

2 Camera Wired Colour CCTV Kit CWK4



Installation and Operating Instructions

These instructions should be retained in a safe place for future reference.

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The Response Wired Heavy Duty Cameras are colour, weatherproof day/night cameras. The cameras easily connect to your DVR for the protection of your home or office, etc. The cameras are easily mounted on the wall using the supplied mounting brackets.

The Response 4 Channel DVR provides a total video security solution for 4 channel digital surveillance supporting duplex (simultaneous playback and record) functionality.

The DVR's front panel buttons or mouse can operate all DVR menu settings.

Please read before you start:

Always use discretion when installing CCTV surveillance equipment especially when there is perceived policy. Enquire regarding local regulations applicable to the lawful installation of video recording/surveillance. Third party consent may be required.

SAFETY AND INSTALLATION TIPS:

Do not attempt to open the units with the power adaptor plug connected to avoid any risk of personal injury.

When installing CCTV camera(s), always follow manufacturer's advice when using power tools, steps, ladders, etc. and wear suitable protective equipment (e.g. safety goggles) when drilling holes. Before drilling holes through walls check for hidden electricity cables and water pipes. The use of a cable/pipe detector is advisable.

When installing any cameras with this unit, it is advisable to use cable conduit to protect any video/power extension cables from being exposed externally and to prevent/reduce the chances of the cables being tampered with. After drilling any hole though an external wall for a cable, ensure the hole is sealed up around the cable using a sealant to prevent drafts.

To prevent a fire or electrical shock hazard, do not attempt to open the housing while the unit is exposed to rain, water or wet conditions. There are no user serviceable parts inside. Refer servicing to qualified service personnel.

NIGHT VISION:

The Cameras have built-in infra-red LEDs to allow you to view at night for 24hrs surveillance. The LEDs will automatically activate at night and the picture viewed will turn to black and white.

- 1 x 4 Channel DVR unit (with a 160GB hard drive unit fitted in the drawer)
- 2 x Wired Heavy Duty Colour Cameras
- 1 x 10m camera extension cable
- 1 x 20m camera extension cable
- 1 x Power adaptor and power cord
- 1 x 1 to 5 way power splitter cable assembly
- 1 x Video output to monitor cable (1m)
- 2 x BNC to RCA adaptors
- 2 x Camera fixings kits wall plugs and screws, including allen key tool for adjusting camera head position
 - $4 \times \emptyset 3.5$ mm x 27mm screws and $4 \times No.8$, 28mm wall plugs are supplied for each wall bracket
- 1 x Optical mouse
- 1 x User manual
- 1 x PC driver CD for PC back up (for Windows based operating systems only including Vista)
 - Keys for the hard drive drawer
- 2 x Window stickers

What you need to purchase:

USB memory stick if you require backing up recorded video on to a PC. (See appendix for the only compatible USB stick models).

Tools Required:

Electric drill

5mm masonry drill bit

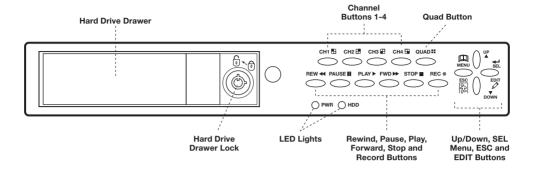
20mm masonry drill bit

No. 2 Philips screwdriver

3mm flat blade screwdriver

- True duplex functionality: simultaneous play/record
- PAL/NTSC operation
- 160GB installed hard drive unit
- High quality colour Video at 50fps or 60fps recording/playback
- Recording speed: PAL max. 50fps (quad); NTSC max. 60fps (quad)
- Recording mode: continuous, motion detection, time schedule
- 123 hours continuous recording at 25fps with the 160GB hard drive. (for only x 1 channel recording)
- · Recording and compressing video signal real time
- With USB port for media backup via hard drive. Average 200KB/Sec
- With motion detection and video loss alarm function
- OSD: support multi-language
- With power recovery auto-record function

4.1 Front Panel



• LED Lights:

(a) GREEN (PWR): The DVR unit is powered up and running.

(b) RED (HDD): System is recording or in playback mode.

Hard Drive Drawer Lock

4.1.1 DVR Button Functions:

A series of buttons on the DVR front panel allow the system to operate its basic functions, such as recording, playback, fast-forward, rewind, etc. For more details about the DVR menu, refer to "6. SETUP".

CH1

Use this button for full screen display of channel 1 on the monitor or to move the cursor up.

CH2

Use this button for full screen display of channel 2 on the monitor or to move the cursor down.

CH3

Use this button for full screen display of channel 3 on the monitor or to move the cursor left. Also you can press this button to reduce values when adjusting parameters.

- CH4

Use this button for full screen display of channel 4 on the monitor or to move the cursor right. Also you can press this button to increase values when adjusting parameters.

Quad

Use this button for full screen display of all 4 video channels on the monitor screen. If you push this button, the DVR will display all 4 channels (cameras) at the same time in quad screen.

- (REC)

Press "REC" button to start manual recording. You will then see a red dot ' • on the selected channel on the screen, which means that the channel is now recording. To stop manual recording, press "REC" again during recording mode.

- ■ (STOP)

To stop playback, press the "STOP" button.

− ► (PLAY)

After recording, press "PLAY" button to start video playback.

Playback will start with the oldest unread video data and then continue playing.

- ▶▶ (FWD)

This is the fast forward button. To play the recorded stream faster, press the "FWD" button. There are three levels of fast forward playback speed.

