

User Manual

AIMB-C200

**Economical Embedded Chassis
for Mini-ITX Motherboard**

Trusted ePlatform Services

ADVANTECH

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Product Warranty (2 years)

Advantech warrants to you, the original purchaser, that each of its products will be free from defects in materials and workmanship for two years from the date of purchase.

This warranty does not apply to any products which have been repaired or altered by persons other than repair personnel authorized by Advantech, or which have been subject to misuse, abuse, accident or improper installation. Advantech assumes no liability under the terms of this warranty as a consequence of such events.

Because of Advantech's high quality-control standards and rigorous testing, most of our customers never need to use our repair service. If an Advantech product is defective, it will be repaired or replaced at no charge during the warranty period. For out-of-warranty repairs, you will be billed according to the cost of replacement materials, service time and freight. Please consult your dealer for more details.

If you think you have a defective product, follow these steps:

1. Collect all the information about the problem encountered. (For example, CPU speed, Advantech products used, other hardware and software used, etc.) Note anything abnormal and list any onscreen messages you get when the problem occurs.
2. Call your dealer and describe the problem. Please have your manual, product, and any helpful information readily available.
3. If your product is diagnosed as defective, obtain an RMA (return merchandise authorization) number from your dealer. This allows us to process your return more quickly.
4. Carefully pack the defective product, a fully-completed Repair and Replacement Order Card and a photocopy proof of purchase date (such as your sales receipt) in a shippable container. A product returned without proof of the purchase date is not eligible for warranty service.
5. Write the RMA number visibly on the outside of the package and ship it prepaid to your dealer.

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Packing List

Before setting up the system, check that the items listed below are included and in good condition. If any item is not in accord with the table, please contact your dealer immediately.

- One AIMB-C200 Unit
- One User Manual
- One Warranty Card
- Two Bottom Mounting Brackets
- Four Bottom Rubber Pads
- One 100mm Cable Tie
- Eight M3 Screws for Assembling the MB and HDD

Declaration of Conformity

CE

This product has passed the CE test for environmental specifications. Test conditions for passing included the equipment being operated within an industrial enclosure. In order to protect the product from being damaged by ESD (Electrostatic Discharge) and EMI leakage, we strongly recommend the use of CE-compliant industrial enclosure products.

FCC Class A

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Technical Support and Assistance

1. Visit the Advantech website at www.advantech.com/support where you can find the latest information about the product.
2. Contact your distributor, sales representative, or Advantech's customer service center for technical support if you need additional assistance. Please have the following information ready before you call:
 - Product name and serial number
 - Description of your peripheral attachments
 - Description of your software (operating system, version, application software, etc.)
 - A complete description of the problem
 - The exact wording of any error messages 13910312252

Warnings and Cautions

Warning! *Warnings, if not observed, indicate conditions where there is risk of personal injury!*



Caution! *Cautions are included to help you avoid damaging hardware or losing data.*



Document Feedback

To assist us in making improvements to this manual, we welcome comments and constructive criticism. Please send all such - in writing - to:
support@advantech.com

Safety Instructions

1. Read these safety instructions carefully.
2. Keep this User Manual for later reference.
3. Disconnect this equipment from any AC outlet before cleaning. Use a damp cloth. Do not use liquid or spray detergents for cleaning.
4. For plug-in equipment, the power outlet socket must be located near the equipment and must be easily accessible.
5. Keep this equipment away from humidity.
6. Put this equipment on a reliable surface during installation. Dropping it or letting it fall may cause damage.
7. The openings on the enclosure are for air convection. Protect the equipment from overheating. **DO NOT COVER THE OPENINGS.**
8. Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.
9. Position the power cord so that people cannot step on it. Do not place anything over the power cord.
10. All cautions and warnings on the equipment should be noted.
11. If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient overvoltage.
12. Never pour any liquid into an opening. This may cause fire or electrical shock.
13. Never open the equipment. For safety reasons, the equipment should be opened only by qualified service personnel.
14. If one of the following situations arises, get the equipment checked by service personnel:
 - The power cord or plug is damaged.
 - Liquid has penetrated into the equipment.
 - The equipment has been exposed to moisture.
 - The equipment does not work well, or you cannot get it to work according to the user's manual.
 - The equipment has been dropped and damaged.
 - The equipment has obvious signs of breakage.
15. **DO NOT LEAVE THIS EQUIPMENT IN AN ENVIRONMENT WHERE THE STORAGE TEMPERATURE MAY GO BELOW -20° C (-4° F) OR ABOVE 60° C (140° F). THIS COULD DAMAGE THE EQUIPMENT. THE EQUIPMENT SHOULD BE IN A CONTROLLED ENVIRONMENT.**
16. **CAUTION: DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH THE SAME OR EQUIVALENT TYPE RECOMMENDED BY THE MANUFACTURER, DISCARD USED BATTERIES ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.**

