



USER MANUAL



TUTIS-16F3 DVR

EVERFOCUS ELECTRONICS
CORPORATION

TUTIS-16F3

Instruction Manual

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Notes:

1. The power supply of this DVR is provided through DC12V adapter, please check the power output before installation and ensure it can meet the requirements.
 2. Do not place the DVR at a place subject to rain and moisture;
 3. Do not install the DVR at a place subject to violent vibration;
 4. Do not install the DVR at a place subject to direct sunlight, and be far away from high temperature environment;
 5. The DVR should be installed in a space without much dust, and the environment should be kept clean and tidy;
 6. The DVR's back panel should be placed 15cm or more away from other objects or wall for cooling;
 7. The DVR should work under temperature, humidity and voltage according to its technical specifications;
 8. The space where DVR is installed should not be stored with corrosive chemicals that may produce volatile gases to avoid affecting the DVR's life;
 9. Proper grounding should be guaranteed during operation;
 10. The DVR shall be installed to ensure proper connection with other devices.
- Please buy HDD from official channel to meet DVR's long time and large data reading and writing requirements.

Statement:

1. This manual only introduces basic operation, and please refers to the E-manual in the CD for detailed operation.
2. Products are subject to the real products and this manual is just for reference.
3. Products update without further notice. Nuances of partial functions are permitted before and after updating.
4. Please contact the Customer Service Department for the latest program and supplementary instruction files.
5. This manual is applicable to various models, and the specific operation of each product is not listed here. Users can operate the DVR based on this manual for the actual products.
6. We have tried our best to ensure the completeness and accuracy of this manual. However, due to the unstable environment and other reasons, the real value of some data may differ. If any problem or dispute arises, the company's final explanation will prevail.
7. If carrying out operation not according to the instruction of this manual, the user shall bear the losses sustained.

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Chapter 1 Open-case inspection and quick installation

1.1 Open-case inspection

1.1.1 Notes

- ◆ When you receive the products, please check if the DVR is complete and make sure if there is any accidental damage during transportation.
- ◆ Secondly, you can open the package and check if the accessories are complete, and then remove the protective film of the DVR package.

1.1.2 Package and accessories

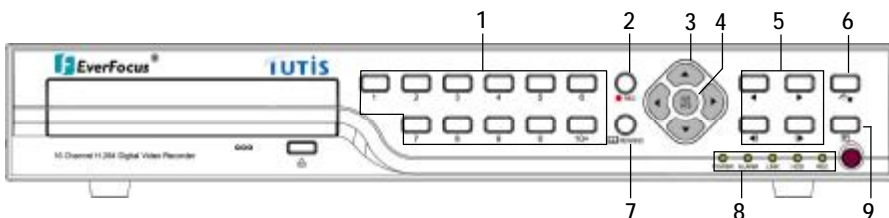
The Package contains the following accessories:

- ◎One IR remote controller
- ◎One pair of remote controller batteries
- ◎One piece of Product Certificate
- ◎One piece of User Manual
- ◎Two SATA HDD cables (already installed in the case)
- ◎One DC12V5A /DC 12V3A power adapter
- ◎One HDD bracket (already installed) and mounting screws, etc.
- ◎One piece of CD

Note: Specific model of the above accessories may differ, so please refer to the list of accessories in the package.

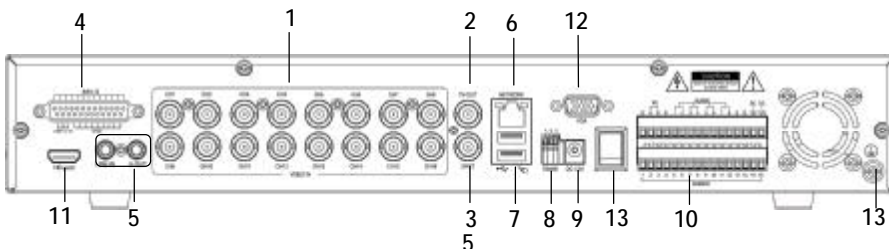
1.2 Product appearance and port

Front panel 1: (Please refer to the real products and this is just for reference)



1. Playback 2. Step back 3. Search / Stop 4. Step forward 5. Play forward 6. Log
7. Display mode 8. Record 9. Arrow keys 10. Enter / PTZ control 11. Menu / Exit
12. System Info 13. Mute

Back panel 1:



1.16CH video in 2.Main video out 3. Auxiliary video out 4.16CH Audio in
5.Intercom in and audio out 6.Network port 7.USB port 8.RS485 9.Power in
10.4CH alarm out & 16CH alarm in 11.HD output port 12.VGA output 13.Power
switch

1.3 Quick installation

1.3.1 HDD installation

- (1)Open the cover of DVR, fix the HDD into the bracket;.
- (2) Connect the HDD data and power cable to the HDD;
- (3)Tighten the screws to fix the HDD in the case;
- (4)Lock the HDD case.

