

TABLET COMPUTER

DR786

USER'S GUIDE

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EMC and Safety Notice

Federal Communications Commission 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.

Regulatory information / Disclaimers

Installation and use of this **DR786** must be in strict accordance with the instructions included in the user documentation provided with the product. Any changes or modifications (including the antennas) made to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment.

The manufacturer is not responsible for any radio or television interference caused by unauthorized modification of this device, or the substitution of the connecting cables and equipment other than manufacturer specified. It is the responsibility of the user to correct any interference caused by such unauthorized modification, substitution or attachment. Manufacturer and its authorized resellers or distributors will assume no liability for any damage or violation of government regulations arising from failing to comply with these guidelines.

IMPORTANT NOTE (CO-LOCATION)

FCC RF Radiation Exposure Statement: This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.

SAR Exposure

This device has been tested for compliance with FCC RF Exposure (SAR) limits in typical flat configurations.

CE

Products with the CE Marking comply with both the EMC Directive (89/336/EEC) and the Low Voltage Directive (73/23/EEC) issued by the Commission of the European Community.

Compliance with these directives implies conformity to the following European Norms:

EN 55022 (CISPR 22) Radio Frequency Interference

EN 55024 (EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6,EN61000-4-8,EN61000-4-11,EN61000-3-2, EN61000-3-3) Generic Immunity Standard

EN 60950 (IEC950) Product Safety

R&TTE (CE) MANUAL REGULATORY REQUIREMENT (WLAN - IEEE 802.11b/g)

802.11b/g Restrictions:

European standards dictate maximum radiated transmit power of 100mW EIRP and frequency range 2.400-2.4835GHz. In France, the equipment must be restricted to the 2.4465-2.4835GHz frequency range and must be restricted to indoor use.

CE Declaration of Conformity



Is herewith confirmed to comply with the requirements set out in the Council Directive on the Approximation of the Laws of the Member States relating to Electromagnetic Compatibility (89/336/EEC), Low-voltage Directive (73/23/EEC) and the Amendment Directive (93/68/EEC), the procedures given in European Council Directive 99/5/EC and 89/336/EEC.

The equipment was passed. The test was performed according to the following European standards.

EN 300 328 V.1.4.1 (2003-04)

EN 301 489-1 V.1.4.1 (2002-04) / EN 301 489-17 V.1.2.1 (2002-04)

EN 50371:2002

EN 60950:2000

UL, TÜV

AC Adapter (TÜV includes EN60950 LVD)

E-Mark

Registered: e13

Power Conservation

This computer consumes less power than conventional computers; however, power consumption can be further reduced by properly configuring the Power Management Setups.

It is recommended that the power saving functions be enabled even not running on battery power.

Please read the power saving features and the setting procedures described in this manual for setting your computer.

Recycling

All materials used in the construction of this unit are recyclable or environmentally friendly. No CFC or related materials were used in the manufacturing process or inside the product.

Please recycle the packing materials, and at the end of the computer's life, all other materials in accordance with the local regulations.

Please refer “Material and Recycling” for the contents of the materials.

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GETTING STARTED

Unpacking

The following components come with your computer. If anything is missing or damaged please notify the dealer immediately.

- Computer unit
- AC Adapter
- AC Power Cord
- Utility Diskettes or CD
- User's Guide
- Carrying Bag



Quick Check

- Insert the battery into compartment; fix the screw till battery is in position.
- Attach the AC adapter and charge battery for at least 10 minutes.
- Turn ON the computer by pressing the power button.
- Turn OFF the computer using either one of the following procedures:
 1. Press power button for 4 seconds to have a “Hard” power off. System shuts down without saving any data or parameters.
 2. Press power button momentarily to “Standby”* or “Hibernate”* dependent on operating system (OS) and power scheme settings.

**: Some operating systems may not support these functions.*

3. Click **Start** → **Shut Down** in Windows to turn OFF.

Driver or application software installation may be necessary for further operation.

Controls and Indicators

Note: Some of the functions are optional.

Front



- F1~F6: Function keys, blue font are alternative functions enabled by pressing Fn and the key simultaneously
- Fn: To enable alternative function keys
- ⏻: Sleep button (refer “Timeout/Standby/Wake up”)
- ☼↓: Display brightness decrease
- ☼↑: Display brightness increase
- ⏻: Power button (refer “Timeout/Standby/Wake up”)
- 🔋: Battery charge/Heater activity indicator
 ON: Charging
 OFF: Battery full (when no battery installed it's off, too)
 Flash: Heater active (heater is an optional device)
- 🌀: HDD (Hard Disk Drive) activity indicator

