

Silence is
beautiful



SONATA II

User's Manual
Manuel de l'utilisateur
Anwenderhandbuch
Manuale per l'operatore
Manual del usuario

At Antec, we continually refine and improve our products to ensure the highest quality. So it's possible that your new case may differ slightly from the descriptions in this manual. This isn't a problem; it's simply an improvement. As of the date of publication, 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 your motherboard and peripherals, please refer to the user's manuals which come with your components and drives.

SONATA II USER'S MANUAL

This case is designed to meet Intel's Thermally Advantaged Chassis (TAC) design guide requirements. It comes with a unique Antec Chassis Air Guide (ACAG) to help cool high performance CPUs.

It comes with an Antec SmartPower 2.0 series power supply with the newest ATX12V version 2.0 specifications. This includes dual 12V output circuitry that delivers safer and more reliable output to your system's components, as well as higher energy efficiency, which reduces power consumption by up to 25% saving you money on your electricity bill. In addition we've included a variety of industrial-grade protective circuitry: OCP (over current protection), OPP (over power protection), OVP (over voltage protection), UVP (under voltage protection), and SCP (short circuit protection).

THE PUSH-PULL FAN QUIET POWER SUPPLY

SmartPower 2.0 features an innovative design to help decrease noise during normal use, but which still allows for superior cooling capabilities as load increases. To this end SmartPower 2.0 features both an internal intake fan as well as a unique external exhaust fan. The internal intake fan operates when the power supply is turned on. It rotates slowly to blow out the hot air from the power supply, and is thermally controlled, speeding up as heat increases. The external exhaust fan remains off to make sure your computer maintains a quiet computing environment until the power supply senses the required temperature to turn on the external exhaust fan.

This power supply is backwards compatible with previous ATX form factor power supplies. To make sure you connect your power supply properly, please refer to the user manuals supplied with your motherboard and peripherals before connecting any of them to the power supply.

The power supply comes with a main power switch. Make sure you turn the switch to the ON (I) position before you boot up your computer for the first time.

Applies only to models designed for sale in the European Union:

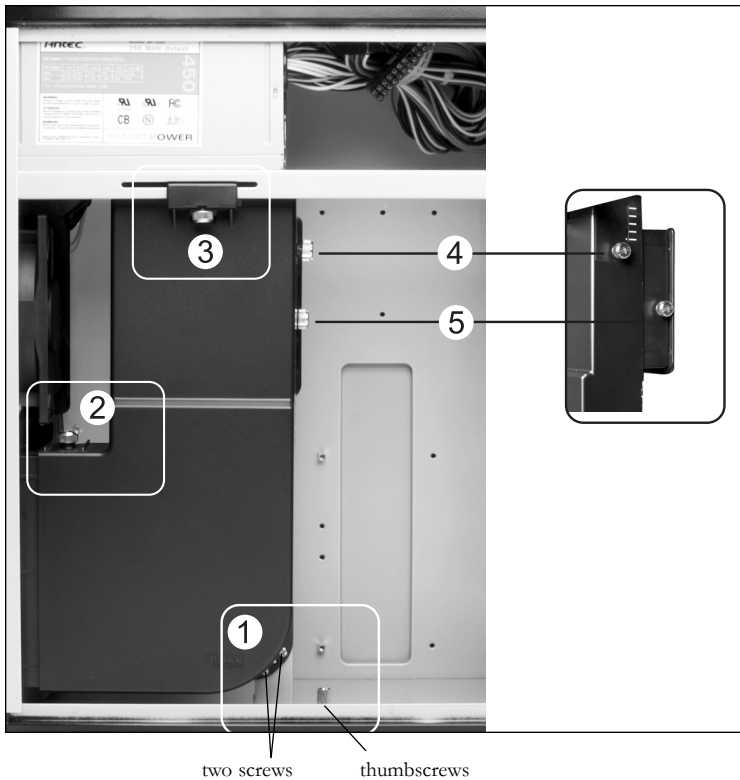
SmartPower 2.0 series power supply models designed for the EU includes Power Factor Correction (PFC) circuitry in accordance with European standard regulation code EN61000-3-2. By altering the input current wave shape, PFC improves the power factor of the power supply. This results in increased energy efficiency, reduced heat loss, prolonged life for power distribution and consumption equipment, and improved output voltage stability.

SETTING UP

1. Place the case upright on a flat, stable surface. The power supply fan should be at the back, facing you.
2. **Note** (not applicable to models designed for the European Union): Before installation, check

the red voltage switch setting on the power supply. It should match your local voltage (115V for North America, Japan, etc. and 230V for Europe and many other countries). If it doesn't match, please change the setting. If you don't, you could damage your equipment and void your warranty.

