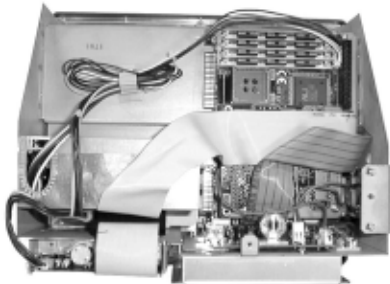


## AR-B1374



CPU card

### 1. How to Quit Programs

When updating the program of each terminal unit, quit the program, and then switch to the screen in which the PC-DOS prompt such as "A:¥-----" is displayed. The table below summarizes how to quit the terminal program for each terminal.

		Changing to PCDOS	Display	How to confirm program version	Installation command
DP-6	Terminal unit	[Alt]+[Fn]=>[F2] Note)With the version Ver-15 or earlier	A:¥DP10¥ TERMINAL>	[F6]=>Self test	B:¥>install
	Main unit	[Fn]+[F2]			B:¥>nbdpinst [F1]=>nbdp.exe
FELCOM 11		[F1] =>[8]	A:¥ FELCOM11>	Confirm at program starting	B:¥>ibinst
FELCOM 12		[Alt]+[Fn]=>[F2]=>YES=>[Enter]	A:¥ FELCOM12>	Ver03: [Alt]+[Fn]=[F1]	B:¥>ibinst
FELCOM 81		[Alt]+[Fn]=>[F2]=>YES=>[Enter]	A:¥>	[Alt]+[Fn]=[F1]	B:¥>ibinst

For example, to quit the terminal program of FELCOM-12:

- Press [F2] key while pressing [Alt] and [Fn] keys.
- A message, "OK to quit system Yes/No", will appear. Then, move the cursor to "Y", and press [Enter] key.
- Then, the prompt, "A:¥FELCOM12>", will appear on the screen.

To update the terminal program, B-drive (B:¥>) is used. To change from A-drive to B drive,

- press [B],[:], and [Enter] keys successively.

Then, the prompt, "B:¥>", will appear on the screen.

Type "installation command", then press [Enter] key. (See above table; installation command.)

**Note) Drives of IB-581 are:**  
**A drive : Flash ROMs of IB-581**  
**B drive : Floppy disk**

## 2. Changing the Terminal Software

### 2.1 Overview

This chapter describes how to change the terminal software to use the IB-581 for other models. When changing IB-581 of DP-6 to the terminal of FELCOM-12, for example, you need to replace the terminal program. To replace the software, delete all the files except the system files of PC-DOS: IBMDOS.COM \*, IBMBIO.COM \*, COMMAND.COM, and FORMAT.COM, and install the program to be.

### 2.2 A method to change the terminal program by formatting A-drive

Command "FORMAT A: /S" or A-drive format and copy of system files is used to format the A-drive.

- Press [F],[O],[R],[M],[A],[T],[Space],[A],[:],[Space],[/], and [S] keys successively.

*If you do not type "/S", A: drive will be formatted all, this mean PC-DOS will be disappeared, never forget type "/S". If you made format A: drive all or lost PC-DOS, see "chapter 3 Install PC-DOS".*

*For example)*

1. Quit the terminal program of FELCOM-81.
  - Press [F2] key while pressing [Alt] and [Fn] keys. Select "Yes" and press [Enter] key.

When the program has been quitted, the prompt "A:¥>" will appear on the screen.

2. To format the A-drive and copy the system files at the same time.
  - Press [F],[O],[R],[M],[A],[T],[Space],[A],[:],[Space],[/],[S] and [Enter] keys successively.

Be sure to type a switch function "/S". This switch is a command to format the A-drive and copy the system files at the same time.

3. Check the root directory of A-drive.
  - Press [D], [I], [R], and [Enter] keys successively.

COMMAND.COM

*Note) You cannot find "IBMDOS.COM" and "IBMBIO.COM", because these are hidden files.*

4. Change to the B-drive by pressing keys,
  - Press [B], [:], and [Enter], successively.

The prompt "B:¥>" will appear on the screen.

