

***Precious Metal***  ***VERIFIER PRO***

**MANUAL - QUICK GUIDE**

**MODEL #2601**

**Sigma**  
 **Metalytics**



# Contents

1. Precautions
2. PMV PRO Diagram
3. PMV PRO Functions
4. Power-on Measure Screen
5. Select Metal
6. Measure Screen - Basic
7. Interpreting the Measure Screen
8. Measuring Dimensions - Weight Mode/Weight Select
9. Enter Weight Value
10. Measure Screen - with Weight & Dimensions
11. Measuring Sample Dimensions
12. Wand Use
13. Thickness Calibration
14. Setup Screen
15. Limited Warranty



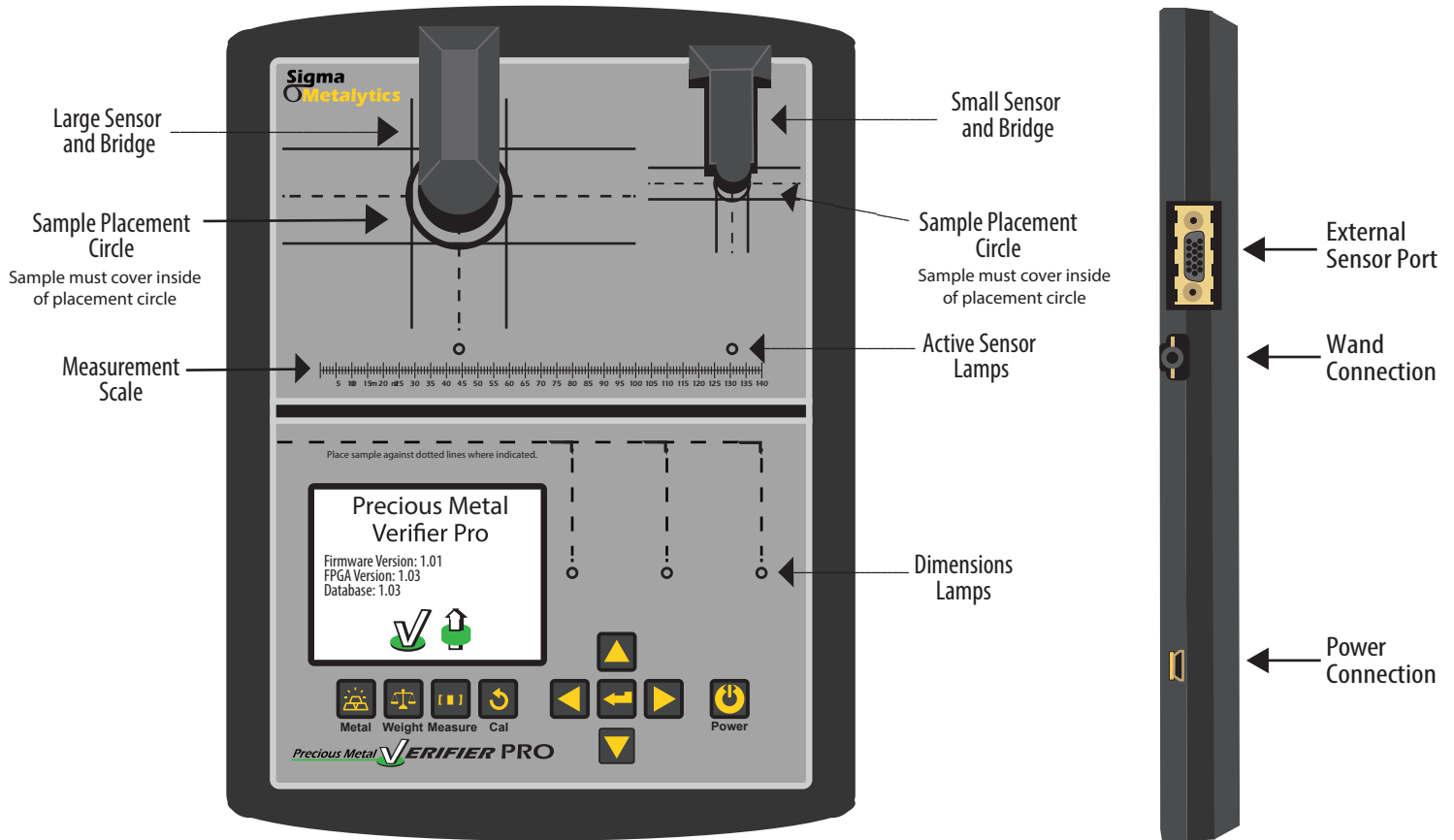
# Caution: Read Before Using

## Take notice of the following items:

- The top bridges on the unit are very sensitive to pressure. **Do not** press on them or place objects on top of them. Pressure on their surface can cause miscalibration.
- **Do not** remove the plastic cover on the display. It is there to protect the display from scratches that can occur when placing samples.

