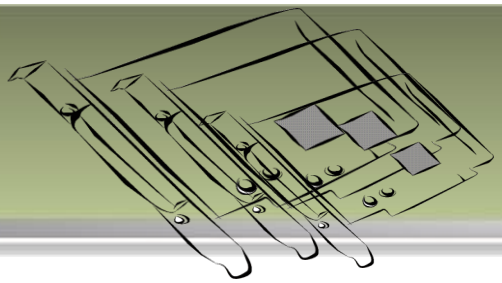
I/O CARD QUICK START GUIDE



For PISO-P16R16U PEX-P8R8i/P16R16i

English/ Jun. 2013/ Version 1.0

PCI Bus Digital I/O Boards

1 What's in the shipping package?

The package includes the following items:

	One PISO-P16R16U series board as follows: - PEX-P8R8i	 PISO-P16R16U  PEX-P16R16i
	One Software Utility CD (V5.2 or later)	
	One Quick Start Guide (This Document)	
	-	One CA-4037B 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 PISO-DIO 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 PISO-P16R16U series boards of regular user, please refer to : http://ftp.icpdas.com/pub/cd/iocard/pci/napdos/pci/piso-dio/manual/quickstart/classic/

Step 2: Click the "Next>" button to start the installation.

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

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

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

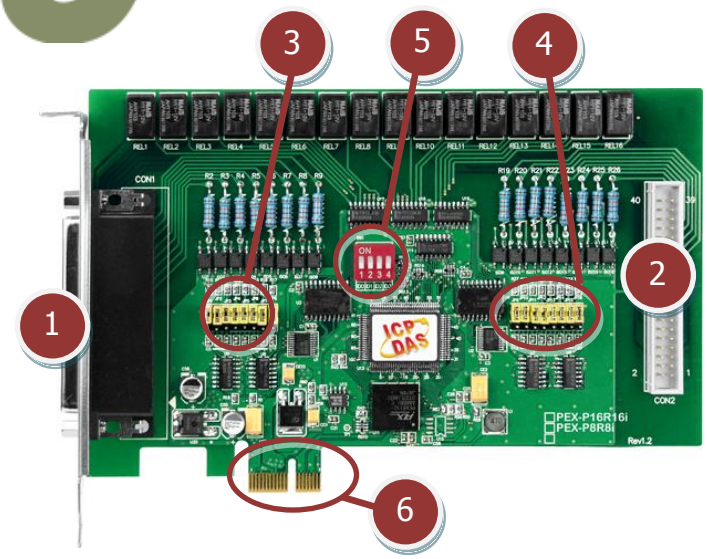
Step 6: Click the "Next>" button on the Select Additional Tasks window.

Step 7: Click the "Next>" button on the Download Information window.

Step 8: Select "No, I will restart my computer later" and then click the "Finish" 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.

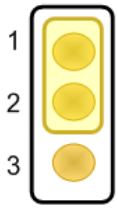
3 Jumper Setting



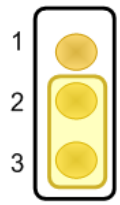
1. **CN1:** D/I/O channel 0-7.
2. **CN2:** D/I/O channel 8-15.
3. **JP1-JP8:** AC Filter Jumpers
4. **JP9-JP16:** AC Filter Jumpers
5. **SW1:** Card ID Setting.
6. **PCI Bus**: for PISO-P16R16U
   PCI Express: for PEX-P8R8i/P16R16i

Please make sure jumper is kept in default setting before self-test.

