





The name that means Treasure

SILVER SABRE µMAX OPERATOR INSTRUCTION MANUAL

CONGRATULATIONS!

Your new Tesoro Silver Sabre µMAX metal detector is part of a new series of detectors designed to provide you with many happy hours of enjoyment in the most rewarding hobby I can think of—treasure hunting. Ahead of you lie fascinating and exciting experiences as you step into the past—uncovering artifacts lost by past generations, or as you take pleasure in the great outdoors with family and friends searching for precious metals. I wish we could share these experiences with you, and all of us at Tesoro wish you the best of success.

Your Tesoro µMAX detector is capable of meeting your needs in a wide range of treasure hunting situations. As with any other metal detector, familiarity with this instrument is probably the limiting factor in determining how successful you can be. I recommend that you read this manual and fully understand how to operate this detector before attempting to use it in the field. As you become more familiar with your detector through practice, your rate of success will increase dramatically.

The Silver Sabre µMAX is a precision electronic instrument that will last for years if properly cared for. Treat it right and it won't let you down.

Good Hunting! Jack Gifford

INTRODUCTION

To be successful in treasure hunting with a detector you must:

- Use a high-performance metal detector designed for the type of treasure hunting you will be doing.
- Learn how to use your metal detector properly.
- Search where there is buried treasure to be found.
- Be persistent.

The Silver Sabre MicroMAX (µMAX) was designed for coin hunting, competition hunting and all-purpose use. This multifunction detector is very powerful, yet very easy to use. Because it is sensitive to all metals, it can be used to find a variety of jewelry, relics, gold etc. When using this detector, you will also find unwanted "trash" metal such as nails, foil, pulltabs, etc., just as you would with any other high-performance detector.

This Operator Instruction Manual is designed to help you learn to operate the detector properly for maximum performance in various search conditions. Complete instructions on how to operate the Silver Sabre µMAX are found in the two main sections: Getting Started and Operating Techniques.

If you are new to metal detecting, we highly recommend reading and following the entire Getting Started section to develop the "feel" of your detector. Then, study and practice the Operating Techniques section to get the best performance from your detector.

If you are an experienced detectorist and are familiar with the concepts of metal detecting, you may want to go directly to the Operating Techniques section. Whatever your prior detecting experience is, the more skilled you become at operating this detector, the more rewarding your results will be.

If you are new to treasure hunting with metal detectors, keep in mind that if there are no valuable metal objects buried where you are searching, it won't matter how good your metal detector is or how skilled and persistent you are. To learn more about where to search for valuable buried metals, check with your detector dealer or bookseller for magazines and books on treasure hunting.

GENERAL DESCRIPTION

The Silver Sabre µMAX is one of the first of its kind: an ultra-lightweight, compact detector that packs the power and performance of a full-sized, heavier detector. By simplifying features and complicated adjustments that cause a loss of performance when used improperly, Tesoro has created an easy to operate, grab-and-go detector that's perfect for hobby, sport and travel.

The Silver Sabre µMAX is a Transmitter-Receiver (TR) type detector that operates in the Very Low Frequency (VLF) portion of the Radio Frequency (RF) spectrum. The detector uses only three control knobs and one push-button to provide full VLF capabilities.

The performance of the Silver Sabre µMAX will satisfy the requirements of the serious detectorist, whether experienced or a beginner. The Silver Sabre µMax uses the latest Surface Mount Technology and Tesoro's proven MAXBoost Circuitry to create one of the most unique Printed Circuit Boards in the industry. This circuit board helps provide greater depth and more sensitivity to smaller, less conductive metal objects or "targets" such as fine gold jewelry.

The Silver Sabre µMAX has features that make its power easy to use. The factory preset ground rejection circuitry allows "turn-on-and-go" operation in virtually any ground mineralization.* The Discriminate Mode is Silent Search, meaning the searchcoil must be moving to detect a target. The Quick Check Pinpointing makes it simple to identify the exact location of the target.

The electronic miniaturization of Surface Mount Technology permits the complex, powerful circuitry of the µMAX detectors to fit into a very small space. The result is a detector that is so incredibly light there is no need to body mount the control housing. This exclusive design feature adds to the Silver Sabre µMAX's ease of use and makes those longer searches more enjoyable.

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The Silver Sabre µMAX comes with an 8" round concentric searchcoil for best all-around performance with good depth. A variety of optional Tesoro searchcoils are also available and will enhance the detector's performance under various conditions.

