



Fisher Labs

1270

Metal Detector



Operating Manual

FISHER RESEARCH LABORATORY

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ABOUT YOUR FISHER 1270

The 1270 is a “motion” detector and was designed to offer you more versatility in a wide range of conditions: Highly mineralized soil, extremely trashy areas, and deep targets. By utilizing the various controls on the 1270, you will find more items that were unreachable until today. Building upon the tradition of quality and performance in all of Fishers detectors, the 1270 stands as the pinnacle in a line of outstanding detectors.

FEATURES:

- **3 Search Modes - normal discrimination, enhanced iron discrimination, and all metal ground balanced search.**
- **Patented Double Derivative, Crystal Locked Circuitry (U.S. Patent # 4,514,692)**
- **Enhanced Relic Sensitivity**
- **Enhanced “see through” in iron trash.**
- **“Cutting Edge” performance in most soils**
- **Sensitivity Control to enable silent search or**
- **Audio threshold**
- **Silencer for silent (3rd Derivative) discrimination**
- **Trigger Switch mode change**
- **Trigger Switch Zero-Motion Pinpointing**
- **Near Perfect Balance for comfortable use**
- **Lightweight Cushioned Arm Rest & Grip**
- **Low Battery Alert - LED blinks automatically**
- **Drop-in Batteries**
- **Double Locking middle and lower stem**
- **3 piece handle for compact storage**
- **Limited Lifetime Warranty***

*may vary outside of the United States. See your dealer for details.

CONDENSED OPERATING INSTRUCTIONS

We recommend that you first read this entire operating manual before taking your new 1270 out for a test. You'll be more knowledgeable, and have a better chance of finding more treasure. But, we also understand the excitement of the "hunt", so here are some simple instructions for setting up the 1270.

Set the controls as follows:

NORMAL DISC = 5 (iron, lead, small brass & foil discrimination)

SILENCER switch = ON

IRON DISC switch = OFF

ALL METAL GROUND ADJ. = 0, OFF

(completely counter clockwise)

SENSITIVITY = 8

Turn the 1270 ON with the ON /OFF Volume control.

(adjust volume to a comfortable level)

Take your 1270 outside. There's normally too much metal inside to perform a proper test. Hold the 1270 as shown in Figure 1, and slowly sweep the search coil left and right while moving forward slightly with each sweep. A slight motion is required for the 1270 to detect a target.

It is often helpful to bury a few known targets in the soil to get a "feel" for how the 1270 responds to different targets at various sweep rates. Remember, at a DISC setting of 5, certain targets such as iron or aluminum should be ignored.

When the 1270 "beeps", you've passed over a metal target with the search coil. Swing the 1270 left and right, then forward and back, making an "X" over the "beep" area. Another method is to "bounce" the coil, raising only about an inch off the ground, as you move the coil across the target. The loudest audio response will occur in the center of the search coil. The target will be directly below the center of the search coil. There are exceptions to the center of coil pinpoint. For example, when a target is at an angle or irregularly shaped. Because the 1270 is a "motion" detector, with practice, this may be the only mode of pinpointing you will need.

To use the no-motion pinpoint mode, place the coil on the ground away from the target, pull and hold the MODE TOGGLE SWITCH (on the bottom of the housing). This switches the 1270 into ALL METAL no motion PINPOINT mode. Keeping the search coil level with the ground, and moving the coil near the target you will hear an audio increase. Next, move the 1270 in an "X" pattern over the target and stop where the loudest tone is heard. This will be the center of your target, directly under the center of the search coil.

Read this instruction manual thoroughly, practice often and you are in for some exciting treasure hunting. Drop us a line if you have any questions, comments or good finds to tell us about. In the meantime...

HAPPY HUNTING!

