Operator's Guide

Wide Format Color & Monochrome Scanners

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1. About This Guide

This guide explains how to operate and maintain your wide format scanner.

The operator's guide is general and covers several scanner models, although there are specific individual features between the different models. Therefore, you should view the scanner specifications for your particular model if you are unsure whether a feature described in this guide is relevant for your specific scanner. For example, descriptions in this guide on color calibration and color scanning speeds do not apply for monochrome-only scanners.

This guide assumes basic knowledge of your computer and operating system and does not repeat material from their documentation.

Be sure to refer to the *WIDEsystem TOOLS User's Guide* found on the *WIDEsystem TOOLS* CD-ROM for additional information regarding installation and maintenance of your scanner.

2. Scanner System Requirements

- PC or supported workstation.
- Compatible Windows operating system - see the WIDEsystem TOOLS documentation for details."
- USB port, enabled FireWire Port, or an SCSI interface-kit matching your workstation. (Note: USB and FireWire are not supported on Windows NT)
- The *WIDEsystem TOOLS* CD supplied with your scanner.
- Scanning software and compatible third party software.

3. Installation

3.1 Set up the scan station

Your wide format scanner should be placed either on a sturdy table or the specially designed stand-alone floor stand. The 25" models are small enough to place on your desk.

Make sure there is enough space behind the scanner to allow the media to run out. Thick stiff media requires space that is at least as large as the media length.

Slots or openings in the cabinet at the back or bottom are provided for ventilation. This ensures reliable operation of the product and protects it from overheating. These openings must never be blocked or covered by placing the unit on a bed, sofa, rug, or other similar soft surface. Your scanner should never be placed near or over a radiator or heat register. You should not place the scanner in a built-in installation unless proper ventilation is provided.

See also the Safety Instructions at the end of this operator's guide.

3.2 Smart Card

Check that the scanner Smart Card is correctly installed (contact side downwards) and corresponds to your scanner model. You will find the Smart Card in the small drawer labeled "PUSH" behind the scanner front streamer (remove the streamer to access the drawer).

The scanner will only function correctly when a Smart Card is inserted. Notice that the SCSI DIL switch controls are in the Smart Card drawer. Setting the DIL switch controls is described under the sections for SCSI installation.

3.3 Install Drivers and Maintenance software

You are now ready to install the setup controls, panel commands, basic drivers and maintenance utilities for your scanner. Insert the *WIDEsystem TOOLS* CD-ROM and click the relevant installation option(s). Installing the *WIDEsystem software* will also install your drivers. Follow the installation instructions described in the *WIDEsystem TOOLS User's Guide* that is included on the CD.

3.4 Select the Scanner Interface

Different scanner models support specific types of interface connections. On some scanners, two different types of interfaces can be used and you need to select the one that is best for your scanning purposes and is compatible with your PC system. The Interface types and their advantages are described in the following section.

3.4.1 Interface Types

FireWire

FireWire is currently the fastest connection type for both color and monochrome scanning. FireWire can accommodate 400 megabits (around 50 megabytes) per second, which is more than adequate for high volume scanning of large formats. FireWire is a plug-and-play (PnP) specification. You do however need a FireWire card installed on your computer and many computers are delivered with a FireWire card preinstalled. Check your computer specifications and operating system to see if your system is equipped for FireWire connectivity.
Note: FireWire is not supported on Windows NT.

USB

USB is a connectivity specification that allows computer peripherals to be attached to a computer and eliminates the need to open the computer and install cards into dedicated slots. USB is a plug-n-play (PnP) specification that does not require configuration of switches or jumpers as with SCSI.

The USB 1.1 bus provided with USB connection scanners supports a data transfer speed of 12Mbps. USB is supported on Windows 98 or above. USB is not supported on Windows NT. Most newer PC's and laptops come equipped with a USB port.
USB 1.1 is relatively slow with color scanning compared to FireWire and SCSI.

SCSI

Setting up the SCSI connection requires installation of an SCSI board in your PC, installing the SCSI driver and setting the scanners SCSI connection ports. SCSI is recommended if you cannot use the FireWire connection option yet you require high speed color scanning. SCSI interface scanners support the Ultra SCSI (8-bit Narrow) SCSI type interface.
SCSI is supported on Windows and Windows NT host platforms.

3.4.2 Cable Connector Panel on the Scanner

The interface cable connectors are grouped in a Cable-Connector-Panel found on the underside of the scanner and accessed from the scanner's back.

As illustrated in the interface table above, the different scanner models support different options for interfacing. You will find one of the following types of cable connector panels on your scanner.

1. USB
2. USB + SCSI
3. FireWire + SCSI

USB (only) Cable Connector
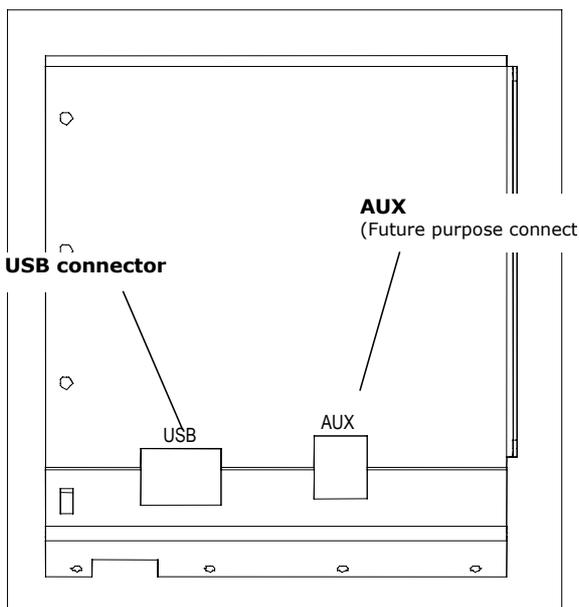
Figure 3-1 Scanner USB Connector

