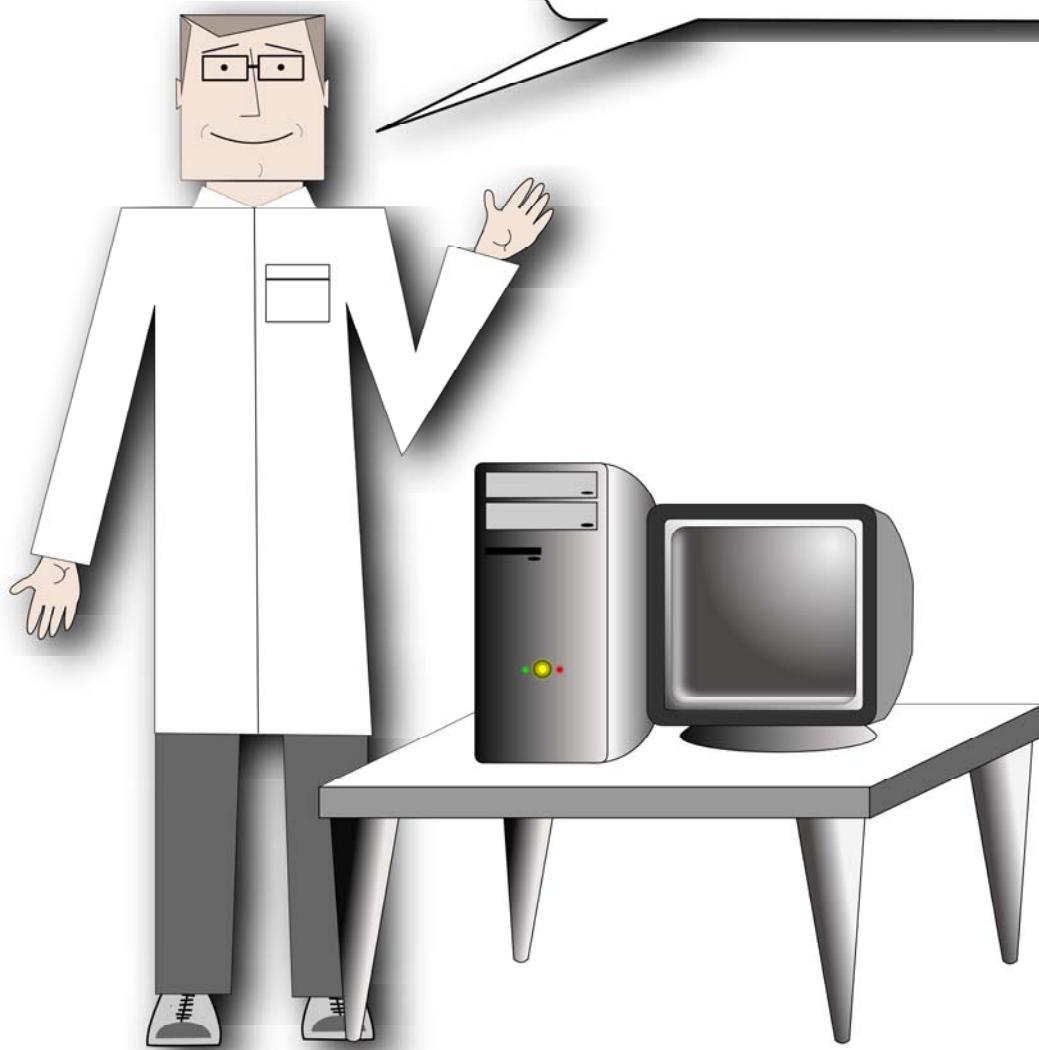


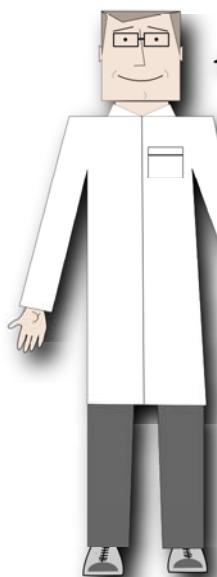
SIMPLE COMPUTER REPAIR



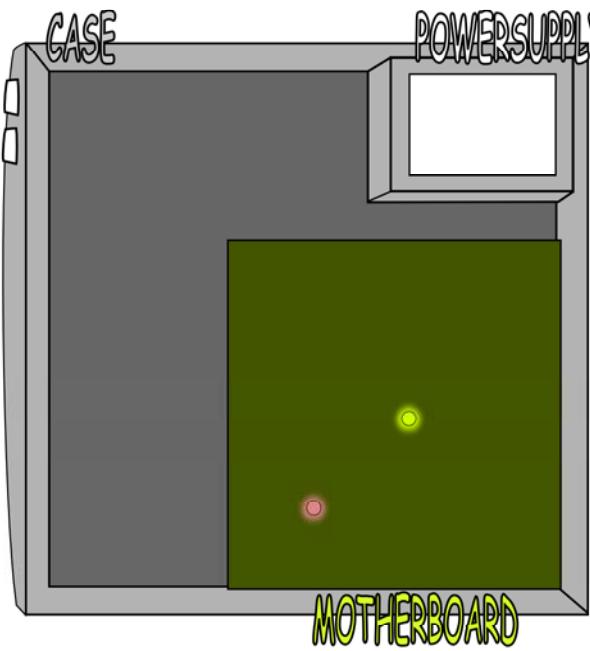
WRITTEN AND ILLUSTRATED BY MICHAEL F LANGDON

WELCOME, TO SIMPLE COMPUTER REPAIR. YES, SIMPLE. THIS IS REPLACING HARDWARE, REINSTALLING WINDOWS XP AND USING SOME UTILITIES TO TRY TO SOLVE PROBLEMS LIKE WHY YOUR INTERNET IS SLOW AND GETTING RID OF SPYWARE.

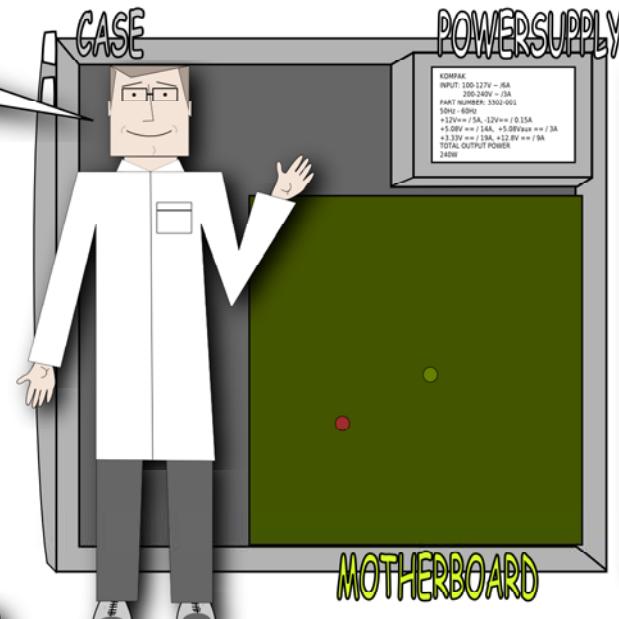




ALL COMPUTERS BEGIN WITH A CASE, A POWER SUPPLY AND A MOTHERBOARD. ATTACHED TO THE CASE IS THE POWER SUPPLY WHICH IS PLUGGED INTO THE WALL, THE MOTHERBOARD IS PLUGGED INTO THE POWERSUPPLY.

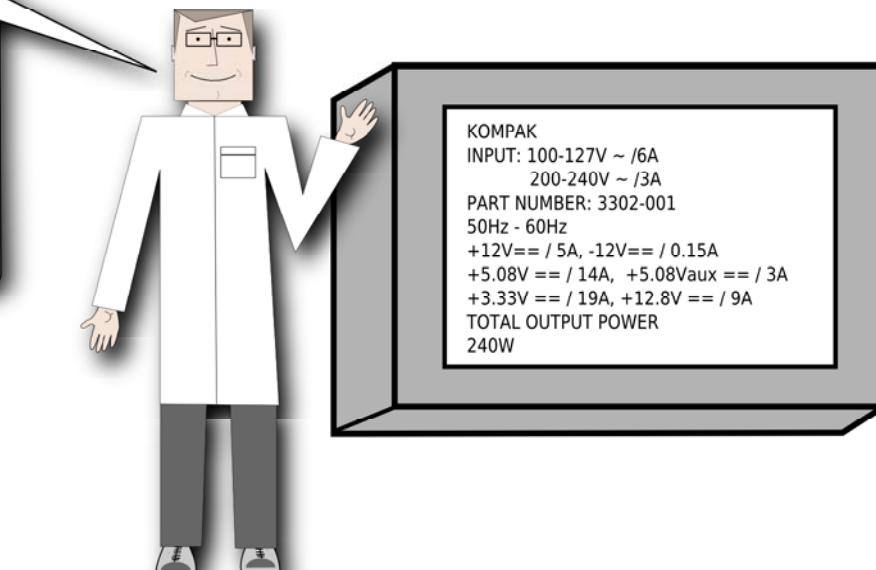


IF A POWERSUPPLY GOES BAD YOU WILL NOT HEAR ANY FANS. ALSO, IF YOU OPEN THE CASE YOU WON'T SEE ANY SMALL SYSTEM LIGHTS ON. THE BOARD WILL BE COMPLETELY DARK. YOU WILL NEED TO REPLACE THE POWERSUPPLY. TO DO THIS YOU WILL NEED TO MEASURE IT AND THEN WRITE DOWN THE WATTAGES AND VOLTAGES. THE REPLACEMENT NEEDS TO MATCH. IF YOU OWN A BRAND NAME LIKE AN EMACHINE, DELL, GATEWAY, IBM AND SO ON YOU CAN OFTEN SEARCH FOR ITS REPLACEMENT.

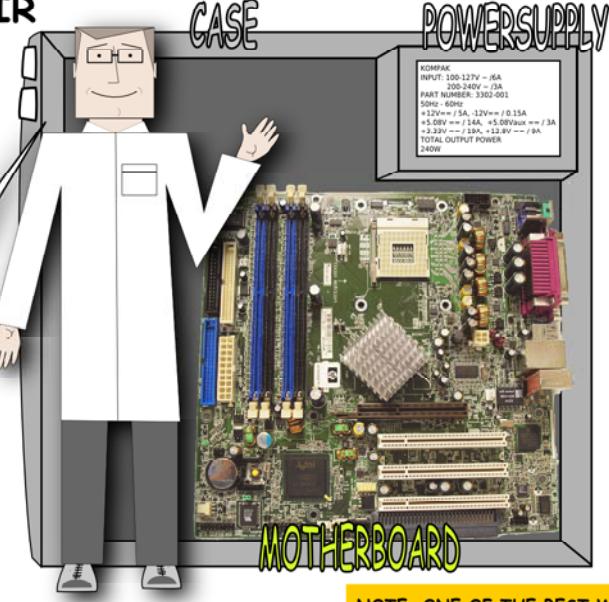


THERE ARE LOTS OF WEBSITES TO BUY PARTS FROM. I HAVE HAD GOOD LUCK WITH TIGERDIRECT.COM, CDW.COM AND OTHERS VIA PRICEGRABBER.COM OR FROOGLE.GOOGLE.COM. YOU WILL NEED TO KNOW THE MAKE AND MODEL NUMBER OF THE COMPUTER SYSTEM SUCH AS A DELL 4400. YOUR SEARCH MIGHT LOOK LIKE DELL 4400 POWERSUPPLY

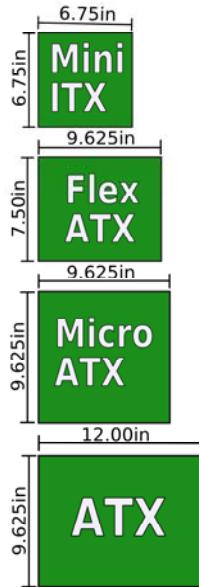
THIS IS THE POWERSUPPLY TAKEN OUT OF THE COMPUTER. YOU CAN SEE IT HAS A SERIES OF NUMBERS REFERRING TO THE VOLTAGE, AMPERES AND WATTAGE. THESE NUMBERS NEED TO MATCH YOUR NEW POWER SUPPLY UNLESS YOU ARE UPGRADING THE WATTAGE SO THAT YOU CAN HAVE MORE PERIPHERALS. THEN THE WATTAGE CAN BE HIGHER BUT THAT SHOULD BE IT.



IF THE MOTHERBOARD GOES BAD YOU WILL KNOW BECAUSE IT WILL ACT LIKE THE POWERSUPPLY IS BAD EXCEPT THAT ALL OF THE FANS WILL BE ON. YOU WILL NEED TO REPLACE IT WITH ONE OF THE SAME SIZE AND SOCKET. THE SIZE IS REFERRED TO AS THE FORM FACTOR AND THE MOST COMMON ONE IS THE ATX FORM FACTOR. THE SOCKET REFERS TO TYPE OF PLUG THE PROCESSOR PLUGS INTO. TO MY LEFT OR YOUR RIGHT IS AN EXAMPLE OF AN ACTUAL MOTHERBOARD WITH A MICRO-ATX FORM FACTOR.



MOTHERBOARD



NOTE: ONE OF THE BEST WAYS TO HELP YOU WITH YOUR COMPUTER REPAIRS IS TO USE A NOTEBOOK OR DIGITAL CAMERA TO DRAW DIAGRAMS OR RECORD EXACTLY WHAT RIBBON OR PLUG GOES WHERE..

DRAM CHANNELS

ATA CD-ROM DRIVE CONNECTOR

1 & 2

CPU SOCKET.

