FLS-3 and FLS-4
User Guide

Thank you for purchasing our product.
If you have any questions that are not covered in this manual, please contact us by phone or e-mail at
Sales@PerfectHomeTheater.com.

Overview

1   Power Button & LED
2   ODD Eject Button (FLS-4)
3   USB Ports 2.0 & 3.0 on the side (optional cable required. Sold separately)
4   IR Receiver Window

Removing top panel.

Remove four screws, Slide top back and rise top panel. Now you can easy remove it.

Installing HDDs and ODD.

ODD/HDD bracket is hold in place by four screws. Please untighten them and remove ODD/SSD bracket.
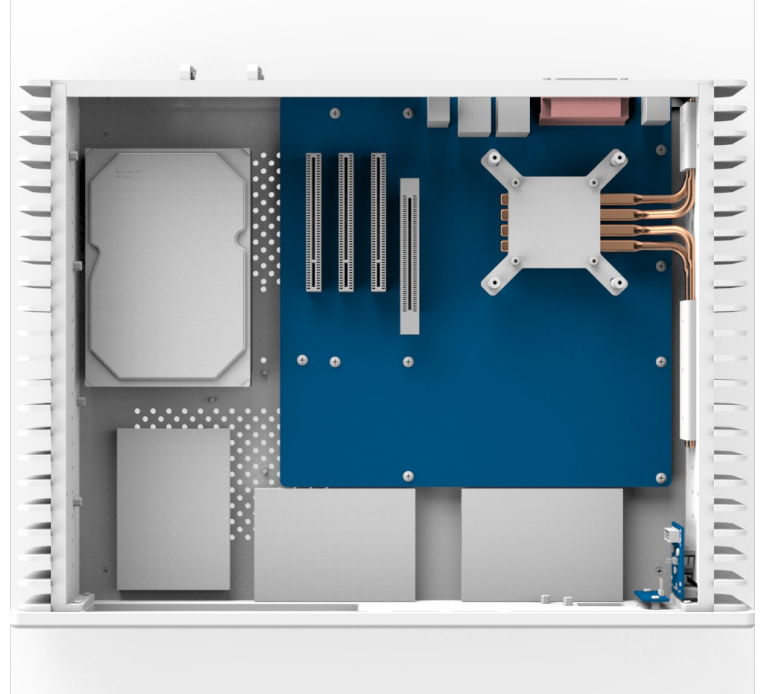
FLS-3/4 can accommodate µATX or mini ITX motherboard. The choice of MoBo will determine number of HDs you can install in this chassis.
FLS-3 has seven HD mounting areas, FLS-4 has eight HD mounting areas. If you install mini ITX motherboard you can install three 3.5" HDs (plus one 2.5" under ODD bracket in FLS-4)
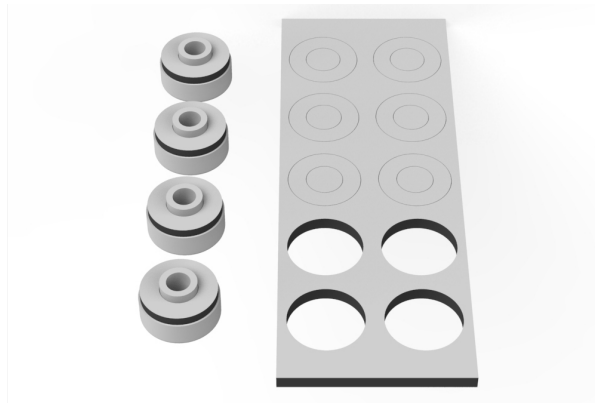
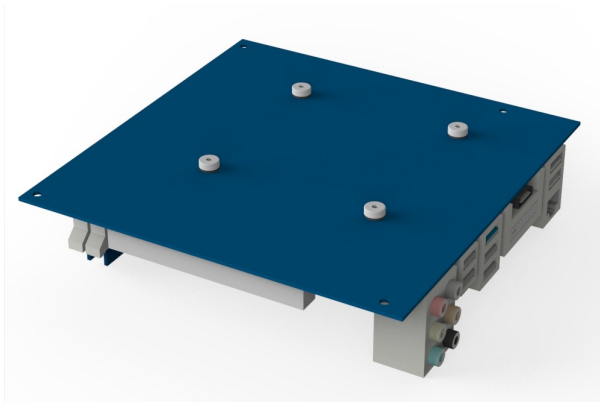**Mini ITX motherboard.**
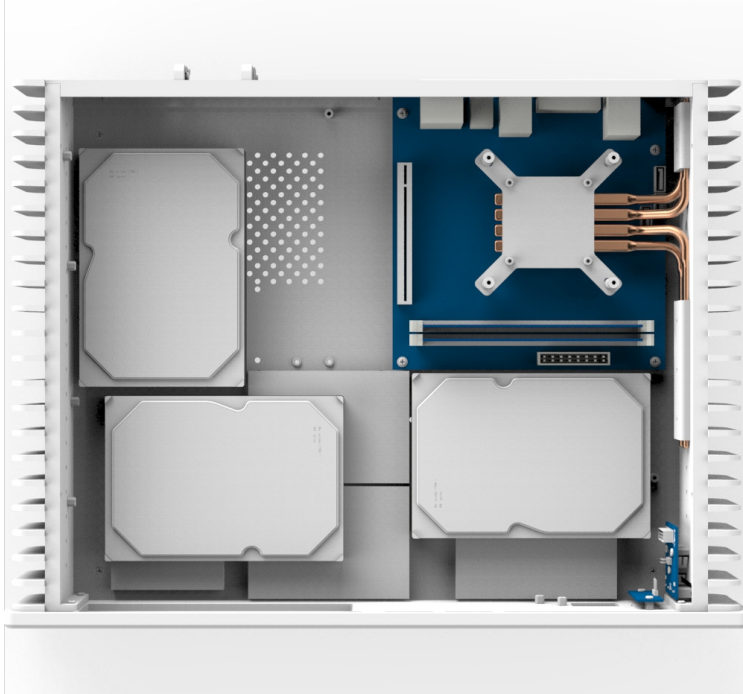
µATX motherboard.