The sound pressure level at the operator's position according to IEC 704-1:1982 is no more than 70 dB (A).

DISCLAIMER: This set of instructions is given according to IEC 704-1. Advantech disclaims all responsibility for the accuracy of any statements contained herein.

Safety Precaution - Static Electricity

Follow these simple precautions to protect yourself from harm and the products from damage.

- To avoid electrical shock, always disconnect the power from your PC chassis before you work on it. Don't touch any components on the CPU card or other cards while the PC is on.
- Disconnect power before making any configuration changes. The sudden rush of power as you connect a jumper or install a card may damage sensitive electronic components.

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Chapter 1

General Information

1.1 Specifications

Table 1.1: General Features of AIMB-C200-55ZE

Chassis Construction	Heavy-duty steel with Aluminum Front Panel		
Disk Drive Bay	Internal 2.5"	1	
I/O Interface	Front USB	2	
	Reserve cutout	1 x LVDS, 1 x Antenna	
Cooling System	System Fan	1 (optional)	
Miscellaneous	LED indicators	Power, HDD	
	Control	Power Switch, Reset Switch	
Power Supply	Output Rating	55 W	
	Input Voltage	AC 100-240V	
	Output Voltage	+12 V @ 3.5 A	
		+5 V @ 7 A	
		5 Vsb @ 1.0 A	
+3.3 V @ 4 A			
Environment	Operating Temperature	0 ~ 40° C (32 ~ 104° F)	
	Non-operating Temperature	-20 ~ 60° C (-4 ~ 140° F)	
	Operating Humidity	10 ~ 85% @ 40° C, non-condensing	
	Non-operating Humidity	10 ~ 95% @ 40° C, non-condensing	
Physical Characteristics	Dimensions (W x H x D)	230 x 65 x 215 mm	
	Weight	4.6 Kg (10.1lb)	

Note! The auxiliary power is required for peripheral devices, eg. LVDS panel.



Table 1.2: General Features of AIMB-C200-BARE

Chassis Construction	Heavy-duty steel with Aluminum Front Panel	
Disk Drive Bay	Internal 2.5"	1
I/O Interface	Front USB	2
	Reserve cutout	1 x LVDS, 1 x COM, 1 x Antenna
Cooling System	System Fan	1 (optional)
Miscellaneous	LED indicators	Power, HDD
	Control	Power Switch, Reset Switch
Environment	Operating Temperature	0 ~ 40° C (32 ~ 104° F)
	Non-operating Temperature	-20 ~ 60° C (-4 ~ 140° F)
	Operating Humidity	10 ~ 85% @ 40° C, non-condensing
	Non-operating Humidity	10 ~ 95% @ 40° C, non-condensing
Physical Characteristics	Dimensions (W x H x D)	230 x 65 x 215mm
	Weight	4.6Kg (10.1lb)

