Service Manual

Film Scanner

Document # FLM-02A Revision A

Contents

1. Scanner Won't Come Ready / Scan Light Flashes

Description: when they turn the scanner on the ready light continues to blink on and off.
Reason: scanner has not finished its calibration process.
Suggestions:

Suggestion 1 (SCSI and USB) Scan bulb may be blown and needs to be replaced. Get the customer to:

1. Turn the scanner on
2. Turn the light box off so they are not confused between the light box and the scan light.
3. Look behind the scan bar (vertical bar on the right-side of the scanner that the X-Ray passes behind to be scanned. It covers the scan light)
4. Look to see if the scan light is on. Scan lights can be green or white depending on the scanner model.
5. If the scan light is not on then the scan bulb will need to be replaced.
6. We will need to see if they are still under a scanner warranty.
7. Refer to warranty information for further information. They can either return the scanner for repair or we can send them a scan bulb (refer to section on Scan Bulb Replacement)

SUGGESTION 2 (SCSI Only): SCSI ID should not be on 7, 8 or 9. The default is generally "6". If it is on 7, 8 or 9:

1. Turn scanner off
2. Change the SCSI ID to 6 (or some other number other than 7, 8 or 9). The SCSI ID is located beside the SCSI port at the bottom of the scanner (where the cable plugs in). Two small push-buttons beside the number allow it to be changed up or down.
3. Turn scanner on and wait to see if it comes ready (30-40 seconds)

SUGGESTION 3 (SCSI and USB): May be a misalignment of the scanning slide bar. If it comes into contact with a stationary object whilst scanning or is knocked, the gears on the rack and pinion drive mechanism can become misaligned.

1. Turn scanner off
2. Gently move the slide bar all the way to the right until it comes completely off its tracks.

3. Now gently move the slide back onto the track all the way back to its normal start position. The alignment will now be correct

4. Turn scanner on (without cable) and wait to see if it comes ready (30-40 seconds)

SUGGESTION 4 (SCSI and USB): Scan path or scan light may be dirty (i.e. dirt in front of or on the scan light)

1. Turn scanner off

2. Remove the 4 screws on the vertical scan bar on the right side of the scanner, and remove the scan bar

3. Clean the scan light. Which is the vertical light behind the scan bar that was removes. Clean with a soft cloth and light cleaner. The aim is to remove any dust from the scan path.

4. Put the vertical scan bar back onto the scanner with the 4 screws.

5. Turn scanner on and wait to see if it comes ready (30-40 seconds)

SUGGESTION 5 (SCSI and USB): Check to make sure they don't have a film in front of scan light. I.e. They may have put a film in and it is a covering the scan light (behind the vertical scan bar).

SUGGESTION 6 (SCSI and USB): May be a cable problem. Either not in correctly or broken.

1. Turn scanner off

2. Remove the cable (SCSI or USB) from the bottom of the scanner

3. Turn scanner on (without cable) and wait to see if it comes ready (30-40 seconds)

4. Also make sure there are no bent or broken pins on either end of the SCSI cable.

SUGGESTION 7 (SCSI and USB): Once Power is switched on, the orange light (not green light) comes up, and the green light starts blinking, but the slide bar does not start moving for approx. 10 seconds (this time seems to be longer than usual). The bar moves one inch and stops, and green light turns off.

You may have a faulty end of travel switch. This is the optical switch under the slide. When the slide returns to the home position, the slide flag moves between the two parts of the optical switch. This looks like two small black squares of plastic coming out of the case under the slide. You can access the switch by removing the back from the scanner. Locate the switch in the upper left hand side of the scanner, and remove the screws that are holding it to the case. Examine the switch and clean the optical path with a cotton

swab or cloth. Remove and replace the connection to the motherboard to be sure it is fully plugged into the mother board.

This may not solve the problem, but if you can show that it works for a bit after this procedure, then we know that it is the switch. We can send you another switch in case.

OTHERWISE: The scanner may need to be sent in for repair. Refer to the warranty information for further warranty information.

2. Scanner Bar Moves Back and Forth On Its Own

Description: The scan bar continues to move back and forth, i.e., as if it was scanning images continuously.
Reason: Scanner is in self-test mode.
Suggestions:

SUGGESTION 1 (SCSI Only) The scanner has a built in test mode, which causes the scanner bar to move back and forth continuously on its own. The test mode is started by changing the SCSI ID to '7'. To correct this, simply

1. Turn scanner off
2. Change the SCSI ID to 6 (or some other number other than 7). Generally '6' is the default. The SCSI ID is located beside the SCSI port at the bottom of the scanner (where the cable plugs in). Two small push buttons beside the number allow it to be changed up or down.
3. Turn the scanner back on

SUGGESTION 2 (SCSI Only) You may also need a SCSI in-line terminator between the scanner SCSI socket and the SCSI cable.

3. Scan Bar Doesn't Return After Scan

Description: scanner bar moves all the way to the end and then seems to 'jump' its track so it won't return to its start position
Reason: Maximum scan length is incorrect or the home position needs to be reset.
Suggestions:

SUGGESTION 1 (SCSI and USB): Settings in scanner setup are set to high.

1. Open QPC XSCAN32 Xscan32. Open a patient folder. Open Scanner Interface
2. Press the "Scanner Setup" button. Click Ok on password.
3. Reduce the maximum scan length. It should be set to 17.3 (
   Note: 23 is two high and will cause the scanner to go off the track)
4. Try scanning to see if this fixes the issue.

SUGGESTION 2 (SCSI and USB): We may need to reset the home position.

1. Turn the scanner off, and gently push the scan bar back to its start position.
2. With the scanner turned off, gently pull the scan bar all the way to the right until you cannot go any further.
3. Then gently push it back to its normal position. This resets the 'home' position of the scan bar and therefore the maximum travel.
4. Restart the scanner, and test to see if the problem has now been corrected.

SUGGESTION 3 (SCSI and USB) Bad cable or too long.

1. For SCSI, get a 3 foot cable or a 6 foot with an in-line terminator.
2. For USB, try a different cable.

SUGGESTION 4 (SCSI and USB) Re-lubricate the slide, light grease. The silver track.

SUGGESTION 5 (SCSI) 312T SCSI may be on SCSI ID 7, 8 or 9, which means that it will not return to home after it has finished self test mode. This was simply how the scanner worked. Put it to something other than 7, 8 or 9.

4. Scanning Too Far / Not Enough

Description: scan bar is not scanning enough of the image or is scanning too far and not returning.
Reason: Scan lengths are incorrect.
Suggestions:

SUGGESTION 1 (SCSI and USB): Change the maximum scan length in Scanner Setup.

