ZENO

ZERO NOISE FANLESS SYSTEM COOLING

NT-TX2000
USER'S MANUAL

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Product Name：ZENO Fanless Case
Model Number：NT-TX2000
JAN Code : 4537694136662

Thank you for your purchase ZENO fanless system.
This product can be configured a mini-ITX system with a noiseless.

Features

- Noiseless systems case and cooler set
- Compatibility with TDP65W level Intel 1156/775 socket of mini-ITX m/b (Patent Pending)
- Silent CPU cooling with 70 large fin
- Clean aluminum case design
- Notebook ODD mounting
-Available 1EA of 2.5" HDD or SSD mounting
-DCDC board and Adapter set (Optional item)
-Available Soundgraph's iMON inside mounting (Optional item)
*Recommend SSD than HDD to realize a completely silent system

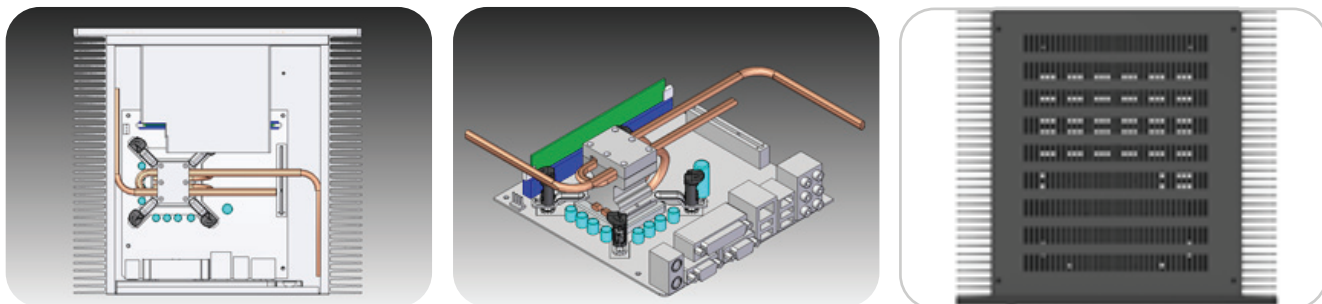## Realization of a noiseless and Excellent compatibility

ZENO system' inside heat is cooled with air circulation. It's a silent system solution in a unique way. Inside the computer, CPU is the highest heat, also other chipsets, HDD/SSD and parts are heat too. ZENO's cooling mechanism is as below.

Heat of CPU =>Heat pipe of CPU block => 2EA of Heat pipe => 70EA of 32mm large radiation fin & block => Air circulation
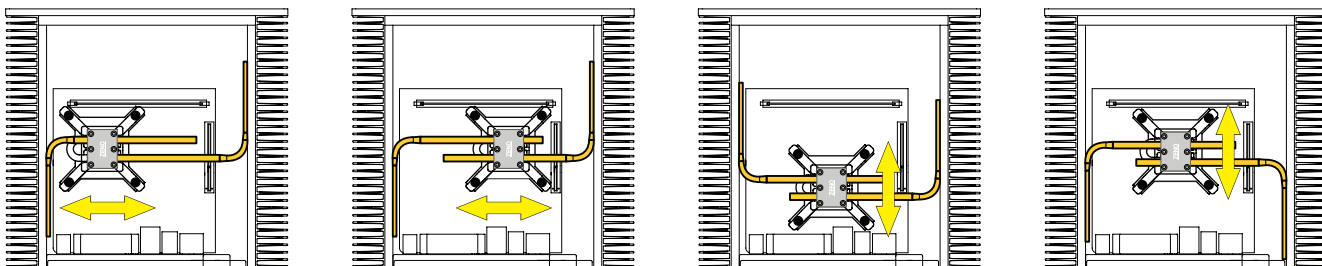
Other parts' cooling except CPU is designed the exhaust heat through 72 of the bottom and 306 of top's air vents effectively. In addition, It is used to reduce the heat reflection with hex screws and wrench for making the cooling components to tight junctions. Also it's designed to be expected maximum thermal conductivity of the cooling effect.

ZENO cooler is quite unlike others silent system which only supports a specific motherboard. It could be moved sliding heat pipe with a fixed block. So users can select m/b freely.

ZENO was adopted the most simple structure of the aluminum front design without the front USB/Audio port. Also multimedia functionality is intended for users who want to build up a complete HTPC system with an optional remote controller of Soundgraph's iMON inside.

