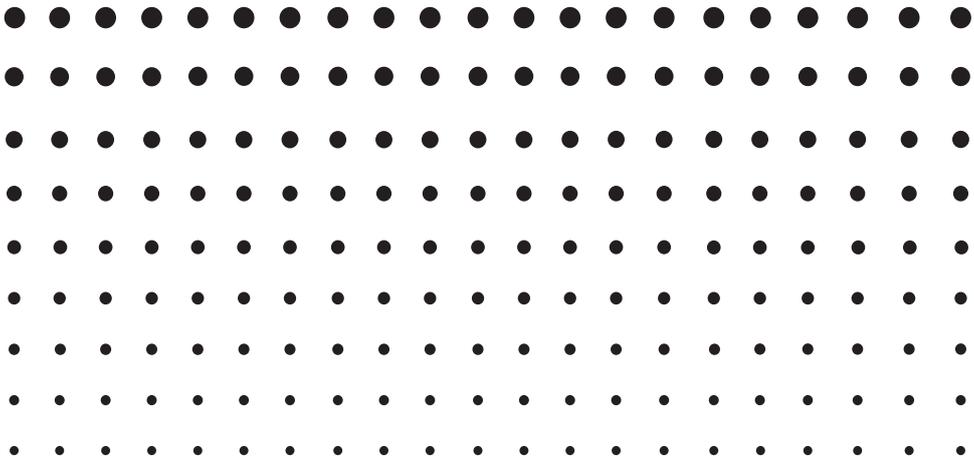


ClassPad 330

ClassPad OS Version 3.06

Hardware User's Guide



CASIO Education website URL
<http://edu.casio.com>

ClassPad website URL
<http://edu.casio.com/products/classpad/>

ClassPad register URL
<http://edu.casio.com/dl/>

GUIDELINES LAID DOWN BY FCC RULES FOR USE OF THE UNIT IN THE U.S.A. (not applicable to other areas).

NOTICE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC WARNING

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Proper connectors must be used for connection to host computer and/or peripherals in order to meet FCC emission limits.

Connector SB-62

ClassPad to ClassPad

USB connector for the ClassPad

ClassPad to Windows® compatible PC

Declaration of Conformity

Model Number: ClassPad 330

Trade Name: CASIO COMPUTER CO., LTD.

Responsible party: CASIO AMERICA, INC.

Address: 570 MT. PLEASANT AVENUE, DOVER, NEW JERSEY 07801

Telephone number: 973-361-5400

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



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Chapter

1

Getting Ready

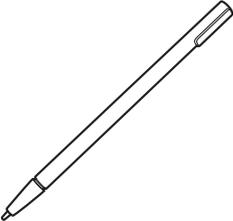
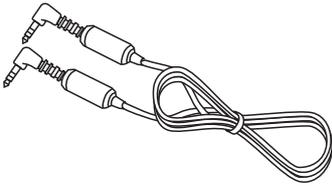
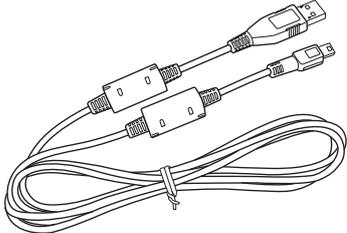
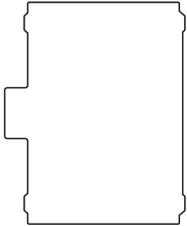
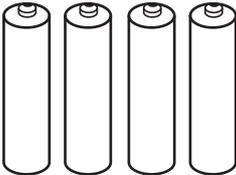
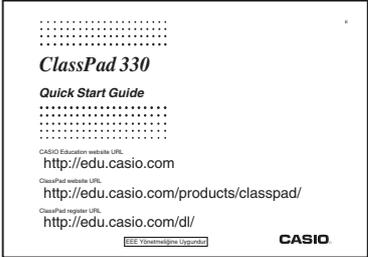
This section contains important information you need to know before using the ClassPad for the first time.

- 1-1 Unpacking**
- 1-2 Attaching and Removing the Front Cover**
- 1-3 Using the Stylus**
- 1-4 Replacing Batteries and Setting Up the ClassPad**
- 1-5 User Registration**
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1-1 Unpacking

When unpacking your ClassPad, check to make sure that all of the items shown here are included. If anything is missing, contact your original retailer immediately.

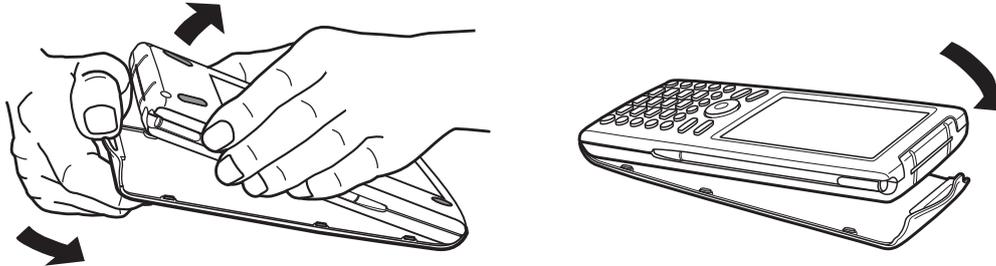
<p>ClassPad</p> 	<p>CD-ROM</p> 	<p>Front Cover (Attached to ClassPad.)</p> 
<p>Stylus (Inserted in ClassPad.)</p> 	<p>3-pin Cable (SB-62)</p> 	<p>USB Cable</p> 
<p>Touch Screen Protector</p>  <p>(The protector is already installed on the touch screen when you purchase the ClassPad.)</p>	<p>Four AAA-size Batteries LR03 (AM4)</p> 	<p>Quick Start Guide</p> 



1-2 Attaching and Removing the Front Cover

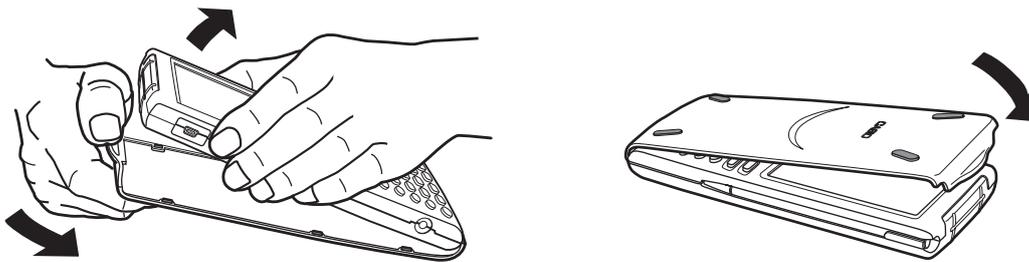
- **To remove the front cover**

Before using the ClassPad, remove the front cover and attach it to the back.



- **To attach the front cover**

When you are not using the ClassPad, attach the front cover to the front.



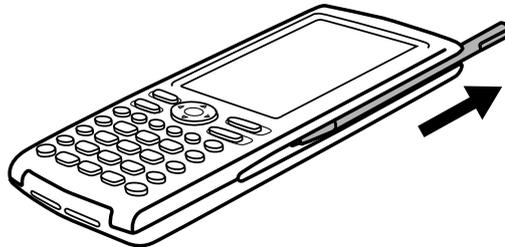
Important!

- Always attach the front cover to the ClassPad whenever you are not using it. Otherwise, accidental operation of the touch screen or the **ON/OFF** key can cause the power to turn on and run down the batteries.



1-3 Using the Stylus

Slide the stylus from the slot provided for it on the ClassPad, and then use it to perform touch panel operations.



Important!

- Be careful so that you do not misplace or lose the stylus. When you are not using it, always keep the stylus in the slot provided for it on the ClassPad.
- Be careful so that you do not damage the tip of the stylus. A damaged tip can scratch or otherwise damage the ClassPad touch panel.
- Use only the supplied stylus or a similar instrument to perform touch panel operations. Never use a pen, pencil, or other writing instrument.