3. Remove the thumbscrews from the panel with the latch. Unlock the side panel, swing the panel out, and remove it. Set the panel safely aside. **Note:** Please don't try to use your fingernails to pry or lift the panel.
4. Inside the case you should see the power supply, the 120mm TriCool fan preinstalled, the Antec Chassis Air Guide (ACAG), some wiring with marked connectors (USB, PWR etc.), and installed I/O panel, a power cord. You will also find a bag of hardware (screws, brass standoffs, plastic stands, etc.)
5. Lay the case down with the open side facing up. You need to remove the Antec Chassis Air Guide (ACAG) before your motherboard installation. To remove the ACAG:
 6. Remove the two screws and loosen the thumbscrew found at the bottom of the ACAG. (picture 1)
 7. Loosen the thumbscrew near the 120mm fan grill, that is holding the ACAG to the chassis. (picture 2).
 8. Loosen the thumbscrew at the top of the ACAG under the power supply. (picture 3)
 9. With both your hands holding the ACAG, slowly slide the ACAG toward the front of the case until it stops.
 10. Raise the top of the ACAG and slide the ACAG out from its position. You will see a Tube remaining in the chassis. You can leave the tube in the case.
 11. If you want to remove the tube, slide the tube towards the top of the case. Pull the tube away and put the tube aside.



INSTALLING THE MOTHERBOARD

This manual does not cover CPU, RAM, or expansion card installation. Please consult your motherboard manual for specific mounting instructions and troubleshooting.

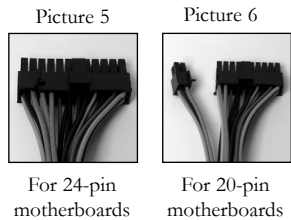
1. Lay the case down, with the open side facing up. The drive cages and power supply should be visible.
2. Make sure you have the correct I/O panel for your motherboard. If the panel provided with the case isn't suitable, please contact your motherboard manufacturer for the correct I/O panel.
3. Line up your motherboard with the standoff holes, and remember which holes are lined up. Not all motherboards will match with all the provided holes; this is normal, and won't affect functionally. (In other words, there will likely be extra holes.)
4. Remove your motherboard by lifting it up.
5. Screw the brass standoffs into the threaded holes that line up with your motherboard. Do not overtighten the standoffs. Some standoffs may be pre-installed for your convenience.
6. Place your motherboard on the brass standoffs.
7. Screw in your motherboard to the standoffs with the provided Philips-head screws. Your motherboard is now installed.

CONNECTING THE POWER AND LED

The power supply conforms to the latest ATX12V Version 2.0 standard. It is also backwards-compatible with previous ATX form factor power supplies. Before you connect the power supply to any of your devices, please consult the appropriate user manuals for your motherboard and other peripherals.

The power supply is also equipped with a 3-pin fan signal connector. Connect it to one of the fan connectors on your motherboard. You may monitor the speed of the rear power supply fan through your motherboard BIOS or through the monitoring software that's supplied with your motherboard. **Note:** At low temperatures, the fan may run as slow as 950RPM. At these speeds, some motherboards may not properly detect the fan speed and may generate false warnings of fan failure. To ensure proper monitoring of the fan, please check your motherboard manual.

1. Connect the 24-pin Main Power Connector and the 4-pin +12V connector to your motherboard as needed. If your motherboard uses a 20-pin connector, detach the 4-pin attachment on the 24-pin power connector (see pictures 5 and 6).
2. Connect the Reset switch (labeled RESET SW) to your motherboard at the RST connector. Make sure the label always faces the front of the case.
3. Power LED (labeled POWER LED) connector is located behind the Reset connector.
4. Power Switch (labeled POWER SW) connects to the PWR connector on the motherboard.
5. Speaker (labeled SPEAKER) connector is behind the PWR connector.
6. Hard Drive LED (labeled H.D.D. LED) connects to the IDE connector.
7. LED I, LED II connectors: This case comes with two extra LEDs, marked LED I, LED II. You may use these LED for various purchases such as SCSI LED, Message LED, etc.