*Sigma Metalytics and the Precious metal Verifier Pro make no claim, guarantee or promise that measurements made by the Precious Metal Verifier Pro indicates that any sample is or is not the selected metal or alloy, whether the reading is within or is not within the bounds consistent with the selected metal or alloy. To insure accuracy, read the instructions and special conditions which can alter the reading from outside to within the expected bounds, or from within to outside the expected bounds. The readings given by the precious Metal Verifier Pro are INFORMATIONAL ONLY and any judgement about or action taken on any sample is entirely the responsibility of the user.*

# PMV Pro



# PMV PRO Functions

The PMV Pro is a revolutionary device used to electronically determine if the metal in a precious metal coin or bar is as expected.

**There are four measurements you can take with this instrument:**


- 1. Basic Verifier mode:** The PMV Pro measures the characteristic resistance or resistivity of the sample, just under the surface of the metal.
- 2. Thru Mode:** In this mode the PMV Pro measures completely through the metal in the sample. It measures the characteristic resistance or resistivity completely through the sample.
- 3. Thickness Measurement:** The PMV Pro electronically measures the thickness of the sample.
- 4. Dimension Verification:** The PMV Pro allows you to enter the weight of the sample, then determine if the overall dimensions are consistent with the expected metal. In this way you can check the specific gravity of the sample.

# POWER- ON CALIBRATE - MEASURE SCREEN

Press  
  
Power ON

Precious Metal  
Verifier Pro


Firmware Version: 1.01  
FPGA Version: 1.03  
Database: 1.03





Calibration required  
Remove sample.  
Press Cal button  
to start


Press  
  
Cal

Calibrating  
Please wait

Silver-Silver Pure 



Ready - Place Sample



Wt PM: 1.00    Ozt Tot: 1.00    Ozt  
DIM



Press



Metal

# SELECT METAL

Select Gold

Gold Pure
91.7% 22K bal Cu
90% Bal Cu
American Eagle
98.6%



Select Silver

Silver Pure
92.5% Sterling
90% Coin 1945
96% Britannia



Select Other

Platinum
Palladium
Rhodium
Copper
Calibrator



Select Silver

Silver Pure
92.5% Sterling
90% Coin 1945
96% Britannia

1. Press  
Either



Enter



Measure




Or

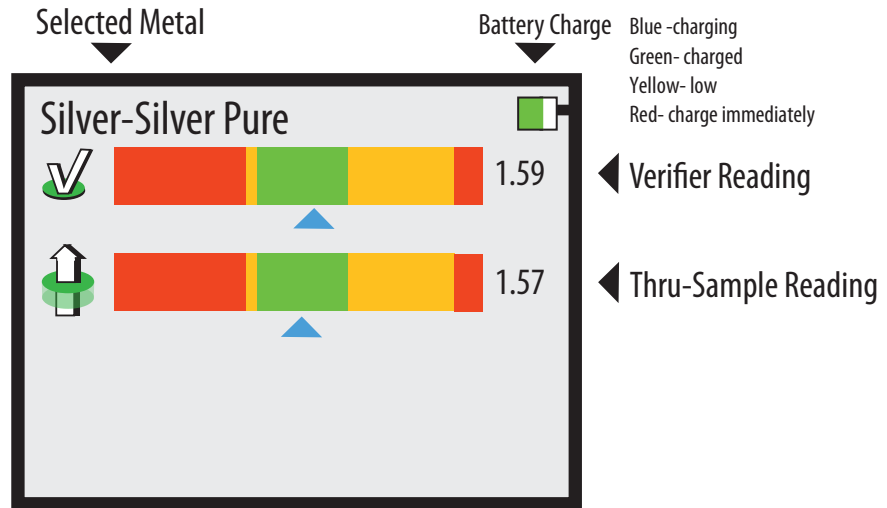


Weight

When Done

# MEASURE SCREEN (Basic)

-  Reading inconsistent with selected metal
-  Reading consistent with selected metal
-  Reading cautionary-Consistent but possibly affected by relief or contaminants

