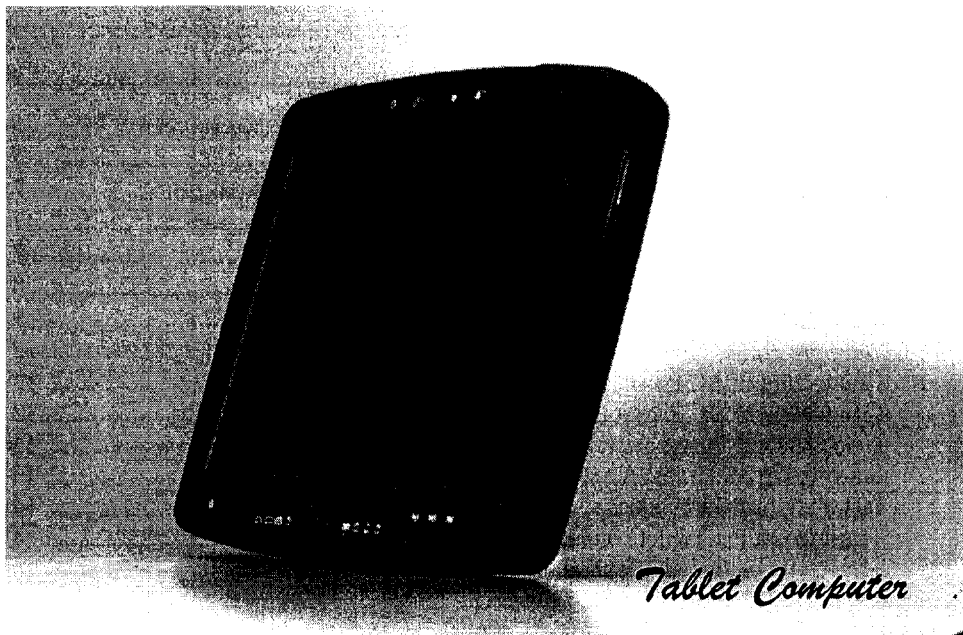


FCC ID: MAU1P0



CA35 SYSTEM USER'S MANUAL

Revision : Draft

Date : March 30, 2000

MiTAC Technology Corporation.

INSTRUCTIONS - MANUAL
FEDERAL COMMUNICATIONS COMMISSION
INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: To assure continued compliance, use only shielded interface cables when connecting computer to peripheral devices. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

FCC Label Compliance Statement:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Table of Contents

CHAPTER 1	5
GETTING STARTED	5
<i>Features</i>	5
<i>Taking a Look at the Tablet computer</i>	7
Right-Side View	7
Left-Side View	7
Bottom View	8
Front View	9
<i>Getting the Tablet computer Running</i>	12
Connecting to AC Power	12
Connecting to DC Power (Car Power, 10~32Vdc)	12
Using Battery Power	13
Starting Up	13
Installing Software	14
Turning Off the Tablet computer	14
CHAPTER 2	16
USING THE TABLET COMPUTER	16
<i>Hard Disk Drive</i>	16
<i>Floppy Disk Drive (Via Docking station)</i>	16
Inserting and Ejecting Diskettes	17
Formatting Diskettes	18
<i>CD-ROM/DVD-ROM Drive (Via Docking station)</i>	18
Inserting/Removing a CD	18
Manually Releasing a CD	19
<i>Wireless Keyboard (Optional)</i>	19
Fn Key	20
Typewriter Keys	20
Function Keys	20
Cursor-Control Keys	20
Numeric Keypad	20
Windows 95 Keys	21
<i>Touch Screen</i>	22
Using the Touch Screen	22
Changing the Configuration	23
<i>Introducing Power Management</i>	24
Automatic Power Management	24
Manual Power Management	24
Suspend-to-Disk	25
<i>Taking Care of Your Tablet computer</i>	25
Maintenance	25
Traveling	26

