PISO-A64U Quick Start

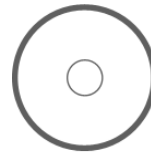**v1.0, October 2017**

What's in the box?

The package includes the following items:

PISO-A64U x1

Quick Start x1
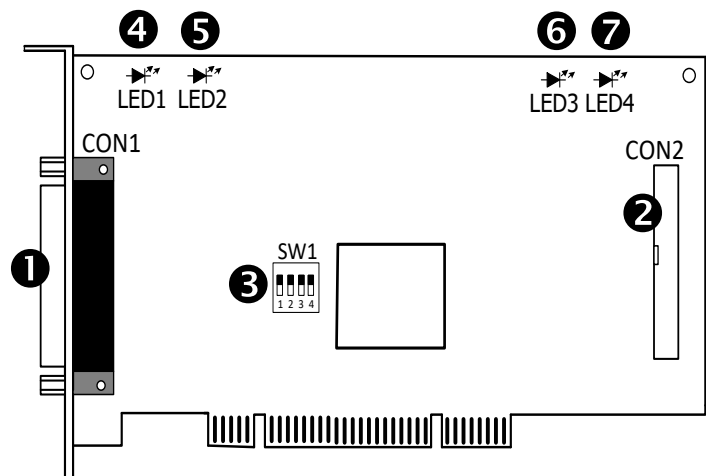(This Document)

Software Utility CD x1
(V6.7 or later)

CA-4037B Cable x1

CA-4002 D-Sub
Connectors x2

1 Appearance

1. **CON1:** DO channel 0~31

2. **CON2:** DO channel 32~63

3. **SW1:** Card ID Settings

4. **LED1:** DO0~15 Power indicator

5. **LED2:** DO16~31 Power indicator

6. **LED3:** DO32~47 Power indicator

7. **LED4:** DO48~63 Power indicator

2 Installing Windows Driver

1) Setup the Windows dirver. The driver is located at:

☑	The UniDAQ driver supports 32-/64-bit Windows XP/2003/Vista/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 PISO-DIO Series classic driver supports Windows 98/NT/2K and 32-bit XP/ 2003/ Vista/7/8/10. 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/

2) Click the **"Next>"** button to start the installation.

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

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

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

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

7) Click the **"Next>"** button on the Download Information window.

8) Select **"No, I will restart my computer later"** and then click the **"Finish"** button.
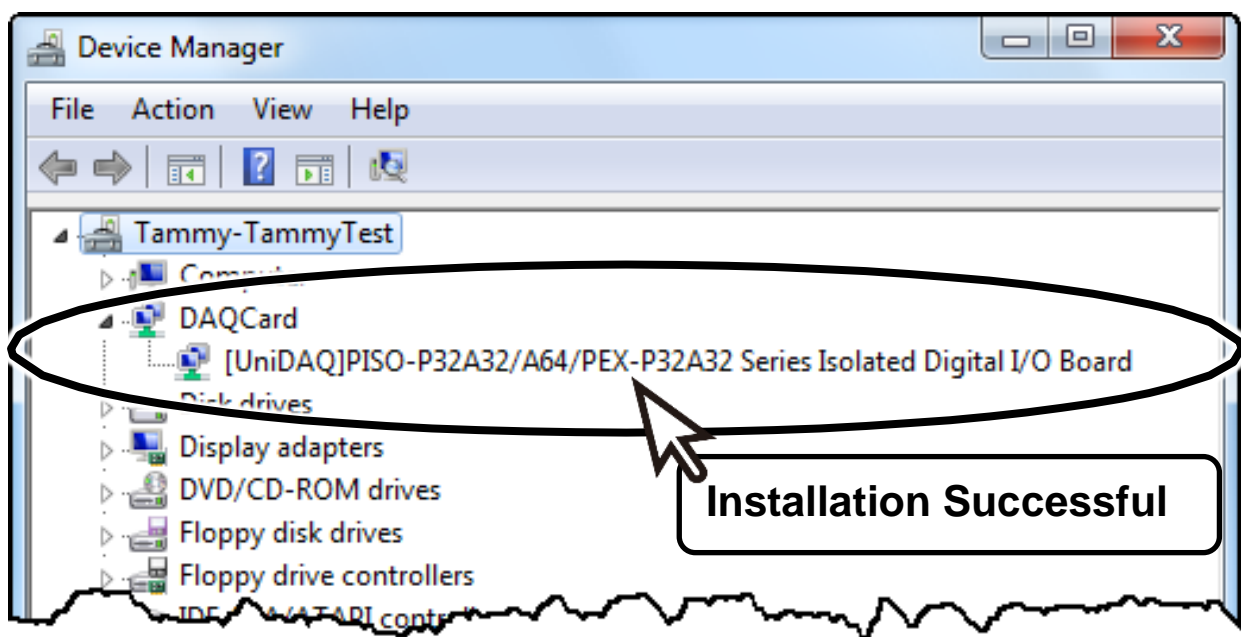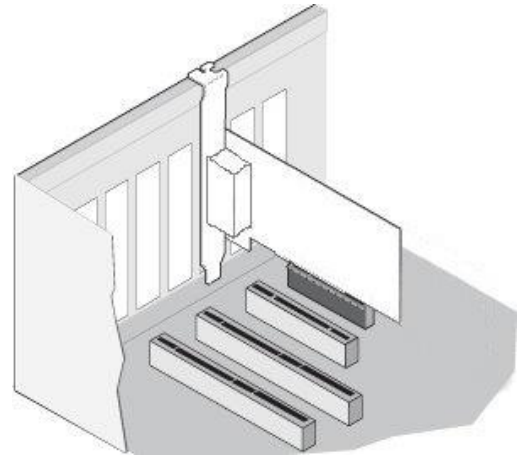