ZENO Cooler's mounting and air vent

Moving way of sliding type (Left <- -> Right)

Moving way of Sliding type (UP <- -> Down)

Mounting location free with the excellent compatibility

Product Name	ZENO Fanless Case
Model Number	NT-TX2000
Chassis Type	Mini Fanless Zero Noise Chassis
Available CPU	Intel CPUunder TDP65W 775/1155/1156
Motherboard Compatibility	Mini-ITX Main Board
Expansion Slots	1 x Low-Profile PCI Slot
CPU Cooling Block	ZENO CPU Cooler SET
Front Panel	8.0mm Aluminum
Material	Front, Top/Bottom Cover, Fins : Aluminum CPU Cooling Block : Aluminum & 6mm Copper Heat Pipe Heat Pipe : Two Way 6mm Copper x 2 Back Panel : Steel
Side Panel	10mm Thickness Aluminum Heatsink Block with 32mm Fins, Total 42mm One Side 35 fins, Total 70 fins
Front Expose ODD	1 x Notebook ODD bay
Internal Hidden HDD	1 x 2.5" HDD or SSD
Front Swich & LED	Power button & PWR/HDD LED
I/O and USB Port	None
Color	Black
Dimensions	Chassis : 295 (W) x 270 (D) x 100 (H) mm Box : 195 (W) x 455 (D) x 360 (H) mm
Weight	Chassis : 3.9kg / Cooling Block : 264g Box : 6.0kg
User's Manual	Include
Power Supply	Option (DCDC & Adaptor set)
IR Remote Control	Option (iMon Receiver and Remote Controller)
Others	Patent Pending

Front

Back

Parts of Case body

Case body

Screw A
(For M/B & PSU)
– 10pc

Screw B
(For top cover & HDD/SSD)
– 8pcs

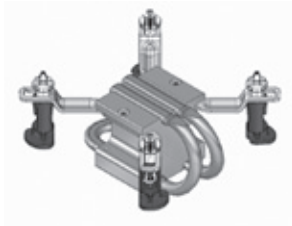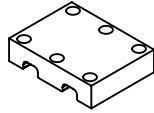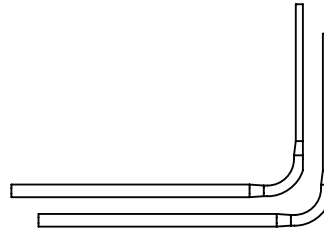Screw C
(For ODD)
– 6 pcs

