and rarely find targets any more. Others still give occasional goodies, but its getting harder and harder to make finds. I have several ghost town sites that now consist of crop and grazing lands, a stage stop site, and of course one military site. Each site I took to it I was able to detect some targets. At some sites I was pleasantly surprised, and at one site I found virtually nothing. At one ghost town site, I found a large gold coin part, several musket balls and a small button, and a number of pieces of lead sheet. I was mildly impressed; this was the most targets I had pulled from this site in years. I also found a nice 1838 seated half dime! Not sure how I missed that before but the F-75 had pulled more for me in 5 hours than I had found in my last 5 trips to this site. It was a good day, and I was happy.

My next spot was a stage stop, again a site that I alone have hammered to death. This site yielded coins back to 1797 in the past but on my last three trips here I dug almost nothing. This really was a favorite spot of mine but I was slowly accepting the fact that I had hunted it out. Two trips here with the F-75 gave up some very small targets, but nothing deeper.

This past weekend I was again in the company of my friend Mike, and the same site. I wrote the same I wrote about earlier:

Excitement was high as we walked to the site, discussing what our best plan of action would be. We both figured that we had done a good job the last time and that we would probably have to move to a different location because last time we spent the whole day digging in a 40 square yard area. We were both there a good 6-7 hours and had roamed all over the area numerous times. If there were any targets left, it sure wouldn’t be very many. Mike began hunting in the same spot we already worked, and I ventured a bit further away. Mike was digging targets while I was not, so after an hour I too moved back to the “hot spot”.

Again I will save you all the details but we ended up spending the entire day in the same general area, slowly working around it, listening for the faint singles. I tried various settings, but usually ended up with hunting in JE mode, sensitivity all the way up to 95, two tone mode, with disc turn all the way down to 4. With this setup, I was able to hear all of the iron targets, but more importantly also hear the high “zip” of good targets mixed in with the iron. By keeping the disc low it seemed like the masking affect of iron was minimized, or in some cases gone all together. It was not uncommon to dig good targets out a hole with multiple iron targets.

We were both surprised by the fact that we were still finding targets in the exact same area that we hammered weeks before. Granted, they were deeper, smaller, and weaker signals, but we were still digging a lot of targets. I should also mention that this site contains a LOT OF IRON! We spent 9 more hours hunting the exact same area, but then, there was no reason to leave since we kept digging good targets. I ended up with 28 swan shot, 13 pieces of mica, lead seals, a large half dimes, part of a cuff link, and 18 buttons. Oh yes, and one coin, but I will come back to that in a bit. The buttons consisted of 5 large pewter 4-hole buttons, two one-piece flat buttons, a lead button, two two-piece brass eagle cuff (one Artillery and one Dragoon), four one-hole eagle cuff buttons in pewter, one one-piece eagle coat button, and four pewter general service (US) buttons! The “US” is visible on all of the general service buttons and the dragoon was my very first! Mike’s take was a little bit better than mine. Boy, what a day!

There were two distinct finds that I remember, both were US pewter buttons. One I was able to measure the exact distance. It was the full length of my digger, and I was happy.
Fabulous Finds with Fisher Detectors

Gold nugget found by Andy Angus.

Silver fur trade era cross.

1652 Tree Coin.

Early coin spill found by Kim Cox.

Another gold nugget found by Mike Swinnie.

Civil war buttons.

Confederate Calvary Button found by Greg Tory.

Men's gold and diamond ring.

Gold jewelry.

 Flintlock musket hammer.

South Carolina Continental Navy Button found by Pete Eles.

Milk can silver cache, found with a Gemini 3.

1700's Jesuit rings.

Ancient Celtic coin cache found in Netherlands

By Toby Sterling
Associated Press Writer
Thu Nov 13, 4:23 pm ET
http://news.yahoo.com

AMSTERDAM, Netherlands — A hobbyist with a metal detector struck upon both gold and silver when he uncovered an important cache of ancient Celtic coins in a cornfield in the southern Dutch city of Maastricht.

“it’s exciting, like a little boy’s dream,” Paul Curfs, 47, said Thursday after the spectacular find was made public.

Archaeologists say the trove of 19 gold and 70 silver coins was minted in the middle of the first century B.C. as the future Roman ruler Julius Caesar led a campaign against Celtic tribes in the area.

Curfs said he was walking with his detector this spring and was about to go home when he suddenly got a strong signal on his headphones and uncovered the first coin.

“It was golden and had a little horse on it — I had no idea what I had found,” he said.

After posting a photo of the coin on a Web forum, he was told it was a rare find. The following day he went back and found another coin.

“This looks totally different — silver and saucer-shaped,” he said. Curfs notified the city of his find, and he and several other hobbyists helped in locating the rest of the coins, in cooperation with archaeologists.

Nico Roymans, the archaeologist who led the academic investigation of the find, believes the gold coins in the cache were minted by a tribe called the Eburotones that Caesar claimed to have wiped out in 53 B.C. after they conspired with other groups in an attack that killed 6,000 Roman soldiers.

The Eburotones “put up strong resistance to Caesar’s journeys of conquest,” Roymans said.

The silver coins were made by tribes farther to the north — possible evidence of cooperation against Caesar, he said.

Both coin types have triple spirals on the front, a common Celtic symbol.

The two other known caches of Eburotones coins have been found in neighboring Belgium and Germany.

Maastricht city spokeswoman Carla Roymans said an archaeological investigation by the city of Maastricht, Netherlands, Thursday Nov. 13, 2008, shows gold and silver coins. A hobbyist with a metal detector has found a cache of ancient Celtic and Germanic coins in a cornfield in the southern city of Maastricht.

The city says the trove of 19 gold and 70 silver coins were dated to the middle of the first century B.C. The hobbyist, Paul Curfs, 47, found several coins this spring and called attention to the find, which eventually led to an archaeological investigation by Amsterdam’s Free University.

The farmer who owned the land agreed to sell his interest to the city for an undisclosed sum.

Paul Curfs found these spectacular finds with his f75 metal detector.
Gene Scullion shares some of his recent Fisher F75 & F70 metal detector finds.

Everyone else gave up on the "hunted out" camp; it had become almost impossible to find a target. We knew that for certain because we had covered it many times with many different detectors. The F75 and F70 made it seem virgin again and produced lots of targets including 3 hard to find, one dollar gold coins! Thanks Fisher!

John & Bob's finds from a civil war camp, using their F70 & F75 detectors

Randall Stoeberl from Spring Creek, NV finds 33.5 ounces of gold with Fisher's Gold Bug 2

The biggest nugget is 10.55 oz.

Confederated Civil War Buttons and Buckle found by Rob.

1793 Spanish Real found by Bobby Laluna.

Masonic cufflink, South Carolina 3rd Regiment Revolutionary War button & slave tag found by Peter Eles in South Carolina.

Red Legs Team along with other Fisher team members were - Treasure Week Competition Champions.

Early buttons & cufflink found by Peter Eles, South Carolina.

Jewish pendant found by Rob.

Civil War relic found by Rob.
Everyone else gave up on the “hunted out” camp; it had become almost impossible to find a target. We knew that for certain because we had covered it many times with many different detectors. The F75 and F70 made it seem virgin again and produced lots of targets including 3 hard to find, one dollar gold coins! Thanks Fisher!

Randall Stoeberl from Spring Creek, NV finds 33.5 ounces of gold with Fisher’s Gold Bug 2

The biggest nugget is 10.55 oz.

Confederated Civil War Buttons and Buckle found by Rob.

Jewish pendant found by Rob.

Civil War relic found by Rob.

Masonic cufflink, South Carolina 3rd Regiment Revolutionary War button & slave tag found by Peter Eles in South Carolina.

1793 Spanish Real found by Bobby Luluna.

Cufflink found by Douglas Longley.

Red Legs Team along with other Fisher team members were - Treasure Week Competition Champions.

Early buttons & cufflink found by Peter Eles, South Carolina.

18th Century Spanish Silver Coin found by Peter Eles, South Carolina.

Confederate Civil War Buttons and Buckle found by Rob.

Masonic cufflink, South Carolina 3rd Regiment Revolutionary War button & slave tag found by Peter Eles in South Carolina.

1793 Spanish Real found by Bobby Luluna.

Cufflink found by Douglas Longley.

Red Legs Team along with other Fisher team members were - Treasure Week Competition Champions.

Early buttons & cufflink found by Peter Eles, South Carolina.

18th Century Spanish Silver Coin found by Peter Eles, South Carolina.

Confederate Civil War Buttons and Buckle found by Rob.

Jewish pendant found by Rob.

Civil War relic found by Rob.
Fabulous Finds with Fisher Detectors

Gold nugget found by Andy Angus.

Silver for trade era cross.

1652 Tree Coin.

Early coin spill found by Kim Cox.

Another gold nugget found by Mike Swinne.

Civil war buttons.

Confederate Cakery Button found by Greg Tonyy.

Men’s gold and diamond ring.

Gold jewelry.

Finnish musket hammer.