1. Open QPC XSCAN32 Xscan32. Open a patient folder. Open Scanner Interface
2. Press the "Scanner Setup" button. Click Ok on password.
3. In the bottom right side of the Scanner Setup window there is a "Scan Length" button. Click on this and change the "Max. Scan Length" to 17.3
4. Try scanning to see if this fixes the issue.

Normally the scan Starting Point will be '0', and the Maximum Scan Length will be '17.3' for CX-312T and CX-612T scanners, and '22' for CX-812M scanners. Small adjustments can be made to these settings to solve any variations in scan lengths.
SUGGESTION 2 (SCSI and USB): Also check you have the correct scanner type selected.

1. Open QPC XSCAN32 Xscan32. Open a patient folder. Open Scanner Interface
2. In later versions of the scanner interface there is a combo box under the "Scanner Setup" button that lets you change the type of scanner.
3. Make sure the correct scanner type has been selected in this list.
4. Also ensure the correct scanner drivers have been installed. You can do this via Device Manager.

SUGGESTION 3 (SCSI and USB): Could be dust on the glass and the scanner assumes it is the edge of the film and stops. Refer to section Cleaning Scan Window.

SUGGESTION 4 (SCSI and USB): It could be a problem with Autocrop.

1. Open QPC XSCAN32. Open a patient folder. Open Scanner Interface
2. Unselect the Autocrop option, see if it scans the entire film

SUGGESTION 5: Make sure there are no read only issues.

1. Open Windows Explorer, go to C:\Xscan32\directory (or wherever QPC XSCAN32 XSCAN32 is installed)

2. Press Ctrl + A. This highlights everything in the list. You can also go to the File menu and choose Select All

3. Right mouse click on the list and go to properties. You can also go to the File menu and choose Properties

4. Make sure the Read Only option is unselected. If it is not unselect it

5. Press Apply. If it asks to apply this option to everything in this folder and subfolders say yes.

SUGGESTION 6: Check to make sure the Xray has been placed in the correct position on the scanner.

1. The rulers on some cobrascan stickers where back to front. Check to make sure the Xray is lined up with the 17 mark.

2. Cobrascan stickers with the correct ruler should make sure the Xray is lined up with the 0.

SUGGESTION 7: May be scanning to far and causing a grinding noise. The grinding noise could be caused from the scan length being to long. To check this get the customer to do a scan. If the scan bar goes all the way to the end (i.e. moves the film to the end as if it has scanned it) and then grinds, then it is reaching the end of travel before it has finished scanning. Reduce the scan length by .5 at a time. When the scanner scans the entire film without grinding then you have the correct settings.

SUGGESTION 8: Move the film back on the ruler. I.e. if they have it set on 0. Move it back to 0.5 or 1.

SUGGESTION 9: Maybe a problem with the computer itself. Or the USB/SCSI port. Try another port. Also try another cable.

Additional Information: Please refer to the section Scan Bar Doesn't Return After Scan.

5. Scanner Not Found

Description: The Scanner Interface returns “No Scanner was found” in the status box.
Reason: QPC XSCAN32 XSCAN32 cannot find the scanner via system devices
Suggestions:

SUGGESTION 1 (SCSI and USB): Was the scanner on and ready before the computer was turned on? If it was not then:

1. Turn computer and scanner off
2. Turn scanner on and wait till the ready light is on and steady (i.e. not flashing)
3. Turn the computer on and open the scanner interface. See if the scanner has been found.
4. If it cannot be found then refer to the section on Scanner Won’t Come Ready

SUGGESTION 2 (SCSI and USB): Maybe a cable problem

1. Turn computer and scanner off
2. Make sure cable is securely fitted into the bottom of the scanner
3. Make sure cable is connected securely into the correct port on the back of your computer. Some SCSI card plugs look identical to printer plugs, so make sure your SCSI cable is not plugged in the printer port.
4. Turn scanner on and wait till the ready light is on (i.e. not flashing) Then turn the computer on and open the scanner interface. See if the scanner has been found.
5. It may be a bent pin. To fix this they would need to replace the cable

SUGGESTION 3 (SCSI and USB): Maybe a card problem. I.e. the SCSI or USB card may be loose in the computer.

1. Get the customer to check the card in the back of the computer. Wiggle it to see if it moves. It should be firm in the computer (i.e. there should be no movement).
2. If the card wiggles when they touch it then they will need to open the back of the computer and tighten the screw that holds the card.

SUGGESTION 4 (SCSI only): There may be a problem with the length of the SCSI cable.

1. Ask the customer what size the SCSI cable is.
2. If the SCSI cable is longer than 3 feet (6 feet or 1 meter) then there are two options:

3. It may require an in-line terminator between the scanner plug and the cable plug. For 2000 scanners you need to put the terminator on and flip the in-line terminator switch

4. Try replacing it with a shorter cable (i.e. 3 feet).

5. Occasionally short cables (3 feet) may need an in-line terminator also, but this is rare

SUGGESTION 5 (SCSI only): SCSI ID should not be on 7, 8 or 9. The default is generally "6". If it is on 7, 8 or 9:

1. Turn scanner off

2. Change the SCSI ID to 6 (or some other number other than 7, 8 or 9). The SCSI ID is located beside the SCSI port at the bottom of the scanner (where the cable plugs in). Two small push-buttons beside the number allow it to be changed up or down.

3. Turn scanner on and wait to see if it comes ready (30-40 seconds)

SUGGESTION 6 (SCSI and USB): Check to see if the correct drivers have been installed.

1. Go to start menu, Settings, Control Panel, double click on System icon

2. Go to Hardware tab and click on Device Manager.

3. Look for the scanner under Imaging Devices.

4. If it does not appear hear it will come under Other Devices which means that the correct drivers have not been installed for the scanner. Refer to section on Installing Scanner Drivers.

SUGGESTION 7 (USB only): Check to see if the Adaptec SCSI Exchange Drivers have been installed.

1. Right mouse click on My Computer

2. Click on properties. Click on Hardware tab. Click on Device Manager button

3. Look under USB devices for Adaptec SCSI Exchange.

4. If it is not there then you will need to install the driver for this before the scanner can be seen.

SUGGESTION 8 (Windows 2000 only): If you are using Windows 2000 and the computer sees the scanner but QPC XSCAN32 XSCAN32 does not, follow the directions below to fix the problem. Upgrade to the latest cobra files. The latest files are always on the ICRCO web site. Otherwise, if using older software:

1. Shutdown QPC XSCAN32 XSCAN32
2. Click on My Computer. Click on C: drive. Click on QPC XSCAN32 XSCAN32 folder
3. Open a file called MSCANDC.ini (Note: If you can not see the file then Click on View, Folder Options, View Tab, Show All Files, then click on OK. Now find the file.)
4. Change the interface to read STI instead of ASPI.
5. Close the file and save the changes
6. Restart the computer.
7. When the computer has rebooted, Open QPC XSCAN32 XSCAN32 and try to scan.
8. Also try changing the cable.

