



# I/O CARD QUICK START GUIDE

for **ISO-P32S32W**

Language      English  
Version        V1.3  
Update         Feb.2009

# 1

## What's on your package?

- One ISO-P32S32W series card
- One companion ISA CD (V2.6 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\ISO\DLL\  
<http://ftp.icpdas.com/pub/cd/iocard/isa/napdos/isa/iso/dll/>
2. Click "**Next >**" button to start installation.
3. Click "**Next >**" button to install driver into the default folder.
4. Click "**Install**" button to continue installation.
5. Select "**NO, I will restart my computer later**" and click "**Finish**".



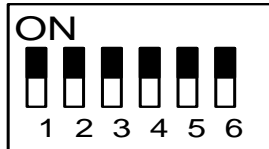
Windows driver only support windows 98/NT/2000 and XP/2003/vista 32-bit versions.

# 3

## I/O Base Address & Jumper Setting

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

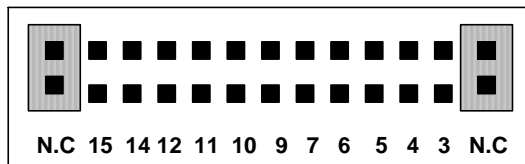
SW1: Base Address



\* Default Base Address: 0x200

Address	1	2	3	4	5	6
*0x200	ON	ON	ON	ON	ON	ON
0x208	ON	ON	ON	ON	ON	OFF
0x210	ON	ON	ON	ON	OFF	ON
0x218	ON	ON	ON	ON	OFF	OFF
0x220	ON	ON	ON	OFF	ON	ON
0x228	ON	ON	ON	OFF	ON	OFF
:	:	:	:	:	:	:
0x2C0	ON	OFF	OFF	ON	ON	ON
0x2C8	ON	OFF	OFF	ON	ON	OFF
:	:	:	:	:	:	:
0x300	OFF	ON	ON	ON	ON	ON
0x308	OFF	ON	ON	ON	ON	OFF
:	:	:	:	:	:	:

- JP3 IRQ selection



\*Default IRQ: N.C (Not use IRQ)

# 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 **“Next >”** button.
- 7-3 Select the item **“Add/Troubleshoot a device”** and click **“Next >”** button.
- 7-4 Select the item **“Add a new device”** and click **“Next >”** button.
- 7-5 Select the item **“No, I want to select the hardware from a list”** and click **“Next >”** button.
- 7-6 Select the item **“Other device”** and click **“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\ISO\_Win2K\Inf and clicks the **“OK”** button.
- 7-9 Select the correct device from the **“Models:”** listbox and Click **“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

- 8-1 Enter the **“ICPDAS P32C32 Digital I/O Card Properties”**.
- 8-2 Click the **“ I/O Range ”** and click the **“Change setting”** button to enter the **“Edit Input/Output Range”**.
- 8-3 Set the I/O Range value for SW1 value.
- 8-4 Click the **“ IRQ ”** and click the **“Change setting”** button to enter the **“Edit Interrupt Request”** .
- 8-5 Set the IRQ value for JP3 setting value.
- 8-6 Check the Conflict information for **“ No devices are conflicting”** and click **“OK”**.

# 9. Reboot the PC

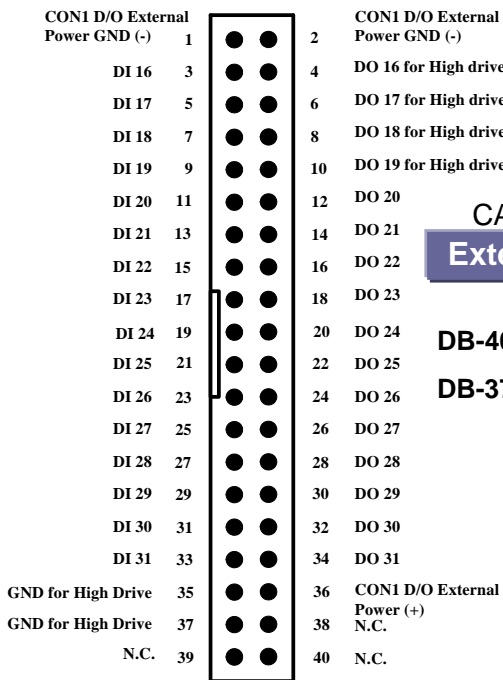
The detail “add hardware” information. Please refer to :