 Power indicator

Rear



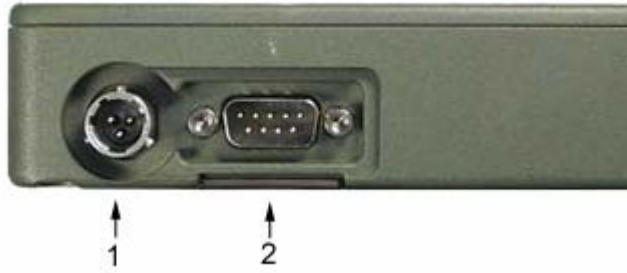
1. Secondary battery connector

Left



1. Battery
2. LAN
3. USB (Universal Serial Bus)
4. PCMCIA slots

Right



1. DC jack (2 pin for DR786EX/AC-I, 3 pin for DR786EX/AC-M)
2. Serial port (COM1)

Top



1. Antenna
2. HDD
3. Kensington lock slot

Bottom



1. Docking connector

COMPONENTS AND OPERATIONS

Location

A clean and moisture-free environment is preferred. Make room for air circulation. Avoid areas with:

- Sudden or extreme changes in temperature.
- Extreme heat.
- Strong electromagnetic fields (near television set, motor rotation area, etc.).
- Dust or high humidity.

If it is necessary to work in a hostile environment, please regularly maintain your computer by cleaning dust, water, etc. to keep it in optimal condition.

Ruggedness

The computer is designed with rugged features as vibration, shock, dust, and rain/water protection. However, it is still necessary to provide appropriate protection while operating in harsh environments.

NEVER immerse the computer in water. Doing so may cause permanent damages.

Drop may cause parts break or permanent damages.

The D-sub connector cap is for dust and shock protection only. The connector itself is sealed internally. Other I/O ports and devices must have caps tightly closed or cable inlets sealed while exposed to water or dust.

All connectors will corrode if exposed to water or moisture. Corrosion is accelerated if the power is ON. Please take proper measures in cable connection to avoid water entering into connectors.

The DC jack and cables are sealed and may be operated with water splashing while attached. All port covers should be in place when no cable is attached.

Operating Systems

The computer is compatible with most operating systems (OS). However, not all functions are 100% compatible.

For example, ACPI, APM, Smart Battery, etc. are not available on DOS, Windows NT, and other non-Microsoft OS. Consequently “Standby”,

“Hibernation”, “Battery Gauge” etc. would not work under such operating systems.

<p><i>ACPI: Advanced Configurations and Power Interface</i> <i>APM: Advanced Power Management</i></p>

AC Adapter

The AC adapter performs two functions:

- It powers the computer from an external AC source.
- It charges the computer battery.

The adapter automatically detects the AC line voltage (110V or 220V) and adjusts accordingly.

The following are recommended when using the AC adapter:

- Use a properly grounded AC outlet.
- Use one AC outlet exclusively for the computer. Having other appliances on the same line may cause interference.
- Use a power strip with built-in surge protection.

Connect the AC adapter:

1. Plug the AC cord to the adapter.
2. Plug the other end of the AC cord into the wall outlet. Make sure the green LED on the adapter turns on.
3. Attach the DC plug into the power jack of the computer; turn the lock ring clockwise to secure it.

AC Adapter Indicator

The green LED indicates that the adapter output is ready.

Battery

The computer will automatically switch to battery power when the external power source (AC adapter or optional vehicle adapter) is disconnected.

Battery Power Saving Tips

The computer comes with an intelligent power-saving feature. You may extend the battery life by:

- Setup power saving functions in Windows “Power Management” options (e.g. Windows 98/2000/ME/XP “Power Management Options”).
- Setup power saving functions in BIOS “Power Management Setup”(mainly for non-ACPI/APM operating systems).
- Lower the intensity of the display by brightness control.
- Turn the computer into standby (by Sleep or Power button) when it is temporarily not in use.
- Shut down the computer when it will not be in use for longer period of time.

Battery Low

When the battery is nearly exhausted, the computer gives the following “Battery Low” warnings:

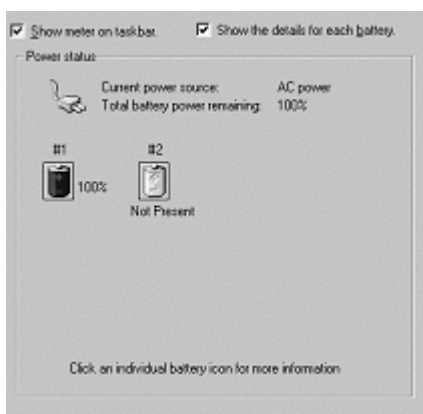
- Windows 98/2000/ME/XP battery low warning.
- A series of beep warning.
- The power LED flashes.

Once the Battery Low warning occurs, please:

- Save and close the files you are currently working on then shut down the computer.
or
- Plug in AC or vehicle adapter to recharge the battery.

Battery Gauge

In Windows 98/2000/ME/XP, etc. you may check battery status from battery gauge. Click the power/battery icon to pop up the battery gauge window.



