

# ACE 200i

**Owner's Manual**  
English / Spanish / French / German



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**GARRETT**  
METAL DETECTORS  
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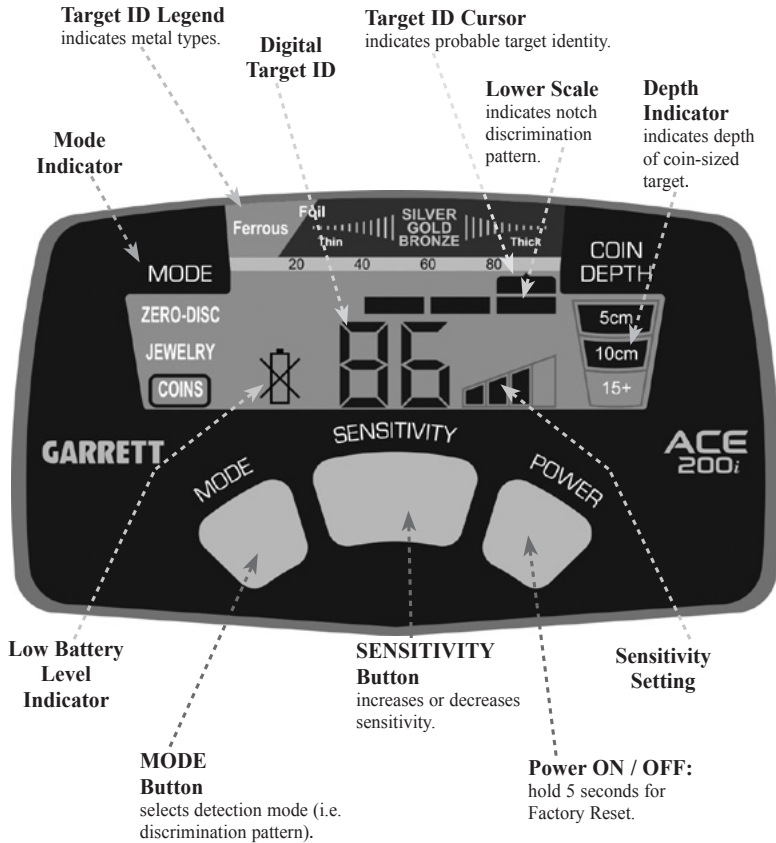
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## ACE 200i CONTROL PANEL



## QUICK START GUIDE

### 1. Power ON.



Press and release the ON / OFF Power button. The ACE 200i powers on in the last mode used, automatically adjusts for ground minerals and is ready to search. The detector operates with four (4) AA batteries which are already installed by Garrett. (Factory default mode is Coins.)

### 2. Select Mode.



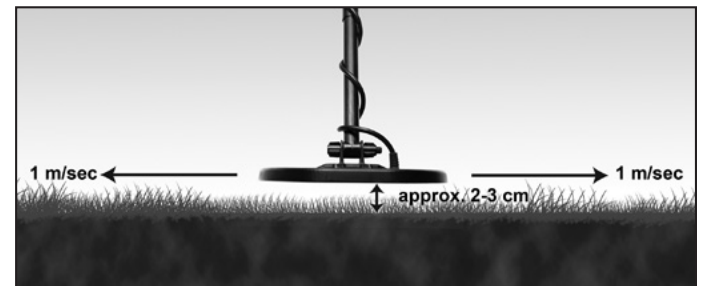
Use the Mode button to select a different detection mode, when desired.

### 3. Adjust settings.

Adjust Sensitivity setting, if desired.

### 4. Begin scanning.

Lower the searchcoil to approximately 2 to 3cm above the ground and scan the coil left and right at approximately 1m/second. The coil must be in motion for target detection.