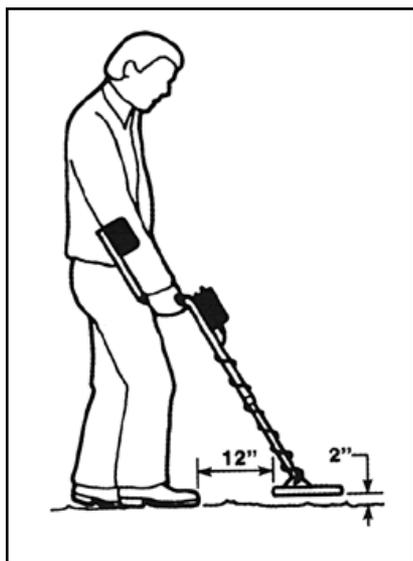


Figure #1

SETTING UP

Your new 1270 comes ready to assemble, set and use, but first review the steps below before proceeding.

STEP 1.

Unpack your 1270 carefully, and save the carton. Review the various part names noted in figure #2.

STEP 2.

The coil is attached to the lower stem. Depress the spring lock button on the lower stem, and slip it into the center handle section until it snaps into a hole.

STEP 3.

Depress the spring lock button on the upper handle and insert it into the opposite end of the center handle section and hand tighten the lock nut.

STEP 4.

The search coil angle and stem length may now be adjusted. The stem length can be adjusted by loosening the lower lock nut and allowing the spring lock to snap into the desired hole in the middle handle section.

STEP 5.

Adjust the length and the coil angles so that the search coil rests flat on the ground about 12 inches in front of your foot. Your arm should be straight and relaxed. Proper length will greatly reduce arm fatigue.

STEP 6.

When the stem length is properly adjusted, tighten the lower lock nut, and the coil wing nut. **CAUTION:** Never use a pliers or anything other than your hand to tighten either lock nut or wing nut.

STEP 7.

Disconnect the search-coil cable from the control housing and wrap it around the stem. A loose cable near the search coil may cause false signals, but don't wrap it so tightly that it pulls against the housing or search coils. Reconnect the search coil cable to the control housing. Again, finger tighten only.

STEP 8.

With the coil angle and the shaft length properly adjusted, you should be able to move into your "search" position. (see figure 1)

STEP 9.

Standing with the 1270, the search coil should be parallel to the ground and no more than 2 inches off the ground, while your arm is straight. Remember, the closer your coil is to the target, the better chance you have of detecting it in normal soil conditions (although, there may be occasions that lifting the coil off the ground an inch or two will be helpful, such as hunting in heavily mineralized soil).

CONTROLS & FUNCTIONS

1. ON / OFF VOLUME: ON /OFF VOLUME:

Allows you turn on the 1270 and adjust the volume to a comfortable level. No need to have a special headphone with volume controls. Turning this control clockwise adjusts the volume.

2. NORMAL DISC:

When operating in NORMAL DISC mode, this control gives you the ability to adjust the rejection point of the 1270, adjusting the amount of trash you wish to reject. At lower settings, the 1270 will reject most ferrous and low-conductivity metal objects. At higher settings, more high-conductivity metal objects will be rejected. At maximum (10), all targets except silver and copper should be rejected. This is the "primary" mode when both the ALL-METAL GROUND ADJ. control and the IRON switch are OFF.

3. ALL METAL GROUND ADJUST:

Turning this control clockwise, out of its OFF position (0), allows you to operate in the All-Metal mode and adjust the 1270 to compensate for various ground mineral conditions. In this All-Metal mode, all DISC mode control settings will be ignored, but can be momentarily re-engaged without changing the GROUND setting by pushing the MODE TRIGGER switch forward (the DISC mode engaged will be the one that is presently set on the panel controls). Turning the GROUND ADJ. control fully counterclockwise into its OFF position will return the unit to the DISC mode set on the panel controls.

4. IRON DISC ADJUST:

When operating in the IRON DISC mode, this control provides an expanded discrimination range to fine-tune the rejection point of most small iron objects (used in conjunction with the IRON switch). This is the "primary" mode when the IRON switch is ON, and the ALL-METAL GROUND ADJ. control is OFF

5. SENSITIVITY:

This control adjusts the sensitivity level and scan width of the 1270. Turning the control clockwise increases the sensitivity to weak target signals (from deeply buried or small metal objects). A low audio threshold is provided at higher settings to allow monitoring of weak threshold variations resulting from deeply buried objects. Reducing the sensitivity may be necessary at times to reduce false signals when working in areas of high trash, highly mineralized ground, near power lines and electrical interference, or near large metal objects, such as buildings, fences, or bleachers.