*Note: Battery characteristic varies on factors such as ambient temperature, charging method, load current, aging, etc.
For example, at low temperature the chemicals of the battery are more inactive, thus decreasing the output power.
The battery gauge should only be used as a reference. Please do not expect it to show the exact amount of the power remaining.
There is no memory effect on Lithium Ion battery cells. However, discharge the battery to nearly empty every month will help calibrate the internal gauge.*

Charging the Battery

Plug in the AC adapter or vehicle adapter to start the battery charging. If the battery is already full, the sense circuitry will stop high current charge in several minutes.

The LED Indicator turns ON when the battery is charging and turns OFF when the battery charge is completed.

To charge the Secondary Battery, simply install it into the computer and attach the AC adapter. The internal charger will charge the Primary and Secondary batteries simultaneously.

Optional Dual Battery Charger can charge Primary and Secondary batteries externally.

Boot Up and POST

The computer turns ON and loads the operating system (such as Windows) into the system memory. This start-up procedure is called "boot up".

The ROM BIOS Power On Self-Test (POST)

Each time the computer powers on, BIOS automatically performs a self-test of its memory and hardware devices.

Timeout/Standby/Wake up

In Windows Control Panel Power Options you may set preferred options. If timeouts are set, the sequences of function are as follows:

- **Normal** → **Timeout (Monitor, HDD)** → **Touch screen or any key** → **Wake up (Normal)**
- **Normal** → **Timeout (Standby, Hibernate)** → **Power button** → **Wake up (Normal)**

Directly press sleep button or power button the functions are as follows:

- **Normal** → **Sleep button** → **Standby** (also locks all function keys & touch screen) → **Power button** → **Wake up (Normal)**
- **Normal** → **Power button** → **Standby/Hibernate/Shut down/etc.** (dependents on power button setting)

*Note: Timeout/Standby works under both AC adapter and battery mode.
Some functions may not work under Windows NT or other non-Windows operating systems.*

Shutdown

The following procedure is recommended in shutting down the computer:

1. Save any work you want to keep.
2. Make sure none of the disk drives are active (HDD, FDD, and CD-ROM drive).
3. Remove any diskettes, CD-ROMs, or other media.
4. Follow the shut down procedure of your Operating System.

Failure to shut down the computer properly may result in loss of data or hardware damages.

Automatic shut down is activated at battery exhaust. Be sure to finish your work and save all your data when the battery low warning appears.

RTC

Battery backed up RTC (Real Time Clock/Calendar) is a built-in CMOS (Complementary Metal Oxide Semiconductor) chip on-board. The RTC keeps track of the time and date while the computer is off. The CMOS chip also stores system setup information.

RTC battery is also recharged when AC adapter is attached.

Tips: When computer is not used for longer period, recharge it at least once per month to ensure RTC operation.

Safe Guard the Computer



Plug the Kensington lock into the slot near HDD and turn lock it. Both the computer and HDD are secured.

Kensington lock is a widely available 3rd party product.

Replacing Modules

Caution! Turn OFF the power before replacing any module.

To remove the modules:

1. Turn OFF the computer.
(“Hibernate” or “suspend to disk” are not recommended as the parameters may change when modules are changed)
2. Disconnect all cables from the computer.
3. Use a coin to turn loose the screws on the modules.
4. Remove the battery from the compartment.
5. Remove the HDD from the computer.



To re-install the modules:

Gently push the module into the slot. Fasten the screw to fix the module. Make sure the O-rings are firmly fixed. No sealant is necessary for the O-rings.

Hard Disk Drive

The Hard Disk Drive (HDD) is a 2.5" type standard IDE interface data storage device.

HDD is user removable. This provides convenience and security. It can ONLY be removed while power is OFF.

Note: NEVER drop your HDD module or expose it to high temperature, high humidity, or any hazardous environment. NEVER try to disassemble the module.

Static discharge may destroy your device and data. Always pick up the modules by touching the case only.

Touch Screen

Touch screen facilitates direct finger touch or pen input on the screen instead of mouse or touch pad.

PCMCIA Cards

The computer supports two type-II PCMCIA cards or one type-III card. To remove the card, push the eject button. The eject button can hide into the compartment by pushing it inward gently.

External Backlight Keyboard (optional)

The external backlight keyboard is equivalent to a full size desktop keyboard plus extra functions. The interface is via USB port.



Trackpoint:

The trackpoint is functionally equivalent to a mouse. Pushing the trackpoint may move the cursor on the screen. The 2 buttons act same as mouse buttons.

Backlight:

Press **[I-O]** key for approximately 1 second turns keyboard backlight ON or OFF.

Floppy Disk Drive (optional)

The USB 3.5" 1.44MB floppy disk drive (FDD) is almost same as conventional 3.5" FDD. The difference is interface via USB. To use FDD the operating system (OS) must support USB.

