HOME THEATRE PC ENCLOSURE

Zero Pixel Defect
7" Touch Screen TFT LCD

HD160XT
User's Manual

Ver. 1.0

ENGLISH

한 글

English version

- Please read this manual thoroughly before installation.
- Please visit our website and watch the HD160XT installation video to assist you in the installation process.

Introduction

Congratulations on your purchase of Zalman's HD160XT Home Theatre PC Enclosure! You are now about to experience Zalman's world of silent computing. The HD160XT is designed for ultra quiet home theatre PC operation, utilizing optimized ventilation and anti-vibration reinforcements, making it ideal for environments that require silence such as living rooms, bedrooms, educational facilities, and offices.

Contents

1 Cautionary Notes

1) Avoid inserting hands or any objects into the system while the power is ON. It may harm the user or cause product damage.
2) Do not separate, repair, or alter the product arbitrarily.
3) The manual MUST be referenced BEFORE connecting the cables. Wrong connections may lead to short circuits and fires.
4) Always shut down the operating system and switch the POWER OFF before disassembling.
5) The air vents on four sides of the unit must not be blocked.
6) Use in a flat, stable, and well ventilated area.
7) Keep this unit away from heat sources and direct sunlight.
8) Keep this unit away from places exposed to rain, oil, and humidity.
9) Do not place the product on its front panel to prevent possible damage to the LCD surface.
10) To clean the LCD surface, unplug the power cord and use a smooth, dry cloth.
11) Do not clean the product surface with chemicals or wet cloth.
(Chemicals : industrial brighteners, wax, benzene, alcohol, thinners, mosquito repellents, aromatics, lubricant, rinsing liquid etc.)
12) If this unit is to be transported a long distance, remove all HDDs (Hard Disk Drive) for separate transport. And place the HD160 in its own box.
13) Do not drop or expose this unit to shock while it is in transit.
14) Check the condition of the unit and its components before installation. If there is a problem with the unit and/or its components, please contact the retailer for a replacement.

◈ **Disclaimer**

Zalman Tech Co., Ltd. is not responsible for any damages due to external causes, including but not limited to, improper use, problems with electrical power, accident, neglect, alteration, repair, improper installation, or improper testing.

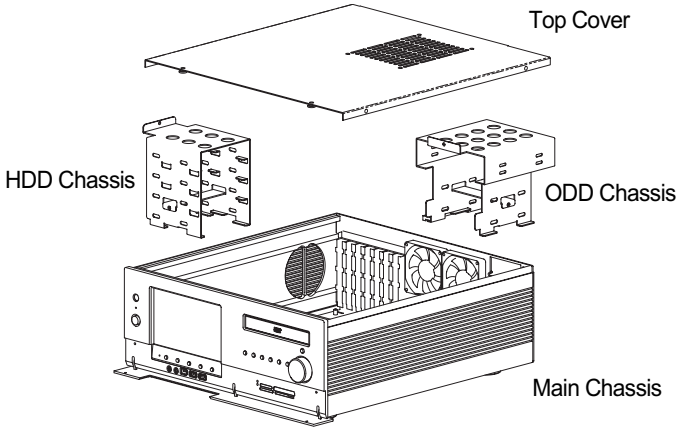
2 Design Patent Information

◈ **Korea Design Application No. 06-0020894**

◈ **International design patent applications pending in the EU, USA, Japan, and 30+ other countries.**

3 Components

1) HD160XT Main Components



2) Case Parts

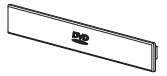

20 HDD Bolts
(PH #6-32X10)

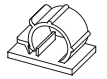

4 Power Supply Bolts
(PH #6-32X6)


18 ODD / Motherboard
Bolts(PWH M3X6)


2 micro ATX Standoffs (M3)


