



ASUS
PRIME A320M-C R2.0

SOCKET 1200

M.2 (SOCKET 3)

PCIE1_2

PCIE1_1

PCIE1_0

PCIE1_3

PCIE1_4

PCIE1_5

PCIE1_6

PCIE1_7

PCIE1_8

PCIE1_9

PCIE1_10

PCIE1_11

PCIE1_12

PCIE1_13

PCIE1_14

PCIE1_15

PCIE1_16

PCIE1_17

PCIE1_18

PCIE1_19

PCIE1_20

PCIE1_21

PCIE1_22

PCIE1_23

PCIE1_24

PCIE1_25

PCIE1_26

PCIE1_27

PCIE1_28

PCIE1_29

PCIE1_30

PCIE1_31

PCIE1_32

PCIE1_33

PCIE1_34

PCIE1_35

PCIE1_36

PCIE1_37

PCIE1_38

PCIE1_39

PCIE1_40

PCIE1_41

PCIE1_42

PCIE1_43

PCIE1_44

PCIE1_45

PCIE1_46

PCIE1_47

PCIE1_48

PCIE1_49

PCIE1_50

PCIE1_51

PCIE1_52

PCIE1_53

PCIE1_54

PCIE1_55

PCIE1_56

PCIE1_57

PCIE1_58

PCIE1_59

PCIE1_60

PCIE1_61

PCIE1_62

PCIE1_63

PCIE1_64

PCIE1_65

PCIE1_66

PCIE1_67

PCIE1_68

PCIE1_69

PCIE1_70

PCIE1_71

PCIE1_72

PCIE1_73

PCIE1_74

PCIE1_75

PCIE1_76

PCIE1_77

PCIE1_78

PCIE1_79

PCIE1_80

PCIE1_81

PCIE1_82

PCIE1_83

PCIE1_84

PCIE1_85

PCIE1_86

PCIE1_87

PCIE1_88

PCIE1_89

PCIE1_90

PCIE1_91

PCIE1_92

PCIE1_93

PCIE1_94

PCIE1_95

PCIE1_96

PCIE1_97

PCIE1_98

PCIE1_99

PCIE1_100

PCIE1_101

PCIE1_102

PCIE1_103

PCIE1_104

PCIE1_105

PCIE1_106

PCIE1_107

PCIE1_108

PCIE1_109

PCIE1_110

PCIE1_111

PCIE1_112

PCIE1_113

PCIE1_114

PCIE1_115

PCIE1_116

PCIE1_117

PCIE1_118

PCIE1_119

PCIE1_120

PCIE1_121

PCIE1_122

PCIE1_123

PCIE1_124

PCIE1_125

PCIE1_126

PCIE1_127

PCIE1_128

PCIE1_129

PCIE1_130

PCIE1_131

PCIE1_132

PCIE1_133

PCIE1_134

PCIE1_135

PCIE1_136

PCIE1_137

PCIE1_138

PCIE1_139

PCIE1_140

PCIE1_141

PCIE1_142

PCIE1_143

PCIE1_144

PCIE1_145

PCIE1_146

PCIE1_147

PCIE1_148

PCIE1_149

PCIE1_150

PCIE1_151

PCIE1_152

PCIE1_153

PCIE1_154

PCIE1_155

PCIE1_156

PCIE1_157

PCIE1_158

PCIE1_159

PCIE1_160

PCIE1_161

PCIE1_162

PCIE1_163

PCIE1_164

PCIE1_165

PCIE1_166

PCIE1_167

PCIE1_168

PCIE1_169

PCIE1_170

PCIE1_171

PCIE1_172

PCIE1_173

PCIE1_174

PCIE1_175

PCIE1_176

PCIE1_177

PCIE1_178

PCIE1_179

PCIE1_180

PCIE1_181

PCIE1_182

PCIE1_183

PCIE1_184

PCIE1_185

PCIE1_186

PCIE1_187

PCIE1_188

PCIE1_189

PCIE1_190

PCIE1_191

PCIE1_192

PCIE1_193

PCIE1_194

PCIE1_195

PCIE1_196

PCIE1_197

PCIE1_198

PCIE1_199

PCIE1_200

PCIE1_201

PCIE1_202

PCIE1_203

PCIE1_204

PCIE1_205

PCIE1_206

PCIE1_207

PCIE1_208

PCIE1_209

PCIE1_210

PCIE1_211

PCIE1_212

PCIE1_213

PCIE1_214

PCIE1_215

PCIE1_216

PCIE1_217

PCIE1_218

PCIE1_219

PCIE1_220

PCIE1_221

PCIE1_222

PCIE1_223

PCIE1_224

PCIE1_225

PCIE1_226

PCIE1_227

PCIE1_228

PCIE1_229

PCIE1_230

PCIE1_231

PCIE1_232

PCIE1_233

PCIE1_234

PCIE1_235

PCIE1_236

PCIE1_237

PCIE1_238

PCIE1_239

PCIE1_240

PCIE1_241

PCIE1_242

PCIE1_243

PCIE1_244

PCIE1_245

PCIE1_246

PCIE1_247

PCIE1_248

PCIE1_249

PCIE1_250

PCIE1_251

PCIE1_252

PCIE1_253

PCIE1_254

PCIE1_255

PCIE1_256

PCIE1_257

PCIE1_258

PCIE1_259

PCIE1_260

