

IPC-6608

**8-Slot Desktop / Wallmount
Chassis with PS/2 and
Redundant Power Supply Option**

Trusted ePlatform Services

ADVANTECH

Copyright

The documentation and the software included with this product are copyright © 2009 by Advantech Co., Ltd. All rights are reserved. Advantech Co., Ltd. reserves the right to make improvements in the products described in this manual at any time without notice. No part of this manual may be reproduced, copied, translated or transmitted in any form or by any means without the prior written permission of Advantech Co., Ltd. Information provided in this manual is intended to be accurate and reliable. However, Advantech Co., Ltd. assumes no responsibility for its use, nor for any infringements of the rights of third parties, which may result from its use.

Acknowledgements

IPC-6608, PCE-7B08, PCE-5B07, PCE-5B08, PCE-6108E, PCA-6108P6, PCA-6108P4, PCA-6108 are all trademarks of Advantech Co., Ltd.

Note!



The information in this document is provided for reference only. Advantech does not assume any liability arising out of the application or use of the information or products described herein. This manual is subject to change without notice.

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. Do not leave this equipment in an environment unconditioned where the storage temperature under 0° C (32° F) or above 40° C (104° F), it may damage the equipment.
8. The openings on the enclosure are for air convection. Protect the equipment from overheating. DO NOT COVER THE OPENINGS.
9. Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.
10. Position the power cord so that people cannot step on it. Do not place anything over the power cord.
11. All cautions and warnings on the equipment should be noted.
12. If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient overvoltage.
13. Never pour any liquid into an opening. This may cause fire or electrical shock.
14. Never open the equipment. For safety reasons, the equipment should be opened only by qualified service personnel.
15. 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.
16. **CAUTION:** The computer is provided with a battery-powered real-time clock circuit. There is a danger of explosion if battery is incorrectly replaced. Replace only with same or equivalent type recommended by the manufacture. Discard used batteries according to the manufacturer's instructions.
17. THE COMPUTER IS PROVIDED WITH CD DRIVES COMPLY WITH APPROPRIATE SAFETY STANDARDS INCLUDING IEC 60825.

CLASS 1 LASER PRODUCT
KLASSE 1 LASER PRODUKT

18. This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:
 - (1) this device may not cause harmful interference, and
 - (2) this device must accept any interference received, including interference that may cause undesired operation.
19. **CAUTION:** Always completely disconnect the power cord from your chassis whenever you work with the hardware. Do not make connections while the power is on. Sensitive electronic components can be damaged by sudden power surges.
20. **CAUTION:** Always ground yourself to remove any static charge before touching the motherboard, backplane, or add-on cards. Modern electronic devices are very sensitive to static electric charges. As a safety precaution, use a grounding wrist strap at all times. Place all electronic components on a static-dissipative surface or in a static-shielded bag when they are not in the chassis.
21. **CAUTION:** Any unverified component could cause unexpected damage. To ensure the correct installation, please always use the components (ex. screws) provided with the accessory box.

A Message to the Customer

Advantech customer services

Each and every Advantech product is built to the most exacting specifications to ensure reliable performance in the harsh and demanding conditions typical of industrial environments. Whether your new Advantech equipment is destined for the laboratory or the factory floor, you can be assured that your product will provide the reliability and ease of operation for which the name Advantech has come to be known. Your satisfaction is our primary concern. Here is a guide to Advantech's customer services.

To ensure you get the full benefit of our services, please follow the instructions below carefully.

Technical support

We want you to get the best performance possible from your products. If you run into technical difficulties, we are here to help. For the most frequently asked questions, you can easily find answers in your product documentation. These answers are normally a lot more detailed than the ones we can give over the phone.

Please consult this manual first. If you still cannot find the answer, gather all the information or questions that apply to your problem, and with the product close at hand, call your dealer. Our dealers are well trained and ready to give you the support you need to get the most from your Advantech products. In fact, most problems reported are minor and can be easily solved over the phone.

In addition, free technical support is available from Advantech engineers every business day. We are always ready to give advice about application requirements or specific information on the installation and operation of any of our products.

Product Warranty

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.