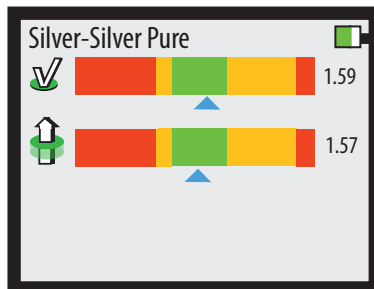
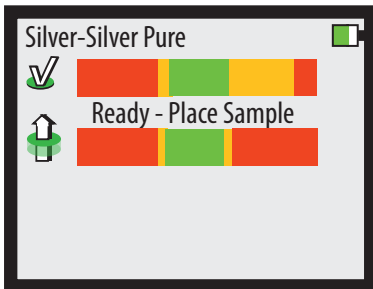


# INTERPRETATION

Press



Measure

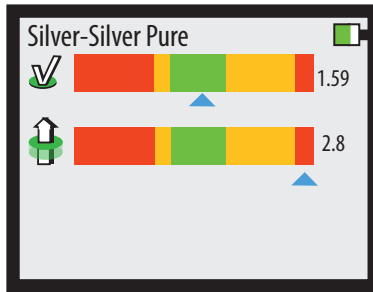
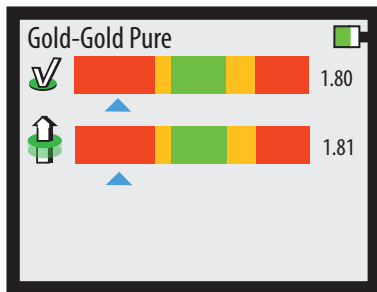


## GOOD READING

- Verifier & Thru readings consistent with selected metal

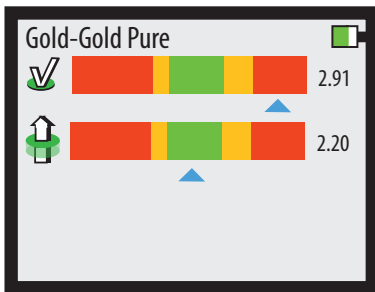
Other possible readings below:

Top arrow in red region: Verifier reading is **not** consistent with selected metal

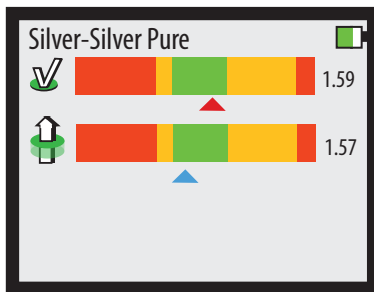


Readings will differ significantly

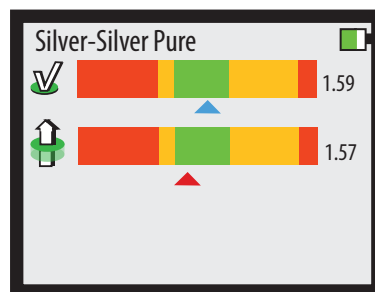
Bottom arrow in red region: Thru reading is **not** consistent with selected metal



Plated surface or excessive relief - flip sample over if possible



Top red arrow = sample too small  
Use smaller sensor if possible



Bottom red arrow = sample too thin  
Use smaller sensor if possible

A red arrow means treat reading with caution:

Press



Weight

# MEASURING DIMENSIONS WEIGHT MODE / WEIGHT SELECT

PM ( Precious Metal) Weights

English Units - Ozt

- 20
- 10
- 5
- 1**
- 1/2
- 1/4
- 1/10
- 1/20

Arrows  
L-R  
to select  
Units of PM



Metric Units - grams

- 250
- 100
- 50
- 30
- 20
- 10
- 5
- 1**

Arrows  
Up/Down  
to select  
Value

Metric Units - grams

- 250
- 100
- 50
- 30
- 20
- 10
- 5**
- 1



Enter Weight

English Units - Ozt  
PM Weight : **0.000**  
Total Weight: 0.000

Metric Units - grams  
PM Weight: 0.000  
Total Weight: 0.000



On/Off

Weight Mode

Off  
**On**

Press  
Either



Enter



Measure



Metal

When  
Done

# ENTER WEIGHT VALUE

The precious metal or total weight can be entered in oz troy or grams

**Enter Weight**  
 English Units - Ozt  
 PM Weight : 000**1.500**  
 Total Weight: 1.500  
 Select Other  
 Metric Units - grams  
 PM Weight: 0.000  
 Total Weight: 0.000

