

Sears



✓ *Ted Williams*
BRAND

MODEL NO. 59601

assembly
control
description

trouble shooting

operation
procedure

maintenance

OWNER'S MANUAL

METAL/ MINERAL DETECTOR

CAUTION: Read instructions for assembly carefully



When ordering parts for the Sears TED WILLIAMS TREASURE HUNTER
it is a necessity to use the following nomenclature:

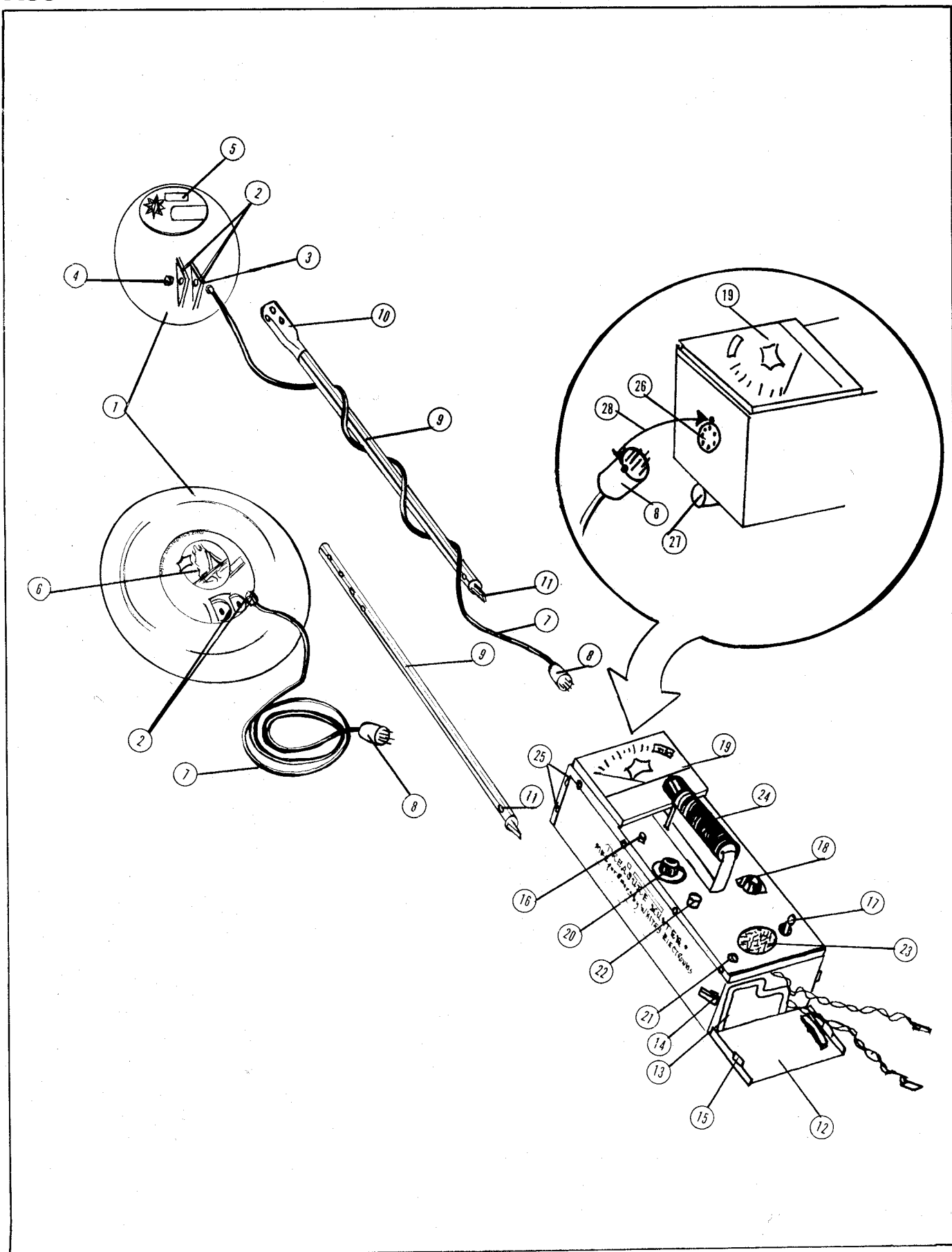
321-596010

Example: Figure 1 # 18 Black Pointer Knob would be ordered:

321-596010

402-0007

ASSEMBLY DIAGRAM FIG. 1



ASSEMBLY PARTS

Key No.	Part No.	Part Name
1		Electronic Search Loop (8" & 10 3/4")
2		Loop Clevis Bracket (8" & 10 3/4" loops)
3	528-0048	8-32 x 1 1/2" Round Head Bolt
4	402-0004	Thumb Nut
5	624-0043	Loop Decal (8" Loop)
6	624-0034	Loop Decal (10 3/4" Loop)
7		Loop Cable
8		Loop Plug
9	500-0027	Loop Rod (2 Parts) Reordered as complete Rod (Upper Section — Small Diameter) (Lower Section — Large Diameter)
10	500-1174	Plastic Rod Extension
11	500-2227	Spring Clip Buttons (2)
12		Battery Compartment Door (Hinged)
13		Battery Compartment
14		Battery Door Catch
15		Battery Door Strike
16		Wink Light
17		Wink Light On/Off Switch
18	402-0007 (Knob only)	Function Switch On/Off Bat. Check
19		Signal Intensity & Bat. Check Meter
20	402-0008 (Knob only)	Metal/Mineral Tuner (10 Turn)
21		Headphone Receptacle
22	402-0005 (Knob only)	Volume Control
23		Speaker
24		Instrument Handle
25	528-0052	6 x 1/4 Phillips Head sheet metal screws

LOOP PLUG INSTALLATION (FIG.1-A)

8		Loop Plug (6 Prong)
19		Signal Intensity & Battery Check Meter
26		Loop Plug Socket
27		Rod Holder
28		Yellow Dots

INTRODUCTION

We would like to take this opportunity to welcome you to the growing sport of treasure hunting. This sport is fast becoming one of the most popular pastime hobbies of all ages.

The Metal/Mineral Detector you have just received is the Ted Williams Treasure Hunter. It is a solid state transmitter-receiver metal detector that will give you many hours of metal detecting fun.

After you have unpacked the components of your metal detector, follow these easy steps for assembly:

ASSEMBLY

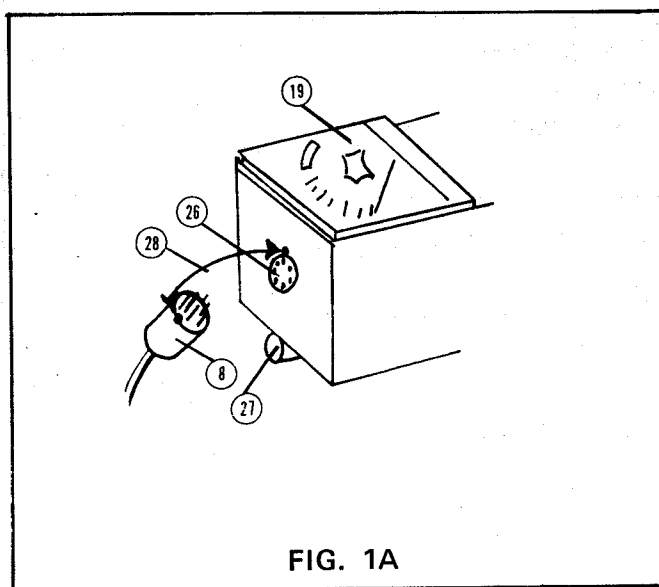


FIG. 1A

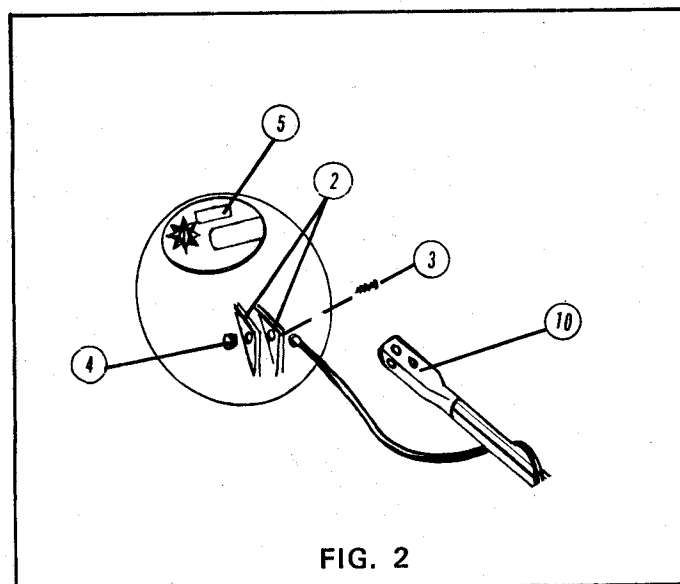


FIG. 2

1. Fit the two sections of the loop rod together marked in Figure 1, No. 9.
NOTE: This is an adjustable rod. To adjust for length depress the Spring Clip Button Figure 1, No. 11 and adjust the smaller section of the rod to the desired length.
2. Fit the lower section, Figure 1, No. 9 of the loop rod into the rod holder, Figure 1A, No. 27, located on the bottom of the instrument.
3. For proper installation of the 8" loop please refer to Figure 2.

It will be necessary to remove the 8-32 x 1 1/2 inch round head bolt from the loop located at Figure 2, No. 3. Then insert the plastic rod extension (Figure 2, No. 10) in the proper position, to accept the round head bolt. When the plastic rod extension is in position, place the 8-32 x 1 1/2" round head bolt through the loop clevis bracket (Figure 2, No. 2) and plastic rod extension. Install the thumb nut (Figure 2, No. 4) on the threaded end of the loop bolt. Make sure that the threads on the loop bolt and thumb loop nut match when assembly is made. If they are incorrectly aligned, stripping may occur.

CAUTION: Do not over-tighten. Use only enough pressure to make a snug fit. The Thumb Nut has been designed for hand tightening. Tools should not be necessary.

NOTE: If the 10 3/4 inch Loop is to be used, follow the installation instructions for the 8 inch Loop (Figure No. 2).

4. Now that the loop is attached to the "Treasure Hunter," spiral the excess cable around the rod as illustrated in Figure No. 1, and insert the loop plug (No. 8) into the matching socket (No. 26) on the front panel of the "Treasure Hunter." See Figure 1-A. **CAUTION:** Do not force the loop socket and plug together. The socket and plug are keyed to allow mating with only the correct pin alignment. **YELLOW DOTS** are used for the matching. Key No. 28, Figure 1-A.
5. Before you can operate the "Ted Williams Treasure Hunter," it is necessary to install the batteries in the battery compartment located at Figure 1, No. 13.
6. To insure your instrument operates properly, follow

the battery installation procedure.

(Proper battery installation is shown in Figure No. 3.)

- A. Insert the 12 volt battery holder (Figure 3, No. 29) (WHITE pack containing 8 - 1 1/2 volt pen-light batteries) in the battery compartment (Figure 3, No. 13).
- B. Connect the battery lead identified by its WHITE Connector, (Figure 3, No. 30) in the fashion shown.
- C. Insert the 9 volt battery holder (Figure 3, No. 31) (BLACK pack containing 6 - 1 1/2 volt pen-light batteries) in the battery compartment, (Figure 3, No. 13).
- D. Connect the battery lead identified by the BLACK Connector in Figure 3, No. 32 in the fashion shown.

CAUTION: Always observe correct polarity. The battery connectors are designed to fit in only one position.

Assembly of your Ted Williams Treasure Hunter is now complete.

