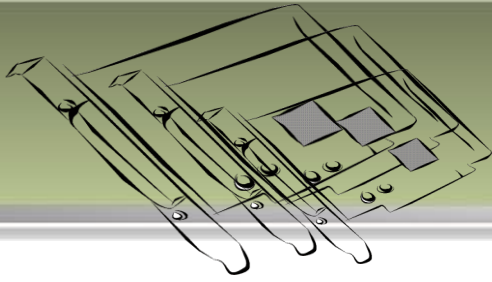


I/O CARD QUICK START GUIDE

For PISO-P32S32WU

English/ Jun. 2013/ Version 1.3



1 What's in the shipping package?

The package includes the following items:



One PISO-P32S32WU PCI Board.



One Software Utility CD (V5.2 or later)



One Quick Start Guide (This Document)



One CA-4037B Cable



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-DIO 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.


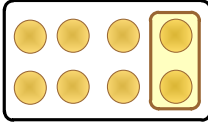
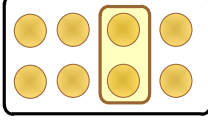
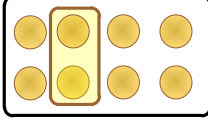
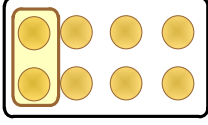
Step 6: Click the "Next>" button on the **Select Additional Tasks window.**

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 Card ID Jumper Setting

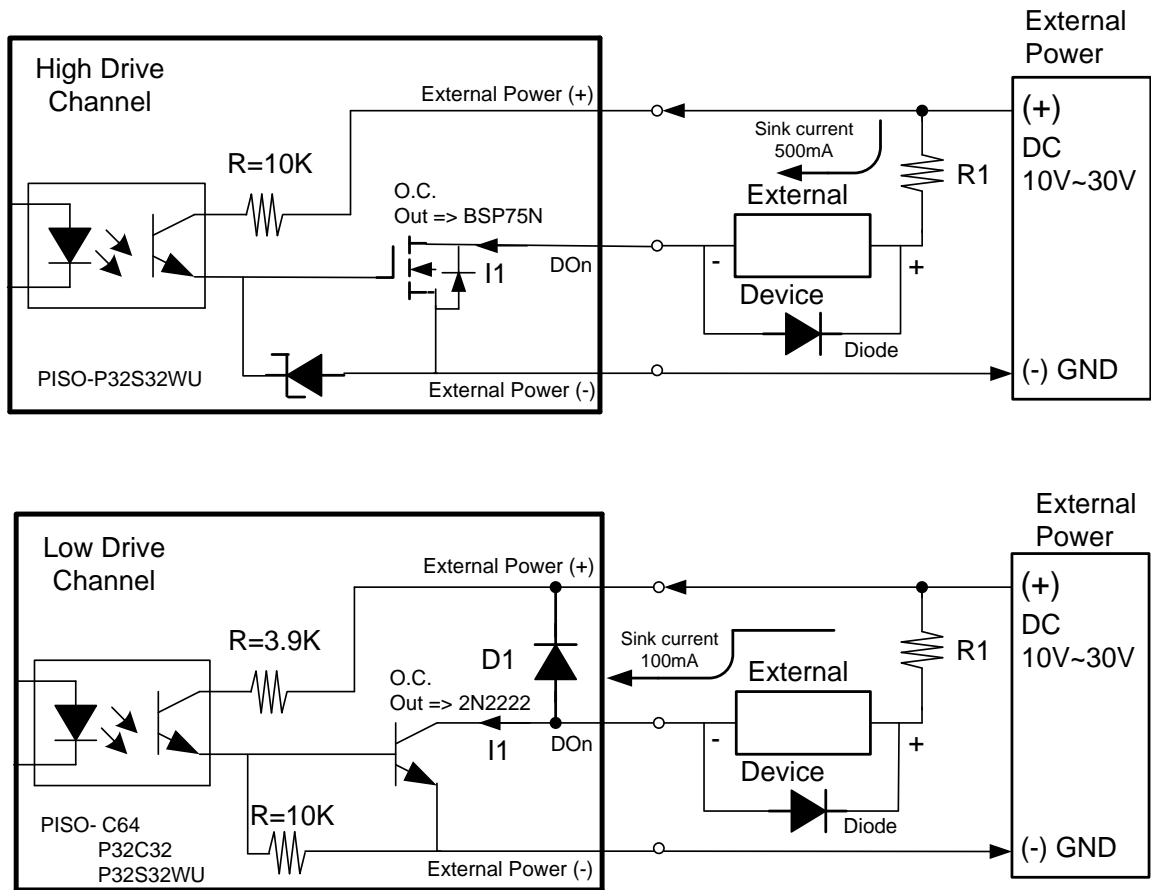
Name	PISO-P32S32WU		
Jumper	JP5		
	<input checked="" type="checkbox"/>		Device 0 (Default Setting)
	<input type="checkbox"/>		Device 1
	<input type="checkbox"/>		Device 2
	<input type="checkbox"/>		Device 3

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 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.

