

# Installation Manual

For

**4 / 8 / 16 Channel**

**30 / 60 / 120 / 240 Frame**

**with Live Display**

Rev:1.4

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## **Attentions**

1. For first time install DVR capture card, we suggest install all driver of PC system and setup well before insert DVR capture card.
2. For hard drive volume more than **100GB**/hdd, we suggest to use the following motherboards **Gigabyte GA-8IEX, ASUS P4PE**.

Note: The following motherboards does not support high volume hard driver:  
Gigabyte GA-8PE667, MSI-6580(or previous versions).

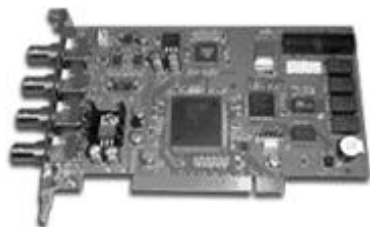
Note: The Operation System should be **Windows 2000 SP3** or **Windows XP** and format to **NTFS** partition.

3. Onboard VGA, and VIA, Intel 845G chipset of motherboard are not recommended.

## 1. Boards

### Capture boards

4 channel 30 frame



4 channel 60 frame



4 channel 120 frame



8,16 channel 60 frame



8,16 channel 120 frame



8,16 channel 240 frame Slave

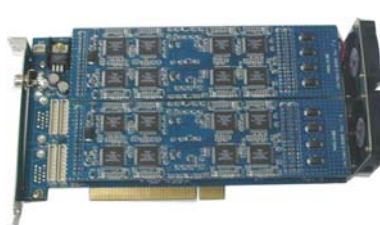


### Live video boards

8ch Live video

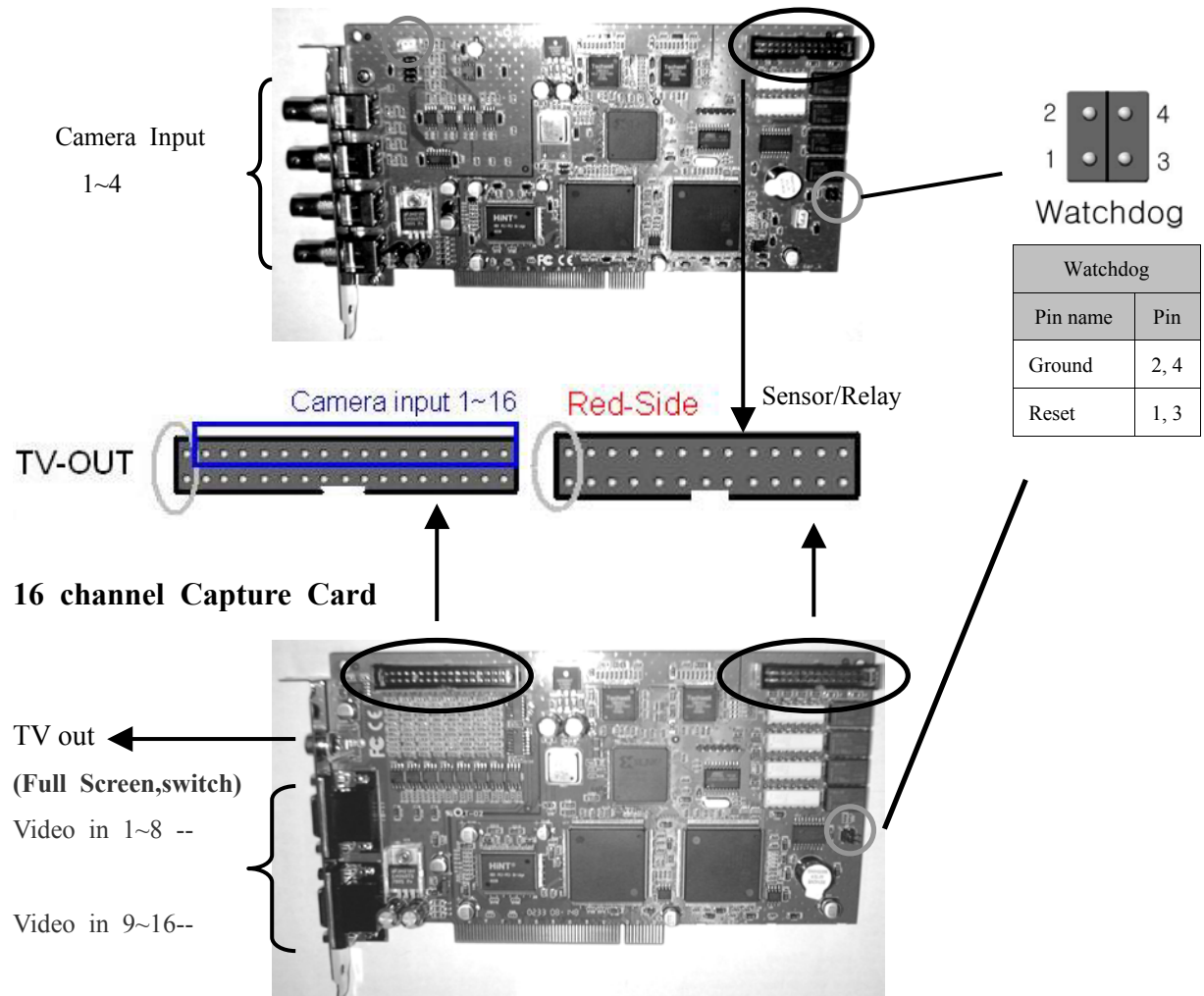


16ch Live video

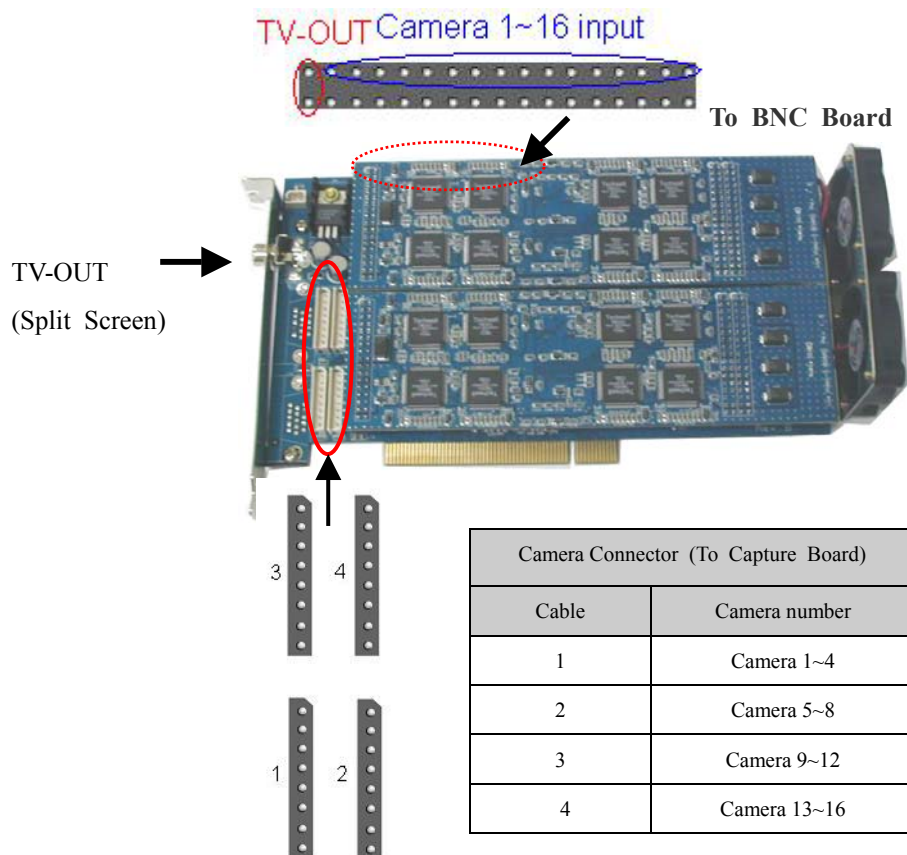


## 2. Layout

### 4 channel Capture Card TV-Out(Full Screen, switch)



## 16 Channel Live Card

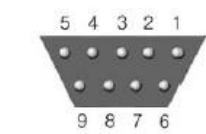
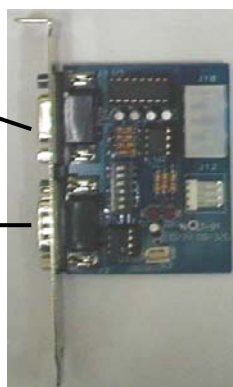


