

# Asus C60M1-I Manual

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# Summary of Contents for Asus C60M1-I

Page 1 C60M1-I...

<u>Page 2</u> Product warranty or service will not be extended if: (1) the product is repaired, modified or altered, unless such repair, modification of alteration is authorized in writing by ASUS; or (2) the serial number of the product is defaced or missing.

# Page 3: Table Of Contents

Managing and updating your BIOS ... 2-1 2.1.1 ASUS Update utility ... 2-1 2.1.2 ASUS EZ Flash 2 ... 2-2 2.1.3 ASUS CrashFree BIOS 3 utility ... 2-3 2.1.4 ASUS BIOS Updater ... 2-4 BIOS setup

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#### Page 6: Safety Information

Safety information Electrical safety • To prevent electric shock hazard, disconnect the power cable from the electric outlet before relocating the system. • When adding or removing devices to or from the system, ensure that the power cables for the devices are unplugged before the signal cables are connected. If possible, disconnect all power cables from the existing system before you add a device.

# Page 7: About This Guide

Refer to the following sources for additional information and for product and software updates. ASUS websites The ASUS website provides updated information on ASUS hardware and software products. Refer to the ASUS contact information. Optional documentation Your product package may include optional documentation, such as warranty flyers, that may have been added by your dealer.

#### Page 8: C60M1-I Specifications Summary

FCH A50M @ 2 x DIMMs, maximum 8GB, DDR3 1066 / 800 MHz, non-ECC, un-buffered memory Refer to www.asus.com for the latest Memory QVL (Qualified Vendors List). \*\* When you install a total memory of 4GB capacity or more, Windows 32-bit operating system may only recognize less @...

Page 9 C60M1-I specifications summary Internal connectors 3 x USB 2.0/1.1 connectors support additional 6 USB 2.0/1.1 ports 1 x CPU fan connector 1 x Chassis fan connector 1 x Chassis intrusion connector 6 x SATA 6.0Gb/s connectors 1 x System Panel connector...

#### Page 11: Product Introduction

Chapter 1 Product introduction Thank you for buying an ASUS C60M1-I motherboard! ® Before you start installing the motherboard, and hardware devices on it, check the items in your motherboard package. Refer to page x for the list of accessories.

#### Page 12: Motherboard Overview

1-10 ® 1-13 1-12 F\_PANEL Connectors/Jumpers/Slots/LED Serial ATA 6.0Gb/s connectors (7-pin SATA6G\_1~6) Chassis intrusion connector (4-1 pin CHASSIS) Clear RTC RAM (3-pin CLRTC) Standby power LED (SB\_PWR) Front panel audio connector (10-1 pin AAFP) Page 1-12 1-13 1-11 ASUS C60M1-I...

#### Page 13: Central Processing Unit (Cpu)

DDR2 DIMM socket. DDR3 modules are developed for better performance with less power consumption. The figure illustrates the location of the DDR3 DIMM sockets: C60M1-I 240-pin DDR3 DIMM sockets Chapter 1: Product introduction Dual-core processor C-60 with AMD ®...

#### Page 14: Memory Configurations

2.4 Ai Tweaker menu for manual memory frequency adjustment. • For system stability, use a more efficient memory cooling system to support a full memory load (2 DIMMs) or overclocking condition. C60M1-I Motherboard Qualified Vendors Lists (QVL) DDR3-1066 MHz capability Vendors Part No.

Page 15 DDR3-1333 MHz capability Vendors Part No. A-DATA AXDU1333GC2G9-2G(XMP) A-DATA AD31333G002GMU A-DATA AD63I1C1624EV A-DATA AM2U139C4P2 A-DATA SU3U1333W8G9-B Apacer 78.A1GC6.9L1 Apacer 78.A1GC6.9L1 Apacer AU02GFA33C9NBGC Apacer 78.B1GDE.9L10C CORSAIR TR3X3G1333C9 G CORSAIR TR3X6G1333C9 G CORSAIR CMD24GX3M6A1333C9(XMP) CORSAIR TW3X4G1333C9D G CORSAIR CM3X4GA1333C9N2 CORSAIR CMX4GX3M1A1333C9 CORSAIR CMD8GX3M4A1333C7 Crucial CT12864BA1339.8FF Crucial...

