





The name that means Treasure

Royal Sabre Plus OPERATOR INSTRUCTION MANUAL

CONGRATULATIONS!

Your new TESORO Metal Detector was 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. I wish we could share these experiences with you, and we wish you the best of success.

Your TESORO Metal Detector is capable of meeting your needs in any conceivable treasure hunting situation. As with any detector, operating skill and familiarity with this instrument are probably the limiting factors in determining how successful you will be. We recommend that you read this manual and understand fully before attempting to use the instrument in the field. As you become more familiar with your detector through practice, your rate of success will increase dramatically.

The TESORO Metal Detector is a precision electronic instrument, which will last for years if properly cared for. Treat it right and it won't let you down.

Good Hunting! Jack Gifford

GENERAL DESCRIPTION

The Royal Sabre Plus is a high performance VLF/TR discriminator which is capable of rejecting ground mineralization and buried metallic trash simultaneously. It includes Notch Discrimination so that most common pulltabs can be rejected without losing nickels and small gold rings, or so that only a particular band of desired targets will be detected. Notch Target ID provides a low tone for targets below the Notch Level setting. A variable surface blanking circuit allows you to ignore the newer coins near the surface, while finding the deeper ones which are more likely to be older and more valuable. Design emphasis was placed on performance and ease of use, while minimizing or eliminating those troublesome adjustments that could cause a loss of performance if not used properly.

The Silent Search Discriminate mode is based on motion, which means that the searchcoil must be moving slightly to detect a target. The motion required is so slight that pinpointing is possible in this mode, however a no motion pinpoint mode is included, which with the 8" open center searchcoil makes pinpointing a very simple task. The automatic ground rejection circuitry is set to allow operation in virtually any mineralization you might encounter, although operation may be difficult in black sand.

The Royal Sabre is furnished with an 8" open center concentric searchcoil. We feel that this coil will provide excellent performance in most situations. The open center greatly simplifies pinpointing.

The Royal Sabre can be assembled as a pole mounted arm rest unit, or as a body mount unit. It can be converted easily without tools.

As with any metal detector, the familiarity of the use with the instrument will have a great deal to do with how successful the operator is. We recommend that you read and understand this manual fully, and familiarize yourself with the instrument by testing it, outdoors over various types of targets before attempting to use it in the field.

Be sure to fill out and mail your warranty registration card to validate your warranty.

ASSEMBLY

The Royal Sabre can be assembled in either of two configurations or easily converted from one to the other. The electric control housing can be mounted on the arm rest pole, or by use of the extended cable, can be body mounted. Installation of the lower pole and coil is the same for either configuration.

1. Depress the two buttons on the upper end of the lower stem, and slide it into the upper stem. Push the lower stem up so that the buttons click into the third set of holes from the end of the upper stem.
2. Insert the pole tip and washers between the mounting ears of the searchcoil, after removing the screw and thumb nut. Align the holes in the pole tip with those in the searchcoil mounting ears.
3. Insert the coil mounting screw through the coil and pole tip. Be sure the internal tooth lock washer is on the screw head side. The screw head should be on the side of the searchcoil where the cable comes out.

4. Install the thumb nut on the screw and tighten by hand.
5. Wind the searchcoil cable snuggly around the pole. The connector will either be installed in the calbe housing or into the extender cable, depending on the configuration desired.

Body Mount

1. Install the coil cable connector into the mating end of the extender cable. Tighten the connector by hand.
2. Hold the connectors against the pole, and clip the cable to the pole just above the connectors, as shown.
3. Install the extender cable into the mating connector on the bottom of the control housing. Tighten the connector by hand.
4. The control housing is equipped with a belt loop, but also includes two large holes in the upper chassis which can accommodate the spring clips of most readily available web straps.

NOTE: The extender cable will last much longer in the body mount configuration if some care is taken to spread the necessary flexing over a large area, rather than making a sharp bend away from the pole at the cable clip which would concentrate the flexing in a small area.

Pole Mount

1. Remove the knurled nut form the threaded stud on the bottom of the housing between the earphone jack and coil connector.
2. Slide the mounting bracket into the mounting clip on the bottom of the pole. Make sure the threaded stud goes through the hole in the vertical foot at the end of the mounting bracket. Install the knurled nut on the stud and tighten by hand.
3. Install the coil connector into the mating connector on the control housing. Tighten by hand.
4. Store the extender cable and cable clip so they will be available if you desire to convert the unit to a body mount.