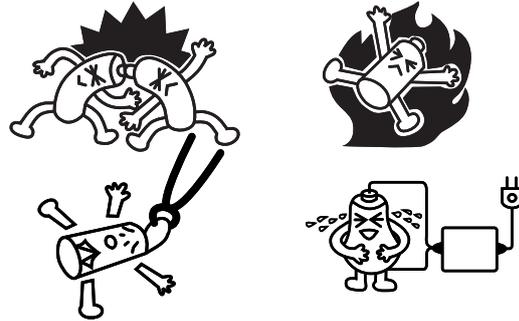


1-4 Replacing Batteries and Setting Up the ClassPad

Precautions:

Incorrectly using batteries can cause them to burst or leak, possibly damaging the interior of the ClassPad. Note the following precautions:

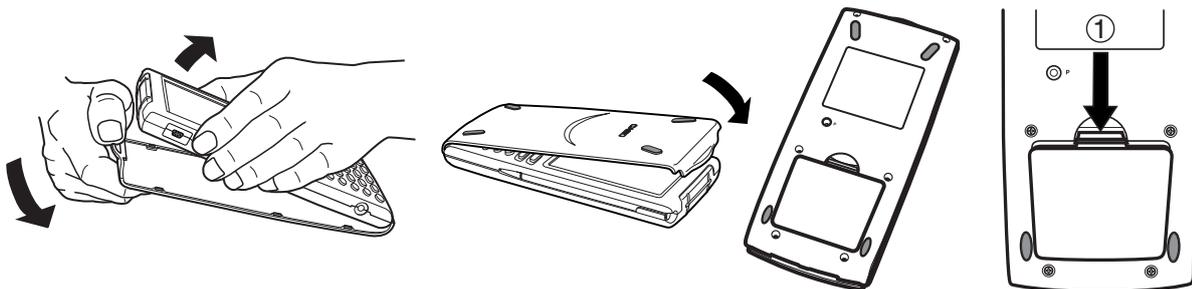
- Be sure that the positive (+) and negative (-) poles of each battery are facing in the proper directions.
- Never mix batteries of different types.
- Never mix old batteries and new ones.
- Never leave dead batteries in the battery compartment.
- Remove the batteries if you do not plan to use the ClassPad for long periods.
- Never try to recharge the batteries supplied with the ClassPad.
- Do not expose batteries to direct heat, let them become shorted, or try to take them apart. (Should a battery leak, clean out the battery compartment of the ClassPad immediately, taking care to avoid letting the battery fluid come into direct contact with your skin.)



Keep batteries out of the reach of small children. If swallowed, consult with a physician immediately.

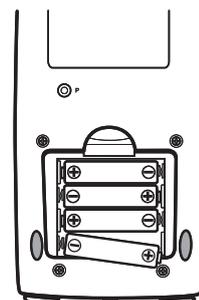
• ClassPad Operation

- (1) Making sure that you do not accidentally press the **ON/OFF** key, attach the front cover to the ClassPad and then turn the ClassPad over. Remove the battery cover from the ClassPad by pulling with your finger at the point marked ①.



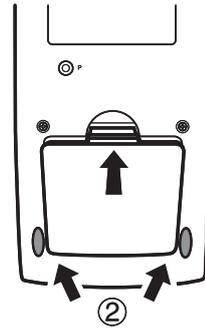
- (2) Load the four batteries that come with ClassPad.

- Make sure that the positive (+) and negative (-) ends of the batteries are facing correctly.





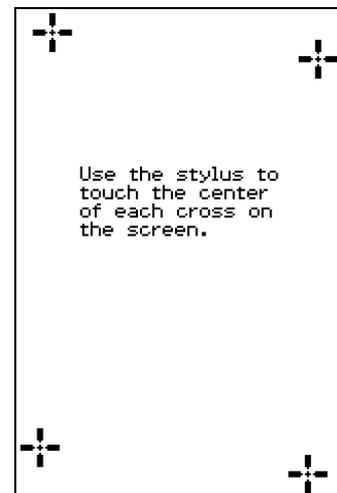
- (3) Replace the battery cover, making sure that its tabs enter the holes marked ② and turn the ClassPad front side up.



- (4) Remove the front cover from the ClassPad.

- (5) Align the touch panel.

- a. Your ClassPad should turn on automatically and display the Touch Panel Alignment screen.

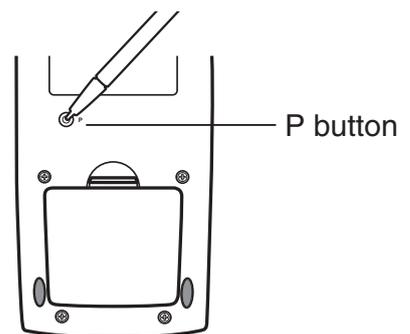


- b. Tap the center of each of the four cross marks as they appear on the display.

- If the Touch Panel Alignment screen does not appear, use the stylus to press the P button on the back of the ClassPad.

Important!

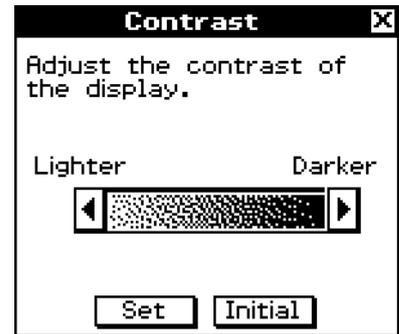
- It may take a little time for your ClassPad to start up after you press the P button.





(6) Adjust the display contrast.

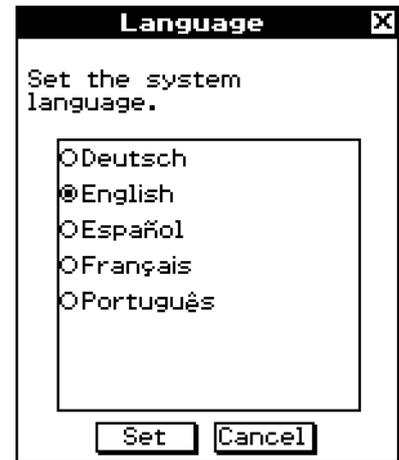
- a. Tap the  button to make contrast darker, or the  button to make it lighter.



- b. After the contrast setting is the way you want, tap [Set].
- Tapping [Initial] on the Contrast dialog box returns contrast to its initial factory default setting.

(7) Specify the display language.

- a. On the list that appears, tap the language you want to use.
- You can select German, English, Spanish, French, or Portuguese.



- b. When the language you want is selected, tap [Set].
- Tapping [Cancel] selects English and advances to the next dialog box.

(8) Specify the soft keyboard key arrangement.

- a. On the list that appears, tap the key arrangement you want to use.

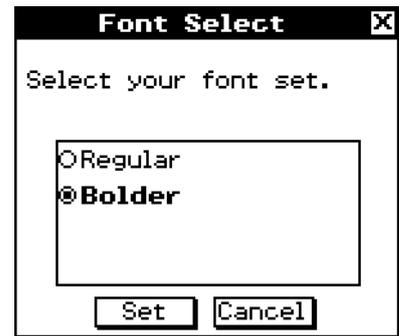


- b. When the key arrangement you want is selected, tap [Set].
- Tapping [Cancel] selects QWERTY arrangement and advances to the next dialog box.



(9) Specify the font set.

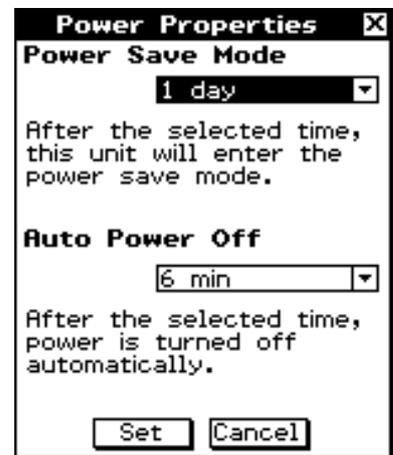
- a. On the list that appears, tap the font set you want to use.
 - You can select Regular or Bolder.



- b. When the font set you want is selected, tap [Set].
 - Tapping [Cancel] selects Bolder and advances to the next dialog box.

(10) Configure power properties.

- a. Configure the Power Save Mode and Auto Power Off settings.
 - See “Power Saving Mode” and “Auto Power Off” for details about these settings.
- b. When the configurations are the way you want, tap [Set].
 - Tapping [Cancel] selects “1 day” for [Power Save Mode] and “6 min” for [Auto Power Off], and finalizes the setup operation.



■ About the Auto Power Off Function

The Auto Power Off (APO) feature helps conserve battery power by turning off the ClassPad automatically whenever you do not perform any operation for specified amount of time. You can specify 1, 3, 6, or 60 minutes for the Auto Power Off trigger time. The initial default APO setting is 6 minutes.

