ISK600M

User Manual

Congratulations on your purchase of the Antec ISK600M!

The ISK600M is a compact and robust Micro-ATX case. The frame measures 29cm in height, 27.5cm in width, and 34cm in depth. The chassis is made of 0.8mm cold-rolled steel and features an elegant brushed aluminum front panel. The enclosure has space for graphics cards up to 12.5" length (a total of four expansion slots), a CPU cooler with a maximum height of 17.4cm, and six drive bays (3 x 3.5"bays, 3+1 x 2.5" bays and one bay for a slim optical drive). A total of four fan mounts (Front: 2 x 120mm or 1 x 140mm; Rear: 1 x 120mm and 1 x 80mm) ensure sufficient cooling. The ISK600M could serve as a conventional PC, gaming rig, or home theatre device and media center, but is also well-suited for professional users and system providers looking for a small-format solution.

At Antec, we continually refine and improve our products to ensure the highest quality. As such, your new chassis may differ slightly from the description in this manual due to improvements applied for the optimal building experience. As of November 15, 2014, all features, descriptions, and illustrations in this manual are correct.

Disclaimer

This manual is intended only as a guide for Antec's computer enclosures. For more comprehensive instructions on installing the motherboard and peripherals, please refer to the manuals that come with those components.

Table of Contents

Section 1: Introduction

Section 2: Hardware Installation

Section 3: Front I/O Ports

Section 4: Cooling System

Section 1
Introduction

1.1　　　Getting to Know Your Chassis

1. Slim optical drive bay
2. 3+1 x 2.5" HDD bays
3. 3 x 3.5" HDD bays
4. 1 x 120mm rear exhaust fan
5. 1 x 80mm rear exhaust fan(optional)
6. 1 x 140mm front intake fan
7. 2 x 120mm front intake fan(optional)
8. Front Ports: 1 x USB 3.0, 1 x USB 2.0, Audio I/O
9. 4 expansion slots
10. Motherboard Mount: Micro ATX; Mini-ITX

1.2   Chassis Specifications

Case Type		Micro-ATX
Front bezel Material		Aluminum + Plastic
Slim ODD bay		1
3.5 drive bay		3
2.5 drive bay		3+1
Expansion Slots		4
Compatible Motherboard		Micro ATX, Mini-ITX
Graphic card size		$\geqq$12.5" (320mm)
Maximum CPU cooler height		6.85" (174mm)
Compatible PSU		ATX standard (220 x 150 x 86mm)
PSU Mounting Slots		1
System Fan (front)	Rear	Front: 2 x 120mm or 1 x 140mm Rear: 1 x 120 mm and 1 x 80mm
Include Fan		1 x 140mm(Front) & 1 x 120mm(Rear)
I/O Ports		USB3.0 x 1 USB2.0 x 1
		Audio I/O (AC97)
Product Dimensions		290mm (H) x 272.6mm (W) x 340mm (D) 11.4"(H) x 10.7"(W) x 13.3"(D)

1.3　　Included Screws

An inventory of all screws and intended usage and quantity is provided here:

A. 2.5" HDD screw (16)
B. 3.5" HDD and motherboard screw (16)
C. CD-ROM screw (4)
D. Power supply screw(4)
E. Fan screw(4)
F. Standoff(3)

A

B

C

D

E

F

1.4 Before You Begin

In order to ensure that your building experience with the ISK600M will be a positive one, please take note of the following:

- While working inside your ISK600M, keep your chassis on a flat, stable surface. Make sure your build environment is clean, well-lit, and free of dust.

- Antec chassis feature rounded edges that minimize the occurrence of hand injuries. Nonetheless, exercise caution and control when handling chassis interiors. We strongly recommend taking the appropriate time and care when working inside the chassis. Avoid hurried or careless motions.

- Handle components and cards with care. Do not touch the unshielded components or contacts on a card. Hold a card by its edges. Hold a component such as a processor by its edges, never by its pins.

- To avoid electrostatic discharge, ground yourself periodically by touching an unpainted metal surface (such as a connector or screw on the back of this computer) or by using a wrist grounding strap.

- Before you connect a cable, ensure that both connectors are correctly aligned and oriented. Bent pins can be difficult to fix and may require replacement of the entire connector.

- This manual is not designed to cover CPU, RAM, or expansion card installation. Please consult your motherboard manual for specific mounting instructions and troubleshooting. Before proceeding, check the manual for your CPU cooler to find out if there are steps you must take before installing the motherboard.

- Do not sit on your chassis. Although it is constructed of heavy-duty steel and internally reinforced, it is not designed to support the weight of an adult, and may buckle.