**Notice:** Connection with **240 frame** boards, cable **2,3** need to **swap**.

## RS-232 to RS-485 board(Optional)

Top: RS-232, connect to  
COM1 of Motherboard

Bottom: RS-422/485, connect to  
P/T/Z device



RS-422/485 Connector	
Pin Name	Pin Number
Tx -	1
Tx +	2
GND	3,4

### 3.Connection

#### 4ch with sensor board



#### 8ch with sensor board and Pig Tail connection

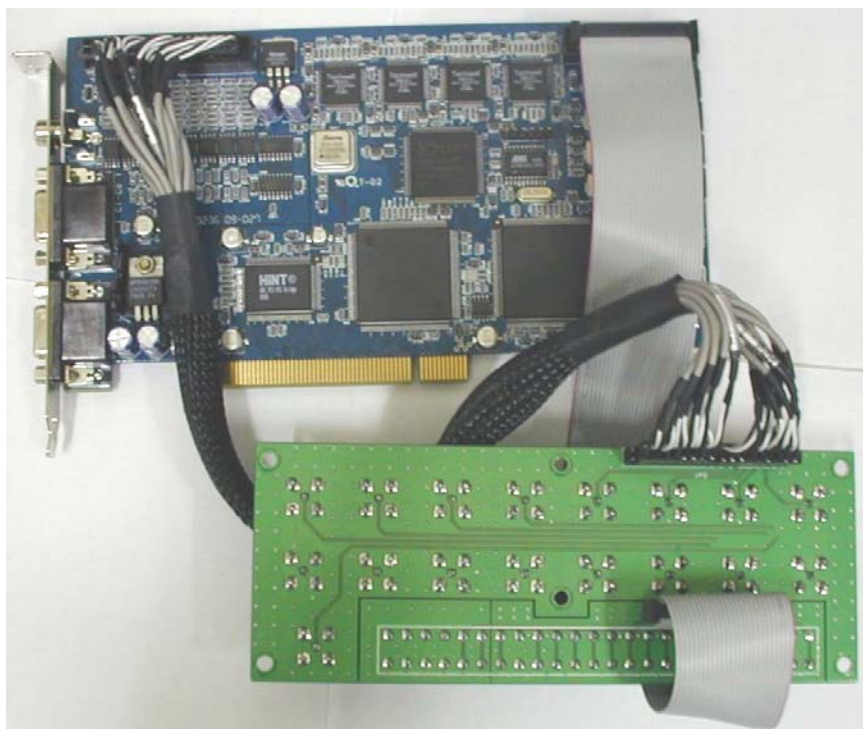


#### 16ch with sensor board and Pig Tail connection

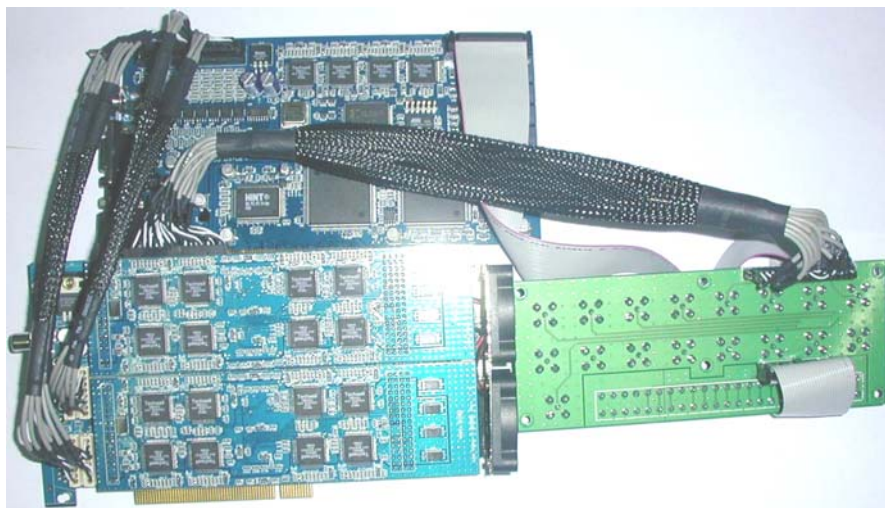




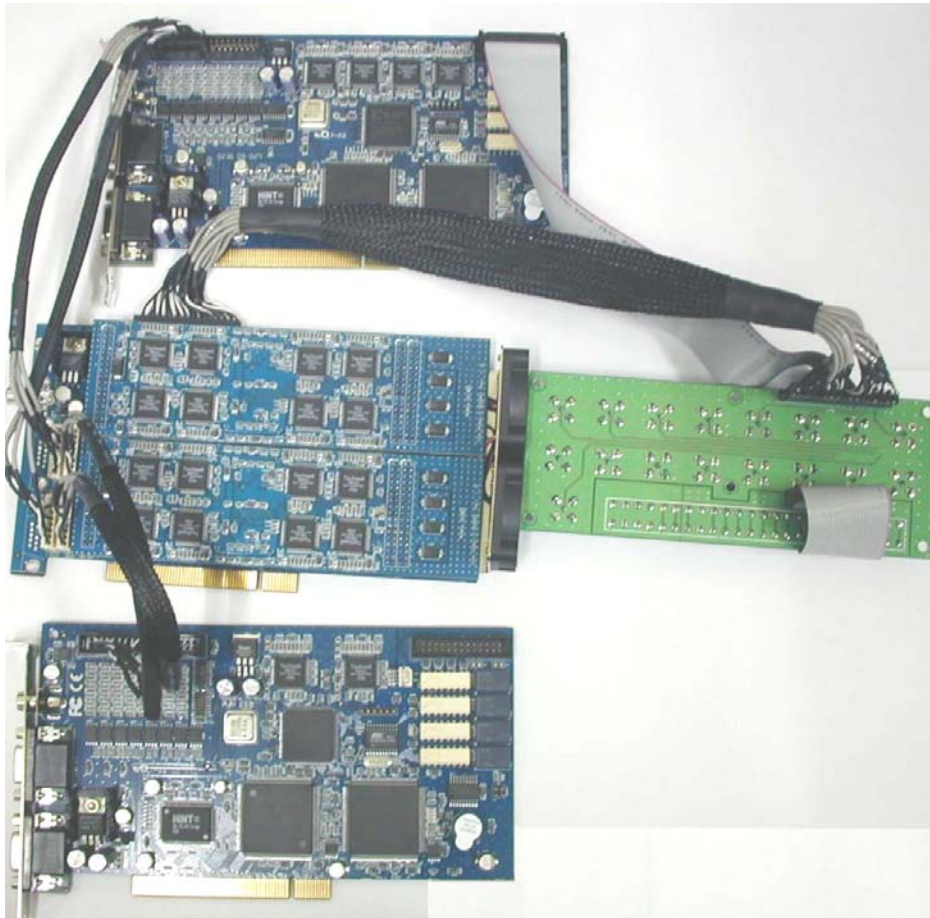
**16ch(8ch) with Back-Panel connection**



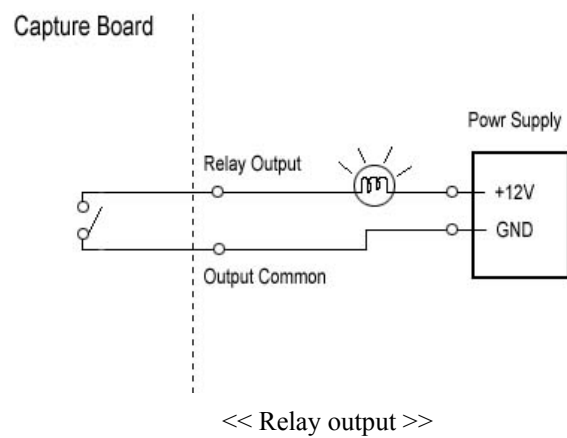
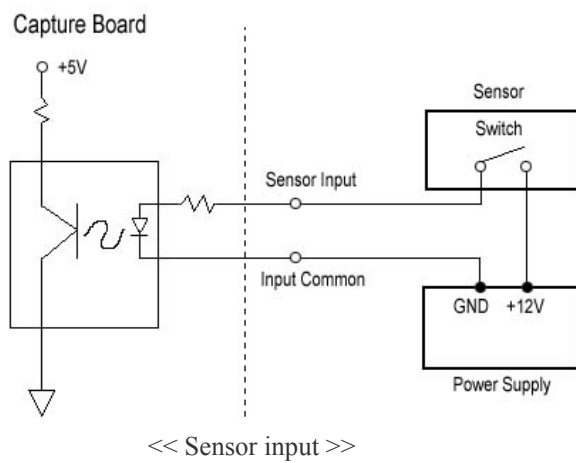
**16ch(8ch) and Live video board with Back-Panel connection**



### 16ch 240fps and Live video board with Back-Panel connection

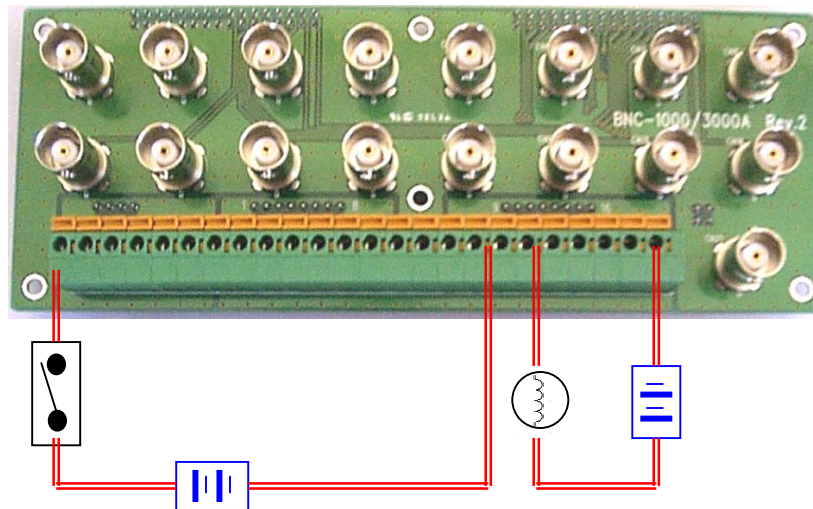


### Sensor Input and Relay Output

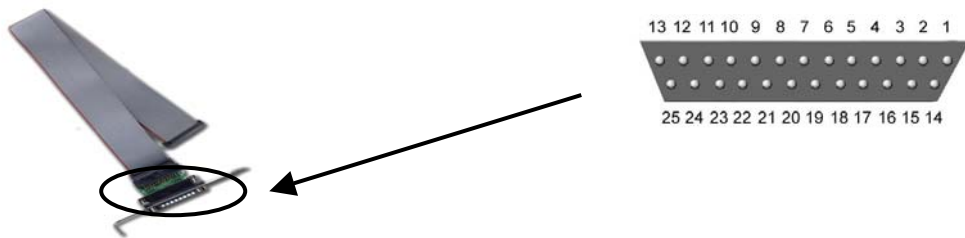




## Back Panel TYPE



## Pig Tail TYPE



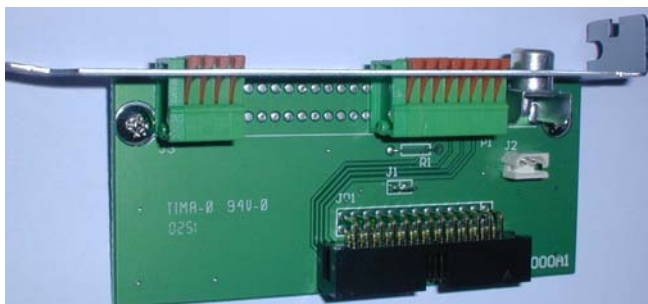
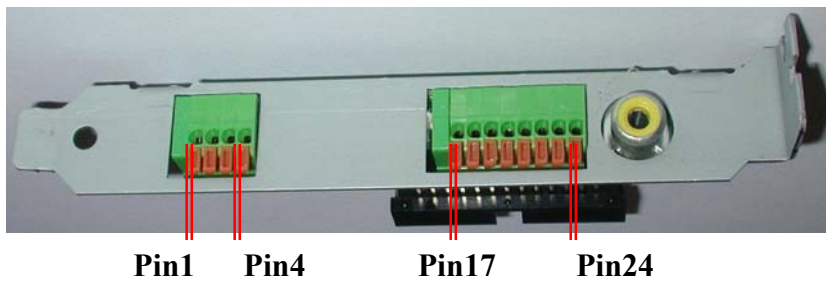
Sensor & Relay (Digital I/O)	
Pin name	Pin number
Sensor Input 1~16	1~16
Input Common 1~2	17, 18
Relay (Digital) Output 1~4	19~22
Output Common 1~2	23, 24

## 8/16 channel





#### 4 channel



#### Relay connection note

Turn on the “Relay Output”(Pin19~22) will short with “Output Common“(Pin 23,24).

Contact Ratings: 30VDC 1A, 125VAC 1A

## 4. Hardware Specification

### \* Hardware

Model Name	30 frame	60 frame	120 frame	240 frame
Camera Inputs	4	16		
Supported Resolution	704*576(PAL), 640*480(NTSC), 352*288(PAL), 320*240(NTSC)			352*288(PAL), 320*240(NTSC)
Total Recording frame max.	25(PAL) 30(NTSC)	50(PAL) 60(NTSC)	100(PAL) 120(NTSC)	200(PAL) 240(NTSC)
Connector Type	Pigtail cable / Back panel selectable			
Sensor Input / Relay Output	4/ 4	16 / 4		
TV Out Function (!)	1(Capture Card only), 2(with Live Video Card)			
Watch-Dog Function	Yes			
Video Compression	MJPEG / MPEG			

(!): Full screen and auto sequential switch from capture card, with Live video board connection will get split screen.

### ● Required PC Specification

Record frame	30 frame	60 frame	120 fame	240 frame
CPU	Intel Pentium III 866MHz		Intel Pentium IV 1.6GHz	
Mother Board	Intel 815EP Chipset		Intel 845 Chipset	
VGA Card	AGP type support 1024x768 True-color			
RAM	128MB		256MB	
HDD	5400RPM		7200RPM	
O/S	Win9x/ Windows2000 SP3 /Windows XP			

### Recommend PC

Record frame	30 frame	60 frame	120 frame	240 frame
CPU	Pentium IV	Pentium IV 1.6GHz		Pentium IV 2.4GHz
Mother Board	Intel 845 Chipset			i845 / i850
VGA Card	nVidia GeForce2 MX 32MB RAM ATI Radeon			nVidia GeForce 4 ATI Radeon 7500
HDD	80GB 7200RPM			160GB 7200RPM

## 5. Recording Time Table

\*Frame Size table

Compress. mode	Resolution	Compress rate (%)	Frame Size (KB)	SAVE AS JPEG(KB)
JPEG	640X480	90	52	50
		00	9.6	25
	320X240	90	11.3	23
		00	3.5	8
MPEG	640X480	90	22	50
		00	8.3	44
	320X240	90	8	19
		00	3	15

\*Recording times and HDD space request,

Recording Speed	30 fps	60 fps	120 fps	240 fps
1 Min	16.5MB	33MB	66MB	133MB
1 Hour	843MB	1687MB	3375MB	6750MB
1 Day	19.8GB	39.5GB	79GB	158GB
1 Week	138.6GB	277GB	554GB	1108GB
2 Weeks	277GB	554.5GB	1108GB	2217GB
1 Month	594GB	1188GB	2376GB	4752GB

For more recorded data keep, we suggest use the Disk Raid to do it.

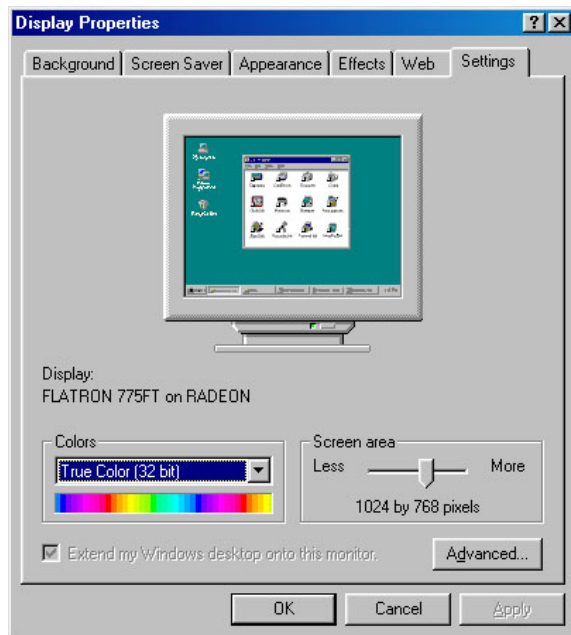
### **Notice:**

- Full record speed continuously (No Motion Detection)
- Compress Mode at MPEG
- Resolution using 320x240.
- Video Quality ratio at 90%.
- The above data is just estimated and not exact values. It differs from the setting of the Video Compression ratio, the Camera Video quality (less noise), moving objects ratio,...etc.

## 6. Startup

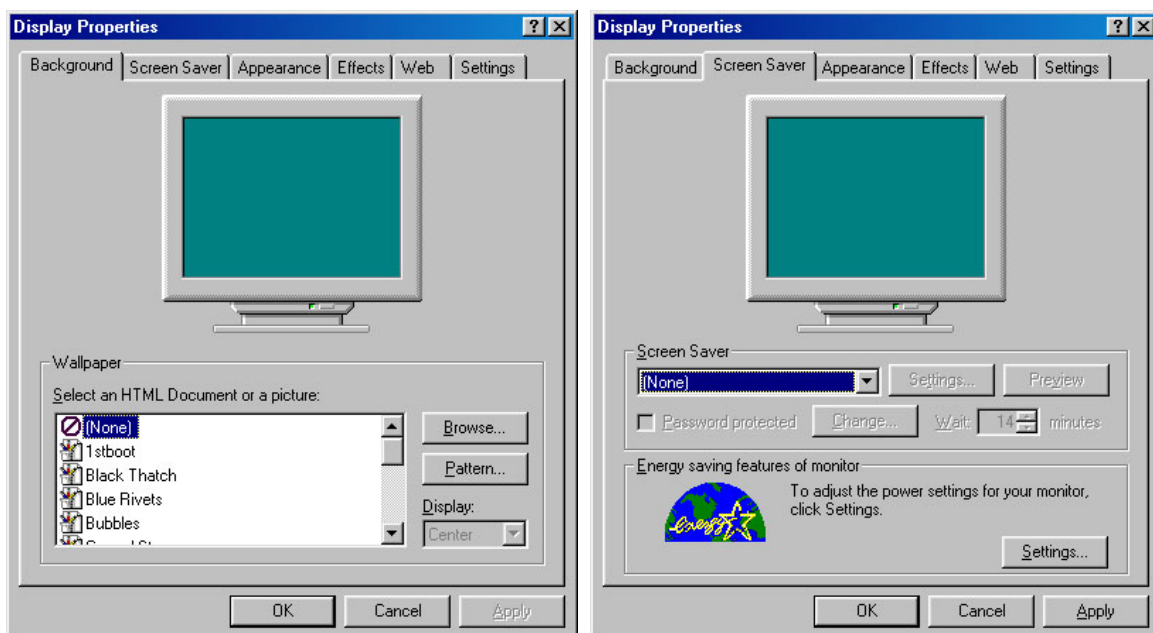
### 6-1. Monitor Resolution

All of our software is designed on Monitor Resolution at 1024 by 768 pixels. If your monitor does not support this resolution or is not set as it requires, our program will not work properly on your system. Set your monitor as follows.

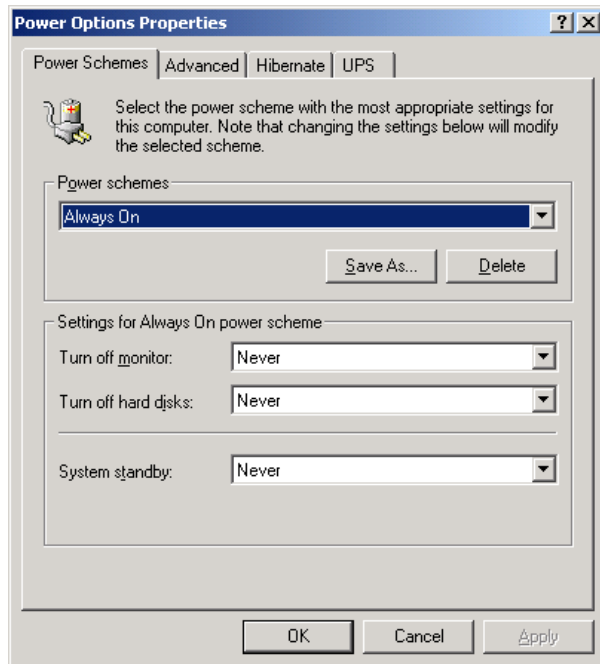


### 6-2. Power Management & Display properties

If you select any of such the options above, the application program will conflict against the selected options. So, check out your system to see if there is any selected options' confliction.







### 6-3. DirectX 8.0 or newer version installed

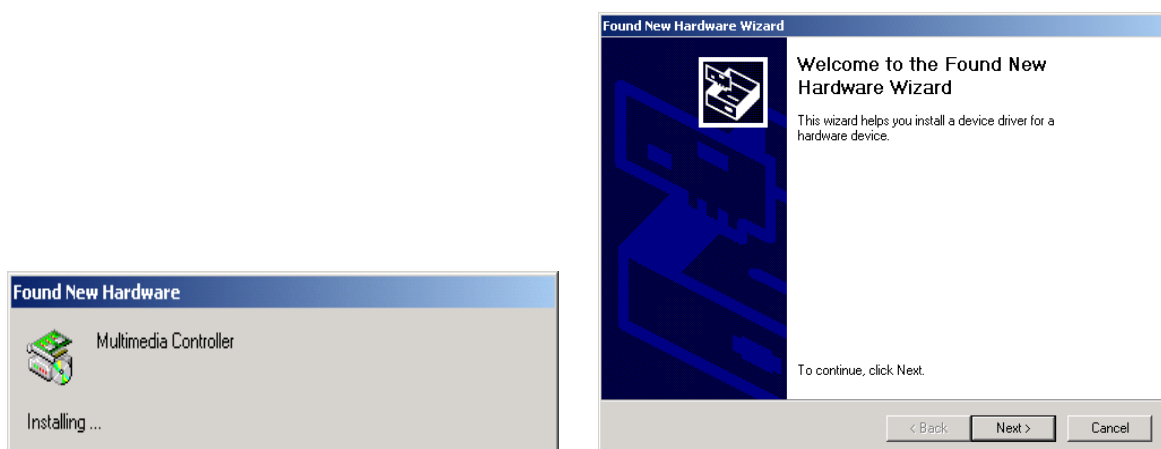
All of our software is required DirectX8.0 software installed in your existed system. If you have the O.S. of Windows 98SE / 2000, then you have to update DirectX version.

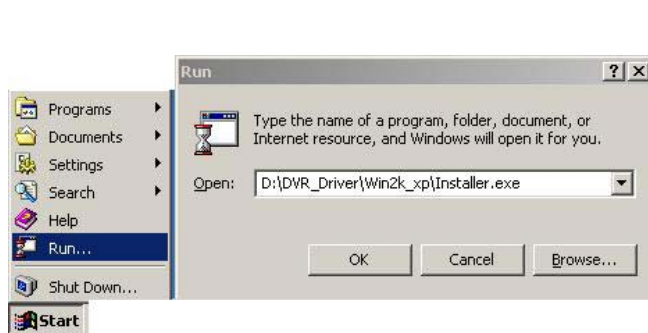
So, if you are planning to install our software to the OS of Windows 98, 98SE, or ME, check your system if DirectX is already installed? Or just reinstall DirectX Ver. 8.0.

## 7. Driver Installation

DVR driver support Win9x and Win2000/WinXP, select correct folder below DVR\_Driver. This Driver Installation is Windows 2000 English version, but the same with the other operation system. First Win2000 will automatically find Board as a new hardware device. Please all **Cancel**.

**Notice:** If you have been installed, please **delete** all **DVR drivers** at Device Manager before install.



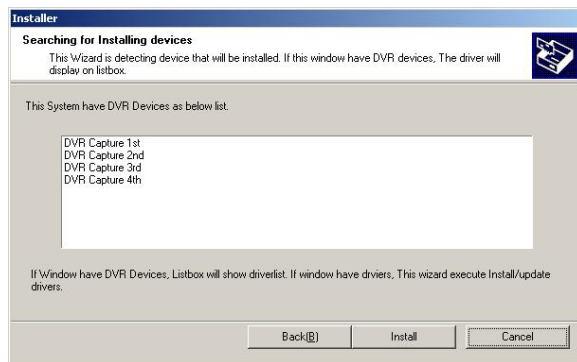


Click Start-Run, and key-in DVR Driver location.

For example, D:\DVR\_Driver\Win2k\_xp\Installer.exe

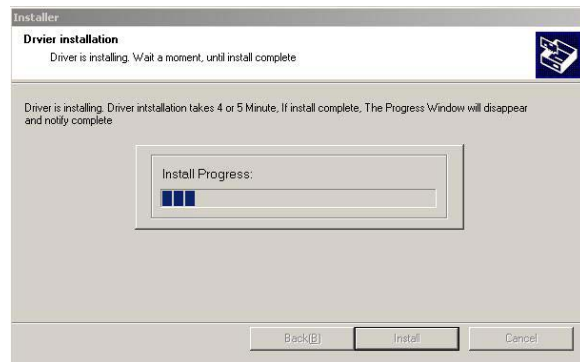


Click Next.

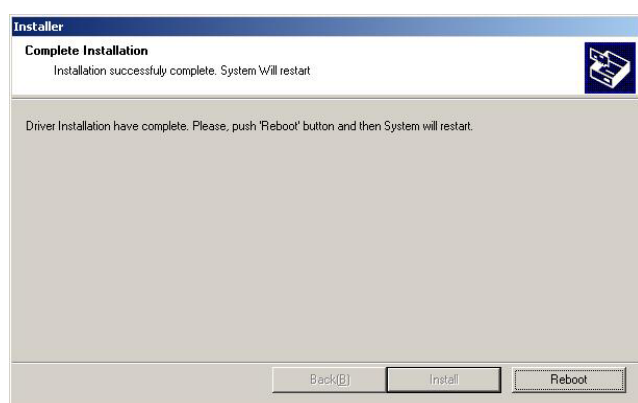


Installer will list the device, click 'Install'.

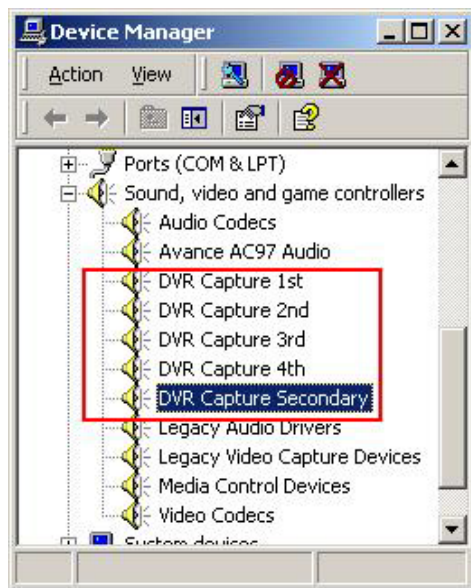
**Notice:** if the system have been installed the driver, it will without list.



If the 'Digital Signature' window show up, Please click 'Yes'.



Click 'Reboot'



There should be some drivers on the Device Manager of your system per model if you install successfully DVR board. Check it out to make sure.

#### 1. 30 Frame

- DVR Capture 1 st
- DVR Capture Secondary

#### 2. 60 Frame

- DVR Capture 1 st
- DVR Capture 2 nd
- DVR Capture Secondary

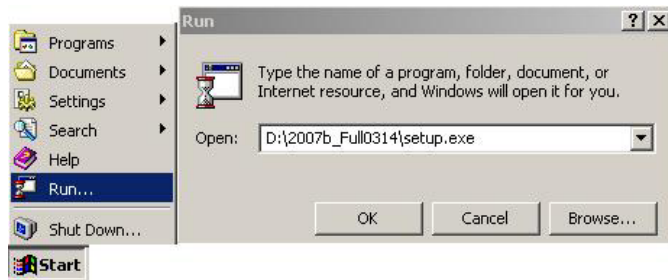
#### 3. 120 Frame

- DVR Capture 1 st
- DVR Capture 2 nd
- DVR Capture 3 rd
- DVR Capture 4 th
- DVR Capture Secondary

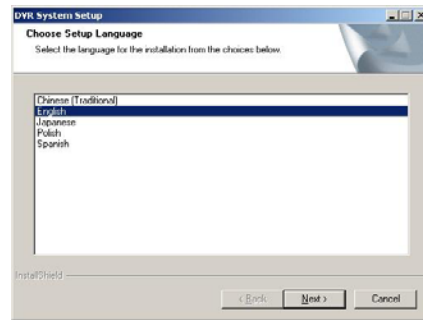
#### 4. 240 Frame

- DVR Capture 1 st
- DVR Capture 2 nd
- DVR Capture 3 rd
- DVR Capture 4 th
- DVR Capture 5 th
- DVR Capture 6 th
- DVR Capture 7 th
- DVR Capture 8 th
- DVR Capture Secondary

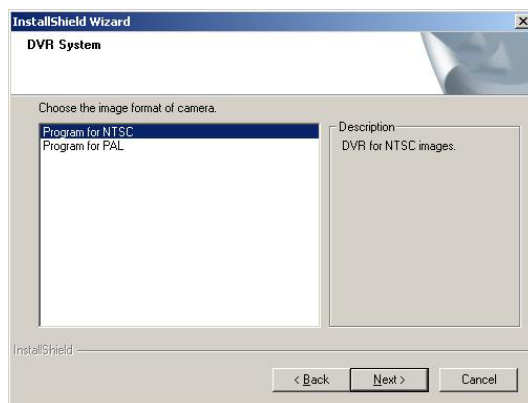
## 8. Software Installation



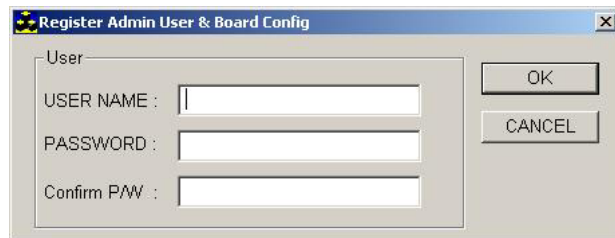
Run the DVR\_Install\Setup.exe from cd-rom



Select language then click 'Next'



Select NTSC or PAL and 'Next'



Input the Admin's user name and password.



Click 'OK'



Click 'Yes' if you don't have been install Adobe PDF Reader.



Click 'Next'



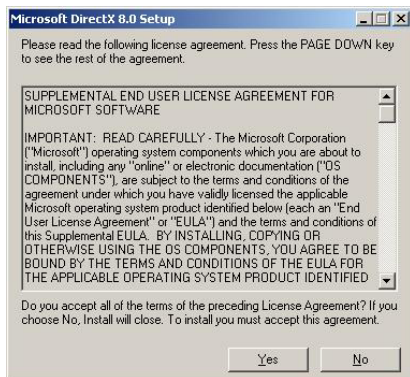
Click 'Next'



Click 'OK'



Click 'Yes' if system DirectX version is older then 8.0



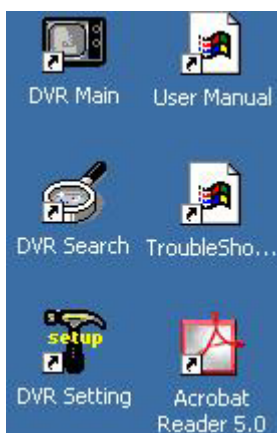
Click 'Yes'



Click 'OK'



Click 'Finish', then it will reboot system.

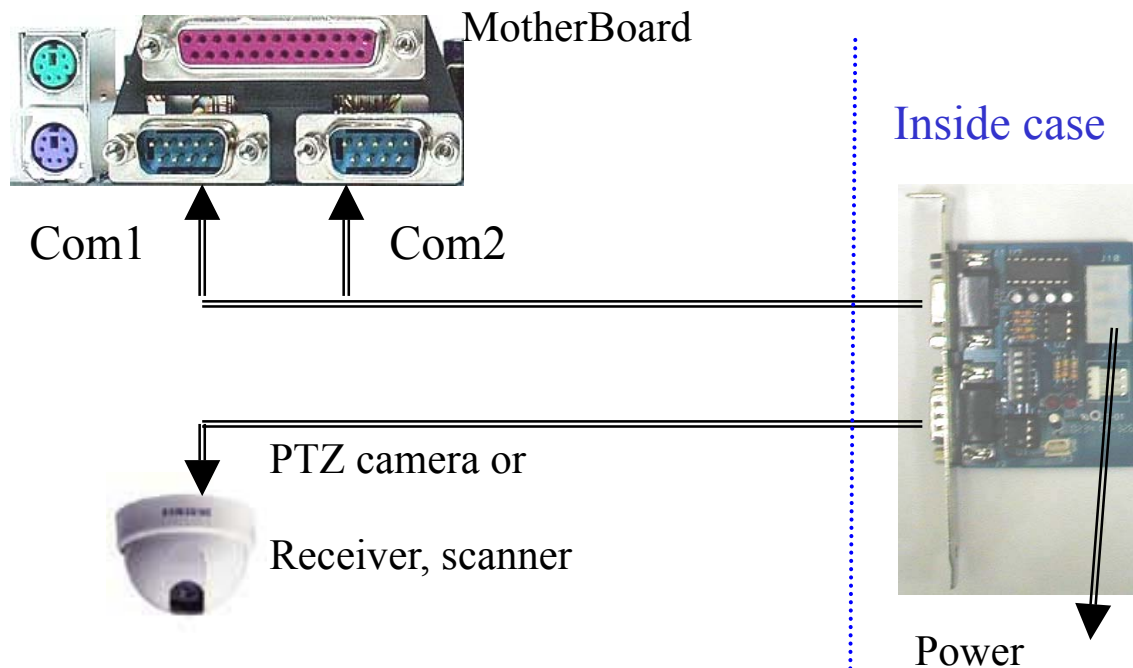


Then, you can use program from **desktop** or '**Start**'-**DVR System**' menu.

**Notice:** Before record image, please go into **DVR Setup-Image Tool**, make file system.



## 9. Pan/Tilt/Zoom Camera connection



\*. Refer to camera manual to set up speed,data,stop bit and parity.