Tip

- From within the System application, open the System menu and tap [Power Properties]. This will display the Power Properties dialog box.



1-5 User Registration

Before using your ClassPad or OH-ClassPad, be sure to read the contents of the file named **Readme.html**, which is on the bundled CD-ROM. There you will find the URL for a Website where you can register as an official user.

<http://edu.casio.com/dl/>



1-6 Handling Precautions

- Your ClassPad is made of precision components. Never try to take it apart.
- Avoid dropping your ClassPad and subjecting it to strong impact.
- Do not store the ClassPad or leave it in areas exposed to high temperatures or humidity, or large amounts of dust. When exposed to low temperatures, the ClassPad may require more time to display results and may even fail to operate. Correct operation will resume once the ClassPad is brought back to normal temperature.
- Replace the batteries once every one year regardless of how much the ClassPad is used during that period. Never leave dead batteries in the battery compartment. They can leak and damage the ClassPad.
- Do not use an oxyride battery or any other type of nickel-based primary battery with this product. Incompatibility between such batteries and product specifications can result in shorter battery life and product malfunction.
- Keep batteries out of the reach of small children. If swallowed, consult a physician immediately.
- Avoid using volatile liquids such as thinners or benzine to clean the ClassPad. Wipe it with a soft, dry cloth, or with a cloth that has been moistened with a solution of water and a neutral detergent and wrung out.
- Always be gentle when wiping dust off the display to avoid scratching it.
- In no event will the manufacturer and its suppliers be liable to you or any other person for any damages, expenses, lost profits, lost savings or any other damages caused by loss of data and/or formulas arising out of malfunction, repairs, or battery replacement. It is up to you to prepare physical records of data to protect against such data loss.
- Never dispose of batteries, the liquid crystal panel, or other components by burning them.
- When the “Batteries are extremely low!” message appears on the display, replace the batteries as soon as possible.
- Be sure to turn off the ClassPad before replacing the batteries.
- If the ClassPad is exposed to a strong electrostatic charge, its memory contents may be damaged or the keys may stop working. In such a case, perform the reset operation to clear the memory and restore normal key operation.
- If the ClassPad stops operating correctly for some reason, use the stylus to press the P button on the back of the ClassPad. Note, however, that this clears all the data in ClassPad memory.
- Note that strong vibration or impact during program execution can cause execution to stop or can damage the ClassPad’s memory contents.
- Using the ClassPad near a television or radio can cause interference with TV or radio reception.
- Before assuming malfunction of the ClassPad, be sure to carefully reread this user’s guide to ensure that the problem is not due to insufficient battery power, programming, or operational errors.
- Make sure nothing gets between the front cover and the touch screen. Besides creating the risk of scratching the touch screen, an object coming into contact with the screen can cause the power to turn on and run down the batteries.
- Always attach the front cover to the ClassPad whenever you are not using it. Otherwise, accidental operation of the touch screen or the **ON/OFF** key can cause the power to turn on and run down the batteries.



Be sure to keep physical records of all important data!

Low battery power or incorrect replacement of the batteries that power the ClassPad can cause the data stored in memory to be corrupted or even lost entirely. Stored data can also be affected by strong electrostatic charge or strong impact. It is up to you to keep back up copies of data to protect against its loss.

Backing Up Data

Your ClassPad comes bundled with a special USB cable and FA-CP1 software, which you can use to backup data to a computer.

- The FA-CP1 software is on the CD-ROM.

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- Be sure to keep all user documentation handy for future reference.
- The contents of this user's guide are subject to change without notice.
- No part of this user's guide may be reproduced in any form without the express written consent of the manufacturer.
- The options described in Chapter 2 of this user's guide may not be available in certain geographic areas. For full details on availability in your area, contact your nearest CASIO dealer or distributor.



1-7 Adjusting Display Contrast

Use the following procedure to display the Contrast dialog box and adjust display contrast.

• ClassPad Operation

- (1) On the application menu, tap .
 - This starts up the System application.

- (2) Tap  to display the Contrast dialog box.



- (3) Adjust display contrast.

To do this:	Tap this button:
Make the display lighter	
Make the display darker	
Return contrast to its initial factory default setting	Initial

- Tapping and holding  or  continually performs the applicable operation until you release the button.

- (4) To close the Contrast dialog box, tap [Set].



1-8 Configuring Power Properties

Use the Power Properties dialog box to configure the power saving mode and auto power off (APO) settings.

Power Saving Mode

Your ClassPad has a “resume” feature that remembers its status when you turn it off, and restores the same status the next time you turn the ClassPad back on. Resume feature operation requires power to operate, which means that some power continues to be consumed even while the ClassPad is turned off. The power saving mode lets you limit how long the resume feature continues to operate (and consume power) after you turn off the ClassPad unit. You can specify 1 hour, 6 hours, or 1 day. After the time limit you specify is reached, the resume feature is deactivated.

The following table describes the power saving mode options that are available.

To do this:	Select this power saving mode option:
Turn off the power saving mode (unlimited resume time)	Off
Limit resume operation to 1 hour after power down	1 hour
Limit resume operation to 6 hours after power down	6 hours
Limit resume operation to 1 day after power down	1 day

- The initial default for the above setting is [1 day].

Auto Power Off

The Auto Power Off (APO) feature helps conserve battery power by turning off the ClassPad unit automatically whenever you do not perform any operation for specified amount of time. You can specify 1, 3, 6, or 60 minutes for the Auto Power Off trigger time. The initial default APO setting is 6 minutes.



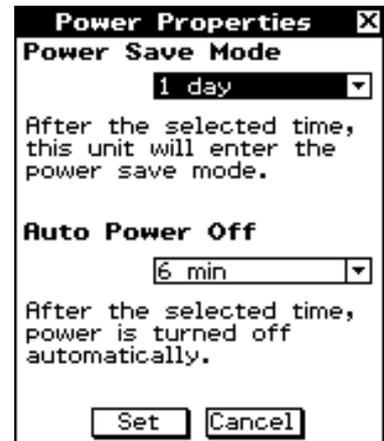
Configuring Power Properties

• ClassPad Operation

(1) On the application menu, tap  .

- This starts up the System application.

(2) Tap  to display the Power Properties dialog box.



(3) Configure the Power Save Mode and Auto Power Off settings.

- See “Power Saving Mode” and “Auto Power Off” for details about these settings.

(4) After all the settings are the way you want, tap [Set] to apply them and close the Power Properties dialog box, or tap [Cancel] to close without changing any settings.

- Tapping [Set] or [Cancel] returns you to [Memory Usage].



1-9 Optimizing “Flash ROM”

Use the following procedure to perform a “garbage collection” operation that optimizes Flash ROM. Optimizing Flash ROM increases the amount of memory available for storage.

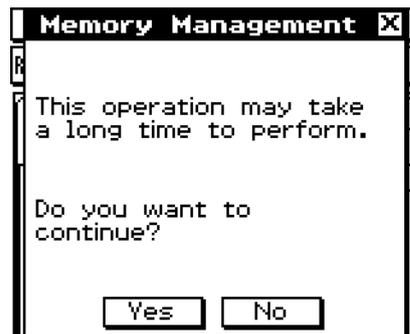
• ClassPad Operation

(1) On the application menu, tap .

- This starts up the System application.

(2) Tap .

- This displays a confirmation asking if you really want to optimize Flash ROM.



(3) Tap [Yes] to optimize Flash ROM, or [No] to cancel.

- After you tap [Yes], the message “Now Optimizing...” remains displayed while optimization is in progress. The message “Complete!” appears when optimization is complete.

(4) Tap [OK] to close the “Complete!” message dialog box.

- This returns you to [Memory Usage].

Tip

- You can interrupt the “garbage collection” operation by tapping **ESC** on the icon panel. Tap [OK] on the dialog box that appears to return to [Memory Usage].

Important!

- Never press the P button on the back of the ClassPad while a “garbage collection” operation is in progress. Doing so can damage memory, resulting in loss of all memory contents and malfunction of your ClassPad. If this happens, you will need to request repair from your CASIO Maintenance Service Provider. Note that repair of your ClassPad will not recover any lost memory contents.



1-10 Specifying the Ending Screen Image

Whenever you press the **ON/OFF** key to turn off the ClassPad unit, it copies any data currently in RAM to Flash ROM, and then turns off power. The ending screen is what appears on the display while the RAM data save operation is being performed, until power is actually turned off. You can specify the image data you want to appear as the ending screen.