20 Dampers

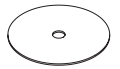

1 ODD Aluminum Bezel


1 Clamp 1

1 User's Manual

3) M-Play Parts

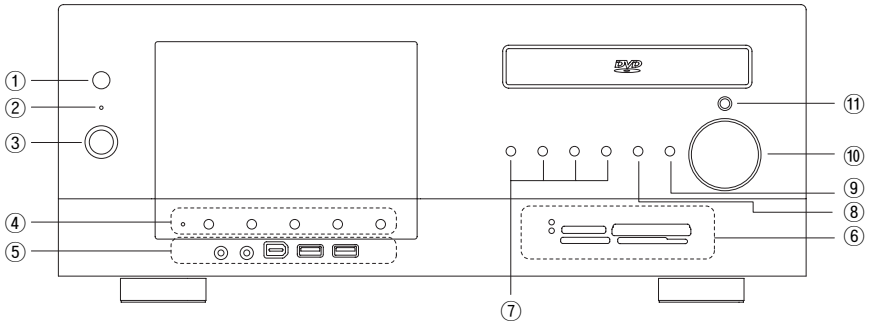

1 Remote Controller


1 Install CD

2 Batteries (AAA)

1 User's Manual

4 Front Panel Buttons & Functions



① Remote Control Receiver

② System Power Indicator

③ Power Button

④ LCD Power Indicator

LCD Settings - Menu

LCD Settings - Enter / Auto Adjust

LCD Settings - Cursor Control (Up/down)

⑤ Audio (Headphone, Mic) Port

IEEE1394 (Firewire) Port

USB Port

⑥ Card Reader Slot (MS/Pro/Duo, CF/Micro drive, MMC, SD,SM)

⑦ Keyboard Arrow Keys (Up/Down/Left/Right)

⑧ Enter / Multimedia Player (Windows XP MCE, M-Play) Launcher

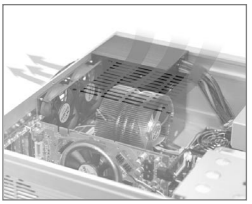
⑨ Backspace / Previous

⑩ Volume Control / Mute

⑪ ODD Tray OPEN / Close

5 Features

1) Optimized for High Performance Ultra Quiet HTPC Operation

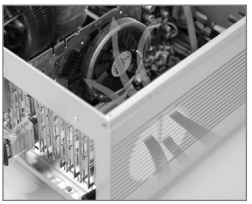


A. Designed for High TDP Processors

Opening the Air Vent on the top of the case will facilitate the inflow of cool air from the outside for cooling the CPU. The 3 ultra quiet, high-capacity fans are designed for the quick discharge of heated air.

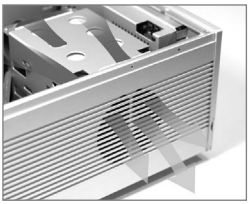
B. Designed for High Performance Power Supplies

A Dedicated Air Vent allows cool air intake from outside the enclosure directly into the power supply, minimizing its noise level and facilitating the highest possible efficiency. PSU Brackets are also provided to allow a stronger and more stable PSU Installation.



C. Designed for Optimal Graphic Card Performance

An Air Vent near the VGA card reinforces its cooling for optimal operation of the VGA card.



D. Designed to Maximize HDD and LCD Lifespan

Carefully positioned fans quickly release air heated by the hard disks and LCD to maximize their life span.

E. Fan Speed Control Software for custom optimization of cooling performance and ultra quiet operation.

2) Diverse Functions and Accommodations

A. The front panel LCD provides user access to various features such as the Graphic Equalizer, Volume, CPU use, Network Speed, Time, Fan Speed etc.

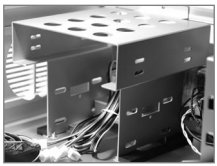
B. Touch Screen feature allows easy operation of programs with the use of a fingertip.

C. The front panel's basic keyboard feature buttons (Arrow Keys, Enter, Backspace) provide direct user access to multimedia programs.

D. The front panel's USB, IEEE 1394(Firewire), and audio I/O ports, provide easy access to a variety of media content and facilitate the connection of headphones and a microphone.

E. The front panel's memory card reader allows easy transfer of data.

F. Windows XP MCE-Compatible Remote Control and Multimedia Software are provided. This enables the user to easily control the PC and execute various multimedia software.



G. Sliding HDD and ODD Chassis provide easy installation and removal.

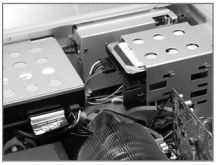
3) Elegant Design

A. 7” Wide ZPD (Zero Pixel Defect) LCD provides a higher level satisfaction.

B. Pure aluminum Components including the Front Panel Volume Knob allow the enclosure to easily blend in with other home theatre and Hi-Fi equipment.

C. Placement of the Memory Card Reader and IO (USB, 1394, Audio Port) behind the Front Panel Door provides a sleek exterior.

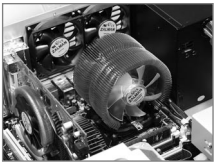
4) Excellent Expandability



A. Five 3.5” bays and one 5.25” bay provide the user with the highest level of expandability compared to other enclosures of identical size.