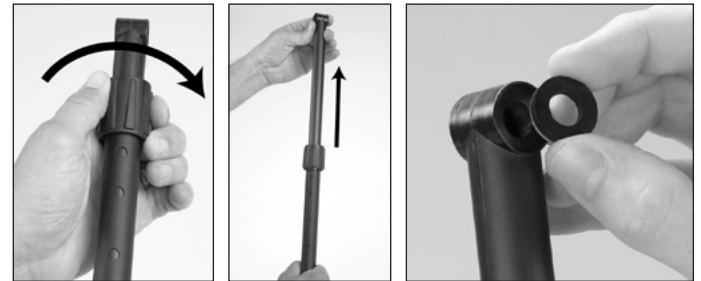
## ACE 200i CONTENTS



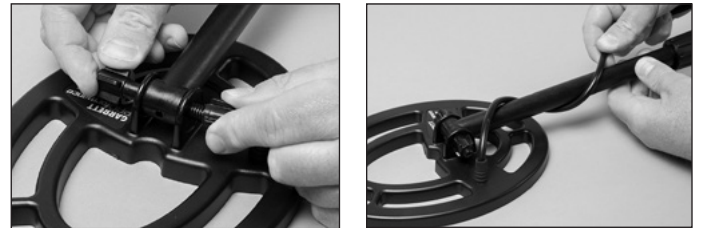
If any part is missing, please contact Garrett Customer Service.

## DETECTOR ASSEMBLY

Loosen lower camlock and extend lower stem. Insert mounting washers, connect searchcoil to stem as shown, and hand-tighten wing nut.



Loosen upper camlock, insert S-stem with control housing, adjust lower stem to comfortable length, and hand-tighten the camlocks. Wrap cable snugly around the stem with the first turn of the cable over the stem.

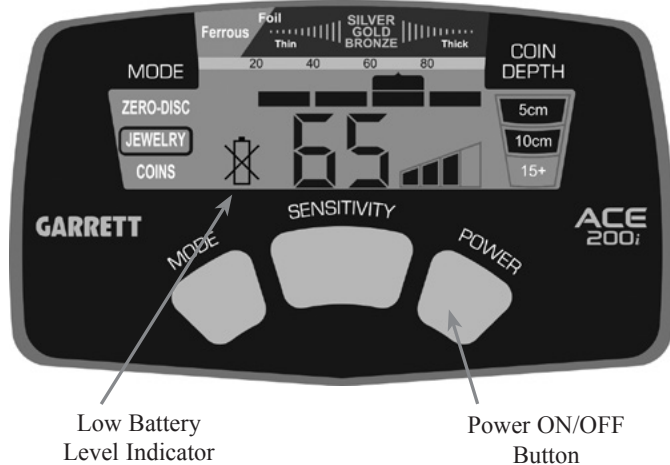


Note: The arm cuff can be adjusted by removing the screw on the bottom and moving it to the other hole.





## POWER ON/BASIC CONTROLS

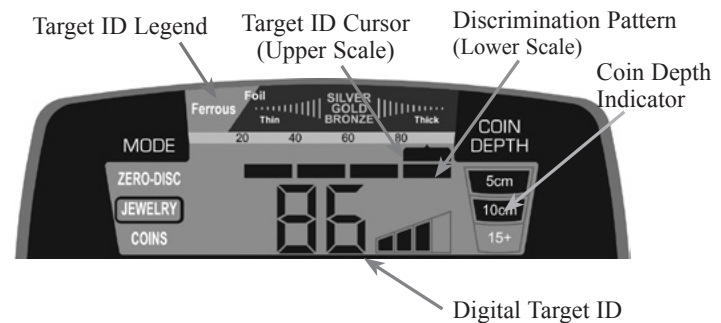


**Power ON/OFF**—Press this button to turn power ON or OFF.

**Factory Reset** —To restore factory settings, press and hold the power button for 5 seconds (until the detector produces a fast double beep).

**Low Battery Indicator**—When the detector's batteries become weak, the Low Battery Indicator will remain on.

## TARGET INFORMATION



**Target ID Legend**—Works with the Target ID Cursor to indicate a target's probable identity, with Ferrous (iron) targets at the left, non-ferrous targets that are thin or have low conductivity in the middle, and thick or high conductivity targets (e.g. thick silver) at the right.