Arrows  
Up-Down  
to Select  
Weight  
Units  
& Type




**Enter Weight**  
 English Units - Ozt  
 PM Weight : **1.500**  
 Total Weight: 1.500  
 Metric Units - grams  
 PM Weight: 0.000  
 Total Weight: 0.000

Press  
 **Enter**  
to  
Change  
Number

**Enter Weight**  
 English Units - Ozt  
 PM Weight : **0001.500**  
 Total Weight: 1.500  
 Metric Units - grams  
 PM Weight: 0.000  
 Total Weight: 0.000

Arrows  
L-R  
Select  
Digit




**Enter Weight**  
 English Units - Ozt  
 PM Weight : 1.500  
**Total Weight: 1.500**  
 Metric Units - grams  
 PM Weight: 0.000  
 Total Weight: 0.000






Arrows  
Up-Down  
Increase  
/Decrease  
Digit value

**Enter Weight**  
 English Units - Ozt  
 PM Weight : 00**2.400**  
 Total Weight: 2.400  
 Metric Units - grams  
 PM Weight: 0.000  
 Total Weight: 0.000

Press  
 **Enter**


**Enter Weight**  
 English Units - Ozt  
 PM Weight : **2.400**  
 Total Weight: 1.500  
 Metric Units - grams  
 PM Weight: 0.000  
 Total Weight: 0.000



When Done Press



 Or 


**Measure**   **Metal**

Note weight entered ▶

Silver-Silver Pure 

  1.60

  1.58

Dia: 76.56 mm   Thick: 6.44 mm  
 Sample Area: 4604 sq mm  
 Wt PM: 2.4   Ozt Tot: 2.4  


# MEASURE SCREEN

Measure screen weight and size enabled\*

 Reading inconsistent with selected metal

 Reading consistent with selected metal

 Reading cautionary-Consistent but possibly affected by relief or contaminants

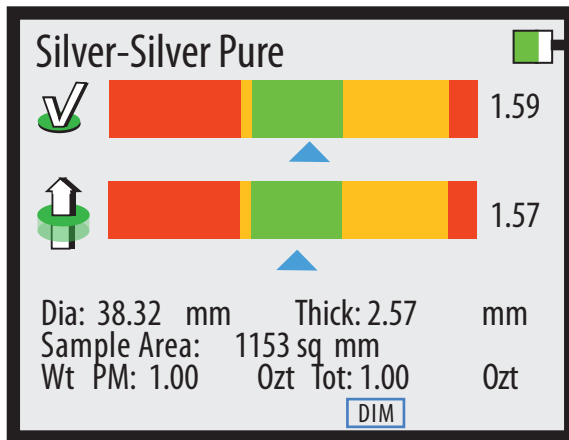
Diameter (round sample) mm

Sample Area

Precious Metal Weight  
Ozt or Grams

Selected Metal

Battery Charge (Blue when charging)



Verifier Reading  
Michrom- cm

Thru-Sample Reading  
Microh-Cm

Mechanical Thickness - mm

Total Weight - Ozt or Grams


Measure Dimensions  
Soft Key


\*See page 8 to turn on weight and size screen

# MEASURING SAMPLE DIMENSIONS

Instrument must have weight mode on and correct weight entered

Silver-Silver Pure [ ]

✓  1.60

↑  1.58

Dia: 76.56 mm    Thick: 6.44 mm

Sample Area: 4604sq mm

Wt PM: 10.00    Ozt Tot: 10.00    Ozt

[ DIM ]

Press  Measure

Select Sample Shape

[ Round ]

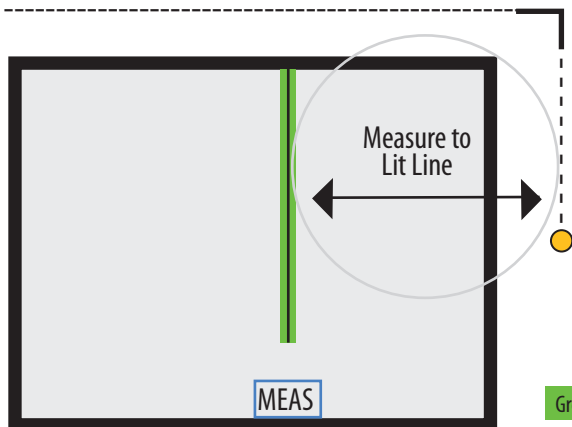
[ Rectangular ]