5. Install the terminal program by using "INSTALL.BAT" file contained in the program.

Press the keys successively according to the terminal to be changed to as follows:

FELCOM-11

- [I],[B],[I],[N],[S],[T] and [Enter]

FELCOM-12

- [I],[B],[I],[N],[S],[T] and [Enter]

FELCOM-81

- [I],[N],[S],[T],[A],[L],[L] and [Enter]

DP-6

- [I],[N],[S],[T],[A],[L],[L] and [Enter]

Programs will be installed automatically. With some terminal programs, follow the installation instructions that will be shown on the display.

6. When the program has been installed, the prompt "B:¥>" will appear. Then turn off power.

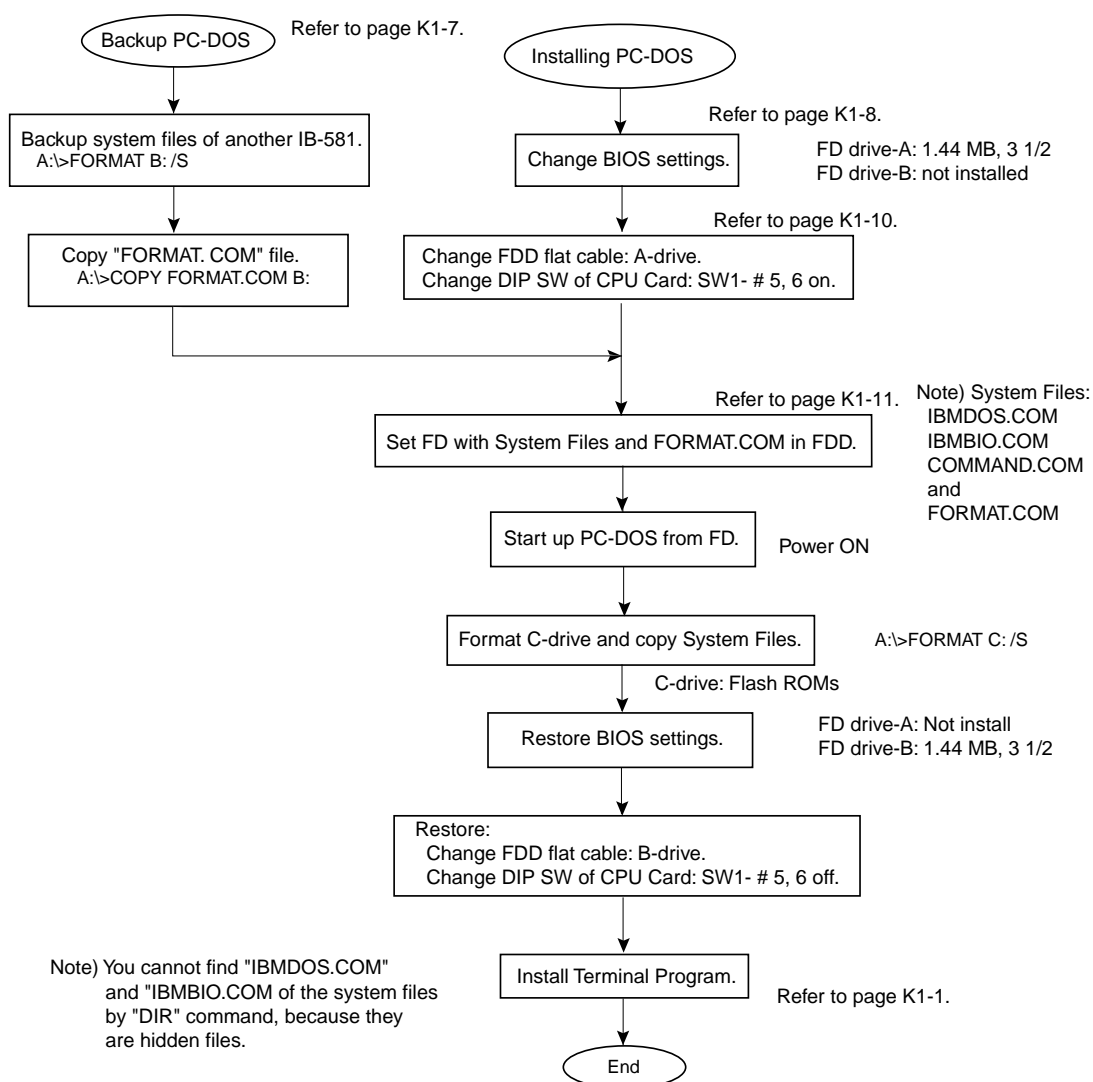
## 3. Installing PC-DOS

### 3.1 Overview

The system files and terminal program of PC-DOS 6.3 is installed in A-drive: flash ROMs (MEM-1, 2) on the CPU Card (AR-B1374) of IB-581.