Page 16 1.5V • • • 9-9-9- 1.5V • 9-9-9- 1.5V • • • • • • • • ASUS C60M1-I 2 DIMM • • • • •

<u>Page 17</u> SS: Single-sided / DS: Double-sided DIMM support: • 1 DIMM: Supports one module inserted into either slot as single-channel memory configuration. Visit the ASUS website at www.asus.com for the latest QVL. Chapter 1: Product introduction Size Chip Brand Chip NO.

# Page 18: Expansion Slots

IRQ assignments. Otherwise, conflicts will arise between the two PCI groups, making the system unstable and the card inoperable. 1.5.3 PCI Express x16 slot This motherboard has a PCI Express 2.0 x16 slot that supports PCI Express x16 2.0 graphic cards complying with the PCI Express specifications. ASUS C60M1-I...

#### Page 19: Jumpers

CMOS RTC RAM data. The onboard button cell battery powers the RAM data in CMOS, which include system setup information such as system passwords. C60M1-I Clear RTC RAM To erase the RTC RAM: 1. Turn OFF the computer and unplug the power cord.

#### Page 20: Connectors

Line In Rear Speaker Out Line Out Front Speaker Out Mic In Mic In Speed Activity Link LAN port 6-channel 8-channel Rear Speaker Out Rear Speaker Out Front Speaker Out Front Speaker Out Bass/Center Bass/Center Side Speaker Out ASUS C60M1-I...

#### Page 21: Internal Connectors

The system may become unstable or may not boot up if the power is inadequate. • If you are uncertain about the minimum power supply requirement for your system, refer to the Recommended Power Supply Wattage Calculator at http://support.asus. com/PowerSupplyCalculator/PSCalculator.aspx?SLanguage=en-us for details. Chapter 1: Product introduction...

<u>Page 22</u> Connect the fan cables to the fan connectors on the motherboard, ensuring that the black wire of each cable matches the ground pin of the connector. C60M1-I fan connectors Do not forget to connect the fan cables to the fan connectors. Insufficient air flow inside the system may damage the motherboard components.

Page 23 These connectors connect to Serial ATA 6.0 Gb/s hard disk drives via Serial ATA 6.0 Gb/s signal cables. C60M1-I SATA 6.0Gb/s connectors • These connectors are set to [IDE] by default. In IDE mode, you can connect Serial ATA boot/data hard disk drives to these connectors.

#### Page 24: System Panel Connector

System panel connector (10-1 pin F\_PANEL) This connector supports several chassis-mounted functions. C60M1-I System panel connector • System power LED (2-pin PLED) This 2-pin connector is for the system power LED. Connect the chassis power LED cable to this connector. The system power LED lights up when you turn on the system power, and blinks when the system is in sleep mode.

#### Page 25: Software Support

The contents of the Support DVD are subject to change at any time without notice. Visit the ASUS website at www.asus.com for updates. To run the Support DVD Place the Support DVD to the optical drive.

Page 26 1-16 ASUS C60M1-I...

#### Page 27: Bios Information

BIOS in the future. Copy the original motherboard BIOS using the ASUS Update utility. 2.1.1 ASUS Update utility The ASUS Update is a utility that allows you to manage, save, and update the motherboard BIOS in Windows environment.  $\circledast$ ...

# Page 28: Asus Ez Flash 2

Follow the onscreen instructions to complete the updating process. 2.1.2 ASUS EZ Flash 2 The ASUS EZ Flash 2 feature allows you to update the BIOS without using an OS-based utility. Before you start using this utility, download the latest BIOS file from the ASUS website at www.asus.com.

#### Page 29: Asus Crashfree Bios 3 Utility

2.1.3 ASUS CrashFree BIOS 3 utility The ASUS CrashFree BIOS 3 is an auto recovery tool that allows you to restore the BIOS file when it fails or gets corrupted during the updating process. You can restore a corrupted BIOS file using the motherboard support DVD or a USB flash drive that contains the updated BIOS file.