CHAPTER 3	27
BATTERY OPERATIONS	27
<i>AC and Car Adapter</i>	27
<i>Battery Pack</i>	27
Recharging the Battery Pack	27
Knowing the Battery Charge	28
Replacing the Secondary Battery Pack	30
Important Notes on Using Battery Pack	30
<i>Low Battery Signals and Actions</i>	32
CHAPTER 4	33
SYSTEM EXPANSION	33
<i>External Connections</i>	33
Connecting an External Monitor	33
Connecting an External Keyboard	33
Connecting a Mouse	34
Connecting a Serial	34
Connecting an IR Device	35
Connecting a USB Device	35
Connecting an IEEE 1394 Device	35
Connecting Audio Equipment	36
Connecting Docking Station	36
<i>Internal Installation</i>	36
Installing a PC Card	36
Tablet computer Upgrade	37
CHAPTER 5	38
SETUP CONFIGURATION UTILITY	38
<i>Introduction</i>	38
Starting SCU	38
Moving Around and Making Selections	39
<i>Main Menu</i>	40
IDE Settings	41
Fast Boot	42
Boot Sequence	42
Key Click	43
TV Mode	44
<i>Advanced Menu</i>	44
COM Port	45
Ir Mode	45
LPT Port	46
LPT Extended Mode	46
SaveToDisk Warning Message	47
Keyboard Numlock	47
Pointing Device (PS/2 Mouse)	47
Hot Key Beep	48

Chapter 1

Getting Started

This chapter introduces the outstanding features of the computer and tells you how to get the tablet computer up and running.

Features

Congratulations on purchasing your new rugged tablet computer. Your tablet computer is a ruggedized and high portability industrial computer. It's can be used in the vehicle & field and can be easy to install or remove from car with a docking station. The tablet computer also can connect with docking station as desktop computer through the desktop plate option. Among the powerful features are:

- **Intel Pentium III, Pentium II or Celeron series microprocessor**
Your tablet computer is equipped with one of the most advanced central processor making it ready for excellent performance.

NOTE: For the latest information on the motherboard and CPU installed in your tablet computer, please ask your dealer for assistance.
--

- **Built-in PCI audio system**
With your tablet computer's PCI audio capabilities, you can experience fantastic 3D audio sensations and realistic acoustic effects.
- **PCMCIA slots with CardBus and ZV port support**
CardBus and ZV port standards satisfy the need for high-speed data transmission, such as full-motion video, video capture, and networking.
- **IR port support**
With the IR port, wireless communications are possible between your tablet computer and an IR device. The device is compliant with IrDA1.0 and IrDA1.1 infrared interface standards.
- **USB port support**
The Universal Serial Bus provides you the benefits of having one interface for multiple purposes when low-to-medium speed peripherals are concerned.
- **Advanced Power Management**
You can conserve power automatically or manually by setting up the Power Management capabilities of your tablet computer.
- **Modem Card/LAN Card (optional, available in certain areas only)**
A Fax/Modem/Voice card or LAN card allows your tablet computer to be connected to a network environment.

- **Touch Screen**
A touch screen allows your use the tablet computer easier, depend on application, it's like a pen style pointing device.
- **BIOS** (Basic Input/Output System) that supports the years beyond 2000.

Other basic components of your tablet computer system are:

- ATA3 IDE hard disk drive, Ultra DMA/33 supported
- 64MB SDRAM on-board, with one SO-DIMM sockets providing up to 96MB/128MB/192MB/320MB SDRAM upgrade capability (depending on the availability of SO-DIMM modules)
- 128/256/512KB on-die or L2 module cache memory, depending on CPU types
- 8MB video RAM
- TFT LCD (Liquid Crystal Display) with XGA/SVGA resolution
- Microphone and stereo earphone jack
- Li-ion rechargeable battery pack
- Docking connectors for external expansion
- AC adapter (optional)
- Car adapter (optional)
- Infrared wireless keyboard (optional)
- 3.5-inch, 1.44MB (Megabytes) or 120MB LS-120 floppy disk drive (optional, installed on docking station)
- CD-ROM drive or DVD-ROM drive. (optional, installed on docking station)

Taking a Look at the Tablet computer

Right-Side View

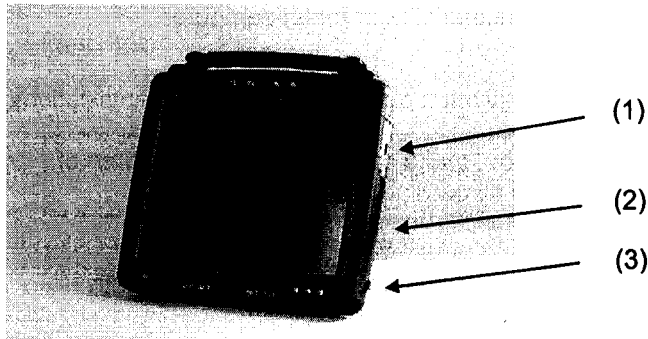


Figure 1-1. Right-Side View

1. **PC Card Slots**
Open PCMCIA door, there are two PC card slots. Each of the two PC card slots is for installing a PC card, or called PCMCIA card. The front slot is Slot 0 and the rear Slot 1. (See "Installing a PC Card" in Chapter 4 for more information.)
2. **Secondary Battery Pack (optional)**
Through this door, the Secondary battery pack provides extended power for your tablet computer when external power is not available. (See Chapter 3 for more information.)
3. **Touch Screen Stylus Pen**
The Touch Screen Stylus Pen provides convenient way to use the touch screen.

