PV110 Mini DVR Manual

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DVR Specifications

Hardware Orientation

I. DVR



- 1. Power On/Off
- 4. AV Input & 5V DC Out jack
- 7. Power On/Record LED
- 10. AV Out & Trigger button jack
- 13. Internal Speaker
- 16. Down Button
- 19. Esc Button 20. Menu Button

- 2. Charge Led
- 5. Low Power LED
- 8. DC5V In Jack
- 11. Reset Button
- 14. SD Socket
- 17. Up Button

- 3. Internal Microphone
- 6.Record / Stop Button
- 9. USB Port
- 12. Lock Switch
- 15. IR Sensor
- 18. Enter Button

II. Remote Control



1. Record/Stop button2. Up Button3. Enter Button;4. Down Button5. LCD/TV Switch Button6. Exit Button;7. Menu Button8. LCD Off Button;

III. Accessories





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Battery



Leather



USB Cable

AV Cable



AC Adapter

Control



Trigger button cable Wired Control Button

Setting Record Modes

There are three work model for record : showed as the following Figure





- Record ----- for video and audio record, the record data will be saved in AVI files under the "Record Files" folder; the prompt icon will appear on the top left corner of the screen.
- **Photo** --- for still picture capture ,the photos will be saved in JPG files under the "Photo Files", and the prompt icon will appear on the to left corner of the screen.
- Audio ---- for only audio record, the record data will be saved in WAV files under ""Audio Files" and the prompt icon will appear on the top left corner of the screen;

Basic Operation

I. How to turn on / off the DVR:

Turn on /off the DVR by the Power On/Off switch.

Push Power On/Off to "On/Off" side until the RED power led light to turn the DVR on , then the

startup picture will appear on the screen; when the DVR is power on, push the Power On/Off switch "On" side until the shut down picture appear on the monitor to turn the DVR off,

PS: if the video signal and SD card are unavailable the DVR will alarm by vibration and the red letters on screen until they all are ready;



 You can turn the VR-1500 recorder using the trigger cable that come with it. Press the button to turn the recorder "ON" and it will also begin to record. Press the button again and it will stop recording and turn "OFF".
button the release the switch , the DVR will save all files and power down;

The trigger button is inserted into the AV Out jack.

1 You can turn off the DVR on your schedule as the setting automatic shutdown time, as shown in the following figure ;



PS: Camera Manager Interface orientation as the following: (as shown in Figure 4)



II. How to start a recording

1. Preparing for your recording task:

- I Select a correct record mode for your task by setting work mode;
- Please charge the internal mobile battery over 3 hours before you begin recording ; we advise that you equip the UPS Battery Bank (7200mAH) to the DVR for your long time record task(over 10 hours); as shown in the underside figure ;



Mobile Battery

I The special external camera from our DVR kits can be connected to the DVR directly via the AV-In port without additional power cord, the DVR can output DC5V @ 400mA for a external DC5V CCD or CMOS camera by the AV-In cable;

- Prepare a high speed SD card to save your record data.
- A video image and OSD will appear on the screen of the display device, you can select a TV or LCD as the display device by pressing the LCD/TV Switch Button on Wireless Remote Controller, press

the button to switch the display as the following: LCD--> TV PAL-->TV NTSCà LCD,

2. How to capture the video and audio:

Push the Record / Stop switch **Stop Rec** to "Rec" side to start a recording, the red power led lamp and the red dot icon on the left up corner of screen will flash at once per second until the switch be push to "Stop" side to stop recording; the continued recording time will be shown on the right up corner, as shown in recording figure, if the switch is set on "Rec" side before power on, the DVR will record directly if the SD card is available

One button for your recording task.:

on the DVR to recording, and release the button to stop recording ,then the DVR will power off after saving record date automatically. (the trigger Cable is plugged into the AV port.



Press down the red button to turn

Recording

I

Motion detect recording, the DVR will be triggered to record when only the video image is changed in the motion detect red area covered by the red block, as how in Figure 13,14.