- Remember to use the right tools for each task. Do not use improvised screwdrivers like coins, nails or knife blades as they may result in damage to screw threads or even injury. Do not use your fingernails to separate edges or lift the sides of the chassis, as paint chipping or injury may occur.

Section 2
Hardware Installation

2.1   Setting Up

Put the case upright on a flat, stable surface so that the rear panel (power supply and expansion slots) is facing you.
Remove the screw from the rear of the case and remove the top panel by sliding it towards the rear of the case. Set the top panel aside in a safe place.

Note: Place the top panel thumbscrews aside carefully and remember where they are.

The screw holes of the top panel

CAUTION: Do not use your fingernails to pry or lift the panels. Damage to the panels or injury to your fingernails may result.

2.2   Motherboard Installation

Before proceeding:

Check the manual for your CPU cooler to find out if there are steps you must do before installing the motherboard.

Make sure you have the correct I/O panel for your motherboard. If the panel provided with the chassis isn't suitable, please contact your motherboard manufacturer for the correct I/O panel.

Make sure you have the correct I/O panel.

10

The ISK600M comes with four preinstalled motherboard standoffs. These are positioned for Mini-ITX motherboards.

1. Align the motherboard with the standoff holes on the motherboard tray and remember or mark which holes are lined up
2. Install standoffs as needed and put the motherboard in.

Install the motherboard standoffs by aligning the motherboard with the standoff holes.

> **CAUTION**
> Make sure to remove any unused motherboard standoffs. They may come into contact with the back of the motherboard and may short circuit and/ or electrify your chassis exterior if left connected.

3. Screw your motherboard into the standoffs with the provided motherboard mounting screws.(B in section 1.3)

Use the provided motherboard mounting screws to secure your motherboard into the standoffs.

2.3   Installing KUHLER H$_2$O Liquid Coolers

The following instructs how to install the Antec KUHLER H$_2$O liquid CPU cooler. For any other CPU coolers, please consult your manufacturer's installation guide.

Caution:
Check your motherboard's CPU socket to ensure its compatibility with the KUHLER H$_2$O. The KUHLER H$_2$O 950 is compatible with the following CPU sockets:

Intel® LGA 1155 / 1156 / 1366 / 2011*
AMD® AM2 / AM3 / AM2+ / AM3+ / FM1

*Your unit may not contain the LGA 2011 mounting bracket. To acquire this, please contact Antec customer support (information listed at end of manual).

**Be sure to install the KUHLER H$_2$O with the end of the tubes positioned at the bottom of the radiator.

1. Remove the rear fan by first disconnecting the power connector from the fan power hub directly above the fan.

2. Remove the screws on the back of the chassis while supporting the fan with your other hand.

3. Preparing the KUHLER H$_2$O backplate which is specific to your CPU socket. Please refer to the KUHLER H$_2$O installation guide, available at http://www.antec.com/Believe_it/product.php?id=NzA2NTM0 (KUHLER H$_2$O 950)

4. Prepare the retention ring according to the CPU socket you're using.

5. Complete installation according to the KUHLER H$_2$O instructions.

2.4   Power Supply Installation

1. Place the front side of the case on your left-hand side, you will find a small rectangle as illustrated in the red color in the image A. Place the power supply from this red rectangle.
2. Align the power supply to the mounting holes, (in the rear) illustrated in the yellow circles in the image B.
3. Attach the power supply to the case with the screws provided.(D in section 1.3)
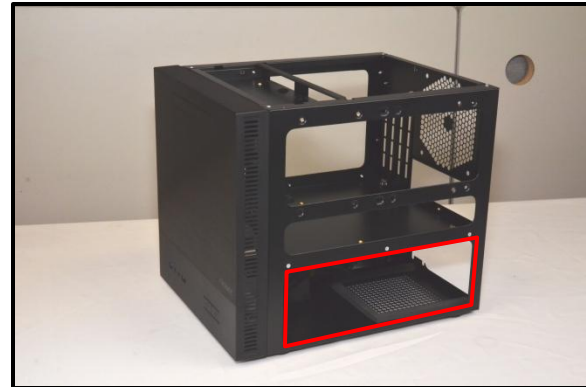
(A)   *Place the power supply on the right side of the case.*
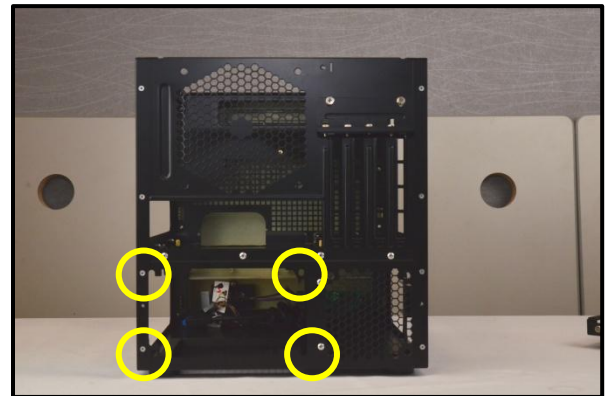
(B)   *Attach the power supply with the provided screws.*

