

USER'S MANUAL



Antec[®]



SONATA PROTO

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SONATA PROTO USER'S MANUAL

Congratulations on your purchase of the Antec Sonata Proto!

Your Sonata Proto is designed to be a quiet, easy to use case that will support a full-featured Quiet Computing™ build. Just like the original international best-seller the Sonata, the Sonata Proto features multi-layer side panels, silicone drive-insulation grommets and a quiet-optimized interior airflow design that will provide years of smooth, silent, problem-free computing. New for the Sonata Proto, a washable air filter and side air vent improve cooling potential over the original Sonata and provide cooling airflow to front hard drives.

At Antec, we continually refine and improve our products to ensure the highest quality. It's possible that your new case will differ slightly from the descriptions in this manual. This isn't a problem; it simply indicates an area where we've improved the design. As of the date of publication, all features, descriptions, and illustrations in this manual are correct.

Grab your case and components... let's get building!

Disclaimer

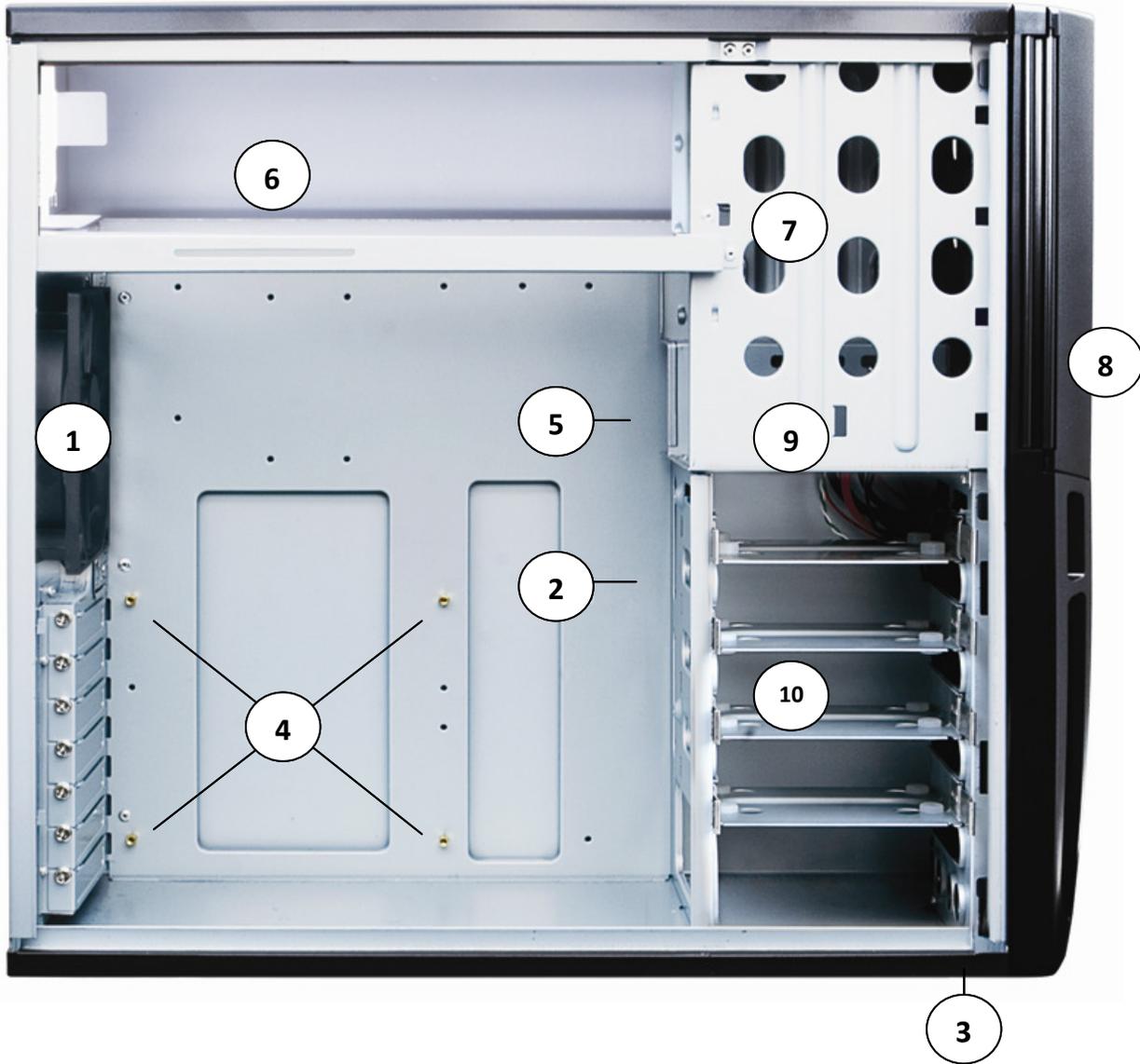
This manual is intended only as a guide for Antec's computer enclosures. For more comprehensive instructions on installing the motherboard and peripherals, please refer to the user's manuals that come with those components.