Motherboard installation

There are four long screws with springs and fasteners (you have to assembly them first) and four CPU cooler mounting nuts with sticking rings.
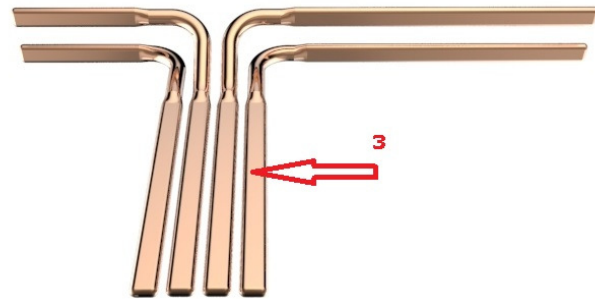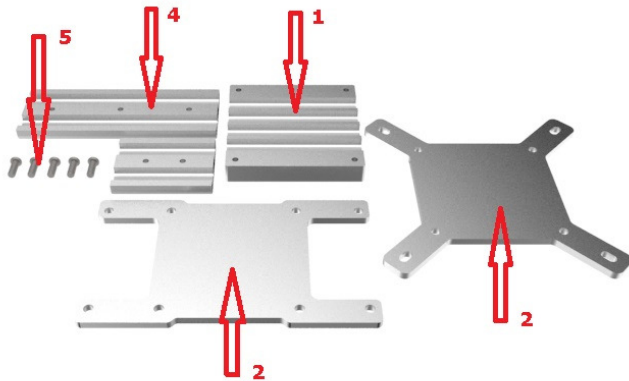

Before installing motherboard into chassis please stick four CPU cooler mounting nuts on the bottom of Motherboard.