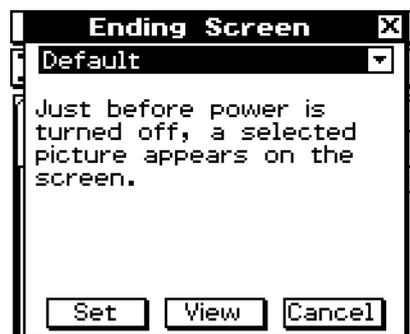
• ClassPad Operation

(1) On the application menu, tap .

- This starts up the System application.

(2) Tap **END** to display the Ending Screen dialog box.

- To see this icon, you must first tap the right arrow button on the toolbar to scroll.



(3) Tap the down arrow button. On the list that appears, tap the ending screen image you want to use.

- To see the list, open the drop down list near the top of the dialog box. The list shows the images in the file you created with the Presentation application.
- Tapping the [View] button displays a preview of the currently selected screen image. Tap [OK] to close the preview image and others (see Tip below).

(4) After the image you want is selected, tap [Set] to apply it and close the Ending Screen dialog box, or tap [Cancel] to close the dialog box without changing the setting.

- Tapping [Set] or [Cancel] returns you to [Memory Usage].

Tip

- A bitmap you create and save with the Picture application can be used as an ending screen image. The allowable bitmap size for an ending screen image is 160 × 240 pixels.
- A bitmap of a Graph window can also be created in the Graph & Table and 3D Graph applications. Draw a graph and then select [Store Picture] from the  menu.



1-11 Adjusting Touch Panel Alignment

You should adjust touch panel alignment whenever you find that the wrong operation or no operation is performed when you tap the ClassPad screen.

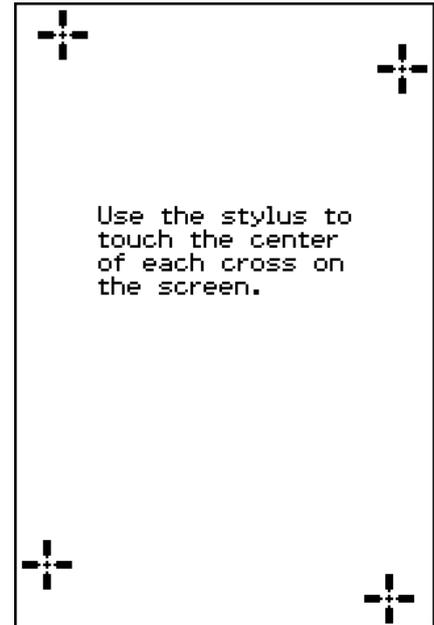
• ClassPad Operation

(1) On the application menu, tap  .

- This starts up the System application.

(2) Tap  to display the touch panel alignment screen.

- To see this icon, you must first tap the right arrow button on the toolbar to scroll.



(3) Use the stylus to tap the center of each of the four crosses as they appear on the screen.

- Tapping the center of the fourth cross completes touch panel alignment and returns you to [Memory Usage].
- When aligning your ClassPad try to tap the exact center of each cross.

Performing Data Communication

You can use the SB-62 data communication cable to connect your ClassPad to another ClassPad unit or to a CASIO Data Analyzer, and transfer data between them.

To transfer data between a ClassPad and a personal computer, you need to use the special USB cable that comes with ClassPad.

This chapter explains how to perform data communication operations and exchange data.

2-1 Data Communication Overview

2-2 Connecting the ClassPad to Another Device

2-3 Configuring Communication Parameters

2-4 Transferring Data to Another ClassPad Unit

2-1 Data Communication Overview

This section provides an overview of the types of connections that are possible, and the data that can be transferred over each connection. It also tells you how to use the Communication application to transfer data.

Important!

- Never press the P button on the back of the ClassPad while a data communication operation is in progress. Doing so can damage memory, resulting in loss of all memory contents and malfunction of your ClassPad. If this happens, you will need to request repair from your CASIO Maintenance Service Provider. Note that repair of your ClassPad will not recover any lost memory contents.

Connectable Devices and Transferable Data

The following three types of connections are possible.

- Two ClassPad units
- A ClassPad and a computer
- A ClassPad and a CASIO EA-200 Data Analyzer

The following provides details about each of these connections, and describes the type of data that can be transferred over each.

■ Connecting Two ClassPad Units

You can transfer variable data, eActivity data, and display image data between two ClassPad units.

- For information about variables, see “1-7 Variables and Folders” in the separate Software User’s Guide.
- For information about eActivity data, see “Chapter 10 – Using the eActivity Application” in the separate Software User’s Guide.
- For information about display image data, see “Sending a Screenshot of the Current Display Contents” on page 2-4-5.

● Connection

Use the special SB-62 3-pin data communication cable to connect two ClassPad units. For details, see “Connecting to Another ClassPad Unit” on page 2-2-1.

● How to Transfer Data

You can use either of the two following methods to transfer data between two ClassPad units.

- Use the Communication application. See “2-4 Transferring Data to Another ClassPad Unit” for details.
- Use the “SendVar38k” and “GetVar38k” program commands. See “Chapter 12 – Using the Program Application” in the separate Software User’s Guide for details.





■ Connecting a ClassPad to a Computer

You can perform the following operations when connected to a computer.

- Transfer variable data and eActivity data between the ClassPad and a computer
- Install add-in applications, language data, and operating system upgrades onto your ClassPad from the computer
- Transfer ClassPad display image data to the computer
- For information about variables, see “1-7 Variables and Folders” in the separate Software User’s Guide.
- For information about eActivity data, see “Chapter 10 – Using the eActivity Application” in the separate Software User’s Guide.
- For information about display image data, see “Sending a Screenshot of the Current Display Contents” on page 2-4-5.
- See the FA-CP1 User’s Guide for details about add-in application installation and uninstallation, language data installation, and upgrading your operating system.
- Your ClassPad may operate abnormally after you update its operating system from your computer using FA-CP1 if the operating system you install is not compatible with your ClassPad hardware version. If you accidentally install an operation system version that is not compatible with your ClassPad hardware version, visit the following Website information about what you need to do to get your ClassPad working normally again.

<http://edu.casio.com/products/classpad/>

● Connection

Use the special USB cable to connect the ClassPad’s 4-pin mini USB port to your computer’s USB port. For details, see “Connecting to a Computer (USB)” on page 2-2-3.

● How to Transfer Data

On the ClassPad, use the Communication application. On your computer, use FA-CP1. For details, see the FA-CP1 User’s Guide.

■ Connecting a ClassPad to a CASIO EA-200 Data Analyzer

You can perform the following operations when connected to a Data Analyzer.

- Transfer Data Analyzer setup information and sampled data to the ClassPad
- Transfer variable data, eActivity data, and Data Analyzer setting information from the ClassPad to the Data Analyzer
- For information about variables, see “1-7 Variables and Folders” in the separate Software User’s Guide.
- For information about eActivity data, see “Chapter 10 – Using the eActivity Application” in the separate Software User’s Guide.
- For information about Data Analyzer setup information and sample data, see the user documentation that comes with the Data Analyzer.

● Connection

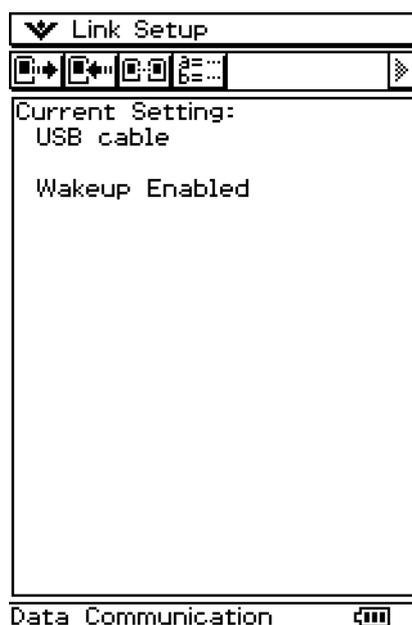
Use the special SB-62 3-pin data communication cable to connect two units. For details, see “Connecting to an EA-200 Data Analyzer” on page 2-2-2.