USB + SCSI Cable - Connectors
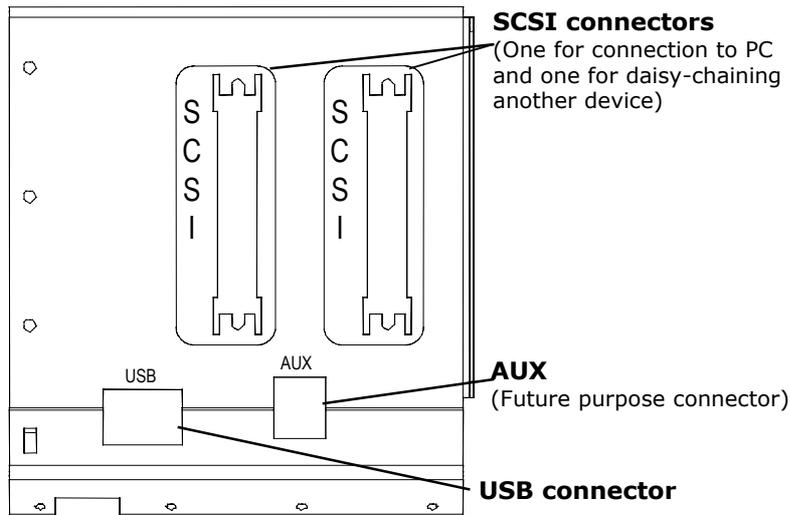
Figure 3-2 Scanner USB and SCSI Connectors on Cougar Scanners

Note: The extra SCSI connector is only used if you wish to daisy-chain another device to your system and not for interfacing with another PC.

FireWire + SCSI Cable - Connectors
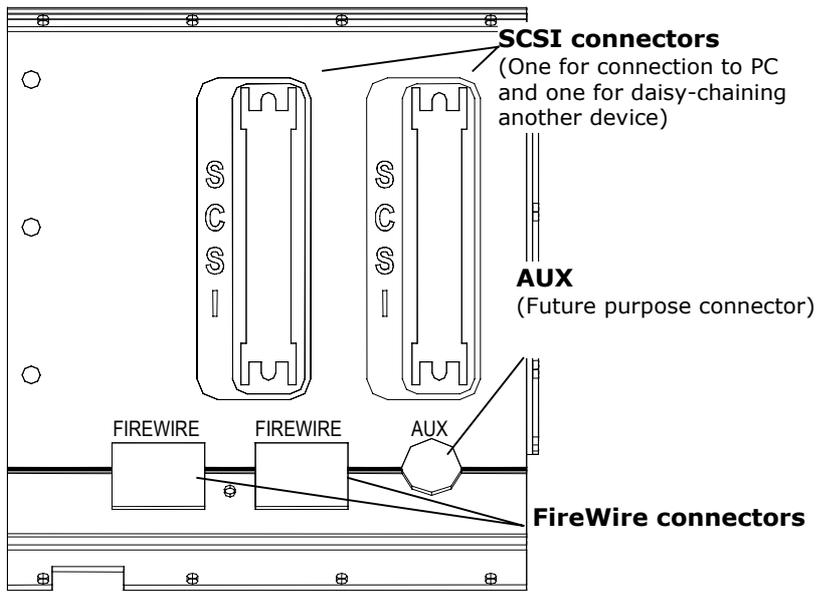
Figure 3-3 FireWire + SCSI Connector

Note: The extra SCSI connector and extra FireWire connector are for daisy-chaining another device to your system and not for interfacing with another PC.

Regulatory Notice: Your scanner product has been tested to comply with the EMC Standards EN55022 and FCC, Part 15. To maintain compliance, only use shielded SCSI/USB/FireWire (FW) interface cables.

3.5 Connection through the FireWire interface

To connect through FireWire, you will need the FireWire cable that came with your scanner and your computer must be enabled for FireWire through a FireWire card and port. FireWire is not supported on Windows NT.

3.5.1 Check your computer for FireWire

Some computers come with built in FireWire inputs. You can check if FireWire is enabled by following these steps:

1. In Windows, Click Start, Settings, and then Control Panel.

2. Double-click the System icon.

3. Click the Device Manager tab.

If a FireWire host controller (IEEE) is listed, then FireWire is enabled on your computer. If you do not see this device listed, you will need to install a FireWire card.

To install a FireWire card, shutdown your computer and install the card into an empty PCI slot. See your computer's user's manual for installation of new hardware and the driver installation information that came with your FireWire card to setup the device under your specific Windows operative system.

3.5.2 Connect the scanner with the Firewire cable

1. Locate the FireWire cable that came with your scanner.
2. Connect the PC end to the FireWire port on your computer
3. Connect the peripheral end to a FireWire connection socket on your scanner.
4. If you have not yet installed the driver through the *WIDEsystem TOOLS* CD, Windows will display the "*New Hardware Found Wizard* dialog box after you connect the cable.
5. If an *"Unknown device is found"* message appears after you plug in the cable, follow the steps described below under *Unknown device is found message.*

6. Follow the installation instructions in the *WIDEsystem TOOLS User's Guide* that came on the *WIDEsystem TOOLS* CD. The scanner drivers are installed through an installation wizard.

3.5.3 "Unknown device is found" message

If your system has problems detecting the scanner, make sure your FireWire port is enabled (see above). If your system still does not detect the device, disconnect the FireWire cable, unplug the power to your scanner and turn off the computer. Then reconnect the scanner and restart the PC and restart the driver installation.

3.6 Connection through the USB interface

USB is supported on Windows 98 or above. USB is not supported on Windows NT. Your computer must have an enabled USB port.

3.6.1 Check your USB Port

Even if the computer has a USB port, it will not function unless it is set up, or enabled. Follow the instructions below to determine whether your USB port is enabled.

