

# Microtek Scanner Installation Guide for ScanMaker X6EL

1505AE  
SCSI

## Basic Requirements

- IBM-PC 486, Pentium, or compatibles
- Microsoft Windows 95, NT or Windows 3.1x
- CD-ROM drive (internal or external)
- 16MB RAM depending on installed software components
- At least 800MB hard disk with 100MB available
- Super VGA Color display with 256 colors or better

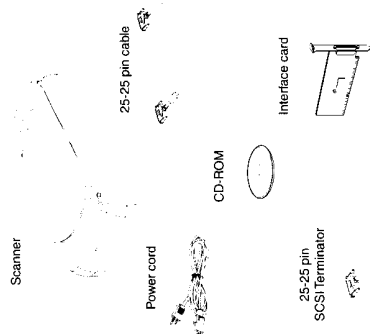
**Important Note:** Before using the scanner and software, you should read this *Microtek Scanner Installation Guide* first.

## Installing under Windows 95

### 1. Unpack your scanner and check components

Open your scanner package and check the components as stated in your packing list.

Before proceeding any further, check that you have all the following items:



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### Installing under Windows 95

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## 2. Install the interface card in your computer

Before installing the interface card supplied with your scanner, make sure you turn off your computer and peripherals. Then follow the steps below:

1. Before handling the interface card, touch a metal frame (such as your computer casing) to discharge any static electricity buildup in your body.
2. Shut down your computer and unplug the power cord. Next, remove the cover from your computer.
3. Look for an empty ISA slot in your computer, then insert the interface card. To insert, remove the screw that holds the bracket, then remove the bracket itself. When you insert the card, make sure the card is seated all the way into the slot, especially the back, then put the screw back into the bracket. Be aware that the back of the card may pop out a little when you tighten the screw on the card, so be sure that the back of the card (as well as the front) is in all the way, held in place by the card slot, to ensure a proper connection.



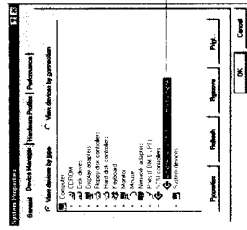
This is important, as an improper card connection will make you unable to use your scanner, and you will then have to remove the computer case and restart the card all over again.

4. Replace the cover of the computer, then plug the power cord back in place.

## 3. Check interface card status

When you run Windows 95, the Adaptec AHA-1505 SCSI Host Adapter is detected and the driver is automatically installed. Follow steps below to check.

1. Turn on your computer, click **Start**, **Settings**, and then select **Control Panel**.
2. Double-click on the **System** icon in Control Panel, and select **Device Manager** from the top.
3. Double-click on **SCSI controllers** to display the message below.



The result of the check "Adaptec AHA-1505 SCSI Host Adapter" is displayed here.

The message "Adaptec AHA-1505 SCSI Host Adapter" displays indicates that the driver is installed and the card work properly.

If a conflict exists, either of the following will occur:

- a yellow exclamation mark appears next to the phrase:
- **Adaptec AHA-1505 SCSI Host Adapter**
- or -
- nothing is listed under "SCSI Controllers".

In either case, refer to the *Troubleshooting* section.

## 4. Install software

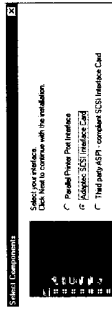
Insert the Microtek CD-ROM disc into your CD-ROM drive. The *Microtek Scanner Software* installer should come up automatically and list the software available for you. Click on each software program in the order they appear on your screen to install all of the components.

*Note: If the Microtek Scanner Software is not automatically displayed on the screen, click **Start**, select **Run** and type *d:\cdsetup* (where *d* is your CD-ROM drive).*

### Step 1 Install Microtek ScanWizard

Microtek ScanWizard is the Twain driver used for the scanner to communicate with various applications. Microtek ScanWizard cannot be used by itself and requires another program in order to work.

1. Click **Install Microtek ScanWizard**, then follow screen instructions to start installation.
2. During installation, choose "Adaptec SCSI Interface Card" option as your interface type.