CD:\NAPDOSISA\Manual\PCI\_ISA\_PnP\_Driver\_Installation\_in\_Win9x\_2K\_XP.pdf

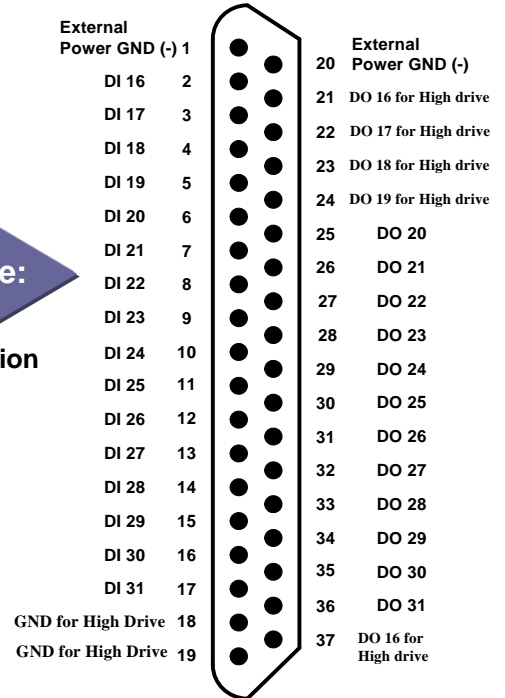
# 6

## Pin Assignments

CON1: Pin assignment

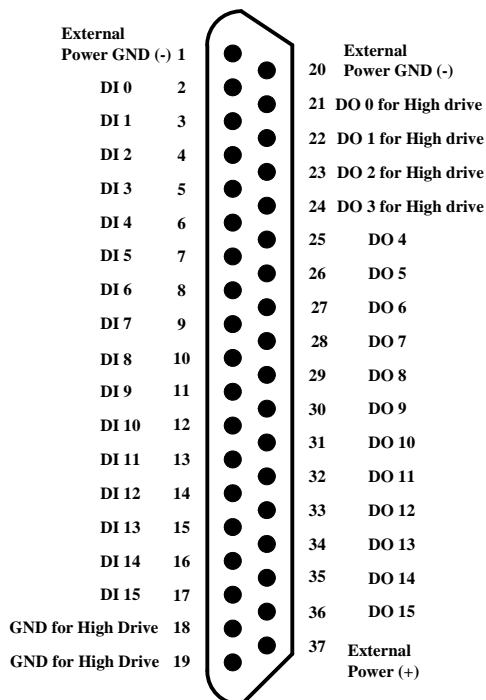


CON1: Pin assignment

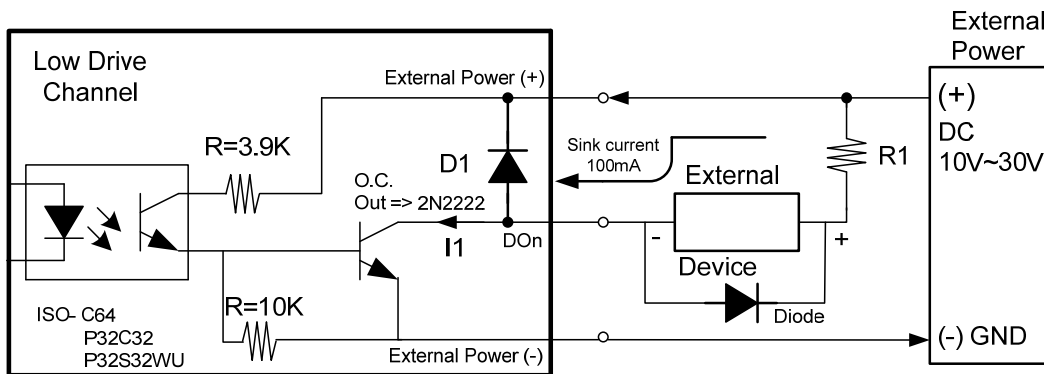
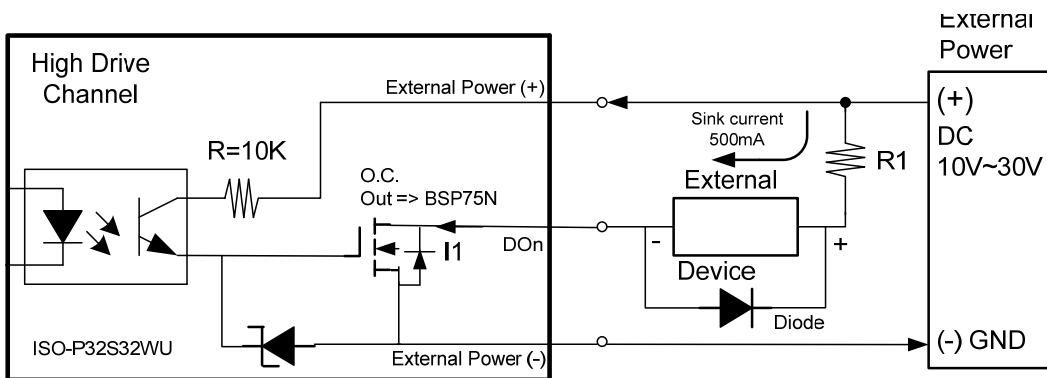


CA-4037W  
 Extension cable:  
 DB-40-Pin conversion  
 DB-37-Pin

CON2: Pin assignment



## ➤ Wiring Note:



### O.C Output Type & 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 output end as means of preventing damage from the counter emf. If your External Device is inductive Load, Ex. Relay...)**

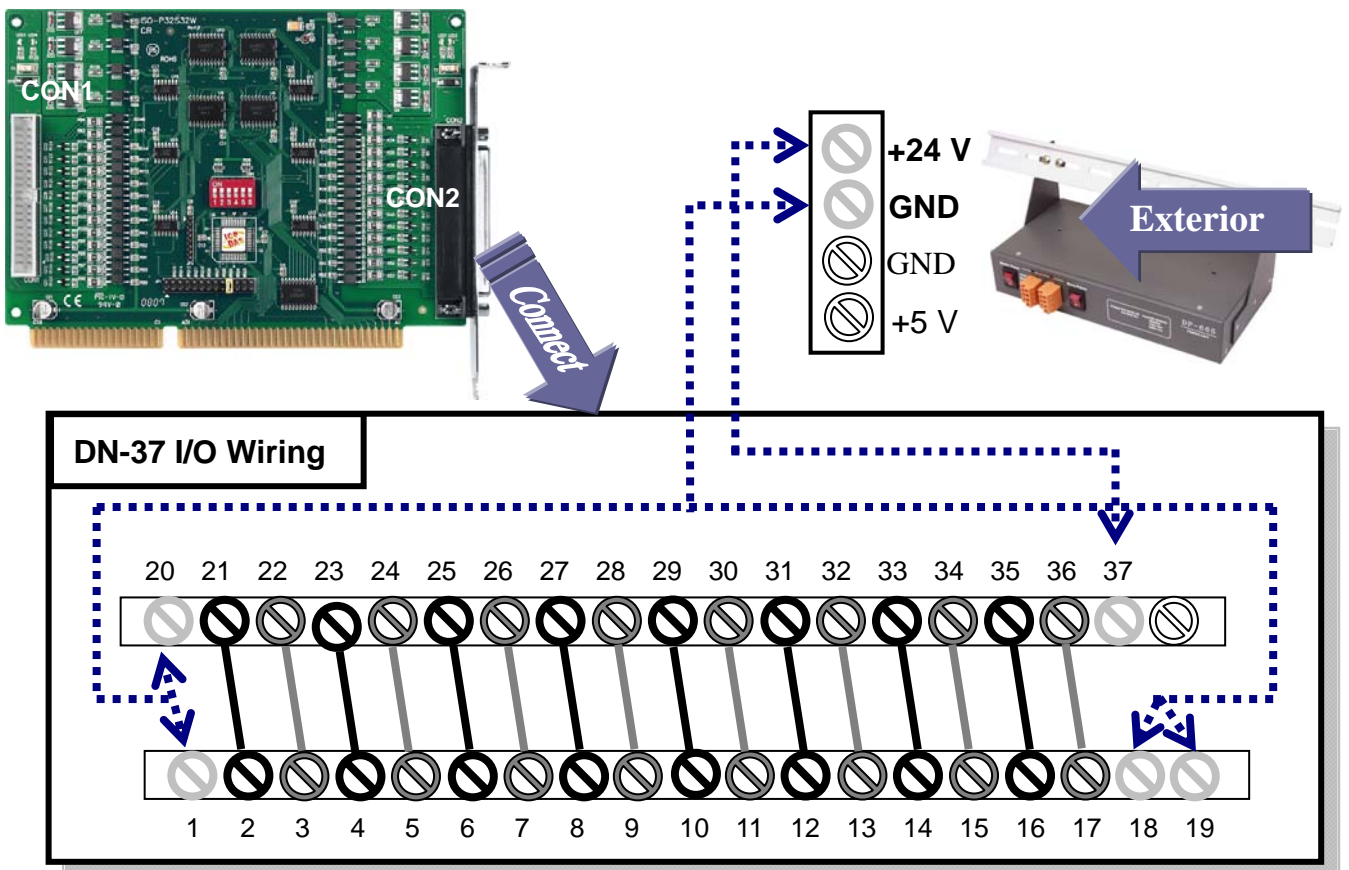


To prevent the board damaged forever by overload, the GND pins (CON2: pin 1/ 18/ 19/ 20, CON2: pin 1/ 18/ 19/ 20) all must be connected with GND of External Power.

# 7

## Self-Test

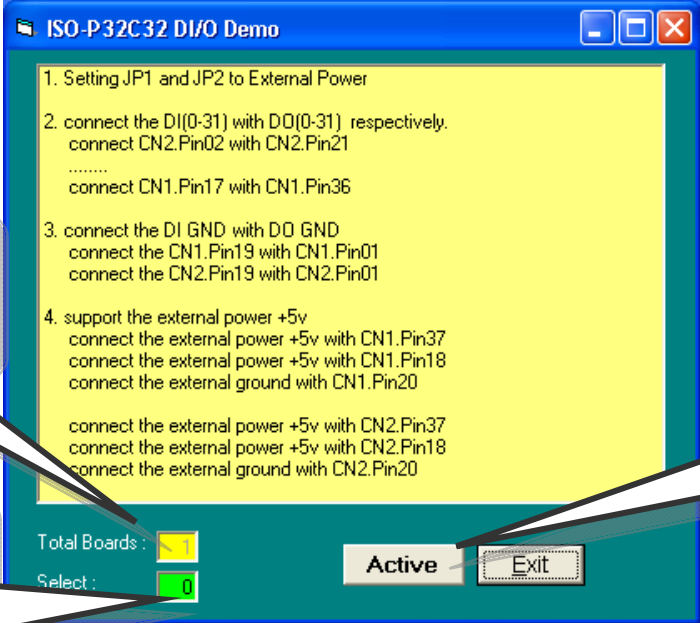
1. Prepare for device:
  - DN-37(Optional) wiring terminal board.
  - Exterior power supply device. For example: DP-665(Optional)
2. Use DN-37 to connect the board CON2.
3. Connect the DI(0-15) with DO(0-15) respectively.  
(Pin02 connect to Pin21 ... Pin17 connect to Pin36)
4. Supply the External Power +24 V to External Power(+).  
Supply the External Power GND to External Power GND(-)  
and GND for High Drive.  
(External +24 V connect to Pin37;  
External GND connect to Pin01, Pin18, Pin19, Pin20)



## 5. Run the ISO-P32C32 sample program.

Get the file from(Default): C:\DAQPro\ISO\_WinXXX\Demo\

## 6. Check number of the ISO-P32S32W, and test DIO function.



The screenshot shows the 'ISO-P32C32 DIO Demo' application window. The main text area contains the following instructions:

1. Setting JP1 and JP2 to External Power
2. connect the DI(0-31) with DO(0-31) respectively.  
connect CN2.Pin02 with CN2.Pin21  
.....  
connect CN1.Pin17 with CN1.Pin36
3. connect the DI GND with DO GND  
connect the CN1.Pin19 with CN1.Pin01  
connect the CN2.Pin19 with CN2.Pin01
4. support the external power +5v  
connect the external power +5v with CN1.Pin37  
connect the external power +5v with CN1.Pin18  
connect the external ground with CN1.Pin20  
  
connect the external power +5v with CN2.Pin37  
connect the external power +5v with CN2.Pin18  
connect the external ground with CN2.Pin20