- **Input Signal Type Jumper**



☑ **Without Filter for DC Signal (Default)**



Without AC Filter for AC Signal

JP1~JP8 and JP9~JP16			
Jumper	**Channel**	**Jumper**	**Channel**
JP1	DI 0	JP9	DI 8
JP2	DI 1	JP10	DI 9
JP3	DI 2	JP11	DI 10
JP4	DI 3	JP12	DI 11
JP5	DI 4	JP13	DI 12
JP6	DI 5	JP14	DI 13
JP7	DI 6	JP15	DI 14
JP8	DI 7	JP16	DI 15

For more detailed jumper and SW1 information, please refer to section 2.2 Jumper and Card ID Switch Settings of the user manual.
(CD:\NAPDOS\PCI\PISO-DIO\manual\)

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

5 Pin Assignments

Pin Assignment CON2	Pin Assignment CON1	Terminal No.	Pin Assignment CON1	Pin Assignment CON2
NO_8	NO_0	01		
COM_8	COM_0	02		
NC_8	NC_0	03		
NO_9	NO_1	04		
COM_9	COM_1	05		
NC_9	NC_1	06		
NO_10	NO_2	07		
COM_10	COM_2	08		
NC_10	NC_2	09		
NO_15	NO_7	10		
COM_15	COM_7	11		
DIA_0	DIA_0	12		
DIA_1	DIA_1	13		
DIA_2	DIA_2	14		
DIA_3	DIA_3	15		
DIA_4	DIA_4	16		
DIA_5	DIA_5	17		
DIA_6	DIA_6	18		
DIA_7	DIA_7	19		
		20	NO_3	NO_11
		21	COM_3	COM_11
		22	NC_3	NC_11
		23	NO_4	NO_12
		24	COM_4	COM_12
		25	NO_5	NO_13
		26	COM_5	COM_13
		27	NO_6	NO_14
		28	COM_6	COM_14
		29	GND	GND
		30	DIB_0	DIB_8
		31	DIB_1	DIB_9
		32	DIB_2	DIB_10
		33	DIB_3	DIB_11
		34	DIB_4	DIB_12
		35	DIB_5	DIB_13
		36	DIB_6	DIB_14
		37	DIB_7	DIB_15

CON1 (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

CON2 (40-pin box header)
(PISO-P16R16U/PEX-P16R16i only)

