



# PC Assembly Technical Manual PC Assembly Checklist

## Instructions:

PC's are expensive little critters. Since you're in training, it's important that your work is checked before you apply power to a newly assembled computer. It's important to note that just one improperly installed component can be the difference between a working PC... and a fire hazard.

Name:	
Period:	
Date:	

Checklists are widely used in industry to reduce complex quality assurance procedures to a series of simple steps. The whole idea is to make sure a particular process is done correctly and completely. Airline pilots use preflight checklists to make sure everything's working on an airliner before it takes off ...Seems like a good idea to me. Astronauts use checklists to make sure the process for blastoff is performed correctly and completely ...A fabulous idea indeed. Now, your supervisor will use a checklist to check the quality of your work assembling a PC to make sure every step was performed correctly and completely.

Granted... Assembling a PC is not nearly as complicated or critical as flying a jetliner or rocketing into the final frontier. However, it's still a process that must be done correctly to insure the high reliability of your work ...Another great idea.

## Required Materials:

Qty	Part Description	Qty	Part Description
1	Assembled PC Trainer	1	Mainboard User Manual
1	PC Technician Toolkit	1	PC Assembly Checklist and Pencil

## Procedure:

**Complete each of the following steps in this exercise using this procedure.**

1. Assess your own work by placing a ✓ by each correctly completed step.
2. Correct all un-checked steps before consulting your supervisor.
3. Your supervisor will assess your work by placing a ✓ by each step they determine is correctly done.
4. All items not checked by the supervisor must be corrected by the student and then reevaluated.

Step	Description	Assessment	
		Student	Supervisor
<b>A</b>	<b>CHASSIS – Power Supply Installed</b>		
1	Work order and ID Tag completed		
2	Rubber feet installed on chassis.		
3	Key flap secured with #6x32 hex screw.		
4	HDD bracket installed with #6x32 hex screw.		
<b>C</b>	<b>MAINBOARD INSTALLATION</b>		
1	Copper grounding screw installed.		
2	Correct EMI I/O shield punch-outs removed.		
3	Processor mount installed on mainboard.		
4	Mainboard installed with 6, #6x32 hex screws.		
<b>D</b>	<b>POPULATING THE MAINBOARD</b>		
	<b>Processor</b>		
1	Processor installed on the mainboard.		
2	Thermal compound or pad between heatsink and processor.		
3	Heatsink installed and fan plugged into the mainboard.		

Step	Description	Assessment	
		Student	Supervisor
	<b>Memory</b>		
1	Memory module installed and seated.		
	<b>Interface Cards</b>		
1	Graphics adapter card installed in the correct slot and seated.		
2	Sound card installed in the correct slot and seated.		
3	Network interface card installed in the correct slot and seated.		
4	Open interface card slots covered with a filler plate.		
5	Interface cards and filler plates secured with a #6x32 hex screw.		
	<b>System Jumpers and Switches</b>		
1	Configure the system jumpers to match the processor's speed.		
<b>E</b>	<b>DISK DRIVE INSTALLATION</b>		
1	Install CDROM in an external 5.25" bay with 4, MK3x5 pan screws.		
2	Install FDD in an external 3.5" bay with 4, #6 x 32 4.5 pan screws.		
3	Install HDD in an internal 3.5" bay with 4, #6 x 32 hex screws.		
<b>F</b>	<b>CABLE INSTALLATION</b>		
1	Front panel connection made in accordance with the user manual.		
2	20-Pin ATX connector plugged into the mainboard		
3	Auxiliary 12V connector plugged into the mainboard. (Pentium 4)		
4	Auxiliary power connector plugged into the mainboard. (Pentium 4)		
5	Floppy data cable plugged into mainboard.		
6	Floppy data cable (twisted) plugged into FDD observing polarity.		
7	Power cable plugged into FDD.		
8	IDE cable plugged into Primary IDE port.		
9	IDE cable plugged into CDROM drive.		
10	CDROM strapped as the slave drive.		
11	IDE cable plugged into HDD.		
12	HDD strapped as the master drive.		
13	Power cable plugged into CDROM drive.		
14	Power cable plugged into HDD		
15	Audio cable connecting the CDROM and sound card.		
16	Data and power cables dressed and organized.		
<b>Notes:</b>			