2.5   Internal 3.5" / 2.5" Device and Slim Optical Driver Device Installation

The ISK600M can contain maximum three 3.5" devices, three plus one 2.5" devices and a slim optical drive device in total. There is a special designed tray for containing two 2.5" devices and a slim optical drive device, while the rest of the devices are installed in the bottom of the case.

To install 3.5" drives and 2.5" drive on the bottom of the case:

Facing the front side, place the left side of the case in front of you, and then align your 3.5" drive to the mounting hole, illustrated in the yellow circle in the image A.

You can install maximum three 3.5" drives at ISK600M. The second and the third drive can align to the blue and green mounting holes on the image A.

A 2.5" drive can also be installed in the bottom of the case. Align your 2.5" drive to the mounting hole, which showed in the red circles on the image A.

(A)

Attach the 3.5" device with the provided screws

NOTE:
1. We recommend using your hand to find the exact threading of the drive's holes then using a screwdriver to completely secure your drive.
2. You can also choose to install your 2.5" drives on the 2.5" HDD tray, instead of installing it in the bottom of the case. On how to install it on the tray, please check the next page.
3. In the bottom part, you can choose to install three 3.5" drives and a 2.5" drive, or to install two 3.5" drives and two 2.5" drives. If you are going to install two 2.5" drives, please replace the room where second 3.5" drive installed, and lock the other 2.5" drives to the mounting hole.

14

To install two 2.5" devices and slim optical driver device:

1. Reverse one of your 2.5" devices and the 2.5" HDD tray.
2. Lock screws to the holes of the tray with your 2.5" device.
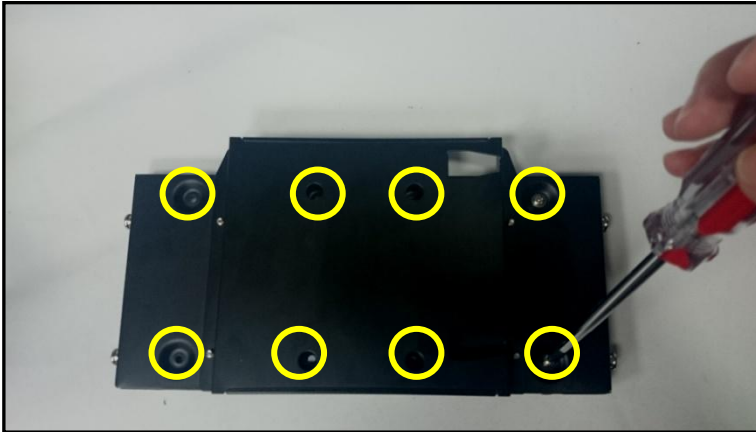
2 x 2.5" devices with 8 holes

3. Once you make sure all your 2.5" devices are secure to the tray, reverse your slim optical driver device and place it into the tray so that the hole line up with mounting holes.
4. Lock screws to the holes on the side of the tray with your slim optical driver device.
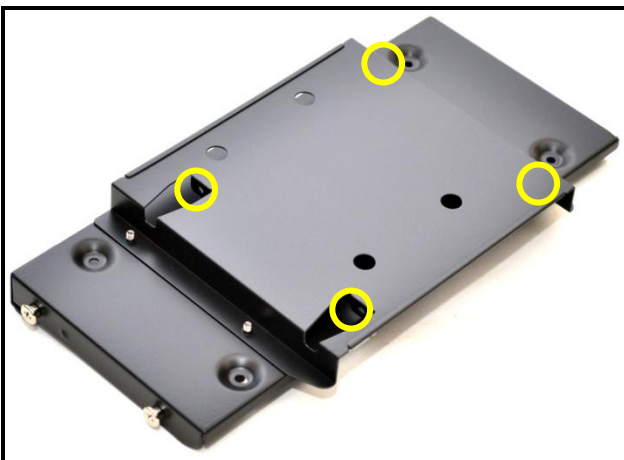
Slim ODD with 4 holes on the side of the tray

Note: You should only choose four mounting holes in one side if you are going to install another 2.5" device.