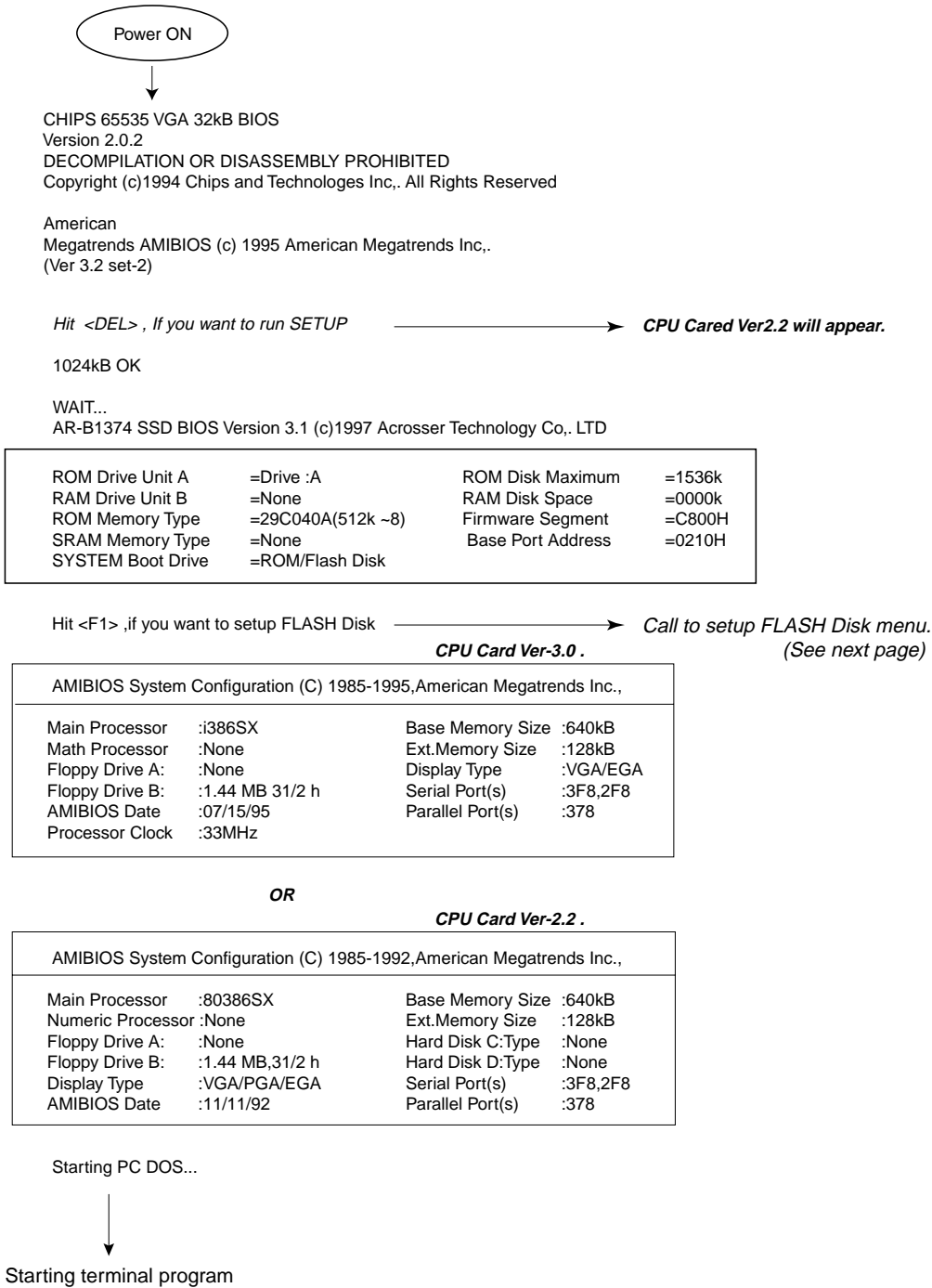
If the A-drive has been formatted or the system files have been destructed in an operational error, and PC-DOS, therefore, does not start, reinstall the PC-DOS system files, and then install the terminal program.