South Carolina Continental Navy Button found by Pete Elks.

Milk can silver cache, found with a Genemi 3.

1700's Joust rings.

Ancient Celtic coin cache found in Netherlands

By Toby Sterling
Associated Press Writer
Thu Nov 13, 4:23 pm ET
http://news.yahoo.com

MSTERDAM, Netherlands — A hobbyist with a metal detector struck both gold and silver when he uncovered an important cache of ancient Celtic coins in a cornfield in the southern Dutch city of Maastricht.

“It’s exciting like a little boy’s dream,” Paul Curfs, 47, said Thursday after the spectacular find was made public.

Archaeologists say the trove of 19 gold and 70 silver coins was minted in the middle of the first century B.C. as the future Roman ruler Julius Caesar led a campaign against Celtic tribes in the area.

Curfs said he was walking with his detector this spring and was about to go home when he suddenly got a strong signal on his earphones and uncovered the first coin.

“It was golden and had a little horse on it. I had no idea what I had found,” he said.

After posting a photo of the coin on a Web forum, he was told it was a rare find. The following day he went back and found another coin.

“It looked totally different — silver and saucer-shaped,” he said. Curfs notified the city of his find, and he and several other hobbyists helped in locating the rest of the coins, in cooperation with archaeologists.

Nico Roymans, the archaeologist who led the academic investigation of the find, believes the gold coins in the cache were minted by a tribe called the Eburones that Caesar claimed to have wiped out in 53 B.C. after they conspired with other groups in an attack that killed 6,000 Roman soldiers.

The Eburones “put up strong resistance to Caesar’s journeys of conquest,” Roymans said.

The silver coins were made by tribes farther to the north — possible evidence of cooperation against Caesar, he said.

Both coin types have triple spirals on the front, a common Celtic symbol.

The two other known caches of Eburones coins have been found in neighboring Belgium and Germany.

Maastricht city spokeswoman Carla Wietzeis said the value of the coins is not known — their worth is primarily historical. The Belgian cache of similar size was estimated at around 175,000 euros ($220,000).

The farmer who owned the land agreed to sell his interest to the city for an undisclosed sum.

Curfs, a teacher at a nearby junior college, continues to own the 11 coins he found, but has lent them to the City of Maastricht on a long-term basis. The coins will go on display at the Centre Ceramique museum in Maastricht this weekend.

Curfs said he considers his metal detector habit a meditative hobby and not an obsession.

Paul Curfs found these spectacular finds with his F75 metal detector.
down and read the entire manual. I had a general idea of how this machine worked because of my early experience with Mike’s machine, and I spent several weeks reading “Fisher” forum site posts and contacting several other people I knew that had already traded their old machines (the very one that I have been using) for this new F-75. I gleaned a few secrets and suggestions, and re-read the manual again. All of this occurred during my early hours of using the F-75. I instinctively thought that I should crank the sensitivity, you know, to see what the machine could do (in spite of what the manual instructs you to do), but I quickly learned that is not the approach you can use with this machine. Like other really sensitive machines, one must temper your belief that “more is better” and really follow the instructions in the manual. You really need to run the sensitivity as high as you can, but still keep the machine stable and relatively quiet. That may mean turning the sensitivity down but on this machine even “low” sensitivity can be much greater than what you are used to seeing on other machines. Trust me on this, pay no attention to what number setting you have it on, run it where its smooth and quiet, at least until you learn the machine and have a few hours under your belt. At some sites you can run it higher than at others, it depends on the conditions and interference encountered. Let the machine dictate where you set the controls so it runs smooth and quiet.

My primary passion is relic hunting so my observations will revolve around that aspect of the hobby. From what I can tell this machine really is a jack of all trades, good for relics, coins, beach hunting, gold hunting, it does it all. Reports posted on some of the metal detecting forums point out this as well.

I will save all the boring details about the sites I visited, but they are sites that I have been hunting for years. Some I consider “picked clean” and rarely find targets any more. Others still give occasional goodies, but its getting harder and harder to make finds. I have several ghost town sites that now consist of crop and grazing lands, a stage stop site, and of course one military site. Each site I took to it I was able to detect some targets. At some sites I was pleasantly surprised, and at one site I found virtually nothing.

At one ghost town site, I found a lot of great, spun wheel parts, several musket balls, and a small button, and a number of pieces of lead coins. I was mildly impressed; this was the most targets I had pulled from this site in years. I also found a nice 1838 seated half dime! Not sure how I missed that before but the F-75 had pulled more for me in 5 hours than I had found in my last 5 trips to this site. It was a good day, and I was happy.

My next spot was a stage stop, again a site that I alone have hampered to death. This site yielded coins back to 1797 in the past but on my last three trips here I dug almost nothing. This really was a favorite spot of mine but I was slowly accepting the fact that I had hunted it out. Two trips here with the F-75 gave up some very small targets, but nothing deep.

This past weekend I was again in the company of my friend, Mike, and we were to dig the same site. I wrote about earlier: Excitement was high as we walked to the site, discussing what our best plan of action would be. We both figured that we had done a good job the last time and that we would probably have to move to a different location because last time we spent the whole day digging in a 40 square yard area. We were both there a good 6-7 hours and had roamed all over the area numerous times. If there were any targets left, it sure wouldn’t be very many. Mike began hunting in the same spot we had already worked, and I ventured a bit further away. Mike was digging targets while I was not, so after an hour I too moved back to the “hot spot”.

Again I will save you all the details but we ended up spending the entire day in the same general area, slowly working around it, listening for the faint singles. I tried various settings, but usually ended up with hunting in H1 mode, sensitivity all the way up to 95, two tone mode, with disc turn all the way down to 4. With this setup, I was able to hear all of the iron targets, but more importantly also hear the high “zip” of good targets mixed in with the iron. By keeping the disc low it seemed like the masking affect of iron was minimized, or in some cases gone altogether. It was not uncommon to dig good targets out a hole with multiple iron targets.

We were both surprised by the fact that we were still finding targets in the exact same area that we hammered weeks before. Granted, they were deeper, smaller, and weaker signals, but we were still digging a lot of targets. I should also mention this site contains a LOT OF IRON! We spent 9 more hours hunting the exact same area, but then, there was no reason to leave since we kept digging good targets. I ended up with 28 swan shot, 13 pieces of musket balls, part of a cuff link, and 18 buttons. Oh yes, and one coin, but I will come back to that in a bit. The buttons consisted of 5 large pewter 4-hole buttons, two one-piece flat buttons, a key button, two two-piece brass eagle cuffs (one Army and one Dragoon), two one-piece eagle cuff buttons, and four pewter general service (US) buttons! The “US” is visible on all of the general service buttons and the dragoon was my very first! Mike’s take was a little bit better than mine. Boy, what a day!

There were two distinct finds that I remember, both were US pewter buttons, one I was able to measure the exact distance. It was the full length of my digger.
Fisher F-5 Review

Mark Ellington

O ur story...are you ready for this? I’m going to open this F-5 review with a very bold statement. The new Fisher F-5 has the BEST user interface of ANY metal detector I’ve ever used!...and I’ve used a bunch! The Fisher F-5 is yet another weapon in Fisher’s ongoing “War on bad ergonomics and interfaces” that tends to plague the hobby industry. The absolute brilliance of the design makes me wonder “why in the world haven’t someone done this?”

Sure...hobby detectors have used knobs in the past to control functions (like Fisher’s own venerable CZ series), but never before has there been the perfect storm of digital, software driven power combined with ease tab key control.

The F-5 knobs settings are instantly relayed to the user in a window in the bottom left of the display (Setting). When you give the knob a twist, the window intelligently switches to the gain setting, adjust the ground balance, it shows you that too! The same goes for Threshold, Discrimination, Tones and mute. I’m not adjusting something, the window displays the current ground “Phase” setting. It’s a great concept...all the information can be made on the fly, and you’re instantly informed of what you’re changing (and by how much).

Each of the knobs on the F-5 is strategically placed so you can “thumb” the controls. If I hear a deep target that is on the fringe of detection, I don’t have to dig through layers upon layers to adjust the gain or threshold...a quick reach with the thumb of my detecting hand and I can ease the controls up quickly and efficiently. When I’m done, it’s a very simple task to “thumb” it right back to my starting point.

Speaking of gain and threshold, the F-5 places these two control knobs side-by-side for a reason. There is a very synergistic relationship that has to be seen to be believed! High gain or high threshold...which will be best for my current hunting site? The flexibility offered for adapting to all your various hunt sites and their challenges are incredible. There is a local farm that I hunt that is surrounded by an electric cattle fence. I have had to be careful to avoid this spot with ridiculously low settings on older detectors just to make it bearable. With the F-5, I can adjust the Threshold control to around -1 or -2 and still get very impressive depths!!! Without the noise and chatter this spot usually bombards me with. Since using the F-5 in this pasture, I’ve recovered several old silver coins that I just could not hear with my older detectors!