1.2 Dimensions

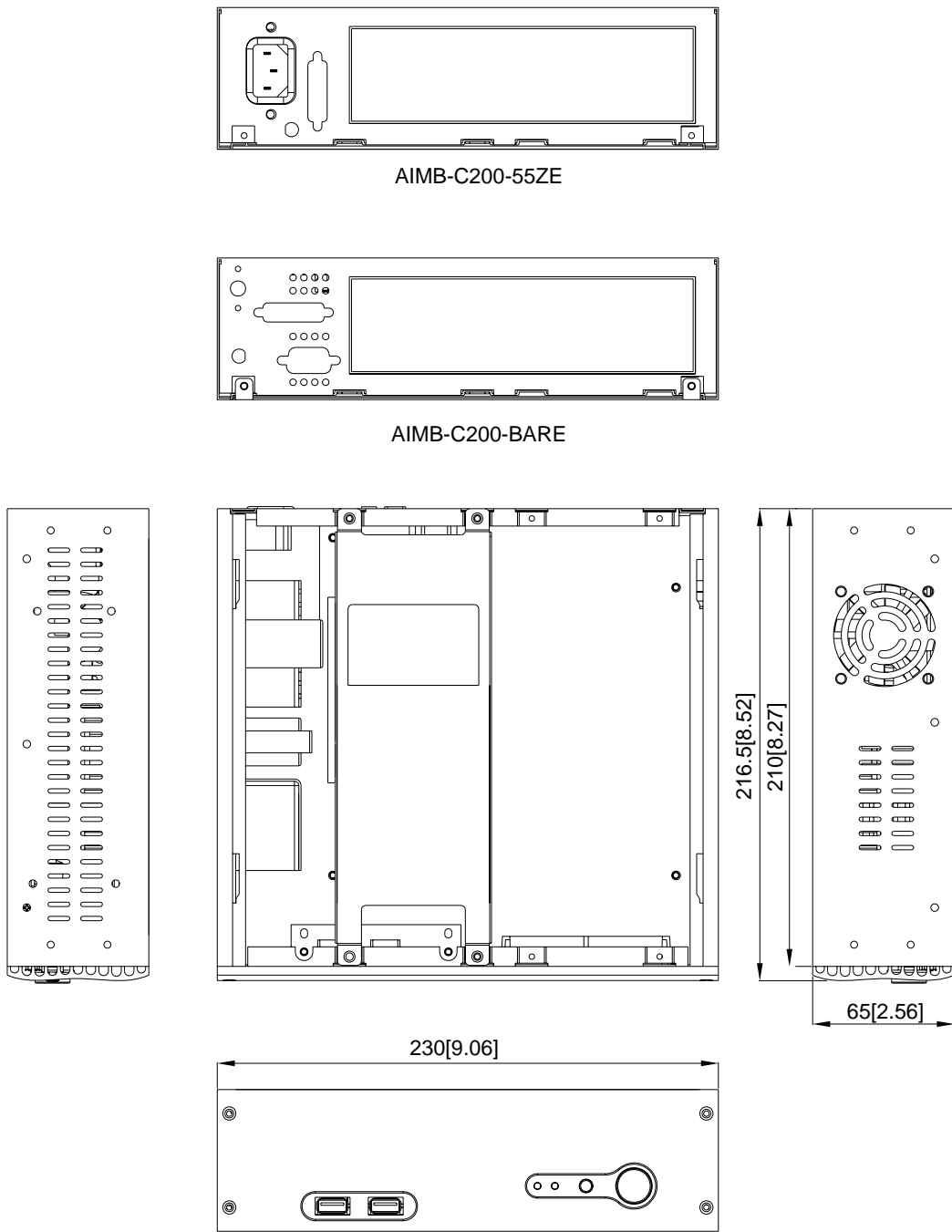


Figure 1.1 Dimensions

Chapter 2

System Setup and Maintenance

2.1 Removing the Chassis Cover

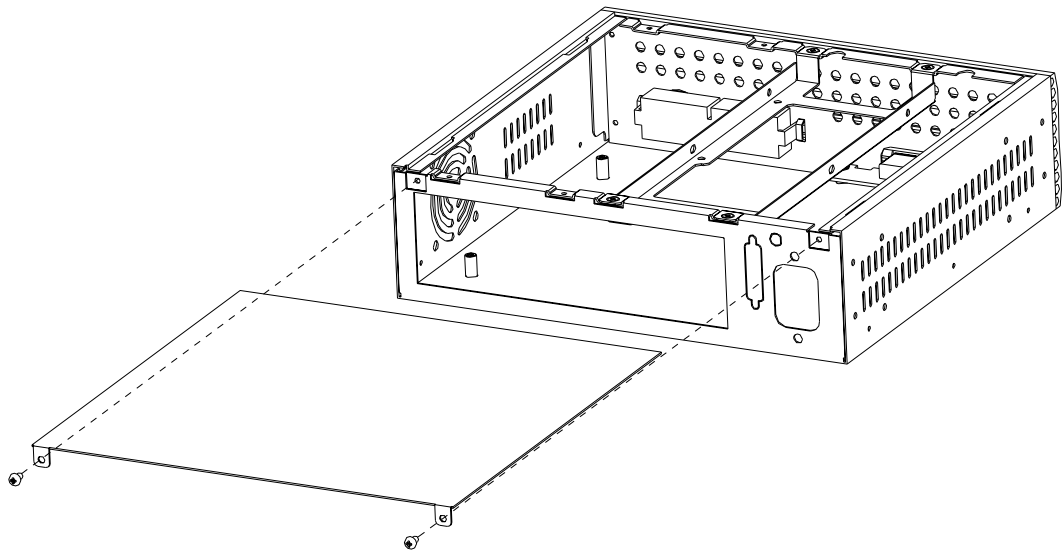


Figure 2.1 Removing the Chassis Cover

2.2 Removing the 2.5" HDD Driver Bay

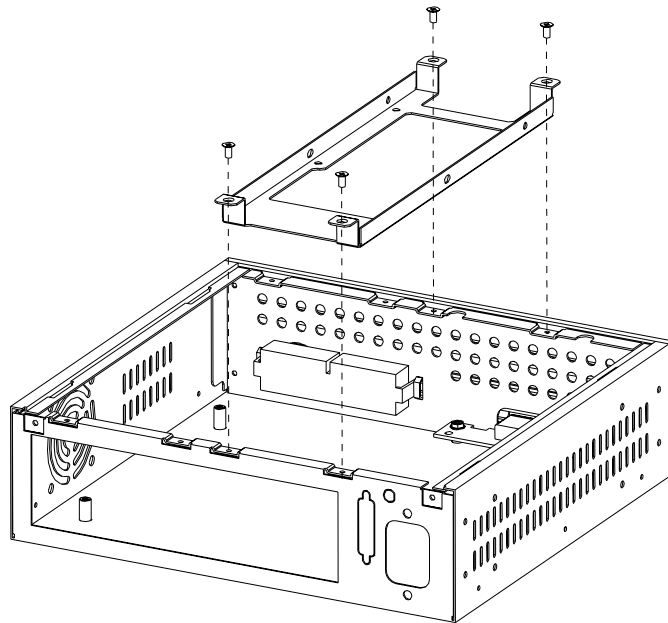