### 3.2 Outline of the Procedure



### 3.3 Until PC-DOS Starts

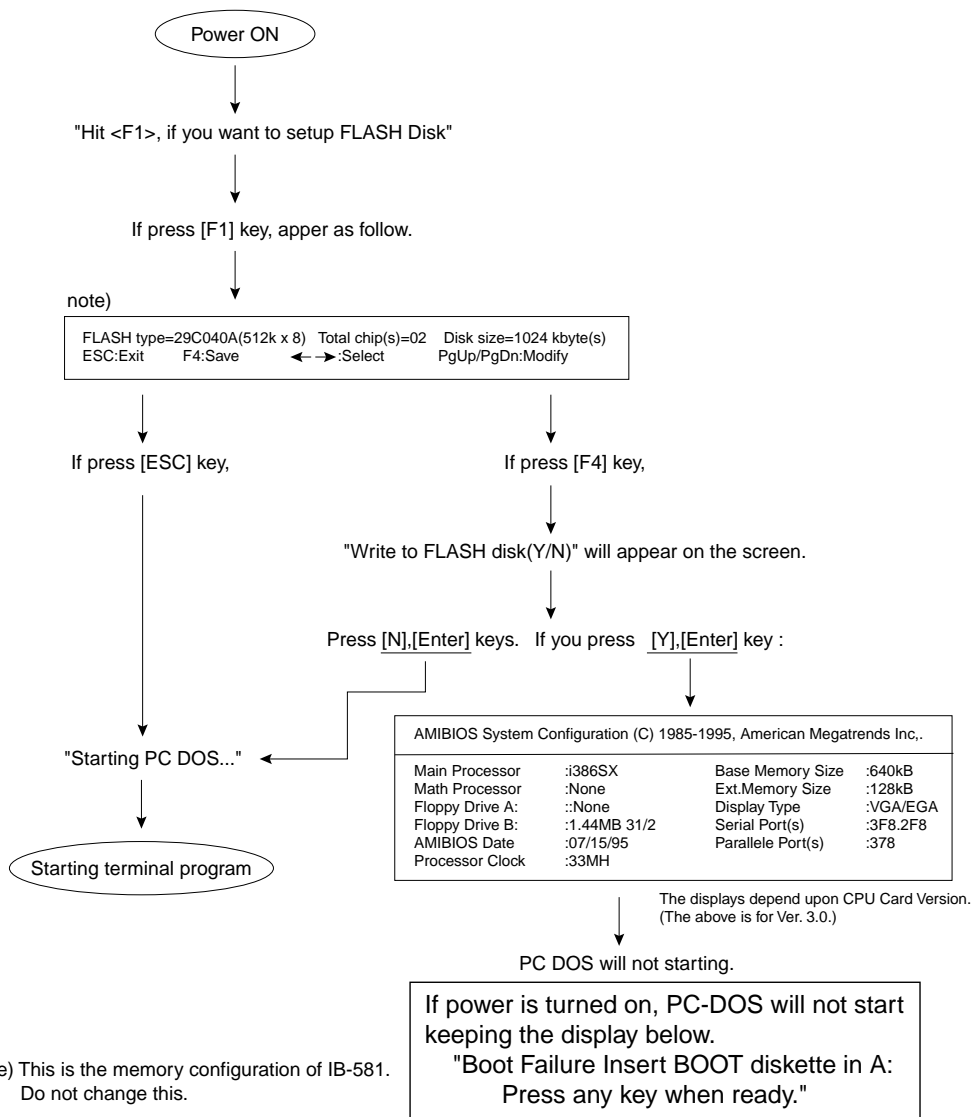
Major displays that appear until PC-DOS starts up are shown below. The displays depend on the version of CPU Card. The following displays are for Ver. 3.0 of CPU card.



**Note) Rewriting the memory**

If you press [F1] key when a message "Hit <F1>, if you want to setup FLASH Disk." appears before PC-DOS starts up after power-on, a memory settings display will appear. If you "Save" the settings by pressing [F4] key, the terminal program will be deleted and will not start. Then, a message "Boot Failure Insert BOOT diskette in A: Press any key when ready" will appear. In this case, it is necessary to PC-DOS system files and terminal program in A-drive.

