PHIL ROBERTSON SIGNATURE EDITION

TREASURE

COMMANDER

TC3X METAL DETECTOR
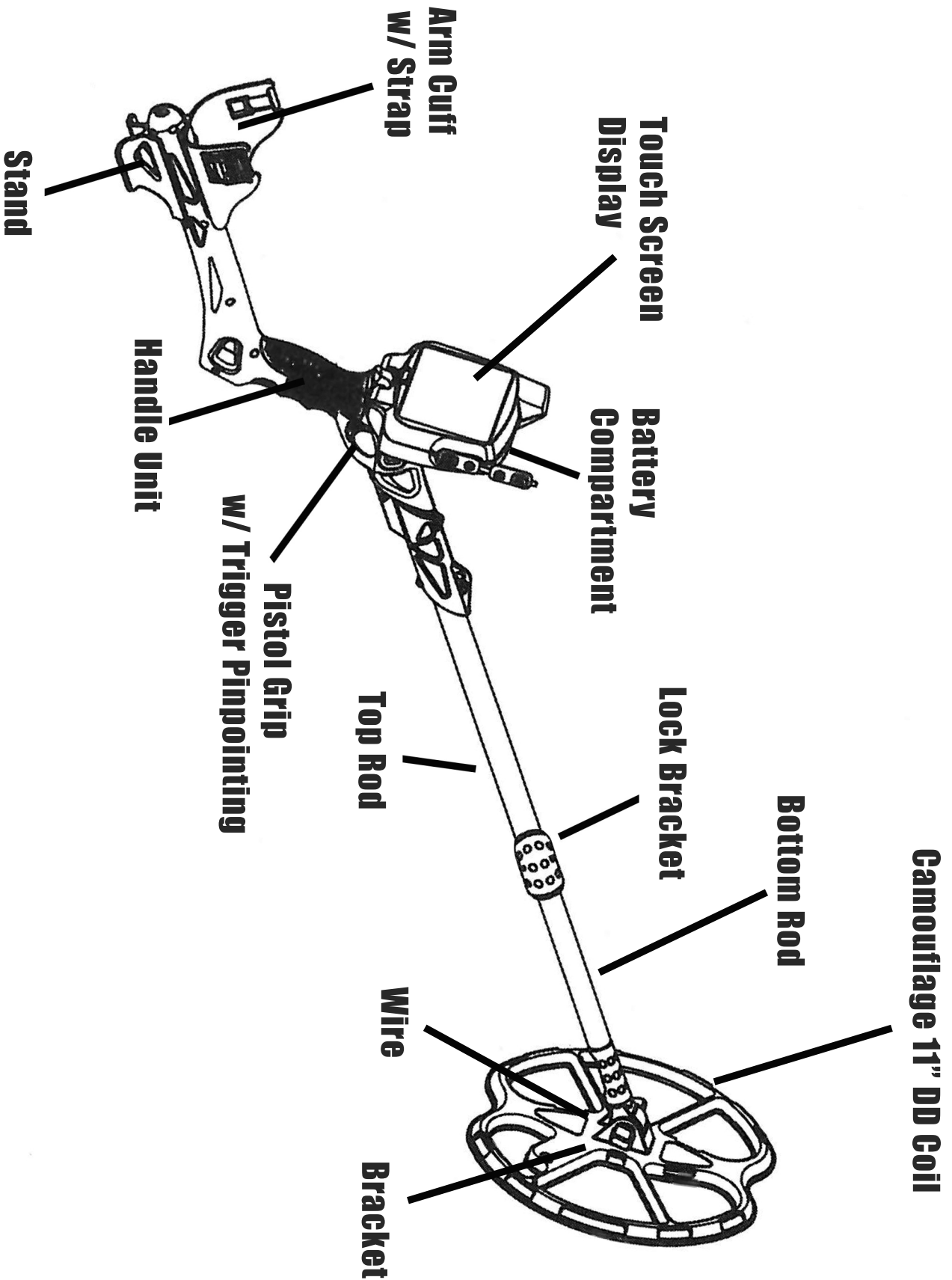
Phil Robertson

TREASURE COMMANDER™

TC3X OPERATING MANUAL

DUCK COMMANDER

Arm Cuff
w/ Strap

Stand

Touch Screen
Display

Handle Unit

Battery
Compartment

Pistol Grip
w/ Trigger Pinpointing

Top Rod

Lock Bracket

Bottom Rod

Wire

Camouflage 11" DD Coil

Bracket

Table of Contents

Please Read this Instruction Manual

Successful metal detector users will be the first to tell you to Read and then Re-Read your Instruction Manual if you want to get the most fun and "Treasure Finds" using your new metal detector. If you are new to metal detecting or even an experienced detectorist, it will help you more easily understand all the functions of this detector and how they work with you to find treasure of all types including coins, rings, jewelry, relics, artifacts, gold and more!

CONGRATULATIONS ON YOUR PURCHASE

of your new Treasure Commander ™ TC3X metal detector is part of a new series of metal detectors designed to help you find treasure no matter where you live and what your experience level is when it comes to treasure hunting.

Designed by an experienced engineering team using input from veteran treasure hunters including Phil's brother "Uncle" Si Robertson of the Duck Commanders TV show. Treasure Commander ™ metal detectors will let you start finding lost valuables as soon as you unpack the box. The TC3X is the first metal detector to feature a True Touch Screen LCD.

The "Flagship" of the Treasure Commander Digital Metal Detector Series is the Phil Robertson Signature Edition endorsed by Phil Robertson himself. Phil Robertson started a small company in Louisiana called "Duck Commanders" making duck calls in a small shed. Through hard work and producing high quality products that really worked as advertised, his company "Duck Commanders" is now the largest manufacturers of duck calls in the world. Phil Robertson's signature says it all. The NEW Treasure Commander TC3X is a high quality metal detector that will work as advertised. You can find treasures while eliminating most trash and junk!

We welcome you to America's fastest growing sport - hunting for treasures with a metal detector. Metal Detecting is an Adventure that you, your family and friends will enjoy for years to come. It's fun and exciting to find old valuable silver and gold coins, gold and diamond rings and gold jewelry. Recover relics from the Civil War and other historic battles. Discover lost and hidden buried treasures. All these treasures and more are waiting to be found with the latest and most advanced metal detectors now available.

 Your Treasure Commander ™ TC3X is capable of meeting your needs in a wide range of treasure hunting situations. As with any other metal detector, familiarity with this instrument is probably the limiting factor in determining how successful you can be. I recommend that you read this manual and fully understand how to operate this detector before attempting to use it in the field. As you become more familiar with your detector through practice, your rate of success will increase dramatically.

Your new Treasure Commander ™ TC3X is a quality electronic device that will last for years. We hope your adventure is one that brings excitement every time you use your new metal detector!

