

# GemOro AuRACLE™

## AGT1 GOLD & PLATINUM TESTER

### EASY OPERATION GUIDE: STEPS 1 & 2

*The AGT1 **MUST** be used while following the below easy steps and recommendations to get accurate test results.*

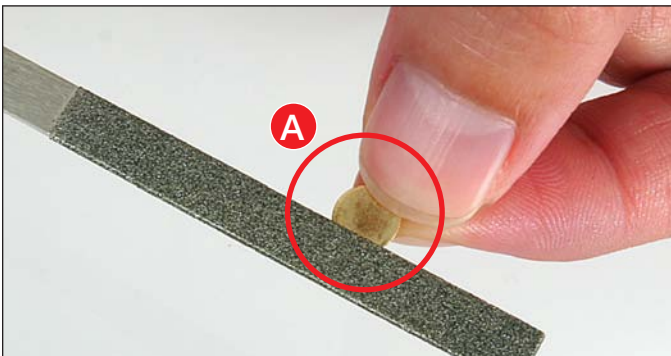
#### STEP 1: AGT1 POWER UP

After the batteries are installed and the pen probe is fully plugged into the unit, turn on the AGT1 by pushing the switch to BAT (if batteries are installed) or AC (if the AC adaptor is installed) depending on which power option you wish to use. The AGT1 will go through its self-check boot up sequence (flashing LED indicators). Once the lights stop flashing the READY light and NA light at the far right of the bar graph will remain on.

#### STEP 2: CHECK PEN PROBE & ELECTRICALLY CHARGE IT FOR USE

Remove the pen probe cap, then dab the pen probe felt tip on a clean, dry paper towel to clean it and absorb any excess pen probe solution, leaving the pen probe felt tip the consistency of a normal felt tip pen or marker. File a small area on the surface of the 14K yellow gold calibration piece **A** and rest it on the testing plate with the filed area facing up. Check that the pen probe is working by holding it upright and gently touching the pen probes felt tip to the filed area of the 14K yellow gold calibration piece **B**.

Repeat this process 3-times and wait for the reading to settle each time. By touching the 14K yellow gold calibration piece it will also electrically charge the pen probe for use, which is a vital part of the start up process. The LEDs on the bar graph will react by climbing upward or downward. At this point the pen probe is charging and it is not important where the LED indicator settles **C**. A distinct calibration point on the LED bar graph will be found only in the center of the 14K range in the calibration process as outlined in STEP 3 below.



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### EASY OPERATION GUIDE: STEP 3

#### STEP 3: CALIBRATION PROCESS

- Always charge the pen probe as described in STEP 2 and calibrate it after each time it is turned on. Recalibrate it as necessary while in use. Using the AC adaptor and keeping the AGT1 turned on throughout the day is recommended.
- **Use only common .583 to .585 14K YELLOW GOLD that is non-plated/non-flashed to calibrate the AGT1.** Be aware that 14K yellow gold with a high silver content above 7% will not provide a proper calibration. Also, 14K yellow gold with an uncommon mixture of alloys may not provide a proper calibration. Using the optional AGT1 14K Yellow Gold Calibration Disc is recommended.
- Lightly yet firmly hold the very end of the pen probe felt “tip” only to the filed area on the calibration piece **D** and wait until the reading settles **E**.





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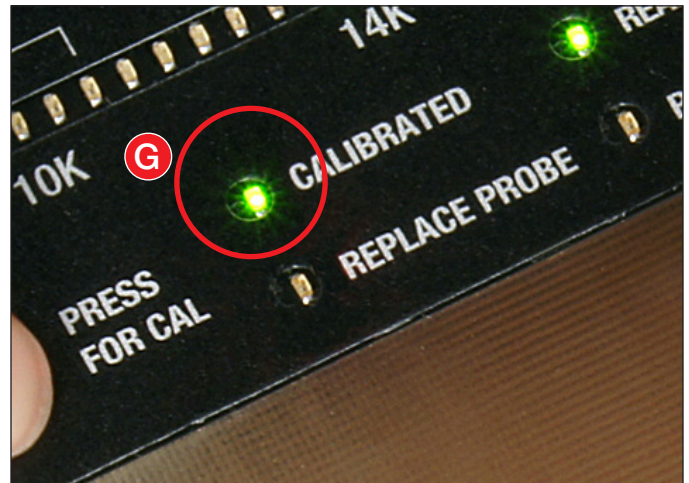
### EASY OPERATION GUIDE: STEP 3 CONTINUED