4. In Windows, Click Start, Settings, and then Control Panel.

5. Double-click the System icon.

6. Click the Device Manager tab.

7. Click the plus (+) icon to the left of the Universal Serial Bus Controller item.

If a USB host controller and a USB root hub are listed, then USB is probably enabled on your computer. If you do not see these devices listed, refer to your computer's documentation or contact the manufacturer for more information on enabling and setting up USB.

3.6.2 Connect the scanner with the USB cable

1. Locate the USB cable that came with your scanner.

2. Connect the PC end to a USB port on your computer
3. Connect the peripheral end to the USB connection socket on your scanner.
4. If you have not yet installed the driver through the *WIDEsystem TOOLS* CD-ROM, Windows will display the "*New Hardware Found Wizard* dialog box after you connect the cable.
5. If an *"Unknown device is found"* message appears after you plug in the USB cable, follow the steps described below under *Unknown device is found message.*
6. The driver is located on the *WIDEsystem TOOLS* CD-ROM that came with your scanner. Insert the CD into your CD drive.
7. Follow the installation instructions in the *WIDEsystem TOOLS User's Guide* that came with the CD. The scanner drivers are installed through an installation wizard.

3.6.3 "Unknown device is found" message

If your system has problems detecting the scanner, make sure your USB port is enabled (see above). If your system still does not detect the device, disconnect the USB cable, unplug the power to your scanner and turn off the computer. Then reconnect the scanner and restart the PC and restart the driver installation.

3.7 Connection through the SCSI interface

SCSI stands for Small Computer System Interface and is pronounced "skuzzy". It's a standard for connecting peripherals to your computer via a standard hardware interface, which uses standard SCSI commands. Your SCSI interface supports the Ultra SCSI (8-bit Narrow) SCSI type interface.

In order to put together a PC with a SCSI interface for your scanner you'll need:

- A SCSI host adapter board (also called a SCSI controller)
- SCSI driver software
- A SCSI cable

How to set up the SCSI interface

Setting up the SCSI Interface requires the following steps. Each step is described in detail in the following sections:

1. Install the SCSI host adapter board into an empty slot in PC.

2. Install the SCSI driver software that came with the scanner.

3. Connect the scanner to PC.

4. Set scanner DIL switches if the default settings require changing.

5. Set scanner DIL switch 4 termination properties.

3.7.1 Step 1: Install the SCSI host adapter board

1. Set the PC-system unit power-switch to OFF.

2. Set any external device power switches to OFF (such as printers, displays etc.).

3. Unplug the PC-system unit and all other devices from the wall outlet.

4. Remove the cover of your computer to expose the expansion slots.

5. Align and insert the SCSI host adapter board into an empty slot.

6. Use the expansion slot panel screw to secure the host adapter to the computer frame.

3.7.2 Step 2: Install the SCSI driver software

SCSI driver installation will be dependent on your Windows operating system. Follow the instructions for your operating system described in the SCSI driver documentation.

3.7.3 Step 3: Connect the scanner to the PC

1. Be sure to disconnect the power cable from the scanner. If power runs through the scanner at this point it may damage your SCSI host adapter.

2. The SCSI connectors are accessed from the back of the scanner and found underneath the left side (when facing the back).

3. Connect the SCSI cable that came with your scanner to one of the two SCSI connectors. The extra connector is for daisy-chaining another device to the system.

4. After the SCSI cable has been inserted in the connector the power cable can be inserted into the scanner and plugged in.

3.7.4 Step 4: Set the scanner DIL-switches

The DIL-switches are used for setting up of the scanner's SCSI connection ports, and for selection of the scanner test mode and the scanner forced boot start up mode.

The DIL-switches are set from the factory to default settings that apply to most common configurations so usually you will not have to change them. Best scanning performance is obtained with only one device on the SCSI bus. However, if your configuration requires more than one device on the bus, you may need to change the DIL-switch settings.

The factory default DIL-switch settings and the DIL-switch Value table are shown on the following page. Use the table and the following instructions for each switch to determine your DIL-switch settings if you need to change them.

Before proceeding with setting the switches you must turn the scanner power off. Removing and inserting the Smart Card (see below) while power is on can damage the scanner.

You will find the DIL-switches in the small Smart Card drawer labeled "PUSH" behind the scanner front streamer. To access the switches remove the streamer, push the drawer inwards and release so it pops open and remove the Smart Card.

Figure 3-4 Access the DIL-switches

Important: Remember to reinsert the Smart Card when finished setting the DIL-switches and before turning power on.

SCSI DIL-Switches – Factory Default Settings

		OFF	ON
SCSI Device Address	1		■
SCSI Device Address	2	■	
SCSI Device Address	3		■
SCSI Built –in Termination	4		■
No Synchronous Transfer	5	■	
Not in use	6	■	
Force Boot Start up	7	■	
Continuous Test Mode	8	■	

Device number setup – switch 1,2,3

Make sure the power to the computer and the scanner are OFF when setting the SCSI device number, as the switch settings are only read from the scanner DIL-switch during the scanner's power up.

You can set up the SCSI device no. for the scanner to any unused SCSI device no. The combination of the three *SCSI Device Address* switches determines the scanners device no. To set the SCSI device no. to the one required, you simply set the switches 1, 2 and 3 to the combination of ON/OFF values specified in the table below. The scanner is set as SCSI Device no. 2 from the factory.

SCSI device no / Switch combination:	1	2	3
SCSI device no. 0	ON	ON	ON
SCSI device no. 1	OFF	ON	ON
*SCSI device no. 2	ON	OFF	ON
SCSI device no. 3	OFF	OFF	ON
SCSI device no. 4	ON	ON	OFF
SCSI device no. 5	OFF	ON	OFF
SCSI device no. 6	ON	OFF	OFF
SCSI device no. 7	OFF	OFF	OFF

* Factory Default

SCSI built-in active termination – switch 4

Scanners with SCSI interface connectors have a built-in active SCSI termination that works better than a passive terminator at high transfer rates.