- (a) FF1: Play two times faster (x 2) than the normal play.
- (b) FF2: Play three times faster (x 3) than the normal play.
- (c) FF3: Play four times faster (x 4) than the normal play.

To change the fast forward play back speed level, press the "FWD" button again.

- **◄** (REW)

This is the rewind button. To play the recorded stream backward, press the "REW" button.

Note: The fast forward and reverse playback speeds will vary depending on the frame rate and record quality settings, as well as the number of channels recorded.

- II (PAUSE)

To pause the video playback, press the "PAUSE" button. Then the video displaying will be stopped. To continue playback, push the "PLAY" button.

- Menu

Displays menu option or will move to the previous screen.

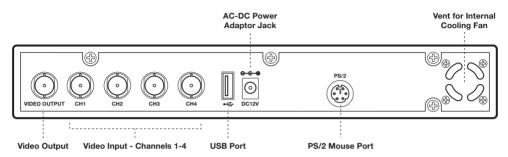
- UP/DOWN

To change the menu field, use the up "▲" or down "▼" buttons.

- SEL

Use this button to change values on main menu or sub menu setting. Also use this button to increase values when adjusting parameters.

4.2 Rear Panel



USB PORT ←

Use this port to backup video on to a USB stick for transferring on to a PC.

PS/2 MOUSE PORT

Use this port for PS/2 mouse connection.

VIDEO INPUT

Use these BNC ports (CH1 to CH4) to connect cameras to the DVR system. You will need to use the supplied BNC to RCA adoptors when connecting a camera with a male type RCA plug.

VIDEO OUTPUT

Use this port to connect the DVR to the monitor using the supplied 1m video output to monitor cable.

AC-DC POWER ADAPTOR JACK

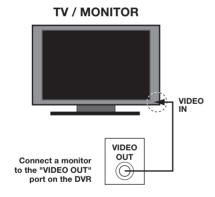
VENT FOR INTERNAL COOLING FAN

5.1 Hard Disk Drive Installation

Note: Only read if you wish to replace/upgrade the existing supplied 160GB hard drive unit fitted in the DVR.

- 1. Unlock the front hard drive drawer using the key supplied.
- 2. Pull the drawer's lever to remove the drawer from the DVR.
- 3. Remove the x 4 screws on the base of the drawer which secure the hard drive in place to remove the existing unit.
- 4. Replace with the new hard drive unit, refit and lock the drawer again.

5.2 Monitor Connection



To display video images from the cameras on the monitor, the DVR's video output signal needs be transferred to your TV set or monitor.

Connect "VIDEO IN" of the monitor to "VIDEO OUT" of the DVR system using the supplied cable. Connect the BNC (male) end to the DVR and the RCA (male) end to the monitor end.

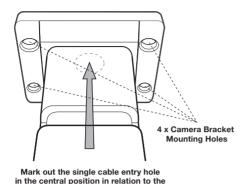
5.3 Camera Installation and Connection

Before drilling holes through walls check for hidden electricity cables and water pipes. The use of a cable/pipe detector is advisable. When installing the cameras, it is advisable to use cable conduit to protect any video/power extension cables from being exposed externally and to prevent/reduce the chances of the cables being tampered with.

Note: the extension cables for any camera can only be extended up to **30m** in length due to power loss.

5.3.1 Installation

1. Use the cameras main bracket to mark out the x 4 mounting holes and cable connector's entry hole on the chosen location of the wall (Fig. 1).



4 x Camera Bracket Mounting Holes

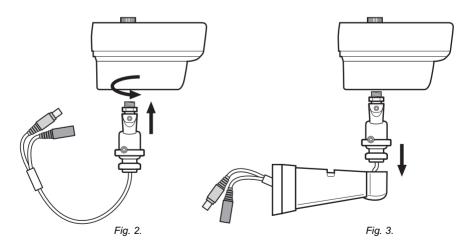
Fig. 1.

Drill 4 x 5mm holes for the mounting bracket's wall plugs and 1 x 20mm hole for the Camera's video and power plugs to pass through the wall.

Note: It is recommended to pass the cable into the property as close to the Camera as possible to reduce the chances of any exposed cables being tampered with. If you choose to run the cable along the wall outside the

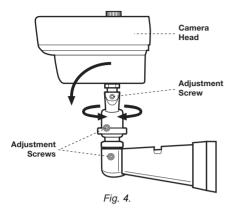
property, it is recommended to use cable conduit to hide the cable and reduce the chances of it being tampered with.

2. Screw the post bracket to the main housing and tighten the nut until secure (Fig. 2). Now pass the Cameras video/power lead through the main bracket and then secure the lower part of the post on to the main bracket (Fig. 3).



Feed the video/power leads through the hole in the wall, starting with the largest connector, and then mount the main bracket on to the wall using the fixing screws and wall plugs.

3. Adjust the Camera head viewing position as required and tighten all screws using the allen key tool supplied in the fixing kit.

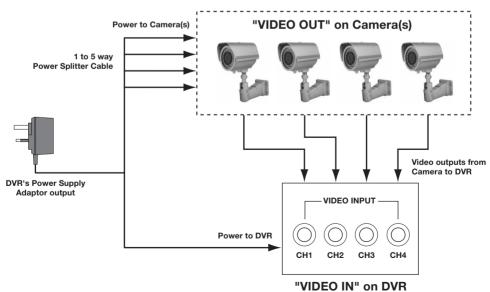


You can make adjustments to the viewing positions as shown (Fig. 4).