Next install CPU and memory on the Mobo, install backplate and motherboard inside of the chassis.
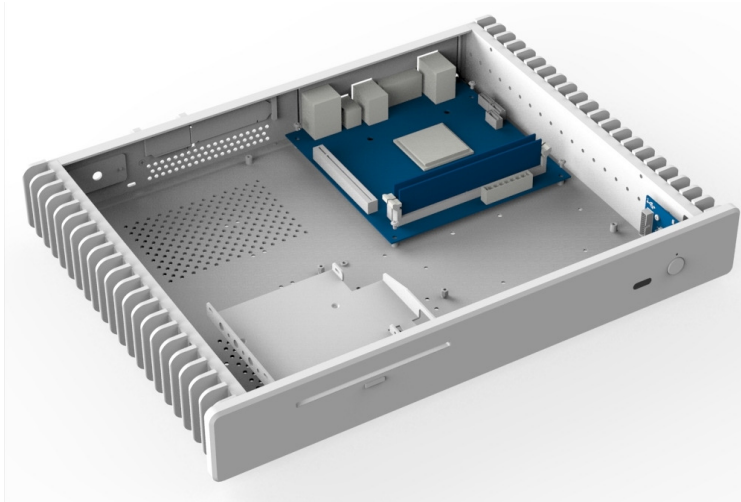
Cooling system


These are the following parts of cooling system:
1. Lower CPU plate
2. Upper CPU plate (Intel or AMD)
3. Standard or short Heat Pipes (Attention: heat pipes are numbered.)
4. Heatsink blocks with thread.
5. Five screws for thermal blocks (M3x14)
6. Thermal paste. (Supplied)

Mini ITX motherboard.
Most recent ITX motherboards have CPU socket close to right side of motherboard like ASRock motherboard used in this manual. Such motherboards require short cooling pipes; HP4-97, sold separately. Standard pipes are too long for this motherboard. They will extend ~17mm. There is no problem with this particular motherboard, but other models may have tall object on line of pipes and conflict with them. If your current motherboard require short pipes, please add them to your order. Please keep your standard pipes for future motherboards with CPU in different location.

DO NOT TIGHTEN ANY SCREWS UNTIL INSTALLATION IS FINISHED.
First assembly cooling system without paste, to find out the best position for pipes but do not tighten screws yet. Next put it on CPU align with CPU an move pipes toward or away from radiator if necessary.
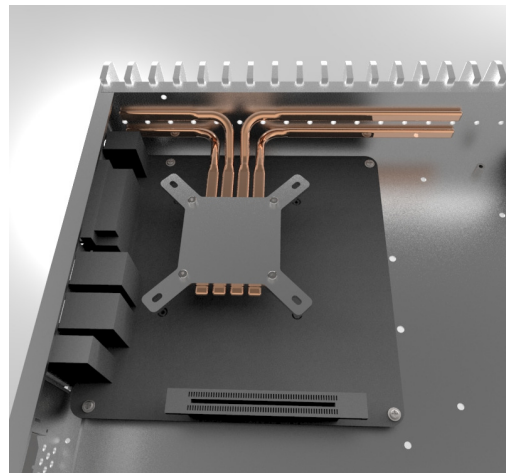
After setting position of pipes between plates, remove upper plate, apply small amount of thermal paste in groves on lower plate, set pipes, apply small amount of thermal paste on top of pipes and put upper plate back. Now, even you have to move pipes a little you will have clean assembly.

