

# QUICK START

## 16 / 8 / 4 CH Real Time MPEG-4 Network DVR

### ROHS AND WEEE COMPLIANCE



All lead-free products offered by the company comply with the requirements of the European law on the Restriction of Hazardous Substances (RoHS) directive, which means our manufacture processes and products are strictly "lead-free" and without the hazardous substances cited in the directive.



The crossed-out wheeled bin mark symbolizes that within the European Union the product must be collected separately at the product end-of-life. This applies to your product and any peripherals marked with this symbol. Do not dispose of these products as unsorted municipal waste.

## 1 Make Sure Your Package Contains :

MODEL	16CH	8CH	4CH	16CH / 8CH / 4CH DVD-RW / CD-RW
Digital Video Recorder	✓	✓	✓	✓
Adapter	✓	✓	✓	✓
Licensed Software AP	✓	✓	✓	✓
IR Transmitter and IR Receiver	✓	✓	Optional	✓
Power and Data Bus	✓	✓	✓	✓
DSUB PIN Connector	✓	✓	✓	✓
Screws	✓	✓	✓	✓

Please read instructions thoroughly before operation and retain it for future reference.

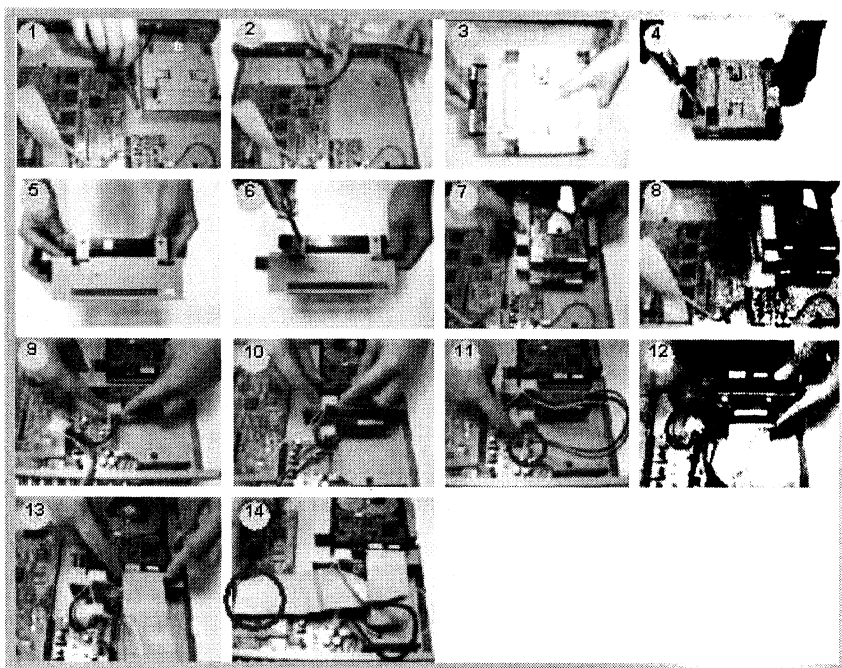
## 2 Install HDD :

- 16CH / 8CH
- 16CH (D) / 8CH (D) / 4CH (D)

Carefully follow the steps to ensure correct installation.

\*\*\* Note: If you want to install two HDDs, please set one HDD to "Master Mode" or "Single Mode", and the other one to "Slave Mode". \*\*\*

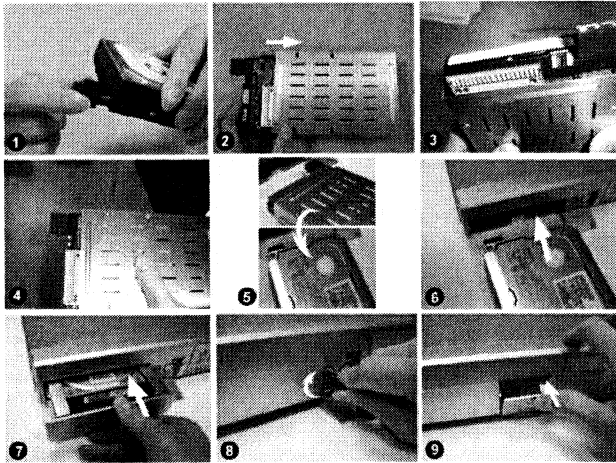
- 1) Open the upper cover of the DVR and screw out the bracket. ① ~ ②
- 2) Screw HDD to the HDD bracket. ③ ~ ⑧
- 3) Connect the HDD to the power connector and IDE BUS (make sure to align the HDD precisely to the pin connection). ⑨ ~ ⑭
- 4) Close the upper cover of the DVR.