**Operation may be more difficult in black sand or certain other extreme conditions that pose problems for metal detectors.*

GETTING STARTED - UNPACKING THE BOX

Your Silver Sabre µMAX was shipped with these parts:

1 Upper Pole Assembly

Fully assembled, including upper pole stem with handle grip, padded arm bracket and control housing.

1 Middle Pole Assembly With Pole Lock

1 Lower Pole Assembly

Fully assembled, including middle pole stem with knurled nut, lower pole stem, and nylon pole tip complete with two thick friction washers, mounting screw, lock washer and thumb nut.

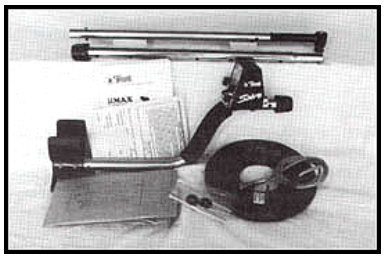
1 8" round, concentric searchcoil with 3' cable

1 9 Volt Alkaline Battery

1 Operator Instruction Manual

1 Tesoro Warranty Card

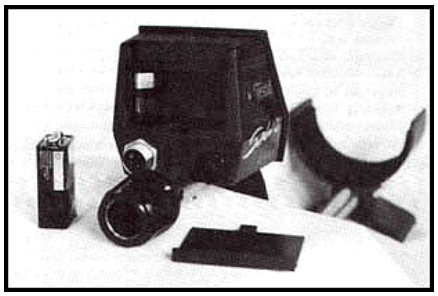
If any of these items are missing, contact the Tesoro Authorized Dealer where you purchased your detector immediately.



Assembly of the µMAX Sidewinder is simple and requires no special tools. Just Install the battery, mount the searchcoil on the lower pole assembly, connect the two pole assemblies together, wrap the excess cable around the pole and plug the cable into the control housing. Finally, adjust the pole length and searchcoil angle and you're ready!

INSTALLING THE BATTERY

Your Silver Sabre µMAX is equipped with an automatic battery test circuit so that you can always be sure you are getting top performance. The battery should be checked after the detector has been on for about 10 minutes, and then periodically when used for long durations.



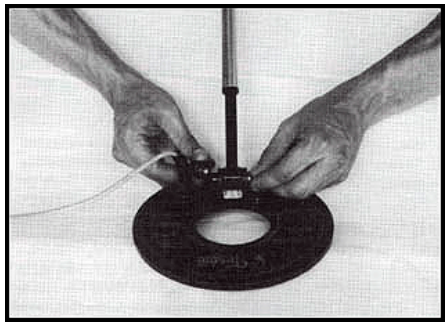
To install or replace the battery, first make sure the SENSITIVITY control is set to POWER OFF—turned completely counterclockwise past the "click." Remove the battery door from the back of the control housing. Do this by pressing your thumb firmly on the louvered square—at the bottom of the battery door—and sliding the battery door upward (in the direction of the arrow) while pushing.

Check the polarity on the battery and on the diagram inside the battery compartment. Make sure that they match and simply drop a fresh 9 volt alkaline battery into the compartment.

Replace the battery door by sliding it into place making sure the upper mount slots are in line and the lock tongue is snapped in place.

ASSEMBLING YOUR DETECTOR

1. On the lower pole assembly, remove the mounting screw and thumb nut from the black nylon pole tip.
2. Insert the pole tip between the mounting ears of the searchcoil and align the holes of the pole tip and washers with those of the mounting ears. Note: The pole tip should fit very snugly into the mounting ears.

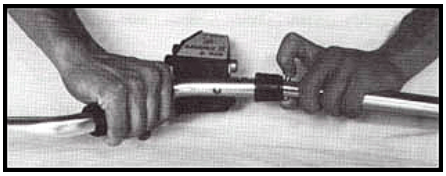


3. Insert the mounting screw through the holes in the mounting ears and pole tip—entering from the side opposite the cable connection.

4. Install the thumb nut on the mounting screw and tighten by hand.

Note: Do not overtighten the thumb nut. It should be snug, but not too difficult to loosen up.

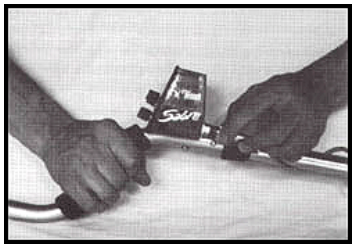
5. On the middle pole assembly, depress the two spring buttons and slide the middle pole assembly into the upper pole assembly until the spring buttons click into the holes—locking the two assemblies into place. Tighten the pole lock to secure the two assemblies together.