SUGGESTION 9 (Windows NT only) Windows NT makes use of a file called wnaspi32.dll to define the ASPI layer used for operation of the scanner. It is possible that the version of this file in your system directory may be incorrect. To check:

1. Do a search on your hard drive for wnaspi32.dll. Go to start menu, Find Files or Folders.
2. If there is only one version of this file on your system (it resides in the Winnt/System folder), then this is not the problem.
3. If there is more than one version, then:
   (a) Find the wnaspi32.dll file in the winnt\system folder, and rename it to wnaspi32.dll.old.
   (b) Copy the latest other version of the same wnaspi32.dll file to the winnt\system folder.
4. Restart your system.

Note: You must also carefully check that the correct drivers have been installed for their SCSI card. Always restart your system after testing any of these things, ensuring the scanner is on and ready first.

SUGGESTION 10 (Windows NT only) Windows 2000 would accept the 2000s driver, however when you restarted windows the driver files would disappear and the scanner would be seen as Scanner Not Found. Device Manager would have an ! exclamation mark beside it. You had to reinstall each time you started. This was a windows issue.

Run windows updates.

SUGGESTION 11 Make sure SCSI cable has not been plugged into the LPT1 port (printer port).

SUGGESTION 12 Install the latest cobra software and make sure the scanner is the correct type under settings.

6. Scanning Speed is Very Slow

Description: the scan bar is not moving very fast. And the scan time is too long.
Reason: Either a setting issue or a problem with the scan light.
Suggestions:

SUGGESTION 1 (SCSI and USB): Scan Resolution may be set to high.

1. Open QPC XSCAN32 XSCAN32. Open a patient folder. Open Scanner Interface
2. Check which resolution button they have selected (appears at the top of the dialog).
3. If it is 3K or higher then this is the reason for the slow scan speed. Because it is capturing more dots per inch to get a better scan)
4. Have them select 2K and see if the speed issue is resolved.

SUGGESTION 2 (SCSI and USB): May have the descreen option selected. Descreen Algorithm usually causes start stop scanning.

1. Open QPC XSCAN32 XSCAN32. Open a patient folder. Open Scanner Interface
2. Check to see if the "Apply Descreen Algorithm" option is selected (appears at the bottom of the dialog).
3. If it is selected, have them unselect it. NOTE: however that this could cause lines in scanning. These lines are grid lines. Refer to section on Lines in Images when Scanned

SUGGESTION 3 (SCSI and USB) The scanning speed is dependent upon the amount of light the CCD receives from the scan bulb. There are normally two reasons for the scan speed slowing dramatically.

1. The scan bulb may be near the end of its life. All fluorescent bulbs deteriorate over time, and the amount of light given out falls off rapidly prior to the bulb failing completely. See section on Scan Bulb Replacement
2. The scanner checks the brightness of the light before each scan, and calibrates itself accordingly. Ensure there is nothing behind the scan bulb cover which may restrict the amount of light getting through to the mirror behind during the calibration process. For example, if a film is placed on the scanner so that part of it is behind the scan bulb cover, the resulting scan will be very slow, or may not even scan at all. You can also try cleaning the light path. There are two main components to be cleaned. See section on Cleaning Scan Window

SUGGESTION 4 (SCSI and USB) You can also check the mirror is vertical and screwed down so it cannot move.
SUGGESTION 5 Exposure level is set to high. Go into cobra interface and settings.

7. Scanner Won't Start

Description: the scan bar does not move when the user presses the scan button on the scanner interface in QPC XSCAN32 XSCAN32.
Reason: There is a problem with the scan light.
Suggestions:

SUGGESTION 1 (SCSI and USB) The scanning speed is dependent upon the amount of light the CCD receives from the scan bulb. There are normally two reasons for the scan speed slowing dramatically.

1. The scan bulb may be near the end of its life. All fluorescent bulbs deteriorate over time, and the amount of light given out falls off rapidly prior to the bulb failing completely. See section on Scan Bulb Replacement

2. The scanner checks the brightness of the light before each scan, and calibrates itself accordingly. Ensure there is nothing behind the scan bulb cover which may restrict the amount of light getting through to the mirror behind during the calibration process. For example, if a film is placed on the scanner so that part of it is behind the scan bulb cover, the resulting scan will be very slow, or may not even scan at all. You can also try cleaning the light path. There are two main components to be cleaned. See section on Cleaning Scan Window

SUGGESTION 2 (SCSI and USB) You can also check the mirror is vertical and screwed down so it cannot move.
SUGGESTION 3 Make sure the lights come on. If they don't, refer to section on Scanner Won't Come Ready.
SUGGESTION 4 Dirty end of travel switch
SUGGESTION 5 Firmware has gone bad.
SUGGESTION 6 (SCSI Only) SCSI id may be on 8 or 9. Change to something other than 7, 8 or 9.

8. Start/Stop Scanning

Description: the scan bar moves a little bit when scanning and then stops, then it moves a little further and stops. And the scan time is too long.
Reason: Most likely causes by the descreen algorithm that is applied in old versions of the software or the RAM on your computer.
Suggestions:

SUGGESTION 1 (SCSI and USB): May have the descreen option selected. Descreen Algorithm usually causes start stop scanning.

1. Open QPC XSCAN32 XSCAN32. Open a patient folder. Open Scanner Interface
2. Check to see if the "Apply Descreen Algorithm" option is selected (appears at the bottom of the dialog).
3. If it is selected, have them unselect it. NOTE: however that this could cause lines in scanning. These lines are grid lines. Refer to section on Lines in Images when Scanned

SUGGESTION 2 (SCSI and USB) Scan speed can also be affected by the amount of RAM in your computer and the speed of your CPU. If either of these specifications is deficient, you may find that the scanner stops and starts several times during the scan process. To remedy this - try increasing the amount of RAM in your computer. If you still encounter the same problems, you probably need to update your entire computer.
SUGGESTION 3: Upgrade to the latest version of QPC XSCAN32 XSCAN32. We have a new descreen algorithm that is applied after the scan is completed. Therefore is does not affect the scan time.

9. Scanner makes a grinding noise while scanning

Description: The scanner makes a grinding noise when scanning
Reason: Scan bar needs to be reset.
Suggestions:

SUGGESTION 1 (SCSI and USB): We may need to reset the home position.