Note: It is advisable to use cable conduit to protect any video/power extension cables from being exposed externally and to prevent/reduce the chances of the cables being tampered with.

5.3.2 Connection

Connect between "VIDEO IN" of your DVR and the "VIDEO OUT" of the camera(s) with the video extension cable(s) supplied. If any additional camera(s) have an extension cable with a RCA male plug then use one of the supplied BNC to RCA adaptors to convert to a BNC type for connection to the DVR. Use the 5 way splitter cable assembly already connected to the DVR's power adaptor to power each camera (operating on 12VDC voltage only).



Note: If this DVR is used with the Wireless Colour Camera CCTV Kit (CWFK1), the video output from the receiver can be connected to either channel 1, channel 2, channel 3 or channel 4, to view the wireless camera.

5.4 Mouse Connection



Connect the PS/2 mouse to the port shown on the DVR. Note the PS/2 mouse must be connected to DVR before it is powered up.

5.5 DVR Power Connection

Connect the power adaptor's output plug into the DVR to power the DVR. Connect the power adaptor's mains lead into the adaptor and plug into the mains (240VAC) wall socket and switch ON.

The DVR will boot up.

```
4CH DVR

FW:1.1.8 UCODE:32

Compile date: 2009/02/25

Video: PAL
Disk0: 190782MB ST3200826A
New disk
Disk1: None
Disk configuation changed
[PLAY] change configuation
Disk0: press [PLAY] format. [STOP] cancel
Format...OK
```

Fig. 5.01

The screen shown in Fig. 5.01 will be displayed during boot up.

After the system has booted up, the DVR will display the monitor in guad mode.

If you have just replaced the existing hard drive with a new hard drive on the system, it is advised to format the hard drive first. Please refer to Section 6.5, pages 20-21.



Fig. 6.01

The system includes a login window, and there are three password levels in the system, including **admin** (highest), **operator**, and **guest** (lowest), Fig. 6.01.

If the user does not login to the system,

the user can only view live video display. When the user is logged into the system, and no operation is performed within 1 minute, the system will automatically logout.

A: Set up using the DVR Front Panel

After system has booted-up, press the "MENU" button on the DVR front panel and the login window will appear. There is one factory-preset login "account/password" "admin/111111" at admin level. The user can use it to login to the system for the first time.

After logging in to the system, press the "MENU" button to make any changes to the DVR settings and you will see screen on the monitor as Fig 6.03 on page 14. Press the "UP" or "DOWN" key on the DVR front panel to move the cursor. Press the "SEL" button to change the settings. In the MAIN MENU, the cursor " • will be shown on the screen next to each sub menu. To move to the previous screen again, press the "MENU" button.

The system allows up to four user accounts. The administrator can set up the login name, password and level for each user. The administrator can also add or delete users. (Please refer to Section **6.5.2** for Account Setup on page 22.)

An admin user can operate all functions. The **operator** can operate all functions except examining user accounts, formatting the hard drive and modifying his password level. The **guest** can operate live video display and video playback, or modify values that are independent of the recording setup. If the user has no right to modify a value, an identifier " \bigcirc " will appear on the top right corner of the screen.

B: Set up using the Mouse

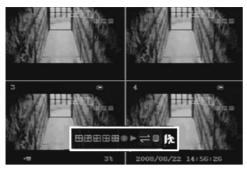
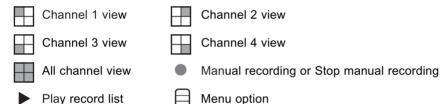


Fig. 6.02

After the system has booted-up, click the right mouse button and the login window will appear. Move the cursor to "Account", and click the left mouse button and input the correct account by moving the cursor over the correct numbers/characters and left clicking the mouse button to select them. Select "Password" and input the correct password. Finally select "Login" to enter the system. There is one factory-preset login "account/ password"

"admin/11111" at admin level. The user can use it to login to the system for the first time.

Suggestive window options:





Channel auto sequence. The icon "

" will not display if the order of "auto sequence" is "OFF".



Fig. 6.03

After the system has booted-up, click the right mouse button and there will be suggestive window options on the monitor (Fig. 6.02). Select the icon " . You will see the () screen on the monitor (Fig. 6.03).

(**Note:** Please refer to Section **6.5.2** for Account Setup on page 22.)

Move the mouse up or down to move the cursor. Click the left mouse button to change the settings. Click the right mouse button to go back to the previous screen.

6.1 Camera

Use this option for video colour adjustment for each channel (1, 2, 3, 4). Move to the "Display" option to enable or disable the screen display of each camera. Modify the camera name of each channel (Figs. 6.04 and 6.05).





Fig. 6.04

Fig. 6.05

6.2 Record

This section allows the user to set the DVR to record over timed periods and via motion detection. (**Note:** If at any time you wish to start manually recording then press the "REC •" button once on the DVR. Press again to stop recording manually).

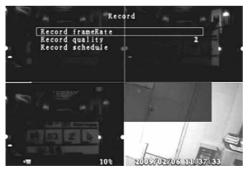


Fig. 6.06

Use the 'Record' option to setup the quality of recording and the recording schedule over the 24 hour period (Fig 6.06).



Fig. 6.07

6.2.1 [RECORD FRAMERATE]

Change the record frame rate for each channel - see Fig. 6.07. The higher the record frame rate, the more natural movement you will see in playback.

Independent setting for each channel is possible.