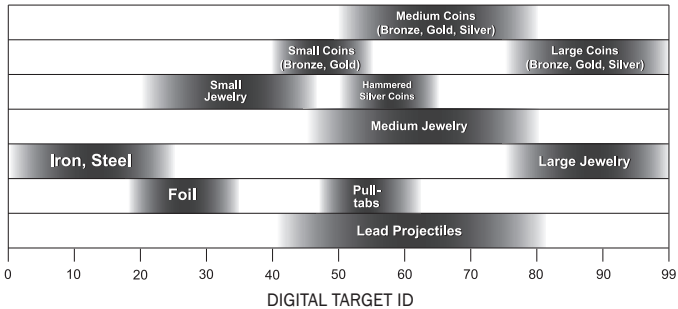
**Lower Scale**—Displays the current discrimination pattern, with lighted pixels indicating accepted targets and blank pixels indicating rejected targets.

**Target ID Cursor (Upper Scale)**—Will display for every target, but will produce audio only for targets accepted on the Lower Scale.

**Digital Target ID**—Provides a value from 0 to 99 to identify targets more precisely than the ID cursor.

**Coin Depth Indicator**—Shows the depth of a coin, or a similar sized target. Note: targets *larger* than a coin may display shallower than actual depth while targets *smaller* than a coin may display deeper than actual depth.

The sample chart on the following page provides Digital Target ID ranges of some commonly found items.



Target ID can vary widely based upon the target's size and thickness because small, thin pieces of metal cannot conduct electrical current as well as thicker pieces of metal. In addition, mineralized soils can cause Target ID errors, especially for small targets.

**Tip:** Target ID is most reliable when the target is centered under the searchcoil and the coil is swept flat and at a constant height above the ground.

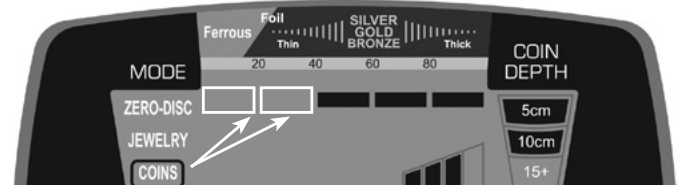
## AUDIO FEATURES

**Tone ID**—The ACE 200i produces three distinct tones based on a target's metal type and conductivity:

- High conductivity targets (Digital ID > 40) produce a unique belltone signal.
- Medium to low conductivity targets (Digital ID of 21–40), produce a medium-pitched signal.
- Ferrous targets (Digital ID < 21) produce a low-pitch signal.

**Headphone Jack**—Use any headphones with a 1/4" plug.

## SELECTING MODES (Discrimination Patterns)



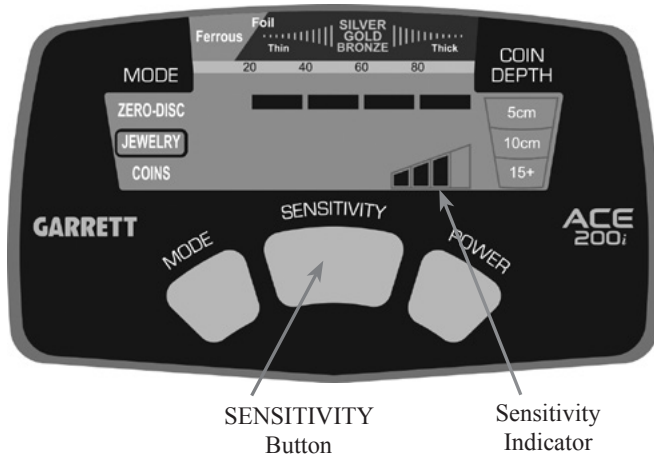
Example: this is the preset notch discrimination pattern for COINS Mode.