Note: For more detailed information about how to install the UniDAQ driver, refer to "Section 2.2 Install UniDAQ Driver DLL" **of the UniDAQ Software Manual, which can be found in the** \NAPDOS\PCI\UniDAQ\Manual\ folder **on the companion CD, or can be downloaded from:**
http://ftp.icpdas.com/pub/cd/iocard/pci/napdos/pci/unidaq/manual/

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3 Installing Hardware on PC

1) Shut down and power off your computer.

2) Remove the cover from the computer.

3) Select an unused PCI bus slot.

4) Carefully insert your I/O card into the PCI bus slot.

5) Replace the PC cover.

6) Power on the computer.

7) Follow the prompt message to finish the Plug & Play steps.

8) Please open the **"Device Manager"** to verify the I/O card is correctly listed in the Device Manager.

Installation Successful

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4 Pin Assignments

CON1 (Female DB-37)

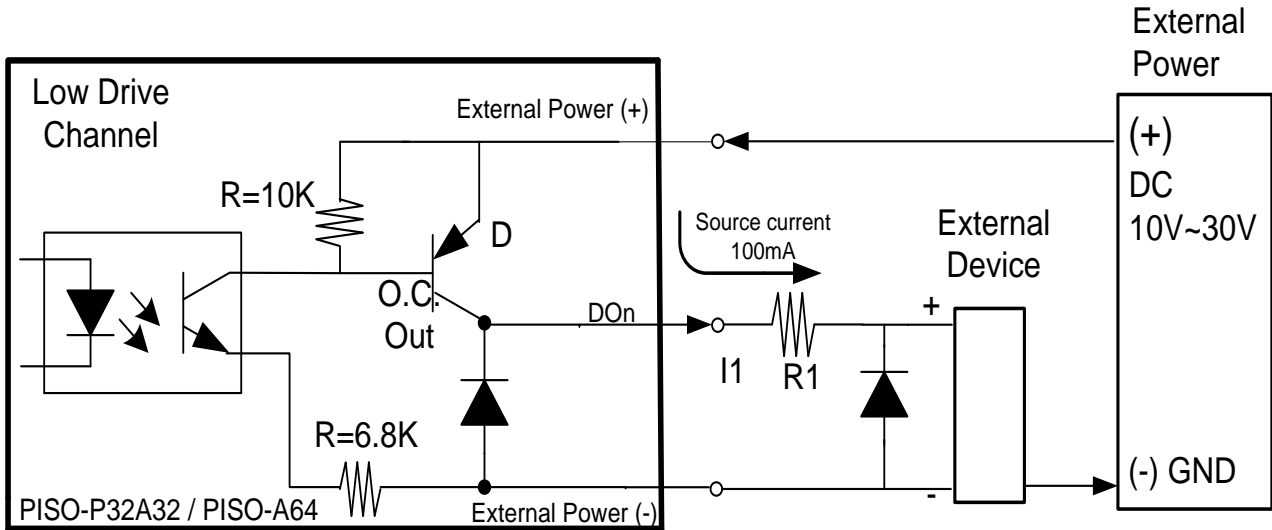| Pin Assignment CON2	Pin Assignment CON1	Terminal No.	Terminal No.	Pin Assignment CON1	Pin Assignment CON2
Ext. GND2	Ext. GND0	01			
DO 32	DO 0	02	20	Ext. GND1	Ext. GND1
DO 33	DO 1	03	21	DO 16	DO 48
DO 34	DO 2	04	22	DO 17	DO 49
DO 35	DO 3	05	23	DO 18	DO 50
DO 36	DO 4	06	24	DO 19	DO 51
DO 37	DO 5	07	25	DO 20	DO 52
DO 38	DO 6	08	26	DO 21	DO 53
DO 39	DO 7	09	27	DO 22	DO 54
DO 40	DO 8	10	28	DO 23	DO 55
DO 41	DO 9	11	29	DO 24	DO 56
DO 42	DO 10	12	30	DO 25	DO 57
DO 43	DO 11	13	31	DO 26	DO 58
DO 44	DO 12	14	32	DO 27	DO 59
DO 45	DO 13	15	33	DO 28	DO 60
DO 46	DO 14	16	34	DO 29	DO 61
DO 47	DO 15	17	35	DO 30	DO 62
Ext. PWR2	Ext. PWR0	18	36	DO 31	DO 63
N.C.	N.C.	19	37	Ext. PWR1	Ext. PWR3

CON2 (40-pin box header)

Pin Assignment	Terminal No.	Terminal No.	Pin Assignment
Ext. GND2	01	02	Ext. GND3
DO 32	03	04	DO 48
DO 33	05	06	DO 49
DO 34	07	08	DO 50
DO 35	09	10	DO 51
DO 36	11	12	DO 52
DO 37	13	14	DO 53
DO 38	15	16	DO 54
DO 39	17	18	DO 55
DO 40	19	20	DO 56
DO 41	21	22	DO 57
DO 42	23	24	DO 58
DO 43	25	26	DO 59
DO 44	27	28	DO 60
DO 45	29	30	DO 61
DO 46	31	32	DO 62
DO 47	33	34	DO 63
Ext. PWR2	35	36	Ext. PWR3
N.C.	37	38	N.C.
N.C.	39	40	N.C.

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

5 **Wiring Note**

The wiring note of the PISO-A64U is illustrated in the figure below:

※**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…**

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

6 Digital Output Wiring

Prepare for device:

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

1) Use the CA-3710 cable to connect the CON1 on board to the DN-37.
2) **External Power +24V** connect to **Ext.PWR0 (Pin 18)**.
3) **External Power GND** connect to **Ext.GND0 (Pin 1)**.
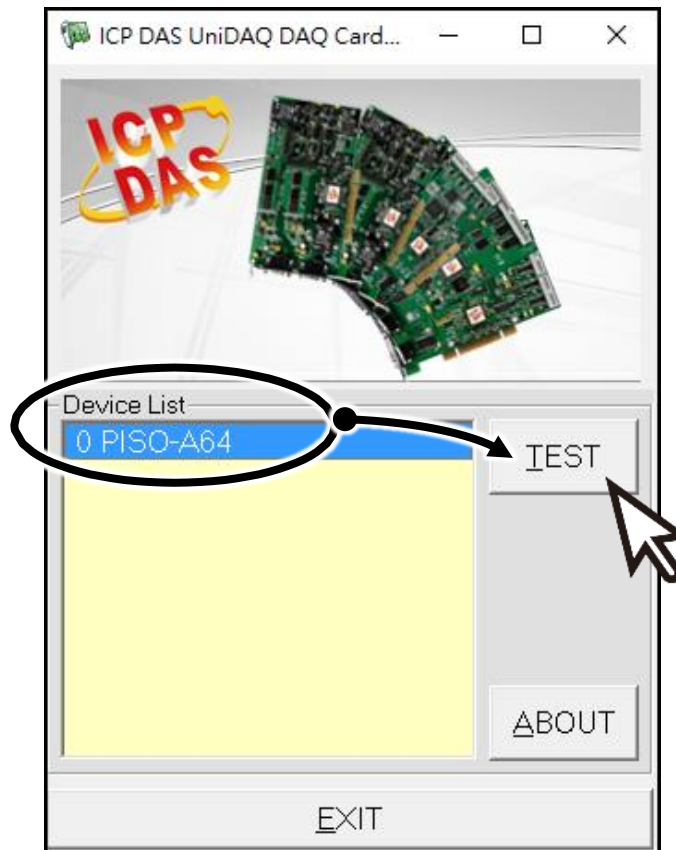4) Use **output LED** to connect the **Ext.GND0 (Pin 1)** and **DO2 (Pin 4)**.
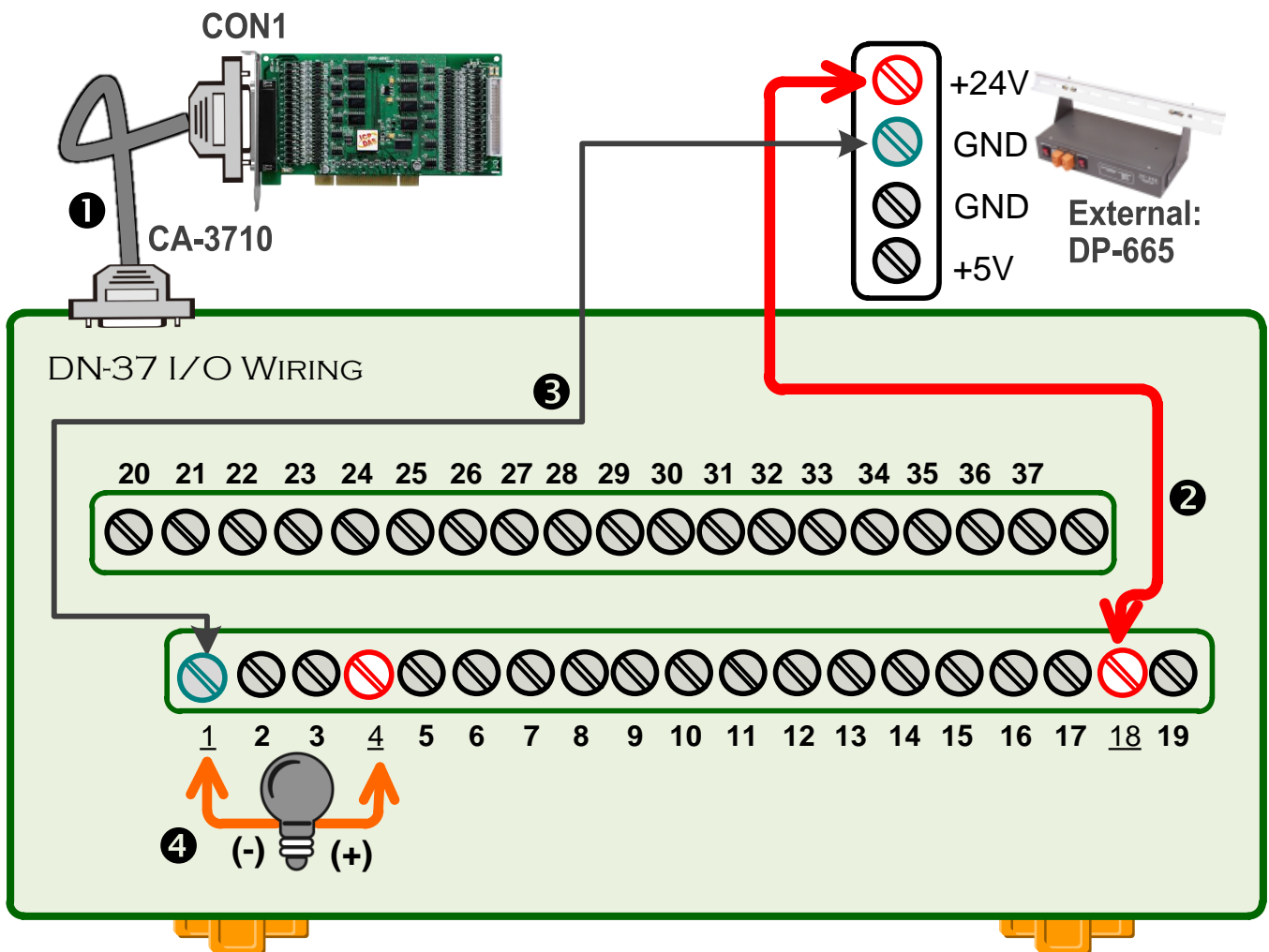
7 Self-Test

