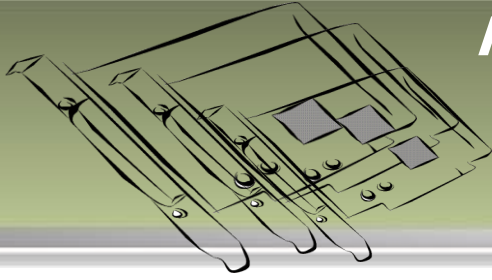


I/O CARD QUICK START GUIDE







For *PEX-DA4/8/16*
PISO-DA4U/8U/16U
PIO-DA4U/8U/16U

English/ Oct. 2013/ Version 1.1

1 What's in the shipping package?

The package includes the following items:

	One PEX-DA, PISO-DAXU and PIO-DAXU series board as follows: PEX-DA series: PEX-DA4, PEX-DA8, PEX-DA16 PISO-DAXU series: PISO-DA4U, PISO-DA8U, PISO-DA16U PIO-DAXU series: PIO-DA4U, PIO-DA8U, PIO-DA16U
	One Software Utility CD (V5.2 or later)
	One Quick Start Guide (This Document)
	One CA-4002 D-Sub connector

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 PIO-DA driver supports Windows 98/NT/2K and 32-bit XP/ 2003/ Vista/7/8. Recommended to install this driver for have been used PIO-DA series boards of regular user, please refer to :
<http://ftp.icpdas.com/pub/cd/iocard/pci/napdos/pci/pio-da/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/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.

4 Pin Assignments

Pin Assignment	Terminal No.	Pin Assignment	Terminal No.	Pin Assignment	Terminal No.	Pin Assignment	Terminal No.
DO 0	01	○ ○	02	DO 1	01	○ ○	02
DO 2	03	○ ○	04	DO 3	03	○ ○	04
DO 4	05	○ ○	06	DO 5	05	○ ○	06
DO 6	07	○ ○	08	DO 7	07	○ ○	08
DO 8	09	○ ○	10	DO 9	09	○ ○	10
DO 10	11	○ ○	12	DO 11	11	○ ○	12
DO 12	13	○ ○	14	DO 13	13	○ ○	14
DO 14	15	○ ○	16	DO 15	15	○ ○	16
GND	17	○ ○	18	GND	17	○ ○	18
+5V	19	○ ○	20	+12V	19	○ ○	20

CON1

Pin Assignment	Terminal No.	Pin Assignment	Terminal No.	Pin Assignment	Terminal No.	Pin Assignment	Terminal No.
DI 0	01	○ ○	02	DI 1	01	○ ○	02
DI 2	03	○ ○	04	DI 3	03	○ ○	04
DI 4	05	○ ○	06	DI 5	05	○ ○	06
DI 6	07	○ ○	08	DI 7	07	○ ○	08
DI 8	09	○ ○	10	DI 9	09	○ ○	10
DI 10	11	○ ○	12	DI 11	11	○ ○	12
DI 12	13	○ ○	14	DI 13	13	○ ○	14
DI 14	15	○ ○	16	DI 15	15	○ ○	16
GND	17	○ ○	18	GND	17	○ ○	18
+5V	19	○ ○	20	+12V	19	○ ○	20

CON2

Pin Assignment	Terminal No.	Pin Assignment	Terminal No.
VO_0	01	IO_0	20
VO_1	02	IO_1	21
VO_2	03	IO_2	22
VO_3	04	IO_3	23
A.GND	05	A.GND	24
VO_4	06	IO_4	25
VO_5	07	IO_5	26
VO_6	08	IO_6	27
VO_7	09	IO_7	28
A.GND	10	A.GND	29
VO_8	11	IO_8	30
VO_9	12	IO_9	31
VO_10	13	IO_10	32
VO_11	14	IO_11	33
A.GND	15	IO_12	34
VO_12	16	IO_13	35
VO_13	17	IO_14	36
VO_14	18	IO_15	37
VO_15	19		

CON3(PISO-DAXU)