The built-in active termination for the SCSI bus is enabled by setting switch 4 on the SCSI switch to ON and disabled by setting it to OFF.

If the scanner is the last device on the SCSI bus, make sure the built-in active SCSI termination is turned on. If the scanner is not the last device make sure switch 4 is turned off. (see following illustrations).

Important: Never set switch 4 to ON and use a terminator block at the same time.

The following 3 scenarios show how to terminate the SCSI bus correctly:

A. The Scanner is the only external device on the SCSI bus
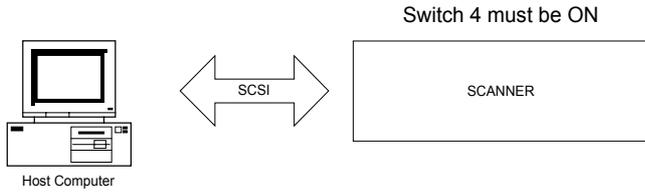
Switch 4 must be ON

SCSI   SCANNER

Host Computer

B. The Scanner is the last device on the SCSI bus

Switch 4 must be ON

SCSI   CD-ROM   SCSI   SCANNER

Host Computer

C. The Scanner is *not* the last device on the SCSI bus

Must be terminated

Switch 4 must be OFF

SCSI   SCANNER   SCSI   CD-ROM

Host Computer
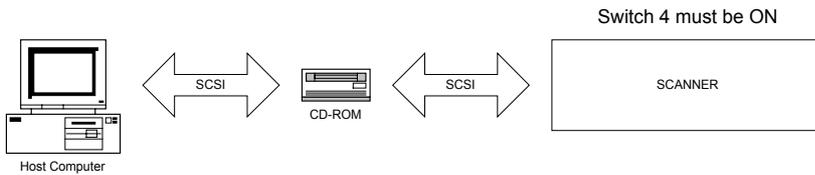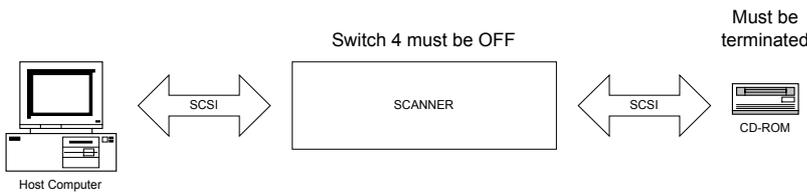
Note: If the scanner is connected to an existing SCSI controller in the PC that is used together with an internal SCSI device (f.ex. a hard disk), make sure that the on-board SCSI termination is removed before attaching the scanner. Please refer to the documentation for the internal device for instruction.

Troubleshooting and Test Controls – switches 5, 6, 7 and 8

Switch 5. No synchronous transfer: Disables SCSI synchronous transfer mode (reverts to asynchronous transfer). Only use this mode for testing as it slows the scanner down.

Switch 6. Not in use – no effect.

Switch 7. Force boot start up: If a malfunction occurred during an update of the scanner firmware, this switch forces the scanner into firmware boot mode, enabling you to download the firmware again.

Switch 8. Continuous test mode: The continuous test mode is only used for special technical maintenance and renders the scanner inaccessible.

Important: For normal scanning, make sure that none of the troubleshooting and test control switches are on.

3.8 Installation Verification

Turn on the power to the computer and the scanner.

If you have not yet done so, install the Scanner Maintenance Software and your scanning applications on your PC. Follow the installation instructions supplied with each item. The Scanner Maintenance Software is on your *WIDEsystem TOOLS* CD.

Start up the maintenance software (*Start – Programs – Scanner Maintenance*). The program will detect your scanner if it is installed correctly and display an introduction to the maintenance wizard. Otherwise, a message will inform you that your scanner could not be detected. If this is the case turn off power to all connected devices and reboot the system.

3.9 Preliminary Maintenance

Once you have setup your scanner and verified your installation, it is important that you run your first maintenance session before working with the scanner.

Shipping and transportation of your scanner from the factory may have affected the camera positions and it may be necessary to align the cameras and then calibrate.

Follow the instructions described under the chapter on *Maintenance* in this Operators Guide and in the Scanner Maintenance instructions found on the *WIDEsystem TOOLS* CD-ROM that came with your scanner.

4. Operator Panel and Indicators

The Scanner Operator Panel is divided into 3 areas:

A Scanner control area with 1 key and 3 LED indicators.
An Application control area with 3 keys.
A Paper control area with 2 keys and 1 LED indicator.

On some scanner models, an **Automatic Thickness Adjustment Control (ATAC)** key is also available in the Paper control area.

The next two illustrations show the two types of operator panels.