Phil Robertson and the Kellyco staff!

Getting Started

Your Treasure Commander TC3X comes complete and ready to use. The first step is to unpack the box and check to make sure you have all the items needed to quickly assemble the detector. You should find the following parts inside the box:

- Handle Unit with Arm Cuff and Stand
- Top Rod with Locking Collar
- Bottom Rod
- Search Coil with Bolt Assembly
- Cable Pulling Tool
- Operator Instruction Manual
- Warranty Card

If any of these items are missing, contact Kellyco Detectors immediately. It is recommended that you make a record of your detector's serial number and store it along with your proof of purchase in a safe place in case you ever need this information for warranty service.

Assembly

Assembly of your new Treasure Commander TC3X is very simple and requires no special tools.

**1 Connect the Search Coil and Bottom Rod:**
Unscrew the bracket from the bottom rod as it comes shipped from the factory. Place the bottom rod inside the tabs on the search coil and insert the bolt through the hole. Tighten the bolt until snug but take care not to over tighten it as you can damage the coil or the bolt.
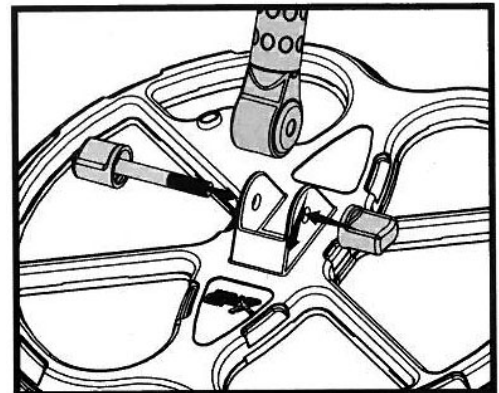
NOTE: The large hole in the end of the bottom rod must be facing downwards - this is where the search coil cable will enter the rod and be fed upwards to connect into the control housing.

2 Connect the Bottom and Top Rods:
Loosen the locking collar on the top rod (do not
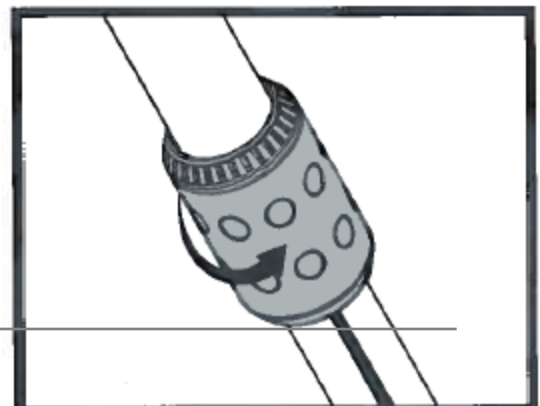
remove it) and slide the bottom rod into the top rod.

Adjust the rods to the desired length and tighten the locking collar by turning it counter-clockwise until snug. Do not over tighten as it may be difficult to adjust the length or disassemble the detector for storage.

NOTE: The groove on the top rod needs to face away from you when you perform this step. Align the grooves to ensure the rods remain properly positioned.

3 **Connect the Search Coil Cable to the Control Housing:**   The Treasure Commander TC3X's search coil cable is run through the inside of the bottom and top rods which keeps it from being caught by branches or underbrush when searching for treasure in overgrown areas. This is yet another feature that was added with the active treasure hunter in mind.

Take the **Cable Pulling Tool** and slide it down the inside of the rods starting from the top end. When the end with the screw connector appears in the large hole on the bottom rod, connect it to the Search Coil Cable and slowly pull the cable back up the inside of the rods.

Once the connector on the Search Coil Cable has exited the Top Rod, remove the Cable Pulling Tool.
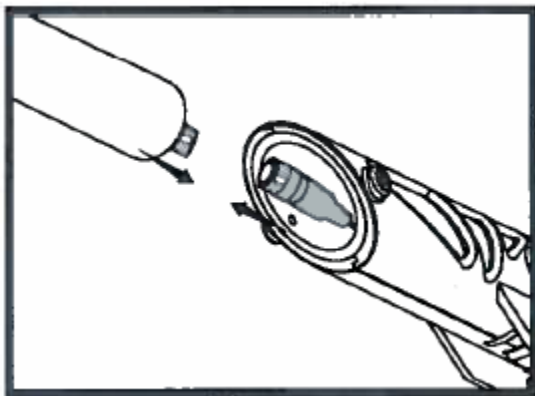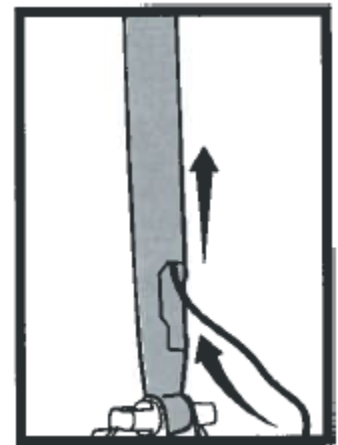
Lineup the white arrow imprinted on the Search Coil Cable Connector with the alignment arrow on the corresponding connection at the base of the Control Housing.   Push the two connections together but take care not to force them as this indicates the connectors are not properly aligned. Once they have mated, screw the metal collar until snug to ensure the cable does not come loose.

4 **Securing the Top Rod to the Control Housing:**   The Top Rod is connected to the Handle Unit through the use of a cam-lock fitting located at the base of the LCD Assembly. Pull the cam-lock lever downward and slide the Top Rod into the Handle Unit. When the Top Rod is fully seated, press the cam-lock lever upwards so that it is flush with the rod.
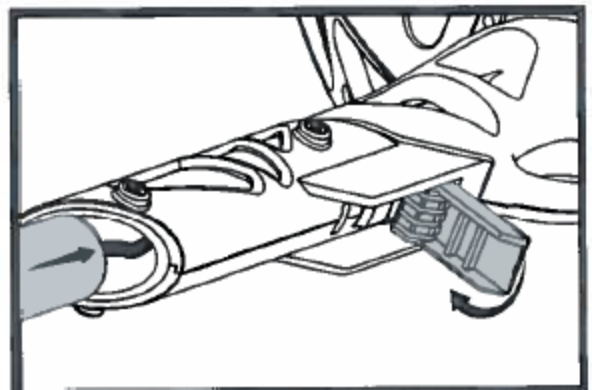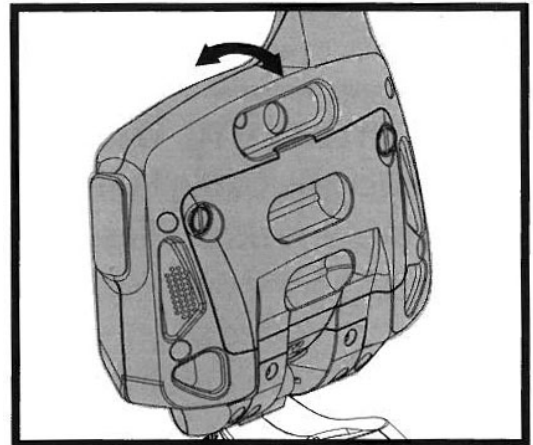
5 **Installing the Batteries:** Your Treasure Commander TC3X is powered by six (6) AA batteries contained in the compartment found on the rear of the LCD Assembly pod. To access the battery compartment, unscrew the two (2) screws found on the top of the cover. Insert the batteries according to the markings inside the compartment making sure that the batteries are properly aligned. Replace the battery compartment cover and tighten the screws.

