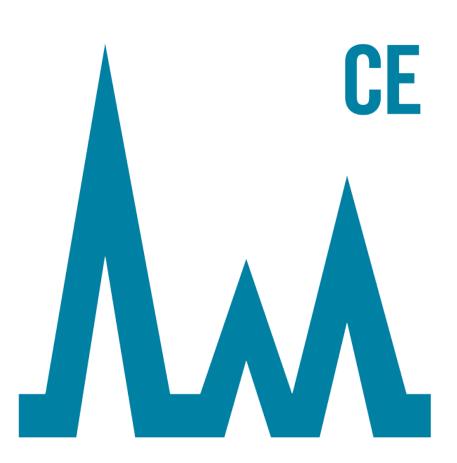


PA 800 Plus Empower[™] Driver

Release Notes



RUO-IDV-03-9720-B

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This guide provides information about, and procedures for, installing the PA 800 Plus Empower[™] Driver. The PA 800 Plus Empower[™] Driver enables data acquisition from a PA 800 Plus Pharmaceutical Analysis system using the Waters Empower[™] 3 (FR4) software. The PA 800 Plus Empower[™] Driver must be installed on the same computer as the Waters Empower[™] software.

Operating System Requirements

This version of the software is compatible with Microsoft Windows 10, 64-bit. For computer requirements, refer to the section: Computer Requirements.

Computer Requirements

The computer must meet the minimum requirements for Microsoft Windows 10, 64-bit software. For more details, refer to the documentation supplied by Waters.

A free USB port is also required.

Validated Controller Configuration

Item	Details			
Operating system	Microsoft Windows 10 Enterprise 2016 LTSB			
Additional software	Oracle client version 12.1.0.2.0 for 32-bit			
	Waters Empower [™] software			
	 National Instruments Driver, version 19 			
CPU	Minimum: CPU for Windows 7 or 10 Intel 2 Duo, E6400 2.13 GHz			
	Recommended: Intel Core 2 Duo, E8400 3.0 GHz			
Random access memory (RAM)	Minimum: 4 GB			
	Recommended: 8 GB			
Hard drive	Minimum: 25 GB			
Free disk space	2 GB for Waters Empower [™] software			

Table 2-1 Validated Controll	er Configuration
-------------------------------------	------------------

ltem	Details
Monitor	Minimum: 1024 × 768 resolution (except for LAC/E modules)
	Recommended: 1920 × 1080 resolution for client
Optional control interfaces	8-port serial hub
Ethernet adapters	1 Ethernet adapter for network connectivity Minimum: Greater than 100 Mbps
	Recommended: 1 Gbps

Table 2-1 Validated Controller Configuration (continued)

Required Software

Waters $Empower^{TM}$ 3 software must be installed. The PA 800 Plus $Empower^{TM}$ Driver was validated with the Waters $Empower^{TM}$ 3 (FR4) software.

During Early Access Customer Evaluation, customers evaluated the PA 800 Plus Empower[™] Driver and found it to be fully compatible with Empower[™] 3 (FR2) software or higher.

For additional data processing functions:

- To perform qualitative analysis calculations for SDS-MW and cIEF applications, the Waters Empower[™] GPC software is required.
- To perform standard pharmacopoeia calculations such as resolution or noise and drift, the Waters Empower[™] System Suitability software is required.

Contact a Waters sales representative to purchase a license for either software.

Required PA 800 Plus Firmware Version

The PA 800 Plus Empower[™] Driver was validated on systems with the following versions of the PA 800 Plus firmware. Refer to Table 2-2.

Table 2-2 Validated PA 800 Plus Firmware Versions

PA 800 Plus System	Firmware Version
Non-ROHS certified PA 800 Plus system	10.2.3
ROHS certified PA 800 Plus system	10.2.5-R
CESI 8000 Plus system	10.3.7-R

If the PA 800 Plus firmware is not one of the validated versions, it must be upgraded to make sure that the PA 800 Plus EmpowerTM Driver is compatible with Waters EmpowerTM software and the SCIEX tools used to perform an operational qualification. Refer to Determine the Firmware Version using the Waters EmpowerTM Software.

Determine PA 800 Plus System Firmware Version

Determine the Firmware Version using the Waters Empower[™] Software

- 1. Open the Waters $Empower^{TM}$ software and then click **Run Samples**.
- 2. Select the correct system and click **OK**.
- 3. Click **View > System**.

System Information					×
System Name:	LA	CE1_PA800PI	LUS_1		
Empower Node:	La	ce1			
Comments:	Ins	strument 1			
Instruments;	E	Туре	Address	OK ?	Serial Numb
	1	PA800PLUS	PA800PLUS#1	Yes	A74603029
	┝				
	L				
	<		_		>
	S	can Instrumen	ts OK		Help

Figure 2-1 System Information Dialog

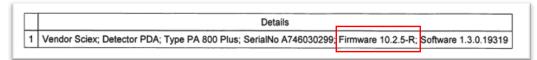
4. Click Scan Instruments.