Standard Operator's Panel:
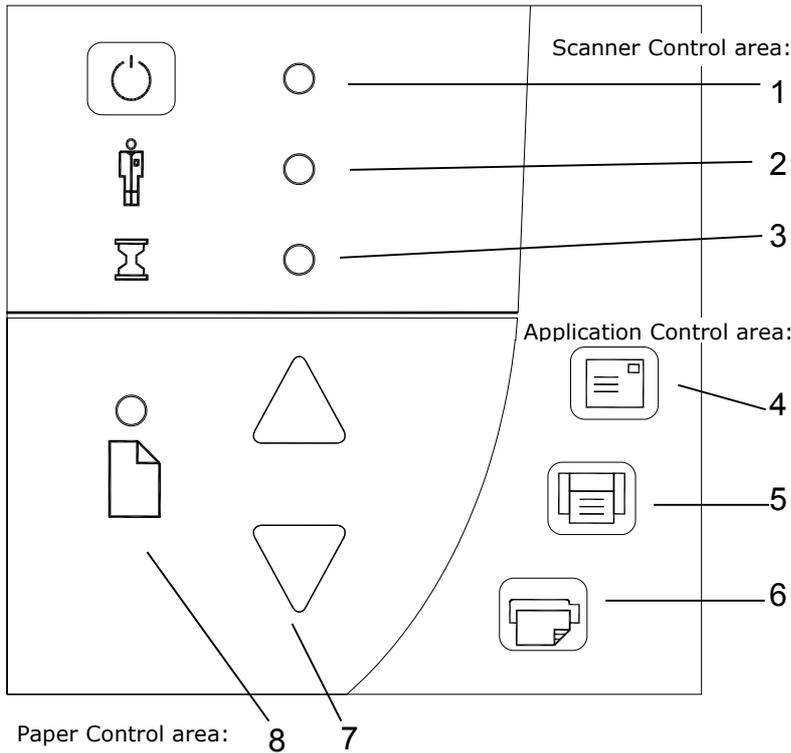
Operator's Panel with ATAC (Automatic Thickness Adjustment Control) functionality - Detailed descriptions of each numbered item follow in the next sections.
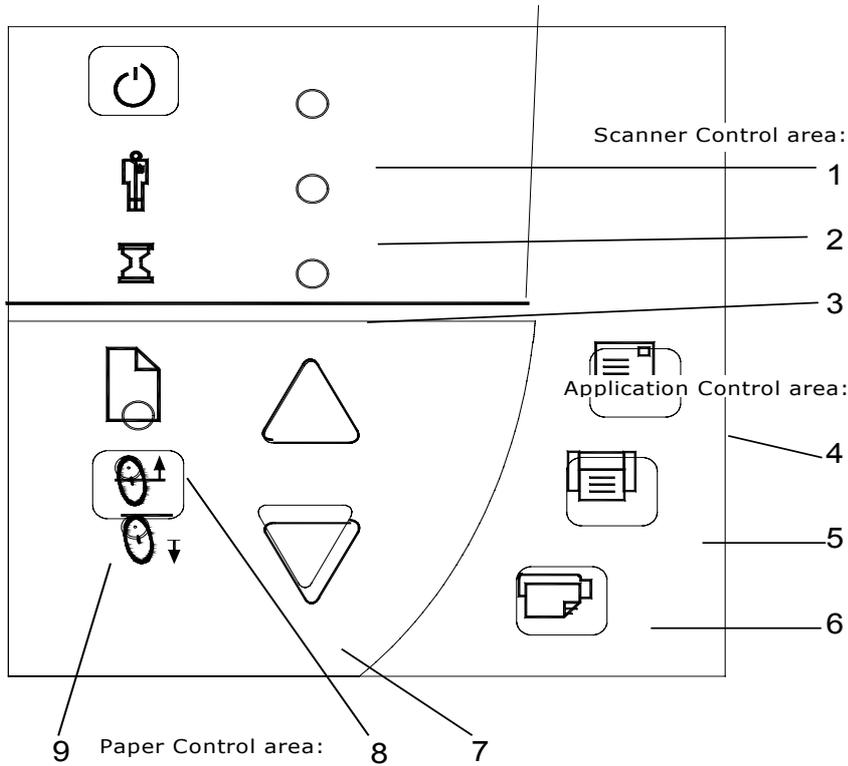
4.1 Scanner Control area

1. Power switch and power LED

When you connect the scanner to the power outlet and turn on the outlet switch at the back of the scanner, it starts up in ON mode meaning it boots and the LED lights green. With the scanner connected to the power outlet, you control scanner power through the power switch:

- To turn the scanner from ON to OFF, press down 1 second until the LED lights **red.**
- To turn the scanner from OFF to ON, press down until the LED lights **green.**
- Shortly after, the Power LED turns yellow as the scanner goes straight into self-test mode. All the LEDs will light up - the Diagnostics LED red and the other LEDs, including the Power LED, are yellow.
- After self-test, the Power LED turns green again and the scanner goes into Warm-up (see 3. Wait LED).

2. Diagnostics LED

Flashes if an error is detected by the built-in diagnostic. Simultaneous flashing by both the "Diagnostic" and the "Wait (Warm-up)" indicators may mean that the scanning area needs cleaning. See the "Maintenance" chapter for instructions on cleaning the scanning area. If the Diagnostic and the Wait indicators continue to flash after scanner maintenance, then there may be camera position errors that require professional service.

3. Wait LED

The Wait LED lights when the scanner power is turned on, and stays on during the internal diagnostic and stabilization phase. Keyboard input is prevented during this time.

The Wait indicator reveals the status of the scanner's self-adjustment procedure, which consists of both stitching and light profile adjustment. If the scanner does not self adjust the stitching and light profiles may change over time due to thermal changes in the scanner. The Wait indicator works in the following way:

- When the *Wait Indicator* is off, the self-adjustment is up-to-date, and the scanner is ready to scan.

- When the *Wait Indicator* is on, the scanner is warming-up or re-adjusting; a scan may be issued, but quality may be compromised (when adjusting is completed, the *Wait Indicator* turns off). To allow the scanner to self adjust do not (re)move original or change *Original Pressure Platen* position while the Wait Indicator is on.

- When the *Wait Indicator* is flashing (and the *Diagnostics Indicator* is off) re-adjusting is needed, but not possible; any original in the scanner should be removed, and *Original Pressure Platen* should be returned to the normal position (also in this situation a scan may be issued, but the quality will be compromised). When adjusting is again possible, the *Wait Indicator* stops flashing, but continues to be on until the self-adjust is complete.

- The *Wait Indicator* is on during basic calibration to indicate that the original should not be (re)moved during this procedure (for the same reason the scanner keyboard is disabled during basic calibration).

