



BOOK386 User's Guide

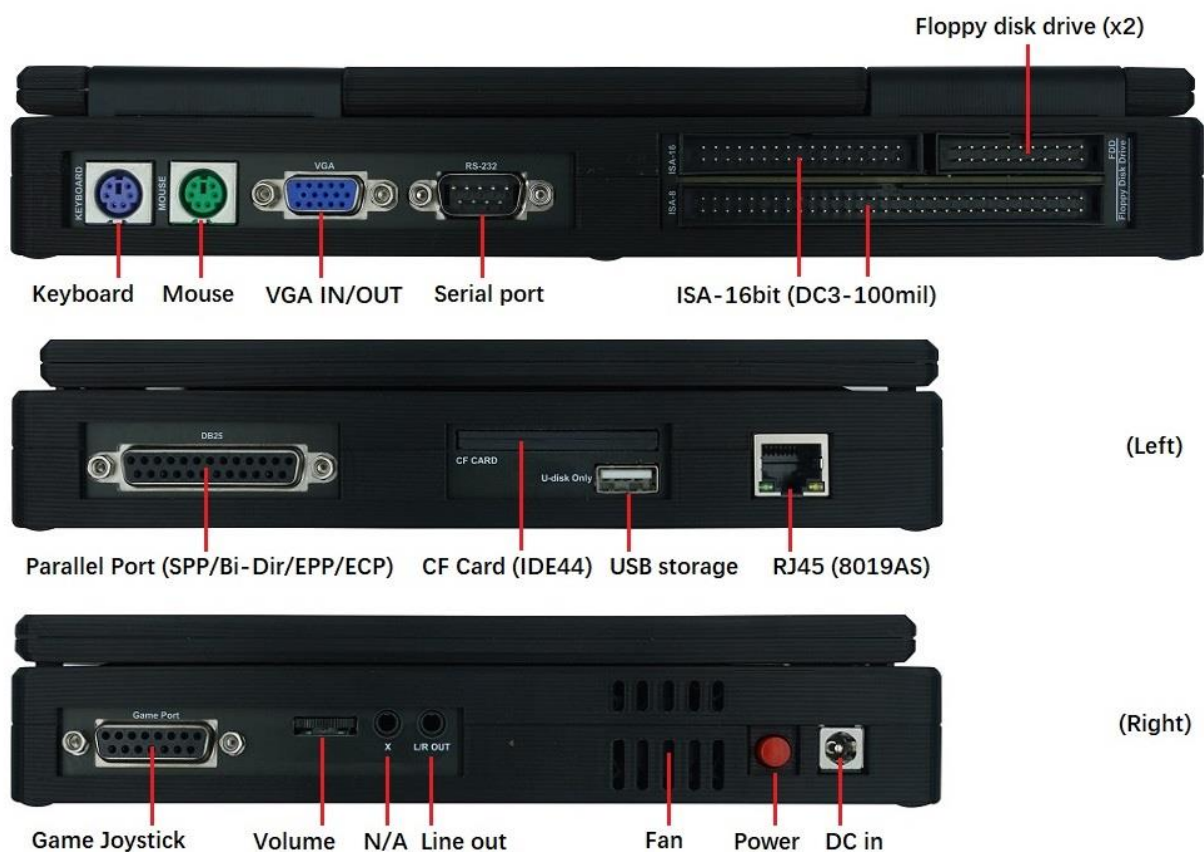
Document Revision 0.1

1. Common Problems and Solutions

- When the battery level drops below 20%, unplugging the charger may cause the device to restart.
- The built-in Touchpad uses COM2. Simultaneous use of a PS/2 mouse and a serial mouse is not supported under DOS or Windows. Therefore, to use a PS/2 mouse under DOS, press FN+3 to disable the Touchpad before loading the mouse driver.
- The pre-installed Windows 3.11 has a serial mouse configured by default; using a PS/2 mouse requires reconfiguring Windows.
- Connecting an External PS/2 Keyboard: Press Fn + ~ to disable the built-in keyboard. Only insert the external PS/2 keyboard after the Touchpad status screen displays "KBD OFF".