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

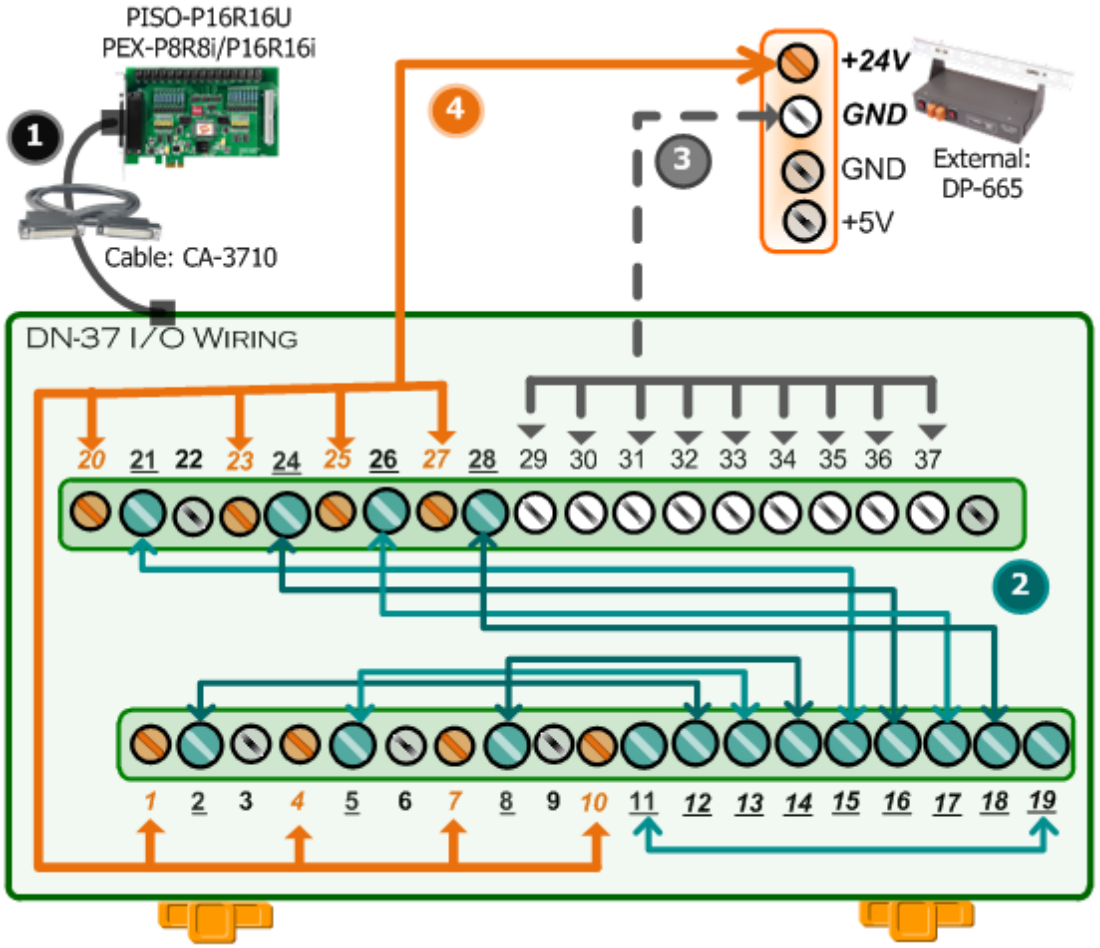
6 Self-Test

Prepare for device:

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

Self-test wiring as follows:

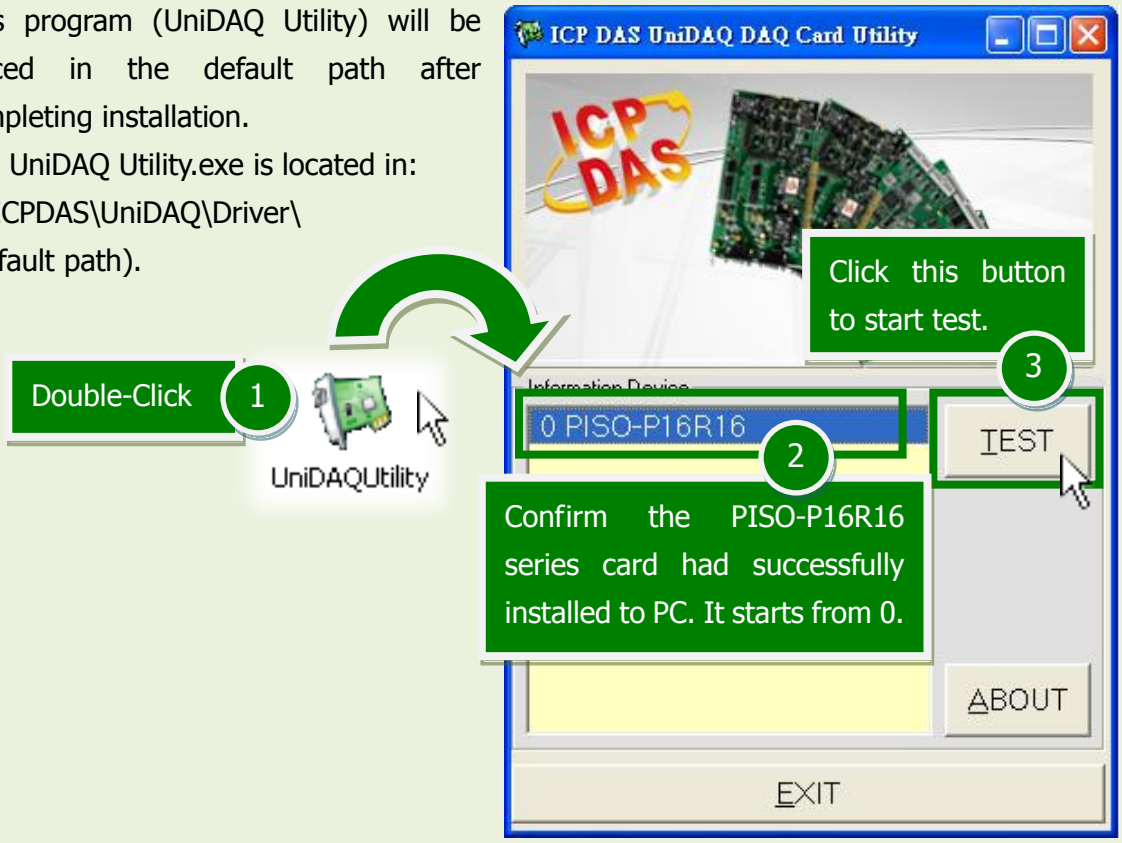
1. **Use the DN-37 to connect the CON1 on board.**
2. **Connect the** COM(0-7) **with** DIA(0-7)**.**
   (Pin2/5/8/21/24/26/28/11 **connects to** Pin12/13/14/15/16/17/18/19).
3. Power Supply GND **connects to** DIB0…DIB7 (Pin30/31/32/33/34/35/36/37)**.**
   Power Supply GND **connects to** GND (Pin29)**.**
4. Power Supply (+24 V) **connects to** NO(0-7) (Pin1/4/7/20/23/25/27/10)**.**