• How to Transfer Data

Use the “Send38k” and “Receive38k” program commands to transfer data. For details, see “Chapter 12 – Using the Program Application” in the separate Software User’s Guide, and the user documentation that comes with the Data Analyzer.

Using the ClassPad Communication Application

To perform a data transfer operation, tap  on the application menu to start up the Communication application.



■ Communication Application Menus and Buttons

The following explains the operations you can perform using the menus and buttons of the Communication application.

To do this:	Tap this button:	Or select this menu item:
Select data to send		Link - Transmit
Enter receive standby		Link - Receive
Enter standby for add-in application or language data install	–	Link - Install - Add-In
Enter standby for operating system upgrading	–	Link - Install - OS Update
Enter standby to receive a display image from another ClassPad unit		Link - Screen Receive
Configure communication parameters	–	Setup - Open Setup Menu
Display hardware version information	–	Setup - Version(Hardware)

- For details about configuring communication parameters, see “2-3 Configuring Communication Parameters”.

2-2 Connecting the ClassPad to Another Device

This section provides detailed explanations about how to connect the ClassPad to another ClassPad unit, to a computer, and to a CASIO Data Analyzer.

Connecting to Another ClassPad Unit

Use the procedure below to connect two ClassPad units.

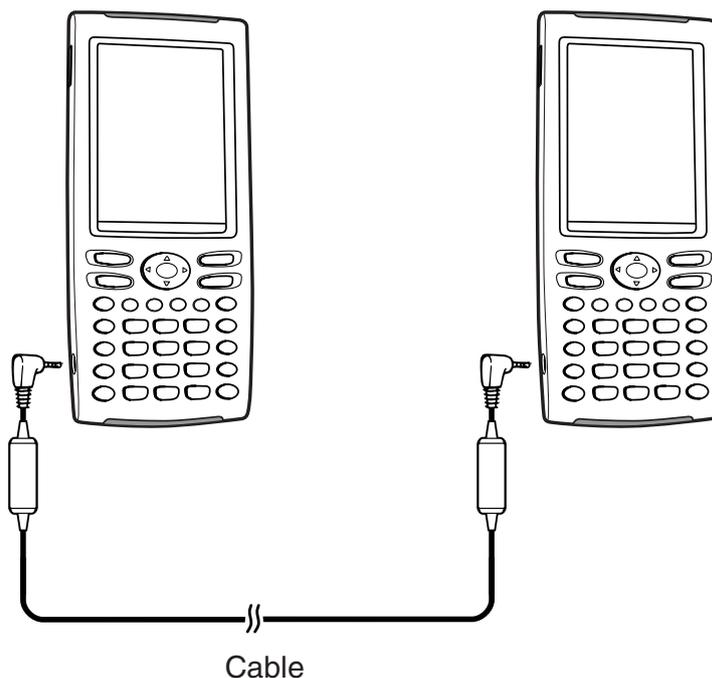
■ Required Hardware

ClassPad: 2 units

Special SB-62 Cable: 1

● ClassPad Operation

- (1) Turn both units off.
- (2) Connect the data communication cable as shown in the illustration below.
 - Insert both of the plugs securely, as far as they will go.



- For information about what you should do to transfer data, see “2-4 Transferring Data to Another ClassPad Unit”.

Connecting to an EA-200 Data Analyzer

You can use the CASIO Data Analyzer to sample and collect data on various everyday natural phenomena. You can also connect the Data Analyzer to your ClassPad, and control Data Analyzer operation from your ClassPad. You can transfer setup information from the ClassPad to the Data Analyzer, trigger sampling from the ClassPad, and graph sample results on your ClassPad.

■ Required Hardware

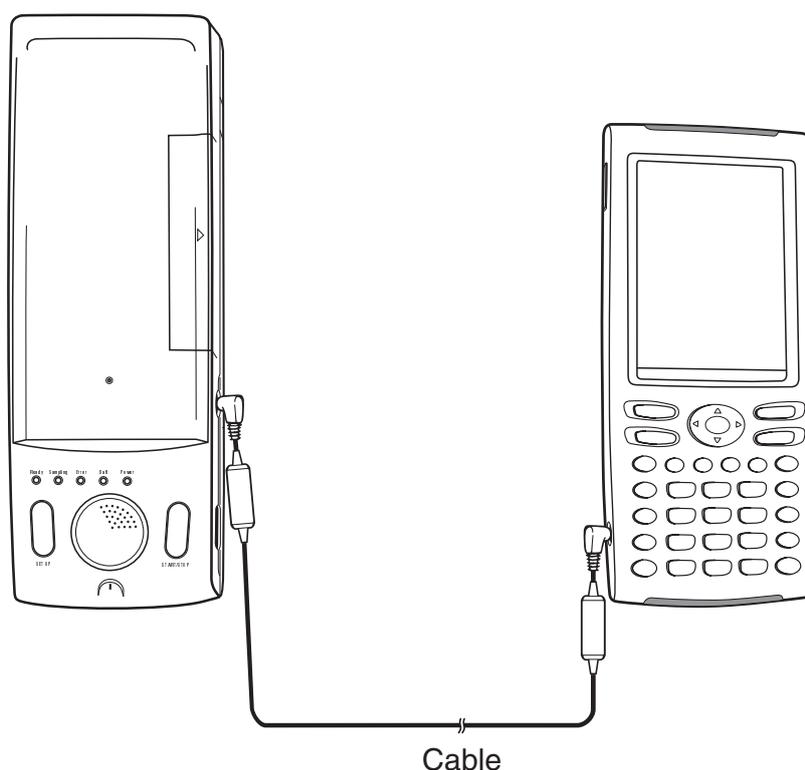
ClassPad: 1 unit

EA-200 Data Analyzer: 1

Special SB-62 Cable: 1

● ClassPad Operation

- (1) Turn off the ClassPad and Data Analyzer.
- (2) Remove the connector cover from the 3-pin communication port of the Data Analyzer, and connect one end of the data communication cable to the port.
- (3) Connect the other end of the data communication cable to the 3-pin communication port of the ClassPad.



- For information about what you should do to transfer data, see the user documentation that comes with the Data Analyzer.

Connecting to a Computer (USB)

By running FA-CP1 software that comes with ClassPad on your computer, you can transfer ClassPad data to your computer.

See the FA-CP1 User's Guide for information about how to use it.

- For information about FA-CP1 minimum computer system requirements, see the FA-CP1 User's Guide.

■ Required Hardware

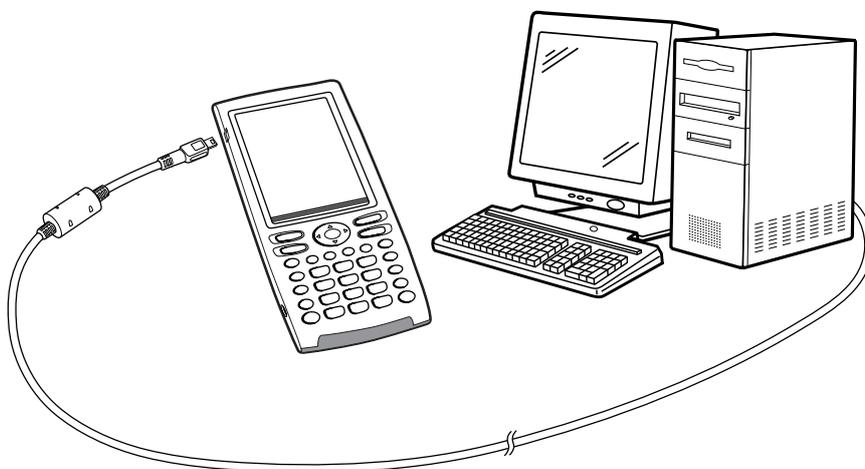
ClassPad: 1 unit

Computer (with FA-CP1 installed): 1

Special USB Cable: 1

● ClassPad Operation

- (1) Turn off the ClassPad and computer.
- (2) Connect one end of the special cable that comes with the ClassPad to the USB port of your computer.
 - See the FA-CP1 User's Guide for details about how to connect the cable to your computer.
- (3) Connect the other end of the special cable as shown below.



- For information about what you should do to actually transfer data, see the FA-CP1 User's Guide.

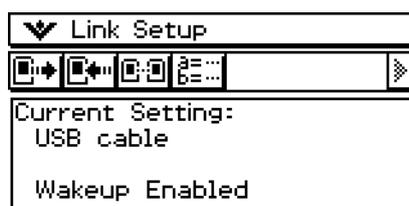
2-3 Configuring Communication Parameters

Before trying to transfer data with the ClassPad, you should perform the procedures described in this section to configure its data communication parameters.