6. IRON DISC TOGGLE:

When this toggle switch is flipped ON, the 1270 will operate in IRON DISC mode. When operating in this mode, the IRON DISC control becomes active and the NORMAL DISC control will be ignored. The NORMAL DISC control can be momentarily re-engaged without changing the IRON DISC setting by pushing the MODE TRIGGER switch forward.

7. SILENCER:

Used in conjunction with the NORMAL DISC control, this feature reduces the normal clicks and pops heard while going over trash. With the toggle "off", you will hear clicks and pops and partial signals for maximum audio target information. With the toggle "on", the 1270 operates in a newly developed 3rd derivative SILENCER mode, eliminating the clicks, pops, and partial target responses for a quieter mode of operation. This mode is especially designed for those who wish to eliminate excessive partial audio responses in high trash areas.

8. LOW BATTERY LED:

This LED will start to blink to alert you when the batteries are nearing their end of life. When the LED starts to blink you have approximately 1 hour* of usage left before performance degradation begins to occur (*actual time will vary depending on usage). The first stage of performance degradation is loss of the audio threshold when the SENSITIVITY control is at maximum.

9. HEADPHONE JACK:

This jack accepts most stereo headphones with ¼ inch diameter plugs. When headphones are used, the speaker is disabled. Headphones are beneficial when hunting in noisy areas. Faint and deeper signals will be heard better!

10. MODE TRIGGER SWITCH:

The 1270 MODE TRIGGER switch allows you to conveniently switch between modes of operation without losing your panel control settings. The switch has three positions: normal (center position), pinpoint (pulled position), and swap (pushed position).

- PINPOINT - Pulling the MODE TRIGGER toward yourself will cause the 1270 to operate in No-Motion, All-Metal Pinpoint mode. This mode allows you to "pinpoint" the exact location over a buried target for faster and easier retrieval.
- NORMAL - In the MODE TRIGGER's center position, the 1270 operates in "primary" operating mode set by the front panel controls.
- SWAP - Pushing (and holding) the MODE TRIGGER forward causes the 1270 to switch to the "secondary" operating mode set by the front panel controls

PRIMARY AND SECONDARY OPERATING MODES >

CONTROLS & FUNCTIONS

> PRIMARY AND SECONDARY OPERATING MODES

A “primary” operating mode is active when the MODE TRIGGER switch is in the Normal (center) position, and the “secondary” operating mode is active when the MODE TRIGGER is in the Swap position (pushed and held). The following front panel settings will show you how to achieve your favorite primary and secondary operating modes. This will allow you to quickly change modes without losing any settings to gain more information about your targets.

Primary = NORMAL DISC

Secondary = IRON DISC:

ALL-METAL GROUND ADJ. is OFF (0).

IRON switch is OFF.

Primary = IRON DISC

Secondary = NORMAL DISC:

ALL-METAL GROUND ADJ. is OFF (0).

IRON switch is ON.

Primary = ALL-METAL GROUND ADJ.

Secondary = NORMAL DISC:

ALL-METAL GROUND ADJUST is ON

(set to proper ground compensation).

IRON switch is OFF.

Primary = ALL-METAL GROUND ADJ.

Secondary = IRON DISC:

ALL-METAL GROUND ADJ. is ON

(set to proper ground compensation).

IRON switch is ON.