4 PIN MICRO ATX POWER

Floppy Drive Connector

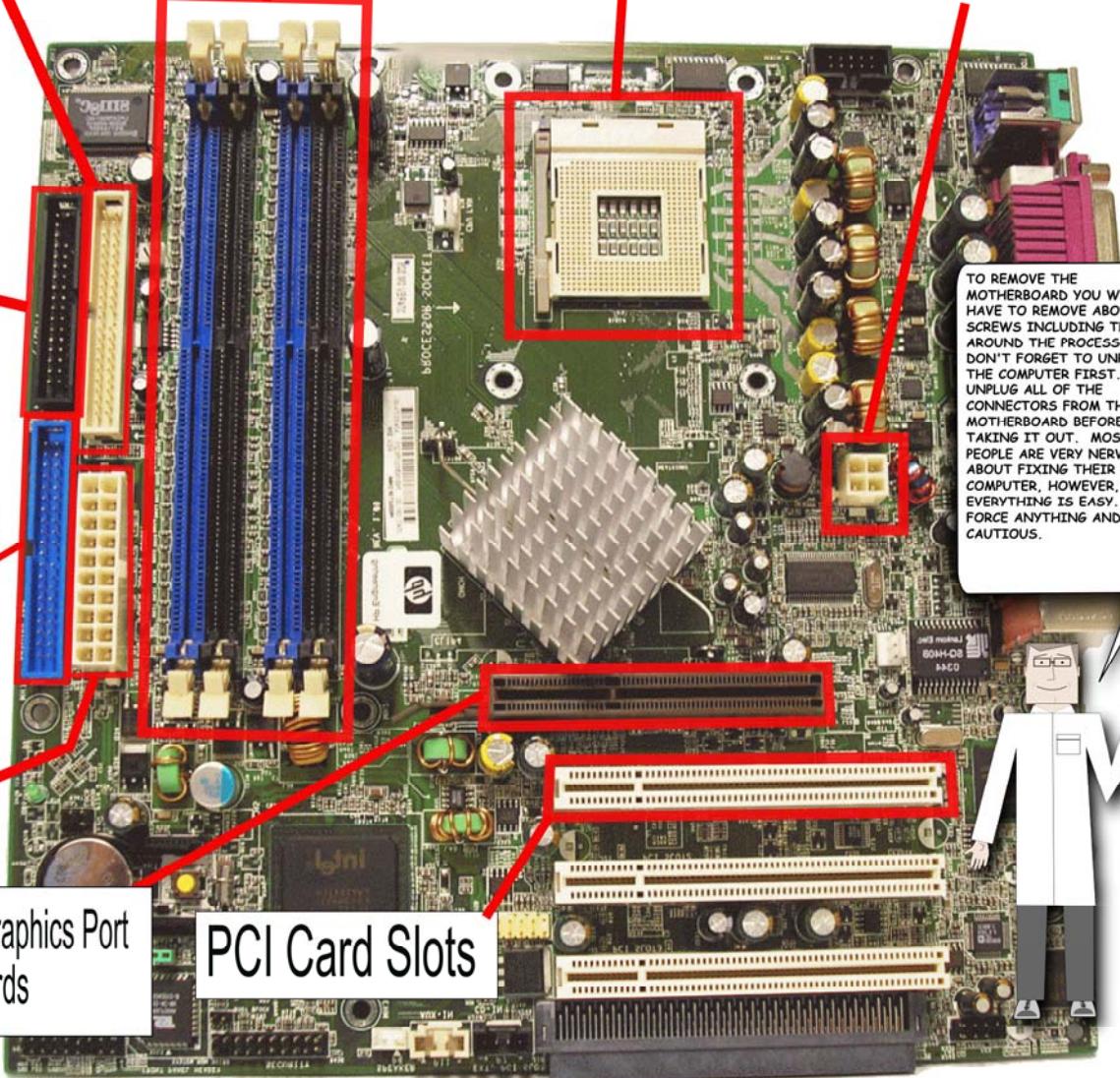
ATA HARD DRIVE CONNECTOR

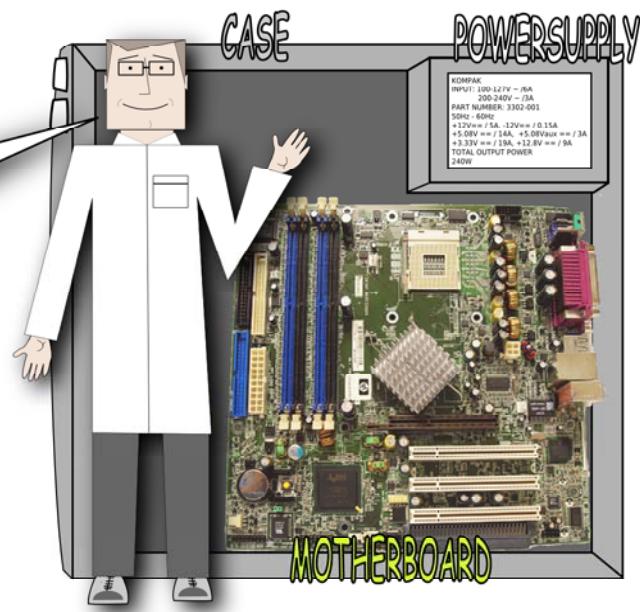
20 PIN MICRO ATX POWER

Advanced Graphics Port for Video Cards

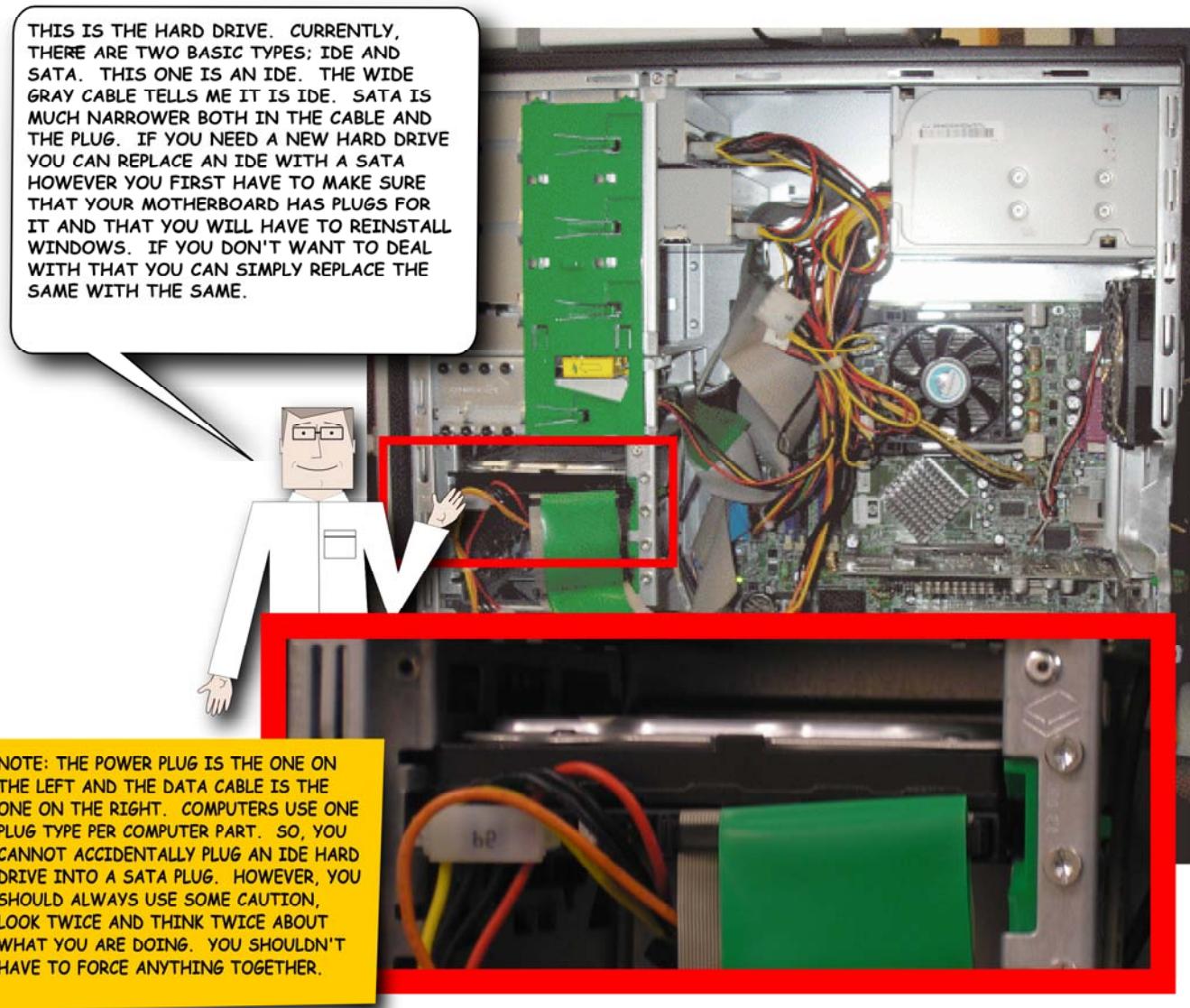
PCI Card Slots

TO REMOVE THE MOTHERBOARD YOU WILL HAVE TO REMOVE ABOUT TEN SCREWS INCLUDING THOSE AROUND THE PROCESSOR. DON'T FORGET TO UNPLUG THE COMPUTER FIRST. THEN UNPLUG ALL OF THE CONNECTORS FROM THE MOTHERBOARD BEFORE TAKING IT OUT. MOST PEOPLE ARE VERY NERVOUS ABOUT FIXING THEIR COMPUTER, HOWEVER. EVERYTHING IS EASY. DON'T FORCE ANYTHING AND BE CAUTIOUS.

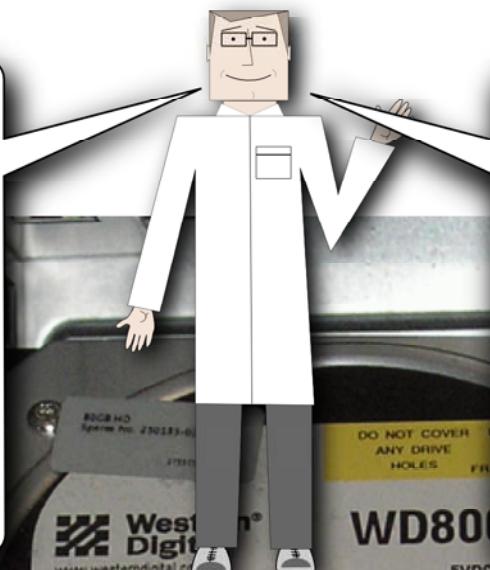




THE NEXT COMPONENT THAT USUALLY GOES BAD IS THE HARD DRIVE. THIS IS BECAUSE THE HARD DRIVE IS MECHANICAL AND BECAUSE MECHANICAL PARTS ARE MOVING THEY TEND TO BREAK DOWN MORE FREQUENTLY. IF THE HARD DRIVE GOES BAD A BIOS ERROR SHOULD TELL YOU THAT YOUR FDD CONTROLLER IS BAD OR GOING BAD AND THAT YOUR HARD DRIVE SHOULD BE REPLACED. REPLACING YOUR HARD DRIVE IS THE EASY PART. THE HARD PART IS TRANSFERRING ALL YOUR FILES, PHOTOS, MUSIC AND MOVIES TO YOUR NEW HARD DRIVE. WE WILL TALK ABOUT THAT LATER..

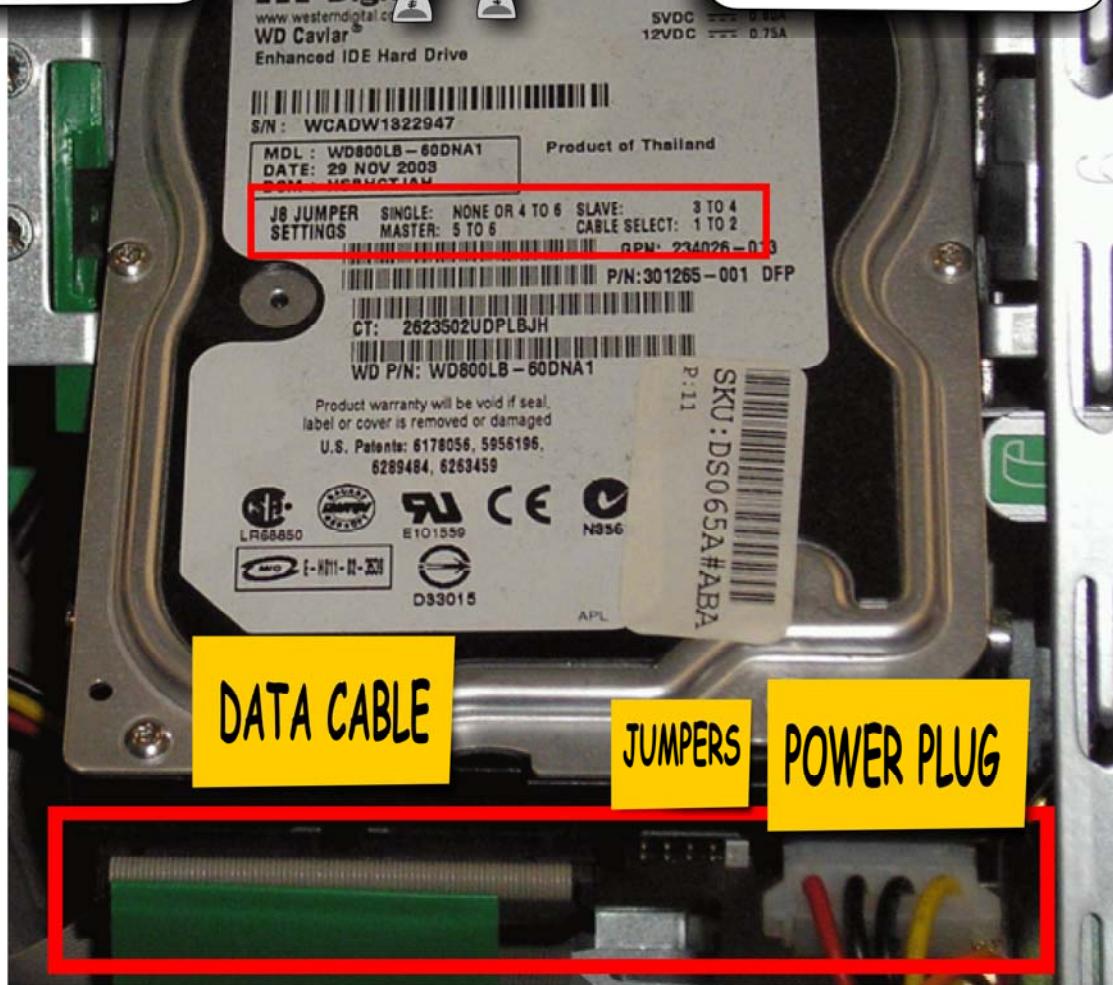


HERE IS THE SAME HARD DRIVE TIPPED UP. YOU CAN SEE IT IS AN ENHANCED IDE DRIVE. THE PART OF THIS LABEL YOU WILL WANT TO LOOK AT ARE THE JUMPER SETTINGS IN THE MIDDLE. IF YOU ARE REPLACING THE SAME WITH THE SAME THEN THERE SHOULD BE NO CHANGE TO THE JUMPER SETTINGS. HOWEVER, IF YOU ARE ADDING ANOTHER DRIVE TO THE SAME CABLE THEN YOU MUST DESIGNATE ONE THE MASTER AND ONE THE SLAVE. REMEMBER, YOUR COMPUTER WILL BOOT TO THE MASTER SO YOU WILL WANT THAT ONE TO BE THE ONE WINDOWS XP OR VISTA IS INSTALLED ON.



ON THIS HARD DRIVE WE ARE LUCKY BECAUSE IF YOU FLIP IT OVER YOU WILL SEE THAT THE JUMPERS ARE ACTUALLY LABELLED. THIS HARD DRIVE USES CABLE SELECT WHICH LETS THE COMPUTER FIGURE IT OUT.

NOW WHEN CHANGING A JUMPER IT IS BEST TO USE A LONG NOSE PLIERS AND TO DO IT OVER A BOWL OR SOMETHING THAT WILL CATCH IT IF IT FALLS.

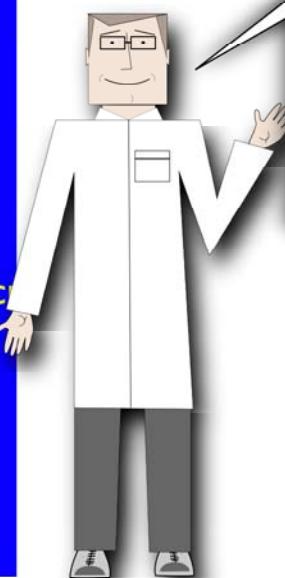
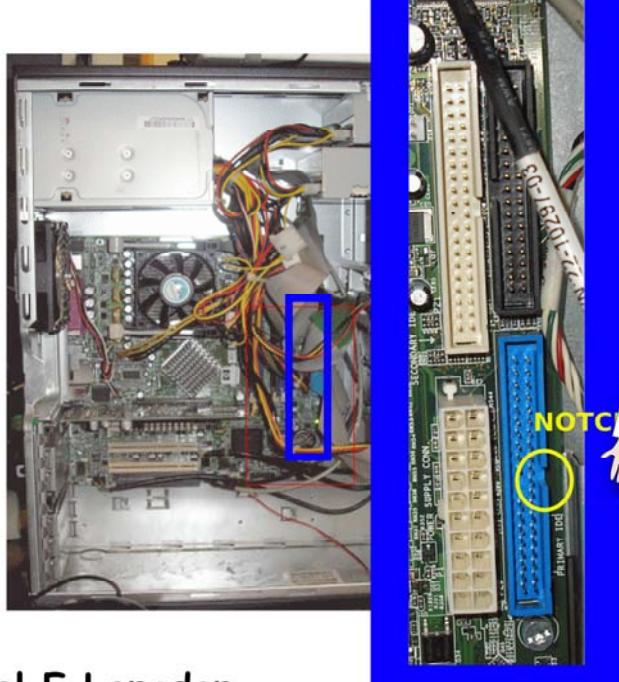
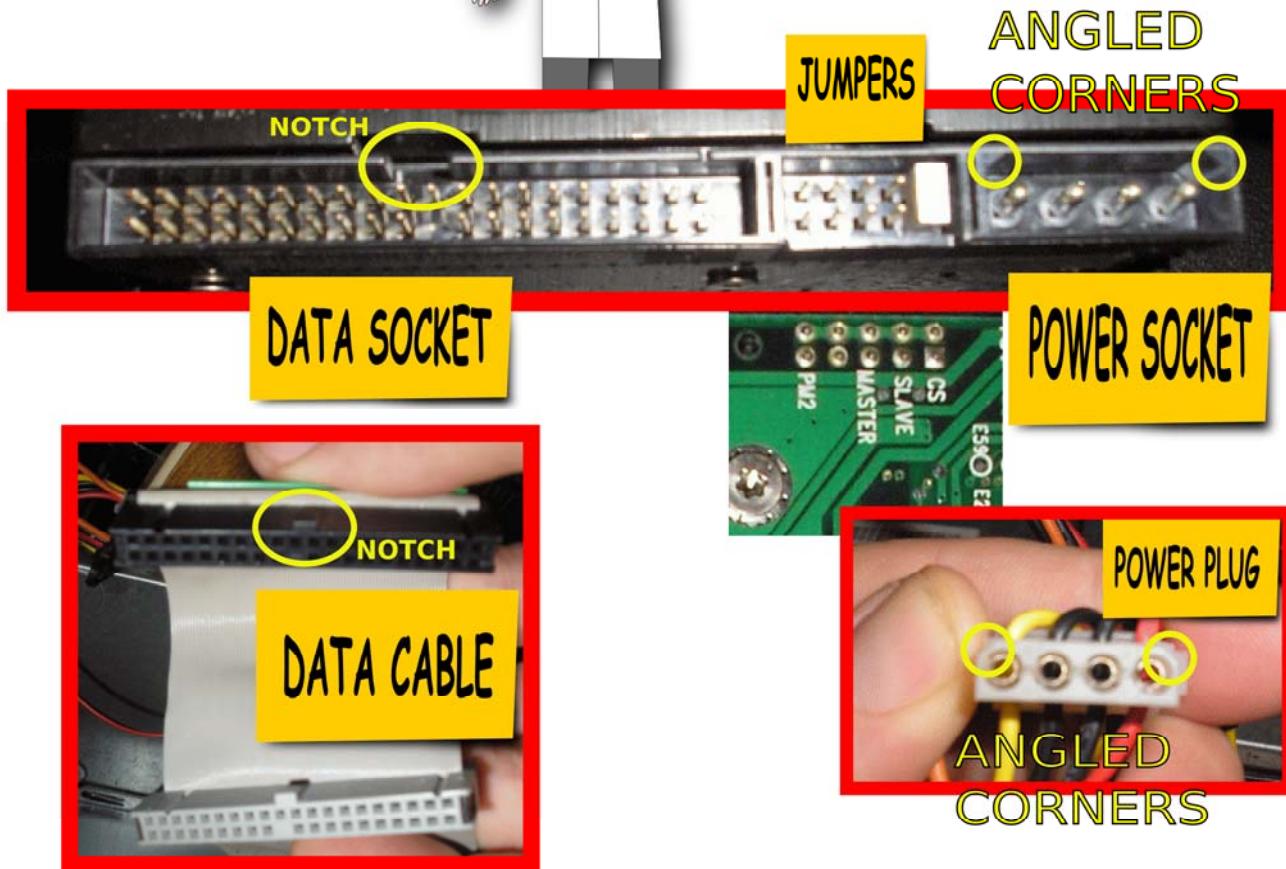


BOTTOM OF
HARD DRIVE



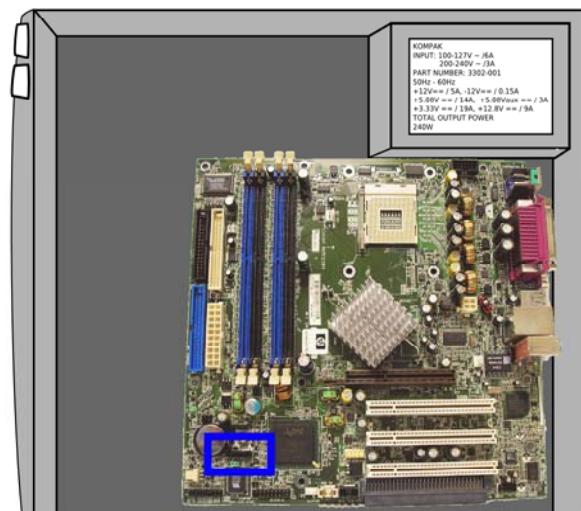
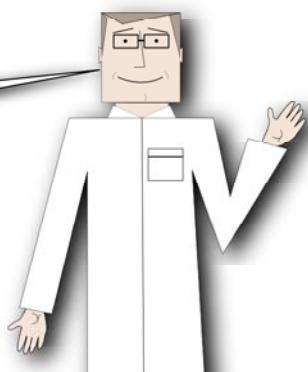
HERE ARE ALL THE PLUGS AND SOCKETS THAT PLUG INTO A HARD DRIVE. YOU CAN SEE THERE IS A NOTCH IN THE DATA CABLE. THAT NOTCH FITS INTO THE TOP OF THE SOCKET ON THE HARD DRIVE.

ON THE POWER PLUG THE CORNERS ARE ANGLED. THESE PLUG INTO THE ANGLED CORNERS ON THE HARD DRIVE. MAKE SURE YOUR COMPUTER IS OFF WHEN YOU DO THIS. BE CAREFUL, IF YOU PLUG IT IN WRONG AND FORCE IT YOU WILL SHORT OUT THE DRIVE..



THE OTHER END OF THE CABLE GOES HERE. THIS IS, OF COURSE, LOCATED ON THE MOTHERBOARD WHICH I HAVE ENLARGED FOR YOU TO SEE. HERE AGAIN YOU CAN SEE THERE ARE NOTCHES. BE SURE TO PAY ATTENTION TO THESE NOTCHES. YOU DON'T WANT TO BREAK ANYTHING. ..

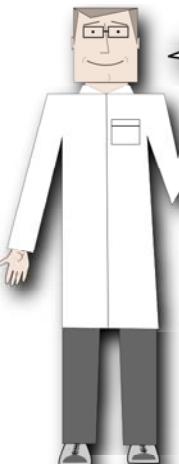
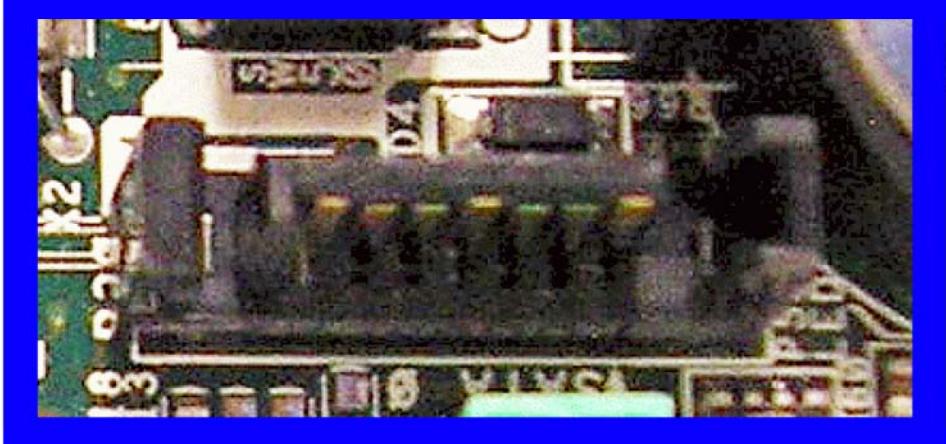
THIS IS A SATA PLUG. IT IS LOCATED ON THE SAME MOTHERBOARD THAT HAS OUR EIDE HARD DRIVE AND SOCKETS. HOWEVER, YOU MUST MAKE SURE THAT THE SATA DRIVES ARE ENABLED IN THE BIOS.