#### Page 30: Asus Bios Updater

2.1.4 ASUS BIOS Updater The ASUS BIOS Updater allows you to update BIOS in DOS environment. This utility also allows you to copy the current BIOS file that you can use as a backup when the BIOS fails or gets corrupted during the updating process.

Page 31 The BIOS Updater backup screen appears indicating the BIOS backup process. When BIOS backup is done, press any key to return to the DOS prompt. ASUSTek BIOS Updater for DOS V1.18 Current ROM BOARD: C60M1-I VER: 0204 DATE: 03/02/2012 PATH: BIOS backup is done! Press any key to continue.

#### Page 32: Updating The Bios File

• Reconnect all SATA hard disk drives after updating the BIOS file if you have disconnected them. Update ROM BOARD: VER: Unknown DATE: Unknown C60M1I.ROM 4194304 2012-02-03 17:30:48 [Tab] Switch [V] Drive Info [B] Backup [Esc] Exit Unknown ASUS C60M1-I...

#### Page 33: Bios Setup Program

• The BIOS setup screens shown in this section are for reference purposes only, and may not exactly match what you see on your screen. • Visit the ASUS website at www.asus.com to download the latest BIOS file for this motherboard.

#### Page 34: Bios Menu Screen

Exits the BIOS setup program without saving the changes, saves the changes and resets the system, or enters the Advanced Mode Silent mode Standard mode Selects the boot device priority Clicks to display all fan speeds if available Loads optimized default Turbo mode ASUS C60M1-I...

#### Page 35: Advanced Mode

The Advanced Mode provides advanced options for experienced end-users to configure the BIOS settings. The figure below shows an example of the Advanced Mode. Refer to the following sections for the detailed configurations. To access the EZ Mode, click Exit, then select ASUS EZ Mode. Menu items Menu bar...

#### Page 36: Main Menu

The Main menu screen appears when you enter the Advanced Mode of the BIOS Setup program. The Main menu provides you an overview of the basic system information, and allows you to set the system date, time, language, and security settings. 2-10 ASUS C60M1-I...

# Page 37: System Language [English]

2.3.1 System Language [English] Allows you to choose the BIOS language version from the options. Configuration options: [English] 2.3.2 System Date [Day xx/xx/xxxx] Allows you to set the system date. 2.3.3 System Time [xx:xx:xx] Allows you to set the system time. 2.3.4 Security The Security menu items allow you to change the system security settings.

#### Page 38: Ai Tweaker Menu

Be cautious when changing the settings of the Ai Tweaker menu items. Incorrect field values can cause the system to malfunction. The configuration options for this section vary depending on the CPU and DIMM model you installed on the motherboard. 2-12 ASUS C60M1-I...

# Page 39: Ai Overclock Tuner [Auto]

2.4.1 Ai Overclock Tuner [Auto] Allows you to select the CPU overclocking options to achieve the desired CPU internal frequency. Select any of these preset overclocking configuration options: [Auto] Loads the optimal settings for the system. [Manual] Allows you to individually set overclocking parameters. APU Frequency [XXX] This item appears only when you set the Ai Overclock Tuner item to [Manual].

#### Page 40: Dram Voltage [Auto]

0.01V interval. The system may need a better cooling system to work well under high voltage settings. 2.4.10 APU Spread Spectrum [Auto] [Auto] Automatic configuration. [Disabled] Enhances the PCIE overclocking ability. [Enabled] Sets to [Enabled] for EMI control. 2-14 ASUS C60M1-I...

#### Page 41: Advanced Menu

Advanced menu The Advanced menu items allow you to change the settings for the CPU and other system devices. Be cautious when changing the settings of the Advanced menu items. Incorrect field values can cause the system to malfunction. 2.5.1 CPU Configuration The items in this menu show the CPU-related information that the BIOS automatically detects.