B. The 7” LCD on the front panel can be used as the main monitor, as an auxiliary monitor, or for various other functions according to the user’s environment.

5) Ideal Home Theatre PC



The ultimate high performance ultra quiet home theatre PC can be built with Zalman’s CPU Coolers, VGA Coolers, Power Supplies, and Northbridge Coolers. (CNPS9500, VF700, VF900, ZM460B-APS, ZM600-HP, ZM-NBF47 etc.)

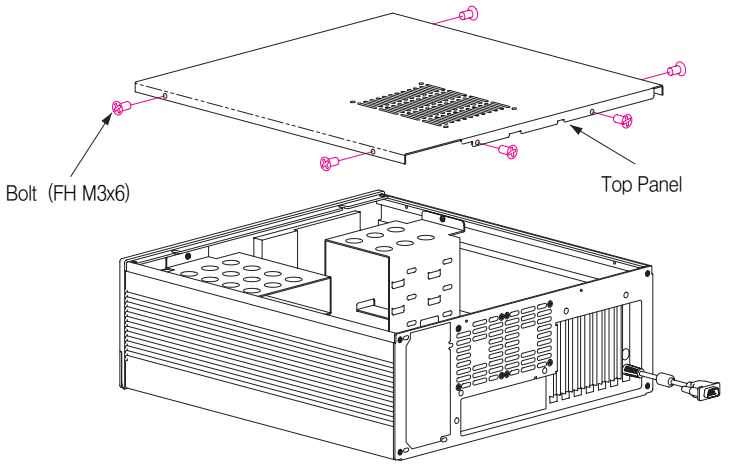
6 Specifications

Enclosure Type	Desktop
Dimensions (DXWXH)	460mm X 435mm X 160mm (18.1" X 17.1" X 6.3")
Weight	6.9kg (15.2lb)
Material	Aluminum
Motherboard Compatibility	Standard ATX / micro ATX
Power Supply Compatibility	Standard ATX / ATX12V
PCI/AGP Card Compatibility	Full Size
Drive Bays	5 X 3.5" Internal Drive Bays 1 X 5.25" External Drive Bay
Cooling Components	Rear Panel : 2 X 80mm Exhaust Fans Bottom Panel : 1 X 80mm Exhaust Fan Side Panel : 1 X 92mm Exhaust Fan
Expansion Slots	7 Slots
Front I/O Ports	2 X USB Ports 1 X IEEE1394(Firewire) Port 1 X Microphone 1 X Headphones
Available Colors	Silver / Black
LCD	Screen Size : 7" Wide LCD Screen Ratio : 15:9 Maximum Resolution : 1024 x 768 Screen Output : RGB Output Power Input : 12V DC Touch Screen ZPD (Zero Pixel Defect) LCD

7 Installation Guide

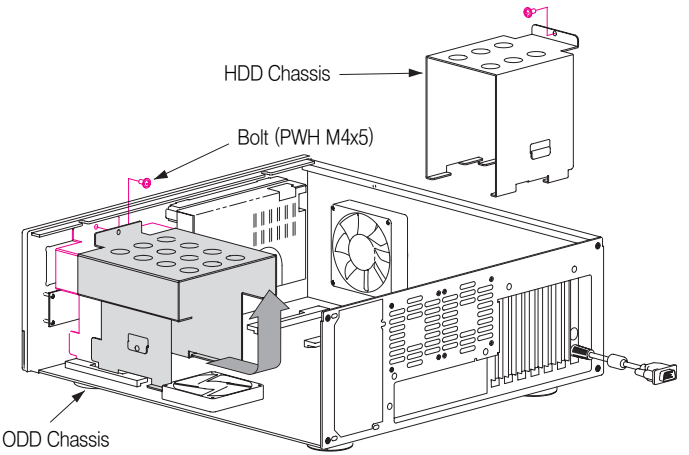
1) Opening the Enclosure

To remove the Top Panel of the enclosure, unscrew the six Bolts (FH M3x6).