Figure 2.2 Removing the 2.5" HDD Driver Bay

2.3 Installing the Motherboard

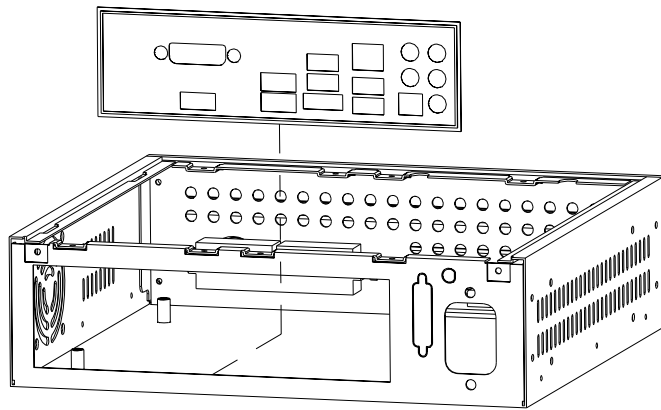


Figure 2.3 Installing the I/O Port Bracket

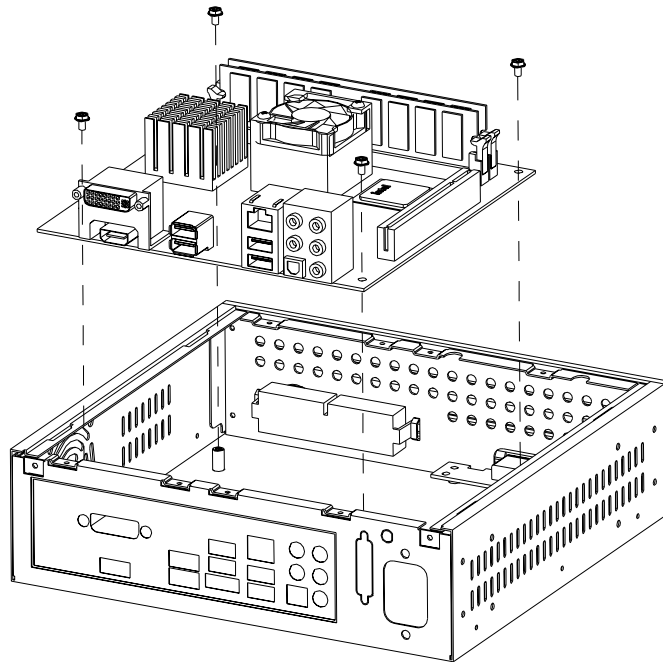


Figure 2.4 Installing the Motherboard

2.4 Installing the Disk Drive and Driver Bay

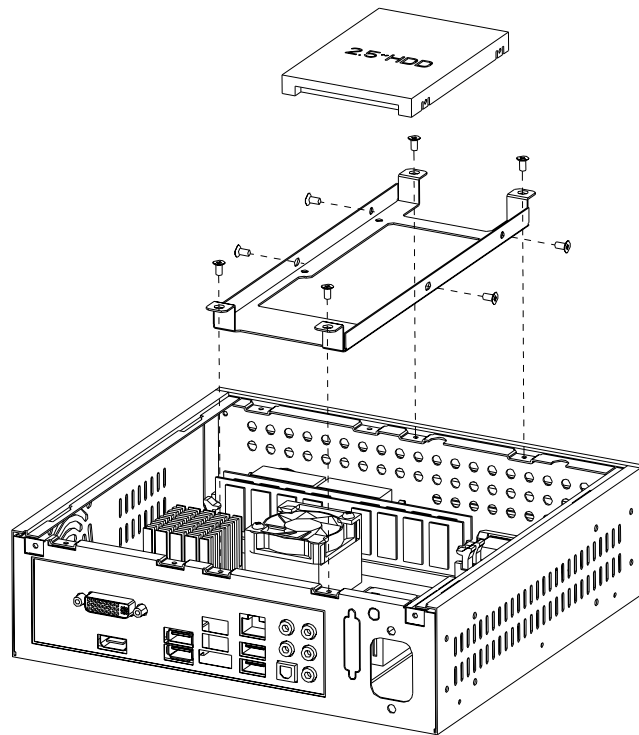