6. Slide lower pole into middle pole until spring buttons click into the first set of adjustment holes. Turn pole lock to tighten—locking the assembly into place.
7. Wrap the cable around the pole leaving enough slack near the searchcoil to permit searchcoil adjustment. Note: Do not allow the cable to flop loosely over the searchcoil. Since the detector is sensitive enough to "see" the tiny wires in the cable, a floppy cable can cause false signals as the searchcoil senses the moving wires.
8. Plug the male cable end into the female connector on the control housing and tighten the cable thumb nut. You are finished!

Note: You will want to adjust the pole length and the searchcoil angle to your preference.

9. Plug the male cable end into the female connector on the control housing and tighten the cable thumb nut. You are finished!



ADJUSTING THE POLE & SEARCHCOIL



The pole length should be adjusted so that the detector does not become uncomfortable or tiring after long periods of use. The detector grip should rest in your hand with your arm relaxed, your elbow straight but not locked, with the pole extending out in front of you at the approximate angle shown in the photo.

You should be able to swing the detector back and forth in front of you—using relaxed *shoulder movement*—while keeping the searchcoil as close to the ground as possible. This swinging movement is often called a "sweep."

The searchcoil should not touch the ground during your sweep. The pole length should be adjusted to allow this without having to lift the detector with your elbow or shoulder. The searchcoil should rest about one inch above the ground while you are standing erect. The angle of the searchcoil should allow the bottom to be parallel to the ground.

The pole length is adjusted by depressing the spring buttons and extending or shortening the pole until the spring buttons click into the set of holes that give you the most comfortable pole length.

To adjust the searchcoil angle, simply loosen the searchcoil thumb nut slightly and move the searchcoil into the desired position. Tighten the searchcoil thumb nut by hand so that the searchcoil will hold in place.

QUICKSTART - SELF GUIDED TUTORIAL

The QuickStart is designed to help you use your new Silver Sabre µMAX metal detector right away, even if you have never used a detector before. Just follow each easy step carefully and you'll quickly see how the basic detector functions work. You'll also be introduced to some important concepts on the way.

Here's what you will need:

1. Your fully assembled Silver Sabre µMAX metal detector
2. Three newer coins: a penny, a nickel and a quarter
3. A non-metal table or counter surface
4. Approximately 20 minutes to complete the QuickStart

Here's what you will do:

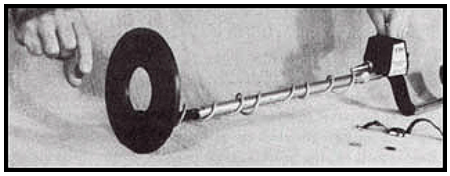
1. Perform an Audio Battery Test
2. Adjust the SENSITIVITY control
3. Perform an air test in Discriminate Mode

Prepare for the QuickStart

Place your assembled Silver Sabre µMAX on the nonmetal surface. Make sure there are no metal objects near the coil. Remove any jewelry from your hands and wrists.

Start with these control settings:

- DISC LEVEL control set to MIN.
- SENSITIVITY control set to POWER OFF.
- THRESHOLD at 12:00.



Step 1 Perform an Audio Battery Test

- TTurn the SENSITIVITY control from POWER OFF to 1

You will hear the battery test tone for a few seconds as the battery is automatically tested. When the tone stops, the detector is on and the controls are ready for adjusting.

Function Demonstrated: How the battery test tone will tell you the battery is working each time the detector is turned on.

Step 2 Adjust the SENSITIVITY control

- Step 2 Adjust the SENSITIVITY control

This is a good setting to begin with each time you use your detector. Leave the control at this setting for the rest of the QuickStart.

Function Demonstrated: Where to set the SENSITIVITY control for basic detector operation.

Step 3 Perform an air test in Discriminate Mode

Identify the Target Response
Use Discrimination
Operate the Quick Check Pinpoint feature

- Leave the DISC LEVEL control set to MIN.
- Leave the SENSITIVITY control set to 8.
- THRESHOLD at 12:00.
- Do not press PINPOINT.

Hold the quarter in your hand and move the quarter back and forth about 12 inches in front of the searchcoil bottom.