# Page 42: Sata Configuration

USB controller legacy mode is enabled. If no USB device is detected, the legacy USB support is disabled. EHCI Hand-off [Disabled] [Enabled] Enables the support for operating systems without an EHCI hand-off feature. [Disabled] Disables the function. 2-16 ASUS C60M1-I...

#### Page 43: Nb Configuration

2.5.4 NB Configuration IGFX Multi-Monitor [Disabled] Enables or disables the Internal Graphics Device Multi-Monitor support for add-on VGA devices. And the memory size of Internal Graphics Device will keep memory reserved. . And the memory size of Internal Graphics Device will keep memory reserved. Configuration options: [Disabled] [Enabled] Primary Video Device [PCIE Video] Selects the primary display device.

#### Page 44: Monitor Menu

Disables PME wake from sleep states. [Enabled] Enables PME wake from sleep states. Monitor menu The Monitor menu displays the system temperature/power status, and allows you to change the fan settings. Scroll down to display the following items: 2-18 ASUS C60M1-I...

# Page 45: Cpu Temperature / Mb Temperature [Xxxºc/Xxxºf]

2.6.1 CPU Temperature / MB Temperature [xxx@C/xxx@F] The onboard hardware monitor automatically detects and displays the CPU and motherboard temperatures. Select Ignore if you do not wish to display the detected temperatures. 2.6.2 CPU / Chassis Fan Speed [xxxx RPM] or [Ignore] / [N/A] The onboard hardware monitor automatically detects and displays the CPU and chassis fan speeds in rotations per minute (RPM).

# Page 46: Cpu Voltage, 3.3V Voltage, 5V Voltage, 12V Voltage

The onboard hardware monitor automatically detects the voltage output through the onboard voltage regulators. Select Ignore if you do not want to detect this item. 2.6.6 Anti Surge Support [Enabled] This item allows you to enable or disable the Anti Surge function. Configuration options: [Disabled] [Enabled] 2-20 ASUS C60M1-I...

#### Page 47: Boot Menu

[Disabled] Disables the full screen logo display feature. Set this item to [Enabled] to use the ASUS MyLogo 2<sup>™</sup> feature. Post Report [5 sec] This item appears only when the Full Screen Logo item is set to [Disabled] and allows you to set the waiting time for the system to display the post report.

# Page 48: Setup Mode [Ez Mode]

• To select the boot device during system startup, press <F8> when the ASUS Logo appears. • Windows Safe Mode can be accessed by pressing <F8> after POST is completed.

# Page 49: Tools Menu

The Tools menu displays items for configuring included features. Select an item then press <Enter> to display the submenu. 2.8.1 ASUS EZ Flash 2 Utility Press [Enter] to launch the ASUS EZ Flash 2 screen. For more details, see section 2.1.2 ASUS EZ Flash 2. 2.8.2 ASUS O.C. Profile This utility stores or loads multiple BIOS settings.

#### Page 50: Exit Menu

This option allows you to exit the Setup program without saving your changes. When you select this option or if you press <Esc>, a confirmation window appears. Select Yes to discard changes and exit. ASUS EZ Mode This option allows you to enter the EZ Mode screen. Launch EFI Shell from filesystem device This option allows you to attempt to launch the EFI Shell application (shellx64.efi) from one of...

# Page 51: Appendices

Appendices Notices Federal Communications Commission Statement This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: • This device may not cause harmful interference. • This device must accept any interference received including interference that may cause undesired operation.

# Page 52: Canadian Department Of Communications Statement

ASUS Recycling/Takeback Services ASUS recycling and takeback programs come from our commitment to the highest standards for protecting our environment. We believe in providing solutions for you to be able to responsibly recycle our products, batteries, other components as well as the packaging materials. Please go to http://csr.asus.com/english/Takeback.htm for the detailed recycling information in different...

# Page 53: Asus Contact Information

ASUS COMPUTER INTERNATIONAL (America) Address Telephone Web site Technical Support Telephone Support fax Online support ASUS COMPUTER GmbH (Germany and Austria) Address Web site Online contact Technical Support Telephone Support Fax Online support \* EUR 0.14/minute from a German fixed landline; EUR 0.42/minute from a mobile phone.

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