Either standard AA or rechargeable AA batteries can be used on the TC3X. Alkaline AA batteries are recommended for optimal performance and service life.

NOTE: The Treasure Commander TC3X features a continuous battery strength indicator on the LCD screen which will help ensure you do not find yourself with dead batteries miles from the nearest store. If the display indicates less than 25% of battery strength remains, either replace the batteries or bring a spare set with you when you head out into the field.

6 **Adjusting the Display:** The TC3X offers a full range of adjustment to provide users with optimal screen visibility. To adjust the angle of the LCD Assembly pod for viewing under different lighting conditions, you can tilt the pod forwards or backwards.

NOTE: Be careful not to force the pod into position in order to avoid damaging the adjustment point.

Understanding the LCD Display

SIGNAL STRENGTH
(15 SLOTS)

METALS CATEGORY NAMES
(CLOSE DESCRIPTION OF DETECTED METAL)

8 CHARACTER ID

GPS MENU

PRESET
DISCRIMINATION /
MODES

ALL METAL

JEWELRY

COIN

GPS

GPS LOCATOR
(20 SLOTS FOR
DIRECTION 1 CROSS
HAIR FOR ON TARGET)

DELETE
BUTTON

SAVE/ENTER
BUTTON

BATTERY LIFE
(6 SLOTS)

ALL METAL
JEWELRY
COIN

60 65 75
55 80
P-TAB S-CAP
NICKEL PINPOINT ZINC
40 85
FOIL DIME
WAYPOINT IDENTIFICATION
IRON SENS VOL QUARTER
10 YDS DEPTH 99
888

METAL CATEGORIES
(HIGHLIGHTS WHEN DETECTED
ID IS WITHIN CATEGORY)

SENSITIVITY
(1~8)

VOLUME
(0~4)

LIGHT ON/OFF

LIGHT   NOTCH   DISCRIM   G GRAB   ▲ ▼ ◀ ▶

DETECT MODES

ARROW NAVIGATION

TWO DIGIT IDENTIFIER

DEPTH
INDICATOR
(CLOSE DEPTH OF
COIN SIZED OBJECTS
IN INCHES)

The **LCD True Touch screen** on the Treasure Commander TC3X provides a wealth of useful information that will help you find more treasure while ignoring unwanted trash targets such as aluminum, rusted iron and the like. The figure above shows all of the information that is available on the LCD screen; however, not all of the information is provided at all times; i.e., the information displayed will depend on the mode selected (more on that subject will follow). The information includes the following:

- **Battery Life**: The battery symbol in the lower right area of the display shows the strength of the batteries. New or fully charged rechargeable batteries will be indicated by 6 dark segments. As the batteries discharge, the number of dark segments will decrease. When only two segment remains, the batteries should be replaced or recharged.

- **GPS Locator**: The half circle in the upper right area of the display is used to provide GPS-based directional information when the GPS option is activated and a waypoint has been saved. Additional details on this function are provided in the Operating Modes section.

- **Metal Categories**: The eight (8) segments that appear in a semi-circle on the LCD True Touch screen provide you with an indication of what a detected target might be. Categories of commonly found targets - treasure and trash - are provided on the screen. The following figure shows what types of targets will register in each of the eight segments. A useful function on the TC3X is the ability to accept or reject any of the segments independently from each other allowing you to quickly and easily create a custom program designed to handle any conditions you might come across in the field. Use the Notch Mode to setup a custom Notch or Discrimination Pattern. (see Page 10)

It is important to note that the eight segments capture commonly found targets but not all targets you might come across are listed. Military artifacts including lead bullets, brass buttons and iron artillery shells or cannon balls can register in segments that might indicate they are trash. The same holds true for jewelry which can vary greatly in terms of content and size. The following figure shows the wide range of segments that can indicate a gold target has been detected. The rejection of specific segments should be based on a combination of the likelihood of finding what might be rejected in the specific search area, how much trash is actually present and how much time you have available to search.
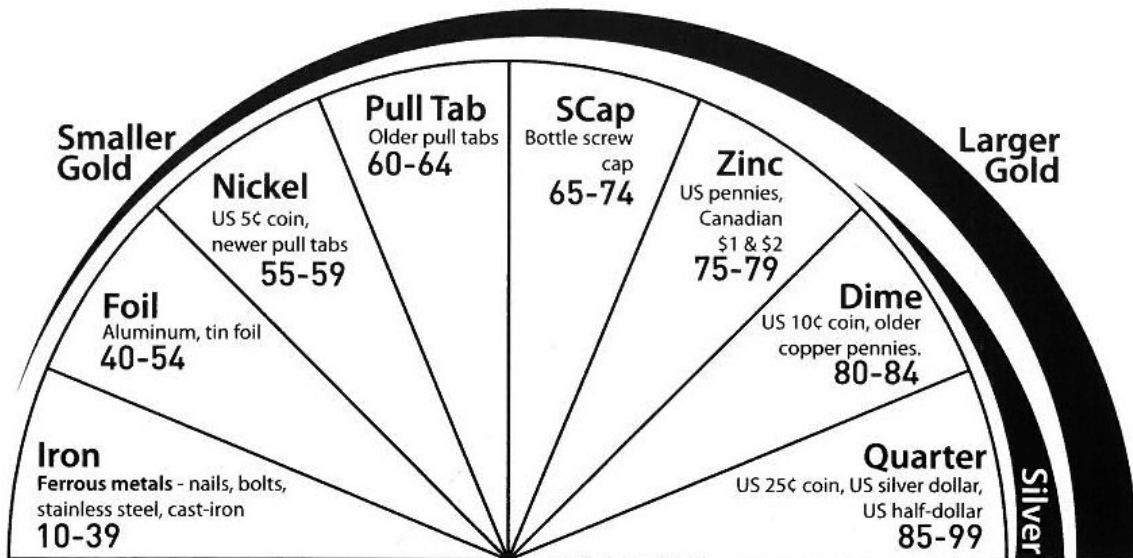
METALS DIAGRAM
* Silver and Gold can be in multiple spectrums

- **Sensitivity**: This function determines how strong a signal is needed to produce and audio / visual response from a target. Detecting deeper or smaller targets typically require higher levels of Sensitivity to be used; however, erratic operation can occur if the level is too high for conditions at the specific site being searched. The selected level is indicated in the lower section of the LCD display to the right of the

IRON segment.   **NOTE**: Ground mineralization, trash or nearby electrical interference can require a lower Sensitivity level to be selected. Sensitivity range can be adjusted for 1 to 8. **Volume**: The selected volume level is indicated by the number to the right of the Sensitivity setting.   **CAUTION**: If you are using headphones that do not have a built-in volume control, it is recommended that you set the Volume level at a low value before plugging the headphones in. Adjust the volume to a comfortable level by sweeping the coil across a target. The Volume level can be adjusted from 1 to 4.