**Explain to customer that you do not touch keyboard after the power switch ON until terminal software starting up completed.**



### 3.4 Backup the System Files (PC-DOS: Ver. 6.3)

If A-drive (Flash ROMs) has been formatted or the system files have been destructed in an operational error, and PC-DOS, therefore, does not start, start the PC-DOS with the floppy disk that contains the system files. The necessary system files are as follows:

IBMDOS.COM	IBMBIO.COM
COMMAND.COM	FORMAT.COM (a file to be added)

*Note) "IBMDOS.COM" and "IBMBIO.COM" are hidden files which you cannot find by using "DIR" command.*

The following procedure shows how to copy the system files and "FORMAT.COM" file from normally operating IB-581 to FD.

#### **Procedure**

1. Quit the terminal program. For example, with NBDP terminal,
  - press [F2] key while pressing [Fn] and [Alt] keys.
 For how to quit each the terminal program, refer to "page K1-1".
2. Change to the root directory of A-drive.
  - The prompt "A:¥>" will appear on the screen. If this prompt does not appear,
    - press keys, [C], [D], [Space], [¥], and [Enter], successively.
  - Or,
    - press [C], [D], [.), [.) keys until the display "A:¥>" appears.
3. Insert the FD to write the system files into the FD drive.
4. To format the FD and copy the system files at the same time,
  - successively press keys [F], [O], [R], [M], [A], [T], [Space], [B], [:], [Space], [/], [S], and [Enter].
5. Press keys according to the displayed operational instructions.
  - "Insert new diskette for drive B: and press ENTER when ready.."
  - Press [Enter] key.
  - "Checking existing disk format. Saving ---- Volume label (11characters,ENTER for none)?"
  - Press [Enter] key.
  - "Volume Serial Number is 3C53-16D5 Format another(Y/N)?"
  - Press [N] and [Enter] keys successively.
6. After a prompt "A:¥>" appears on the screen, change to B-drive by pressing keys,
  - [B],[:], and [Enter], successively.
 And check the contents of the FD.
  - Press [D], [I], [R], and [Enter] keys successively.
 The "COMMAND.COM" file must be shown.

7. Change to A-drive by pressing keys,
  - [A],[:],and [Enter], successively.
 The "A:¥>" prompt will appear on the screen.
8. Next, to copy "FORMAT.COM" file,
  - successively press keys [C], [O], [P], [Y], [Space], [F], [O], [R], [M], [A], [T], [:], [C], [O],[M], [Space], [B], [:], and [Enter].
9. Change to B-drive by pressing keys,
  - [B],[:], and [Enter], successively.
 The prompt "B:¥>" will appear on the screen.
10. By pressing keys
  - [D], [I], [R], and [Enter],
 confirm that the two files, "COMMAND.COM" and "FORMAT.COM", are shown in the contents of the FD.

### 3.5 Changing BIOS (Basic Input Output System) settings

To start PC-DOS from FD, change BIOS settings as follows:

#### *Procedure*

1. - Turn on power, and continue to press [DEL] key until a display in step 2 appears.  
*Note) Or, with CPU Card Ver. 2.2, turn on power, and when a display "Hit <DEL>, If you want to run SETUP." appears, press [DEL] key.*
2. The following display "AMIBIOS SETUP PROGRAM - BIOS SET UTILITIES" will appear. The display depends upon the CPU Card Version.

AMIBIOS SETUP PROGRAM - BIOS SET UTILITIES (c)1992 American Megatrends Inc.,All Rights Reserved
STANDARD CMOS SETUPP ADVANCED CMOS SETUP AUTO CONFIGURATION WITH BIOS DEFAULTS AUTO CONFIGURATION WITH POWER-ON DEFAULTS CHANGE PASSWORD AUTO DETECT HARD DISK HARD DISK UTILITY WRITE TO CMOS AND EXIT DO NOT WRITE TO CMOS AND EXIT

**(Version 2.2)**

AMIBIOS SETUP - BIOS SETUP UTILITIES (c)1995 American Megatrends, Inc.All Rights Reserved
Standard CMOS SetupP Advanced CMOS Setup Advanced Chipset Setup Change User Password Change Supervisor Password Auto Configuration with Optimal Settings Auto Configuration with Fail Safe Settings Save Settings and Exit Exit Without Saving

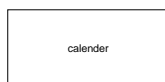
**(Version 3.0)**

3. Confirm that the cursor is on "STANDARD CMOS SETUP",
  - and press [Enter] key once or twice.
 (The cursor position can be shifted with [up] and [down] keys.)