4.2 Application Control Area

The following buttons require correct installation of the *WIDEsystem TOOLS* CD, software application components and setup definitions before they can become active. Your scanner must be running through STI (Still Image Interface) on Windows and your PC must be turned on and running.

Below are descriptions of the buttons intentional functionality. However, you can assign applications with other functions to any of the buttons. For instructions on configuring the buttons to other applications, see the *WIDEsystem TOOLS User's Guide*, found on your *WIDEsystem TOOLS* CD-ROM.

4. Email Application

This button is for activating an application for sending scanned images via E-mail.

5. Scan Application

This button is for activating your scanning application if it is installed on your PC so that when you press the Scan Application button, you can trigger a scan of the document currently loaded in the scanner.

6. Copy Application

This button is for activating a scan-to- copy application if it is installed on your PC.

NOTE: The applications you wish to use with the buttons must be designed to recognize your scanner device and the signals sent from its buttons so that when a button is pressed, a scan is initiated and the result is loaded into the application triggered. Any application you assign to a button must be specially programmed in order to work in this manner. Check your application's documentation to verify it functionality with your scanner's one-touch-scan buttons.

4.3 Paper Control area

Use the Paper Control area when you insert your document.

7. Paper Forward and Paper Reverse Key

The *Paper Forward Key* moves the drawing into the start-of-scan position.

- If the *Auto-Load* option is selected in your scan application, loading will take place automatically as soon as the original enters the insertion slot. A delay factor for automatic paper loading can be set in the application giving you time to position the original correctly.
- Pressing the *Paper Forward Key* during scanning will stop the scanning process and the original will be fed through the scanner while the key is held down.
- The *Reverse Key* stops the current scanning process and reverses the original. The original will be fed backwards through the scanner while the key is held down.
- ***On scanners with ATAC –*** When the scanner is in Automatic Thickness Adjustment Control (ATAC) mode (see the description of the ATAC key below), the paper forward and paper reverse keys become "Guide plate up" and "Guide plate Down" keys.

8. Paper Ready Indicator
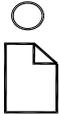
On standard panels   *On panels with ATAC support*

The *Paper Ready Indicator* lights up as soon as the drawing is inserted into the original's insertion slot and correctly positioned. Then the original can be moved into the start-of-scan position either by pressing the *Paper Forward Key* or through automatic loading.

- The *Paper Ready Indicator* lights **green when ready to scan normal thin media** and **yellow when ready for thick media.**
- The *Paper Ready Indicator* blinks yellow when the scanner is in ATAC mode but not yet ready, i.e., the guide plate is not yet positioned.

- The *Paper Ready indicator* stays ON, signifying that the scanner is ready to be controlled from the computer.
- During scanning the *Ready indicator* will blink.
- At end of scanning the *Ready indicator* will stop blinking signifying that scanning can be repeated from the computer, or else terminated by ejecting the original from the scanner.
- The paper ready indicator will **light red** if the guide-plate is in thick media setting (a raised guide plate) but no media is detected in the scanner. This applies for a guide-plate raised either manually or through Automatic Thickness Adjustment Control (ATAC).

9. Automatic Thickness Adjustment Control (ATAC) key

Some scanner models support Automatic Thickness Adjustment Control for easy adjustment of the guide plate level for scanning thick media. The next section of this manual describes thick media scanning in detail.

Pressing the ATAC key toggles scanner operation between ATAC mode and the normal Paper Forward/Reverse mode.

When the scanner is in ATAC mode:

- The Paper Ready indicator blinks yellow.

- The *Paper Forward* and *Paper Reverse* keys become "Guide plate up" and "Guide plate Down" keys.

- When the guide plate has been lowered and is adjusted for the thick media, the *Paper Ready* indicator turns yellow (stops blinking) indicating that the scanner is ready to scan thick media.

- When the guide plate has been lowered and is adjusted for the thick media, the scanner automatically goes out of ATAC mode, which means that the *Paper Forward* and *Paper Reverse* keys return to their normal functionality.

The steps for scanning thick media on scanners with and without Automatic Thickness Adjustment Control (ATAC) are described in the next section.

5. Original's Insertion Slot

5.1 Rulers

The Original's Insertion slot (picture below) is marked with a measurement ruler for inches and millimeters. The ruler corresponds to right side aligned original loading. Just below the ruler are marked common standard sizes that help guide you with optional centered loading.

The default loading method is center-load. On some scanners, the loading method can be selected from the scanning application. Center feeding is always preferable as the original is positioned symmetrically on the feed rollers during scanning. The scan area width measured in standard sizes, inches or millimeters is likewise set from the application.

Figure 5-1 Original Insertion Slot

The required setting for an original drawing can be measured, with the original inserted into the scanner, using the ruler printed on top of the Original Insertion Slot on the scanner. Then, you just enter your measurement in the width setting box in your application's media size setup dialogs.

5.2 Scanning Thick Media

Scanning needs are not always limited to convenient paper-thin media. Many industries, such as reprographics and GIS, will find the need to digitize or copy images printed or pasted on thicker media such as cardboard, foamboards, gatorboards etc. To support such needs you can change the vertical size of the insertion slot (guide plate height) on your scanner so you can fit the slot to the thickness of your original. This feature adds an extra dimension to scanning possibilities. Depending on your scanner model, changing the insertion slot height is

5.2.1 Manual Adjustment for thick media

You can change the insertion slot size (guide plate height) on your scanner from 0 to 15 mm (0 to .6") in small steps so you can fit the slot to the thickness of your original.