SECTION 1 | INTRODUCTION



1.1 GETTING TO KNOW YOUR CASE

1. 120mm rear TwoCool™ fan
Positioned at the rear of your case. Draws warm air through the interior of the case and out the back. See Section 4.1 for more detail.
2. 120mm front fan mount
A fan mounting location is provided for mounting fans up to 120mm in size. See Section 4.2 for more detail.
3. Washable air filter
This filters out dust from the air entering your computer case. For removal and washing instructions, see Section 4.3.
4. Motherboard standoffs
Motherboard standoffs are included with your case. These will match up with the standard mounting holes in Mini-ATX, MicroATX and ATX motherboards only.
5. Cable routing compartment
This area is provided for you to tuck away unneeded connectors and cables.
6. Power supply mount
This secures your power supply to your case. The Sonata Proto comes *without* a power supply.
7. 5.25" drive bays
These bays allow the installation of optical drives as well as accessories like front panel audio controls, card readers designed to fit into a 5.25" bay.
8. Front I/O panel
Contains AC'97/HDA-compatible 3.5mm audio and USB 2.0 ports.
9. External 3.5" drive bays
These bays allow external installation of 3.5" bay-compatible storage accessories.
10. Internal 3.5" drive bays
These bays allow installation of 3.5" bay-compatible storage accessories.



1.2 CASE SPECIFICATIONS

Case Type	Mid Tower
Color	Piano Black
Dimensions	19.5" (H) x 10.5" (W) x 21.5" (D) 495mm (H) x 266.7mm (W) x 495mm (D)
Weight	9.1kg / 20.2 lbs
Cooling	1 x Rear 120mm TriCool™ LED fan 1 x Front 120mm fan mount (optional)
Drive Bays	10 Drive Bays: - 3 x External 5.25" drive bays - 2 x Internal 3.5" drive bays - 4 x Internal 3.5" drive bays
Expansion Slots	7
Motherboard Size	Mini-ITX, microATX, Standard ATX
Front I/O Panel	2 x USB 2.0 AC'97 / HD Audio In and Out

1.3 PARTS INCLUDED

In addition to the accessories stored inside your computer, your box should also contain the following:

Illustration No.	Part	Qty
1	Front panel keys	1
2	5.25" drive bay thumb screw	16
3	HDD mounting screws	15
4	Fan screw	4
5	Motherboard standoffs	9
6	Motherboard screws	15
7	Drive tray screw	13
8	Optical drive screws	18
9	Case decal	1



1.4 BEFORE YOU BEGIN

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

- While working inside your Sonata Proto, keep your case on a flat, stable surface. Keep a clean, well-lit, dust-free environment for building your computer.
- Antec cases feature rounded edges that minimize the occurrence of hand injuries. Nonetheless, exercise caution and control when handling case interiors.
- Although care has been taken to prevent sharp edges in your Antec case, we strongly recommend taking the appropriate time and care when working inside the case. Avoid hurried or careless motions. Please use reasonable precaution.
- Handle components and cards with care. Do not touch the 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 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 the 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 case. 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 case, as paint chipping or injury may occur.
- Lastly... have fun!

