

PRESIDIUM[®]

GEM COMPUTER GAUGE



USER HANDBOOK : MARCH 8, 2007

Introduction

The Presidium Gem Computer Gauge (PGCG) has been developed as an extension to the existing Presidium Electronic Gemstone Gauge (PEGG) with additional features to perform more functions. The additional features include:

- a) a Specific Gravity (S.G.) dictionary of common stones
- b) provide assistance to users in calculating prices of gemstones
- c) estimate weight of gemstones
- d) as Gemstone Estimator using S.G. values
- e) CD with an extension to more gemstones
- f) USB interface with PC or laptop

Specifications

- Measuring range: 0.00mm to 25.00mm or 0.000ct to 57.343ct*
 - Recommended battery: CR 2450 3V or equivalent
 - Battery life-span : about 80 hours of continuous usage
- *Measurement based on round brilliant cut

The Presidium Gem Computer Gauge (PGCG) Package

- | | |
|-------------------------|--------|
| 1. Gauge | 1 unit |
| 2. CR 2450 3V Battery | 1 unit |
| 3. Jewellery Attachment | 1 unit |
| 4. User Manual | 1 unit |
| 5. Protective Box | 1 unit |
| 6. Gift box | 1 unit |
| 7. USB Cable | 1 unit |
| 8. CD Software | 1 unit |

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Specifications

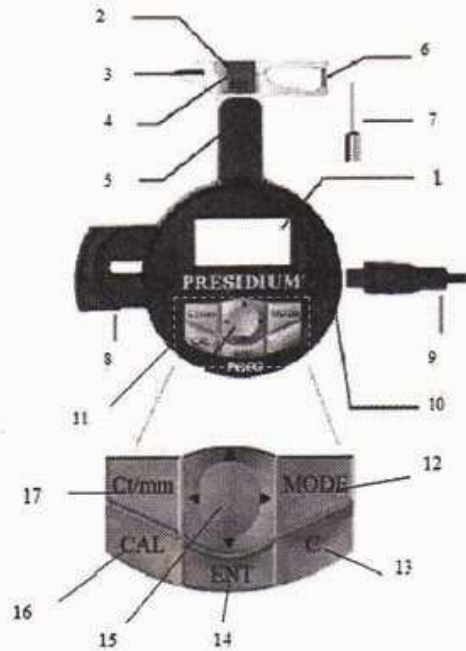
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PGCG Overview

- | | |
|-------------------------|-------------------------------|
| 1. LCD Display | 10. USB Port |
| 2. Base Anvil | 11. Selection Keypad |
| 3. Wedge-shaped Points | 12. Function Selection key |
| 4. Slider | 13. Clear key |
| 5. Slider Platform | 14. Enter key |
| 6. Protruding Probe | 15. Navigation Keypad |
| 7. Jewellery Attachment | 16. Calculator Activation key |
| 8. Battery Compartment | 17. Unit Conversion key |
| 9. USB Cable | |

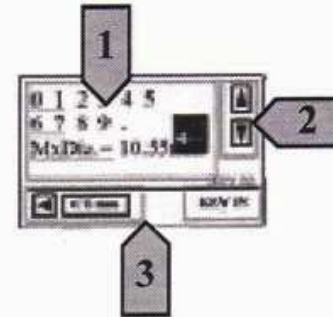


Getting to know PGCG

Display Configuration

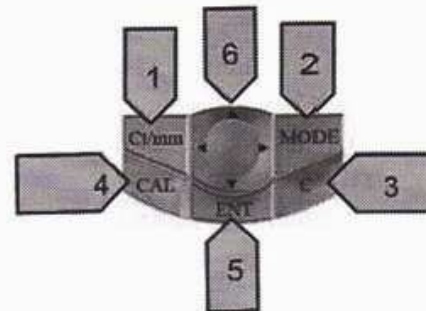
The LCD display of PGCG is generally divided into three sections.

