To set <u>GPIB</u> address

Each device on the GPIB/IEEE-488 interface must have a unique address (ranging from 0 to 30).



Note: VISA = Virtual Instrumentation Software Architecture SICL = Standard Instrument Control Library



PC - GPIB controller

Blue IO icon: Run IO config

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	VX	-	*E8491 IEEE-1394 to VXI					
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The recommended method for connecting a GPIB system is linear with the system controller (PC) at one end of the system.

However, a GPIB system can also be connected together in a star, linear, or a combination configuration as long as the total number of devices on the system is <15.

You may want to record the primary **GPIB address** of the attached instrument for future programming use.

VISA Interface Name Symbolic name that VISA uses to uniquely identify this GPIB interface. The default VISA Interface Name is **GPIB0**.

SICL Interface Name Symbolic name that SICL uses to uniquely identify this GPIB interface. The default Interface Name is **gpib0**.

Logical Unit Number (default 7) that SICL uses to uniquely identify this interface.

Bus Address It is address of this GPIB **controller** on the GPIB bus. It is usually " **21**" if the GPIB interface is a *System Controller*.

If several devices exist on a bus, be sure each has a unique GPIB bus address.

The Agilent **82357A** USB/GPIB Interface provides a direct connection from the USB port on your laptop or desktop PC to GPIB instruments.

There are no switches to set, no PC cards to install, and no external power supplies required.

Since the 82357A is a standard *Plug and Play* device, it is **automatically** detected and configured when connected to the computer USB port.





Initially, only the red FAIL LED should be ON. After a few seconds, all three LEDs should be ON. All three LEDs ON shows the 82357A has been successfully installed, but is not yet configured for use with the Agilent IO Libraries.



(1) 54622A Oscilloscope

The **GPIB port** can be used for remote programming and to link your PC to the oscilloscope when using the **IntuiLink** for scope connectivity software.

To <u>install</u> the N2757A GPIB I/O interface module:

- 1 Turn the oscilloscope power off.
- 2 Insert the tabs on top of the module into the holes on the back of the oscilloscope as shown below.
- 3 Push the module down until the connector-aligning tab on the back of the module snaps into the alignment slot on the back of the oscilloscope.
- 4 Secure the module to the oscilloscope using the screw on the module.



To verify the module is properly connected:

- 1 Turn the oscilloscope power on.
- 2 Press the oscilloscope Utility key, then press the Service softkey.



- 3 Press the About Oscilloscope softkey.
 - The Option Module: line should look similar to that displayed below.

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Copyright © 2000-20	02 Agilent Tech	nologies	, Inc.		
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Model number: Serial number: Software revision: BOM revision:	54642D MY42000006 A.02.20				-
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Service Menu					
Start User Cal Self Test	About U Oscilloscope	lser Cal Status)		*]

To connect the GPIB cable:



To set GPIB address:

- 1 Turn the oscilloscope power on.
- 2 Press the oscilloscope Utility key, then press the I/O softkey.



- 3 Press the Controller softkey and select GPIB.
- 4 Turn the Entry knob to set the GPIB address. The selected address is displayed in the Address softkey.



(2) 34401A Multimeter



The **GPIB** interface is **selected** when the multimeter is shipped from the factory **and the GPIB address is set to "22**".

The address is displayed on the front panel when you turn-on the multimeter.

The HP-IB address can be set only from the <u>front-panel</u>.

The address is stored in *non-volatile* memory, and *does not* change when power has been off or after a remote interface reset.

<u>Note</u>: Your GPIB bus controller has its own address. Be sure to avoid the bus controller's address for any instrument on the interface bus. Bus **controllers** generally use address "**21**".

To set GPIB address:

On/Off Shift <	1 Turn on the front-panel menu.
	A: MEAS MENU
< <	2 Move across to the I/O MENU choice on this level.
	E: I/O MENU
\vee	3 Move down a level to the HP-IB ADDR command.
	1: HP-IB ADDR
\vee	4 Move down to the "parameter" level to set the address.
	Use the left/right and down/up arrow keys to change the address.
	Accept Defeat
	Auuress:
Auto/Man ENTER	5 Save the change and turn off the menu.

The address is stored in *non-volatile* memory, and *does not* change when power has been off or after a remote interface reset.

(3) 33220A ARB generator



The ARBitrary waveform/function generator supports remote interface communication using a choice of three interfaces: **GPIB**, USB, and LAN. All three interfaces are **"live"** at power up.

• **GPIB Interface.** You need only set the GPIB address for the function generator and connect it to your PC using a GPIB cable.

 $// \cdot$ USB Interface. There is nothing to configure on your function generator. Just connect the function generator to the PC with a USB cable.

• LAN Interface. By default, DHCP is On, which may enable network communication over the LAN interface. //

The GPIB address is set to "10" when the function generator is shipped from the factory. The GPIB address is displayed at power-on.

The HP-IB address can be set only from the front-panel.

The address is stored in *non-volatile* memory and *does not* change when power has been off or after a remote interface reset.

<u>Note</u>: Your GPIB bus controller has its own address. Be sure to avoid the bus controller's address for any instrument on the interface bus. Bus **controllers** generally use address "**21**".

To set GPIB address:

Utility

Press

key and then select the GPIB Address softkey from the "I/O" menu.

GPIB Configuration

You need only select a GPIB address.

1 Select the "I/O" menu.

Press [unit and then press the I/O softkey.



2 Select the GPIB address.

Use the knob and cursor keys or the numeric keypad to select a GPIB address in the range 0 through 30 (the factory default is "10").

The GPIB address is shown on the front-panel display at power-on.

3 Exit the menu.

Press the **DONE** softkey.

(4) E3631A Power Supply



The power supply's current GPIB address is displayed *momentarily* on the front panel when you turn-on the power supply.

The address is set to "05" when the power supply is shipped from the factory.

The GPIB address can be set from the <u>front-panel</u> only ("I/O Config" key).

The address is stored in non-volatile memory, and *does not* change when power has been off or after a remote interface reset.

Note: Your GPIB bus controller has its own address. Be sure to avoid the bus controller's address for any instrument on the interface bus. Bus **controllers** generally use address "**21**".

To set GPIB address:

To configure the power supply for the GPIB interface, proceed as follows:

	<u> </u>
T 10	Config
1/0	contra.

1 Turn on the remote configuration mode.



You will see the above message on the front-panel display if the power supply has not been changed from the default setting. If "RS-232" appears, choose "GPIB / 488" by turning the knob to the right.

I/O Config

2 Select the GPIB address.

ADDR 05

Accept Default Address!

The address is set to "05" when the power supply is shipped from the factory. Notice that a different GPIB address may appear if the power supply has been changed from the default setting.

3 Turn the knob to change the GPIB address.

The displayed address is changed when turning the knob to the right or left.

I/O Config

4 Save the change and turn off the I/O configuration mode.

CHANGE SAVED

The address is stored in *non-volatile* memory, and *does not* change when power has been off or after a remote interface reset. The power supply displays a message to show that the change is now in effect. If the GPIB address is not changed, "NO CHANGE" will be displayed for one second.

Note: To cancel the I/O configuration mode without any changes during the GPIB address selection, press the "I/O Config" key until the "NO CHANGE" message is displayed.