TIP: In order to increase the precision of your hands, you may find it helpful to brace your elbows against your abdomen and move the components in a direction parallel to the front of your body, using as many muscles as possible. Breathe in a relaxed, controlled fashion.

1.5 LOCATING AND POSITIONING YOUR COMPUTER

Your Antec Sonata Proto has a backwards-facing exhaust fan and one side-mounted front air intakes. For optimum performance, we recommend leaving the front air intake unobstructed.

The Sonata Proto can operate resting sideways as well as vertically. Do not rest the Sonata Proto upside down (with the case feet up in the air), as this will impede operation of optical drives.

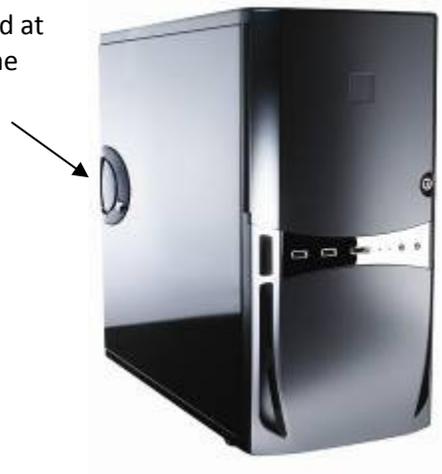
SECTION 2

HARDWARE INSTALLATION



2.1 REMOVING THE SIDE PANEL

1. Remove the side panel by first lifting the latch located at the rear of the case. Then, grip the side panel with the latch and lift it away from the case until it detaches.



Caution: **The front panel is not removable.** Please do not attempt to remove or pry open the front panel.

Caution: **Do not use your fingernails to lift or pry open the panel.** Injury or damage to the case finish may result.

2.2 CABLE MANAGEMENT

There is a cable management compartment behind the 3.5" drive cage. You can tuck or route excess cables in this compartment. This will keep the cables from interfering with airflow in your case and help with cooling.

1. Open the side panel as described in section 2.1.
2. Locate the cable management compartment with cable ties located behind the walls of the external 3.5" drive cage.
3. Tuck or route your excess cables to the compartment.
4. Use cable ties to hold them in place.



2.3 MOTHERBOARD INSTALLATION

The Sonata Proto comes with four motherboard standoffs already screwed in to the most common mounting locations.

1. Lay the case down, with the open side facing up. The drive cages should be visible on the right side of the case, with the power supply in the upper left.
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. Align 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 functionality.
4. Now remove your motherboard by lifting it up.
5. Install standoffs if needed and put the motherboard back in.
6. Screw in your motherboard to the standoffs with the provided Phillips-head screws.



Caution: **Make sure to remove any unused motherboard standoffs.** They may come into contact with the back of the motherboard and may electrify your case exterior if left connected.

Note: The Sonata Proto comes with a CPU cutout on the motherboard tray, which will allow you to mount oversize CPU heatsinks, and also change your CPU heatsink without removing the motherboard.

Note: The motherboard tray has standoffs pre-installed for the most common ATX mounting locations. Extra standoffs and screws are included.

2.4 INTERNAL 3.5" DRIVE BAY DEVICE INSTALLATION

The Sonata Proto provides space for up to four internal 3.5" hard drives. Before you begin, remove the side panel as described in section 2.1.

1. With your thumb and forefinger, grasp the pinch tabs on either side of one of the internal 3.5" drive trays, and slide the drive tray outwards.
2. Mount your hard drive onto the internal 3.5" drive tray with the hard drive's sockets facing towards the back of the tray.
3. Align and fasten the screw holes at the bottom of the hard drive with the holes in the included silicone grommets, using the included internal 3.5" drive tray screws.



