STREACOM™

FC10α

Page ... Contents

IMPORTANT NOTICE

Passively cooled products can get hot to the touch, especially when systems are running at high loads for extended periods. This is a normal part of their operation and they have been tested to run safely under these conditions. Please take their operational temperature into consideration when positioning and handling.

COPYRIGHT NOTICE

A Message from the Streacom Team

Thank you for choosing Streacom! In a market dominated by generic and uninspired products, we are on a mission to break the mold, not only of design, but materials and finish. This is a value that is not easily conveyed in an industry preoccupied with specs and numbers, so your choice shows an appreciation and understanding of what makes our products different, and we sincerely thank you for that.

Every care has been taken to ensure that this product meets the highest quality and standards we have defined. If anything about this product falls short of your expectations or you have any questions that are not covered in this user guide, please contact us online at www.streacom.com/contact. We respond to every question received and your feedback is a critical part of our ongoing product development and refinement.

From everyone at Streacom, we hope that you enjoy using our product!

Introduction to Assembling Your Case

It's not rocket science, but Streacom cases can be a little challenging to assemble at first because of the non traditional design and the materials used. Passive cooled cases have an added layer of complexity because of the heatpipe assembly/hardware requirements, so please take the time to read the user guide and become familiar with the components and assembly procedure. Additional information is also available on our website 'system build guide' page, and of course from our support staff.

Below is a quick explanation of the different screws used in the assembly, and how they will be referred to throughout the guide. Screws are defined by head type, e.g. 'countersunk' and by thread/size e.g. M3x5, and will be labeled with all that information, e.g. CS-M3x5

Pan Head Screw (PH)

Hex Cheese Head Screw (HC)

Countersunk Screw (CS)

Thin Cheese Head Screw (TC)

Thumb Screw (TS)

PH

M(Metric)

5mm

3mm

PH-M3x5
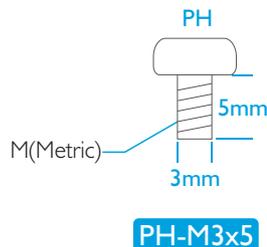
Also included in the kit.....

1 x Lower CPU Mount, 2 x Upper CPU Mount, 3 x Heatsink Connectors, 4 x Heatpipes, 4 x Spring-loaded Screws & Nuts, 1 x Allen Key, 2 x Thermal Paste Tubes, Silicon Rubber Pads, Double Sided Adhesive Pads.

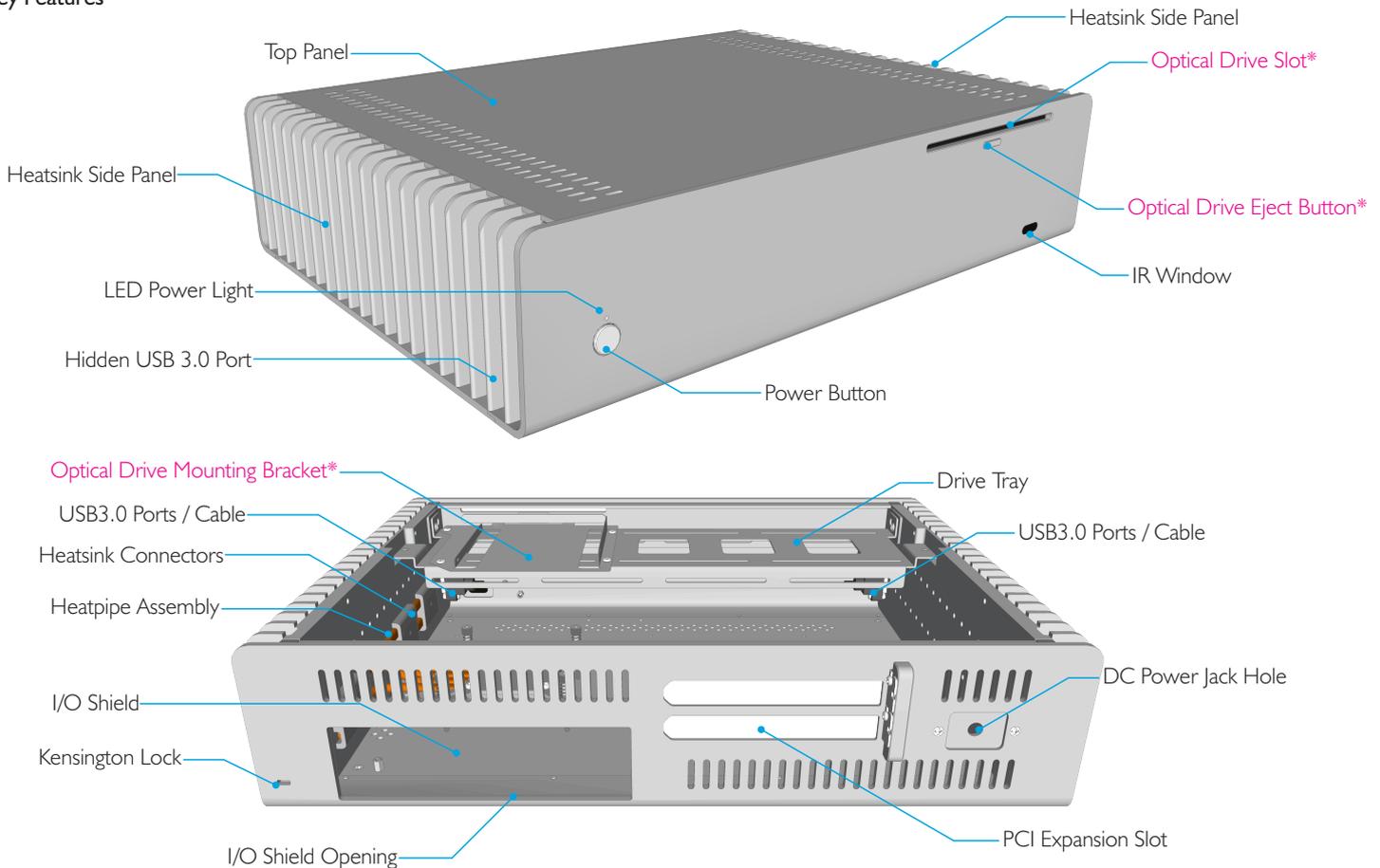### Tools you will need.....

Philips Screwdriver

Specification

Construction Material	Premium Grade Aluminum (6063)
Available Colours	Silver / Black - Anodized & Sandblasted Finish
Motherboard Compatibility	ATX, Micro-ATX and Mini-ITX (Heatpipe Compatibility Dependent)
Hard Drive Support	Minimum 2 x 3.5" + 3 x 2.5", Maximum 5 x 3.5" + 4 x 2.5" (Hardware Dependent)
Optical Drive Support	1 x Slot Loading Optical Drive, Universal Eject Button*
Cooling Method	Passive Convection/Radiation - 4 x Heatpipe Direct Touch (65W Recommended, 95 Max)
Side Ports	2 x USB 3.0, Left & Right Side (Optional USB2.0 Conversion Cable**)
Expansion Slot	2 x Full Height Expansion Card (Max Length, 190mm Upper, 300mm Lower Slot, Flexible Riser Required)
Dimensions	440 × 320 × 110mm (W×D×H, Including Feet)
Power Supply Support	NanoPSU (External AC Adapter + Internal DC to DC)** or ZeroFlex240 (Fanless Internal PSU)**
IR Solution	IRRC or FLIRC IR Solutions**
Net Weight	5.4KG (Excluding Heatpipe Assembly)

Key Features

Top Panel
Heatsink Side Panel
Heatsink Side Panel
Optical Drive Slot*
Optical Drive Eject Button*
IR Window
LED Power Light
Hidden USB 3.0 Port
Power Button

