Appendix A

QDI Mainboard Utility CD-ROM

A QDI Mainboard Utility CD-ROM is supplied with each mainboard. The contents used for this mainboard are:

1. Chipset Dispatches:
   Via Chipset Drivers included in the directory \ChipDrv\Via \A133 .
   Run \ChipDrv\Via\A133\Setup.exe to install the following drivers automatically.
   A. Bus Master PCI IDE Driver
   B. IRQ Routing Program
   C. Via Chipset Function' s Registry
   D. AGP VxD Driver

2. PC-cillin 98
   New viruses are appearing frequently; the chance of your PC being infected increases; antivirus softwares are becoming a must. PC-cillin 98 offers you full-time active virus protection as well as manual scans, plus virus clean capability. Keeping up to date on the latest threats and updating significant files are crucial in keeping antivirus software effective. PC-cillin 98 provides Free Virus Pattern File Updates from the Trend Micro Website:
   http://www.trend.com/download/pattern.htm or
   http://www.antivirus.com/download/pattern.htm.

   Installation of PC-cillin 98
   For Windows 95/98 English version, run Setup.exe for installation from the utility CD directory \Pccillin\Win9x.
   For Windows 95/98 Chinese version, run Setup.exe for installation from the utility CD directory \Pccillin\PWin9x.
   For Windows NT 4.0, run Setup.exe for installation from the utility CD directory \Pccillin\WinNT4.0.
   S/N is PN EF-9991-6558-5857-5535.

3. QDI ManageEasy V2.0
   It is well known that guaranteeing the computer' s security and reliability is essential. Especially today, effectively managing and monitoring the computer' s hardware is even more important; because processing and exchanging critical data through computer and network are happening everyday.

Moving with the computer' s development, the system of the computer will become more and more complex; at the same time, the control computer' s hardware will be strengthened. Today, it is possible to monitor and manage your complex hardware from Windows 9X and Windows NT. QDI ManageEasy is a system tool, a bridge between the complex hardware and OS, used to access hardware status and to execute control functions. It supports stronger functions for Windows 9X and Windows NT. These functions enables you to view more than one hundred of the basic information about the system and monitor some key reference data concerning computer health in real time. QDI ManageEasy also helps you to use remote access and control computers in
your local area network. With QDI ManageEasy, you can improve your management level.

Installation of QDI ManageEasy V2.0

Run Setup.exe from the utility CD directory \QME2 to install the QDI ManageEasy V2.0. The QDI ManageEasy Setup Wizard will guide you through the installation process.

For detailed information on how to use QDI ManageEasy V2.0, please refer to the QDI ManageEasy V2.0 online help.

4. QDI Mainboard Utility:
   The utilities located in the directory \Utility are:
   AWDFLASH.EXE
   CBLOGO.EXE
   LF.EXE
   Refer to the online help for information on how to use these utilities.

5. Documents for QDI Mainboard:
   The files included in the directory \Doc are:
   Adobe Acrobat Reader V3.0 —ar32e301.exe
   ManageEasy Manuals —QMEV12.PDF.

RecoveryEasy

Introduction:

RecoveryEasy™, the latest QDI innovation, is able to protect the system from being destroyed, by creating a so-called "mirror partition" for a current hard disk partition and backuping all the data to the mirror area. This ideal utility provides disk partition, disk data backup/recovery, CMOS settings backup/recovery and multi-boot functions. RecoveryEasy is also able to prevent the system from being attacked by different kinds of boot virus or other severe virus such as CIH. In case the system is ruined either by mistake or virus, the system can be recovered from the mirror partition. It applies the build-in BIOS technology that does not occupy either the hard disk space or the system memory. It's the best choice for both corporations and PC users.

Operation Process:

There are two hotkeys – Ctrl+Bksp and F12 for RecoveryEasy to enter "Partition" and "Recovery" user interfaces accordingly during BIOS booting up. If two or more hard disks are installed, use F5 key to choose the hard disk.