Caution: **Do not torque or over-tighten the 3.5" internal drive tray screws.** Compressing the silicone grommets will reduce their lifespan and will lessen or negate their vibration-insulating effect. Tighten the screws until you feel resistance, then STOP.

4. Grasping the pinch tabs on either side of the internal 3.5" drive tray, partially insert the drive tray containing your 3.5" hard drive into the case.
5. Attach the Molex power leads from the PSU and the hard drive cable from your motherboard to the back of the hard drive.
6. Push the 3.5" drive tray containing your hard drive into the case all the way until clicks and locks into place.

2.5 EXTERNAL 3.5" DRIVE BAY DEVICE INSTALLATION

The Sonata Proto provides space for two external 3.5" devices. Before you begin, remove the side panel as described in section 2.1.

1. With your thumb and forefinger, grasp the pinch tabs on either side of one of the external 3.5" drive trays, and slide the drive tray outwards.
2. Remove the screws from the top or bottom panel of the external 3.5" drive tray. Gently pinch together the sides of one of the drive tray's drive covers and remove it from the drive tray.
3. Place your 3.5" device in the tray. Using the screws provided with the drive tray, securely fasten your 3.5" device to the tray.
4. Place the 3.5" external drive tray assembly containing your 3.5" device into the front panel, and push until it clicks.
5. Attach power and motherboard cables to the device as necessary.



2.6 EXTERNAL 5.25" DRIVE BAY DEVICE INSTALLATION

The Sonata Proto provides space for three internal 5.25" devices. Before you begin, remove the side panel as described in section 2.1.

1. With two forefingers, press the pinch tabs on either side of one of the external 5.25" drive covers and pull the cover out of the case.
2. Slide your 5.25" device into the drive bay, making sure to engage the purple or black 5.25" drive tray rails on either side of the bay.
3. Connect the power and motherboard cables to your 5.25" device.



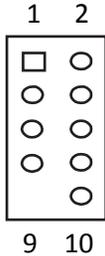
SECTION 3

CONNECTING THE FRONT I/O PORTS



3.1 USB 2.0

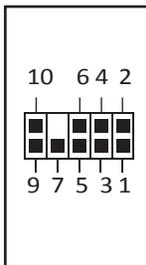
Connect the front I/O panel USB cable to the USB header pin on your motherboard. Check the motherboard user's manual to ensure that it matches the table below:



Pin	Signal Names	Pin	Signal Names
1	USB Power 1	2	USB Power 2
3	Negative Signal 1	4	Negative Signal 2
5	Positive Signal 1	6	Positive Signal 2
7	Ground 1	8	Ground 2
9	Key (No Connection)	10	Empty Pin

3.2 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 case.

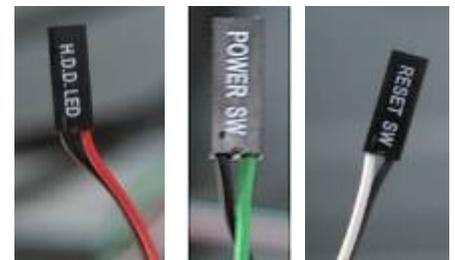


Pin	Signal Names (HDA)	Pin	Signal Names (AC'97)
1	MIC2 L	1	MIC In
2	AGND	2	GND
3	MIC2 R	3	MIC Power
4	AVCC	4	NC
5	FRO-R	5	Line Out (R)
6	MIC2_JD	6	Line Out (R)
7	F_IO_SEN	7	NC
8	Key (no pin)	8	Key (no pin)
9	FRO-L	9	Line Out (L)
10	LINE2_JD	10	Line Out (L)

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.

3.3 POWER SWITCH / RESET SWITCH / HARD DISK DRIVE LED CONNECTORS

Connected to your front panel are LED and switch leads for power, reset, and HDD activity. 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.