If the **OK?** column shows Yes, then the driver is communicating with the LAC/E module.

5. Scroll to the right to the **Details** column.

The firmware version is shown with other details of the system.

Figure 2-2 Firmware Version



If the firmware must be updated, contact a SCIEX sales representative.

Determine the Firmware Version using the 32 Karat Software

- 1. Open the 32 Karat software.
- 2. Select the correct instrument to log on.

Note: Make sure that the PA 800 Plus system and the controller are communicating.

Figure 2-3 32 KaratSoftware Window

File Edit View Tools Help Image: Status Image: Status Current U Image: Status Available	👫 32 Kar	at Software			_		\times
Current location/group is '\PA 800 Plus' Characterize Name Status Current U PA 800 Plus Image: CHO Available Image: CHO Available Image: CHO Image: CHO Available	File Edit	View Tools Help					
Characterize Name Status Current U Image: CHO Available Image: CHO Available Image: CHO Available Image: CHO Image: CHO Image: CHO Image: CHO Available Image: CHO Image: CHO Image: CHO Image: CHO Image: CHO Image: CHO Image: CHO Image: CHO Image: CHO Image: CHO Image: CHO Image: CHO <td< th=""><th>管 2</th><th>••••• × ••• <u>%</u>••</th><th><u>₽</u> <u>-</u></th><th></th><th></th><th></th><th></th></td<>	管 2	••••• × ••• <u>%</u> ••	<u>₽</u> <u>-</u>				
PA 800 Plus CHO Available CIEF Available Fast Glycan Available G Purity Available Performance Available		Current location/group is "	PA 800 Plus'				
道、CIEF Available 道。Fast Glycan Available 道。igG Purity Available 道。Performance Available			Name	Status		Current	t U
		PA 800 Plus	遊 clEF 遊 Fast Glycan 遊 igG Purity 遊 Performance	Available Available Available Available			

3. Click **Control > Instrument Status > View**.

4. Scroll down to find the firmware version.

Status Item	Current Status	Action
Power Supply Polarity	Normal	
Power	0.000 W	_ →
Power Limit	9.000 W	
Pressure	0.0 psi	_ →
Pressure Type	None	
Pressure Direction	Forward	
Reference Channel Bandwidth	10 nm	
Reference Channel Wavelength	400 nm	
Relay 1 State	Closed	-
Relay 2 State	Closed	\rightarrow
Scan Data Rate	0.5 Hz	
Shutter	Closed	
Time Remaining for an Event	0 sec	
Total Time for Event	0 sec	
Detection mode	Indirect	
Wavelength - UV	Not Selected	
Wavelength - Channel 1		
Wavelength - Channel 2	254 nm	
Wavelength - Channel 3	280 nm	
Voltage	0.0 kV	_ →
Voltage Limit	30.0 kV	
Serial Number	A746031320	
Firmware Version	10.2.5-R	
Firmware Checksum	987cfa3	

Figure 2-4 Firmware Version

If the firmware must be updated, then contact a SCIEX sales representative.

Check for Previously Installed Drivers

- 1. Determine whether the Beckman Coulter PACE MDQ Control for Waters Empower driver is installed.
 - a. Click Control Panel > Programs and Features.
 - b. Look for Beckman Coulter PACE MDQ Control for Waters Empower software.

If it is present, uninstall it. Refer to Uninstall the Beckman Coulter PACE MDQ Control for Waters Empower Software Driver.

2. Determine whether the correct version of the National Instruments Software driver is installed.

Note: The PA 800 Plus Empower[™] Driver requires National Instruments Software Driver version 19.0. If another version is installed, then it must be removed.

- a. Click Control Panel > Programs and Features.
- b. Look for National Instruments Software.

If the version number is not 19.0 (or no version number is shown), then uninstall it. Refer to Uninstall Previous Versions of the National Instruments Software Driver.

Uninstall the Beckman Coulter PACE MDQ Control for Waters Empower Software Driver

- 1. Close any Waters Empower[™] software programs that are open.
- 2. Click Control Panel > Programs and Features.
- 3. Click Beckman Coulter PACE MDQ Control for Waters Empower software and then click Uninstall/Change.

The InstallShield Wizard window opens.

