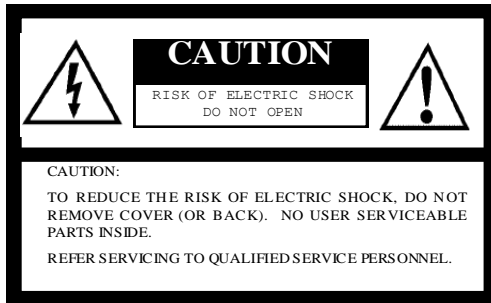


SENTECH

JIG-ColorUSB

User's Manual and Troubleshooting

Safety Precautions



For U.S.A.

Warning:

This equipment generates and uses radio frequency energy and if not installed and used properly, i.e., in strict accordance with the instruction manual, may cause harmful interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment.

For Canada

Warning:

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING:

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

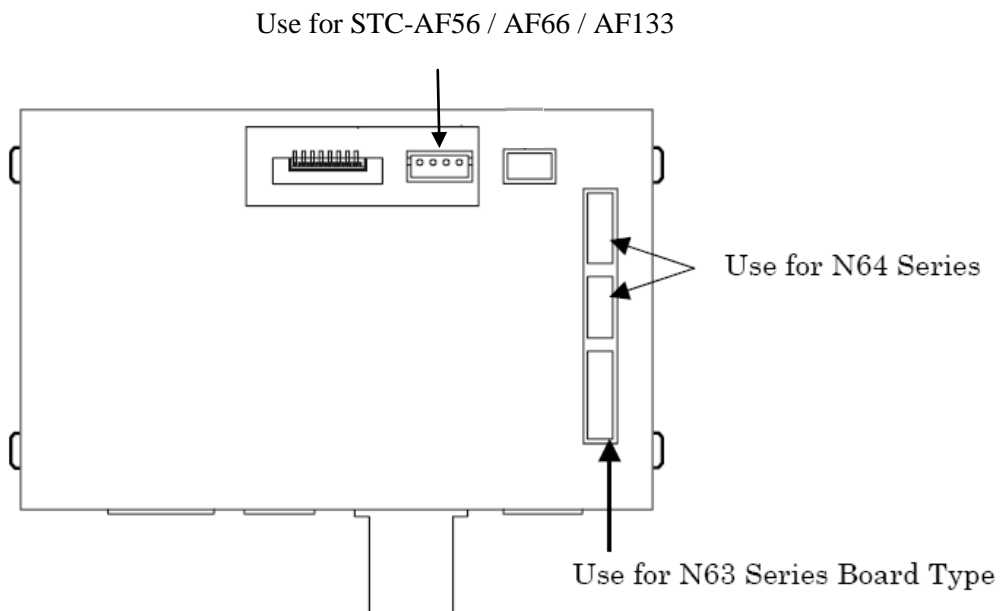
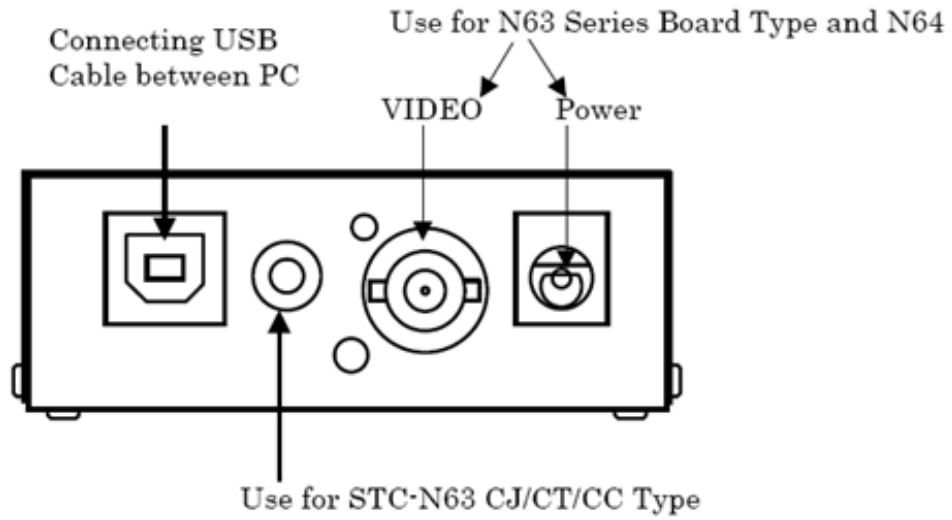
Product Precautions