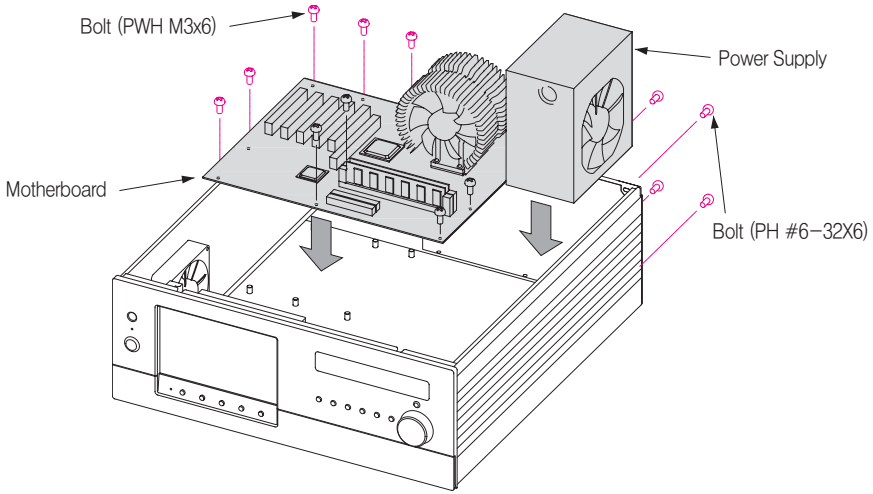
2) Removing the ODD and HDD Chassis

Remove the Bolts (PWH M4x5), and horizontally pull the ODD and HDD Chassis approximately 15mm (0.6inch) away from the Side and Front Panels, then lift them out of the enclosure.



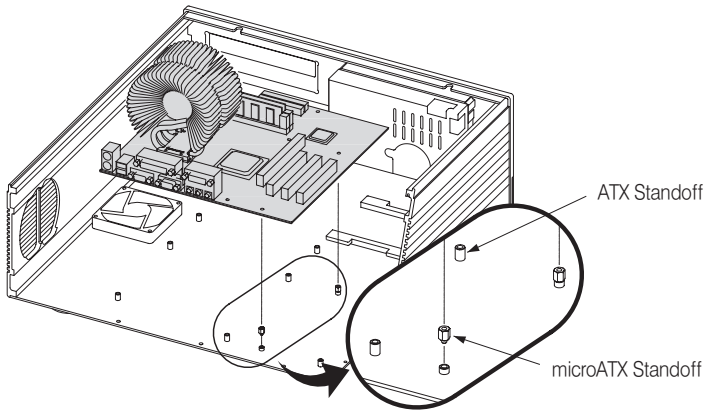
3) Assembling the Motherboard and Power Supply

Mount the motherboard and power supply by using appropriate bolts. Mount the computer components (CPU, VGA, RAM etc.) onto the motherboard.



Note)

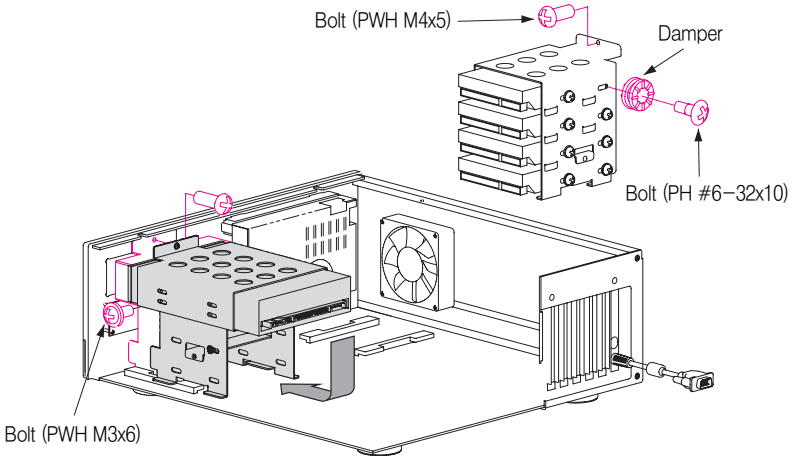
To mount a microATX motherboard, first install the two enclosed microATX Standoffs and align their height with the ATX Standoffs.



4) Installing 5.25” and 3.5” Drives

(1) Install the 5.25” drive (ODD) and 3.5” drive (HDD) onto the ODD and HDD Chassis with the appropriate bolts.