*This info available as a chart on page 16

ALL METAL MODE

Your 1270 gives you two ways to search in all-metal operation: (1) by setting your NORMAL DISC to 0, or (2) by turning on the ALL METAL GROUND ADJUST (rotate knob clockwise). When using the ALL-METAL GROUND ADJUST mode, only the VOLUME and the SENSITIVITY controls are still active: you have temporarily disabled the other controls on the 1270 (it becomes the “primary” operating mode, as explained above). In this mode, you must manually adjust the 1270 for the type of ground you are searching. Turn the GROUND ADJUST knob switch on (to about “1”), and the sensitivity to about “8”. Make sure the search coil is not near

ALL METAL MODE

any metal. This may be tested quickly by pulling the trigger switch and sweeping over an area of about one square foot. If no signal is detected, release the trigger switch and raise the search coil off the ground, and lower it back down two or three times (also known as “bobbing”). If an audible sound is heard, turn the GROUND ADJUST knob slightly clockwise. Repeat this procedure until no sound is heard when raising and lowering the coil to the ground. Once you have the 1270 adjusted to the type of ground you are searching, you may begin sweeping the coil at a comfortable pace. Remember, the ALL METAL GROUND ADJUST mode is a MOTION mode. Slight movement of the coil is required to detect an object. While in this mode, if the IRON DISC toggle is OFF, pushing the MODE TRIGGER forward switches the 1270 into the NORMAL DISC mode. If the IRON DISC toggle is ON, pushing the MODE TRIGGER forward switches the 1270 into the IRON DISC mode. (SEE PRIMARY & SECONDARY OPERATING MODES PG. 7)

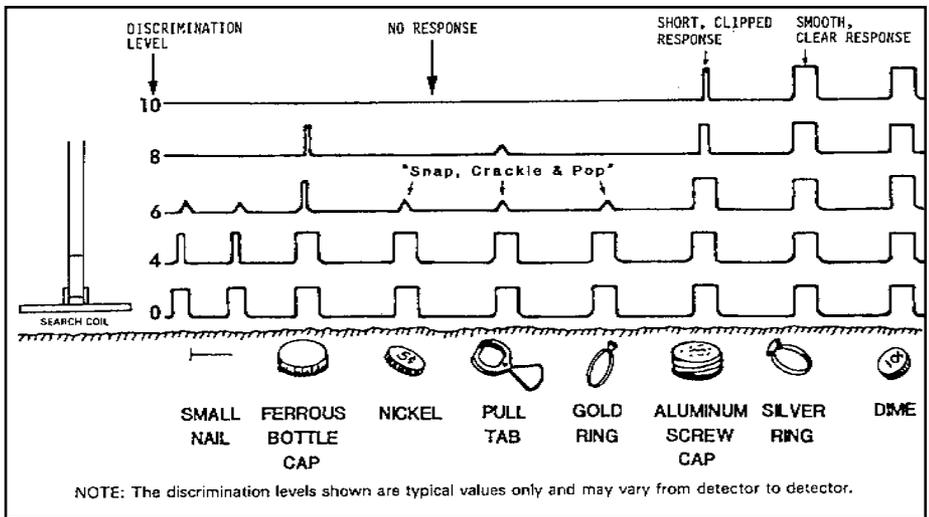
IRON DISC MODE

Searching in IRON DISC may be preferred when small iron objects are to be rejected. In fact, this mode greatly improves the detectors ability to “see through” iron trash to the good non-ferrous targets often sought after. Make sure the ALL METAL GROUND ADJUST is OFF; that is, fully counterclockwise until it “clicks” into the “0” position. Flip the IRON toggle switch up into the ON position. Adjust your sensitivity clockwise to the desired level (preferably until a slight threshold tone is heard, at about “8” or greater). Reduce the sensitivity slightly if you prefer silent search. In the IRON DISC mode, you have two features that enhance the performance of the 1270: the SILENCER and the IRON DISC adjust knob. The IRON DISC knob gives you the ability to “fine tune” the amount of iron you wish to reject. Turning the IRON DISC knob clockwise causes larger pieces of iron to be rejected. You may hear some normal “clicks and pops” when the coil passes over these targets. In high trash areas, turning the SILENCER toggle ON will reduce, and in most cases, eliminate the “clicks and pops”. Remember that the IRON DISC mode is a MOTION mode. Slight movement of the coil is required to detect an object. When IRON DISC is the primary operating mode, pushing the MODE TRIGGER forward switches the 1270 into the NORMAL DISC mode. (SEE PRIMARY & SECONDARY OPERATING MODES PG. 7)