Recorder Setting		Motion Detection	
Work Mode		Off	
(Motion Detection)		On	
Sensitivity			
Resolution			
Video Quality			
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When the motion detect function is on, you can select the motion sensitivity (showed as the following figure)





IV. Managing and play back your evidence files

1. Learning to use the navigation buttons



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: For bring out the popup main menu;

: For moving cursor or adjust the value of speaker/microphone and the number;

for selecting or enter;

On the Camera Manager screen, press the Menu Button , select Event Playback option, the evidence files are sorted in related folders. Select one files then pressed the end key to playback the files, as shown in the following figure



Playback evidence

Playing back record files:

Play back the video files: Press the select button will on the Video Player item option to play back the video files; the prompt information will appear on the screen such as: time, sound volume, etc. as shown in following figure, meanwhile, you can press the up or down key to adjust the audio value once by once, you can also select the speed of playback by holding the key up or down key is pressed over 3seconds,





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on the Voice Player item to play back the audio files;



Managing recorded files:

All Files

All Files

move the cursor to select a file, when press the Menu Button *(intersection)*, the file manager menu will popup on the screen, , you can play back, copy, paste, delete the file, etc.





Figure 24

III. Recorder Setting

Press the

key to bring out the recorder setting interface, showed as the following picture



Work Mode :There are three work mode for selection, showed as the following pictures.



Motion Detection:

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You can select the YES or NO to enable or disable the Motion detection record function, When the motion

detect record function is on , and the Push the Record / Stop switch **Stop** Rec to "Rec" side, a motion can trigger a automatic recording;

Sensitivity and Redefine Level: there are three grades for the sensitivity motion: high, medium, low



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Resolution: You can select the image size for your photo or video capture: D1:720*480 or 720*576, VGA:680*480 ; showed as the following pictures:



Video Quality: there are three grade quality for you for video record, it will effect MPEG rate, the High is about 8-9 Mbps, the Medium is about 3.5 Mbps, and the Low is about 2.5 Mbps, the video quality will be better and bigger when you select a bigger bit rate;



I **Timestamp and format:** The real timestamp will appear on right top of the video image when your selection Timestamp setting is On, otherwise the timestamp will not been shown;



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FPS Set: This option is for setting how many frames picture per second when you video record, such as 30 frames per second, 15 frames per second;



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Audio Record Volume : You can adjust the volume level value for the audio input in 1 to 10; if there are some noise please adjust the volume to lower, otherwise you can select higher volume for audio recording.



Microphone Selcet: You can select the build in microphone or external microphone as your audio source;



Overwrite: If your selection is ON ,the DVR will stop recording once the SD Disc becomes full, if your selection is Off, the DVR will continue to record by writing over the old files once the SD Disc becomes full;



III. System Parameter Setting



I Date and Time: Use the navigation buttons to move the cursor to the date line and correct the YEAR,DAY or MONTH, Next move to the time line and adjust to the correct time for your time zone. Press the Enter button to save setting



Password Protedction: you can set or cancel the password protection for USB or format SD Disc or files to prevent been deleted without your authorization. The default password is 000000 for all password.

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USB Password: You can set or enable or disable the USB password for accessing the DVR by USB.



Delete Password: You can set or enable or disable the delete password for deleting the files in the SD disc.



Format Password: You can set or enable or disable the delete password for formatting the SD disc.



Video Output: You can select the video output signal format your external display devices, such as TV, monitor or LCD ,etc.



Power Save: In order to save more power, you can set the DVR turn off the LCD automatically after 3 seonds by setting the LCD off. The LCD will be turned on if you press any key.



Vibe Alert: if you select the On to open the vibration alarm, the DVR will give a vibration prompt for power on, video loss, SD card invalidation, low power, and power off.



Beep: When you select the On to open the beep sound on, there will be a beep sound for pressing the button.



Format: You can format the SD card, the default password is 000000.



| Firmware Update

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- **1.** Copy the firmware update file to a SD card;
- 2. Insert the SD card into the DVR;

3.Select Yes then press the Select Button

, then the firmware update dialog block will appear on the screen, as

shown in the following Figure ,while updating ,please keep enough battery power or connect the AC adapter to AC power outlet and not to operate the DVR to avoid FW update failing



SD Card Info: You can check the information on the current SD card.



