

GT3000

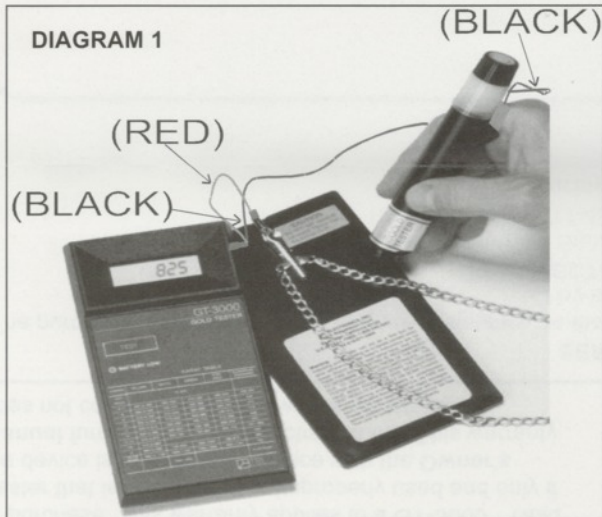
GOLD TESTER™

USER'S INSTRUCTION

The GT-3000 Gold Tester™ is a portable electronic device, developed by TRI Electronics, Inc., for efficient and quick determination of gold karat value (from 6 to 18 karat), and pure platinum. The GT-3000 Gold Tester also distinguishes solid gold from gold-plated items.

OPERATION PROCEDURES

The GT-3000 test set consists of a display unit which operates on two 9-volt alkaline batteries, sensor with rotary cap to obtain a drop of conductive gel, and a tri-cable for connecting the unit to the sensor and test plate. (See diagram 1)



The following procedures must be followed step-by-step to perform tests:

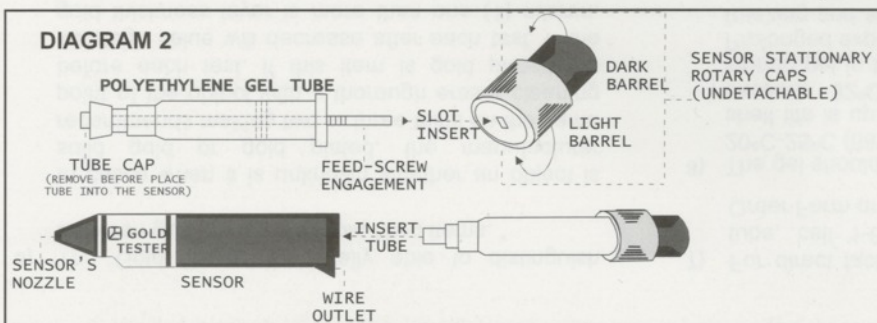
- 1) Remove sensor nozzle and stationary/rotary (und detachable parts!) caps by turning the lower light-colored barrel on the top of the sensor counter clockwise.
- 2) Fully insert the feed-screw engagement into the appropriate slot of the sensor's und detachable stationary/rotary caps. (See diagram 2).
- 3) Remove the polyethylene tube cap and insert the tube, which is connected with

stationary/rotary caps into the sensor. (See diagram 2).

- 4) Turn the brightly-colored barrel clockwise until fully seated.
- 5) Turn the dark-colored barrel counter clockwise until the first drop of gel appears at the sensor nozzle.
- 6) Connect the black wire to the sensor plug outlet, the black and red wire connector to the display unit, and red wire to the testing plate. (See diagram 1).
- 7) Turn the unit "ON". Now the unit is ready for testing.
- 8) Select and clean with eraser a testing point on the object; obtain one drop of gel by turning the sensor rotary cap (dark-colored barrel) counter clockwise until it clicks. Touch the sensor nozzle to a pre-selected testing point and press the "TEST" button.
- 9) Maintain sensor in the same vertical position for approximately 4-5 seconds while the instrument indicates the numbers on the LCD display. Refer to the karat table to convert this number into karat value.

IMPORTANT INSTRUCTIONS

- 1) Dispose a drop of the gel following each test.
- 2) Do not touch alligator clip with gel which may reduce a device reading.
- 3) Be sure that sensor nozzle opening is clean and open; otherwise, clean sensor nozzle with provided sensor nozzle cleaner before test.
- 4) Flat Herringbone gold chains require a special cleaning technique. To clean this type of chain for testing, put a small drop of nitric acid on the test spot and then dry this place with a paper towel. Be sure that alligator clip and sensor nozzle have good electrical contact with test object.



-OVER-

- 5) The Gold Tester is usually able to distinguish between gold-plated and gold-filled items. *

In cases when it is unknown whether an object is solid gold or gold plated, the manufacturer recommends making two or three tests on the same point of the object with a thorough eraser cleaning before each test. If this item is gold plated the karatage value will decrease after each test. If the gold thickness layer is more than one (1) micron, carefully sand a small test point on an object with a fine file or make a tiny hole with a needle at the test point.