In next step apply small amount of thermal paste on CPU and put whole assembly on CPU.
Install heatsink blocks (4) on radiator. Screws mounting heatsing blocks are from ouside IN!
Allign assembly over CPU and put two long screws first like shown here, then next two screws and set up assembly over CPU perfectly.
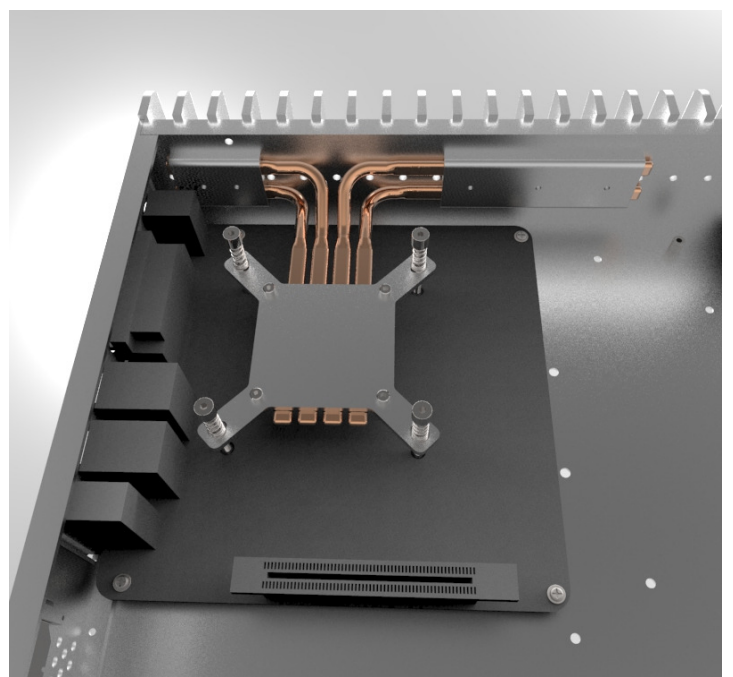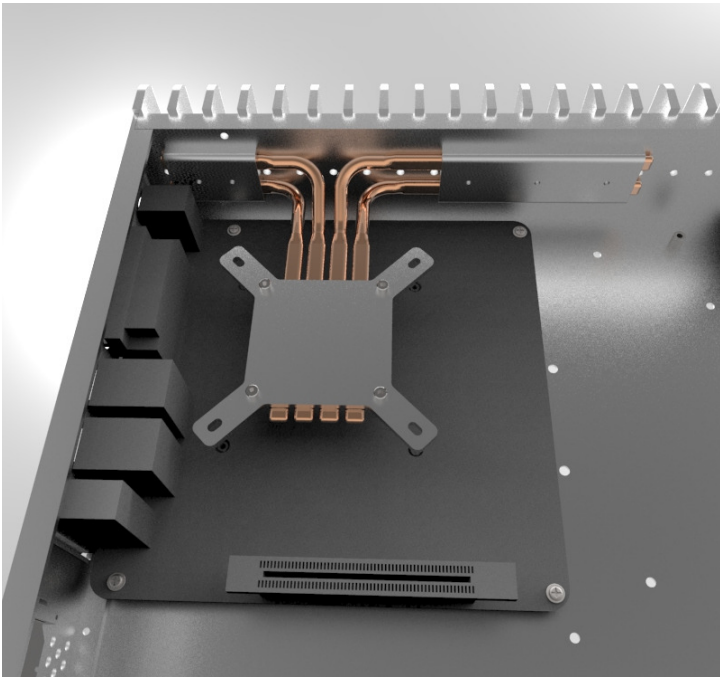
Now you can tighten screws.
First, five screws in heatsink blocks. Pipes still can move toward heatsink.
Next, use supplied wrench and tighten screws keeping both plates together. Do not over tighten screws!
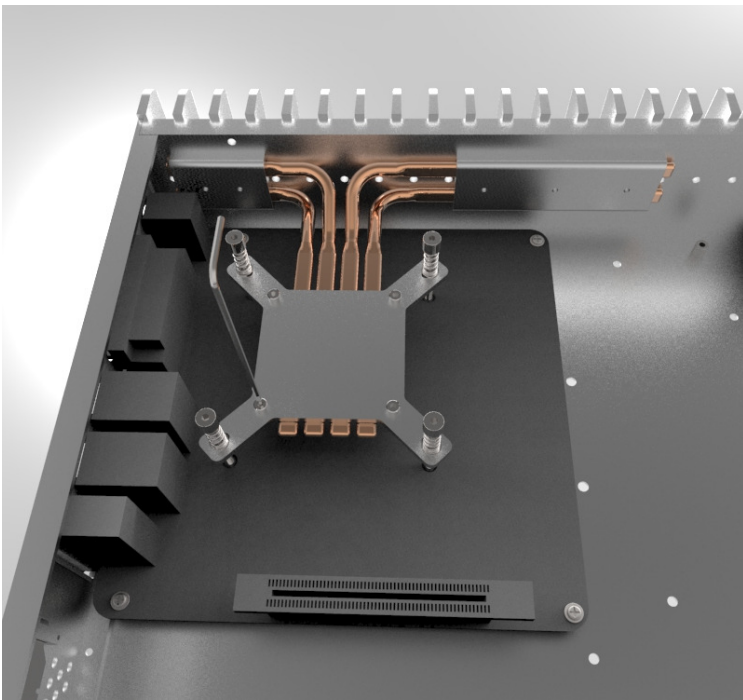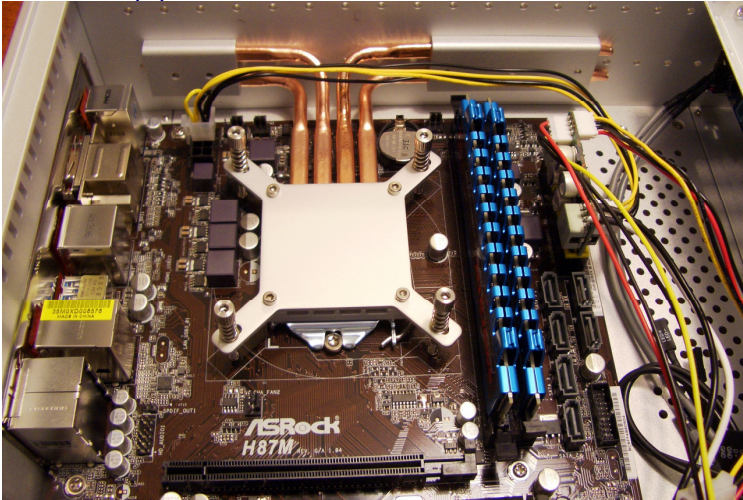
At last, hand tighten long screws and you just finished installation of cooling system for your CPU.