Choose from one of three preset discrimination patterns by using the MODE button to scroll through the three modes:

- **ZERO-DISC Mode**—Detects every type of metal. All 5 discrimination pixels are switched on; no metals targets have been notched out (eliminated). Use this mode to find all metal items or when the material of the desired object is unknown. Switch to the Zero-Disc Mode to aid in locating a target when its signal is inconsistent. Such signals could mean a trash target is close to a good target.
- **JEWELRY Mode**—designed to find jewelry such as rings, bracelets, watches, and necklaces, while ignoring most iron trash.
- **COINS Mode**—designed to find most types of coins and to eliminate common trash items such as iron and foil. Some desirable items that respond the same as foil may be missed with this discrimination pattern. Some digging of junk targets is to be expected, such as aluminum cans.

## SENSITIVITY

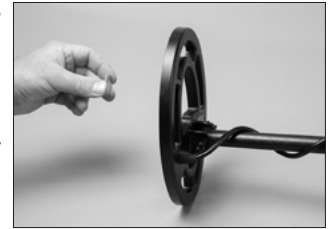
Use the SENSITIVITY button to step through the four (4) levels. Use increased sensitivity when searching for very small or very deep targets. Use lower sensitivity levels when the detector is behaving erratically (due to excessive metallic trash, highly mineralized soils, electrical interference or the presence of other metal detectors) and the erratic operation cannot be resolved with discrimination.



## BENCH TESTS

You should conduct bench tests to become more familiar with your detector's operation. To conduct a bench test:

1. Place the searchcoil on a flat, non-metallic surface that is several feet from other metallic objects.
2. Select the ZERO-DISC mode.
3. Pass various metal objects (coins, bottle caps, nails, etc.) across the searchcoil at a distance of 8 to 10 cm. Your metal detector will audibly and visually identify the target.
4. Perform this test in all the modes available on your detector. Observe the sounds as well as the graphics on the LCD that are made in each mode.
5. Record the results of your bench tests and refer to them when hunting in the field.

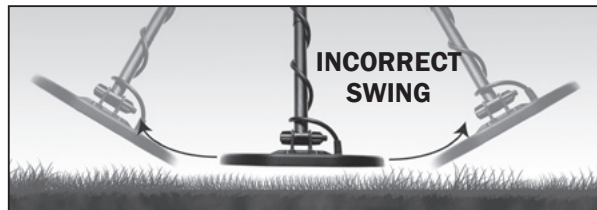
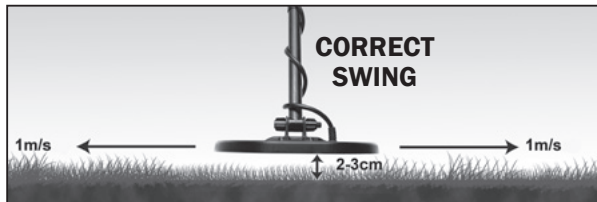


Once you have determined how your test targets register on the Target ID during bench tests, test them in the soil. Bury your targets at recorded depths to create a "test plot." Note how various targets read based upon whether they are lying in the ground flat or at various angles.

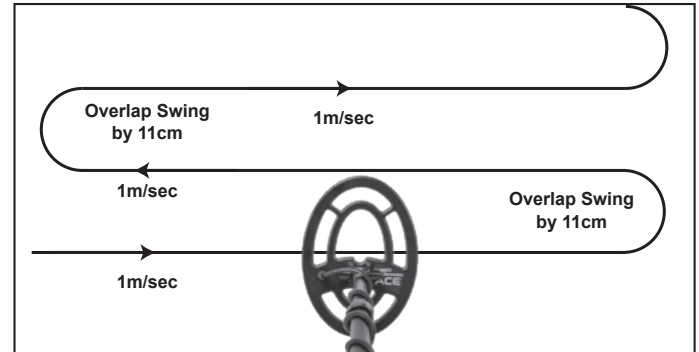
Keep accurate records or surface markers to indicate your test plot targets and their depths. Try testing these targets again in several months after the ground has settled, during periods of extreme drought or after a soaking rain. Take note of any changes in how these targets are detected.

