

## **Using the External Bridge**

When to use: It is best to use the large or small bridge on the main unit when possible. Conditions where you cannot use the bridge sensors and should use the External Bridge are listed below.

1. Pure gold, pure silver, or silver alloy bars that at least 50 mm (about 2 inches) wide and 12.5 mm (about ½ inch) thick. Potential uses include 100 oz silver bars and most gold Good Delivery bars.
2. Cases in which you are concerned about possible thick cladding on these larger bars or drilled out areas where other metals are inserted, and therefore a thru measurement of the resistivity of the bar is needed. Also, the ability to get an electronic density measure of the bar is needed to augment the resistivity measurement.

## **Refiners Wand**

When to use: It is best to use the large or small bridge on the main unit or the external bridge when possible. Conditions where you cannot use the bridge sensors and should use the Refiners wand are listed below.

1. PRO set with no external bridge – Pure silver, silver alloy, and gold samples thicker than 12.5 mm and at least 24 mm wide.
2. PRO set with external bridge – Samples that are more than 45 mm thick, or greater than 12.5 mm thick *and* between 24 and 50 mm wide:

## **Small Wand**

When to use: It is best to use the large or small bridge on the main unit or the external bridge when possible. Conditions where you cannot use the bridge sensors and should use the Small wand are listed below.

1. PRO set with or without the External Bridge – The Small Wand is useful for items in cardboard security cases that will not fit under the small bridge and items such as 1-gram gold bars that are too narrow or too thin for the small bridge.

## **Large Wand**

When to use: It is best to use the large or small bridge on the main unit or the external bridge when possible. Conditions where you cannot use the bridge sensors and should use the Large wand are listed below.

1. PRO set with or without the External Bridge – The Large Wand is useful for items in numismatic holders such as ½ ounce and some ¼ ounce coins that will not fit under the small bridge. It is also useful for checking the surface resistivity of many coins quickly.

**Sensor Specifications chart on the following page.**

# PMV PRO Sensor Specifications

3-Mar-20

Sensor	Metal Type	Sample Thickness		Minimum Sample Diameter/Width (mm)	Detection Limit Gold over Tungsten (G.O.T.) (mm)
		Maximum Thickness (mm)	Minimum Thickness (mm)		
Large Bridge Main Unit	Silver & Silver Alloys	12.5	1.5	32.0 for coins	12.5
	Pure Gold		1.5		
	Platinum, Palladium, & Gold		2.5	28.0 for bars	
	Rhodium		2.0		
Small Bridge Main Unit	Silver & Silver Alloys	3.5	0.5	15.0 for coins	3.5
	Pure Gold		0.5		
	Platinum, Palladium, & Gold		0.8	10.0 for bars	
	Rhodium		0.6		
External Bridge Plug-in	Silver & Silver Alloys	45.0	12.0	50.0	45.0
	Pure Gold				
	Platinum, Palladium, & Gold				
	Rhodium				
Refiners Wand Plug-in	Silver & Silver Alloys	No limit	6.5	24	2.5
	Pure Gold		7.5		
Small Wand Plug-in	Silver & Silver Alloys	No limit	0.4*	8	0.18
	Pure Gold		0.4*		
	Platinum, Palladium, & Gold		0.8*		
	Rhodium		0.8*		
	<i>*use cal disk below sample</i>				
Large Wand Plug-in	Silver & Silver Alloys	No limit	0.4*	18	0.25
	Pure Gold		0.4*		
	Platinum, Palladium, & Gold		0.8*		
	Rhodium		0.8*		
	<i>*use cal disk below sample</i>				