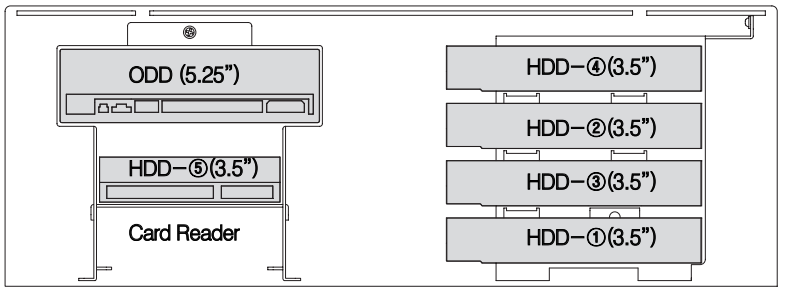
(2) Slide the ODD and HDD Chassis onto the enclosure’s Side Panel and Front Panel, then secure them onto the panels with the Fixing Bolts (PWH M4x5).



Note)

This product is provided with one 5.25” bay and five 3.5” bays.

For optimal HDD cooling, install in the order mentioned in the diagram below.



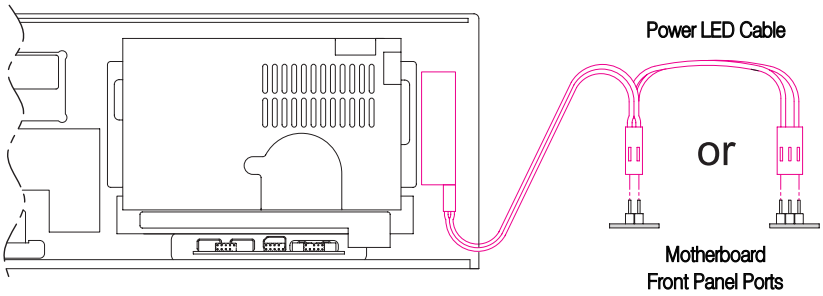
5) Connecting the Cables

(1) Power and Data Transmission Cables

Connect the Power and Data Transmission Cables (IDE or SATA) required for the HDD, ODD, FDD, VGA etc.

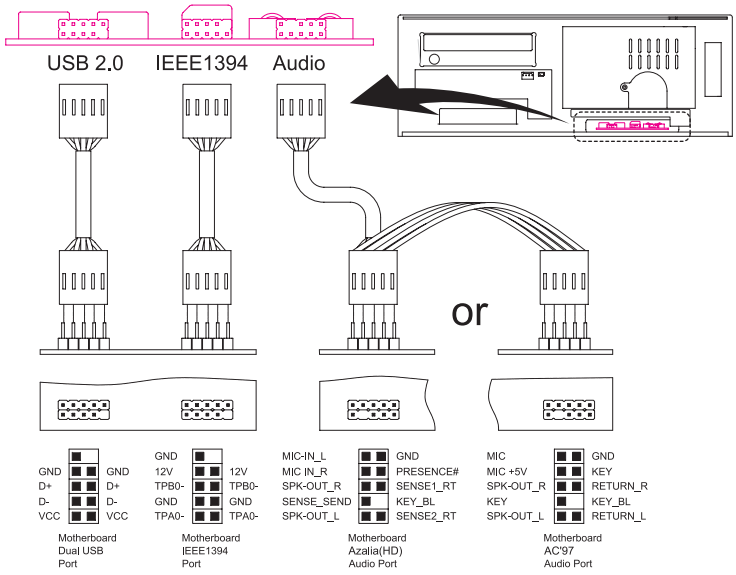
(2) Power LED Cable

Connect the Power LED Cable (2-Pin or 3-Pin) to the motherboard's Front Panel Port (refer to the motherboard's manual).



(3) Front I/O Cables

Connect the USB Cable, IEEE1394(Firewire) Cable, and Audio Cable to the motherboard (refer to the motherboard's manual).