#### STEP 3: CALIBRATION PROCESS CONTINUED

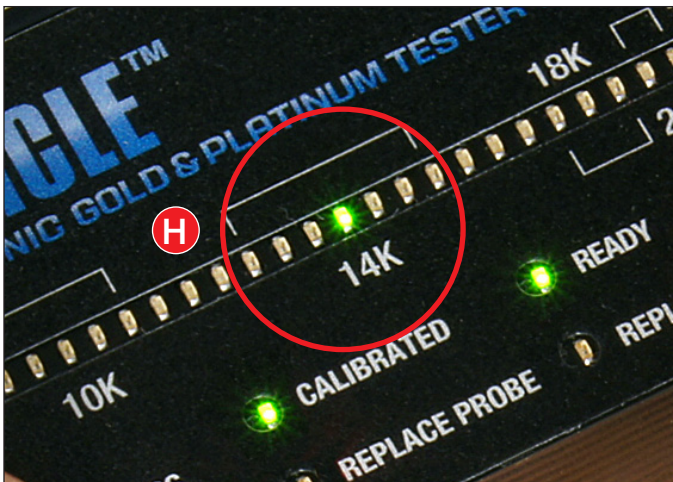
- Press the CALIBRATION button once **F** until the green light labeled CALIBRATED lights up **G**, and the green light in the center of the 14K range simultaneously lights up **H**. Then wait an additional 2 to 3 seconds after the CALIBRATED light turns off before removing the pen probe to make certain the LED in the center of the 14K range remains lit up and the reading does not drift by even one LED within its range. This may require 2 to 3 calibration attempts before the calibration locks into place in the center of the 14K range and remains there. If the center light in the 14K range doesn't light up and remain that way or if it drifts to another position within the 14K range, it is not calibrated and will not test correctly.
- Once the calibration process has been successfully completed, remove the pen probe from the calibration piece.



Press the CALIBRATION button once **F**



until the green light labeled CALIBRATED lights up **G**



and the green light in the CENTER OF THE 14K RANGE simultaneously lights up **H**



CALIBRATION STEPS F, G & H

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## AGT1 GOLD & PLATINUM TESTER

### EASY OPERATION GUIDE: STEPS 4 & 5

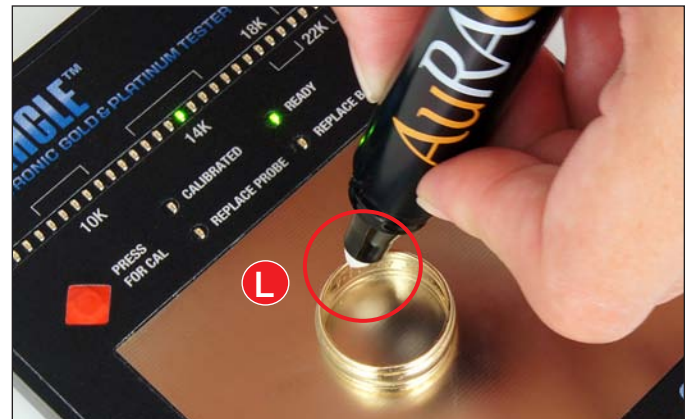
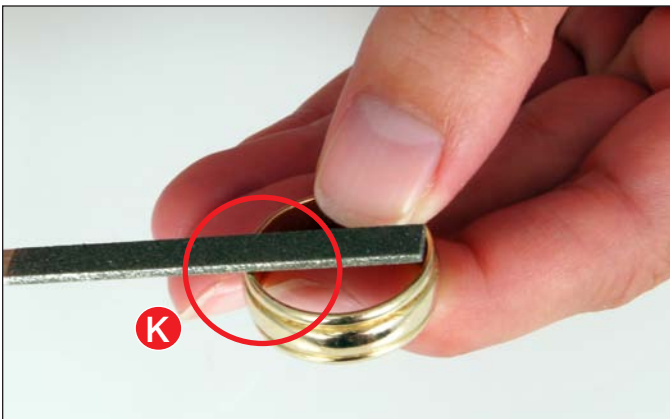
#### STEP 4: RE-CHECK READINESS

- Touch the pen probe felt tip to the gold again **I** to make sure that your calibration piece now tests correctly in the center of the 14K range **J**. The AGT1 is now calibrated and ready to use.
- If it does not test correctly when rechecking, dab the pen probe felt tip on a clean, dry paper towel and repeat STEP 3. Trying an alternate piece of filed 14K yellow gold may also resolve the problem.