1. Turn the scanner off, and gently push the scan bar back to its start position.
2. With the scanner turned off, gently pull the scan bar all the way to the right until you cannot go any further.
3. Then gently push it back to its normal position. This resets the 'home' position of the scan bar and therefore the maximum travel.
4. Restart the scanner, and test to see if the problem has now been corrected.

SUGGESTION 2 (SCSI and USB): Check if it is the end of travel switch.

1. Turn scanner off
2. Pull bar out half way
3. Take end latch out
4. Turn scanner on
5. If it doesn't grind it is the end of travel switch. They will need to send the scanner in.

SUGGESTION 3 (SCSI and USB): We had a case wear the middle gear was very dirty and jammed. They sent it back for repair. We also changed the gear bracket.
SUGGESTION 4 Put grease on gear.
SUGGESTION 5 Exposure setting is to low. Open Cobra interface and go to settings.

10. Scanner makes a grinding noise before scanning starts

Description: The scanner makes a grinding noise before it starts scanning. It may or may not scan after that.
Reason: Not enough light.
Suggestions:

SUGGESTION 1 (SCSI and USB): See if light (white for 312) does not come on on vertical scan bar. I.e when turn it on and the lamp does not come on this is the problem (lamp is under vertical scan bar).

11. Scanner makes a grinding noise after scanning finishes

Description: The scanner makes a grinding noise after it finishes scanning
Reason: Could be settings.
Suggestions:

SUGGESTION 1: (SCSI and USB): The grinding noise could be caused from the scan length being to long. To check this get the customer to do a scan. If the scan bar goes all the way to the end (i.e. moves the film to the end as if it has scanned it) and then grinds, then it is reaching the end of travel before it has finished scanning. Reduce the scan length by .5 at a time. When the scanner scans the entire film without grinding then you have the correct settings.

12. Slide is sticking /catching when scanning

Description: slide is catching, making noise, stopping.
Suggestions:

SUGGESTION 1 (SCSI and USB):

1. Turn off scanner.
2. Pull slide gently all the way to the right until it goes off the gear.
3. Clean the exposed track
4. Put some light grease on the track.
5. Push the slide gently back onto the track. NOTE: Once the slide has engaged with the gears you can simply turn the scanner on and scan to get it to return to home.

SUGGESTION 2 (SCSI and USB): The gears on the motor may be worn.

1. Open up the back of the scanner
2. Look at the gears on the motor (i.e. the teeth of the gears)
3. If they are worn they will need to be replaced.

13. Image when scanned is elongated / stretched

Description: When you scan images they are stretched when they come into xscan
Suggestions:

SUGGESTION 1 (SCSI only): Try a self-test. Refer to section on Scanner Self Test.
SUGGESTION 2 (SCSI and USB): Make sure the correct drivers and firmware are installed.

14. Noisy / Loud Scanning

Description: scanner is noisy (loud) while scanning.
Reason: Uncontrolled vibration.
Suggestions:

SUGGESTION 1 (SCSI and USB): There is a particular scanning speed at which a resonance occurs between the motor and the scanner case. When this happens, the noise made during the scanning process can be considerably louder than normal, but is of no significance. Particular combinations of exposure and resolution settings can cause this to happen.

A resonance condition is an uncontrolled vibration.

Use the default scanner settings:

	Light	Normal	Medium Dark	Dark
Exposure	0	30	90	250
Gamma	1	1.2	1.4	1.5
Contrast	0	0	0	0

15. Images Lack Grayscale (high contrast)

Description: The images are very black or white, they lack grayscale.
Reason: There is a problem with the scan light.
Suggestions:

SUGGESTION 1 (SCSI only): If the scanner comes ready, but the images produced are very high in contrast and lacking in grayscale resolution, this indicates the scanner has not correctly calibrated itself at initialization. During start-up, the scanner calibrates itself by turning the scan bulb off and then back on. Try putting the scanner through a self test. Refer to section on Scanner Self Test.
SUGGESTION 2 (SCSI and USB): Could be a sticking transistor (occasionally happens as scanners get older). This problem normally corrects itself as the scanner warms up:

1. Turn scanner off and then back on:
2. Watch the scan bulb light (behind the vertical bar at the front of the scanner), as the scanner calibrates, see if it turns off then on during the initialization process.
3. If the scan light did not turn off, the problem is likely to be a sticking transistor.
4. Leave the scanner on for 10-15 minutes
5. Turn the computer off.
6. Turn the scanner off then back on.
7. Wait till the scanner comes ready and turn the computer on.
8. Open QPC XSCAN32 XSCAN32 and do a scan. If this corrects the problem, chances are you may need to repeat this procedure each morning when you first turn the scanner on.
9. They may need to send the scanner in for repair

SUGGESTION 3 (SCSI and USB): Also check the settings in QPC XSCAN32 XSCAN32

1. Open QPC XSCAN32 XSCAN32, go to Options, Preferences
2. On the Viewing tab, check to make sure the Gamma is set to 1.00 as default.
3. Hot Lite should be set to 2.00
4. Please change them in they are not and do a scan to test.

SUGGESTION 4 (SCSI and USB): Check the exposure settings in Scanner Setup window

1. Open QPC XSCAN32 XSCAN32 and the Scanner Interface. I.e. go into a patient, click on scan button.
2. Click on 'Scanner Setup' button.
3. Dark should be set to 250.

For a 2000T:

	Light	Normal	Medium Dark	Dark
Exposure	0	60 or 30	250	500
Gamma	0.7	1.0	1.0	1.0
Contrast	0	0	0	0

SUGGESTION 5 (SCSI and USB): You can try replacing the scan bulb. Refer to section on Scan Bulb Replacement for further information.
SUGGESTION 6 (SCSI and USB): It could also be component failure due to using a damaged SCSI cable. We have had one case reported where a SCSI cable had been badly damaged and the cables were shorting out. When plugged into the scanner it caused component damage to the scanner. If this is the case, the scanner will need to be returned to the manufacturer for repairs
SUGGESTION 7 (SCSI and USB): The issue could also be the density on the film itself, not the scanner. They can Xray with different settings. I.e. Darker or lighter. We had a case where the images were too dark. The doctor said it is a technologist problem - they are not centering the beam of the Xray and it's causing the coneing to be bad. It's scattering light around and causing it to lose details around the edges.
IMAGES TOO DARK:

	Light	Normal	Medium Dark	Dark
Exposure	0	30	80	200
Gamma	1	1.0	1.2	1.3
Contrast	0	0	0	0

16. Speckling

Description: Small dots seen within the very dark areas of an image.
Reason: Common to all scanners. Caused by low resolution CCD. CHECK THIS
Suggestions:

Speckling sometimes seen within very dark areas of an image is a phenomenon common to all scanners. It is more noticeable in CCD scanners than in laser because Lasers 'blur' the image slightly, thereby masking the effect (have a close look at the black background of an image produced on a laser scanner to see this effect). Low resolution CCD scanners have huge amounts of noise, so manufacturers artificially blacken the background, although this interferes severely with skin edges and bone detail close to skin edges, or where there are dramatic changes in film density.