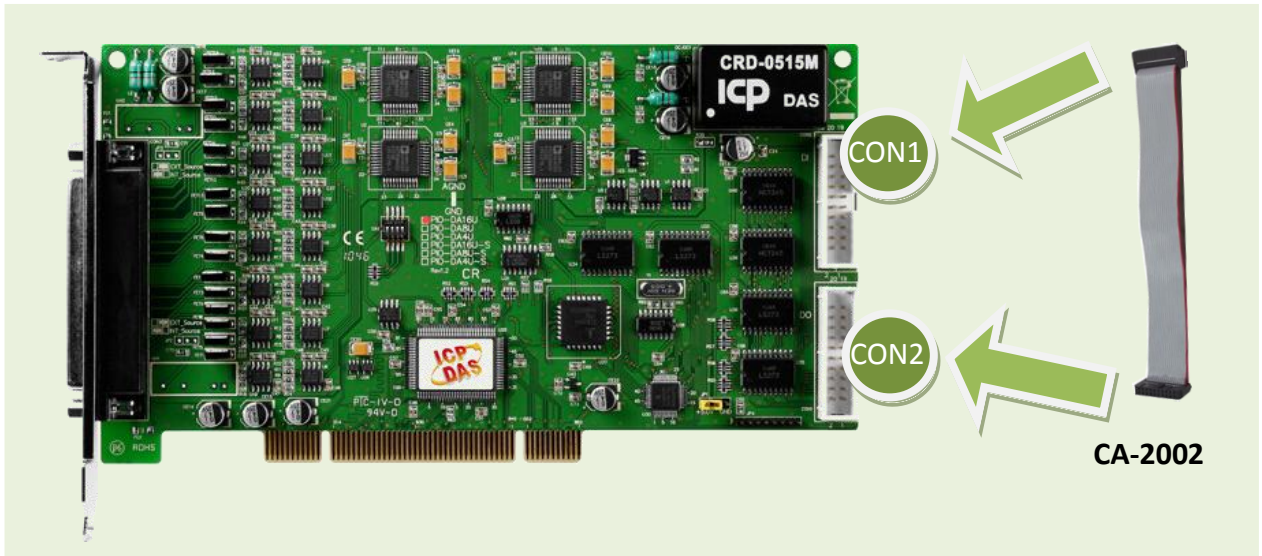
Pin Assignment	Terminal No.	Pin Assignment	Terminal No.
VO_0	01	IO_0	20
VO_1	02	IO_1	21
VO_2	03	IO_2	22
VO_3	04	IO_3	23
A.GND	05	N/A	24
VO_4	06	IO_4	25
VO_5	07	IO_5	26
VO_6	08	IO_6	27
VO_7	09	IO_7	28
A.GND	10	N/A	29
VO_8	11	IO_8	30
VO_9	12	IO_9	31
VO_10	13	IO_10	32
VO_11	14	IO_11	33
A.GND	15	IO_12	34
VO_12	16	IO_13	35
VO_13	17	IO_14	36
VO_14	18	IO_15	37
VO_15	19		

CON3(PEX-DA/PIO-DAXU)

5 Self-Test

■ DIO Test Wiring:

1. Use the CA-2002 (optional) to connect the CON1 with CON2.

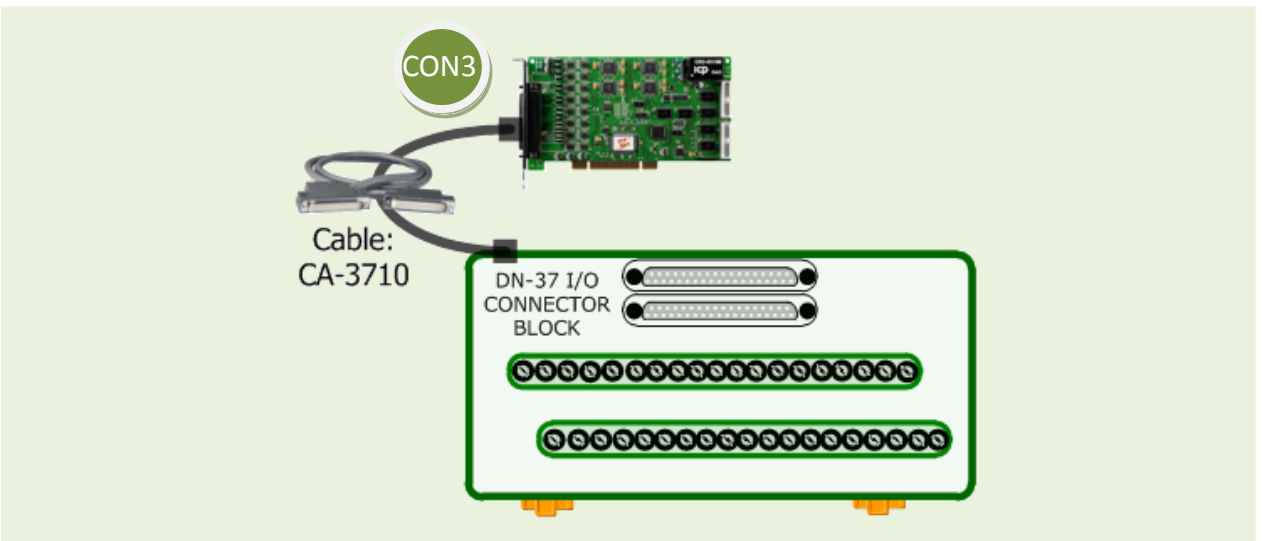


■ Analog Output Test Wiring:

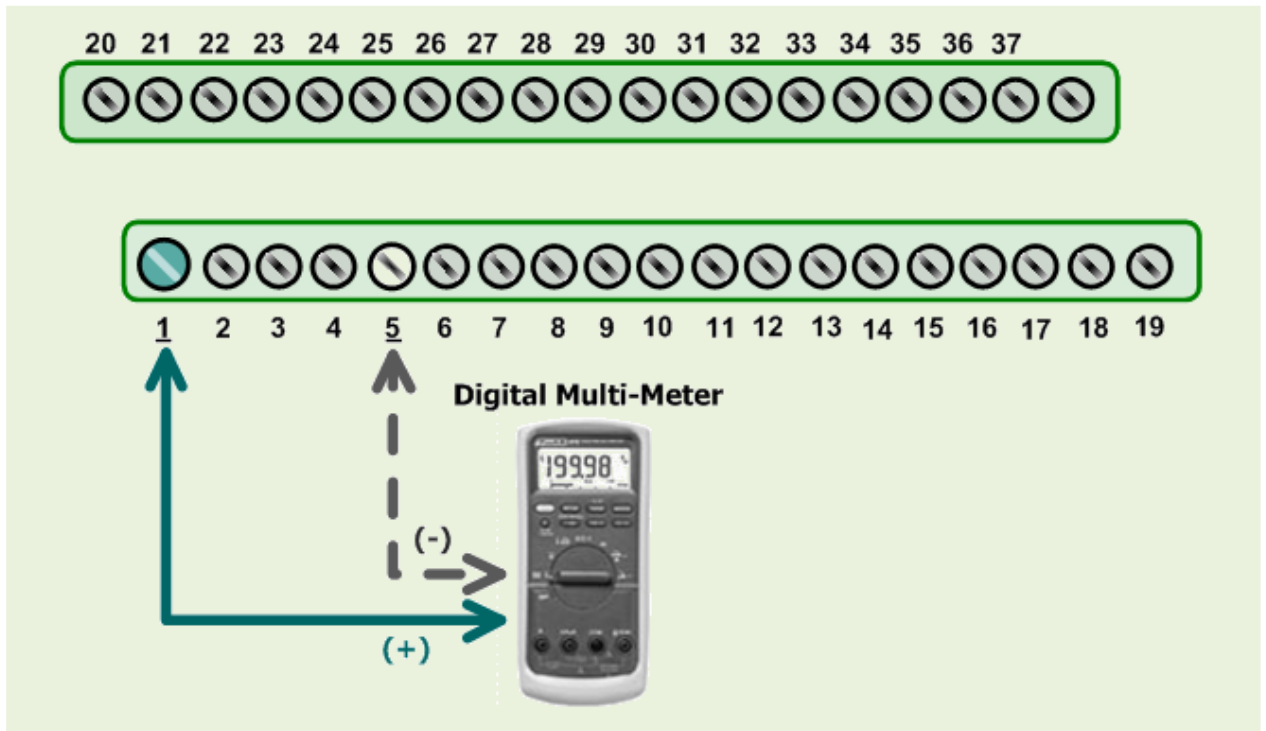
2. Prepare for device:

- DN-37 (optional) Wiring terminal board.
- Digital Multi-Meter.