I Default Setup: You can reset the DVR to default setting if it is necessary; select the YES then to press the select button to reset to default setting;





How to Connect External Devices

Connect with the external camera:



You can connect the special cameras to the DVR by the AV-In port avide directly, or you can input a video and

audio source by the AV-In & DC Out cable, on the same time the DVR can output DC5V voltage (max 400mA) to power the external CCD or CMOS camera by the AV-In &DC Out cable, The yellow RCA connector is for video, the white and the red RCA connector are for audio;

Connecting with the UPS Battery Bank



The UPS Battery Bank (7200mAH) can output DC 5V and DC12V voltage at the same time to power the DVR and a 12V Cameras for over 10 hours recording time, as shown in above Figure;

Connecting with TV;



Please set the correct TV out format for your TV set, as shown in above Figure; on the other hand you can switch the selection in PAL ,NTSC and LCD by pressing the button on the remote controller; The AV Out Cable's yellow RCA connector is for video, the white and the red RCA connector is for audio; now you can turn up the volume of the TV out by pressing the down button of the TV out by pressing the try out by pressing the down button.

pressing the up button

Connecting with computer



The default password is 00000 for connecting to PC. The DVR will be power off automatically when you disconnect the USB from PC.



Connecting with wireless video and audio receiver

You can connect the DVR with the wireless video and audio receiver for your remote recording, as shown in following figure.



Specifications

- Video compressed format: MPEG, files format: AVI
- Photo format: JPG
- High Resolution LCD: 2.5", TFT true color LCD;
- Audio and video output: RCA 3-in-1 AV output;
- Storage type: SD card(FAT 32 ,support to 32G);
- Video size and speed: PAL: 720x576(D1)/25FPS, NTS: 720x480(D1)/30FPS
- Power supply for external camera is available: Voltage: 5V max. current: 400 mA;
- Video format: NTSC/PAL;
- I Multi record mode: Manual/Auto/Motion detection/ for different scenarios;
- Real-time recordings are marked in File;
- Compute transfer screen: USB2.0;
- Recording time: 15minute~2.5 hours /1G ;:
- Power consumption: 200mA, 3.7V 1000 mAH chargeable Li-ion battery, 5.0V 2A AC Adapter;
- I **Size:** 90 mm x 59 mm x23 mm;
- **Weight:**100g (including battery)

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- 17. Up Button

- 3. Internal Microphone
- 6.Record / Stop Button
- 9. USB Port
- 12. Lock Switch
- 15. IR Sensor
- 18. Enter Button

II. Remote Control



1. Record/Stop button2. Up Button3. Enter Button;4. Down Button5. LCD/TV Switch Button6. Exit Button;7. Menu Button8. LCD Off Button;

III. Accessories





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Battery



Leather



USB Cable

AV Cable



AC Adapter

Control



Trigger button cable Wired Control Button

Setting Record Modes

There are three work model for record : showed as the following Figure





- Record ----- for video and audio record, the record data will be saved in AVI files under the "Record Files" folder; the prompt icon will appear on the top left corner of the screen.
- **Photo** --- for still picture capture ,the photos will be saved in JPG files under the "Photo Files", and the prompt icon will appear on the to left corner of the screen.
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Basic Operation

I. How to turn on / off the DVR:

Turn on /off the DVR by the Power On/Off switch.

Push Power On/Off to "On/Off" side until the RED power led light to turn the DVR on , then the

startup picture will appear on the screen; when the DVR is power on, push the Power On/Off switch "On" side until the shut down picture appear on the monitor to turn the DVR off,

PS: if the video signal and SD card are unavailable the DVR will alarm by vibration and the red letters on screen until they all are ready;



 You can turn the VR-1500 recorder using the trigger cable that come with it. Press the button to turn the recorder "ON" and it will also begin to record. Press the button again and it will stop recording and turn "OFF".
button the release the switch , the DVR will save all files and power down;

The trigger button is inserted into the AV Out jack.