Figure 2.5 Installing the Disk Drive and Driver Bay

2.5 Installing the Bottom Side Mounting Brackets

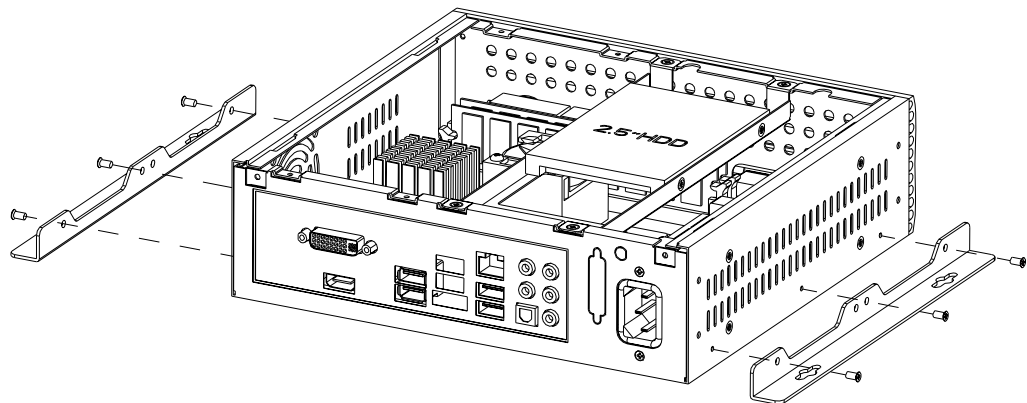


Figure 2.6 Installing the Bottom Side Mounting Brackets

2.6 Installing the Chassis Cover

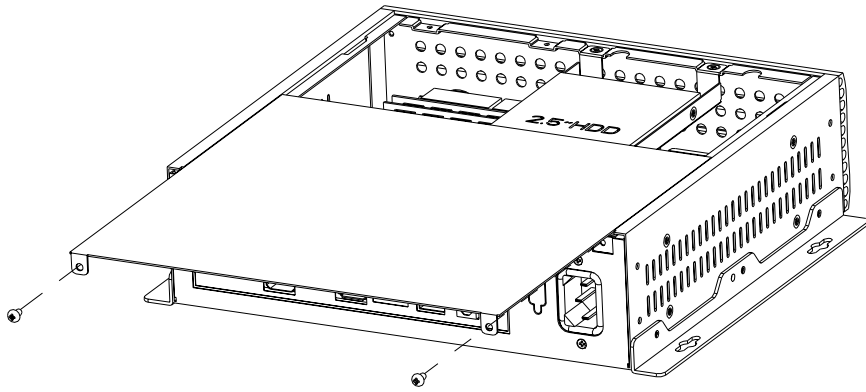


Figure 2.7 Installing the Chassis Cover

Chapter 3