Note: Do not plug HDD when the DVR is on the power state.

1.3.2 Connection to the camera and monitor

Connect the signal of camera with a BNC cable to the DVR video input, connect the signal of DVR video output with a BNC cable to the monitor (Please refer to the back panel figure). Connect the RS485A (+) and the B (-) respectively to corresponding DVR interface with wires, if camera is the PTZ which can be controlled.

Chapter 2 Software interface basic operation

2.1 Power on and login

When the DVR is power on, the system enters the preview status. If there is video input, the corresponding channel will display monitoring video on the main interface. If there is no video input, blue by default. Full screen and multi-screen switch can be realized through double-click and right click on the main interface. Right click and enter the shortcut menu, and select Main menu to enter corresponding Main menu interface.

When operating on relevant menus, the system will remind the user to login, interface as below (picture on the right):



【User name】 : admin by default.

【Password】 : The initial administrator password is: 00000000

2.2 Main menu

2.2.1 Shortcut menu

Right click the mouse, and shortcut menu pops up:



【Main menu】 : System main menu interface

【Single screen】 : Click to enter the corresponding channel and display single screen

【Multi screen】 : Screen display with options of 4, 9 and 16 screens

【Next screen】 : Switch to the next screen channel

【Start / Stop Record】 : It is effective after starting the recording setup

【Record Search】 : Recording playback and backup are available when entering

【PTZ Control】 : enter the PTZ control interface

【Digital Zoom】 : Under single-channel preview screen, when choosing an area, users can enlarge the area

【PIP】 : After clicking, main interface will appear and a small screen will display on the lower right corner.

【System Inform】 : including the version, network address, and recording files, etc.

【System Reset】 : including user locking, system restart and system shutdown

2.2.2 Main menu

Click mouse right button and select the main menu, main menu pops up as below:



【Record】 : “Basic” including resolution, quality, frame rate, pre-Record setup ; “Advanced” including overwrite, overlay; “Recording schedule”: set the recording types of every period every day.

【Alarm】 : including Alarm in, Motion Detection, HDD error, password error and video loss setup.

【Channel】 : Select channel and set channel name, PTZ protocol, PTZ Baud Rate, PTZ Address and Color setup.

【Network】： Set IP, port number, DDNS and Mobile phone surveillance, etc.

【User】： Add, modify and delete users and set the user privileges.

【System】： including Basic setup, Advanced setup, HDD management, and System Maintenance.

【Display】： Main display switching interval, ignoring video loss, and display resolution setups.

【Log】： Information regarding login and starting system will be kept. Users can view the system log information.

【Record Search】： Recording playback and backup are available when entering

Note: For detailed operation, please refer to the detailed operation manual in the CD.

2.3 Recording setup

2.3.1 Basic

【Main menu】 à 【Record】， enter the basic setup Interface:



【Video Channel】： the channel you want to setup

【Resolution】： CIF, Half-D1 and D1;

【Quality】： Recording quality is divided into lowest, low, normal, high, and highest quality.

【Frame Rate】： Refer to the frames per second of encoding. 6, 12 and 25 frames respectively under PAL system, and 1, 15, 30 frames under NTSC system.

【Audio】 Refer to the audio channel of related video. Mouse click and the drop-down box pops up, and there are 1-4 audio channels to choose.(The DVR without audio does not have this option)

【Pre-Record】： Refer to the encoding frames per second before trigger alarm and after finishing alarm event when one channel is set to be timer & alarm recording.

【Copy To】： After setting up the parameters of a certain channel and all parameters of other channels are consistent with this channel, the parameter of this channel can be copied to other channels through this function.

2.3.2 Advanced



【Overwrite】： Select Auto. when the capacity of HDD is full, the new recording file will overwrite the earliest recording file. If selecting Off, it will not record for insufficient space.

【Overlay】： select Yes, the playback screen will display time and date when playback the recording file; select No, it will not display the

time and date.

2.3.3 Plan

“Plan” interface including not recording, timer recording, alarm recording as well as

timer & alarm recording setup.