Initial Inspection

When you open the carton, please make sure that the following materials have been shipped:

- IPC-6608 Chassis
- User Manual
- Warranty Card
- Accessory box with a package of screws (for fastening the backplane or CPU card, disk drives, wallmount bracket, etc.), EMI figure, rubber cushions (backplane version), and a pair of wallmount brackets.

If any of these items are missing or damaged, contact your distributor or sales representative immediately. We have carefully inspected the IPC-6608 mechanically and electrically before shipment. It should be free of marks and scratches and in perfect working order upon receipt. As you unpack the IPC-6608, check it for signs of shipping damage. (For example, damaged box, scratches, dents, etc.) If it is damaged or it fails to meet the specifications, notify our service department or your local sales representative immediately. Also, please notify the carrier. Retain the shipping carton and packing material for inspection by the carrier. After inspection, we will make arrangements to repair or replace the unit.

Contents

Chapter 1	General Information	1
1.1	Specifications	2
1.2	Power Supply Option	2
	Table 1.1: Power supply options	2
	Table 1.2: Power supply options	2
1.3	Environmental Specifications	3
	Table 1.3: Environmental Specifications	3
1.4	Dimensions of IPC-6608	3
	Figure 1.1 Dimensions of IPC-6608.....	3
Chapter 2	System Setup	5
2.1	Removing the Cover	6
	Figure 2.1 Removing the cover.....	6
2.2	Adding Disk Drives	7
	Figure 2.2 Installing HDD & FDD into drive bay	7
	Figure 2.3 Installing HDD & FDD into IPC-6608 with drive bay...	7
2.3	Installing the Hold-Down Clamp	8
	Figure 2.4 Hold-down clamp installation.....	8
2.4	Installing Wallmount Bracket.....	8
	Figure 2.5 Installing Wallmount Bracket	8
Chapter 3	Operation.....	9
3.1	Replacing the Filter	10
	Figure 3.1 Replacing the Filter.....	10
3.2	Changing Power Supply.....	10
	Figure 3.2 Changing Power Supply	10
Appendix A	Exploded Diagram & Parts List	11
A.1	Exploded Diagram & Parts List	12
	Figure A.1 Exploded Diagram	12
	Table A.1: Parts List.....	12

Chapter 1

General Information

This chapter provides general information about the IPC-6608.

- Specification
- Power Supply Option
- Environmental Specification
- Dimension Diagram

1.1 Specifications

- **Construction:** Heavy-duty steel
- **Disk drive capacity:** One 3.5" and two 5.25" drive bays with front accessible
- **Indicators:** LEDs for power On/Off and HDD
- **Controls:** Power on and reset switches on front panel
- **Cooling fan:** One 86-CFM fan on front panel with air filter
- **Weight:** 11kg (24.2 lb)
- **Dimensions:** 6.8" (W) x 12.4" (H) x 16.1" (D)
(173 mm x 315 mm x 410 mm)

1.2 Power Supply Option

Table 1.1: Power supply options

Model Name	PS-250ATX-ZE	PS-300ATX-XBE
Watt	250 W max.	300 W max.
Input rating	AC 115 ~ 230 Vac (Selectable)	AC 110 ~ 240V (full-range)
Output voltage	+3.3 V @ 20 A, +5 V @ 27 A, +12 V @ 13 A, -12 V @ 0.8 A, -5 V @ 0.3 A, +5 Vsb @ 2 A	+5 V @ 30 A, +3.3 V @ 28 A, +12 V @ 15 A, -12 V @ 0.8 A, -5 V @ 0.3 A, +5 Vsb @ 2 A
Minimum load	+5 V @ 0.5 A, +12 V @ 0.3 A	+5 V @ 0.1 A, +3.3 V @ 0.3 A
MTBF	100,000 hours @ 25° C	100,000 hours @ 25° C
Safety	UL/TUV/CB/CCC	UL/TUV/CB/CCC