PCIE1_261

PCIE1_262

PCIE1_263

PCIE1_264

PCIE1_265

PCIE1_266

PCIE1_267

PCIE1_268

PCIE1_269

PCIE1_270

PCIE1_271

PCIE1_272

PCIE1_273

PCIE1_274

PCIE1_275

PCIE1_276

PCIE1_277

PCIE1_278

PCIE1_279

PCIE1_280

PCIE1_281

PCIE1_282

PCIE1_283

PCIE1_284

PCIE1_285

PCIE1_286

PCIE1_287

PCIE1_288

Asus A320M-C - Motherboard Manual

Contents

1 About this guide

2 Package contents

3 A320M-C specifications summary

4 Product introduction

4.1 Motherboard overview

4.2 Central Processing Unit (CPU)

4.3 System memory

5 BIOS information

5.1 BIOS setup program

5.2 EZ Mode

5.3 Advanced Mode

5.4 Exit menu

6 Safety information

7 Documents / Resources

7.1 References

7.2 Download manual

About this guide

This user guide contains the information you need when installing and configuring the motherboard.

How this guide is organized

This guide contains the following parts:

- Product introduction

This chapter describes the features of the motherboard and the new technology it supports. It includes descriptions of the switches, jumpers, and connectors on the motherboard.

- BIOS information

This chapter discusses changing system settings through the BIOS Setup menus.

Where to find more information

Refer to the following sources for additional information and for product and software updates.

1. ASUS websites

The ASUS website provides updated information on ASUS hardware and software products. Refer to the ASUS contact information.

2. Optional documentation

Your product package may include optional documentation, such as warranty flyers, that may have been added by your dealer. These documents are not part of the standard package.

Conventions used in this guide

To ensure that you perform certain tasks properly, take note of the following symbols used throughout this manual.

/	Information to prevent injury to yourself when completing a task.
	Information to prevent damage to the components when completing a task
	Instructions that you MUST follow to complete a task.
	NOTE: Tips and additional information to help you complete a task.

Typography

Bold text	Indicates a menu or an item to select.
<i>Italics</i>	Used to emphasize a word or a phrase.
<Key>	Keys enclosed in the less-than and greater-than sign means that you must press the enclosed key. Example: <Enter> means that you must press the Enter or Return key.
<Key1> + <Key2> + <Key3>	If you must press two or more keys simultaneously, the key names are linked with a plus sign (+).

Package contents

Check your motherboard package for the following items.

Motherboard	ASUS A320M-C motherboard
Cables	2 x Serial ATA 6.0 Gb/s cables
Accessories	1 x I/O Shield 1 x M.2 Screw Package
Application DVD	1 x Support DVD
Documentation	1 x User Manual

If any of the above items is damaged or missing, contact your retailer.