Optical Drive Mounting Bracket*
USB3.0 Ports / Cable
Heatsink Connectors
Heatpipe Assembly
I/O Shield
Kensington Lock
I/O Shield Opening
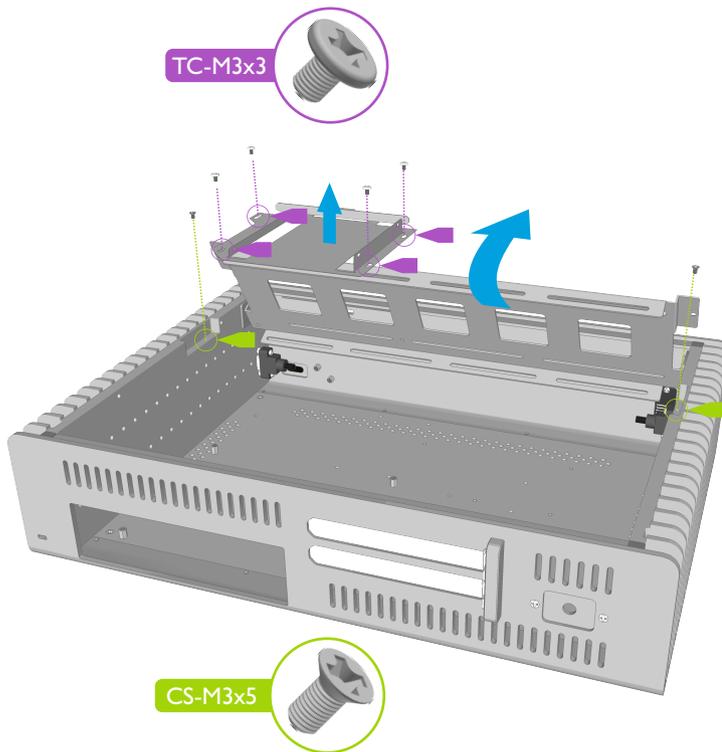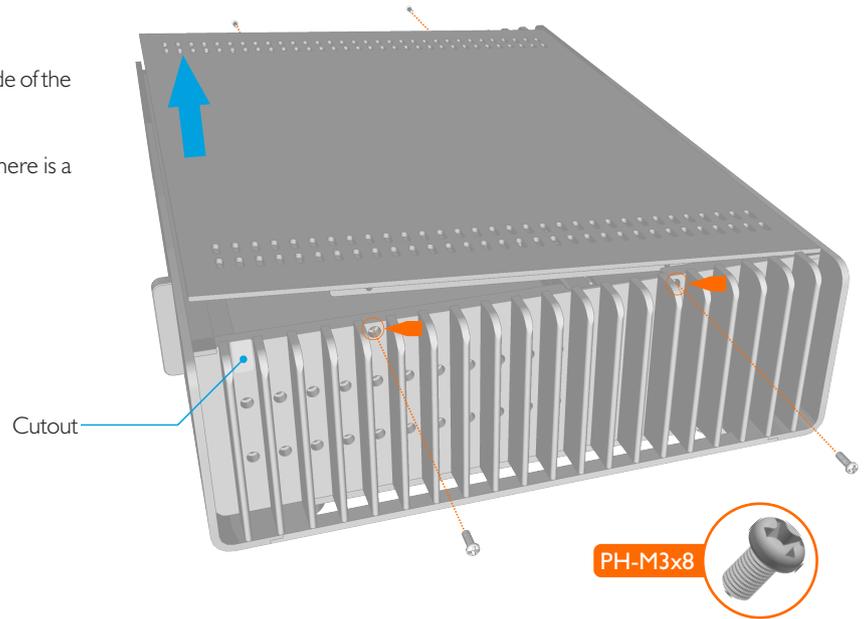Drive Tray
USB3.0 Ports / Cable
DC Power Jack Hole
PCI Expansion Slot

Removing the Top Panel

The top panel is held in place by a total of 4 screws, 2 from each side of the case which are accessible between the fins of the heatsink.

Remove all 4 screws and lift the top panel away from the case. There is a cutout either side of the case to assist with lifting the top panel.

Cutout

PH-M3x8

TC-M3x3

Open the Drive Tray

The drive tray has a swivel design that rotates upwards and towards the front of the case. It is locked in place by 2 screws, I either side of the tray. Remove these 2 screws and rotate the tray until it makes contact with the front of the case. This will allow you full clearance inside the case so that you can easily install the components.

If you have the Optical version of the FC10, you should also remove the optical drive mounting bracket by removing the additional 4 screws as

CS-M3x5
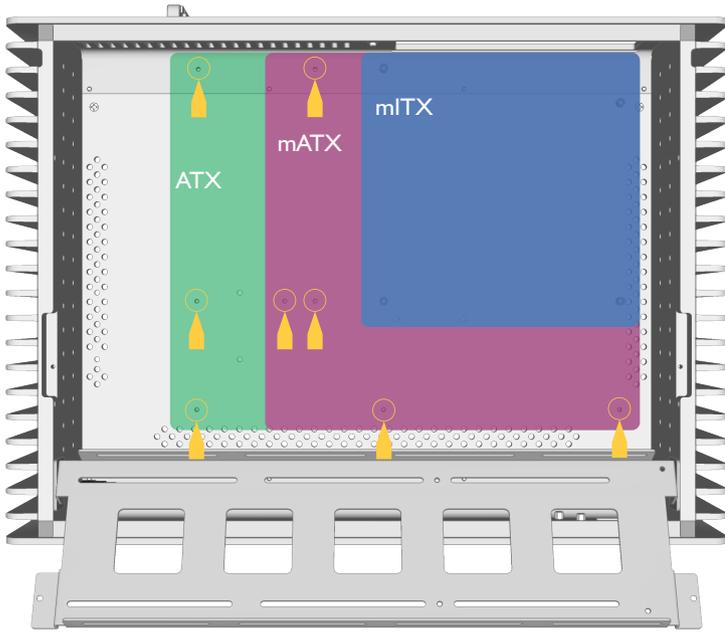
Preparation for Installing the Motherboard

The FC10 can accommodate an ATX, Micro-ATX or Mini-ITX motherboard and depending on which one is used, the appropriate stand-offs should be fitted to the bottom panel of the case. Note that the Mini-ITX stand-offs are already fitted to the case as they are common to all motherboards. The type of motherboard used will also determine the choice of other internal components such as additional 3.5" hard drives and optional internal PSU. Check your motherboard hole locations and fit the appropriate stand-offs in the corresponding position on the bottom panel. The stand-offs can be hand tightened in place.

HS-M3x7

Installing the I/O Shield

Locate the I/O shield supplied with your motherboard and firmly push it in place. Ensure that it correctly seated otherwise the motherboard will be difficult to install and not align correctly with the stand-offs.
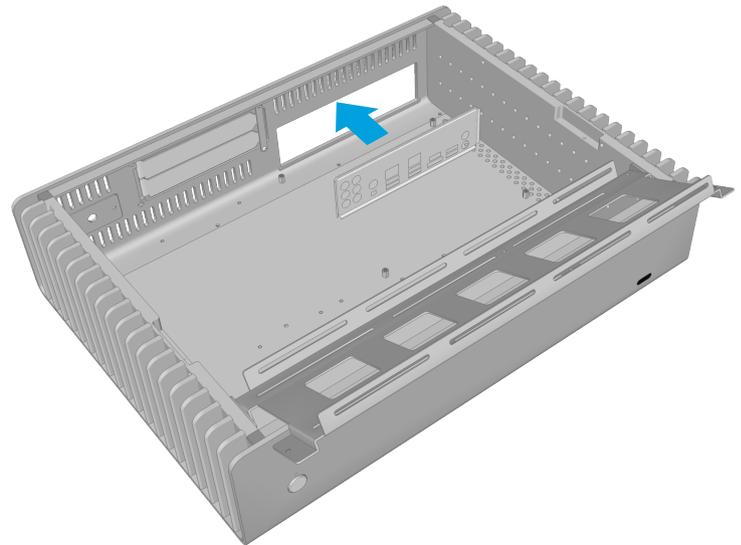
Fit the CPU Cooler Mounting Nuts

The 4 CPU cooler mounting nuts supplied with your case must be fitted to the motherboard prior to installing it inside the case as they will be required later on in the assembly to secure the CPU cooler assembly. The nuts are held in place by adhesive pads which are supplied in a pack of 4 (there is a spare pack should you wish to change your motherboard in future). Affix the adhesive pads to the CPU nuts in preparation for fixing them to the motherboard.