5 Wiring Note



O.C Output Type and Notice!!

High Driving Channel: Open collector N-channel Power FET (BPS75N). Max. Sink current (NPN) is 500mA for each channel. DO_0~3 & DO_16~19.

Low Driving Channel: Open collector NPN/PNP Transistor. Max. Sink Current is 100mA for Each Channel DO_4~15 & DO_20~31.


(※Recommend: It is necessary to connect a diode in the External Device end as means of preventing damage from the counter emf. If your External Device is inductive Load, Ex. Relay...)

! To prevent the board damaged forever by overload, the GND pins (CON1: pin 1/ 18/ 19/ 20, CON2: pin 1/ 18/ 19/ 20) all must be connected with GND of External Power.

6

Pin Assignments

Pin Assignment CON2	Pin Assignment CON1	Terminal No.	Pin Assignment CON1	Pin Assignment CON2
DO EXT GND(-)	DO EXT GND(-)	01		
DI_16	DI_0	02	20	DO EXT GND(-)
DI_17	DI_1	03	21	DO0 for high drive
DI_18	DI_2	04	22	DO1 for high drive
DI_19	DI_3	05	23	DO2 for high drive
DI_20	DI_4	06	24	DO3 for high drive
DI_21	DI_5	07	25	DO_4
DI_22	DI_6	08	26	DO_5
DI_23	DI_7	09	27	DO_6
DI_24	DI_8	10	28	DO_7
DI_25	DI_9	11	29	DO_8
DI_26	DI_10	12	30	DO_9
DI_27	DI_11	13	31	DO_10
DI_28	DI_12	14	32	DO_11
DI_29	DI_13	15	33	DO_12
DI_30	DI_14	16	34	DO_13
DI_31	DI_15	17	35	DO_14
GND for High drive	GND for High drive	18	36	DO_15
GND for High drive	GND for High drive	19	37	DO EXT POWER(+)



CON1/CON2 (Female DB-37)

Pin Assignment	Terminal No.	Pin Assignment
DO EXT GND(-)	01	DO EXT GND(-)
DI_16	03	DO16 for high drive
DI_17	05	DO17 for high drive
DI_18	07	DO18 for high drive
DI_19	09	DO19 for high drive
DI_20	11	DO_20
DI_21	13	DO_21
DI_22	15	DO_22
DI_23	17	DO_23
DI_24	19	DO_24
DI_25	21	DO_25
DI_26	23	DO_26
DI_27	25	DO_27
DI_28	27	DO_28
DI_29	29	DO_29
DI_30	31	DO_30
DI_31	33	DO_31
GND for High drive	35	DO EXT Power(+)
GND for High drive	37	N/A
N/A	39	N/A

CON2 (40-pin box header)



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



7 Self-Test

■ Prepare for device:

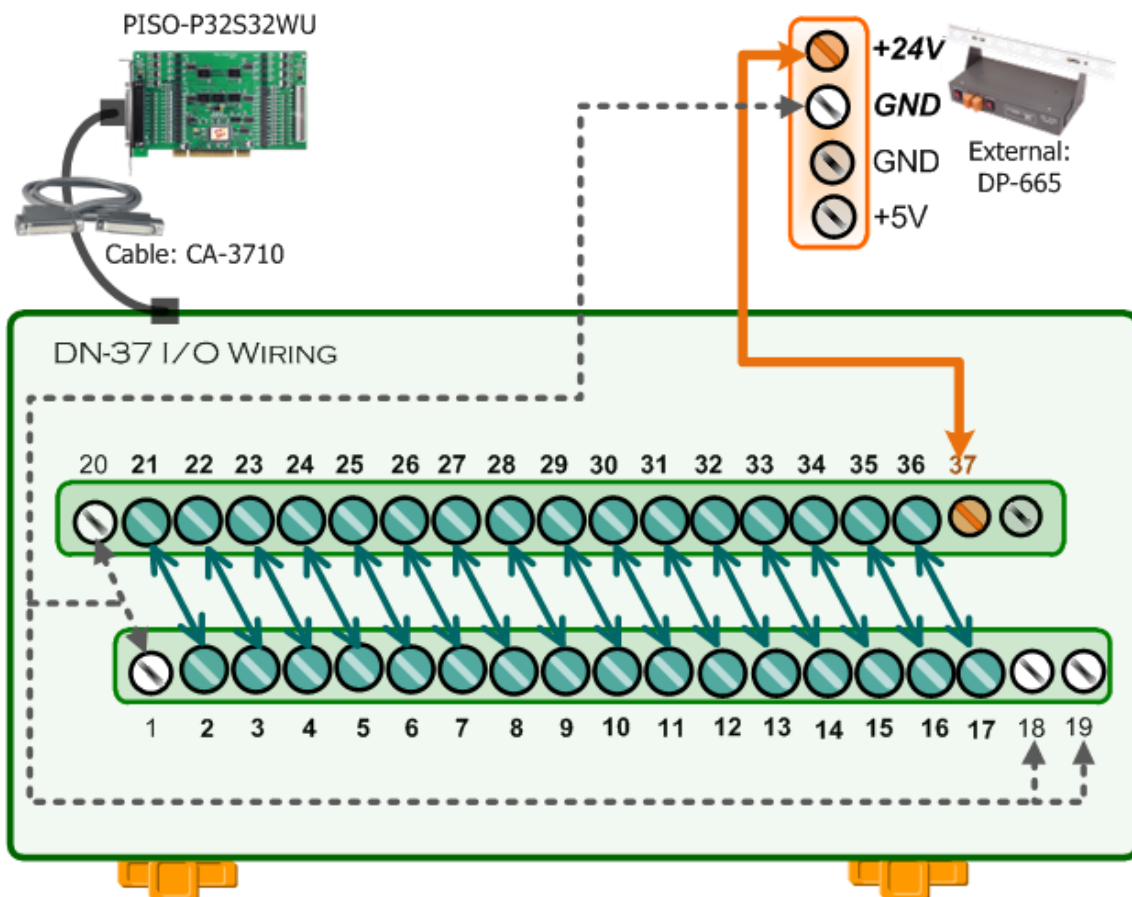
- ☑ DN-37 (optional) wiring terminal board.
- ☑ Exterior power supply device. For example: DP-665 (optional)

■ Self-test wiring as follows:

1. Use the DN-37 to connect the CON1 on board.
2. Connect the **DI(0-15)** with **DO(0-15)**. (DI0 with DO0 ... DI15 with DO15)
3. Power Supply (+24 V) connects to DO External Power (Pin37).
4. Power Supply GND connects to DO External Power GND (Pin1 and Pin20).
Power Supply GND connects to GND for High Driver (Pin18 and Pin19).



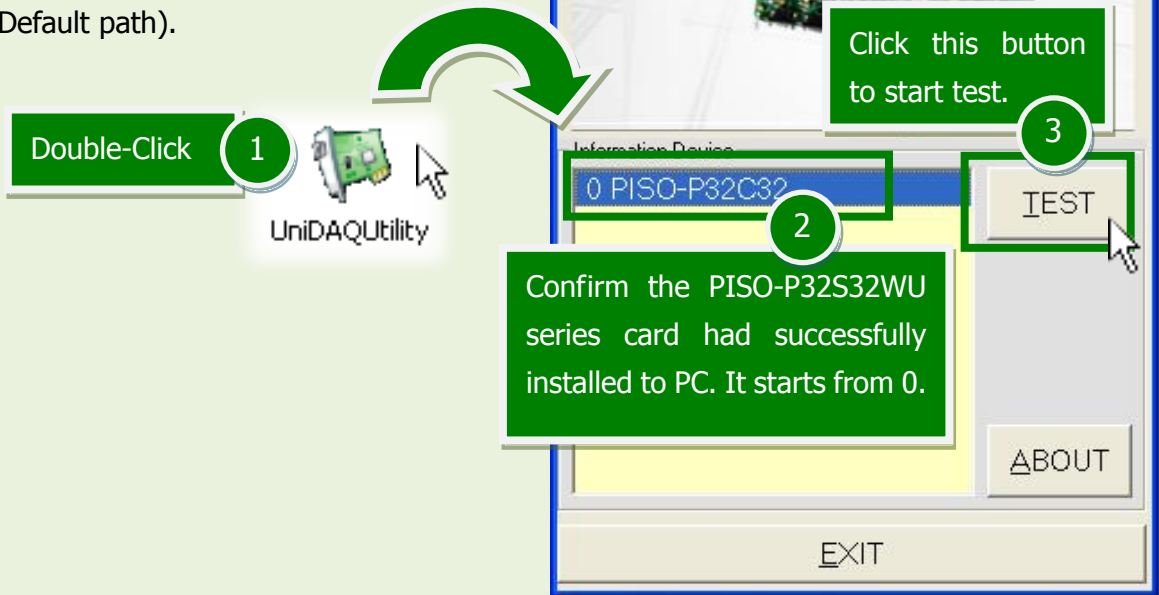
Suggested that use external power for upwards of +12 V.