In Cobrascan scanners the speckling is usually noticed only in background areas and should not affect the diagnostic quality of the image. It is also more noticeable on color monitors, and if the monitor or window settings are set for a lighter background. The best way to reduce speckling is to ensure that optimal radiographic technique is employed at all times. Over-exposed films in particular are more susceptible to background speckling.

Earlier model scanners which have had a slot filter installed in front of the focusing lens may notice the speckling effect is exaggerated. This can often be improved dramatically by either:

- Removing the slot filter
- Widening the slot

17. Lines on Scanned Images

There are three types of lines typically seen on scanned images.

1. The first of these are normally caused by dust or dirt getting onto the clear window behind the scan tube cover. To access it, remove the screw in the Plexiglas at the front left-hand side of the viewing box, and slide the Plexiglas to the right. This will expose the clear window which should be cleaned on both sides with a lint-free non-scratching cloth (e.g., spectacle cloth).

2. Secondly, earlier model scanners which have had a slot filter installed in front of the focusing lens may notice that lines occur when using higher exposure settings. This can often be improved dramatically by either:

   - Removing the slot filter
   - Widening the slot

3. The third types of lines are due to grid lines or other line-type artifacts from the original film. Fine grid lines are accentuated by what is called 'Moire' patterning, and is a phenomenon common to all scanners. Always ensure the bucky is switched in to avoid this problem. You will notice that zooming in and out of the image makes the Moire pattern appear more or less noticeable. Zooming will often reduce the Moire pattern interference to an acceptable level when viewing an image. Go to cobra interface and turn the descreen algorithm on.

18. Bad Image Quality

Bad Image Quality can be the result of some of the following:

- One might be because of a glitch the computer will send out if the computer is infected with a virus or was shutdown wrong. The way to fix this is to do a Scanner Self Test
- The best thing to do is to do the scanner self test first then try cable connections
- If checking cables or doing a self-test on the scanner does not work then chances are the scanner itself has an issue and needs to come in for repair.
- Scanned images come out black:
  Light E=0, G=0.7, C=0
  Normal E=60, G=1.0, C=0
  Med Dark E=250, G=1.0, C=0
  Dark E=500, G=1.0, C=0
- Compression: lossy algorithm it loses image quality
- Uncheck SCAN/SAVE as raw 14 bit image and change back to default Film settings.

19. Auto Document Feeder Only scans one image at a time

Description: Only scans one image at a time.
Reason: Setting in scanner interface needs to be set.
Suggestions:

Suggestion 1:

1. Open QPC XSCAN32 XSCAN32
2. Open a patient and click on scan
3. Click on Scanner Setup button
4. Select the ADF Present

Suggestion 2:

1. Open QPC XSCAN32 XSCAN32
2. Open a patient and click on scan
3. Change the Number of Films to a number other than 1. i.e. this is the number of times that the scanner will scan an image.

20. Auto Document Feeder does not grab film

Description: Does not grab film. I.e. scans blank images as it did not feed a film.
Reason: Setting in scanner interface needs to be set.
Suggestions:

Suggestion 1:

1. Open QPC XSCAN32
2. Open a patient and click on scan
3. Click on Scanner Setup button
4. Change the Delay for ADF (sec). I.e. change to 10 or 20 seconds.

Suggestion 2: Need to have a clear plastic film holder. This sits in front of the films that are to be feed. It holds them in place in case they have been bent or they have been damaged in some way (preventing them from sitting in the ADF correctly).

21. Cobrascanner is seen as a Microtek or ArtixScan

Description: When you load the driver for a cobrascanner it comes up in device manager as a Microtek scanner.
Reason: Incorrect firmware or the firmware has been lost.
Suggestions:

SUGGESTION 1:

1. Open Device Manager
2. Click on Update Driver
3. Follow instructions.
4. Select location where the driver is located. I.e. C:\QPC XSCAN32\
5. Click next to install
6. If it does not let you install the driver you have selected, i.e. it comes up with a we have found a closer match (however you know it is not the correct scanner) then follow suggestion 2. It should also tell you the name of the driver it wants to install i.e. oem#.inf, please make a note of this for suggestion 2.

SUGGESTION 2: If the scanner shows a exclamation mark (!) beside it in device manager it means that a driver has been installed and recognized for the scanner but it is not the correct driver. Or if windows will not let you install another driver (it always defaults to the incorrect driver) you need to follow the following instructions).
Note: sometimes when trying to install a driver and it will not let you change from the current driver the message will display the name of the oem#.inf file that you will need to remove below. Need to remove windows inf files:

1. Need to go to the winnt/inf or windows/inf directory (
   Note: This may be hidden as a default by windows. The user will need to go to Windows Explorer, Tools, Folder Options and select the options to show all hidden files and folders).
2. Open each of the oem#.inf files (where # stands for a number such as 1, 2, 3, 4 etc). Open in notepad or word pad.
3. Scroll to the bottom and see if the file says anything about an *i*CRco scanner (i.e. 612SL USB)
4. Remove the inf file if and only if it relates to a *i*CRcoscanner. DO NOT REMOVE ANY OTHER VENDORS PRODUCTS.

5. Once all have been removed go to Found New Hardware and point to the location of the scanner drivers.

SUGGESTION 3: Try going to Search for files and folders and then type:
*.inf (in the name of the file)
microtek (in the containing text field)
windows system32 directory (in the folder to search)
then open anything that it finds. it will have the name of the microtek scanner (i.e. microtek9800) in the text somewhere. then remove it. When uninstalling the scanner from the device manager and to install the correct drivers, be disconnected from the Internet since XP try's to connect to look for drivers
SUGGESTION 4: For Windows XP and 612SL only

1. Search for the file Miisw3.inf (should be in C:\)
2. Replace with the file provided by ***i***CRco
3. Go back to device manager and do an "update driver" and point to this file (i.e. Miisw3.inf)

SUGGESTION 5:
Step 1

1. Go to Start
2. Search
3. All files and folders
4. Type in miisw3.inf (for 612SL) and miisw8.inf (for 2000sl) under All or part of the file name
5. Browse to location
   C:\WINDOWS\System32\ReinstallBackups\
6. Click on search
7. Right mouse click on the file(s) found and click on open folder containing
8. Replace with the attached file

Step 2

1. Go to Start
2. Search
3. All files and folders

4. Type in oem*.infunder All or part of the file name
5. Type in microtek under A word or phrase in the file
6. Browse to location C:\WINDOWS\inf\. NOTE: this may be hidden as a default by windows. The user will need to go to Windows Explorer, Tools, Folder Options and select the options to show all hidden files and folders).
7. Open each of the oem#.inf files (where # stands for a number such as 1, 2, 3, 4 etc). Open in notepad or word pad.
8. Scrollthrough the file and see ifit has anything about a Microtek scanner or ArtixScan
9. Remove the inf file if and only if it relates to a Microtek scanner. DO NOT REMOVE ANY OTHER VENDORS PRODUCTS.