Peel Protective Film

Adhesive Pads

CPU Cooler Mounting Nut
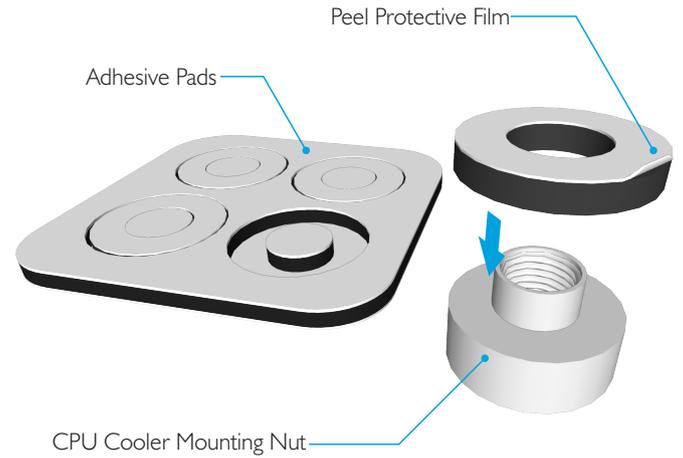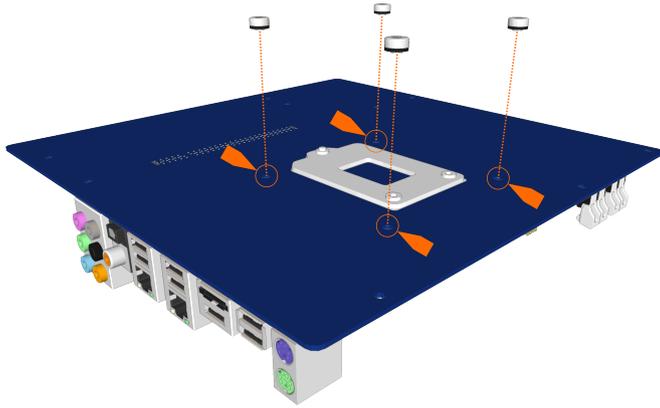
With the motherboard turned upside down, located the CPU cooler mounting holes. The hole position will vary depending on the brand and model of CPU. Peel the protective film from the adhesive pads and stick the nuts to the underside of the motherboard ensuring they correctly align with the holes. The slightly raised rim of the nut should fit through the motherboard CPU mounting holes.

Installing the Motherboard

Carefully lower the motherboard into the case, with the I/O port side leading so that the ports can fit into the I/O shield.

When the motherboard is correctly in position, secure it to the case stand-offs using the screws provided. Ensure that all the holes correctly align with the stand-offs before fully tightening the screws. Also ensure that you have installed the correct stand-off locations.
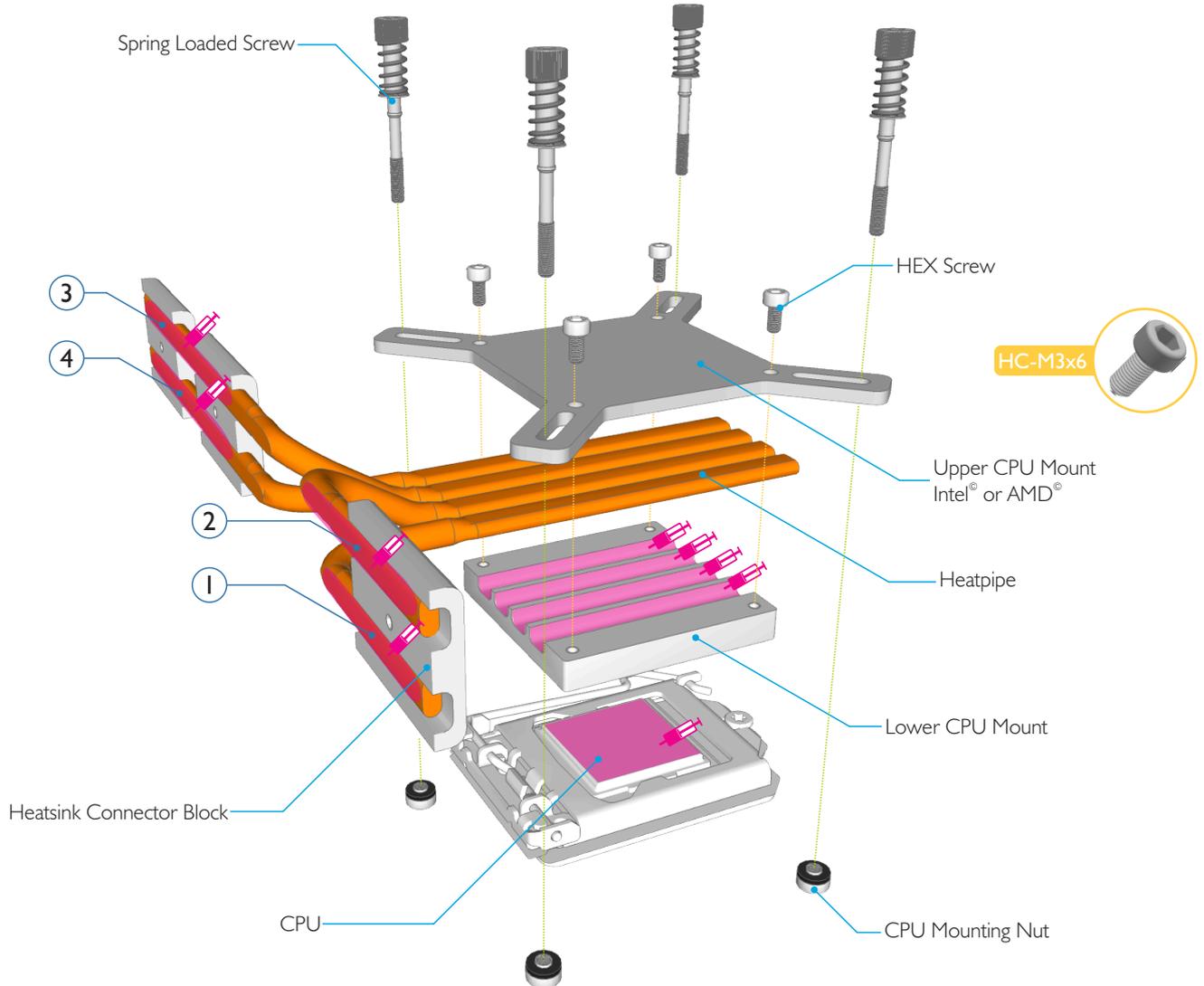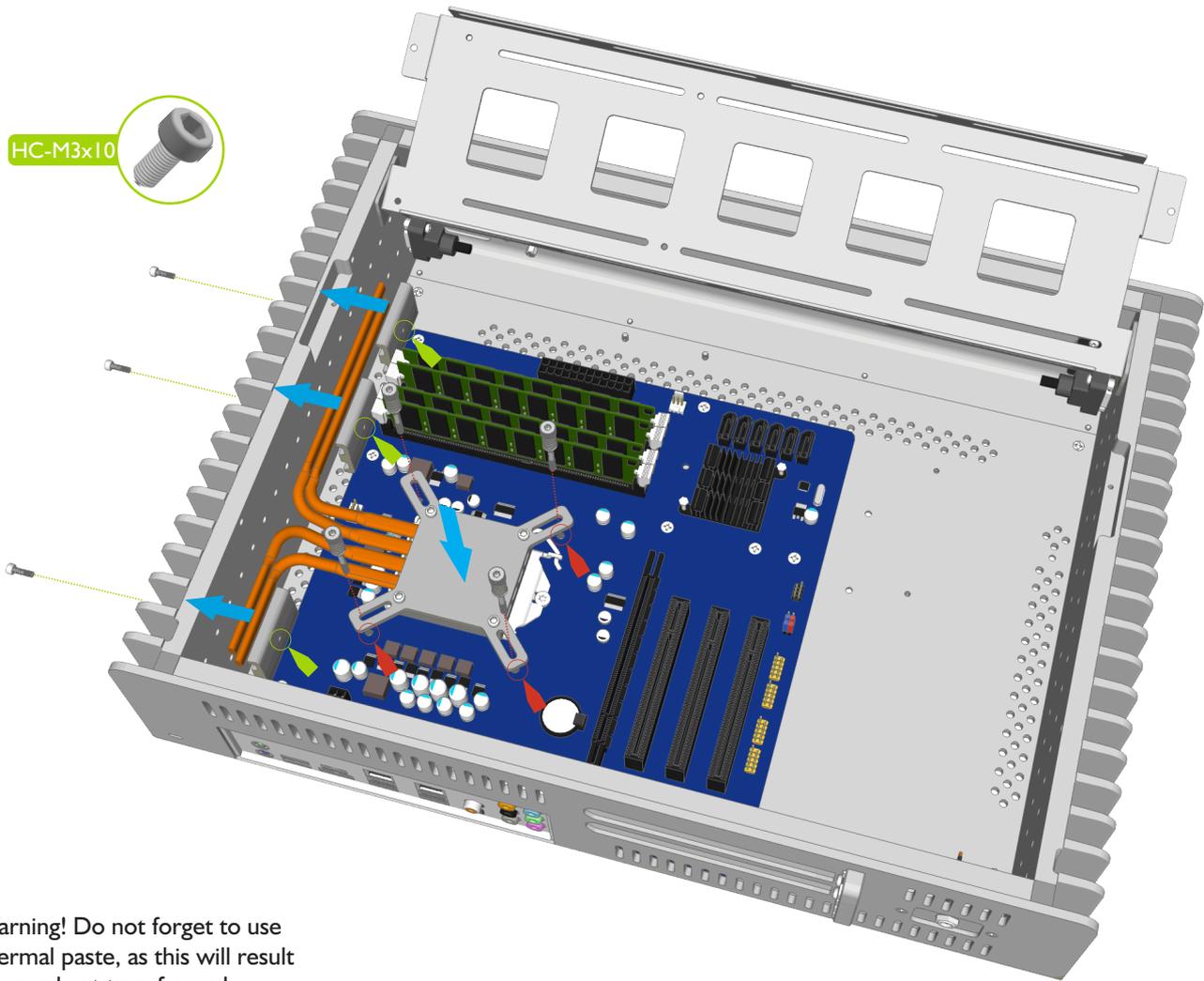
TC-M3x4
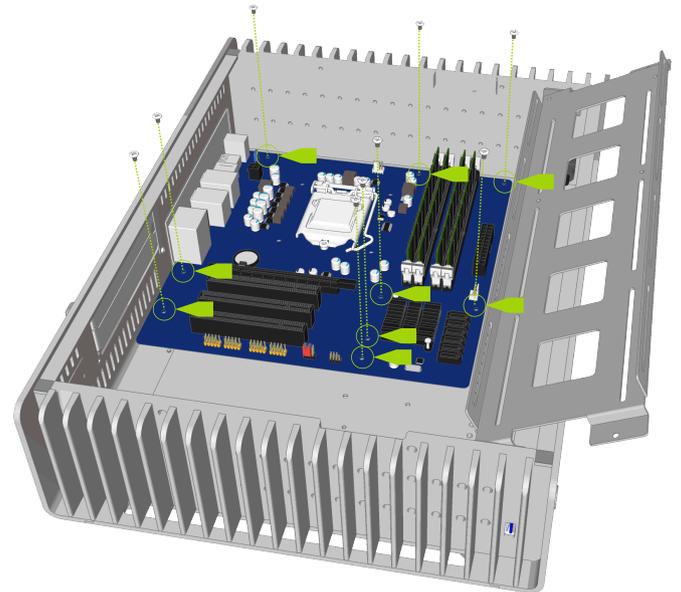
CPU Cooler Assembly