Left-Side View

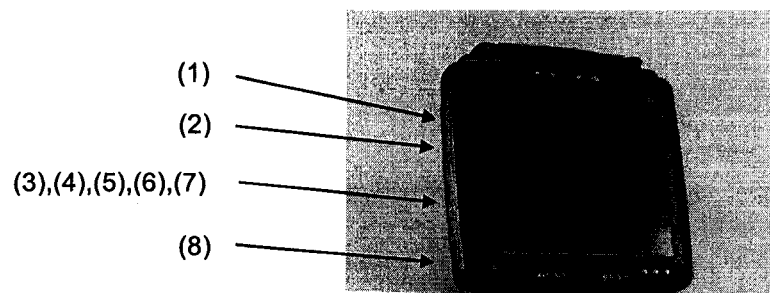


Figure 1-2. Left-Side View

1. **RJ-11 Connector (optional)**
The RJ-11 connector (exists when a Modem card is installed), the normal telephone line can be connected to your tablet computer.
2. **RJ-45 Connector (optional)**
The RJ-45 connector (exists when a LAN card is installed), the type 1 STP or category 5 UTP cable can be connected to your tablet computer.
3. **Microphone Input Connector**
This can be connected to an external microphone for use in audio applications

NOTE: When using the microphone, make sure you lower the volume of the speaker to avoid noise caused by oscillation.

4. **Earphone Output Connector**
This can be connected to a set of headphones, external speakers with amplifier or an audio recording device.
5. **IEEE 1394 Port**
This 6-pin is for connecting a IEEE 1394 device, such as the D8 camera, hard disk drive etc., it's also provide power supply for IEEE 1394 device.
6. **PS/2 Mouse/Keyboard Port**
These two 6-pin mini-DIN port is for connecting a PS/2 keyboard and mouse.
7. **Power Connector**
This is for connecting the AC adapter or Car adapter.
8. **IR Port**
This infrared port complies with IrDA 1.0 and IrDA 1.1 (FIR) standards, which allow you to connect your tablet computer to an IR device wirelessly. (See "Connecting an IR Device" in Chapter 4 for important notes.)

Bottom View

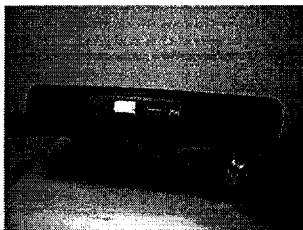
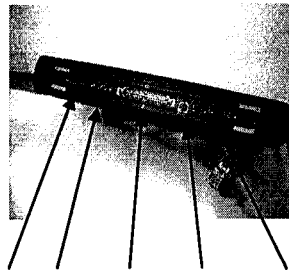


Figure 1-3. Bottom View (With Docking Door)



(1) (2) (3) (4) (5)

Figure 1-4. Bottom View (Without Docking Door)

1.

Serial Port (COM1)

This 9-pin port is for connecting a serial device such as a serial mouse, modem, or printer. (See "Connecting a Serial or Parallel Device" in Chapter 4 for more information.)

2. VGA Port

This 15-pin analog port is for connecting an external monitor.

3. Docking Connector

This connector is for connecting the optional Docking Station.

4. USB Port

There are two 4-pin Universal Serial Bus port is for connecting an USB device. (See "Connecting an USB Device" in Chapter 4 for more information.)

5. Serial Port (COM4)

This 9-pin port is for connecting a serial device such as a serial mouse, modem, or printer. (See "Connecting a Serial or Parallel Device" in Chapter 4 for more information.)