Gradually move the quarter closer to the searchcoil—as you continue to move it back and forth—until you hear a "beep." This beep is the target response sound.

Continue to move the coin to test the target response sound. As you do this, try varying the distance or angle of the coin. Try varying the speed you move the coin. Try holding the coin still then moving it slightly. Notice the differences in the target response sound with each change.

Repeat the test with each coin. Notice that the detector responds to each coin although the target response sound may vary. Your detector can respond to objects made of any kind of metal if there is movement between the object and the detector. Operating your detector in this way is called a "Silent Search."

- Turn the DISC LEVEL control from MIN to MAX

Pass the quarter back and forth in front of and close to the searchcoil bottom. Notice the sound as the coin nears the center of the searchcoil. Now, try this with the nickel and then the penny. Notice there is no sound with these two coins. The ability of a metal detector to ignore certain types of metal is called "discrimination." Using your detector in this way is called a "Silent Search Discriminate Mode."

Control settings to ignore most zinc and nickel objects can be:

- DISC LEVEL MAX
- SENSITIVITY any
- THRESHOLD at 12:00
- Do not press PINPOINT
- Now move the DISC LEVEL control from MAX to 7

Now move the DISC LEVEL control from 7 to 4

Pass each of the three coins in front of the coil. Notice the quarter and the penny now cause a target response sound.

Control settings to ignore most nickel objects can be:

- DISC LEVEL 4
- SENSITIVITY any
- THRESHOLD at 12:00
- Do not press PINPOINT

Quick Check Pinpointing

- DISC LEVEL 4
- SENSITIVITY any
- THRESHOLD at 12:00
- Do not press PINPOINT, yet

Move the nickel slightly from side to side in front of the searchcoil to create a target response sound. Now, hold the nickel still at the approximate spot where the target response sound occurs.

- Now, press and hold PINPOINT

Notice the immediate threshold sound. Adjust the threshold sound by turning the "threshold control" until a slight steady hum is heard. Once the threshold is set, it should not require frequent resetting. Move the nickel slightly and slowly from side to side and then hold it still where the target response sound is greatest.

- Release PINPOINT

Notice the threshold sound disappears. Move the nickel slightly from side to side again and listen to the target response sound. Comparing the target response sounds made in Discriminate and Pinpoint Mode can help to accurately locate a target.

Functions Demonstrated: 1) The motion-based operation and target response sound of Silent Search Discriminate Mode. 2) How the Discriminate Mode can be used to help determine the types of metal a target may be. By adjusting the DISC LEVEL control you can select what metals your detector will ignore. 3) How the Quick Check Pinpointing feature can be used to more accurately determine the exact location of a target by quickly comparing the different target response sounds of the Discriminate and Pinpoint Mode.

Conclusion

Well done! You have finished the QuickStart Guide and have operated the basic detecting features of the Silver Sabre µMAX and have been introduced to the ideas of: 1) target response sound, 2) threshold sound, 3) tuning the threshold, 4) target discrimination, and 5) target pinpointing.

Now you are ready to begin the journey into the art of metal detecting by actually using your detector to find buried metal. But first a word about air tests.

The air tests in the QuickStart are of limited value. Metal detectors perform differently in air tests than when in actual use "in the field." Tesoro detectors are specifically designed to deliver the best performance in the field. The CONTROLS and TUNING YOUR DETECTOR sections will give you more detailed information on how to set your detector's controls for the best results, especially when pinpointing and using discrimination.

The only way you can become truly proficient at using your detector to find buried treasure is to use it in the field and learn from experience! However, we strongly suggest that you read this entire manual to become familiar with the features as you continue to use your detector.

You have the finest tool available, now all you need is the skill that comes from experience.

TO TURN YOUR DETECTOR OFF:

- TURN THE SENSITIVITY CONTROL TO POWER OFF

TO TURN YOUR DETECTOR ON:

- TURN THE SENSITIVITY CONTROL TO MIN

OPERATING TECHNIQUES - CONTROLS

The Silver Sabre µMAX has only four controls, all mounted on the front panel of the housing for fingertip adjustment. How these controls should be set for peak performance will depend on the type of metal you are searching for, search site conditions, and so forth. Use the information in this section and the TUNING YOUR DETECTOR section as a basis for setting the controls on your detector. Using your detector in the field will allow you to learn the detector's responses to various conditions and will guide you in fine tuning the detector's operating controls.