Conversions

Obviously, converting the detector from body mount configuration to pole mount is simply a matter of removing the extender cable and clip, installing the control housing ont he mounting bracket, and reconnecting the coil connector to the control housing. Reverse the procedure to convert from pole to body mount.

If the detector is always going to be used as a body mount, the mounting bracket can be removed from the pole.

ADJUSTMENT

The searchcoil angle and stem length should be adjusted so that the unit is not uncomfortable or tiring after long periods of use. The stem length is adjusted by depressing the spring buttons and extending or shortening the pole till they click into the holes that give you the most comfortable setting. The coil should be about one inch above the ground while standing erect. Adjust the angle of the searchcoil, so that the coil is parallel to the ground. Tighten the searchcoil thumbnut by hand to maintain this setting.

The arm rest on the rear of the handle can be moved forward by removing the screw and nuts, and reinstalling the assembly into the most forward set of holes.

Specifications

Operating Frequency	12 kHz
Searchcoil Type	Concentric
Searchcoil Size	8" diameter
Audio Frequency	Low Tone - Approx. 700 Hz
	High Tone - Approx. 750 Hz
Audio Output	2 1/4" speaker
Headphone Compatibility	1/4" stereo earphone jack
Weight (may vary slightly)	3 1/2 lbs.
Battery Requirement	12 volts DC (8 AA penlight batteries)
Battery Life (typical)	15 to 30 hours
Optimum Temperature Range	30° to 100° F
Optimum Humidity	0 to 75% R.H.
Operating Modes	PINPOINT (All Metal)
	DISCRIMINATE
	NOTCH REJECT DISCRIMINATE
	NOTCH ACCEPT DISCRIMINATE

TESORO Electronics, Inc., reserves the right to modify or improve the design without further notice.

CONTROLS

The control panel of the Royal Sabre is recessed into the chassis base, and a switch guard is installed across the open side. This protects the controls from being accidentally mistuned by being hit with your arm, clothing, cables, etc., when the unit is used in the body mount configuration.

1. **ON/OFF SENSITIVITY CONTROL.** This control is used to turn the detector power on and off, and to et the discriminate mode sensitivity. Turning the knob completely counterclockwise until it clicks disconnects the batteries from the circuit. Tis power off position is marked with a small square and the word "OFF" in orange color.
2. **SEARCH MODE SWITCH.** This toggle switch is used to select the All Metal mode of operation or the Discriminate Mode. In All Metal, the detector will find not only the highly conductive non-ferrous metals, but will also find the ferrous metals. This mode would be ideal for relic hunting or ghost town searching, since many desirable artifacts (such as guns) are made of iron and steel. In the Discriminate mode, the detector's response to unwanted trash can be controlled to eliminate digging much of the common metallic trash items found in likely hunting spots. The detector may beep briefly when the switch is changed, but is ready for operation in the selected mode instantly.

Since the Royal Sabre is a mineral free discriminator, it can be operated at fairly high levels of sensitivity in the discriminate mode. The preset mark at '7' will usually provide the optimum operating power for most situations. Many things can cause the response of the detector to become erratic in the discriminate mode. Normally you will not hear any sound from the detector unless you pass the coil over a good target. Very large targets or a multitude of closely spaced smaller rejected trash targets can cause the detector to emit choppy, sputtering sounds. CB radios, radio and TV broadcasting antennas, intense mineralization changes, and other sources of electrical noise can also cause the detector to emit false signals. These signals will generally sound "chopped" and will not be repeated so you will not have any trouble recognizing them. They can be distracting, though, and turning down the sensitivity control will help reduce them. The preset level will be ideal for most hunting situations, but it might be necessary in some instances to reduce the setting to achieve smooth, stable operation. Conversely, some areas may allow operation with higher settings.