3. When installation is complete, the **Microtek ScanWizard for Windows 95** group appears as a folder in the Programs menu.

### Step 2 Install software applications

Install each software application by clicking on the individual program options.

### Step 3 Install documentation reader

Click **Install Adobe Acrobat Reader**, then follow screen instructions until installation is completed. Acrobat Reader is necessary for reading the manuals on your CD-ROM.

## 5. Reset the scanner's SCSI ID

This procedure is provided as a reference. You may or may not need to change the SCSI ID on your scanner.

A SCSI ID is a number assigned to each SCSI device in your daisy chain to differentiate the devices one from another. The SCSI ID for your ScanMaker scanner is factory-set to 6.

You won't need to change the SCSI ID on your scanner unless another SCSI device on your system (such as external hard drive, additional scanner, etc.) is using the same number.

Locate the SCSI ID switch, use a small pin (or a small screwdriver) and press either of the small black openings located above or below the SCSI ID. Pressing the upper opening "-" decreases the SCSI ID number; pressing the lower opening "+" increases the number.



Valid SCSI ID numbers are 0 to 6. Do not use SCSI ID #7, which is used to carry a self-test for the scanner and make the carriage move back and forth. SCSI ID #8 and #9 are also not used.

## 6. Connect the scanner

Before connecting the scanner to your computer, make sure the scanner driver (ScanWizard) is installed. Take the following steps to connect.

1. Shut down your computer.
2. Connect the 25-pin SCSI terminator provided with your scanner package to the scanner's 25-pin socket jack.
3. Connect the card and the scanner, using the SCSI cable that provided in the scanner package. Make sure your scanner and computer are turned off when you perform the connection.



SCSI cable

4. Plug the power cord to the power connector at the back panel of the scanner, and plug the other end of the power cord to your AC power source at wall outlet.
5. Turn on your scanner and wait for all the light on the front panel to stop blinking.
6. Then power up your computer

### Daisy-chain connection

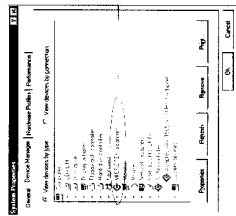
If you have one or more SCSI peripherals (such as a CD-ROM, tape drive or optical disk), the SCSI devices can be connected one after another in a daisy chain.

Take note that in a daisy-chain connection, different drivers come into play and complicated configurations may result. If you are not familiar with the procedure for daisy chaining, consult a technician on how to do this. Microtek bears no responsibility for damages that may occur to peripherals due to inexperienced handling.

## 7. Check scanner status

When running Windows, ALWAYS turn on the scanner before the computer. If you don't, Windows will not be able to "see" your scanner.

1. Click **Start, Settings**, and select **Control Panel**.
2. Double-click on the **System** icon in Control Panel and select **Device Manager** from the top.
3. The screen that appears displays the message "MICROTEK Scanners". Double-click it, the scanner model you connected shows under it



The message "MICROTEK Scanners" indicates that the scanner is installed.

If your system can not find your scanner, maybe SCSI conflict happens between your scanner and other SCSI device. To resolve the conflict, refer to Troubleshooting in this guide.

### Using a third-party terminator

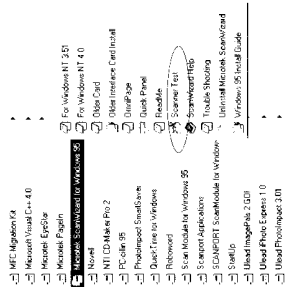
You may need to install a terminator (purchased from third party not provided with your scanner) on the last device of your SCSI daisy-chain.

The terminator should be used if:

- Your scanner has been connected to other peripheral devices on your system
- Your computer or scanning software has difficulty in locating your scanner.

## 8. Test your scanner

1. Restart Windows 95
2. Click **Start, Programs, Microtek ScanWizard for Windows 95**, and then select **Scanner Test**.



(00)

3. Click the **Flatbed** button on the Microtek ScanTest program screen. A grayscale preview of your image will be displayed in the Microtek ScanTest window. This indicates the Scanner Test was successful and that the scanner is now ready to be used

6. Close and exit Microtek Scanner Test program.

For more details on how to operate your scanner with Microtek ScanWizard, refer to the *Microtek ScanWizard Reference Manual on the CD-ROM*.

