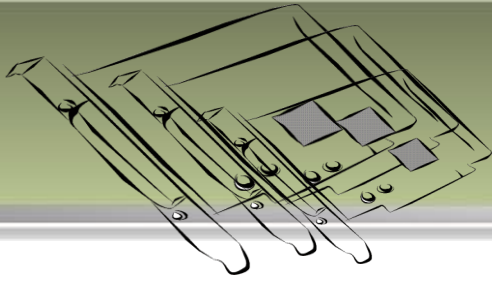


I/O CARD QUICK START GUIDE







For *PCI-P8R8U/P16R16U*

English/Mar. 2015/Version 1.0



1 What's in the shipping package?

The package includes the following items:

One PCI-PxRxU series board as follows:	
 PCI-P8R8U	 PCI-P16R16U
 One Software Utility CD (V6.1 or later)	
 One Quick Start Guide (This Document)	
 -	One CA-4037W Cable
 One CA-4002 D-Sub connector	Two CA-4002 D-Sub connectors

2 Installing Windows Driver

Step 1: Setup the Windows driver. The driver is located at:

- The UniDAQ driver supports 32-/64-bit Windows 2K/XP/2003/Vista/7/8; it is recommended to install this driver for new user:
CD: \NAPDOS\PCI\UniDAQ\DLL\Driver
<http://ftp.icpdas.com/pub/cd/iocard/pci/napdos/pci/unidaq/dll/driver/>

- The PCI-P16R16 Series classic driver supports Windows 98/NT/2K and 32-bit XP/ 2003/ Vista/7/8. Recommended to install this driver for have been used PCI-P16R16 series boards of regular user, please refer to : <http://ftp.icpdas.com/pub/cd/iocard/pci/napdos/pci/pci-p16r16/manual/quickstart/classic/>

Step 2: Click the "**N**ext>" button to start the installation.

Step 3: Check your DAQ Card is or not on supported list, then click the "**N**ext>" button.

Step 4: Select the installed folder, the default path is C:\ICPDAS\UniDAQ , confirm and click the "**N**ext>" button.

Step 5: Check your DAQ Card on list, then click the "**N**ext>" button.

Step 6: Click the "**N**ext>" button on the **Select Additional Tasks** window.

Step 7: Click the "**N**ext>" button on the **Download Information** window.

Step 8: Select "**No, I will restart my computer later**" and then click the "**F**inish" button.

For detailed information about the driver installation, please refer to Chapter 2.1 "Getting the UniDAQ Driver DLL Installer package" of the UniDAQ SDK user manual.

3 Installing Hardware on PC

Step 1: Shut down and power off your computer.

Step 2: Remove the cover from the computer.

Step 3: Select an unused PCI slot.

Step 4: Carefully insert your I/O card into the PCI slot.

Step 5: Replace the PC cover.

Step 6: Power on the computer.

After powering-on the computer, please finish the Plug&Play steps according to the prompted messages.

4 Pin Assignments

Pin Assignment CN2	Pin Assignment CN1	Terminal No.	Pin Assignment CN1	Pin Assignment CN2	Pin Assignment	Terminal No.	Pin Assignment
NO_8	NO_0	01	20	NO_3	NO_11	02	NO_11
COM_8	COM_0	02	21	COM_3	COM_11	03	COM_11
NC_8	NC_0	03	22	NC_3	NC_11	04	NC_11
NO_9	NO_1	04	23	NO_4	NO_12	05	NO_12
COM_9	COM_1	05	24	COM_4	COM_12	06	COM_12
NC_9	NC_1	06	25	NO_5	NO_13	07	NO_13
NO_10	NO_2	07	26	COM_5	COM_13	08	COM_13
COM_10	COM_2	08	27	NO_6	NO_14	09	COM_14
NC_10	NC_2	09	28	COM_6	COM_14	10	GND
NO_15	NO_7	10	29	GND	GND	11	DIB_8
COM_15	COM_7	11	30	DIB_0	DIB_8	12	DIB_9
DIA_0	DIA_0	12	31	DIB_1	DIB_9	13	DIB_10
DIA_1	DIA_1	13	32	DIB_2	DIB_10	14	DIB_11
DIA_2	DIA_2	14	33	DIB_3	DIB_11	15	DIB_12
DIA_3	DIA_3	15	34	DIB_4	DIB_12	16	DIB_13
DIA_4	DIA_4	16	35	DIB_5	DIB_13	17	DIB_14
DIA_5	DIA_5	17	36	DIB_6	DIB_14	18	DIB_15
DIA_6	DIA_6	18	37	DIB_7	DIB_15	19	N/A
DIA_7	DIA_7	19				20	N/A
						21	
						22	
						23	
						24	
						25	
						26	
						27	
						28	
						29	
						30	
						31	
						32	
						33	
						34	
						35	
						36	
						37	
						38	
						39	
						40	