3. **DISCRIMINATE LEVEL CONTROL.** This control is used to adjust the detector's response to unwanted metallic trash when used in the Discriminate mode. At the lowest setting "0", the detector will eliminate most iron objects, but will still respond in a positive manner to light foil, bottle caps, pull tabs, coins and most other metallic items. As the knob setting is increased, response to more of these metallic targets is reversed, so that they are rejected. Every detector can vary somewhat, so it's a good idea to try some of the common coins and junk items on your detector to see where they are rejected. Do this with the notch level turned to the OFF position.
4. **SEARCH MODE SWITCH.** This switch is used to select the Discriminate Mode of operation or the Pinpoint Mode. The Discriminate Mode is a Silent Search ultra slow motion type, and allows a lot of user control due to its extra features like surface blanketing and notch discrimination. The Pinpoint mode is no motion, automatic tuned, all meta mode which utilizes an internally fixed threshold sound.
5. **SURFACE BLANKING/BATTERY TEST SWITCH.** This switch is used to control the surface blanking function, and to perform the battery test. Surface blanking is used to eliminate the detector's response to good targets which are shallow.

Pushing this switch to the Batt Test position provides an audio indication of remaining battery strength. When the tone is very faint o non-existent, it's time to replace the batteries.

6. **BLANK DEPTH CONTROL.** This control is used to set the approximate depth of good shallow targets to be ignored. This feature might be most useful in an area that has recently been filled, or in an area you know to contain no shallow valuable targets.
7. **NOTCH MODE SWITCH.** This toggle switch is used to select the function for the notch filter in the discriminator circuitry. In the reject mode, the target encompassed by the notch will be rejected, and in the accept mode, only those targets encompassed by the notch will be detected. The notch width is factor set to be just wide enough to include the common pulltabs and lift tabs, since rejecting these objects will be its primary use.

In the center position, the notch filter is disabled, so that it has no effect on the discriminate circuit.

8. **NOTCH LEVEL CONTROL.** This control is used to adjust the notch filter response to the desired target level when using the notch discriminate modes. The notch level control should always be set higher than the discriminate level for proper operation. This control also can serve as a tone control if the notch filter is not used, since all targets below the notch level are indicated by a lower audio tone than those above the notch setting. Setting the control at "0" will provide the higher audio tone for all targets detected in the discriminate mode, while setting it at maximum would provide the lower audio tone.

TUNING

Since the most troublesome adjustments of standard detectors have been automated in the Sabre, the tuning procedure for this detector is simply a matter of selecting the desired operating mode, setting the sensitivity level, and the discriminate levels.

If you select the discriminate mode, you should begin operation with the sensitivity control set at the preset mark.

In most situations you are likely to encounter, you will be able to operate at this setting. If there are sources of electrical interference present, or if the area is extremely trashing or mineralized, your detector may give some false signals. These signals are generally short, choppy sounds which can easily be distinguished from a good target response. Turning down the Sensitivity control will eliminate most of these signals, if necessary. It may also be possible in some areas to increase the sensitivity setting

sensitivity setting.

SEARCH MODE SELECTION AND TUNING

The Royal Sabre offers two basic operating modes. Pinpoint (all metal) or Discriminate. The discriminate mode also has the further capability of using notch discrimination or surface blanking.

A.
PINPOINT MODE. This mode is useful for relic, cache, or nugget hunting, since it is an all metal mode. The ground rejection is initially preset so that normal soil mineralization is lightly positive. This means the threshold sound will increase somewhat as the searchcoil is lowered to the ground. The automatic tuning should keep the detector tuned to threshold as you are using it, but by momentarily pushing the mode switch to the fast tune position, the detector can instantly be brought to threshold. All other features of the detector, such as notch tone target ID, notch filter, and surface blanking are not operative when the unit is in the pinpoint mode. The audio sound is always the lower of the two notch tones when in pinpoint mode.

B. **DISCRIMINATE MODE.** The discriminate mode is motion based, and requires that the searchcoil be moving slightly for target detection. There is no threshold sound present as in the pinpoint mode. The notch tone target ID features works in the discriminate mode even if the notch mode switch is in the off position. The notch level control setting determines whether a target indication is a high or low tone. All Targets with phrase response below the notch level setting will be represented by the lower tone 'beep', those higher than the notch level setting by a higher tone 'beep'.