To change the insertion slot space, open the Original's Insertion Slot cover and set the media thickness adjustment sliders found at each side to the same setting.
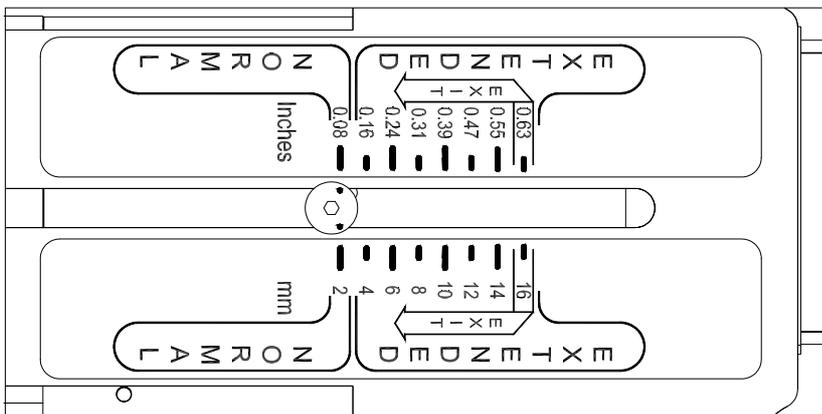

*Figure 5-2 Media Thickness Settings*

The media thickness can be set in the following steps (corresponding to the indications on the right and left adjustment sliders):

Step	MaximumThickness
0 (Normal Position)	2mm (0.08")
1	4mm (0.16")
2	6mm (0.24")
3	8mm (0.32")
4	10mm (039")
5	12mm (0.47")
6	14mm (0.55")
7	15mm (0.60")

Measure the thickness of your original to find the right setting. The *Paper Ready* key will turn yellow (stop blinking) when the guide plate is positioned correctly and is ready for thick media scanning.

5.2.2 Automatic Thickness Adjustment Control

Some scanner models support Automatic Thickness Adjustment Control (ATAC). Scanners supporting ATAC have an ATAC key on the operator's panel. You can change the insertion slot size (guide plate height) on your scanner from 0 to 15 mm (0 to .6")
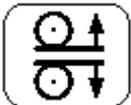
The ATAC key is on the operator panel.

Adjusting the insertion slot for thick media with ATAC:

1. Press the ATAC key on your operator's panel to set the scanner in ATAC mode.
2. The *Paper Ready Indicator* blinks yellow indicating the scanner is in ATAC mode but not yet ready, i.e., the guide plate is not yet positioned on the thick original.

3. Press and hold the *Paper Forward* key (arrow up) key to raise the guide plate until there is room to insert the thick original.
4. Insert the thick original evenly for a straight scan path.
5. Press and hold the *Paper Reverse* (arrow down) key to lower the guide plate until the guide plate stops on its own.
6. The *Paper Ready* indicator will turn yellow (stop blinking) when the guide plate is positioned correctly and is ready for thick media scanning.
7. The scanner will automatically leave the ATAC mode, which means that the *Paper Forward* and *Paper Reverse* keys will return to their normal functionality for moving the original forwards and backwards.

5.2.3 When Scanning in Extended Media Positions

The *Normal position* (Step 0: 2mm/0.08") is detected by a sensor in the scanner. Auto-adjustment of the scanner's light profile, stitching etc. only takes place in the *Normal position*. With extended media thickness positions, the last performed auto-adjustment is stored and utilized. This means that you should from time to time return to the normal position, and especially when turning the scanner on, to allow it to auto-adjust.

The *Normal position* also gives the highest scanning speed. In the extended media thickness positions, scanning speed is automatically reduced.

Modifying Stitching Parameters

Thick stiff originals will rest on top of the scanner rollers and thus raise a small distance over the glass plate, which will lead to changes in the stitching of images at points between the cameras (overlapping pixels). The stitching parameters will need to be modified in order to correct for this. You can modify stitching parameters through your scanning application.

To modify the stitching insert your thick original in the scanner, scan the image in your application and check the result in the viewer for overlapping or missing pixels in the camera transition areas. Then adjust the value in the application's dialogs. Repeat scanning and adjustment until the effect is minimized.

The modified stitching parameters will automatically be selected when in one of the extended media positions.

Treating Edge Distortion

Scanning thick originals can give distortions when the front edge meets the exit rollers or the trailing edge leaves the entry rollers. To omit this, the leading and trailing edges are by default skipped when in one of the extended media thickness positions.

Leading/trailing edge skipping can be turned off through the application's Scanner Setup dialog.

Supporting Thick Originals

To facilitate scanning of thick originals in the extended media thickness positions it is important to insert the original center aligned and to help support the original during scanning. This should be done both at the entrance side and the exit side of the scanner. Specially designed support tables can be attached behind the scanner for those who perform a lot of thick media scanning. Ask your local dealer for purchase information.

5.3 Accessing the scan area

In order to access the scan area for cleaning or other maintenance purposes, you have to free the pressure platen. On some scanner models, the pressure platen can be completely detached from the scanner. On scanners with Automatic Thickness Adjustment Control (ATAC), the elevation mechanism resides in the backside of the pressure platen. Therefore the pressure platen is flipped open with the scanner cover for accessing the scan area. Instructions for each scanner type follow below:

5.3.1 Detach the pressure platen – non ATAC models

The following applies for scanner models **without** Automatic Thickness Adjustment Control (ATAC) functionality.

To remove the original's pressure platen for cleaning the scan area:

1. Place your fingers in the insertion slot and flip open the scanner's top cover.
2. Press down on the pressure platen.
3. While maintaining pressure, slide the left and right extended media thickness adjustment sliders fully towards the middle of the platen until the metal safety buttons on each side of the scanner pop up.
4. Use the two handles to lift out the pressure platen as soon as you feel the sliders disengage.