The passive CPU cooler assembly comprises of 3 main parts. The CPU mounts which fix the heatpipes to the CPU & motherboard, the heatsink connector blocks that fix the heatpipes to the case side panel (heatsink), and the heatpipes that transfer the heat from the CPU to heatsink. Note that the heatpipes are numbered in the plastic sleeves, 1 - 4 to assist with identifying them.

The use of thermal paste is ESSENTIAL to ensure efficient heat transfer and should be applied to ALL the surfaces indicated below.

We recommend first trying the assembly without applying thermal paste. This will allow you to test and adjust the alignment without making a mess with thermal paste. Once you have a good approximation of the alignment, apply thermal paste initially between the lower CPU mount and heatpipes, then lock the heatpipes between the upper and lower CPU mounts using the 4 HEX screws. With this assembled, you can now remove it from the case and apply thermal paste to the CPU and heatsink contact side of the heatpipes.

Spring Loaded Screw

HEX Screw

HC-M3x6

Upper CPU Mount
Intel© or AMD©

Heatpipe

Lower CPU Mount

Heatsink Connector Block

CPU Mounting Nut

CPU

HC-M3x10

Warning! Do not forget to use thermal paste, as this will result in poor heat transfer and potential CPU damage.

Carefully lower the heatpipe/CPU mount assembly into the case and place it onto the CPU, ensuring the heatpipes only make contact with the heatsink once the assembly is resting centrally on the CPU. Fit the 4 spring loaded screws to the motherboard (into the CPU mounting nuts), but do not fully tighten yet.

Secure the heatpipes to the heatsink using the 3 connector blocks, which are screwed from the outside of the case (between the fins). If any fine adjustment is required, you can loosen the 4 HEX screws on the CPU mount which will allow the heatpipes to slide.

Once you are satisfied with the alignment of the full assembly, you can fully tighten all the screws. The spring loaded screws should not be over tightened, and only require 4-5 turns from the point the spring start to compress.