For PAL video output format, the system default value is 12 frames per second for

each channel. The system will record 48 frames per second with all channels. The user can set frame rate as **3~25** frames per second with each channel. The maximum value of total frames per second with all channels is **50** frames.

For NTSC video output format, the system default value is 15 frames per second with each channel, which means the system will record 60 frames per second with all channels. The user can set the frame rate as 3~30 frames per second with each channel. The maximum value of total frames per second with all channels is 60 frames.

Press button [SEL]/[CH4] or click the left mouse button to select icon "▶" to increase the record frame rate for each channel. Press button [CH3] or click the left mouse button on the icon "◀" to decrease the record frame rate for each channel.

Note: If you set the record frame rate to off, the channel will not record.

6.2.2 [RECORD QUALITY]

Choose the recording quality from 1/2/3. The highest recording quality is 3, and the lowest recording quality is 1. The higher the recording quality is, the higher the video image quality is during playback. The higher the quality, the more hard disk space will be consumed. Record frame rate, recording quality and hard disk space will affect the total recording time of the DVR system. See page 29 for hard disk capacity information.

6.2.3 [RECORD SCHEDULE]

Note: To start motion record, make sure the period that you intend to record is " in the "record schedule" menu. (Green bar - see Fig. 6.08 overpage).

Press button [Up]/[Down] or move the mouse to move the desired time block, then press [SEL] or click the left mouse button to adjust the video recording method for each time

period. The user can select the same record method for the whole 24 hr period in one go. Move the cursor to 24 and press [QUAD] button in the DVR front panel, or left click the mouse button on the time period 24.

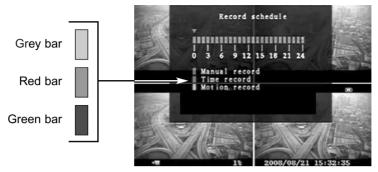


Fig. 6.08

- Grey bar: No recording will be made for this time period unless the user activates manual recording.
- **Red bar:** The time period with a red bar will activate continuous recording mode (Time record) unless there is any manual stopping during that period.
- Green bar: The time period with a green bar is for built-in motion recording. (See also the following chapter "MOTION DETECTION").

6.3 Alarm (Optional)

An internal buzzer built in the DVR will activate to alert the user that motion has been detected by a Camera.

Press the [SEL] button or using the left mouse button, click icon "◀" / "▶", to adjust parameters of each option.



Fig. 6.09

6.3.1 [BUZZER DURATION]

This sets the buzzer duration time (in seconds) after an alarm is activated.

Selection values are "05, 10, 15, 20, 25, 30, cont, off" (in seconds). Default at "off" (Fig. 6.09).

When "buzzer duration" is "cont", the buzzer will sound continuously.

6.3.2 [EVENT REC DURATION]

This sets the recording duration (in seconds) after motion recording is activated. Selection values are "05, 10, 15, 20, 25, 30" (in seconds).

6.3.3 [MOTION DETECTION]



Fig. 6.10

[CHANNEL]

Select the channel (1, 2, 3, 4) for recording by motion detection (Fig. 6.10).

[SENSITIVITY]

This adjusts the sensitivity of the built-in motion sensor on the DVR system while recording. The lower the number, the higher the sensitivity is. Values are

"1, 2, 3, 4, Off". The maximum sensitivity level is 1. It is recommended to set at 4.

Note: The system senses movement by the change in picture displayed on the monitor/TV in the selected area. Even at the lowest sensitivity setting (4), if there are any changes in light such as a reflections, movement of tree branches, bushes for example, it could cause the system to start recording, although no approaching objects may be seen during playback. If the sensitivity is set too high, natural activity such as rain for example may cause the system to start recording. It is also ideal to point the camera way from trees, bushes, that might be affected by the wind.

If this DVR is used with a Wireless Colour Camera CCTV Kit (CWFK1) to received Wireless video, ensure this video viewed on the TV is the best possible reception (i.e, no interference lines viewed on the TV) between the camera and receiver. If necessary reduce the distance between the camera and receiver to prevent any interference on the picture. This is important to prevent the DVR from capturing any unnecessary recordings of interference when set to motion record. You may find that if the wireless camera is installed outside the property, then maximum operating range without interference may be no more than 10m (provided only a single brick wall acts as a barrier between the camera and receiver).

[MOTION AREA]

Note: To start Motion Record, the user must complete the "Motion Area" setup.

Use this option to select the range of motion detection area.

Use the DVR's front panel buttons or mouse click to assign the area.

The front panel and mouse control instructions are below.

[Using the front panel buttons]

Press [SEL] once to pitch on the area, press [SEL] twice to cancel the area.

CH1 - Up / CH2 - Down / CH3 - Left / CH4 - Right

[Using the mouse button]

Click and hold the left mouse button and move to select, deselect or reselect the motion detection area for recording.

The area can only be selected from up to down and from left to right. When the block is covered by blue shadow, it's active to record. When the block is transparent, it can't be recorded.

After completing the motion area setting, press the [MENU] button or right click the mouse button to exit.

6.4 Screen



Fig. 6.11

6.4.1 [BORDER]

The user can make the white borderline around each channel to appear or disappear by using this option to be "on" or "off" (Fig. 6.11).

6.4.2 [AUTO SEQUENCE]

This is used to set the time for automatically switching between each of the camera viewing channels.

Value at "Off, 1~10 (in seconds)". Default at "Off".

6.4.3 [VIDEO ADJUSTMENT]

You can move the entire video screen up, down, left and right using this option.

Keypad assignment on the front panel is below.

