

Instructions for using National Instrument Measurement & Automation Explorer with the SR510/SR530 Lock-In Amplifiers

These instructions are for the default GPIB address of 23.

If using a National Instruments GPIB-USB-HS then you need to connect a standard GPIB cable (at least 1.5 meters in length) in between the National instruments connector and the SR510/SR530

- 1. Setup the SR530 for GPIB communication (see manual page8).
- 2. Start up Measurement & Automation Explorer
- 3. Select the + box next to "Devices and Interfaces"
- 4. Select "GPIB0 (GPIB-USB-HS)" or (PCI-GPIB)
- 5. On the upper menu click on "Scan for Instruments"
- 6. Double click on the instrument with address 23 (Bottom of the page section labeled "Connected Instruments".



7. Select "Communicate with Instrument" on the top menu

🤏 Instrument 0 - Measurement & Au	tomation Explorer	
File Edit View Tools Help		
Configuration	🐘 Open VISA Test Panel 📙 Save 🗊 Revert 📲 Communicate with Instrument 🔮 Interactive Control 🧌 I	VI Spy
🖃 🥸 My System		🕞 Back 🔡 🚖
GPIBO (GPIB-USB-HS)	GPIB0::23::INSTR	CDIP Instrument
Instrument 0	Device Tune: GPIR Instrument	Basics
Network Devices Network Devices Network Devices Network Devices	Donico rype. an io matanici k	What do you want to
🗉 🍠 Serial & Parallel	VISA Alias on My System:	do?
		my instrument
Hard Remote Systems	Device Status	Interactively control the GPIB
	This device is working properly.	Capture NI-488.2
		Monitor GPIB activity
	Troubleshoot	
	Device Usage	
	✓ Device enabled	
		~
		Device Name
		Displays the name of the device you are
		configuring.
	Attributes Revenues	
		<u>×</u>

- 8. In the Send String dialog box type "f"
- 9. Click on the Query button. The reference frequency should be displayed in the string received box. The example below shows a lock-in with no reference connected, reading of .000 E +3 Hz.

🕅 NI-488.2 Communicator		
GPIBO Instrument 0 Primary A	ddress 23	
Send String: f Query Write Read	Globals ibsta: 0x2100 iberr: None ibcntl: 9	Status ERR TIMO END SRQI
Configurea		RQS
String Received:		CMPL
.000E+3		LOK REM CIC ATN TACS LACS
Configure EOS Show Sample	Exit	DTAS DCAS