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1. GENERAL SPECIFICATION

1-1. KP-180 DATA TERMINAL

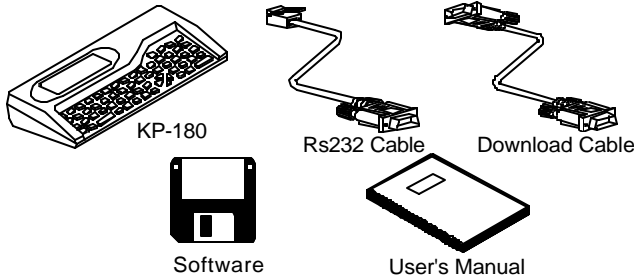


Figure 1.1.1

- ☞ In order to help users print labels with no PC computer connected, KP-180 has been elaborately developed and works smoothly with EZ-2P, EZ-4P, and EZ-4TT barcode printers. When working, KP-180 prints either the label forms stored in KP-180's built-in memory card or those stored in the printer's external memory card.
- ☞ KP-180 allows user to make necessary change of the formats and parameters in the label contents when working on production line. Moreover, a CCD barcode scanner can be connected to KP-180, to save user a lot of time and labor in case of input of serial number, variable, or file names.
- ☞ EZ-4TT with firmware version earlier than V1.60 and EZ-2P/4P with firmware version earlier than V1.52 are incompatible with KP-180.
- ☞ For further information about compatibility of printer, specification of CCD scanner, and external memory card of printer, please read Chapter 6. Appendix.

1-2. HARDWARE

LCD	☞ 2-line display, up to 20 characters a line.
Memory card	☞ 8K bytes, standard built-in. 2K distributed to variable storage, 6K to form storage. ☞ Total 10 forms acceptable, each form up to 1024 bytes, total within 6K bytes.
9-pin RS-232	☞ 4800,N,8,1, input serial port. To connect with CCD scanner, or to download label format
9-pin phone plug	☞ 9-pin RS-232 (9600,N,8,1), input/output serial port, ☞ to connect with EZ-2P/4P or EZ-4TT
DC Jack	☞ Optional external adapter, DC 5V, 400mA

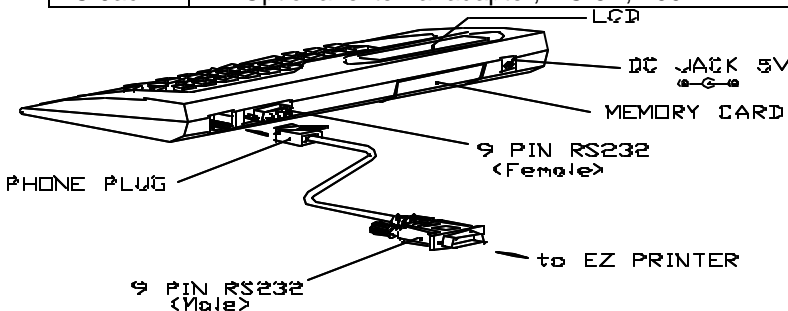


Figure 1.2.1

1-3. POWER

To run KP-180, two sources of electricity are considered:

To share power with the printer through the printer's RS-232 cable. Normally, KP-180 requires

power of 5V DC 60mA. In case a CCD (barcode scanner) is connected, KP-180's power requirement increases, including that of CCD's. To use independent power through 5V 400mA adapter connected to KP-180's DC Jack. When using an independent power, KP-180 automatically stops power from the printer through RS-232 cable. The 5V DC 400mA adapter is a piece of optional equipment provided by GODEX.

1-4. PRINT

Be sure KP-180 has been connected to printer's RS-232 port (see figure 1.4.1).

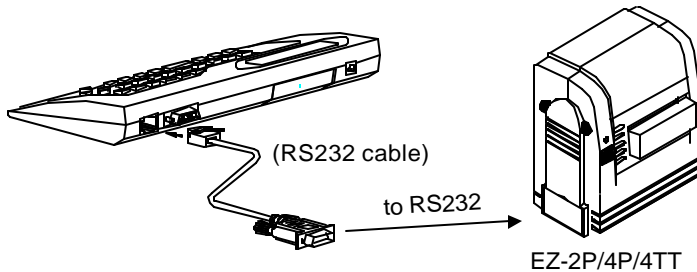


Figure 1.4.1

Be sure the flash memory card has been put into the printer's slot if your want to print label forms in the card. KP-180 has its own 8K built-in memory card, which can store some simple forms. In case of big forms or graphic, printer's external flash memory cards are suggested.

1-5. STARTUP

Power on printer, KP-180 begins self-test, and LCD shows messages like right flowchart. Then LCD shows name of printer in about 2 seconds, if printer, EZ-4TT for example, is connected correctly.