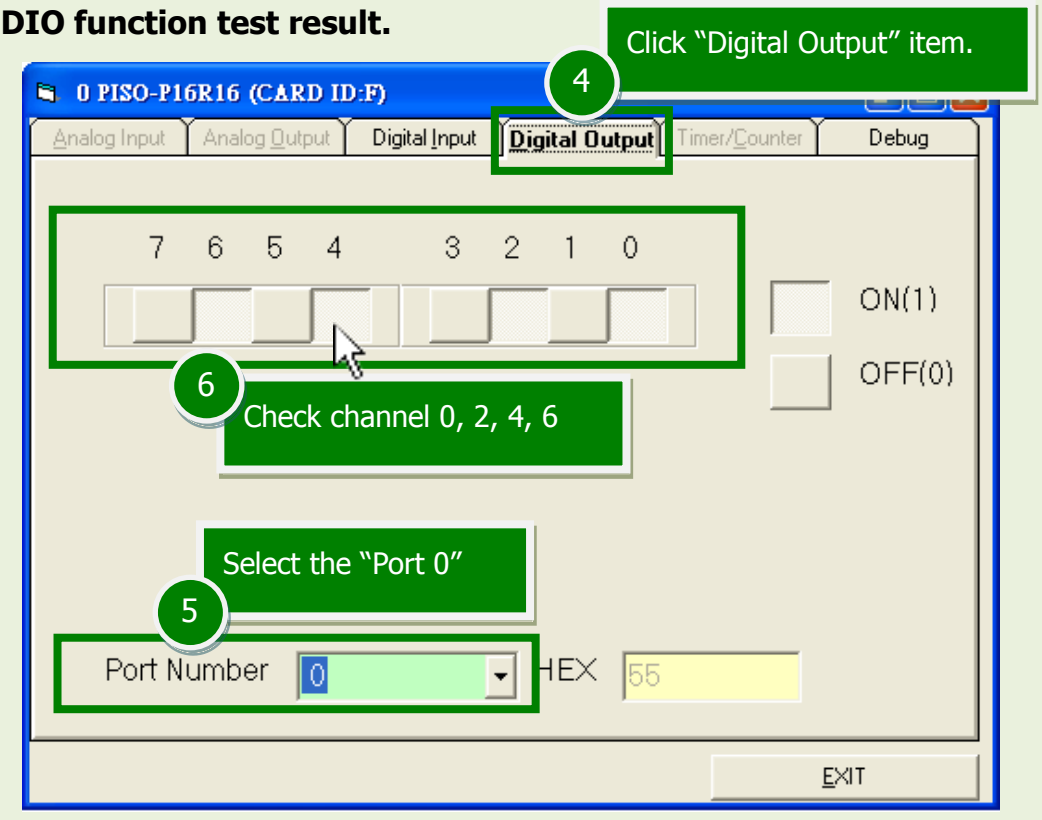
4. Execute the UniDAQ Utility Program.

