This section contains technical information about the PV Unit.

Date Formats

The following describes the date formats that can be set for the system (page 168).

Format	Description
M/D/Y	Month/Day/Year. Example: Jan/31/2001
D/M/Y	Day/Month/Year. Example: 31/Jan/2001
Y/M/D	Year/Month/Day. Example: 2001/1/31

Time Formats

The following describes the time formats that can be set for the system (page 168).

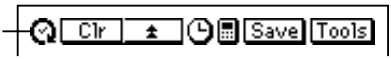
Format	Description
12-hour	Represents time in two blocks, from midnight to 11:59am, and from noon to 11:59pm.
24-hour	Represents time as a single block, from 0:00 to 23:59. This format is often referred to as “military time.”

Tool Bars

The PV Unit uses standard tool bars for data input and display. The following shows typical examples of these toolbars, and describes the items that can appear in each.

Data Input Tool Bar

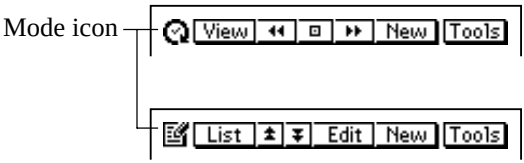
Mode icon



Button	Description
Mode icon	Indicates the mode you are currently in.
Clr	Clears all characters in the entry (field) where the cursor is located. In the Contacts Mode, pressing this button clears the data from all the input fields for the data item (record) you are inputting.
	Pastes the current date and time as being kept by the main clock at the current cursor location.
	Displays a calculator.
	Advances to the next screen.
	Returns to the previous screen.
Save	Saves input data and closes the input screen.
List	In the Quick-Memo Mode, tapping this button changes to the list view.
Tools	Displays the pop up tool screen.

- The above table shows all the buttons that can possibly appear in a data input tool bar. Depending on mode and other factors, some of the tools shown above may not be included in a data input tool bar.

Data Display Tool Bar



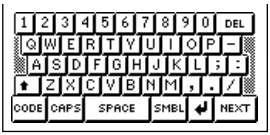
Button	Description
Mode icon	Indicates the mode you are currently in.
View	Displays a menu of other views that can be used to display data.
	In the Scheduler and Expense Manager modes, jumps to today's date as kept by the PV Unit's built-in clock.
	Advances to the next item.
	Returns to the previous item.
New	Displays the new data input screen.
List	Returns to the list screen from a Contacts, Memo, Expense Manager, and Quick-Memo mode data screen.
Edit	Changes to the data editing screen for the current data item.
Tools	Displays the pop up tool screen.

- The above table shows all the buttons that can possibly appear in a data display tool bar. Depending on mode and other factors, some of the tools shown above may not be included in a data display tool bar.

Keyboard Formats

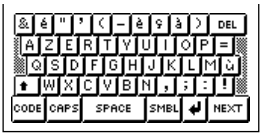
The PV Unit provides you with a selection of keyboard formats.

QWERTY



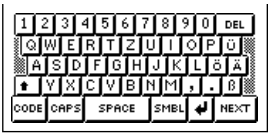
This format is automatically selected when English, Spanish, or Italian is set as the system language.

AZERTY



This format is automatically selected when French is set as the system language.

QWERTZ



This format is automatically selected when German is set as the system language.

Scheduler Mode Alarms

- When you set an alarm time for a Schedule, To Do, or Reminder item, an alarm sounds for about 20 seconds when the alarm time is reached on the date that is also specified for the data item.
- Alarms may fail to sound when battery power is low.
- Alarms are deleted automatically after the Scheduler alarm time is passed. You cannot set an alarm time for a date and time that are already passed.
- Up to 100 Scheduler alarm times can be set at one time.

