I/O CARD QUICK START GUIDE

for PCI-1800 LU/HU
PCI-1802 LU/HU

English/ May 2010/ Version 1.0

PCI Bus Multifunction Boards

1

What's in the shipping package?

▪▪ One PCI-1800/1802 **(LU/HU)** series card
▪▪ One companion PCI CD (V4.7 or later)
▪▪ One Quick Start Guide (This document)
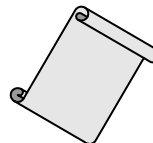▪▪ One CA-4002 D-Sub connector

Software Utility CD

CA-4002 D-Sub Connector

PCI-1800/1802 (LU/HU)
Series Card

Quick Start Guide

2 Installing Windows Driver

Follow these steps:

1. **Setup the Windows driver. The driver is located at:**

   CD:\NAPDOS\PCI\PCI-180x\DLL_OCX\

   http://ftp.icpdas.com/pub/cd/iocard/pci/napdos/pci/pci-180x/dll_ocx/

   > ℹ️ **The Windows driver only supports Windows 98/NT/2000/ and 32-bit Windows XP/2003/Vista/7 Versions.**
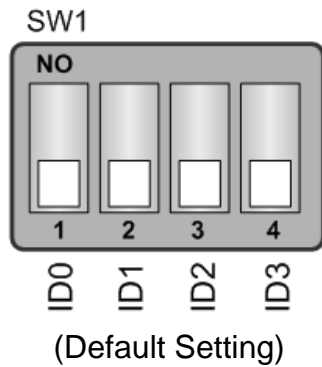
2. **Click the "Next>" button to start the installation.**
3. **Click the "Next>" button to install the driver into the default folder.**
4. **Click the "Install" button to continue the installation.**
5. **Select "NO, I will restart my computer later" and then click the "Finish" button.**

3 Jumper & Card ID Setting

■■ SW1 Card ID Setting

SW1

NO

1 2 3 4

ID0 ID1 ID2 ID3
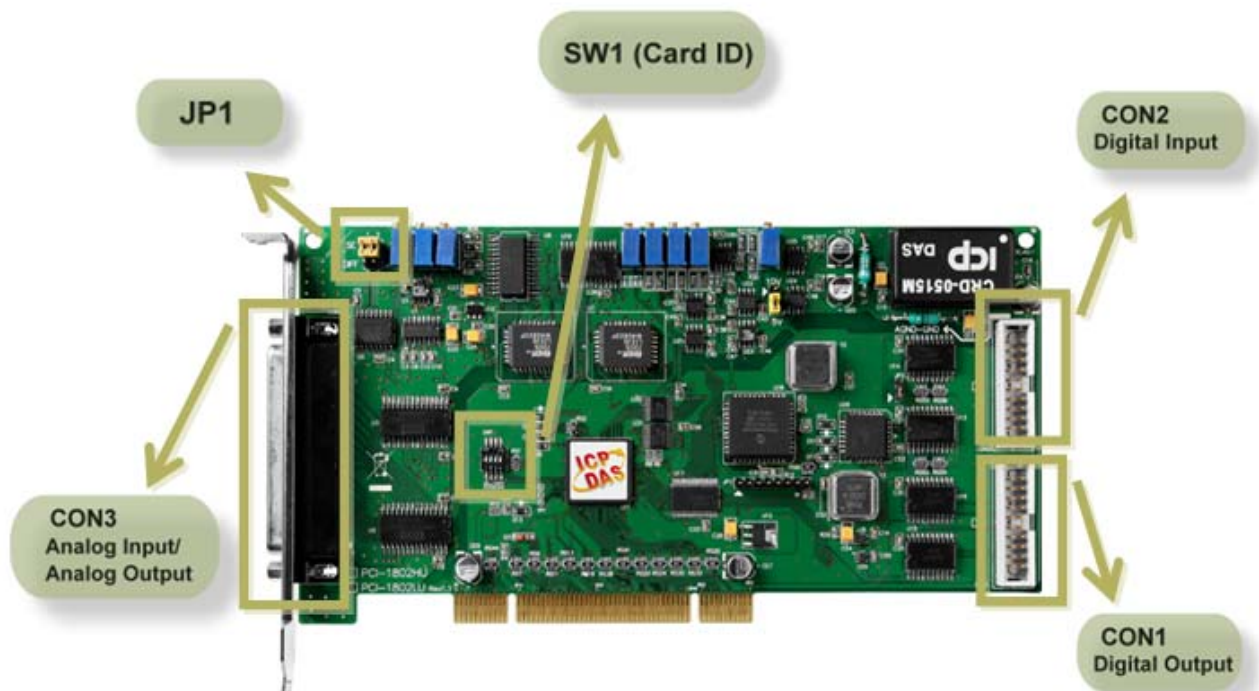
(Default Setting)