SENSITIVITY Control

Sensitivity Control

This rotary switch control has three functions:

- Turns the detector ON and OFF
- Activates the automatic Audio Battery Test
- Adjusts the detector's Sensitivity Level

Turning the SENSITIVITY knob counterclockwise completely until it "clicks" into the POWER OFF position turns the detector off by disconnecting the battery from the circuit.

NOTE: The detector should always be turned off when not in use.

Turning the SENSITIVITY knob clockwise past the initial "click" turns the detector on and activates the automatic Audio Battery Test circuit. This test will give you a sound, usually lasting several seconds, that indicates the battery's condition. When the Audio Battery Test is over, the detector's Sensitivity Level can be adjusted.

Turning the SENSITIVITY knob clockwise increases the detector's Sensitivity Level. The level from 1 up to 10 is the normal range. This range corresponds with the normal Sensitivity on standard detectors. Turning the SENSITIVITY knob past 10 and into the orange area puts the Sensitivity into the MAXBoost range found only on Tesoro's µMAX detectors.

DISC LEVEL

Discrimination Level Control

This rotary switch control has one function:

- Adjusts the detector's Discrimination Level.

While the detector is in the Discriminate Mode, the DISC LEVEL control is used to adjust the detector's Discrimination Level. Turning the DISC LEVEL knob clockwise increases the detector's Discrimination Level and vice versa.

THRESHOLD

Threshold Level Control

This rotary switch control has one function:

- Adjusts the Threshold Control

The THRESHOLD control is used to adjust the audio level of the detector's threshold up or down to its desired level. Normal setting would be a barely audible hum. This is not a volume control for the detector itself. Although this control is placed on the front panel for convenience, once it is set to the desired threshold tone, it will not require frequent resetting.

PINPOINT

Quick Check Pinpointing Push-button

This push-button control has two functions:

- Places the detector in Pinpoint Metal Mode
- Adjusts the Threshold sound

When the detector is in the Discriminate Mode, the PINPOINT push-button is used to momentarily change the operating mode for improved pinpointing. Pressing the push-button places the detector in Pinpoint Mode. The detector remains in Pinpoint as long as the push-button is held down. Releasing the push-button returns the detector to Discriminate Mode. Pinpoint push-button must be held to adjust threshold.

Controlling Audio Volume

The speaker in the µMAX does not have a volume control. The volume should be sufficient to accurately hear the target response sound in most environments. If more or less volume is required in your particular situation, we recommend using a set of good quality headphones with a built-in volume control.

TUNING YOUR DETECTOR

The detector should be held in a position that is comfortable for you as shown in the "Adjusting the Pole & Searchcoil" section in Getting Started. Swing the detector from side to side in about a three foot arc, overlapping succeeding strokes well. This motion is called a "sweep." The Silver Sabre µMAX was designed to get maximum depth without the frantic pace required of earlier motion detectors, so go at a pace that is comfortable for you. In fact, trying to hunt too fast may even cause a loss of depth in heavily mineralized locations.

Regardless of which mode you are using, try to keep your searchcoil height constant and close to the ground. Most people tend to raise the coil at the end of a sweep—much like a pendulum—especially if they are hurrying. Try to avoid this, as any increase in height from the ground will

cause a corresponding loss of depth.

In areas with well-kept lawns, the easiest way to maintain a constant searchcoil height is to allow the coil to rest on the grass as you sweep from side to side. In rough and rocky areas, it is best not to "scrub" the coil on the ground, as the rocks will act like abrasives, and wear away the coil bottom (an optional coil scuff cover will protect against this). Sweep the coil as close to the ground as possible without touching. Hitting the ground or rocks may cause a false signal much like a desired target would. Sweeping the coil too high above the ground results in a loss of depth.

Planting a Test Garden

To better learn how your detector will perform in the field, it would be helpful to bury some coins and trash metal junk items in an area that you know is clear of other metal objects. Check the area with Disc set at zero to be sure it's clear of trash. Then bury the targets at least 1 foot apart, and from 2 to 4 inches deep to start. Make a map of the area to be sure you know what each target is and how deep it is. Practice on these targets to familiarize yourself with your detector's target response. This will also help you learn the proper sweep speed for best operation. This type of practice area is often called a "test garden" or "test bed" and is one of best tools to help you develop your metal detecting skills.

Recognizing false signals in Discriminate Mode

When operating in the Discriminate Mode, some "false signals" may be caused by 1) heavy concentrations of trash metal objects, 2) very large trash metal objects, or 3) electrical interference. These signals are generally short, choppy sounds and sound different than "good signals" (good target response sounds).