Step 3
Disconnect the PC from the Internet. If in via pcanywhere on tcp:

1. Open Windows Explorer
2. Click on Tools in menu
3. Internet Options
4. Connections tab
5. Select Always dial my default connection (or Dial whenever a network connect is not present)
6. Dont forget to set this back to Never dial a connection when you are finished.

Step 4

1. Open device manager
2. Open Imaging Devices
3. Right mouse click on Microtek scanner
4. Update driver (or Properties and Drivers, then Update Driver)
5. Select Install from a list or specific location (Advanced)
6. Select Dont search. I will choose the driver to install
7. Select Have Disk button and browse to the location: C:\WINDOWS\System32\ReinstallBackups\000#\DriverFiles (where ever you copied the new file miisw#.inf into in step 1).
8. Click Ok and then Next.

22. Cannot install Cobrascan drivers

Description: New Hardware Wizard returns An error occurred during installation. The name is already in use as either a service name or service display name.
Reason: Something else has been installed (i.e. desktop scanner or printer) and is causing the cobrascan drivers to fail when installing.
Suggestions:

SUGGESTION 1:

1. Make sure the drivers for the USB bus are installed. Go into Device Manager and see if there is an exclamation mark beside anything.

2. Make sure the latest drivers for the USB bus are installed. Check the manufacturers web site for updates.

SUGGESTION 2:

1. Completely uninstall other devices such as printers and scanners (i.e. desktop scanners other than iCRco cobrascanners).

2. Try installing the cobrascan drivers again.

SUGGESTION 3:

1. Format and reinstall the OS.

2. Install the Cobrascan drivers before any other drivers.

3. Then try installing other devices (i.e. printers, desktop scanners). It is likely that this device will not install and will return the same error as the cobrascan driver did (Suggestion 1 worked in the past when this happened, and they were able to install both devices with no issues).

23. Correct Start-Up Sequence

Description: Correct procedure to turn the scanner and computer on
Reason: The computer may not recognize the scanner unless it has been turned on and ready before the computer.
Suggestions:

SUGGESTION 1 (SCSI only)

1. Turn off your computer. It is vitally important that the scanner be on and ready before turning on your computer.
2. When the scanner is first turned on, it will do perform some automatic start-up checks.
3. When finished, the two lights (one orange, one green) at the top right-hand corner of the scanner will both be on and steady (i.e. not flashing).
4. Turn your computer on and open QPC XSCAN32.

Additional Information:

Note: Make sure your SCSI cable is in good condition before attaching to your scanner. A damaged SCSI cable can cause component failure in your scanner.

Notice: After an extended period of non-use, the scan tube will turn itself off, but the scanner will remain in a 'Ready' state. When it receives a command to scan whilst in this state, it will turn the scan tube on and do a brief check prior to scanning normally.

24. Scanner Self Test

Notice: Only for SCSI scanners only.
The Scanner Self Test can be done to solve a number of problems that the scanner might have. Some of these are Scanner Not Found, Bad Images, Error Code 1, Error Code 204, and if the scanner does not come ready. Try the steps below to run Scanner Self Test:

1. Turn both the scanner and computer off
2. Disconnect the SCSI cable
3. Turn SCSI ID to 7(next to SCSI Plug you disconnected)

   Note: Scanner will now do it's own scan and WILL keep doing it until you turn off the scanner. You ONLY want the scanner do to ONE FULL scan (all the way to the right and then back to the left). Any more than one will result in you having to do the self-test again.

   Note: 312T scanners do not return to home after the self test.
4. After you let the scanner do ONE scan. Turn the scanner off.
5. Change the SCSI ID back to 6
6. Connect the SCSI cable
7. Turn on scanner
8. When scanner ready light is solid, turn on computer

25. Cleaning Scan Window

Cleaning Behind the scan tube cover is a clear window, which needs occasional cleaning on both sides. To access it:

1. Remove the screw in the Plexiglas at the front left-hand side of the viewing box, and slide the Plexiglas to the right.
2. This will expose the clear window which should be cleaned on both sides with a lint-free non-scratching cloth (e.g., spectacle cloth).

The mirror reflects the light from the scan bulb and directs it to the CCD. To clean it:

1. You need to first tip the scanner upside down and remove all the screws around the outside.
2. Then remove the back cover to expose the mirror.
3. Again this should be cleaned using only a lint-free non-scratching cloth.
4. Only the surface on the Scan tube window-side needs to be cleaned.

26. Scan Bulb Replacement

The scan bulb is located behind the vertical bar at the right-side of the scanner. This bar is actually a cover for the scan bulb. To remove it:

1. Use a Philips-type screwdriver to remove the four retaining screws.
2. The cover can then be pulled straight off the scanner to reveal the scan bulb.
3. The scan bulb can be pulled straight out also, and another put in its place.

   Note: There may be some aluminum tape at the top and bottom of the scan tube. This is usually applied before shipping to ensure the bulb doesn't come loose. You will need to remove this tape to take out the old bulb, but there is no need to replace it on the new one.

4. You should also make sure you dont confuse the built-in light box bulbs with the scan bulb. If the light-box comes on, it doesn't mean that the scan bulb is also on they are two entirely separate things.

Additional Information:

- The 312SL uses a standard NEC FL13D 13watt daylight fluorescent bulb, available from most suppliers.
- The 612SL and 812M both use specially made fluorescent bulbs available only from ICRCO or your scanner distributor. It is important therefore to always have a couple of spares.
- For the 612SL, the same NEC FL13D 13watt daylight fluorescent bulb used in the 312SL can also be used, but there will be a marked reduction in scanning speed.

27. SCSI Issues

If you have SCSI problems, the scanner and the computer will not communicate properly. Usually if you have a SCSI problem, when you click on the Scan button and you will get the message "No Scanner Was Found! You can also get intermittent problems occurring as the result of faulty SCSI cards, cables or connections, such as your computer freezing or crashing completely etc.