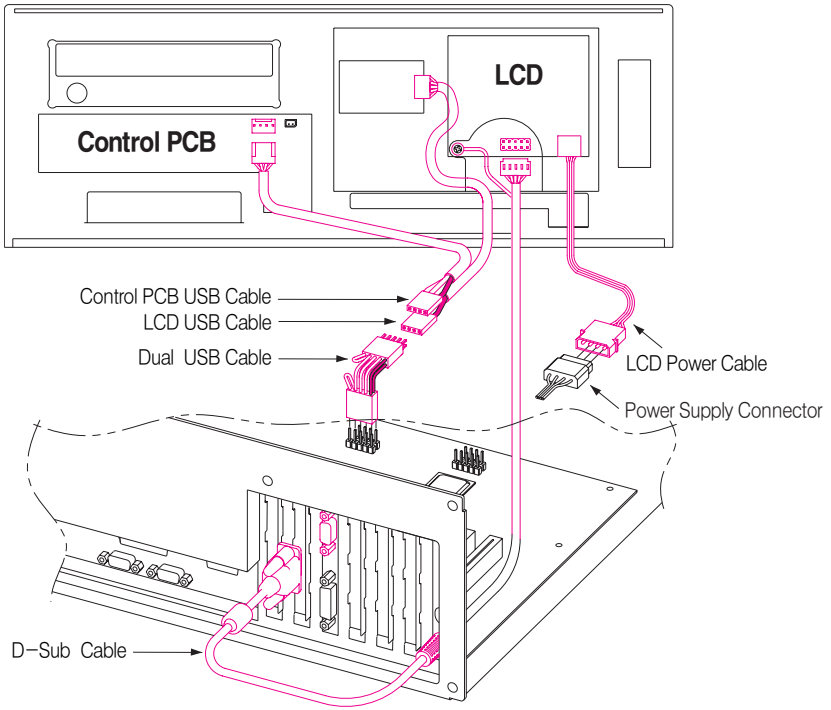


(4) LCD and Control PCB Cables

① Connect the D-Sub (RGB) Cable to the system's (VGA or motherboard) D-Sub (RGB) Port.

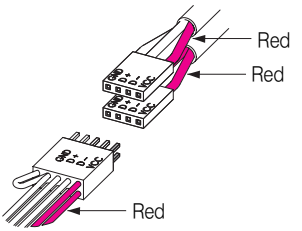
② Connect the Dual USB Cable that is connected to the USB Cable of the LCD and Control PCB to the motherboard's USB Port.

③ Connect the LCD Power Cable to the Power Supply.



CAUTION)

If the individual USB connectors of the LCD and Control PCB get disconnected from the Dual USB Cable, the VCC (red) wires MUST be aligned when reconnecting the individual USB connectors of the LCD and Control PCB to the Dual USB Cable. Incorrect alignment will cause a short circuit, damage the components, and can be a fire hazard.



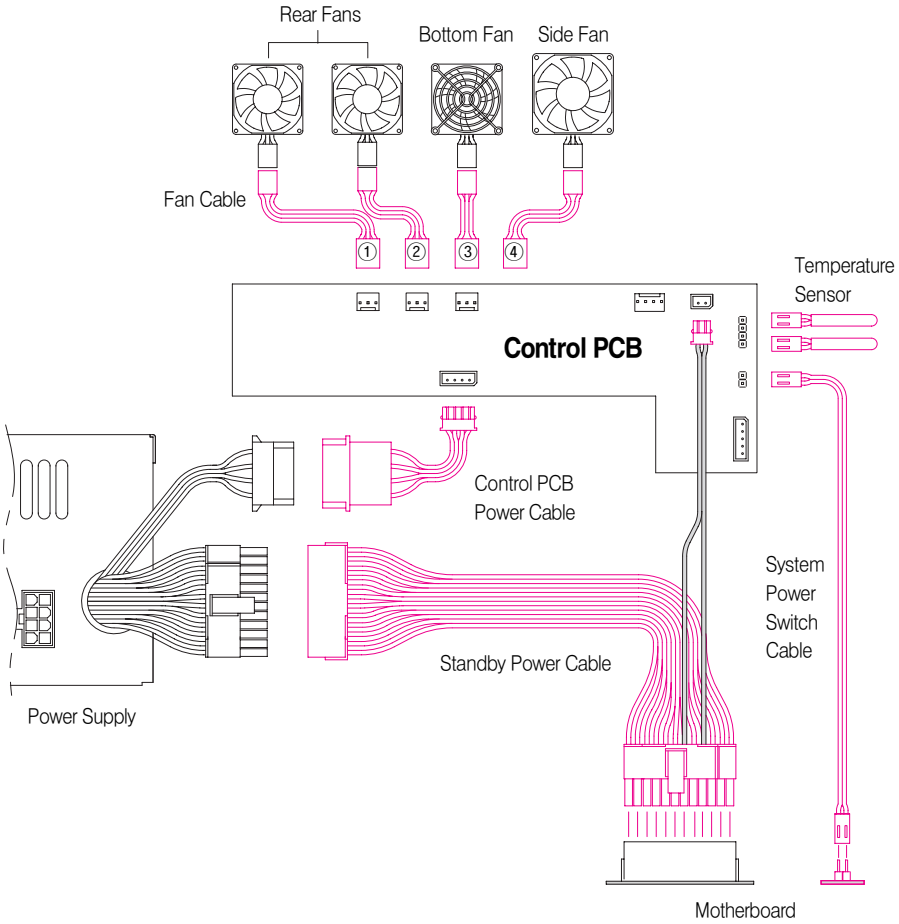
④ Connect Fan Cables 1 and 2 to the Rear Fans, and connect Fan Cables 3 and 4 to the Bottom Fan and Side Fan.