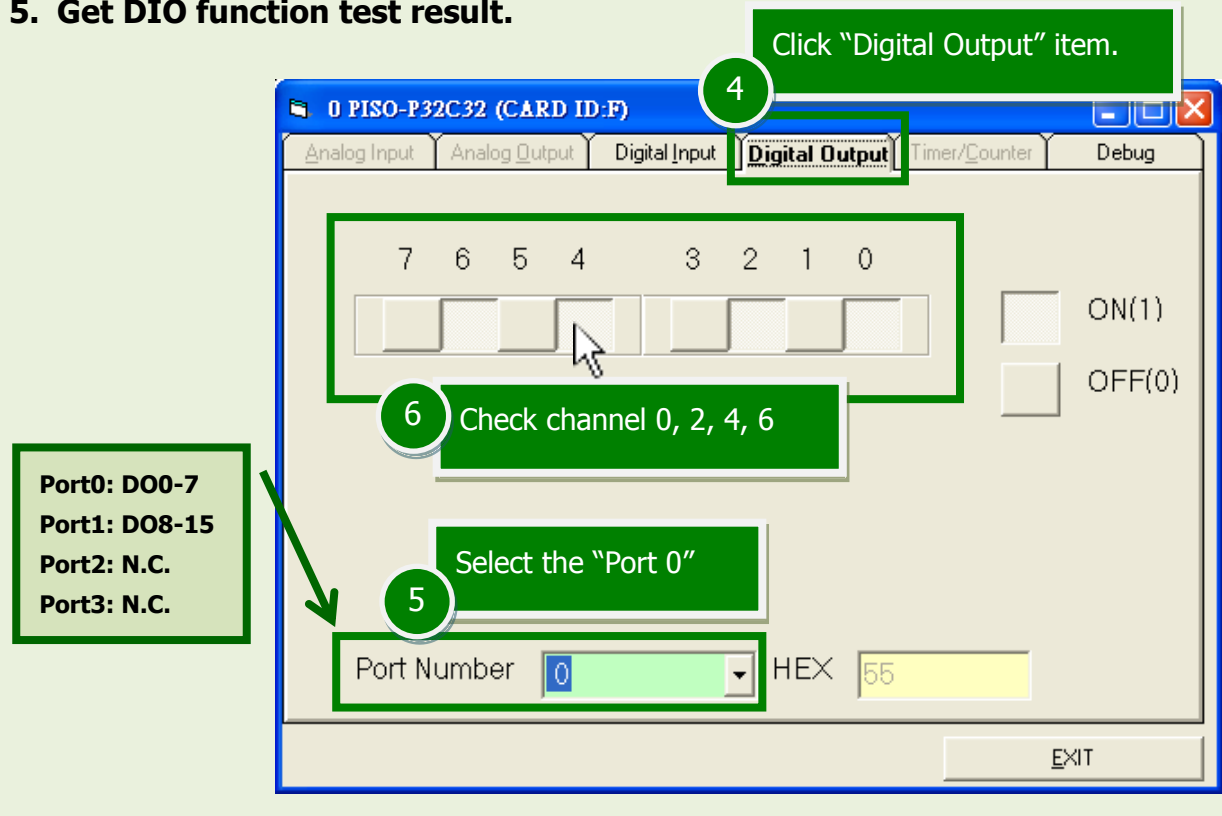
4. Execute the UniDAQ Utility Program.