- **Depth**: When a target is detected, the target's approximate depth will be displayed in inches on the right side of the LCD next to the QUARTER segment.

- **NOTE**: This indication assumes the target is coin-sized so a larger target will appear to be shallower that it really is and a smaller target will appear deeper than it really is. Use this as a guide to avoid damaging targets when recovering them but recognize that the accuracy depends on the size of the target.

- **Factory Preset Detect Modes and Discrimination / Notch Modes**: The upper left area of the LCD screen will indicate which mode you are in as well as when searching, which of the three (3) factory Preset programs are active. Same is true for the two (2) Custom **Discrim** and **Notch** programmable modes.

- **Signal Strength**: Located just beneath the P-TAB / S-CAP segments, this icon will provide indication of how strong the signal from a detected target is when the Pinpoint trigger is activated. Combined with the Depth indication, the Signal Strength indication can help you determine the relative size and depth of a target before you recover it.

- **Identification**: Located in the center of the LCD screen, this will provide an 8-digit identifier active when one of the five (5) Detecting Modes or the GPS function is selected.
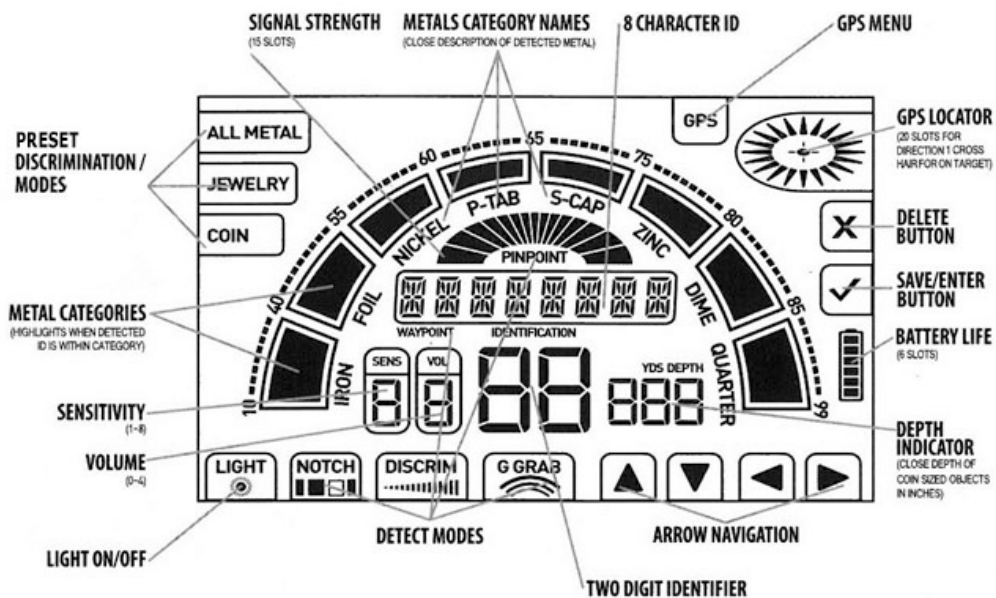
TC3X True Touch Screen Operation
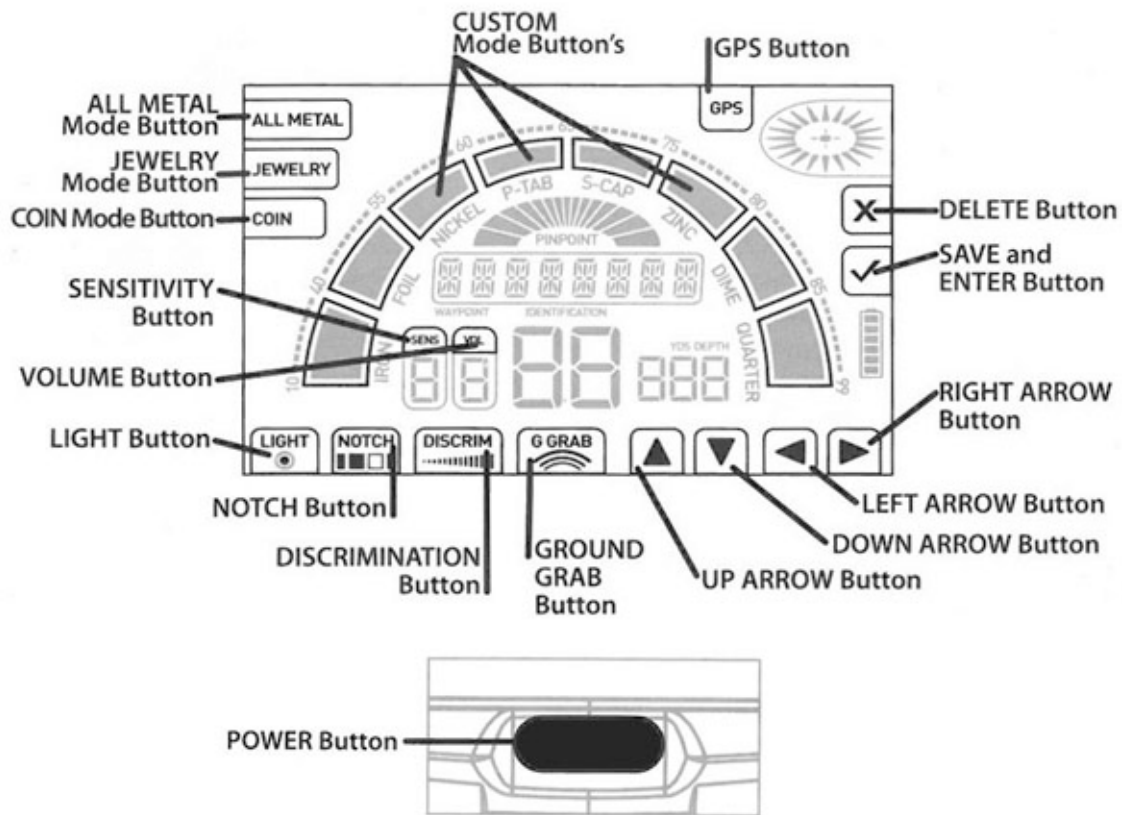
While the Treasure Commander TC3X offers a high level of performance under a wide range of conditions, all of its functions are controlled through the use of twenty-four (24) True Touch screen mode buttons and one (1) Power button located below the LCD

- **Power touch pad button**: This touchpad powers the TC3X on and off

- **Discrimination Mode**: This True Touchscreen button is used to enter the Discrimination Mode. In this mode you can set your own discrimination levels. To adjust the levels use the right arrow button to increase discrimination and the left arrow to decrease the discrimination level. When you reach the desired level push the Save/ Enter button.