The threshold control also does something else... Have you ever hunted a site that drove you nuts due to tiny bits of foil, rusted tin, etc.? By lowering the Threshold control, you can partially reduce the F-5’s sensitivity to ‘em! As a precaution, I tested this in my coin garden to see if it would have a major impact on the depth I could get on coin sized targets. Although there was a very slight loss of depth, I was still able to hear coin sized stuff within about 1/4 of an inch of the ground. I have a very small area that is an extreme challenge. This particular site is covered with a lot of forest clutter. The ground was covered with broken branches and tree limbs of all sizes. So much so that I would have to rake these areas clean before I could even think about hunting them. The targets were numerous and I was very excited to do so. Well, I was re-hunting an area that I originally prospected several months ago. None were cleaned up before hunting and it’s not uncommon to find a large amount of clutter on the surface. In this case, the Second world was the best scavenger as I found a ton of lost silver that I had not come across in the past.

The audio on the F-5 is amazingly descriptive. You have the option to choose single, two, three or four tones. However, there’s a lot more to the F-5 audio than just the number of tones! There are some amazing tonal qualities that change according to the clarity or the signal, proximity of other targets, tone mode selected, etc. I’m reminded of a few old analog detectors I’ve owned that, although a single tone gave me a lot of information about the target due to the “little wiggle” you hear in the audio. In other words, there’s much more here than meets the eye. The audio is better than what I am currently using.

The targets were numerous and I was very excited to continue hunting so it was an easy decision. He said he would leave his F-75 for me to use. I wanted to try it. I was somewhat apprehensive, yet extremely excited to see if this machine was as good as I had heard. After a quick lesson Mike left and I was on my own. I wandered around, trying to get used to the signals I was hearing, and I must admit I was a little frustrated at first. But within 15 minutes I could tell good from bad targets and after digging a few good buttons, I was gaining confidence fast. It was then I realized that this machine was any better than my other machine. What better way to see if this machine was any better than my other machine. What better way to see what I should be doing is hunting the exact same area. He wanted to come back after his previous commitment. We both had to leave for several hours, to attend a wedding. We both came back after several hours and began to move to the areas he had to leave for several hours to attend a wedding. We both had thought we would call it a day at this point but because of the success we were both having neither of us really wanted to leave. We decided to come back after my commitment and I certainly wanted to continue hunting with it as well. He had to do was hunt. After a quick lesson I was ready and I was ready to handicap myself at such a great site but Mike had everything set on the F-75, all I had to do was hunt. After a quick lesson we both continued to dig targets, but I couldn’t help but wonder what targets I was missing. I am certainly not going to cast aside my favorite machines because of this two-hour comparison, but I was convinced me that I need to investigate this machine more. As a detector, I need to learn this new machine so I can better service my customers. As a user I need to learn this machine to see how well it does on the sites I normally hunt, under the conditions I normally hunt in. Only then will I decide if it’s better than what I am currently using. When I finally received my F-75 I opened the box and was a bit surprised by the “Read This First” instruction page taped to the back of the control box. Wow! Fisher is actually warning its users that the machine is very sensitive and explains the basics right there on the very first thing you see when you open the box. I am not the manual aide, and quickly assembled my new machine. After all, I am a veteran detectorist; I should be able to figure this machine out without having to read a manual, right? OK, I was a bit mistaken on that part but the actual operation of the machine is very easy, with only two controls needed to make every adjustment possible and an on/off/Volume control. I must admit, I was impressed with how easy the F-75 was to adjust and move around the menu’s. It is very straightforward and easy to understand. We both thought we would call it a day at this point but because of the success we were both having neither of us really wanted to leave. Mike decided that we would come back after my commitment and I certainly wanted to continue hunting so it was an easy decision. We both had thought we would call it a day at this point but because of the success we were both having neither of us really wanted to leave. He decided to come back after my commitment and I certainly wanted to continue hunting so it was an easy decision.
9. It is your choice for tone options. I have ...

8. Starting lower the coil closer to the ground while continuing to sweep and verify detector remains audibly stable. If ...

7. Starting sweep the coil with the coil remaining if above the ground and verify detector remains audibly stable.

6. Now select FE mode and verify detector remains audibly stable. If during any of these steps, the detector becomes audibly chattery, you have electrical instability. If so, you must back up in procedure until you find electrical stability, and these are the settings you should not hunt with.

5. About every 2” or 3” I was finding #2 lead shot from a shotgun at a depth of approximately 1 foot. About 140 Targets at 1” apart was lost by this method.

4. I had noticed the VDI is incorrect!!! These small spot of land that I coincided/removing these small BB’s suddenly had no electrical chatter in this one localized location of coil sweep.

3. External of this sans spot the electrical chatter resumed. I knew I was overdamping the F-75 and desided to try and get it to a setting of 70 and the perceived electrical chatter (the BB-shot) as coil was being swept, suddenly vanished. I had desensitized the detector enough to no longer detect these small targets and the unit became usable again. Masking was still taking place though. It hurts me to drop out your brain can process the same speed of the F-75/T-2. You will also notice the VDI jumping radically. Do you think the VDI is incorrect!!!! The new F-75/T-2 and T-2 will audibly sound very noisy. Said differently, let’s say the dirt is sans except for one single coin target at several inches deep. At a normal sweep-rate, the F-75 and T-2 will fire many many times (dictated by microprocessor clock speed) on the coin and report each individually BUT what do your human ears hear/registre? It just simply sounds like one continuous beep to you. It’s not bad.

2. One to two seconds delay between targets, but only if the target is in the ground and not moving and unit was mostly stable.

1. From the past that “wore me out!” both physically and mentally due to bad physical design, constant chatter and horrible menu systems that made you have to dig through layer after layer to change something. NOT so with the F5!!!

Summary

The new Fisher F5 is a metal detector that will set a benchmark for its incredibly well designed interface. I can see new metal detectorists and veterans having a blast with it, as well as anyone who just likes the feel of knobs better than button pushing their way through menus. All the control is there for the power user...but in a whole new way. “Intelligent simplicity” may sum up the F5 quite well! I find it very ironic that Fisher Labs, the “Oldest name in Metal Detecting” is on the cutting edge of the newest technology! I very vigorously tip my hat to Jorge Anton Saad who was Lead Engineer on the F5 project...and well supported by the legendarey Dave Johnson, John Gardiner, Mark Kiriege and Marvin Jones. A job well done on what is sure to become a favorite metal detector for a lot of people.

Éric R. Granados

Metal Detectorist

Fisher Labs Factories

For more Intelligent Hunting advice go to:

www.fishelab.com

Fisher Labs, Inc.

PROFILES

Do not tilt the coil upward. Increase Sens to 99 and verify detector is audibly stable. This is the first step. (If the detector becomes chattery/ unstable, try changing the detector’s selectable frequencies (F1 - F7) and see if this helps mitigate the instability. If not, then lower the Sens to 99, and verify detector is in the stability just barely disappears. Hunt with these settings and do not proceed any further (USUALLY when you are at a Disc of 4 and ESPECIALLY lower, is when multitone option is virtually required). Set Disc on 4 and verify detector remains audibly stable.

Next, drop Disc to 3 then 2 then 1 then 0, and verify audio stability is still retained. If not, then lower Disc to 0, and verify audio stability is still retained.

ultimately 0, and verify audio stability is still retained.

Now, lower the coil closer to the ground while continuing to sweep and verify detector remains audibly stable. If during any of these steps, the detector becomes audibly chattery, you have electrical instability. If so, you must back up in procedure until you find electrical stability, and these are the settings you should not hunt with.

About every 2” or 3” I was finding #2 lead shot from a shotgun at a depth of approximately 1 foot. About 140 Targets at 1” apart was lost by this method.

External of this sans spot the electrical chatter resumed. I knew I was overdamping the F-75 and desided to try and get it to a setting of 70 and the perceived electrical chatter (the BB-shot) as coil was being swept, suddenly vanished. I had desensitized the detector enough to no longer detect these small targets and the unit became usable again. Masking was still taking place though. It hurts me to drop out your brain can process the same speed of the F-75/T-2. You will also notice the VDI jumping radically. Do you think the VDI is incorrect!!!! The new F-75/T-2 and T-2 will audibly sound very noisy. Said differently, let’s say the dirt is sans except for one single coin target at several inches deep. At a normal sweep-rate, the F-75 and T-2 will fire many many times (dictated by microprocessor clock speed) on the coin and report each individually BUT what do your human ears hear/registre? It just simply sounds like one continuous beep to you. It’s not bad.

One to two seconds delay between targets, but only if the target is in the ground and not moving and unit was mostly stable.

From the past that “wore me out!” both physically and mentally due to bad physical design, constant chatter and horrible menu systems that made you have to dig through layer after layer to change something. NOT so with the F5!!!