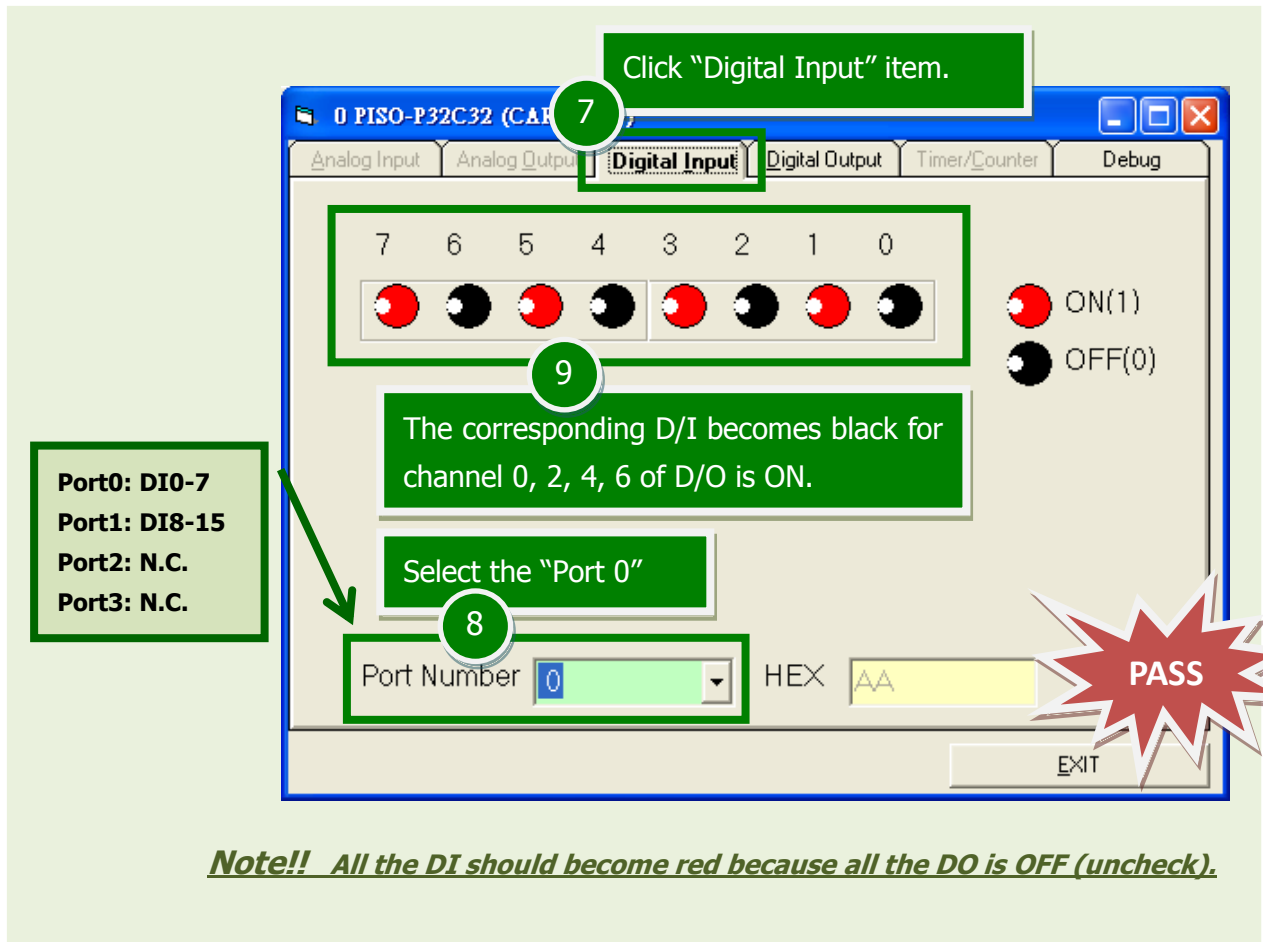
This program (UniDAQ Utility) will be placed in the default path after completing installation.

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



5. Get DIO function test result.





0 PISO-P32C32 (CA...

Click "Digital Input" item.

7

Analog Input Analog Output **Digital Input** Digital Output Timer/Counter Debug

7 6 5 4 3 2 1 0

9

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

Select the "Port 0"

8

Port Number 0 HEX AA

PASS

EXIT

Port0: DI0-7
Port1: DI8-15
Port2: N.C.
Port3: N.C.

ON(1)
OFF(0)

Note!! All the DI should become red because all the DO is OFF (uncheck).

8 Related Information

- PISO-P32S32WU Card Product Page:
http://www.icpdas.com/root/product/solutions/pc_based_io_board/pci/piso-p32s32wu.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\DLL\
<http://ftp.icpdas.com/pub/cd/iocard/pci/napdos/pci/unidaq/>