#### STEP 5: TESTING GOLD AND PLATINUM

- To test gold and platinum, always first file a small area on the surface of the metal **K** and rest it on the testing plate with the filed area facing up and be prepared to test that area.
- Touch and hold the very end of the pen probes felt tip to the filed area on the metal **L** until the reading settles. Only touch the very end of the pen probes felt tip and DO NOT USE THE SIDE OF THE PEN PROBES FELT TIP or the test results will rise to a higher karat than it is. Due to the various shapes of jewelry it may be beneficial to hold the jewelry on the testing plate to stabilize it and make certain good contact with the pen probe tip during the test occurs. Once it settles, check the reading for the test results and then wait no more than 2 to 3 seconds before removing the pen probe from the metal. By waiting longer than 2 to 3 seconds the LED's may continue to rise to an incorrect reading. Depending on the alloys and percentages of each used to make the specific karat gold, the test results will vary within the range of that karat. Be aware that platinum will test as PT or alternate between PT and the NA on the far right.
- If inconsistent test results are experienced always dab the pen probe felt tip on a clean, dry paper towel and as needed recalibrate the AGT1 while in use.
- Always replace the pen probe cap until it snaps on when not in use.





**The PATENTED AGT1** is an accurate testing device meant for the purposes of quickly and easily purchasing standard karat gold as well as platinum. It has been designed with the needs of a gold and platinum buyer in mind. Although it is considered the most accurate electronic tester in its class, it is not meant to be used as a tool for rigorous scientific assay. There are many alloys used to create gold jewelry of the various colors (white, yellow, green and red). As the vast majority of gold being purchased is 10K, 14K and 18K, your AGT1 has been designed to primarily focus on these ranges, while still providing reasonably good, yet at times inconsistent testing results in the 22K and to a lesser degree in the 24K ranges.

As the gold content of a piece moves closer to pure, the presence of other metals becomes smaller and the chemical reaction has less contaminants to detect. As such, gold higher than 18K may test inconsistently among the higher karat ranges. It is important to note that over 99% of all gold stamped or cast of this quality is marked or stamped or backed by the mint that has produced it. Coins made of high karat gold are almost exclusively produced by government mints and there are many reference sources that one can turn to for their identification. From a practical perspective the gold of this purity is easy to identify by its rich color and you will observe that it is very heavy in the hand. All high karat gold will test with reasonable accuracy above the 18K+ ranges of your AGT1, but it is best to rely on the visual karat marks, reference sources and common sense.

## *TROUBLESHOOTING & HELPFUL TIPS*

**ELECTRICALLY CHARGE THE PEN PROBE, CORRECT FOR INCONSISTENT READINGS AND RECALIBRATE:** Each time the AGT1 is turned on **YOU MUST ELECTRICALLY CHARGE THE PEN PROBE (STEP 2) PRIOR TO CALIBRATING.** The AGT1 must then always be calibrated before using (STEP 3). It is also necessary to recalibrate the AGT1 as needed and dab the pen probe felt tip on a clean, dry paper towel if inconsistent results are experienced. Recognize that the chemistry inside the pen probe is constantly changing over time as it is exposed to gold and other metals, contaminants, the environment and dirt. By recalibrating the AGT1 periodically and cleaning the pen probes felt tip as needed, this allows the AGT1 to adjust itself to the chemistry in the pen probe at that time. Since the AGT1 can be calibrated in only a matter of seconds or the pen probe felt tip easily cleaned if needed, these simple steps should be a regular part of problem solving and your testing process.