Front View

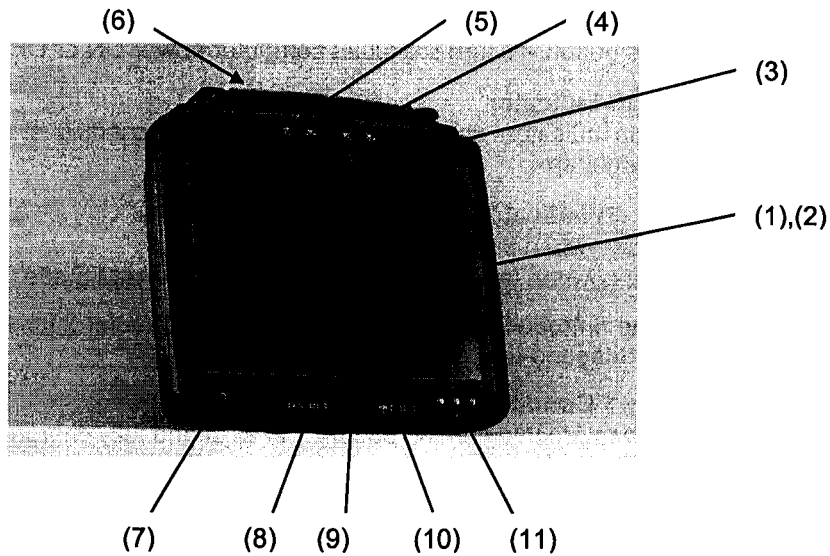


Figure 1-5. Front View

1. **LCD Display**

This is the liquid crystal display of your tablet computer, it's provide two type resolution of 800*600 & 1024/*768 @ 256k color

2. **Touch Screen**

This is the touch screen that provides a easy way to use this table computer without external mouse.

CAUTION: Do not place hard & acute angle objects on touch screen of the tablet computer when it is closed as this can damage the touch screen

3. **Stereo Speaker Set**

This is the built-in speaker set of your tablet computer.

4. **Brightness Control**

This controls the brightness of the LCD backlight from the computer.

5. **Volume Control**

This controls the volume of the sound coming from the computer.

6. **Hand Strap**

This hand strap lets user carrying this tablet computer conveniently in mobile applications.

7. **Power Button**

Pressing this button will turn the tablet computer power ON or OFF.

8. **Power & HDD Indicator**

These are the indicators showing the status of power conditions.
From left to right are:

Power on Indicator

- Glows when the computer is power on.
- Blinks when the computer is in Suspend-to-RAM mode.

(See "Introducing Power Management" in Chapter 2 for information on Suspend-to-RAM mode.)

Battery 1 Condition Indicator

- Glows green when the battery 1 is exist and fully charged
- Glows orange when the battery 1 is being charged.
- Blinks red when the battery 1 is low.

Battery 2 Condition Indicator

- Glows green when the battery 2 is exist and fully charged
- Glows orange when the battery 2 is being charged.
- Blinks red when the battery 2 is low.

Hard Disk Drive In-use Indicator glows when the tablet computer is accessing the hard disk drive.

9. **Keyboard IR Port**

This infrared port used for wireless keyboard, it's lets user using keyboard to type data easier.

10. **System Indicators**

These are the indicators showing the status of system operation.
From left to right are:

IR Keyboard Received Indicator glows when you press the any key from wireless keyboard.

Num Lock Indicator glows when you press the Num Lock key to activate Num Lock.

Caps Lock Indicator glows when you press the Caps Lock key to activate Caps Lock.

Scroll Lock Indicator glows when you press the Scroll Lock key to activate Scroll Lock.

11. **Function Key 1, 2, & 3**

There are three function keys which is called FN1, FN2, FN3. They can define from F1 to F12 through setup utility individually.

Getting the Tablet computer Running

Connecting to AC Power

1. Plug the DC cord of the AC adapter to the power connector on the left side of the tablet computer.
2. Plug the female end of the AC cord to the AC adapter and the male end an electrical outlet.