Input Limits

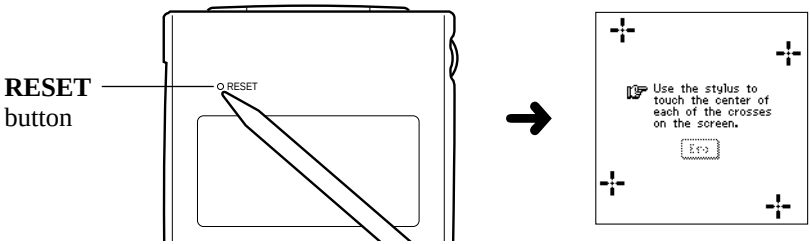
The following table shows the maximum number of characters that can be input into various fields.

Mode	Entry (Field)	Maximum Number of Characters
Schedule	Description	2,046
To Do	Description	2,046
	Category	14
Reminder	Description	2,046
Contacts	–	2,036
	Category	14
	Item	12
Memo	Description	2,048
Expense Manager	Amount	8
	Payment Type	14
	Expense Type	14
	Description	2,008
Search	–	12
Password	–	12
Clipboard	–	2,048

Resetting the PV Unit

Warning!
The following procedure erases all data stored in the memory of the PV Unit. Perform this operation only when you want to delete all data and initialize the settings of the PV Unit.
Remember - you should always keep copies of important data by writing it down, or by transferring it to a personal computer.

1. Open the cover and touch the screen with the stylus to turn on power.
2. Use the stylus to press the **RESET** button on the back of the PV Unit.



- If the above does not appear on the display when you press the **RESET** button, slide the battery switch to the REPLACE BATTERIES position and remove the battery compartment cover. Use the stylus to press the **P** button and then replace the battery compartment cover. Slide the battery switch back to the NORMAL OPERATION position and then press the **RESET** button.

3. Tap the center of each of the four cross marks as they appear on the screen.

- The contrast adjustment screen appears next.

4. Tap ◀ or ▶ to adjust the contrast of the display, and then tap **OK**.

5. In response to the message that appears, tap **Yes** to reset the PV Unit and clear all memory contents, or **No** to abort the reset procedure without doing anything.
6. If you tapped **Yes** in the above step, a second confirmation message appears. Tap **Yes** to reset the PV Unit and clear all memory contents, or **No** to abort the reset procedure without doing anything.

- Tapping **Yes** in the above step starts the actual reset procedure.

7. After the reset procedure is complete, tap the button next to the language you want to select as the system language.
8. Tap **Set** to change to the pop up tool screen.
9. Check the time setting and correct it if necessary (page 166).

- Following are the initial settings of the PV Unit after you perform the RESET operation.

Main clock:	Clock 1 London Jan/1/2001 12:00 am 12-hour format
Clock 2:	New York
Daily Alarm:	12:00 pm
Sound:	Daily Alarm off, all others on
Character input:	CAPS off

Euro Conversion Rate Presets

Country	Currency Code	Rate (for 1 euro)	Decimal Places
Germany	DEM	1.95583	2
France	FRF	6.55957	2
Italy	ITL	1936.27	0
Spain	ESP	166.386	0
Netherlands	NLG	2.20371	2
Belgium	BEF	40.3399	0
Portugal	PTE	200.482	0
Austria	ATS	13.7603	2
Finland	FIM	5.94573	2
Ireland	IEP	0.787564	2
Luxembourg	LUF	40.3399	0

Storage Capacity

The memory capacity of the PV-S450 is 4-Mbyte (2-Mbyte for the PV-S250). The following shows the number of items that can be stored.

Scheduler

Approximately 32,000 items (24,400 for the PV-S250) with 20-character description.

Approximately 27,320 items (12,200 for the PV-S250) with 60-character description.

Contacts

Approximately 32,000 items (24,400 for the PV-S250), under the following conditions.

8-character name
10-character home phone number
10-character home fax number
20-character home address

Approximately 18,210 items (8,130 for the PV-S250), under the following conditions.

8-character name
10-character business phone number
10-character business fax number
40-character business address
20-character company name
20-character department
20-character position

Memo

Approximately 3,210 items (1,430 for the PV-S250), 1,024-character memos.

Expense Manager

Approximately 27,320 items (12,200 for the PV-S250), under the following conditions.