CD-ROM Drive (optional)

CD-ROM drive is also an USB device. The interface requirement is same as FDD. As USB function is active after Windows boot up, Windows installation via USB CD-ROM is not possible even the Windows itself supports USB. Audio CD output is via the audio jack on CD-ROM drive only.

Docklight (optional)

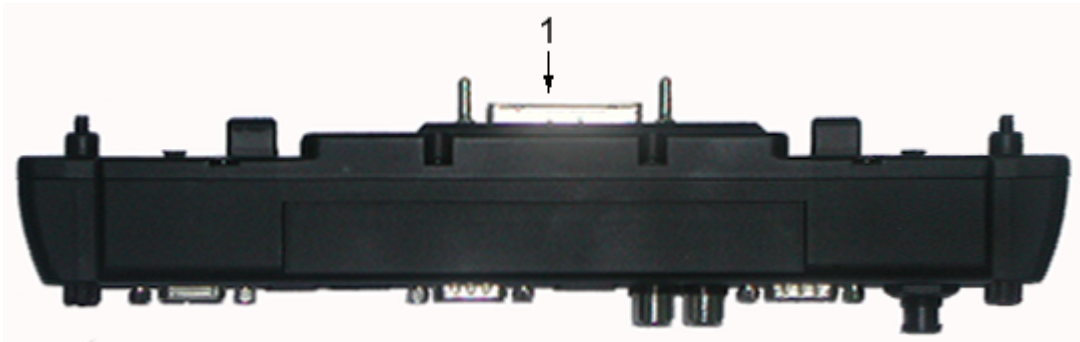
Docklight acts as docking unit or port enhancer. It contains more ports that are not available on system unit.

Mount Docklight:

1. Open the rubber cap on the docking connector.
2. Align the docking connector.
3. Attach Docklight.
4. Fix the screws.

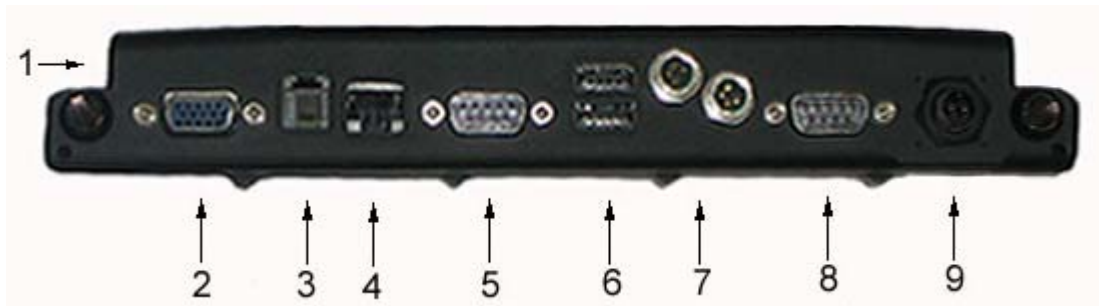
Docklight ports

Top:



1. Docking connector

Bottom and Left:



1. Audio jacks (Microphone/Speaker)
2. RGB port
3. Modem jack (RJ11)
4. LAN jack (RJ45)
5. Serial port (COM3)
6. USB port 1, 2 (standard type)
7. USB port 3, 4 (proprietary sealed type)
8. Serial port (COM2)
9. DC jack

Stand Unit (optional)

Stand unit can hold the system unit and Docklight with adjustable view angle. It can be used in office or in vehicle.

There are 2 configuration options:

- Stand unit only to accept system unit.
- Stand unit with Docklight hooked to accept system unit.

Mount Stand Unit:

1. Open the rubber cap on the docking connector.
2. Align the computer into stand unit.
3. Push the lever to engage and fix.

4. Lock the computer.

Heater (optional)

Built-in heater and control circuit activates heating when computer is turned ON at temperature 0°C~-20°C (32°F~-4°F).

The heating is automatically; just turn ON power the heater controller will detect temperature and take over. The power indicator flashes while heating.

The computer would boot up when the internal temperature reaches safe level. It may take 5~20 minutes depends on how cold the temperature is. For temperature below -20°C (-4°F) the computer may never heat up.

Plug in AC or vehicle adapter for heating as battery power may become very low at low temperature.

OPTIONAL DEVICES

Memory Card

The memory card will expand main memory to facilitate better system performance. The cards are available as following:

512MB

LAN Card

100/10 Mb Ethernet LAN Mini PCI card

Wireless LAN Card

The built-in Wireless Local Area Network (WLAN) interface card can provide a quick access without using cables for the connection to the network equipments. The interface card adopts the IEEE 802.11 protocol and uses the 2.4 GHz ISM electric wave frequency band as the transmission interface to set up the communications between the host computer and other computers.