- Handle the camera with care. Do not abuse the camera. Avoid striking or shaking it. Improper handling or storage could damage the camera.
- Do not pull or damage the camera cable.
- During camera use, do not wrap the unit in any material. This will cause the internal temperature of the unit to increase.
- Do not expose the camera to moisture, or do not try to operate it in wet areas.
- Do not operate the camera beyond its temperature, humidity and power source ratings.
- While the camera is not being used, keep the lens or lens cap on the camera to prevent dust or contamination from getting in the CCD or filter area and scratching or damaging this area.
- Do not keep the camera under the following conditions:
 - In wet, moist, and high humidity areas
 - Under hot direct sunlight
 - In high temperature areas
 - Near an object that releases a strong magnetic or electric field
 - Areas with strong vibrations
- Use a soft cloth to clean the camera. Use pressured air spray to clean the surface of the glass. DO not scratch the surface of the glass.

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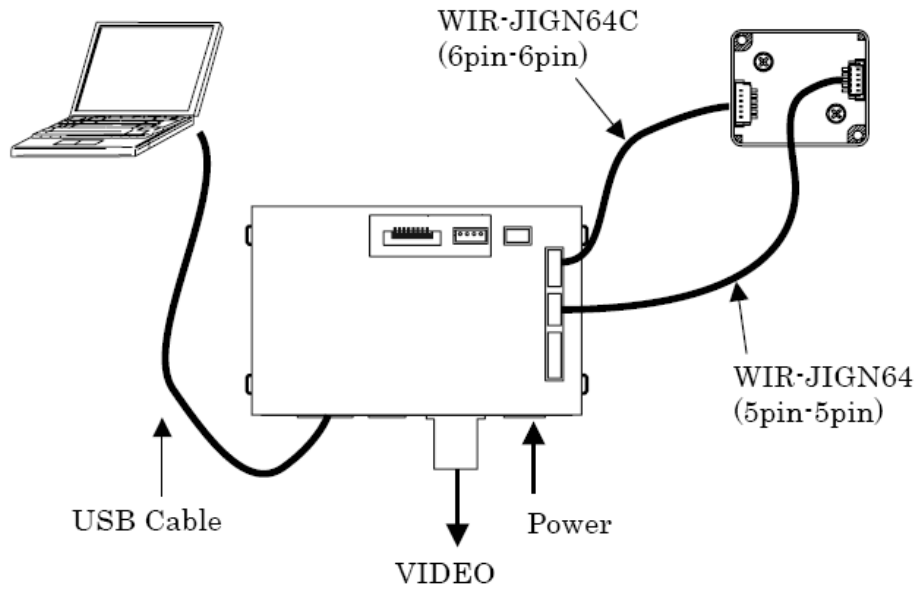
I. Connectors