A320M-C specifications summary

CPU	<p>AMD® Socket AM4 for AMD® A-series / Athlon™ series processors AMD® Turbo Core Technology 3.0 support Supports CPU up to 4 cores* * Due to CPU limitation, CPU cores supported vary by processor. ** Refer to www.asus.com for AMD® CPU support list.</p>
Chipset	AMD® A320 Chipset
Memory	<p>2 x DIMMs, max. 32GB, DDR4 2133 MHz, non-ECC un-buffered memory Dual-channel memory architecture * Hyper DIMM support is subject to the physical characteristics of individual CPUs. ** Refer to www.asus.com for the latest Memory QVL (Qualified Vendors List). *** Due to OS limitation, when installing total memory of 4GB capacity or more, Windows® 32bit operation system may only recognize less than 3GB. Install a 64-bit Windows® OS when you want to install 4GB or more memory on the motherboard.</p>
Graphics	<p>Integrated AMD® Radeon™ R Series Graphics in the A-Series APU Multi-VGA output support: HDMI, DVI-D and D-Sub ports</p> <ul style="list-style-type: none"> • Supports HDMI with maximum resolution of 4096 x 2160 @24Hz / 2560 x 1600@60Hz • Supports DVI-D with maximum resolution of 1920 x 1200 @60Hz • Supports RGB with maximum resolution of 1920 x 1200 @60Hz • Maximum shared memory of 2GB
Expansion slots	<p>1 x PCI Express 3.0/2.0 x16 slot* 2 x PCI Express 2.0 x1 slots 1 x PCI slot * Due to CPU limitation, PCI Express 3.0/2.0 x16 slot supported varies by processor.</p>
LAN	Realtek® 8111H Gigabit LAN Controller
Storage	<p>4 x Serial ATA 6.0 Gb/s connectors 1 x M.2 socket 3 for M Key and type 2242/2260/2280 storage devices, support SATA & PCIe mode* * Due to CPU limitation, M.2 socket supported varies by processor.</p>
Audio	<p>Realtek® ALC 887-VD2 8-Channel High Definition Audio CODEC * Use a chassis with HD audio module in the front panel to support an 8-channel audio output.</p>
USB	<p>6 x USB 3.0 / 2.0 ports (4 ports at the rear panel; 2 ports at mid-board) 6 x USB 2.0 / 1.1 ports (2 ports at the rear panel; 4 ports at mid-board)</p>

ASUS unique features	<p>Dependable Stability ASUS 5X PROTECTION II</p> <ul style="list-style-type: none"> • ASUS LANGuard - Surge-protected networking • ASUS Overvoltage Protection - World-class circuit-protecting power design • ASUS DRAM Overcurrent Protection - Enhanced DRAM overcurrent protection • ASUS Stainless Steel Back I/O - 3X more durable • ESD Guards - Electrostatic discharge protection <p>Superb performance UEFI BIOS</p> <ul style="list-style-type: none"> • Most advanced options with fast response time <p>Easy PC DIY Safe motherboard mounting</p> <ul style="list-style-type: none"> • Component-free areas to minimize damage risk <p>Q-Design</p> <ul style="list-style-type: none"> • ASUS Q-DIMM • ASUS Q-Slot <p>UEFI BIOS EZ Mode- featuring friendly graphics user interface</p> <ul style="list-style-type: none"> • ASUS CrashFree BIOS 3 • ASUS EZ Flash 3 <p>Optimized Cooling</p> <ul style="list-style-type: none"> • Stylish Fanless Design: PCH Heat-sink
Rear panel I/O ports	<p>1 x PS/2 keyboard (purple) 1 x PS/2 mouse port (green) 1 x HDMI port 1 x DVI-D port 1 x D-Sub port 1 x COM port 1 x LAN (RJ-45) port 4 x USB 3.0/2.0 ports 2 x USB 2.0/1.1 ports 3 x Audio jacks support 8-channel audio output</p>
Internal connectors	<p>2 x USB 2.0/1.1 connectors support additional 4 USB 2.0/1.1 ports 1 x USB 3.0 connector support additional 2 USB 3.0 port 1 x M.2 socket 3 for M Key and type 2242/2260/2280 devices 4 x SATA 6.0Gb/s connectors 1 x 14-1 pin TPM connector 1 x COM connector 1 x Parallel connector 1 x CPU Fan connector 2 x Chassis Fan connector (Support DC & PWM mode) 1 x Front panel audio connector 1 x 24-pin EATX Power connector 1 x 4-pin ATX 12V Power connector 1 x 2-pin Clear CMOS header 1 x System Panel connector 1 x Chassis intrusion connector 1 x Speaker connector</p>
BIOS features	<p>128 Mb Flash ROM, UEFI AMI BIOS, PnP, DMI2.0, WfM2.0, SM BIOS 3.0, ACPI 5.0, Multi-language BIOS, ASUS EZ Flash 3, ASUS CrashFree BIOS 3, My Favorites, Quick Note, Last Modified log, F12 PrintScreen, ASUS DRAM SPD (Serial Presence Detect) memory information, F6 Qfan Control</p>
Manageability	<p>WfM 2.0, DMI 2.0, WOL by PME, PXE</p>

