CCD Spectrometer Software Installation Manual

For advanced super-users only!!!



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GPIB Card Driver Installation

- 1. Move to E:\Admin\NI. Double click on ni488226.exe file. Follow instructions. Download the driver from www.ni.com if necessary.
- 2. Click on "Install NI-488.2". Click on "Next"



3. Choose the default location (C:\Program Files\National Instruments\) unless necessary. Click Next. Choose software options (**Include GPIB Analyzer). Click Next.

🜉 NI-488.2 for Windows	<u> </u>	👯 NI-488.2 for Windows	
Destination Directory Select the primary installation directory.		Features Select the features to install.	
All National Instruments software will be installed in the following folder. To inst different folder, click the Browse button, and select another folder.	al in a	NI-488.2.2.6 GFIB Analyzer Application Support LabWEM Support LabWindows/CVI Support LabWindows/CVI Support LabWindows/CVI Support LabWindows/CVI Support NET Framework.3 SLangue NET Framework.3 SLangue NI-VISA 4.4.1 NI-VISA 4.4.1	NI-488.2 for Windows
<< Back Ne	(>> <u>C</u> ancel	Restore Defaults Disk Cost	<<_ack Next>> Cancel

4. Accept the License Agreement. Click Next. Finish installation. Reboot the computer. Driver will be installed automatically.



SpectraMax Installation

1. Insert SpectraMax v3.2 CD-ROM and choose "Install SpectraMax V3.2. Click Next.



2. Choose "Full local installation. Select default location (C:\SPTWMAX\) unless necessary.

Setup Options	×	C	hoose Destination Location	×
Select a setup	ype.			Please enter the location where you would like to install the program.
	Eull Local Installation Copy all files to local hard disk.			to find a new location.
	Network Master Installation Run SETUP again from the network master directory to install local copies. You cannot run this copy. Each local installation requires a separate license.		3	Biowse
	Update INI files Update current installation INI files.		C.	
	Minimum Local Installation Requires Network or CD-ROM to run.			
	Cancel			< Back Next > Cancel

Select "No login password", Click on Next.
 Select "Normal Array Basic Applications" Click on Next



4. Skip ODBC installation if Microsoft Office is installed. If not installed, install ODBC. 5. When it asks for "SpectraMax for Windows INI", browse to E:\Admin\Smconfig.



6. Choose IEEE-488. Enter "1" for IEEE-488 Address.

Spectrometer Controller	System Configuration for Spectrometer IEEE Controller
Select controller type to use for Spectrometer	Enter the IEEE-498 Address [1-31]
< Back Next> Cancel	< Back Next > Cancel

7. Do not type password. Click on OK. Add converters if necessary. Otherwise, click on OK.

GRAMS User Information	×	Converters listed as file selector types
User Name Login Password Sign Off Password ODBC Password		Available Converters AIA_CGM AIA netCDF Chromatography File Format AIA_FTIR AIA netCDF FIIB File Format AIA_MS AIA netCDF Hars Spectrometry File Format AIA_NS AIA netCDF FIIB File Format AIA_LTON Aton Instruments LS2000 Binary ANALECT Analect FIIB Data File Format ANDO Anda AQ-6312B Format ANDO Anda AQ-6312B Format ASCII ASCII Text File with Header ASCII_Y ASCII XY Data Pair Format (Constant X Spacing) ASCII_Y ASCII Y Data Pair Sormat (Bingh Practicing Y Maluer)
Home <u>D</u> irectory		Add > Listed Converters for file selector types Add > ASCIIXY S ASCIIXY Data Pair Format (N Replace > ISA_RAMN ISA Baman Spectrometer Data F (SA_SMAX ISA SpectraMax File Format SPEX SPEX Binary
OK Cancel	Help	OK Cancel Help

8. Follow instructions. Finish installation. Reboot the computer.

Hardware Configuration and Control Software Installation

- Move to E:\Admin\HWConfig\ Double click on Setup.exe. Follow the instruction to complete. The file can be downloaded from HORIBA JOBIN YVON web site (www.jobinyvon.com). Find instruction in APPENDIX
- 2. Turn on the CCD controller and TRIAX 180.
- In the start menu, choose "Hardware configuration and control. Choose GPIB (IEEE-488). Enter "1" for Device Number. Click on "Add Controller" After TRIAX is added, enter "5" for Device Number. Click on "Add Controller" After CCD Controller is added, click on Start.

Communication Parameters	×
_ Interface	
O Serial (RS-232)	• GPIB (IEEE-488)
GPIB Settings	
Device Number: 1	
Auto-Find Devices	
Connected Controllers:	
TRIAX on GPIB, Device 1	
Add Controller Cance	I <u>S</u> tart >>

4. Exit the program.

Installing G64 CCD Chip Information

- Move to E:\Admin\G64\ Copy the files to a USB drive or burn a CD-ROM. The files need to be in the root directory of a disk (i.e. D:\ or E:\ etc).
 **Do not copy them on C:\
- 2. Double click on install.exe. Hit any key except for "ESC" key.