3. Connect a DN-37 to the CON3.



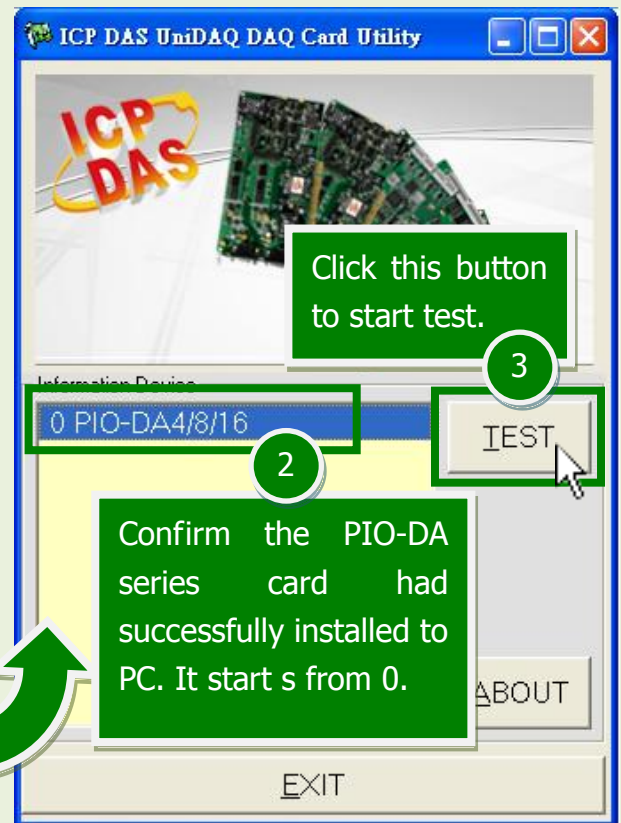
4. Connect the positive probe (+) of Multi-meter to VO 0 (Pin 0), and then the negative probe (-) of Multi-meter to A.GND (Pin 05).



5. Execute the UniDAQ Utility Program.

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

Default Path:
C:\ICPDAS\UniDAQ\Driver\



6. Get DIO function test result.

4 Click "Digital Output" item.

6 Check channel 0, 2, 4, 6

5 Select the "Port 0"

Port Number 0 HEX 55

EXIT

7 Click "Digital Input" item.

9 The corresponding D/I becomes red for channel 0, 2, 4, 6 of D/O is ON.

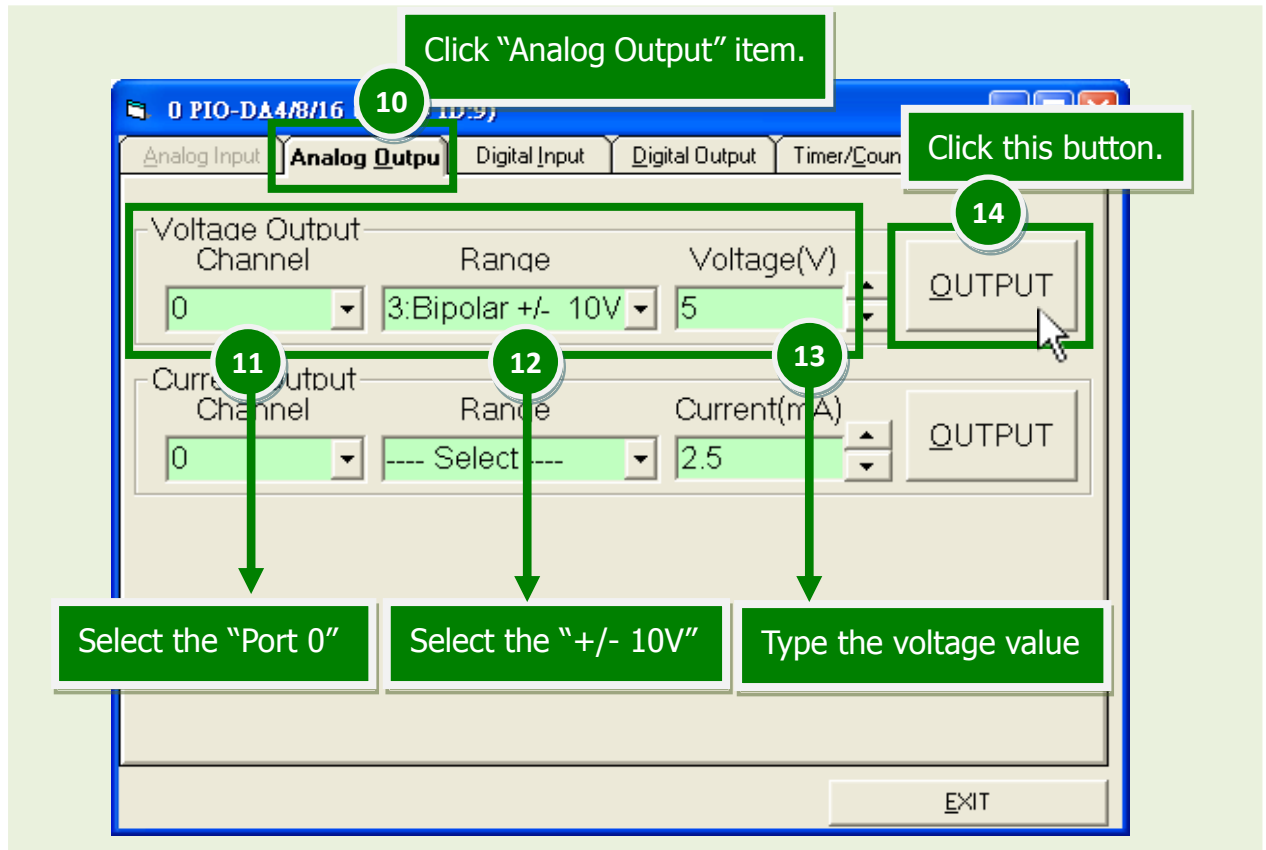
8 Select the "Port 0"