• ClassPad Operation

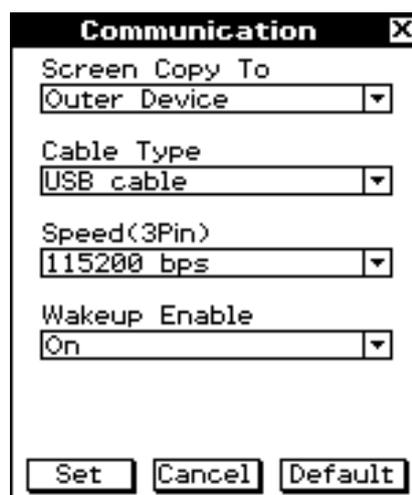
(1) On the application menu, tap  .

- This starts the Communication application and displays a window that shows its current communication parameter settings.



(2) Tap [Setup] and then [Open Setup Menu].

- This displays a dialog box for changing communication parameters, like the one shown below.



(3) Configure the communication parameter settings as described below.

- Items marked with an asterisk (*) are initial defaults.

• Screen Copy To

Specify "Outer Device".

• Cable Type

When connecting to this type of device:	Select this setting:
Another ClassPad unit or a Data Analyzer	3pin cable
A computer's USB port	USB cable*

- **Speed (3Pin)**

To specify this data rate for 3-pin communication:	Select this setting:
9600 bps	9600 bps
38400 bps	38400 bps
115200 bps	115200 bps*

The above setting specifies the data rate when connected to another ClassPad, or a Data Analyzer. Note that you must set the data rate (baud rate) for both the ClassPad and the connected device so they are identical.

- **Wakeup Enable**

To do this:	Select this setting:
Turn on the wakeup function (see below)	On*
Turn off the wakeup function	Off

(4) When all the settings are the way you want, tap [Set] to save them.

- The Communication application window appears at this time, with the new parameters you just configured. Check to make sure the settings are the way you want.

Tip

- For more information about the communication parameter, see “Communication Dialog Box” on page 1-9-15 in the separate Software User’s Guide.

Wakeup

Wakeup is a function that automatically puts the ClassPad into data communication standby whenever the ClassPad detects data coming in from a connected external device, or when a USB cable is attached to the ClassPad. You can turn wakeup on or off with the [Wakeup Enable] setting on the Communication dialog box described on page 1-9-15 in the separate Software User’s Guide.

What happens when wakeup is turned on depends on the type of device connected to the ClassPad.

■ When connected to another ClassPad unit

When the sending device performs a data send operation, the receiver device’s wakeup function activates and data receive is performed automatically. The receiver device operates normally as long as no data is being received.

In this configuration, wakeup does not operate on the receiver device when any one of the following three conditions exists.

- When any setting other than “3pin cable” is selected for [Cable Type] on the Communication dialog box.
- When any ongoing calculation or graphing operation is being performed. Wakeup activates when the ongoing operation is complete.
- When the ClassPad is completely powered down. For details, see “1-2 Turning Power On and Off” in the separate Software User’s Guide.

■ When connected to a computer's USB port

Wakeup activates as soon as you connect the cable to the ClassPad, and the ClassPad automatically performs the following steps.

- (1) If the ClassPad is off when the cable is connected, it turns on.
- (2) The currently running application is exited, and the Communication application starts up.
 - If the Communication application is already running at this time, it restarts.
- (3) The ClassPad enters communication standby.
 - For information about what you should do to actually transfer data, see the FA-CP1 User's Guide.

In this configuration, wakeup does not operate when any one of the following conditions exists.

- When any setting other than "USB cable" is selected for [Cable Type] on the Communication dialog box.
- When any ongoing calculation or graphing operation is being performed. Wakeup activates when the ongoing operation is complete.
- When the ClassPad is completely powered down. For details, see "1-2 Turning Power On and Off" in the separate Software User's Guide.

Note that wakeup does not activate in the case of add-in application or language data installation, or upgrading of the operating system.

Important!

- Connecting a USB cable to the ClassPad activates wakeup, exits the currently running application, and puts the ClassPad into communication standby. If you want to send a screenshot of the current display (page 2-4-5) or perform some other operation in which you want the currently running application to remain running, use the [Setup] - [Open Setup Menu] command to turn off wakeup (Wakeup Enable: Off).
- Wakeup may not work properly when both an SB-62 cable and a USB cable are connected to the ClassPad.
- For about five seconds after the display image disappears from the ClassPad screen when you turn off power, do not connect a cable to or disconnect a cable from the ClassPad. If you do, it can cause the wakeup function to operate abnormally.



2-4 Transferring Data to Another ClassPad Unit

This section details the steps you should perform in order to transfer data from one ClassPad unit to another.

• ClassPad Operation

- (1) Use the procedure under “Connecting to Another ClassPad Unit” on page 2-2-1 to connect the two units.
- (2) Use the procedure under “2-3 Configuring Communication Parameters” to configure the parameters of the two units as shown below.

Cable Type: 3pin cable
 Speed (3Pin): 115200 bps
 Wakeup Enable: On

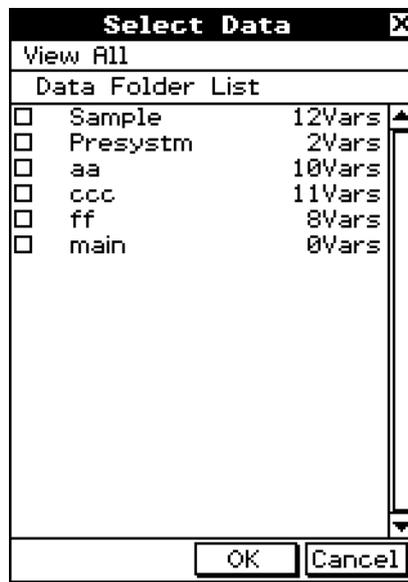
- If the speed settings of the two ClassPad units are different from each other, the slower setting is used.

The remaining steps of this procedure are marked *Sender* to indicate steps and information that apply to the sending device, or *Receiver* to indicate receiving device steps and information.

Sender

- (3) In the Communication application, tap [Link], and then [Transmit], or tap .

- This displays the Select Data dialog box.



Sender

- (4) Select the data you want to send.

- For more information, see “Selecting Data for Transfer” on page 2-4-3.

Sender

- (5) Tap [OK].

Sender

(6) In response to the confirmation message that appears, tap [OK] to send the data or [Cancel] to cancel the send operation.

- **Sender**

Tapping [OK] sends the data you selected in step (4).

- **Receiver**

If the receiving device has wakeup enabled, it automatically starts receiving the data.

Sender

(7) The message “Complete!” appears to let you know when the send operation is finished. Tap [OK].

- This returns to the Select Data dialog box.

Sender

(8) On the Select Data dialog box, tap [Cancel].

- This returns to the Communication application window.

Receiver

(9) The message “Complete!” appears to let you know when the receive operation is finished. Tap [OK].

Important!

- When wakeup is turned off on the receiving device, you need to perform the following operation on the receiving device before performing step (3):
Start up the Communication application, tap [Link] and then [Receive], or tap .
This puts the receiving unit into receive standby, which is indicated by the Standby dialog box on the display.

Tip

- When you send a variable or data item, it is normally stored in the current folder of the receiving device. A variable or data item sent from the library folder of the sending device, however, is stored in the “library” folder of the receiving device.
- When you send a folder (by selecting the check box next to a folder name), the variables and data items inside each folder are sent and stored in folders with the same name on the receiving device.
- If a data item with the same name as the data item being received already exists on the receiving device, the communication operation is paused and a dialog box asking whether the existing item should be replaced appears on the display of the receiving device. Tap [Yes] to replace, or [No] to cancel receipt of the data item. To terminate data communication, tap [Cancel]. If you want to replace all data items without being asked, tap [Yes to all].
- If the receiving device runs out of memory, a message dialog box appears to warn you. When this happens, terminate the data communication operation by tapping [OK] on the dialog box of the receiving device, delete data you no longer need from the memory of the receiving device, and then try again.



