

# Contents

<b>Item Checkup .....</b>	<b>7</b>
<b>Chapter 1 Specification .....</b>	<b>8</b>
<b>1-1 Mainboard Components Locations .....</b>	<b>9</b>
<b>1-2 Mainboard Specifications .....</b>	<b>10</b>
1-2.1 CPU Socket .....	10
1-2.2 System Chipset .....	10
1-2.3 Memory .....	10
1-2.4 AMI BIOS .....	10
1-2.5 Multi-I/O Function .....	11
1-2.6 Expansion Slots .....	11
1-2.7 Sound Controller .....	11
1-2.8 CNR Slot on board .....	11
1-2.9 Hardware Monitoring .....	12
1-2.10 Power Management .....	12
1-1.11 Redstorm Overclocking Technology (optional) .....	12
1-2.12 Form Factor .....	12
<b>1-3 Chipset System Block Diagram .....</b>	<b>13</b>
<b>Chapter 2 Hardware Setup .....</b>	<b>14</b>
<b>2-1 Pentium 4 CPU Identification .....</b>	<b>15</b>
<b>2-2 CPU Installation with Socket 478B .....</b>	<b>16</b>
<b>2-3 Pentium 4 CPU Fan Installation .....</b>	<b>17</b>
<b>2-4 Memory Installation .....</b>	<b>18</b>
2-4.1 To Install DDR SDRAM Module for this Mainboard .....	18
2-4.2 To Remove a DIMM .....	18
<b>2-5 AGP 4X Installed with Jumper and LED Safeguard .....</b>	<b>19</b>
<b>2-6 IDE Connector Installation .....</b>	<b>20</b>

<b>2-7 Floppy Drive Connector ( FDC ) Installation .....</b>	<b>21</b>
<b>2-8 ATX V 2.03 Power Supply Installation .....</b>	<b>22</b>
<b>2-9 Jumper Settings .....</b>	<b>23</b>
2-9.1 How to tackle the Jumpers: .....	24
2-9.2 Jp14: CPU Front Side Bus Select .....	24
2-9.3 Jp1: PS/2 KB/Mouse Power On .....	25
2-9.4 Jp2: 1.5V AGP4X Safeguard .....	26
2-9.5 Jp3 & Jp4: DIMM Voltage Select:.....	26
2-9.6 JBAT1: Clear CMOS .....	27
2-9.7 JAGP1 & JAGP2: AGP Voltage Select .....	27
<b>2-10 Other Connectors Configuration .....</b>	<b>28</b>
2-10.1 On Board FAN Connectors .....	28
2-10.2 Connector WOL1: Wake On LAN .....	29
2-10.3 CD-ROM Audio Connectors (CD-In1/CD-In2) .....	29
2-10.4 Slot CNR: Communication And Networking Riser Slot ....	30
2-10.5 Chassis Panel Connectors .....	30
2-10.6 Thermal Resistor and Connector RT1 and RT2 .....	31
2-10.7 Complex Header .....	32
2-10.8 USB Ports and USB Header (Header USB 1) .....	34
2-10.9 PS/2 Mouse And PS/2 Keyboard .....	35
<b>Chapter 3 Software Setup .....</b>	<b>36</b>
3-1 Open up the Support CD.....	37
3-2 Install “Intel Chipset Software Installation Utility” .....	38
3-3 Install “Intel Application Accelerator” .....	39
3-4 AC’97 Audio Driver Installation .....	41
3-5 Install Hardware Monitor Utility .....	42
3-5.1 Installation .....	42
3-5.2 Verification .....	43
<b>Chapter 4 AMI BIOS Setup .....</b>	<b>44</b>

<b>4-1 About BIOS Setup .....</b>	<b>45</b>
<b>4-2 To Run BIOS Setup .....</b>	<b>45</b>
<b>4-3 About CMOS .....</b>	<b>45</b>
<b>4-4 The POST ( Power On Self Test ) .....</b>	<b>45</b>
<b>4-5 To Update BIOS .....</b>	<b>46</b>
4-5.1 Before Updating BIOS .....	46
4-5.2 Update Process .....	46
<b>4-6 BIOS SETUP --- CMOS Setup Utility .....</b>	<b>48</b>
4-6.1 CMOS Setup Utility .....	48
4-6.2 Standard CMOS Setup .....	49
4-6.3 Advanced BIOS Features .....	52
4-6.4 Advanced Chipset Features .....	55
4-6.5 Power Management Features .....	58
4-6.6 PNP / PCI Configurations .....	60
4-6.7 Integrated Peripherals .....	62
4-6.8 Hardware Monitor Status .....	65
4-6.9 Frequency/Voltage Control .....	67
4-6.10 Set Supervisor Password .....	69
4-6.11 Load Optimized Defaults .....	70
4-6.12 Save & Exit Setup .....	70
4-6.13 Exit Without Saving .....	71
<b>APPENDICES .....</b>	<b>72</b>
Appendix-1 Identify Mainboard Model Number .....	73
Appendix-2 Technical Terms .....	74

## **Item Checkup**

- Mainboard
- Multi-lingual Quick Installation Guide
- User Manual (Mainboard)
- Support CD
- Bundled Bonus Pack CD
- Bundled Bonus Pack Manual
- Cable :
  - ATA66/100 IDE Cable
  - FDD Cable
  - USB Cable (Optional)