Install / Connect the Power Button, PSU, Optional IR & Other Cables

With the motherboard and CPU cooler installed, you can now connect the PSU and any other internal connections such as the SATA cables in perpetration for installing the drives. For more details on installing the PSU and Optical IR, see the user guides supplied with those accessories.
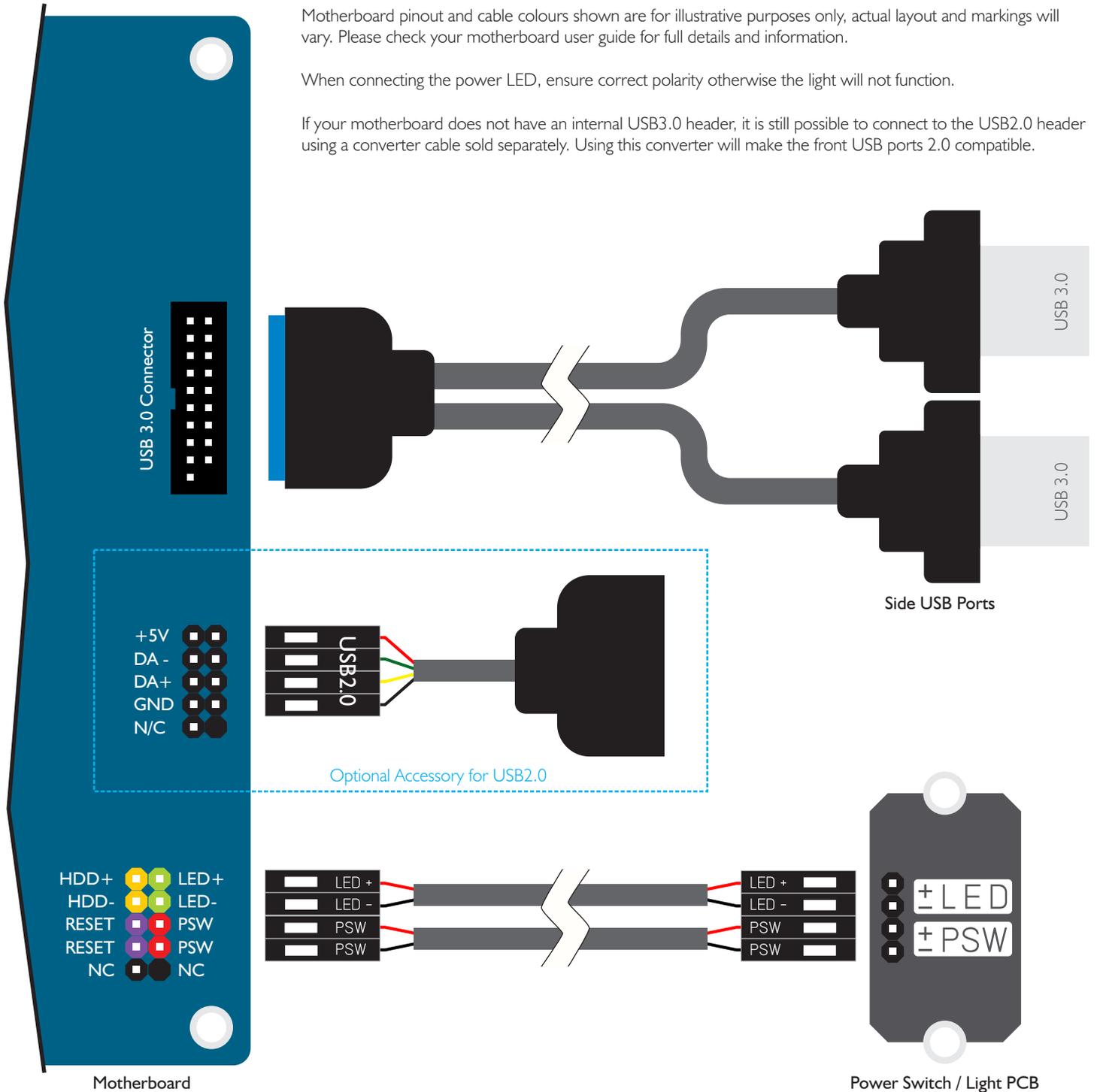
Connect the front USB ports and the power button / light PCB to the motherboard, see diagram on next page for wiring details. The case is fitted with USB3.0 ports which require an internal USB3.0 connector on the motherboard. If your motherboard does not have an internal USB3.0 header, it is still possible to connect to the older USB2.0 header with a converter cable (not supplied with the case).

PH-M3x5

NanoPSU

USB3.0 Port

IR PCB

Power Button PCB

USB3.0 Port

DC Power Jack
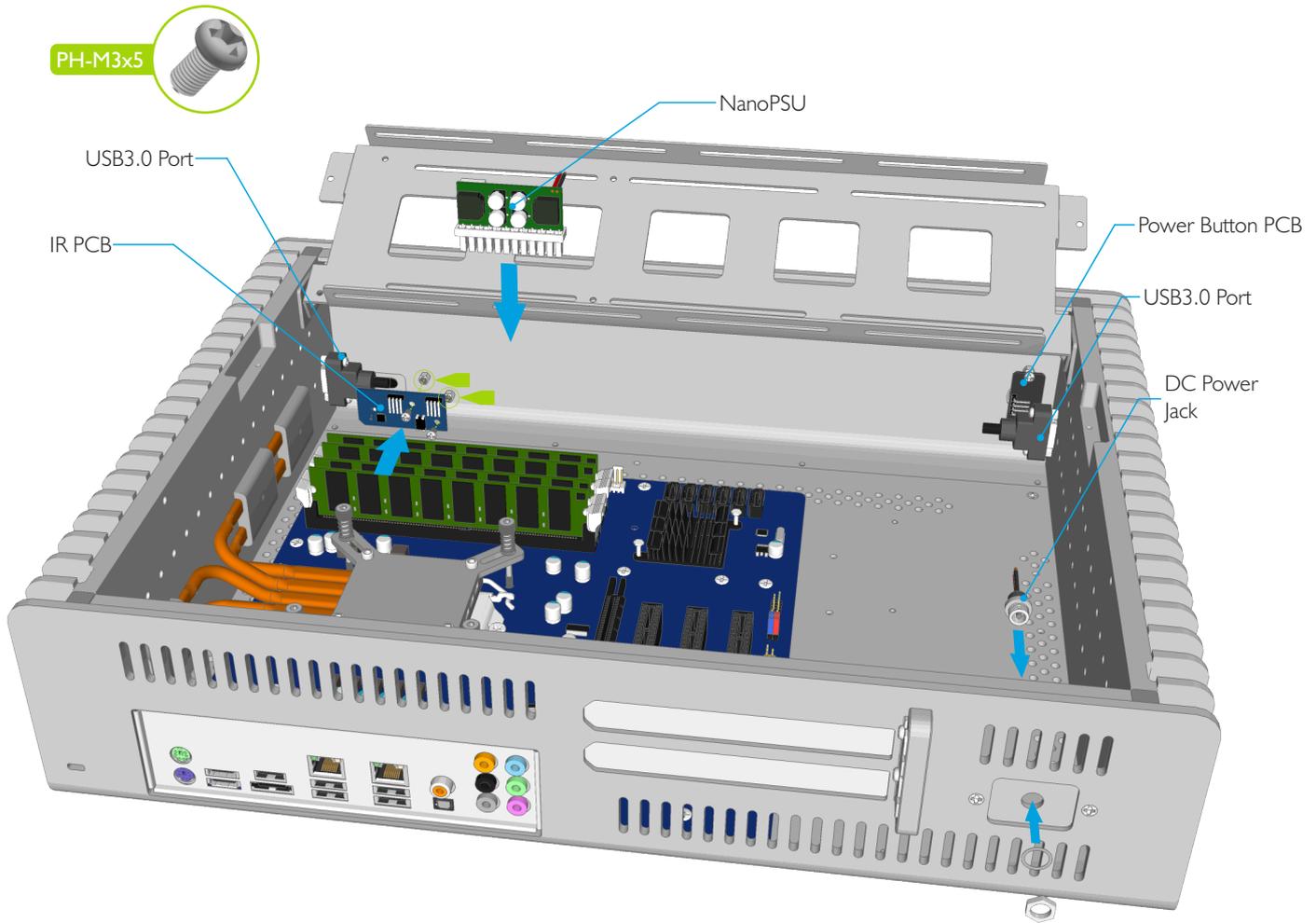
Motherboard pinout and cable colours shown are for illustrative purposes only, actual layout and markings will vary. Please check your motherboard user guide for full details and information.

When connecting the power LED, ensure correct polarity otherwise the light will not function.

If your motherboard does not have an internal USB3.0 header, it is still possible to connect to the USB2.0 header using a converter cable sold separately. Using this converter will make the front USB ports 2.0 compatible.