Card ID	1 ID0	2 ID1	3 ID2	4 ID3
(*) 0	OFF	OFF	OFF	OFF
1	ON	OFF	OFF	OFF
2	OFF	ON	OFF	OFF
:	:	:	:	:
13	ON	OFF	ON	ON
14	OFF	ON	ON	ON
15	ON	ON	ON	ON

(*) Default setting

■■ JP1: Analog Input Type Selection.
(Please make sure JP1 jumper is kept in default setting before self-test.)

JP1   1   2

SE

5   6

Single-Ended
Inputs (Default)

JP1   1   2

SE

DIFF

5   6

Differential
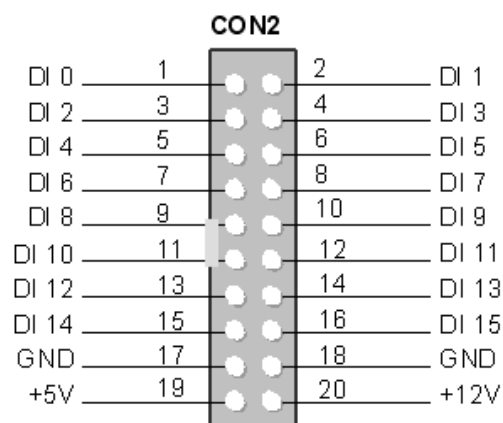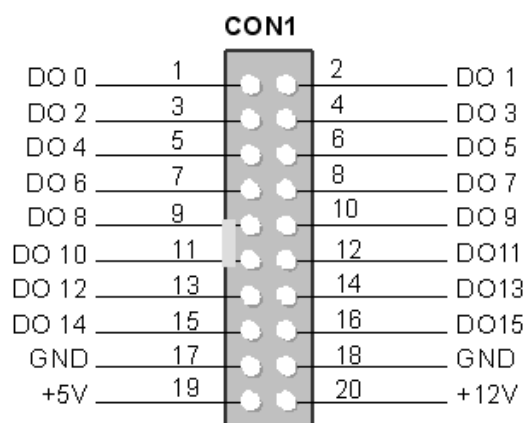Inputs
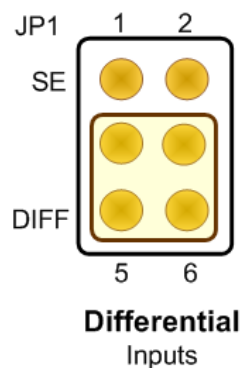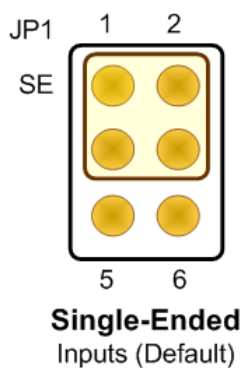
4 Installing Hardware on PC

Follow these steps:

1. Shut down and power off your computer.

2. Remove the cover from the computer.

3. Select an unused PCI slot.

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

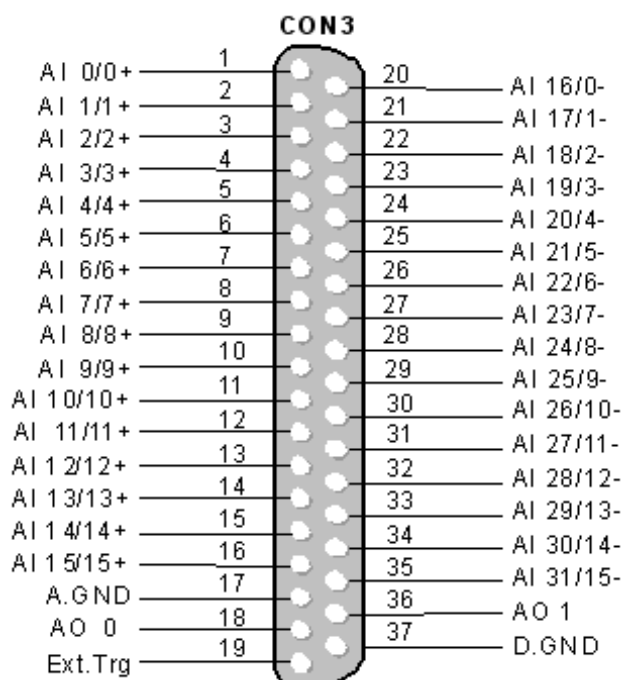5. Replace the PC cover.

6. Power on the computer.

After powering-on the computer, please finish the Plug&Play steps according to the prompted messages.
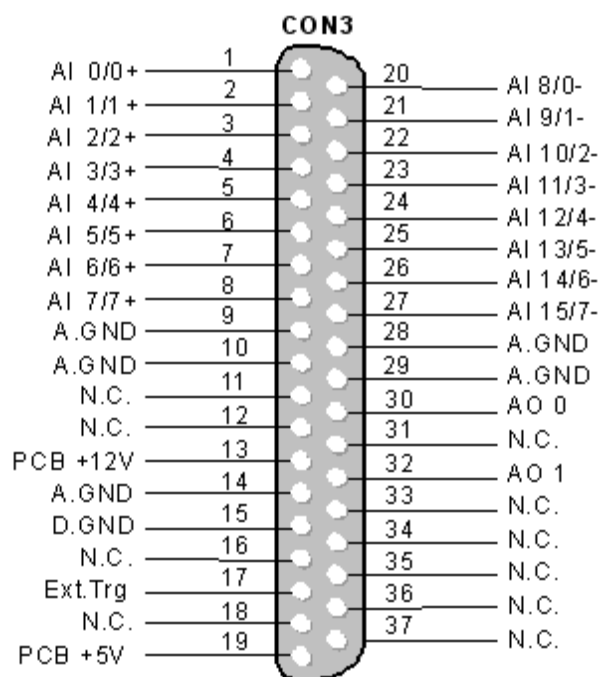
5 Pin Assignments

■ **CON1 Digital Output connector** (20-pin box header)
■ **CON2 Digital Input connector** (20-pin box header)

CON1

DO 0	1	2	DO 1
DO 2	3	4	DO 3
DO 4	5	6	DO 5
DO 6	7	8	DO 7
DO 8	9	10	DO 9
DO 10	11	12	DO11
DO 12	13	14	DO13
DO 14	15	16	DO15
GND	17	18	GND
+5V	19	20	+12V

CON2

DI 0	1	2	DI 1
DI 2	3	4	DI 3
DI 4	5	6	DI 5
DI 6	7	8	DI 7
DI 8	9	10	DI 9
DI 10	11	12	DI 11
DI 12	13	14	DI 13
DI 14	15	16	DI 15
GND	17	18	GND
+5V	19	20	+12V

■ **CON3 Analog Input Connector** (Female DB37)