SATA PLUG



SATA CABLE

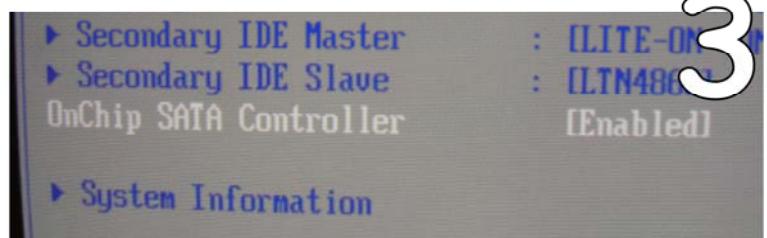
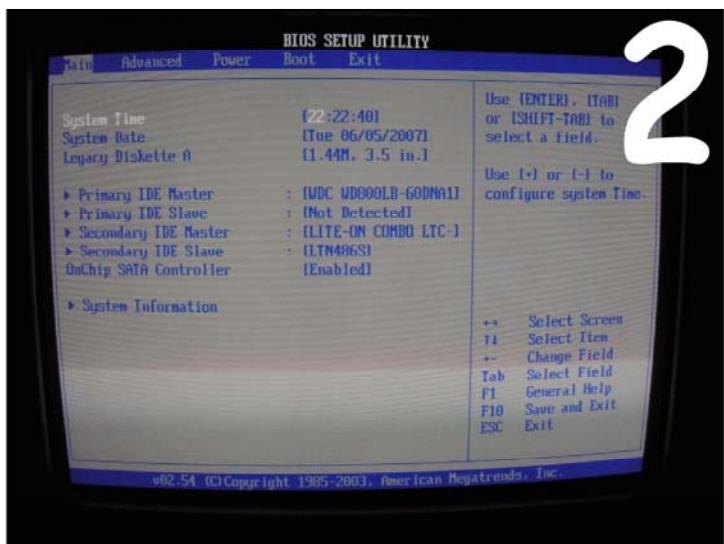


TO ENABLE THE SATA DRIVES YOU MAY HAVE TO GO INTO THE BIOS. BEGIN BY SHUTTING DOWN YOUR COMPUTER AND STARTING IT.

1. YOU SHOULD SEE A SCREEN THAT HAS THE LOGO OF THE MANUFACTURER OF THE COMPUTER OR THE MOTHERBOARD. YOU MAY HAVE TO PRESS THE DELETE KEY OR F10 THE SCREEN SHOULD TELL YOU.

2. THEN USING THE ARROW KEYS ON YOUR KEYBOARD NAVIGATE TO AND ENABLE THE SATA IN THE BIOS.

3. YOU CAN SEE THAT OURS IS ALREADY ENABLED, OTHERWISE, I WOULD PRESS THE ENTER KEY AND CHANGE THE SETTINGS.

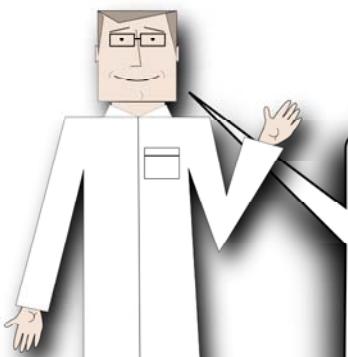
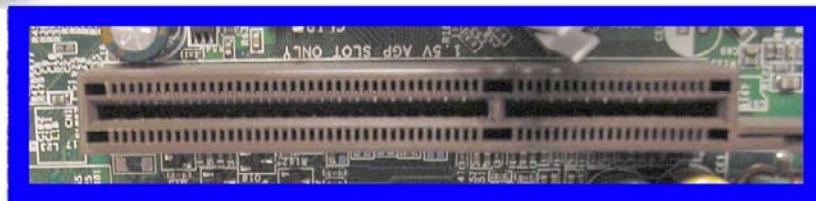
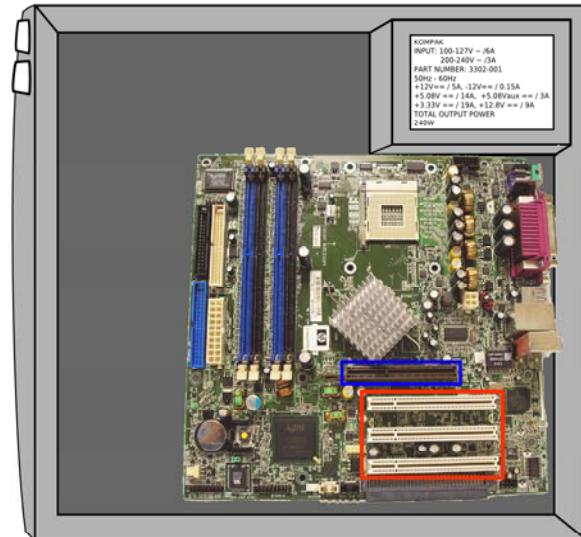
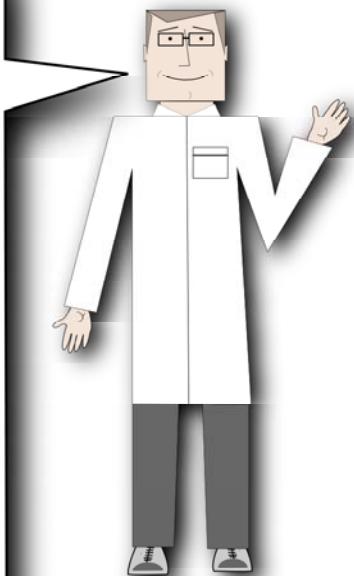


CARDS ARE MUCH EASIER TO REPLACE OR FIX. THE CARDS ARE USUALLY A MODEM, ETHERNET, TV TUNER OR VIDEO CARD. MOST CARDS ARE RELATIVELY INEXPENSIVE SO JUST REPLACE THE CARD WITH THE SAME OR SIMILAR AND SEE IF THAT FIXES THE PROBLEM. IF NOT THEN RETURN THE CARD TO THE STORE. EVEN IF YOU HAVE TO PAY A RESTOCKING FEE, IT IS USUALLY CHEAPER THAN HAVING A TECHNICIAN LOOK AT IT.

THERE ARE TWO OTHER REASONS WHY A CARD MIGHT NOT WORK.

1. THE POWERSUPPLY IS NOT SUFFICIENT FOR EVERYTHING YOU HAVE PLUGGED INTO THE COMPUTER. A 150-250W POWER SUPPLY IS NOT VERY SUFFICIENT AND MAY NEED TO BE REPLACED.

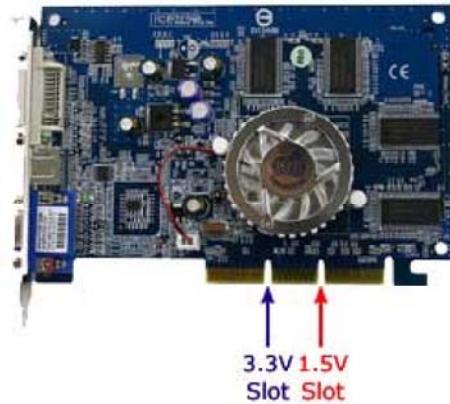
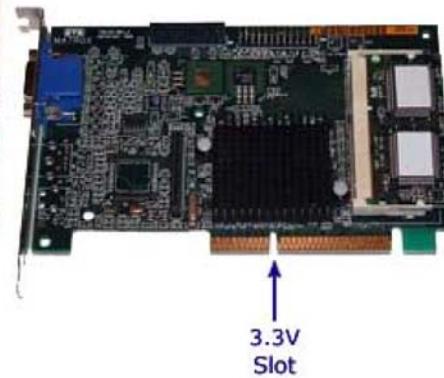
2. THE MOTHERBOARD COULD BE BAD OR YOU MAY HAVE TO CHANGE THE BIOS SETTINGS. OFTEN TIMES BIOS SETTINGS HAVE TO BE ENABLED OR RESET IN THE BIOS SO LOOK THERE AS WELL. THE LAST THING WE WANT TO HAVE TO DO IS REPLACE THE MOTHERBOARD.



TO REPLACE A CARD YOU FIRST NEED TO KNOW WHAT HAPPENS WHEN IT GOES BAD. WHEN VIDEO CARDS WHICH ARE THE MOST EXPENSIVE OF THE CARDS GO BAD THE COMPUTER WILL BEEP BEEP BEEP AT YOU BECAUSE OF COURSE YOU CAN'T SEE A ERROR MESSAGE BECAUSE YOUR VIDEO CARD IS BAD. IF THE VIDEO GOES WHILE STARTING WINDOWS THAT IS USUALLY THE DRIVERS AND IS AN OPERATING SYSTEM ISSUE. WE'LL TALK ABOUT THAT LATER.

THERE ARE SEVERAL TYPES OF VIDEO CARDS. THE MOST POPULAR ARE AGP AND PCIe.

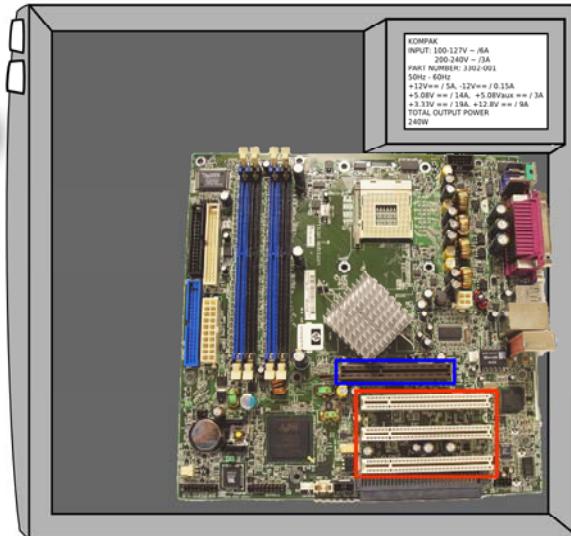
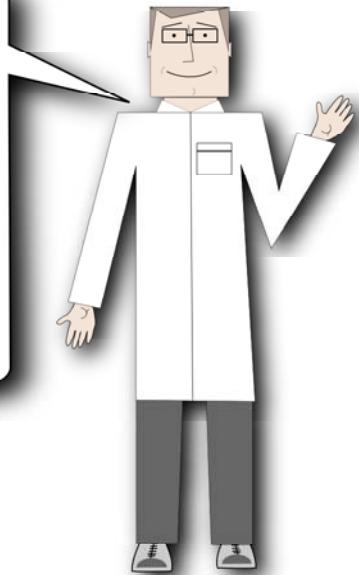
THIS BROWNISH CARD SLOT IS AN AGP. THERE ARE THREE TYPES OF AGP CARD AND THEY ARE DISTINGUISHED BY VOLTAGES. JUST MATCH UP WHAT YOU HAVE WITH THE EXAMPLES BELOW.



AGP Card Voltage Slots

THE SECOND TYPE OF VIDEO CARD IS A PCIe OR PCI EXPRESS. THERE IS PCIe 16X OR PCIe 1X. YOU CAN SEE THAT THERE IS A LARGE DIFFERENCE BETWEEN THE TWO. THE MOTHERBOARD ON MY RIGHT DOES NOT HAVE A PCIe SLOT ON IT. HOWEVER, BELOW IT YOU CAN SEE AN EXAMPLE OF WHAT THEY LOOK LIKE AND TO THE LEFT YOU CAN SEE THE EXAMPLE CARDS EACH.

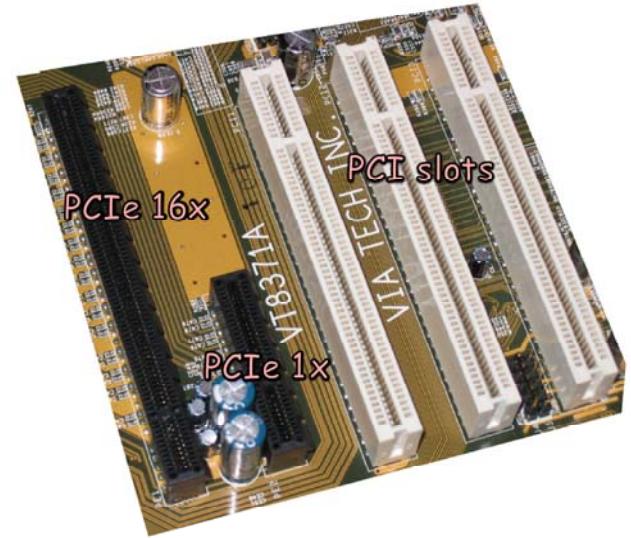
HIGHER END VIDEO CARDS WILL USE THE PCIe 16X WHILE LOWER END CARDS WILL USE PCIe 1X CARDS. SO, AGAIN REMEMBER THAT IT IS ALWAYS EASIEST TO REPLACE THE SAME WITH THE SAME.



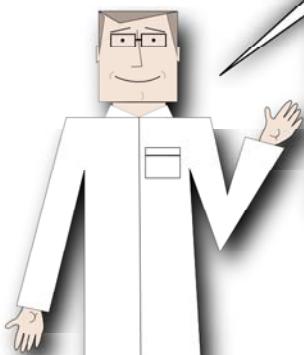
PCIe 16x



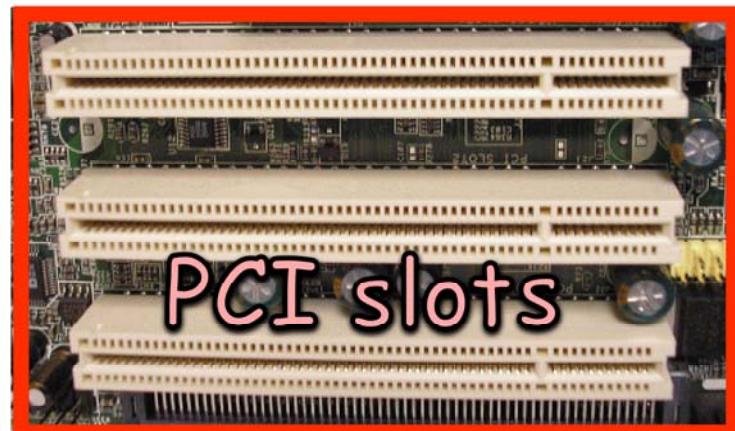
PCIe 1x



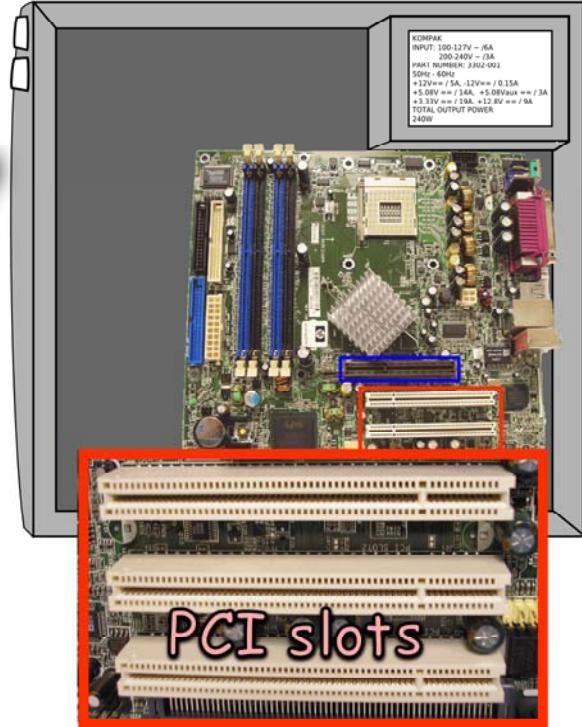
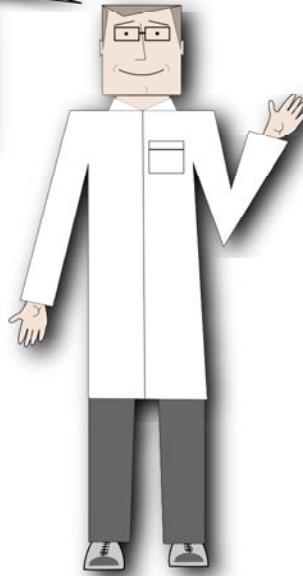
THESE ARE PCI SLOTS AND THE EXAMPLE MOTHERBOARD ABOVE HAS THEM. THESE ARE THE OLDEST TYPE OF SLOT AND THE CARDS THAT GO IN THEM ARE THE CHEAPEST. THEY EVEN MAKE PCI VIDEO CARDS THAT ARE CHEAP. FOR THESE YOU SHOULDN'T HAVE TO TURN ANYTHING ON IN THE BIOS.



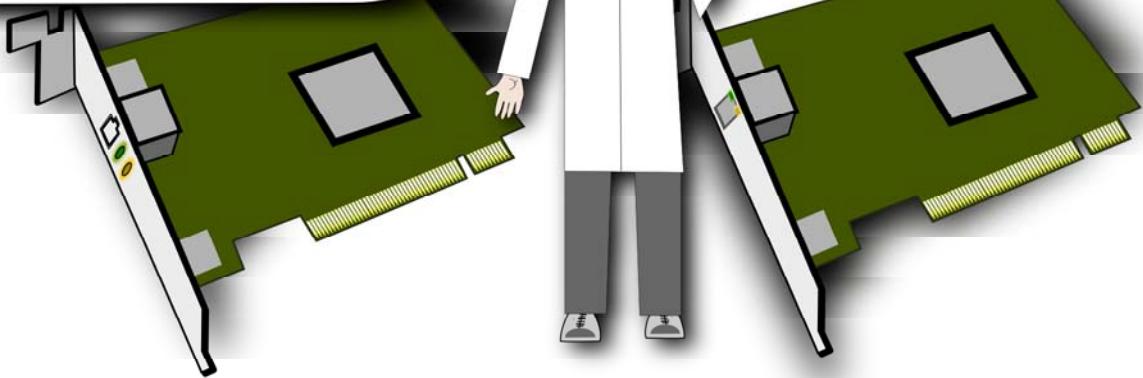
PCI card



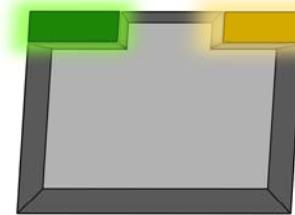
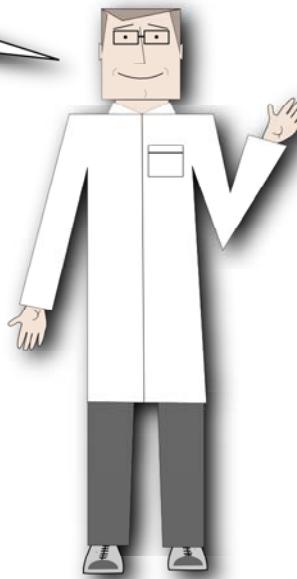
OTHER PCI CARDS INCLUDE YOUR MODEM AND ETHERNET CARD, TV TUNER OR SOUND CARD. FIGURING OUT WHETHER IT IS A HARDWARE OR OPERATING SYSTEM IS PRETTY STRAIGHT FORWARD. LET'S BEGIN WITH THE EASIEST CARD FIRST..