The way of processing communications through the WLAN interface card is the same as that through Ethernet interface card. The “Configuration Tool” is a Window application program. If users have a computer equipped with the WLAN interface card, then users can use it to set up the interface card and show the current configuration and status.

MDC Modem Card

V.90 56K Fax/Modem

Vehicle Adapter

Converts power from car lighters (12~14V) or truck batteries (24~28V). It can power the system and charge the batteries simultaneously.

Caution! Remove or disconnect the vehicle adapter when leaving the vehicle to avoid battery exhaustion.

Dual Battery Charger

The charger provides two slots for the Primary and Secondary battery respectively. It allows charging of both batteries simultaneously. Accepts power from AC adapter or Vehicle adapter. It takes approximately 3~4 hours to fully charge both batteries.

Docklight

Ports: Serial x 2, USB x 4, LAN, Modem, RGB, Microphone, and DC jack. The Docklight can attach to computer or stand unit for mobile or stationary operation.

Stand Unit

Acts as computer holder for office or vehicle operation. Can work with or without Docklight.

SPECIFICATIONS

System Unit

CPU:

Intel Pentium M

Memory:

System memory Standard: 512MB
 Expandable: 1GB

Cache memory Internal level-II 1MB

Video memory 64MB (shared RAM)

Display:

The display is a SVGA compatible LCD (Liquid Crystal Display) of 800 x 600 dots (horizontal x vertical) or XGA 1024 x 786. The computer is also capable of displaying Super XGA 1280 x 1024 dots on the LCD or external monitor. LCD applies a "Panning" technique to display resolutions higher than 800 x 600. In Panning, move the cursor out of the screen boundary the display will scroll to show the hidden area.

LCD specifications:

Type: 8.4" Active TFT Color

Resolution: 800 x 600 or 1024 x 768 pixels

Mode: VGA, EGA, MGA, SVGA, XGA, and SXGA

Color: 16.8 million true colors on 800 x 600 mode

Characters x Row: 80 x 25

Hard Disk Drive:

Type: 2.5"

Interface: IDE

Performance: Ultra DMA 33/66 compliant

Touch Screen:

Type: Resistive

Interface: Serial (COM4)

Resolution: >1024x1024

I/O Ports:

- Serial port (DB9)
- LAN jack (RJ45) for optional LAN card
- 2 type II or 1 type-III PCMCIA slots
- Docking port
- USB port
- Microphone port
- DC jack

Dimensions and Weight:

- Width: 250mm (9.8")
- Depth: 190mm (7.4")
- Height: DR786: 42mm (1.65")
- Weight: DR786: 1.9Kg (4.2 lb)

Note: Weight varies on system configurations.

AC Adapter

- Input Voltage: AC 100 - 240 V
- Frequency: 50/60 Hz
- Output Voltage: DC 19V
- Maximum Power: 90 Watts
- Dimension: 133 mm(W) x 58mm(D) x 30mm(H)
- Weight: 400 g (0.88 lb.)

Battery

Primary Battery:

- Type: 6 x 18650 cells Lithium Ion
- Capacity: 10.8V 4000mAH
- Dimension: 150 mm (W) x 58 mm (D) x 20 mm (H)
- Weight: 300 g (0.65 lb.)

Keypad/Keyboard

Embedded Keypad:

Function keys: F1~F6

Optional External USB Keyboard:

Number of keys: 89

Key travel: 1.5 mm

Function: Emulates standard 101/102-key keyboard

Trackpoint: Equivalent to PS/2 mouse

Vehicle Adapter (optional)

Input Voltage 12V/24V (10~32V) Auto-sense

Input Current 2.5A/5.5A max. (12V/24V respectively)

Output Voltage 19V +/-5%

Output Current 2.8A

Wiring Cigarette lighter/ Truck battery

Application Car or Truck installation

Docklight DL-6I/DL-6M (optional)

Ports: Serial x 2*, USB x 4*, LAN, Modem, RGB, Audio (microphone), DC jack

Dimensions: 250mm (9.8" W) x 34mm (1.3" D) x 38mm (1.5" H)

Weight: 0.45Kg (1 lb.) approximately

**: Serial ports: COM1 RS232 only, COM3 RS232 or optional RS422*

USB ports: 2 standard connectors and 2 proprietary environmental sealed connectors

Stand Unit (optional)

Dimensions: 240 mm (9.4" W) x 290mm (11.4" D) x 150mm (5.9" H)

Weight: 1.6Kg (3.5 lb.) approximately

Materials and Recycling

Materials of the computer are as follows:

Cabinet: Magnesium alloy AZ91D
Aluminum alloy ADC-12 or A380
UL grade PC+ABS GE C2800 or TN-3813BW

Bracket: Aluminum 5052
Steel with Nickel plating
Stainless Steel S304

PCB: FR-4, UL 94V0

Battery: Rechargeable Lithium Ion cells

Packing: Carton: Unbleached paper
Cushion: Recyclable PE
Carrying bag: Recyclable PE Fiber
User's Guide: Paper

Please recycle the parts according to local regulations.