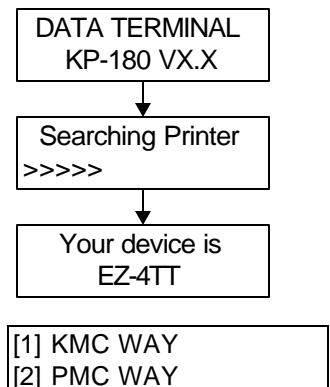
If printer connected improperly, LCD keeps showing "Searching Printer", with cursor flashing. If LCD goes this way for a long time, please reconnect printer.

As printer correctly connected, LCD begins to check if an external memory card has been installed into printer.

If installed, LCD shows message like right screen.

Press 1 to go to paragraph 2-1, to print label forms stored in KP-180's built-in memory card.

Press 2 to go to paragraph 2-2, to print label forms stored in Printer's External Memory Card (this is an optional product).

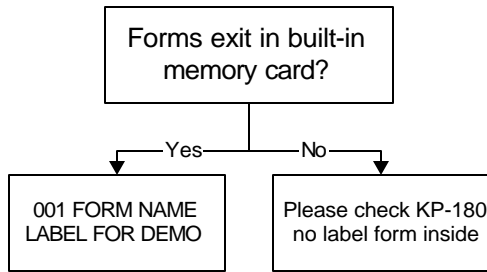


2. OPERATION MODE

2-1. KMC WAY

2-1-1. Form choice

When entering KMC WAY, KP-180 begins to check whether any form has been downloaded into the built-in memory card.



If forms exist, LCD shows the name of the first form. "001" indicates this form is the first one. To download files, press "Shift + \$" keys, and KP-180 will go to Chapter 4. DOWNLOAD MODE.

- ☞ To help you quickly pick up the form you want, KP-180 provides F1 key to list out the names of all the forms and graphics in the memory card.
- ☞ As to some form you want to pick up, please key in the name and press Enter, or press '↵' keys to reach it and press Enter.
- ☞ If the desired form is a case of either variable or serial number, LCD will go to paragraph 2-1-2, otherwise goes to paragraph 2-1-3.

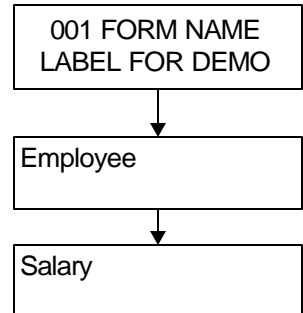
2-1-2. Variable setting

When the chosen form is with variables or serial number, LCD displays as right screen.

Prompt
xxxxx

"Prompt" means the name of some variable data field; xxxxx is the format of the variable. Both must have been defined before label data is downloaded into memory card.

For example:
When a form has two variables:
"Prompt1"=Employee, "Prompt2"= Salary,
After input of variable "Employee", press Enter. (See right screen.)
After input of variable "Salary", press Enter. (See right screen.)

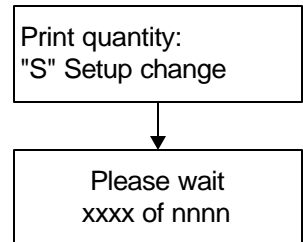


2-1-3. Print quantity

As variable setting finishes, press Enter, and LCD shows as right screen.

After input of how many same labels to be printed, printer begins printing and LCD shows as right.

(xxxx: ordinal label printer is doing; nnnn: total of labels to be printed)



To change setup, a press of "S", and LCD will go to Chapter 3. SETUP MODE. As finishing setup change, a press of EXIT will bring LCD to come back to this stage.

2-1-4. Print job end

On completion of printing, LCD shows message as right screen:

PRINT JOB END
[C] Continue Printing ☞

Besides [C], there are four hidden choices: [S], [M], [L], [P]. With "?", "?" keys going up or down, user can easily test their functions.

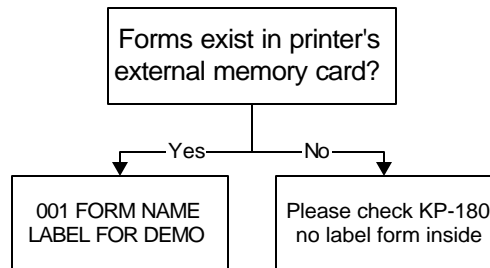
- [C] ? Continue to print ? KP-180 goes back to step **2-1-3**.
- [S] ? Setup mode ? KP-180 goes to Chapter **3**, Setup Mode.
- [M] ? Modify variables ? KP-180 goes back to step **2-1-2**.
- [L] ? Load new form ? KP-180 goes back to step **2-1-1**.
- [P] ? Go to **PMC WAY** ? KP-180 goes back to step **2-2**.
- [Enter] ? Print one piece of the last label.