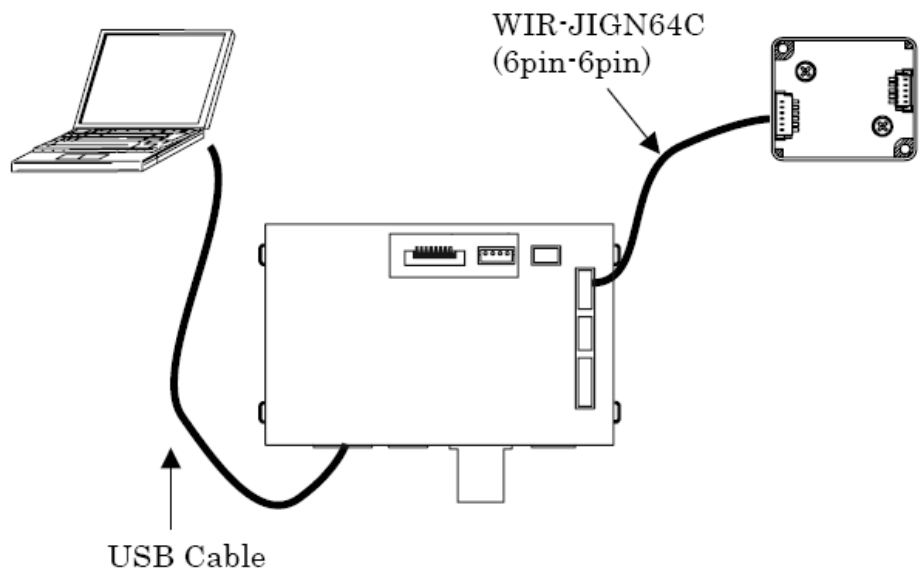
II. Usage of JIG

A. STC-N54/P54/N64/P64 Series

1) Power of the Camera from the JIG

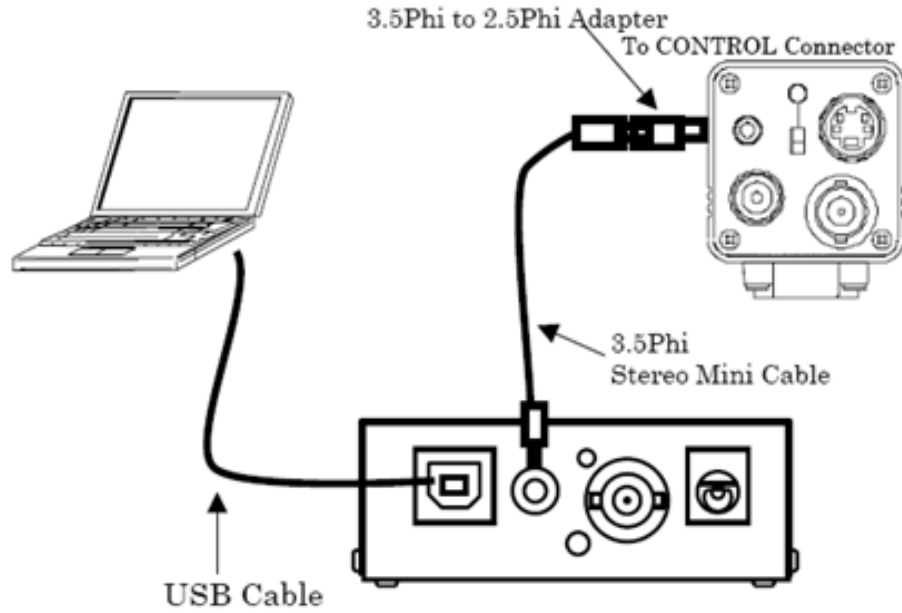


2) Power of the Camera from the other Power supply

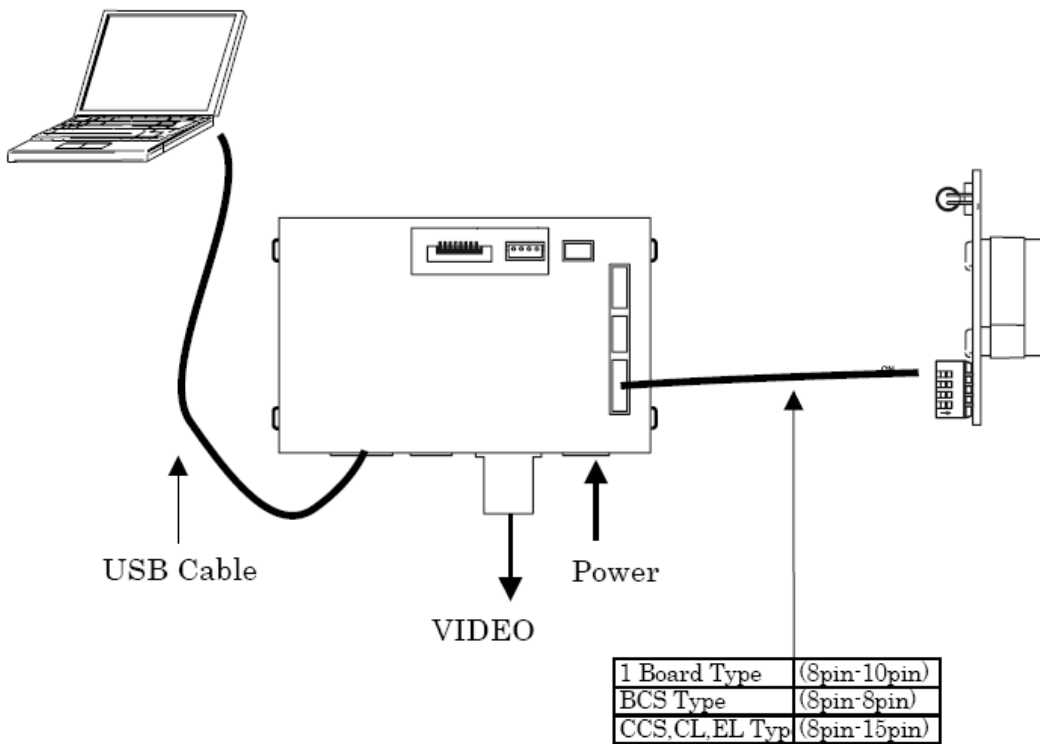


B. STC-N63/P63 Series

1) CJ/CT/CC Type

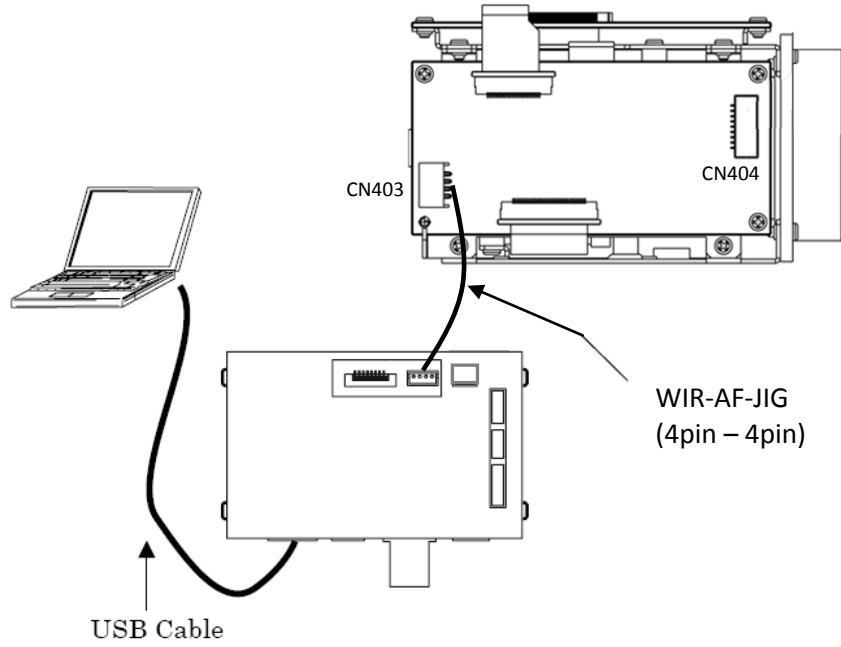


2) Board Type