10-character description
Expense type and payment type set

Quick-Memo

Approximately 1,300 items (580 for the PV-S250).

Auto Sort Sequence

The following table shows the sequence used for alphabetical data sorts.

1	(space)	34	A	67	b	100	Ú	133	Ã	166	²
2	!	35	B	68	c	101	À	134	Õ	167	³
3	”	36	C	69	d	102	È	135	Ñ	168	m
4	#	37	D	70	e	103	Ì	136	IJ	169	½
5	$	38	E	71	f	104	Ò	137	Æ	170	¼
6	%	39	F	72	g	105	Ù	138	Ç	171	¾
7	&	40	G	73	h	106	Â	139	Å	172	ƒ
8	’	41	H	74	i	107	Ê	140	F	173	|
9	(	42	I	75	j	108	Î	141	ß	174	Fr
10	)	43	J	76	k	109	Ô	142	¶	175	‹
11	*	44	K	77	l	110	Û	143	¢	176	fi
12	+	45	L	78	m	111	¡	144	ä	177	√
13	,	46	M	79	n	112	á	145	ë	178	§
14	–	47	N	80	o	113	é	146	ï	179	›
15	.	48	O	81	p	114	í	147	ö	180	ˇ
16	/	49	P	82	q	115	ó	148	ü	181	fl
17	0	50	Q	83	r	116	ú	149	ã	182	-
18	1	51	R	84	s	117	à	150	õ	183	ÿ
19	2	52	S	85	t	118	è	151	ñ	184	®
20	3	53	T	86	u	119	ì	152	ij	185	«
21	4	54	U	87	v	120	ò	153	æ	186	»
22	5	55	V	88	w	121	ù	154	ç	187	©
23	6	56	W	89	x	122	â	155	å	188	¤
24	7	57	X	90	y	123	ê	156	f	189	¶
25	8	58	Y	91	z	124	î	157	£	190	Ð
26	9	59	Z	92	{	125	ô	158	¥	191	ı
27	:	60	[	93	¦	126	û	159	W	192	Þ
28	;	61	\	94	}	127	¿	160	ª	193	þ
29	<	62	]	95	~	128	Ä	161	º	194	ý
30	=	63	ˆ	96	Á	129	Ë	162	×	195	Ý
31	>	64	—	97	É	130	Ï	163	÷	196	•
32	?	65	`	98	Í	131	Ö	164	–	197	¹
33	@	66	a	99	Ó	132	Ü	165		198	€

City Name List

City Name	Time Difference
Abidjan	– 0:00
Abu Dhabi	+ 4:00
Acapulco	– 6:00
Accra	– 0:00
Addis Ababa	+ 3:00
Adelaide	+ 9:30
Aden	+ 3:00
Al Manamah	+ 3:00
Algiers	+ 1:00
Alice Springs	+ 9:30
Amman	+ 2:00
Amsterdam	+ 1:00
Anchorage	– 9:00
Andorra	+ 1:00
Ankara	+ 2:00
Antananarivo	+ 3:00
Asuncion	– 4:00
Athens	+ 2:00
Atlanta	– 5:00
Auckland	+12:00
Azores	– 1:00
Baghdad	+ 3:00
Baltimore	– 5:00
Bangkok	+ 7:00
Barcelona	+ 1:00
Basel	+ 1:00
Beirut	+ 2:00
Belgrade	+ 1:00
Bergen	+ 1:00
Berlin	+ 1:00
Birmingham	– 6:00
Bismarck	– 6:00
Bogota	– 5:00
Boise	– 7:00
Bonn	+ 1:00
Boston	– 5:00
Brasilia	– 3:00
Brazzaville	+ 1:00