1. Using the 2.5" drive screws (A in Section 1.3) to secure your 2.5" drive to the tray with a screwdriver.
2. Using the CD-ROM drive screws (C in Section 1.3) to secure your slim optical driver device to the tray with a screwdriver.
3. Place the tray into the mounting hole on the top of the case. , illustrated in the yellow circle in the image.
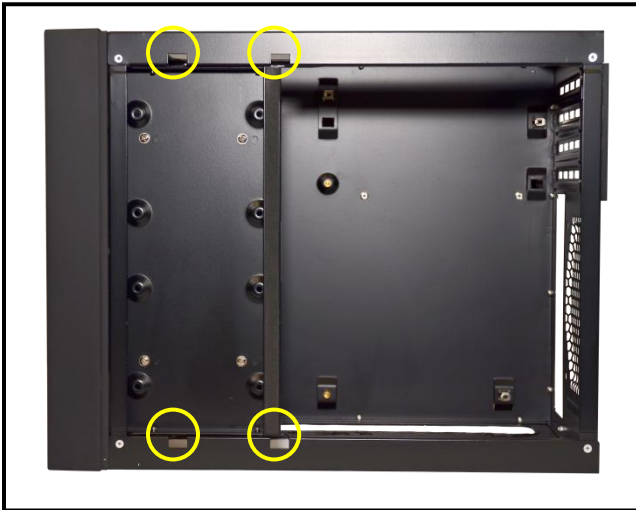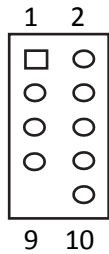
Section 3
Front I/O Ports

3.1　　USB 2.0

Connect the front I/O panel USB cable to the USB header pin on your motherboard. Check your motherboard user's manual to ensure that it matches the table below:


Pin	Signal Names	Pin	Signal Names
1	USBPower1	2	USBPower2
3	NegativeSignal1	4	NegativeSignal2
5	PositiveSignal1	6	PositiveSignal2
7	Ground1	8	Ground2
9	Key(No Connection)	10	Empty Pin

3.2　　USB 3.0

The ISK600M comes with one front panel USB 3.0 ports and includes an internal motherboard connector. To access USB 3.0 capability from the front panel:

1. Identify the USB 3.0 header on your motherboard.
2. Connect the USB 3.0 header to the motherboard port. Be sure to align the connector in the proper orientation so that you do not damage the pins on your motherboard.
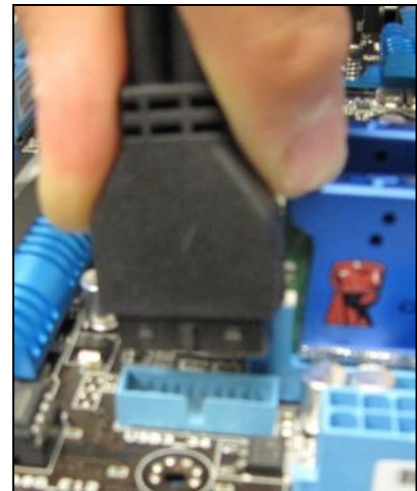
Align the connector properly to prevent damage to your motherboard.

3.3   AC'97 / HD Audio Ports

There is an Intel® standard 10-pin AC'97 connector and an Intel® 10-pin HDA (High Definition Audio) connector linked to the front panel of the chassis.
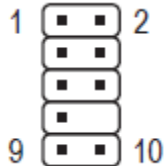
Pin	Signal Names (HDA)	Pin	Signal Names (AC'97)
1	MIC2L	1	MIC In
2	AGND	2	GND
3	MIC2R	3	MIC Power
4	AVCC	4	NC
5	FRO-R	5	Line Out(R)
6	MIC2_JD	6	Line Out(R)
7	F_IO_SEN	7	NC
8	Key (no pin)	8	Key (no pin)
9	FRO-L	9	Line Out(L)
10	LINE2_JD	10	Line Out(L)

You can connect either the AC'97 or the HDA connector, depending on your motherboard. Locate the internal audio connectors from your motherboard or sound card and connect the corresponding audio cable. Consult your motherboard or sound card manual for the pin-out positions. Even if your system supports both standards, only use one connector.