CON3

AI 0/0+	1	20	AI 16/0-
AI 1/1+	2	21	AI 17/1-
AI 2/2+	3	22	AI 18/2-
AI 3/3+	4	23	AI 19/3-
AI 4/4+	5	24	AI 20/4-
AI 5/5+	6	25	AI 21/5-
AI 6/6+	7	26	AI 22/6-
AI 7/7+	8	27	AI 23/7-
AI 8/8+	9	28	AI 24/8-
AI 9/9+	10	29	AI 25/9-
AI 10/10+	11	30	AI 26/10-
AI 11/11+	12	31	AI 27/11-
AI 12/12+	13	32	AI 28/12-
AI 13/13+	14	33	AI 29/13-
AI 14/14+	15	34	AI 30/14-
AI 15/15+	16	35	AI 31/15-
A.GND	17	36	AO 1
AO 0	18	37	D.GND
Ext.Trg	19		

PCI-1802LU/HU
32-ch Single-Ended/
16-ch Differential

CON3

AI 0/0+	1	20	AI 8/0-
AI 1/1+	2	21	AI 9/1-
AI 2/2+	3	22	AI 10/2-
AI 3/3+	4	23	AI 11/3-
AI 4/4+	5	24	AI 12/4-
AI 5/5+	6	25	AI 13/5-
AI 6/6+	7	26	AI 14/6-
AI 7/7+	8	27	AI 15/7-
A.GND	9	28	A.GND
A.GND	10	29	A.GND
N.C.	11	30	AO 0
N.C.	12	31	N.C.
PCB +12V	13	32	AO 1
A.GND	14	33	N.C.
D.GND	15	34	N.C.
N.C.	16	35	N.C.
Ext.Trg	17	36	N.C.
N.C.	18	37	N.C.
PCB +5V	19		

PCI-1800LU/HU
16-ch Single-Ended/
8-ch Differential

6 Self Test

▉▉ DIO Test Wiring:

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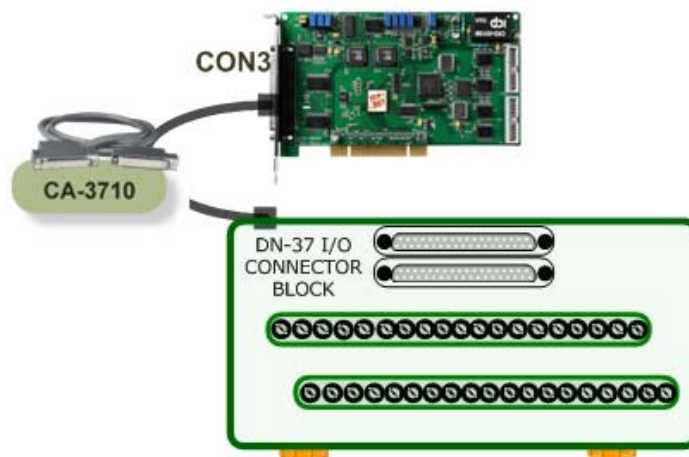
CON2

CA-2002

CON1

▉▉ Analog Input Test Wiring:

2. Prepare for device:
- DN-37 (optional) wiring terminal board.
- Provide a stable signal source. (For example, dry battery)

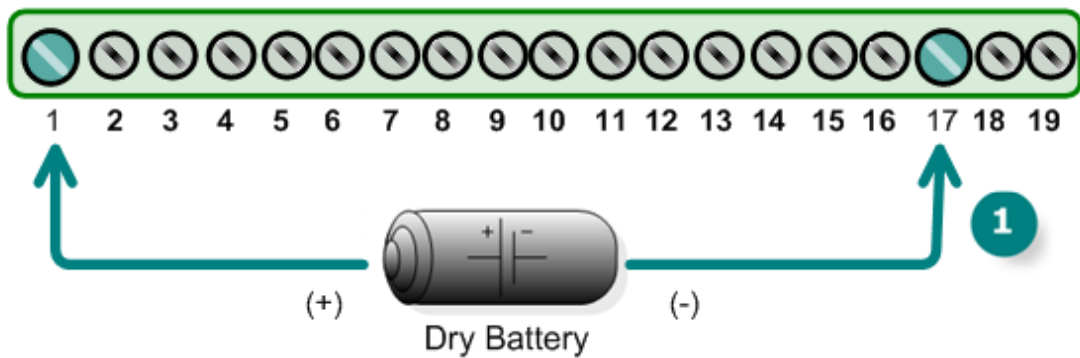### 3. Connect a DN-37 to the COM3.

