



PC Assembly Guide

Technical Manual

Exercise 1 – PC Assembly

Instructions:

Study the content carefully before attempting the questions listed below. Consider using other information sources as well. Periodicals, reference materials, and the Internet are great resources to find the answers to the technical problems you're going to face when servicing computers.

Name:	
Period:	
Date:	

Speaking of resources... Let's save some of our natural resources. Rather than printing out the entire lesson, print out only the worksheet. Study the lesson on-screen and then record your answers on this worksheet. When you're finished, return the worksheet to your supervisor for evaluation. Be sure to complete this assignment before moving onto the next.

Research Resources:

Company	Web Site	Description
In Win	http://www.in-win.com/tw	Computer Case Manufacturer
PC World	http://www.pcworld.com	Build Your Own PC
Intel	http://www.intel.com	Build Your Own PC

Questions:

1. ✓ Research and develop a detailed definition for each of the following terms. Many words have multiple definitions... Some of which may have nothing to do with the field of Computer Service and Support. Make sure your definition falls within the context of this lesson. Refer to the list of Research Resources and Required Materials as well as other materials you feel are appropriate. Write your definitions on the reverse side of this worksheet or a separate piece of paper with each definition being two sentences or more.

- | | | |
|--------------------------|--------------------|------------------|
| ✓ Power LED | ✓ HDD Access LED | ✓ Padlock Flap |
| ✓ Input Voltage Selector | ✓ I/O Device Panel | ✓ EMI I/O Shield |
| ✓ AC Power Inlet | ✓ AC Power Switch | ✓ Power Switch |

2. ✓ How many copper ground screws are included in the screw package for the IW-A500 super mid ATX tower case?
3. ✓ What the name of the hardware item that can secured with a padlock to keep the computer case from being removed?
4. ✓ How many I/O Device Slots does the IW-A500 super mid ATX tower case feature?
5. ✓ How many power switches does the IW-A500 super mid ATX tower case feature?
6. ✓ There are two types of #6 x 32 screws included with the IW-A500 super mid ATX tower case. What's the difference between them?
7. ✓ What kind of disk drives can be installed in the 5.25-inch external drive bays?
8. ✓ What's the maximum number of 3.5" floppy drives that can be installed in the IW-A500 super mid ATX tower case?



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Exercise 2 – PC Trainer Inventory

Exercise Objective:

This exercise will show you how to properly assemble a personal computer.

Discussion of Fundamentals:

Building a PC is just like following a recipe for baking a cake. Well... not “just like”, but it’s close enough to make an important point.

When baking a cake, you need to use the right ingredients and appliances as well as follow the step-by-step instructions to come up with something that’s worth eating. If you skip a step, perform it incorrectly, or use the wrong ingredients... It may look like a cake when you’re finished, but I wouldn’t eat it.

When building a PC, you need to use the right parts and tools as well as follow the assembly instructions to come up with a working PC. If you skip a step, perform it incorrectly, or use the wrong parts... It may look like a PC when you’re, but I wouldn’t buy it.

To carry the analogy just a bit farther... Think of this exercise as the cookbook approach to computer assembly.

Procedure:

Before you start assembling the PC kit, you’ll need to inventory the trainer to make sure you have all the necessary parts. Use this checklist to inventory your trainer. Report and missing components (as well as extra parts) to your supervisor. Keep this form with your kit until it’s completely assembled and tested.

Name:	
Period:	
Date:	

√ Part Description	Qty	√ Part Description	Qty
PC Chassis	1	Floppy Drive Cable	1
Power Supply	1	CDROM Audio Cable	1
Mainboard	1	Power Cord	1
Mainboard User Manual	1	Mouse	1
Processor	1	Keyboard	1
Heatsink and Fan Assy.	1		
Processor Mount	1	Hardware Package	
Memory Module	1	Self-Adhesive Rubber Feet	4
Graphic Interface	1	Key Flap	1
Sound Card	1	Hard Disk Drive Bracket	1
Network Interface Card	1	Filler Plates	4
Hard Disk Drive	1	Copper Grounding Screw	1
Floppy Disk Drive	1	#6 x 32 Hex Head Screws	17
CDROM Drive	1	MK3 x 5 Pan Head Screws	4
IDE Cable	1	#6x32 4.5 Pan Head Screws	6

Required items not in kit: Thermal Compound or Thermal Pad.