⑤ Place the Temperature Sensors on a place of preference inside the enclosure.

⑥ Connect the System Power Switch Cable (2 Pin) to the Motherboard's Front Panel Port (refer to the motherboard's manual).

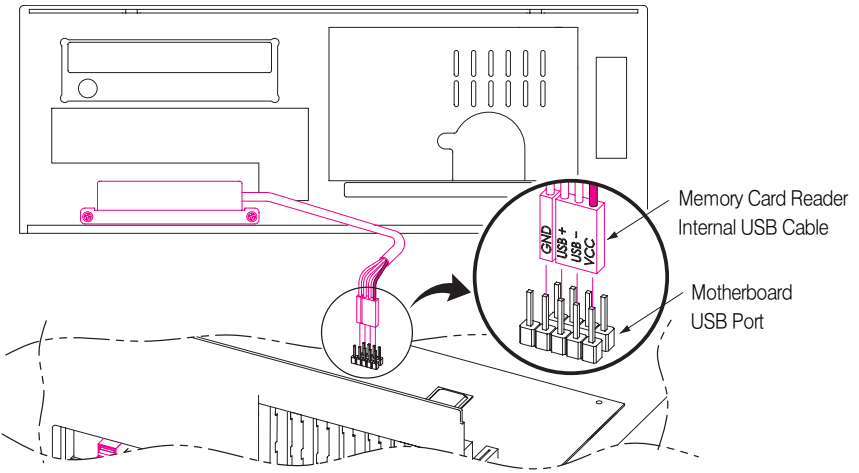
⑦ Connect the Standby Power Cable (20 Pin or 24 Pin) to the motherboard and to the Power Supply.

⑧ Connect the Control PCB's Power Cable (4 Pin) to the Power Supply.



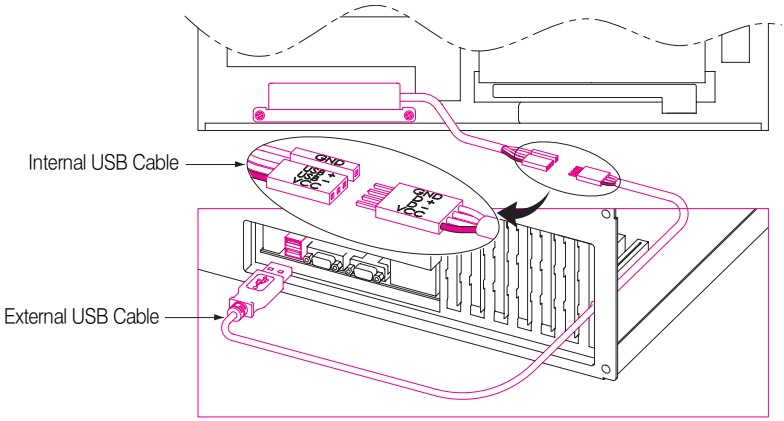
(5) Memory Card Reader Cable

Connect the Internal USB Cable attached to the Memory Card Reader to the motherboard (refer to the motherboard's manual).



Note)

1. The user MUST refer to the motherboard's manual for the USB Port Pin arrangement before connecting the USB cable.
   GND : Black / USB+ (D+) : Green / USB-(D-) : White / VCC (USB +5V) : Red
2. If there is no available internal USB port on the motherboard, then use the enclosed External USB Cable and connect it to the motherboard's external USB port.

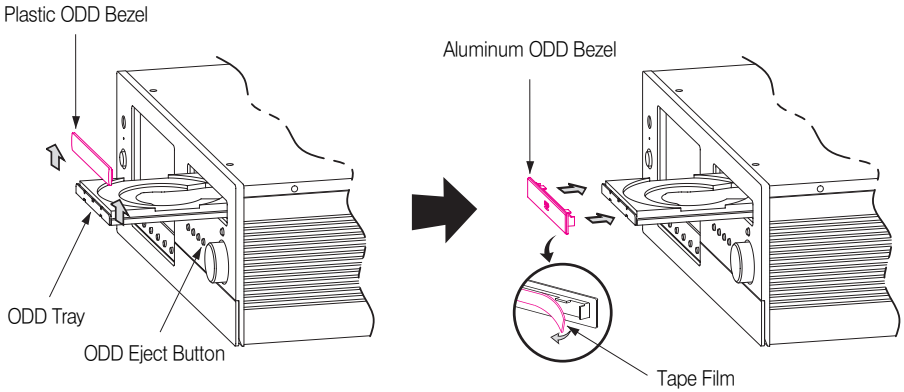


6) Attaching the Aluminum ODD Bezel

(1) Connect power to the assembled system. Press the ODD Eject Button to eject the ODD Tray.