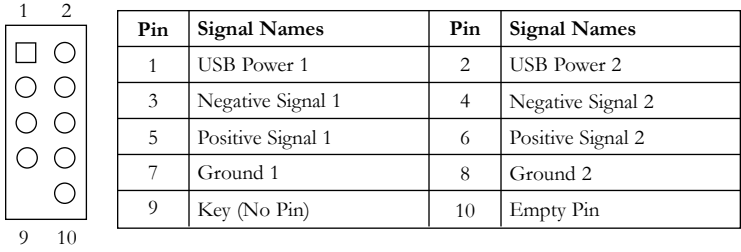
CONNECTING THE USB PORTS

You will find a single 10-pin connector on a cable attached to the front USB ports. This is an Intel standard connector, which is keyed so that it can't be accidentally reversed as long as it is connected to a proper Intel standard motherboard header. Connect the 10-pin connector to your motherboard

headers so that the blocked pin fits over the missing header pin.

Note: Please check your motherboard manual for your USB header pin layout and make sure it matches the attached table. If it does not match this Intel standard, please call Antec customer support at (800) 22ANTEC (North America) or at +31 (0) 10 462-2060 (Europe) to buy a USB adapter. This adapter will allow you to connect the front USB to your motherboard on a pin-by-pin basis.

Intel Standard USB Header Pin Layout

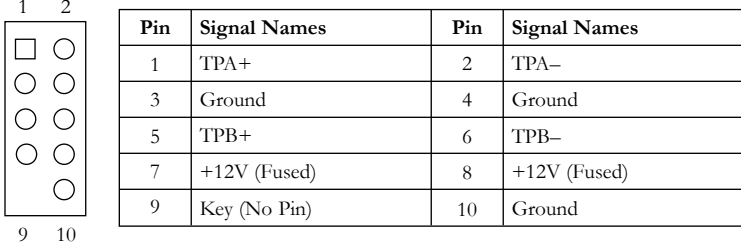


CONNECTING THE IEEE 1394 (FIREWIRE®, I.LINK®) PORT

You will find a single 10-pin connector on a cable attached to the front IEEE 1394 connection. This is an Intel standard connector, which is keyed so that it can't be accidentally reversed as long as it is connected to a proper Intel standard motherboard header. Connect the 10-pin connector to your motherboard header so that the blocked pin fits over the missing header pin.

Note: Please check your motherboard manual for your IEEE 1394 header pin layout and make sure it matches the attached table. If you intend to connect the front FireWire port to an IEEE 1394 add-on card that comes with an external-type IEEE1394 connector, please call Antec customer service at (800) 22ANTEC (North America) or +31 (0) 10 462-2060 (Europe) to purchase an adapter. This adapter will allow you to connect the front IEEE 1394 port to the external-type connector.

Standard Pin Assignment for IEEE 1394 Connector



CONNECTING THE AUDIO PORTS

There is an Intel standard 10-pin connector (with 7 individual wires with connectors) coming out from the front panel speaker and microphone connection. If your motherboard supports Intel's standard onboard audio connector, you can plug in the 10-pin connector directly onto the board. For non-Intel standard audio connection, you need to plug the 7 individual connectors to the motherboard. See instruction below:

Locate the internal audio connectors from your motherboard or sound card. Consult your motherboard or sound card manual for the pin-out positions.

1. Microphone Signal Pin: Connect the MIC connector to this pin.

2. Microphone Power: Connect the MIC-BIAS connector to this pin.
3. Ground Pin: Connect the AUD GND connector to this pin.
4. Front Right Speaker Out Pin: Connect the FPOUT-R connector to this pin.
5. Front Left Speaker Out Pin: Connect the FPOUT-L connector to this pin.
6. Rear Right Speaker Out Pin: Connect the RET-R connector to this pin.
7. Rear Left Speaker Out Pin: Connect RET-L connector to this pin.

INSTALLING 3.5" DEVICES

There are two external 3/5" drive bays right under the 5.25" drive bays. Press the two metal tabs on the sides of the 3.5" drive tray and pull the 3.5" drive tray out of the case. You may wish to open the bezel door to facilitate this.

1. Remove the drive bay cover from the drive bay that you intend to install the drive.
2. Mount your floppy drive or other external device into the drive bay. Repeat the same procedure for the other drive as necessary.
3. Slide and lock the drive tray back into the case.
4. Find a small 4-pin power connector on the power supply and connect it to the male 4-pin connector on the device.

There are 4 internal drive bays right under the external 3.5" drive bays for hard drives. Each comes with an individual drive tray which mounts through the open side panel of the case.