Environmental

Temperature: Operating: DR786-I: 0 ~ 40°C (32 ~ 104°F)
DR786-M: 0 ~ 50°C (32 ~ 122°F)
Non Operating: DR786-I: -20 ~ 60°C (-4 ~ 140°F)
DR786-M: -20 ~ 60°C (-4 ~ 140°F)

Humidity: Operating/Non-operating: 5~95% (non-condensing)

Altitude: Operating/Non-operating: 0 ~ 12,180 meters (0 ~ 40,000 feet)

BIOS SETUP

Press **[F2]** at boot up to enter BIOS setup. Use arrow keys to select options and **[+/-]** to modify them. When finished, move to "Exit" and press **[Enter]** then confirm save by pressing **[Y]**.

Main Menu

Phoenix BIOS Setup Utility					
Main	Advanced	Security	Power	Boot	Exit
System Time [16:19:20] System Date: [03/02/2003]					Item Specific Help
Legacy Diskette A: [1.44/1.25MB3½"] Primary Master [30006MB] Secondary Master [CD-ROM]					<Tab>, <Shift-Tab>, or <Enter> selects field
System Memory: 640 KB Extended Memory: 522752 KB CPU Type Mobile Intel® Pentium® M CPU Speed 1400 MHz					
F1 Help ↑↓ Select Item -/+ Change Values F9 Setup Defaults Esc Exit ← Select Menu Enter Select ► Sub-Menu F10 Save and Exit					

*Note: The contents may vary depending on computer configurations.
CPU speed is actually clocked down to 66% of the list speed.*

Main Menu Selections

You can make the following selections on the Main Menu. Use the sub menus for other selections.

Feature	Options	Description
System Time	HH:MM:SS	Set the system time Hour, Minute, Second.
System Date	MM/DD/YYYY	Set the system date Month, Day, Year.

Diskette 1	3 ½" 1.44MB, Disabled	Select the type of floppy-disk drive installed in your system. 1.25 MB is a Japanese media format that requires a 3½" 3-Mode Diskette drive.
System Memory	N/A	Displays amount of conventional memory detected during boot up.
Extended Memory	N/A	Displays the amount of extended memory detected during boot up.
CPU Type	N/A	
CPU Speed	N/A	

The General Help Window

Pressing <F1> or <Alt-H> on any menu brings up the General Help window that describes in detail the keys and functions for setup.

The scroll bar on the right of any window indicates that there is more than one page of information in the window. Use <PgUp> and <PgDn> to display all the pages. Pressing <Home> and <End> displays the first and last page. Pressing <Enter> displays each page and then exits the window.

Press <Esc> to exit the current window.

Advanced Menu

Phoenix BIOS Setup Utility					
Main	Advanced	Security	Power	Boot	Exit
Boot-time Diagnostic Screen: [Enabled] Summary Screen: [Disabled] Legacy USB Support: [Enabled] POST Memory Test: [Quick Test] BootUp Display: [CRT+LCD] I/O Device Configuration				Item Specific Help Peripheral Configuration for COM port Parallel port	
F1 Help	↑↓ Select Item	-/+ Change Values		F9 Setup Defaults	
Esc Exit	← Select Menu	Enter Select		▶ Sub-Menu F10 Save and Exit	

Warning: *Incorrect settings may cause system malfunction. To correct it, restore the Setup Defaults with <F9>.*

Advanced Menu Selections

It is usually not necessary for user to set up parameters here. Only technician may need to change the settings for diagnostic purposes.

For most frequently altered setup “I/O Device Configuration” please refer following:

I/O Device Configuration Sub-menu

Phoenix BIOS Setup Utility		
Advanced		
I/O Device Configuration		Item Specific Help
COM1 port:	[Enabled]	Configure COM1 device options [COM1]: External device [TTL1]: Internal device
COM1 mode:	[COM1]	
Base I/O address/IRQ:	[3F8/IRQ 4]	
COM2 port:	[Enabled]	
COM2 Mode:	[COM2]	
IrDA Mode:	[Disabled]	
Base I/O address/IRQ:	[2F8/IRQ 3]	
COM3 port:	[3E8/IRQ 10]	
COM4 port:	[2E8/IRQ 5]	

Parallel Port: [Enabled] Mode: [Output Only] Base I/O address: [378] Interrupt [IRQ 7]	
F1 Help ↑↓ Select Item -/+ Change Values F9 Setup Defaults Esc Exit ← Select Menu Enter Select ► Sub-Menu F10 Save and Exit	

I/O Device Configuration Sub-menu Selections

Please refer the on screen help for selections. BIOS shows COM3, COM4 but they are optional devices. Only when COM3/4 card is installed the function exists.