HERE ARE TWO ETHERNET CARDS. ALL ETHERNET CARDS WHETHER BUILT INTO THE MOTHERBOARD OR ON A CARD HAVE TWO LIGHTS; GREEN AND YELLOW. IF YOU CAN'T CONNECT TO THE INTERNET THE FIRST THING TO CHECK IS IF THE GREEN LIGHT IS ON. IT SHOULD BE STEADY. IF IT IS OFF THAT MEANS THAT THERE IS NO CONNECTION BETWEEN THE COMPUTER AND YOUR ROUTER, CABLE MODEM OR DSL LINE. SO THE CABLE OR ETHERNET CARD ARE BAD. FIRST REPLACE THE CABLE. IF THAT DOESN'T FIX IT THEN REPLACE THE CARD. IF THE ETHERNET CARD IS BUILT INTO THE MOTHERBOARD THEN BUY A CARD AND ADD IT TO THE SYSTEM. YOUR COMPUTER SHOULD RECOGNIZE THE WORKING CARD WHEN YOU TRY TO ACCESS THE INTERNET

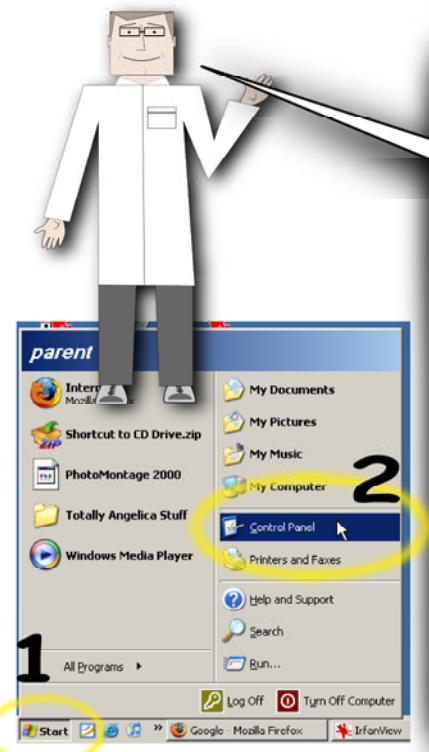
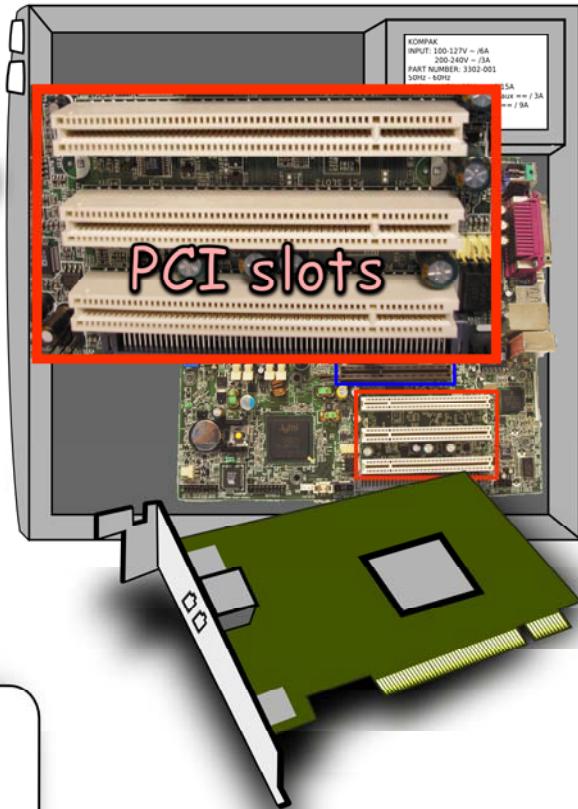
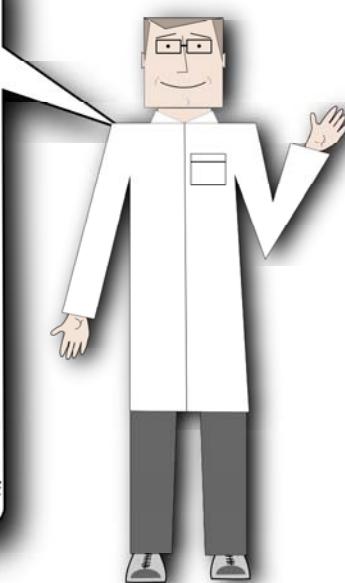


IF THE GREEN LIGHT IS ON THEN THE YELLOW LIGHT SHOULD BE BLINKING. THE BLINKING YELLOW INDICATES DATA BEING TRANSMITTED. SO IT SHOULDN'T FLASH IN ANY PARTICULAR PATTERN. IT SHOULD BE INTERMITTENT. IF IT IS FLASHING THEN THERE IS SOMETHING WRONG WITH THE DRIVERS OR OPERATING SYSTEM.

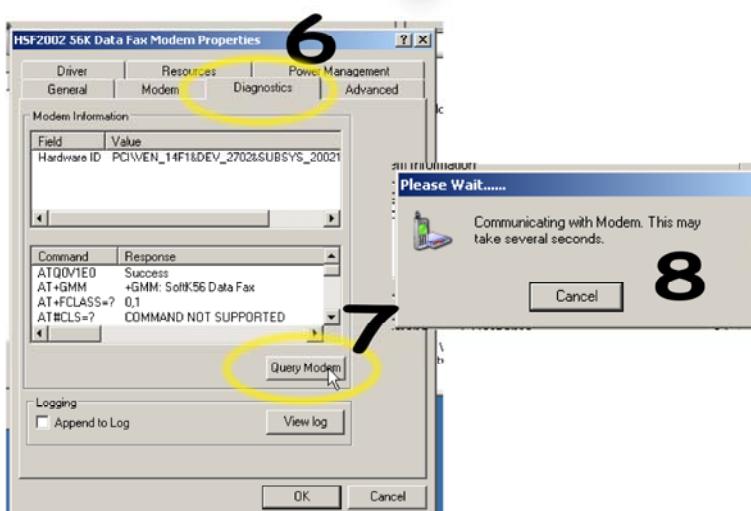
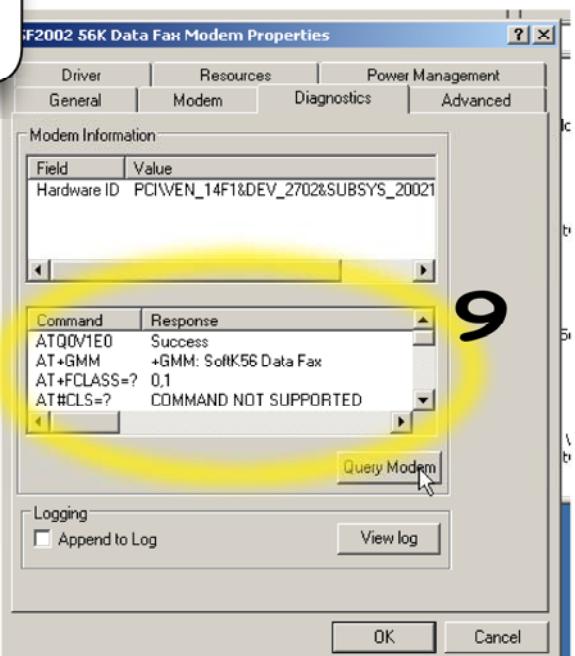
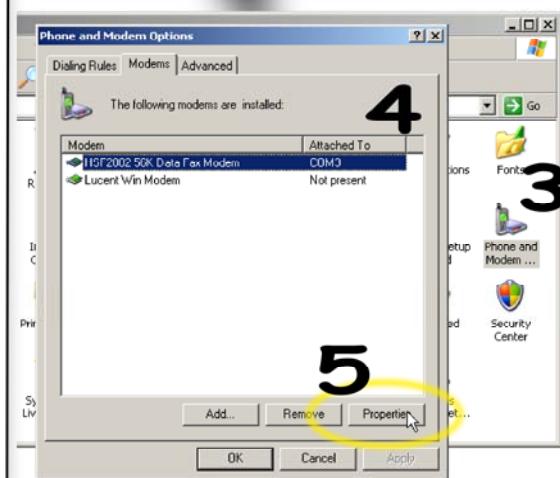


MODEMS ARE A LITTLE MORE DIFFICULT TO DIAGNOSE, HOWEVER, THEY ARE CHEAP. HERE ARE A FEW THINGS TO LOOK AT FIRST.

1. MAKE SURE YOU HAVE ALL OF YOUR PHONE LINES PLUGGED INTO THE CORRECT SOCKETS. ALSO CHECK TO MAKE SURE THERE IS A DIALTONE. YOU MAY ALSO WANT TO CHECK TO MAKE SURE THAT THE CARD IS PUSHED IN ALL THE WAY AND HASN'T COME LOOSE.
2. RUN THE DIAGNOSTICS ON THE MODEM. THIS CAN BE FOUND IN THE CONTROL PANEL UNDER THE PHONE AND MODEM OPTIONS ICON. I'LL SHOW YOU HOW TO DO THIS IN A MINUTE
3. SOMETIMES YOU MAY HAVE TO COMPLETELY UNPLUG YOUR COMPUTER FOR ABOUT FIVE MINUTES OR SO. YOU MAY NEED TO DO THIS BECAUSE THE COM PORT WON'T CLOSE OR IF THE IRQ'S NEED TO BE RESET.



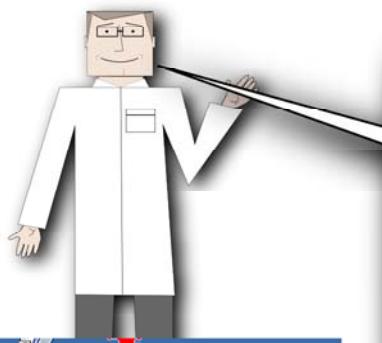
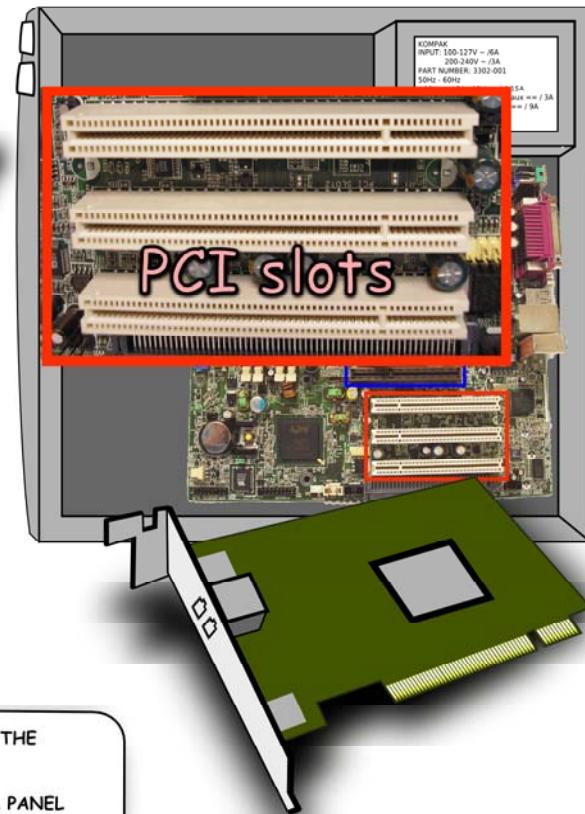
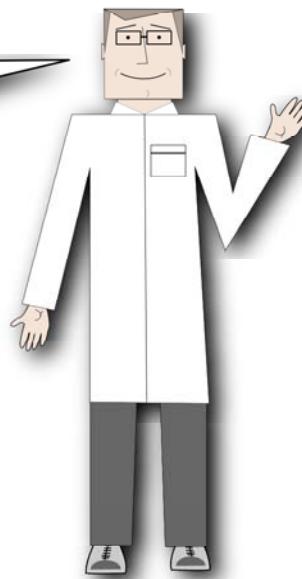
1. BEGIN BY CLICKING ON THE START BUTTON.
2. CLICK ON THE CONTROL PANEL ITEM IN THE MENU.
3. ONCE IN THE CONTROL PANEL DOUBLE-CLICK ON THE THE PHONE AND MODEM OPTIONS ICON.
4. MAKE SURE YOU HAVE THE MODEM HIGHLIGHTED IN BLUE. IT SHOULD HAVE A COM PORT.
5. CLICK ON THE PROPERTIES BUTTON.
6. CLICK ON THE DIAGNOSTICS TAB.
7. CLICK ON THE QUERY MODEM BUTTON.
- 8 MODEM IS BEING QUERIED.
9. YOU SHOULD SEE THE QUERY AND IT SHOULD FINISH OK. IF THE QUERY LIST IS EMPTY OR IF EVERYTHING FAILS YOU MODEM IS PROBABLY BAD. REPLACE IT.



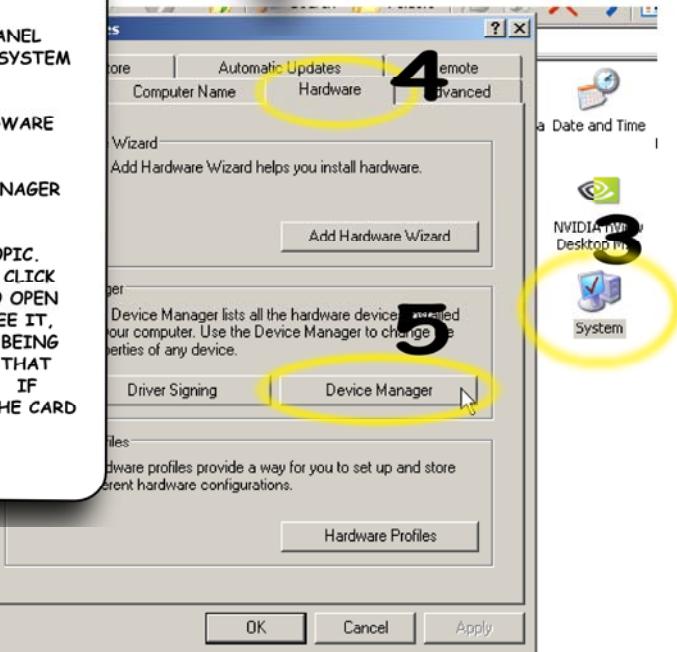
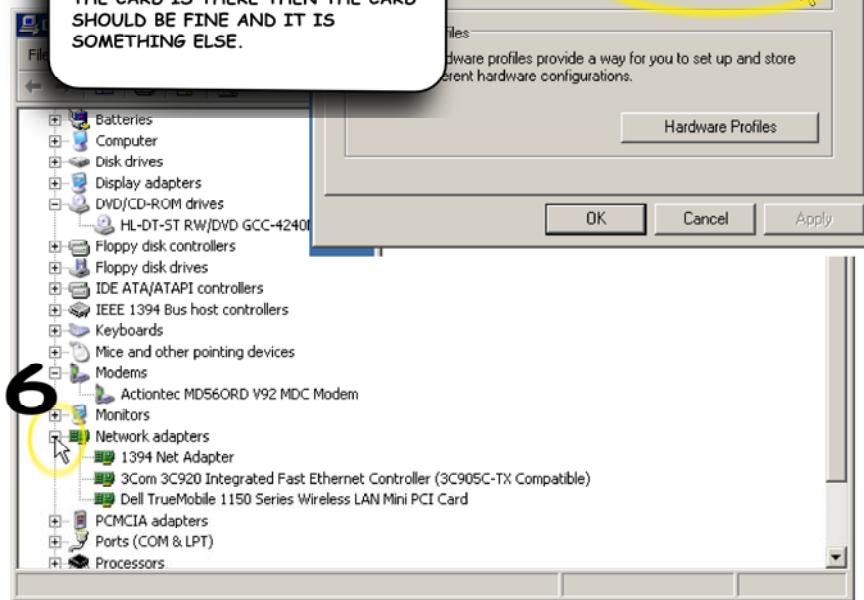
NOW THERE ARE ALL KINDS OF CARDS AND I CAN'T REALLY COVER ALL OF THEM SO I COVERED THE MOST COMMON TYPES AND NOW HERE ARE A FEW WAYS TO DETERMINE IF THE CARD IS BAD OR IF IT IS THE OPERATING SYSTEM.

GENERALLY SPEAKING, IF THE CARD IS BAD IT SHOULD NOT SHOW UP IN THE HARDWARE LIST UNDER THE DEVICE MANAGER.

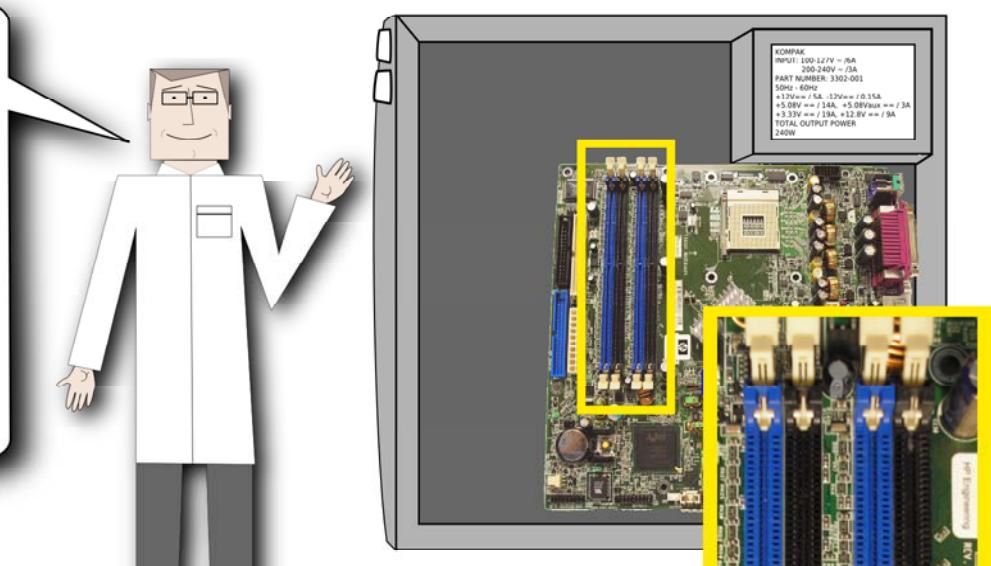
HERE LET ME SHOW YOU.



1. BEGIN BY CLICKING ON THE START BUTTON.
2. CLICK ON THE CONTROL PANEL ITEM IN THE MENU.
3. ONCE IN THE CONTROL PANEL DOUBLE-CLICK ON THE THE SYSTEM ICON.
4. NOW CLICK ON THE HARDWARE TAB.
5. CLICK ON THE DEVICE MANAGER BUTTON.
6. NOW FIND THE DEVICE TOPIC. WHEN YOU FIND THE TOPIC CLICK ONCE ON THE PLUS SIGN TO OPEN THE LIST. IF YOU DON'T SEE IT, THAT IS BECAUSE IT ISN'T BEING RECOGNIZED. THIS MEANS THAT THE CARD IS PROBABLY BAD. IF THE CARD IS THERE THEN THE CARD SHOULD BE FINE AND IT IS SOMETHING ELSE.