3.4   Power Switch / Reset Switch / Hard Disk Drive LED Connectors

Connected to your front panel are LED leads for power and HDD activity, as well as switch leads for the power and reset buttons. Attach these to the corresponding connectors on your motherboard. Consult your motherboard manual for specific pin header locations. For LEDs, colored wires are positive (+). White or black wires are negative (–). If the LED does not light up when the system is powered on, try reversing the connection. For more information on connecting LEDs to your motherboard, see your motherboard user's manual.
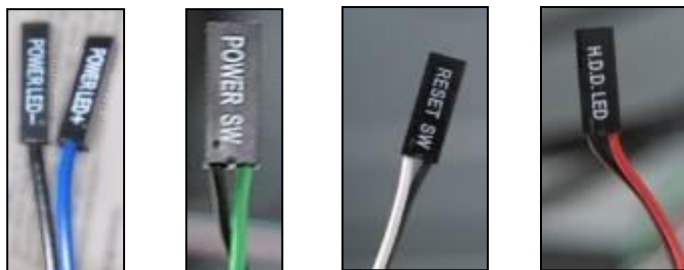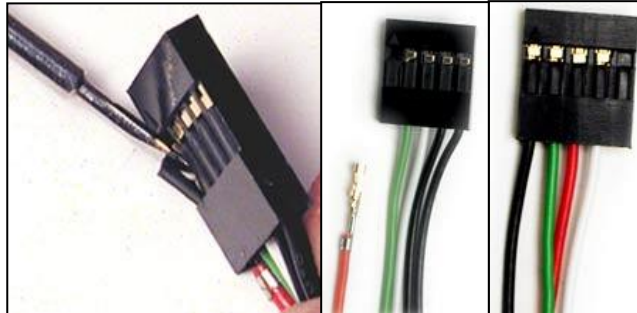
Front panel leads

Note: Polarity (positive and negative) does not matter for switches.

3.5   Rewiring Motherboard Header Connections

There may come a time when you need to reconfigure the pin-out of a motherboard header connector. Examples could be for your USB header, audio input header, or some other front panel connector such as the Power Button connector.

Before performing any work, please refer to your motherboard user's manual or your motherboard manufacturer's website to confirm the pin-out needed for your connector. We strongly recommend making a notated drawing before beginning work so that you can recover if your work gets disturbed.

Front panel headers

Determine which wires you need to remove in order to rewire your plug to match the USB pin-outs on your motherboard (refer to your motherboard user's manual). Working on one connector at a time, use a very small flathead screwdriver or similar tool to lift up on the black tab located beside the gold posts (squares). This will allow you to easily slide out the pins from the USB plug.

Working carefully so as not to damage the wires, connectors, or pins, slowly remove the pin from the connector. Repeat these steps for each wire you need to change.

Working carefully so as not to damage the wires, connectors or pins, slowly insert the pin into the correct slot of the connector then snap closed the black tab that was lifted in step 1. Repeat these steps for each wire you need to change.

Section 4
Cooling System

4.1   Included Fans

The ISK600M comes with a standard rear 120 mm TwoCool™ fan and a front 140mm TwoCool™ fan. Both have two-speed switches on the rear of the case that let you choose the speed best suited to your need. The default fan speed setting is Low.

120 mm TwoCool™ fan specifications:

Size	120 x 120 x 25 mm two-speed fan
Rated Voltage	12V DC
Operating Voltage:	12V±10%

Speed	Input Current	Airflow	Static Pressure	Noise	Input Power
High 1200RPM ±10%	0.20A	1.208 m³ / min (42.64CFM)	0.96 mm-H_2O (0.037 inch-H_2O)	23.65 dBA	2.4W
Low 600RPM ±10%	0.10A	0.604 m³ / min (21.32CFM)	0.24 mm-H_2O (0.009 inch-H_2O)	17.00 dBA	1.2W

140 mm TwoCool™ fan specifications:

Size	140 x 140 x 25.4 mm two-speed fan
Rated Voltage	12V DC
Operating Voltage:	12V±10%

Speed	Input Current	Airflow	Static Pressure	Noise	Input Power
High 1200RPM ±10%	0.24A	1.926 m³ / min (68.00CFM)	1.00 mm-H_2O (0.037 inch-H_2O)	27.80 dBA	2.88W
Low 800RPM ±10%	0.12A	1.284 m³ / min (45.33CFM)	0.444 mm-H_2O (0.017 inch-H_2O)	19.00 dBA	2.88W

4.2   Fan Switch Controller

The ISK600M has 2-way speed switches that let you choose speed best suited to your need.

120mm fan
Low mode: 600 R.P.M
High mode: 1200 R.P.M

140mm fan
Low mode: 800 R.P.M
High mode: 1200 R.P.M

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