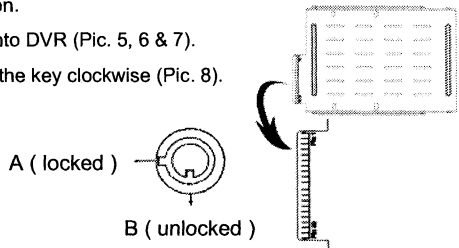
● 4CH

Carefully follow the steps to ensure correct installation.

\*\*\* Note: Please set one HDD to "Master Mode" or "Single Mode" \*\*\*



- **Step 1** Connect the connector with the HDD (Pic. 1).
- **Step 2** Put HDD into the HDD cartridge with the pins facing outside (Pic. 2).
- **Step 3** Fasten the HDD to the cartridge. Before you fasten the HDD, please be aware that you must to align the pins of the HDD with the pin marks of the cartridge. Then fasten the HDD correctly (Pic. 3 & 4). You must precisely align the hard disk to the pin connection to ensure correct installation.
- **Step 4** Reverse the HDD and put it into DVR (Pic. 5, 6 & 7).
- **Step 5** Lock the HDD slot by turning the key clockwise (Pic. 8).

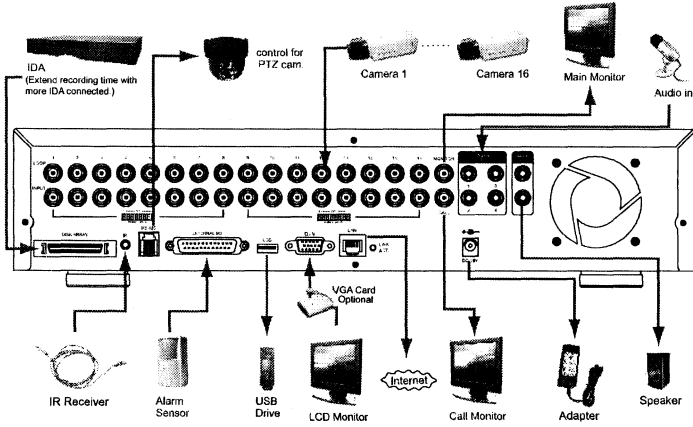


**Note :** If you do not lock the HDD cartridge the DVR system will not function properly.

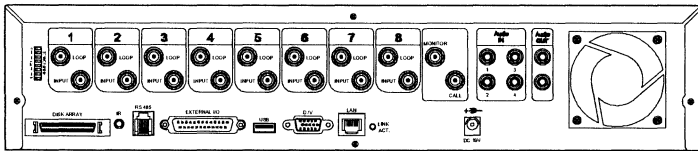
- **Step 6** Close the cap (Pic. 9).

### 3 Physical Connections :

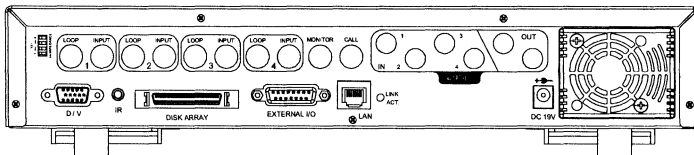
● Take 16CH / 16CH (D) as an example



● 8CH / 8CH (D)



● 4CH / 4CH (D)



## 4 System Time Setup :

Before using this unit, please set up the system time first in order to process the functions correctly.

- Press "MENU" button to enter menu list
- Enter the default password "0000" to unlock keys
- Go to "DATE" menu and set the date
- Press "+" or "-" button to set the correct time of the DVR
- If users would like to activate the daylight saving function, please turn the daylight saving function "ON" and press "ENTER" button to enter the daylight saving setting page.
- After setting, please press "MENU" to exit

DATE	
DATE	2006-MAR-28 14:30:00
FORMAT	Y-M-D
DAYLIGHT SAVING	ON

DAYLIGHT SAVING	
START	4TH-SUN-MAR 01:00:00
END	4TH-SUN-OCT 01:00:00
ADJUST	01:00

**NOTE:** The illustrated setting means: During the daylight saving time period (start from the 4<sup>th</sup> Sunday of March, end on the 4<sup>th</sup> Sunday of October), the DVR system time will plus one hour.