1) In Windows 10, click **"Start"** button
- ➔ click **"ICPDAS"** folder
- ➔ click **"UniDAQ Utility"** to execute the UniDAQ Utility program.
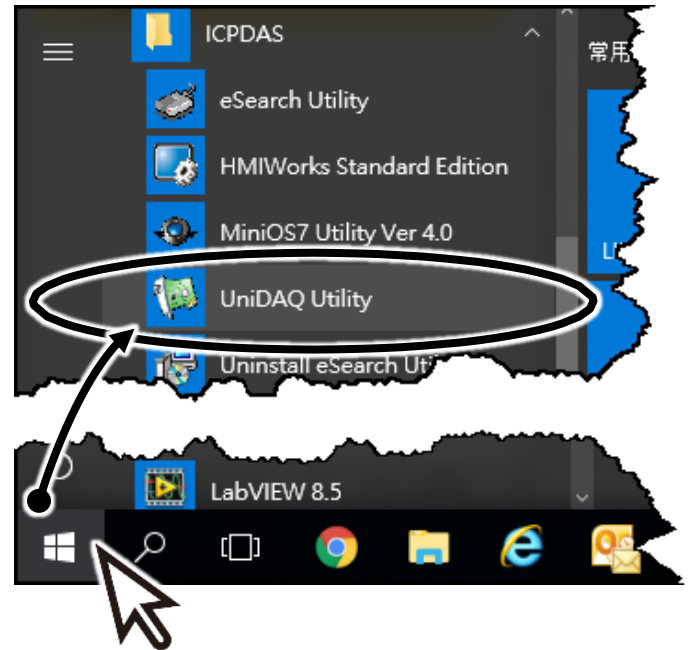
2) Confirm that PISO-A64 Series card has been successfully installed in the host system. **Note that the device number starts from 0**.

3) Click **"TEST"** to start the test.

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4) Get DO function test result.

1. Click **"Digital Output"** page

2. Select **"Port 0"**

3. Click the **channel 2 (DO2)**

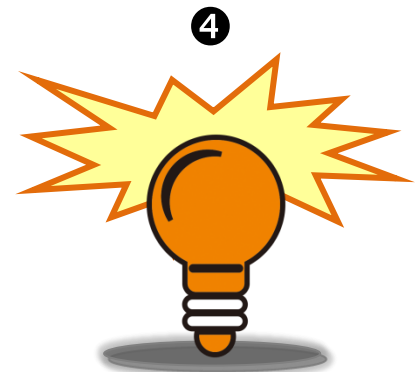4. Check the **specified LED** (described in an above Section 6-4) **should be ON**.

Port0: DO0~7   Port4: DO32~39

Port1: DO8~15   Port5: DO40~47

Port2: DO16~23   Port6: DO48~55

Port3: DO24~31   Port7: DO56~63

Related Information

- PISO-A64U Product Page:

  http://www.icpdas.com/root/product/solutions/pc_based_io_board/pci/piso-a64.html

- Documentation & Software:

  CD: \NAPDOS\PCI\Piso-dio\

  http://ftp.icpdas.com/pub/cd/iocard/pci/napdos/pci/piso-dio/

- DN-37/CA-3710 and DP-665 Product 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