- 6) Do not turn sensor's dark-colored, top barrel clockwise to avoid damage of mechanism.

- 7) For direct factory replacement of polyethylene gel tube, call 1-858-571-4881 or you may use our Order Form or call your distributor.

- 8) The gel should be stored at room temperature range 20°C-25°C (68°F-77°F). Under this condition the gels' shelf life is up to one year. If the room temperature exceeds 32°C (90°F) manufacturer recommends storing gel in the refrigerator, but not in the freezer. Prolonged exposure of the gel to temperatures below freezing and above 32°C (90°F) will damage the gel permanently.

- 9) Do not try to open or disassemble the display unit because it will damage the electronic parts and annul the manufacturer's warranty.

* This device distinguishes gold-plated and/or gold filled layer up to .0004 in. thick (approximately one micron).

** Gel will occasionally clump in the sensor. It is recommended that you thoroughly clean the sensor with SC-10 cleaner at each gel replacement.

TRI ELECTRONICS INC., WARRANTY

TRI Electronics Inc., as the manufacturer of the GT-3000™ Gold Tester, believes its instrument will provide a fast and reliable method of determining the karat value of gold when used in accordance with the provided instructions. TRI Electronics Inc., warrants that each instrument is free from defects in material and workmanship for a period of one (1) year from the date of purchase. This warranty applies to a GT-3000™ Gold Tester that is not abused or improperly used and only if the device is used in accordance with the **Owner's Manual** furnished by TRI Electronics Inc. This warranty does not cover: any product where an attempt

to disassemble the same is established; modification; alteration; unauthorized repair or service of the product or damages or defects resulting from accident or any events beyond the control of TRI Electronics Inc., nor does this warranty cover batteries or accessories.

In addition, TRI Electronics Inc., as the manufacturer, shall not be held legally liable or responsible for any error in determining the contents of gold and other precious metals through the use of the GT-3000™ Gold Tester nor for using the device in testing non-gold alloys or dental gold.

SERVICE

The purchaser may obtain information or assistance on the use of the GT-3000™ Gold Tester by calling 858-571-4881, or by writing to:

TRI ELECTRONICS INC.

4320 Viewridge Ave, Suite C, San Diego, CA 92123
Telephone: 858-571-4881 FAX: 858-571-54-04
E-mail: products@trielectronics.com

GT-3000

GOLD TESTER™

OWNER'S MANUAL



Web: www.trielectronics.com

SPECIAL USER INSTRUCTIONS

PLEASE READ CAREFULLY BEFORE USE

These special instructions are the result of both TRI Electronics and Users' experience with the Gold Tester and are offered as additional information to new purchasers and users of our products.

FIRST READING - The machine is not infallible and from time to time, for a variety of reasons, you may get a reading, high or low, which is inconsistent with your understanding of the expected karatage. **ALWAYS** make additional readings in other locations on the jewelry with special attention to cleaning and gel dispersal to verify unusual readings.

FINE GOLD - Very fine (thin) chains are very susceptible to crushing by the dispenser. Always avoid pressing the dispenser against the chain when testing fine gold chains while assuring gel contact. Two of three tests are recommended.

AIR GAP - Occasionally an air bubble will make its way to the tip of the dispenser causing a low or not gold reading. Retest when the result is suspect.

CLEAN TIP - If the tester has not been used recently, then clean the tip with the plastic cleaner provided by inserting the tip into the nozzle end of the sensor to remove any dried or used gel in the sensor tip. Accumulated dried gel will clog the sensor tip and cause the gel to bypass the plunger in the gel cartridge. If gel drops are not dispensed by rotating the twist cap immediately, clean the sensor using TRI Electronics SC-10 Cleaner Accessory Kit available from your Authorized Distributor or TRI Electronics. To avoid clogging it is good practice to clean the sensor each time the gel cartridge is replaced using the SC-10 Cleaner Kit. Those who do not plan on using the tester more than once per week, it is advised to remove the gel tube from the sensor and store it to keep gel from drying out and proceed with a thorough cleaning using the SC-10 Cleaner Kit.

SOLDER/HEAVY CASTINGS - Solder joints and certain spots on heavy castings may give erroneous readings due to the solder composition or non-homogeneous gold. Retest new area if result is suspect.

ITALIAN GOLD - Many Italian gold chains and necklaces are coated with a wax like material. If the readings are suspect, clean area to be tested by heavy erasing, or with a drop of nitric acid. If the karat value increases with heavy erasure, you may be sure the gold is coated. In all cases, nitric acid has removed the coating.

SKIN OILS - In heavily worn/used pieces, clean the testing item thoroughly with the eraser or non-acetone nail polish remover.

PLATED GOLD - Often a pin prick or small scratch on suspected plated pieces is sufficient to allow gel penetration to the base material.