**NOTE:** If the time and date settings return to their default values after the DVR is rebooted, please charge the DVR for at least 24-48 straight hours. Please contact your local retailer if the situation still occurs.

## 5 Record & Playback :


### Record:

- 16CH / 8CH: "RECORD"
- 16CH (D) / 8CH (D) / 4CH (D): "RECORD"
- 4CH: "REC"

RECORD
MANUAL RECORD ENABLE
EVENT RECORD ENABLE
TIMER RECORD ENABLE
OVERWRITE
RECORD IMG SIZE
RECORD QUALITY
MANUAL RECORD IPS
EVENT RECORD IPS
TIMER RECORD IPS
TOTAL IPS SHARE

### Playback:

Press "PLAY" button, and the DVR will playback the last recorded video.

- FAST FORWARD (F.F.) & FAST REWIND (REW): ►► ◄◄
- PAUSE / IMAGE JOG: ■■
- STOP: ■
- CHANNEL SHIFT  
(Display Mode, Full Screen Switch, and Channel Display Switch)
  - 16CH / 8CH: "SHIFT" + "SET"
  - 16CH (D) / 8CH (D) / 4CH (D): "SHIFT" + "SET"
  - 4CH: "SET"
- SLOW PLAYBACK
  - 16CH / 8CH: "SHIFT" + "SLOW"
  - 16CH (D) / 8CH (D) / 4CH (D): "SHIFT" + "SLOW"
  - 4CH: "SLOW"
- AUDIO
  - 16CH / 8CH: "SHIFT" + "AUDIO"
  - 16CH (D) / 8CH (D) / 4CH (D): "SHIFT" + "AUDIO"
  - 4CH: "  "

## 6

### Backup :

● **USB BACKUP~** FOR 16CH / 8CH / 4CH and 16CH (D) / 8CH (D) / 4CH (D)

BACKUP	
USB BACKUP	

USB BACKUP				
START TIME	2006-05-12 16 : 00 : 00			
END TIME	2006-05-12 21 : 00 : 00			
AVAILABLE SIZE	0512 MB			
CHANNEL	● 01	● 02	X 03	X 04
	X 05	X 06	X 07	X 08
	X 09	X 10	X 11	X 12
	X 13	X 14	X 15	X 16
HDD NUM	MASTER			
BACKUP TO USB	START			

## ● DISK BACKUP ~ FOR 16CH (D) / 8CH (D) / 4CH (D)

Go to "MENU" → "ADVANCE" → "BACKUP", and press "ENTER". The screen will show the following options:

BACKUP	
USB BACKUP	
DISK BACKUP	

Select "DISK BACKUP" and press "ENTER".

DISK BACKUP				
START TIME	2006-05-12 16 : 00 : 00			
END TIME	2006-05-12 21 : 00 : 00			
AVAILABLE SIZE	4083 MB			
CHANNEL	● 01	● 02	X 03	X 04
	X 05	X 06	X 07	X 08
	X 09	X 10	X 11	X 12
	X 13	X 14	X 15	X 16
HDD NUM	MASTER			
BACKUP TO DISK	START			

- 1) Press "+" and "-" buttons to open the **DVD / CD WRITER**. Put the **DISK** into **DVD / CD WRITER**, and press "+" and "-" buttons again to close. **(NOTE: Use DVD-R DISK only)**
- 2) Go to "DISK BACKUP" menu and set the start time, end time, channels and HDD number.

Note:

Select channels by pressing "ENTER" button to change the symbol in front of the channel number.

Symbol "X" means that this channel is not selected.

Symbol "●" means that this channel is selected.

Only 4 channels support audio backup. If you want to backup images with audio, please connect the camera to the correct channels.