ex E:\Admin\G64\INSTALL.EXE	<u>_ ×</u>
This program will install CCD_3000_INIT Version 1.07 on your comput system and verify the integrity of the distribution disk(s).	er
You may press CONTROL-C at any time to abort the installation.	
INSTALL will ask you which partition of your HARD DISK to use for installation.	
PLEASE BE SURE TO INSTALL ON THE SAME HARD DISK Partition as your application software.	
Each question has a default answer. If the default answer is correct, press the ENTER key in response to the question. Otherwise, type the answer and then press the ENTER key.	
If you make a mistake while typing, press the BACKSPACE key and then retype the answer.	
Press [Esc] to quit, any other key to continue	

3. Choose "SPECTRAMAX"

E:\Admin\G64\INSTAL	LEXE	
	What type application software are you using? DM3000 SPECTRAMAX User Defined	

4. Choose "Drive C:"



5. Choose "CCD40 – 128 x 1024 MPP. Files will be copied and exit the program.

What type of CCD do you have? CCD02 - 385 × 578 CCD02 - 385 × 578 MPP CCD05 - 298 × 1152
CCD15 256 × 1024 CCD15 256 × 1024 CCD15 512 × 512 TEK 512 × 512 TEK 1024 × 1024 TEK 024 × 1024 TEK 512 × 512 MPP 512 × 512 MPP SITe 800 × 2000 SITe 800 × 2000 MPP CCD30 256 × 1024 MPP CCD40 128 × 1024 MPP CCD42 512 × 2048 S

6. If you get the following message, go back to step 1 and make sure you copied the files in the root directory of a device (USB drive, CD-ROM, floppy drive, ZIP, a hard drive, or whatever).



7. Move to C:\GEMAPPS\DRIVERS\CCD\ Copy the contents to C:\SPTWMAX\CCD\ Execute "COPYTAB.BAT" Reboot the computer.



- 8. Double Click on "Instrument Control Center" Click on Yes for all and let it initialize.
- Open "Experiment Window" by clicking on the icon. Click on the RTD button. Let it initialize.
- 10. Go back to "Instrument Control Center" and click on Visual Instrument Setup button.
- 11. Click on the Grating/Turret icon. Click on Change to set the gratings to 150, 300, and 600.



12. Click on the save icon to save DFLT.SET. Choose C:\SPTWMAX\ISA_INI\ directory.

File Save As		<u>? ×</u>
File name: DFLT.SET	Eolders: c:\sptwmax\isa_ini c:\ SPTWMAX SPTWMAX SA_INI C EXTRA	OK Cancel <u>H</u> elp Net <u>w</u> ork
Save file as <u>type:</u> Setup file (*.set)	Drives:	•

13. Exit the program. Turn off CCD controller and TRIAX. Reboot the computer.





Initialization file (Mono1.ini) modification

- 1. Move to C:\SPTWMAX\ISA_INI\ Open "mono1.ini" with the Notepad application.
- 2. Locate the entry "MULTICHANNEL_WAVELENGTH_DIRECTION"

If the value is "-1", correct it to be "1" Save the file.

3. Proceed to TRIAX Calibration section of CCD Spectrometer Optimization Manual.

📕 MONO1.INI - Notepad - D X <u>File Edit Format View Help</u> [[MONO1] . TYPE=1 NAME=TRIAX 180 NUM_SHUTTERS=1 SHUTTER1=2,1 NUM_SLITS=4 SLIT1=12,1 SLIT2=12,2 SLIT3=12,3 SLIT4=12,4 NUM_MIRRÓRS=2 MIRROR1=2,1 MIRROR2=2.2 LINEAR_DISPERSION=4.2 BASE_UNITS=1 BASE_GRATING=1200.000000 STEPS_PER_UNIT=100 MIN_STEP_RATE=0 MAX_STEP_RATE=0 RAMP_TIME=0 INPUT_FOCAL_LENGTH=193.48 OUTPUT_FOCAL_LENGTH=194.632 FOCAL_PLANE_ANGLE=3.726 INPUT_EBERT_ANGLE=15 OUTPUT_EBERT_ANGLE=15 GRATING_ROTATION_DIRECTION=-1 MULTICHANNEL_WAVELENGTH_DIRECTION=1 BACKLASH AMOUNT PREFERED_BACKLASH_DIRECTION=0 MIN_LIMIT=-200.0 MAX_LIMIT=1500 BACKLASH_DIRECTION=0 CAL_TYPE=2 TURRET=3 ICON=res\270M.bmp AUTO_CAL_OFFSET=0 MultiAutoCaloffset0=0.5891 MultiAutoCaloffset1=0.2676 MultiAutoCaloffset2=5.91e-002 [VISUAL] BITMAP1=MONO1_18.BMP BITMAP2=GENMONO2.BMP BITMAP3=GENMONO3.BMP BITMAP4=GENMONO4.BMP WIDTH=248 HEIGHT=248 [Gratings] Grating1=150 GratingName1= Blaze1=500 Grating2=300 GratingName2= Blaze2≦500 Grating3=600 GratingName3= Blaze3≦500 Þ

APPENDIX: Downloading Software for CCD

1. Go to <u>www.jobinyvon.com</u>. Click on "Optical Spectroscopy" on the left menu.



2. Click on "Downloads" on the left menu.



3. Scroll down to Software Downloads & Updates. Click on "Spectrometer Control Program"