## HUNTING TIPS WITH YOUR ACE 200i

- If you are new to metal detecting, start searching in areas with sandy and loose soil to make it easier to learn how to use your metal detector, pinpoint and dig targets.
- Keep your searchcoil height 2–3cm above and parallel to the ground at all times for best detection results.



- Swing your searchcoil parallel to plow lines and the water's edge. This will minimize the negative effects caused by uneven ground in plowed fields and varying amounts of moisture near the water. Do not swing the searchcoil perpendicular to plow lines and the water's edge, as this may produce abrupt changes in ground response that can reduce the detector's performance.
- Walk slowly as you scan your searchcoil in a straight line from side to side at a speed of about 1 meter per second. Advance the searchcoil about half the length of the searchcoil at the end of each sweep.



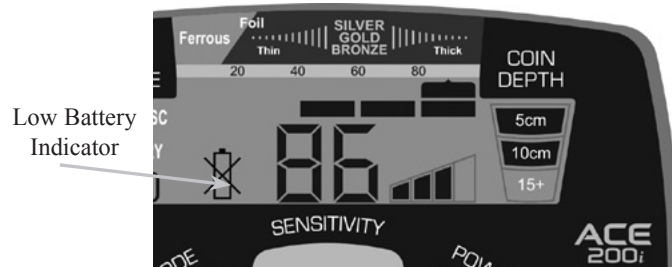
In order to fully search an area, overlap the swings of your searchcoil by half the length of the coil (about 11cm). Sweep the searchcoil in a straight line or with a slight arc at a sweep speed of about 1m/sec.



## TROUBLESHOOTING GUIDE

SYMPTOM	SOLUTION
No power	<ol style="list-style-type: none"> <li>1. Ensure batteries are installed in the correct orientation.</li> <li>2. Replace all old batteries with all new batteries.</li> </ol>
Erratic sounds or target ID cursor movement	<ol style="list-style-type: none"> <li>1. Ensure your searchcoil is securely connected and the coil cable is snugly wound around the stem.</li> <li>2. If using the detector indoors, be aware that excessive amounts of electrical interference exists, plus excessive amounts of metal can be found in floors and walls.</li> <li>3. Determine if you are close to other metal detectors or other metal structures such as electrical power lines, wire fences, benches, etc.</li> <li>4. Reduce your sensitivity setting.</li> </ol>
Intermittent Signals	Intermittent signals typically mean you've found a deeply buried target or one that is positioned at a difficult angle for your detector to read. Scan from different directions to help define the signal. In the case of multiple targets, switch to the ZERO-DISC Mode to locate all targets. In trashy areas, use the <i>Super Sniper™</i> or a 5" x 8" DD searchcoil. NOTE: Iron targets may cause Intermittent Signals. You can identify iron targets in the ZERO-DISC Mode.
I'm not finding specific targets	Ensure you are using the correct mode for the type hunting you are doing. If specifically hunting for coins, COINS mode should be your best choice to eliminate other undesirable targets. You may also use the ZERO-DISC mode, which detects all metal targets to ensure desired targets are present.
Target ID Cursor bounces	<p>If your Target ID Cursor bounces erratically, chances are you've found a trash target. However, a Target ID Cursor may bounce if a good target (such as a coin) is not parallel to the searchcoil (e.g. on edge). It may also bounce if there is one or multiple "junk" targets laying next to the good target. Scan from different directions until your Target ID Cursor becomes more stable.</p> <p>NOTE: Large, flat pieces of iron—depending on their orientation in the ground—can read as a good target or can cause erratic Target ID Cursor movement.</p>

## BATTERY REPLACEMENT



Low Battery Indicator

The Low Battery Indicator will switch on when the detector's batteries become weak. The detector will maintain full performance but the batteries should be replaced soon when this indicator appears. NiMH rechargeable batteries may be used, but may have a shorter life per charge. You can expect 20 to 40 hours of operation depending on battery type and quality.