Operation

3.1 The Front Side

3.1.1 Power Button and Reset Button

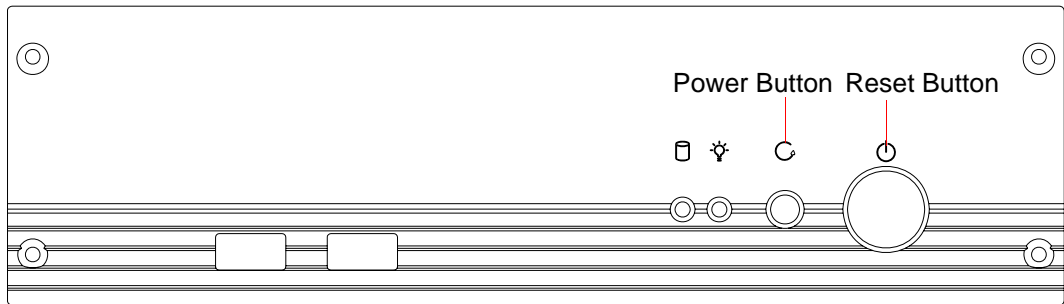




Figure 3.1 Power Button and Reset Button Location

3.1.2 LED Indicators

Table 3.1: Definition of LED indicators

Icon	LED	Description	Light	No light
	Power	Power	Normal	Off or failure
	HDD	HDD	Reading	No reading