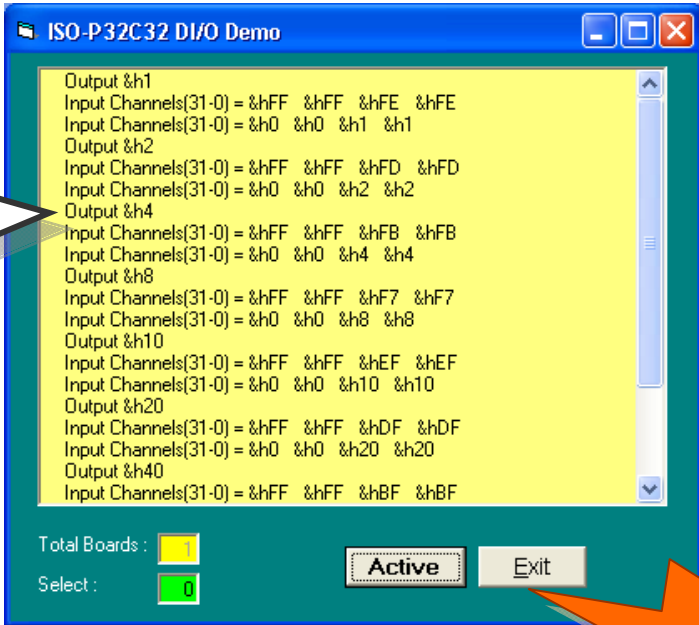
At the bottom of the window, there are two spinners: 'Total Boards : 1' and 'Select : 0'. There are also 'Active' and 'Exit' buttons.

Callout 1: 1. The one ISO-P32S32W had successfully installed to PC.

Callout 2: 2. Select the board number for the ISO-P32S32W. It starts from 0.

Callout 3: 3. Click this button to do DIO test.

## 7. Get DIO function test result.



The screenshot shows the 'ISO-P32C32 DIO Demo' application window displaying the results of a DIO function test. The text area contains the following output:

```
Output &h1
Input Channels(31-0) = &hFF &hFF &hFE &hFE
Input Channels(31-0) = &h0 &h0 &h1 &h1
Output &h2
Input Channels(31-0) = &hFF &hFF &hFD &hFD
Input Channels(31-0) = &h0 &h0 &h2 &h2
Output &h4
Input Channels(31-0) = &hFF &hFF &hFB &hFB
Input Channels(31-0) = &h0 &h0 &h4 &h4
Output &h8
Input Channels(31-0) = &hFF &hFF &hF7 &hF7
Input Channels(31-0) = &h0 &h0 &h8 &h8
Output &h10
Input Channels(31-0) = &hFF &hFF &hEF &hEF
Input Channels(31-0) = &h0 &h0 &h10 &h10
Output &h20
Input Channels(31-0) = &hFF &hFF &hDF &hDF
Input Channels(31-0) = &h0 &h0 &h20 &h20
Output &h40
Input Channels(31-0) = &hFF &hFF &hBF &hBF
```

At the bottom of the window, there are two spinners: 'Total Boards : 1' and 'Select : 0'. There are also 'Active' and 'Exit' buttons.

Callout 4: 4. Check channels [0-15] output write value and input read value for identical.

Complete

# 8

## Additional Information

✓ **ISO-P32S32W Series Card Product page:**

[http://www.icpdas.com/products/DAQ/pc\\_based/iso\\_p32s32w.htm](http://www.icpdas.com/products/DAQ/pc_based/iso_p32s32w.htm)

✓ **DN-37(Optional) page:**

[http://www.icpdas.com/products/DAQ/screw\\_terminal/dn\\_37.htm](http://www.icpdas.com/products/DAQ/screw_terminal/dn_37.htm)

✓ **DP-665(Optional) page:**

[http://www.icpdas.com/products/Accessories/power\\_supply/dp-665.htm](http://www.icpdas.com/products/Accessories/power_supply/dp-665.htm)

✓ **Documents:**

CD:\NAPDOS\ISA\ISO>manual

<http://ftp.icpdas.com/pub/cd/iocard/isa/napdos/isa/iso/manual/>

✓ **Software:**

CD:\NAPDOS\ISA\ISO

<http://www.icpdas.com/download/isa/iso/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

[Service@icpdas.com](mailto:Service@icpdas.com)

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