



I/O CARD QUICK START GUIDE

for

DIO-96/144

Language
Version
Update

English
V1.2
Nov.2008

1

What's on your package?

- One DIO-96/144 card
- One companion ISA CD (V2.1 or later)
- One Quick Start Guide(this document)

2

Installing Windows Driver

Follow those steps:

1. Setup the Windows driver.





You can get the driver from:

CD:\NAPDOS\ISA\DIO\DLL\

<http://ftp.icpdas.com/pub/cd/iocard/isa/napdos/isa/dio/dll/>



Windows driver only support windows 98/NT/2000 and XP/2003/vista 32-bit versions.

2. Click  button to start installation.
3. Click  button to install driver into the default folder.
4. Click  button to continue installation.
5. Select **“NO, I will restart my computer later”** and then click  button.

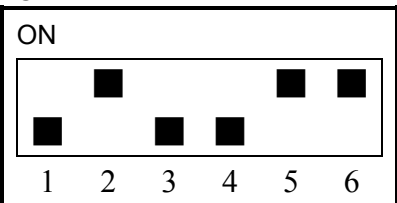
3 I/O Base Address/Interrupt Setting

➤ The base address is set from SW1 DIP switch on board:

DIO-96

SW1

ON



1 2 3 4 5 6

A9 A8 A7 A6 A5 A4

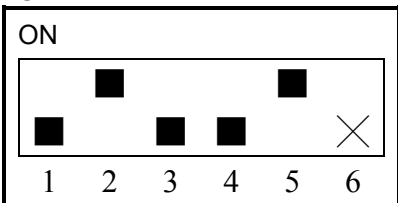
SW1 Value Table (*):Default setting

I/O Address	1	2	3	4	5	6
	A9	A8	A7	A6	A5	A4
200	1	0	0	0	0	0
210	1	0	0	0	0	1
...	0	0	0	0	0	0
2C0(*)	1	0	1	1	0	0
...	0	0	0	0	0	0
300	1	1	0	0	0	0
310	1	1	0	0	0	1
...	0	0	0	0	0	0
3F0	1	1	1	1	1	1

DIO-144

SW1

ON



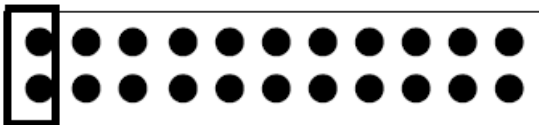
1 2 3 4 5 6

A9 A8 A7 A6 A5 X

SW1 Value Table (*):Default setting

I/O Address	1	2	3	4	5	6
	A9	A8	A7	A6	A5	X
200	1	0	0	0	0	X
220	1	0	0	0	1	X
...	0	0	0	0	0	X
2C0(*)	1	0	1	1	0	X
2E0	1	0	1	1	1	X
...	0	0	0	0	0	X
300	1	1	0	0	0	X
...	0	0	0	0	0	X
3E0	1	1	1	1	1	X

➤ The Interrupt Level Setting

Default 

IRQ 15 14 12 11 10 9 7 6 5 4 3

4

Installing Hardware on PC

Follow those steps:

1. Shut down and power off your computer
2. Remove all covers from the computer
3. Select an empty ISA slot
4. Carefully insert your I/O card into the ISA slot
5. Replace the PC covers
6. Power on the computer

After powering-on the computer, continue next process.

5

Adding Hardware



Adding hardware is used on Windows 2000/XP/2003/Vista 32 only. Windows 9X/Me/NT users can skip it.

7. Add Hardware

- 7-1 Open the **“Control Panel”** by click the item **“Start / Settings / Control Panel”**.
- 7-2 Double-click the item **“Add/Remove Hardware”** and Click the **“Next >”** button.
- 7-3 Select the item **“Add/Troubleshoot a device”** and click the **“Next >”** button.
- 7-4 Select the item **“Add a new device”** and click the **“Next >”** button.

- 7-5 Select the item **“No, I want to select the hardware from a list”** and click the **“Next >”** button.
- 7-6 Select the item **“Other device”** and click the **“Next >”** button.
- 7-7 Click the **“Have Disk...”** button.
- 7-8 Click the **“Browse...”** button to select the Inf file default path is C:\DAQPRO\DIO_Win2K\Inf and click the **“OK”** button.
- 7-9 Select the correct device from the **“Models:”** listbox and Click the **“Next >”** button.
- 7-10 The windows show to dialog box and Click the **“OK”** button to enter the device’s properties settings.

8. Modify the device properties

The image shows a sequence of three dialog boxes from the Windows Device Manager. The main dialog is 'ICPDAS A-822 Analog/Digital Card Properties' with tabs for 'General', 'Driver', and 'Resources'. The 'Resources' tab is active, showing 'Resource settings' for 'Input/Output Range' (0220 - 022F) and 'Interrupt Request' (07). A 'Change Setting...' button is visible. Below the settings is a 'Conflicting device list' which is empty. Three callout boxes provide instructions: 1. 'Select Input/Output Range' points to the 'Input/Output Range' entry. 2. 'Click “Change Setting” to change I/O Range (Depend on I/O Base Address)' points to the 'Change Setting...' button. 3. 'Select Interrupt Request' points to the 'Interrupt Request' entry. Below the main dialog, two smaller dialog boxes are shown: 'Edit Input/Output Range' and 'Edit Interrupt Request'. Both show a 'Value' field with the current setting (0220 - 022F and 07 respectively) and a 'Conflict information' section that says 'No devices are conflicting'. A fourth callout box, 'Click “Change Setting” to change Interrupt Request. (Depend on Interrupt Level setting)', points to the 'Change Setting...' button in the main dialog.