µATX motherboard.

Majority of µATX motherboards are compatible with standard pipes supplied with chassis.

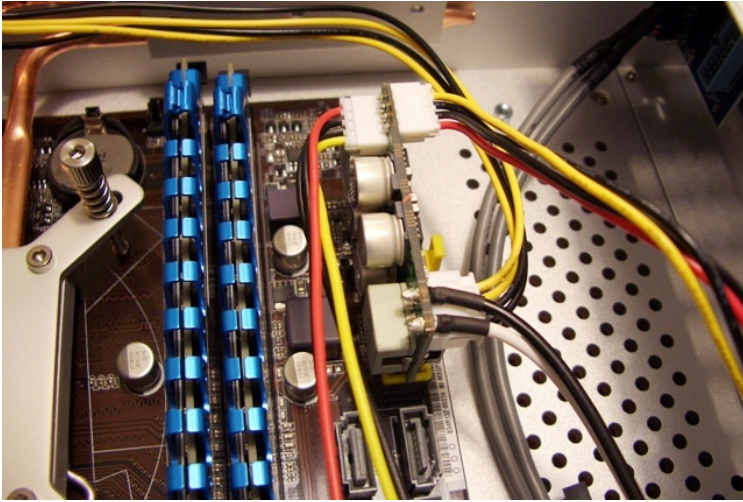Please follow procedure for mini ITX motherboard. The only difference is length of pipes.

Standard pipes

Short pipes

Now it's time to connect PSU and cables, install bracket with drives attached and test your PC.
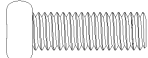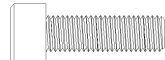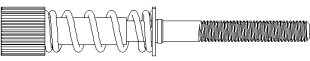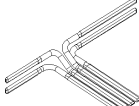

I installed 160W (200W peak) PSU, more adequate for FLS chassis. I also added optional SATA/PATA power cable.

Is everything OK? Does everything work perfectly? Install top cover, connect to your system and enjoy it.

FLS-3 and FLS-4 accessory list

Picture (Not in scale)	Description/Type	Quantity	Application
	M2x3	4	Slim ODD drive (FLS-4 only)
	M3x4	2	IR
	M3x4	9	Motherboard
	M3x5	16	2.5" HDD
	6-32x6	12	3.5" HDD
	M3x10	5	Heat sink blocks
	M3x10	4	Heat sink plates
	CPU retention screws	4	Heat sink mounting screws
	Mounting nuts	4	Heat sink mounting nuts
	Nuts shock pad	1	Nuts shock pad
	Rubber pads	5	Hard drives pads
	Rubber pads	1	ODD
	Heatsink pipes	4	Heatsink system