- **Pinpoint Trigger:** When a metal is detected hold the trigger to activate the Pinpoint function. Sweep the coil over the target in an "X" pattern. While in Pinpoint the signal strength and the depth indicator is active.

- **Ground Grab**: This True touchscreen button is used to enter the Ground Grab Mode. This mode enables the TC3X to sense the ground mineralization present and make the necessary adjustments automatically to provide maximum performance under varying conditions.

- **GPS**: This True Touchscreen button is used to enter the Save/Waypoint list

- **Sensitivity:** Use the True touchscreen button to change the Sensitivity settings by using the Up and Down Arrow Buttons. Push the Save/Enter button to Save your Change

- **Volume:** Use the True touchscreen button to change the Volume levels by using the Up and Down Arrow Buttons. Push the Save/Enter button to Save your Change

- **LED Light:** Use the True touchscreen button to turn the LED Light on and off.

- **All Metal Mode:** Use this True touchscreen button to detect all metals.

- **Jewelry Mode:** Use this True touchscreen button to detect only those metals found in jewelry.

- **Coin Mode:** Use this True touchscreen button to detect only those metals found in coins.

- **Notch Mode button:** Press this True touchscreen button to enter the custom Notch mode. In this mode you can deselect up to (8) of the Custom Mode button's. After deselecting press the (Check) Save/Enter button.

- **Save and Enter button:** This True touchscreen button is used to save or enter. Example uses it to save a new Waypoint or Save a Custom Discrimination setting.

- **Delete Button:** This touchscreen button is used to delete, example use it to delete an old Waypoint.

Illustration of Touch Screen Operations

Using the GPS Function
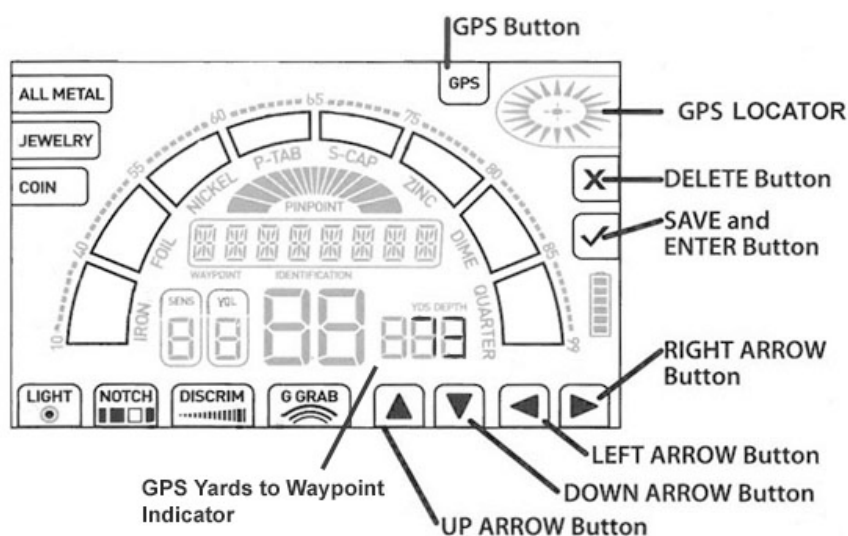
The Treasure Commander TC3X incorporates Global Positioning System (GPS) technology which allows you to relocate sites that you have discovered.

To name and save a Waypoint or coordinates of a site or spot you want to revisit, press the "**GPS**" touchscreen button. You will now see the word "LOCATING" flashing on the LCD. Wait till you see the word "SAVE", now press the Save/Enter button to name your waypoint. Use the left/right arrow buttons to move between letters and press the Up/Down buttons to change the selected letter or letters. After you have named your waypoint (8 letters max) Press the Save/Enter button, you will now see "Save OK"

To return back to normal metal detector operation Press the GPS button. At this point you can start metal detecting. Note: you can Save up to (10) Waypoints. To do so, simply repeat the above process.

When you are ready to return to your Saved Waypoint location, press the "GPS" touchpad and wait for the word "Save" to appear. Use the left/right Arrow buttons till you see your named "Waypoint", now press the Save/Enter button. If you have more than one location saved you can scroll through list of saved waypoint locations use the left/right Arrow buttons. When you find the location you want to visit or return to, press the **Save/Enter** touchscreen button.

You will now see the GPS icon (upper right half circle on the LCD screen) will show you which direction to head with an arrow and the LCD will show how many yards remain to the location.

The arrow and distance will change as you approach the location.

Once you arrive at the location, the arrow will disappear and the distance displayed will read "000" indicating you are now at your Saved Waypoint.

To DELETE any Saved Waypoints while in the GPS Mode you simply go to the Saved Waypoint and Press the "DELETE" touchscreen button. Repeat the same process for any additional Saved Waypoints you want to delete. Remember if you saved more than one Waypoint use the left/right Arrow buttons to scroll through them.

Operating Modes

The Treasure Commander TC3X has eight (8) modes of operation which are described below.

1 **GROUND GRAB MODE (Ground Balance)**: All soil contains minerals which can impact the ability for any metal detector to locate small or deeply buried targets. The TC3X has been designed to sense the actual ground mineralization present at the search location and automatically calibrate itself to reduce or eliminate the effect the mineralization would otherwise have on detection depth and sensitivity. This ensures you obtain maximum performance from your detector under a wide range of soil conditions. The following steps cover the proper method of using the **GROUND GRAB (Ground Balance)** function:

- Find an area that is free of metal - use the **Discrimination mode** option with no targets discriminated out to check the area before proceeding.

- Hold the search coil about 6 inches above the ground and press the "**G Grab**" True touchscreen button to activate the ground grab process, then lower down the search coil several times until the LCD shows **"Grab OK"**

- If you receive the "**GRAB ER**" message, either repeat the process or try a different location as there may be metal or some other problem at the spot you initially attempted to calibrate the coil to the ground conditions with the **GROUND GRAB (Ground Balance)** function.

Remember, optimal performance of your detector will depend on its proper calibration through the use of the **GROUND GRAB (Ground Balance)** function. It is recommended that you occasionally repeat the process to ensure that changes in ground conditions are being compensated for as conditions can change even at the same location.