Security Menu

Warning: *If you forget user/supervisor password, the computer has to send back to manufacturer and replace EEPROM to make it work again. For loss of HDD password, both the HDD and its contents cannot be recovered.*

Phoenix BIOS Setup Utility					
Main	Advanced	Security	Power	Boot	Exit
Set Supervisor Password:		[Enter]	Item Specific Help		
Set User Password:		[Enter]	Supervisor password controls access to the setup utility.		
Password on boot:		[Disabled]			
Fixed disk boot sector:		[Normal]			
Diskette access:		[Normal]			
Set Primary Disk Password:		[Enter]			
Primary Master Disk Status		[HDD Paswr Clean]			
F1 Help ↑↓ Select Item -/+ Change Values F9 Setup Defaults Esc Exit ← Select Menu Enter Select ► Sub-Menu F10 Save and Exit					

Security Menu Selections

Feature	Options	Description
Set User Password	Up to seven alphanumeric characters	Pressing <Enter> displays the dialog box for entering the user password. In related systems, this password gives restricted access to SETUP menus.
Set Supervisor Password	Up to seven alphanumeric characters	Pressing <Enter> displays dialog box for entering the supervisor password. In related systems, this password gives full access to Setup menus.
Password on boot	Enabled Disabled	Enabled requires a password on boot. Requires prior setting of the Supervisor password. If supervisor password is set and this option disabled, BIOS assumes user is booting.
Diskette Access	User / Supervisor	Control access to diskette drives
Fixed disk boot sector	Normal Write Protect	Write protects the boot sector on the hard disk for virus protection. Requires a password to format or FDISK the hard disk.
Set Primary Disk Password	Up to seven alphanumeric characters	
Primary Master Disk Status	N/A	Tell current Primary HDD status about password in Set/Clean/Frozen condition.

Power Menu

Phoenix BIOS Setup Utility					
Main	Advanced	Security	Power	Boot	Exit
Power Button Function:				[Power Off]	Item Specific Help
Lid Close Function:				[LCD Off]	Select LID close function as LCD Off or Standby function
Sleep Button Function:				[Stand By]	
Speed Step Technology:				[GV3]	
F1 Help	↑↓ Select Item	-/+ Change Values	F9 Setup Defaults		
Esc Exit	← Select Menu	Enter Select	▶ Sub-Menu		F10 Save and Exit

Boot Menu

Phoenix BIOS Setup Utility					
Main	Advanced	Security	Power	Boot	Exit
+Removable Devices					Item Specific Help
+Hard Drive					Press ↑ or ↓ to select device. Press + to move the selected device up or – to move down. Press [Enter] to show sub-menu selections. [Shift+1] enable or disable a device.
CD-ROM Drive					
Network Boot					
F1 Help	↑↓ Select Item	-/+ Change Values	F9 Setup Defaults		
Esc Exit	← Select Menu	Enter Select	▶ Sub-Menu		F10 Save and Exit

The system will try boot from device on top then the 2nd and so on. If there are more than one device in each category, only the device on top of sub-menu can boot up.

Exit Menu

Phoenix BIOS Setup Utility					
Main	Advanced	Security	Power	Boot	Exit
Exit Saving Changes Exit Discarding Changes Load Setup Defaults Discard Changes Save Changes					Item Specific Help
					Exit System Setup and save your changes to CMOS.
F1 Help	↑↓ Select Item	-/+ Change Values	F9 Setup Defaults		
Esc Exit	← Select Menu	Enter Select	▶ Sub-Menu	F10 Save and Exit	

UTILITIES AND DRIVERS

Note: Most device drivers are available in Windows 98/2000/ME/XP. Only when the default driver does not work properly you need to install the factory bundled drivers.

The utility CD includes most drivers of the computer's installed devices. Consult dealer if any driver is missing.

Re-install drivers or perform "Driver Update" to replace the Windows default drivers.

Check Readfirst file on utility CD to get the newest information before starting to install drivers.

Chipset

Windows WINXP/WIN2000/WIN98SE/ME Driver Installation:

Insert the Driver CD into the CD-ROM. Click **infinst_enu** in RT786(EX) Driver \Chipset then follow the prompt to complete installation.

VGA Utility

Display Capability

Resolution & Color	LCD	RGB	LCD + RGB
640x 480x 16-bit color	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
640x 480x 24-bit color	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
640x 480x 32-bit color	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
800x 600x 64K color	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
800x 600x 24-bit color	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
800x 600x 32-bit color	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1024x 768x 16-bit color	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1024x 768x 24-bit color	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1280x 1024x 16-bit color	<input type="radio"/> *	<input type="radio"/>	<input type="radio"/> *
1280x 1024x 24-bit color	<input type="radio"/> *	<input type="radio"/>	<input type="radio"/> *

1280x 1024x 32-bit color	O*	O	O*
1600x 1200x 16-bit color	O*	O	O*
1600x 1200x 24-bit color	O*	O	O*
1600x 1200x 32-bit color	O*	O	O*
2048x 1536x 16-bit color	O*	O	O*
2048x 1536x 24-bit color	O*	O	O*
2048x 1536x 32-bit color	O*	O	O*

*: By Panning.