We recommend setting the sensitivity control at the preset mark (7) when beginning to search a new area in discriminate mode. If the detector seems to have a lot of 'chirpy' sounds or false signals, turn the sensitivity control down slightly until the source of interference is overcome and the detector will operate smoothly. Note that in very large trash areas, some clicking or chirpy sounding false signals will be caused by the heavy concentrations of metallic trash or by very large iron objects. In relatively clean areas, it may be possible to increase the sensitivity setting.

When the Notch mode switch is in the off position, the amount of trash rejection is controlled by the Discriminate Level Control. With the Disc Level Control set at about 2 or 3, the detector should reject foil and ferrous targets, while detecting those targets whose phase response is higher than foil. As the control is increased, more of the remaining targets are rejected. With the control increased to about 6 or 7, all of the targets are rejected except the penny and quarter. Note that at this level, the nickel and small gold ring are also rejected as bad targets. Since small gold items may have a phase response as low as foil, you can see that operating a normal discriminator at the pulltab reject level can also cause you to miss a lot of valuable finds. The Notch Filter in the Royal Sabre can help you overcome this inherent problem of normal discriminators.

1. **NOTCH DISCRIMINATION.** In the Notch Reject Mode, the response of the detector can be more closely controlled. The Discriminate Level Control is used to set the lower cutoff level, for example to eliminate ferrous targets, foil, and steel bottlecaps. The Notch Filter is then used to reject the narrow band of targets containing pulltabs.

The Notch width is factory set to cover the range most common pulltabs and lift rings would fall into, but some peculiar tabs may still be detected. if pulltabs have been chopped or mutilated by a lawnmower, the pieces may be detected as nickels, and of course, some valuable items may have the same phrase response as pulltabs and be rejected. Still, the Notch Filter allows detection of nickels and small gold rings while rejecting almost all of the pulltab signals. The Notch Level should always be set higher than the Disc Level.

NOTE: It is possible to adjust the width of the Notch Filter, but we recommend for best results to leave it set as it comes from the factory. If it becomes necessary to readjust the Notch Width to suit particular circumstances, contact your dealer for details.

The Notch Accept Mode allows the detector to respond only to a narrow band of targets. This may be useful if you are searching for a particular target, such as a lost ring or a treasure hunt token. It is also useful to help you classify or identify a target before digging.

The control panel decal is labeled to show the approximate location where some objects respond to Disc Level and Notch Level settings.

Each detector can vary somewhat due to manufacturing tolerances, so you should experiment with your detector and become familiar with the rejection levels for these trash items with your detector.

Earlier motion detectors that operated with "threshold" sound would give the user a definite indication of metallic trash by either nulling completely or by generating short, choppy sounds. Since the Royal Sabre operates without threshold, there is no nulling to indicate that the area is extremely trashy, but under such circumstances the detector will probably also emit some short chirpy sounds. These are easy to distinguish from the good target's longer, cleaner sound.

Since the notch filter response is like a 'window', the notch level must be centered on the desired targets, rather than just set higher than the target. The preset mark at '6' on the notch level is an ideal starting point to provide pulltab rejection while still finding nickels. It will probably be necessary to make some small correction up or down to accurately center the notch response on the pulltab range.

When the notch level is correctly adjusted all three types of pulltabs are within the window. The notch width is set to be just wide enough to eliminate the response to most common tabs. The aluminum screw cap is so close to the response of coins, that we feel it's best to not include it in the notch. The targets in the shaded area would be rejected by a properly adjusted notch level in the notch reject mode.

If the notch level were set too high, the window would not include the complete unbent older style pulltabs, and may start

if the notch level were set too high, the window would not include the complete unbent older style pulltabs, and may start to eliminate pennies.

If the notch level were set too low, the notch window may eliminate the nickel, and the newer style of lift ring tab would be detected.

Beginning operation in the notch reject mode with the notch level control set at the preset mark should put the window reasonably close to the desired response. If you begin to find the complete older style pulltab, you should turn the notch level down slightly, and continue searching. If you are finding the newer style lift rings which have been torn off the cans, it's signal to raise your notch level slightly.

No matter which way you adjust the level, do it in very small steps, since this setting is fairly critical.

When searching in notch discriminate, if you have trouble identifying whether a target is high tone or low, momentarily push the battery test switch. The battery test is always the high tone. Also the pinpoint mode is always the low tone. Comparing these tones to the target sound will help you identify the target sound.