- CH1 for up, CH2 for down, CH3 for left, CH4 for right.

Mouse function is below:

Click the right mouse button and the following icons will appear:



. Click the left button to select each icon.

"▲" for up, "▼" for down, "◀" for left, "▶" for right, "† for ESC.

6.5 System

In this menu, you can see the information of the hard disk drive installed in the DVR, change the system password, adjust keypad tone, browser event list or adjust current time on the system.



Hard Disk setup
Password setup
Clear account info
Keypad tone
Time set
Event list
F/W upgrade

Syst em

Fig. 6.12

Fig. 6.13

If the user logs into the system at **admin** level, the menu bar will be displayed as Fig. 6.12. The user can select "**account**" to examine all user accounts, add or delete users. (Please refer to section "**6.5.2**" for account setup on page 22.)

If the user logs into the system at operator or guest level, the menu bar will be displayed as Fig. 6.13. The user can only modify his/her own password. (Please refer to section "6.5.3" for password setup on page 23.)

6.5.1 Hard Disk Setup



Fig. 6.14

[OVERWRITE ENABLED]

If you select Yes, then recording continues and overwrites the previous recording when the hard disk drive space is full.

If you select No, then recording stops when the hard disk drive is full. It won't record until "overwrite enable" is "Yes" (Fig. 6.14).

[FORMATING THE HARD DISC DRIVE]



Fig. 6.15

If you format the hard drive, all the video data stored on the hard drive will be deleted. Remember that the system has no restore option once the hard drive is formatted.

When you select this option, it will ask you for the password before formatting. The default password is "111111". Enter the password and select "Enter" (Fig. 6.15).



Fig. 6.16



Fig. 6.17

When the Hard Drive is successfully formatted, you will see the message blinking (Fig. 6.16), if the password is incorrect, you will see the message below blinking (Fig. 6.17).



Fig. 6.18

Enter the correct password again if this message appears (Fig. 6.18).

6.5.2 Account Setup

Log into the main menu (see **6. SETUP**). Move the cursor down to 'System' and press [SEL] button or click the left mouse button to select. In the system menu select 'Account' and the following screen will appear.



Fig. 6.19



Fig. 6.20



Fig. 6.21

Once the user is logged into the system at admin level, the Account Setup allows the administrator to add new users, delete existing ones and modify the user's name/password/and level. The system allows up to 4 user accounts.

[Account]/[Password]

In setup Menu display, move the cursor to change the highlighted option to Account, and then press the [SEL] button to call up Account/Password as shown (Fig. 6.19). All numbers, letters and symbols in the box can be used to set the user account or password (Fig. 6.20). Press [SEL] to input the value, and move the prompt to the option of "Enter", press [SEL] to confirm.

CH1 for up, CH2 for down, CH3 for left,
 CH4 for right. Press "Shift" to change the characters (Fig. 6.21).

[Level]

Move the cursor to change the highlighted option to Level, and then press [SEL] to adjust the user level (operator/guest).

6.5.3 Password Setup



Fig. 6.22

The default password is 111111. All numbers, letters and symbols in the box can be used to set the password (Fig. 6.22).

Press [SEL] to input values, and move the prompt to the option of "Enter", press [SEL] to input current password.

Button function on the front panel:

- CH1 for up. CH2 for down. CH3 for left. CH4 for right.

The same operation measure can be used to input the new password and confirm. When the password change has succeeded, the user will see the message (Fig. 6.23).

When the password change has failed, the user will see the message (Fig. 6.24).



Fia. 6.23



Fia. 6.24

6.5.4 Clear Account Info

If you choose ON, the account information will be cleared when you logout of the system. If you choose OFF, the account information will be kept after you logout of the system.

6.5.5 Keypad Tone

Set the keypad tone to "ON" or "OFF" to enable or disable keypad tone during operation.

6.5.6 Time Set



Fig. 6.25

You can adjust the current time, date and year at any time by region. Set your region first and then set the current time so that the video back-up data can be played without time shifting later on.

Date and Time format as below:

*** 2010/08/08 - year/month/day

*** 01:01:00 - hour: minute: second

To move the cursor on the screen, use the "UP" and "DOWN" key on the DVR front panel and then press the [SEL] button to change the numeric value. Once you have finished the time setting, press the [MENU] button.

Press the "DOWN" key and [SEL] button to apply the new time set. Alternatively move the mouse to move the cursor up and down and click the left button to change the numeric value. Once you finish the time setting, click the right mouse button to return. Move the mouse to "Apply" and click the left mouse button apply the new time set.

6.5.7 Event List (Playback Feature)



Fig. 6.26

Event list enables you to playback by event. On the event list menu, it shows all the past recorded video, start time and end time of each recorded video, etc showing recording year/date/time in list. The hard drive can store a maximum of 300 events. Any further events recorded will overwrite the earliest recorded event.

To playback by Event list, using the [UP]/[DOWN] or channel number (CH3 for Page Up or CH4 for Page Down) key on the front panel, select the event that you want to playback and press the [PLAY] button. Another way is to move the mouse up or down and click the left mouse button ("◀" for Page Up or "▶" for Page Down), select the event that you want to playback and double click the left mouse button. This will playback the recorded video data.

6.6 Language

The system supports multi-language OSD.

In the "Language" menu, move the cursor on the desired language and select it by pressing the [SEL] button on the front panel, or also by clicking the left mouse button to select the language

6.7 Logout

You can use this option to log out of the system.