⚡⚡ When power off, all the data in KP-180 leaves out.

2-2. PMC WAY

2-2-1. Form choice

When entering PMC WAY, KP-180 begins to check whether any form has been downloaded into printer's external memory card.



If forms exist, LCD shows the name of the first form. "001" indicates this form is the first one. To download files, press "Shift + \$" keys, and KP-180 will go to Chapter 4. DOWNLOAD MODE.

- ⚡⚡ To help you quickly pick up the form you want, KP-180 provides F1 key to list out the names of all the forms and graphics in the memory card.
- ⚡⚡ As to some form you want to pick up, please key in the name and press Enter, or press '↵' '↵' keys to reach it and press Enter.
- ⚡⚡ If the desired form is a case of either variable or serial number, LCD will go to 2-2-2 Variable setting, otherwise goes to 2-2-3. Print Quantity.

2-2-2. Variable setting

The way for PMC to set variables is exactly the same as that for KMC. Please read paragraph 2-1-2.

2-2-3. Print Quantity

The way for PMC to set Print Quantity is exactly the same as that for KMC. Please read paragraph 2-1-3.

2-2-4. Print job end

On completion of printing, LCD shows message as right screen:

PRINT JOB END [C] Continue Printing ⚡
--

Besides [C], there are four hidden choices: [S], [M], [L], [K]. With "?", " ", "?" keys going up or down, user can easily test their functions.

- [C] ? Continue to print ? KP-180 goes back to step **2-2-3**.
- [S] ? Setup mode ? KP-180 goes to Chapter **3**, Setup Mode.
- [M] ? Modify variables ? KP-180 goes back to step **2-2-2**.
- [L] ? Load new form ? KP-180 goes back to step **2-2-1**.
- [K] ? Go to **KMC WAY** ? KP-180 goes back to step **2-1**.
- [Enter] ? Print one piece of the last label.

⚡⚡ When power off, all the data in KP-180 leaves out.

3. SETUP MODE

In order to make printing easier and more convenient, KP-180 provides users with a function, **Setup Mode**, to change parameters. As some mistakes may come from the confusing parameters, we recommend that, before entering Setup Mode, users be familiar with contents/formats of the forms and all functions of the printer's Tech Manual.

When entering Setup Mode, LCD displays the choice list:

[1] LABEL WIDTH
[2] LABEL LENGTH

Besides [1], [2] shown on the screen, there are several other choices that can be found either by demanding '↵' '↵' up/down or by keying in a selected number:

- | | |
|--------------------|------------------|
| [1] LABEL WIDTH | [6] ROW ADJ. |
| [2] LABEL LENGTH | [7] SET STRIPPER |
| [3] REVERSE PRINT | [8] SET SPEED |
| [4] STOP POSITION | [9] SET DARKNESS |
| [5] NUMBER OF COPY | [10] SET CUTTER |

4. DOWNLOAD FORM TO KP

Ready:

1. Power on the printer.
2. Using the RS232 cable to connect the KP-180 and printer (see figure 1.4.1). Printer's RS232 setting: 9600,N,8,1.
3. Using the download cable to connect one end of cable to KP-180's RS-232 Serial Port, and the other end to computer's COM1 or COM2 (see figure 4.0.1). PC's RS232 setting: 4800,n,8,1.
4. Create a download file.

For example: saving the following contents for download file (name: TEST.CMD)

```

^Q45,0,0
^W50
^E12
^S2
^H5
^L
AC,20,10,1,1,1,0,KEYBOARD
AC,40,10,1,1,1,0.DOWNLOAD
BA,60,10,2,5,100,0,1,4321
E
    
```

Create a new folder and copy LKP180.EXE to this folder. Suggestion: Keep your download files with this program in same folder.

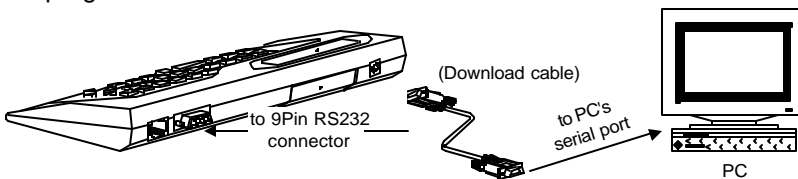


Figure 4.0.1

Into KP-180 download mode

Select the KMC way, press "Shift" + "\$" keys, and KP-180 will go to download mode. LCD shows as right screen.

Download mode
[1] ADD FORM

4-1. ADD FORM

When ADD FORM is chosen, KP-180 shows right screen and asks you to input the name of the file you want to download.