2. **SURFACE BLANKING.** In this mode of operation, the response to shallow, good targets is eliminated, so that the detector will respond only to deeper targets which, in the case of coins, may be older, and more valuable. The Surface Blanking toggle switch is used to turn this features on and off. The approximate depth of the blanking circuit is adjusted by the Blank Depth control.

When the blanking features is being used, and set for 2", coins and other good targets that are within the first two inches of the surface are rejected, and only good target which are more than 2" deep are detected. The calibrations on the panel are approximations of blanking depth for coin sized objects which are directly below the coil. As with a depth indicating meter, targets detected near the front or back of the searchcoil will not give as strong a signal, so will be apparently deeper to the circuitry.

Obviously, not all deeper targets are more valuable, and not all shallow targets are valueless. You should exercise great care in using this mode for searching an unfamiliar location. This mode is useful to get an idea of target depth, however, since it can easily be switched off for searching and switched on for checking depth.

FIELD USE

The detector should be held in a position that is comfortable for you. Swing the detector from side to side in about a three foot arc, overlapping succeeding strokes well. This motion is called a “sweep.” The Royal Sabre Plus 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. An easy pace is preferred. In fact, trying to hunt too fast in Discriminate may even cause a loss of depth in heavily mineralized locations.

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, and then try the unit in its various modes. Check the area in All Metal Mode first to be sure its clear of trash then bury the targets at least a foot apart, and from 2 to 6 inches deep to start. Make a map of the test bed 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 rate for best operation.

In ALL METAL mode operation, keep the detector tuned so that there is a slight threshold buzzing of sound. This is easy to do because ground minerals do not affect the All Metal mode if properly adjusted. Regardless of which mode you are using try to keep the coil 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 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 housing. Should wear through occur, it will usually destroy the searchcoil beyond repair, so it is always best to keep a scuff cover on the coil, they are available from your dealer. 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. The higher you hold and sweep the coil above the ground the less depth you'll be able to obtain.

When operating in the Discriminate Mode, some “false signals” may be caused by heavy concentrations of trash metal objects, by very large trash items, or by electrical interference. These signals will sound different than good target signals because they are generally short, choppy sounds. At the end of your sweep, as you the 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 at the exact spot with each sweep. The second method is to switch to All Metal 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. Raising the coin an inch or two ill also many times cause surface trash to suddenly disappear, while good target responses just become fainter.

If the trash in an area is so heavy that you are getting lots of choppy sounding false signals, it might be good to change to a smaller coil. If this isn't feasible, you can probably get better results by slowing down your sweep speed, and using shorter sweeps. It would be good to hunt the area twice, the second time at right angles to the first time. This technique will probably allow detection of some targets that were hidden by trash the first time due to the sweep direction.

If there is any doubt whether a target is good or not, DIG IT.

If there is any doubt whether a target is good or not, DIG IT!

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.

The Royal Sabre is furnished with an 8" concentric searchcoil with an open center. This coil will yield the best results for most coin hunting situations. Pinpointing is greatly simplified by an open center, since you can now see the actual spot on the ground where you will dig instead of locking your eyes on the coil center and trying not to follow the coil as you move it out of the way. Optional coils of 4", 7", and 11" are available to allow you to tailor the response of your detector to suit special situations.

The 4" and 7" coils are useful for coinshooting in extremely trashy locations, and can actually greatly increase your number of good finds under such conditions, although some loss of depth will be experienced. The smaller coil will allow you to detect coins and other good targets much closer to surface trash items. The 11" coil will yield about an extra inch in depth in most areas, and is an excellent coinshooting coil in relatively clean areas. The increased surface area makes pinpointing a little more difficult, and allows trash to hide the good targets a little easier. The 11" coil is also an excellent relic hunting coil and can provide greatly increased depth on larger targets, especially in the All Metal mode where surface junk won't hide the deep targets.

PINPOINTING

The sweep speed of the Royal Sabre is slow enough to allow pin-pointing in the Discriminate Mode, but will require a little more practice. Move the coil slowly from side to side and then from front to back over the target. Raising the coil slightly and slowing the sweep speed will narrow down the detection area enough that it's easy to tell where the coil center is at the instant of the sound.

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. In fact, you will be looking at the exact spot in the ground where you want to dig, because of the open coil center.