USB 3.0 Connector

USB 3.0

USB 3.0

Side USB Ports

+5V
DA -
DA+
GND
N/C

USB2.0

Optional Accessory for USB2.0

HDD+   LED+
HDD-   LED-
RESET   PSW
RESET   PSW
NC   NC

LED +
LED -
PSW
PSW

LED +
LED -
PSW
PSW

± LED
± PSW

Motherboard

Power Switch / Light PCB

Installing PCI Card (Optional)

The FC10 supports 2 full height expansion cards which can be used for 2 single cards or 1 double width card. The upper slot is limited to 190mm cards, but the lower slot will allow for 300mm cards. Note that a flexible riser is required to connect the cards and motherboard. To install a card, first remove the pre-installed PCI blanking plate by unscrewing it from the PCI mount.

PH-M3x5
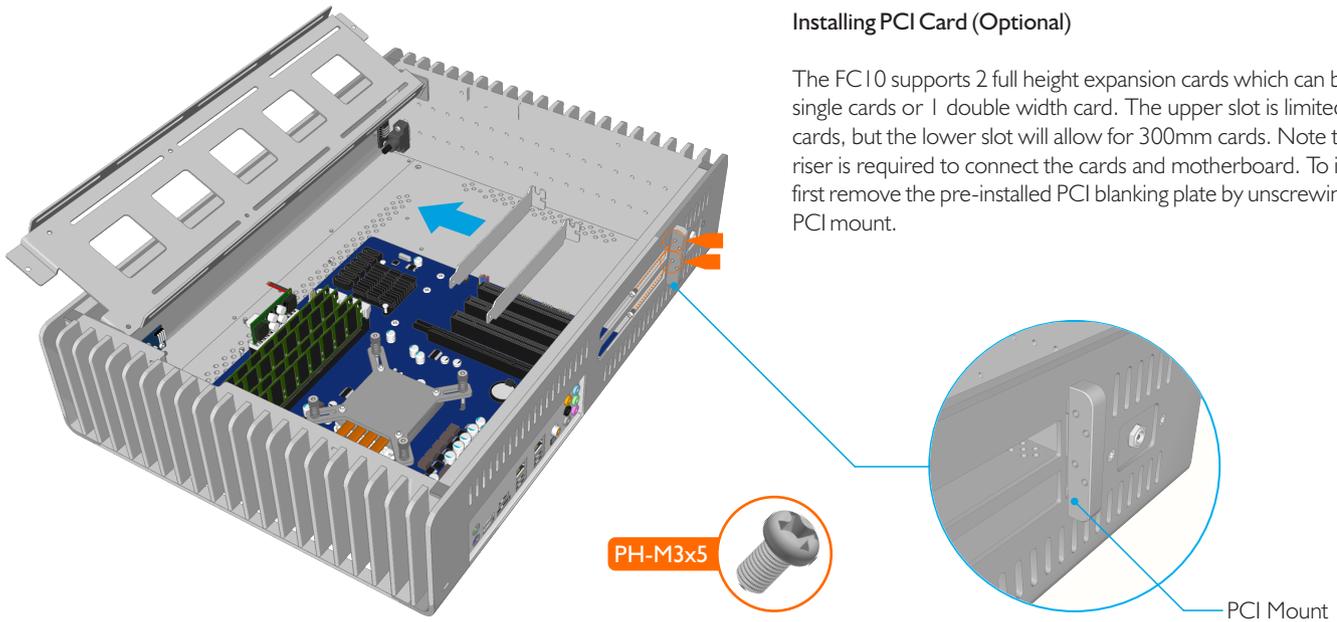
PCI Mount

Fit the expansion card to case by carefully aligning it with the opening and ensuring the lower side of the card bracket fits into the lower support. Once the cards are in place, secure them to the PCI mount using the screws provided.
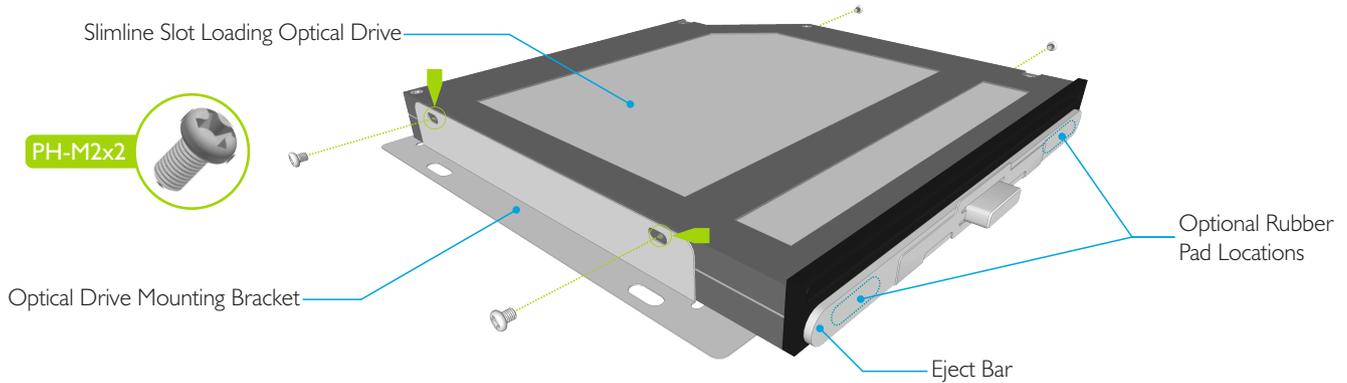
Note that if you face any difficulty in fitting the card, you can also remove the PCI mount to give a larger opening for the cards to fit. It is held in place by 2 screws accessible from the inside of the case.

PH-M3x5
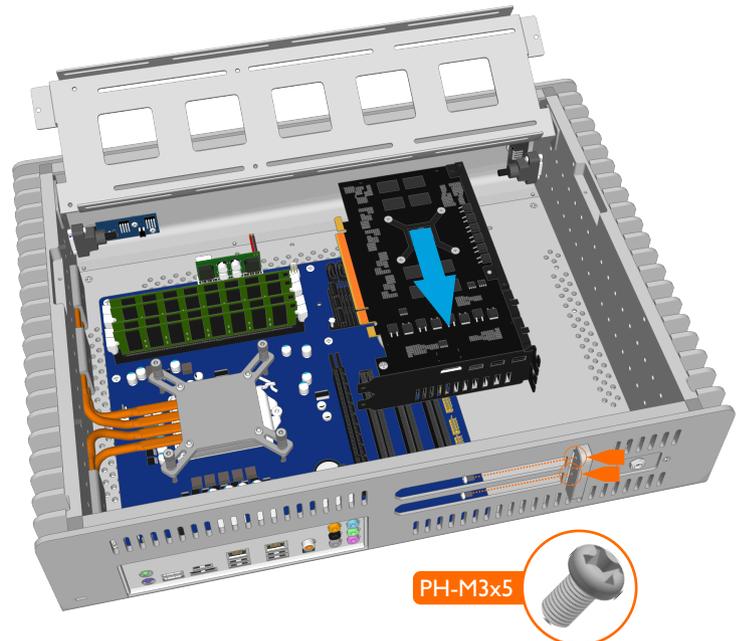
Optical Drive Preparation

The OPTICAL version of the FC10, includes a drive mounting bracket which must be fitted to the drive prior to installing it onto the drive tray.

Secure the optical drive to the drive bracket using the 4 x 2mm screws supplied. The drive should be pushed as far forward as possible without activating the eject button before tightening the screws. If the screws meet any resistance (from internal components of the optical drive), do NOT tighten that screw any further, it could damage the mechanism. Once secured to the bracket, test the eject button can function correctly. Depending on the eject button position and height, a rubber pad might need to be affixed between eject bar and drive eject button. The pads can either be applied directly to the drives eject button, or to the opposite side of the eject button, or both sides, whichever gives the best result.