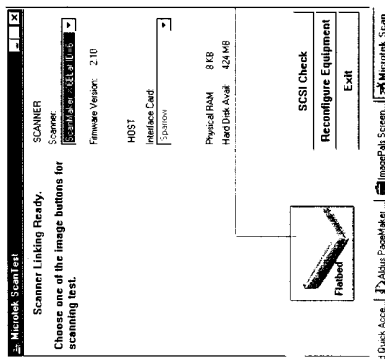
The Scanner Model shows the scanner connected to your PC and the scanner's SCSI ID.

The "Sparrow" means you are using Adaptec SCSI interface card

The **Flatbed** button.

The **SCSI Check** acts as a SCSI probe to verify the location of your scanner and check the scanner ID

The **Reconfigure Equipment** allows the system to update its own internal reference file and is useful when you have changed your setup or reconfigured your system.



## Troubleshooting for Windows 95

After installing the interface card in your computer and connecting the scanner, you may find yourself unable to use the scanner. This is usually due to any of the situations described below:

**Situation A** Your interface card is not properly seated in the ISA card slot on your computer.

**Situation B** Your interface card conflicts with another device.

**Situation C** The AVA-1505AE SCSI driver is not appropriately installed in your computer.

**Situation D** Windows 95 does not work on Normal Mode.

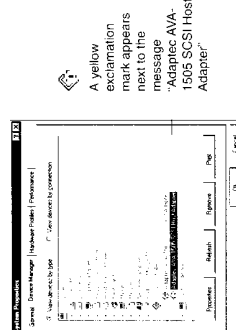
See details below for resolving the individual situations.

### Resolving situation A

Make sure the card is seated all the way in and secured into the ISA card slot.

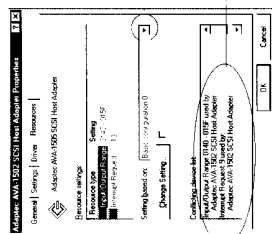
### Resolving situation B

1. Click **Start**, **Settings**, and select **Control Panel**.
2. Double-click on the **System** icon in **Control Panel** and select **Device Manager** from the top.
3. Double-click on "SCSI controllers" to display the dialog box below.



A yellow exclamation mark appears next to the message "Adaptec AVA-1505 SCSI Host Adapter".

4. Click on the **Adaptec AVA-1505 SCSI Host Adapter** option, and then click **Properties**.
5. Select **Resources** from the top. The dialog box gives you information about the Interrupt Request (IRQ) and Input/Output (I/O) address settings, including whether a conflict happens.
6. If a conflict exists in Input/Output option, then click **Change Setting**. Use the Arrow Down button to select a different range.



Click the Arrow Down button to select IRQ.

Conflict status

You may need to change the Input/Output (I/O) address to **Off** (340h).

7. Click **OK** to save the modifications. If you're asked to shut down your computer, select **No**, then click **Close**. Your will be asked whether you wish to restart your computer. Click **No** to instead shut down computer and turn the power off.

Change the I/O address settings on the card to match the settings in Windows you selected.

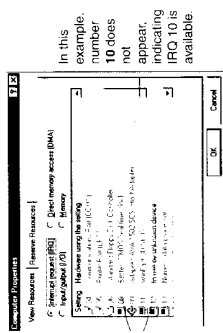
- a) Take the interface card out of the computer.
- b) Remove the shunt from J3 to match setting you given in step 6.
- c) Put the card back inside your computer
- d) Reconnect your scanner, and start your scanner and computer.

J3 is set to ON by default, indicating the I/O port address is 140h.



8. If a conflict exists in Interrupt/Request option, look for an available IRQ number to be used for the AVA-1505 interface card.

- a) Click **Start**, **Settings**, and select **Control Panel**.
- b) Double-click the **System** icon in **Control Panel**, then select **Device Manager** from the top.
- c) Click on **Computer** and click the **Properties** button to display the occupied IRQ settings.