Summary

The new Fisher F5 is a metal detector that will set a benchmark for its incredibly well designed interface. I can see new metal detectorists and veterans having a blast with it, as well as anyone who just likes the feel of knobs better than button pushing their way through menus. All the control is there for the power user...but in a whole new way. “Intelligent simplicity” may sum up the F5 quite well! I find it very ironic that Fisher Labs, the “Oldest name in Metal Detecting” is on the cutting edge of the newest technology! I very vigorously tip my hat to Jorge Anton Saad who was Lead Engineer on the F5 project...and well supported by the legendarey Dave Johnson, John Gardiner, Mark Kiriege and Marvin Jones. A job well done on what is sure to become a favorite metal detector for a lot of people.
Discrimination mode "Sensitivity" and "Depth" in single-frequency VLF metal detectors

by Dave Johnson
Chief Designer, Fisher Research Labs

Some metal detectors are "more sensitive" than others, and "how deep" a particular metal detector can detect a specific metal object depends on many variables.

"Air test sensitivity" refers to the maximum repeatable distance achievable in air using a standard metal test piece (typically a US nickel coin), with the searchcoil that’s standard with that model, in a location without electrical interference, the machine adjusted to just barely eliminate background chatter. If ground balancing is available on the machine, it must be done using ferrite. .......

A properly done "air test" provides an indication of a machine’s potential to "go deep" on buried objects. Because of interference from magnetic iron minerals in the ground, actual detection depth will usually be much less than what’s achieved in "air test". (NOTE: for maximum depth on deep "air test" on buried coins. Because of interference, machines which have no...)

Threshold settings are used to silence internal "circuit noise" and electrical interference. Machines which have no threshold control have an internal threshold which allows silent operation, or a control labeled "sensitivity" which actually controls threshold...

AUDITORY RESPONSE

How much depth should I get? There is no single answer to that question. In a few places you may get in-ground depth almost as good as in an air test. There are also a few places with so much iron or salt mineralization that most detectors are not even usable. In most soils, the best discriminators will usually detect coins to a depth of 7+ inches or more, and will usually provide usable discrimination and target ID to a depth of 5+ inches or more. A particular target may not be detected or misidentified because of the proximity of rods or other metal targets, disturbed soil caused by digging, peculiarities of the target, or subsonic user technique for that target in that setting. On sites where the discriminator doesn’t provide enough depth for your purposes, search in the all-metal ground balanced mode if the machine provides one.

On CZ-3D in the enhanced mode, non-ferrous objects will normally report as hi-tone. On the F-75 and T-2 you MUST invoke 4-tone which will then cause non-ferrous objects to report as high-tone in the 3rd highest tone region (vs. mid-tone) and the new coins will remain in T-2c merely slightly higher than a tone report on T-2/75F-1 only the NEW coins will report as high-tone and SAME of the older coins might report as high-tone. Most of the older coins would then audibly report as mid-tone (just like the aluminum soda tab).

If you run Disc on 0-4 on the F-75, all coins will report as good targets in monochrome. With F-75 Disc on 6- MOST (not all) coins will report as a crackle-crack or pop or tick-click (not a solid audio) which, in turn can be ignored. Axe heads, hammer, gun barrels and other large iron targets will give a good audio with Disc on 6 on the F-75 but MOST fields we hunt are not loaded with axe heads, gun barrels and hammer.

The F-75/T-2/1 have a tendency to up-average non-ferrous target ID numbers when near disturbed iron or bad minerals. VERY common occurrence. It is partial silent masking coupled with a signal response. I have several documented experiences exactly relating to this. Let’s say that you detect a coin or pull-tab at 6”. Normally without being masked, it would VDI at 7 but masked it may now VDI at 8 or 9. Examining the VDI common result. In both cases, the detector reports hi-tone. No problems with a slightly-curved buffer nickel will VDI at 28 in open air and audibly report as a hi-tone. With this same nickel in the dirt, in a natural setting and partially masked, IT TOO will up-average just like the silver dime, to say a VDI of 47. Hmmm, now the nickel looks like a soda tab to the detector and the unit will now report the slightly-masked nickel as a mid-tone. All of this holds true for other medium conductivity items such as relics & gold jewelry.

If you are recovering Mercury dimes at say the 11" depth range, you may want to ALSO recover the 11" depth range mimics of many will be the corresponding mid-tone signal. The T-2 & F-75 electronic design architect is notorious for up-averaging nonferrous targets in the presence of iron & iron oxides. Not a problem considering other single freq units would remain completely silent. All of the older CoinCo’s have a difficult time picking d’ging. Co’s do their best job, but do not immune the T-2c/Ys-ID’d nickel.

All-Metal mode is the deepest mode. HOWEVER, coin-sized objects will still ID to depths of only 1/2" or so. The depth at which a target will properly ID in the ID mode is the same depth it will properly ID in the AM mode (F-75 & T-2). Yes, targets will audibly report to greater depths in the AM mode but the VDI screen will remain blank on the deeper targets. Now, that being said, if you are an extremely seasoned hunter you can take advantage of these greater (no VDI) deeper depths. If you can audibly profile deep targets, you can tell the difference between a small target that is shallow, such as a lead 22 Short 2Gr rimfire projectile at 4" deep vs. a .U.S. nickel at 12" depth? These are both nonferrous targets. And can you tell the difference between a .U.S. nickel at 7” vs. Wheat penny at 12"? This latter example is the MOST common and NOISEY issue of all! The Detectorist as it poses the greatest challenge with the most significant rewarding result. Believe it or not, the coin collection may be miles beneath the Earth's surface. Egyptian sunken cities are dozens of feet Deep; truly the 100 year-old coins to wish to find are a foot or two deep. NOW, that being said, if you are in a nail infested area, and you do NOTActivity fatigue easy, IF, IF, IF, you can handle a lot of noise and the detector can handle (not EMS plagued) a Disc setting of 0 and a Sens setting of 99, then hunt in 2, 3, 4 tones (your choice) for the deepies. YES, the detector will mask some targets in this audio selection configuration (e.g. 2, 3, 4 tones are selected) because any heavily-masked target that VDI ID’d as 15 or below will present an iron audio response (example above). BUT, the trade-off is: the F-75 will go deeper just by virtue of the Disc setting being 4 or below (especially). Som eco Buffalos are saying by this set-up configuration ="MORE MASKING, BUT GREATER DEPTH. However, for the new CoinCo’s, which one does better? Disc 6 & monotone??? Or Disc 0 and monotone? Those are the enhanced adjacent targets you can. THEN Hunt in Disc 0 and a tone- option of your choice... going for all the deepies. NO, you can’t have both at the same time. In theory, in an ideal world, targets are spaced far enough apart so as to be isolated, so targets, not tifted, not near hot rocks, not near iron, no dirt mineralization etc. This would allow the detector to ID targets with the greatest accuracy. HOWEVER, this is not real, not the real world. Fact of the matter is, nearly all targets are somewhat/somewhat handicapped. First, as a good target (say a coin) is moved closer to any other metals objects, a multiplicity of problems are introduced to the detector. Now add dirt mineralization, fill in the coin, add a hot rock or two, etc., WELCOME TO THE REAL WORLD! This is genuinely what detectorists and detector engineers. How do you correct and compensate for infinite unknowns? Machines may be categorized and classified as these "two targets are too close to each other". Machines may...

NEWS FEATURES

TREASURE HUNTING V-FACTOR

Concentric Coil but does not even present just exactly such a scenario. A coin and a pull-tab, both at a height (approx) 8” above the ground.


2. Hold coil parallel to ground... and at a height (approx) 8” above the ground.

In theory, in real world, targets are spaced far enough apart so as to be isolated from each other.
F-75 Peak Performance

Disc 6 & mandatory monotone relic hunting justification

Intelligent Hunting Advice by Thomas J. Dankowski

When the F-75 is placed on a Disc setting of 6 and monotone, this set-up configuration allows (under MOST circumstances) the best iron see-thru ability in locating non-ferrous targets in areas that are loaded with ferrous (usually nails) targets. The older the site, the more nails will be present and subsequently, the more good targets will be masked. Most detectors will shutdown under these scenarios. The F-75 and the T-2 are the only detectors currently available on the market that begins to tackle this type of extremely common scenario with some unmasking success.

With F-75 Disc on 6 and monotone audio, the moment you invoke a different tone option, say 2-tone, 3-tone, 4-tone, etc., the audio portion of the Disc, even though Disc is set on 6, will instantly become a Disc setting of 1.5. What does this mean?

Any target that is between a Disc level of 6 thru 15 will now audibly report as a low tone (iron tone). BIG PROBLEM for a multiplicity of reasonings. The VDI was terrible. It would/could NOT lock on to anything close to resembling a highly conductive target audio signature, with the end result being a non-recovery decision from less audible sounding, bounding signal. NOW, when monotone is selected/invoked, the SAME composite target(s) will audibly report a LONGER duration SINGLE-tone audible presentation (instead of several shorter-in-length different tones in one sweep of the coil) that will less-likely confuse the operator and authorize the operator to make a much better probing of the composite target audio signature, with the end result being a more intelligible target reporting in ONE sweep of the coil! Sure enough to confuse most detectorists into a NON-recovery decision as the target is audibly confusing and is not a clean or solid repeatable sounding target (most masked targets are not clean audio targets). Each of the multi-notes reporting will be audibly shorter in duration. A kind of a ratty sounding, bouncing signal. NOW, when monotone is selected/invoked, this SAME composite target(s) will audibly report a LONGER duration SINGLE-tone audible presentation (instead of several shorter-in-length different tones in one sweep of the coil) that will less-likely confuse the operator and authorize the operator to make a much better probing of the composite target audio signature, with the end result being a more intelligible target reporting in ONE sweep of the coil!