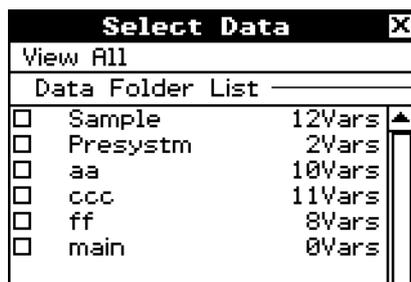
Selecting Data for Transfer

Perform the following steps on the sending device to select the data you want to send in step (3) of the procedure on page 2-4-1.

• ClassPad Operation

(1) In the Communication application, tap [Link] and then [Transmit], or tap  to display the Select Data dialog box.

- A list that shows user folders and the “main” folder appears first.



Title of currently displayed list
(folder name when a folder is open)

(2) Tap the [View] menu and then select the data type from the list that appears.

To list this on the Select Data dialog box:	Select this [View] menu command:
User folders and the “main” folder	Data Folder List
Library variables	Library
System variable groups	Application Status
eActivity folders	eActivity Folder List

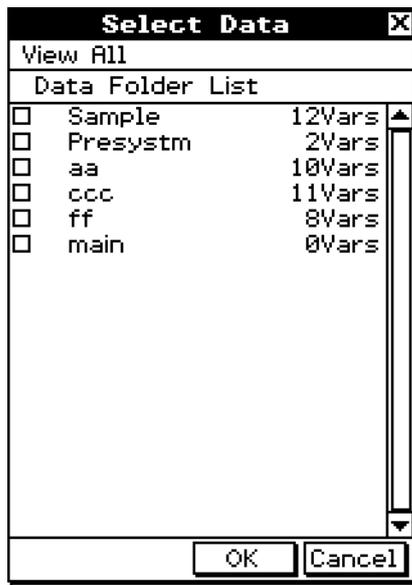
(3) Select the data you want to send.

- On the Select Data dialog box, select the check box next to the data you want to send.
- You can also tap the [All] menu and select one of the following commands to select or deselect data.

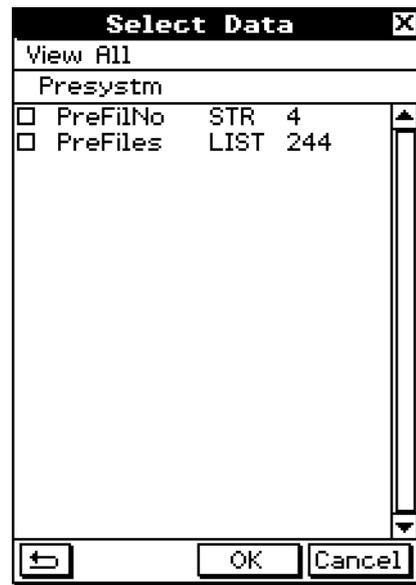
To do this:	Select this [All] menu command:
Select all currently displayed items	Select List
Deselect all currently displayed items	Deselect List
Select all items in all lists	Select All Lists
Deselect all items in all lists	Deselect All Lists

- Opening a folder in [Data Folder List] or [eActivity Folder List] displays the variables and data contained inside it, which can be individually selected for transfer. To select a variable or data contained in a particular folder, tap its folder name to open it.

Data Folder List

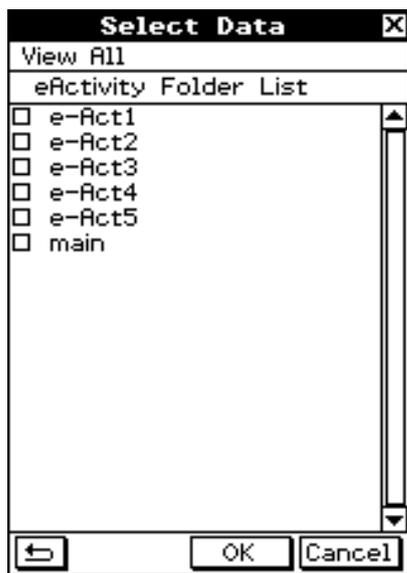


Tap "Presystm" to highlight it, and then tap it again.

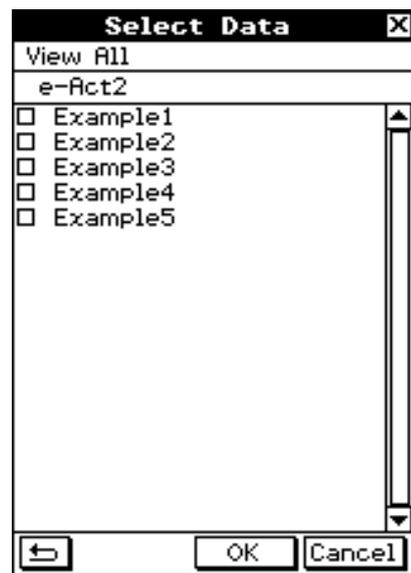


This lists the variables contained in the "Presystm" folder.

eActivity Folder List



Tap "e-Act2".



This lists the data contained in the "e-Act2" folder.

- To return to the folder list from a list of folder contents, tap  in the lower left corner of the window.
 - You can transfer all of the variables or data in a folder by selecting the check box next to the folder name on the data folder list or eActivity folder list.
- (4) Tap [OK] to send the data or [Cancel] to cancel the send operation.
- After tapping [OK], continue from step (5) of the procedure on page 2-4-1.

Sending a Screenshot of the Current Display Contents

Use the following procedure to send the current display contents of your ClassPad to another ClassPad unit.

Important!

Screenshot transfer is disabled when either of the following conditions exists.

- While a calculation or graphing operation is in progress
- If a data communication operation is already in progress

• **ClassPad Operation**

- (1) Use the procedure under “Connecting to Another ClassPad Unit” on page 2-2-1 to connect the two units.
- (2) Use the procedure under “2-3 Configuring Communication Parameters” to configure the parameters of the two units as shown below.

Cable Type: 3pin cable

Speed (3Pin): 115200 bps

Wakeup Enable: On

Screen Copy To: Outer Device (Sending device only)

The remaining steps of this procedure are marked *Sender* to indicate steps and information that apply to the sending device, or *Receiver* to indicate receiving device steps and information.

Sender

- (3) Display the screen you want to send.

- (4) Tap  .

- *Sender*

This sends the currently displayed screen.

- *Receiver*

If the receiving device has wakeup enabled, it automatically starts receiving the data.

The received screen appears on the display after the receive operation is complete.

Sender

- (5) If you want to send another screenshot, repeat steps (3) and (4).

Receiver

- (6) To cancel a receive standby state, press the  key.

Important!

- When wakeup is turned off on the receiving device, you need to perform the following operation on the receiving device before performing step (4):
Start up the Communication application, tap [Link], and then [Screen Receive], or tap  .
This puts the receiving unit into receive standby, which is indicated by the Standby dialog box on the display.

Tip

- Note that received screenshots can be displayed, but not saved.



Communication Standby

The ClassPad enters “communication standby” when you perform a send or receive operation. While in communication standby, the ClassPad waits for the other unit to send data, or for it to get ready to receive data.

The following describes how communication standby affects certain ClassPad operations.

- Auto Power Off (Getting Ready — 1-8 Configuring Power Properties) becomes disabled.
- ClassPad power cannot be turned off.
- If data communication does not start within three minutes after the ClassPad enters data communication standby, the message “Timeout” appears. When this happens, tap [Retry] to try again or [Cancel] to cancel the data communication operation.

Interrupting an Ongoing Data Communication Operation

Pressing the  key on either the sending device or receiving device during a data communication operation terminates it.



Appendix

- 1 Resetting and Initializing the ClassPad**
- 2 Deleting an Application**
- 3 Power Supply**
- 4 Number of Digits and Precision**
- 5 Specifications**

1 Resetting and Initializing the ClassPad

The memory of your ClassPad is divided into three parts: main memory, a storage area for storing data, and a RAM area for executing various calculations and operations. Reset and initialize restore normal ClassPad operation after some problem occurs.

RAM Reset

Perform RAM reset when the ClassPad freezes up or otherwise fails to perform as expected for some reason. A RAM reset does not affect data stored in main memory or the storage area, but it clears any data stored in the RAM area.

Memory Reset

Memory reset deletes all variable data in main memory or all eActivity data in the storage area, or both.

Memory Initialize

Initializing memory deletes all data and returns ClassPad memory to its initial factory default state. When initializing memory, you will be able to specify whether or not you also want to delete add-in applications.