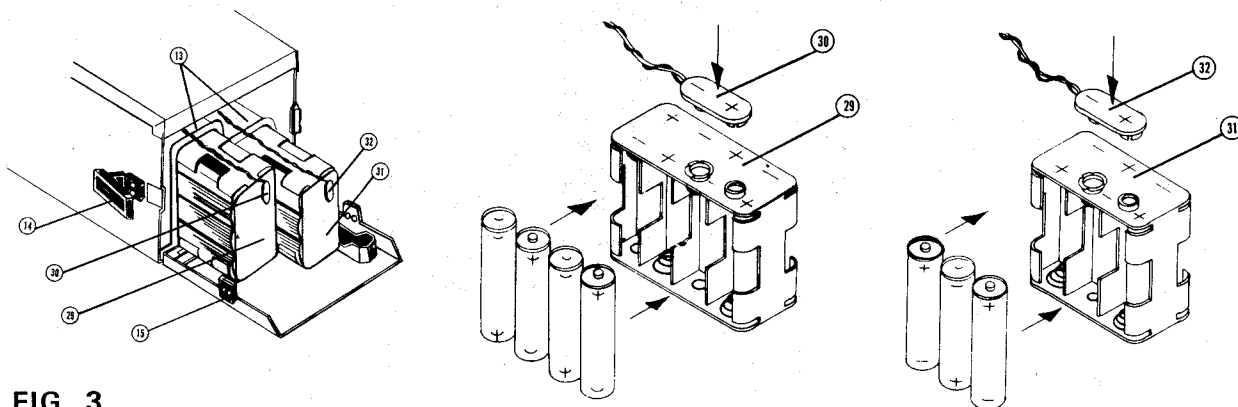
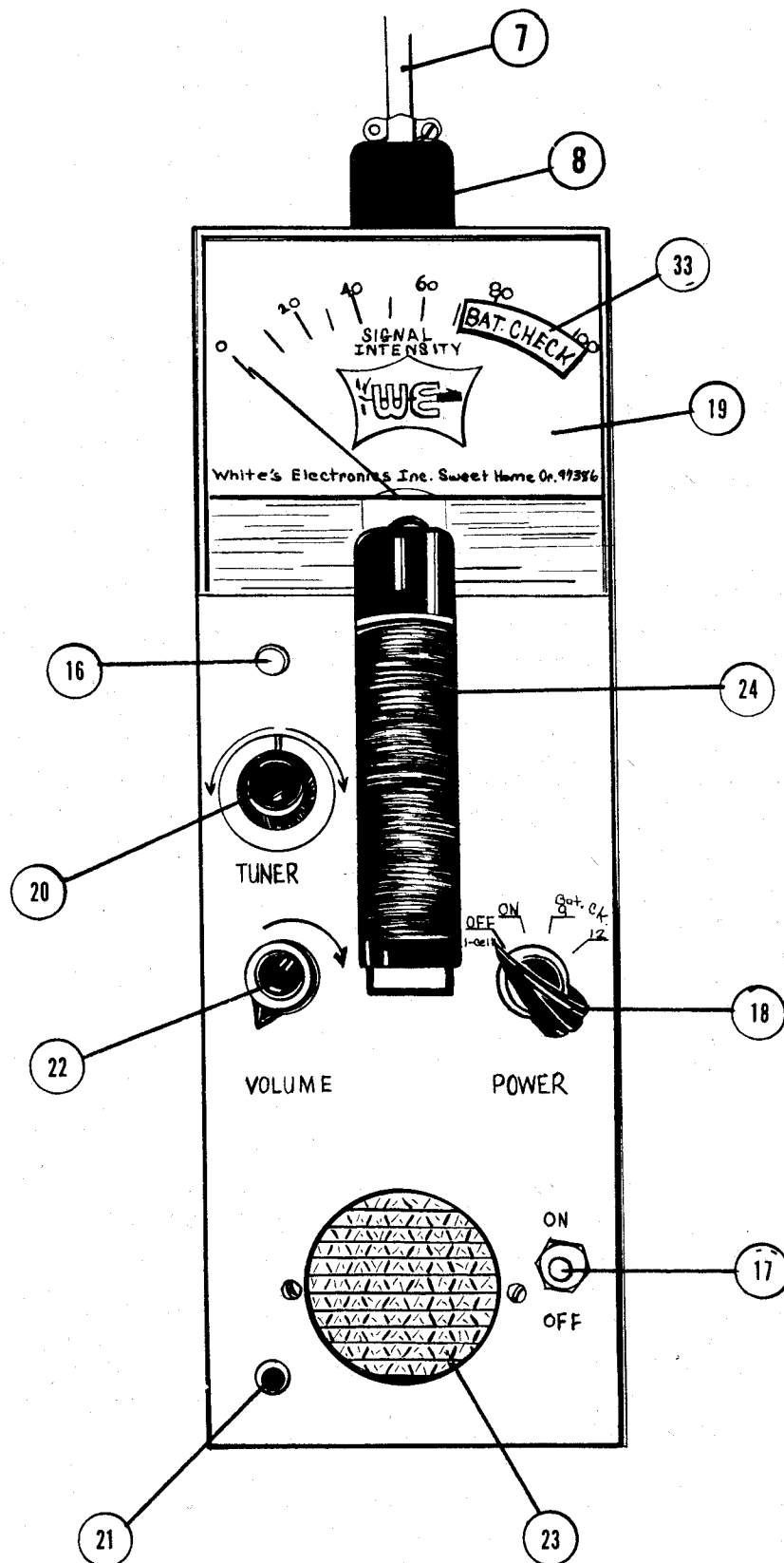