1. Partition Interface (see figure-1)

Users can create and delete partitions/mirror partitions, activate partitions, and uninstall RecoveryEasy in Partition User Interface.

figure-1 Partition Interface

1.0 Install RecoveryEasy for the first time

a. The utility checks the previous disk partition at first, and displays the status of the first four partitions. If there are more than four disk partitions, users will be asked to delete the redundant disk partitions, since only four partitions that can be activated are allowed to exist. However, if there're only four or fewer partitions, users can follow the system prompt and choose to install RecoveryEasy based on the previous disk partitions. In this way, the original extension partitions will be changed to normal ones, and probably the sequence of the partitions will be changed also, but the contents contained in each partition will remain the same.

b. If choosing to install RecoveryEasy on an absolutely clear disk, the utility will delete all the previous partitions.
c. The password is set as default setting “qdiqdi” after installing RecoveryEasy.

1.1 CREATE PAR

Function : Creates a new partition.

Limitation: When no disk space remains or 4 partitions already exist, this button is disabled.

Steps : After pressing the “CREATE PAR” button.

a. The system will prompt whether users want to create a mirror partition for it or not.
b. If answering “Y”, input the new partition size in Megabyte. Notice that the maximum partition size that can be assigned is half of the left disk space, which is also displayed in the status line. Another half is for the mirror partition. If answering “N”, the whole disk space left can be assigned. See figure-2.

figure-2 Create Partition

Note:

a. The system will prompt “Insert system floppy, then reset” when the first partition on the first hard disk is created.
b. After using DOS6.xx boot disk to format C partition, the system should be reset in order to access the partition.
c. In Windows system 1,048,576 bytes equal 1 Megabyte, while in RecoveryEasy 1,000,000 bytes equal 1 Megabyte, therefore a smaller size will be displayed in Windows system compared with the size displayed in RecoveryEasy.

1.2 DELETE PAR

Function : Deletes the last partition and its mirror partition.

Limitation: When no partition exists, this button is disabled.

Steps : After choosing this function, only the final partition can be deleted in order to keep the continuous disk space. If the warning message is confirmed, the partition will be deleted. By pressing “N” or “ESC” key, the system quits.

1.3 ACTIVE PAR

Function : Implements multi-boot function by activating one of the partitions.

Limitation: When no partition exists, this button is disabled.

Steps : If there' re two or more partitions, choose one of them by pressing F5 key.

Note : After setting active partition, a letter "A" will be shown in front of this partition.

1.4 CREATE MIR

Function : Adds mirror partition for the disk partition that has no mirror.

Limitation: This function should be performed by order, for example, from partition 1 to 4. If no disk space remains or the last partition has its mirror partition already, this button is disabled.

Steps : After pressing the "CREATE MIR" button, use F5 key to choose the partition to create mirror. The partition of which the size is bigger than the left disk space will be ignored.

1.5 DELETE MIR

Function : Deletes the mirror partition.

Limitation: If there is no mirror partition, this button is disabled. This function should be performed in reverse order, for example, from partition 4 to 1.

Steps : After pressing the "DELETE MIR" button, only the final mirror partition can be deleted in order to keep the continuous disk space. If the warning message is confirmed, the mirror partition will be deleted. By pressing "N" or "ESC" key, the system quits.

1.6 UNINST SFW

Function : Uninstall RecoveryEasy.

Limitation: None.

Steps : After pressing the "UNINST SFW" button and the warning message is confirmed, RecoveryEasy will be uninstalled. By answering "N", the system quits.

Note : After RecoveryEasy is uninstalled, all the mirror areas have been disconnected with the relate partitions. If no partition is deleted or changed in size, or no other partition is created, users have chance to "Recover existing RecoveryEasy settings" when next time entering RecoveryEasy partition interface, meanwhile the password will be set as default setting "qdiqdi".