2 **DISCRIMINATION MODE**: A metal detector by its design locates all metals; however, it is not possible to recover every piece of metal in a given site. The DISCRIMINATION mode is the one that is used for actual searching and allows you to select what targets will be accepted or rejected. You can adjust the level of rejection from none (all metal objects will produce a response) to a level at which most unwanted targets will be rejected (silver coins, silver jewelry and similar targets will produce a response). To adjust the discrimination mode press the "**DISCRIM**" Touchscreen button and use the left and right arrow buttons to increase or decrease the amount of discrimination. When set to your desired level save by pressing the Save/enter button. Sweep speed can affect the ability of the detector to accurately identify and discriminate targets. Sweeping too slow can impact detection depth and discrimination capabilities of your TC3X.

3 **NOTCH DISCRIMINATION MODE**: The TC3X was designed with ease-of-use in mind and the NOTCH DISCRIMINATION function allows you to quickly select a predefined program designed to let you find treasure and dig less trash. Unlike conventional

discrimination circuits where rejecting targets is done starting at iron and moving upwards in a clockwise manner (see the figure on page 6), **NOTCH DISCRIMINATION** allows you to select which of the eight segments are accepted or rejected individually. For example, if you want to reject pull tabs using the **DISCRIMINATION MODE**, you would need to also reject the iron, foil and nickel segments. NOTCH DISCRIMINATION MODE allows you to only reject the pull tab segment while still accepting the other seven segments.

SETTING THE NOTCH MODE: Press the Notch touchscreen button to enter the custom notch mode. In this mode you can deselect up to (8) of the custom Metal Category touchscreen buttons. (See page 6). To deselect you simply press one of the (8) metal category buttons, if you change your mind you can reselect any category by pressing the same button again. After deselecting the categories you want, next press the Save/Enter button to save your changes. The TC3X comes with three predefined nonadjustable Custom programs to meet your specific needs.   The Treasure Commander's programs include:

4   **ALL METALS**: This mode is designed to be used when you are looking for any type of metal that might be present. Treasure hunters searching for old military or settler artifacts made of iron often use this to ensure no relics are inadvertently overlooked. It is also a good choice when trying to find where a site used to be and no visible signs remain. Once metal objects are located indicating you are in the right area, additional discrimination can be applied.

5   **COIN**: This mode is designed for coin hunters that want to find coins and other items while rejecting iron and tinfoil that are often found in the areas where coins are recovered.

6   **JEWELRY**: This mode is designed to eliminate some trash while ensuring gold and silver jewelry including rings, pendants, chains, earrings and other items are detected.

7   **PINPOINT**: When you want to zero-in on a target that has been detected, entering the PINPOINT mode will enable you to quickly identify where to dig in order to recover the target. To pinpoint squeeze the pinpoint Trigger while sweeping the coil across the area containing the target. The target depth in inches will be shown on the LCD screen along with the pinpoint intensity target signal strength.   To exit the Pinpoint mode, simply release the pinpoint Trigger.

8   **GPS:** This function allows you to setup and save up to (10) Waypoints that you might want to revisit through the power of Global Positioning System technology. The farthest it will read from your destination is 999 yards or approximately 0.6 miles. The indicated distance will decrease as you get closer to the saved location. NOTE: When using this mode, ensure the control box is kept away from metal objects such as a shovel as they can affect the accuracy of the TC3X's internal compass.

Getting Started the Right Way

Spending a little time getting familiar with the response of your Treasure Commander TC3X before you head out in search of treasure will make your time in the field more enjoyable and productive.

The first activity you should try is to perform bench testing using a sample of targets. This will help you learn what response various targets will produce and how to eliminate those you do not wish to recover. Collect items including a nail, a wad of tin foil, a pull tab, a nickel, a zinc penny (from 1983 and later), a dime and a quarter. If you have additional items that you might be seeking such as gold / silver jewelry or relics, include them in your sample pile.

Place the TC3X on a table (non-metal) with the coil hanging over the edge. Ensure the coil is not near any metal objects. Remove your watch and any jewelry you might have on such as rings. Turn the detector on and select the ALL METAL mode.

Pass each object across the search coil and take note of the indication on the LCD screen as well as the different tones each produces. Switch to the COINS and then the JEWELRY mode and repeat the test. Note which targets are rejected by the detector in each of the modes.

The NOTCH mode allow you to select which of the eight segments are accepted or rejected and is very useful when you find yourself bothered by a specific piece of trash and want to ignore it.

Make a record of what your test results show so that you can refer back to them if you have questions in the field on actual targets.

Many successful treasure hunters take the bench testing concept to the next level and construct a test garden in their yard. By burying a range of targets, you can see how ground impacts signal response and practice pinpointing targets which will improve your recovery rate in the field. Bury several items at depths of 2 to 4 inches. Place them at least 18 inches apart so that you are not detecting more than one target at the same time. Mark the location of each target (golf tees work well for this) so that you know where each item was buried.

NOTE: Freshly buried targets will be harder to detect than those that have been buried for years. Take the time to see the impact different settings; i.e., Sensitivity, Volume and Discrimination, as well as the coil sweep speed have on the response you receive from the various targets.

Let's Find Something

So you have spent some time getting familiar with your new Treasure Commander TC3X detector and are ready to head out and see what you can discover. Let's get started!
(See pages 8 through 11 for more detailed operational instructions)

1. Extend the rods to the desired length. The detector should be resting on the ground about 2-3 feet in front of you.

2. Turn the TC3X on by pressing the **POWER** touchpad

3. Press the touchscreen buttons for both the **SENSITIVITY** and **VOLUME** (do each button separately) and adjust to the desired values which will be dependent on site conditions and personal preferences. Once the adjustments have been made, make sure you remember to press **SAVE/ENTER** button each time to save them.

4. Select either of the (3) Factory Predefined Modes or the "DICRIM" or "NOTCH" custom Modes. If selecting either "Discrim" or "Notch" modes now is a good time to make whatever discrimination changes you need. Don't forget to press the **Save/Enter** button each time to save your changes.   Press the **Ground Grab** touchscreen button to enable the detector to determine the ground mineralization present and calibrate the circuitry to provide maximum performance.   Sweep the coil over the ground in a side-to-side motion. The optimum sweep speed is 3 to 5 seconds per pass (left-to-right or right-to-left). Remember, it is not a race to see how quickly you can cover an area but rather how thoroughly you cover the area to ensure you have not overlooked any valuables. Most good targets will produce a clear, repeatable signal. Trash targets (those that are being rejected) generally do not produce a signal or will only give a broken or non-repeatable response. Experience will tell you when to investigate those marginal signals but initially, focus on repeatable signals that produce consistent indications on the LCD screen.

5. When a target has been detected, move the coil off to one side and squeeze and hold the Pinpoint Trigger. Move the coil over the area where the target is buried in an "X" shaped pattern.

