

FJ-IDE Low Level Format Utility Ver. 1.10  
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This file contains immediate information for use with the  
FJ-IDE Low Level Format Utility program.

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#### 1. INTRODUCTION

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Every hard disk needs to undergo certain format procedures in order for it to be usable under OS/Application level. In practice, the format procedures are performed as follows:

```
Factory Format  - A low-level format being done in the factory
      |
      V
    FDISK      - This one comes with your OS package
      |          to create Partition Tables
      V
OS level Format - Performs a high-level format.
                  In DOS this one creates the File Allocation
(e.g. FORMAT.COM) Table (FAT) for the DOS to read/write files
                  from/to the drive
```

FJ-IDE Low Level Format Utility program is freely provided to use for FUJITSU 2.5" and 3.5" IDE drives. This program performs a low level format function same with the one being done in the factory.

This program version only works with the following FUJITSU IDE drive models:

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#### 2.5 inch drives:

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- 1) FUJITSU Internal Name : Hornet-6 (HN6) Series  
Model Numbers : M2714T, M2713T, M2712T
- 2) FUJITSU Internal Name : Hornet-7 (HN7) Series  
Model Numbers : M2724T, M2723T, M2722T

#### 3.5 inch drives:

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- 1) FUJITSU Internal Name : Picobird-9 (PB9) Series  
Model Numbers : M1623TAU, M1624TAU  
M1636TAU, M1638TAU
- 2) FUJITSU Internal Name : Picobird-10 (PB10) Series  
Model Numbers : MPA3052AT, MPA3043AT, MPA3035AT,  
MPA3026AT, MPA3017AT

## 2. WHEN DO YOU NEED THIS PROGRAM

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Before a FUJITSU IDE drive is made out from the factory, it has passed series of quality tests to make sure that the drive is free from defects that could compromise data integrity.

However in cases where data integrity becomes low due to some environmental and operating conditions (i.e. prolonged use), there may be a need to check and reformat it in a factory level process.

Unlike any OS/Apps level format, this tool formats the drive in such a way that any bad sector found during the pre-verification process would be remapped to drive's reserved area and thus will not affect or reduce the original capacity of the drive.

This utility reinitializes your drive to its original factory format. All previous data will be lost after performing the low level format task.

Please backup all your important files before running this program !!!

### 3. USER'S GUIDE

#### 3.1. Requirement

a) Operating System : DOS

\* This version has only been tested from DOS 5.0 above

b) CPU: IBM-PC compatibles -> 80x86 CPU-Based motherboards

#### 3.2. Running the program

3.2.1. Boot from a clean DOS disk.

3.2.2. Change to the drive/directory where FJFMT.EXE is located.

3.2.3. At the DOS prompt, type FJFMT to execute the program.

#### Program Switches:

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The program has some switches for certain operating conditions. In normal conditions, default settings are recommended to be used.

/? - displays the help screen

/A=C|L - /A=C implements CHS addressing mode during verify routine.

- /A=L implements LBA addressing mode during verify routine (default).

\* Unless you are an IDE technical person, please refrain from using the /A=C|L switch.

/R=1|0 - /R=1 performs a software reset during program initialization process (default)

- /R=0 no software reset

\* Some drive combinations may cause the system to hang or stop responding for a while when the default /R=1 switch is used. In this case, use /R=0 switch.

\*Note: You cannot run this program under WINDOWS environment.

If you are running Windows 95, restart your system in MS-DOS mode.

### 3.3. Inside the program

At the startup routine, the program tries to identify all IDE drives connected in your system (Primary and Secondary Port). This process may take some time.

Afterwhich, all the drives found will be displayed in the Main Menu window with the corresponding valid product ID. Port with no drive(s) connected will also be displayed with 'NONE' as its product ID.

Hotkeys are indicated in the taskbar. Use the up and down arrow keys to move the current highlighted drive.

Hotkeys Definition:

F1 - Displays the Help Window

F2 - Performs a non-destructive low level verification in your hard disk. This process displays the number of 'Bad Sectors' found during the verification procedure. You can use this figure to determine if your FUJITSU drive needs a Low Level format. In practice, to avoid any data loss or corruption in OS/Apps level, if 'Bad Sectors' > 0, it would be good and safe to format your drive.

F3 - Performs a low level verification in your hard disk and then proceed to Low Level format routine. This process performs a 'factory level' FORMAT process in your hard disk. Any 'bad sectors' found during the pre-verification process will be remapped/reassigned during the format routine and thus will be usable again. Unless the number of 'bad sectors' exceeds the maximum threshold value, the capacity of the drive will be the same and the data integrity gets back to its highest level.

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WARNING!!!

ALL DATA ON THE DRIVE WILL BE LOST AFTER LOW LEVEL FORMAT. PLEASE  
BACKUP ALL YOUR IMPORTANT DATA BEFORE PERFORMING THIS TASK.  
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\*\*\* It is advisable that you restart your computer \*\*\*  
\*\*\*\*\* after performing a low level format. \*\*\*\*\*

Enter - Displays basic information about the drive  
Esc - Prompts to quit the program.

\* Note: Tasks F2 and F3 can only be performed on valid FUJITSU IDE models described in the Introduction part.

#### 4. TROUBLESHOOTING

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This program implements error recovery method in cases where unexpected conditions occur especially during the low level format process.

The following are the error codes that you may encounter when something goes wrong with a particular operation with the corresponding suggested action.

ERROR CODE	DESCRIPTION	SUGGESTED ACTION
13	Fatal Error. Drive is not responding	Reboot your system
101	Too many bad sectors found during verification process. Low level format would not be able to remapped all these bad sectors.	Contact your local vendor or just format your drive in OS level with bad sector checking.
1001	General drive failure	Reboot and try repeating the operation
12-nnnnn	An unexpected error is encountered during verification.	Reboot and try repeating the operation.
201-nnnnn	Internal error	Call for technical support
202-nnnnn	Internal error	-do-
203-nnnnn	Internal error	-do-
204-nnnnn	Internal error	-do-
205-nnnnn	Internal error	-do-
206-nnnnn	Internal error	-do-
207-xxxxx (xxxxx !=33101h)	An unknown error is encountered	Reboot and repeat the operation.
207-33101	Format incomplete	Reformat (low level)
207-33101-nnnnn	Format incomplete and when reformat is being performed, an error occurred	Reboot and try repeating the format process

\* Note: nnnnn - is any valid hexadecimal number.