1.7 OTHERS

F12 : Switches to Recovery User Interface.

ESC : Exits from the Partition User Interface. If users made some mistakes, for example, wrongly delete a partition, do not press the "ESC" key, press the reset button on your system at once, in this way users can save their system.

F5:

a. When two or more than two hard disks are installed on the system, use F5 key to choose the hard disk. Every time users use F5 key to switch the hard disk, the operation result for the previous hard disk is saved. When processing a certain hard disk, F5 key can be used to choose the partition.

b. In addition, when two or more than two hard disks are installed, the sign of partitions will be changed from C, D, E, F to 1, 2, 3, 4 accordingly.

2. Recovery Interface (see figure-3)

Users can backup the partition to its mirror area, and recover the partition from its mirror area from Recovery User Interface. This interface also provides users with CMOS settings backup or recovery, and changing password functions.

figure-3 Recovery User Interface

2.1 BACKUP PAR

Function : Backups the content of the partition to its mirror area.

Limitation: If no mirror partition exists, this button is disabled.

Steps:

a. Use F5 key to choose the partition with mirror area existed.

b. If the partition chosen has been backuped before, a warning message will be shown, and the time when last backup was done will be displayed in the status line. After confirming the warning message, the system performs the backup. By pressing “N” or “ESC” key, the system quits.

2.2 RE-CVR PAR

Function : Recovers the content from the mirror area to the relate partition.

Limitation: If users didn’t backup any partitions before, this button is disabled.

Steps:

a. Use F5 key to choose the backuped partition.

b. The time when the latest backup was done will be displayed in the status line. After confirming the warning message, the system performs the content recovery. By pressing “N” or “ESC” key, the system quits.

Note:

a. During the process of partition backup or recovery, a guage will be shown as below, the backup or recovery speed is about 4-5Mbyte/s. See figure-4.

figure-4 Backup Partition

b. If a disk I/O error occurs during the process of partition backup or recovery, this means there' s physical damage on the hard disk, however users can ignore it and continue the process.

2.3 ATTRIB PAR

Function : Allows users to modify the properties of the partition (eg. FAT16 -> FAT32) after entering OS.

Limitation: None.

Steps : After pressing this button, turn on/off the switch.

Note:

a. The switch resets to the default setting "disable" every time the system reboots.

b. In order to implement this function, users need to enable the switch when installing the OS or modifying the partition properties. Please note: Do not create or delete partitions or change the partition size when modifying the partition properties.

2.4 BACKUP CMS

Function : Backups all CMOS settings.

Limitation: None.

Steps : After choosing this function, the current CMOS settings will be saved.

2.5 RE-CVR CMS

Function : Recovers all CMOS settings.

Limitation: None.

Steps : After choosing this function, the latest backup of the CMOS settings will be recovered. The system needs reboot in order to validate the new CMOS settings.

Note : If users have never backuped the CMOS settings, a wrong message will be shown after choosing this function.

2.6 CHANGE PWD

Function : Changes the password to enter RecoveryEasy Partition or Recovery User Interface.

Limitation: None.

Steps : Follow the system prompt, input the password no more than 6 characters twice. To delete the password, follow the system prompt and press the "Enter" key twice.

Note:

a. The password should be no more than 6 characters, only digital and alphabetic letters are valid.

b. Once the password is enabled, users will be asked to input the password every time they try to enter the RecoveryEasy user interfaces, and up to 3 times try is permitted.

2.7 Others

Ctrl+Bksp : Switches to Partition User Interface.

ESC : Exits from the Partition User Interface.

F5 : When two or more than two hard disks are installed on the system, use F5 key to choose the hard disk. When processing a certain hard disk, F5 key can be used to choose the partition.