NORMAL DISC MODE

When rejection of a full range of other non-ferrous trash is desired, the NORMAL DISC mode will be necessary. Make sure the ALL METAL GROUND ADJUST is OFF; that is, fully counterclockwise until it "clicks" into the "0" position. The IRON toggle switch must also be OFF. Adjust the NORMAL DISC knob to reject the unwanted "trash" targets (see figure 2). When the NORMAL DISC is set at "0", all metals will be detected. As you turn the NORMAL DISC knob clockwise, certain metals will be rejected. At the full setting of "10", most iron, foil, and aluminum will be rejected, while copper and silver will still yield a good signal. Adjust your sensitivity clockwise to the desired level (preferably until a slight threshold tone is heard, at about "8" or greater). Reduce the sensitivity slightly if you prefer silent search. In high trash areas, turning the SILENCER toggle ON will reduce, and in most cases, eliminate the "clicks and pops" that result from some rejected targets. Remember that the NORMAL DISC mode is a MOTION mode. Slight movement of the coil is required to detect an object. When NORMAL DISC is the primary operating mode, pushing the MODE TRIGGER forward switches the 1270 into the IRON DISC mode. (SEE PRIMARY & SECONDARY OPERATING MODES PG 7).

Figure #2



Typical 1270 audio responses (with silencer off) for 2-inch deep targets with search coil sweeping 1 to 2 inches above ground.

SEARCH TECHNIQUES

Good searching techniques are every bit as important as having a good detector.

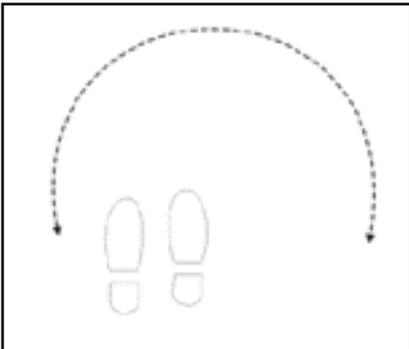
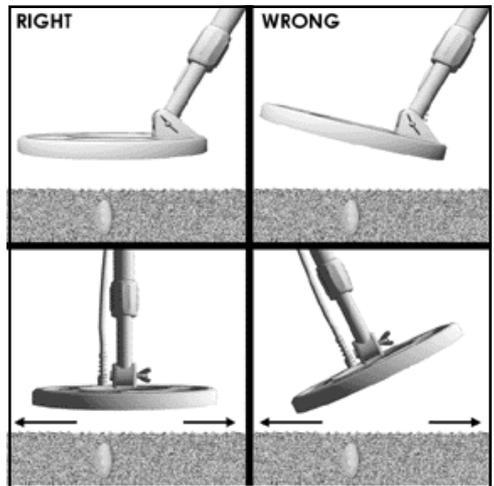
1. Adjust your SENSITIVITY control. Only experience will tell you how to set it in every situation. As general rule, turn up the sensitivity to achieve maximum depth and detection of small items. You will also get a wider search scan. Conditions may arise where you'll need to reduce sensitivity: (a) when near larger metal objects, (b) when ground mineralization cause "false signals", (c) when near sources of interference, such as power lines or radio towers, (d) when silent search is desired. Minimum sensitivity is when the knob is turned to "1", or fully counterclockwise. Maximum sensitivity is when the knob is turned to "10", or fully clockwise.
2. Decide how much discrimination (trash rejection) you want. In certain areas you may wish to detect all metals, but in others, you want to discriminate unwanted targets. Only you will be able to determine your particular situation. Remember that a lot of "good" targets are not necessarily silver and copper. For example, many gold, lead and brass targets can be missed when discriminating aluminum.
3. Search slow and systematically in a tight semi-circle as shown in figure 3.
4. Keep the search coil as close to the ground, and as parallel as possible (see figure 4). The closer you are to the target, the easier it is to detect.
5. Take your time, and overlap your sweeps by at least 50%.
6. Search an area thoroughly and from different directions, taking note of where you have already been.
7. Keep the search coil moving at a comfortable rate. Remember, the 1270 is a motion detector. A sweep rate of about 4 feet per second will suffice, but make sure your arm is comfortable. Moving the search coil at a rapid rate, or "whipping," is not necessary.