2. Overview

Processor (CPU):	386 SX (40MHz) embedded in an Ali M6117 chipset.
Math Coprocessor (FPU):	387 SX socket.(33-40Mhz only)
System Memory:	16MB DRAM.
Graphics Card:	VGA Card
Display:	4:3 IPS LCD (Matte / 178° wide viewing angle).
Storage:	CF Card Storage (IDE Mode).
Audio System:	OPL3 Sound Card (Yamaha YMF262-M).
Network Adapter:	RTL8019AS Network Adapter.
Power Supply:	18650 Lithium Battery.
USB Port:	CH375B USB Controller
Gameport:	IBM PC compatible game controller adapter
Serial Port:	RS-232
Parallel Port :	DB25 (SPP/Bi-Dir/EPP/ECP)
Floppy disk drive interface	
16Bit ISA External Interface	



3. Power Management

DC-IN : 12V 2A



Turning On: Press the power switch to turn on the device

Turning Off: You can directly power off the system via the hardware switch when running DOS. However, a proper system shutdown is required in Windows before turning off the power switch.



4. Hotkey Functions

Fn + F4: Opens the screen's OSD Menu to adjust display parameters such as brightness.

Fn + ~ : **Disable the built-in keyboard.** After disabling it (the Touchpad will display "KBD OFF"), an external PS/2 keyboard can be safely inserted and used.

Fn + 1 : **VGA OUT / LCD Toggle:** Switches the active video output channel between the built-in LCD screen and the external VGA OUT port.

Fn + 2 : **VGA IN (ON/OFF):** When activated, the LCD displays "no signal" while waiting for an external video signal input. Press it again to return to the host system.

Fn + 3 : **Touchpad (ON/OFF):** Manually enables or disables the built-in touchpad (see "Common Problems" for usage rules)

Fn + 4 : **Fan Switch:** Manually turns the internal active cooling fan on or off.

Fn + 5 : 12V/-12V/-5V Boost circuit ON/OFF

Fn + 6 : Enables or disables Covox registers.

Fn + 7 : **TFT Switch:** Quickly turns the Touchpad TFT backlight power on or off.

Fn + Tab : **Power Information Page Switch:** TFT showing real-time battery voltage, power status, and current analytics

5. Touchpad



The Touchpad is tied to the **COM2** serial port. Once the mouse driver is loaded, the system will recognize it as a universal serial mouse.

Gestures:

A single-finger tap or click on the touchpad corresponds to a **left mouse click**.

A two-finger tap or click (aligned horizontally) corresponds to a **right mouse click**.

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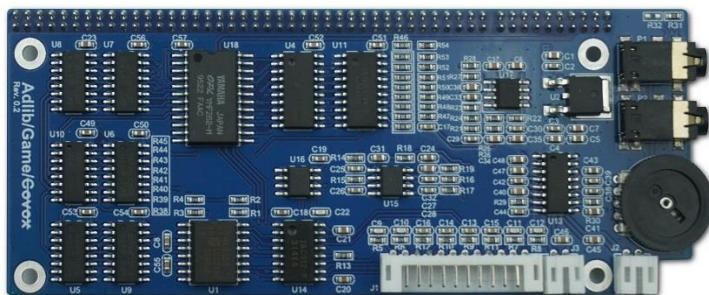
6. 387SX socket



The M6117 supports an external 387SX coprocessor clocked synchronously with the CPU.

* Important Note: Because the onboard 386SX CPU runs at 40MHz, any 387SX coprocessor rated below 40MHz will be forced to overclock. Coprocessors rated at 25MHz or lower typically will not function properly.

7. Audio System



The audio architecture is based on an Adlib-compatible sound card and integrates an IBM-compatible game controller interface (Gameport).

8. Parallel Port

Supports SPP, Bi-Directional, EPP, and ECP modes, and defaults to LPT1 (Parallel Port 1).

9. Serial port

There are two serial ports on the motherboard. COM2 is permanently assigned to the Touchpad mouse channel, while COM1 serves as the default, general-purpose serial port.

10. USB Port

The integrated CH375B USB controller supports FAT-formatted USB flash drives. In DOS systems, the corresponding driver files must be copied to your boot disk and manually added to your boot configuration files (e.g., CONFIG.SYS).