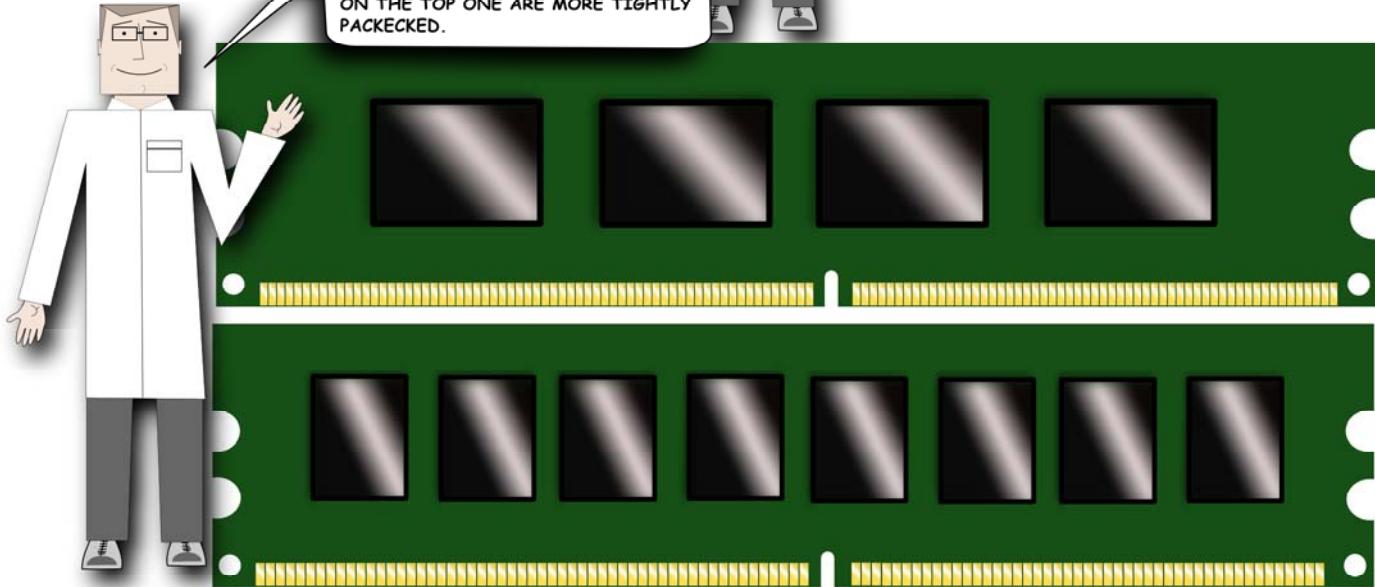
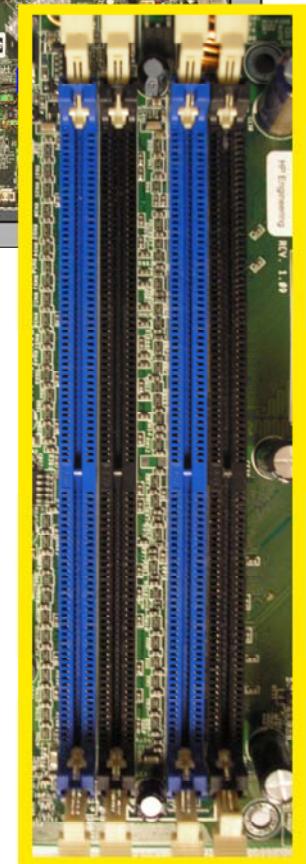
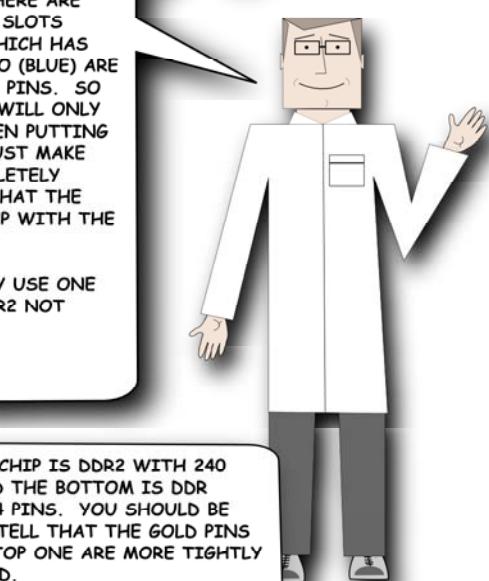


NOW THAT WE HAVE COVERED VIDEO CARDS LET'S MOVE ON TO RAM WHICH STANDS FOR RANDOM ACCESS MEMORY. THIS IS WHAT IS KNOWN AS WORKING MEMORY. EVERYTIME YOU RUN A PROGRAM IT IS COPIED FROM THE HARD DRIVE AND INTO RAM. RAM IS ABOUT 1000X FASTER THAN THE HARD DRIVE. RAM CHIPS CAN GO BAD, HOWEVER, IT IS VERY UNLIKELY. THE BIGGEST PROBLEM IS THAT MOST PEOPLE DON'T HAVE ENOUGH AND NEED TO ADD MORE. SITES SUCH AS KINGSTON.COM AND TIGERDIRECT.COM PROVIDE A SIMPLE INTERACTIVE WIZARD THAT CAN TELL YOU WHAT YOU CAN UPGRADE TO AND HOW MUCH IT WILL COST PROVIDED YOU KNOW THE MAKE AND MODEL OF YOUR COMPUTER...



HERE ARE THE RAM SLOTS FROM OUR COMPUTER MOTHERBOARD. THERE ARE FOUR SLOTS, HOWEVER, TWO SLOTS (BLACK) ARE FOR DDR2 RAM WHICH HAS 240 PINS AND THE OTHER TWO (BLUE) ARE FOR DDR RAM WHICH HAS 184 PINS. SO WHEN YOU PUT RAM IN, YOU WILL ONLY USE ONE SET OF SLOTS. WHEN PUTTING RAM INTO YOUR COMPUTER JUST MAKE SURE THE COMPUTER IS COMPLETELY UNPLUGGED AND MAKE SURE THAT THE NOTCHES ON THE RAM LINE UP WITH THE NOTCHES ON THE COMPUTER.

AND REMEMBER YOU CAN ONLY USE ONE KIND. SO EITHER DDR OR DDR2 NOT BOTH.



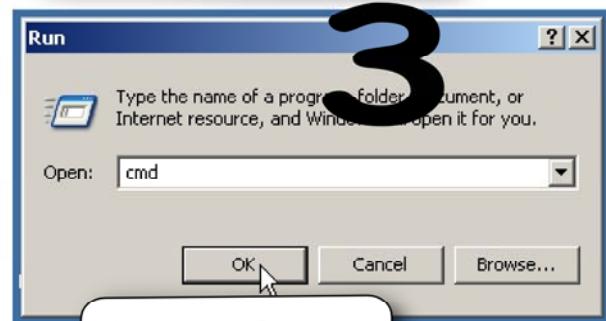
WHY IS MY INTERNET EXPLORER OR FIREFOX SO SLOW?



1

USUALLY THE QUESTION IS, WHY IS THIS COMPUTER SO SLOW? THE COMPUTER ISN'T SLOW. IT'S THE INTERNET, WHETHER THE CONNECTION OR THE CONNECTIONS ON THE INTERNET. WE TAKE FOR GRANTED THAT WHEN PHONE LINES ARE BUSY WE GET A BUSY SIGNAL. THERE IS NO BUSY SIGNAL ON THE INTERNET. HOWEVER, THERE IS A UTILITY BUILT INTO THE WINDOS OPERATING SYSTEM THAT CAN TELL YOU EXACTLY WHAT IS GOING WITH THE INTERNET.

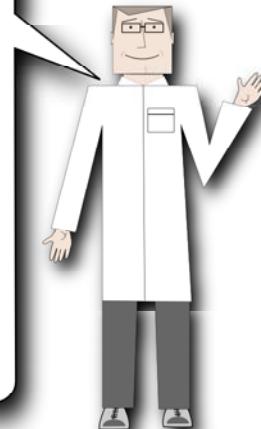
IT IS CALLED TRACERT AND HERE IS HOW YOU USE IT AND WHAT IT TELLS YOU.



3

1. CLICK ON THE START BUTTON.
2. CLICK ON THE RUN COMMAND.
3. TYPE "CMD" AND THEN CLICK THE OK BUTTON.
4. THE COMMAND PROMPT OPENS AND THEN TYPE IN "TRACERT" AND THE THE NAME OF THE WEB ADDRESS YOU ARE TRYING TO GET TO AND THEN PRESS THE ENTER KEY ON THE KEYBOARD.

IN THIS EXAMPLE WE USED YAHOO.
WE TYPED
"TRACERT
WWW.YAHOO.COM"



AFTER YOU PRESS THE ENTER KEY TRACERT RESOLVES THE DOMAIN NAME INTO AN IP ADDRESS. EVERY COMPUTER CONNECTED TO THE INTERNET GETS AN IP ADDRESS. THEN IT TELLS YOU THE PATH IT TAKES TO GET TO THIS IP ADDRESS AND THE TIME IT TAKES TO GET THROUGH. EACH "HOP" REPRESENTS A ROUTING COMPUTER CALLED A ROUTER. IN OUR EXAMPLE IT TAKES 11 ROUTERS UNTIL WE GET TO YAHOO. EACH ROUTER TOOK FROM 140 MILLISECONDS (MS) TO 359 MILLISECONDS. HOWEVER, THE FIRST ATTEMPT ON THE SIXTH HOP TIMED OUT COMPLETELY. OFTEN TIMES WHEN YOU TRY TO GET TO A WEB SITE AND YOU CAN'T, IT IS BECAUSE A ROUTER ALONG THE WAY ISN'T RESPONDING. IN THESE CASES YOU WILL SEE AN "*" ASTERISK ALL THE WAY ACROSS. THIS WOULD BE W HY IT IS SLOW. IT'S NOT YOUR COMPUTER.

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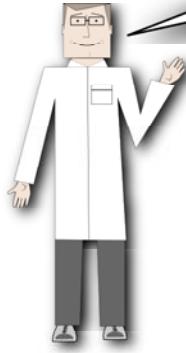
C:\> C:\WINDOWS\System32\cmd.exe
C:\> C:\Documents and Settings\parent>tracert www.yahoo.com
Tracing route to www.yahoo-ht3.akadns.net [69.147.114.210]
over a maximum of 30 hops:
 1  151 ms   155 ms   155 ms  nas37.2.ia1.Level3.net [63.215.29.220]
 2  156 ms   155 ms   140 ms  4.69.11.2
 3  156 ms   155 ms   155 ms  ae-31-51.ebr1.Chicago1.Level3.net [4.68.101.30]
 4  156 ms   155 ms   140 ms  ae-68.ebr3.Chicago1.Level3.net [4.69.134.58]
 5  171 ms   156 ms   171 ms  ae-2.ebr2.Washington1.Level3.net [4.69.132.70]
 6   *       359 ms   171 ms  ae-62-62.csv1.Washington1.Level3.net [4.69.134.1]
46]
 7  172 ms   171 ms   156 ms  ae-11-69.car1.Washington1.Level3.net [4.68.17.3]
 8  171 ms   171 ms   155 ms  4.79.228.2
 9  171 ms   155 ms   171 ms  ge-2-1-0-p150.msr2.re1.yahoo.com [216.115.108.21]
] 
10  218 ms   155 ms   171 ms  ge-4-0-0-msr1.re1.yahoo.com [66.196.112.28]
11  171 ms   170 ms   171 ms  gi1-22.bas-a2.re3.yahoo.com [66.196.112.27]
12  171 ms   171 ms   155 ms  f1.www.vip.re3.yahoo.com [69.147.114.210]