SLOW MOTION PINPOINT

When the 1270 "beeps", you have passed over a metal target with the search coil. Swing the 1270 search coil left and right, then forward and back, making an "X" over the "beep" area. The target will be directly below the center of the search coil. Raising the coil from the ground will reduce the signal size and makes for quick, easy pinpointing. Because the 1270 is a "motion" detector, with practice, this may be the only mode of pinpointing you will need.

NO- MOTION PINPOINT

1. When the target "beep" is heard, make an "X" over the target, as described above, to determine the target area.
2. Move the coil away from the target area, and lower the coil to the ground.
3. Pull, and hold the MODE TRIGGER switch.
4. Raise the coil about 1/2 inch; move back across the target area.
5. Stop the coil at the center of the loudest response.
6. Repeat this one more time, moving your coil from side to side. Your target should be directly below the center of the coil.
7. For larger targets, place the coil on the ground, closer to the center of the target. The closer you are to the target center when you pull the MODE TRIGGER switch, the more of the target will be "tuned-out". The target signal response will appear smaller and even easier to pinpoint.
8. **IMPORTANT:** Be careful not to pull the Pinpoint MODE TRIGGER switch while directly over the target. This may "tune-out" the entire target, and you will get no target response.

**Figure #3****Figure #4**

TARGET RECOVERY

Once you have pinpointed a target, your objective is to recover it quickly and neatly, leaving virtually no trace of your excavation. There are many ways to do this, and you will soon discover which method works best for you. **REMEMBER:** Always leave the ground in the same condition as you found it. **NEVER** leave exposed holes or damage to vegetation and always remove trash.

RECOVERY TOOLS

1. There are several well designed sand scoops, trowels, and digging tools made especially for the Hobby of Metal Detecting. See your local dealer for more information.

HEADPHONES

The use of headphones has become almost mandatory for the "professional". It helps block out the outside noise, making those deep weaker signals easier to hear. Headphone use will also enhance battery life. See your local dealer for more information about quality Fisher headphones.

FALSE SIGNALS

A "False Signal" occurs when something sounds like a good target, but is not. Your 1270 does a great job of discriminating, but bad "targets" with similar electrical characteristics can fool it. Large pieces of trash or items very close to the search coil will occasionally sound "good". Experience is the best teacher. As you accumulate more hours with your 1270, you will soon learn how to distinguish "false signals". Initially when you pass over a target, and get a good response, you will find that crossing over the target once or twice more, the signal will break up or completely disappear.

Here are some sources of false signals and the solution.

1. **Electrical Interference:** Caused by radio and TV towers, power lines, or other metal detectors.
SOLUTION: Move farther away from the source, slow down the sweep speed, or lower the sensitivity.
2. **Highly Mineralized Soil:** Soils with a high iron or salt content.
SOLUTION: Reduce the sensitivity, raise the discrimination level, or if searching in the ALL-METAL GROUND ADJUST mode, readjust the ground adjust setting.
3. **Extremely Trashy Areas:** May result in a lot of "chatter".
SOLUTION: Utilize the SILENCER mode, adjust the discrimination level (the use of the IRON DISC mode can be very helpful here), or reduce the sensitivity. In some areas, a smaller coil will be beneficial to better achieve target separation.
4. **Metal Interference:** The 1270 will pick up metal ABOVE and on the SIDE of the coil, as well as under. **WATCH FOR:** Large metal structures, your digging tool, metal in shoes and your coil cable hanging loose above the coil.