Support DVD	Drivers ASUS utilities EZ Update Anti-virus software (OEM version)
OS support	Windows® 10* Windows® 7 * 64-bit supported only
Form factor	uATX form factor: 9.6 in. x 9.3 in. (24.4 cm x 23.6 cm)

Specifications are subject to change without notice.

Product introduction

Motherboard overview

- Unplug the power cord from the wall socket before touching any component.
- Before handling components, use a grounded wrist strap or touch a safely grounded object or a metal object, such as the power supply case, to avoid damaging them due to static electricity.
- Before you install or remove any component, ensure that the ATX power supply is switched off or the power cord is detached from the power supply. Failure to do so may cause severe damage to the motherboard, peripherals, or components.
- Unplug the power cord before installing or removing the motherboard. Failure to do so can cause you physical injury and damage to motherboard components.

Scan the QR code to get the detailed pin definitions.

1. ATX power connectors (24-pin EATXPWR, 4-pin ATX12V)

Correctly orient the ATX power supply plugs into these connectors and push down firmly until the connectors completely fit.

- For a fully configured system, we recommend that you use a power supply unit (PSU) that complies with ATX 12 V Specification 2.0 (or later version) and provides a minimum power of 300 W.
- 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.

2. CPU and chassis fan connectors (4-pin CPU_FAN, 4-pin CHA_FAN1/2)

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.

Do not forget to connect the fan cables to the fan connectors. Insufficient air flow inside the system may damage the motherboard components. These are not jumpers! Do not place jumper caps on the fan connectors! The CPU_FAN connector supports a CPU fan of maximum 2A (24 W) fan power.

Only the 4-pin CPU fan supports the ASUS Fan Xpert feature.

3. AMD[®] AM4 CPU socket

Install AMD[®] CPU into this surface mount AM4 socket, which is designed for AMD[®] A-Series/ Athlon[™] Series processors. For more details, refer to Central Processing Unit (CPU).

4. DDR4 DIMM slots

Install 1 GB, 2 GB, 4 GB, and 8 GB, unbuffered ECC and non-ECC DDR4 DIMMs into these DIMM sockets.

For more details, refer to System memory.

5. Serial port connector (10-1 pin COM2)

This connector is for a serial (COM) port. Connect the serial port module cable to this connector, then install the module to a slot opening at the back of the system chassis.

6. LPT connector (26-1 pin LPT)

The LPT (Line Printing Terminal) connector supports devices such as a printer. LPT standardizes as IEEE 1284, which is the parallel port interface on IBM PCcompatible computers.

7. TPM connector (14-1 pin TPM)

This connector supports a Trusted Platform Module (TPM) system, which can securely store keys, digital certificates, passwords and data. A TPM system also helps enhance network security, protects digital identities, and ensures platform integrity.

8. M.2 socket 3

These sockets allow you to install M.2 (NGFF) SSD modules. This socket supports type 2242/2260/2280 storage devices.

9. Clear RTC RAM (2-pin CLRRTC)

This header allows you to clear the CMOS RTC RAM data of the system setup information such as date, time, and system passwords.

To erase the RTC RAM:

1. Turn OFF the computer and unplug the power cord.
2. Use a metal object such as a screwdriver to short the two pins.
3. Plug the power cord and turn ON the computer.
4. Hold down the key during the boot process and enter BIOS setup to re-enter data.