1. Squeeze the metal clips on each side of the tray and slide the tray out.
2. Mount your hard drive or other internal 3.5" device into the drive tray through the bottom rubber grommets with the special screws provided. **Note:** Don't over-tighten. Over-tightening the screws will harm the vibration and noise reducing ability of the rubber grommets.
3. Slide and lock the tray back into the case.
4. Find a peripheral power molex connector on the power supply and connect it to the male 4-pin connector on the device.
5. Repeat the same procedure for the other devices as necessary.

Note: You can mount the drives with either the connectors facing you or away from you. If you mount them with the connectors facing away from you (into the case) you may wish to connect the data cables before sliding the drive into the locked position.

Note: Mounting the drives with the connectors facing you (towards the open side of the case) may make squeezing the release clips more difficult.

5.25" DEVICE INSTALLATION

There are three 5.25" drive bays. Each drive bay comes with a plastic cover with two drive rails attached behind the cover.

1. Remove the plastic drive bay cover and remove the drive rails from the cover. You may wish to open the bezel door to facilitate this.
2. Mount the drive rails onto the sides of the 5.25" device. Make sure the metal tabs are angled on the outside and facing towards the front of the device.
3. Slide the device into the drive bay until you hear a click.
4. Mount the other devices accordingly.
5. Connect a peripheral power connector from the power supply to the male connector on each of the devices.

COOLING SYSTEM

The Rear Exhaust TriCool fan

The Sonata II comes with one 120mm TriCool fan preinstalled with silicone grommets in the rear. **Note:** The default setting of the fan is Low. We recommend this speed to maximize the quiet computing experience.

This fan has a three-speed switch that lets you choose between quiet, performance, or maximum cooling. (See specifications below.) The fan is installed so that the air is blowing out of the case. Connect a large 4-pin connector from the power supply to the male 4-pin connector on the fan.

Note: The minimum voltage to start the fan is 5V. We recommend our users to set the fan speed to High if you choose to connect the fan to a fan control device or to the Fan-Only connector found on some Antec power supplies. A fan control device regulates the fan speed by varying the voltage to it. The voltage may start as low as 4.5 V to 5V. Connecting a TriCool set on Medium or Low to a fan-control device may result in the fan not being able to start. The already lowered voltage from the fan control device will be further reduced by the TriCool circuitry below 5V.

Specifications:

Size: 120 x 120 x 25.4 mm
Rated Voltage: DC 12V
Operating Voltage: 10.2V ~ 13.8V

| Speed | Input Current | Air Flow | Static Pressure | Acoustical Noise | Input Power |
|--------------------|-----------------|---------------------------------------|--|------------------|-------------|
| High 2000 RPM | 0.24A (Max.) | 2.24 m ³ /min. (79 CFM) | 2.54 mm-H ₂ O (0.10 inch-H ₂ O) | 30 dBA | 2.9 W |
| Medium 1600 RPM | 0.2A | 1.59m ³ /min. (56 CFM) | 1.53 mm-H ₂ O (0.06 inch-H ₂ O) | 28 dBA | 2.4 W |
| Low 1200 RPM | 0.13A | 1.1 m ³ /min. (39 CFM) | 0.92 mm-H ₂ O (0.04 inch-H ₂ O) | 25 dBA | 1.6 W |

The Front 120 mm Fan

This case comes with one optional 120mm fan mount in the front right behind the 3.5" internal drive bays. The front fan should be installed so that the air is blowing into the case from the front.

Note: We recommend NOT using the front fan for maximum quiet computing. If you choose to install a front fan, we recommend using Antec TriCool 120mm fan and set the speed to LOW.

The Advanced Chassis Air Guide (ACAG)

Note: We strongly recommend running the ACAG without any fans since adding fans means adding noise. The ACAG runs from the rear of the case to the CPU to provide fresh, cool air to the CPU without the help of any fans (passive cooling). It comes with two optional fan mounts - one 92mm mount for the CPU and one 80mm mount for your high performance VGA card (for active cooling).

CPU Cooling

You can adjust the 92mm CPU fan mount on the ACAG in three directions so it can be positioned right on top of your CPU cooler.

Installation/Adjustment of the ACAG

Note: Before installing the ACAG be sure that you have installed all of your expansion cards first.

