Data Communications

This chapter tells you everything you need to know to transfer programs between the fx-7400G PLUS and certain CASIO Graphic Scientific Calculator models connected with an optionally available SB-62 cable. To transfer data between a unit and a personal computer, you will need to purchase the separately available CASIO Interface Unit.

This chapter also contains information on how to use the optional SB-62 cable to connect to a CASIO Label Printer to transfer screen data for printing.

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1. Connecting Two Units

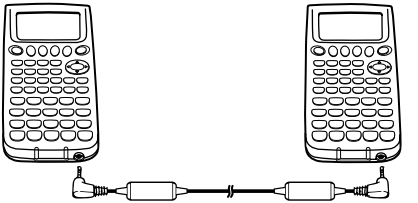
The following procedure describes how to connect two units with an optional SB-62 connecting cable for transfer of programs between them.

●To connect two units

1. Check to make sure that the power of both units is off.

2. Remove the covers from the connectors of the two units.
   - Be sure you keep the connector covers in a safe place so you can replace them after you finish your data communications.

3. Connect the two units using the SB-62 cable.



SB-62 cable

• Keep the connectors covered when you are not using them.

2. Connecting the Unit with a Personal Computer

To transfer data between the unit and a personal computer, you must connect them through a separately available CASIO Interface Unit.

For details on operation, the types of computer that can be connected, and hardware limitations, see the user's guide that comes with the Interface Unit.

Some types of data may not be able to be exchanged with a personal computer.

●To connect the unit with a personal computer

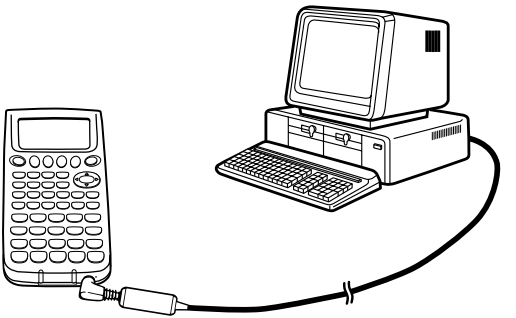
1. Check to make sure that the power of the unit and the personal computer is off.

2. Connect the personal computer to the Interface Unit.

3. Remove the cover from the connector of the unit.
   - Be sure you keep the connector cover in a safe place so you can replace it after you finish your data communications.

4. Connect the unit to the Interface Unit.

5. Turn on the power of the unit, followed by the personal computer.
   - After you finish data communications, turn off power in the sequence: the unit first, and then the personal computer. Finally, disconnect the equipment.



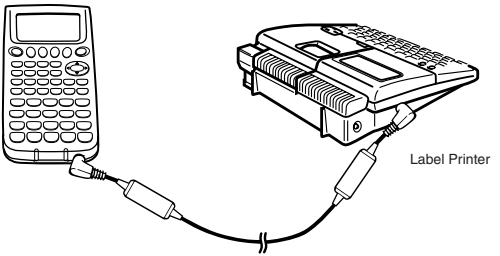
3. Connecting the Unit with a CASIO Label Printer

After you connect the unit to a CASIO Label Printer with an optional SB-62 cable, you can use the Label Printer to print screen shot data from the unit. See the user's guide that comes with your Label Printer for details on how to perform this operation.

- The operation described above can be performed using the following Label Printer models: KL-2000, KL-2700, KL-8200, KL-8700 (as of February 2002).

●To connect the unit with a Label Printer

1. Check to make sure that the power of the unit and the Label Printer is off.
2. Connect the optional SB-62 cable to the Label Printer.
3. Remove the cover from the connector of the unit.
   - Be sure you keep the connector cover in a safe place so you can replace it after you finish your data communications.
4. Connect the other end of the SB-62 cable to the unit.
5. Turn on the power of the unit, followed by the Label Printer.



- After you finish data communications, turn off power in the sequence: the unit first, and then the Label Printer. Finally, disconnect the equipment.

4. Before Performing a Data Communication Operation

In the Main Menu, select the **LINK** icon and enter the LINK Mode. The following data communication main menu appears on the display.

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Image Set: ..... Indicates the status of the graphic image send features.

Off: Graphic images not sent.

On: Pressing F-0 sends graphic images.

F1 (TRAN) ..... Menu of send settings

F2 (RECV) ..... Menu of receive settings

F4 (IMGE) ..... Menu of graphic image transfer settings

Communication parameters are fixed at the following settings.

- Speed (BPS): 9600 bits per second
- Parity (PARITY): NONE

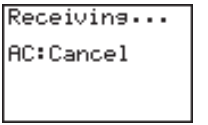
5. Performing a Data Transfer Operation

Connect the two units and then perform the following procedures.

Receiving unit

To set up the calculator to receive data, press F2 (RECV) while the data communication main menu is displayed.

F2 (RECV)



The calculator enters a data receive standby mode and waits for data to arrive. Actual data receive starts as soon as data is sent from the sending unit.

Sending unit

To set up the calculator to send data, press F1 (TRAN) while the data communication main menu is displayed.

F1 (TRAN)

Press the function key that corresponds to the type of data you want to send.

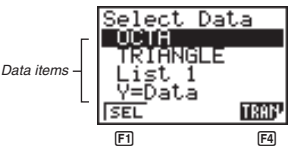
F1 (SEL) ..... Selects data items and sends them

F4 (BACK) ..... All memory contents, including mode settings

●To send selected data items

Press F1 (SEL) to display a data item selection screen.

F1 (SEL)



F1 (SEL) ..... Selects data item where cursor is located.