If the steps above do not help, remove the onboard battery and short the two pins again to clear the CMOS RTC RAM data. After clearing the CMOS, reinstall the battery.

10. Chassis intrusion header (4-1 pin CHASSIS)

This connector is for a chassis-mounted intrusion detection sensor or switch.

Connect one end of the chassis intrusion sensor or switch cable to this connector. The chassis intrusion sensor or switch sends a high-level signal to this connector when a chassis component is removed or replaced. The signal is then generated as a chassis intrusion event.

The chassis intrusion detection feature is disabled by default. To enable it, set the Chassis Intrude Detect Support item in the BIOS to [On].

11. Serial ATA 6.0Gb/s connectors (7-pin SATA6G_1~4)

These connectors connect to Serial ATA 6.0 Gb/s hard disk drives via Serial ATA 6.0 Gb/s signal cables.

12. System panel connector (10-1 pin F_PANEL)

This connector supports several chassis-mounted functions.

13. Speaker connector (4-pin SPEAKER)

This 4-pin connector is for the chassis-mounted system warning speaker. The speaker allows you to hear system beeps and warnings.

14. USB 3.0 connector (20-1 pin USB3_12)

Connect a USB 3.0 module to this connector for additional USB 3.0 front or rear panel ports. This connector complies with USB 3.0 specifications and provides faster data transfer speeds of up to 5 Gbps, faster charging time for USBchargeable devices, optimized power efficiency, and backward compatibility with USB 2.0.

15. USB 2.0 connectors (10-1 pin USB34, USB56)

Connect the USB module cable to any of these connectors, then install the module to a slot opening at the back of the system chassis. These USB connectors comply with USB 2.0 specifications and support up to 480Mbps connection speed.

16. Front panel audio connector (10-1 pin AAFP)

This connector is for a chassis-mounted front panel audio I/O module that supports either HD Audio or legacy AC'97 audio standard. Connect one end of the front panel audio I/O module cable to this connector.

- We recommend that you connect a high-definition front panel audio module to this connector to avail of the motherboard's high-definition audio capability.
- If you want to connect a high-definition front panel audio module to this connector, set the Front Panel Type item in the BIOS setup to [HD Audio]. If you want to connect an AC'97 front panel audio module to this connector, set the item to [AC97]. By default, this connector is set to [HD

Audio].

17. PCI Express slot

The PCI slot supports cards such as a LAN card, SCSI card, USB card, and other cards that comply with PCI specifications.

18. PCI Express 2.0 x1 slot

This motherboard supports PCI Express 2.0 x1 network cards, SCSI cards, and other cards that comply with the PCI Express specifications

19. PCI Express 3.0/2.0 x16 slot

This motherboard supports PCI Express x16 network cards, SCSI cards, and other cards that comply with the PCI Express specifications.

Due to CPU limitation, PCI Express 3.0/2.0 x16 slot supported varies by processor.

IRQ assignments for this motherboard

	A	B	C	D	E	F	G	H
PCIe x16 slot	-	-	-	shared	-	-	-	-
PCIe x1_1 slot	shared	-	-	-	-	-	-	-
PCIe x1_2 slot	-	shared	-	-	-	-	-	-
PCI slot	-	-	-	shared	-	-	-	-
Realtek LAN controller	-	-	shared	-	-	-	-	-
HD audio	-	-	-	-	-	-	shared	-
A320 Chipset SATA	-	-	-	shared	-	-	-	-
A320 Chipset XHCI	shared	-	-	-	-	-	-	-
M. M.2 Socket	-	-	-	shared	-	-	-	-
AM4 CPU XHCI	-	-	shared	-	-	-	-	-

When using PCI cards on shared slots, ensure that the drivers support "Share IRQ" or that the cards do not need IRQ assignments. Otherwise, conflicts will arise between the two PCI groups, making the system unstable and the card inoperable.

Rear panel connectors

1. PS/2 Mouse port (green). This port is for a PS/2 mouse.
2. Video Graphics Adapter (VGA) port. This 15-pin port is for a VGA monitor or other VGA-compatible devices.
3. Serial port. This 9-pin COM port is for pointing devices or other serial devices.
4. LAN (RJ-45) port. This port allows Gigabit connection to a Local Area Network (LAN) through a network hub.

