

HSPC Tech Station (patent pending)
Assembly Instruction & Usage Guide *Original Tech Station – Large*



Perfect for the frequent PC Upgrader, Builder, or IT Professional. The Tech Station offers easy access to computer hardware that was once buried inside the traditional computer case.

Testing and upgrading has never been easier!

<< Standard Tech Station shown, hardware not included.

Congratulations on your purchase of HighSpeed PC, LLC's patent pending Tech Station!

If you find parts are missing or need help please email us: support@highspeedpc.com
For other assembly pics/instruction visit our list of independent reviews: <http://www.highspeedpc.com/Reviews.htm>

Tech Station frame assembly Parts List:

- Refer to **Part Reference Page** (pg 6)

Tools needed:

- Philips screw driver (power screwdriver recommended)

Before you begin:

- Clear a table or desk to make room for this assembly project. Give yourself 20-30 minutes for completion. Read these instructions carefully to avoid problems.
- Lay out all the parts and compare them to the parts list. If you have any missing pieces email support@highspeedpc.com right away and we will help you.
- These installation instructions make references to "front, back, underside of bench surfaces" etc. to help orient the bench during assembly. Assume that "front" is the side with the AGP/PCI support brace, the underside of the top shelf holds the Hard Drive Rails and Fan, and the top of the lower bench surface is where the motherboard sits. "Pilot holes" as mentioned here don't go all the way through the material but make it possible to drive in screws.
- A hand screw driver can be used but a power screw driver is highly recommended due to the torque needed to get a snug fit between pieces. If driving screws by hand, you may notice small gaps between the bench surfaces and the vertical supports. This won't affect performance.
- The Large Tech Station is designed for complete coverage of Extended ATX (EATX) motherboards and smaller.

Kit Contents:



See page 6 for detailed parts reference.

Assembly steps:

Step 1: Start at the bottom and build up

Step 1a: Assemble bench feet.

Step 1b: Assemble Motherboard Standoffs.

Step 1c: Install Vertical Supports

Step 1a: Assemble bench feet.

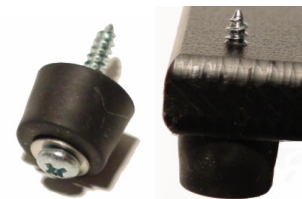
For this step you will need:

- The lower bench surface
- The four large black rubber bumpers
- Four of the stainless steel flat washers
- Four of the #6 x 1" screws



Turn the lower bench surface upside down. (Only the four corner holes and two larger diameter through-holes should be visible).

Put a washer on each of the four #6 x 1" screws. Drive the screws through the recessed opening in the rubber bumpers and into each of the four corner holes. The washer and screw head will be seated all the way into the bumper when the screw is driven into the board.



Drive the screws in until about 1/4" of threads show through the other side. The rubber feet should be tight, slightly compressed, and not turn freely.

Caution: Do not over tighten, the washer and screw may pop through the bumper. If this happens simply back the screw out.

Warning: The exposed points of the screws coming through the board are sharp!

Turn the lower bench surface right-side up so it's sitting on the rubber feet.

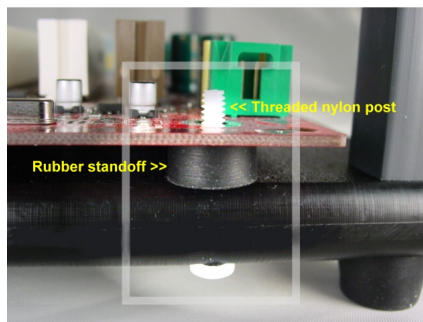
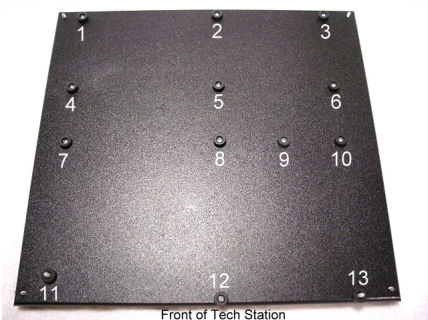
Step 1b: Assemble Motherboard Standoffs.

For this step you will need:

- Small parts bag that contains 13 small rubber standoffs, 11 small screws, two 1" nylon bolts and wing nuts.



The bumper standoff kit suspends the motherboard on non-slip rubberized bumpers and positions the motherboard perfectly on the Tech Station by using two nylon posts which run through existing motherboard mounting holes. The bumpers are installed on the top side of the lower bench surface. Rows of pilot holes have been drilled to make installation easier.