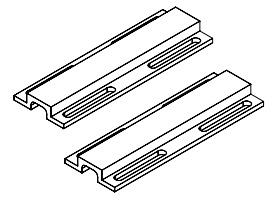Cable tie – 2 pcs

Parts of Cooler

CPU Block & Clip Set

Top of CPU Block

Heat Pipe – 2pcs

Heat Pipe Fixing Block – 2 pcs

Screw D
(Hexagon Screw
For top of CPU Block)
– 6 pcs

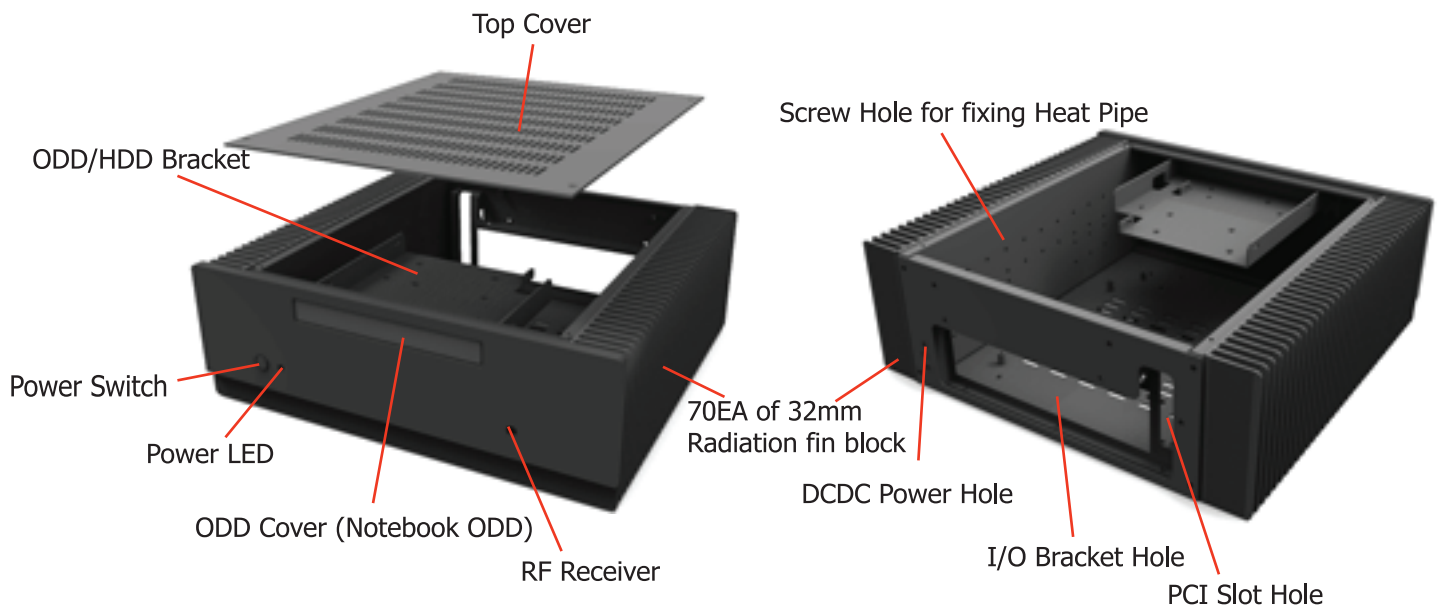Screw E
(Hexagon Screw
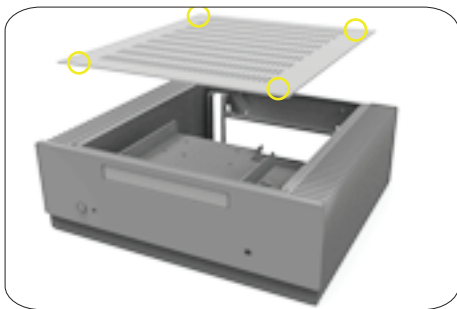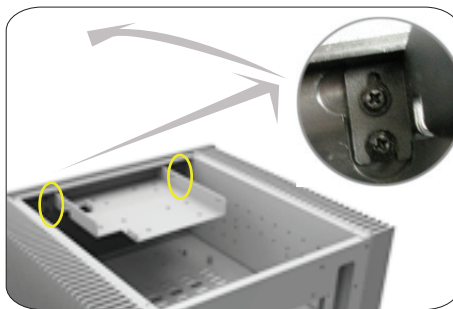For Heat Pipe Fixing Block)
– 8 pcs

Hexagon Wrench

Thermal Grease

Top Cover

Screw Hole for fixing Heat Pipe

ODD/HDD Bracket

Power Switch

Power LED

ODD Cover (Notebook ODD)

RF Receiver

70EA of 32mm
Radiation fin block

DCDC Power Hole

I/O Bracket Hole

PCI Slot Hole

NOTICE

1. This product is recommended for using in less than TDP65watts of Intel i3/i5/i7 on socket 1156/775.
   Please assemble this product after confirming TDP of Intel CPU
2. This product is somewhat difficult to assemble. Please read user's manual before assembling system.
3. In case of any missing part, please contact our support center or our official distributor.
   We will provide the missing part as soon as possible.
4. This product is applied strict quality inspection and shipped with no scratches on the appearance of goods.
5. Once opened and used this product, it couldn't be returned or refund. Please note this point.
6. It may damage the screw thread when tightening the screws with too much force. In this case,
   it also couldn't be returned or refund.
7. PSU and remote controller is optional parts. Those are not included in this set.
8. DO NOT touch CPU block or Heat pipe when wiring Cables.
9. Please use PCI card under XXX mm height of PCB.
10. This product is cooled by natural convection in a normal environment.
    Therefore, it is not available on the high temperature of outdoor or enclosed space.
11. The front LED can be connected with HDD LED or Power LED.

Separation of ODD/HDD Bracket

Loosen the 4(Four) screws on the top cover and separate it from the case body.
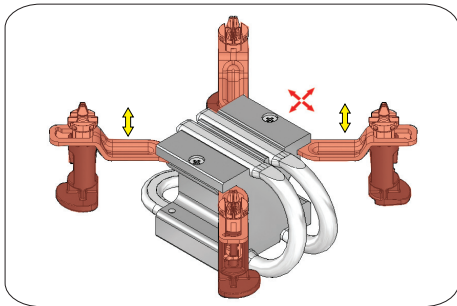
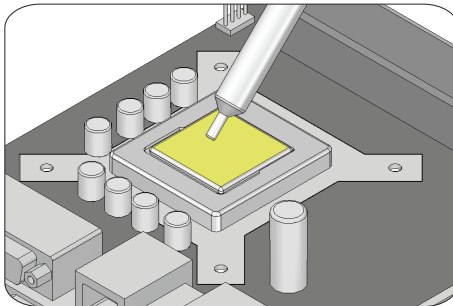Loosen the 4(Four) screws on ODD/HDD bracket and separate it.