6.8 Exit

After you change any setting in the DVR menu, you must confirm the changes under the "EXIT" menu.

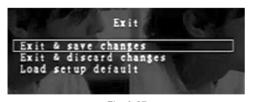


Fig. 6.27

[EXIT & SAVE CHANGE]

Save changes and go back to the main screen (Fig. 6.27).

[EXIT & DISCARD CHANGES]

No changes saved and go back to the main screen.

[LOAD SETUP DEFAULT]

Load default setting.

PLAYBACK WITH TIME SEARCH FUNCTION



Fig. 7.01

This is an enhanced playback option, which enables the user to manually adjust to a specific starting time for playback (Fig 7.01).

Front Panel Control:

In order to playback with time search function, press the [PLAY] button on the front panel first. Press the [SEL] button to change the value of the playback start date & time and press the [PLAY] button again. Playback will start from the date & time indicated by the user.

Mouse Control:

Click the right mouse button, move the cursor over the icon "\overline" and click the left mouse button. Press the left mouse button to change the value of the playback start date & time and press the right mouse button. Move the cursor to "Search" and click the left mouse button. Playback will start from the date & time indicated by the user.

Note: The USB memory stick is not supplied with this kit. Please purchase only the listed USB models in the Appendix section (11.1) as only they are compatible with this DVR.

The DVR system has an enhanced back-up feature so that it's possible to transfer the video data image recorded on the hard drive to a USB memory stick.

You must format the USB stick to a 'FAT32' File system from a PC first. This can be done as follows:

- Insert the USB stick into the USB slot on the PC.
- Move the cursor on to the 'My Computer' icon on the desktop and click the right mouse button.
- 3. Move the cursor on to the (F:) drive, click the right mouse button and select 'Format...' from the menu.
- 4. Move the cursor on to File system and select 'FAT32' by clicking the left mouse button.
- 5. Select 'Start' to begin the format process.
- 6. After the process is complete, the USB stick is now ready to use with your DVR.

Before you back up a stream of video data, have the USB memory stick ready and attach it into the USB port located on the rear panel of the DVR.

In order to save the video data with the back-up device, you should first start with playback from the required time you wish to back-up (See PLAYBACK WITH TIME SEARCH FUNCTION section). During playback, press the [MENU] button. Use the [UP] key or [DOWN] key to move to 'Start time' or 'End time' and press [SEL] button to set the start and end times of the recorded video data which will be saved on the back-up device. Whilst playing back, if you want to setup the end time faster, you can press the [>> FWD] button to fast forward the video being played to the desired end time, and then press [SEL] to select the end time again on the screen again.

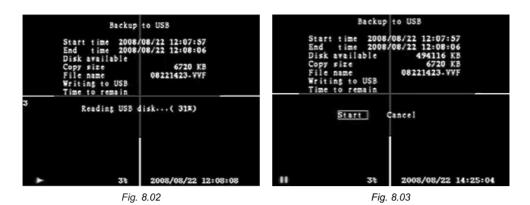
Move to "USB copy", and press the [SEL] button or click the left mouse button to back up the selected stream of video data on to the USB memory stick (Fig. 8.01).

```
Backup

Start time: 2008/08/22 12:09:43
End time: 2008/08/22 12:09:45
Size: 1152 KB

USB copy
```

Fig. 8.01



Select "Start" on the screen to begin the back up process (Figs. 8.02 to 8.04).



Fig. 8.04

It will take a few minutes to write the video data to the USB memory stick. The file size number displayed will grow until it's completed with the message below:

WRITING...

Then it will show the following message on the screen:

FIXATING...

Remove the USB stick and insert it into a USB slot on your PC, once transfer is completed.

Select "Exit" to continue using the DVR.

To view the video image saved on the USB stick on computer, use the software (CD) provided with this kit.

Estimate recording time basing on a 160GB hard drive.

The best record quality is 3, and the lowest record quality is 1.

| Record Speed | REC Quality | DATA RATE (GB/Hour) | Record Time (Hour) |
|--------------|-------------|------------------------|-----------------------|
| | 3 | 4.4 | 36 |
| 50F/sec | 2 | 2.8 | 57 |
| | 1 | 2.3 | 69 |
| | 3 | 2.4 | 66 |
| 25F/sec | 2 | 1.6 | 100 |
| | 1 | 1.3 | 123 |

10.1 Software Installation

The PC backup CD provided is only compatible with Windows based operating systems including Vista.

- 1. Insert the Driver Program CD in your CD-ROM.
- 2. Install by setup. (Fig. 10.01).
- 3. Set up the install directory. (Fig. 10.02).
- 4. Execute: Start > Program > Vx4SLPlayer.



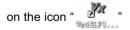


Fig. 10.01

Fia. 10.02

10.2 Program Interface

Double click the left mouse button



if located on the desktop to run the program. (Fig 10.03).



Fig. 10.03

10.3 Button Functions

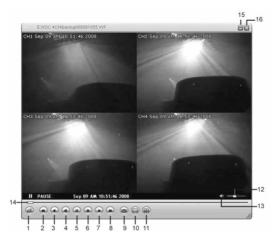


Fig. 10.04

- 1. Open File
- 3. Play Reverse
- 5. Pause
- 7. Play
- 9. Still Capture
- 11. Split 4
- 13. Mute On/Off
- 15. Minimize the window

- 2. Fast Rewind
- 4. Previous Frame
- 6. Next Frame
- 8. Fast forward
- 10. Split 1
- 12. Volume Scroll Bar
- 14. Playing Scroll Bar
- 16. Close the window
- 1. Click " it o play the video recorder in "*.VVF" format (Fig. 10.05).