1 You can turn off the DVR on your schedule as the setting automatic shutdown time, as shown in the following figure ;



PS: Camera Manager Interface orientation as the following: (as shown in Figure 4)



II. How to start a recording

1. Preparing for your recording task:

- I Select a correct record mode for your task by setting work mode;
- Please charge the internal mobile battery over 3 hours before you begin recording ; we advise that you equip the UPS Battery Bank (7200mAH) to the DVR for your long time record task(over 10 hours); as shown in the underside figure ;



Mobile Battery

I The special external camera from our DVR kits can be connected to the DVR directly via the AV-In port without additional power cord, the DVR can output DC5V @ 400mA for a external DC5V CCD or CMOS camera by the AV-In cable;

- Prepare a high speed SD card to save your record data.
- A video image and OSD will appear on the screen of the display device, you can select a TV or LCD as the display device by pressing the LCD/TV Switch Button on Wireless Remote Controller, press

the button to switch the display as the following: LCD--> TV PAL-->TV NTSCà LCD,

2. How to capture the video and audio:

Push the Record / Stop switch **Stop Rec** to "Rec" side to start a recording, the red power led lamp and the red dot icon on the left up corner of screen will flash at once per second until the switch be push to "Stop" side to stop recording; the continued recording time will be shown on the right up corner, as shown in recording figure, if the switch is set on "Rec" side before power on, the DVR will record directly if the SD card is available

One button for your recording task.:

on the DVR to recording, and release the button to stop recording ,then the DVR will power off after saving record date automatically. (the trigger Cable is plugged into the AV port.



Press down the red button to turn

Recording

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Motion detect recording, the DVR will be triggered to record when only the video image is changed in the motion detect red area covered by the red block, as how in Figure 13,14.

Recorder Setting		Motion Detection	
Work Mode		Off	
(Motion Detection)		(On	
Sensitivity			
Resolution			
Video Quality			
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When the motion detect function is on, you can select the motion sensitivity (showed as the following figure)





IV. Managing and play back your evidence files

1. Learning to use the navigation buttons



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: For bring out the popup main menu;

: For moving cursor or adjust the value of speaker/microphone and the number;

for selecting or enter;

On the Camera Manager screen, press the Menu Button , select Event Playback option, the evidence files are sorted in related folders. Select one files then pressed the end key to playback the files, as shown in the following figure



Playback evidence

Playing back record files:

Play back the video files: Press the select button will on the Video Player item option to play back the video files; the prompt information will appear on the screen such as: time, sound volume, etc. as shown in following figure, meanwhile, you can press the up or down key to adjust the audio value once by once, you can also select the speed of playback by holding the key up or down key is pressed over 3seconds,





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on the Voice Player item to play back the audio files;



Managing recorded files:

All Files

All Files

move the cursor to select a file, when press the Menu Button *(intersection)*, the file manager menu will popup on the screen, , you can play back, copy, paste, delete the file, etc.





Figure 24

III. Recorder Setting

Press the

key to bring out the recorder setting interface, showed as the following picture



Work Mode :There are three work mode for selection, showed as the following pictures.



Motion Detection:

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You can select the YES or NO to enable or disable the Motion detection record function, When the motion

detect record function is on , and the Push the Record / Stop switch **Stop** Rec to "Rec" side, a motion can trigger a automatic recording;

Sensitivity and Redefine Level: there are three grades for the sensitivity motion: high, medium, low



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Resolution: You can select the image size for your photo or video capture: D1:720*480 or 720*576, VGA:680*480 ; showed as the following pictures:



Video Quality: there are three grade quality for you for video record, it will effect MPEG rate, the High is about 8-9 Mbps, the Medium is about 3.5 Mbps, and the Low is about 2.5 Mbps, the video quality will be better and bigger when you select a bigger bit rate;



I **Timestamp and format:** The real timestamp will appear on right top of the video image when your selection Timestamp setting is On, otherwise the timestamp will not been shown;



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FPS Set: This option is for setting how many frames picture per second when you video record, such as 30 frames per second, 15 frames per second;



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Audio Record Volume : You can adjust the volume level value for the audio input in 1 to 10; if there are some noise please adjust the volume to lower, otherwise you can select higher volume for audio recording.