LAN port LED indications

Activity/Link LED		Speed LED	
Status	Description	Status	Description
OFF	No link	OFF	10Mbps connection
ORANGE	Linked	ORANGE	100Mbps connection
BLINKING	Data activity	GREEN	1Gbps connection

5. Line In port (light blue). This port connects to the tape, CD, DVD player, or other audio sources.
6. Line Out port (lime). This port connects to a headphone or a speaker. In the 2.1, 4.1, 5.1 and 7.1-channel configurations, the function of this port becomes Front Speaker Out.
7. Microphone port (pink). This port connects to a microphone. Refer to the audio configuration table for the function of the audio ports in 2.1, 4.1, 5.1, or 7.1-channel configuration.

Audio 2.1, 4.1, 5.1, or 7.1-channel configuration

Port	Headset 2.1-channel	4.1-channel	5.1-channel Rear Speaker	7.1-channel Rear Speaker
Light Blue (Rear panel)	Line In	Rear Speaker Out Front Speaker	Rear Speaker Out Front Speaker	Rear Speaker Out Front Speaker
Lime (Rear panel)	Line Out	Front Speaker Out	Front Speaker Out	Front Speaker Out
Pink (Rear panel)	Mic In	Mic In	Bass/Center	Bass/Center
Lime (Front panel)	-	-	-	Side Speaker Out

To configure a 7.1-channel audio output:

Use a chassis with HD audio module in the front panel to support a 7.1-channel audio output.

8. USB 2.0 ports. These 4-pin Universal Serial Bus (USB) ports are for USB 2.0/1.1 devices.

9. USB 3.0 ports. These 9-pin Universal Serial Bus (USB) ports are for USB 3.0/2.0 devices.

- Due to USB 3.0 controller limitations, USB 3.0 devices can only be used under a Windows® OS environment and after USB 3.0 driver installation.
- The plugged USB 3.0 device may run on xHCI or EHCI mode, depending on the operating system's setting.
- USB 3.0 devices can only be used for data storage.
- We strongly recommend that you connect USB 3.0 devices to USB 3.0 ports for faster and better performance from your USB 3.0 devices.

10. HDMI port. This port is for a High-Definition Multimedia Interface (HDMI) connector, and is HDCP compliant allowing playback of HD DVD, Blu-Ray, and other protected content.
11. DVI-D port. This port is for any DVI-D compatible device. DVI-D can not be converted to output from RGB Signal to CRT and is not compatible with DVI-I.
12. PS/2 Keyboard port (purple). This port is for a PS/2 keyboard.

Central Processing Unit (CPU)

The motherboard comes with an AM4 socket designed for AMD A-Series/ Athlon™ Series processors.

Unplug all power cables before installing the CPU.
--

The AM4 socket has a different pinout from the FM2+/FM2 socket. Ensure that you use a CPU designed for the AM4 socket. The CPU fits in only one correct orientation. DO NOT force the CPU into the socket to prevent bending the pins and damaging the CPU!

Installing the CPU

Apply the Thermal Interface Material to the CPU heatsink and CPU before you install the heatsink and fan if necessary.

System memory

Overview

This motherboard comes with two Double Data Rate 4 (DDR4) Dual Inline Memory Module (DIMM) sockets. A DDR4 module is notched differently from a DDR, DDR2, or DDR3 module.

DO NOT install a DDR, DDR2, or DDR3 memory module to the

DDR4 slot.

- You may install varying memory sizes in Channel A and Channel B. The system maps the total size of the lower-sized channel for the dual-channel configuration. Any excess memory from the higher-sized channel is then mapped for single-channel operation.
- Always install the DIMMS with the same CAS Latency. For an optimum compatibility, we recommend that you install memory modules of the same version or data code (D/C) from the same vendor. Check with the vendor to get the correct memory modules.
- Due to the memory address limitation on 32-bit Windows[®] OS, when you install 4GB or more memory on the motherboard, the actual usable memory for the OS can be about 3GB or less. For effective use of memory, we recommend that you do any of the following:
 - Use a maximum of 3 GB system memory if you are using a 32-bit Windows[®] OS.
 - Install a 64-bit Windows[®] OS if you want to install 4GB or more on the motherboard.
 - For more details, refer to the Microsoft[®] support site at <http://support.microsoft.com/kb/929605/en-us>.
- This motherboard does not support DIMMs made up of 512Mb (64MB) chips or less.