FAQ:

1. **What does RecoveryEasy do?**
   RecoveryEasy creates a so-called "mirror partition" with same size for the hard disk partition on the same hard disk, and then completely backups all the data sector by sector to the mirror area. This mirror partition is reserved to OS. When the OS ruins either by mistakes or virus, users can recover the partition from its mirror.
2. **Does RecoveryEasy occupy the system resources?**
   Although some hard disk data protection applications can automatically protect the disk data in runtime, it lowers the system performance. Unlike these applications, RecoveryEasy need users to backup or restore datamanually when needed, but it DOES NOT lower the system performance when the system is running. It does not occupy either hard disk space or system memory, additional floppy disk or ISA/PCI cards are unnecessary.
3. **RecoveryEasy utilizes Build-in BIOS skill, what is build-in BIOS?**
   RecoveryEasy build-in BIOS means all functions of RecoveryEasy including creating partition, backuping and restoring partition are built in BIOS. Users just need to down load the latest BIOS from our Website (http://www.qdigrp.com) when wanting to upgrade (It' s free!).

4. **Are there any hard disk limitations of RecoveryEasy?**
   RecoveryEasy supports all kinds of current IDE hard disks and has no limitation on the hard disk capacity. RecoveryEasy can not provide its function for some special hard disk types such as SCSI, but it will not affect their usage.
5. **Are there any OS limitations of RecoveryEasy?**
   RecoveryEasy supports current operating systems such as DOS, Windows 95/98. However in Windows NT, Windows 2000, Unix and OS2 systems, users should notice that the disk tools bundled in the OS could change the mirror partition. On the other hand, since users can create partition with RecoveryEasy, it is unnecessary to use other disk tools.
6. **Why does the system halt when HDD access mode is changed (eg. LBA->LARGE)?**
   This is a way to protect the system from the errors of data accessing caused by changing HDD access mode. When RecoveryEasy detects such things, the system will be locked, users could reboot the system and set the HDD access mode as the original one in BIOS SETUP.
7. **Why does the remainder size plus partitions size not match the total size shown in RecoveryEasy sometimes?**
   When the location of partitions is not continuous, the above problem exists.
8. **Are there any other disk partition tools that can modify the partition table made by RecoveryEasy?**
   RecoveryEasy provides a write-protect function, so the disk tools such as Fdisk, Partition Magic, BootMenu, SmartDisk and BootStar can not modify the partition table created by RecoveryEasy. Some of the applications even terminate during operation. However the disk tools bundled in the OS such as Windows NT, Windows 2000, Unix and OS2 could change the mirror partition.
9. **Why does it happen that a prompt "*installation can not continue*" pops up when installing Windows98 or a yellow exclamation mark shown beside IDE device in system properties?**
   During Windows 98 installation, the installation program will write to MBR (Master Boot Record) which is protected by RecoveryEasy, therefore the installation will be terminated. To avoid this problem, a "ATTRIB PAR" button is provided in Recovery User Interface. Enable this switch before installing Windows 98, then the installation will be successfully completed. In order to remove the yellow question mark before IDE devices in Device Manager, enable this switch once more after system reboot.
10. **Why does the converting of FAT16->FAT32 in PQ Magic go wrong?**
    MBR will be accessed when converting FAT16 to FAT32 with PQ Magic, which is protected by RecoveryEasy, therefore the conversion will be invalidate. Enabling the " ATTRIB PAR" switch from Recovery User Interface

before converting can avoid this problem. It's the same situation as "FAT32 Converter" provided in Windows98.

11. What if partitions be wrongly deleted in RecoveryEasy?

If users delete a partition in RecoveryEasy by mistake, they can save it by pressing the Reset button on their system at once. Do not press the "ESC" key to quit RecoveryEasy, this will save the change. Do not try to create the partition again, since creating partition will clear all the content of the partition.

12. What is multi-boot?

RecoveryEasy can implement the multi-boot function by activating different partition. For example on the hard disk, partition C contains DOS, partition D contains Windows 95 version, partition E contains Windows 98 version, when activating partition C in RecoveryEasy, the system enters DOS, when activating partition E, the system enters Windows 98 version. At the same time, the sequence of the partitions is adjusted accordingly, partition E becomes C:, partition C becomes D: and partition D becomes E:. This function is the same as that of fdisk.exe, but the system needs reboot in order to make the change validate for fdisk.exe.