FIG. 3

Key No.	Part No.	Part Name
13	523-0006	9 & 12 Volt Battery Compartment
29		12 Volt Battery Holder (White)
30		12 Volt Battery Connector (White)
31		9 Volt Battery Holder (Black)
32		9 Volt Battery Connector (Black)

NOTE: 14 - 1 1/2 "AA" pen-light batteries are used in the operation of the "Ted Williams Treasure Hunter." Check your batteries often as explained in the Operation Instructions. Replacement batteries are AA 1 1/2 pen-light.

CONTROL DIAGRAM FIG.4

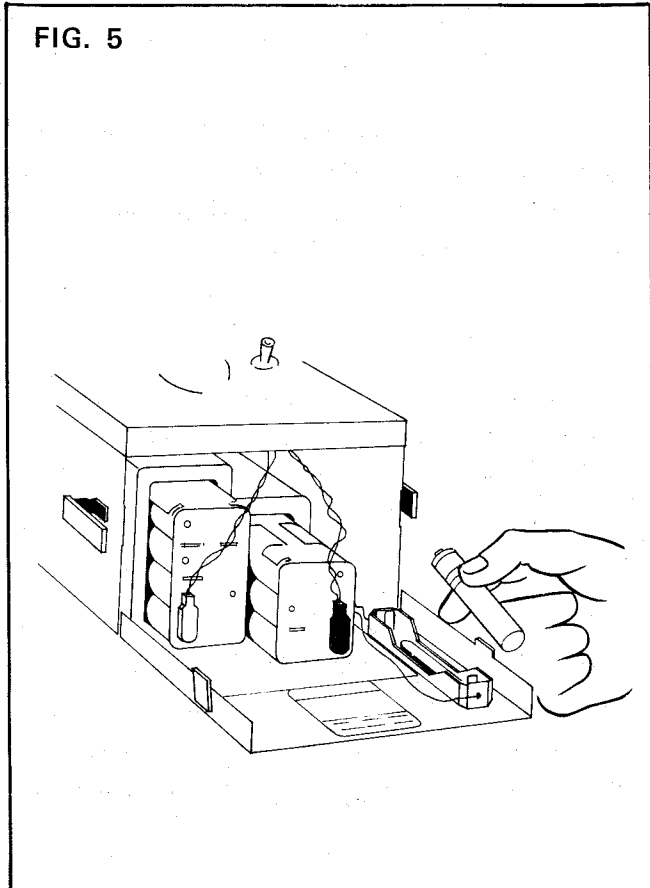


CONTROL PARTS

Key No.	Part No.	Part Name
7		Loop Cable
8		Loop Plug (6 Prong)
16		Wink Light
17		Wink Light On/Off Switch
18		Function Switch (On/Off - Battery Check)
19		Signal Intensity & Battery Check Meter
20		Metal-Mineral Tuner (10 Turn)
21		Earphone Receptacle
22		Volume Control
23		Speaker
24		Instrument Handle
33		Battery Condition Indicator

CONTROL DESCRIPTION

FIG. 5



1. **FUNCTION SWITCH:** Place the Function Switch (Figure 4, No. 18) in the 9 and 12 positions respectively, and note the readings. Good batteries will read in the Battery Condition Indicator marked "BAT CHECK" on the meter.

(Figure 4, No. 19). When the reading falls below this Battery Condition Indicator, the batteries in that pack should be replaced.