Visit the ASUS website at www.asus.com; for the latest QVL.

Installing a DIMM

To remove a DIMM

BIOS information

- Scan the QR code to view the BIOS update guide.
- Before using the ASUS CrashFree BIOS 3 utility, rename the BIOS file in the removable device into A320MC.CAP.

BIOS setup program

Use the BIOS Setup program to update the BIOS or configure its parameters. The BIOS screens include navigation keys and brief online help to guide you in using the BIOS Setup program.

Entering BIOS Setup at startup

To enter BIOS Setup at startup:

Press <Delete> or <F2> during the Power-On Self Test (POST). If you do not press <Delete> or <F2>, POST continues with its routines.

Entering BIOS Setup after POST To enter BIOS Setup after POST:

- Press <Ctrl>+<Alt>+ simultaneously.
- Press the reset button on the system chassis.
- Press the power button to turn the system off then back on. Do this option only if you failed to enter BIOS Setup using the first two options.

Using the power button, reset button, or the <Ctrl>+<Alt>+ keys to force reset from a running operating system can cause damage to your data or system. We recommend you always shut down the system properly from the operating system.

- 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.
- If the system becomes unstable after changing any BIOS setting, load the default settings to ensure system compatibility and stability. Select the Load Optimized Defaults item under the Exit menu or press hotkey F5.
- If the system fails to boot after changing any BIOS setting, try to clear the CMOS and reset the motherboard to the default value. See section Motherboard overview for information on how to erase the RTC RAM.

BIOS menu screen

The BIOS setup program can be used under two modes: EZ Mode and Advanced Mode. Press <F7> to change between the two modes.

EZ Mode

By default, the EZ Mode screen appears when you enter the BIOS setup program. The EZ Mode provides you an overview of the basic system information, and allows you to select the display language, system performance mode, fan profile and boot device priority. To access the Advanced Mode, click Advanced Mode(F7) or press <F7>.

The default screen for entering the BIOS setup program can be changed.

- A. Displays the CPU/motherboard temperature, CPU voltage output, CPU/chassis fan speed, and SATA information
- B. Selects the display language of the BIOS setup program
- C. Displays the system properties of the selected mode. Click <Enter> to switch EZ System Tuning modes
- D. Displays the CPU Fan's speed. Click the button to manually tune the fans
- E. Loads optimized default settings
- F. Saves the changes and resets the system

- G. Shows the bootable devices
- H. Displays the Advanced mode menus
 - I. Search on FAQs
 - J. Selects the boot device priority

The boot device options vary depending on the devices you installed to the system.

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 EzMode(F7) or press <F7>.

Search on FAQ

Move your mouse over this button to show a QR code. Scan this QR code with your mobile device to connect to the ASUS BIOS FAQ web page. You can also scan the QR code below.

Exit menu

The Exit menu items allow you to load the optimal default values for the BIOS items, and save or discard your changes to the BIOS items.

Load Optimized Defaults

This option allows you to load the default values for each of the

parameters on the Setup menus. When you select this option or if you press <F5>, a confirmation window appears. Select OK to load the default values.

Save Changes & Reset

Once you are finished making your selections, choose this option from the Exit menu to ensure the values you selected are saved. When you select this option or if you press <F10>, a confirmation window appears. Select OK to save changes and exit.

Discard Changes and Exit

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 OK to discard changes and exit.

Launch EFI Shell from USB drives

This option allows you to attempt to launch the EFI Shell application (shellx64.efi) from one of the available USB devices.

Safety information

Electrical safety

- To prevent electrical shock hazard, disconnect the power cable from the electrical 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.

- Before connecting or removing signal cables from the motherboard, ensure that all power cables are unplugged.
- Seek professional assistance before using an adapter or extension cord. These devices could interrupt the grounding circuit.
- Ensure that your power supply is set to the correct voltage in your area. If you are not sure about the voltage of the electrical outlet you are using, contact your local power company.
- If the power supply is broken, do not try to fix it by yourself. Contact a qualified service technician or your retailer.