At the end of your sweep, as you reverse the coil direction, the detector is most susceptible to trash induced noise. There are two ways to tell whether these sounds are good deep signals or trash "noise." The first is by repeatability. Trash induced noises will not be regular as you sweep the coil over the suspected target several times, whereas a good target response will be repeatable. The second method is to switch to Pinpoint Mode and check the target response sound. If the response is weak, it may well be a deep, good target. But if the response is very strong, it is probably trash. Note that a coin close to the surface can give a double beep sound, but it is regular and repeatable. Raising the coil an inch or two will restore the single beep on surface targets.

When searching in the Discriminate Mode, it is best not to use a higher DISC LEVEL setting than necessary. Nickels and most smaller rings are rejected when the DISC LEVEL is set to reject pulltabs on any metal detector that is a TR Discriminator like the Silver Sabre µMAX. If you don't dig any junk at all, you are surely passing up a lot of good finds as well. Set the DISC LEVEL only high enough to suit the conditions where you are searching. If there is any doubt whether a target is good or not, dig it.

Pinpointing a target

Pinpointing a target in Discriminate Mode is probably best done by "X-ing" as well. Remember that the detector will beep just as the target passes under the center of the searchcoil. Slowing the sweep speed down will help you pick out the center of the X because the target response is reduced at very slow speeds making it easier to correlate the sound with the coil center.

Another easy method is to sweep the coil from side to side across the target in very short sweeps as you slowly move forward and backward across the target. Slow down the sweep rate and shorten the sweeps until you just barely get a response at one spot. The target will be directly below the coil center at this response time.

Another method of pinpointing in Discriminate Mode is to quickly change to Pinpoint Mode to check the target response. Remember that Pinpoint Mode is not susceptible to the false signals of Discriminate Mode and can sometimes give a clearer and more consistent response to difficult targets such as a dime buried next to a pulltab. By switching back and forth between modes and comparing the target response sound in Pinpoint to the target response sound in Discriminate, you can often better identify the likely location of the target. The Quick Check PINPOINT push-button allows you to do this easily and without looking away from the ground at your controls.

Finally, raising the searchcoil during pinpointing can also help by narrowing the response to the target. Practice pinpointing often, and you will soon become more accurate and faster.

Recovering a target

If the target is shallow and the soil is soft, you may be able to "probe" and find the exact location of the target before you dig it. Since filling all holes after you recover the target is so important, digging a small precise hole is best. If the target is deep, you may need to dig a larger hole. As you dig, occasionally check the hole with your detector to see if you have moved the object, can probe it or have already dug it. Be sure to fill all holes after you recover the target. Two methods are shown in the next two sections that work most everywhere. Be sure to protect your hobby by leaving the site cleaner than you found it and with all holes filled!

RECOMMENDED RECOVERY METHODS

GENERAL INFORMATION - CARE AND USE

Basic Care

The Silver Sabre µMAX is a sturdy instrument, but it is not designed to withstand abuse. In caring for your Silver Sabre µMAX there are several important "DO NOTs" to remember. DO NOT use it to pry rocks loose or to beat bushes out of the way. DO NOT drop the machine into water. DO NOT use it unprotected in the rain. DO NOT leave it exposed at night where dew could form on it. DO NOT store it in places that could get extremely hot (next to a woodstove, in an attic). DO NOT leave it in the trunk of a car or in the back of a hatchback-style car where high temperatures could build up. DO NOT store it with the battery installed as batteries may leak. DO NOT spray lubricants such as WD-40, or any type of cleaners, solvents, sealants or other chemicals into or onto the electronic parts, switches or controls. And finally, DO NOT attempt to modify or repair the detector's electronics as this will void your detector's warranty.

THE WARRANTY DOES NOT COVER DAMAGE RESULTING FROM ACCIDENT, NEGLECT OR ABUSE.