City Name	Time Difference
Brisbane	+10:00
Broken Hill	+ 9:30
Brussels	+ 1:00
Bucharest	+ 2:00
Budapest	+ 1:00
Buenos Aires	– 3:00
Cairo	+ 2:00
Calcutta	+ 5:30
Canberra	+10:00
Cape Town	+ 2:00
Caracas	– 4:00
Casablanca	– 0:00
Cayenne	– 3:00
Chatham Island	+12:45
Cheyenne	– 7:00
Chicago	– 6:00
Cincinnati	– 5:00
Cleveland	– 5:00
Colombo	+ 6:00
Conakry	– 0:00
Copenhagen	+ 1:00
Dakar	– 0:00
Dallas	– 6:00
Damascus	+ 2:00
Dar es Salaam	+ 3:00
Darwin	+ 9:30
Delhi	+ 5:30
Denver	– 7:00
Detroit	– 5:00
Dhaka	+ 6:00
Dubai	+ 4:00
Dublin	– 0:00
Dusseldorf	+ 1:00
Edmonton	– 7:00
Fernando de Noronha	– 2:00
Fort Worth	– 6:00

City Name	Time Difference
Frankfurt	+ 1:00
Freetown	– 0:00
G.M.T.	– 0:00
Geneva	+ 1:00
Georgetown	– 4:00
Guam	+10:00
Guatemala City	– 6:00
Hamburg	+ 1:00
Hannover	+ 1:00
Hanoi	+ 7:00
Havana	– 5:00
Helena	– 7:00
Helsinki	+ 2:00
Hermosillo	– 7:00
Hong Kong	+ 8:00
Honolulu	–10:00
Houston	– 6:00
Indianapolis	– 5:00
Istanbul	+ 2:00
Jacksonville	– 5:00
Jakarta	+ 7:00
Jeddah	+ 3:00
Jerusalem	+ 2:00
Johannesburg	+ 2:00
Kabul	+ 4:30
Kampala	+ 3:00
Kansas City	– 6:00
Karachi	+ 5:00
Kathmandu	+ 5:45
Khabarovsk	+10:00
Khartoum	+ 2:00
Kingston	– 5:00
Kinshasa	+ 1:00
Kuala Lumpur	+ 8:00
Kuwait	+ 3:00
La Paz	– 4:00

City Name	Time Difference
Lagos	+ 1:00
Las Palmas	– 0:00
Lilongwe	+ 2:00
Lima	– 5:00
Lisbon	– 0:00
Lome	– 0:00
London	– 0:00
Los Angeles	– 8:00
Luanda	+ 1:00
Lusaka	+ 2:00
Luxembourg	+ 1:00
Madrid	+ 1:00
Managua	– 6:00
Manaus	– 4:00
Manila	+ 8:00
Maputo	+ 2:00
Marseille	+ 1:00
Melbourne	+10:00
Memphis	– 6:00
Mexico City	– 6:00
Miami	– 5:00
Midway Is.	–11:00
Milan	+ 1:00
Milwaukee	– 6:00
Minneapolis	– 6:00
Mogadishu	+ 3:00
Monrovia	– 0:00
Montevideo	– 3:00
Montreal	– 5:00
Moscow	+ 3:00
Mumbai	+ 5:30
Munich	+ 1:00
Muscat	+ 4:00
Nadi	+12:00
Nairobi	+ 3:00
Nashville	– 6:00
Nassau	– 5:00
New Orleans	– 6:00

City Name	Time Difference
New York	– 5:00
Niamey	+ 1:00
Norfolk	– 5:00
Norfolk Island	+11:30
Noumea	+11:00
Oklahoma City	– 6:00
Omaha	– 6:00
Oslo	+ 1:00
Ottawa	– 5:00
Panama City	– 5:00
Papeete	–10:00
Paramaribo	– 3:00
Paris	+ 1:00
Peking (Beijing)	+ 8:00
Perth	+ 8:00
Philadelphia	– 5:00
Phnom Penh	+ 7:00
Phoenix	– 7:00
Pittsburgh	– 5:00
Port Louis	+ 4:00
Port Moresby	+10:00
Port au Prince	– 5:00
Port of Spain	– 4:00
Portland	– 8:00
Prague	+ 1:00
Quito	– 5:00
Reykjavik	– 0:00
Rio de Janeiro	– 3:00
Riyadh	+ 3:00
Rome	+ 1:00
Saint Louis	– 6:00
Salt Lake City	– 7:00
Salzburg	+ 1:00
San Antonio	– 6:00
San Diego	– 8:00
San Francisco	– 8:00