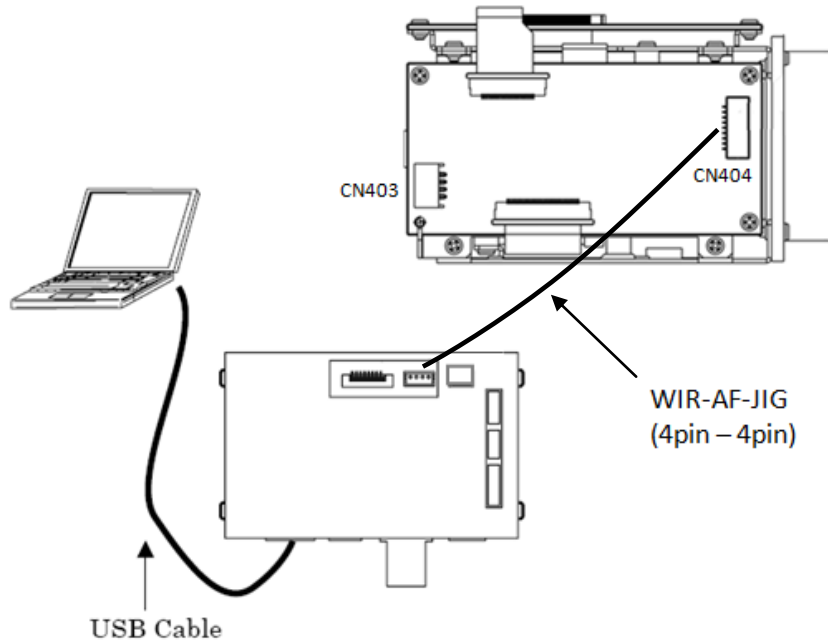


C. STC-AF56 / AF66 / AF133 Series

1. STC-AF56 / STC-AF66 camera connector number: CN403
(See Image Below)



2. STC-AF133 camera connector number: CN404
(See Image Below)



III. Engineering Notes & Troubleshooting

A. Issue:

When having issues installing the driver for MNDSPCTRL and troubleshooting installation of the driver manually.

Description:

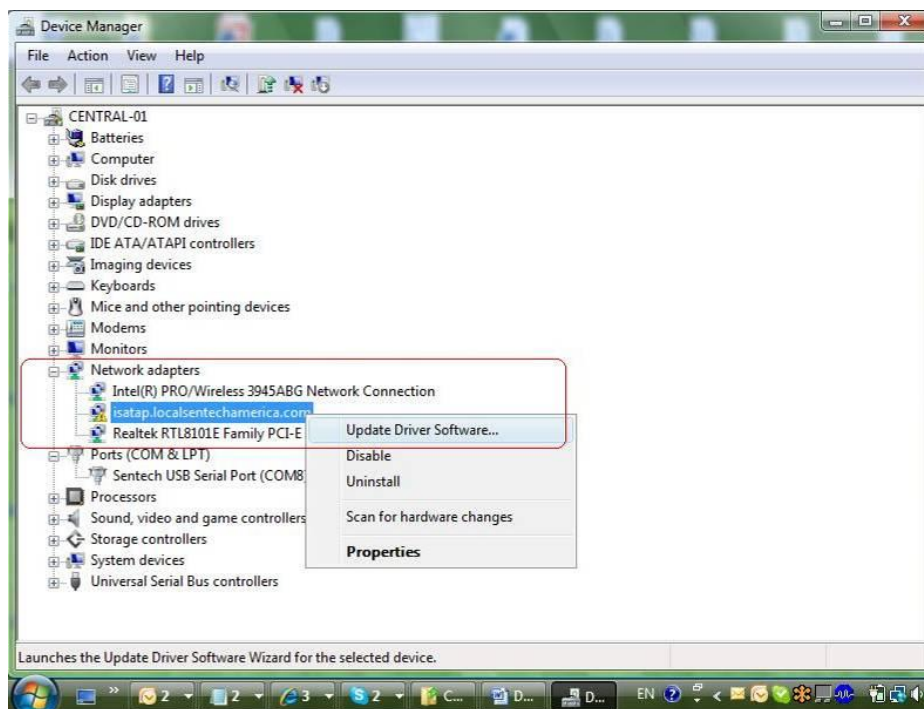
For reasons unidentified, sometimes during the installation process of MNDSPCTRL software (which is Sentech's DSP Control software), the driver is not automatically identified by the operating system. In most instances, either the installer is invoked, prompting user to install a new driver, or via plug and play. However, sometimes proper driver installation requires the manual specification of the folder in which the driver is installed.

Resolution:

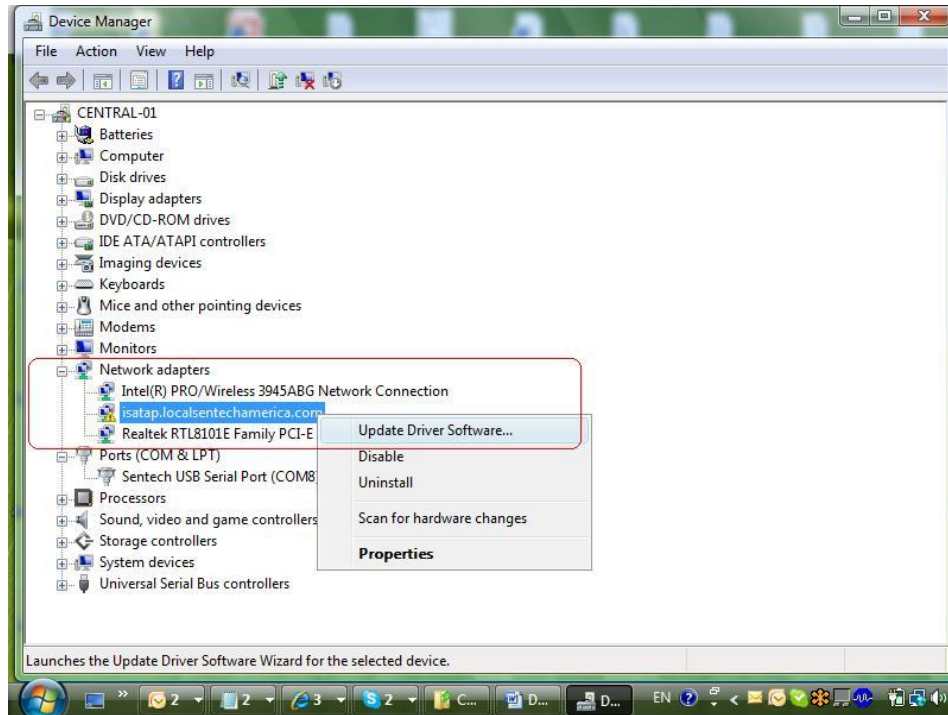
Below is a sequence of steps the user must take if this particular incident occurs.

Go to Device Manager and look under PORTS, if the driver was installed properly, then you will see our software listed, as you expand the specific ports.