The easiest way to pinpoint for most people will be to switch to the Pinpoint Mode, since no motion is required. To pinpoint a target that doesn't saturate the audio, just move the coil forward and back, and side to side until you get the strongest sound. The target will be directly below the coil center. If the audio saturates over a large area, simply push the mode switch to the retune position momentarily over the area to retune the detector. This will narrow its field of response to allow you to once again seek the area of strongest response. It may be necessary to retune more than once with this technique. With a moderate amount of automatic tuning, the detector itself will be attempting to tune back to threshold, which automatically narrows down its area of strongest target response.

RECOMMENDED RECOVERY METHODS

Always obtain permission from the person in charge before hunting on private property, schoolyards, parks, churches, or state parks. Even when relic hunting in the woods, NEER LEAVE A HOLE!, or damage anything on the property.

PROTECT YOUR HOBBY - FILL ALL HOLES

BATTERY REPLACEMENT

The Royal Sabre Plus is provided with a manual battery test features so that you can always be sure that you are getting top performance from it. The batteries should be checked after the detector has been on for about 10 minutes, and then periodically as you are using it for long periods. To activate the Battery Test, simply push the Surface Blanking switch to the Batt Test position. The detector should beep loudly if the batteries are still fresh. As they grow weak, so will the audio sound in the Batt Test position. When the sound becomes just a buzz, or isn't there anymore, it's time for new batteries.

To replace batteries, remove the control housing from the pole, and pull the large knobs on the battery door on the front of the unit. The entire door will pop off. Remove the two battery packs one at a time by disconnecting the clip leads, and remove the batteries from the pack. Replace the batteries into the pack. Slide the pack back into the detector, making sure the observing the polarity indicators on both the battery pack and batteries. Replace the pack in the detector and fasten the clip lead, taking care to ensure that the clip leads fit tight on the battery pack. When both packs have been changed, replace the battery door by putting it in place and depressing both nylatch fasteners to lock them in place.

Should you desire to do so, rechargeable Nickel-Cadmium batteries can be substituted for the standard AA penlight cells. Individual AA size cells are readily available at most electronic stores, as well as the chargers for them, and they can be inserted into the standard holders used in the Toltec. The initial battery test reading will be lower than normal, but will not drop as fast with use, until the batteries are completely discharged.

GENERAL CARE AND USE

If the detector is to be stored for a long period of time, it is best to remove the battery pack from the detector. This will prevent internal damage to the detector if the batteries should leak.

The searchcoil is waterproof and may be submerged in either fresh or salt water. Caution should be exercised to prevent water from entering the chassis, where it could damage the electronic circuitry. After the coil is used in salt water, the coil and lower stem assembly should be rinsed well with fresh water to prevent corrosion of the metal parts. When used in the body mount configuration, you should not allow the cable connectors to be submerged. Several waterproof adapters are available through your dealer which will allow you to waterproof the connection between the searchcoil and extender cable

connectors.

There are several good books to help the beginner learn how to use the detector, where to search and how to recover a target without damaging the environment. A good coin shooter can recover a lot of finds and leave the area looking as though he had never been there. Above all, always fill your holes when you have recovered the target.

TESORO Metal Detectors are sold through independent dealers, who are almost always treasure hunters themselves. They can provide you with you much needed information about how to use your detector, how to probe, plug and dig in your locale, and answer most of your questions about treasure hunting in general.

The use of earphones will benefit you in two ways. Most earphones will very effectively block out most of the ambient noise, such as traffic noise and wind noise, which will enable you to better hear the fainter signals caused by the deeper targets. Obviously, the older, more valuable coins will probably be deeper than the ones which were lost last week, so you should take advantage of anything that will help you hear the weaker signals. Secondly, using earphones will greatly extend the battery life, since it takes much less power to operate them. The Diablo is not equipped with a volume control, but does have a limiting circuit in the earphone jack. If less volume is desired with earphones, you may want to use earphones with a built in volume control. Any good 8 or 16 ohm set with 1/4 inch stereo jack will do.

HAPPY HUNTING, and thank you for purchasing a TESORO.

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, or tone of the factory authorized service centers. Contact the factory for the name and address of the nearest service center.

If you have any questions, don't hesitate to contact the factory.

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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