Check the following things:

1. Was the scanner on and ready before the computer was started?
2. Check the SCSI cable is securely fitted into the bottom of the scanner
3. Check the SCSI cable is connected into the correct port on the back of your computer. Some SCSI card plugs look identical to printer plugs, so make sure your SCSI cable is not plugged in the printer port.
4. Check the SCSI ID beside the SCSI plug under the scanner is set to '6'.

When you have checked all of these things, make sure the scanner is ready (two steady lights), and restart your system.

If you experience other problems, including your computer freezing or crashing when scanning, there are some other possibilities:

1. One of the most common problems we see is the need to add a SCSI in-line terminator. SCSI cables longer than 3 feet (1 meter) and some SCSI cards often require an in-line terminator between the scanner plug and the cable plug. Occasionally short cables may need this also, but this is rare. If you have a longer SCSI cable, try replacing it with a short one as a test to identify the problem. The in-line terminator fits on the scanner-end of the scanner cable, and then into the scanner. It is a Centronics male/female type and can normally be purchased from your local cable supplier for a few dollars.
2. Ensure the SCSI card in your computer is properly bedded into its socket on the motherboard. PCI cards can often "pop out".
3. Try replacing the SCSI cable and/or SCSI card.

Always restart your system after testing any of these things, ensuring the scanner is on and ready first.

It is also recommended that other SCSI devices are not used on the same chain. Usually other devices can be used without problems, but if you are experiencing difficulties then the first step is to remove any other devices (such as SCSI Zip Drives)

28. Cobrascan Error Codes

Scanner Error Codes
Scanner Return Status:

Return Code	Description
0	Scanner has partial communication. You may need to change your cable or install a terminator on the back of the scanner. Terminator is a device commonly used on the Macintosh computers to filter the noise out. Sometimes, PC systems also require such device. You can obtain a terminator from your local dealer. Place the terminator between the cable and the scanner.
-1	Scanner link failure message.May need to install a terminator or change the SCSI cable.Also, a bad lamp or dirty calibration strip or dirty mirrors can cause thiserror. Usually in this case the scanner will attempt to start scanning but then it stops and the ready green light on the scanner goes off. You then get the error -1 from the software. Change the lamp and/or clean the mirrors and calibration strip.
-2	Scanner command error message
-3	Scanner hardware error message
-4	Scanner setting error message
-5	Scanner Miscellaneous error message
-6	Scanner Undefined error message
-100	Scanner SCSI command or data format error
-101	Too many lines requested in a READ SCANNED DATA command
-200	Scanner CPU RAM failure
-201	Scanner system RAM failure
-202	Pin pon buffer RAM failure
-203	Scanner CCD DC offset failure
-204	Scanning lamp or image sensor circuit failure
-205	Home position sensor or filter sensor failure
-206	Autodocument feeder paper jam or roller failure
-207	External power adapter failure. Used by very old models, no longer used
-300	Illegal grain setting.
-301	Illegal resolution setting

Other Error Codes
MPHASE.DLL Return Status
MSCSID.DLL, MPCYD.DLL, MLCARDD.DLL Return Status
MSCANMGR.DLL/MSMGR32.DLL Return Status
OTHER ERROR CODES Error Code 60:

- try restarting computer and scanner
- try flipping the SCSI terminator switch on the scanner.

Return Code	Description
-302	Illegal scanning frame coordinate
-303	Illegal window coordinate or number of windows.
-304	Illegal contrast setting
-305	Illegal paper length setting
-306	Illegal shadow-midtone-hilight setting
-307	Illegal exposure time setting.
-308	Color filter command when ADF scanning.
-309	No paper when ADF scanning.
-310	Illegal gamma table setting.
-311	Illegal brightness setting.
-312	Illegal data bits per pixel setting.
-400	Scanner is in busy state.
-401	Scanner safety door sensor failure.
-501	Scanner has been reserved.

Error Code -1010:

- Check terminator
- Check cable
- Swap out cable with short SCSI cable
- Change SCSI ID.
- Reset or Reboot everything.

Error 1 Message

Description:.When you press Scan in the Scanner Interface of QPC XSCAN32 and the status bar reads Error 1
Reason: May need to install a terminator or change the SCSI cable.Also, a bad lamp or dirty calibration strip or dirty mirrors can cause thiserror. Usually in this case the scanner will attempt to start scanning but then it stops and the ready green light on the scanner goes off. You then get the error -1 from the software. Change the lamp and/or clean the mirrors and calibration strip.
Suggestions:

Suggestion 1 (SCSI and USB) Scan bulb may be blown and needs to be replaced. Get the customer to:

1. Turn the scanner on

Return Code	Description
1	Scanner is in ready state.
-1000	No response from scanner
-1001	Scanner is in scanning state.
-1002	Scanner busy.
-1003	Abort to get image data by application.
-1004	Can't find scanner.
-1005	Scanner type error.
-1006	Device type error.
-1007	Not enough memory.
-1008	Undefine error codes.
-1009	Can't find index error.
-1010	not an available API function

Return Code	Description
-2000	SCSI host buffer not ready.
-2001	SCSI control status error.
-2002	SCSI unknown error codes.

2. Turn the light box off so they are not confused between the light box and the scan light.

3. Look behind the scan bar (vertical bar on the right-side of the scanner that the X-Ray passes behind to be scanned. It covers the scan light)

4. Look to see if the scan light is on. Scan lights can be green or white depending on the scanner model.

5. If the scan light is not on then the scan bulb will need to be replaced.

6. We will need to see if they are still under a scanner warranty.

7. Refer to section on Warranty for further information. They can either return the scanner for repair or we can send them a scan bulb (refer to section on Scan Bulb Replacement)

SUGGESTION 2 (SCSI and USB): Was the scanner on and ready before the computer was turned on? If it was not then:

1. Turn computer and scanner off

2. Turn scanner on and wait till the ready light is on and steady (i.e. not flashing)

3. Turn the computer on and open the scanner interface. See if the scanner has been found.

Return Code	Description
-3000	SCSI card time out.
-3001	PCY card time out.
-3002	L card time out.
-3100	SCSI Load library failure.One or missing DLL from the program
-3101	PCY Load library failure.
-3102	LCARD Load library failure.

Return Code	Description
-4000	Scanner manager time out.
-4001	Load library failure.

4. If it cannot be found then refer to the section on Scanner Wont Come Ready

SUGGESTION 3 (SCSI Only):Put the scanner through a self test. Refer to section on Scanner Self Test.

SUGGESTION 4 (SCSI and USB): Could be software related (a driver file has become corrupted). To check:

1. Click on the Scanner Setup button on the Cobrascan interface
2. Click on the Probe button.
3. If the scanner is listed in the dialog which appears (usually beside ID 6); then the problem is likely to be software due to a corrupted driver file.
4. To fix this, re-install the scanner drivers. Refer to Installing Scanner Drivers. Alternatively you could reinstall the QPC XSCAN32 software.
5. If the scanner is not listed in the Probe dialog, the problem is likely to be hardware.