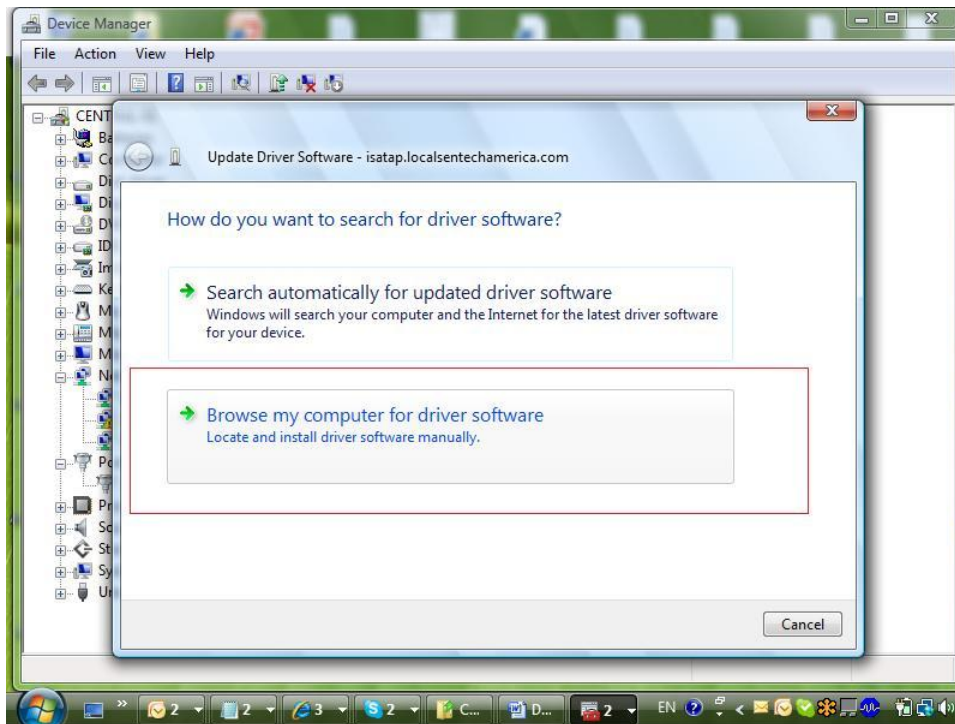
However, when not installed correctly, our product will appear under Network adoptors instead. In order to make sure that our product is recognized under the communication port, you must first select the Sentech Product, under Network Adaptors, and right-click as shown in the screen capture below:



Then, in the right-click menu, select Update Driver Software, as you see on the screen below.

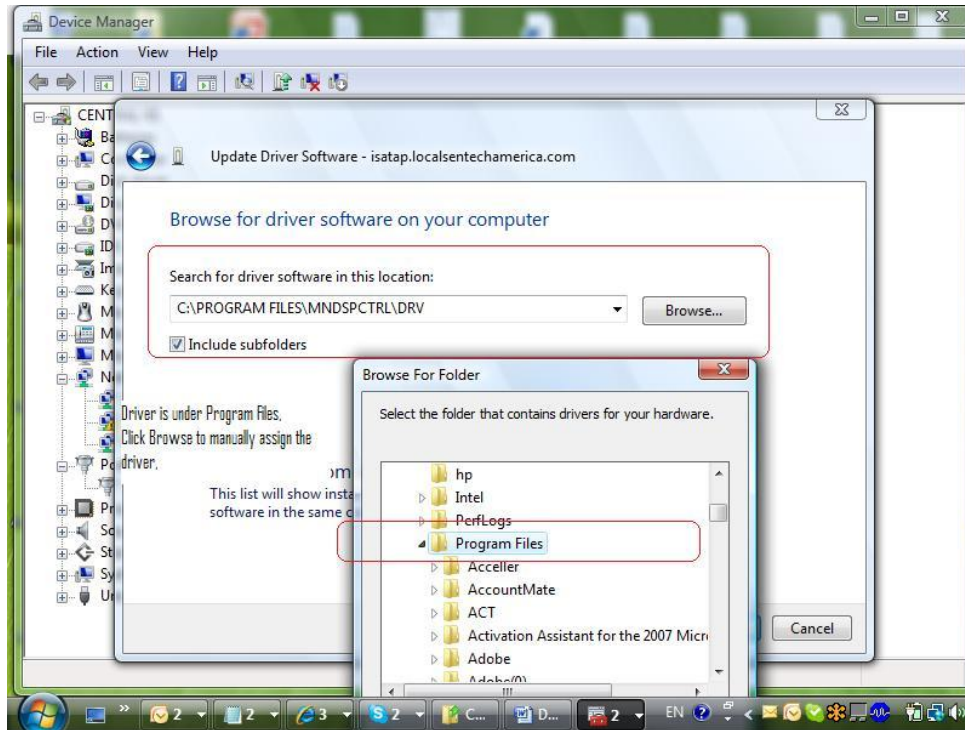


To manually select the Driver, select “Browse my computer for driver software” when prompted.



Then select C:\PROGRAM FILES\MNDSPCTRL\DRV.

Once the driver is successfully installed, as prompted by the operating system, the user then must reboot the computer.



After rebooting, go to Device Manager again and **repeat** the same process from start to finish. We cannot explain why this installation process has to be repeated, and although this process is counterintuitive, it is necessary to go through this process 2x to successfully install the product.