Thread the 11 #6 x 3/8" screws through 11 of the rubber standoffs (screw heads will counter sink into standoff). Screw down snug into all the pilot holes. (Indicated as #'s 1-9, and 11 in image above.)

Tip: Be careful not to over-tighten the screws, which will make the standoffs "pucker" slightly. Tighten just enough so the standoffs won't rotate on the screw.

The front row has two larger diameter through-holes, one of which is offset (see #11 in the pic above). Thread the nylon bolts up from the underside of the bench. Thread a rubber standoff down hand tight on each bolt.

For ATX motherboards: use the nylon bolts in holes #11 and #13.

For mATX motherboards: use the nylon bolts in holes #11 and #12 (The nylon bolt and screw are interchangeable)

After the Tech Station is assembled, your motherboard will be lined up on the upper bench by inserting the nylon posts through the motherboard's existing mounting holes that are located near the PCI slots and I/O shield. (see the blow-up image above)

Optional: Two nylon nuts are provided if a more permanent motherboard attachment is desired.

Turn the board over so it is resting on the motherboard standoffs and refer to the next step.

Step 1c: Install Vertical Supports

For this step you will need:

- Four vertical supports (legs)

Important: The two legs with pilot holes in the sides go on the front two screws, and face forward. These will be where the AGP/PCI support bar angle brackets attach. The ends of the vertical bars that point up are marked with a black check.

Thread down hand-tight the four 7" square legs onto the protruding screws on the lower bench surface. Use the screwdriver to keep the screw from backing out if needed. Line the sides of the legs square with the sides of the board. Check the rubber feet for looseness when finished and tighten as needed.



Step 2: Getting the top bench together

Step 2a: Install 120mm fans

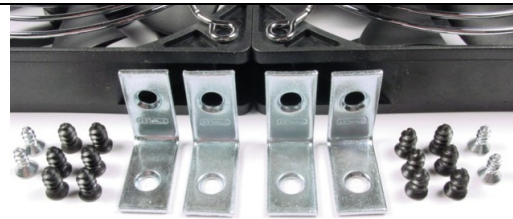
Step 2b: Install Hard Drive Rails

Step 2c: Insert top corner screws

Step 2a: Install 120mm Fan

For this step you will need:

- Two 120mm Fans
- Two 120mm metal finger guards
- Six standard case fan screws (black) per fan
- Two metal "L" brackets per fan
- Two #6 x 3/8" screws (pan head, with point) per fan



Take the 120mm fans and turn them label-side down on your work surface. Use four standard case fan screws (black) and install the finger guard on the side without the label on each fan.

Take the top bench and turn it so the side with the pilot holes is facing up (marked with FAN and HDD stickers to help identify them, remove the stickers whenever you want). Six pilot holes should be on your left side and two on the right.

Using four of the #6 x 3/8" screws (pan head, with point) attach four "L" brackets (two per fan) to pilot hole #'s 1 and 3 (count from the top down) and the same for fan #2 in pilot hole #'s 4 and 6. Orient the "L" bracket so the resulting vertical arm (the one pointing up) is to your left.

Using two standard case fan screws per fan, attach the 120mm fans to the outside of the "L" brackets so the fan's label (exhaust side) is facing so the fans are blowing over the length of the board. The sides with the finger guards (intake side) will be to your left.



Step 2b: Install HDD Rails

For this step you will need:

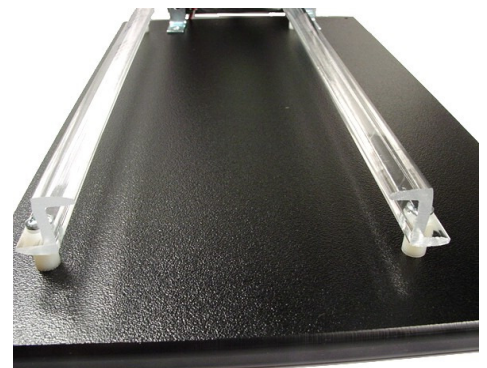
- Two acrylic drive rails
- Four #6 x 1" screws
- Four 1/2" spacers



Insert a #6 x 1" screw through the holes in each end of the acrylic drive rails. The screw should go in as shown in the image to the right. Slide a 1/2" spacer over the threads on each screw. Drive the HDD Rail screws into the four pilot holes on the underside of the top bench.