Choose Shape



Press  Enter

## Round Shape

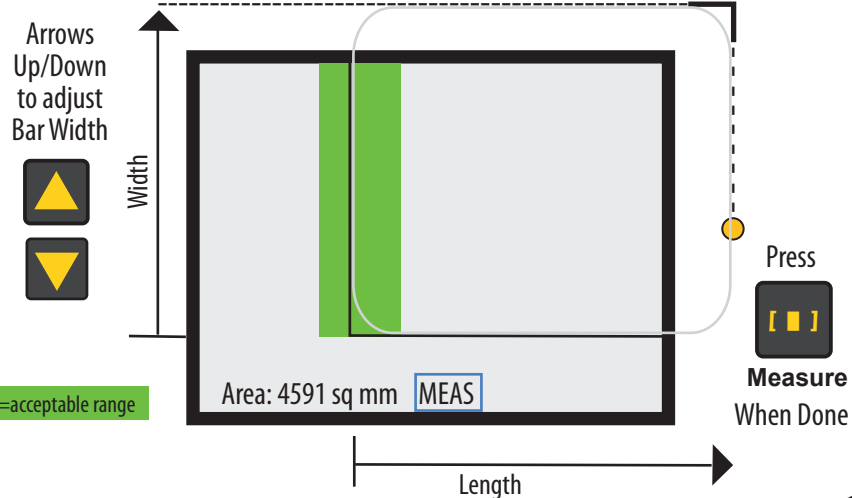


Measure to Lit Line

[ MEAS ]

Place right edge of coin or bar on lit line

## Rectangular Shape




Arrows Up/Down to adjust Bar Width

Width

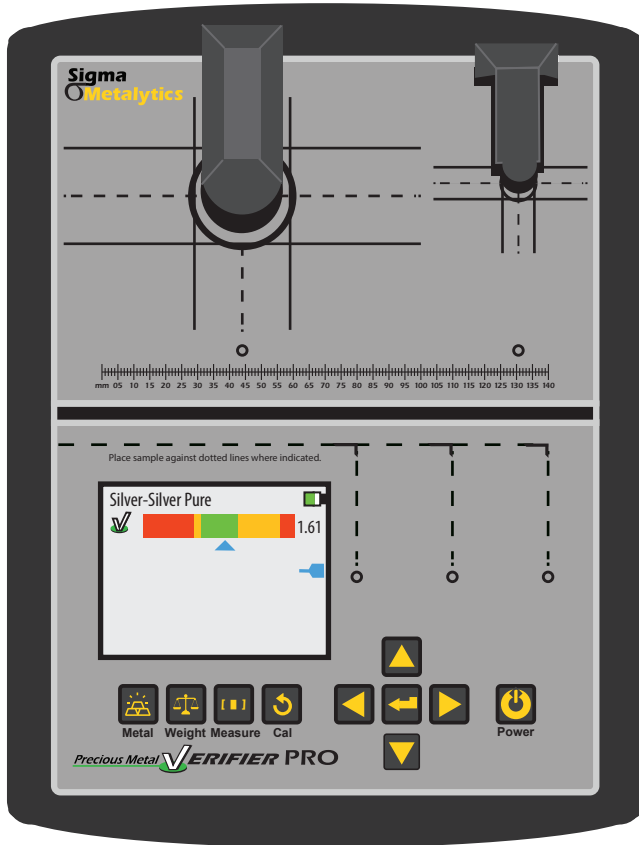
Area: 4591 sq mm [ MEAS ]