City Name	Time Difference
San Jose	– 6:00
San Juan	– 4:00
San Salvador	– 6:00
Sanaa	+ 3:00
Santa Fe	– 7:00
Santiago	– 4:00
Santo Domingo	– 4:00
Sao Paulo	– 3:00
Seattle	– 8:00
Seoul	+ 9:00
Shanghai	+ 8:00
Singapore	+ 8:00
Sofia	+ 2:00
St Petersburg	+ 3:00
Stockholm	+ 1:00
Sydney	+10:00
Taipei	+ 8:00
Tampa	– 5:00
Tegucigalpa	– 6:00
Tehran	+ 3:30
Tijuana	– 8:00
Tokyo	+ 9:00
Toronto	– 5:00
Tripoli	+ 2:00
Tunis	+ 1:00
Vancouver	– 8:00
Vienna	+ 1:00
Vientiane	+ 7:00
Warsaw	+ 1:00
Washington,D.C.	– 5:00
Wellington	+12:00
Winnipeg	– 6:00
Yangon	+ 6:30
Yaounde	+ 1:00
Zurich	+ 1:00

Message Table

100 alarms are already set!	
Cause: The maximum allowable limit of 100 alarms are already set.	**Action**: Wait until some of the existing alarms are used, or delete alarms you do not need to make room for new ones.
All dates you select must be within the same year.	
Cause: You are trying to highlight dates for a period that spans multiple years.	**Action**: The range of dates when specifying highlights must be within one single year. Change your date range specification so it is within the same year.
Batteries are getting weak! Replace them as instructed in the User's Guide.	
Cause: Battery power is getting weak.	**Action**: Replace batteries as explained on page 19 of this User's Guide.
Cells in the range you are deleting contain data. Delete them anyway?	
Cause: Some of the cells in a range you are deleting in the Pocket Sheet Mode contain data.	**Action**: Press **Yes** to delete the cells and the data they contain, or press **No** to close the dialog box without deleting anything.
Check the secret memory area!	
Cause: An alarm time has been reached for secret memory area data.	**Action**: Enter the secret memory area to view details about the alarm.
Check your home time setting and correct it if necessary!	
Cause: This message appears after an operation that can affect your time settings.	**Action**: Since all alarms and other timekeeping related operations are based on your time setting, be sure to check it and make corrections as necessary whenever this message appears.

Communication error!	
Cause: An error occurred during data communication.	**Action**: Correct the cause of the error and try again.
Data error! Consult your User's Guide for correct procedure.	
Cause: An internal data error has corrupted memory data.	**Action**: See page 15 of this User's Guide for the correct procedure.
Data error! Do you want to view data before resetting?	
Cause: A data error requires that you perform the RESET operation, which deletes all data stored in memory and returns all settings to their initial defaults.	**Action**: Tap **Yes** to close the dialog box. You can then recall data stored in memory to make written copies before it is cleared by the RESET operation. Tap **No** to go immediately into to the RESET operation, which will delete all data stored in memory.
Data item not found!	
Cause: None of the data in memory matches the characters you specified for a search operation.	**Action**: Check the characters you specified to make sure you did not make a mistake, or try searching for different characters.
Input all required data.	
Cause: You did not input all of the minimum data required to store the data item.	**Action**: Input the minimum required entries for the mode where you are inputting new data. Check the minimum requirements and input the required data.