Trace complete.
C:\>

```

4

HOW DO I GET RID OF SPYWARE?



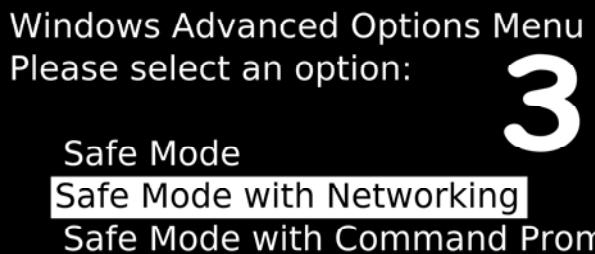
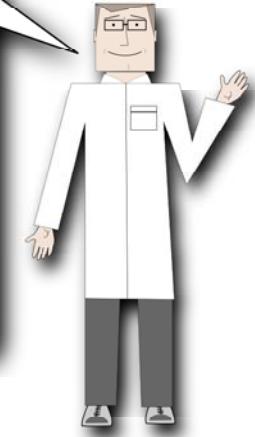
IF YOUR COMPUTER IS FAST IN SAFE MODE BUT SLOW IN NORMAL MODE THEN YOU MAY HAVE SPYWARE ON YOUR COMPUTER. MOST SPYWARE IS INSTALLED BY SOMEONE USUALLY A TEENAGER INSTALLING SOME TYPE OF PEER TO PEER SOFTWARE THAT HAS SPYWARE BUILT INTO IT. THE MOST COMMON IS KAZAA, HOWEVER, OTHERS SUCH AS EMULE, BEAR SHARE, EDONKEY CAN HAVE SPYWARE IN THEM AS WELL. ONLY DOWNLOAD THESE TYPES OF PROGRAMS FROM A KNOWN REPOSITORY LIKE [HTTP://SOURCEFORGE.NET](http://SOURCEFORGE.NET)

THERE ARE SOME PRETTY SIMPLE WAYS OF GETTING RID OF SOFTWARE. LET'S BEGIN WITH THE EASIEST FIRST.

1



1. SHUT DOWN THE COMPUTER.
2. TURN THE COMPUTER BACK AND WHEN YOU SEE THE BIOS SPLASH SCREEN START TAPPING THE F8 KEY.
3. WHEN YOU SEE THE ADVANCED OPTIONS MENU USE THE UP AND DOWN ARROW KEYS TO SELECT SAFE MODE WITH NETWORKING.
4. UPON ENTERING SAFE MODE YOU WILL BE ASKED IF YOU WISH TO CONTINUE CLICK ON THE YES BUTTON.



3

Windows is running in safe mode.

This special diagnostic mode of windows allows you to fix a problem which may be caused by your network or hardware settings. Make sure these settings are correct in Control Panel, and then try starting Windows again. While in Safe Mode some of your devices may not be available.

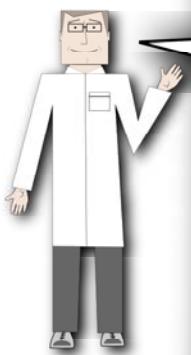
To proceed to work in Safe Mode, click Yes. If you prefer to use System Restore to restore your computer to a previous state, click No.

4

Yes

No

HOW DO I GET RID OF SPYWARE?

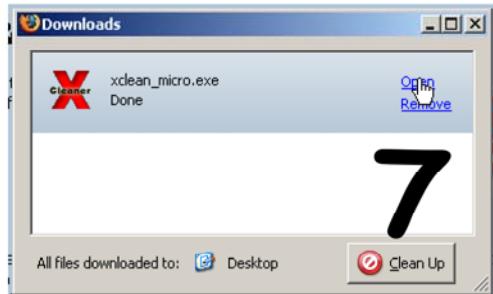
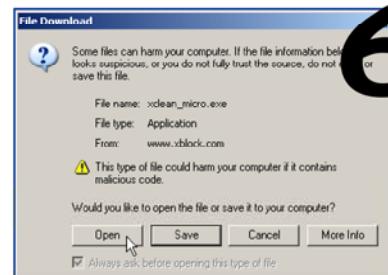


5. IN YOUR BROWSER TYPE THE FOLLOWING ADDRESS:
WWW.XBLOCK.COM/DOWNLOAD/XCLEAN_MICRO.EXE
THEN PRESS THE ENTER KEY.
6. NOW IF YOU ARE USING INTERNET EXPLORER THE FILE DOWNLOAD BOX WILL OPEN. IT WANTS TO KNOW WHAT TO DO. CLICK ON THE OPEN BUTTON.
7. IF YOU ARE USING FIREFOX CLICK ON THE SAVE FILE BUTTON. WHEN IT IS FINISHED DOWNLOADING CLICK ON THE OPEN LINK TO BEGIN THE PROGRAM.
8. X-CLEANER MICRO EDITION NOW BEGINS TO SCAN YOUR COMPUTER FOR SPYWARE.
9. WHEN IT FINDS SOMETHING THE PROGRAM WILL ASK YOU WHAT TO DO, I USUALLY CLICK REMOVE IT. HOWEVER, YOU SHOULD READ WHAT IT IS. IN THIS EXAMPLE, THE SUSPICIOUS PROGRAM IS CALLED "SPAMMIT" I AM GOING TO CLICK REMOVE IT.
10. BECAUSE YOU MAY BE REMOVING SOMETHING THAT YOU NEED, THE PROGRAM WILL NOW ASK IF YOU WANT TO CREATE A RESTORE POINT. A RESTORE POINT WILL ALLOW YOU TO RESTORE THE ITEM WE ARE CURRENTLY REMOVING.. CLICK YES.
11. ONCE DONE THE PROGRAM WILL PROMPT YOU TO REBOOT YOUR COMPUTER . CLICK YES.

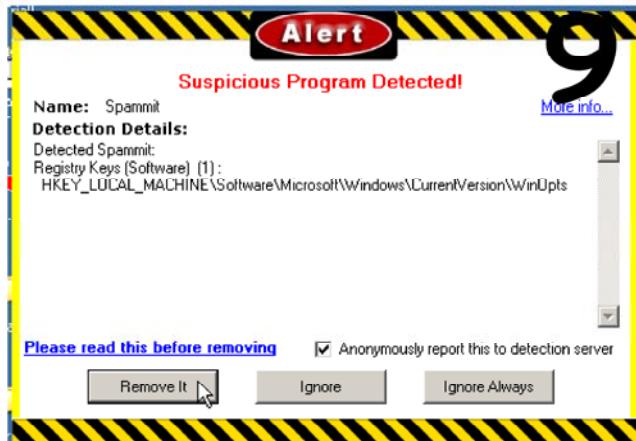
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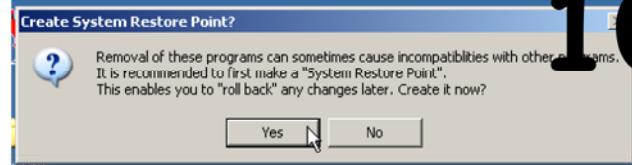
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9



10

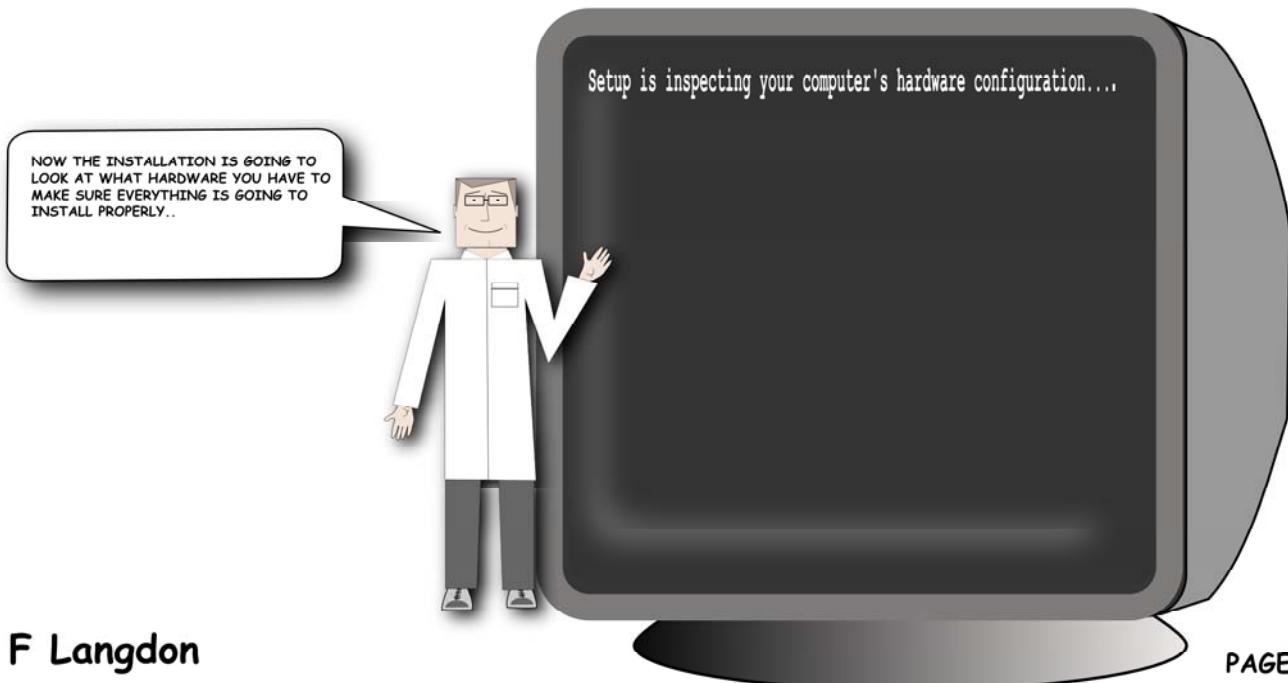


11



8

REINSTALLING XP



REINSTALLING XP

THERE ARE THREE PARTS TO INSTALLING WINDOWS XP. THE FIRST PART DEALS WITH THE HARD DRIVE AND HARD DRIVE PARTITIONS. THE SECOND PART OF THE INSTALLATION INVOLVES COPYING KEY FILES TO THE HARD DRIVE. THE THIRD PART REQUIRES A REBOOT AND A CONTINUANCE OF THE INSTALLATION PROCESS.

THIS WINDOW IS TELLING US THAT IF WE HAVE SOME SPECIAL KIND OF HARD DRIVE LIKE A SCSI (PRONOUNCED SCUZZY) A RAID OR EVEN A SATA THAT WE MAY NEED TO INSTALL SPECIAL DRIVERS AND WE SHOULD DO THIS AT THIS TIME.

NOW YOU HAVE THREE CHOICES. TO SETUP WINDOWS PRESS THE ENTER KEY. TO REPAIR WINDOWS, PRESS THE "R" KEY. OR, QUIT WINDOWS BY PRESSING THE F3 KEY.

WE WANT TO SETUP WINDOWS SO YOU SHOULD PRESS THE ENTER KEY.

Windows Setup



Press F6 if you need to install a third party SCSI or RAID driver...

Welcome to Setup.

This portion of the Setup program prepares Microsoft(R)
Windows(R) XP to run on your computer.

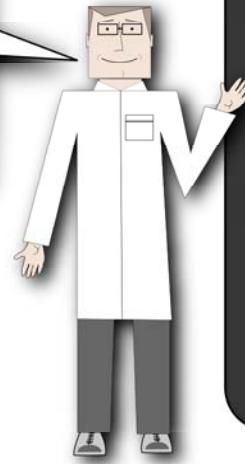
- To set up Windows XP now, press ENTER.
- To repair a Windows XP installation using Recovery Console, press R.
- To quit Setup without installing Windows XP, press F3.

ENTER=Continue R=Repair F3=Quit