   Observe the Target Depth indication and listen to the audio response. When the indicated depth is the shallowest and the audio volume is the loudest, the target should be directly beneath the center of the search coil.

6. Carefully recover the target and be sure to replace the soil / grass before moving on to the next target.

Identifying Targets before You Dig with tone

The Treasure Commander TC3X provides you with two ways to identify targets before recovering them. The first is the indication on the LCD screen via the eight Metal Category segments. In addition to the visual indication, the audio response will vary based on the type of metal that has been located. The four tones and the metals that correspond to each are defined below:

- **Bass Tone**: Ferrous metals such as nails, smaller bolts, stainless steel, cast iron and very small pieces of gold

- **Low Tone**: Tinfoil, aluminum, nickels, newer pull tabs (rectangular style) and some gold jewelry

- **Medium Tone**: Older pull tabs (winged style), bottle and screw caps, newer U.S. pennies (post 1982), newer Canadian $1 and $2 coins, small silver jewelry, most gold jewelry and military artifacts such as bullets and buttons

- **High Tone**: Older pennies (pre-1982), dimes, quarters, half dollars, dollars, and silver jewelry

Target Recovery

Once you have established the exact location of the target, the next step is to dig a small hole to recover it. In order to preserve the environment and keep from having areas closed to metal detecting, it is essential to make the hole as small as possible and always replace the soil / grass before moving on.

Recommended tools for target recovery include a sand scoop when searching sandy areas or a small knife / small gardening trowel when searching grassy areas such as parks, schools, private yards or ball fields.

To recover a target from grassy areas, use a sharp tool (knife / trowel) and cut a plug leaving a portion connected. Fold the plug out of the hole and pass the search coil over both the plug and the hole to determine where the target is. If the target is still in the hole, start removing dirt and place it on a sheet of plastic or a rag which makes it easier to replace the loose dirt when you have found the target. Once you have recovered the target, check the hole to ensure there are no additional targets before refilling the hole. Put the loose dirt back in the hole, fold the plug back in-place and step down on the area to compact the soil.

TIP: The use of an electronic pinpointer probe will reduce the time it takes to locate and recover targets. This is an accessory that most treasure hunters have found to be invaluable and is highly recommended.

Detecting Tips

Your success will increase as you gain experience in the field but the following tips can help you shorten the learning curve and reduce frustration that may arise.

- The search coil must be moving in order to detect a target; however, only a slight motion is required. If you stop moving the coil, the signal will be lost.

- At times you might receive a signal from a target that is not repeatable and produces varying audio signals. This may be caused by trash or multiple targets beneath the coil. Switch to the ALL METAL mode and sweep the coil across the target area in different directions to see if you can isolate the signals. If you determine that there is more than one target present, switch back to the DISCRIMINATION or NOTCH mode and try sweeping the coil at different angles to avoid going over more than one target at a time. This will allow you to identify each one and determine if it is worth recovering.

- If the trash in an area is so much that you are getting numerous choppy or non-repeatable signals, you can improve performance of the detector by slowing your sweep speed down or reducing the Sensitivity level.

- Sweep the search coil carefully, especially when using around rocks and building foundations. Avoid hitting the search coil against hard, solid objects and surfaces.

- Keep your search coil slightly off of the ground during the sweep, especially when using in gravel or hard, rocky dirt.
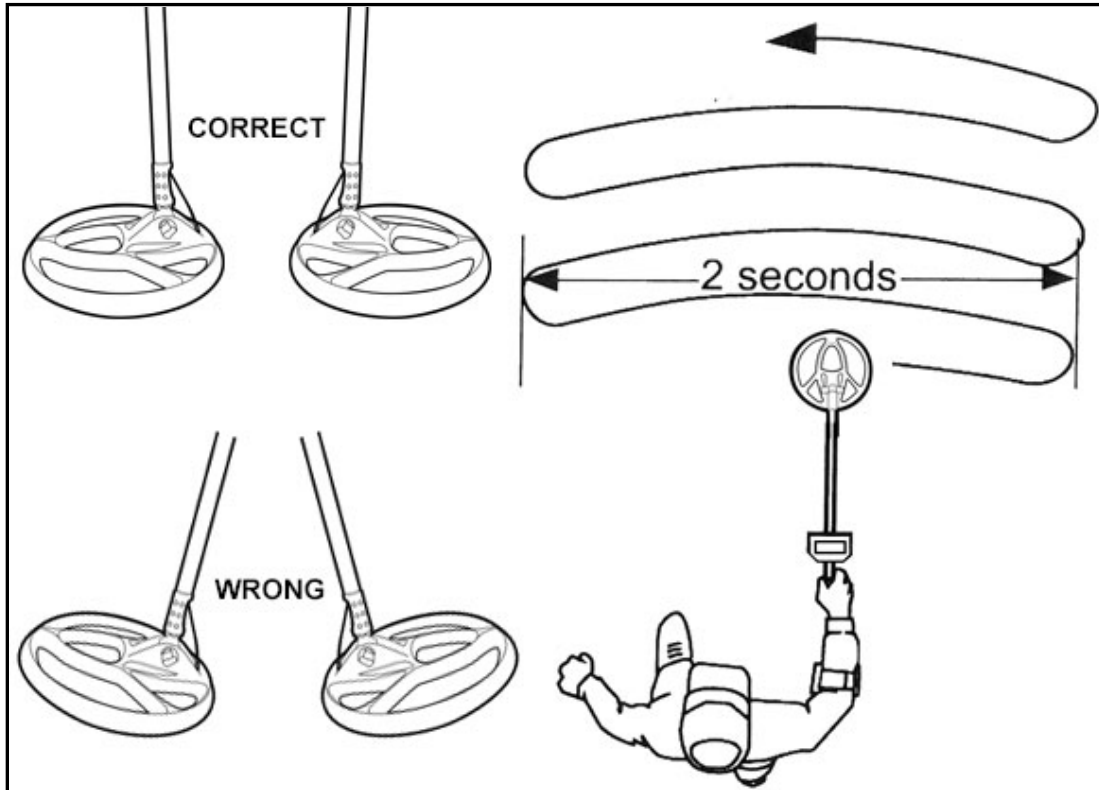
Care & Maintenance

Your Treasure Commander TC3X has been built to last but proper care and maintenance will ensure you receive years of trouble free operation. It is recommended that you observe the following tips.

- **Keep it Clean** - Take a few minutes after each use to remove dirt and dust. Wipe the case clean. Wash the loop, especially if it has been dipped in saltwater.

- **Keep it Cool** - Never keep your detector in an extremely hot environment such as the trunk of your vehicle in the summer for extended periods of time. Damage to the electronics and the LCD display screen can occur.