KEY IN FILE NAME
L01

When name is keyed in, LCD shows right screen.

Ready for loading

As the cable is connected, run download program by following statement under DOS prompt.

LKP180 TEST.CMD /C:1

TEST.CMD is the download file.

/C:1 means serial port COM 1 of the PC computer; likewise, C:2 must be chosen when the download cable is connected to serial port COM2 of the PC computer.

When download is finished, LCD shows right screen and begins to write what it downloaded into memory card.

Write to memory
Please wait

When writing is finished, LCD shows right screen, and goes back to select menu of DOWNLOAD MODE in about 1 second.

Form loaded
Successfully

Download message:

Buffer is full
Download incomplete

There is no vacancy in memory card for new forms.

Can not download
more file

10 forms have been stored in, and there is no more form to be accepted.

Too many variables
in label format

KP-180 allows 20 variables at most. LCD will go back to previous screen in about 1 second, and ask you to try another form.

Same name in keybo
Keyin name again

Your chosen name has been existed in memory. LCD will go back to previous screen in about 1 second, and ask you to try another name.

File larger than 1K
Download incomplete

File is too large to be downloaded. LCD will go Download mode menu in about 1 second, and ask you to download another form.

Process aborted
Download incomplete

During process of downloading, whenever EXIT is pressed, LCD shows the message and goes to Download mode menu in about 1 second.

4-2. DELETE FORM

When entering this stage, LCD shows as right screen.

SELECT DELETE FORM
L01

Press **Enter** to choose the file shown on the screen, such as L01, or pick up a form either by keying in its name or by moving '←' '→' to locate it.

When a form is decided, LCD shows as right screen:

Clear memory
Please wait.....

When finishing deleting form, LCD will go to Download mode menu.

4-3. ERASE MEMORY

When entering this stage, LCD shows as right screen:

Clear memory Please wait

As contents of memory have been erased, LCD shows right screen and goes to Download mode menu in about 1 second.

Clear memory ok!!

5. TROUBLE SHOOTING

PROBLEM	RECOMMENDED SOLUTION
KP-180 refuses to work	Check printer's firmware version
LCD keeps showing "Searching Printer >>>>>	Check printer if LED light red (when LED light is red, there must be some problems with the printer, not with KP-180.) Check the printer's dip-switch setting was 9600,N,8,1.
LCD shows nothing or a string of same letter.	Check keyboard if key squeezed. Remove cover and clean contacted circuit with alcoholic cloth.
Printing undesirably	Check if form in memory card same as printed label. Check parameters and re-setup.

Appendix A. Can work with

Printer's External Memory Card

- ✂✂ There are two types of external **flash** memory cards (1MB or 2MB), used by the printer. Each card can store up to 330 forms that KP-180 accepts.
- ✂✂ The name of each form accepts up to 20 characters.
- ✂✂ Each form accepts variable data fields up to 30 sets. Any variable data field accepts at most 100 characters.
- ✂✂ All the forms must have been downloaded into the flash memory card before KP-180 works. To download form data, please read Chapter 9, SOFTWARE COMMAND, EZ-4TT & EZ-2P/4P Technical User's Manual.

Printer

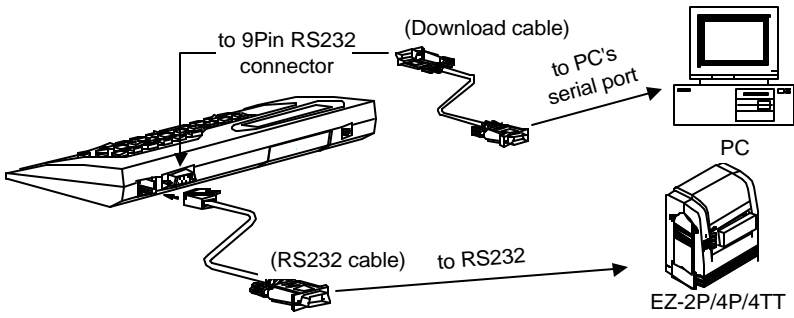
Among EZ series of printers, EZ-4TT, EZ-2P and EZ-4P are specially selected to work with KP-180. However, EZ-4TT with firmware version earlier than V1.60 and EZ-2P/4P with firmware version earlier than V1.52 are incompatible.

CCD Scanner

CCD, the barcode scanner, is set with 4200-baud rate, no parity, 8-bit pre character, and 1 stop bit. When KP-180 is waiting for your data input, such as variables, serial numbers or file names, CCD is helpful and a good alternative, saving you a lot of time.

Appendix B. Connect

1. Download form to KP-180



2. Download form to printer's memory card