4. The following "STANDARD CMOS SETUP" menu will be displayed. The display depends upon the CPU Card Version.

AMIBIOS SETUP PROGRAM-BIOS SET UTILITIES (c)1992 American Megatrends Inc., All Rights Reserved	
Date(mn/date/year)	:Mon, Sep, 21 1998
Time(hour/min/sec)	:09:41:10
Base Memory	:640KB
Ext. Memory	:128KB
Hard Disk C:Type	:Not Installed
Hard Disk D:Type	:Not Installed
<b>Floppy Drive A:</b>	<b>:Not Installed</b>
<b>Floppy Drive B:</b>	<b>:1.44MB, 31/2</b>
Primary Display	:VGA/PGA/EGA
Keyboard	:Installed



(Version 2.2)

AMIBIOS SETUP PROGRAM - BIOS SET UTILITIES (c)1995 American Megatrends, Inc. All Rights Reserved	
Date(mm/dd/yyyy)	:Thu Sep 24, 1998
Time(hh/mm/ss)	:13:20:20
Floppy Drive A	:Not Installed
Floppy Drive B	:1.44 MB 31/2
	LBA Blk PIO 32Bit
Type	Size Cyln Head WPcom Sec Mode Mode Mode Mode
Pri Master	:Not Installed
Pri Slave	:Not Installed
Boot Sector Virus Protection Disabled	

(Version 3.0)

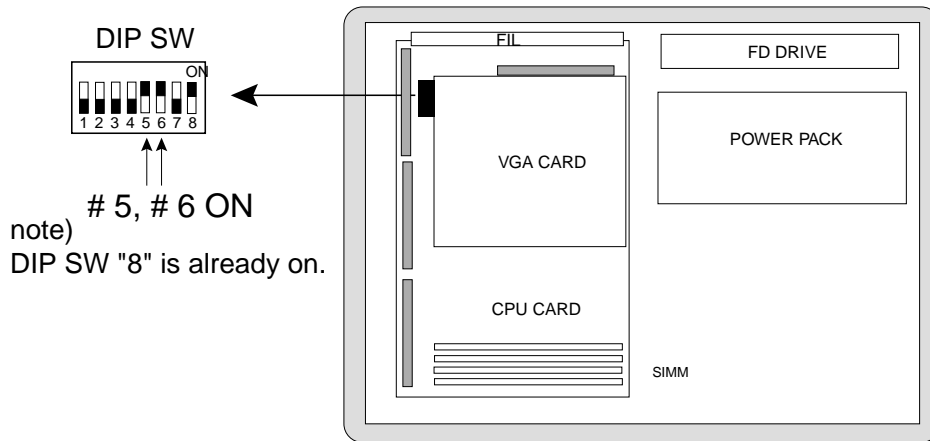
5. Put the cursor on "Floppy Drive A:" with [up] and [down] keys, and change the contents from "Not Installed" to "1.44 MB, 3 1/2" by pressing [up] or [down] key while pressing [Fn] key.
6. Similarly, put the cursor on "Floppy Drive B:" with [up] and [down] keys, and change the contents from "1.44 MB, 3 1/2" to "Not Installed" by pressing [up] or [down] key while pressing [Fn] key.
7. Save the changed BIOS settings as follows:
- With CPU Ver. 2.2,
    - press [Esc] and [F10] keys successively.
 Then, a display "Write to CMOS and Exit (Y/N)? N" will appear.
    - So, press [Y] and [Enter] keys successively.
  - With CPU Ver. 3.0,
    - A display "Save Current settings and exit (Y/N)? Y" will appear.
    - So, press [Enter] key.
8. After a display "AMIBIOS System Configuration" has appeared, PC-DOS will start. A date and time input display will appear, but it is not necessary to input date and time.
- "Current date is XX",
    - pressing key [Enter].
  - "Current Time is XX" ,
    - pressing key [Enter].
9. After turning off power, the BIOS settings have been changed.