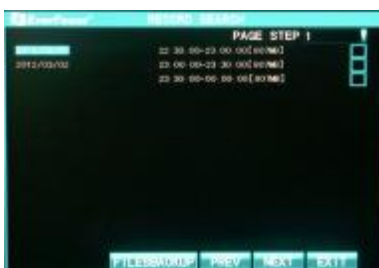


Plan is divided into 7 days a week and 1 hour per period one day. Users can choose the recording type of every period every day. After the parameters are set and saved, copy to the other days or other channels.

2.4 playback and backup

2.4.1 playback

Select **Record search** from shortcut menu or Main menu and enter the interface, with two types of Search by type and Search by time.



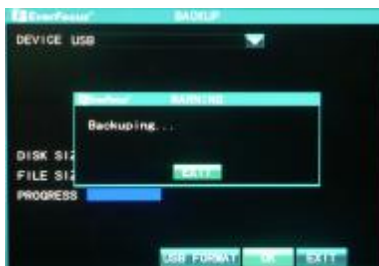
By Type: with 5 options of All, manual, timer, alarm, timer & alarm. Select the type that you want to search in the drop-down box, and choose from the recording list form the left picture below.

By Time: enter the specific time, and detailed file list as the above right picture will pop up. Select and playback.

2.4.2 Recording backup

In the "file list" (left picture above) , select the recording file to backup.

If selecting single file backup, the interface as the following picture(on the left) will pop up; for multiple files backup, select multiple files and click "multiple files backup". The progress of recording backup as shown in the following picture(on the right):



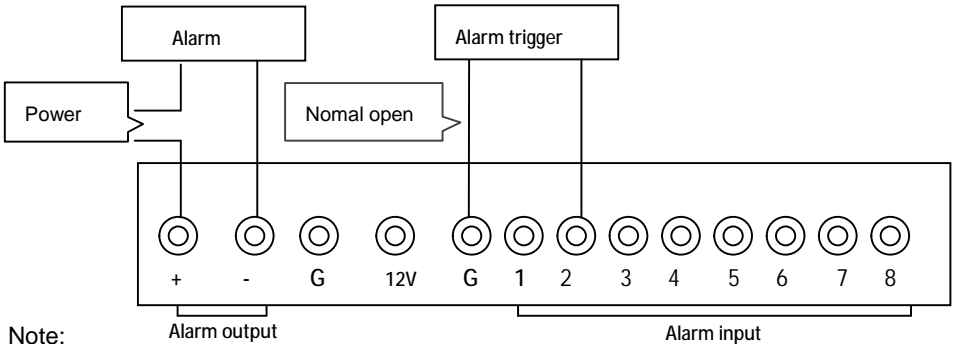
Note: 1. DVD-RW or USB flash disk is optional for recording devices.

2. Do not exit or power off during backup, or it will affect the backup of recording file.
3. Please see the detailed operation manual in the CD.

2.5 Alarm setup

2.5.1 Alarm wiring diagram

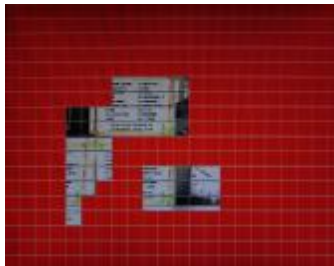
The input side on the back panel of DVR shown as below, please refer to the physical interface of the faceplate:



The above is the 1CH alarm in and 8CH alarm in figure. The back panel of 16CH is 4CH alarm out and 16CH alarm in with the same principle. The above is the normal on status connection figure.

2.5.2 Motion Detection

Main Menu --> Alarm



Sensitivity refers to the motion detection sensitivity which can be set when the recording mode is ALARM or SCHEDULE&ALARM. Choose the sensitivity from the drop-down list, confirm and save the parameter.

Setting procedures:

1. Select channel, sensitivity and detection areas. Sensitivity is off by default with 1-9 options. Detection areas are all by default.
2. Save the parameters and set recording schedule by time. (Please see the 2.3.3 recording schedule for reference.)

(1) Select partial areas in the detection area column on (1) the motion detection interface.

(2) On the motion detection interface(left picture), draw the areas to be detected. Red

blocks represent activated areas, while transparent blocks represent unactivated areas. Confirm and save the parameters after successful setting.

2.6 PTZ setup

2.6.1 Channel setup

Enter from the Main menu to Channel setup. The channel setup interface contains the channel No., channel name, PTZ protocol, PTZ baud rate, PTZ address and color setup.