16CH / 16CH(D) models: CH13, CH14, CH15 and CH16

8CH / 8CH(D) models: CH5, CH6, CH7 and CH8

4CH / 4CH(D) models: CH1, CH2, CH3 and CH4

- 3) After setting up the backup information, move the cursor to "START", and press "ENTER". While the files are backing up to **DISK**, users will see the backup completed percentage on the screen.
- 4) After backup files to **DISK**, "DISK BURN FINISH" message will be prompted on the screen. Press "+" and "-" to eject the **DISK** from **DVD / CD WRITER**.
- 5) Put **DISK** into the **DVD / CD -ROM** of your PC. (O/S system: Windows XP and Windows2000). And then double click the file → Convert the file → Play the backup file at PC side.

**NOTE:** The maximum number of backup files in the disk is 41.

For detailed instructions, please refer to P.36 of the user's manual.

## 7

## Network Setup

There are two ways to make network setup: via your DVR locally or via the licensed AP interface.

### ◆ Via DVR

Go to "MENU" → "ADVANCE" → "NETWORK", and you will see a network setup screen as follows:

NETWORK	
NETWORK TYPE	STATIC
DNS	168. 95. 1. 1
PORT	0 0 8 0

There are three options for NETWORK TYPE: STATIC, DHCP and PPPoE. Select one of the network type by pressing the button "+" or "-", and press "ENTER" to go to the submenu for further setup.

#### NETWORK TYPE: STATIC

After selecting STATIC as the network type, press "ENTER" and you will see a setup screen as follows. Enter IP, GATEWAY and NETMASK information needed in the DVR by using the button "+" or "-". Press "MENU" again to finish the setup.

STATIC	
IP	60. 121. 46. 236
GATEWAY	60. 121. 46. 226
NETMASK	255. 255. 255. 254


#### NETWORK TYPE: DHCP and PPPoE

For DHCP and PPPoE settings, it's recommended to set directly via the licensed AP interface because more detailed information has to be set via this interface. Please see P.9 for more details.

You also need to apply DDNS service to get a "Hostname" before using DHCP and PPPoE network services. Please see at P.9 for more details.



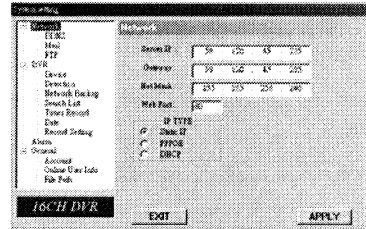
## ◆ Via Licensed AP

Choose the icon  (SYSTEM CONFIG) from the top control panel, and "System setting" window will be shown. Choose "Network" and you will see the screens from 1 to 3 on the right hand side for different setting.

### 1. Static IP setup

Select "Static IP" from "IP TYPE" section, and enter "Server IP", "Gateway", "Net Mask" and "Web Port" (80~19999) information.

Press "APPLY" to confirm and finish the settings.



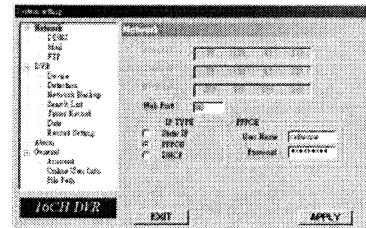
Server IP	56	42	45	215
Gateway	59	42	45	225
Net Mask	255	255	255	0
Web Port	80			

1. Static IP setup

### 2. PPPOE setup

Select "PPPOE" from "IP TYPE" section. Enter "User Name" and "Password" information provided by your ISP (Internet Service Provider) supplier, and type "Web Port" information (80~19999).

Press "APPLY" to confirm and finish the settings. Then, go to "Network" → "DDNS" for further setup (See 4. DDNS setup).



Web Port	80			
User Name				
Password				

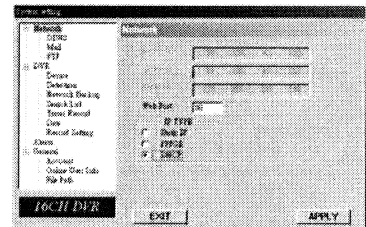
2. PPPOE setup

### 3. DHCP setup

Select "DHCP" from "IP TYPE" section, and enter "Web Port" information (80~19999). Your router or cable modem network needs to support DHCP function.

Press "APPLY" to confirm and finish the settings. Then, go to "Network" → "DDNS" for further setup (See 4. DDNS setup).