Table 1.2: Power supply options

Model Name	RPS-300ATX-ZE	RPS-400ATX-XE
Watt	300 W max.	400 W max.
Input rating	AC 100~ 240 Vac (full-range)	AC 100 ~ 240 V
Output voltage	+3.3 V @ 18A, +5 V @ 25 A, +12 V @ 16 A, -12 V @ 0.5 A, -5 V @ 0.5 A, +5 Vsb @ 2 A	+5 V @ 35 A, +3.3 V @ 25 A, +12 V @ 28 A, -12 V @ 1.2 A, -5 V @ 0.5 A, +5 Vsb @ 2 A
Minimum load	+5 V @ 3 A, +3.3V@ 1A, +12 V @ 2 A	+5 V @ 3 A, +3.3 V @ 1 A, +12 V @ 2 A, +5 Vsb @ 0.1 A
MTBF	100,000 hours @ 25° C	100,000 hours @ 25° C
Safety	UL/TUV/CB/CCC	UL/cUL/ TUV/CB/CCC

1.3 Environmental Specifications

Table 1.3: Environmental Specifications

Environment	Operating	Non-operating
Temperature	0 to 40° C (32~104° F)	-20 to 60° C (-4~140° F)
Humidity	10% to 85% @ 40° C	10% to 95% @ 40° C
Vibration	1 Gms	2 Gms
Safety	CE complaint	

1.4 Dimensions of IPC-6608

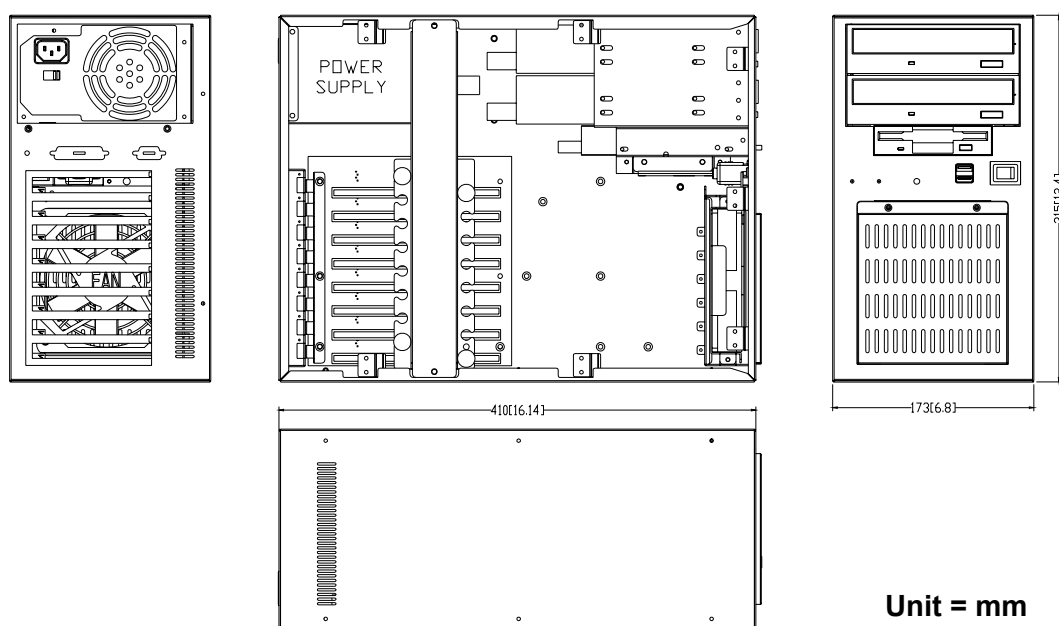


Figure 1.1 Dimensions of IPC-6608

Chapter 2

System Setup

This chapter introduces the installation process.

- Remove Cover
- Installing Drives
- Installing Hold-down Clamp
- Installing Wallmount Bracket

The following procedures are provided to assist you in setting up the system, including installing drives, plug-in cards and the hold-down clamp into the IPC-6608.