1. If you removed the tube under setting up, insert the notches on the tube into the tabs on the case and slide the tube towards the bottom of the case to secure it.
2. Slide the ACAG on to the Tube.
3. Slide the ACAG so that the 92mm fan mount is on top of your CPU cooler.
Note: you can feel the ACAG click as it passes over notches. There are six positions you can select. This moves the ACAG from the rear to the front of the case or vice versa.
4. Fasten the thumbscrew and the screws. (picture 1, 2 and 3)
5. Loosen the thumbscrew as shown in the picture 4. This allows the 92mm fan hood to move from the top to the bottom of the case or vice versa. Slide the 92mm fan hood to the desired position. Make sure your CPU cooler is totally under the hood. **Note:** There are five positions that you can select. Make sure to align the white triangle with the white lines so that the thumbscrew can be fully screwed in.
6. Fasten the thumbscrew. You have finished the installation.
Note: the 92mm fan mount is also designed to be height adjustable to achieve better cooling. You may adjust the fan height within a 20mm range.

To lower the CPU fan hood:

7. With the ACAG in its position, use a ruler to carefully measure the distance between the top of your CPU cooler and the 92mm fan hood. Record the distance between the hood and the top of the CPU cooler.
8. Remove the ACAG from the case. **Note:** Leave the Tube in place.
9. Loosen the thumbscrew holding the 92mm fan mount to the ACAG as shown in the picture 5 and lower the mount to the desired position according to the measurement. With a ruler next to the hood, adjust the hood downwards to the desired position. **Note:** There are four positions you can select.
10. Fasten the thumbscrew.
11. Put the ACAG back to the case.

You can mount a 92mm fan to the CPU fan mount to enhance the cooling of your CPU cooler.

Note: If you choose to install the 92mm fan for the CPU, you must run it either with the 80mm VGA fan mount capped or with the 80mm fan installed. See instructions below for VGA Cooling. Opening the 80mm VGA fan mount without a fan blowing into the case will result in hot air being sucked through the 80mm fan mount (from the VGA card) to the CPU. This will severely decrease the cooling effect of your CPU cooler.

To install the 92mm fan:

12. Remove the ACAG from the case.
13. Loosen the thumbscrew holding the 92mm fan mount (Number 5 in Picture 1) to the ACAG and slide the fan mount all the way out of the ACAG. **Note:** Remember the position that you had the hood in, so that you can put the hood/fan back in the correct position.
14. Install a 92mm fan to the mount so that the air is blowing into the CPU cooler. Secure the fan with screws.
15. Slide and fasten the mount with the fan back to the ACAG.
16. If you are done installing fans in the ACAG you can skip the VGA Card Cooling section.

VGA Card Cooling: There is a capped 80mm fan mount on the ACAG above the VGA card. You can install an 80mm fan to supply fresh air to the VGA card (active cooling). This is provided for you if you are using a high performance VGA card that needs extra cooling.

Note: If you choose to add the 80mm fan for the VGA card, you **MUST** install the 92mm fan for the CPU at the same time. To run the 80mm fan without the 92mm fan for the CPU will result in the air being sucked from the CPU fan mount instead of blowing onto the CPU. This will not only hinders the cooling effect of your VGA cooler but also severely decreases the cooling effect of your CPU cooler.

To install the 80mm VGA fan:

1. Remove the two screws holding the silver metal stripe to the air inlet that connecting to the Tube of the ACAG. Set the parts aside.
2. Remove the two black screws holding the plastic panel to the ACAG.
3. Carefully remove the plastic panel from the ACAG by lifting upwards near the tabs.
4. Carefully use your fingers to detach the tabs holding the 80mm fan cap to the panel.
5. Install the 80mm fan to the fan opening so that the air is blowing into the VGA card. Secure the fan with screws.
6. Replace the plastic panel and fan onto the ACAG by pressing down around the tabs. You will hear them snap into place.
7. Replace the screws from steps 1 and 2.

Maintaining the Washable Air Filter

There is a washable air filter behind the front bezel. Tilt the case backwards so you can use your fingers to squeeze the two tabs on the filter to remove it. We recommend washing the air filter as often as required by environmental conditions, at least once a month initially. Failure to keep the installed air filter clean will result in higher system temperatures and possible stability problems. From time to time it will be necessary to wash the installed air filter. The frequency will change depending on system usage (users whose systems run 24/7 will likely have to check/wash more often than those who don't use their systems every day) and on environmental conditions.

The double Hinge Door

This case comes with a double hinge door that can open 270 degrees so it will be parallel with the side panel for easy access. In case you need to remove the door:

1. Open the door to 90°, and gently press the small plastic tab on the upper hinge. Tilt the door away from the upper hinge pin, then lift the door off the lower hinge pin. Set the door aside in a safe place.
2. To replace the front bezel double hinge door. Place the lower hinge slot over the lower hinge pin and press or rotate the top of the door in so that the tab fully engages with the upper hinge pin.

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