Operation safety

- Before installing the motherboard and adding components, carefully read all the manuals that came with the package.
- Before using the product, ensure all cables are correctly connected and the power cables are not damaged. If you detect any damage, contact your dealer immediately.
- To avoid short circuits, keep paper clips, screws, and staples away from connectors, slots, sockets and circuitry.
- Avoid dust, humidity, and temperature extremes. Do not place the product in any area where it may be exposed to moisture.
- Place the product on a stable surface.

- If you encounter technical problems with the product, contact a qualified service technician or your retailer.

ASUS contact information

ASUSTeK COMPUTER INC.

Address 4F, No. 150, Li-Te Road, Peitou, Taipei 112, Taiwan

Telephone +886-2-2894-3447

Fax +886-2-2890-7798

Web site www.asus.com

Technical Support

Telephone +86-21-38429911

Fax +86-21-5866-8722, ext. 9101#

Online support <http://qr.asus.com/techserv>

ASUS COMPUTER INTERNATIONAL (America)

Address 800 Corporate Way, Fremont, CA 94539, USA

Telephone +1-510-739-3777

Fax +1-510-608-4555

Web site <http://www.asus.com/us/>

Technical Support

Support fax +1-812-284-0883

Telephone +1-812-282-2787

Online support <http://qr.asus.com/techserv>

ASUS COMPUTER GmbH (Germany and Austria)

Address Harkort Str. 21-23, 40880 Ratingen, Germany

Fax +49-2102-959931

Web site <http://www.asus.com/de>

Online contact <http://eu-rma.asus.com/sales>

Technical Support

Telephone +49-2102-5789555

Support Fax +49-2102-959911

Online support <http://qr.asus.com/techserv>

Documents / Resources

References

[ASUS Global](#)

[The system memory that is reported in the System Information dialog box in Windows Vista is less than you expect if 4 GB of RAM is installed - Microsoft Support](#)

[ASUS USA](#)

[ASUS Deutschland](#)

Download manual

Here you can download full pdf version of manual, it may contain additional safety instructions, warranty information, FCC rules, etc.

[Download Asus A320M-C - Motherboard Manual](#)



Need Assistance?

Do you have a question about the A320M-C that isn't answered in the manual? Leave your question here.



Stay updated with the latest solutions
Submit your question

Related Manuals for Asus A320M-C

[Asus Pro WS W480-ACE - LGA 1200 ATX Intel Motherboard Quick Start](#)

(article)

[Asus PRIME H610M-CS D4 - Motherboard Quick Start Guide](#)

(article)

[Asus EX-H610M-V3 D4 - Motherboard Quick Start Guide](#)

(article)

[Asus A55BM-E - Motherboard Manual](#)

(article)

[Asus A58M-E - Motherboard Manual](#)

(article)

[Asus A55BM-K - Motherboard Manual](#)

(article)

[Motherboard Asus A320M-C Quick Start Manual](#)

(2 pages)

[Motherboard Asus PRIME A320M-C R2.0 Manual](#)

(25 pages)

[Motherboard Asus PRIME A320M-C R2.0 Quick Start Manual](#)

(2 pages)

[Motherboard Asus PRIME A320M-K Manual](#)

(28 pages)

[Motherboard Asus Prime A320M-K Quick Start Manual](#)

(2 pages)

[Motherboard Asus B450M-A/CSM User Manual](#)

(28 pages)

[Motherboard Asus PRIME A320M-A Manual](#)

(27 pages)

[Motherboard Asus PRIME A320M-A Quick Start Manual](#)

(2 pages)

[Motherboard Asus Prime A320I-K Manual](#)

(25 pages)

[Motherboard Asus PRIME A320I-K/CSM Quick Start Manual](#)

(2 pages)

[Motherboard Asus PRIME A320M-R Manual](#)

(26 pages)

[Motherboard Asus PRIME A320M-R Quick Start Manual](#)

(2 pages)

[Motherboard Asus PRIME A320M-E Manual](#)

(26 pages)

[Motherboard Asus PRIME A320M-C R2.0 Quick Start Manual](#)

(6 pages)

[Save Article as PDF](#)