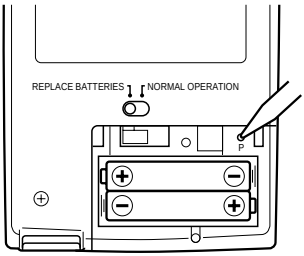
Make sure you are inputting the date correctly.	
Cause: You are trying to use invalid values for a date.	**Action**: Input the date correctly.
Make sure you are inputting the time correctly.	
Cause: You are inputting invalid values for a time setting.	**Action**: Input proper values for the time.
Memory is full!	
Cause: You are trying to input data or receive data while memory is already full.	**Action**: First try performing the memory management operation to see if more memory can be made available. If this message still appears, it means that memory is really full. Delete data you no longer need to make room for more data.
Sheet is too big!	
Cause: The sheet you are working with in the Pocket Sheet Mode is larger than the allowable maximum.	**Action**: Reduce the amount of data contained in the sheet or divide the data between two or more sheets.
That alarm time is already passed!	
Cause: The time you are trying to set for an alarm is already passed.	**Action**: This is merely a warning message that appears for about one second. After that, the dialog box closes and the data is stored without the alarm.
That alarm time is already used!	
Cause: The time you are setting for an alarm is already used.	**Action**: Change the alarm time to one that is not yet used.

That date is outside of the specified period.	
Cause: You are specifying a Reminder date that is outside the period specified by the start date and end date.	**Action**: Check the specified period and set the date correctly.
That name is already used!	
Cause: You are trying to assign a name that is already used when naming a payment type or expense type.	**Action**: Use a different name.
The next step starts data deletion and unit reset! Do you want to continue?	
Cause: This is the final warning before execution of the RESET operation, which deletes all data stored in memory and returns all settings to their initial defaults.	**Action**: Tap **Yes** to execute the RESET operation and delete all data, or **No** to close the dialog box without deleting anything.
The reset operation deletes all data in memory! Do you want to continue?	
Cause: You are about to perform the RESET operation, which deletes all data stored in memory and returns all settings to their initial defaults.	**Action**: Tap **Yes** to perform the RESET operation and delete all data, or **No** to close the dialog box without deleting anything.
This operation will push some data outside the sheet. Continue?	
Cause: The Pocket Sheet Mode operation you are performing will cause some of the cells of the sheet to be pushed outside the range of the sheet. This causes the data in the cells to be deleted.	**Action**: Press **Yes** to go ahead with the operation, or **No** to close the dialog box without doing anything.

You cannot specify more than 60 repeats!	
Cause: You specified more than 60 repeats for a Reminder data item.	**Action**: Shorten the specified period of the Reminder item to reduce the number of repeats.
Wrong password!	
Cause: The password you input while trying to enter the secret memory area does not match the password that is registered.	**Action**: Input the correct password.

Troubleshooting

Power Supply

Problem: The PV Unit does not operate normally after batteries are replaced.	
Possible Cause Problem with PV Unit operational settings	**Recommended Action** Perform the following procedure. 1. Slide the battery switch to the REPLACE BATTERIES position, and remove the battery compartment cover. 2. Use the stylus to press the **P** button inside the battery compartment.  3. Replace the battery compartment cover, and then slide the battery switch back to NORMAL OPERATION. 4. Use the stylus to press the **RESET** button on the back of the unit. See “To reset the PV Unit” for details on the reset procedure. 5. In response to the message that appears after you calibrate the touch screen and adjust the display contrast, tap **No**. • Make sure you do not tap **Yes**. Doing so deletes all data stored in memory and returns all settings to their initial defaults.

Problem: Nothing appears on the display when power is turned on.	
Possible Causes 1. The battery switch on the back of the unit is set to REPLACE BATTERIES. 2. Battery power is low. 3. Display contrast is too light. 4. Screen tap power on feature is turned off.	**Recommended Actions** 1. Slide the battery switch to NORMAL OPERATION. 2. Replace batteries (page 19). 3. Adjust display contrast (page 169). 4. Press **Action** control to turn on power or turn on the screen tap power on feature.

Display Contrast

Problem: Display is totally black.	
Possible Cause Display contrast is too dark.	**Recommended Action** Adjust display contrast (page 169).