11. Storage

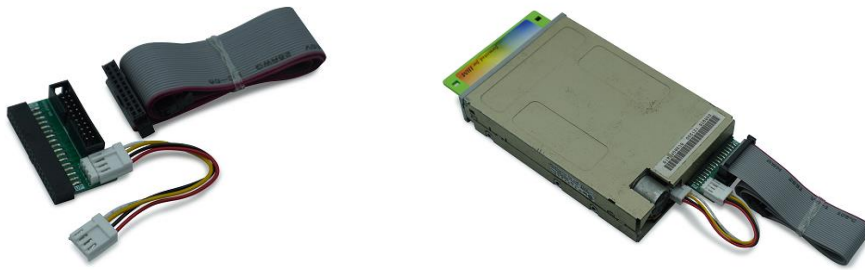
The BOOK386 motherboard provides an IDE44 hard drive interface, which is converted to a CF card interface through a CF card slot module.

12. Network controller

The network subsystem uses a classic Realtek **8019AS** chip. Please note that due to modern network standards and protocols, this adapter can no longer be used to access the modern internet directly.

13. Floppy disk drive interface

A legacy 3.5-inch floppy disk drive can be connected to the device using the dedicated flat ribbon cable.



14. 16Bit ISA External Interface

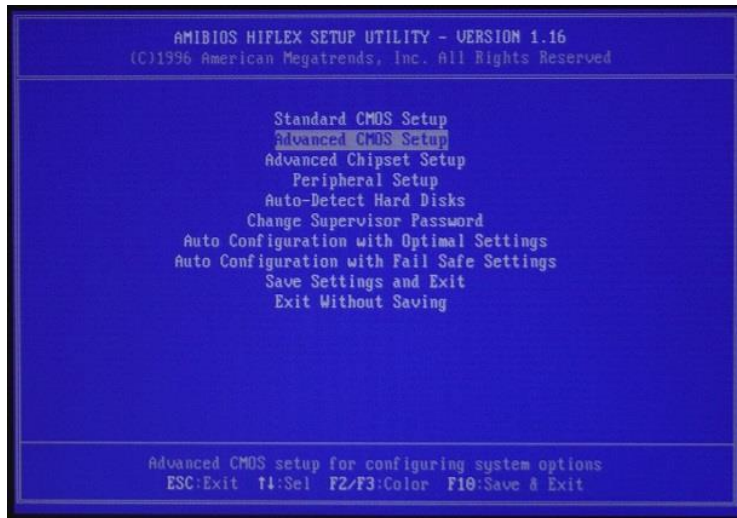
The BOOK386 offers full AT bus (ISA) expansion support.

Safety Warning: These expansion signals connect directly to the main chipset; improper wiring or short-circuiting these pins may cause permanent damage to the motherboard.

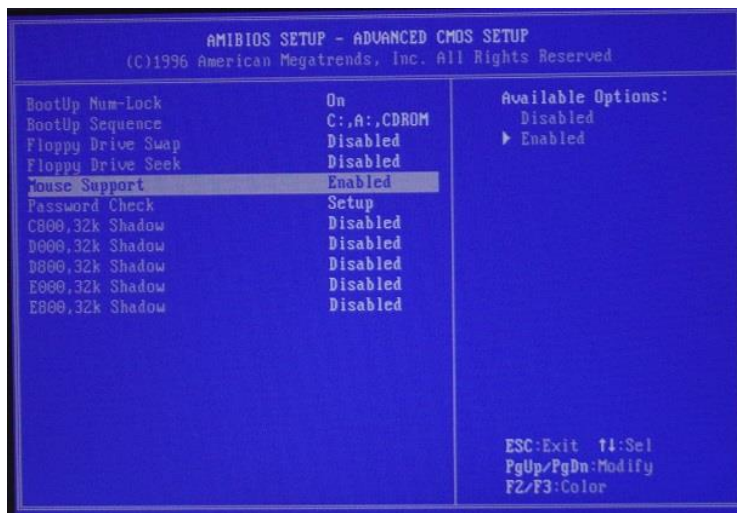
15. BIOS Settings:

To enter the BIOS utility, press and hold the **Del** key during system startup.
As an example, to enable the mouse functionality:

Step 1: Navigate to "Advanced CMOS Setup".



Step 2: Select "Mouse Support", then use Fn+Up or Fn+Down to enable the mouse.



Step 3: Press Esc, choose "Save Settings and Exit", and confirm by pressing the "Y" key.