SUGGESTION 5 (SCSI and USB):
The scan bar may have been knocked from its correct *Home* position. To reset this:

1. Turn the scanner off
2. Pull the scan bar gently all the way out until you hear a 'clunk'
3. Gently push it all the way back again.
4. Turn scanner on and wait till it comes ready.
5. Turn computer on and do a scan to see if the message is still there.

SUGGESTION 6 (SCSI and USB):
Maybe a cable problem:

1. Turn computer and scanner off
2. Make sure cable is securely fitted into the bottom of the scanner
3. Make sure cable is connected securely into the correct port on the back of your computer. Some SCSI card plugs look identical to printer plugs, so make sure your SCSI cable is not plugged in the printer port.
4. Turn scanner on and wait till the ready light is on (i.e. not flashing) Then turn the computer on and open the scanner interface. See if the scanner has been found.
5. It may also be a bad cable, i.e. a bent pin. To fix this they would need to replace the cable.
6. Also make sure the SCSI card in the computer is not loose

SUGGESTION 7 (SCSI Only) You may also need a SCSI in-line terminator between the scanner SCSI socket and the SCSI cable. Or to replace the SCSI cable.

SUGGESTION 8 (SCSI and USB): Could be caused by the light output of the scan bulb being insufficient to allow the scanner to initialize, so replacing the scan bulb may correct the error. Refer to section on Scan Bulb Replacement.

SUGGESTION 9 (SCSI only): There was a case reported where changing the SCSI ID to 4 made it work.

1. Turn scanner and computer off
2. Change ID to '4'
3. Turn scanner on and wait till it comes ready
4. Turn computer on and see if you can scan.

SUGGESTION 10 (SCSI and USB): If none of these procedures fix the problem, the scanner may need servicing.

SUGGESTION 11 (SCSI and USB): We had a case where the CCD cable had been disconnected from shipping. Need to return the scanner.

Error 2 Message

Description: When you press Scan in the Scanner Interface of QPC XSCAN32 and the status bar reads "Error 2"
Reason: Scanner command error message. Error Code 2 means that there is something wrong with either the scanner or the software. If you do a Scanner Self Test then the error code will change to Error 1.
Suggestions:

SUGGESTION 1 (SCSI only): Put the scanner through a self test. Refer to section on Scanner Self Test.

1. Put the scanner through a self test
2. Restart the scanner, wait till it comes ready and then turn on the computer
3. See if the Error 2 code has gone.

SUGGESTION 2 (SCSI and USB): May be a cable problem:

1. Disconnect the SCSI/USB cable from both the computer and scanner then reconnect the cable.
2. Remove the SCSI card and re-seat it to ensure a good connection.
3. Note: If another SCSI card or cable is around, try using

SUGGESTION 3 (SCSI and USB): It may be an issue with dirty glass and scanning lamp. Try cleaning the glass and the scanning lamp. Refer to section on Cleaning Scan Window.

SUGGESTION 4 (SCSI and USB): You can also try reinstalling the QPC XSCAN32 software after doing an uninstall of QPC XSCAN32.

Error 204 Message

Description: When you press Scan in the Scanner Interface of QPC XSCAN32 and the status bar reads Error 204
Reason: Scanning lamp or image sensor circuit failure
Suggestions:

SUGGESTION 1 (SCSI only): Put the scanner through a self test. Refer to section on Scanner Self Test.

SUGGESTION 2 (SCSI and USB): Error Code 204 is usually generated when there is a problem with the scanning lamp. Ways to fix this error are:

1. Clean the scanner glass by removing the screw in the bezel and sliding the glass to the left and wiping both sides of the glass. Refer to section on Cleaning Scan Window

2. Also by cleaning the Scanning Lamp light bulb by removing the 4 screws in the cover and wiping the light.

SUGGESTION 3 Make sure the software is up to date. Get the latest cobra installer. Also check that you dont need special files for that particular scanner.

SUGGESTION 4 Make sure they have not put the SCSI cable in the LPT1 port (printer port)

SUGGESTION 5 Make sure they have the correct SCSI card and cable. We had an incidence when a customer purchased their own SCSI card and cable (incorrect kind) and they received this error.

SUGGESTION 6 Try unselecting autocrop and ADF. Put onto 1K and try scanning.

Error -601 Message
Description: When you press Scan in the Scanner Interface of QPC XSCAN32 and the status bar reads "Error -601"
Suggestions:

SUGGESTION 1 (SCSI and USB):
Error -601 means command syntax error. This is usually caused by cabling or terminator or something like that. Is this the SCSI version with this error? If so turn the terminator switch on the scanner on and do not use an external terminator. Instead just use a short cable The other reason causing it may be due to forcing the scanner to calibrate and turn the lamp on and off on every scan. May be it does not like that.

SUGGESTION 2 (SCSI and USB): We had a case where the CCD cable had been disconnected from shipping. Need to return the scanner.

Error -1010 Message (or 10 and the rest is cut off)
Description: When you press Scan in the Scanner Interface of QPC XSCAN32 and the status bar reads Error -1010
Suggestions:

SUGGESTION 1 (SCSI): Sometimes the scanner returns -1010 or -10 (and the reset could becut off)
Happens with 2000T SCSI scanner
Error -1010 means "not an available API function". Basically you should never get this error message unless something is happening to the data flow or the command going through SCSI and getting lost. So only part of the command is getting to the scanner and therefore you get this error.

So I think there is a cable or terminator problem with this scanner. Do the normal checks witha short SCSI cable, no daisy chaining, remove the terminator and use the terminator switch on the scanner instead and reset everything.
Another thing you can try is change the SCSI ID to a different number and reset everything to try again.

SUGGESTION 2 (SCSI): 2000SL SCSI Scanner does not work when upgrading software. The latest SDLL.dll did not work with 2000SL SCSI Scanners. They can either use an old SDLL.dll (with any version of the software) or use QPC XSCAN32 Build 832 or higher.
Cannot Initialize Scanner Error -10

Description: When you press Scan in the Scanner Interface of QPC XSCAN32 the status bar reads Cannot Initialize Scanner -10
Suggestions:

SUGGESTION 1 (SCSI): One customer did a system restore and it started working again

SUGGESTION 2 (SCSI): Another customer returned the unit to us and Javier said: Stopped working because we use an old power supply with the plastic screw damage. So when we adjust the voltage the screw doesn't stay at the correct voltage we need. Change scanning lamp for a reflective and install a new 12V power supply to adjust the voltage at 13.77V.