CN1 (Female DB-37)

CN2 (40-pin box header)
(PCI-P16R16U only)

Note:

NO: Normal Open

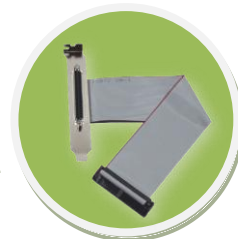
COM: Common

NC: Normal Close

DIA: Digital Input (Point A)

DIB: Digital Input (Point B)

Extension Cable (CA-4037W):
DB-40-Pin conversion DB-37-Pin



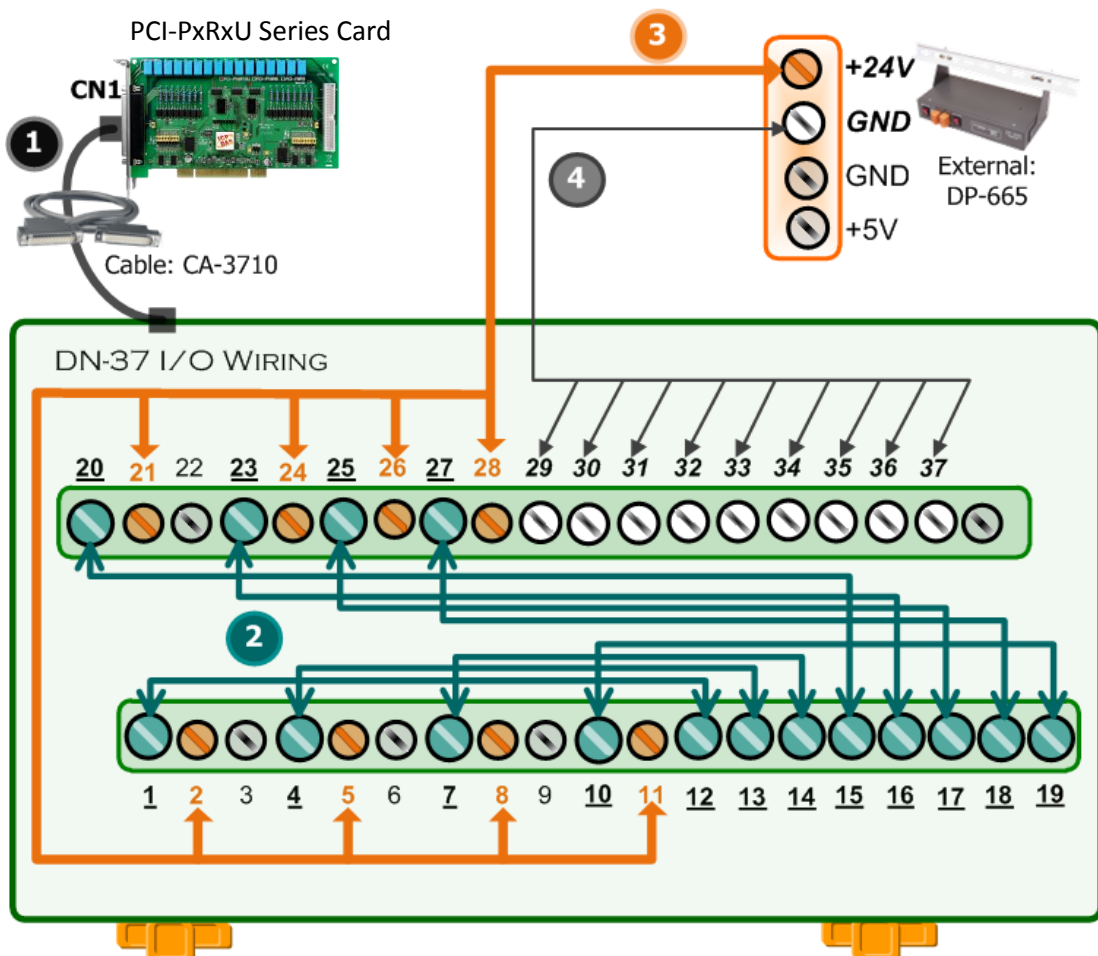
5 Self-Test

■ Prepare for device:

- ☑ DN-37 (optional) wiring terminal board.
- ☑ Exterior power supply device. For example: DP-665 (optional)

■ Self-test wiring as follows:


1. Connect the **DN-37** to the **CN1** connector on the board using the **CA-3710** cable.
2. **Connect the NO(0-7) with DIA(0-7).**
(Pin1/4/7/20/23/25/27/10 **connects to** Pin12/13/14/15/16/17/18/19).
3. Power Supply (+24 V) connects to COM0...COM7 (Pin2/5/8/21/24/26/28/11).
4. Power Supply GND connects to GND (Pin29).
- Power Supply GND connects to DIB0...DIB7 (Pin30/31/32/33/34/35/36/37).



4. Execute the UniDAQ Utility Program.

This program (UniDAQ Utility) will be placed in the default path after completing installation.

The UniDAQ Utility.exe is located in:
 C:\ICPDAS\UniDAQ\Driver\
 (Default path).

1 Double-Click  UniDAQUtility

2 Confirm the PCI-P8R8U/P16R16U series card had successfully installed to PC. It starts from 0.

3 Click this button to start test.

The screenshot shows the 'ICP DAS UniDAQ DAQ Card Utility' window. The 'Information Device' list shows '0 PCI-P16R16'. The 'TEST' button is highlighted with a green box and callout 3. Callout 2 points to the device list. Callout 1 points to the 'UniDAQUtility' icon on the desktop.