Port Number 0 HEX 55

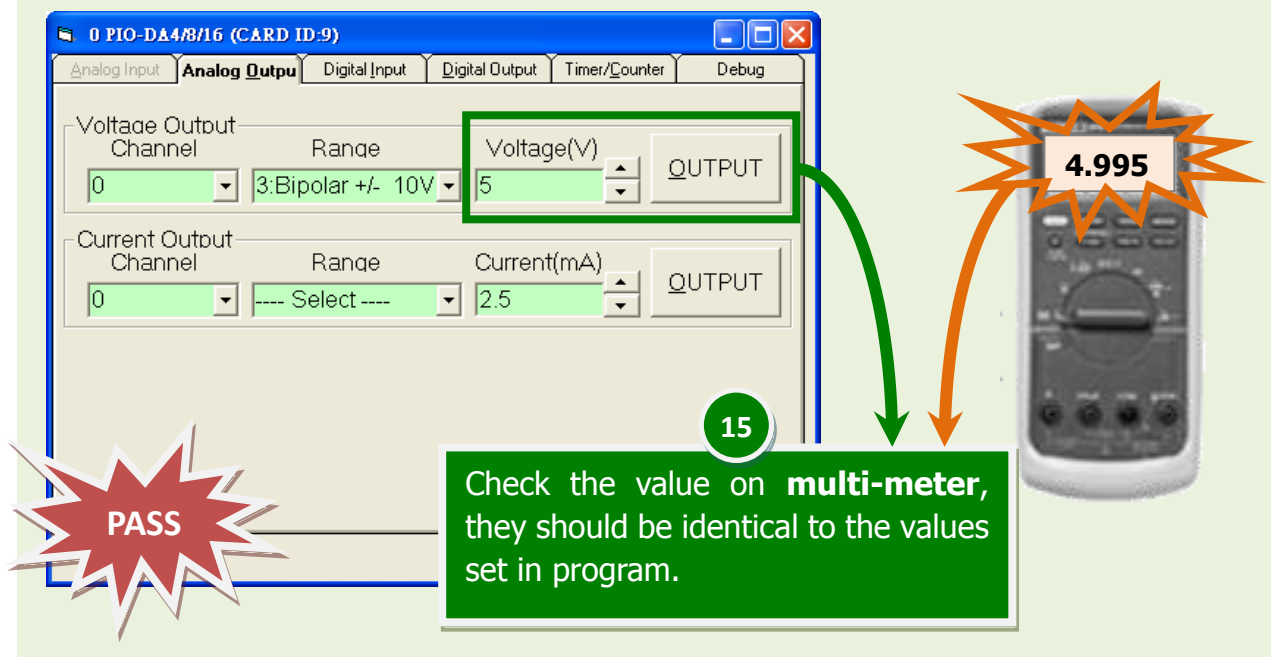
EXIT

PASS

7. Get Analog Output function test result.



The value read on meter may be a little difference from the DA value because of the resolution limit of meter or the measurement error.



6

Related Information

- PEX-DAX, PIO-DAXU and PISO-DAXU Series Card Product Page:
http://www.icpdas.com/root/product/solutions/pc_based_io_board/pci/pio-da4.html
- CA-2002, CA-3710 and DN-37 page (optional):
http://www.icpdas.com/products/Accessories/cable/cable_selection.htm
http://www.icpdas.com/products/DAQ/screw_terminal/dn_37.htm
- Documentation and Software:
CD:\NAPDOS\PCI\UniDAQ\
<http://ftp.icpdas.com/pub/cd/iocard/pci/napdos/pci/unidaq/>