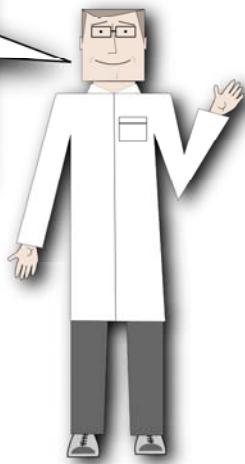
REINSTALLING XP

OK, BEFORE WINDOWS XP CAN BE INSTALLED YOU HAVE TO AGREE TO THE LICENSING AGREEMENT. IF YOU READ IT YOU WILL PROBABLY BE THE ONLY PERSON TO EVER HAVE ACTUALLY READ IT. TO AGREE TO IT PRESS THE F8 KEY ON THE KEYBOARD OTHERWISE PRESS THE ESC KEY.

FOR NOW LET'S CONTINUE INSTALLING SO PRESS THE F8 KEY.



NOW THIS IS THE CONFUSING PART. A HARD DRIVE HAS TO BE PARTITIONED BEFORE IT CAN BE USED. TO CREATE A PARTITION YOU HAVE TO PRESS THE "C" KEY ON THE KEYBOARD AND CREATE THE PARTITION. HOWEVER, YOU CAN STILL JUST PRESS ENTER AND THE INSTALLATION PROGRAM WILL TAKE CARE OF IT. FOR THIS EXAMPLE, PLEASE PRESS THE "C" KEY SO WE CAN CREATE A PARTITION.

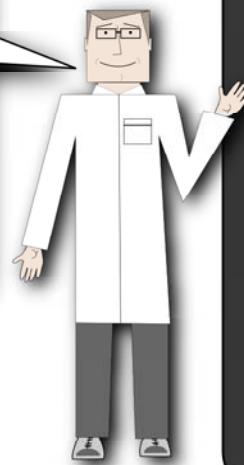


REINSTALLING XP

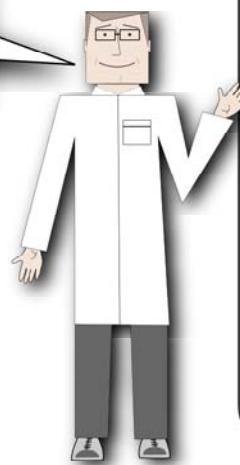
SETUP NOW WANTS TO KNOW HOW BIG OF A PARTITION DO YOU WANT. IN THIS EXAMPLE, I AM GOING TO USE THE WHOLE DRIVE WHICH AS YOU CAN SEE IS NOT THE WHOLE DRIVE. THERE ARE 8 MEGABYTES (MB) LEFT. THIS IS NECESSARY FOR THE MASTER BOOT RECORD.

WHEN YOU HAVE A VERY LARGE HARD DRIVE YOU MIGHT WANT TO CREATE TWO PARTITIONS SO THAT YOU CAN BACK YOUR DOCUMENTS OR THE ONE PARTITION TO THE OTHER.

ONCE YOU HAVE TYPED IN THE SIZE, PRESS THE ENTER KEY TO CREATE IT.



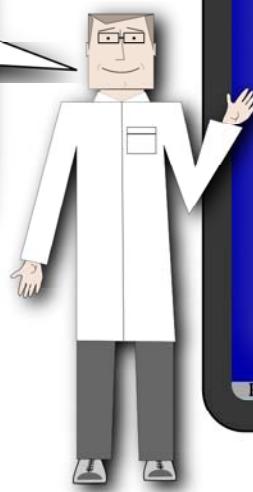
WELL, WE HAVE OUR PARTITION. SO, NOW WE NEED TO INSTALL. SO, PRESS THE "ENTER" KEY TO START INSTALLING.



REINSTALLING XP

OK, NOW THAT WE HAVE A PARTITION WE NEED TO FORMAT THAT PARTITION WITH A "FILE SYSTEM". WE ARE GOING TO USE THE NTFS (NT FILE SYSTEM) BECAUSE IT HAS BETTER SECURITY THAN THE FAT FILE SYSTEM. NOW IT REALLY DOESN'T MATTER IF YOU USE THE QUICK VERSION.

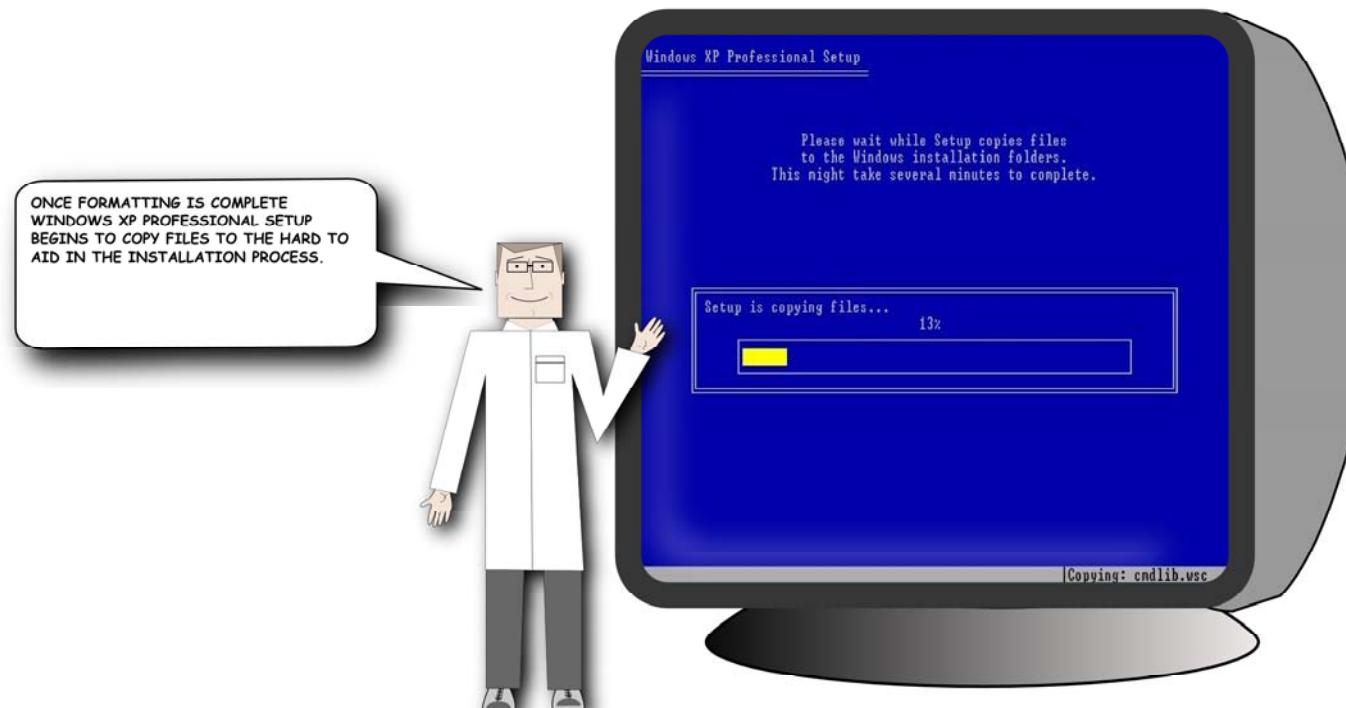
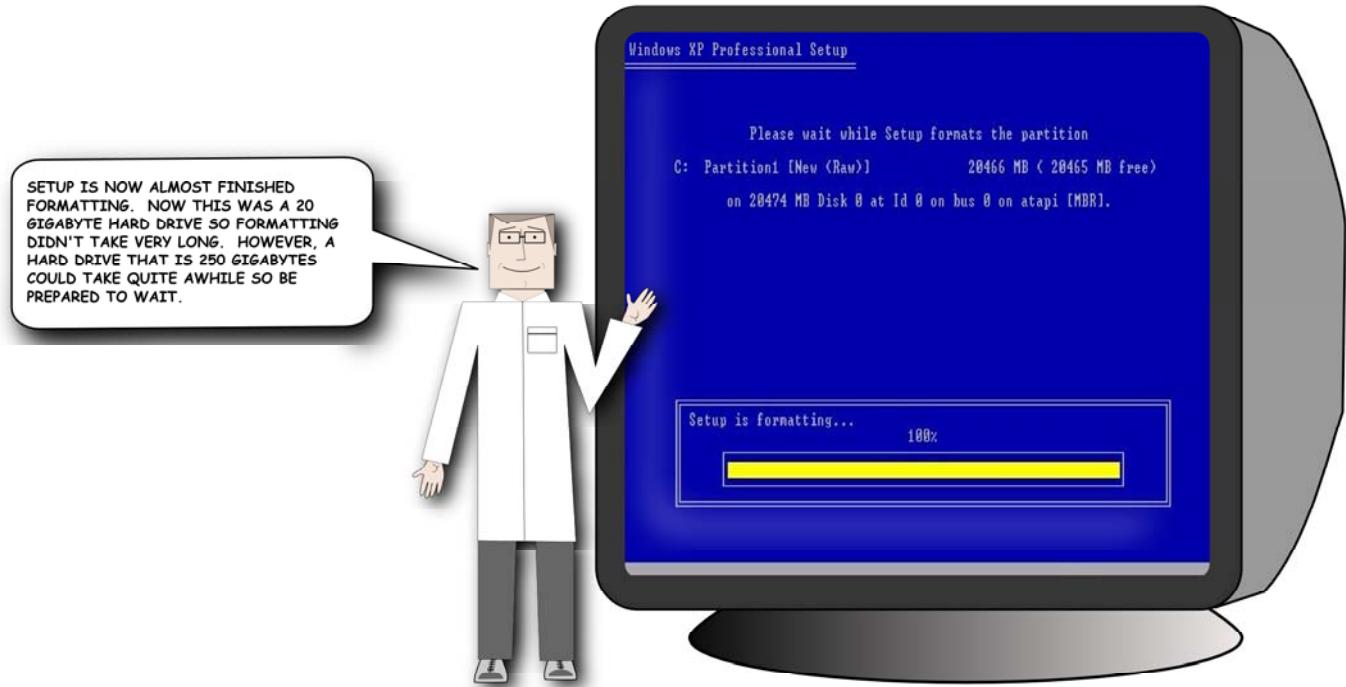
NOW PRESS THE "ENTER" KEY TO FORMAT IT.



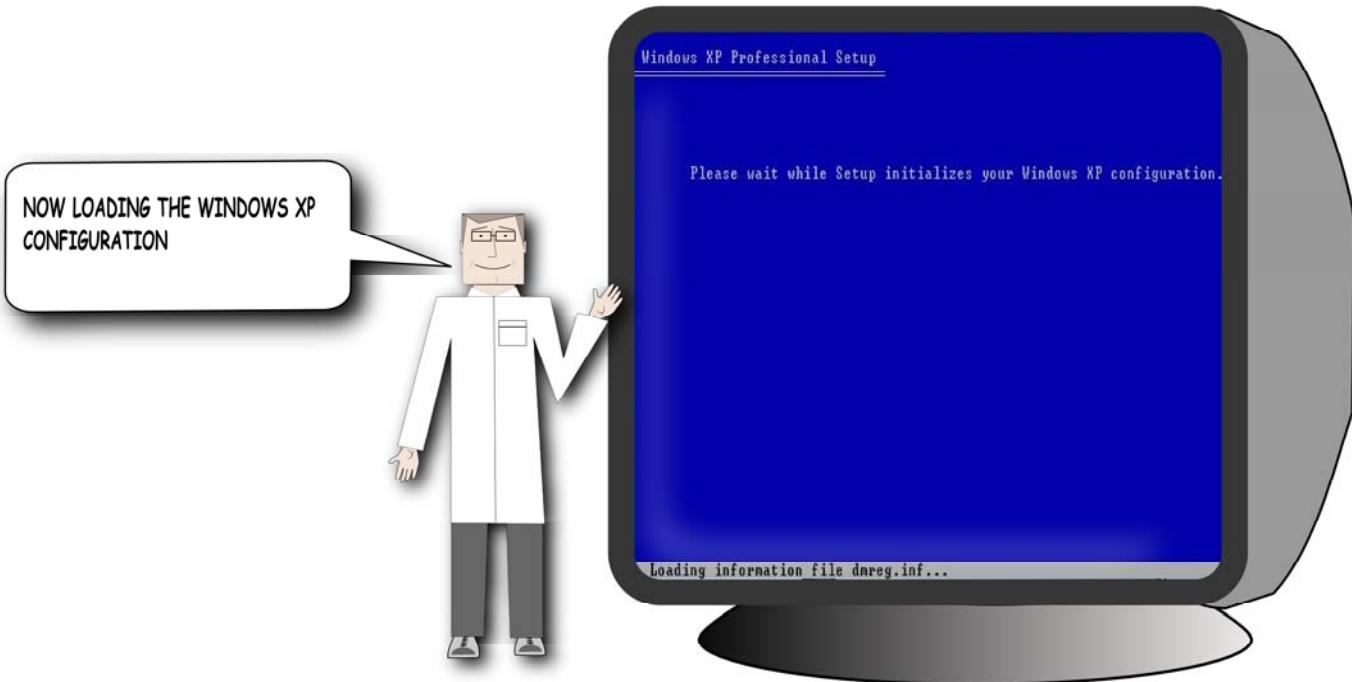
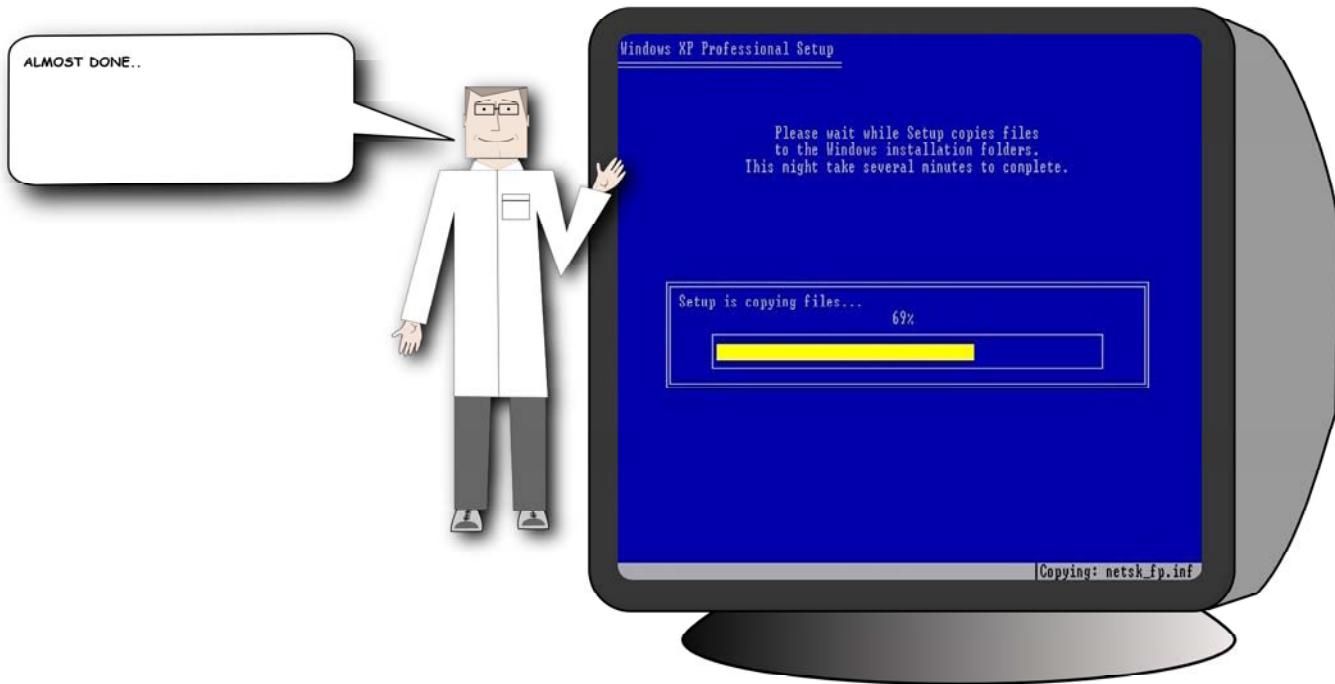
THE FORMATTING PROCESS NOW BEGINS. THIS COULD TAKE AWHILE SO GO TO THE BATHROOM OR GET SOMETHING TO DRINK.



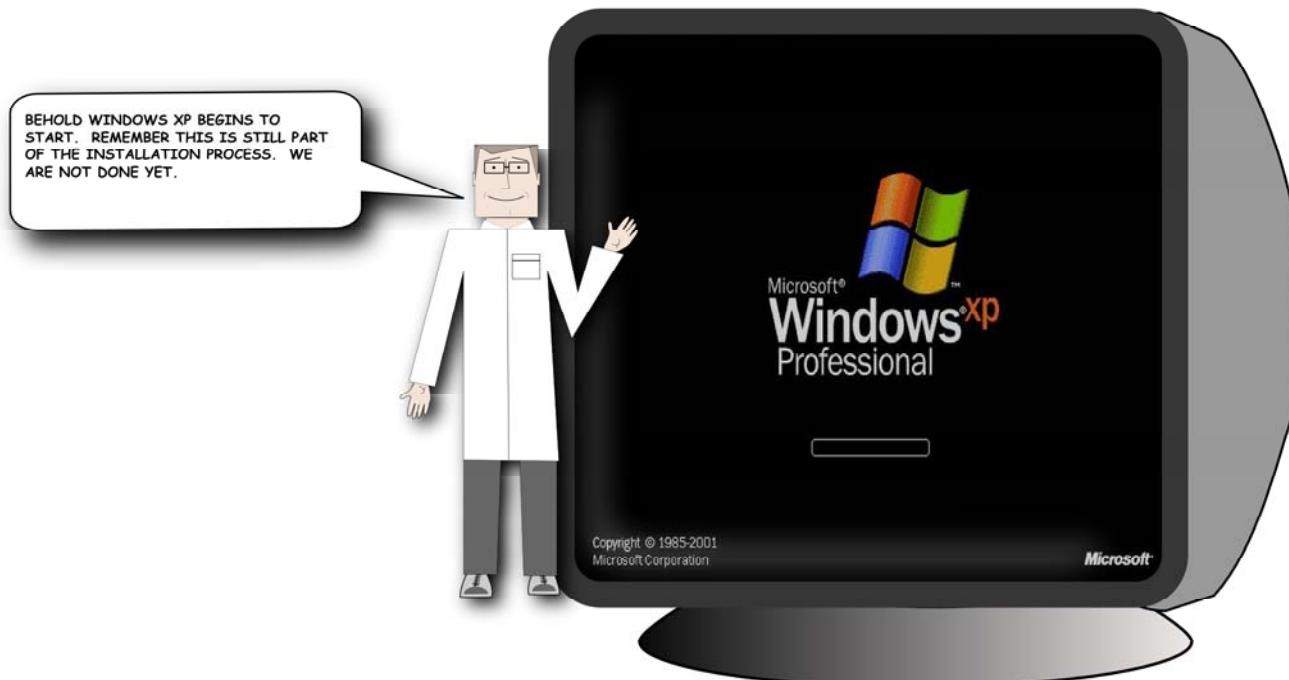
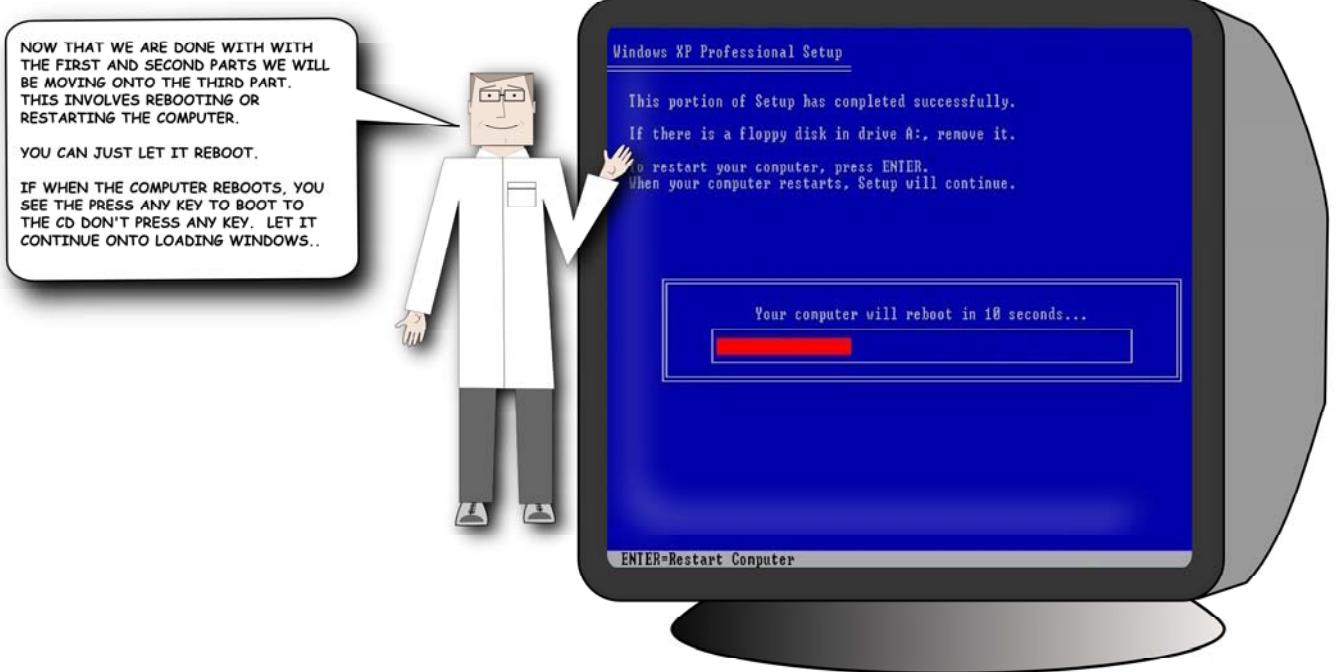
REINSTALLING XP



REINSTALLING XP



REINSTALLING XP



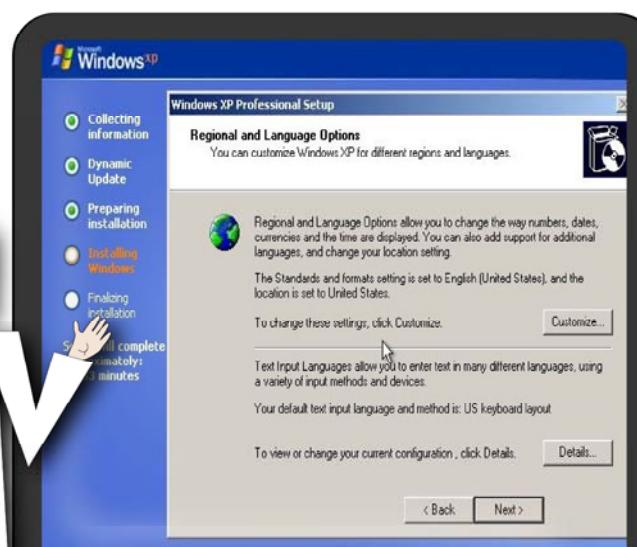
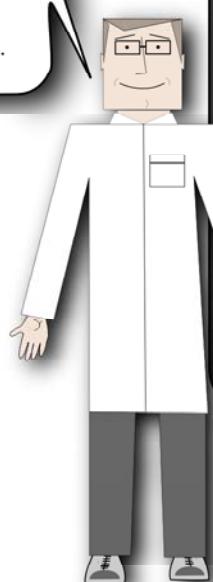
REINSTALLING XP



REINSTALLING XP

25 MINUTES LATER

NOW THE XP INSTALLATION WANTS TO KNOW YOUR REGIONAL AND LANGUAGE SETTINGS. GENERALLY, THE XP INSTALLATION SHOULD SEE THAT YOU HAVE A COMPUTER IN THE UNITED STATES AND THAT YOU ARE ENGLISH. READ IT TO MAKE SURE THAT IT IS RIGHT AND THEN CLICK ON THE NEXT BUTTON.



NOW ENTER YOUR NAME AND YOUR ORGANIZATION. IF THIS IS A HOME COMPUTER YOU CAN PUT NOTHING OR HOME AS YOUR ORGANIZATION.

THEN CLICK ON THE NEXT BUTTON.



REINSTALLING XP

NOW XP WANTS YOUR PRODUCT KEY. THIS WILL EITHER BE ON THE XP INSTALLATION DISK OR ON YOUR COMPUTER SOMEWHERE. IF IT'S A DESKTOP IT CAN BE ON THE TOP, SIDE OR BACK. FOR A LAPTOP IT USUALLY APPEARS ON THE BOTTOM.

ENTER IT. AND WHEN YOU ARE DONE CLICK ON THE NEXT BUTTON TO CONTINUE.

THE XP INSTALLATION PROCESS WOULD NOW LIKE YOU TO NAME YOUR COMPUTER. YOU SHOULD REMEMBER THIS BECAUSE IF IN THE FUTURE YOU WANT TO SHARE A FOLDER OR PRINTER YOU WILL NEED TO KNOW THE COMPUTER NAME.

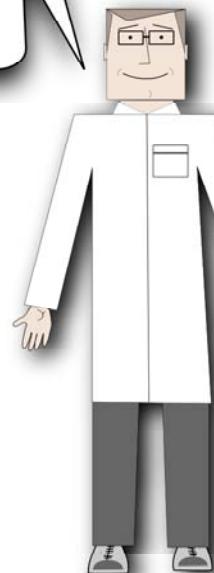
THEN TYPE IN AN ADMINISTRATOR PASSWORD. IT SHOULD BE AT LEAST 8 CHARACTERS INCLUDING A MIX OF LETTERS AND NUMBERS. REMEMBER THIS PASSWORD. YOU WILL NEED IT IF YOU NEED TO REPAIR YOUR XP INSTALLATION LATER.

CLICK ON THE NEXT BUTTON TO CONTINUE.



REINSTALLING XP

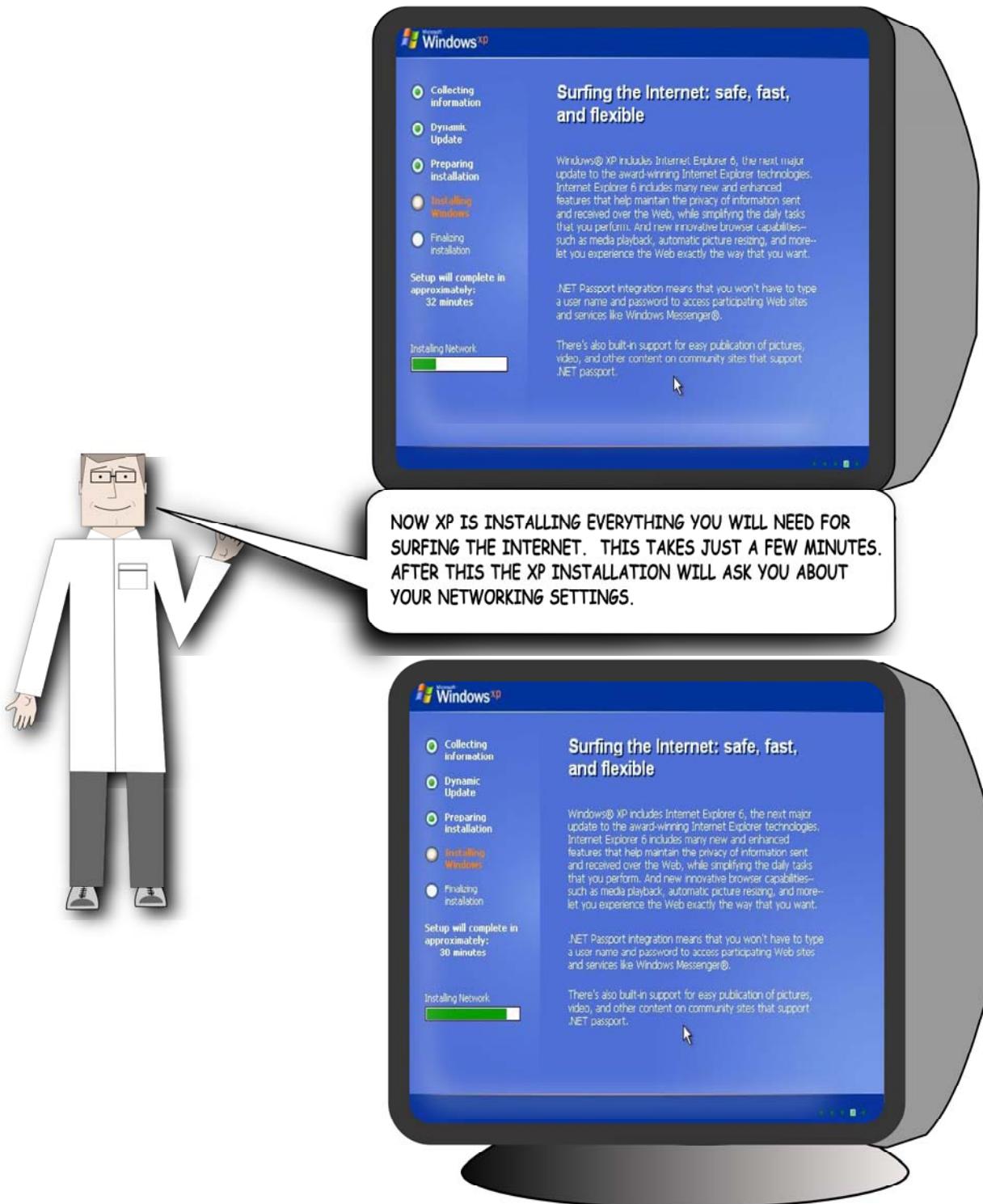
XP WOULD NOW LIKE YOU TO SET THE DATE AND TIME. CHECK TO MAKE SURE THAT EVERYTHING IS CORRECT. IF NOT CLICK ON THE PULL DOWN MENUS AND MAKE THE NECESSARY CORRECTIONS..



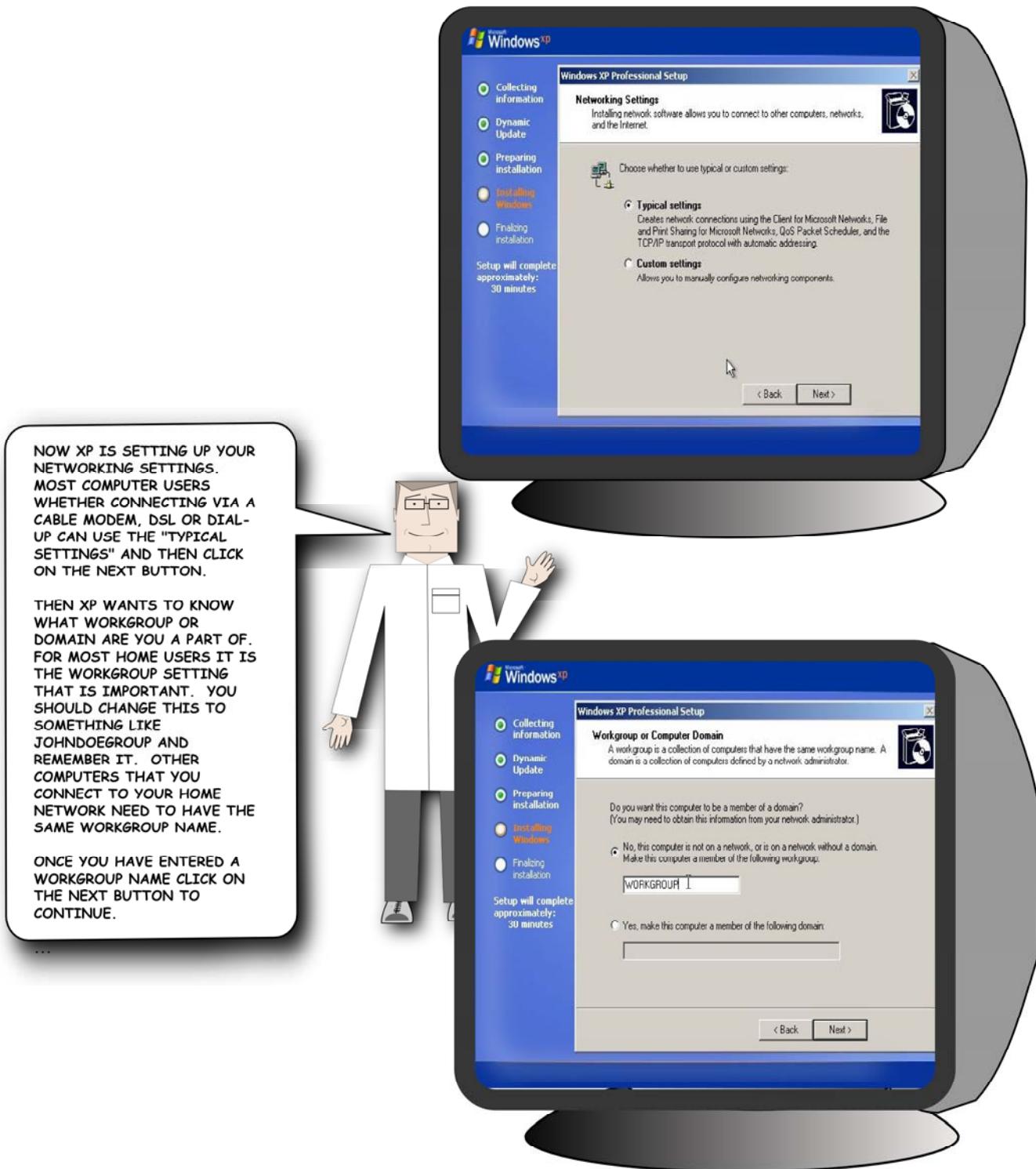
HERE IS AN EXAMPLE OF WHAT HAPPENS WHEN YOU CLICK ON A PULL DOWN MENU. SELECT YOUR TIME ZONE FROM THE LIST. ONCE ALL OF THE SETTINGS ARE CORRECT, CLICK ON THE NEXT BUTTON....



REINSTALLING XP



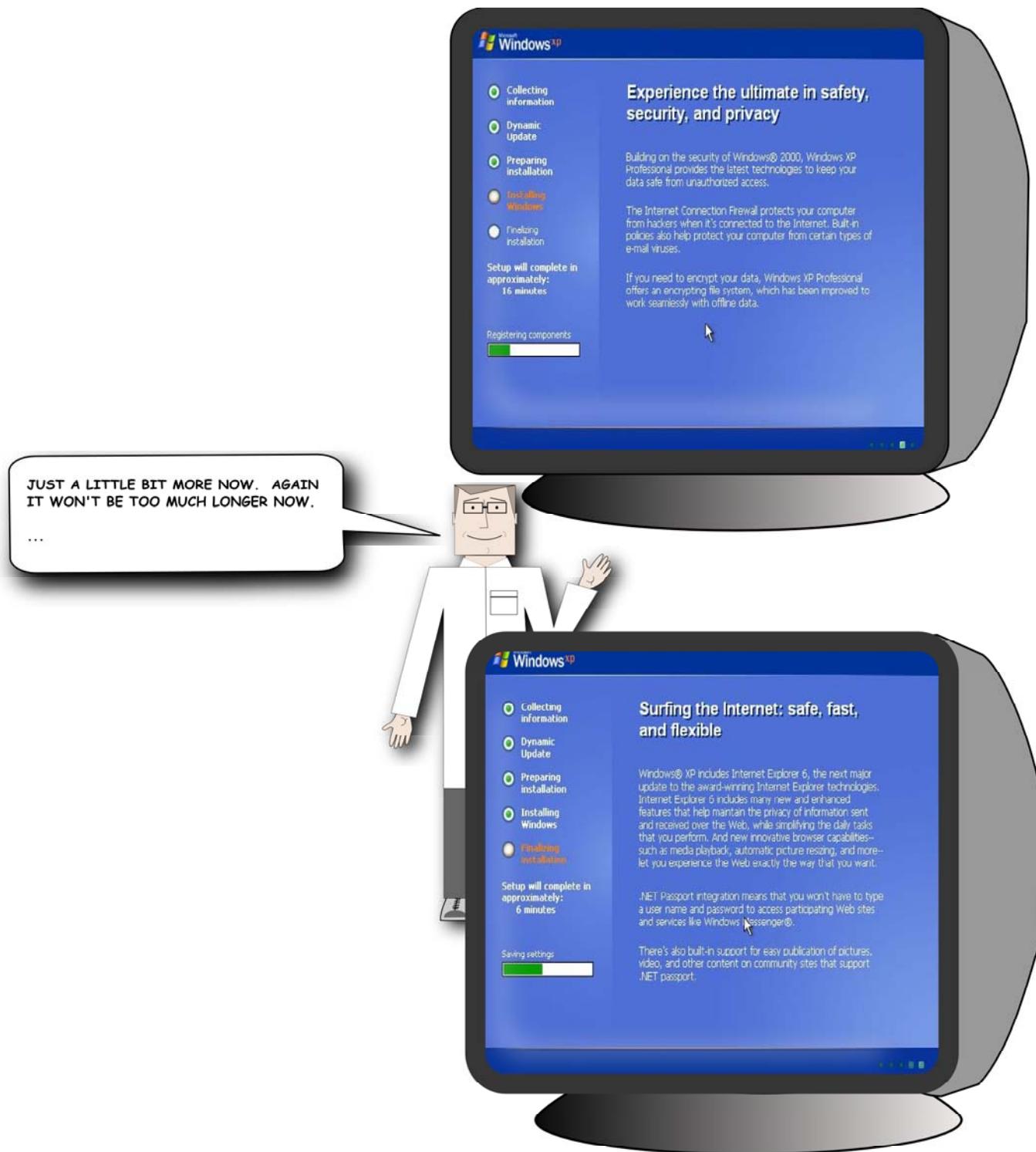
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REINSTALLING XP