9. Reboot the PC


The detail “add hardware” information please refer to

CD:\NAPDOS\ISA\Manual\PCI_ISA_PnP_Driver_Installation_in_Win9x_2K_XP.pdf

6 Pin Assignments

CH0/1/2/3/4/5:50-pin header
CH5:The DIO-144 only

Pin	Description	Pin	Description
1	PC7	2	GND
3	PC6	4	GND
5	PC5	6	GND
7	PC4	8	GND
9	PC3	10	GND
11	PC2	12	GND
13	PC1	14	GND
15	PC0	16	GND
17	PB7	18	GND
19	PB6	20	GND
21	PB5	22	GND
23	PB4	24	GND
25	PB3	26	GND
27	PB2	28	GND
29	PB1	30	GND
31	PB0	32	GND
33	PA7	34	GND
35	PA6	36	GND
37	PA5	38	GND
39	PA4	40	GND
41	PA3	42	GND
43	PA2	44	GND
45	PA1	46	GND
47	PA0	48	GND
49	+5V	50	GND



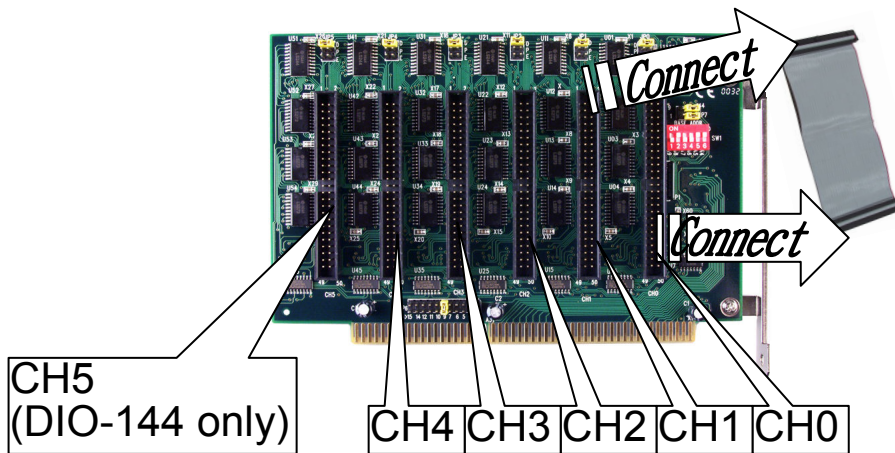
All signal are TTL compatible

TTL High(1)	2.4V ~5.0V (Voltages over 5.0V will damage the device)
None Defined	2.4V~0.8V
TTL Low(0)	Under 0.8V

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Self-Test

- I. Use CA-5002(Optional) to connect the CH0 with CH1.



- II. Run the DIO sample program.

Get the file from(default path):

C:\DAQPro\DIO_WinXXX\Demo\

- III. Check number of the DIO-96/144, and test DIO function

Please follow those steps:

Step 1

One DIO-96/144 card had successfully installed to PC

Step 2

Select the board number for the DIO-96/144.
It starts from 0.

Step 3

Select the Ch No. to 1

Step 4

Click this button to output the value

Step 5

Click this button to input the value

Step 6

Check the port A,B and C value.
If port A is 0, port B is FF and port C is 55.
The Test is pass!!!

The screenshot shows the 'DIO-24/48/96/144 DIO Diagnostic' window. It features a cyan header with channel ranges, a red 'Boards Control' section with 'Total Boards: 1' and a 'Select' button, and two purple panels for 'Digital Output [Hex]' and 'Digital Input [Hex]'. The output panel shows Port A: 00, Port B: FF, and Port C: 55. The input panel shows Port A: 0, Port B: FF, and Port C: 55. Buttons for 'Digital Output', 'Digital Input', and 'Exit' are at the bottom. A red starburst with the word 'Compleat' is in the bottom right. Blue callout bubbles with numbers 1-6 point to various UI elements: 1 points to the cyan header, 2 to the 'Select' button, 3 to the 'Ch No.' dropdown in the input panel, 4 to the 'Ch No.' dropdown in the output panel, 5 to the 'Digital Output' button, and 6 to the 'Port C' field in the input panel.

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Additional Information

- ✓ DIO-96/144 Series Card Product page:
http://www.icpdas.com/products/DAQ/pc_based/dio_96&144.htm
- ✓ DN-37(Optional) page:
http://www.icpdas.com/products/DAQ/screw_terminal/dn_37.htm
- ✓ ADP-37(Optional) page:
http://www.icpdas.com/products/DAQ/screw_terminal/adp_xx.htm
- ✓ Documents:
CD:\NAPDOS\ISA\DIO>manual
CD:\NAPDOS\ISA\Manual
<http://ftp.icpdas.com/pub/cd/iocard/isa/napdos/isa/DIO/manual/>
- ✓ Software:
CD:\ISA\NAPDOS\ISA\DIO
<http://www.icpdas.com/download/isa/dio/index.htm>

The ICP DAS Web Site

<http://www.icpdas.com>



- Technical support
- Supplies and ordering information
- Ways to enhance your device
- FAQ
- Application story

Contact Us

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