### 3.6 Changing DIP SW and Internal Connector

Change DIP SW of CPU Card and connector wiring for FD drive in the IB-581.

#### *Changing DIP SW of CPU Card*

Remove the casing of IB-581, and turn on DIP SW "#5" and "#6" of CPU Card. DIP SW "#8" is already on.



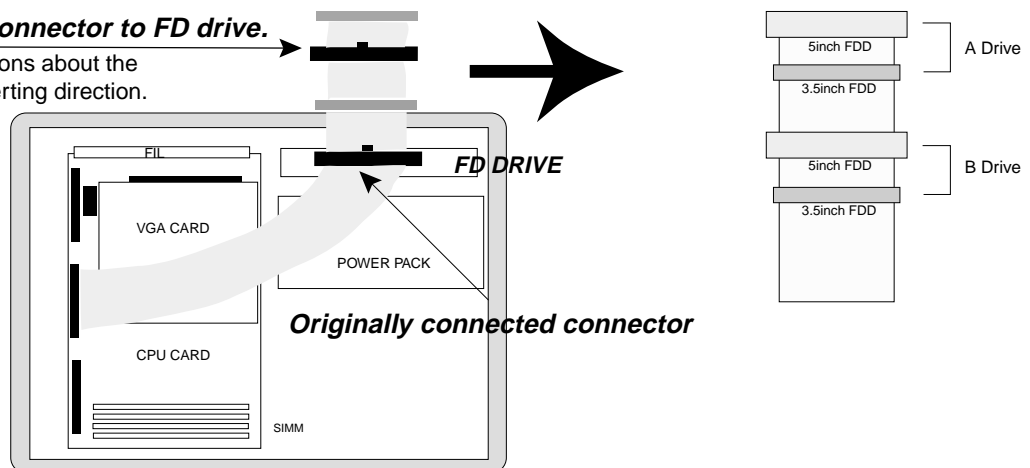
#### *Changing Internal Connector*

Change the connection of the flat cable connected between the CPU Card and the FD drive at FD side.

This connector change switches the FD drive from B-drive to A-drive.

**Connect this connector to FD drive.**

Note) Be cautions about the connector inserting direction.



### 3.7 Installing System Files

After preparing the FD that contains the system files backed up in page K1-7 (including "FORMAT.COM" file), changing BIOS settings, DIP SW of CPU Card, and the internal connector, write the system files in the Flash ROMs as follows.

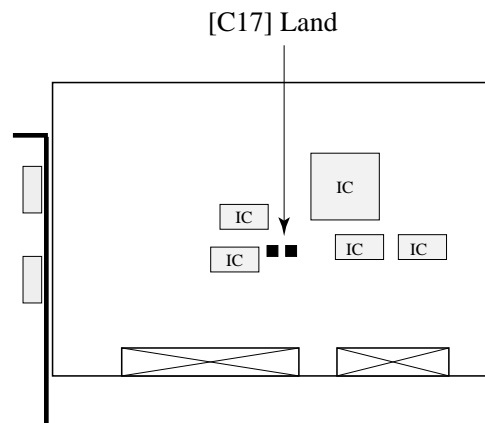
1. Set the FD containing the system files (including "FORMAT.COM" file) in the FD drive.
  2. - Turn on power, and continue to press [ESC] key.  
Continue to press [ESC] key until a display "Starting PC DOS..." appears. Then, PC-DOS will start from the FD system files.
  3. Continue to operate according to the displayed operational instructions.  
A date and time input display will appear, but it is not necessary to input date and time.  
"Current date is XX",  
- Pressing key [Enter].  
"Current Time is XX" ,  
- Pressing key [Enter].
  4. The prompt "A:¥>" will appear on the screen.
  5. To format the C-drive(Flash ROMs) and copy the system files at the same time.  
(See note)  
- Press [F],[O],[R],[M],[A],[T],[Space],[C],[:], [Space],[/],[S],[Enter] keys successively.
- Note) The drive name of the Flash ROMs disk depends upon whether PC-DOS is installed in the Flash ROMs disk, or not. The name is "A-drive" if PC-DOS is installed, and "C-drive" if not.***
6. A display "Insert new diskette for C-drive and press ENTER when ready..." will appear.  
- Then, press [Enter] key.
  7. Continue to operate according to the displayed operational instructions.  
"Proceed with Format(Y/N) ?"  
- Press [Y],[Enter] keys.  
"Volume label (11 characters, ENTER for none)?"  
- Press [Enter] key.  
"Format another (Y/N) ?"  
- Press [N],[Enter] keys.