Take note of the following:

- If 10 does not appear in your dialog box, this means it is available.

- If 10 appears in your dialog box, this means it is not available and that your should use another IRQ from 9 to 12.

- If all IRQs from 9 to 12 are taken, you need to contact your dealer or computer manufacturer to help on how to free up an IRQ in this range.

9. Disable the "ISA Plug and Play mode".

- a) Insert Microtek CD-ROM into your CD-ROM drive, and run the 1505cdg.exe program in the SCSIUTIL directory. Running this program under DOS, you can get a screen like the following:



Arrow keys to move cursor, Enter to select option, Esc to exit condition

- b) Select **Configure/View Host Adapter Settings** and press Enter to display the screen below.



Arrow keys to move cursor, Enter to select option, Esc to exit condition

- c) Use the Up/Down arrow keys to select the "Advanced Configuration Options" and press Enter.

Advanced Configuration options

ISA Plug and Play mode Disabled  
Plug and Play SCSI Support Disabled

f) When the next menu appears, you should make a note of the Input/Output (I/O) range setting, as well as Interrupt Request (IRQ) number that Windows recommends you.

Write this message on a piece of paper for handy reference.

WARNING: Your hardware may not be able to use the network card if you connect it to the wrong port. Please refer to the manual for details. If you connect the network card to the wrong port, you may lose data. Please connect your network card to the correct port. If you are unsure, please contact your network administrator.

To continue installing the software, please click Next.

Product type: Server  
Name: 12345678901234567890  
IP address: 192.168.1.1

Dr. \_\_\_\_\_

Windows can install your hardware using the following settings.

[illegible]

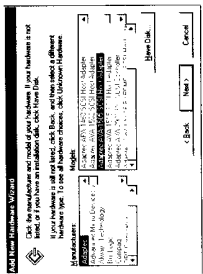
of paper  
for handy  
reference.

g) When the "Add New Hardware Wizard" dialog box appears, click **Finish**.

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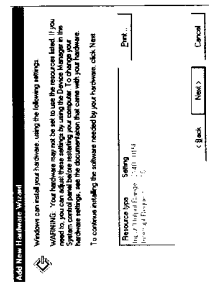
h) Continue until the installation is completed.  
Windows 95 will then ask if you want to shut down your computer. Select **No**.

2. You may or may not need to change IRQ number. You will only need to change the IRQ number if IRQ number that Windows recommends does not match the settings given in step 9, section c) (see page 7)



### Resolving situation D

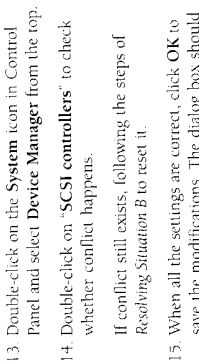
9. In the new menu, make a note of the Input/Output (I/O) range setting, as well as Interrupt Request (IRQ) number that Windows is suggesting you should use.



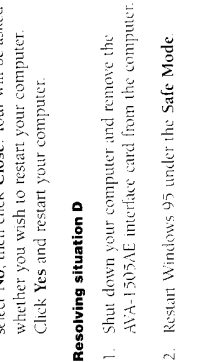
When the “Add New Hardware Wizard” dialog box appears, click **Finish**.

11. Continue until the installation is completed. Windows 95 will then ask if you want to shut down your computer. Select **No**.

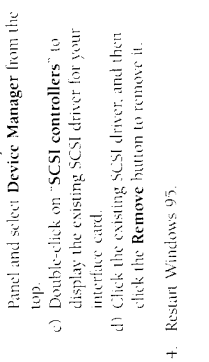
down your computer. Select No.



If you're asked to shut down your computer, now show the correct interrupt request and Input/Output address settings.



a) Click **Start, Settings**, and select **Control Panel**.



## Installing under Windows 3.1x

- The instructions below pertain to installation of the software that came with your scanner package under Windows 3.1x. Before doing this, you need to perform the following:

1. Unpack your scanner and check components
2. Reset the SCSI ID if necessary
3. Install the interface card
4. Connect the scanner to your computer

Only when you have completed the above steps should you proceed with installing the software. See the previous sections of this document for instructions on performing the above.