1. Interactive display
2. Scroll bar
3. Instruction bar



Keypad Configuration

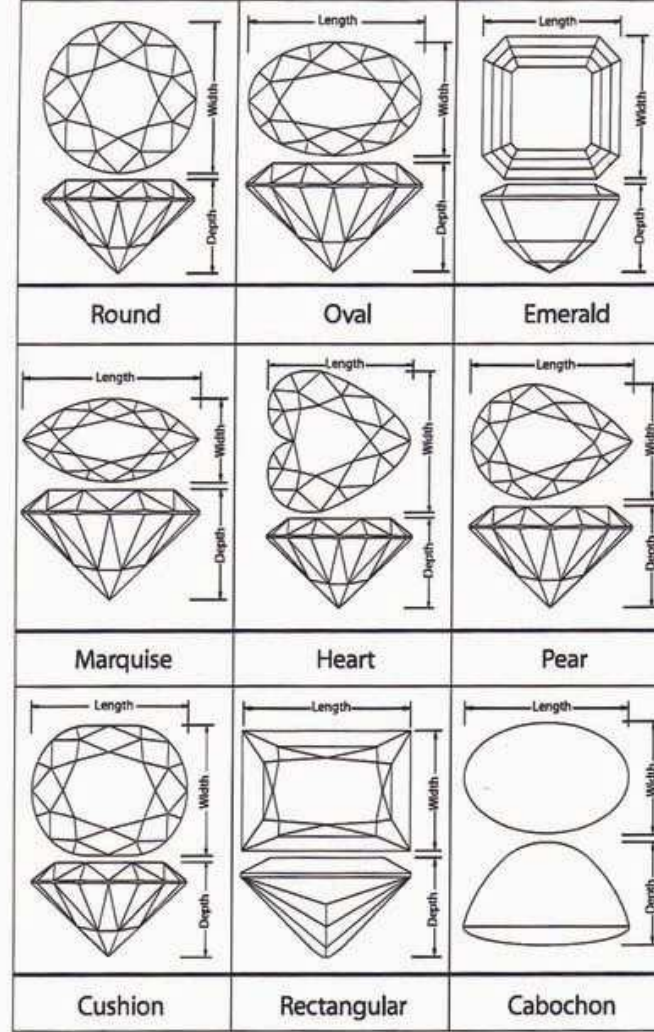
Please refer to table below for the function of each key on the selection keypad. Some keys will have more than one function.



	Name	Normal Function	Additional Function
1	Carat \leftrightarrow mm	Press to change measurement unit between millimeter(mm) and carat(ct)	In "Weight Estimator" and "Gemstone Estimator" mode, press to toggle between "Measurement" and "Keypad" to input dimension
2	Mode	Press to display the function selection menu	
3	Cancel	Press to delete items	<ul style="list-style-type: none"> • Press to turn on PGCG • In "Measurement" mode, press for tare/zero function
4	Calculator	Press to activate calculator mode	In "Weight Estimator" mode, press for price calculation
5	Enter	Press to confirm selection	
6	Navigation keypad	Press to navigate data in interactive display	

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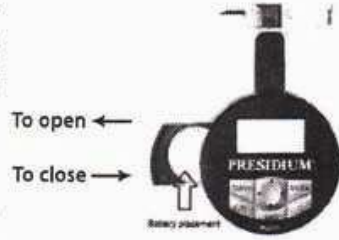
Different shapes and their respective dimensions required for 'Weight Estimator' and 'Gemstone Estimator' modes.



5

**Getting Started
To Insert Battery**

1. Pull the battery slider sideways outward using either fingernail or screw driver.
2. Place a CR 2450 3V or equivalent battery with (+) sign facing upward in the battery compartment and close by pushing the battery slider sideways inward.



To Turn on PGCG

1. Press the "C" button on the selection keypad.
2. The word "Presidium" will appear and the device will automatically go to "Measurement" mode.
3. The screen will display two lines; the first being measurement in millimeter unit and the second line being measurement in carat unit*.

Please note that the PGCG unit will automatically shut down after 5 minutes of inactivity.

*Measurement based on round brilliant cut

Using the PGCG

1. By default, upon power up, the device will be in "Measurement" mode.
2. PGCG comes with the following functions:
 - a) Measurement
 - b) Weight Estimator
 - c) Specific Gravity (S.G.) Dictionary
 - d) Gemstone Estimator
 - e) Calculator
 - f) Inventory
3. To use other functions, press "Mode" on the selection keypad and choose a function from the list.

Measurement
The default setting of Presidium Gem Computer Gauge (PGCG) is programmed for American Standard Round Brilliant Cut.