The mandatory monotone instruction is primarily for iron nail pits. Long description: If a non-ferrous target is located in very close proximity to iron/multi-iron scenario then as you rotate your body around the composite target the audio will be bouncing between all of the different tones (same with VDI) and each tone being exceptionally short in duration. You may even encounter a multi-tone audible reporting in ONE sweep of the coil! surely enough to confuse most detectorists into a NON-recovery decision as the target is audibly confusing and is not a clean or solid repeatable sounding target (most masked targets are not clean audio targets). Each of the multi-notes reporting will be audibly shorter in duration. A kind of a ratty sounding, bouncing signal. NOW, when monotone is selected/invoked, this SAME composite target(s) will audibly report a LONGER duration SINGLE-tone audible presentation (instead of several shorter-in-length different tones in one sweep of the coil) that will less-likely confuse the operator and authorize the operator to make a much better probing of the composite target audio signature, with the end result being a more intelligible target reporting in ONE sweep of the coil!
The F75 has many great features. Use it for coin shooting, relic hunting, gold prospecting, and much more!

Accessory Coils:
- 5" DD Coil . . . . . . . . . . . . . . MSRP $159.00
- 6 1/2" Elliptical Coil . . . . . . MSRP $169.00
- 10" Elliptical Coil . . . . . . . . . MSRP $179.00

The Ultimate Detector

F75

MSRP $1199.00

- Double-D search coil
- Trigger-actuated FASTGRAB™ ground balance
- Double-filter discrimination modes for searching in trashy areas
- Magnetic neutralization bar graph readout
- Frequency shift for eliminating electrical interference and crosstalk
- Visual target ID by category & 0-99 indication, both discrimination & auto-tone modes
- Speed selection—normal for most situations, slow for deep coins in non-trashy areas
- Independent sensitivity and threshold settings provide fine control over response
- Magnetic mineralization bar graph readout
- 13 kHz frequency—good for coin shooting, relic hunting, and gold prospecting
- Double-D search coil
- Trigger-actuated FASTGRAB™ ground balance
- Double-filter discrimination modes for searching in trashy areas
- Magnetic neutralization bar graph readout
- Frequency shift for eliminating electrical interference and crosstalk
- Visual target ID by category & 0-99 indication, both discrimination & auto-tone modes
- Speed selection—normal for most situations, slow for deep coins in non-trashy areas
- Independent sensitivity and threshold settings provide fine control over response
- Magnetic mineralization bar graph readout
- 13 kHz frequency—good for coin shooting, relic hunting, and gold prospecting
- Rain cover for control housing & battery housing available
- Large LCD screen with target identification display
- Low operating cost - typically 40+ hours with 4-AA batteries
- Non-volatile memory saves settings
- Trigger-actuated target pinpointing with variable audio pitch
- Visual target ID by category & 0-99 indication, both discrimination & auto-tone modes
- Magnetic mineralization bar graph readout
- 13 kHz frequency—good for coin shooting, relic hunting, and gold prospecting
- Double-D search coil
- Trigger-actuated FASTGRAB™ ground balance
- Double-filter discrimination modes for searching in trashy areas
- Magnetic neutralization bar graph readout
- Frequency shift for eliminating electrical interference and crosstalk
- Visual target ID by category & 0-99 indication, both discrimination & auto-tone modes
- Speed selection—normal for most situations, slow for deep coins in non-trashy areas
- Independent sensitivity and threshold settings provide fine control over response
- Magnetic mineralization bar graph readout
- 13 kHz frequency—good for coin shooting, relic hunting, and gold prospecting
- Rain cover for control housing & battery housing available
- Large LCD screen with target identification display
- Low operating cost - typically 40+ hours with 4-AA batteries
- Non-volatile memory saves settings
- Trigger-actuated target pinpointing with variable audio pitch
- Visual target ID by category & 0-99 indication, both discrimination & auto-tone modes
- Magnetic mineralization bar graph readout
- 13 kHz frequency—good for coin shooting, relic hunting, and gold prospecting
- Rain cover for control housing & battery housing available
- Large LCD screen with target identification display
- Low operating cost - typically 40+ hours with 4-AA batteries
- Non-volatile memory saves settings
- Trigger-actuated target pinpointing with variable audio pitch
- Visual target ID by category & 0-99 indication, both discrimination & auto-tone modes
- Magnetic mineralization bar graph readout
- 13 kHz frequency—good for coin shooting, relic hunting, and gold prospecting
- Rain cover for control housing & battery housing available
- Large LCD screen with target identification display
- Low operating cost - typically 40+ hours with 4-AA batteries
- Non-volatile memory saves settings
- Trigger-actuated target pinpointing with variable audio pitch
- Visual target ID by category & 0-99 indication, both discrimination & auto-tone modes
- Magnetic mineralization bar graph readout
- 13 kHz frequency—good for coin shooting, relic hunting, and gold prospecting
- Rain cover for control housing & battery housing available
- Large LCD screen with target identification display
- Low operating cost - typically 40+ hours with 4-AA batteries
- Non-volatile memory saves settings
- Trigger-actuated target pinpointing with variable audio pitch
- Visual target ID by category & 0-99 indication, both discrimination & auto-tone modes
- Magnetic mineralization bar graph readout
- 13 kHz frequency—good for coin shooting, relic hunting, and gold prospecting
- Rain cover for control housing & battery housing available
- Large LCD screen with target identification display
- Low operating cost - typically 40+ hours with 4-AA batteries
- Non-volatile memory saves settings
- Trigger-actuated target pinpointing with variable audio pitch
- Visual target ID by category & 0-99 indication, both discrimination & auto-tone modes
- Magnetic mineralization bar graph readout
- 13 kHz frequency—good for coin shooting, relic hunting, and gold prospecting
- Rain cover for control housing & battery housing available
- Large LCD screen with target identification display
- Low operating cost - typically 40+ hours with 4-AA batteries
- Non-volatile memory saves settings
- Trigger-actuated target pinpointing with variable audio pitch
- Visual target ID by category & 0-99 indication, both discrimination & auto-tone modes
The F4 is an outstanding metal detector

by Mark Ellington

I've always heard “The older you get, the faster time passes.” Now that I'm in my mid 40's I've found that statement to be all too true. However, there are exceptions to this rule... Christmas, payday and waiting for a metal detector to arrive in the mall! I'm the first to admit, I become very "kid like" when I have a new machine on the way to my house. My wife is very "understanding" of this affliction of mine, only succumbing to the occasional "eye roll" when I constantly babbble on about treasure hunting, old sites, coins and metal detectors.

The subject of this particular dose of excitement was the new Fisher F4. Fisher Research Laboratories, the oldest hobby metal detecting manufacturers in the world, was purchased by First Texas Products of El Paso Texas. First Texas also owns the Bounty Hunter and Teknetics brands. At first, a lot of folks in the metal detecting hobby didn't know what to make of the Fisher purchase... would First Texas continue the long tradition of high performance/high quality metal detectors? Would the "new" Fisher be introducing new exciting models? Luckily for us, the answer to both these questions is a resounding "YES!"

Assembly and First Impressions - My new F4 was shipped double boxed, which is a nice touch in my book. After unpacking it, I was immediately impressed by the high quality feel of the gold anodized rods and the heavy duty plastic arm cup. Assembly was a breeze, with all the poles locking securely in place. I quickly removed the batteries... (Be careful, they are pretty tight) and installed them. Finally! The moment of truth!

Display and Controls - A light press with my right thumb brings the F4 to life. The F4 makes use of membrane type buttons that offer a light "click" for feedback. The LCD display is clear and sharp with a centrally located conductivity ID number. Along the top is an arc of various common targets, ranging from iron to $1. An LCD "arrow" points to the detected target, making for quick and easy identification. To the left of the conductivity ID is a "on the fly" depth gauge that displays the depth of the currently detected item in 2" increments. On the right is a battery meter, constantly monitoring the power level of the nine volt cells. The faceplate looks great. The red, gold and black color scheme is very "pleasing to the eye" and all the buttons are logically placed and clearly marked.

The face of the detector has nine touch pads and one ground balance knob. Available controls are: On/Off, Sensitivity up and down, All metal auto tune, Pinpoint, Disc, Notch and Discrimination/Threshold up and down. The "Disc" button toggles the F4 between an "all metal discrimination mode" and a "discrimination mode". All metal discrimination allows all targets to be heard and identified using both the visual ID indicators and the 4-tone audio ID. The "discrimination mode" activates the discrimination circuits, allowing you to eliminate any targets you wish at all the way through zinc penny. My experience with the F4 is that the "all metal discrimination" mode provided outstanding detection depth, while "discrimination" mode did a great job of getting rid of unwanted trash items.