13. What if computer accidentally power off when backuping (recovering)?

The partition should be completely backuped or recovered. If the computer accidentally powers off, the partition should be backuped or recovered once again.

14. What if users lose the password?

To make sure the security, the password is saved in the hard disk. **It's very important for users to remember the password.** If forgetting the password, contact us, clearing CMOS is useless.

15. Does RecoveryEasy protect hard disk against CIH?

RecoveryEasy can strongly protect the hard disk from boot-virus, as well as the attack of CIH. If the system is attacked by CIH, RecoveryEasy will automatically recover the MBR and each partition boot record before system boots up, and try to recover the FAT. In this way the system can basically boot up, then users can use some anti-virus application to kill the virus. However this depends on how CI vi us af ec s he sy te . IH no ma ly ou br ak o 2 th ev ry mo th i t e s st m an ot bo t p ha d y, po er of t e om ut r ns an ly a d se th se on s fe wa t r co er th s st m, th t s, re ov r he pa ti io f om it mi ro a ea fr m ec ve y se I te fa e. Re em er to cr at a mi ro p rt ti n a d ac up be or v ru a ta ks th s st m.

Appendix B.

Retention Mechanism & Pentium® II/Pentium® III/ Celeron™ Processor Installation Procedures

1. Place the retention module with four plastic nuts on the mainboard and place the four plastic stoppers onto the plastic nuts to secure them.

Note: 1. If choosing to use Celeron™ Processor, snap-on Callipers onto the retention module.
2. If choosing to use Intel Celeron™ PPGA 370 processor, other than placing the callipers, the socket 370 card with CPU and CPU fan should be installed.
3. Please note the retention module has one orientation. If one way doesn' t fit, change the direction to the other way. Do not forcefully press the retention module onto the mainboard.

2. Install HSSBASE (Heatsink Support Base) on mainboard, then insert the two plastic pins through the HSSBASE securing it to the mainboard.

3. Insert Pentium® II/ Pentium®III/ Celeron™ Processor in Slot1.

4. Clip Plastic Bar onto the HSSBASE through the fins on the processors' heatsink.

5. The Retention Mechanism installation procedure is completed as shown below.

S.E.C Cartridge, Retention Mechanism, Heatsink support, and ATX Form Factor Headsink Isometric View Not To Scale

Remark:

Please skip step2 and step4 for Boxed Pentium® II Processor and refer to relevant details concerning this type of processor for your installation.

Appendix C.
Boot Logo

When you power on or reset your system, the picture shown below will be displayed on the screen.

If you press <**Esc**>, it switches to the booting message screen. Otherwise, it enters operating system directly. You can use "**cblogo.exe**" (included on the QDI Mainboard Utility CD) to replace it by any other logo which you prefer. Regarding the method of using **cblogo.exe** utility, please refer to it's online help. If you don't prefer the logo displayed on the screen during boot up, set the "Show Bootup Logo" option as Disabled in the "BIOS FEATURES SETUP" section of the BIOS

*** We reserve the right of modifying the default full-logo of QDI without further notification.**

P/N : 430-01018-602-00
Manual Advance 5/133E Ver 2.0

The patent for SpeedEasy

Item Checklist

Completely check your package. If you discover damaged or missing items, contact your retailer.

- ☑ Advance 5/133E mainboard
- ☑ QDI Mainboard Utility CD-ROM
- ☑ Retention Module
- ☑ I/O shield
- ☑ 1 IDE ribbon cable
- ☑ 1 floppy ribbon cable
- ☑ User' s manual

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If you need any further information, please visit our web-site: "www.qdigrp.com".

Board Layout of
Advance 5/133E V2.0