Slimline Slot Loading Optical Drive

PH-M2x2

Optical Drive Mounting Bracket

Optional Rubber Pad Locations

Eject Bar

Bottom Panel Drive Options

If you are using a Micro-ATX or Mini-ITX motherboard, there is also room to fit hard drives to the bottom panel of the case. Drives are secured in place through the pre-drilled holes in the bottom panel in the locations show. Screws should be attached through the bottom of the case and into the drive. Optional rubber pads can be used to raise the drive off the bottom panel, reducing vibration and improving airflow.

These drive locations should be used as a secondary option and only if there is no more room on the drive tray. Fitting drives to the bottom panel can reduce airflow as bottom panel vents are blocked, and this should be taken into account if using high TDP components.

Note that these drive locations overlap, so you need to consider which combination of drives can be installed at the same time.

If using a full size ATX motherboard, drive position 'A' is the only one available on the bottom panel. Additionally, position 'A' will not be available if using the ZF240 PSU.

Rubber Pads

CS-M3x8

CS-6#32
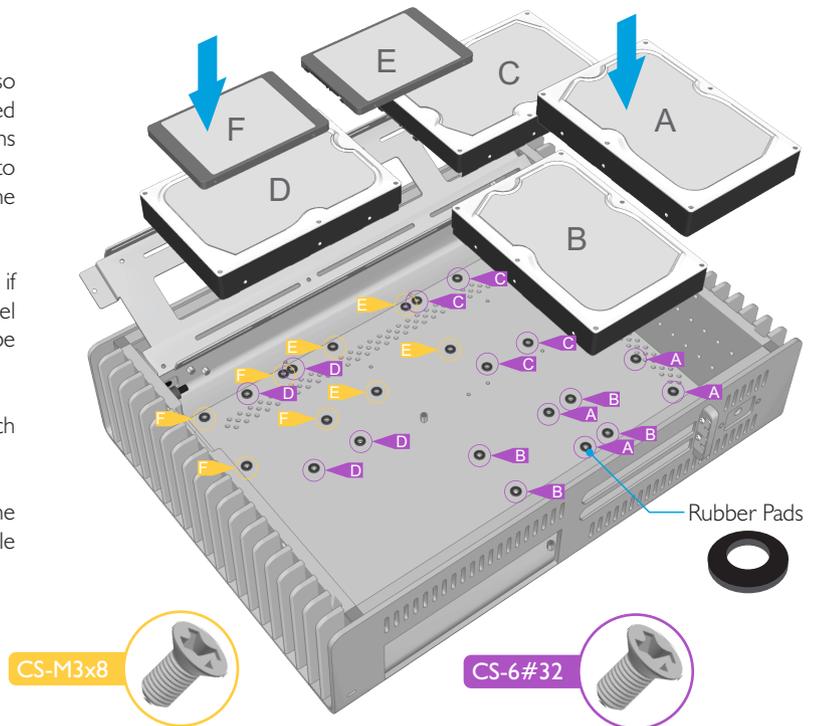
Fitting Drives to the Drive Tray

The upper side of the drive tray can accommodated a maximum of 4 x 2.5" hard drives (3 x 2.5" for the Optical Version) and also uses slots which allow the drives to mounted anywhere along the tray. The 2.5" drives are secured in place by 4 screws per drive, screwed from the bottom of the tray. These 2.5" should be fitted prior to installing the lower 3.5" drives.

The lower side of the drive tray can accommodate a maximum of 2 x 3.5" hard drives and also uses slots instead of fixed holes, to allow drives to be fitted anywhere along the tray and with different orientations. The drives are secured to the tray using thumbscrews which fit through the slots and into the side holes of the hard drives.

If you have the OPTICAL version of the FC10, secure the optical drive to the drive tray with the 4 screws as shown, but DO NOT fully tighten the screws. Only after you have closed the drive tray back into the case should these screws be tightened as you will need to adjust the position of the drive to line up with the front of the case.

2.5" Drive

Optical Drive Assembly

TC-M3x3

TS-6#32

TC-M3x4

3.5" Drive
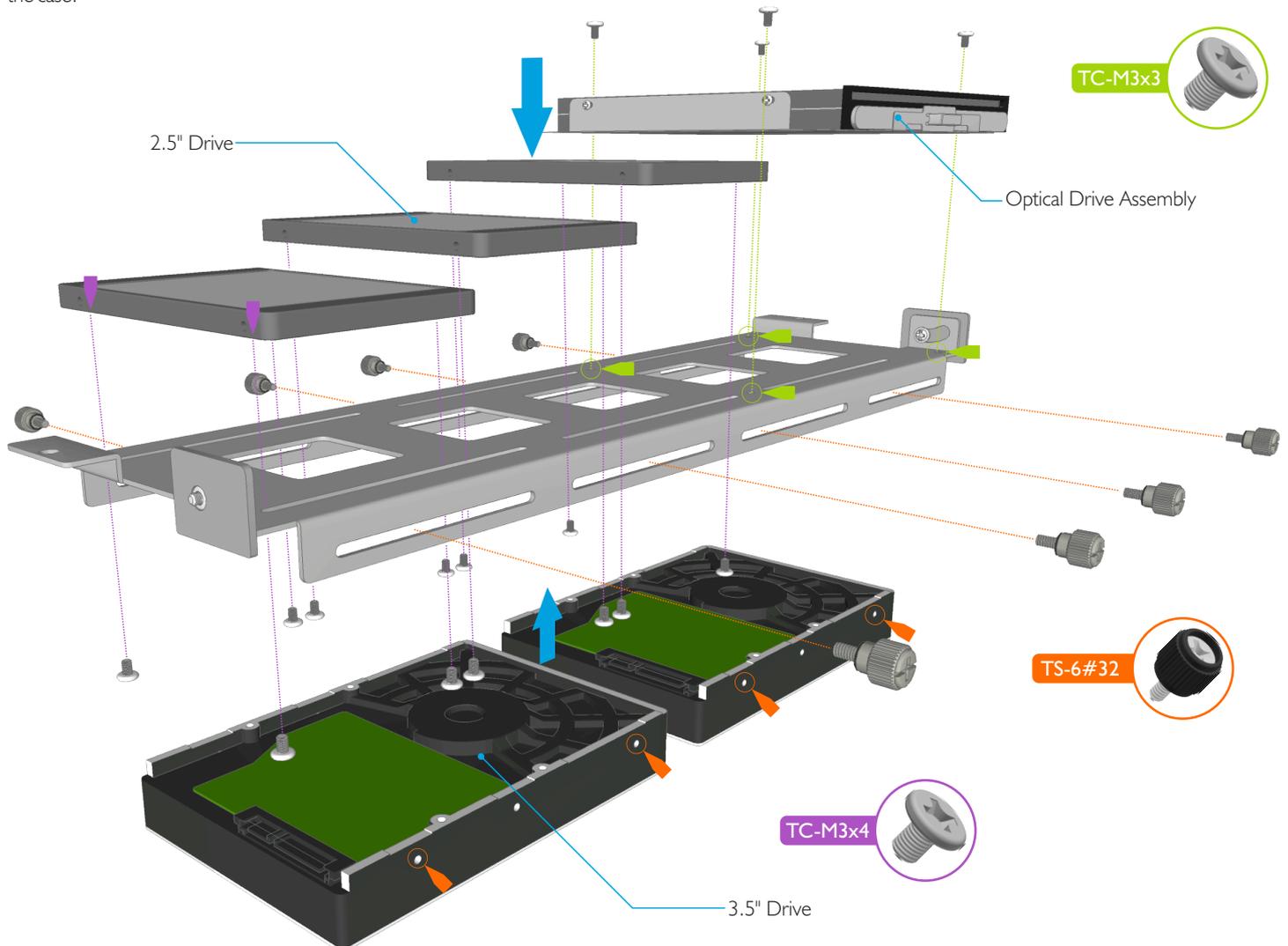
Close and Secure the Drive Tray

With all the drives now fitted to the tray, return it to the original position and secure it is place with a single screw each side of the tray.