8. The prompt "A:¥>" will appear on the screen.
9. Check to be sure that the system file have been written in the Flash ROMs(C-drive).
  - Change to the C-drive by pressing keys [C],[:], and [Enter], successively.The prompt "C:¥>" will appear on the screen.
10. Press keys [D], [I], [R], and [Enter] successively to confirm that "COMMAND.COM" files are included in C-drive.
11. Once turn off power, and restore the changed items to their original settings, referring to the procedures described in "page K1-8 3.5 Changing BIOS settings" and "page K1-10 3.6 Changing DIP SW and Internal Connector".
  - BIOS settings*
    - *Floppy Drive A: 1.44 MB, 3 1/2*                      *Restore to "Not installed".*
    - *Floppy Drive B: Not installed*                      *Restore to "1.44 MB, 3 1/2".*
  - Changing DIP SW settings and the connector connection*
    - *# 5, # 6 ON*                      *Restore to "# 5, # 6 OFF".*
  - Restore the connection of FD drive connector.*
    - *A Drive*                      *Restore to "B-drive".*
12. Turn on power, and continue to operate according to the operational instructions displayed. A date and time input display will appear, but it is not necessary to input date and time.
  - "Current date is XX",
    - Pressing key [Enter].
  - "Current Time is XX" ,
    - Pressing key [Enter].
13. The prompt "A:¥>" will appear on the screen.
14. Press keys [D], [I], [R], and [Enter] successively to confirm that "COMMAND.COM" files are included in A-drive.
15. Install the terminal software according to "page K1-1".

## 4. How to erase password

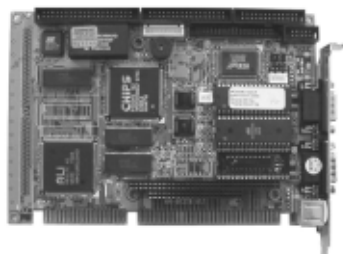
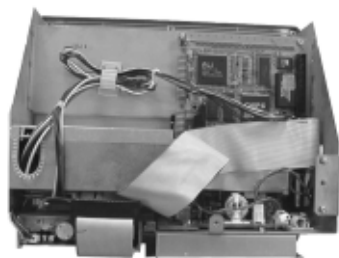
In BIOS setting, entry of a password may be requested. (The password is set through “Change User Password” and/or “Change Supervisor Password.” If so, erase the password by following the steps below.

1. Remove the CPU card with all connectors connected.
2. Turn on the unit. Be careful not to short on the CPU card.
3. Short between leads of C17 at the soldering side of the CPU card.  
(Any change is observed on the screen.)



4. Turn off the unit.
5. Fix the CPU card.
6. Turn on the unit and confirm the BIOS Settings.

## AR-B1378-F2 (New type CPU card)



CPU card

### 5. AR-B1378-F2

The CPU card AR-B1374 used in the terminal unit IB-581, HSD Modem IB-680/681, and NBDP DP-6 is no longer produced.

The new card is compatible with old one when it is used for IB-680/681 and DP-6.

***For IB-581, replace the old card and T. BOARD with new ones at a time. The code number and type of new T. BOARD are;***

Type:16P0167

Code No.: 004-444-100

***The type of new CPU card is listed below.***

Model	New CPU Card	Code No.	Specification	Compatibility with old card
IB-581	AR-B1378 F2	004444070	With VGA	No
IB-680	AR-B1378 FH	004442980	Without VGA	Yes
IB-681	AR-B1378 FH	004442980	Without VGA	Yes
DP-6	AR-B1378 FC	005939230	Without VGA	Yes

***Factory-modified sets (approximately)***

Model		Serial No.	Production
IB-581	FELCOM 12	7976 and after	In April 1999
	DP-6	7658 and after	
	FELCOM 81	Not decided yet	

***The differences between new and old CPU cards used for the IB-581 are;***

	Old		New	
	Type	Identification	Type	Identification
CPU Card	AR-B1374	With VGA board piggyback-mounted	AR-B1378 F2	Single board
T. BOARD	16P0141	Less parts	16P0167	More parts