Protecting your investment

Often detectorists are disappointed when their new detector slowly becomes less and less responsive and seems to have lost some of its original peak performance. You can help avoid this from happening to your detector by following these basic care and protection guidelines:

- Operate your detector exactly as recommended in this Operator Instruction Manual.
- Use only high-quality alkaline batteries of the correct voltage. Never substitute a different voltage. When using a Ni-Cad battery, always use a separate convertible pack with the proper voltage output for the detector's design.
- Remove the battery from the detector after each use. This will prevent damage to the detector if the battery leaks.
- The searchcoil cable is hard-wired to the searchcoil and protected by a strain relief. Inspect the strain relief frequently to make sure it is firmly attached and intact.
- Keep cables properly wound around the pole stems and protect them during use. Floppy, pinched, or cables that become snagged during use may short, causing erratic noises or unnecessary replacement of the searchcoil.
- Sweep the searchcoil carefully, especially when using around rocks and building foundations. Avoid hitting the searchcoil against hard

- Sweep the searchcoil carefully, especially when using around rocks and building foundations. Avoid hitting the searchcoil against hard, solid objects and surfaces.
- Keep your searchcoil slightly off of the ground during the sweep, especially when using in gravel or hard, rocky dirt.
- Always use a properly designed protective scuff cover on the searchcoil. (See "Optional Accessories" in the next section.)
- Remove and clean out scuff covers periodically to avoid buildup of mineralized dirt particles which will affect performance.
- The searchcoil is waterproof and can be submerged in either fresh or salt water. After the searchcoil is used in salt water, rinse it and the lower stem assembly well with fresh water to prevent corrosion of the metal parts.
- The searchcoil is waterproof but the electronics are not, so always prevent any moisture or water from entering the control housing and never allow the cable connectors to become submerged in water.
- If working in or near water, or if there is a possibility of rain, use a protective weather resistant pouch or plastic bag to cover the control housing. Make sure it can "breathe" in order to ensure against condensation buildup inside.
- After each use, clean the detector with a soft cloth to remove dust, moisture, or other contaminants.
- When transporting the detector in a car during hot weather, store it on the floor of the passenger compartment if possible. Using a carry bag gives additional protection. In any case, never allow the detector to roll around unprotected in the trunk or back of a pickup truck.
- Protect your detector from dust, moisture, and extreme temperatures during storage.
- When shipping, use the original factory carton or similar heavy-duty container and provide a minimum one inch of padding around all parts.
- Treat your detector as you would any sensitive electronic instrument. Though ruggedly constructed and designed to withstand the demands of normal treasure hunting, proper care is essential.

OPTIONAL ACCESSORIES

Tesoro metal detectors and genuine Tesoro accessories are sold only through independent Tesoro Authorized Dealers, who are almost always metal detectorists themselves. They can answer your questions about your Tesoro detector, what accessories may be helpful and about metal detecting in general.

See your Tesoro Authorized Dealer for more information and prices on optional accessories.

Scuff Covers

We highly recommend using a scuff cover to protect your searchcoil at all times. The scuff cover for the Silver Sabre µMAX fitted with the 8" searchcoil is Tesoro Part # SCUFF-8R-B.

Searchcoils

The 8" concentric searchcoil provided with the Silver Sabre µMAX is designed for best all-around performance. Optional searchcoils may add to your detector's performance.

Smaller searchcoils give better "target separation"—that is, more distinct target response for metal objects buried closely together—which is very useful when hunting trashy sites. Very small searchcoils can deliver the best response and depth to small targets such as fine gold chains with some sacrifice in depth on larger objects. Larger searchcoils give a wider sweep, covering more ground, and provide greater depth especially on larger objects; however, they may not detect some very small objects such as half dimes and will have difficulty in very trashy areas.

Wide scan searchcoils ignore ground mineralization better than concentric searchcoils and may offer improved performance in extreme ground conditions.

Selecting the right optional searchcoil depends on factors such as what you are searching for and search site conditions. No one searchcoil is better than all the rest. Several optional interchangeable searchcoils are available for the Silver Sabre µMAX. They are all easy to mount and require no special tools. See the following list of these searchcoils with the Tesoro part # and description.

Tesoro Searchcoils

COIL-4RC	4" round concentric (closed center, white)
COIL-7RC	7" round concentric (closed center, white)
COIL-8RCW-B	8" round concentric weighted (open center, brown)
COIL-10.5RC	10 1/2" round concentric (open center, white)
COIL-7RW	7" round wide scan (closed center, white)
COIL-8.5RW	8 1/2" round wide scan (closed center, white)
COIL-9x8	9x8" concentric (spoked, white)
COIL-11RW	11" round wide scan (closed center, white)
COIL-12x10	12x10" concentric (spoked, white)

Optional scuff covers are also available for any Tesoro searchcoil.