It's available to mount the notebook ODD and HDD/SSD on the separated ODD/HDD bracket.
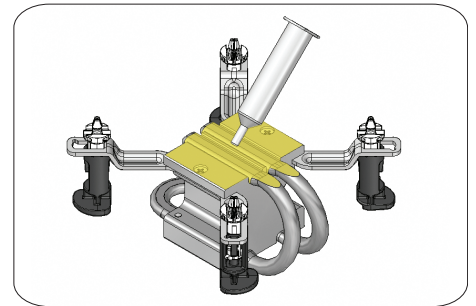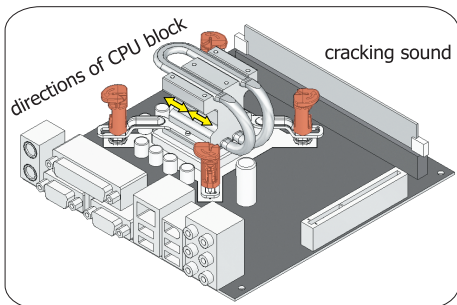
Mounting CPU Block on M/B

Check CPU block's condition first. CPU clip for LGA775/1156 is movable to up & down for mounting easily and it doesn't detach easily because the screws and furrows connected well.
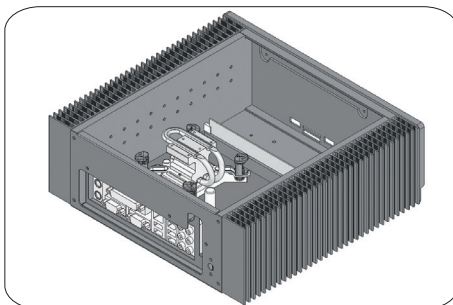
Before you assemble M/B on the case body, CPU block must be mounted on M/B. It will be more convenient. And cover the thermal grease on the surface of CPU evenly.

Also cover the thermal grease on the surface of CPU block evenly. At this moment, put the thermal grease into the space between CPU block and the heat pipes.
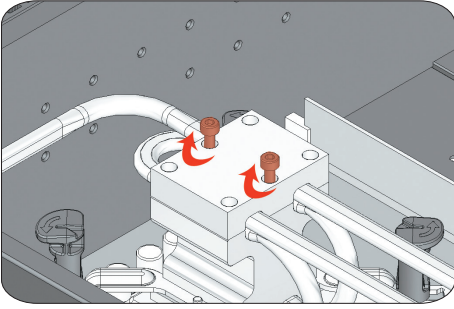
directions of CPU block

cracking sound

Be careful when fixing the directions of CPU block. Heat pipes of CPU block and radiation fin blocks must be perpendicular and push them until to make cracking sound.
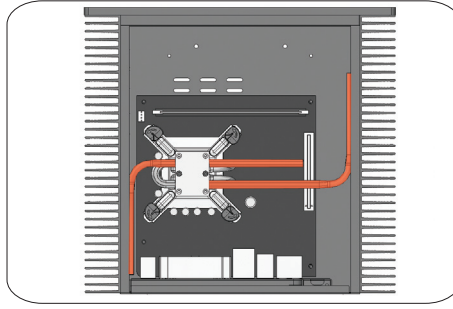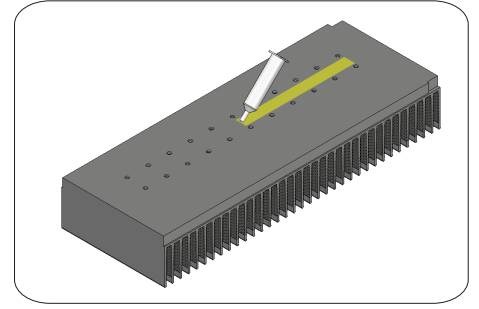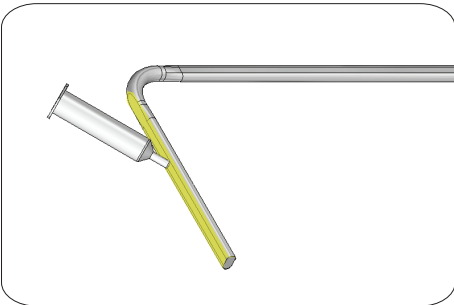
Fix M/B with 4(Four)pcs of Screw A on the case.