【Video channel】 : Select the channel. 1-16 is optional.

【Channel Name】 : Enter the channel name. Chinese, English, digit and special characters can be entered.

【PTZ protocol】 : It's used to achieve the communication with the PTZ. Mainly supported baud rate: PELCO-D ,PELCO-P and EverFocus.

【PTZ Baud Rate】 : Select an appropriate baud rate.

【PTZ ID】 : PTZ address code range is 0-255.

【Color Setup】 : Through the brightness, contrast, saturation, chromaticity setup to adjust channel display effect.

【Position】 : Adjust the position of the image on the channel

【Copy】 : After the parameters of a certain channel and all parameters of other channels are consistent with this channel, the parameter of this channel can be copied to other channels through this function.

2.6.2 PTZ Control

Right-click to enter the preview screen and select "PTZ control" in the pop-up shortcut menu, and enter the PTZ control interface (below):



Directional keys are used to control the moving direction of dome. PTZ button can control automatic rotation of common PTZ. Lens zoom, focus, IRIS can be adjusted respectively by using increase "+" reduce "-" buttons. PTZ's moving speed is adjustable and the value range is 0~9. Use the preset: enter the corresponding preset value and the dome lens can be adjusted to the

appropriate position; set the preset position: Enter the corresponding preset number , the targeted position of the dome camera can be set as preset points. Click the "REC PATH" on the interface (the button will display "END PATH" after clicking). Click the " TRACK" (after clicking, it changes to "End track"). The PTZ will operate according to track set and click the "End tracking", and the PTZ will stop.

2.7 Network

2.7.1 Basic

Enter from the Main menu to Network setup. Network setup is divided into Basic setup

and Advanced setup. Basic setup interface mainly includes network access mode, IP address, subnet mask, gateway address and other parameters, as shown below:

【Connect mode】 : with two types of static IP and dynamic IP. IP address, gateway address and subnet mask should be entered manually for the static IP. Dynamic IP is the IP allocated by DHCP server.



【NTP Server】 : Set the time and correct the server address to achieve the time synchronization of DVR.

【HTTP Port】 : For IE browser connecting ,enter the URL <http://192.168.1.220:8000>.

【Media Port】 : The port number adopted when there is private protocol between DVR and

PC end. When ex-factory, the DVR has a default value. If this port is occupied by other Services , modify it to an unused port.

【Intercom port】 : the intercom function for remote device and the DVR

Note: The range of above ports is between 1024 and 65535. the ports can not be the same.

2.7.2 Advanced

【Sub stream】 : Set image quality and frame speed. When the network is not good, the secondary stream can reduce the image quality and frame rate and open by default.

【Email】 : Support email alarm when an event is triggered, DVR system will automatically intercept the pictures when an event is triggered and then send it to the specified mailbox to prompt the users. For specific setup procedures, please refer to the detailed operation in the CD.



【DNS】 : Set the IP of DNS server's

【Mobile】 : Set the mobilephone service port

【UPNP】 : When the UPNP is on (the UPNP at the Router is also on), the DVR host will map the port and IP automatically to the Router.

Note: If the Router doesn't support UPNP, please manually map the corresponding port

from the port forwarding or virtual server. If conflicting with other ports, please modify the port on the DVR.



【DDNS】 : DDNS is a Dynamic Domain Name Server. Set DDNS type, server address, domain name, user name and password, as shown in the picture below (Please refer to the detailed manual in the CD for application method of domain name).

DDNS Type: with options of dyndns.org and tutisddns.com. When you select the DDNS TYPE the table will show you the registered web site below.

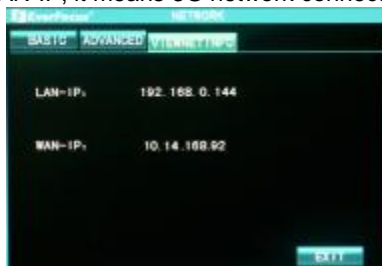
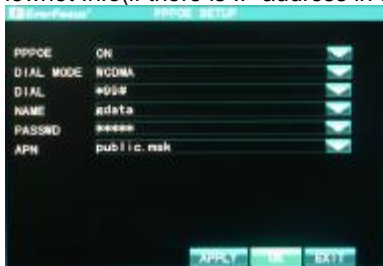
NOTE: When you select the item“tutisddns.com” it will show you the domain name automatically. You can use it to access your DVR.