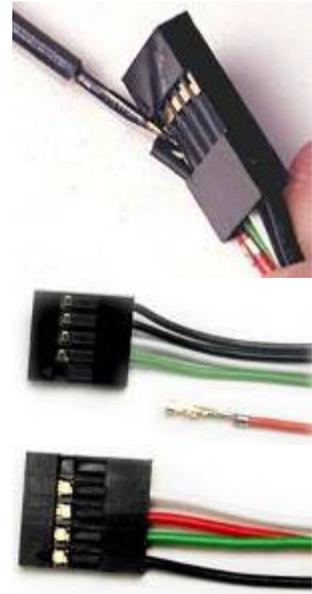
Tip: Polarity (positive and negative) does not matter for switches.

3.4 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 be sure of 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.

1. 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.
2. 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.
3. Slowly, carefully reinsert 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 TRI-COOL™ FAN

Top TriCool™ Fan – The case comes with a 200mm top exhaust blue LED fan. The fan is installed so the air will be blown out of the case. This fan comes with a three-speed switch that let you choose the speed best suited to your need. The default fan speed setting is Low.

120mm TriCool™ Specifications

Size:	120 x 25mm TriCool™ fan
Rated Voltage:	12V
Operating Voltage:	10.2V - 13.8V

The Sonata Proto comes with one pre-installed 120 x 25mm TriCool™ fan, located at the back of the case. This fan is installed to blow warm air out of the case. The TriCool™ fan comes with a speed control device attached to the fan housing. The default fan speed is Low.

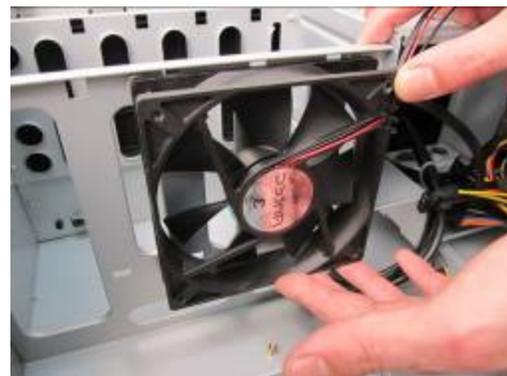
Speed (RPM)	Input Current	Air Flow	Static Pressure	Acoustic Noise	Input Power
High 2000	0.24A (Max.)	2.2 m ³ / min (79 CFM)	2.5mm-H2O (0.10 inch-H2O)	30 dBA	2.9 W
Medium 1600	0.20A	1.6 m ³ / min (56 CFM)	1.5mm-H2O (0.06 inch-H2O)	28 dBA	2.4 W
Low 1200	0.13A	1.1 m ³ / min (39 CFM)	0.9mm-H2O (0.04 inch-H2O)	25 dBA	1.6 W

Note: The minimum voltage to start a typical TriCool™ fan is 5V. We recommend that you set the fan speed to High if you choose to connect the fan(s) 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, which may start as low as 4.5V to 5V. Connecting a TriCool™ fan set on Low to a fan-control device may result in the fan not being able to start because the already lowered voltage from the fan control device will be further reduced by the TriCool™ circuitry below 5V.

4.2 OPTIONAL FANS

There is one optional fan mounting location intake fans at the back of the HDD cage. We recommend using Antec 120mm speed control fans and setting the speed to Low. These fans must be installed so that the air is blowing into the case.

Front Fan – A front fan can be used to enhance graphics card cooling. The fan should be installed to pull air into the front of the case. To install the front fan, first remove the side panel as described in section 2.1.



1. Find the fan mounting screw holes on the interior of the case. They are located on the interior of the internal 3.5" drive bay rails, below the cable management compartment.
2. Secure your 120mm fan to the four screw holes using the fan screws provided with the case.

4.3 WASHABLE AIR FILTERS

Your case features a washable, removable front panel air filter.