3.2 The Rear Side

3.2.1 AIMB-C200-55ZE

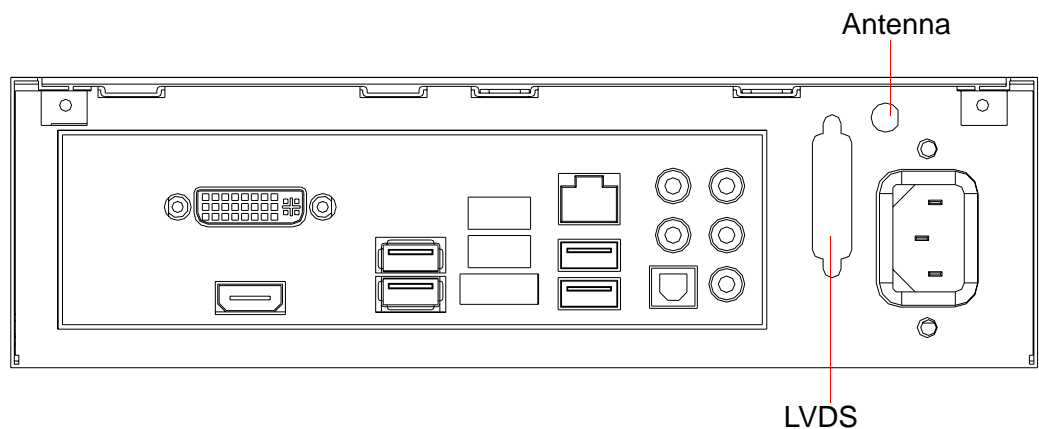


Figure 3.2 The Rear Panel of AIMB-C200-55ZE

3.2.2 AIMB-C200-BARE

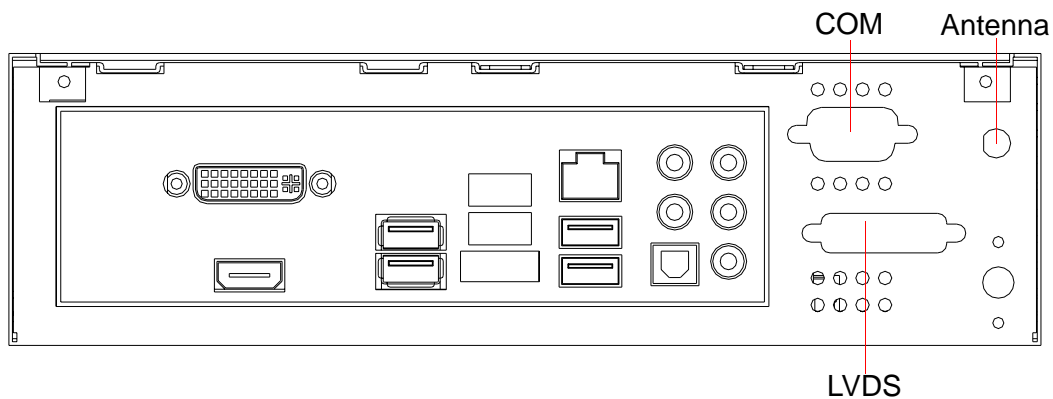


Figure 3.3 The Rear Panel of AIMB-C200-BARE

3.3 Installing the System Cooling Fan

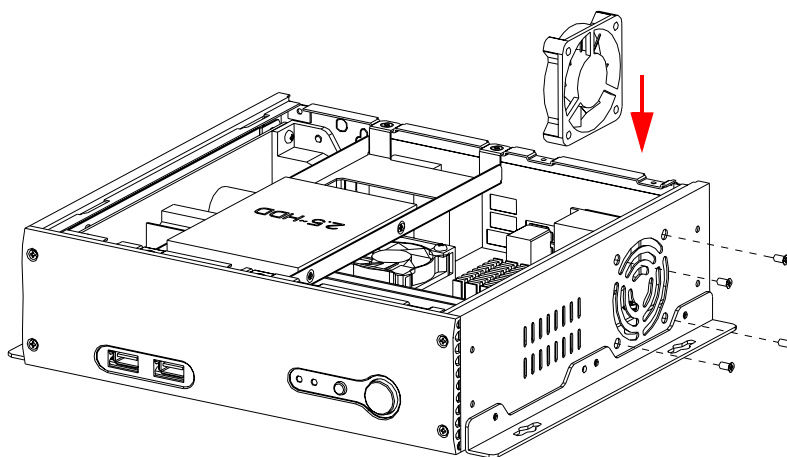


Figure 3.4 Installing the System Cooling Fan

3.4 Replacing the Power Supply of AIMB-C200-55ZE

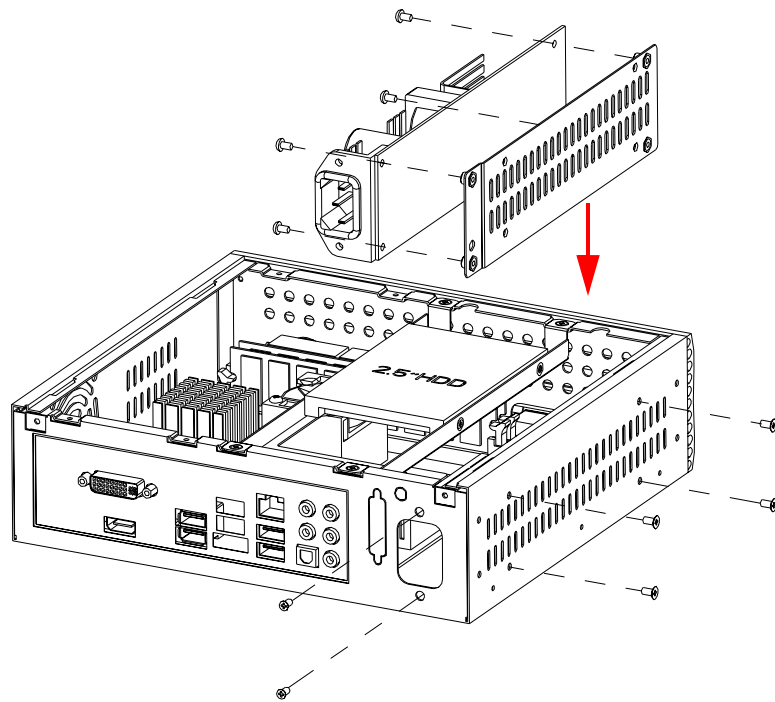
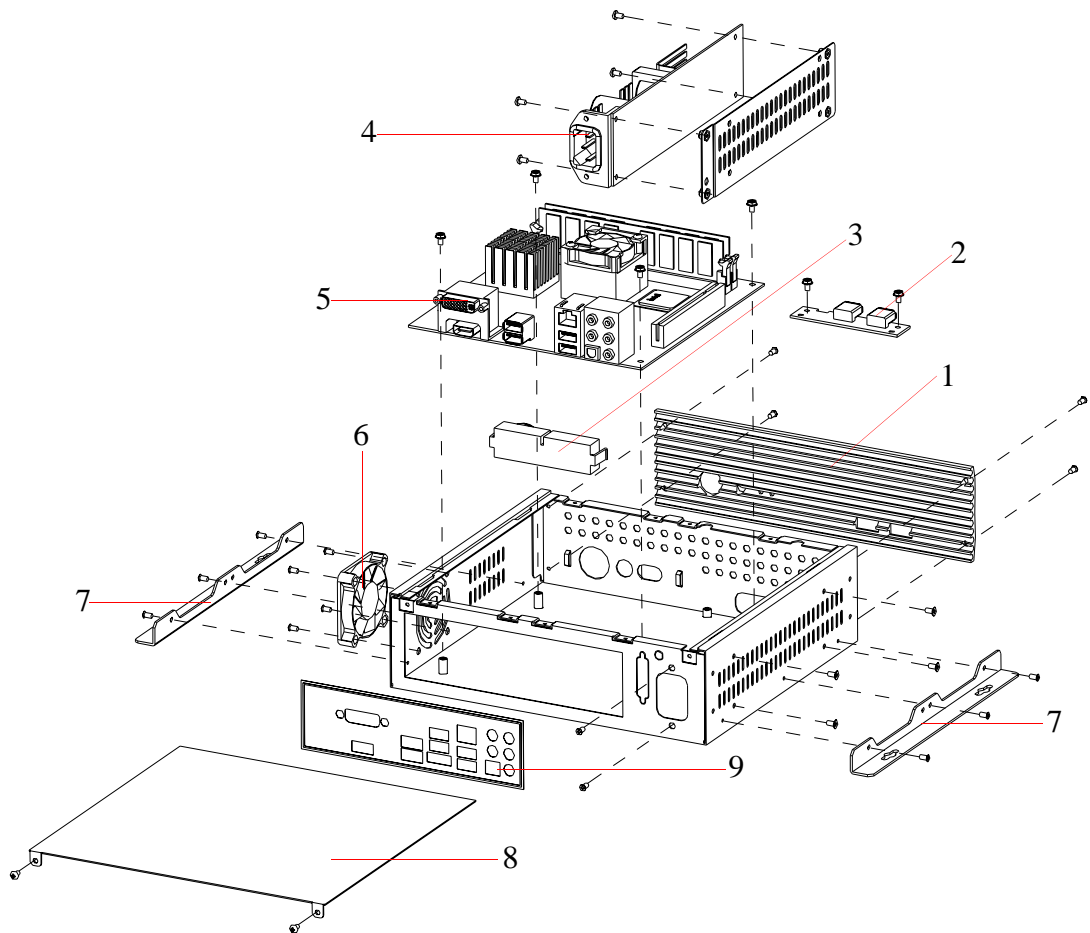


Figure 3.5 Replacing the Power Supply of AIMB-C200-55ZE

Appendix **A**

Exploded Diagram

A.1 Exploded Diagram of AIMB-C200



1	Front bezel	6	System Fan
2	Front USB Board	7	Button Side Mounting Brackets
3	Front Panel Button Holder	8	Top Cover
4	Power Supply	9	MB I/O Port Bracket
5	Motherboard		

Figure A.1 Exploded Diagram of AIMB-C200

Appendix **B**

Motherboard Options

B.1 Motherboard Options

Table B.1: Motherboard Options

Chassis Model Name	Motherboard
AIMB-C200-55ZE	AIMB-210/252/270
AIMB-C200-BARE	AIMB-212

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Please verify specifications before quoting. This guide is intended for reference purposes only.

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