The table lists typical display modes only. The system also supports standard video modes with lower resolution and color.

Windows 98SE/2000/ME/XP Driver Installation:

Insert the Driver CD into the CD-ROM. Click **Driver** → **VGA** → **Winxp2k98/Win2k_xp/Win9x** then select **Setup**, follow prompt to complete driver installation. Windows XP/2000/98SE/ME may recommend using their driver, but you should confirm changing to the factory bundled driver.

After restart and back to **Settings** window, choose proper **Colors** and **Screen Area**.

USB 2.0

Windows 98SE/2000/ME/XP Driver Installation(for RT786):

You can find the folder of **Win2K and Win98SE&ME** when you click **Driver** and **USB2.0** in the driver CD. Click the setup in the folder by your OS system and follow the prompt to complete the installation.

The Windows XP with the service pack 1 is not necessary to install the driver.

For RT786EX only Win98SE needs to install USB2.0 driver.

Touch Screen Driver

Enter BIOS Setup and set COM1 port as “TTL1”. (COM1 has multiple connectivity so it’s necessary to setup. Optional COM4 may be configured as touch screen and doesn’t need BIOS setup.)

Then cancel the prompt of installation wizard to setup the driver from the CD (RT786(EX)\Driver\Touchscreen) or install the drivers under Windows by **Add Hardware**.

CD-ROM Driver

In Windows 98SE/2000/ME/XP, you don't need to install drivers, because it is included in the drivers list.

Only non-Windows OS need the driver

PCMCIA Driver

Windows 98SE/2000/ME/XP

The driver is automatically installed under Windows except Windows 98se.

Windows 98se will detect new PCMCIA cards so you must update the driver in CD from **Control panel\System\Device Manager\PCMCIA Socket\Generic CardBus**

Audio Driver

Windows 98SE/2000/ME/XP

Insert the Driver CD into the CD-ROM. Click **Setup** in RT786(EX) \Driver \Audio \winxp2k98 then follow the prompt to complete installation.

LAN Card Driver

In Windows 98se/2000/ME/XP click **System** → **Hardware** → **Device Manager** → choose **Network adapters**, then choose the appropriate device and click **Driver** → **Update Driver**. Follow the prompt to complete installation.

Fax/Modem Card Driver

Windows will detect new Fax/Modem cards so you must update the driver in CD from **Control panel\System\Device Manager\Other device\PCI Card**

MAINTENANCE / SERVICE

Cleaning

ALWAYS turn OFF the power, unplug the power cord before cleaning.

The exterior of the system and display may be wiped with a clean, soft, and lint-free cloth. If there is difficulty removing dirt, apply non-ammonia, non-alcohol based glass cleaner to the cloth and wipe.

An air gun is recommended for cleaning water and dust. For salty water please clean with fresh water then blow-dry with an air gun.

Troubleshooting

Should the computer fail to function properly, the troubleshooting steps below may be followed.

- Check AC/vehicle adapter, battery, and the power source.
- Minimize the configuration, i.e., remove extra peripherals and devices.
- Remove the modules one by one (HDD, CD-ROM, FDD, Battery, etc.).
- Remove the software suspected.
- Set BIOS fail-safe default.
- Re-install operating system and application software.

RMA Service

If troubleshooting steps are unsuccessful, consult your dealer for service. If it is necessary to send in your computer for repairs, a representative from your authorized technical support department will provide you with an RMA#. Only after you have spoken with a technical support representative and received an RMA# should you send in your computer.

Shipping instructions:

1. Remove any personal add-on devices, or other media.
2. Use the original shipping container and packing materials, if possible.
3. If the original packing materials are not available, wrap the equipment with soft material (e.g., PU/ PE form) then put the wrapped equipment into a hard cardboard shipping box.

4. Include a sheet with the following information: (Note: please keep a copy of this sheet for your records)
 - Name
 - Address
 - Unit serial number
 - Place and date of purchase or the original invoice number
 - Date of failure
 - A **DETAILED** Description of the problems encountered including: The operating system, the add-on device installed (if any), the application software, the failure phenomenon, etc.
 - A list of the whole hardware/software configuration, if applicable.
1. Clearly mark the RMA # on the shipping box. If an RMA # is not present on the shipping box, receiving will be unable to identify it and it might be returned.
2. Unless prior arrangements have been made, the customer is responsible for all shipping costs. Unauthorized use of the company's shipping accounts is not permitted.

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