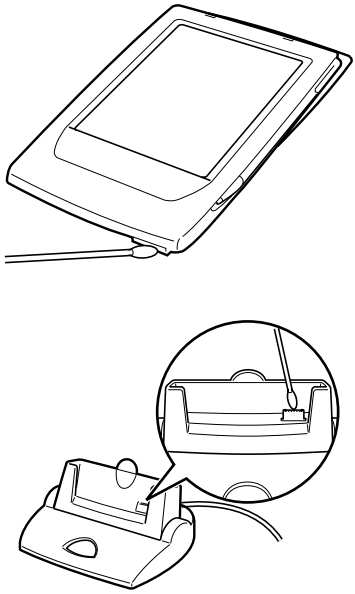
Key Tone

Problem: The PV unit does not beep when you perform an operation.	
Possible Cause The key tone is turned off.	**Recommended Action** Turn on the key tone (page 167).

Operation

Problem: Nothing happens when you tap the screen.	
Possible Causes 1. Battery power is low. 2. Exposure of the PV Unit to some external condition is interfering with proper operation. 3. The touch screen is damaged.	**Recommended Actions** 1. Replace batteries (page 19). 2. Press the **P** button and then the **RESET** button. See procedure above. 3. The touch screen must be replaced. Contact your nearest CASIO dealer to have the touch screen replaced. You will be charged for this replacement.
Problem: Power suddenly turns off or contrast adjustment screen suddenly appears.	
Possible Cause Battery power is low.	**Recommended Action** Replace batteries (page 19).
Problem: The functions or cursor movement performed does not match the location where you tap on the screen.	
Possible Cause The touch screen needs to be calibrated.	**Recommended Action** Perform the procedure under "Calibrating the Touch Screen" on page 170.

Data Communication

Problem: You are having problems performing data communication.	
Possible Causes 1. Equipment is not connected correctly. 2. Cradle contacts are dirty.	**Recommended Actions** 1. Carefully follow the procedures on page 127 and connect the equipment correctly. 2. Clean the contacts on the bottom of the PV Unit and inside the cradle by wiping them with a cotton swab. 

- If any of the above does not restore your PV Unit to normal operation, contact your nearest CASIO dealer for servicing.

Specifications

Model: PV-S250/PV-S450

Main Modes:

Scheduler (Schedule, To Do, Reminder); Contacts; Memo; Expense Manager; Currency Converter; Quick-Memo; Pocket Sheet; Pop Up Tools (Clock, Calendar, Calculator); Game

Data storage:

Storage and recall of Schedule, To Do, Reminder, Contacts, Memo, Expense, Quick-Memo, Pocket Sheet data; calendar display; secret memory area; editing; memory status display

Clock:

World Time; Schedule alarm; To Do alarm; Reminder alarm; Daily alarm; accuracy under normal temperatures: –3 seconds per day

Calculations:

12-digit arithmetic calculations; arithmetic constants (+/–/ ·/ ,); independent memory; percentages; square roots; 24-digit approximations; other mixed calculations

General:

Display: 160 · 160 dots
Memory capacity: 2MB (PV-S250)/4MB (PV-S450)
Main component: LSI
Power supply: Two AAA-size alkaline batteries (Type: LR03 (AM4))
Battery life: (Ambient Temperature: 20 C (68 F))

- Approximately 180 hours of continuous display only in the Contacts Mode
- Approximately 120 hours with 55 minutes of continuous display only and 5 minutes of processing operation per hour in the Contacts Mode
- Approximately 80 hours with 55 minutes of continuous display only and 5 minutes of processing operation per hour in the Contacts Mode, plus 3 minutes of backlight operation per hour during continuous display only period

Power consumption: 0.3W
Auto power off: Selectable, approximately 6, 3, or 1 minute after last key operation
Operating temperature: 0 C ~ 40 C (32 F ~ 104 F)
Dimensions: Unfolded: 10.7H · 82W · 125D mm ($^3/_8$"H · $3^1/_4$"W · $4^7/_8$"D)
Folded: 11.9H · 82W · 126.5D mm ($^1/_2$"H · $3^1/_4$"W · 5"D)
Weight: Approximately 130 g (4.6 oz) including batteries