To check if the software installed correctly, after you have been prompted for the second time that the installation has been complete, open the device manager again and check the Ports.

If you see our product appearing on one of the com ports, then this confirms that the installation is complete.

B. Issue:

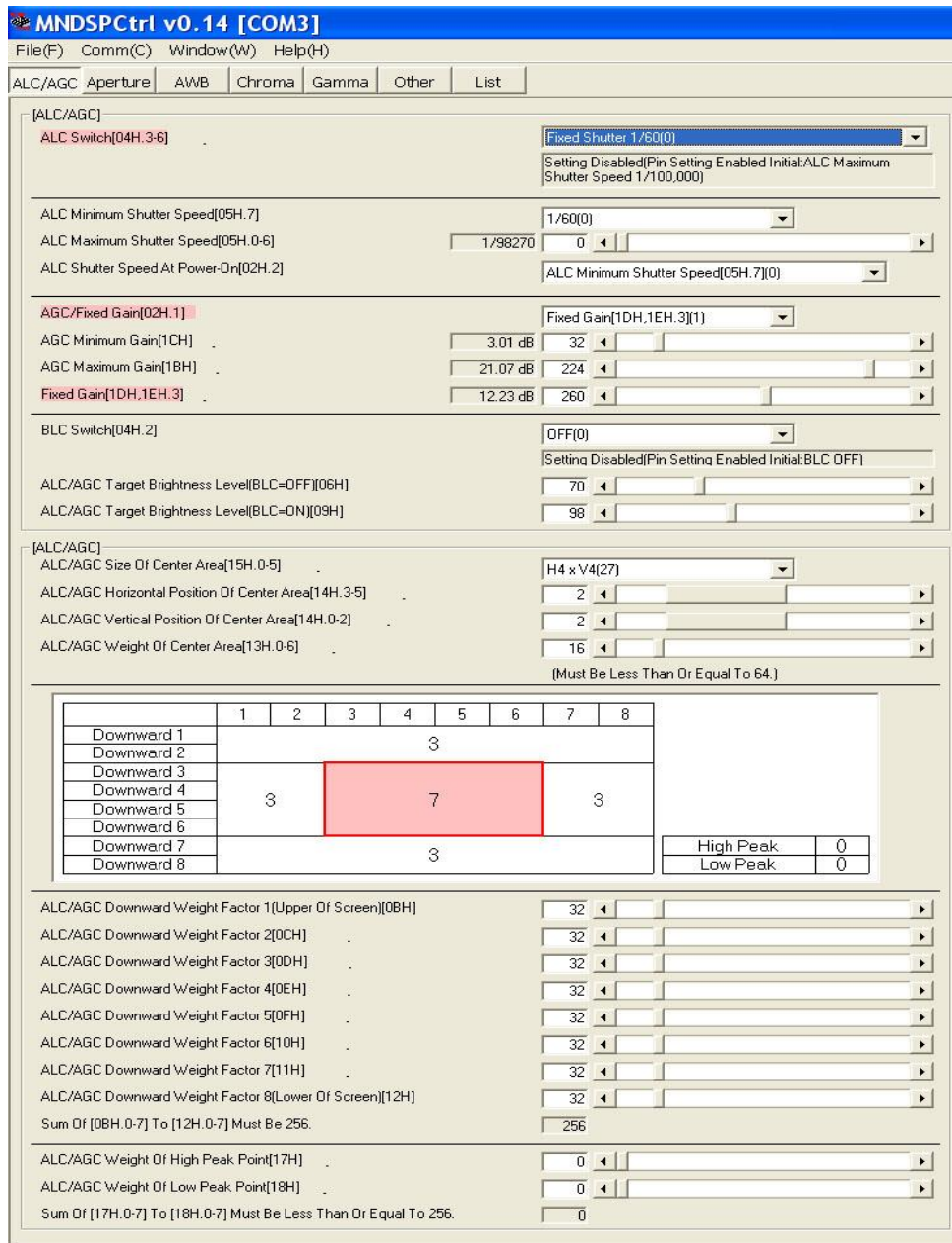
When changing the MNDSPCtrl setting to Fixed Gain or Fixed lighting mode, the Auto Gain still seems to take over and override the manually set Fix setting (thus becomes ALC & AGC).

Description:

Despite setting the lighting and gain to be Fixed, the auto lighting and gain(ALC&AGC) still kicks in, while the light condition changes.