2.1 Removing the Cover

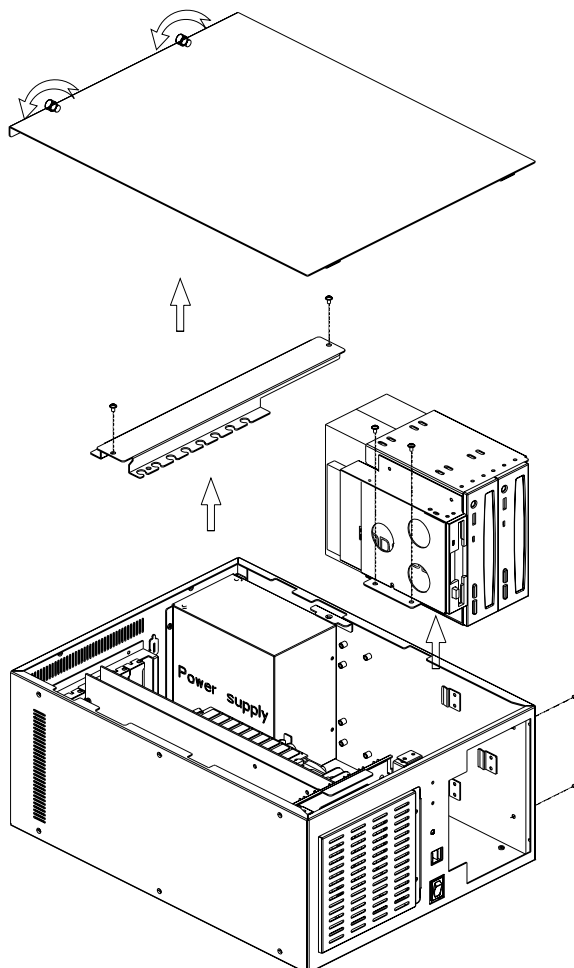


Figure 2.1 Removing the cover

2.2 Adding Disk Drives

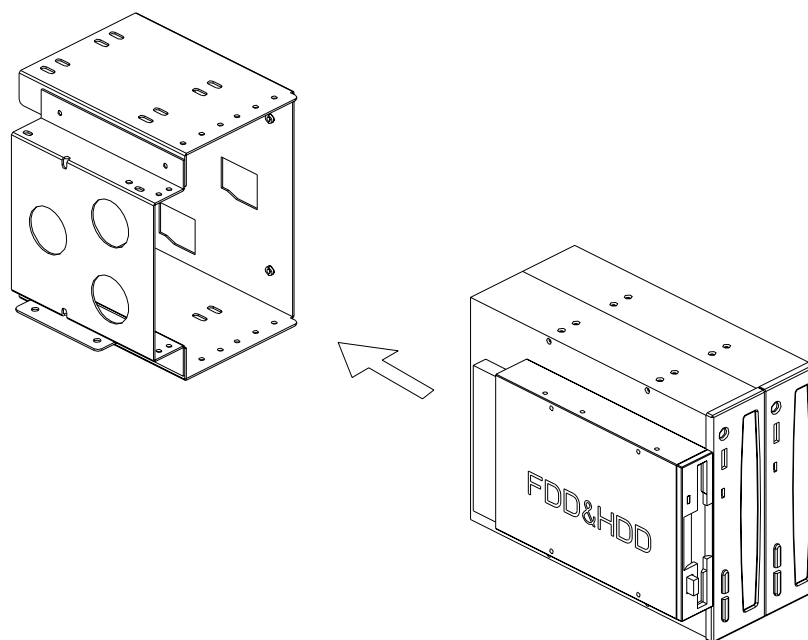


Figure 2.2 Installing HDD & FDD into drive bay

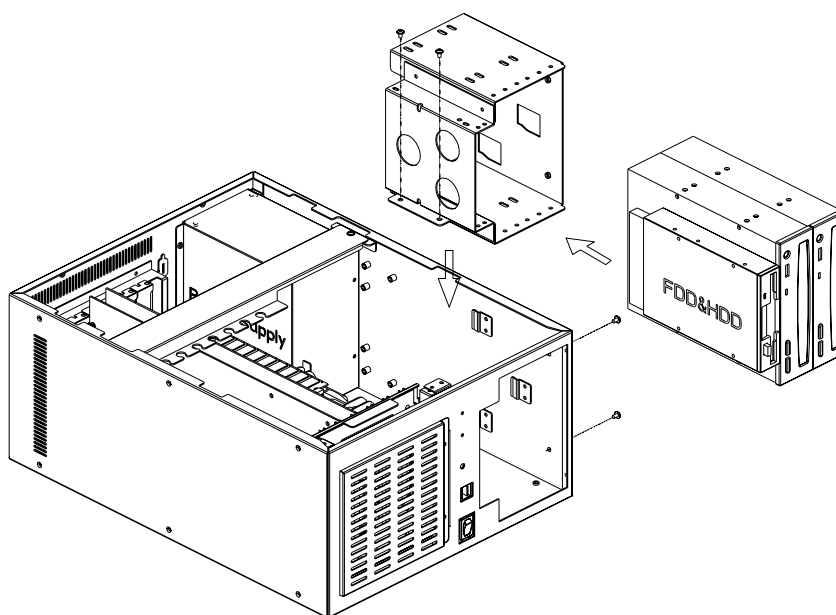


Figure 2.3 Installing HDD & FDD into IPC-6608 with drive bay