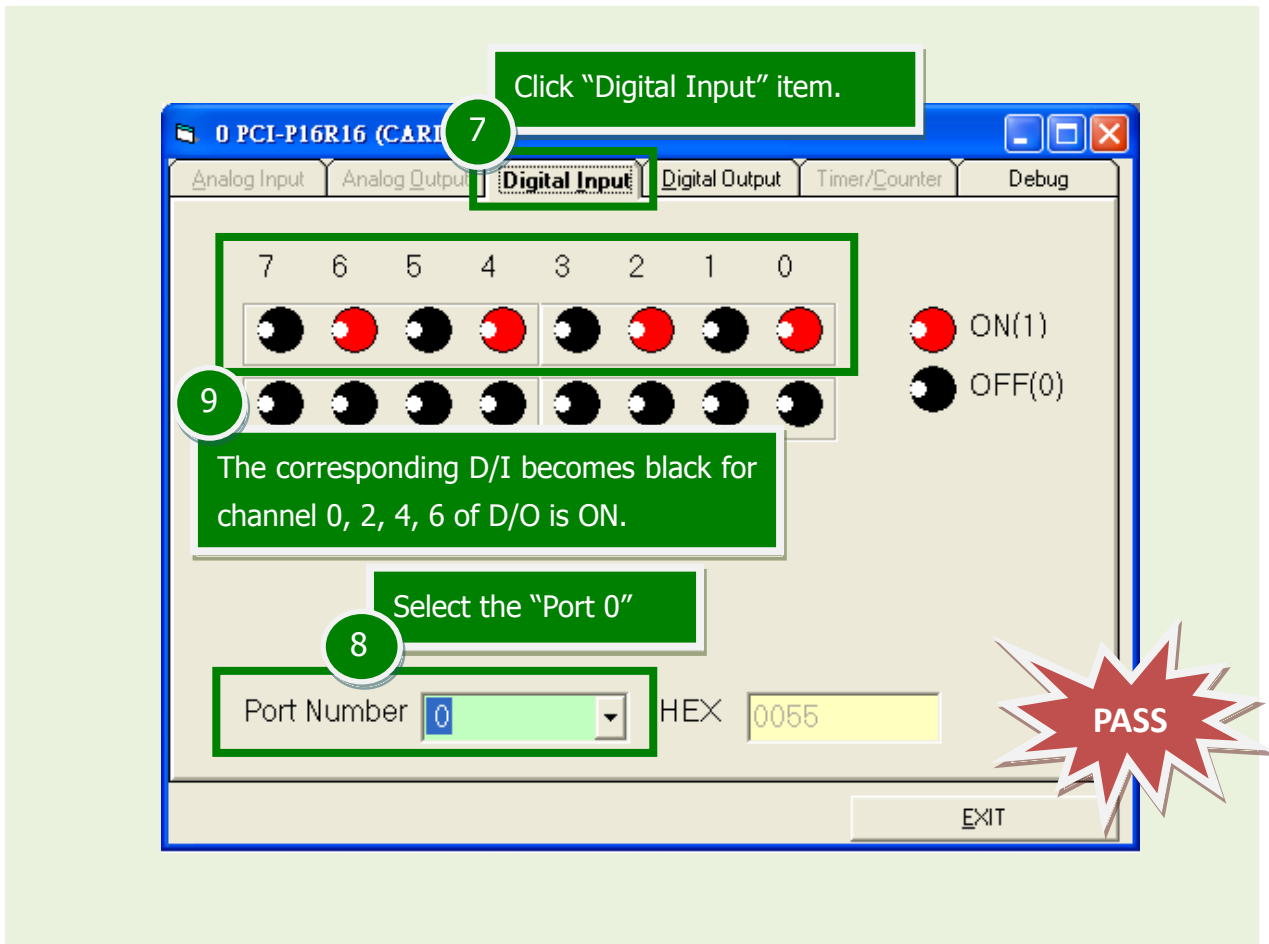
5. Get DIO function test result.

4 Click "Digital Output" item.

5 Select the "Port 0"

6 Check channel 0, 2, 4, 6

The screenshot shows the '0 PCI-P16R16 (CARD ID:F)' window with the 'Digital Output' tab selected. The 'Port Number' dropdown is set to '0'. The 'Digital Output' section shows a row of 8 channels (7-0) with checkboxes for 'ON(1)' and 'OFF(0)'. Callout 6 points to the checkboxes for channels 0, 2, 4, and 6. Callout 5 points to the 'Port Number' dropdown. Callout 4 points to the 'Digital Output' tab.



6 Related Information

- PCI-P8R8U/P16R16U Series Card Product Page:
http://www.icpdas.com/root/product/solutions/pc_based_io_board/pci/pci-p8r8.html
- DN-37, CA-3710 and DP-665 page (optional):
http://www.icpdas.com/products/DAQ/screw_terminal/dn_37.htm
http://www.icpdas.com/products/Accessories/power_supply/dp-665.htm
http://www.icpdas.com/products/Accessories/cable/cable_selection.htm
- Documentation and Software:
 CD:\NAPDOS\PCI\UniDAQ\
<http://ftp.icpdas.com/pub/cd/iocard/pci/napdos/pci/unidaq/>