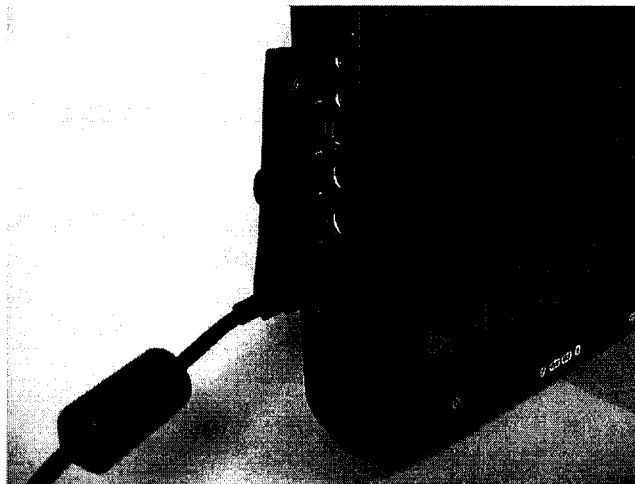


Figure 1-6. Connecting the AC Adapter

When the AC adapter is connected as shown above, the indicator on the AC adapter lights up, indicating that power is being supplied from the electrical outlet to the AC adapter and onto your tablet computer. When the Battery 1 or 2 Condition Indicator () on the tablet computer glows orange, it means that the AC adapter is fast-charging the battery 1 or 2.

3. To fully charge the battery, leave the tablet computer power off, and wait for the Battery Charge Indicator to glow green.

CAUTION: Whenever you disconnect the AC adapter, always unplug from the electrical outlet first before you unplug from the tablet computer. A reverse procedure may damage the AC adapter or tablet computer.

Connecting to DC Power (Car Power, 10~32Vdc)

1. Plug the DC cord of the Car adapter to the power connector on the left side of the tablet computer.

Appendix A

Specifications

NOTE: The specifications are subject to change without notice.

CPU, Memory, and Main Components

- **CPU**
Intel Pentium III, Pentium II or Celeron series CPU
Note: For the latest information on the CPU supported by your computer, please consult your dealer.
- **RAM**
64MB SDRAM on-board, expandable to 128/192MB (depending on the availability of SO-DIMM module)
- **Cache Memory**
128/256/512KB on-die or L2 module cache memory (depending on CPU types), with support for "stop clock" mode
- **ROM BIOS**
256KB Flash EEPROM, supporting boot block, video, security, setup, and power management
- **LCD Display**
13.3-inch TFT XGA (1024 x 768) color LCD, integrated power conservation mode or
12.1-inch TFT SVGA (800 x 600) color LCD, integrated power conservation mode
- **Notebook Wireless Keyboard**
86 keys, numeric keypad, 12 function keys, a special Fn (Function) key and Windows 95 keys
- **Hard Disk Drive**
Enhanced-IDE, 2.5-inch, 4.3GB or other capacity when available
- **Touch Screen**
Compatible with RS232 type mouse, Connected to COM3
- **Real-Time Clock/Calendar**
128 Bytes, providing system clock, calendar, and configuration information, stored in CMOS RAM, with battery backup
- **Floppy Disk Drive**
3.5-inch, 135TPI, double sided, total formatted capacity 1.44MB, with 3 mode 1.2MB support

- **CD-ROM/DVD-ROM Drive**
ATAPI IDE 24X CD-ROM (or 6X+ DVD-ROM drive as an option)

Interfaces and Controllers

- **VGA Controller**
High performance flat panel CRT/LCD VGA controller, supports TFT/DSTN LCD panel, interfaced at 32-bit PCI-bus, up to 1600 x 1200 x 16M on an external CRT monitor
- **Parallel Port**
Standard/ECP/EPP parallel communication interface with a DB-25 female connector
- **Serial Ports**
COM1 and COM2 assigned to two of the followings:
 - RS-232C communication interface with a 9-pin D-type shell connector
 - Fax/Modem Card option
 - IrDA 1.0/IrDA 1.1 communication interface
- **Auxiliary Device Port**
Two 6-pin miniature DIN connector for a PS/2-compatible keyboard and mouse
- **PC Card Slots**
Compliant with PCMCIA 2.1/JEIDA 4.1 specifications along with ExCA extension and PC CARD standard, two PC card slots for two type II application, supporting CardBus and Zoomed Video port
- **Audio Subsystem**
Supports 3D sound and wavetable capacity, fully compatible with MS Windows Sound System, legacy compatible with DOS sound system

Power Source

- **AC Adapter**
Switched power supply with a separate AC power cord; full range voltage between 100V~240V; frequency 50~60Hz
Output voltage DC 19V, with overcurrent and overcharging protection
- **Car Adapter**
Full range voltage between 10V~32V input,
Output voltage DC 19V, with overcurrent and overcharging protection
- **Primary Battery Pack**
 - Li-ion, 6 cells, 3.6V per cell, Max. 12.6Vdc, with smart gas gauge
- **Secondary Battery Pack**
 - Li-ion, 9 cells, 3.6V per cell, Max. 12.6Vdc, with smart gas gauge