*Note: Before installing software, you must run the 15055acfg.exe program in the SCSIUTL directory on the Microtek CD-ROM. Because Windows 3.1x does not have an embedded driver supports AVA-1505AE interface card.*

## Installing software

Before you begin installing software, make sure your scanner is connected to the computer with the SCSI cable and that the scanner power is turned on.

1. Insert the **Microtek CD-ROM** disc into your CD-ROM drive.
2. Launch Windows, then choose **File, Run** from Program Manager type *\\dsetup.exe* (where *d* is the drive letter of your CD-ROM). The **Microtek Scanner Software** installer will come up and list the software available for you. Click on each software program in the order they appear on your screen to install all of the components.

## Test your scanner

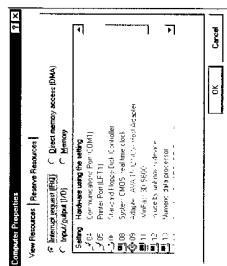
Microtek ScanWizard is the Twain driver used for the scanner to communicate with various applications. Microtek ScanWizard cannot be used by itself and requires another program in order to work.

## Step 1 Install Microtek ScanWizard

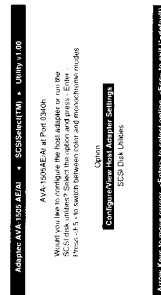
Microtek ScanWizard is the Twain driver used for the scanner to communicate with various applications. Microtek ScanWizard cannot be used by itself and requires another program in order to work.

5. Follow the steps below to look for an available IRQ number to be used for the AVA-1505 interface card.

- a) Click **Start, Settings**, and select **Control Panel**.
- b) Double-click the **System** icon in Control Panel, then select **Device Manager** from the top.
- c) Click on **Computer** and click the **Properties** button to display the occupied IRO settings.



5. Shut down your computer and insert the interface card back inside your computer. Reconnect scanner, power up your scanner first, then the computer.
7. Disable the **-ISA Plug and Play mode**.
  - a) Insert Microtek CD-ROM into your CD-ROM drive, and run the *150tw6fc.exe* program in the *SCSIUTIL* directory. Running this program under DOS, you can get a screen like the following.



## Installing under Windows NT 4.0

If you are using Windows NT 3.51, refer to the documentation WINNT351 in the Microtek CD-ROM root directory. To install Windows NT 4.0, take the steps below:

1. Unpack your scanner and check components
2. Reset the scanner's SCSI ID if necessary
3. Install the interface card in your computer
4. Check your Windows NT configuration
5. Install software
6. Connect the scanner and computer
7. Test your scanner

Part of the above procedures, especially to hardware installation should refer to the previous pages (the Windows 95 installation section). Descriptions below follow installation sequence, but concentrated on Windows NT 4.0

### 1 Unpack your scanner and check components

Open your scanner package and check the components as stated in your packing list.

### 2. Reset the scanner's SCSI ID if necessary

For more details on how to reset your scanner's SCSI ID, refer to *Reset the scanner's SCSI ID* on page 3.

### 3. Install the interface card in your computer

Before installing the interface card supplied with your scanner, make sure you turn off your computer and peripherals. Then refer to page 2.

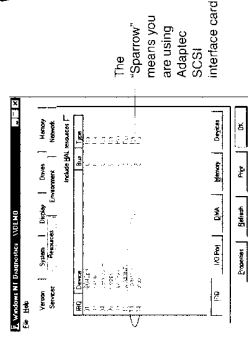
### 4. Check your Windows NT configuration

When you run Windows NT, the Adaptec AVA-1505 SCSI Host Adapter is detected and the driver is automatically installed. Follow the steps below:

1. In Windows NT, click on the **Start** menu, go to **Programs Administrative Tools (Common)**, and select **Windows NT Diagnostics**. This will bring you to the following partial screen shot:



2. Click on the **Resources** tab to bring up the following screen:



At this screen you see a list of IRQs that are currently in use. By clicking on the **I/O Port** button at the bottom of the screen, you can see a list of I/O addresses that are in use.