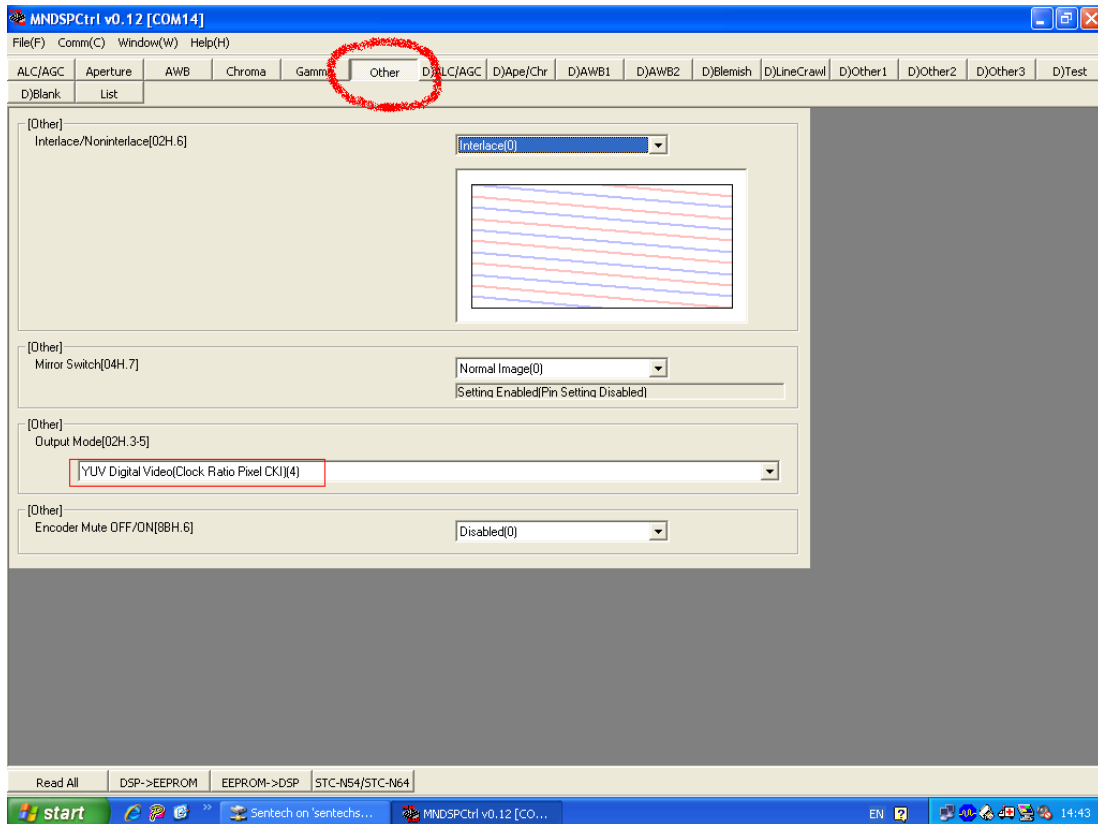
Resolution:

As shown in the capture below, the lighting and gain may be set to FIX, however, for some reason, the video output is affected by the surrounding light condition.



To make sure that: 1. fixed setting in Gain and Lighting control reflects on the DSP setting, and 2. these settings are retained, the user must do the following:

Go to the 'Other' Tab on the MNDSPCtrl, and change the output mode to YUV Digital Video...Y.



Due to how our camera is made, one of the pins on our camera controls two different functional settings on the camera; depending on when it is in analog mode or digital mode. If the output mode on the 'Other' Tab is set to analog video, the same pin will be designated for the signal, to control Mirror Image.

However, by resetting the output mode to 'YUV Digital Video', the analog Mirror Image is disabled, thus overriding the dipswitch setting on the device itself. As a result, the DSP setting will be reflected on to the camera itself. To retain the value, you must load the data changes back into the EEPROM by pushing a button at the bottom, 'DSP->EEPROM'. This will save the settings back to the hardware and retain its values on the device itself.

Revisions

Revision No.	Date	Changes	Notes
1.0	3/4/2009	New Document	
1.1	4/7/2010	Added AF56/66/133	

Sensor Technologies America, Inc.

1345 Valwood Parkway, Suite 320
Carrollton, Texas 75006-6891

TEL (972) 481-9223 FAX (972) 481-9209
URL <http://www.sentechamerica.com/>

Sensor Technology Co., Ltd.

7F, Harada Center Building
9-17, Naka cho 4chome
Atsugi-city, Kanagawa
243-0018 Japan

TEL +81-46-295-7061 FAX +81-46-295-7066
URL <http://www.sentech.co.jp/>

Taiwan Sensor Technology, Inc.

3F-6, No. 9, Aiguo W, Rd., Jhong Jheng District
Taipei City 100, Taiwan, R.O.C.

TEL 886-2-2383-2331 FAX 886-2-2370-8775
EMAIL: sentech0501@yahoo.com.tw