This section explains how to perform the RAM reset operations only. The memory reset and memory initialize operations are performed using the System application. For details, see “16-3 Using the Reset Dialog Box” and “16-4 Initializing Your ClassPad” in the separate Software User’s Guide.



■ Performing the RAM Reset Operation

You should perform the RAM reset operation whenever your ClassPad freezes up or when it begins to operate abnormally for some reason. The RAM reset operation should restore normal ClassPad operation.

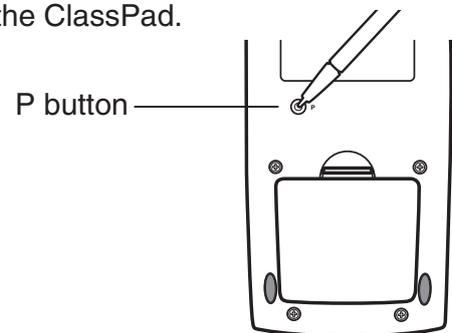
Important!

- The RAM reset operation deletes all data that is temporarily stored in ClassPad RAM. Performing the RAM reset operation while a calculation is in progress will cause any data stored in RAM by the calculation to be lost.
- Perform the RAM reset operation only when your ClassPad ceases to operate normally for some reason.

● ClassPad Operation

(1) Use the stylus to press the P button on the back of the ClassPad.

- Following the RAM reset operation, the ClassPad restarts automatically.



(2) After the ClassPad restarts, perform the ClassPad setup operation that you perform each time you replace ClassPad batteries (touch panel alignment, display contrast adjustment, display message language selection, keyboard settings). See Chapter 16 in the separate Software User's Guide for more information about the ClassPad setup operation.

- The application menu appears after you finish the setup operation.



2 Deleting an Application

You can delete an add-in application by deleting it from the application menu or by using the [Add-In App.] Memory Usage sheet of the System application as described in Chapter 16 in the separate Software User's Guide.

The following procedure shows how to delete an add-in application from the application menu only. For information about using the System application's [Add-In App.] tab, see Chapter 16 in the separate Software User's Guide.

• To use the application menu to delete an add-in application

- (1) Tap  to display the application menu.
- (2) Tap the down arrow button in the menu bar, and then select [Additional] from the list that appears.
 - This displays a list of all the applications you have installed on your ClassPad.
- (3) Tap , and then tap [Delete Application] on the menu that appears.
 - This causes all of the icons to be surrounded by a broken line, indicating that your ClassPad is ready to delete applications.
 - To exit the delete operation at this time, tap **ESC** on the icon panel.
- (4) Tap the icon of the application you want to delete.
- (5) In response to the dialog box that appears, tap [OK] to delete the application, or [Cancel] to cancel without deleting anything.

Tip

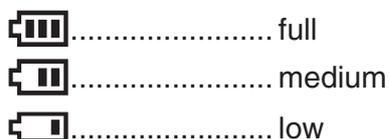
- Note that you can delete only add-in applications. You cannot delete any of the ClassPad's built-in applications.
- If you prefer to view remaining memory capacity as you delete add-in applications, use the [Add-In App.] Memory Usage sheet of the System application as described in Chapter 16 in the separate Software User's Guide.



3 Power Supply

Your ClassPad is powered by four AAA-size batteries LR03 (AM4).

The battery level indicator is displayed in the status bar.



Important!

- Be sure to replace batteries as soon as possible whenever the battery level indicator shows  (medium).
- Replace batteries immediately whenever the battery level indicator shows  (low). At this level, you will not be able to perform data communication or perform other functions.
- The following message indicates that batteries are about to go dead. Replace batteries immediately whenever this message appears.

Batteries are extremely low!
Replace batteries immediately!

If you try to continue using the calculator, it will automatically turn off. You will not be able to turn power back on until you replace batteries.

Be sure to replace batteries at least once every one year, no matter how much you use the ClassPad during that time.

The batteries that come with this ClassPad discharge slightly during shipment and storage. Because of this, they may require replacement sooner than the normal expected battery life.

Backing Up Data

Your ClassPad comes bundled with a special USB cable and FA-CP1 software, which you can use to backup data to a computer.

- The FA-CP1 software is on the CD-ROM.

Important!

- When battery power is very low, your ClassPad may not turn back on when you press its  key. If this happens, immediately replace its batteries.



4 Number of Digits and Precision

■ Number of Digits

Standard Mode

The following applies when the check box next to the “Decimal Calculation” item on the Basic Format dialog box is not selected.

- Up to 611 digits are stored in memory for integer values.
- Decimal values up to 15 digits are converted to fraction format and saved in memory. When a mathematical expression cannot be converted to fraction format, the result is displayed in decimal format.
- Values stored in memory are displayed as-is, regardless of how [Number Format] settings (Normal 1, Normal 2, Fix 0 – 9, Sci 0 – 9) are configured (except when a decimal value is displayed).

Decimal Mode

The following applies when the check box next to the “Decimal Calculation” item on the Basic Format dialog box is selected.

- Values stored in Ans memory and values assigned to variables have the same number of digits as defined for Standard mode values.
- Values are displayed in accordance with how [Number Format] settings (Normal 1, Normal 2, Fix 0 – 9, Sci 0 – 9) are configured.
- Displayed values are rounded to the appropriate number of decimal places.
- Some applications store values using a mantissa up to 15 digits long and a 3-digit exponent.

■ Precision

- Internal calculations are performed using 15 digits.
- The error for a single mathematical expression (Decimal mode calculation error) is ± 1 at the 10th digit. In the case of exponential display, calculation error is ± 1 at the least significant digit. Note that performing consecutive calculations causes error to be cumulative. Error is also cumulative for internal consecutive calculations performed for: $^{\wedge}(x^y)$, $^x\sqrt{\quad}$, $x!$, nPr , nCr , etc.
- Error is cumulative and tends to be larger in the vicinity of a function’s singular point(s) and inflection point(s), and the vicinity of zero. With $\sinh(x)$ and $\tanh(x)$, for example, the inflection point occurs when $x = 0$. In this vicinity, error is cumulative and precision is poor.



5 Specifications

Calculation range:

$\pm 1 \times 10^{-999}$ to $\pm 9.999999999 \times 10^{999}$ and 0. Internal operations use 15-digit mantissa.

Exponential display range: Normal 1: $10^{-2} > |x|$, $|x| \geq 10^{10}$

Normal 2: $10^{-9} > |x|$, $|x| \geq 10^{10}$

Program capacity: 515000 bytes (max.)

Power supply:

Four AAA-size batteries LR03 (AM4)

Power consumption: 0.5 W

Approximate battery life:

230 hours (continuous display of application menu)

140 hours continuous operation (5 minutes calculation, 55 minutes display)

Auto power off:

Power is automatically turned off if no operation is performed for a specified period (user-settable as 1 minute, 3 minutes, 6 minutes, or 60 minutes). The initial default setting is 6 minutes.

Power saving mode:

Resume function can be configured to stay enabled, or to disable automatically 1 hour, 6 hours, or 1 day after power is turned off.

Ambient temperature range: 0°C to 40°C

Dimensions: 21 mm (H) \times 84 mm (W) \times 189.5 mm (D)

$1\frac{3}{16}$ " (H) \times $3\frac{5}{16}$ " (W) \times $7\frac{7}{16}$ " (D)

Weight: Approx. 280 g (including batteries)



Data Communication

Port: 3-pin data communication port
4-pin mini USB port

- For information about FA-CP1 minimum computer system requirements, see the FA-CP1 User's Guide.

Method: Start-stop (asynchronous), full-duplex

Transmission speed (BPS): 115200/38400/9600 bits/second (normal)
38400 bits/second (Send38k/Receive38k)

Parity: None

Bit length: 8 bits

Stop bit:

Send38k: 2 bits

Receive38k: 1 bit

Flow control: X ON



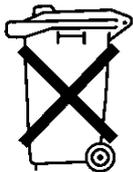
Canadian Regulatory Information Information concernant la Réglementation Canadienne

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

NL

Batterij niet weggooien,
maar inleveren als
KCA



CE

Manufacturer:
CASIO COMPUTER CO., LTD.
6-2, Hon-machi 1-chome
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Responsible within the European Union:
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This mark applies in EU countries only.



CASIO®

CASIO COMPUTER CO., LTD.

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One or more of the following patents may be used in the product.
U.S.Pats. 5,539,867