4. Click **Remove** and then click **Next**.

Figure 3-1 Beckman Coulter PACE MDQ Control for Waters Empower InstallShield Wizard

Beckman Coulter PACE MDQ Co	ontrol for Waters Empower - InstallShield Wizard	×
Welcome Modify, repair, or remove the p	rogram.	Da Vinci
	Welcome to the Beckman Coulter PACE MDQ Control for Waters Empower S program. This program lets you modify the current installation. Click one of the work of the work of the current installation. Click one of the sector work of the work of the work of the current installation. Click one of the sector work of the work of the current installation. Click one of the sector work of the current installation. Click one of the sector work of the current installation. Click one of the sector work of the current installation. Click one of the sector work of the current installation. Click one of the sector work of the current installation. Click one of the sector work of the current installed • Media: • Media: • Select new program features to add or select currently installed • Repair • Image: • Select new program features installed by the previous setup. • Select new program features installed by the previous setup. • Select new program features. • Remove all installed features. • Select new program f	options below.
InstallShield	< <u>B</u> ack <u>N</u> ext >	Cancel

- 5. In the message that opens, click **Yes** to remove all features.
- 6. When the uninstallation is done, click **Finish** to close the InstallShield Wizard window.
- 7. In the Program and Features control panel, right-click, select **Refresh**, and then make sure that **Beckman Coulter PACE MDQ Control for Waters Empower software** is gone.

If the driver is still shown in the control panel, then repeat the procedure to uninstall the driver.

Uninstall Previous Versions of the National Instruments Software Driver

Note: The PA 800 Plus Empower[™] Driver requires National Instruments Software Driver version 19.0. If another version is installed, then it must be removed.

- 1. Click **Control Panel > Programs and Features**.
- 2. Click **National Instruments Software** and then click **Uninstall/Change**.

The National Instruments Software window opens.

- 3. Depending on the version of the driver that is installed, do one of the following:
 - Hold **Ctrl-Shift**, press the down arrow to select all of the items in the list and then click **Remove**.

NI Network Browser ! NI PXI Platform Servi	Removing Products	are installed. Displays th pu configure individual
NI PXI Platform Servi NI System Configura NI Update Service 2.2 NI-488.2 3.1.1 NI-488.2 Support for	Currently Removing NI PXI Hardware 64-bit Support 3.2.1 : Part 3 of 150.	stry keys, and shortcuts. y be reset to default
NI-488.2 Support for NI-VISA 5.3.0 NI-VISA Runtime 5.3.	Cancel	
< <u> </u>		Close

Figure 3-2 National Instruments Software Uninstall Dialog

• Click Remove All.

Figure 3-3 National Instruments Software Uninstall Dialog

🛃 National Instruments Software				- 🗆 🗙	
				Removing Products	×
Products Patches		E E	Modify	Overall Progress	
NI I/O Trace 17.0.1	^		Change which appli Select Features dial		
NI LabWindows/CVI Shared Runtime 2017			features.		
NI Measurement & Automation Explorer 17.5.0			Repair	Currently Removing NIVC2008RTE x86 : Part 244 of 250.	
NI Measurement Studio Common Class Libraries for .NET Framework 4.0 and Visual Stu		T	Reinstall missing or o		
NI Measurement Studio Common Class Libraries for .NET Framework 4.5 and Visual Stu	dio	230	Preferences stored i values		
NI Measurement Studio Common Runtime for .NET Framework 4.0				Publishing product information	
NI PXI Platform Services 17.5.1 for LabVIEW Real-Time		-	Remove Selected		
NI PXI Platform Services Configuration 17.5.1		× 🖬	Remove selected pr		
NI PXI Platform Services Runtime 17.5.1		-			
NI System Configuration Runtime 17.5.0			Remove All		Cancel
NI Update Service 17.0		× =-		s anu paulies, regaluless ul wilat is	Janoor
NI-488.2 17.6	, ×	× =	selected.	s and patches, regardless or what is	
		·			
				Close	

- 4. When the uninstallation is done, click **Yes** to restart the computer.
- 5. After the computer restarts, log on.

Install the PA 800 Plus Empower[™] Driver

Note: The PA 800 Plus Empower[™] Driver must be installed on the Citrix server, if the PA 800 Plus Empower[™] Driver is operating under the Citrix environment.

- 1. Insert the PA 800 Plus Empower[™] Driver DVD in the DVD drive.
- Navigate to the PA 800 Plus Empower Driver V1.3.0 folder and then double-click setup.exe.
 The Open File Security Warning dialog opens.
- 3. Click **Run**.

The PA 800 Plus Empower[™] Driver InstallShield Wizard opens.

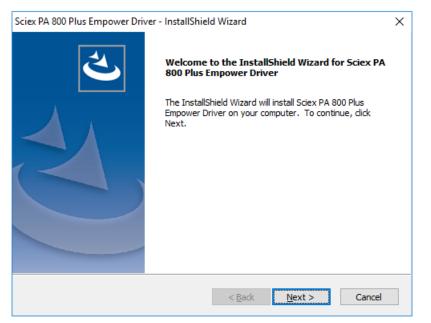


Figure 3-4 Sciex PA 800 Plus Empower[™] Driver InstallShield Wizard

- 4. In the License Agreement page, click **I accept the terms of the license agreement** and then click **Next**.
- 5. Follow the on-screen instructions to install the software. When prompted, accept the default values. If warnings are shown at the beginning of the installation, then ignore them.