Fig. 10.05

2. Still Capture.

Click "options..." to setup the path for still capture. Click the left mouse button to select the folder that you want. For example select the folder as "E:\VOC 4CH\backup".

3. In the "Options" window, you can setup other menu selection such as "General & On screen display date/time format" (Fig. 10.06).

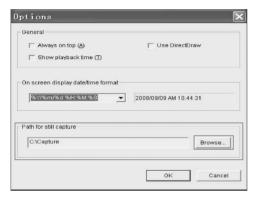




Fig. 10.06

- |V| Always on top (A): The client window will always display on top of all the windows.
- √ Use DirectDraw: Show a piece of run dialog.
- $\sqrt{\ }$ Show playback time (\underline{T}): The playback time will be displayed on screen during playback. With the menu selection "On screen display date/time format", you can adjust the date/time format displayed on screen.
- 4. Press "F1" on the computer's keyboard or click the right mouse button to display the box "About Viewer". You can view the version of the current client (Fig. 10.07).



Fig. 10.07

5. Translating the "VVF File Format (*.VVF)" into "AVI File Format (*.AVI)".

After translating to an AVI file, the file can then be played back using software such as Windows Media player or played back on an MP4 player for example.

First click the right mouse button to select the option "Export", and then click the left mouse button to see the window "Export To AVI". Secondly select the channels you want to export,. Thirdly click "Browse..." to select the input file and the output file, and click "Select..." to select video compression mode.

Finally click " OK " to start, and progress will be shown by percentage (Fig. 10.08).

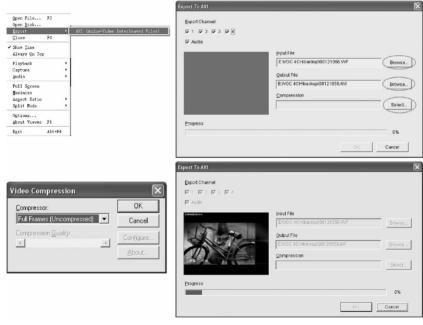


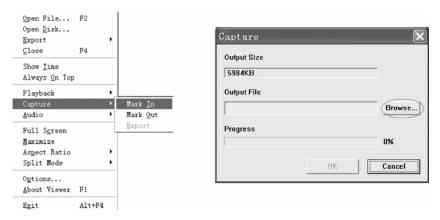
Fig. 10.08

Note: 1 - When selecting video compression mode, you should test the compression selected matches with the computer or else the transposition AVI file might fail.

- 2 1) $\sqrt{\ }$ Audio: The audio will be backed-up (for DVR's with audio model only).
 - 2) Audio: The audio will not be backed-up.

6. Capture.

If you want to save part of a VVF file (*.VVF) on your computer rapidly, you must ensure any video playback is paused. Drag the playing scroll bar to select the start time, click the right mouse button to select the option "Capture", then left click "Mark In". Drag the playing scroll bar ahead to select the end time, click the right mouse button to select the option "Capture", then left click "Mark Out". Last left click "Export" and there will be a window "Capture" on screen. The "Output Size" is the size of the output file. Left click "Browse..." " to setup the save path, then left click " Fig. 10.09).



Fia. 10.09

MAINTENANCE

Section 11

Routine cleaning of the camera lens is recommended to prevent the build up of dirt or spider webs. Spider webs could cause the DVR to false recording when it is setup for motion detection, particularly at night for cameras with built in night vision LEDs.

| PROBLEM | SOLUTION |
|--|---|
| No picture can be viewed | The power supply adaptor for the camera(s) or DVR is not plugged in. Check all video cable connectors between the cameras and the DVR. The TV is not tuned to view the correct channel. |
| Poor picture quality | Clean the camera lens. Adjust the contrast/brightness on the TV. |
| DVR doesn't automatically start recording when set to motion record when movement is captured | Ensure the corresponding camera channel is set for 'Motion detection', the 'Sensitivity' is not set to 'Off' and the 'Motion area' is set up correctly. (See pages 18 & 19). |
| | The 'Record schedule' must be set to 'Motion record' (green colour bar) for the required period. (See pages 16 & 17). |
| When set to motion record, the DVR seems to start recording without seeing any significant movement | Point the camera away from tree branches or bushes which may sway in windy weather conditions. Heavy rain or snow may cause the DVR to start recording due to the movement of rain in the picture viewed. To minimise false recording, set the 'Sensitivity' to '4' (see page18). |
| The DVR stops recording automatically and will not record any further | The hard drive is full. Select 'Yes' in 'Overwrite enable' to allow the DVR to continue recording and overwriting the earliest recorded video. (See page 21). |
| Cannot backup on to a USB memory stick | Ensure the correct model USB stick is purchased (see page 36) and formatted to 'FAT32' (see page 27). |

13.1 Compatible USB Memory Sticks with the DVR

Note that only the following USB devices are compatible with this DVR model.