Test Garden and "Real Life" Use - I grabbed a few test targets and gave them a swing in front of the DD coil. The 4 tone audio from the internal speaker is very clear and distinct. The corresponding ID numbers, and target icons seem to be dead "on the money" (pun intended). The F4 seems to be marketed as a "mid range" metal detector, but the air testing I did was comparable to many detectors I've had that cost much more.

Every time I get a new detector, my first destination is my "test garden". I've had it planted for several years with a large variety of targets buried at different depths. The F4 with the double-DD coil was able to correctly identify closely located targets with a precision that nearly rivals my F-75. Very impressive! Depth is much better than I expected from a mid-level machine, and I was able to run it at maximum sensitivity in my yard without any false signals. Pinpointing was a breeze with the toggle on/off style pinpoint button. Entering the pinpoint mode changes the central ID numbers into an "inches of depth" reading. The numbering combined with the great VCO audio made it very easy to size up your targets and avoid large trash items.

My next stop was a local school yard. In my opinion, school yards are the best place to learn a new metal detector. Targets are plentiful, and digging is easy. The F4 felt "custom made" for this type of
What to know about searchcoils

by Dave Johnson
Chief Designer, Fisher Research Labs

This essay pertains to induction balance searchcoils ("loops") of the types most commonly used on handheld hobby-type metal detectors.

**Searchcoil shape**
Most searchcoils are round, but some are elliptical. This refers to the overall shape, not to the type of coil construction. In general, elliptical coils provide a broader sweep pattern over the ground, and narrower target response for better pinpointing. Round coils are easier to design and less expensive to manufacture, which is why they're the most common.

**Searchcoil type of construction**
The words "concentric" and "DD" (or "double-D") refer to the type of internal coil construction.

Most searchcoils (whether round or elliptical) are of concentric construction. A concentric searchcoil has a large transmitter coil, and a smaller receiver coil in the center, usually in the same plane.

This coil arrangement is relatively easy to manufacture and its symmetry helps to minimize electrical drift due to time and temperature. It also provides good discrimination on shallow targets. Some searchcoils (whether round or elliptical) are of DD construction. Double-Ds comprise two overlapping D-shaped coils of approximately the same size, one being the transmitter and the other the receiver. The advantages of the DD are greater depth in mineralized soil, a broad sweep pattern, and narrower target response. Its primary disadvantages from a user's point of view are multiple responses on shallow targets and poor discrimination of flat iron objects. Designing and manufacturing them is more difficult because their lack of radial symmetry makes them prone to drift which the design and the manufacturing process must minimize. Manufacturing cost is higher because the coils cannot be wound on high-speed winding equipment.

**Searchcoil size**
Most standard searchcoils are approximately 8 inches (20 cm) in diameter if round, or approximately 10 inches (25 cm) in length if elliptical. Larger searchcoils allow covering more area with each sweep, and offer a slight increase in depth on medium and large size targets. Unfortunately they are heavier, more difficult to pinpoint with, tend to lose small targets, and provide poor target separation. Small searchcoils provide superior target separation (important in trashy areas) and the ability to detect smaller targets (important in gold prospecting). Of course they don't cover as much ground as a standard size coil. However (and this may surprise you) small searchcoils usually have nearly as much depth capability as standard size searchcoils.

**What's on the market and why**
The least expensive metal detectors usually come equipped with a round concentric searchcoil. The more expensive recent models often come equipped with an elliptical and/or DD searchcoil. Older models, even expensive ones, frequently don't have a DD searchcoil available because DD's fell out of favor during the 1980's and 1990's as the knowledge of how to make DD's did not advance fast enough to keep up with the demands of higher performance circuit designs. Nowadays there seems to be a trend toward DD's as manufacturers have gained more confidence in their ability to design and make them.

**What users tend to prefer**
Double-Ds are usually preferred for relic hunting and gold prospecting. Concentrics are usually preferred when searching for modern coins in an area where there is also iron and aluminum trash.
sand as a large sheet of metal. In order to operate in those areas with most single frequency instruments, you must decrease the sensitivity of the instrument and it may still operate erratically. If you only occasionally visit the ocean and own an instrument that becomes erratic in wet salt sand, you can still operate perfectly in the dry sand area. If you live near the ocean, or get to the ocean frequently, you should consider investing in an instrument that will operate well in all conditions including wet salt sand. Multi frequency machines handle salt conditions as well as do Pulse Induction machines. Metal detectors that operate well in salt water are generally higher priced than multipurpose detectors, but they are definitely worth the extra investment if you frequent the ocean. In summary, keep your discrimination levels low. tonal IDs give you an advantage, and purchase a fully submersible machine if you wish to hunt deeper water. If you plan on hunting water areas often invest in a machine designed for those conditions. Recommended Beach Hunting Fisher Metal Detectors: F75, F70, F5, F4, F2, CZ-3D*, CZ-21**, 1280X*. *Highly Recommended for salt water/sand. *Completely Submersible

Prospecting

Fine gold and silver are not detectable with a metal detector but nuggets (even some smaller than a BB) are detectable with the right type of metal detector. Nearly any machine will find a nugget if it is large enough, not too deep and not in highly mineralized soil. Every major manufacturer of metal detectors makes an instrument designed specifically for prospecting. If you are serious about detecting for gold you should consider purchasing one of these instruments. Units for prospecting normally operate at a higher frequency than most detectors because gold responds better to the higher frequencies. Gold is also commonly found in extremely mineralized ground called black sand. To detect gold effectively in these extreme conditions you need a machine that can balance out the high mineralization and maintain stability with a smooth threshold tone. Otherwise, small nuggets will not be detectable. In addition, special coil types are used on gold machines that enable the machine to cancel out the affects of the black sand. Pulse Induction machines also work well for gold hunting.

In summary, if you are really serious about prospecting with a metal detector you should consider purchasing an instrument designed specifically for that purpose. Your success rate will be much higher if you do. Extreme conditions warrant a machine that can handle them. Recommended Prospecting Fisher Metal Detectors: F75*, F70, F5, Gold Bug 2*. *Highly Recommended I have discussed factors that you should consider as you choose a detector for your needs whether it be coin shooting, relic hunting, beach hunting, or prospecting. As noted before, there is no such thing as “one detector fits all.” If you are now considering choosing a detector for one of these conditions consider the suggestions I have made and buy from a reputable dealer, preferably one within driving distance. This should be a dealer that not only sells detectors, but also uses them, and knows how to demonstrate proper use of each machine. Such a dealer will help you pick the best machine for your budget and your style of hunting.

Thumbs up to the Fisher F75!

My first time out with the F75 was a very pleasant surprise. It was even more user friendly than I could have ever imagined. I choose a spot I had scouted out. After briefly reading the manual, learning how to ground balance with the coil pumping procedure, I decided to keep the other settings as close to factory presets as possible. Right off I loved how easy it was to swing and wet balanced the F75 was. All my signals were deep probably because the area had been hunted so hard previously. A few hours into the hunt I had a nice repeatable signal, but very faint. After digging a deep hole in the sandy soil, I hit the clay bottom; putting the coil in the hole I got a less faint signal. Using my shovel, I carefully picked out a chunk of the clay. Opening the clay I saw I was on the proud new owner of a cuff Virginia staff button with at least 95% gilt left; this small button was approximately 1/8 deep. WOW! A few feet away, out pops a silver 3 cent piece approximately 18” deep. I found a few other deep silver coins in my short first outing with a brand new detector. All I have to say is that the F75 is truly a work of art! Eddie M.
**Coin, relic & saltwater beach hunting specialist**

**Legendary relic hunting performance**

**PROdetectors**

**1270-X**

**MSRP $699.95**

- **Accessory Coils:**
  - 5" Series Coil...
  - 10" Series Coil...
- **1270X 8" Coil**
- **Multi Frequency**
- **1270X**
- **CZ-3D**
  - **MSRP $949.95**
  - **CZ-3D 8" Coil**
- **Accessory Coils:**
  - 5" CZ Coil...
  - 10" CZ Coil...
- **8" Series Coil**
- **10" Series Coil**
- **Operating frequency:** 8.2 kHz
- **Operating frequency:** 5 and 15 kHz

**Beach Hunting**

Beach hunters are typically looking for modern jewelry and coins, although some beaches can yield historic artifacts as well. Items dropped in the sand quickly disappear and without the aid of a metal detector they are very difficult to find. Beach hunting can be done on the dry sand or out in the water where many rings are lost. Salt water beaches present special problems (mineralization) and you must determine if you only shallow wade (with just the cool under water) or desire a totally submersible machine suitable for deep water wading or diving. All quality metal detectors have submersible search coils but not all control boxes are waterproof or suitable for the pressures of deep water diving.