Install the National Instruments Software Driver

The PA 800 Plus Empower[™] Driver requires the National Instruments Software Driver version 19.0.

1. On the PA 800 Plus Empower[™] Driver Installation DVD, navigate to the NI-488.2 19.0 Driver folder and then double-click **Install.exe**.

The Open File - Security Warning dialog opens.

2. Click Run.

The installer checks for license agreements and then opens the following page.

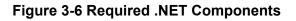
Installing NI-488.2			×			
Select	Agree	Review	Perform			
You must accept the license agreements below to proceed.						
NI IVI						
NATIONA	L INSTRUMENTS SC	OFTWARE LICENSE	AGREEMENT			
THE SOFTWARE AND/OF PROCESS, YOU AGREE WISH TO BECOME A CONDITIONS, DO NOT IN ACCOMPANYING WRITT RECEIPT. ALL RETURNS	SOFTWARE LICENSE AG CLICKING THE APPLICAE TO BE BOUND BY THE T PARTY TO THIS AGREEI ISTALL OR USE THE SOFT EN MATERIALS AND THEI TO NI WILL BE SUBJECT	BLE BUTTON TO COMPLE TERMS OF THIS AGREEN MENT AND BE BOUND WARE, AND RETURN THE R CONTAINERS) WITHIN TO NI'S THEN-CURRENT	TE THE INSTALLATION MENT. IF YOU DO NOT BY ITS TERMS AND SOFTWARE (WITH ALL THIRTY (30) DAYS OF RETURN POLICY. If you			
upgrades to the software the	ent apply to the computer so hat may be provided later by lies to the following package	NI as part of any maintena	nce_technical support_or 🔻			
		 I accept the a 	above 2 license agreements.			
		○ I do not acce	ept all the license agreements.			
Back			Next			

Figure 3-5 NI Package Manager Installation Wizard

- 3. Click I accept the above 2 license agreements. and then click Next until the NI Package Manager page opens.
- 4. In the Additional items you may wish to install list, click NI-488.2 .NET Language Runtime 17.0.1 for .NET Framework 4.5 and then click Next.

CAUTION: Potential Communication Error. Make sure that NI-488.2 .NET Language Runtime 17.0.1 for .NET Framework 4.5 component is selected before clicking OK. If the component is not installed, then the LAC/E module and the PA 800 Plus system will not be able to communicate.

Note: By default, other components are selected in this list. They are also required and should remain selected.



Installing NI-488.2			×					
Select	Agree	Review	Perform					
Additional items you may wish to install:								
Provides support for vi	ewing and/or configuring N	I-VISA resources in NI MAX.	▲					
✓ NI-VISA Interactive Cor Provides the NI-VISA In	ntrol Iteractive Control utility to ir	nteract and communicate w	ith NI-VISA resources.					
	ment Support for VS2010 help files for .NET framewo	rk 400						
	ment Support for VS2012 help files for .NET framewo	rk 450						
	ment Support for VS2013 help files for .NET framewo	rk 450						
	e Runtime 17.0.1 for .NET Fr lications that use the NI-488							
	e Runtime 17.0.1 for .NET Fr lications that use the NI-488							
NI-VISA Server Provides remote access	to resources on the current	t machine.	•					
Select All Deselect	All		Next					

- 5. In the Agree page, click I accept the above 2 license agreements. and then click Next.
- 6. In the next page, click I accept the above 2 license agreements. and then click Next.

The installation can take a few minutes.

When the installation is done, a message about the NI Update Service is shown.

Figure 3-7 NI Update Service Message

NI Upda	ate Service
?	NI Update Service checks for available updates each time you install new NI software. Would you like NI Update Service also to check for updates periodically? Note: If updates are available, you can choose whether to install or ignore them. Updates are never installed automatically.
	Yes No

7. Click No.

- 8. If installer shows a message about the NI Customer Experience Improvement Program, then click **No**, I do not want to participate in the NI Customer Experience Improvement **Program** and then click **OK**.
- 9. Click **Reboot Now** to restart the computer.
- 10. Log on to the computer.

Note: If a dialog asking to register the software opens, click Cancel to dismiss it.

Configure the Waters Empower[™] Software

Use the following procedures to configure the Waters Empower[™] software to work with the PA 800 Plus system.

Change the Pressure Units

The Waters Empower[™] software can display pressure in units of psi or millibar. By default, the units are millibar. The pressure units can be changed from the LAC/E workstation or Citrix server.

Use the following procedure to change the units.

- 1. Log on to the computer as a user with administrator privileges.
- 2. Close the Waters $Empower^{TM}$ software.
- 3. Open the Registry Editor window.
 - a. Click **Start**, type **R**, and then click **Run**.