**REPLACE PROBE LIGHT ON?:** Recalibration will typically fix this, as it should be noted that this indicator is also a sign that the AGT1 is out of calibration. Make sure the pen probe felt tip is clean by dabbing it with a clean, dry paper towel and then follow the calibration STEP 3 of the Easy Operation Guide. If the AGT1 will not calibrate, the pen probe may be defective, spent or in need of replacement.

**REGULAR CLEANING OF THE PEN PROBE FELT TIP AND TESTING PLATE:** The pen probe contains a special saline solution that is safe, non-acidic, and non-toxic. Remove salt crystal build-up by dabbing the pen probe felt tip with a clean and dry paper towel. Salt crystal build-up is a natural occurrence with this device. Using a warm, moist (from water only) paper towel, wipe off any salt crystal buildup from the 14K yellow gold calibration piece and the AGT1 testing plate area only. **Be aware that the pen probe solution will leave a stain or in some instances it may ultimately produce corrosion on the testing plate if not wiped off immediately after it makes contact, so cleaning it right after this occurs is advised.** While this staining or corrosion may occur, it will affect the testing plates cosmetic appearance only and not impact the accuracy of the AGT1. Remember to dry both the 14K yellow gold calibration piece and AGT1 testing plate thoroughly. Never expose the pen probe felt tip to water or other chemicals. Always replace the pen probe cap until it snaps on when not in use.

**FILE ALL METAL BEFORE TESTING AND CLEAN THE FILE:** Gold, platinum, gold-plated, gold-filled, tungsten and stainless steel must be filed below the surface before testing to produce accurate results. Do not file the metal above the AGT1 testing plate as particles of the metal being filed will fall on it and potentially affect the test results. This is a surface tester and the tester will read gold plated and gold-filled as solid gold if not filed to the base metal. Always wipe the gold and other metal particles off of the file to avoid contamination and to avoid incorrect test results that could occur from one karat of gold being mixed with another.

**NO MOVEMENT OF LED'S WHEN TESTING:** This is an indication that either the pen probe isn't plugged into the AGT1 all the way or that the material you are testing is non-conductive (example - plastic).

**TEST RESULTS ARE TOO HIGH:** This is an indication that the AGT1 is out of calibration, there is a presence of a high silver content, palladium or rhodium or perhaps the side of the pen probe felt tip is being used by mistake.

**IMPORTANT NOTE:** If the green LED does not light up in the center of the 14K range, this indicates that the calibration was not successful and the AGT1 will not provide accurate test results. If repeated attempts are unsuccessful, it is likely that your calibration piece may have a flashing on it or something unusual about its composition that makes the reading inconsistent. If this occurs an alternate calibration piece should be tried. Please never hesitate to call our helpline and we will gladly assist you to troubleshoot and fix any problems you may encounter!

## OTHER PRECIOUS METALS

**TUNGSTEN AND STAINLESS STEEL:** Be aware that if tungsten or stainless steel isn't filed first it may test in the high karat range or as platinum, but if it is filed it will test as NA. **ALWAYS FILE FIRST!**

**RHODIUM:** Be aware that rhodium will react as platinum on the AGT1. It is rarely used as solid finished jewelry, but instead is commonly used as a plating material to make white gold or platinum appear brighter. If white gold is plated with rhodium and filed it will test accurately or possibly as a higher karat than marked since it is taking an average reading of the two metals. **ALWAYS FILE IT FIRST!** If white gold tests higher than marked, it is probably rhodium plated.

**PALLADIUM:** Be aware that pure palladium will test somewhere between 18K and 24K on the AGT1. In the case of palladium being mixed with white gold it will drive the reading up to a higher karat than it is. If you see a reading on white gold that is higher than marked, it may very well be mixed with palladium.

**WHITE GOLD WITH HIGH NICKEL OR HIGH SILVER CONTENT:** White gold with high nickel content may test as a lower karat than marked. While it could be under karat gold in this instance, it is likely the karat marked. White gold commonly has 4% to 7% silver content. If white gold has high silver content above 7% it may test as a slightly higher karat than marked, while reacting with a slow and consistent rise in the reading.

### **READ THE COMPLETE INSTRUCTIONS BEFORE USING AGT1!**

Watch the online AGT1 instructional video at <http://sykessler.com/goldtesterWEBstreaming.mov>

*Having trouble? Call 800.527.0719 or 214.351.0380 and we will gladly assist you!*