NOTE

These instructions are required only if the Tube-CAM furnace video option has been fitted to your instrument.

It is only necessary to install the driver files as described in the following procedure. While it is possible to install all options, these are not necessary for operation of the camera in SpectrAA software.

This installation refers to Logitech PRO9000 cameras.

Driver Installation

To install the drivers:

1. Ensure the SpectrAA software has been installed and the computer has been restarted. Do not open the SpectrAA software and do not connect the camera.
2. Insert the Logitech Quickcam CD-ROM into your CD-ROM drive.
3. Navigate to the installation CD and double-click 'Setup.exe'.
4. Select your preferred language in the ‘Preferred Language’ dialog box on the ‘Welcome’ screen and then click Next.
5. Ensuring that the camera is not connected, (contrary to screen instructions) click Next.
6. Select Custom Install and then click Next on the ‘Choose Set-up’ screen.
7. On the ‘Install Webcam Software’ screen (see Figure 1):
   a. Select ‘Logitech Webcam Software’.
   b. Deselect ‘Logitech Motion Detection’.
   c. Deselect ‘Logitech Video Effects’.
   d. Select ‘Logitech Webcam Drivers’.
   e. Deselect ‘Logitech Vid-HD’.
   f. Click Next.
8 If an ‘Update’ screen is displayed, click **Next**. 
   The ‘Installing Software’ screen will be displayed.
9 After the installation has completed the ‘Check Settings’ screen will be displayed. Click **Next**.
10 The software is now installed. Click **Checkout my webcam**. 
   The Logitech Webcam Software will be displayed.
11 Plug in the Logitech Webcam into the USB port on the spectrometer. 
   If installation is successful an image of a Logitech Webcam camera will be displayed on the software window.
12 Select **Quick capture** and then **Controls**. 
   The image from the Tube-CAM video is not currently displayed in the ‘Webcam Control’ window because the hollow cathode lamps are not yet illuminated.
13 On the ‘Controls’ screen:
   a Deselect ‘RightSound’
   b Deselect ‘RightLight’.
   c Deselect ‘Autofocus’.
   d Select ‘Advanced Settings’.
14 When ‘Advanced Settings’ are displayed:
   a Deselect ‘Auto’ to the right of the ‘Gain’ slider.
   b Set the ‘Exposure’ and ‘Gain’ sliders to maximum.
   c Click **Save**.

The camera image will appear black because the SpectrAA is turned off.
Understanding the Picture

The following picture shows the PSD probe injecting a sample into a partition tube.

![Sample injection into a partition tube](image)

**Figure 2.** Sample injection into a partition tube

Camera Setup

After installation, the camera needs to be set up in the software for optimum picture settings. This is best done in the SpectrAA software, so the light from a lamp can be used to illuminate the inside of the furnace tube.

**To optimize the picture quality:**

1. Install a hollow cathode lamp and optimize the lamp and furnace workhead. Use the Furnace facilities to insert the PSD probe in the graphite tube. This will provide more light and make it easier to set up the camera controls.

2. Select the **Camera** icon from the icon bar. The first time you activate the camera, you will be asked to select the driver for the camera. Usually there will only be one choice. Select the ‘Microsoft WDM Image Capture(Win32)’ for use with the Logitech camera fitted in your Agilent spectrometer.

3. If a hollow cathode lamp is lit and aligned, but the camera image appears black or grey while manipulating the software camera controls from the SpectrAA software, click Controls > Advanced Settings in the Logitech Webcam Controller and then click ‘Restore to defaults’. Then, deselect ‘RightLight’ and ‘Auto’. Set the ‘Exposure’ and ‘Gain’ sliders to maximum.

It is recommended you use the ‘Microsoft Video 1’ setting found in the Video Compression to record videos. This will create smaller files. Capturing the whole sequence is not recommended, as this can consume excessive system resources and, depending on individual video cards and memory capacity, may result in the computer operation slowing down.

For further information about Agilent and our products please contact your local Agilent representative.
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