The Run dialog opens.

- b. Type regedit.
- c. Click Yes in the message that appears.

The Registry Editor window opens.

- 4. Locate the registry entry for the pressure units.
 - a. Click Edit > Find.
 - b. (Optional) Click the **HK_LOCAL_MACHINE** folder in the tree structure.

Tip! The search for the entry is much faster when HK_LOCAL_MACHINE is selected.

c. In the Find what: field, type PressureUnitPSI and then click Find Next.

Figure 4-1 Find Dialog

Find	×
Find what: Pressure Unit PSI	Find Next
Look at Veys Values Data	Cancel
Match whole string only	

The search can take some time. When the key is found, it will be highlighted in the right pane of the Registry Editor window.

Figure 4-2 Registry Editor

Name	Туре	Data
ab) (Default)	REG_SZ	(value not set)
ab DataPath	REG_SZ	C:\Empower\Instruments\HTML\SCIEXCE\
腿 DebugLevel	REG_DWORD	0x00000001 (1)
ab EditorHTML	REG_SZ	SCIEXCE\SCIEXCE_Method.htm
👪 IdlePollingInterval	REG_DWORD	0x00000005 (5)
ab ImageFile	REG_SZ	SCIEXCE\PA800PLUS.bmp
ab InstrumentInstalled	REG_SZ	Yes
ab InterfaceType	REG_SZ	Ethernet
腿 PanelHeight	REG_DWORD	0x00000168 (360)
ab PanelHTML	REG_SZ	SCIEXCE\SCIEXCE_Status.htm
腿 PanelWidth	REG_DWORD	0x00000208 (520)
🐯 PressureUnitPSI	REG_DWORD	0x00000000 (0)
ab ProxyCLSID	REG_SZ	{FE12775C-2540-42e6-B64D-2CFE06CF1C3D}
🤀 RunningPollingInterval	REG_DWORD	0x00000019 (25)
👪 Scanable	REG_DWORD	0x00000000 (0)

5. Edit the registry entry.

a. Double-click PressureUnitPSI.

The Edit DWORD (32-bit) Value dialog opens.

Figure 4-3 Edit DWORD (32-bit) Value Dialog

Edit DWORD (32-bit) Value	×
Value name: PressureUnitPSI	
Value data:	Base
1	Hexadecimal
	O Decimal
	OK Cancel

- b. In the Value data field, type the value for the units and then click OK.
 - 1 for psi
 - 0 for mbar
- c. Click **File > Exit** to save the changes and close the Registry Editor window.

Configure the Acquisition Server

Note: Set up the acquisition server in the Waters $Empower^{TM} 3$ (FR4) software before completing the following procedure. For instructions refer to the manufacturer's documentation that came with the software.

- 1. Double-click the **Empower** icon on the desktop and log on as a user with administrative privileges.
- 2. In the Waters Empower[™] software Start dialog, click **Configure the System**.



Figure 4-4 Waters Empower[™] Software Start Dialog

The Configuration Manager window opens.

Note: The list of nodes in the following figure will reflect the local Waters Empower[™] software configuration.



BMPOWER3FR4 as Lia/Guest - Configuration Manager										
File Edit View Records Tools Help										
Filter By: Default										
Enpower 3 Configuration) B	Node Name	Node Location	Node Type	Owner	Node Comments				
Projects	1	Lace3		LAC/E32	System					
	2	Station1		Empower	System	User Station 1				
	3	Station2		Empower	System	User Station 2				
eCord	Г									
🖉 Users	Г									
User Groups	F									
Q? User Types Q Plate Types	F									
System Audit Trail	Г									
🖏 Offline System Audit Trail										

3. In the table, right-click the node to be configured and select **Properties**.

Node 'Station1' Properties	×
General Instruments Serial Ports Configure DHCP Access	
Node Name: Station1 Node Type: Empower	
BusLAC/E Status: BusLAC/E driver not loaded	
BusLAC/E Type: Unknown	
Serial Device Status: Serial device not present	
Node Time Zone: US/Pacific 🗨	
More	
Node Location:	
Comment:	
User Station 1	
OK Cancel He	p

Figure 4-6 Node Properties Dialog, General Tab

4. Click the **Configure DHCP** tab, and then click **Configure DHCP**.

Figure 4-7 Configure DHCP Tab

Node 'Station1' Properties	×					
General Instruments Serial Ports Configure DHCP Access	1					
The Waters DHCP Server is designed to work automatically without user intervention but in some cases you will need to change or specify DHCP settings for the instrument network or third-party instruments in your laboratory.						
Click the button below to configure third-party Ethemet instruments on this node or to use a different IP address range for your instrument network.						
Configure DHCP						
OK Cancel Hel	р					

The Waters DHCP Server Configuration dialog opens.