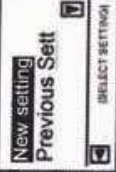


	Requirement	Activation Key	Display
1	Upon turning on, PGCG will display dimension in mm and weight in Carat: 1. Press "C" to turn on		0.00 mm 0.000 ct
2	For display of dimension in mm only: 1. Press "Ct/mm"		0.00 mm
3	For display of weight in Carat only: 1. Press "Ct/mm" again		0.000 ct

Press "Ct/mm" to alternate between the following displays:






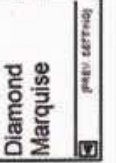


1. Display of both dimension in mm and weight in carat (by default)
2. Display of dimension in mm only
3. Display of weight in carat only

Weight Estimator







Presidium Gem Computer Gauge (PGCG) estimates the weight of the gemstone from the shape, diameter, depth and nature of the gemstone.




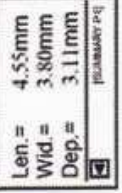

	Requirement	ActivationKey	Display
1	For Weight Estimator function: ①Select Mode ②Scroll to Weight Estimator ③Press "ENT" to confirm		
2	Select New or Previous Setting ①Scroll to select ②Press "ENT" to confirm		
3.1 New Setting	Select Gemstone name: ①Scroll to select gemstone name by the first alphabet. ②Press "ENT" to confirm		




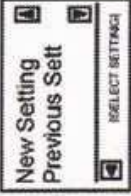
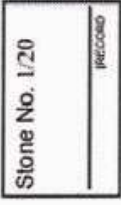
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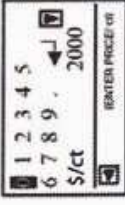
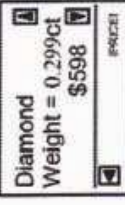


	Select a Gemstone: ①Scroll to select ②Press "ENT" to confirm		
	Select a Shape': ①Scroll to select ②Press "ENT" to confirm 'Please refer to Page 5 for the illustrations of the shapes.		
3.2 Previous Setting	Setting of previous gemstone will be displayed: • Press "ENT" to confirm		
4	Select method of measurement: ①Scroll to select from measurement or keypad ②Press "ENT" to confirm		

∞

4.1 Measurement	<p>Measurement of Diameter:</p> <ul style="list-style-type: none"> Place gemstone's diameter on base anvil Press "ENT" to confirm 		
4.2 Keypad	<p>Measurement of Depth:</p> <ol style="list-style-type: none"> Place gemstone's depth on base anvil Press "ENT" to confirm <p>The different dimensions to be input depend on the shape of the gemstone. Please refer to Page 5 for shape and their respective dimensions required.</p> <p>Keying of Diameter:</p> <ol style="list-style-type: none"> Key in gemstone's diameter To confirm entry, navigate cursor to ↵ and press "ENT" 		
			

	<p>Keying of Depth:</p> <ol style="list-style-type: none"> Key in gemstone's depth To confirm entry, navigate cursor to ↵ and press "ENT" <p>Please note that at any point, pressing Ct/mm will toggle between "Keypad" or "Measurement" input methods</p>		
5	<p>Summary of gemstone's required dimension for calculation</p> <ul style="list-style-type: none"> Press "ENT" to confirm 		
6	<p>Estimated weight of gemstone will be displayed. At this point, user can either press "Ent" to store or "Cal" for price calculation. Details will be given in 6.1 and 6.2 below</p>		


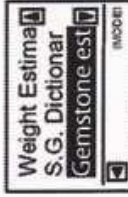
		<p>To store data into inventory:</p> <ul style="list-style-type: none"> ① Press "ENT" to store data ② Scroll to select "YES/NO" 		
6.1 Storing Data		<p>① If user selects "NO", display will return to "Select Setting" for next measurement. User will have the liberty to choose between previous or new settings.</p> <p>② Press "ENT" to confirm</p> <p>① If user selects "YES", details of gemstone will be stored in "Inventory"</p> <p>② Press "ENT" to confirm</p> <p>Upon storing of data, display will return to "Select Setting" for next measurement. User will have the liberty to choose between previous or new setting for gemstones.</p>		 




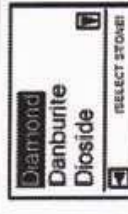

6.2 Price Calcula- tion		<p>Price calculation of gemstone:</p> <ul style="list-style-type: none"> • Press "CAL" <p>Keying of price:</p> <p>① For data entry, navigate cursor to select data and press "ENT"</p> <p>② To confirm price per carat, navigate cursor to \downarrow and press "ENT"</p> <p>Price of gemstone will be displayed</p> <p>Storing of data into inventory:</p> <ul style="list-style-type: none"> • Press "ENT" to store data • Scroll to select "YES" in option to store • Press "ENT" to confirm 		
				
				
				

	<ul style="list-style-type: none"> Upon storing of data, display will return to "Select Setting" for next measurement <p>Please note only the settings of the gemstone are stored. Storing function is similar to section 6.1 above. The price of the gemstone will not be stored.</p>	
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S.G. Directory

↳ Presidium Gem Computer Gauge (PGCG) serves as a directory for S.G. values of selected gemstones.