Headphones

Most metal detectorists prefer to use headphones instead of the detector's built-in speaker. Headphones help block out background noise (such as wind) and make it easier to hear faint signals. Headphones with a built-in volume control will allow you to adjust the sound volume to your preference.

Specifications

Operating Frequency	10 kHz
Searchcoil Type	Round, open center concentric
Searchcoil Size	8" diameter
Cable Length	Approx. 3'
Audio Frequency	Approx. 630 Hz
Audio Output	1½" speaker and headphone jack
Headphone Compatibility	¼" stereo plug
Weight (may vary slightly)	2.2 lbs.

Battery Requirement	One 9 volt DC (alkaline)
Battery Life (typical)	10 to 20 hours
Optimum Temperature Range	30° to 100° F
Optimum Humidity	0 to 75% R.H.
Operating Modes	Quick Check Pinpoint
	Silent Search Discriminate

METAL DETECTORIST'S CODE OF ETHICS

1. Always check federal, state, county and local laws before searching. It is your responsibility to "know the law."
2. Abide by all laws, ordinances or regulations that may govern your search and the area you will be in.
3. Never trespass. Always obtain permission prior to entering private property, mineral claims, or underwater salvage leases.
4. Do not damage, deface, destroy, or vandalize any property, including ghost towns and deserted structures, and never tamper with any equipment at the site.
5. Never litter. Always pack out what you take in and remove all trash dug in your search.
6. Fill all holes, regardless how remote the location. Never dig in a way that will damage, be damaging to, or kill any vegetation.
7. Do not build fires, camp at or park in non-designated or restricted areas.
8. Leave all gates and other accesses to land as found.
9. Never contaminate wells, creeks, or any other water supplies.
10. Be courteous, considerate, and thoughtful at all times.
11. Report the discovery of any items of historic significance to the local historical society or proper authorities.
12. Uphold all finders, search and salvage agreements.
13. Promote responsible historical research and artifact recovery and the sharing of knowledge with others.

SILVER SABRE µMAX FEATURES

- **High Gain Sensitivity Circuitry—**designed specifically to deliver greater depth, sensitivity and stability.
- **MAXBoost Feature—**extra power of super high gain can add inches to discrimination search depth.
- **High-sensitivity Searchcoil—**an 8 inch open center concentric for broad sweep, good pinpointing and deep ground penetration.
- **Ultra-light Weight—**search longer without fatigue.
- **3 piece Knockdown Pole—**compact for storage and travel.
- **Turn-on-and-go—**factory preset for "mineral free" operation.
- **Two Operating Modes—**Pinpoint and Discriminate.
- **QuickCheck PINPOINT—**simple push-button pinpointing.
- **Easy to Operate—**in Discriminate Mode.
- **Economical to Use—**up to 20 hours plus on a single battery.
- **Tesoro Lifetime Warranty—**our pledge of quality to you.

What it doesn't have

A big, heavy, high-powered speaker. Loud, heavy speakers are popular with many manufacturers. The "fuller" sound they produce gives the illusion of greater sensitivity to small and deep targets—a great showroom sales tool! Most serious detectorists hunt with headphones and a µMAX will work well with standard headphones. If you choose not to use headphones, the µMAX speaker will be loud enough for most environments. It will allow you to hear the small and deep targets found by the µMAX's high power circuitry—without excessive battery drain.

A hip mount, arm strap or battery recharging system. These kinds of "built-in accessories" are simply unnecessary in a µMAX detector.

The power and features of the Tesoro Silver Sabre µMAX make it an ideal detector for a beginner who wants a machine they will never outgrow. It is also ideal for the serious detectorist who wants power, performance, simplicity, and versatility in a single lightweight detector.

WARRANTY SERVICE

Your Tesoro metal detector is covered by a **Limited Lifetime Warranty**, the terms of which are listed below. If your metal detector should require service, you may return it to the Tesoro factory at the address below.

LIMITED LIFETIME WARRANTY

This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

This instrument is warranted to be free of defects in material and workmanship as long as it is owned by the original consumer purchaser. This warranty is not transferable and is valid only if the warranty registration card has been completed and mailed within 10 days of purchase.

TESORO will, at its option, repair or replace any instrument covered by this warranty, without charge, except for transportation charges, at its factory in Prescott, Arizona.

This warranty excludes batteries, damage caused by leaky batteries, cable breakage due to flexing on body mount units, and wear of the searchcoil housing. Also excluded are instruments which have been abused, altered, or repaired by an unauthorized party.

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