Microphone Selcet: You can select the build in microphone or external microphone as your audio source;



Overwrite: If your selection is ON ,the DVR will stop recording once the SD Disc becomes full, if your selection is Off, the DVR will continue to record by writing over the old files once the SD Disc becomes full;



III. System Parameter Setting



I Date and Time: Use the navigation buttons to move the cursor to the date line and correct the YEAR,DAY or MONTH, Next move to the time line and adjust to the correct time for your time zone. Press the Enter button to save setting



Password Protedction: you can set or cancel the password protection for USB or format SD Disc or files to prevent been deleted without your authorization. The default password is 000000 for all password.

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USB Password: You can set or enable or disable the USB password for accessing the DVR by USB.



Delete Password: You can set or enable or disable the delete password for deleting the files in the SD disc.



Format Password: You can set or enable or disable the delete password for formatting the SD disc.



Video Output: You can select the video output signal format your external display devices, such as TV, monitor or LCD ,etc.



Power Save: In order to save more power, you can set the DVR turn off the LCD automatically after 3 seonds by setting the LCD off. The LCD will be turned on if you press any key.



Vibe Alert: if you select the On to open the vibration alarm, the DVR will give a vibration prompt for power on, video loss, SD card invalidation, low power, and power off.



Beep: When you select the On to open the beep sound on, there will be a beep sound for pressing the button.



Format: You can format the SD card, the default password is 000000.



| Firmware Update

Т

- **1.** Copy the firmware update file to a SD card;
- 2. Insert the SD card into the DVR;

3.Select Yes then press the Select Button

, then the firmware update dialog block will appear on the screen, as

shown in the following Figure ,while updating ,please keep enough battery power or connect the AC adapter to AC power outlet and not to operate the DVR to avoid FW update failing



SD Card Info: You can check the information on the current SD card.



I Default Setup: You can reset the DVR to default setting if it is necessary; select the YES then to press the select button to reset to default setting;





How to Connect External Devices

Connect with the external camera:



You can connect the special cameras to the DVR by the AV-In port avide directly, or you can input a video and

audio source by the AV-In & DC Out cable, on the same time the DVR can output DC5V voltage (max 400mA) to power the external CCD or CMOS camera by the AV-In &DC Out cable, The yellow RCA connector is for video, the white and the red RCA connector are for audio;

Connecting with the UPS Battery Bank



The UPS Battery Bank (7200mAH) can output DC 5V and DC12V voltage at the same time to power the DVR and a 12V Cameras for over 10 hours recording time, as shown in above Figure;

Connecting with TV;



Please set the correct TV out format for your TV set, as shown in above Figure; on the other hand you can switch the selection in PAL ,NTSC and LCD by pressing the button on the remote controller; The AV Out Cable's yellow RCA connector is for video, the white and the red RCA connector is for audio; now you can turn up the volume of the TV out by pressing the down button of the TV out by pressing the try out by pressing the down button.

pressing the up button

Connecting with computer



The default password is 00000 for connecting to PC. The DVR will be power off automatically when you disconnect the USB from PC.



Connecting with wireless video and audio receiver

You can connect the DVR with the wireless video and audio receiver for your remote recording, as shown in following figure.



Specifications

- Video compressed format: MPEG, files format: AVI
- Photo format: JPG
- High Resolution LCD: 2.5", TFT true color LCD;
- Audio and video output: RCA 3-in-1 AV output;
- Storage type: SD card(FAT 32 ,support to 32G);
- Video size and speed: PAL: 720x576(D1)/25FPS, NTS: 720x480(D1)/30FPS
- Power supply for external camera is available: Voltage: 5V max. current: 400 mA;
- **Video format:** NTSC/PAL;
- I Multi record mode: Manual/Auto/Motion detection/ for different scenarios;
- Real-time recordings are marked in File;
- Compute transfer screen: USB2.0;
- Recording time: 15minute~2.5 hours /1G ;:
- Power consumption: 200mA, 3.7V 1000 mAH chargeable Li-ion battery, 5.0V 2A AC Adapter;
- I Size: 90 mm x 59 mm x23 mm;
- **Weight:**100g (including battery)