CON3

CA-3710

DN-37 I/O
CONNECTOR
BLOCK

4. Wire the signal source to channel 0.

Keep set the JP1 jumper to <u>Single-Ended</u> (page 3)**, and wire the signals as follows:**

① **For PCI-1802 LU/HU:**
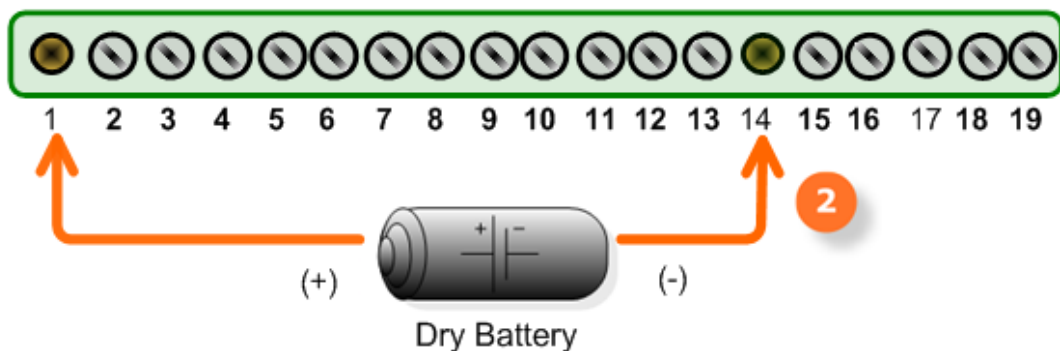
Connect the <u>AI 0 (Pin1)</u> **to** <u>signal positive (+)</u>
Connect the <u>A.GND (Pin17)</u> **to** <u>signal negative (-)</u>

② **For PCI-1800 LU/HU:**

Connect the <u>AI 0 (Pin1)</u> **to** <u>signal positive (+)</u>
Connect the <u>A.GND (Pin14)</u> **to** <u>signal negative (-)</u>

■■ Execute the PCI-1800/1802 (LU/HU) sample program:

5. The sample program is contained in:

CD:\NAPDOS\PCI\PCI-180x\DLL_OCX\Demo\
http://ftp.icpdas.com/pub/cd/iocard/pci/napdos/pci/pci-180x/dll_ocx/demo/

6. The following sample program is written in Delphi.

File: DLL_Delphi3_xxxxxx.exe
Path: ....\ DLL_Delphi3\01\
Double click the "Demo1.exe"