Find the best position of heat pipes as much as possible to avoid contacting with CPU block and connectors. Then tighten lightly the top of CPU block with only 2(TWO)pcs of screw D.
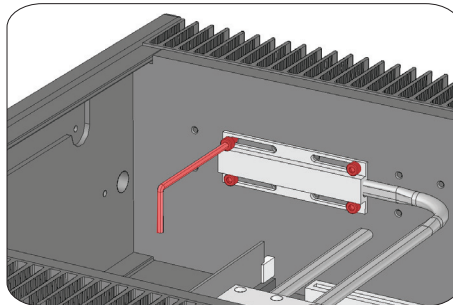

CPU block can be installed freely because the heat pipes can be moved by sliding manner.
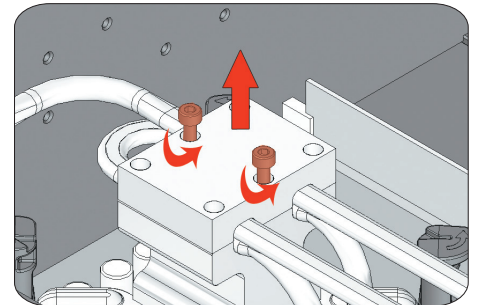

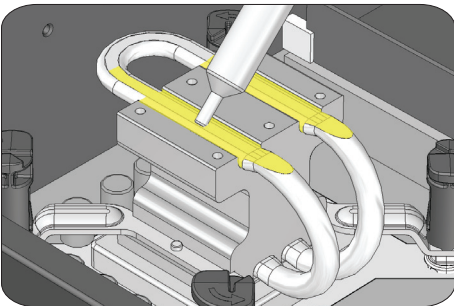Cover the thermal grease on the surface of radiation fin blocks.

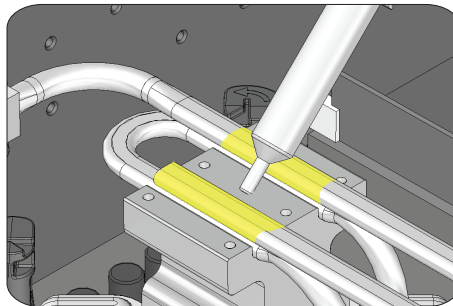Also cover the thermal grease on the heat pipes such as the above drawing.

Fix the heat pipe fixing block on the side of case body with 4(Four)pcs of screw E and a hexagon wrench. Please be careful when tightening with the excessive force, It could be happened some damage on the screw thread.
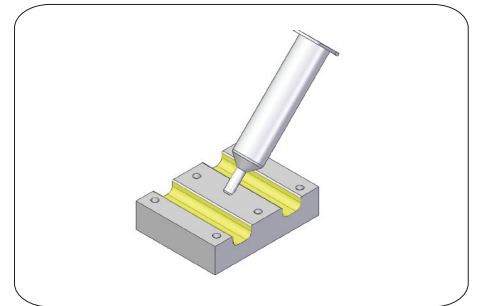

Loosen two hexagon screws which was tightened lightly before and separate the top of CPU block.
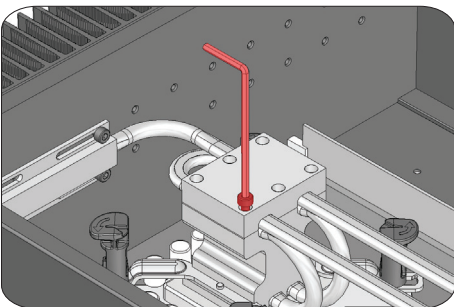

Cover the thermal grease on the surface of CPU block's heat pipes and gap. At this moment, if you lift the heat pipe a little, it will be easier to cover well. (DO NOT use an excessive force !)
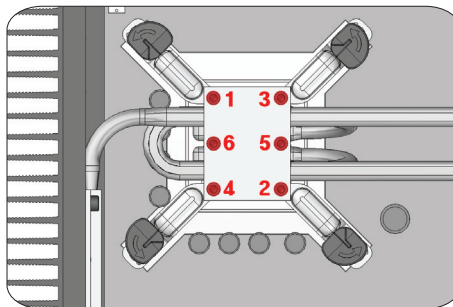

Cover the thermal grease on the surface of heat pipe which is located for the top of CPU block.