	Server Configuration		_	×
<u>F</u> ile Server <u>H</u>	elp			
IP Address	MAC Address	Туре	Name	
0.0.0.0	00-00-00-00-00-00	BCPACEMDQ	1	
<				>
	Add E	dit Remove		ОК

Figure 4-8 Waters DHCP Server Configuration Dialog

- 5. If the Beckman Coulter PACE MDQ Control for Waters Empower Software Driver was previously installed, then delete any existing CE instruments in the list. Click **BCPACEMDQ** in the dialog and then click **Remove**.
- 6. Click **Add**.

The Add IP Address dialog opens.

7. Update the fields in the dialog as follows.

Figure 4-9 Add IP Address Dialog

Add IP Address	×
IP Address	
MAC Address	
Instrument Type	PA800PLUS V
Serial Number/ Unique Name	1
ОК	Cancel

- a. Leave the IP Address field blank. It is not required for a PA 800 Plus system.
- b. Leave the **MAC Address** field blank. It is not required and is automatically set to 00-00-00-00-00.
- c. Click Instrument Type and select PA800PLUS from the list.
- d. In the Serial Number/Unique Name field, type 1.
- e. Click OK.

If a message about the MAC address is shown, dismiss the message, type any number in the **MAC Address** field, and then click **OK**.

8. If the Beckman Coulter PACE MDQ Control for Waters Empower Software Driver was previously installed, click the **Instruments** tab.

	🛃 Туре	Address	OK ?	Serial Number	Last Serviced	Next Ser	
F							
-							
ŀ							
ŀ	<					<u> </u>	
		Scan In:	struments	Rem	ove Instrument		

Figure 4-10 Instruments Tab

9. Delete any previously configured instruments associated with the Beckman Coulter PACE MDQ Control for Waters Empower Software Driver.

a. Click the row with the instrument to be deleted and then click **Remove Instrument**. Previously configured instruments have BCPACEMDQ in the **Type** column.

Node 'Lac	:e1'	Properties					\times				
General Instruments Serial Ports Configure DHCP Access											
	Tura Address OK 2 Seriel Number Last Se										
	E	Туре	Address	OK ?	Serial Number	Last Sei					
	1	PA800PLUS	PA800PLUS#2	Yes							
	2	PA800PLUS	PA800PLUS#1	Yes							
	3	BCPACEMDQ	BCPACEMDQ-#1	No							
	С	onfiguration M	anager	•		×					
		🕥 You H	nave selected inst	trument(s)	to be removed						
			ou sure?								
	L.					J					
			· · · · · · · ·			-1					
			l	Yes	<u>N</u> o						
	-	Scarn	nstruments	Remo	ve instrument						
				ОК	Cancel	He	elp				

Figure 4-11 Confirmation Message

- b. Click **Yes** in the message that is shown and then click **Yes** in the message that follows.
- c. If there are additional instruments with BCPACEMDQ in the **Type** column, repeat the procedure to delete them.
- 10. Click **OK**.

The Node Properties dialog closes.

11. If a second PA 800 Plus system is to be connected to the LAC/E module, repeat this procedure except in step 7, type **2** in the **Serial Number/Unique Name** field.

Note: The additional steps required to set up the second PA 800 Plus system must be performed by a SCIEX Field Service Employee. Contact SCIEX Technical Support at sciex.com/request-support.

Set Up a New Chromatographic System

The Waters Empower[™] software is designed for chromatography. Therefore any instrument connected to the software is referred to as a "chromatographic system". The PA 800 Plus system must be configured as a chromatographic system before it can be used.

1. In the Configuration Manager window, click **File > New > Chromatographic System**.

The New Chromatographic System Wizard opens.

Figure 4-12 Type Entry Page

New Chromatographic System	Wizard - Type Entry	×
	Choose to define a new chromatographic system, or to connect to a system which already exists. System Type Create New System Connect to Existing System	
	< Back Next > Cancel Help	

2. Click **Create New System** and then click **Next**.

Note: The list of nodes in the following figure will reflect the local Waters Empower[™] software configuration.

Figure 4-13 Select Server Page

New Chromatographic Sys	tem Wizard - Select Server	Х
	Select the node connected to the instruments needed to create yr system. Lace1 Lace2 Lace3 Sciexcet330 Station1 Station2 Wat-mj02cz5h Wat-mj07zy60 If you do not see the desired node in the list above, it is because it has not been defined yet or you do not have access to it. Go back to the configuration manager and use the 'File' - 'New' - 'Node' menu item to create the desired Node.	
	< Back Next > Cancel Help	

3. Click the node with the PA 800 Plus system and then click **Next**.

Figure 4-14 System Selection Page

New Chromatographic S	ystem Wizard - System Selection		Х
	Drag desired instruments from the An New System Instruments list. Note: You may open existing Syster New System Instruments list.		
	Available Instruments	New System Instruments	
	PA800PLUS#1	PA800PLUS#1	
	< Back Next >	Cancel Help	

- 4. In the Available Instruments list on the left, click PA800PLUS#1, drag it to the New System Instruments list on the right, and then click Next.
- 5. Update the fields on the page as follows.