Generally the batteries in a pack will all decrease at the same rate. However, if you suspect a single defective cell, you can check each cell individually. Place the Function Switch (Figure 4, No. 18) in the OFF - ONE CELL position and insert each battery into the single cell holder, observing polarity, and observe the reading. The reading should be inside the Battery Condition Indicator. (Figure 4, No. 33). If the reading is below the Indicator, replace the defective cell. Please note proper method of single cell testing (Figure No. 5) and observe correct polarity.

CAUTION: When the unit is not in operation, always place the Function Switch in the OFF position. Failure to do this can result in damage to the electronic instrument. If the instrument is to be stored for long periods, remove batteries from the holders to eliminate possible leakage.

2. **METAL/MINERAL TUNER:** (Figure 4, No. 10.) This control adjusts the level of sensitivity as well as selecting ferrous or non-ferrous metals. When you select METAL the detector will indicate any metal that **does not** contain iron. When adjusted for MINERAL the detector will indicate anything that contains magnetite or iron.

The Tuner is a ten-turn control. Actually the Tuner will turn around indefinitely, but you can tell when you have reached the end of the tuning range because at that point there is a slight increase in the force required to turn the knob.

Approximately in the center, (5 turns from either limit) of the Tuner is a quiet spot, called the Null. At either edge of the null, the sound starts softly and becomes louder as you turn away from the null. The point where the sound first comes on softly is known as the threshold point. The threshold point is the best setting for maximum

effective sensitivity. When you are adjusted to the null, you must turn counter-clockwise or to the left to reach the metal threshold point. You must turn clockwise, or to the right, to reach the mineral threshold point.

For effective results, the adjustments must be made with the instrument in the hunting position, (see Figure 6) holding the loop as close to the surface of the area to be explored as is practical for movement of the loop.

3. **VOLUME CONTROL:** (Figure 4, No. 22.) This control adjusts the level of the tone in the speaker, as well as in the headphones, if they are used. Turning the Volume Control to the RIGHT increases the level while to the LEFT decreases the level. Whenever headphones are plugged in, the speaker becomes disconnected.

CAUTION: Before using headphones, turn the Volume Control all the way to the LEFT, (counter-clockwise, and then gradually increase it until the desired level is reached.

FIG. 6



4. **WINK LIGHT ON/OFF SWITCH:** This control (Figure 4, No. 17) is used in conjunction with the Wink Light located just below the meter face on the left-hand side of the instrument. (Figure 4, No. 16.)

The **ON/OFF CONTROL** is a toggle switch. When turned ON, the instrument will detect as normal but when an object is found or a reading occurs, the light will also come on. If the toggle is left OFF, the light is non-functional.

5. **HEADPHONE RECEPTACLE:** The Headphone Receptacle (Figure 4, No. 21) is a miniature phone jack. When you plug in the head set, it acts as a switch that allows a signal to be heard in the headphones, but not in the Speaker.

CUSTOMER TROUBLE SHOOTING TIPS

- Step 1. Check all knobs to insure that they are not slipping on the shaft. If any knobs are slipping, then tighten the set screw that is located either on the side of the round knobs or on the back of the pointer knobs.
- Step 2. Turn the "Function" switch to the "9" and "12" positions and note the readings on each. If either check reads below the "Battery Condition Indicator," then check each cell separately from that battery holder by following the directions for "Single Cell Tester" listed in section 1 (one) under control description.
- Step 3. Turn the "Function" switch to the "ON" position.
- Step 4. Turn the "Volume Control" fully clockwise.
- Step 5. Turn the Metal/Mineral Tuner to the right several turns until you either see the meter deflect or hear tone in the speaker. If you receive no indication by turning the Tuner to the right, then turn the Tuner several turns to the left, (the maximum number of turns necessary is ten). After following the above directions, you should notice one or more of the following trouble symptoms.

Trouble	Possible Defect	Remedy
1. No Audio (sound) or Meter Reading	a. Bad Batteries b. Bad Battery Holder	a. Replace b. Replace
2. Audio low or weak	a. 9 volt batteries b. 9 & 12 volt packs interchanged	a. Replace b. Correct conditions
3. No Audio but Meter reads	a. Phone Jack b. Speaker c. Volume control off	a. Contact Sears b. Contact Sears c. Rotate 3/4
4. Audio present, but no meter reading	a. Meter b. Battery check switch c. Diode	a. Contact Sears b. Contact Sears c. Contact Sears

You will notice five remedies listed above that can be corrected by the customer; all other repairs should be done by authorized personnel only.