BATTERY REPLACEMENT

Your 1270 comes equipped with two 9-volt standard transistor radio batteries. Should your low battery indicator LED start to blink, replacement in approximately one hour will be necessary (less than one hour with NiCd batteries). Locate the two battery compartments on the underside of the CONTROL HOUSING. Gently push the clip on the front end IN and UP. Pull the nylon tab to remove the batteries. Make note of the polarity (+ / -) of your new batteries. The (+) or Positive side is the smaller of the two contacts on the battery. Match that with the (+) inside the 1270 battery compartment. Slide the top of the battery in pushing against the copper contacts. Gently push the bottom of the battery into the compartment. Replace the Battery Cover.

MAINTENANCE:

Your 1270 doesn't require a lot of care, nor does it require regular "maintenance". However, you should do a few things to keep your 1270 in peak operating condition.

1. Remove the batteries if you're not going to be using your detector for a while. Batteries can leak, and cause severe damage.
2. Avoid extreme temperatures. When parked in the sun, never leave your detector in a closed car or in the trunk.
3. If you "scrub" your detector coil on the ground, you will eventually wear through it. Invest in a coil cover. They are an inexpensive way to protect your investment.
4. Keep your 1270 clean. Periodically remove the lower stem, and wipe it down. Keep the lock nuts free of sand and dirt.
5. Keep your 1270 dry. Cover the control housing with a plastic bag or something similar if you hunting out in the rain, fog, dust, or near the surf.

TREASURE HUNTER CODE OF ETHICS

Laws governing the use of metal detectors are common in some areas. In many countries, the use of metal detectors is illegal or severely restricted. **DON'T LET THIS HAPPEN IN YOUR COUNTRY!**

1. Always get permission to hunt on private property
2. Always leave a site cleaner than you found it. Take your trash with you.
3. Always fill in your holes neatly whether you're in a city park or remote wilderness. Leave the land the way it was before you disturbed it.
4. Always obey all laws relating to Treasure Hunting
5. Always return valuable property if you can locate the original owner
6. Always do whatever you can to give the hobby of Treasure Hunting the good image it needs and deserves.

LET'S PRESERVE OUR TREASURED HOBBY

SPECIFICATIONS

Subject to improvement or modification without notice.

WEIGHT

3.5 lbs.

Fisher Research Laboratory does not warrant suitability to specific use. Fisher Research Laboratory shall in no event be liable for any direct, incidental, consequential or indirect damages.

LENGTH

Extended52" ²
Collapsed42" ²

FREQUENCY

VLF-Search8.2 KHz, Quartz Crystal Controlled
Audio Target Response512 Hz Unipolar ³

SEARCH MODES

Normal DiscVLF-Slow Motion Discrimination ⁴
Iron DiscVLF-Slow Motion Discrimination ⁴
Ground BalancedVLF-Slow Motion All Metal
PinpointVLF All Metal, No-Motion
No Threshold OperationYes^{3/6}

OUTPUTS

Low Battery AlertAutomatic (LED)
Built-in SpeakerYes
Stereo Headphone JackYes

SEARCH COILS

TypeConcentric, Co-planar Spider Coil
Diameter8" (optional 5" & 10 1/2" coils available)
Shielding100% E.S.I.⁵
InterchangeableYes
SubmersibleYes

BATTERIES BATTERY LIFE

(2) 9 Volt
Carbon Zinc15-25 hours ²
Alkaline30-40 hours ²
NiCd6-12 hours²

WARRANTY

Lifetime Limited Warranty*⁷

*warranty may vary outside of the United States

See your dealer for details

NOTES

1. Subject to modification without notice.
2. Approximate.
3. PULSEGATE UNIPOLAR AUDIO PROCESSING.
Advanced Fisher circuitry which allows silent operation below the "Audio-Threshold Tone" with no sensitivity loss. (See Note 6 also).
4. The 1270 is a "motion" detector while in the search modes, meaning that the search coil must be moving at least slightly to detect a target.
5. Electro-Static-Insulated to eliminate certain types of false signals.
6. The 1270 can operate silently with no "Threshold Tone" (See Note 3); however, in the "maximum" sensitivity position, a low audible threshold is provided.
7. Fisher does not warrant suitability to specific use. Fisher shall in no event be liable for any direct or, incidental, consequential or indirect damages.