Figure 4-15 Access Control Page

New Chromatographic S	ystem Wizard - Access Control		×
	Share System with Other Network Us Allowed Access Owner Only Owner and Group(s) Owner, Group and World Password Protect System Access Password Required Password Confirm Password	Allow Access to Group(s)	_
	< Back Next >	Cancel Help	

- a. **Share System with Other Network Users**: Select to allow other network users access to the system.
- b. Allowed Access: Select the types of users allowed to access the system. Choices are Owner Only, Owner and Group(s), or Owner, Group, and World. For the latter two, select the groups in the Allow Access to Group(s) list.
- c. Allow Access to Group(s): Select the groups allowed access to the system.

At least one group must be selected.

- d. **Password Protect System Access**: Select **Password Required** to require a password. In the **Password** and **Confirm Password** fields, type the password, up to 30 characters.
- e. Click Next.
- 6. Update the fields on the page as follows.

New Chromatographic System Wizard - Name Selection	\times
System Name:	
Location: Node Name: Lace2	
I ⊂ Online	
System Comment	
< Back Finish Cancel Help	

Flaving A 40 Names Calestian Davis in Navy Obvision at a manhy Ovista	we \A/:
Figure 4-16 Name Selection Page in New Chromatography Syste	m vvizaro
right from the selection rage in New Onionalography oyste	

- a. **System Name**: Type the name of the system, up to 30 characters. The name is used in the Empower database and the Configuration Manager window.
- b. **Online**: Select this check box to bring the new system online.
- c. **System Comment**: (Optional) Type comments or other identifying information for the system, up to 250 characters.
- d. Click Finish.
- e. If a message about an existing system configured in another online system shows, click **OK**.

Define the Buffer and Sample Trays

In the Waters Empower[™] software, the sample and buffer trays in the PA 800 Plus system are referred to as "plates". Plates must be defined in the Waters Empower[™] software. To simplify this process, SCIEX provides text files with the required information that can be imported.

1. Insert the PA 800 Plus Empower[™] Driver DVD in the DVD drive.

- In the Waters Empower[™] software Start dialog, click Configure the System.
 The Configuration Manager window opens.
- 3. Click **Plate Types** to show the plates that are already defined.



💾 EMPOWER3FR4 as Lisa/Guest - Configu	ratio	n Manager				_		×
File Edit View Records Tools Help								
244 3 2 × 3 6 6	9		er By: Default	•	Edit Vie <u>w</u>	<u>U</u> pda	ite	
Empower 3 Configuration	È	Plate Type Name						^
Projects	1	24 uCfuge tube, 1.5mL	1					
	2	24 vial (open access), 2mL						
	3	384 well, 80uL						
🗐 🖳 💘 eCord	4	48 uCfuge tube, 0.5mL						
🖉 Users	5	48 vial holder, 2mL						
💭 User Groups 👷 User Types	6	6x6]					
Plate Types	7	6x8						
System Audit Trail	8	96 well (tall), 1mL						
Stem Audit Trail	9	96 well (tall), 2mL]					
	10	96 well (tall), 350uL						
	11	96 well w/700uL insert						
	12	96 well, 300 uL						
	13	ANSI-24Tube1.5mLHolder						
	14	ANSI-24Vial4mLHolder						~
For Help, press F1		1				32 To	tal	/

- 4. Create the plate for the buffer tray.
 - a. Right-click in the table and then select **Import from Text**.
 - b. Click **Browse** and then navigate to the PA800Plus Buffer Tray.txt file on the PA 800 Plus Empower[™] Driver DVD.

Note: If the DVD is not available, then a copy of the file is included in this document. Copy the contents and then paste it in a text file. Refer to Plate Definition Files.

c. Type PA 800 Plus Buffer Tray in the New Plate Type Name field and then click OK.

Import Plate Type From Text File	\times				
Waters can import a plate type definition from a text file. Browse to or type in the path and name of the plate type file, then enter the desired name of the new plate type definition.					
Plate Type Definition Import File: Browse					
D:\PA800Plus Buffer Tray					
New Plate Type Name: PA 800 Plus Buffer Tray					
OK Cancel					

Figure 4-18 Import Plate Type From Text File Dialog

The buffer tray is added to the list in the Configuration Manager window.

- 5. Repeat step 4 to create the sample trays.
 - For the 48-vial sample tray, select the PA800Plus Sample Tray.txt file and then name the plate PA 800 Plus Sample Tray.
 - For the 96-well sample tray, select the PA800Plus 96 Well Sample Tray.txt file and then name the plate PA 800 Plus 96 Well Sample Tray.