From these two screens, you know which IRQ and I/O address is used for the AVA-1505AE interface card. If the message, "Sparrow" is not listed in this screen, indicating the SCSI driver is not installed, refer to the *Troubleshooting* section.

### 5. Install software

1. Launch Windows NT 4.0, log in as Administrator.
2. Insert the Microtek CD-ROM disc into your CD-ROM drive, the *Microtek Scanner Software* installer should come up automatically and list the software available for you. Click on each software program in the order they appear on your screen to install all of the components.

**Note:** If the Microtek Scanner Software Installer is not automatically displayed on the screen, click **Start**, select **Run** and type *d:\setup* (where *d:* is the drive letter of your CD-ROM).

#### Step 1 Install Microtek ScanWizard

ScanWizard is a Twain driver used for the scanner to work with various applications. ScanWizard cannot be used by itself and requires another program in order to work.

1. Click Install Microtek ScanWizard, then follow screen instructions to start installation
2. During installation, choose "Adaptec SCSI Interface card" as your interface type.
3. Follow screen instructions to complete installation. When installation is complete, Microtek ScanWizard for Windows NT appears as a folder on the Programs menu.

#### Step 2 Install software applications

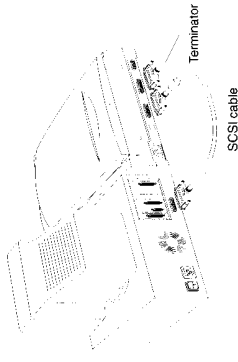
Install each software application by clicking on the individual program options.

#### Step 3 Install documentation reader

Click Install Adobe Acrobat Reader, then follow screen instructions until installation is completed. Acrobat Reader is necessary for reading the manuals on your CD-ROM.

### 6. Connect the scanner and computer

Make sure your scanner and computer are turned off before connecting. Refer to page 4 to connect the scanner and computer.



### 7. Test your scanner

Restart your computer, and start up **Scanner Test** from the **Microtek ScanWizard** for Windows NT group. The scanner test reports the detected scanner model and the interface card — Sparrow (the name of the driver used by Windows 95 for Adaptec 1500-series cards). You are now ready to scan. For more details, refer to page 5.

## Troubleshooting for Windows NT

After installing the interface card in your computer and connecting the scanner, you may find yourself unable to use the scanner. This is usually due to any of the situations described below:

**Situation A** Your interface card is not properly seated in the card ISA slot on your computer.

**Situation B** The AVA-1505AE SCSI driver is not appropriately installed in your computer.

**Situation C** You incorrectly chose an Interrupt Request (IRQ) setting for your card, or card conflicts with another device installed in your system.

See details below for resolving the individual situations above.

### Resolving situation A

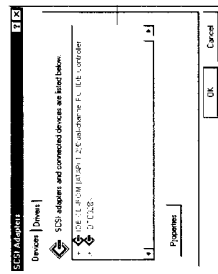
Make sure the card is seated all the way in and secured into the card ISA slot.

### Resolving situation B

1. Restart your computer. Start up Windows NT 4.0.

2. Click **Start**, **Settings**, and select **Control Panel**

3. In the **Control Panel** window, find **SCSI Adapters** and double-click it. A window like the following will appear:



The Adaptec 1505AE SCSI driver is not listed here.

6. Restart your computer. Start up Windows NT 4.0; follow the step 6 to check Windows NT configuration.

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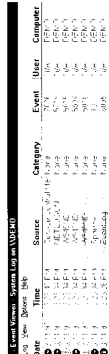
### Resolving situation C

If you get an error message like the following:

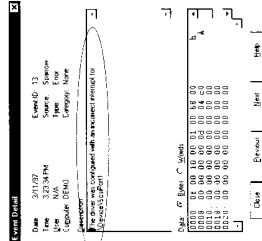


We will need to check the Event Viewer Log to find the source of the problem.