Domain Name: the domain name applied by the user for the DVR .

User Name: the user name registered on the DDNS.

Password: the password registered.

【PPPOE】 :Setup dial mode and 3G function(support CDMA 2000 and WCDMA),select WCDMA.After success to apply,exit from PPPOE,and then you can see IP info in the V iewnet Info(if there is IP address in the WAN-IP, it means 3G network connected).



Note: Please ask your ISP for more details about the dial-up parameters.

2.8 Mobile phone surveillance

2.8.1 DVR end setup

Confirm the DDNS is enabled . Do not forget forwarding the mobile port 6600 in the router.

2.8.2 Mobile Phone end operation



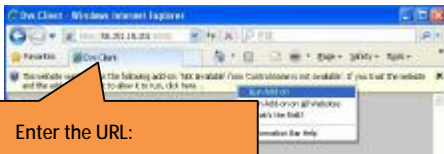
Public IP address or domain

Default :
00000000

Note: Please refer to the Mobile Phone Surveillance Manual for detailed installation method and application instruction.

2.9 IE login

2.9.1 IE Controls download and installation



Enter the URL:

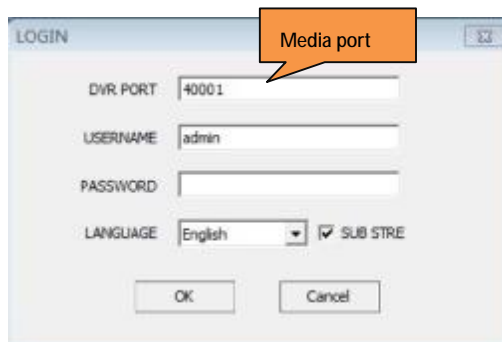
<http://192.168.1.220:8000>



Click "install"

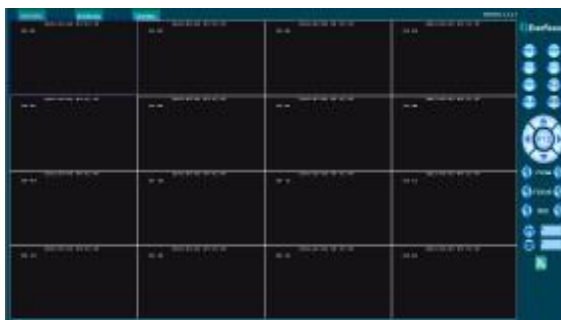
NOTE: the URL also can be Domain or the public IP address

2.9.2 login window



Media port

NOTE: all the ports mentioned on the DVR must be forwarded if you want to access from internet.



After the successful login, the following preview screen will display:

In the preview interface, target at the video window and click the right mouse button, and then you can switch on or off the preview video and audio channels.

2.9.3 Playback and download

Search: choose the date and click the **【Search】** button.



PlayFile: Select a video file in the video file list, click and playback. Operate in the playback screen.

Download: Select the file and click to download.

2.10 Client end and playing software

2.10.1 Client end installation & running

Open the “DVRClient.exe” in the CD, as shown in the following interface:



DVR Addr: IP address assigned to the DVR.

Use Domain: Enable the Domain of the DVR

DVR Port: DVR media port

Username: Default is admin

Sub Stream: When selected, the DVR's network will transmit in sub stream; otherwise, the DVR will transmit in sub stream.

Off-line: If selected, it can become a player

to play local video files.

2.10.2 Playback software

Since the video is in H.264 format, it will need a special player. Open the player file "player.exe" (📄) in the CD, as shown below:



Convert the video to AVI

2.11 Central Management Software (TUTIS CMS)

This system supports connection to DVR through Internet, not through the support of intermediate server. It is convenient for user's management.