OPERATING PROCEDURES & TECHNIQUES

To operate the instrument proceed as follows: Adjust the METAL/MINERAL TUNER to the null (quiet) position. The VOLUME CONTROL should be turned fully clockwise.

If you are using Headphones, note the caution under the Volume Control section.

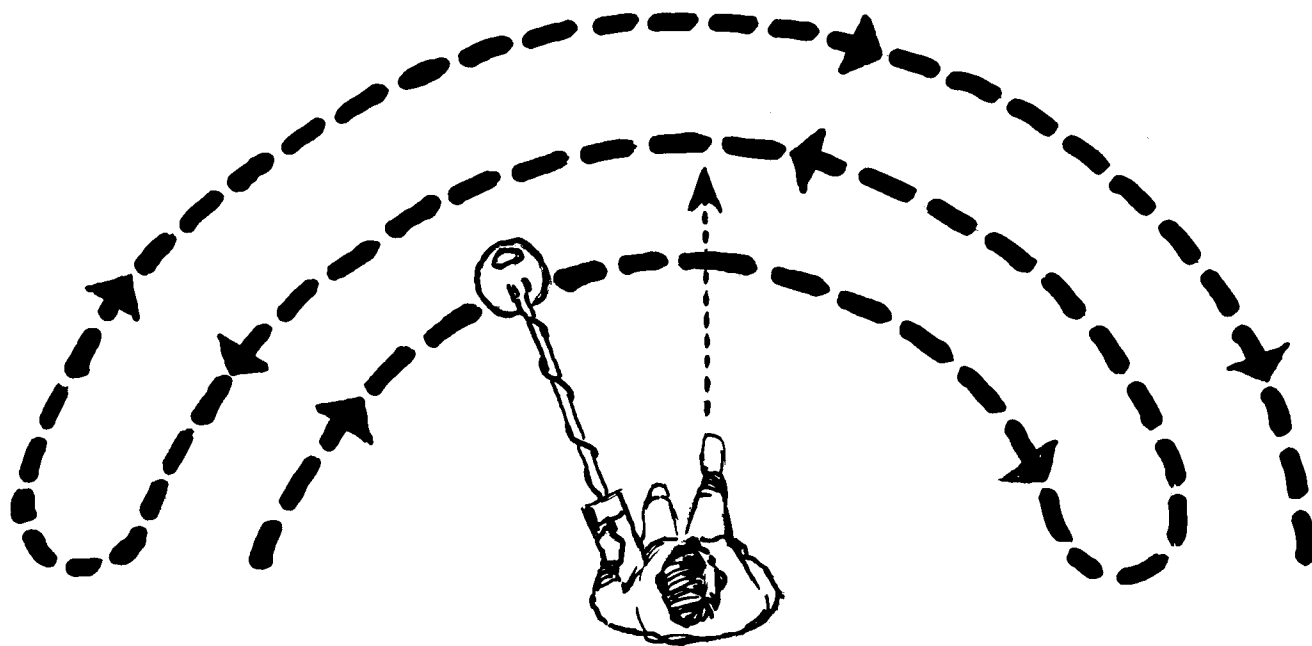
Place the FUNCTION SWITCH in the ON position. If you wish to use the WINK LIGHT, turn the Wink Light Power Switch to ON.

To search for non-ferrous metals, such as coins, rings, silver, gold, copper, tin cans, bottle caps, tin foil, etc., turn the Metal/Mineral Tuner (Figure 4, No. 20) to the LEFT or counter-clockwise, until you hear a small tone. Next lower the loop toward the ground. If the tone goes quiet as the loop gets close to the ground, you are in

an area that has MINERALIZED soil and this means you will have to readjust the METAL/MINERAL TUNER more towards METAL until you once again hear a tone. This also means it will be harder to operate the detector due to this MINERALIZATION, because once you have readjusted the tuner if you raise the loop even a small amount, it will cause the detector to get louder. Therefore the more mineralized the soil, the more difficult it is to detect objects, while the less mineralized the soil, the easier it is.