F4 (TRAN) ..... Sends selected data items.

Use the ▲ and ▼ cursor keys to move the cursor to the data item you want to select and press F1 (SEL) to select it. Currently selected data items are marked with "►". Pressing F4 (TRAN) sends all the selected data items.

- To deselect a data item, move the cursor to it and press F1 (SEL) again.

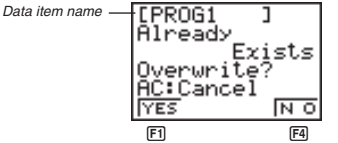
Only items that contain data appear on the data item selection screen. If there are too many data items to fit on a single screen, the list scrolls when you move the cursor to the bottom line of the items on the screen.

The following types of data items can be sent.

Data Item	Contents	Overwrite Check*1	Password Check*2
Program	Program contents	Yes	Yes
List *n*	List memory (1 to 6) contents	Yes	
Y=Data	Graph expressions, graph write/non-write status, View Window contents, zoom factors	No	
V-Win	View Window memory contents	No	
Variable	Variable assignments	No	

*1 No overwrite check: If the receiving unit already contains the same type of data, the existing data is overwritten with the new data.

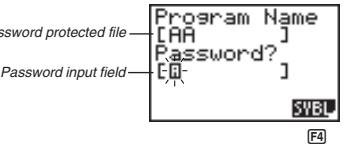
With overwrite check: If the receiving unit already contains the same type of data, a message appears to ask if the existing data should be overwritten with the new data.



F1 (YES) ..... Replaces the receiving unit's existing data with the new data.

F4 (NO) ..... Skips to next data item.

*2 With password check: If a file is password protected, a message appears asking for input of the password.



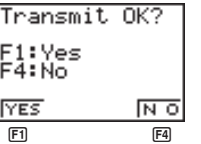
F4 (SYBL) ..... Symbol input

After inputting the password, press EXE.

●To execute a send operation

After selecting the data items to send, press F4 (TRAN). A message appears to confirm that you want to execute the send operation.

F4 (TRAN)

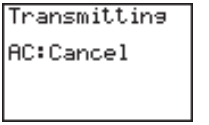


F1 (YES) ..... Sends data.

F4 (NO) ..... Returns to data selection screen.

Press F1 (YES) to send the data.

F1(YES)



- You can interrupt a data operation at any time by pressing AC.

The following shows what the displays of the sending and receiving units look like after the data communication operation is complete.

Sending Unit

Receiving Unit

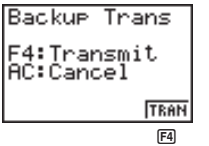
Press AC to return to the data communication main menu.

●To send backup data

This operation allows you to send all memory contents, including mode settings.

While the send data type selection menu is on the screen, press F4 (BACK), and the back up send menu shown below appears.

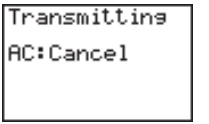
F4(BACK)



F4

Press F4 (TRAN) to start the send operation.

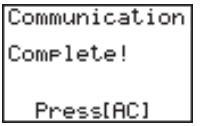
F4(TRAN)



The following shows what the displays of the sending and receiving units look like after the data communication operation is complete.

Sending Unit

Receiving Unit



Press [AC] to return to the data communication main menu.

- Data can become corrupted, necessitating a RESET of the receiving unit, should the connecting cable become disconnected during data transfer. Make sure that the cable is securely connected to both units before performing any data communication operation.

6. Screen Send Function

The following procedure sends a bit mapped screen shot of the display to a connected computer.

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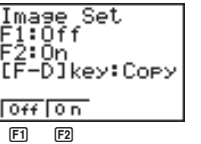
●To send the screen

1. Connect the unit to a personal computer or to a CASIO Label Printer.
2. In the data communication main menu, press [F4] (IMGE), and the following display appears.

[F4](IMGE)



[F1](Off) ..... Graphic images not sent
[F2](On) ..... Bitmap

3. Display the screen you want to send.
4. Set up the personal computer or Label Printer to receive data. When the other unit is ready to receive, press [F-D] to start the send operation.

You cannot send the following types of screens to a computer.

- The screen that appears while a data communication operation is in progress.
- A screen that appears while a calculation is in progress.
- The screen that appears following the reset operation.
- The low battery message.

- The flashing cursor is not included in the screen image that is sent from the unit.
- If you send a screen shot of any of the screens that appear during the data send operation, you will not be able to then use the sent screen to proceed with the data send operation. You must exit the data send operation that produced the screen you sent and restart the send operation before you can send additional data.
- You cannot use 6mm wide tape to print a screen shot of a graph.

7. Data Communications Precautions

Note the following precautions whenever you perform data communications.

- An error occurs whenever you try to send data to a receiving unit that is not yet standing by to receive data. When this happens, press [AC] to clear the error and try again, after setting up the receiving unit to receive data.

- An error occurs whenever the receiving unit does not receive any data approximately six minutes after it is set up to receive data. When this happens, press [AC] to clear the error.

- An error occurs during data communications if the cable becomes disconnected, the parameters of the two units do not match, or if any other communications problem occurs. When this happens, press [AC] to clear the error, then correct the problem before trying data communications again. If data communications are interrupted by the [AC] key operation or an error, any data successfully received up to the interruption will be in the memory of the receiving unit.

- An error occurs if the receiving unit memory becomes full during data communications. When this happens, press [AC] to clear the error and delete unneeded data from the receiving unit to make room for the new data, and then try again.

- To send picture (graph) memory data, the receiving unit need 1-kbytes of memory for use as a work area in addition to the data being received.