1. Click **Start**, **Programs**, **Administrative Tools**, and select **Event Viewer**.



2. Look for a line whose source is **Source Control Manager**. Double-click on the line to bring up the following window:



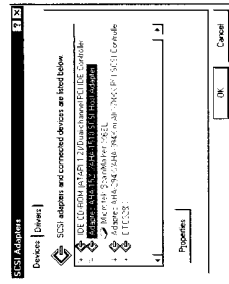
In the **Description** box, the source of the problem is listed. In this case, there is a problem with the default IRQ for the AVA-1505AE SCSI card. Another possible problem that could show up is a conflict with the I/O address of the card with another device in the system.

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If you simply get a message **Driver could not be loaded**, you may not have properly disabled the **ISA Plug and Play Mode** on the AVA-1505AE interface card.

You may also see other messages in the Event Viewer from the other devices that are conflicting with the chosen IRQ or I/O address setting. In the Event Viewer screen shot, you will see that there are several lines from a source named **W940ND**. In this case, this is the PCI Ethernet card in the PC. This is the device conflicting with the settings of the AVA-1505AE.

3. Click **Start**, **Settings**, and select **Control Panel**. Double-click on the **SCSI Adapters** icon.

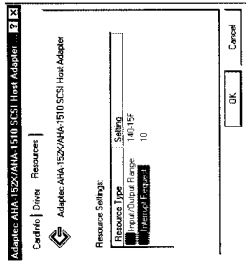


The Adapter card should now be listed as **Adapter AHA-152X/AHA-1510 SCSI Host Adapter**. If you click on the "+" in front of the card name, you will see an indented list of devices on that SCSI card. For example, in the screen shot to the right, you can see that an **Adaptec ScanMaker 6061** Scanner is seen on the **Adapter AHA-152X/AHA-1510 SCSI Host Adapter**.

**Note:** The card and scanner may still show up even though there is a resource conflict.

4. Click on the SCSI card name and then click on the **Properties** button.

- Click on the Resources tab to bring up the following screen:



This screen shows the Input/Output Range and Interrupt Request settings for the card.

*Note: The DOS based 1505acfg.exe utility is incompatible, and does not work, with Windows NT.*

## Specifications

### Media:

Reflective color or black-and-white originals.

### Image Sensor:

Linear array CCD with daylight fluorescent lamp.

### Scanning Modes:

Single scanning pass; 36-bit color internal process (36-bit color external process); 12-bit grayscale internal process (12-bit grayscale external process); 1-bit black and white; 12 built-in halftones.

### Scan Frame:

8.5" x 14"

### Optical Resolution:

600 dpi horiz. x 1200 dpi vert.

### Interpolated Resolution:

9600 dpi horiz. x 9600 dpi vert.

### Image Controls Brightness Settings:

From -100% to +100% in 1% increments.

### Contrast Settings:

From -42% to +49% in 7% increments.

### Exposure Time Selections:

From -18% to +77% in 3% increments.

### Resolution Settings:

From 6 dpi to 600 dpi in 6-dpi increments;  
600 dpi to 1200 dpi in 12-dpi increments;  
1200 dpi to 2400 dpi in 24-dpi increments;  
2400 dpi to 4800 dpi in 48-dpi increments;  
4800 dpi to 9600 dpi in 96-dpi increments.

### Scanning Speed:

4-8 milliseconds per line for line-art, gray, and color (in speed mode); 6-5 milliseconds per line for line-art, gray, and color (in quality mode).

### Voltage:

AC 100V to 240V

### Power Consumption:

AC 100V to 240V: 1A Max.

47 to 63 Hz: 30 watts

### Dimensions (L x W x H):

21.5" x 11.9" x 2.76"

### Environment:

Operating temperature: 10° to 40°C (50° to 104°F)

Storage temperature: -10° to 60°C (14° to 140°F)

Relative humidity: 20% to 80%

## Federal Communications Commission (FCC) Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient/relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

*Note: A shielded interface cable with ferrite core installed on scanner connector end must be used with this equipment.*

| Trade Name      | Model Name  |
|-----------------|-------------|
| ScanMaster X6EL | MRS-1200/6S |

CAUTION

Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment.