

Quick Start

for *PCI-P8R8U/P16R16U*

English/ Dec. 2016/ Version 1.1

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Shipping Package

The package includes the following items:

❶ PCI-P8R8U Card x1



❷ Software CD x1



❸ Quick Start (This Document) x1



❹ CA-4002 D-Sub Connector x1



❶ PCI-P16R16U Card x1



❷ Software CD x1



❸ Quick Start (This Document) x1



❹ CA-4037W Cable x1

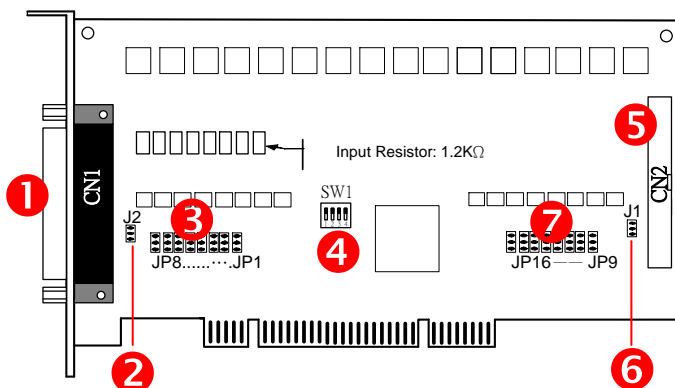


❺ CA-4002 D-Sub Connector x2



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Appearance



1. **CN1:** DIO channel 0-7.
2. **J2:** Set the Ground Isolated Protection
3. **JP1-JP8:** Input Signal Type Jumper (CN1)
4. **SW1:** Card ID Setting.

For PCI-P16R16U only, as follows:

5. **CN2:** DIO channel 8-15
6. **J2:** Set the Ground Isolated Protection
7. **JP9-JP16:** Input Signal Type Jumper (CN2)

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Installing windows Driver

- ➊ Setup the Windows driver, which can be obtained from either the companion CD-ROM or the ICP DAS web site:

The UniDAQ driver supports 32-/64-bit Windows XP/2003/7/8/10; 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/2003/7/8/10. 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/piso-dio/manual/quickstart/classic/>

- ➋ Click the **“Next>”** button to start the installation.
- ➌ Check your I/O Card is or not on supported list, then click the **“Next>”** button.
- ➍ Select the installed folder, the default path is **C:\ICPDAS\UniDAQ** , confirm and click the **“Next>”** button.
- ➎ Check your I/O Card on list, then click the **“Next>”** button.
- ➏ Click the **“Next>”** button on the Select Additional Tasks window.
- ➐ Click the **“Next>”** button on the Download Information window.
- ➑ Select **“No, I will restart my computer later”** and then click the **“Finish”** button.

For more detailed information about how to install the UniDAQ driver, refer to **“Section 2.2 Install UniDAQ Driver DLL”** of the UniDAQ Software Manual, which can be found in the

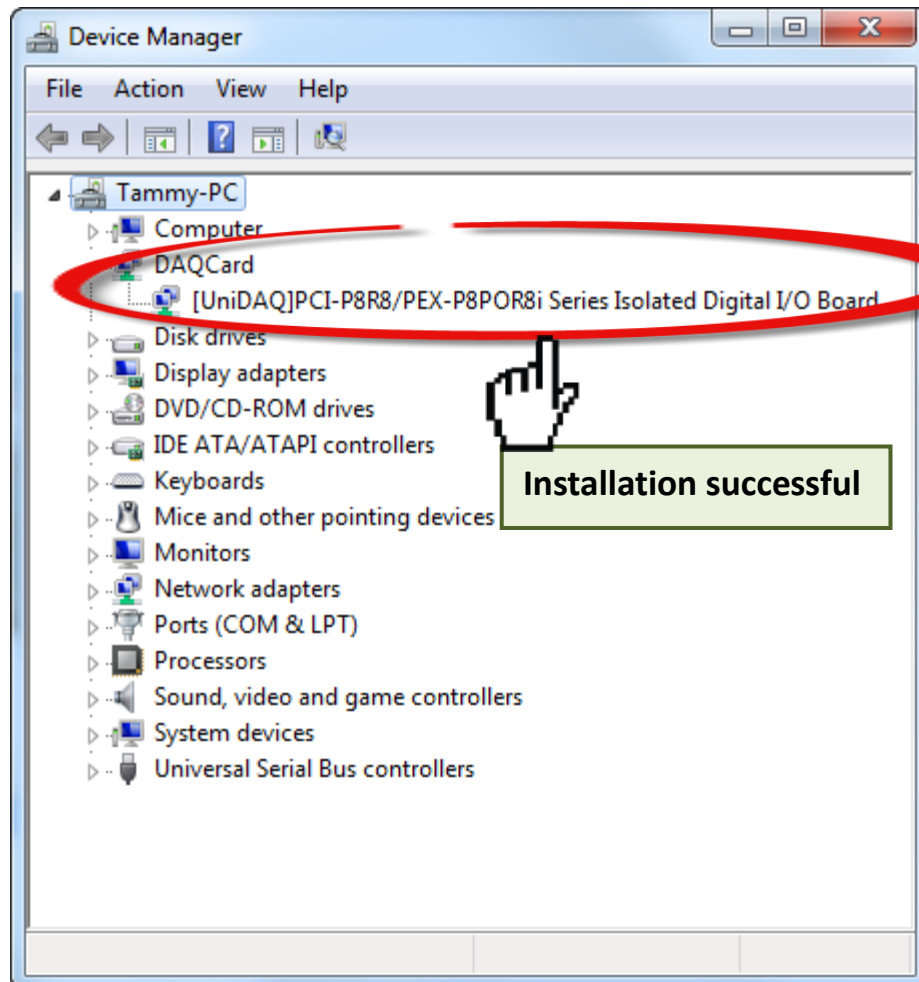
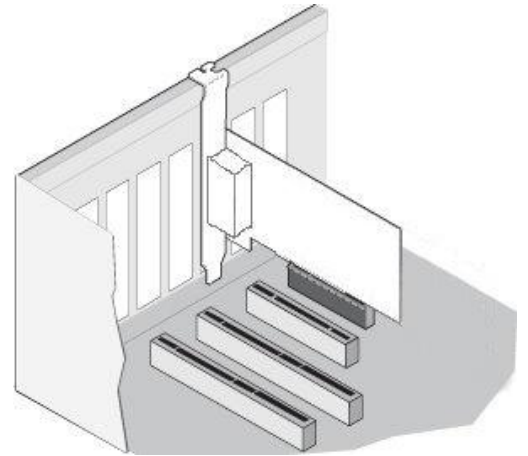
\NAPDOS\PCI\UniDAQ\Manual\ folder on the companion CD, or can be downloaded from:

<http://ftp.icpdas.com/pub/cd/iocard/pci/napdos/pci/unidaq/manual/>

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Installing Hardware on PC


- ❶ Shut down and power off your computer.
- ❷ Remove the cover from the computer.
- ❸ Select an unused PCI slot.
- ❹ Carefully insert your I/O card into the PCI slot.
- ❺ Replace the PC cover.
- ❻ Power on the computer.
- ❼ Follow the prompt message to finish the Plug & Play steps.
- ❽ Please open the **“Device Manager”** to verify the I/O card is correctly listed in the Device Manager.



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Pin Assignments

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



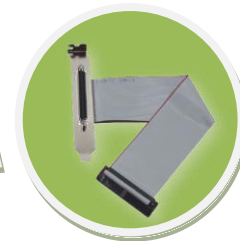
CN1 (Female DB-37)

Pin Assignment	Terminal No.	Pin Assignment
NO_8	01	02 NO_11
COM_8	03	04 COM_11
NC_8	05	06 NC_11
NO_9	07	08 NO_12
COM_9	09	10 COM_12
NC_9	11	12 NO_13
NO_10	13	14 COM_13
COM_10	15	16 NO_14
NC_10	17	18 COM_14
NO_15	19	20 GND
COM_15	21	22 DIB_8
DIA_8	23	24 DIB_9
DIA_9	25	26 DIB_10
DIA_10	27	28 DIB_11
DIA_11	29	30 DIB_12
DIA_12	31	32 DIB_13
DIA_13	33	34 DIB_14
DIA_14	35	36 DIB_15
DIA_15	37	38 N/A
N/A	39	40 N/A



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

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



Notes:

NO:	Normal Open
NC:	Normal Close
COM:	Common
DIA:	Digital Input (Point A)
DIB:	Digital Input (Point B)

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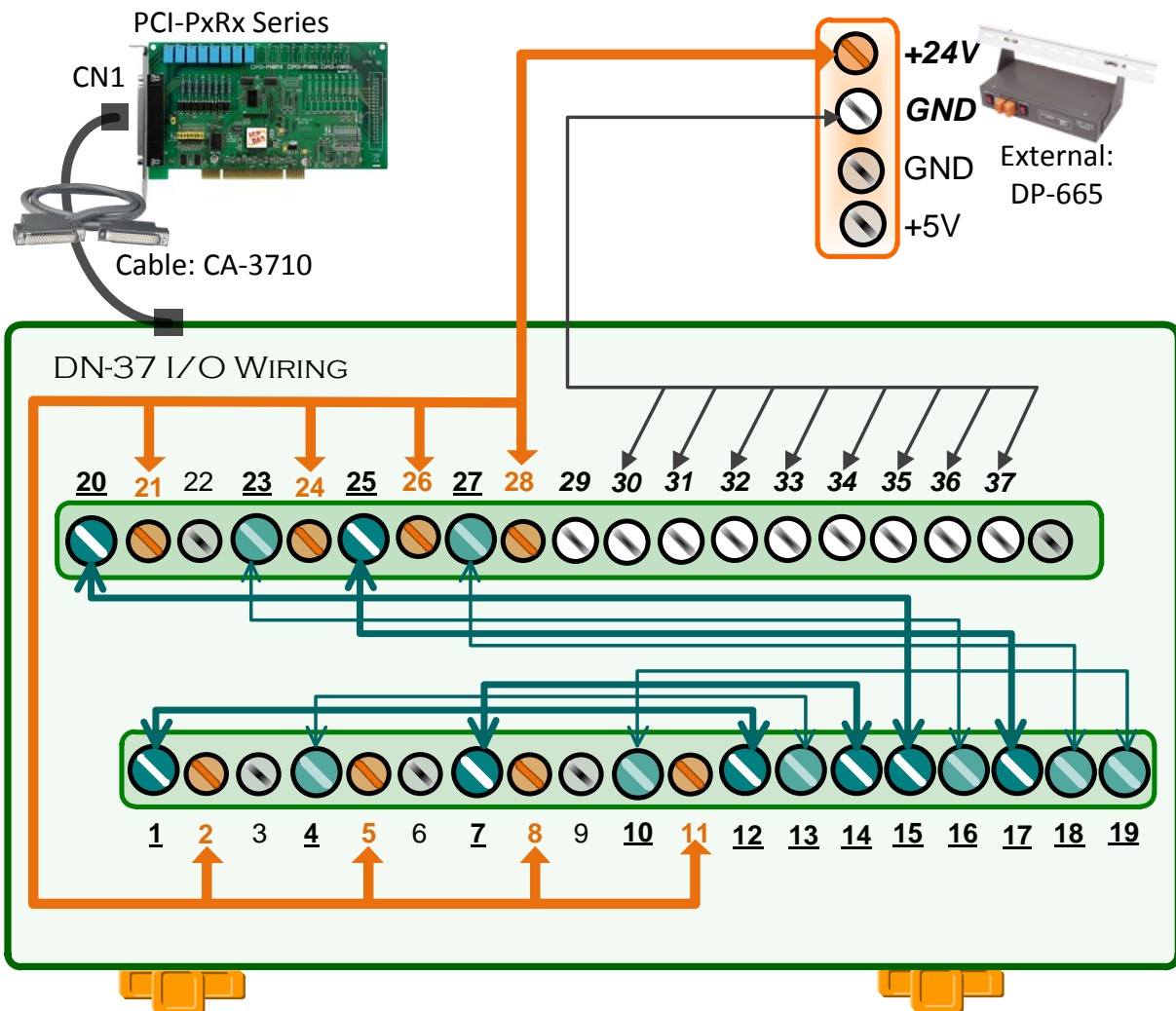
Self-Test

➤ Prepare for device:

- ☑ DN-37 (optional) wiring terminal board
- ☑ Exterior power supply device. For example: DP-665 (optional)
- ☑ CA-3710 (optional) cable

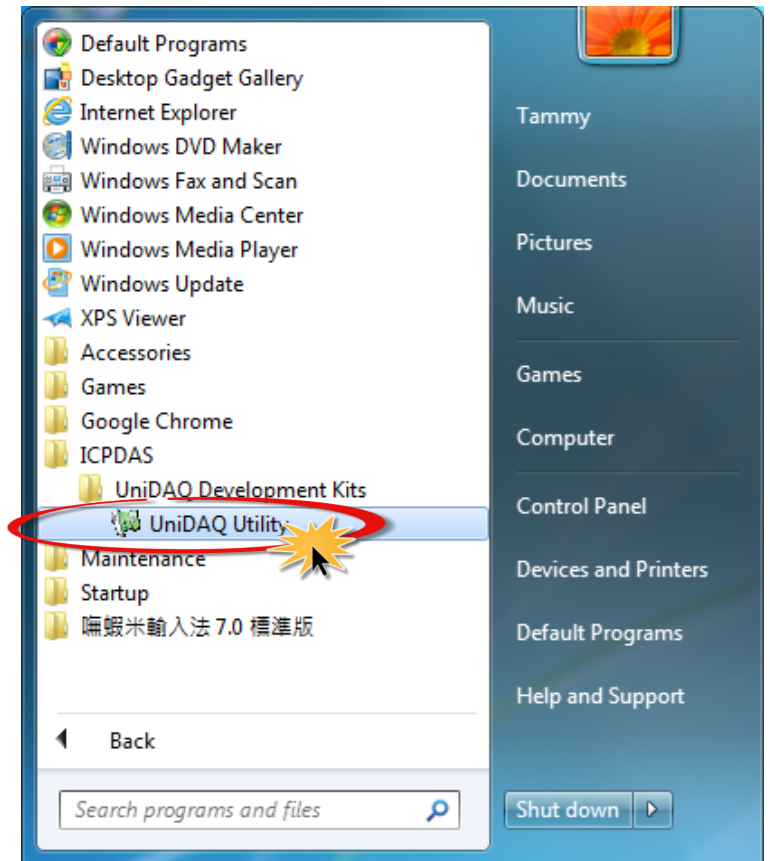
➤ Self-test wiring as follows:

- ❶ Use the **DN-37** to connect the **CN1** on board.
- ❷ 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).
- ❸ **Power Supply (+24 V)** connects to **COM(0-7)** (Pin2/5/8/21/24/26/28/11).
- ❹ **Power Supply GND** connects to **DIB(0-7)** (Pin30/31/32/33/34/35/36/37).



➤ **Execute the UniDAQ Utility as follows:**

❶ In Windows 7, click the “Start” button, point to “All Programs”, and then click the “ICPDAS” folder. Point to “UniDAQ Development Kits” and then click the “UniDAQ Utility” to execute the UniDAQ Utility Program.