Position the rails so when you look down the length of them toward the fan the rail on the right resembles the letter Z and the rail on the left is a mirror image (see image far right). The idea is that when the board is turned over the rails create a channel for the hard drives to slide into.

Tip: Tighten completely to avoid excess movement but do not over tighten to avoid damage to the acrylic.



Step 2c: Insert top corner screws and neoprene mat

For this step you will need:

- Four #6 x 1" screws
- Four of the stainless steel flat washers
- Four hinged black plastic screw covers
- Sheet of black neoprene rubber

Flip the top bench surface over and place it on your work surface so it rests on the fan and HDD Rails.

Put a washer on each of the four remaining #6 x 1" screws, and then put a hinged screw cover on each screw/washer so the screw head/washer sits inside the cover's recess.

Lay the sheet of black neoprene out flat and center it on the bench. Carefully lining up one corner so it's square with the bench corner, press a screw/washer/cap assembly through the neoprene and into the corner through-hole. Drive the screw into the corner hole and stop when the tip of the screw pokes out of the other side (less than 1/8" is good).

Tip: You can peek under the neoprene as you press the screw through to help line them up to the corner holes. Stretching the neoprene between the screws will help ensure a tight, wrinkle free work surface. If there is extra material hanging over the edges, you can trim the excess off with a utility knife or scissors.

Repeat for all four corners spreading the neoprene out flat to work out any wrinkles in the process.

Neoprene Installation Option: For easy installation and removal, trim the neoprene mat to fit between or around the screw caps and simply sit it on top of the bench.



Step 3: Attach top bench and AGP/PCI (Add-in Card) Support Brace

Step 3a: Drive screws to attach top bench

Step 3b: Install AGP/PCI Support Brace

Step 3a: Drive screws to attach top bench

For this step you will need:

- Phillips head screw driver (Power screwdriver recommended.)

For proper installation, align the top bench so the fan is to your left. Align the bottom bench assembly so the vertical supports with the black marks on the tops are closest to you (that will be the front of the Tech Station).

Line up the top bench so the tips of the screws rest in the pilot holes that are in the tops of the vertical supports. This will help keep things in place as you drive the screws in.

Tip: Tighten the top screws in a cross pattern (upper left, lower right, upper right, lower left).

Drive the screws down into the vertical supports one at a time using downward pressure to force a close fit as the screw tightens. Some down force will be needed for tight fit between board and vertical support. Tighten down completely and snap screw covers closed.

Warning: Do not over tighten screws or caps/washers may warp and not snap closed. If this happens back out the screws and flip over the washer if it's bowed.

Tip: If screw caps don't snap closed easily use the handle of a screwdriver or mallet and tap them gently until closed.

Ensure all four legs are square to the bench sides; you can twist them by hand if they need straightening. Check the rubber feet underneath for tightness and re-tighten bottom screws if necessary.

Note: Due to the semi-rigid nature of the materials a tighter fit between shelf and vertical support may be had if a bare screw (no screw cover) is driven completely in then removed first. This normally is not necessary but may help if you're having difficulty. After you back the screws out again trim any excess material from around the vertical support pilot holes with a razor or sharp knife. Reinstall screw cap.



Step 3b: Install AGP/PCI Support Brace

For this step you will need:

- AGP/PCI Support Brace
- Two metal "L" Brackets
- Two #6 x 1/4" screws (pan head, no point)
- Two #6 x 3/8" screws (pan head, with point)
- Seven black thumb screws

Lay the assembled Tech Station on its back side so the vertical supports with the two pilot holes are facing up.

Insert a #6 x 3/8" screw (pan head, with point) into each "L" bracket and drive into pilot holes on vertical supports

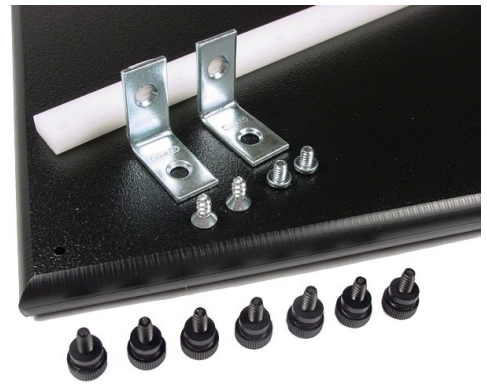
Note: The "L" brackets should be facing up and out, so one side of the bracket is running up the vertical support and the other bracket leg is sticking out.