As for the buffer tray, if the plate definition file is not available, a copy is available in this document. Refer to Plate Definition Files.

Note: The plate definition file for the 96-well sample plate is for a standard SCIEX 96-well plate (PN 609844). To use a 96-well plate from another manufacturer, click **File > New > Plate Type** in the **Configuration Manager** window and then define the plate manually.

- 6. If the Beckman Coulter PACE MDQ Control for Waters Empower[™] Software Driver was previously installed, then delete any plates that were created for use with the driver. Right-click the row number for the plate and then select **Delete**.
- 7. (Optional) To view detailed information about a plate, right-click the row number for the plate and then select **Properties**.
- 8. (Optional) To delete a plate, right-click the row number for the plate and then select **Delete**.

Only plates added by a user can be deleted. Pre-defined plates cannot be deleted.

9. Click **File > Exit** to close the **Configuration Manager** window.

Known Issues in the PA 800 Plus Empower[™] Driver

- If the GPIB interface cable is removed from the LAC/E module, then communication to the PA 800 Plus system will be lost. Connect the GPIB interface cable and then restart the LAC/E module.
- In a sample set method, any values in the **Injection Volume** field are ignored. Instead, the Waters Empower[™] software uses the **Duration** parameter for the injection event to determine the injection volume.
- In a **Inject Pressure Capillary Fill**, an error will be caused if **sample lid** is selected for the tray positions. Instead, select **Sample** as the tray position and set the vial incrementation to 1.

Note: The user is required to program a specific method if it is required to return to a vial.

This section include the plate definitions for the buffer tray, the sample tray, and the SCIEX 96-well sample tray. These plates must be defined in the Waters Empower[™] software.

The files should be installed as part of the PA 800 Plus Empower[™] Driver installation.

If they are missing and the plates need to be defined, copy the text, paste it in a text editor, and then save the file.

PA800Plus Buffer Tray Plate Definition File

Empower Profile for Plate Type: CE Buffer Tray Plate Type: XY Permanent: No Plate Terminology: Plate Well Terminology: Well Plate Dimensions: X: 85.00 Y: 85.00 Height: 17.00 Well Dimensions: Top Left Well X Location: 9.00 Top Left Well Y Location: 9.00 Well Diameter: 12.00 Well Depth: 14.00 Row and Column Dimensions: Number of Rows: 6 Row Spacing: 13.40 mm Number of Columns: 6 Column Spacing: 13.40 mm Row and Column Offsets: Row Offset Type: None Row Offset: 0.00 mm ColumnOffset Type: None Column Offset: 0.00 mm Origin: Bottom Left Scheme: Referencing: XY Horizontal: ABC ... Vertical: 123 ... Sequential Continuous: Off Horizontal First Priority: On

PA800Plus Sample Tray Plate Definition File

Empower Profile for Plate Type: CE Sample Tray Plate Type: XY Permanent: No Plate Terminology: Plate Well Terminology: Well Plate Dimensions: X: 85.00 Y: 128.00 Height: 17.00 Well Dimensions: Top Left Well X Location: 9.00 Top Left Well Y Location: 17.10 Well Diameter: 12.00 Well Depth: 14.00 Row and Column Dimensions: Number of Rows: 8 Row Spacing: 13.40 mm Number of Columns: 6 Column Spacing: 13.40 mm Row and Column Offsets: Row Offset Type: None Row Offset: 0.00 mm ColumnOffset Type: None Column Offset: 0.00 mm Origin: Bottom Left Scheme: Referencing: XY Horizontal: ABC ... Vertical: 123 ... Sequential Continuous: Off Horizontal First Priority: On

PA800Plus 96 Well Sample Tray Plate Definition File

Empower Profile for Plate Type: 96-Well Sample Tray Plate Type: XY Permanent: No Plate Terminology: Plate Well Terminology: Well Plate Dimensions: X: 85.00 Y: 128.00 Height: 17.00 Well Dimensions: Top Left Well X Location: 11.00 Top Left Well Y Location: 14.50 Well Diameter: 6.80 Well Depth: 14.00 Row and Column Dimensions: Number of Rows: 12 Row Spacing: 9.00 mm Number of Columns: 8 Column Spacing: 9.00 mm Row and Column Offsets: Row Offset Type: None Row Offset: 0.00 mm ColumnOffset Type: None Column Offset: 0.00 mm Origin: Bottom Left Scheme: Referencing: XY Horizontal: ABC ... Vertical: 123 ... Sequential Continuous: Off

Horizontal First Priority: On

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SCIEX and its representatives maintain a staff of fully-trained service and technical specialists located throughout the world. They can answer questions about the system or any technical issues that might arise. For more information, visit the SCIEX website at sciex.com or contact us in one of the following ways:

- sciex.com/contact-us
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Documentation

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To find software product documentation, refer to the release notes or software installation guide that comes with the software.

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