Working Device List

| Maker | Model | Size |
|-----------|-------------------------|------|
| Sony | MICROVAULT (SOK-USM1GJ) | 1GB |
| Samsung | SUM-LCB1 | 1GB |
| Transcend | JF V30 | 2GB |
| Apacer | Weblink (SYE5003358) | 2GB |
| Sandisk | CRUZER micro | 4GB |
| Flex | FD-02 | 1GB |
| Kingston | Data Traveler | 2GB |
| Kingston | Data Traveler | 1GB |
| Lemon | LEMON USB Drive | 1GB |

13.2 Specification

| Video format | DAL /NITOO | | | |
|------------------------------------|---|--|--|--|
| | PAL / NTSC | | | |
| Operation system | Linux | | | |
| Video input | 4 channel composite BNC | | | |
| Video output | 1 channel composite BNC | | | |
| Display speed | PAL: 100fps (4 x 25fps) NTSC: 120fps (4 x 30fps) | | | |
| Display resolution | PAL: 704 x 576 NTSC: 704 x 480 | | | |
| Recording resolution | PAL: 640 x 272, 320 x 136 NTSC: 640 x 224, 320 x 112 | | | |
| Recording speed | PAL: Max. 50 frame per second; 3fps~max 25fps (each channel) adjustable NTSC: Max. 60 frame per second; 3fps~max.30fps | | | |
| | (each channel) adjustable | | | |
| Compression method | Enhanced M-JPEG Video Quality: Low @ 12kBytes Normal @ 15kBytes High @ 20kBytes | | | |
| Recording mode | Manual, Motion detection, Time schedule | | | |
| Recording time | 123 hours continuous recording at 25fps with 160GB hard drive | | | |
| Hard disk capacity | Up to 1.0 TB SATA interface (1 x hard drive) | | | |
| SATA interface and hard drive rack | x 1 | | | |
| USB port for media backup | Yes, USB port for media backup and software upgrade | | | |
| Mouse | PS/2 optical | | | |
| Power input to mains adaptor | 100-240VAC 50/60Hz /1.5A | | | |
| Power output from mains adaptor | 12V = 5A DC | | | |
| Dimension of DVR (mm) | 250 x 232 x 38 (width x depth x height) | | | |
| IP rating | IP20 (dry internal use only) | | | |
| Operating temperature | -5 to 50°C/20 to 80% RH | | | |
| Weight | 2000g (with hard drive fitted) | | | |

| ITEM | HEAVY DUTY CAMERA | | | |
|--------------------------|---|--|--|--|
| Image sensor | 1/4" Sharp CCD | | | |
| Video format | PAL / NTSC | | | |
| Pixel resolution | PAL: 512 (H) x 582 (V) NTSC: 510 (H) x 492 (V) | | | |
| Horizontal resolution | 420 TV lines | | | |
| Viewing angle | 50° | | | |
| Lens size | 6mm | | | |
| Night vision range | Up to 20m | | | |
| Number of infra-red LEDs | 55 | | | |
| IP rating | IP54 | | | |
| Operating temperature | -10°C to 50°C | | | |
| Power supply | 12VDC/500mA | | | |
| Cable type connections | Fitted with 1m cable terminated with female BNC (video) and female jack (power) plugs | | | |
| Dimensions (L x W x H) | Camera only: 155 x 85 x 95mm Camera with bracket: 230 x 85 x 120mm | | | |
| Weight | 800g (with bracket fitted) | | | |

There are a range of accessories available in the Response CCTV product range to expand your system:

| CWK1 | Wired Colour Camera CCTV Kit |
|-------|---|
| CA1 | 2 Channel Digital Video Image Recorder |
| CA2 | LCD Screen for Wireless/Wired CCTV Kits |
| CWFK1 | Wireless Colour Camera CCTV Kit |
| CA3 | Wireless Colour Accessory Camera (requires CWFK1 CCTV KIT to operate) |
| CA5 | Professional Heavy Duty Camera CCTV Kit |
| CA6 | Dummy Professional Heavy Duty Camera |
| CA8 | Wired Internal Colour Dome Camera CCTV Kit |
| CA9 | Dummy Internal Dome Camera |
| CA10 | Heavy Duty Colour Camera CCTV Kit |
| CA11 | Dummy Heavy Duty Camera |
| CA4 | 10m Extension Cable Kit |
| CA12 | 20m Extension Cable Kit |

Note: The maximum extension cable length for any wired camera with this system is **30m** without reducing the picture quality of the video.

DISPOSAL – RECYCLING INSTRUCTIONS

Section 15

Directive (2002/96/EC)

This product is classified by the Waste Electrical or Electronic Equipment (WEEE) Directive. It should not be disposed of with other household or commercial waste. At the end of its useful life the packaging and product should be disposed of via a suitable recycling centre. For information on available facilities, please contact your local authority or the retailer from where the product was purchased.



GUARANTEE Section 16

Novar ED&S undertakes to replace or repair at its discretion goods (excluding non rechargeable batteries) should they become defective within 1 year solely as a result of faulty materials and workmanship.

If the product has not been installed, operated or maintained in accordance with the instructions, has not been used appropriately or if any attempt has been made to rectify, dismantle or alter the product in any way the guarantee will be invalidated.

The guarantee states Novar ED&S entire liability. It does not extend to cover consequential loss or damage or installation costs arising from the defective product. This guarantee does not in any way affect the statutory or other rights of a consumer and applies to products installed within UK and Eire only.

If an item develops a fault, the product must be returned to the point of sale with:

- 1. Proof of purchase.
- 2. A full description of the fault.
- 3. All relevant batteries (disconnected).

Response is a trademark of Novar ED&S.

CUSTOMER HELPLINE

Most issues can be solved over the phone in a few minutes.

Please contact our Helpline Team on the number below for any installation and general advice regarding our products:

0844 736 9149

Lines open 9.00am to 5.00pm, Monday to Friday. Calls charged at service providers national rate.



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