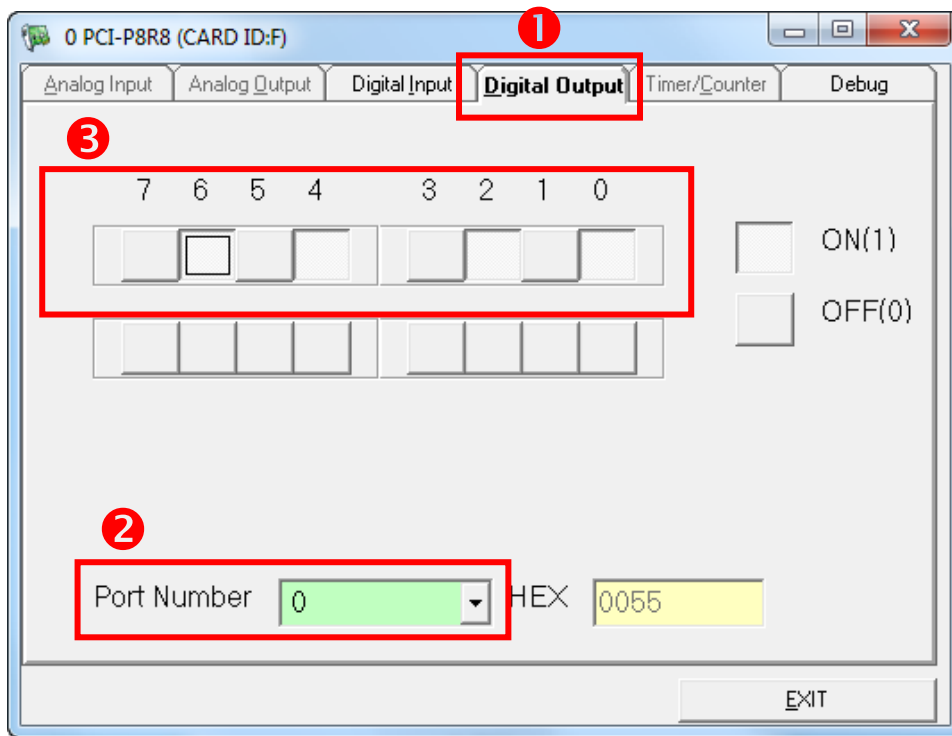
❷ Confirm that PCI-P8R8/P16R16 Series card has been successfully installed in the host system. Note that the device numbers start from 0.

❸ Click the “TEST” button to start the test.

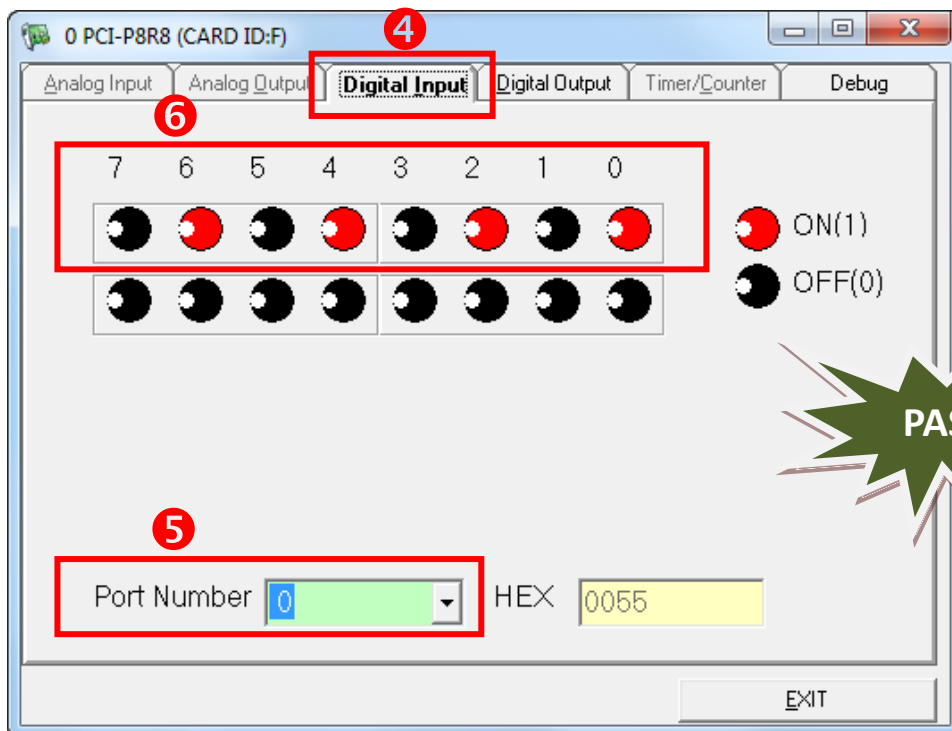


④ Check the results of the **Digital Input/Output** functions test.

1. Click the **“Digital Output”** tab.
2. Select **“Port0”** from the **“Port Number”** drop-down menu.
3. Check the checkboxes for **channels 0, 2, 4 and 6**.



4. Click the **“Digital Input”** tab.
5. Select **“Port0”** from the **“Port Number”** drop-down menu.
6. The DI indicators will turn **red** when the corresponding DO channels 0, 2, 4 and 6 are **ON**.



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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/>