Also cover the thermal grease on the top of CPU block's inner furrow.

Fix tightly the top of CPU block with 6(Six) pcs of screw D and a hexagon wrench.

6(Six) pcs of screw D are tightened in order such as the above drawing. Please do not use an excessive force when tightening.
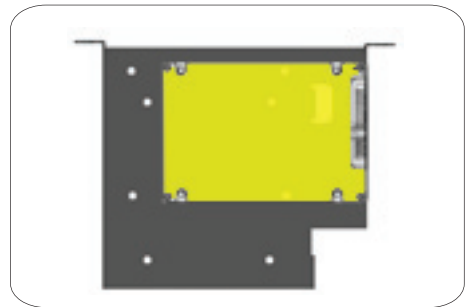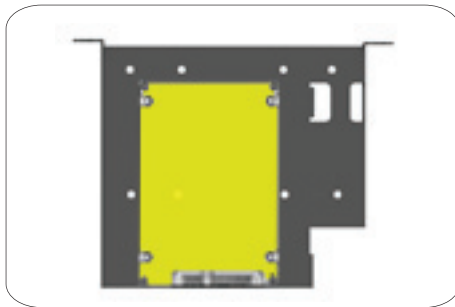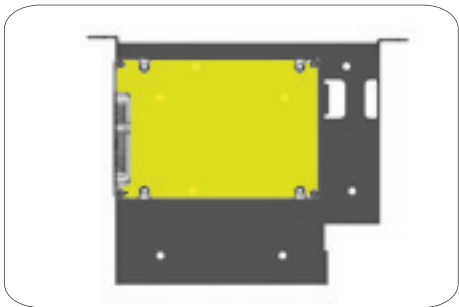
Mounting DCDC board (PSU)

This product's PSU module is an optional item. We recommend to use our ZENODC100 PSU module for enough performance.

PSU(DCDC Board) can be located on the front and back. Users can select the better position for their system's environment. It will be fixed with 2 pcs of screw A.
(Please refer to PSU's manual for the detailed instructions of PSU.)

Assembling 2.5" HDD/SSD

1 EA of 2.5"HDD/SSD can be installed on the bottom of ODD/HDD bracket. It could be installed by 3 different direction. Users can select the best direction according to their system's environment. It will be fixed with 4pcs of screw B.
(We recommend to use SSD for building the complete noiseless

Wiring Cables

Users can select the front LED for HDD or Power. If using for HDD LED, it has a flickering effect. And if using for Power LED, it can be checked the system's ON.

Please arrange cables' wiring to avoid from generating heat parts and to use cable ties.

Installing iMON Inside (Optional Item)

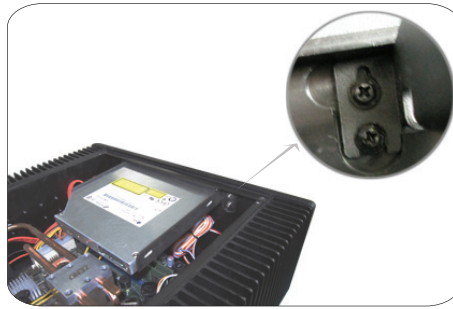Users can install Soundgraph's iMON Inside for using HTPC. (iMON Inside is an optional item.)

Users can control system's ON/OFF and multimedia software by remote device.
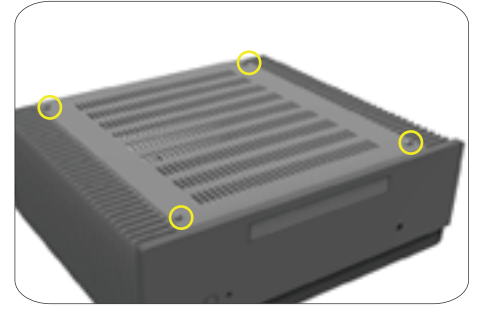
It's available to install the general notebook ODD or DVD.
ODD must be located on the horizontal and then fix it with screw C.

Fix ODD/HDD bracket with 4 pcs of screw B.

Put the top cover and tighten it with 4 pcs of screw B completely.
Now you can enjoy the world of silent computing.

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Support Information

ASKTech Co., LTD
www.ask-tech.com