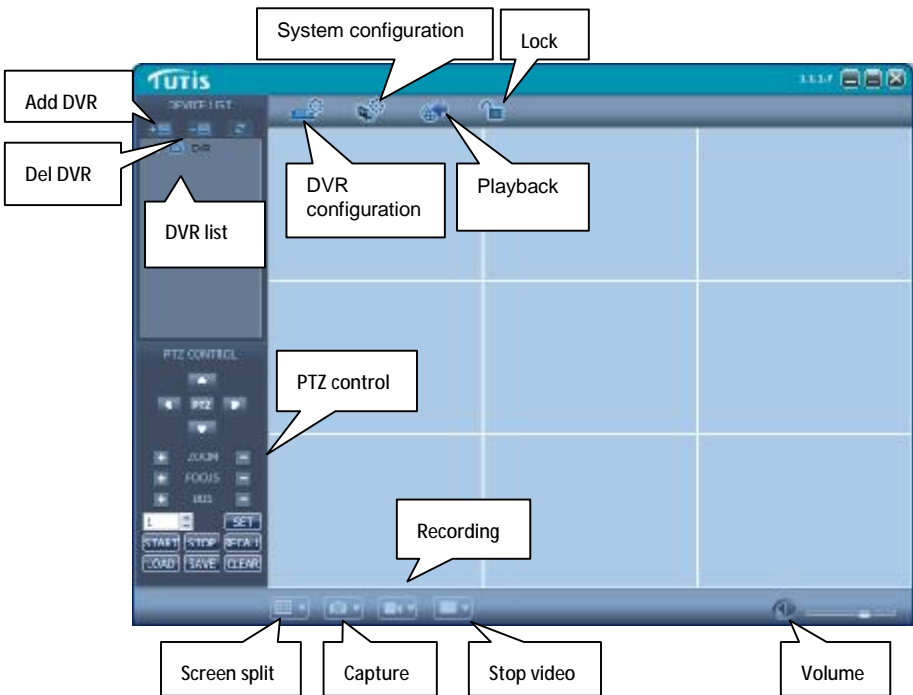
Software installation: Double click to run CD file “TUTIS CMS. msi”, and finish as prompted. After successful installation, double click desktop icon (📄) and run the software. As shown in the following picture:

【User name】 : Create the user name to login



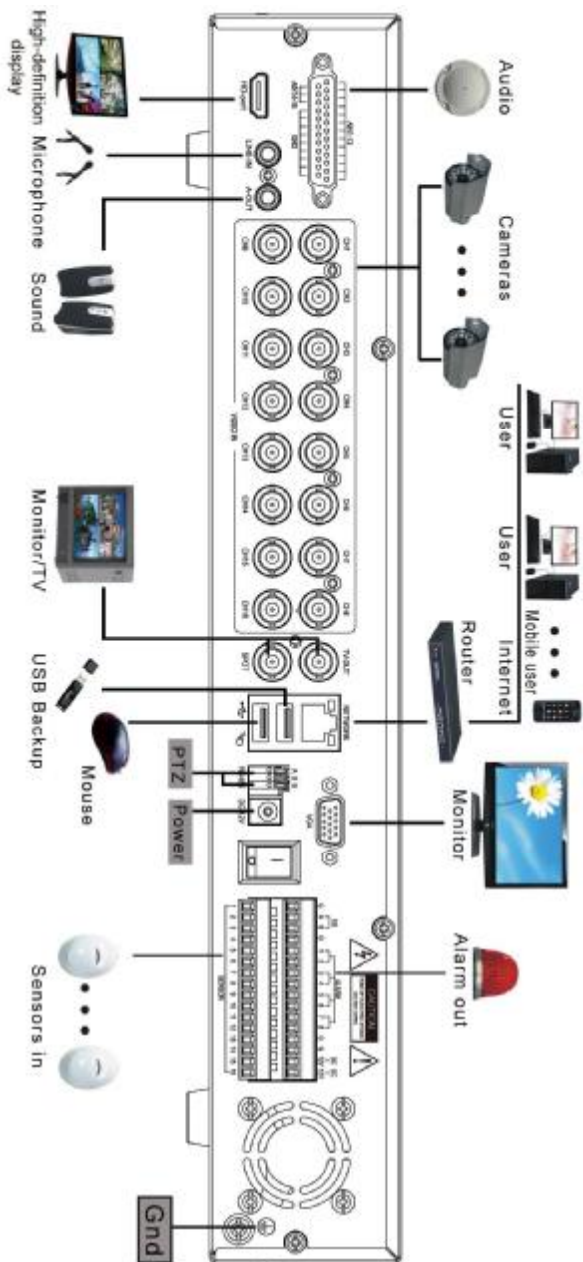
- 【Password】 : Create the initial password
- 【Re-Enter】 : Confirm the initial password
- 【Language】 : Several languages are optional.

Note: If the earlier version of this software has already been installed or forgot, please delete the file “user.cfg” in the installation menu . The default is “C:\Program Files\TUTIS CMS\”.



In the TUTIS CMS, there are adding device, live preview, video playback, system setup, advanced setup, PTZ control and other functions. Please refer to the detailed instruction of TUTIS CMS in the CD for specific operation.

Appendix: System Connection Picture



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