(2) Remove the Plastic ODD Bezel.

(3) Remove the Tape Film on the back side of the Aluminum ODD Bezel, and stick the Aluminum ODD Bezel onto the ODD Tray.



Note)

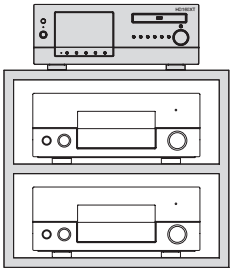
If you are facing difficulties in removing the Plastic ODD Bezel, please contact the place of purchase or the ODD manufacturer.

7) Installing the Multimedia Software

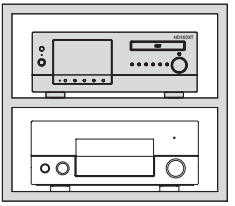
Refer to the enclosed M-Play Quick Guide manual to install the software.

8 Recommended Use

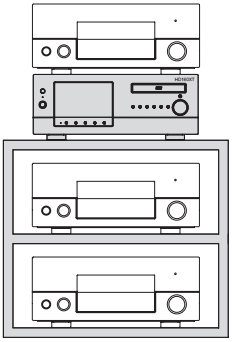
1) Recommended Placement for the HD160XT



(O)



(O)



(X)

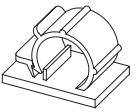
Placement of this system in a well-ventilated area (good intake of cool air and release of hot air) allows efficient cooling of computer components even in low RPM mode, for ultra quiet operation. The noise level of the power supply (main factor of noise emission) will also significantly decrease due to better cooling efficiency.
There must be good front to back airflow when placing the HD160XT in cabinets.
When the Top Panel's vent is opened, placement of other devices above the HD160XT can hinder CPU cooling performance.

2) Management of the System's Internal Cables

The internal airflow of the system makes a significant impact on the cooling of the computer components. Even though the design of the enclosure itself is very important, organized management of internal cables is the best method for optimizing internal airflow. Pay special attention to make sure that the air vents and intake/exhaust fans are not blocked by the cables.

Note)

Manage cables with the enclosed Clamps, and fix them onto the Bottom Panel.



3) Fan Speed Control with M-Play Fan Control

Cooling performance and noise level can be set to user preference by controlling the fan speed in M-Play's A.F.C. Mode. Use the Temperature Sensor and the M-Play Fan Control to maintain the internal temperature of the unit to be no greater than 40℃ (refer to the enclosed M-Play Quick Guide).

4) Recommended Computer Components for an Ultra Quiet Home Theatre PC

- CPU : Any CPU on the market
- CPU Cooler : Ultra Quiet CPU Cooler with great cooling performance
- VGA : VGA card that is either equipped with an Ultra Quiet VGA Cooler or is capable of being equipped with an Ultra Quiet VGA cooler
- VGA Cooler : Ultra Quiet VGA Cooler
- Power Supply : Power Supply equipped with a 120mm fan (HD160XT has a dedicated Air Vent for power supplies equipped with a 120mm fan)
- Motherboard : Standard Full-ATX motherboard with no fans
- Northbridge Cooler : Fanless Northbridge cooler

Note)

Recommended Zalman products for the HD160XT


CNPS 9500


VF900-CU


VF700-CU


ZM460B-APS


ZM-NBF47

9 Trademarks and Copyright Notice

ZALMAN
COOL INNOVATIONS

Zalman Tech Co., Ltd.
#1007 daeryung Techno Town 3th, 448 Gasan-dong, Gumchun-gu Seoul, Korea
Tel: +82-2-2107-3232 / Fax: +82-2-2107-3322 / Hompage: www.zalman.co.kr / e-mail: zalman@zalman.co.kr

Zalman USA, Inc.
10531 Garden Grove Blvd., Garden Grove, CA 92843, U.S.A.
Tel: +1-714-530-0700 / Fax: +1-714-530-0707 / Hompage: www.zalmanusa.com / e-mail: zalman@zalmanusa.com