Now while holding the loop as close to the ground as possible, slowly sweep the loop across the ground (being very careful not to raise or tilt the loop), making an arc or sweep that covers about 6 feet, then move the loop forward about 3 inches and make another sweep. (Figure 7.) If using in short grass, such as a lawn or park, it is possible to

FIG. 7



place the loop on the grass and slide it on top. This helps keep the loop at a constant height and to maintain a sensitive tuning adjustment which is necessary for locating the deeper objects.

To search for ferrous metals or mineralized veins, such as found around gold deposits, turn the METAL/MINERAL TUNER (Figure 4, No. 20) to the RIGHT (clockwise) toward MINERAL until a tone is heard. Then lower the loop to the ground. If the ground contains mineralization, you may once again have to readjust, except this time it will be because the detector became louder instead of quieter. Now sweep the loop across the ground as you did for the METAL setting, only this time if you hear a loud tone it will indicate you have found a ferrous object, such as iron, black sand, or some other strong mineralized deposit.

For large objects, the tuning is not as critical and the loop can be held above the surface. Bury a quarter approximately one inch deep in your yard and practice on it until you get used to the type of sound it makes when you pass over it. Also, you might change the Tuner slightly and notice how the indication changes. When using your detector, it is a good policy to readjust your Tuner every 5 to 10 minutes to maintain the highest sensitivity setting.

The longer an object has been in the ground the easier and deeper it can be detected. This is because the ground around the object has become conductive and the object appears bigger to the detector.

When you detect an object, you will hear a loudness change in the Speaker and you will see a deflection on the meter. If you are using the WINK LIGHT, (Figure 4, No. 16) you will also receive an increased glow. These strong readings can be maintained as long as the loop is held directly over the object. As you move the loop away from the object the sound will decrease, the meter will return to zero and the Wink Light (if used) will dim.

MAINTENANCE

1. WHEN USING YOUR INSTRUMENT around salt water, care should be taken to prevent rust. Coat all exposed screws and bolts with Vaseline before using. When through using, wipe the entire detector with a cloth to remove dirt and moisture.
2. Do not use or store the instrument in excessively hot or cold temperatures.
3. If the instrument is to be stored for any great length of time, the battery packs should be removed and the batteries removed from the holders. Then store the batteries in a dry, cool place. This is to prevent the batteries from damaging either the instrument or the holders, if one or more of the batteries leak.
4. If your instrument is not functioning properly, refer to the trouble shooting tips.

DO NOT attempt to adjust the Electronic Circuit of your "Ted Williams Treasure Hunter." The only adjustments or minor repairs that you can perform yourself are for those items that are listed in the Parts Description Key Lists with a stock number. If a stock number does not appear, then you are to forward the instrument to Sears, Roebuck & Co. for repairs. Failure to comply will void your Warranty.

MFG. for Sears by
white's electronics, inc.
SWEET HOME, OREGON

SOLD BY SEARS ROEBUCK AND CO. CHICAGO, ILL. 60684



Sears



Ted Williams
BRAND

MODEL NO. 59601

assembly

**control
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OWNER'S MANUAL

METAL/ MINERAL DETECTOR

CAUTION: Read instructions for assembly carefully

Refer to the serial number plate for the Model Number when requesting service or replacement parts for your Sears Ted Williams Treasure Finder.

All parts listed herein with a parts number may be ordered through SEARS, ROEBUCK AND CO., or SIMPSON-SEARS LIMITED.

When ordering parts by mail, selling prices will be furnished on request or parts will be shipped at prevailing prices and you will be billed accordingly.

WHEN ORDERING PARTS, ALWAYS GIVE THE FOLLOWING:

- | | |
|-----------------|--------------|
| 1. Model Number | 3. Part Name |
| 2. Part Number | 4. Quantity |

WARRANTY

All parts contained in this equipment are warranted to be free from defect for 24 months from date of original purchase. Within this period we will replace or repair any defective part, or at our option, will repair the equipment without charge to the owner for parts or labor incurred in such repair. This Warranty will not apply to equipment which has been subjected to misuse, accident or neglect.

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SIMPSON-SEARS LTD., Toronto, Canada

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