	Requirement	Activation Key	Display
1	For S.G. function: ① Select Mode ② Scroll to S.G. Dictionary ③ Press "ENT" to confirm		

2	Select Gemstone name: ① Scroll to select gemstone name by the first alphabet ② Press "ENT" to confirm		
3	Select a Gemstone: ① Scroll to select ② Press "ENT" to confirm		
4	S.G. value of selected gemstone will be displayed		

List of gemstones

The following gemstones' SG values are stored in Presidium Gem Computer Gauge (PGCG):
Common stones (sorted in alphabetical order)




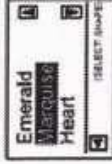


Albite feldspar	Danburite	Labradorite feldspar	Quartz	Synthetic emerald
Alexandrite	Diamond	Lapis lazuli	Rhodochrosite	Synthetic rutile
Almandine garnet	Diopside	Malachite	Rhodolite garnet	Synthetic spinel
Amber	Dioptase	Microcline	Rhodonite	TL grossularite garnet
Andalusite	Fluorite	Moissanite	Sapphire	Topaz
Andradite garnet	GGG	Moldavite	Scapolite	Tourmaline
Apatite	Glass	Nephrite	Serpentine	TP grossularite garnet
Benitoite	Hematite	Obsidian	Shell	Turquoise
Beryl	Idocrase	Oligoclase feldspar	Sinhalite	Verdite
Brazilianite	Iolite	Opal	sodalite	Y.A.G.
Calcite	Ivory	Orthoclase feldspar	Spessartite garnet	Zircon (high)
Chalcedony	Jadeite	Pearl	Sphene	Zircon (low)
Coral	Jet	Peridot	Spinel	Zircon (medium)
Corundum	Kornerupine	Plastic	Spodumene	Zoisite
Cubic zirconium oxide	Kyanite	Pyrope garnet	Strontium titanate	

16








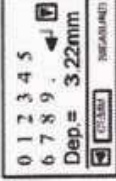
Gemstone Estimator







Presidium Gem Computer Gauge allows user to identify a gemstone from its S.G.,

Please note that the weight of gemstone will be needed from other source for the identification of gemstone.

	Requirement	ActivationKey	Display
1	For Gemstone Estimator function: ①Select Mode ②Scroll to Gemstone Estimator ③Press "ENT" to confirm		
2	Select a Shape ³ : ①Scroll to select ②Press "ENT" to confirm ³ Please refer to Page 5 for the illustrations of the shapes.		
3	Select method of measurement: ①Scroll to select from measurement or keypad ②Press "ENT" to confirm		

17

3.1 Measurement ⁴	Measurement of Diameter: •Place gemstone's diameter on base anvil •Press "ENT" to confirm		
3.2 Keypad	Measurement of Depth: •Place gemstone's depth on base anvil •Press "ENT" to confirm		
	Keying of Diameter: ①Key in gemstone's diameter ②To confirm entry, navigate cursor to ↓ and press "ENT"		
	Keying of Depth: ① Key in gemstone's depth ② To confirm entry, navigate cursor to ↓ and press "ENT"		

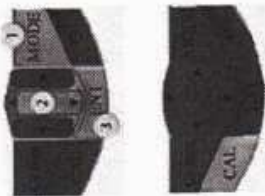
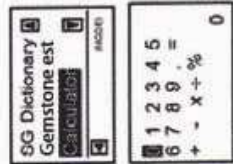


	Please note that at any point, pressing Ct/mm will toggle between "Keypad" or "Measurement" input methods		
4	Keying of weight: ①Key in gemstone's weight ②To confirm entry, navigate cursor to ↓ and press "ENT"		
5	S.G. value of gemstone will be calculated. List of gemstones ⁵ with associated SG value will be displayed. If "NOT FOUND IN RECORD" is displayed on the screen, press "Ent" again to return to dimension entering page where user can key in the gemstone dimension again or press "MODE" to exit to main menu for other functions.		