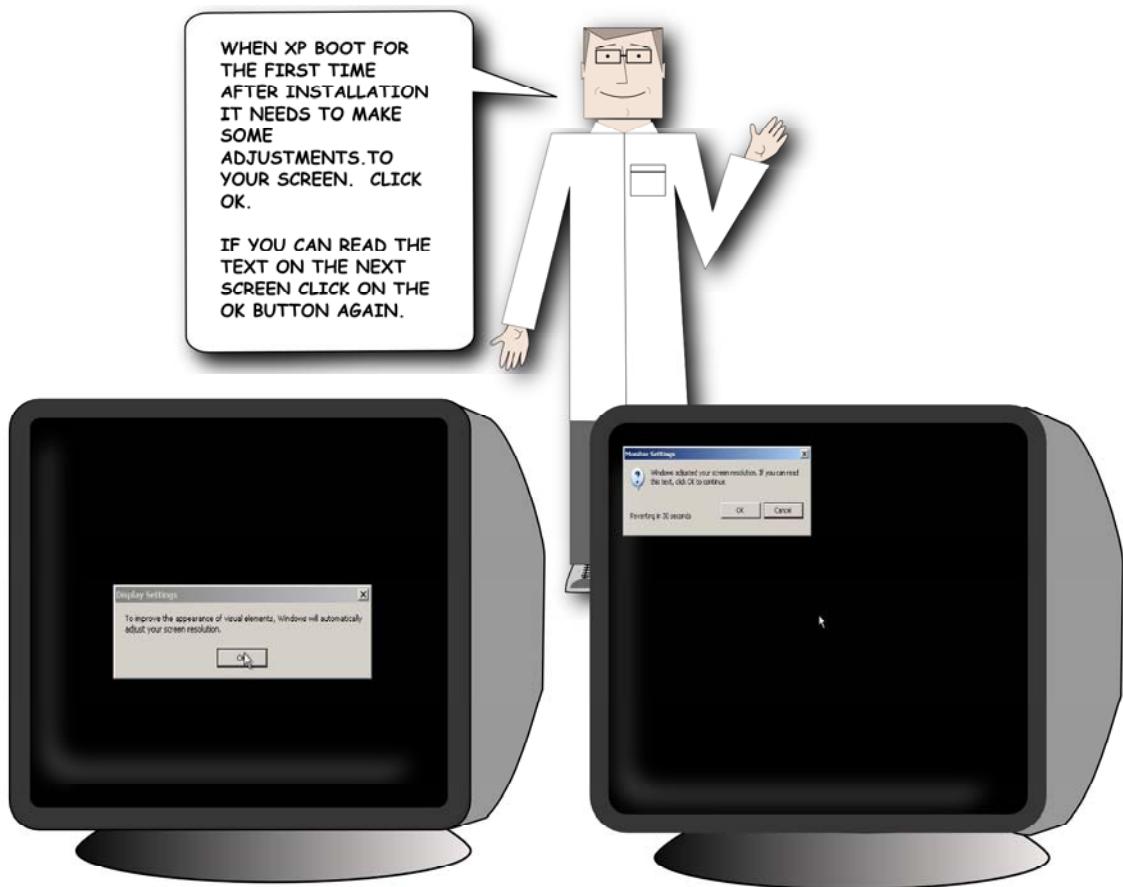
REINSTALLING XP



REINSTALLING XP

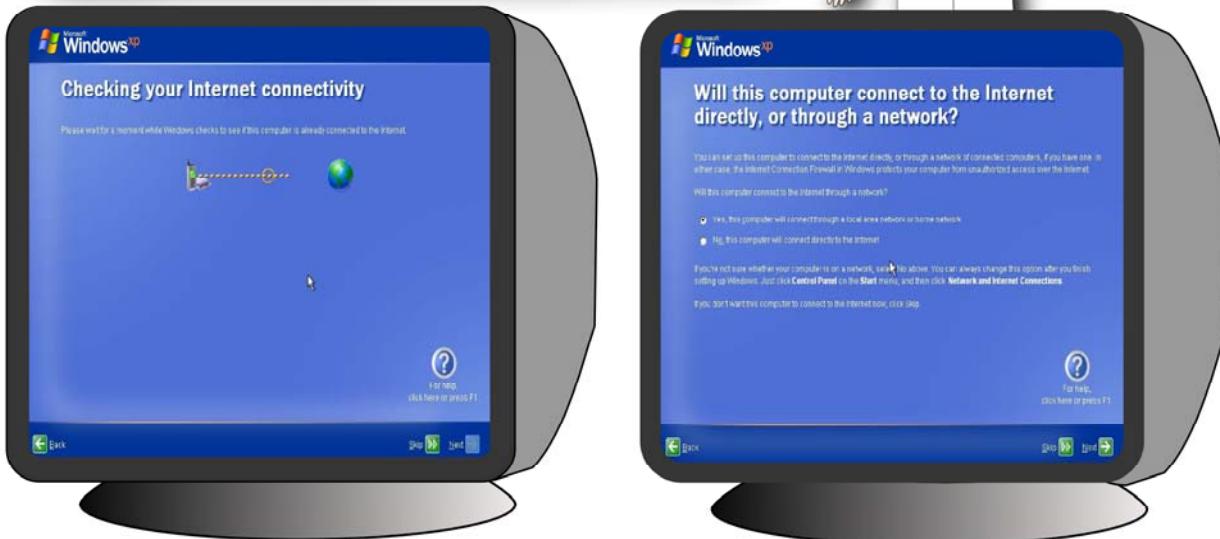
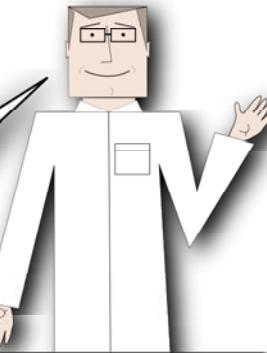


REINSTALLING XP

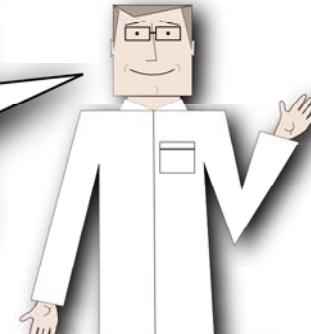


REINSTALLING XP

NOW XP IS GOING TO CHECK YOU COMPUTER FOR INTERNET CONNECTIVITY. IF YOU HAVE AN INTERNET CONNECTION XP SHOULD FIND IT NOW. READ THE SELECTIONS. IF YOU HAVE A ROUTER OF ONE KIND OR ANOTHER YOU SHOULD SELECT THE TOP SELECTION. HOWEVER, IF YOUR COMPUTER IS CONNECTING RIGHT INTO A CABLE OR DSL MODEM THEN YOU WOULD SELECT THE SECOND (BOTTOM) OPTION. THEN CLICK ON THE NEXT BUTTON TO CONTINUE.

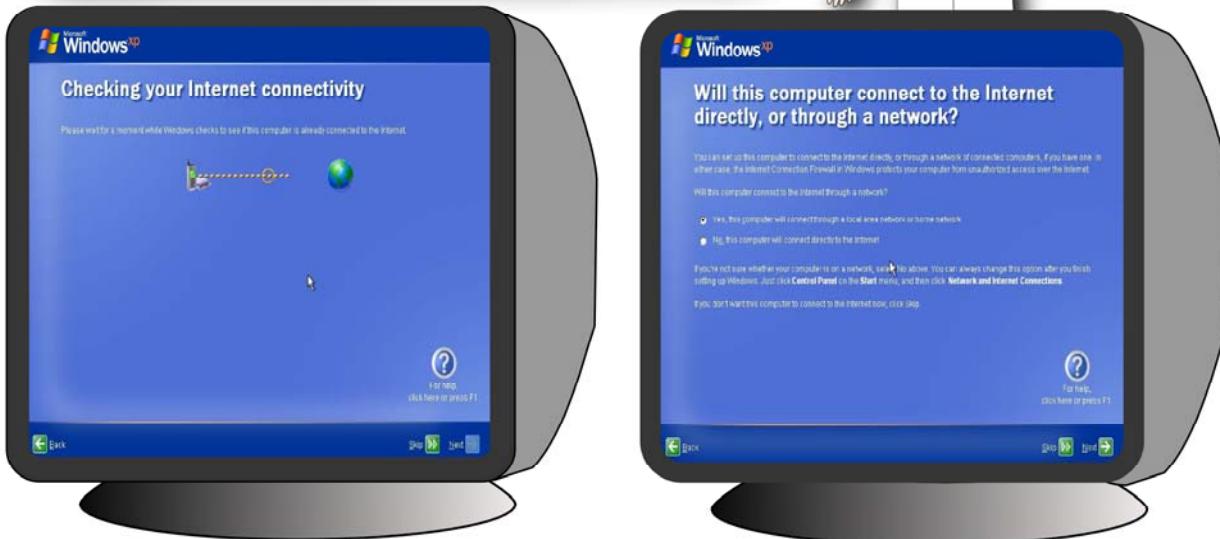
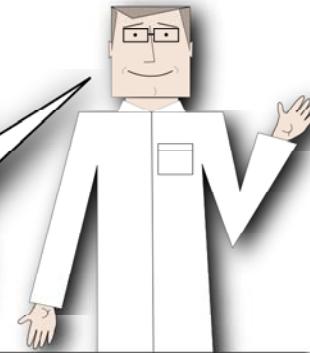


AFTER YOU HAVE SET UP YOUR INTERNET CONNECTION YOU ARE NOW GOING TO BE ASKED IF YOU ARE READY TO ACTIVATE AND REGISTER WINDOWS XP. GENERALLY, THIS IS A PAINLESS PROCESS. IF THIS IS THE FIRST TIME YOU HAVE HAD TO REINSTALL WINDOWS XP THEN THERE SHOULDN'T BE ANY GLITCH. HOWEVER, IF THIS IS THE SECOND OR THIRD TIME YOU MAY HAVE TO CALL IN TO ACTIVATE. THIS IS FAIRLY EASY AND SHOULD NOT BE INTIMIDATED.. MAKE YOUR SELECTIONS AND CLICK THE NEXT BUTTON TO PROCEED.

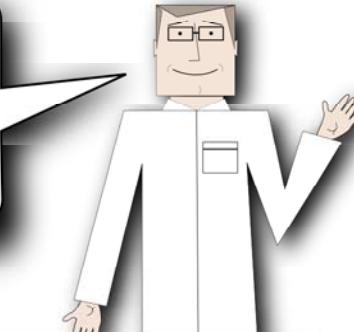


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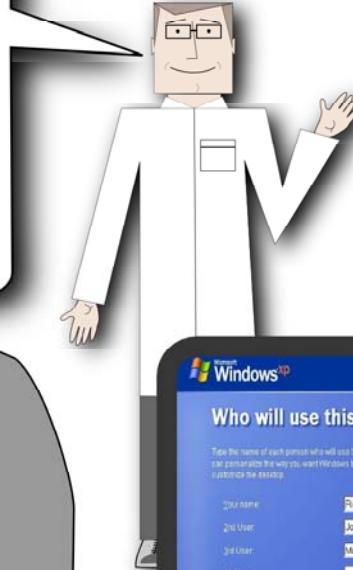
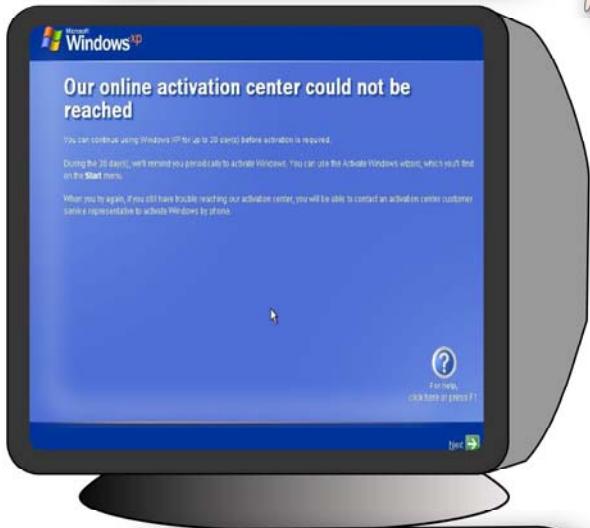
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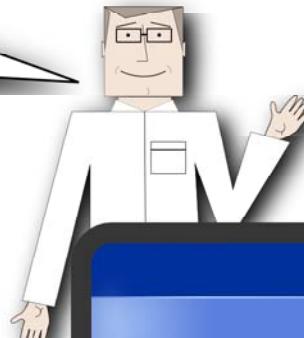
REINSTALLING XP

AS YOU CAN SEE THE ONLINE ACTIVATION DID NOT WORK. SO I WILL HAVE TO TRY AGAIN LATER. YOU HAVE 30 DAYS ONCE XP IS INSTALLED TO ACTIVATE. IF YOU DON'T THEN ON DAY 31 IT WON'T LET YOU LOG ONTO WINDOWS XP UNTIL YOU DO. CLICK THE NEXT BUTTON TO CONTINUE.

NOW XP WANTS TO KNOW WHO WILL BE USING THIS COMPUTER. ENTER THE NAMES OF FAMILY OR FRIENDS THAT WILL BE USING IT HERE. THESE INDIVIDUALS WILL THEN BE LISTED IN THE LOGON SCREEN..

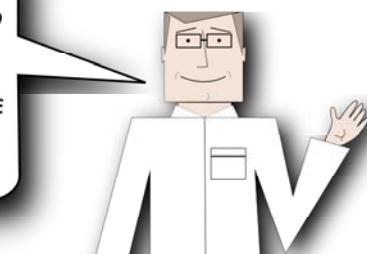


XP THEN THANKS YOU FOR INSTALLING IT. CLICK ON THE NEXT BUTTON AND THEN YOU WILL BE TAKEN TO LOGON SCREEN. CLICK ON THE USER YOU ARE TO LOG ON.

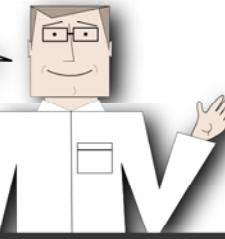


REINSTALLING XP

XP NOW BRINGS UP THE DESKTOP. HOWEVER, WE STILL NEED TO ACTIVATE XP SO THAT IS WHAT WE ARE GOING TO DO. ONCE LOGGED ON TO THE DESKTOP, MOVE TO THE LOWER RIGHT HAND CORNER OF THE SCREEN. HERE YOU WILL SEE A SET OF KEYS. CLICK ON THE KEYS AND THIS WILL BRING UP THE LET'S ACTIVATE WINDOWS SCREEN.



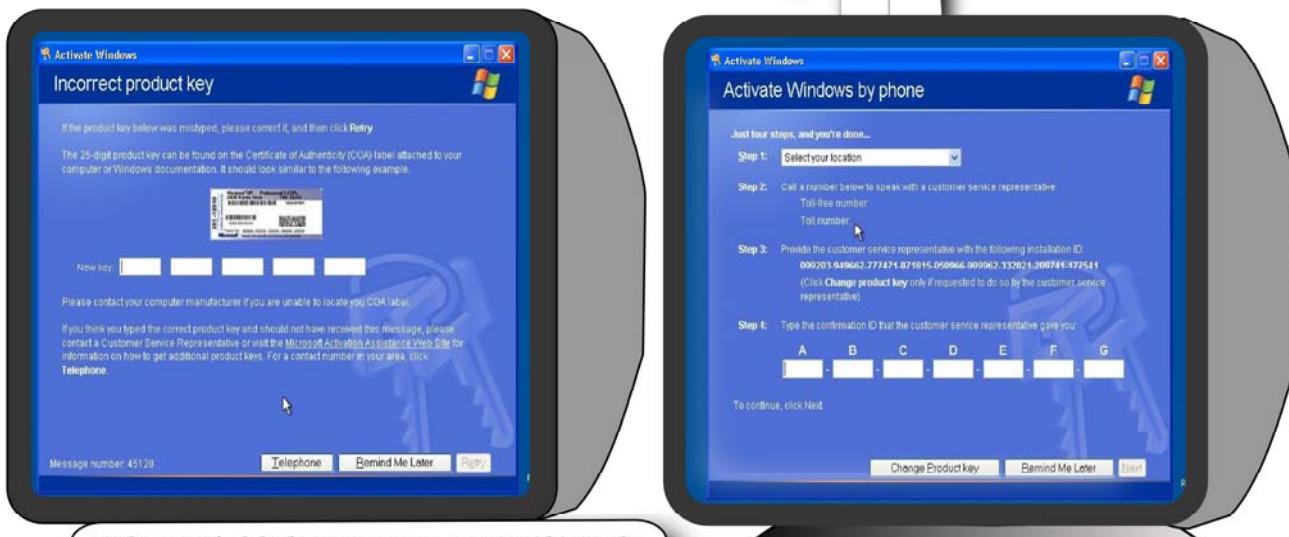
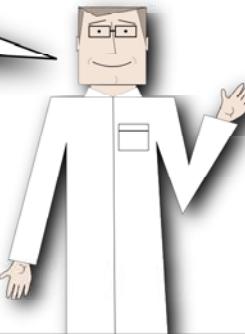
START BY SELECTING THE TOP OPTION WHICH IS THE "YES, LET'S ACTIVATE WINDOWS OVER THE INTERNET NOW." THEN CLICK THE NEXT BUTTON. AFTERWARDS, CLICK ON THE "NO, I DON'T WANT TO REGISTER NOW, LET'S JUST ACTIVATE WINDOWS." CLICK ON THE NEXT BUTTON.



REINSTALLING XP

XP IS NOW SAYING THAT I HAVE ENTERED AN INCORRECT PRODUCT KEY. THIS IS ABSURD SINCE I ENTERED IT EXACTLY AS IT APPEARS ON THE LABEL ON THE COMPUTER. THE PROBLEM IS THAT I HAVE HAD TO REINSTALL XP BECAUSE OF A VIRUS WITHIN THE PAST COUPLE OF MONTHS. CLICK ON THE TELEPHONE BUTTON. NOW I WILL HAVE TO CALL USING A TOLL FREE NUMBER AND SIMPLY EXPLAIN WHY I AM REINSTALLING IT. REMEMBER, THE PERSON YOU WILL BE TALKING TO IS FROM ANOTHER COUNTRY. SIMPLY TELL THEM YOU HAVE AN OEM VERSION OF XP INSTALLED ON ONLY ONE MACHINE AND THAT IT IS THE SAME MACHINE. ANYTHING ELSE CONFUSES THEM.

BEGIN BY CLICKING ON THE COUNTRY YOU ARE IN BY CLICKING ON "SELECT YOUR LOCATION" AND THEN SELECTING THE APPROPRIATE COUNTRY.



ONCE YOU HAVE SELECTED YOU LOCATION, YOU WILL BE PROVIDED WITH PHONE NUMBER. CALL IT AND FOLLOW THE OPTION MENUS. ONCE IN IT WILL ASK YOU TO RECITE THE LONG STRING OF NUMBERS PROVIDED. A CUSTOMER SERVICE PERSON WILL THEN COME AND ASK YOU ABOUT YOUR INSTALLATION. WE ALREADY WENT OVER THIS PART. THEN THEY WILL RECITE SEVEN STRINGS OF NUMBERS THAT YOU WILL ENTER INTO THE BOXES. ONCE COMPLETED YOU WILL CLICK ON THE NEXT BUTTON. THIS WILL TAKE YOU TO A THANK YOU SCREEN. CLICK NEXT AGAIN AND THEN YOU ARE BACK AT THE DESKTOP.

