

PMV PRO – Frequently Asked Questions

1. How does the PMV PRO work?

The PMV PRO measures a coin or metal bar that is placed between two sensors. A signal measures the surface of the sample and then sends another signal completely through the sample. The signal passing through the sample is detected on the other side. In this way, we can measure the resistivity (or conductivity) of the metal. Using the two sensors we can also determine the thickness of the sample.

2. How do I use the PMV PRO?

We have made several videos to show you how to use this instrument. Before using the PMV PRO it's best to watch the Introduction video. Go to the Instructions tab on this website, and select the dropdown box labeled PMV PRO Videos. Select the first video, Introduction, and this along with the manual will help you get started in verifying your precious metal items.

3. What is the difference between the two bars on the display?

The top bar measures just the surface of the bar a fraction of a mm deep. Even so, this is deep enough to look under hundreds of plating thicknesses. The bottom bar is the thru measurement that goes completely through the sample and can detect any deeply buried counterfeit metals.

4. How do I know which sensor to use?

The large sensor can measure samples that are between 1.5 to 12.5 mm thick (2.5 mm minimum for platinum, palladium and gold alloys), and at least 32 mm in width or diameter mm.

The small sensor is used for samples that are between .6 mm to 3.5 mm thick, and as least 15 mm in width of diameter.

Items thicker than 12.5 mm will need to Refiners wand and can only be measured in the standard surface measurement manner. The Refiners wand will detect tungsten under the surface of gold at a depth of 2.5 mm on each side of the sample.

Items too small for the small sensor can be measured using the Microwand which can measure items as thin as .3 mm in gold or silver, and .6 mm for platinum, palladium and gold alloys. it has a sensor spot size of 3 mm.

5. How can the PMV PRO measure the density of the bar?

The user selects the metal type and enters the weight of the sample. As we can measure the thickness of the sample, we can then show an image on the display to match what the diameter,

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or rectangular shape should be. If the sample does not match this defined shape displayed on the screen, then it must be an incorrect density.

6. How do I get the weight of the sample?

The PMV PRO is not a scale. You must use your own scale to check the actual weight of the sample.

7. How do I recharge the battery?

The battery is a standard lithium-ion battery, just like that found in a mobile phone. You can use the charger and cable that come with the unit. You can also charge the unit from another mobile phone charger, the USB connector from a computer, the USB connector in your car, or the USB connection on an power outlet.

8. What does the number next to the displayed image mean?

The number on the display is the characteristic resistance (resistivity) in micro-ohm cm. This number can be found on Wikipedia for base metals and other web sites. Using the setup screen on the unit we can change the display to show the number in a different manner, characteristic conductance (conductivity), in micro-Siemens per cm.