CS-M3x5
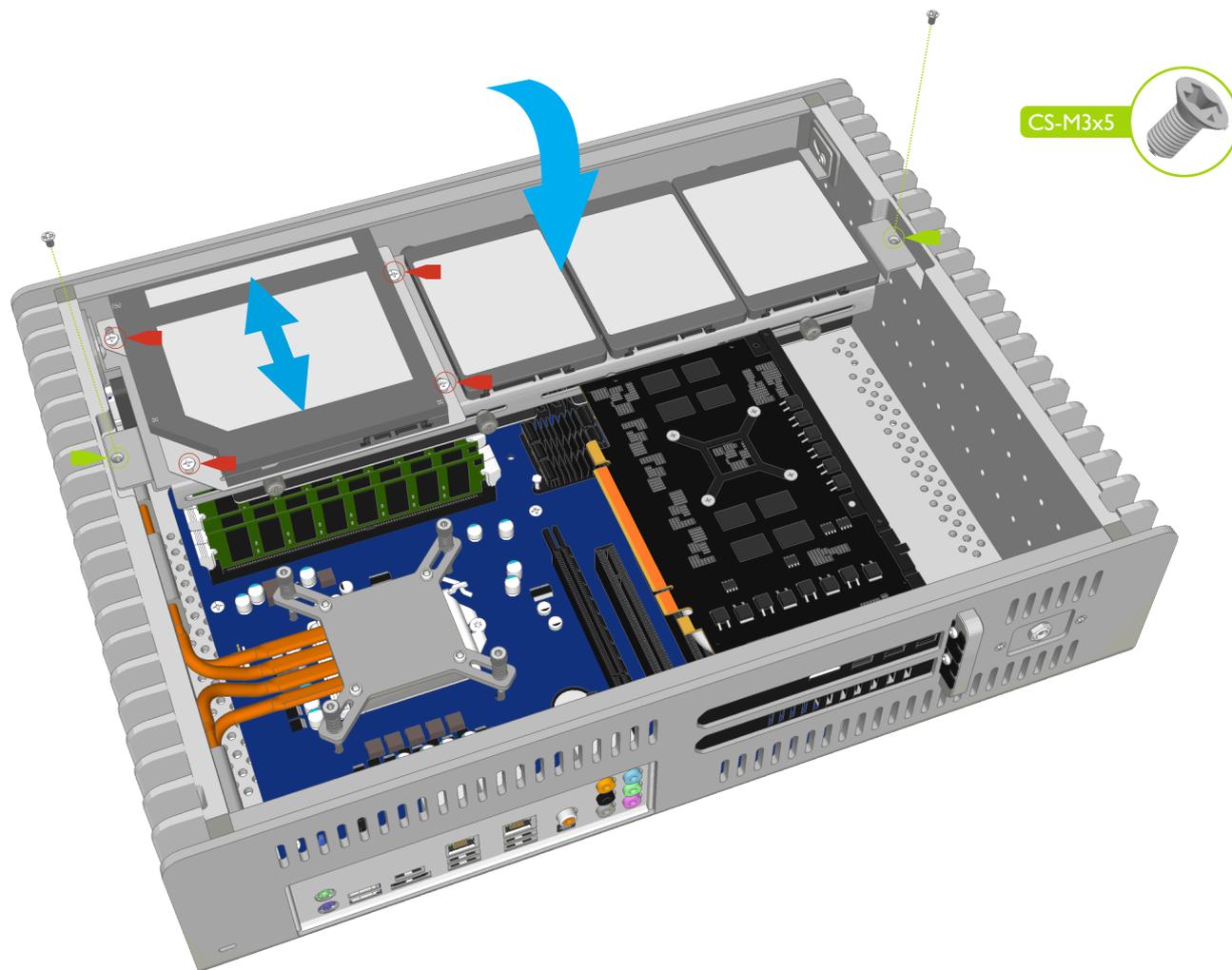
Adjusting the Optical Drive

Adjust the position of the optical drive so its aligned with the inside front of the case and the eject button protrudes about 1mm out from the front of the case.

Test that the button operates correctly by listening/feeling for the button 'click' when pressing the eject button.

Once the correct position has been found, tighten the 4 screws to secure the optical drive in place.

Replace the Top Panel

With all the components installed, the top panel can now be replaced. Prior to doing this, ensure that all cables are connected and all components are securely fitted. Secure the top panel it in place using 4 screws, 2 from either side of the case, between the heatsink fins.

PH-M3x8
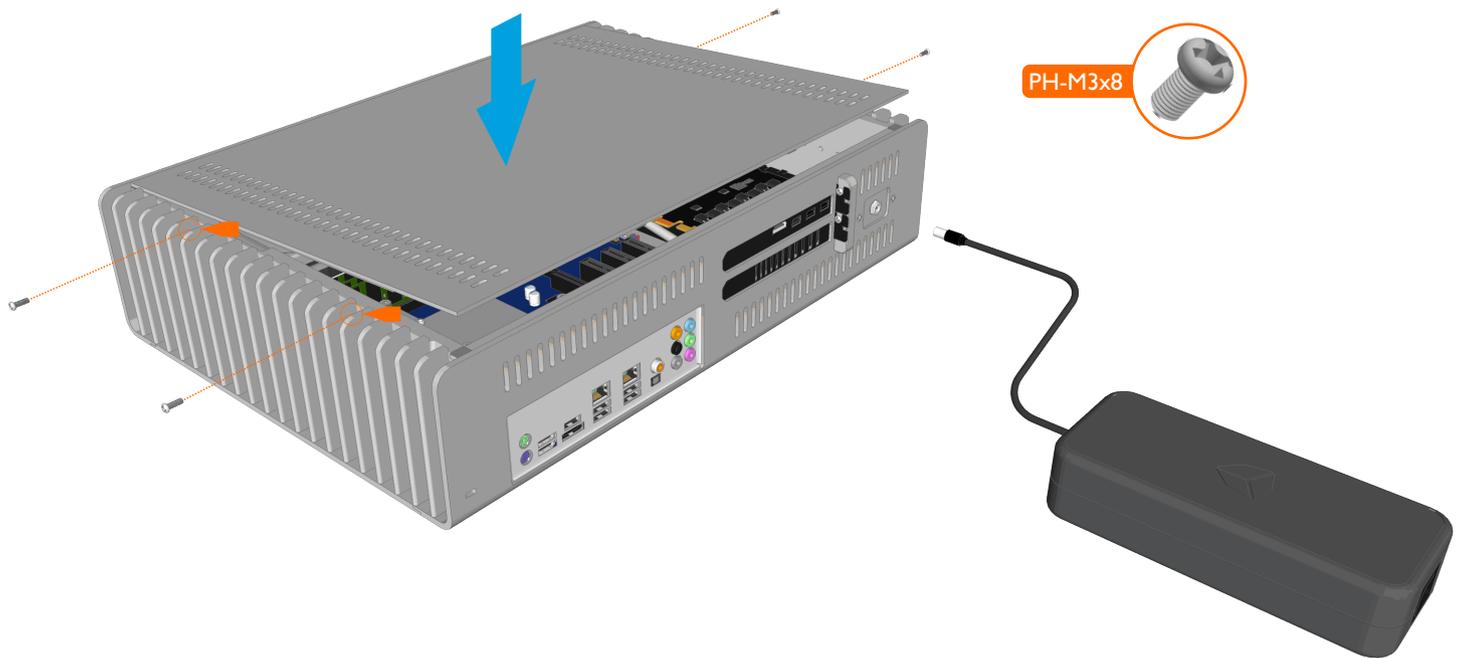
Connect Power & Other Cables

With the case now fully assembled, all that remains is to connect the power and other cables.

When choosing a suitable place to position your case, please consider an area with adequate air flow and a moderate room temperature, out of direct sunlight.