**NOTE:** Some router brands may require to restart your DVR to get the IP address.



Web Port	80			
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3. DHCP setup

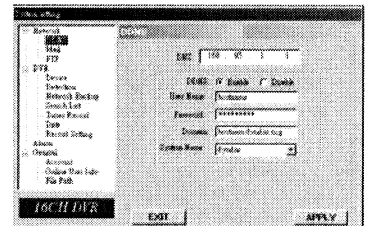
### 4. DDNS setup

Go to "Network" → "DDNS".

To configure DDNS setup, please go to a website (Ex: [www.dyndns.org](http://www.dyndns.org)) which provides free DDNS service and **get a "Hostname" first**. For details, please check "[DDNS APPLY EXAMPLE](#)" at P.38 in your user's manual.

Enter "User Name", "Ppassword" and "Domain" information, and select your DDNS system name from "System Name" drop-down menu.

**NOTE:** When "AUTO" check box is selected, the system will automatically get DNS information from the Internet.



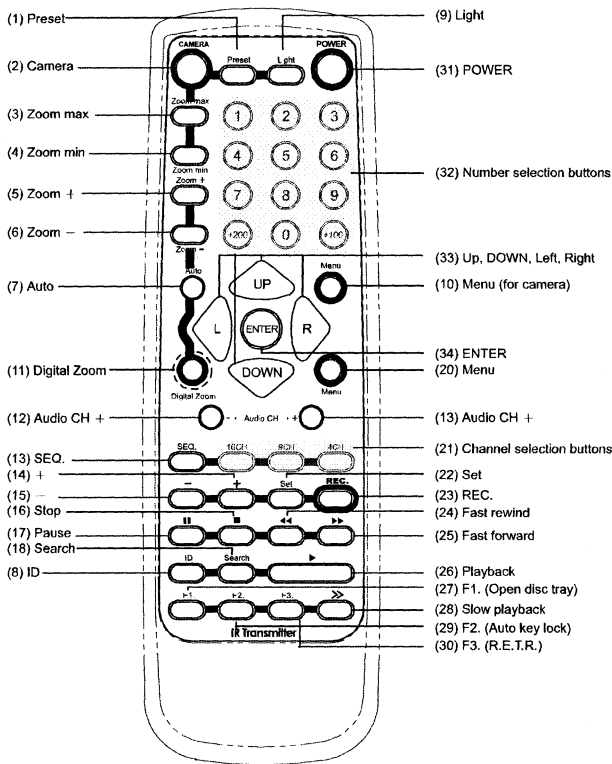
System Name	116	116	116	116
User Name				
Password				
Domain	Dyndns-Global.org			
System Name	Dyndns			

4. DDNS setup

# 8

## IR Transmitter :

- \* IR control for PTZ camera, DVR, and remote switch
- \* IR emission distance: straight line is 10m; transmit at left and right 22.5° is 8m
- \* Control up to 255 PTZ cameras and remote switch
- \* Enabling different ID
- \* Current consumption: AAA size battery × 2

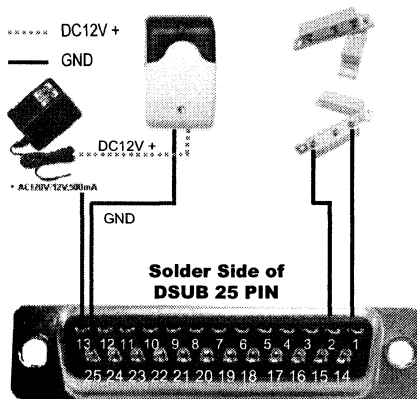


- \* CAMERA control buttons: Button (1) to (10). (button 9) is used for controlling the switch)
- \* DVR control buttons: Button (11) to (30).
- \* OTHER control buttons: Button (31) to (34) (Support controlling both CAMERA & DVR).