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To reinsert the original pressure platen, reverse the above procedure.
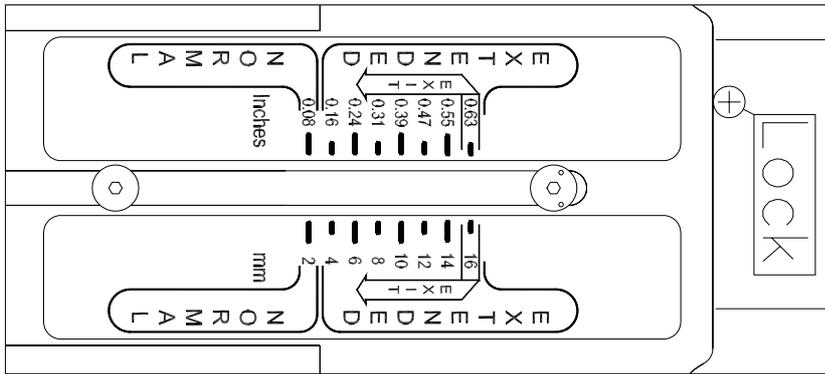
Figure 5-3 Slider in the exit position

5.3.2 Flip Open the Pressure Platen – ATAC models

The following applies only for scanner models **with** Automatic Thickness Adjustment Control (ATAC) functionality.

1. Push down on the two lever buttons found near the insertion slot on each side of the scanner's top cover.
2. The cover locking mechanism should now be disengaged.
3. As you hold both lever buttons down, place your free fingers in the insertion slot and flip the cover open.
4. The pressure platen with the white metal areas is under the scanner cover. Hold the cover open as you clean.

5.4 Changing the glass plate

Some scanner models allow users to detach the glass plate from the scanner in order to replaced scratched glass plates with new ones. On other scanner models, a service technician must preform this process. See your scanner's model specifications to see the glass plate is detachable on your scanner.

To replace detachable glass plates:

1. Remove the pressure platen as described in the section above.
2. The glass plate will be exposed and accessible.

3. On each side of the glass plate there is a small lever and round finger-handle. With both arms, pull the left and right levers backwards to flip the glass plate upwards towards your body.
4. The levers are attached to the scanner chassis with a small hook. Lift the levers out of the hook to free the glass plate from the scanner.
5. Reverse the process to reinsert a new glass plate.

6. Maintenance

Regular scanner maintenance is a sure way to minimize costly downtime. The Automatic Scanner Maintenance system supported on your scanner hinders your scanner from degrading over time. The three routine maintenance procedures cleaning, camera alignment and calibration will improve image quality and reduce your service costs.

The three maintenance functions are closely entwined and they should all be performed in a single maintenance session, starting with cleaning the scan area and ending with calibration. The reason for this is simple. If you clean the glass or adjust the cameras then you will have changed conditions in the scanning area and will need to calibrate in order to readjust black, white and color interpretation. This works the other way as well – scanner calibration must always be preceded by cleaning and camera alignment to get reliable calibration results.

Scanner Maintenance is very easy to perform and most of it is completely automatic. After manually cleaning the scan area, you just insert a Maintenance Sheet, start the Maintenance program and let the wizard take over as it performs camera alignment and calibration.

The tools for scanner maintenance were supplied with your scanner - including the program that will check your scanner and guide you through the maintenance steps. For best results, install the Scanner Maintenance program from the *WIDEsystem TOOLS* CD-ROM and run the maintenance procedures after setting up your scanner for the first time.

Full instructions for perfect scanner maintenance through cleaning, alignment and calibration are included on the *WIDEsystem TOOLS* CD-ROM that came with your scanner.

7. Appendix A: Important Safety Instructions

Read all of these instructions and save instructions for later use. Follow all warnings and instructions marked on the scanner.

A. Do not place the scanner on an unstable surface, stand, cart or table. Serious damage can be caused if the unit falls.

B. Turn off all power to the unit before cleaning. Do not use liquid cleaners or aerosol cleaners.
Use a damp cloth for cleaning.

C. The scanner should be operated from the type of power source indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.

D. The scanner is equipped with a three-wire grounding type plug. This plug will fit only into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet. contact your electrician to replace your obsolete outlet. Do not defeat or ignore the purpose of the grounding-type plug.

E. Do not allow anything to rest on the power cord. Do not locate the scanner where persons will walk on the cord.

F. If an extension cord is used with the scanner, make sure that the total of the ampere ratings of the products plugged into the extension cord does not exceed the extension card ampere rating. Also, make sure that the total of all products plugged into the wall outlet does not exceed 15 amperes.

G. Slots or openings in the cabinet at the back or bottom are provided for ventilation. This ensures reliable operation of the product and protects it from overheating. These openings must never be blocked or covered. The openings should never be blocked by placing the unit on a bed, sofa, rug, or other similar soft surface. This product should never be placed near or over a radiator or heat register. This product should not be placed in a built-in installation unless proper ventilation is provided.

H. Never push objects of any kind into the scanner through cabinet slots since they may touch dangerous voltage points or short out parts

that could result in a risk of fire or electrical shock. Avoid any possibility of spilling liquid of any kind on the scanner.

I. Do not attempt to service the scanner yourself. Opening or removing those covers requiring tools may expose you to dangerous voltage points or other risks. Refer all servicing in those compartments to authorized service personnel.

J. Unplug the scanner from the wall outlet and refer servicing to authorized service personnel under the following conditions:

- When the power cord or plug is damaged or frayed.
- If liquid has been spilled into the scanner.
- If the scanner has been exposed to rain or water.
- If the scanner does not operate normally when operating instructions are followed then adjust only those controls that are covered by the operating instructions in this manual. Improper adjustment of controls other than those mentioned in this manual may result in permanent damage and will at best require extensive work by a qualified technician to restore this product to its normal operation.
- If the scanner has been dropped or the cabinet has been damaged.
- If the scanner exhibits a distinct change in performance, indicating a need for service.

8. Appendix B: Regulations

FCC Regulations

This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Warning

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.