2.3 Installing the Hold-Down Clamp

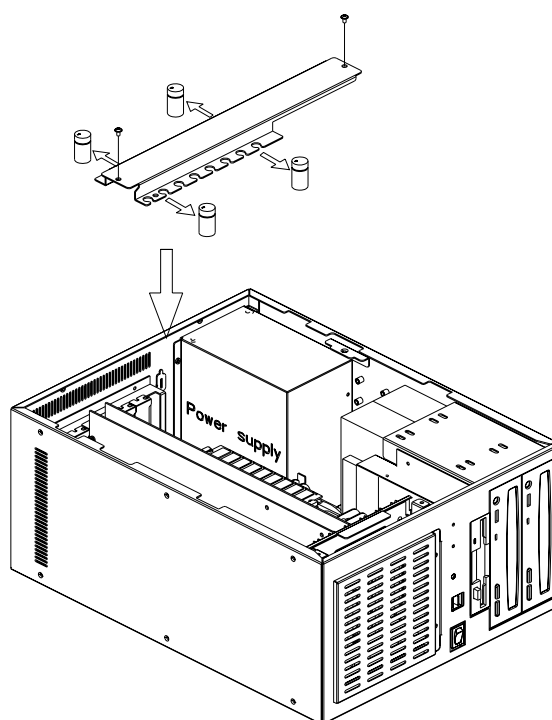


Figure 2.4 Hold-down clamp installation

2.4 Installing Wallmount Bracket

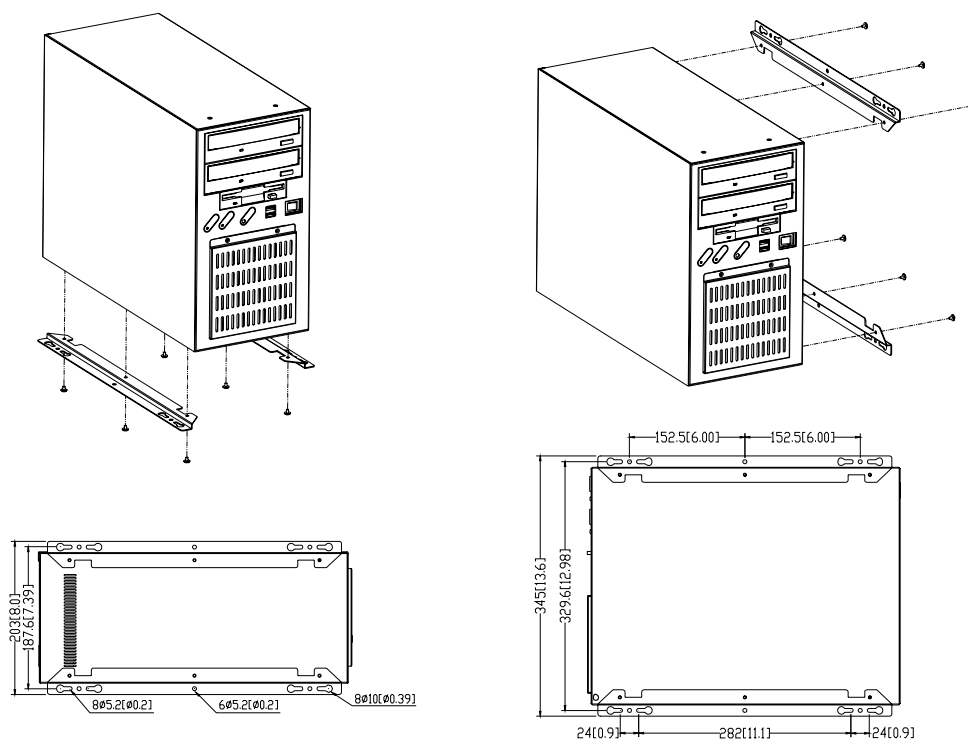


Figure 2.5 Installing Wallmount Bracket

Chapter 3

Operation

This chapter introduces the system operation information.