⁴The different dimensions to be input depend on the shape of the gemstone. Please refer to Page 5 for different shapes and their respective dimensions required.

⁵Please refer to Page 16 for the list of gemstones included in PGCG

Calculator


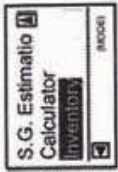
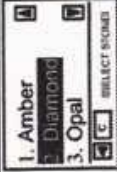

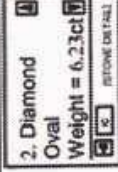

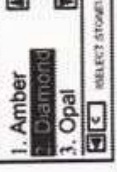
Presidium Gem Computer Gauge (PGCG) allows simple calculation to be done for user.

	Requirement	Activation Key	Display
1	<p>For Calculator function:</p> <ol style="list-style-type: none"> 1) Select Mode 2) Scroll to Calculator 3) Press "ENT" to confirm Alternatively, press "CAL" (at selection keypad) to select Calculator mode 		
2	<p>Calculation:</p> <ul style="list-style-type: none"> For data entry, navigate cursor to select data and press "ENT" 		








20




Inventory

Presidium Gem Computer Gauge (PGCG) allows users to store details (Identify of gemstone, shape and weight) of gemstones for future reference.

	Requirement	Activation Key	Display
1	<p>For Inventory function:</p> <ol style="list-style-type: none"> 1) Select Mode 2) Scroll to Inventory 3) Press "ENT" to confirm 		
2	<p>All gemstones stored in memory will be listed</p>		
3	<p>Select gemstone's details:</p> <ol style="list-style-type: none"> 1) Scroll to select 2) Press "ENT" to confirm 		
4	<p>Deletion of selected gemstone's details</p> <ol style="list-style-type: none"> 1) Scroll to selected gemstone record that you want to delete 2) Press "ENT" to confirm 		

21

			
<ul style="list-style-type: none"> • Press "C" to delete 			
<ol style="list-style-type: none"> ① Select "Delete" from deletion option and press "ENT" to confirm ② Select "Yes" and press "ENT" to confirm 			
<p>Deletion of all gemstone's details</p> <ol style="list-style-type: none"> ① Scroll to any gemstone record ② Press "ENT" to confirm 			
Press "C" to delete			

			
<ol style="list-style-type: none"> ① Select "Delete All" from deletion option and press "ENT" to confirm ② Select "Yes" and press "ENT" to confirm 			
			

PC Connectivity

Presidium Gem Computer Gauge (PGCG) comes with a CD as an extension to more gemstones selection.

PRESIDIUM[®]
INTERNATIONAL
WARRANTY

PRESIDIUM INSTRUMENTS PTE LTD (hereafter "PRESIDIUM") hereby warrants, subject to the conditions hereinbelow set forth in paragraphs numbered "1" through "4", that will repair or replace any part of the enclosed PRESIDIUM Gem Computer Gauge unit which proves defective by reason of improper workmanship and/or material for a period of 12 months from the date of original purchase, without charge for part or labour.

- 1) Purchase: The unit shall have been purchased from a distributor authorized by PRESIDIUM to sell the same.
- 2) Unauthorized Repair, Abuse, etc.: The unit shall not have been previously altered, repaired or serviced by anyone other than a distributor authorized by PRESIDIUM to sell and service the same. The serial number on the unit shall not have been altered or removed, the unit shall not have been subject to accident, misuse or abuse.
- 3) Proper Shipment: The unit shall be shipped, freight or postage paid, or delivered to a distributor appointed by PRESIDIUM in either its original package or a similar package affording an equal degree of protection.
- 4) The party requesting the services provided hereunder shall be the original purchaser of the unit and furnish proof thereof at the time of such request. Submission of properly validated Warranty Card bearing the date of purchase accompanied by an invoice or receipt issued by a distributor authorized by PRESIDIUM to sell the same, may be deemed sufficient for this purpose.

EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, NO OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL APPLY TO THIS UNIT. UNDER NO CIRCUMSTANCES SHALL PRESIDIUM BE LIABLE FOR DIRECT OR INDIRECT DAMAGES SUSTAINED IN CONNECTION WITH THE SAID UNIT AND PRESIDIUM NEITHER ASSUMES NOR AUTHORIZES ANY REPRESENTATIVE OR OTHER PERSON TO ASSUME FOR IT ANY OBLIGATION OR LIABILITY OTHER THAN SUCH AS IS EXPRESSLY SET FORTH HEREIN.

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