Lay the AGP/PCI support bar across the angle brackets. Orient the support bar so the line of threaded holes are on the right side, and if you look closely the holes are closer to one side of the bar- the close side faces in to the Tech Station.

Thread the #6 x 1/4" screws (pan head, no point) up through the angle brackets into the AGP/PCI support bar. Tighten down completely.

Tip: If you have trouble getting the horizontal support brace to lay perfectly horizontal you can rotate the L brackets and also the vertical supports by hand slightly to get the proper tension. Turning the vertical supports outward will remove an upward bow, turning the vertical supports inward will remove a downward bow.

The finishing touch is threading in all the thumb screws into the AGP/PCI Support Brace... Now you're ready to add your computer hardware!



Using the Tech Station:

The bench surfaces act as shelves to set the PC hardware on. The motherboard (with CPU, memory, video card, etc) sits on the lower shelf on rubberized standoffs to protect the underside solder points and circuitry of the motherboard and also reduces static electricity buildup. Nylon posts are included which align the motherboard perfectly on the Tech Station, and the included nylon wing nuts provide an optional way for added security of the motherboard.

The motherboard is placed on the lower shelf from the back side (opposite the horizontal AGP/PCI support bar). The screw/thumb screw holes on the AGP/PCI cards line up with the thumbscrew holes on top of the AGP/PCI support bar. Use the thumbscrews to securely attach add-in cards. The support bar has some natural flexibility to make it easy to take the cards in/out and will stiffen up when a card is in place.

The 120mm fans can be plugged into a motherboard 3 pin power header (or 4 pin power supply Molex plug depending on the connection type of the fan). The 120mm fans are positioned to force cooling air over heat sensitive components including CPU, RAM, motherboard Northbridge, video card, and hard disk drives.













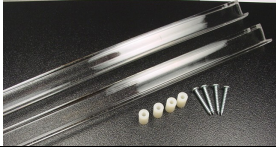

Under the top shelf and above the motherboard are the acrylic hard drive rails where one or two hard drives can slide in and out for secure storage. The 120mm fan blows down this channel for optimum drive cooling. HDD cables can be routed down between the two rails.

The top shelf holds other PC components including the power supply, CD/DVD drive(s), floppy drive, hard drive(s), etc. The included neoprene mat can be used on the top shelf for extra security against movement of these components.

ATX Control Kit: Turning on/off the PC motherboard once seated on the Tech Station can be done with the ATX Control Kit. The Control Kit includes one green LED jumper to indicate power ON, one red LED jumper for indicating hard drive activity, one Piezo buzzer for system alert beeps, and two micro switches to serve as power ON/OFF and System Reset switches. Each jumper is attached to motherboard pin headers as replacement for standard PC case switches, LED lights, and the system speaker. Motherboard operating manuals show locations and orientation of these headers for installation.

CAUTION: Remember to always power off your PC hardware when adding or removing components. It's always recommended to discharge static electricity by touching a metal object such as your power supply prior to touching electronics. HighSpeed PC, LLC is not responsible for any loss or damage associated with use of this product.

Part Reference Page

<p>Two high grade polymer bench surfaces.</p> <ul style="list-style-type: none"> • Upper bench surface has four corner holes and is marked with Fan and HDD stickers pointing to their pilot holes. • Lower bench surface has four corner holes, three pilot holes along one long edge, two wide diameter through-holes and another pilot hole in the center of the other long edge. <p>Four 7" lengths of 1/2" high grade polymer square bar (vertical supports)</p>	
<p>One 13.5" x 1/2" AGP/PCI Support Brace (white)</p>	
<p>Four black rubber bumpers</p>	
<p>Eight #6 x 1" screws</p>	
<p>Two #6 x 1/4" screws (pan head, no point)</p>	
<p>Eight stainless steel flat washers</p>	
<p>Four #6 hinged black plastic screw covers</p>	
<p>Seven #6-32 nylon thumb screws</p>	
<p>Six 1/2" x 1" angle brackets</p>	
<p>Six #6 x 3/8" screws (pan head, with point)</p>	
<p>Twelve standard PC case fan screws (black)</p>	
<p>Two 120mm 12v DC fan w/ finger guard</p>	
<p>Hard drive storage rack parts list: Two acrylic guide rails Four #6 x 1" screws Four 1/2" spacers</p>	
<p>Accessories: Black neoprene rubber mat for top shelf grip! Motherboard Bumper Standoff Kit ATX Control Kit Usage and assembly instructions</p>	

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