- **Keep it Safe** - Never transport your detector in a way that it can be subjected to sudden shock or dropped. Cushion the detector with a blanket or use a carrying case that can be purchased to carry the detector and accessories.

- **Protect the Electronics** - A plastic bag placed over the LCD control pod will keep rain from reaching the electronics or at an ocean beach, will help protect the detector from blowing sand and prevent corrosion from the salt air. Remember, the coil is waterproof but the electronics are not!

- **Storage** - When storing your detector for more than a month, remove the batteries to prevent them from leaking and damaging the electronics.

Troubleshooting

PROBLEM	POSSIBLE SOLUTION(S)
The detector won't turn ON There is no sound	• Ensure the batteries are new or charged • Check that the batteries are installed properly • Check that all connections are secure • If using headphones, unplug them to check for sound from the internal speaker (headphones may be defective)
The detector operates erratically	• Check that all connections are secure • Lower the Sensitivity level • Try searching in a different location as electrical interference at the current site may be causing the erratic operation. This includes high-voltage power lines, electric transformers and even underground cables and pet containment fences
LCD indication does not lock on Multiple tones are produced when the coil passes over a spot	• Multiple targets may be present - move the coil slowly at different angles in order to seperate them from one another • The Sensitivity may be set too high for the conditions at the search area, reduce the setting and resweep the area

Treasure Commander TC3X Specifications

- Licensed RealTree Xtra Camo Finish
- GPS Technology (GEO-X) allows saving and locating up to 10 locations
- PST "Precision Search Technology
- Durable lightweight poly carbonate construction
- 11 inch Double D coil, detects treasures while eliminating trash and junk

- Built in LED Light
- Large simple to use digital backlit interface
- Touch Screen Technology with 5 inch LCD Display allows simple touch operation
- 8 metal categories and adjustable discrimination
- 3 Preset elimination modes: All-Metal, Coin, Jewelry, let's you find treasures rather than junk.
- 2 Custom programmable modes, Discrimination and Notch
- 4 individual audio tones to aid in target identification
- Over 60 different elimination possibilities
- Built-in Trigger Pinpoint
- Signal strength and depth indicators in pin point mode. Locates "Targets" Quickly.
- Quick release extension rod design, adds up to 7" to shaft for "tall" users.
- Adjustable arm guard with strap
- External 3.5mm headphone jack (headphones not included)
- Right or Left handed use
- Uses 6 AA-Cell Alkaline batteries (not included)
- 1–Year warranty

Treasure Hunters Code of Ethics

- **I Will** respect private property and will not treasure hunt without the owner's permission.

- **I Will Not** destroy private property, buildings, or what is left of ghost towns and deserted structures.

- **I Will Not** litter and will pick up any trash that I dig up or find on the ground while treasure hunting.

- **I Will** leave gates as found.

- **I Will Not** contaminate wells, creeks, or other water supplies.
- **I Will** fill all excavations that are made while treasure hunting.
- **I Will Not** tamper with signs, structural facilities or equipment.
- **I Will** appreciate and protect our heritage of natural resources, wildlife, and private property.
- **I Will** use thoughtfulness, consideration and courtesy at all times.
- **I Will** protect my hobby, and always act as a goodwill ambassador.

Be polite and informative to those who inquire about your hobby - you are the ambassador of a pastime we want to protect and we will be judged by how you act & respond.

Warranty & Service Information

For the warranty to be in effect, you MUST completely fill out and mail the warranty card along with your proof of purchase to WGI Innovations, LTD within 14 days after the date of purchase. As an alternative, you may also visit the WGI Innovations website and register your purchase at http://www.groundefx.com (you are still required to mail WGI Innovations your proof of purchase before the warranty is placed in effect.) Follow the onscreen directions to complete the process.

WGI Innovations, LTD will replace all workmanship defects free of charge for one (1) year after the date of purchase as long as your warranty is in effect.

This warranty does not cover damage, expense or injury caused by unauthorized repairs, alternations, improper assembly, shipping, abuse, theft, accident, neglect or collateral loss.

When returning product(s) for service you must obtain a Return Merchandise Authorization (RMA) number from WGI Innovations, LTD. Please include your name, UPS address (no P.O. Box), telephone number, RMA number and a complete description of the problem on all enclosed correspondence. When possible, pack the equipment carefully in the original carton. Customers are responsible for any shipping costs to WGI Innovations, LTD. WGI Innovations, LTD will pay for the shipping cost of replacement product to the customer. WGI Innovations, LTD is not responsible for damage incurred in returning items for repair.
For product service send product(s) to:

WGI Innovations, LTD
602 Fountain Parkway
Grand Prairie, TX 5050
(800) 847-8269

Thank you for your purchase!

Metal Detector Terminology

Air Test: A test performed by moving various sized metal samples beneath the metal detector search coil to check the detector's features and target response. This test is not an accurate indicator of ground depth penetration capability**.**

All Metal: Any operating mode or control setting which allows total acceptance of any type of metal targets. Usually associated with the Ground Balance mode.

Bench Test: An air test to determine at what approximate discriminate settings various metal samples are rejected or accepted. The test is conducted in a non- metallic area.

Coin Depth Indicator: A visual indicator used in conjunction with calibrated circuitry to indicate depth of buried coins in inches or millimeters.

Discrimination: Adjustable circuitry which ignores or nulls audio responses from a specific conductivity range allowing positive responses to be heard from metals higher in conductivity above the discriminate control setting. Designed primarily to eliminate audio response from trash metals. See also Motion Discriminator.

Electronic Pinpointing: An automated detuning feature which narrows signal response for the purpose of target pinpointing.

Ground Grab (Ground Balance): A state of operation using specialized circuitry to ignore the masking effect that iron ground minerals have over metal targets.

LED or Light Emitting Diode: A semiconductor which produces an illuminated visual response.

Meter: A detector component that provides visual information to aid in target identification. Meters feature either an LCD or needle indicator which may display intensity of signal, target depth, target identification, type of metal, or battery condition.

Mode: A condition of operation, selected by the operator, for specific desired function(s).

Notch Discrimination: Filtering circuitry which allows a "window" of desirable targets to be accepted within the entire rejection range of unaccepted targets, i.e., rejecting nails, foil and pull tabs while accepting nickels and gold rings of the same conductivity. This circuitry can also be adjusted to reject all metal targets while accepting only a specific conductivity range.

Pinpointing: Finding the exact target location with respect to a search coil's designated center. Accomplished by interpreting the centers of audio response width in perpendicular directions or scans. See also Detuning.

Sensitivity: The capacity of a metal detector to perceive changes in conductivity within the detection pattern. Generally, the more sensitivity a detector can smoothly provide, the more depth it will achieve in sensing targets.

Tone ID: Circuitry producing different audio tones for each target's conductivity range, i.e., low tone for nickel, high tone for coins.