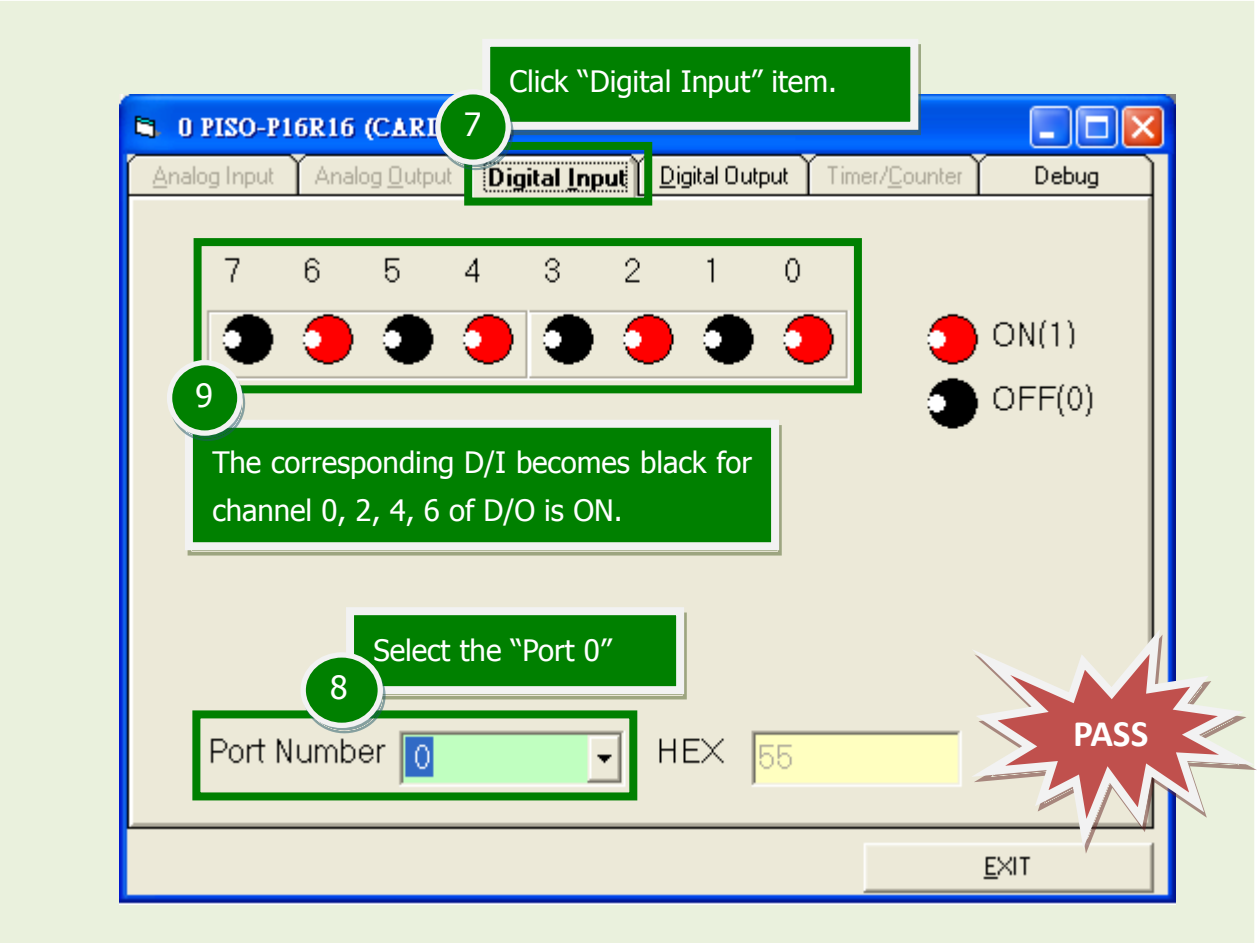
This program (UniDAQ Utility) will be placed in the default path after completing installation.

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



5. Get DIO function test result.





7 Related Information

- PISO-P16R16U and PEX-P8R8i/P16R16i Card Product Page:
  http://www.icpdas.com/root/product/solutions/pc_based_io_board/pci/piso-p16r16u.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/