Demo1.exe

7. Verify total numbers of the PCI-1800/1802 (LU/HU) card and perform AI, DIO functions test.

1 Confirm the number of PCI-180x cards installed successfully on this PC.

2 Select the board to activate. (It ranges form 0 to total board number subtractina one)

3 Click this button to start test.

PCI Bus Multifunction Boards
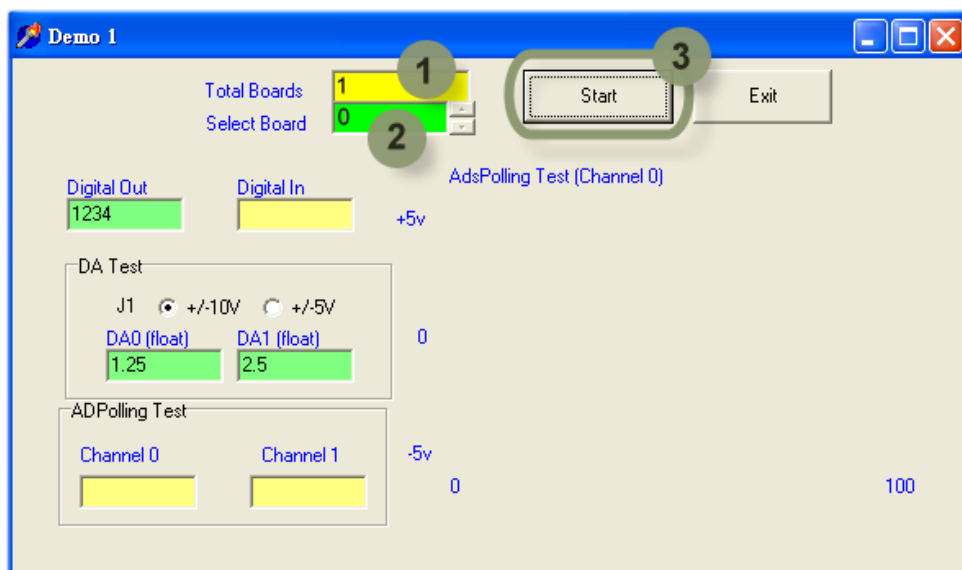
8. Get AI and DIO function test result.

④ Check the "Digital Out" value (write) and "Digital In" value (read) should be identical.

⑤ Check analog input on CH0 textbox.

⑥ Check continual analog input on CH0.
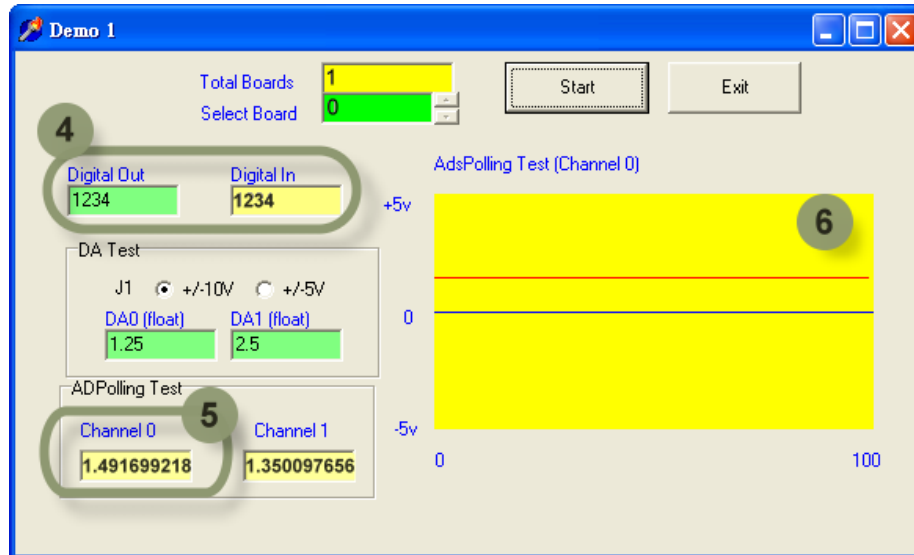
Additional Information

- **PCI-1800/1802 LU/HU Series Card product page:**
  http://www.icpdas.com/products/DAQ/pc_based/pci_1800.htm

- **CA-3710, CA-2002 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:**
  CD:\NAPDOS\PCI\PCI-180x\Manual
  http://ftp.icpdas.com/pub/cd/iocard/pci/napdos/pci/pci-180x/manual/

- **Software:**
  CD:\NAPDOS\PCI\PCI-180x
  http://ftp.icpdas.com/pub/cd/iocard/pci/napdos/pci/pci-180x

ICP DAS Web Site: http://www.icpdas.com
Contact Us (E-Mail): Service@icpdas.com