In all types of beach hunting, the discrimination must be kept very low, eliminating only small iron (bobby pins and nails). Aluminum pull tabs and tin foil should not be discriminated or you will lose some gold and/or platinum rings as well. Some beach hunters operate with zero discrimination and dig everything. Use of a sand scoop will make target recovery fast and easy. If you only plan on hunting dry sand and very shallow water a good coin shooting machine will work well if you keep the discrimination set low. If you wish to go out into deeper water you will need a totally submersible machine. Some machines have a single tone for all targets and some have variable tones for different targets. It’s important to realize that most gold rings will read in the “middle” tones (above iron but below coins). An exception to this type of machine is the Pulse Induction (PI) which operates on totally different principles than most detectors, and these machines have little or no discrimination capabilities. All of these machines will work well in fresh water but salt water is a different story. Wet salt makes the ground conductive. All metal detectors work well in the dry ocean sand but most single frequency detectors become erratic in the wet salt sand or in the surf. The detector sees the

**The depth capabilities of a detector are always one important factor whether a person is coin shooting, relic hunting, beach hunting, or prospecting.**

**PROdetectors**

**WORLD TREASURE NEWS**

**PROfiles**

**CZ-3D**

**Deep, Accurate 4-Tone Target ID**

**Dual frequency Fluxgate Domain signal analysis, Engineered to Take you to Deep Treasure!**

**Enhanced Target Mode for More Coins & Relics**

**High Performance Beach Unit - Salt Mode for Wet Sand Operation**

**Superior Depth in Mineralized Soils**

**Operating frequency:** 5 and 15 kHz

**Relic Hunting**

Being located in historic Gettysburg, PA, many of my customers are interested mainly in hunting Civil War relics. The use of metal detectors on National Park Service property is strictly prohibited anywhere in the United States, including the Gettysburg National Military Park. The use of detectors outside the NPS property is proper only with the permission of the property owner. The area around Gettysburg is dotted with many sites used as camping areas, hospital sites, battle, skirmish, and winter camp sites, not to mention all the roads traveling too and from these areas. With proper research and permission to hunt, these areas can be productive.

The needs of the relic hunter are different than the needs of the typical coin shooter. For the relic hunter, the three most important factors are depth, depth and more depth. The depth capability of a machine is always important but even more so if you wish to be a serious relic hunter. Revolutionary War, Civil War, and War of 1812 artifacts, as a general rule, are usually much deeper than modern coins and quite often found in rough terrain such as woods, overgrown areas, croplands and pastures. Artifacts in plowed fields can be quite deep. Unexploded artillery shells can be several feet deep. Additionally, well known sites may have been detected for years and years, leaving only the very deepest targets remaining. If your machine can’t detect a small target 10’ deep, you may not recover anything.

While the coin shooter normally discriminates against all types of iron, most relic hunters desire iron objects. These can be cannons, artillery shells, bayonets, gun tools, weapons, as well as non ferrous bullets, buttons, buckles, spurs, etc. Discrimination and target identification are a plus in relic hunting but are not a necessity. Some of the finest and deepest relic hunting detectors do not have target ID. Because depth is important, you must have a machine that can cancel out ground mineralization with manual adjustments. Avoid machines that have factory preset ground balance because ground conditions can vary widely and you will need a machine that you can adjust to these various conditions.

In summary, serious relic hunters should consider purchasing the deepest machine in their price range. Target identification is nice but not necessary. Get a machine with a manual ground balance adjustment. Use headphones to help hear deep targets and get the largest coil available to get maximum depth.

**Recommended Relic Hunting Fisher Metal Detectors:** F75*, F70*, F5*, F4*, F2, CZ-3D*. Highly Recommended

**Beach Hunting**

Beach hunters are typically looking for modern jewelry and coins, although some beaches can yield historic artifacts as well. Items dropped in the sand quickly disappear and without the aid of a metal detector they are very difficult to find.
Choosing the Right Detector

by Don Hinks
Gettysburg Electronics
Gettysburg, Pennsylvania

For over 35 years I have been a supplier of quality metal detectors at my store in downtown historic Gettysburg. Since 1972, I have sold more than 8000 metal detectors to satisfied customers, one at a time, personally instructing them in the proper use of the detector that they have chosen. Since the late 1960’s I have been an avid detectorist myself, using everything from the primitive heavy tube type instruments to the lightweight state-of-the-art computerized discriminating detectors of today.

For these last 35 years, I have strived to assist each customer in making the right decision when he or she chooses the best detector for their specific use and price range. With our large selection of new metal detectors on display, it can be bewildering to the first time user. To help the customer make the right choice, I first ask the customer what they plan to primarily use the detector for, and where will they be using it. No one specific model of detector will excel in every situation.

Customers come into the store seeking detectors for many purposes. The most popular uses are for coin shooting, relics, jewelry (beach) and gold prospecting. Some other uses include scuba diving and cache hunting. Commercial and industrial uses occur as well, such as security (walk thru and hand held wands), surveyor (locating property stakes) and utility use for locating buried pipes or cables. Knowing the primary use of the detector determines what detector is best suited to fill their needs. There is no “one detector fits all.”

In this article I will focus on coin shooting, relic and beach hunting, and prospecting. The ideal instrument for each of these uses will vary, and each customer will have a specific use for what detector is best suited to fill their needs. There is no “one detector fits all.”

Coin Shooting
Coin hunting is a popular hobby all over the world. Coins have been in circulation since the time of Christ. Coins, rings, jewelry, and other valuables have been lost daily for centuries. Unfortunately, these good targets are usually lying in the midst of large amounts of trash such as nails, scrap iron, aluminum foil, pull tabs, bottle caps, screw caps, pop tops, etc. Some detectorists don’t mind recovering everything but the vast majority of coin shooters don’t want to dig these unwanted targets. Most coinhunters desire to only recover coins, rings and jewelry, and other valuables. Some machines are better than others at achieving this. To avoid becoming discouraged by digging too much trash, the first recommendation I make is to select an instrument with good discrimination. This will narrow down the number of unwanted targets. Fortunately nearly all quality handheld hobby detectors produced today, have some form of variable discrimination that will eliminate certain undesirable objects.

Approximately 70% of the metal detectors that we stock have either a digital readout or meter that will indicate likely coin targets, some even identifying the probable coin denomination. They also will identify probable pop top and tab targets.

This is known as “target identification” or “target ID.” Some discriminating detectors do not have a digital readout or meter to help identify targets. This type of machine usually has a linear type of discrimination adjustment that selectively eliminates targets as you increase the control. Typically this linear setting first deletes iron, then foil, and so on up the scale of targets. The danger in increasing the level of discrimination to eliminate pull tabs is that at that level of discrimination many gold rings could be eliminated, and unless the instrument features dual discrimination or some type of notch discrimination, nickels and numerous other rings could be lost as well.

Metal Detector’s Code of Ethics
1. Always check Federal, State, County and local laws before searching.
2. Respect private property and do not enter private property without the owner’s permission.
3. Take care to refill all holes and do no damage.
4. Remove and dispose of any and all trash and litter found.
5. Appreciate and protect our inheritance of natural resources, wildlife and private property.
6. Act as an ambassador for the hobby, use thoughtfulness, consideration and courtesy at all times.
7. Never destroy historical or archeological treasures.
8. All treasure hunters may be judged by the example you set; always conduct yourself with courtesy and consideration for others.
Dear Treasure Hunting Enthusiast,

Welcome to the world of treasure hunting — brought to you like no other company can. Inside these pages, you’ll read real stories about recent finds of long-buried treasures. Long-buried because our latest technological breakthroughs have just opened up a whole new world of lost treasures to you.

Whether you are considering your first venture into treasure hunting, or you’re a seasoned pro looking for the latest technology, pay close attention because a lot has changed in just the last few years. Our rapid pace of technological innovation is turning old hunted-out sites into fertile hunting grounds and improving the odds of great finds for more people than ever.

While the virtues of practice and developed skill can never be underestimated, beginners and intermediate users can now get more than ever out of the hobby — more because more power, more features, and more new technologies are now available in every type of metal detector we manufacture.

Our team of engineers decided five years ago to break with convention and redefine the state of the art in metal detectors. You will find the result of that endeavor today in many forms, including the industry’s best ergonomics, great user interfaces, and revolutionary advances in target separation capability.

Join the treasure hunt today! If you need advice or have any questions, please contact us direct or visit your local dealer. Share photos and stories of your finds with us; we would love to feature them in upcoming issues.