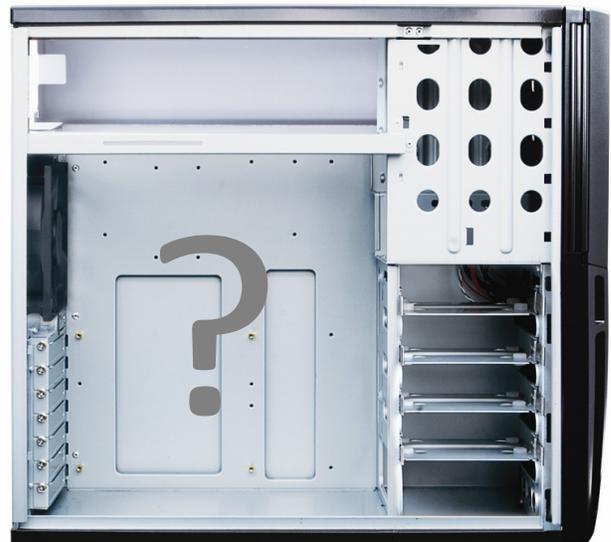
To remove the air filter:

1. Rest the case on its back or side.
2. Locate the two black air filter retention pinch tabs at the front bottom of the case.
3. Pitch the outermost tabs together and pull the filter from the case.



SECTION 5

FREQUENTLY ASKED QUESTIONS



My case is missing drive rails.

Check the back of the 5.25" drive bezel. They should be located there. If you see purple or black, it's there.

My side panel is locked in place.

If the side panel appears to be stuck in the locked position, place the case down with the left panel facing up. Push and pull on the lever with gentle, firm pressure and it will come off. Your case is built with very close manufacturing tolerances, and slight contraction or expansion from heating may cause the side panel's paint to seal closed against the case. Please place a mat or some soft cloth under the case panels to avoid scratching your finish.

What size graphics card can I put into the Sonata Proto?

The maximum graphics card length is 10.5 inches.

Does the TriCool fan connect to the motherboard or the power supply?

The fan is intended to connect directly to the power supply through the included 4-pin Molex connector.

I lost my keys.

Please call 1-800-222-6832 to obtain another set. Charges may apply.

Can I open the front door all the way to the left side panel?

No. Damage to the hinge or front door may result.

The power supply will not run my ATI/Nvidia/other manufacturer graphics card.

The PSU may not support power output level that the graphics card requires. Please check for compatibility. You will need to know the power wattage and amperage requirements of your video card. Please call 1-800-222-6832 for support.

I plugged in the AC power and my power supply will not start.

Your PSU requires a minimum level of power draw to start. Check to see if PSU is connected to the motherboard and all of its main connections as well as any peripherals or accessories you may wish to use.

When I push the front power button, my computer will not start.

There may be a mis-wired or faulty connection. Carefully check the front panel connections and firmly re-attach as necessary. To confirm if a problem exists with the power supply lead, pull the power switch header out and use the Reset switch temporarily. If the system boots up, then the power lead switch may be faulty. Please call 1-800-222-6832 and obtain a replacement switch.

Do I need more fans to cool my system?

In most cases, no, you do not need more fans to cool your system. Please note, however, that the Sonata Proto was designed for standard usage levels, and extensive addition of high-temperature hardware may adversely affect cooling performance. If you do decide to upgrade to a substantially higher-temperature configuration, please make sure you have ample cooling by adding another fan using the provided fan mount, or adding another third party cooling system.

Can the Sonata Proto fit a Micro-ATX/Mini-ITX board?

All our cases are designed to Intel specifications and are backwards compatible with older case standards – so, yes.

My power supply fan is not running.

Please contact 1-800-222-6832 for RMA service.

What is my warranty?

The Sonata Proto carries a three-year limited warranty on parts and labor. Please check our warranty information at:

http://www.antec.com/Believe_it/index.php?page=warranty_info&AQ=AQ3&value=en

If I am shipping back my PSU, do I need to ship my case as well?

No, you only need to ship the defective PSU back.

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