Length

Press  Measure When Done

Green Bars = acceptable range

# WAND USE



Plug in wand-  
wand icon will show on screen

Calibrate away from metal  
when using wand



Calibration required  
Remove sample.  
Press Cal button  
to start

Press   
Cal



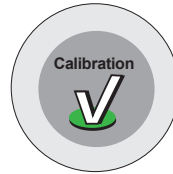
# Thickness Calibration

Press Cal and hold 3 seconds

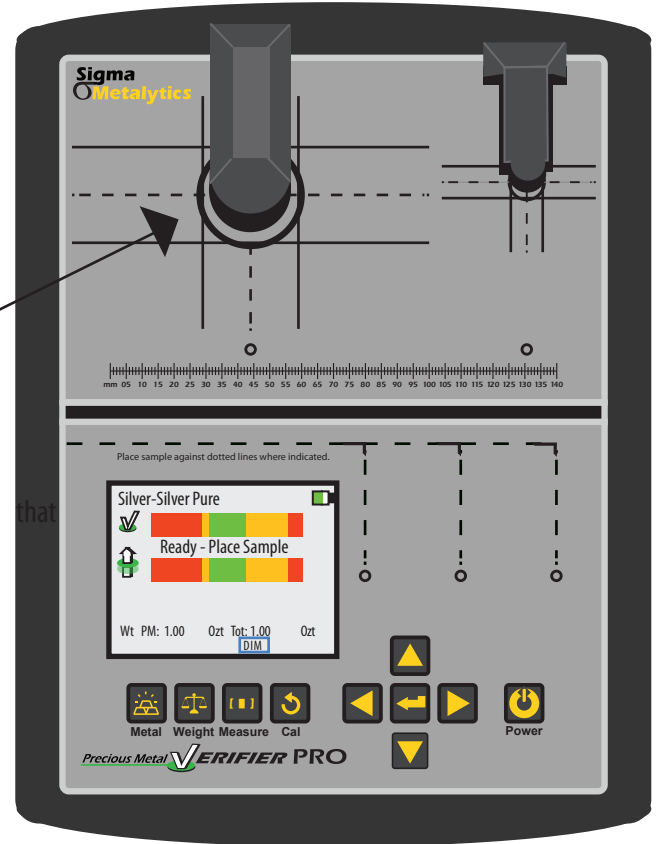


Cal

Place Calibrator  
under sensor.  
Press Enter button  
to cal

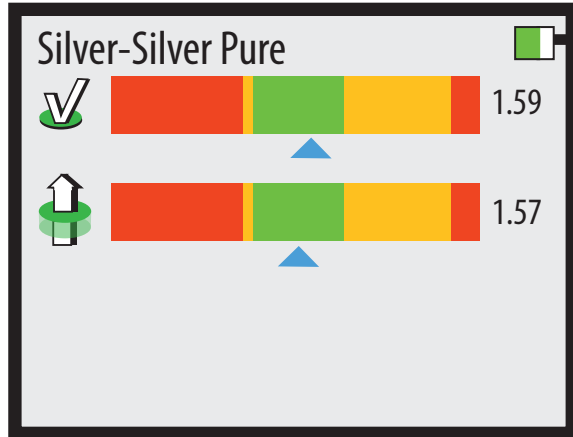


Place calibration  
coin under each sensor  
that needs to be  
calibrated



Press  When Done  
Enter

# SETUP SCREEN



Setup

Weight Mode:  On  Off

Display:  Resist  Conduct

Backlight:  Low  High

The figure shows a "Setup" screen with four settings, each with a radio button. The "Weight Mode" setting has "On" selected. The "Display" setting has "Resist" selected. The "Backlight" setting has "Low" selected.



Arrows  
Up/Down  
to select  
Category



Arrows  
L-R  
to select  
Condition



Press



**Measure**  
When Done

## **Sigma Metalytics Limited Hardware Warranty**

Sigma Metalytics products come with a 90-day limited hardware warranty. Sigma Metalytics offers different delivery methods for warranty service, including but not limited to parts, software dispatches, and mail-in service. This limited hardware warranty lasts for 90 days from the date listed on your receipt and covers defects in materials and workmanship in your Precious Metal Verifier and accessories. If you purchased through a retailer, you may be required to provide Sigma Metalytics with your original sales receipt from your purchase to receive our warranty service.

This limited hardware warranty does not cover problems that result from:

- External causes such as accident, abuse, misuse or problems with electrical power.
- Servicing not authorized by Sigma Metalytics.
- Usage that is not in accordance with product instructions.
- Failure to follow the product instructions.
- Problems caused by using accessories, parts or components not supplied by Sigma Metalytics.
- Products for which Sigma Metalytics has not received payment.
- Normal wear and tear.

For warranty service contact us at:  
[info@sigmametalytics.com](mailto:info@sigmametalytics.com)

Or call (530) 636-2768, long distance telephone carrier charges may apply.

Or mail us at:  
Sigma Metalytics  
PO Box 494  
Chico, CA 95927

***Precious Metal***  **VERIFIER PRO**  
MODEL #2601

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