Happy Hunting,

Tom Walsh
President
Fisher Research Labs
PRO FILES
Fisher Research Labs President’s letter ........................................ 3
Choosing the Right Detector ..................................................... 4-6
Detectorist gives thumbs up to the F75 ..................................... 6
What to know about search coils .............................................. 7
The F4 is an outstanding metal detector ..................................... 8-9
F-75 Peak Performance—by Tom Dankowski ................................ 10-12
Fisher F-75, First Impression ..................................................... 13-15
Ancient Celtic coin cache found in Netherlands ......................... 15
Finds by Fisher Metal Detectors ................................................ 16-18
Pictures from our friends in Norway ......................................... 19
Fisher F5 Review .................................................................... 19

PRO ACCESSORIES .................................................................. 23

PRO DETECTORS .................................................................. 24
F75 ...................................................................................... 24
F70 ...................................................................................... 24
F5 ...................................................................................... 25
F4 ...................................................................................... 25
F2 ...................................................................................... 26
Gold Bug 2 .......................................................................... 26
CZ-21 ................................................................................. 27
1280-X ............................................................................. 27
1270-X ............................................................................. 28
CZ-3D ................................................................................ 28
Gemini-3 ............................................................................. 29

Fisher Research Labs Platinum Dealer List .......................... 30-31
Fisher History—Past to Current ............................................. Back Cover

MISSISSIPPI
Furniture Suppliers
Box 8937
Jackson, MS 39284
(601) 354-3653

MISSOURI
Clevenger Detector Sales
820 North Oak Traffic Way
Kansas City, MO 64118
(800) 999-9417
cmcd@iok.com

Pics & More
1541 E 9th Rd
Burlington, MO 66617
(718) 376-2119
gothentralchange@hotmail.com

MONTANA
Modern Prospectors
2210 North Cooke
Helena, MT 59601
(406) 442-0044

Prospectors Shop
6312 Highway 12 West
Helena, MT 59601
(406) 442-1872

NEBRASKA
Net Shops
12201 St. Suite 200
Omaha, NE 68137

NEVADA
Gotta Gotta Map
361 Frontage Rd #2
Pahump, NV 89046
(775) 727-3737
gottagottamap@prosight.net

OREGON
Baumber’s Metal Detectors
P.O. Box 55
Klondike, OR 99436
(209) 857-8479
lgreggc@ask.com

OXYGEN
Baldy’s Detector Sales
60492 Juno Rd
Bend, OR 97702
(541) 301-8552
goldbumen@redwdbroad.com
www.goldbumen.com

Bill & Rudy’s Rock & Ore House
PO Box 2191
Myrtle Creek, OR 97457
(541) 863-4111
dustmoon1@gmail.com

NEW HAMPSHIRE
Treasure Sales
148 Kings Highway
Hampton, NH 03824
(603) 926-2395
vinasellc@iowmail.com

newhampshirehunter.com

NEW YORK
Metal Detector Distributing
9251 Florida Ave
Brooklyn, NY 11236
(718) 649-5872
metal detector@iowmail.com

Upstate Detectors
1345 Summer Ave
Schenevus, NY 12150
(518) 393-0264
carl@upstatedetectors.com
www.upstatedetectors.com

NORTH CAROLINA
Barbee Detector Sales
3482 Garden Rd
Burlington, NC 27215
(336) 577-6688

Sirchie Finger Print Labs
102 Hunter Place
Youngsville, NC 27596
(919) 534-2534
archaeo@springpoint.org

OHIO
Bramgo’s Metal Detectors
P.O. Box 55
Kilion, OH 44636
(209) 857-8479
lgreggc@ask.com

PENNСYLVANIA
Burt’s Pot O’ Gold
84 S Aberdeen Ave
Kington, PA 18704
(570) 331-0600

Gettysburg Electronics
24 Chambersburg St
Gettysburg, PA 17325
(717) 334-6364
hera@pa.net

ST. JEROME J & J Metal Detectors
21 E Elman St
Sandy, UT 84070
(801) 567-1122
jpm@comcast.net

VIRGINIA
Aldridge Sales and Service
2411 Shepherd Ave
Richmond, VA 23227
(804) 271-9523
wjeame2003@yahoo.com

Sgt. Riker Truading Post
33400 Wilson Hwy
Ashland, VA 23005
(804) 798-6846
robertsdetectorpark@virginia.com

WASHINGTON
Northwest Treasure Supply
PO Box 4212
Bellingham, WA 98227
(360) 845-7826
boibo@msn.com

Contact or visit any of our dealers listed here or for a complete dealer listing go to www.fisherlab.com.

If information listed is incorrect or needs updating, please email mscott@frsttx.com with your latest information.

www.fisherlab.com • 1-800-685-5050 • 2009 • FISHER LABS • EL PASO, TX

© 2009 by FISHER LABS, INC. • Made in the USA • All rights reserved

1-800-685-5050 • www.fisherlab.com

© 2009 by FISHER LABS, INC. • Made in the USA • All rights reserved

If information listed is incorrect or needs updating, please email mscott@frsttx.com with your latest information.

www.fisherlab.com • 1-800-685-5050 • 2009 • FISHER LABS • EL PASO, TX

© 2009 by FISHER LABS, INC. • Made in the USA • All rights reserved

If information listed is incorrect or needs updating, please email mscott@frsttx.com with your latest information.

www.fisherlab.com • 1-800-685-5050 • 2009 • FISHER LABS • EL PASO, TX

© 2009 by FISHER LABS, INC. • Made in the USA • All rights reserved

If information listed is incorrect or needs updating, please email mscott@frsttx.com with your latest information.
In the late 1930s, Dr. Gerhard Fisher, a German immigrant who studied electronics at the University of Dresden, obtained the first patent ever issued on aircraft radio direction finders. He was working as a Research Engineer in Los Angeles, California at the time and his work attracted the interest of Dr. Albert Einstein. After a demonstration of Dr. Fisher’s equipment, Einstein enthusiastically and correctly predicted the world-wide use of radio direction finders in the air, on land and at sea.

When using such direction finders during those early years, aircraft pilots found that errors would occur in their bearings when metal objects came between the transmitter and receiver, or whenever they passed over certain areas. Different pilots flying different planes always observed the same errors over the same places. When Dr. Fisher investigated this phenomenon, he found these errors to be the result of highly conductive, mineralized soils. Dr. Fisher concluded that a portable electronic prospecting instrument could be developed that used the same principles to detect the presence of small buried objects and ore deposits.

He continued his research into this phenomenon, and in 1931 he founded Fisher Research Laboratory in a garage behind his home at 1505 Byron St. in Palo Alto, California. He and four employees began producing the “Metallascope,” starting each unit as a new order came in. The “Metallascope” was a rugged, easy-to-use metal detector. By today’s standards, it was perhaps an ungainly device: two large, flat wooden boxes containing simple copper coils, five vacuum tubes, and a few assorted components. It soon captivated the imagination of the country, and within a short time, the world.

U.S. MACON CRITICAL TOOL FOR DR. FISHER Around 1933, the U.S. Navy hired Dr. Fisher to install a radio direction finder aboard the dirigible, the USS Macon. It was aboard the Macon that Dr. Fisher discovered that large metal buildings and mineralized mountains cancelled out the instrument’s direction finding capabilities. This led him to the discovery of the first metal detector - the “Metallascope.”

Dirigibles served the U.S. Navy as floating bases for scout planes during the 1930s, but the program was eventually abandoned. It became obvious that the highly touted U.S. Navy dirigible program had a fatal flaw: dirigibles had a tendency to crash during severe weather. By 1934, sales had increased to the point where the garage was no longer large enough, so Fisher Research Laboratory moved to a small building at 745 Emerson St. in Palo Alto. Shortly thereafter, Dr. Fisher was granted a patent for his “Metallascope.” This instrument’s direction finding capabilities led him to the discovery of the first metal detector: the “Metallascope” was soon nicknamed the M-Scope, and as such, became an accepted standard for all types of electronic metal detection technology.

In 1939, just prior to World War II, Fisher moved to an even larger building at 1961 University Ave. in Palo Alto. During World War II and the subsequent Korean Conflict, the company was called upon to contribute its technical competence to the war effort, but the M-Scope business was never neglected. With the increasing popularity of the M-Scope, and with Dr. Fisher’s relentless urging, numerous competitors began producing similar equipment. Due to relentless efforts to incorporate every available technical advancement - and in particular, by keeping close contact with countless users to utilize their field of practical experience in the design of new models - Fisher maintained its position of solid leadership. Over the years, Fisher has designed and produced such celebrated products as pagewriter, radio communication systems, voltage detectors and cable fault locators.

In 1946, Fisher moved to an even larger production facility in Belmont, California. In 1951, Dr. Fisher moved to Los Banos, California. In Los Banos from 1961 to 1975 the company had a senior electronics engineer by the name of David Johnson. David was the designer of many of the industry’s most advanced metal detectors during this time and most of the legacy Fisher products still manufactured today are Johnson designs. This includes time tested technologies like the Gold Bug, “X” series and all incarnations of the CZ line.

In 2006 Fisher was purchased by First Texas Products (FTP) and the company moved to El Paso, TX. In a strange twist of fate, this sale reunited the now legendary David Johnson with Fisher Research Labs since age seven. David had already entrenched himself in metal detecting history as one of the most innovative detector designers over the past 28 years, having designed some of the best performing, best-selling detectors for four of the major manufacturers.

David has been working as the Chief Design Engineer for Fisher Research Labs for a number of years with a heart of talent engineers whom recently developed several new technologically advanced detector platforms for the company. Since 2004, Fisher has introduced many new Fisher products that have taken the industry by storm.

In the last several years Fisher Research Labs has come out with more new products than the rest of the industry combined. Fisher Research Labs has already made detecting history and will continue to do so.