# 9 PIN Connection

- 16CH / 8CH
- 16CH (D) / 8CH (D)

PIN	FUNCTION	DESCRIPTION
1	GND	GROUND
2-9	ALARM INPUT	When connecting the wire from ALARM INPUT (PIN 2 -- 9) to GND (PIN 1) connector, DVR will start recording and the buzzer will be on. When "MENU -> ADVANCE -> DETECTION -> DETECTION SETUP -> ALARM" is set to "Low": When the alarm input signal is " Low ", the unit starts to record and buzzer. When "MENU -> ADVANCE -> DETECTION -> DETECTION SETUP -> ALARM" is set to "High": When the alarm input signal is " High ", the unit starts to record and buzzer.
10	PIN OFF	
11	TXD232	DVR can be controlled remotely by the keyboard of PC by using RS-232 serial communication signals.
12	RS485-A	DVR can be controlled remotely by the keyboard of PC by using RS-485 serial communication signals.
13	EXTERNAL ALARM NO.	Under the normal operation, COM disconnects with NO. But when any alarm is triggered, COM connects with NO. Attention: The voltage restriction is under DC24V 1A.
14	PIN OFF	
15-22	ALARM INPUT	When connecting the wire from ALARM INPUT (PIN 15 -- 22) to GND (PIN 1) connector, DVR will start recording and the buzzer will be on. When "MENU -> ADVANCE -> DETECTION -> DETECTION SETUP -> ALARM" is set to "Low": When the alarm input signal is " Low ", the unit starts to record and buzzer. When "MENU -> ADVANCE -> DETECTION -> DETECTION SETUP -> ALARM" is set to "High": When the alarm input signal is " High ", the unit starts to record and buzzer.
23	RXD232	DVR can be controlled remotely by the keyboard of PC by using RS-232 serial communication signals.
24	RS485-B	DVR can be controlled remotely by the keyboard of PC by using RS-485 serial communication signals.
25	EXTERNAL ALARM COM	Under the normal operation, COM disconnects with NO. But when any alarm is triggered, COM connects with NO. Attention: The voltage restriction is under DC24V 1A.



PIN Connection Application

When the magnetic contact is opened, the alarm will be triggered and the recording is on. At the same time, COM connects with NO and the siren with strobe starts wailing and flashing.

**NOTE:** Please go to MENU -> ADVANCE -> DETECTION -> DETECTION SETUP, and set ALARM to LOW on the local machine.

● 4CH / 4CH (D)

**Solder Side of DSUB 15 PIN**



PIN	FUNCTION	DESCRIPTION
1	RS232-TX	DVR can be controlled remotely by the keyboard of PC by using RS-232 serial communication signals.
2	RS232-RX	DVR can be controlled remotely by the keyboard of PC by using RS-232 serial communication signals.
3-6	ALARM INPUT	To connect the wire from ALARM INPUT ( PIN 3 -- 6 ) to GND ( PIN 9 ) connector, DVR will start recording and the buzzer will be on.  When "MENU -> ADVANCE -> DETECTION -> DETECTION SETUP -> ALARM" is set to "Low" : When the alarm input signal is " Low ", the unit starts to record and buzzer.  When "MENU -> ADVANCE -> DETECTION -> DETECTION SETUP -> ALARM" is set to "High" : When the alarm input signal is " High ", the unit starts to record and buzzer.
7	EXTERNAL ALARM NC	Under the normal operation, COM connects with NC and disconnects from NO. But when any alarm is triggered, COM disconnects with NC and connects with NO. Attention: The voltage restriction is under DC24V 1A.
8	EXTERNAL ALARM NO.	Under the normal operation, COM disconnects with NO. But when any alarm is triggered, COM connects with NO. Attention: The voltage restriction is under DC24V 1A.
9	GND	Signal GND.
10	RS485-B	DVR can be controlled remotely by the keyboard of PC by using RS-485 serial communication signals.
11	RS485-A	DVR can be controlled remotely by the keyboard of PC by using RS-485 serial communication signals.
12-13	PIN OFF	
14	ALARM RESET	Connecting the wire from ALARM RESET ( PIN 14 ) to GND ( PIN 9 ) connector will disable alarms. An external signal to ALARM RESET ( PIN 14 ) can be used to reset both ALARM OUTPUT signal and DVR's internal buzzer. When any alarm has been triggered, the signal becomes "Low", and all alarm activities will be stopped. Under the normal operation, the signal remains "High".
15	EXTERNAL ALARM COM	Under the normal operation, COM disconnects with NO. But when any alarm is triggered, COM connects with NO. Attention: The voltage restriction is under DC24V 1A.
16-17	GND	Earth GND