Replace the batteries by sliding the cover off the control housing. Remove batteries when the *ACE 200i* will be stored for longer than 30 days.

Note: 1.5V/cell Lithium batteries can also be used, but the use of 3.7V/cell Lithium batteries will damage the detector.



## METAL DETECTING CODE OF ETHICS

The following is a Code of Ethics that many treasure hunters and clubs follow to preserve our exciting sport of metal detecting. We encourage you to do the same:

- I will respect private and public property, all historical and archaeological sites and will do no metal detecting on these lands without proper permission.
- I will keep informed on and obey all local and national legislation relating to the discovery and reporting of found treasures.
- I will aid law enforcement officials whenever possible.
- I will cause no willful damage to property of any kind, including fences, signs and buildings.
- I will always fill the holes I dig.
- I will not destroy property, buildings or the remains of deserted structures.
- I will not leave litter or other discarded junk items lying around.
- I will carry all rubbish and dug targets with me when I leave each search area.
- I will observe the Golden Rule, using good outdoor manners and conducting myself at all times in a manner which will add to the stature and public image of all people engaged in the field of metal detection.

## CAUTIONS

When searching for treasure with your Garrett detector, observe these precautions:

- Never trespass or hunt on private property without permission.
- National and state parks / monuments and military zones, etc. are absolutely off-limits.
- Avoid areas where pipelines or electric lines may be buried. If found, do not disturb and notify proper authorities.
- Use reasonable caution in digging any target, particularly if you are uncertain of the conditions.
- If you are unsure about using your metal detector in any area, always seek permission from the proper authorities.

## CARING FOR YOUR ACE 200i DETECTOR

Your Garrett detector is rugged, designed for outdoor use. However, as with all electronic equipment, there are some simple ways you can care for your detector to maintain its high performance.

- Avoid extreme temperatures as much as possible, such as storing the detector in an automobile trunk during the summer or outdoors in sub-freezing weather.
- Keep your detector clean. Disassemble the stem and wipe it, the control housing, and the searchcoil with a damp cloth when necessary.
- Remember that your searchcoil is submersible, but your control housing and connectors are not.
- Protect your control housing from heavy mist, rain and blowing surf.
- When storing for longer than one month, remove the batteries from the detector.
- When changing batteries, use quality alkaline or rechargeable batteries, and replace with all new batteries for optimum performance.

## ACE 200i WARRANTY & SERVICE

Your *ACE 200i* detector is warranted for 24 months, limited parts and labor, but does not cover damage caused by alteration, modification, neglect, accident or misuse.

In the event you encounter problems with your *ACE 200i* detector please read through this Owner's Manual carefully to ensure the detector is not inoperable due to manual adjustments. Press and hold the power button for 5 seconds to return to the recommended factory settings.

You should also make certain you have:

1. Checked your batteries and connectors. Weak batteries are the most common cause of detector "failure."
2. Contacted your dealer for help, particularly if you are not familiar with the *ACE 200i* detector.

In the event that repairs or warranty service are necessary for your *ACE 200i*, contact the local retail outlet where your detector was purchased. To avoid excessive shipping and import charges, do not attempt to return a Garrett product to the factory in the United States.

Information on international warranty/repair needs can be found on the Garrett website: [www.garrett.com](http://www.garrett.com). Click on the Sport/Hobby Division and then the Warranty/Support page for more details.

## ACE 200i ACCESSORIES

Garrett offers a complete line of accessories that will increase your success and enjoyment of treasure hunting with your new detector.

These products—including optional *ACE* search coils, Garrett *Pro-Pointer* pinpointing detectors, and a wide selection of books on treasure hunting—are available from your dealer or by calling Garrett's factory at 1-800-527-4011.



**To see Garrett's complete collection of metal detector accessories and books, please visit [www.garrett.com](http://www.garrett.com) and view products within our Hobby/Sport Division.**