- Replacing the Filter
- Replacing Power Supply

3.1 Replacing the Filter

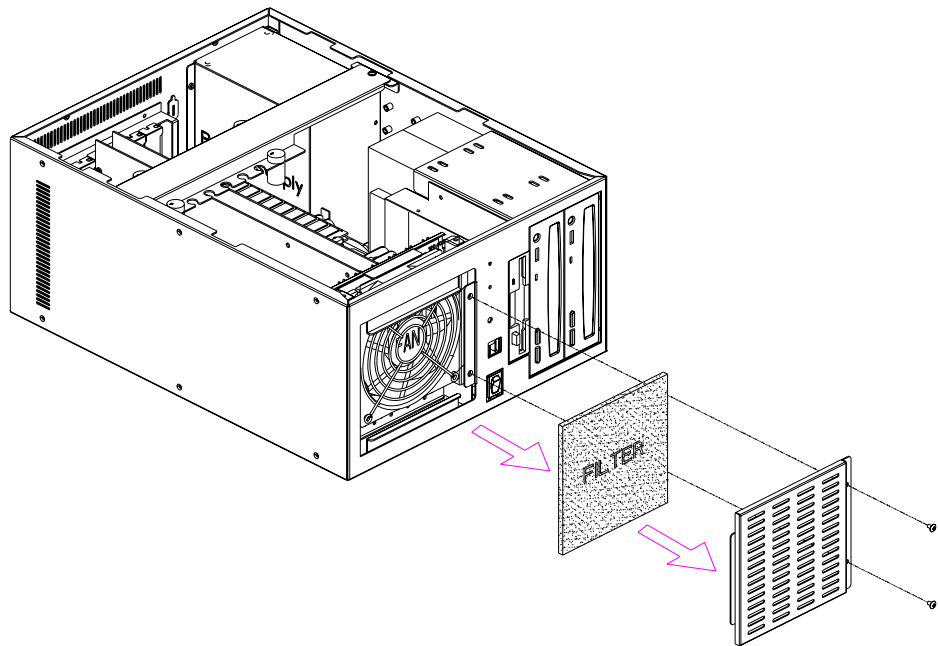


Figure 3.1 Replacing the Filter

3.2 Changing Power Supply

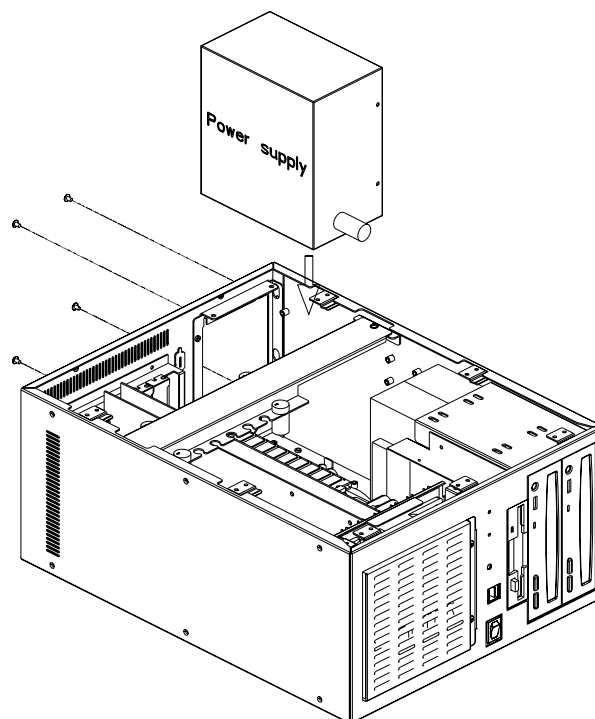


Figure 3.2 Changing Power Supply

Appendix **A**

Exploded Diagram &
Parts List

A.1 Exploded Diagram & Parts List

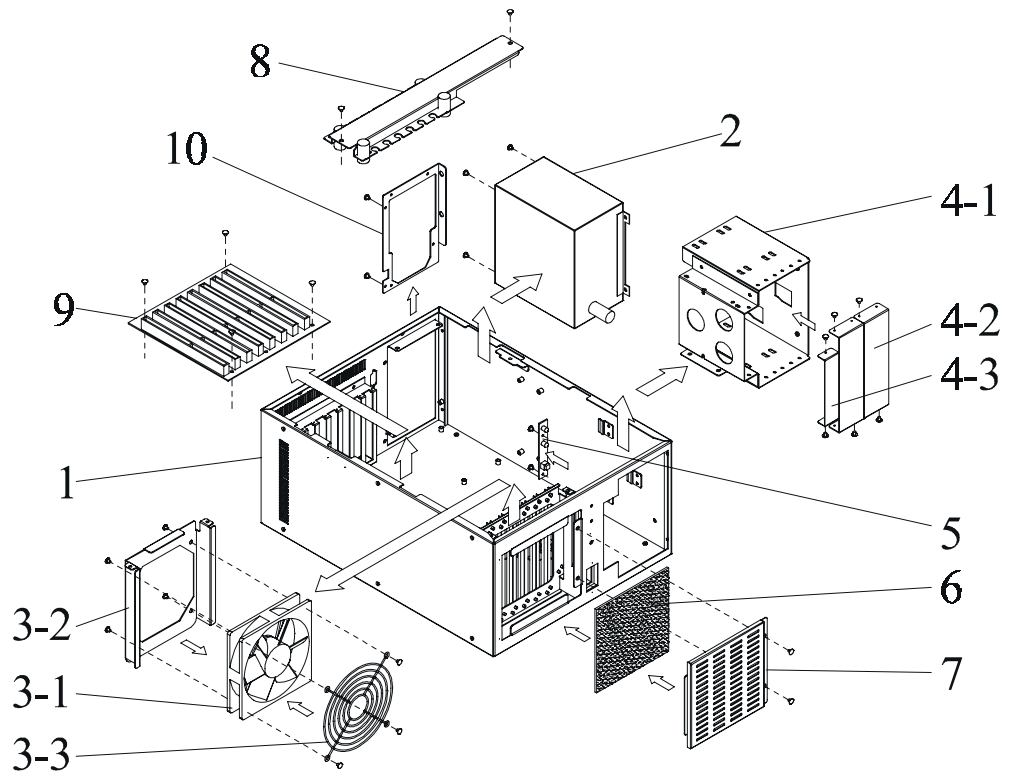


Figure A.1 Exploded Diagram

Table A.1: Parts List

1	Body of Chassis IPC-6608	5	LED Board
2	PS/2 Power Supply	6	Air Filter
3-1	Cooling Fan	7	Fan Cover
3-2	Fan Bracket	8	Hold-Down Clamp
3-3	Fan Guard	9	Backplane
4-1	Disk Drive Bay	10	Bracket for Power Unit
4-2	Cover of 5.25" Drive Bay		
4-3	Cover of 3.5" Drive Bay		

www.advantech.com

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

All product specifications are subject to change without notice.

No part of this publication may be reproduced in any form or by any means, electronic, photocopying, recording or otherwise, without prior written permission of the publisher.

All brand and product names are trademarks or registered trademarks of their respective companies.

© Advantech Co., Ltd. 2009