AEE®

PD20
ULTRA-SMALL
COMPACT SIZE
★★★★★

PORTABLE FOR
> RECORDING
> EVIDENCE COLLECTION
> MONITORING

Hands free Camcorder
Military & Police Equipment Expert

POLICE DV

▶ Video and Voice Recording   ▶ Bluetooth Headset   ▶ Data Security Encryption
▶ Continuous Capture   ▶ 3-Million-Pixel High-definition Camera

🅱 A Video Camera with Bluetooth Function

USER MANUAL

Please read this manual carefully and thoroughly before any attempt to install and operate this product and retain it for your future reference.

FCC Notices

1. The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

2. This device complies with Part 15 of the FCC Rules. (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

--Reorient or relocate the receiving antenna.
--Increase the separation between the equipment and
  receiver.
--Connect the equipment into an outlet on a circuit
  different from that to which the receiver is connected.
--Consult the dealer or an experienced radio/TV technician
  for help.

Contents

Preface

Thanks for purchasing our high-definition digital video camera PD20. Featured by mini, delicate and unique humanistic design, the product fulfills 360° video recording/monitoring/evidence capture.

The User Manual will instruct in detail the use and installation of the product and provide you with specific information on use, operation and installation and the technical specification, etc. Before using the product, please read the Manual carefully and keep it for future reference. We sincerely hope that the product could satisfy your requirement for a long term.

Product Warranty

As certified by authorities of FCC & CE and the like, the product is in line with the recommended specifications, which provides an assurance of safety for the user.

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Product Features

> Video recording function: Record into AVI; output:736 x480@30 FPS; video codec:M-JPEG;
> Continuous capture function;
> Separate voice recording function; it is able to meet the requirement of long voice recording to capture evidences; and it can record the call information by Bluetooth;
> Voice-activated video recording function;
> Stop function: Stop video and voice recording;
> Flash memory (built-in), 4GB;
> RTC time display for video recording and photoshooting;
> With built-in MIC, fulfill simultaneous video and voice recording;
> Full-speed USB2.0 connection;
> LED indicator light;
> USB charging function;
> Memory space detection function;
> Data security encryption function;
> Battery level detection function;
> TV-OUT function;
> Bluetooth headset function;
> 3-million-pixel high-definition camera;
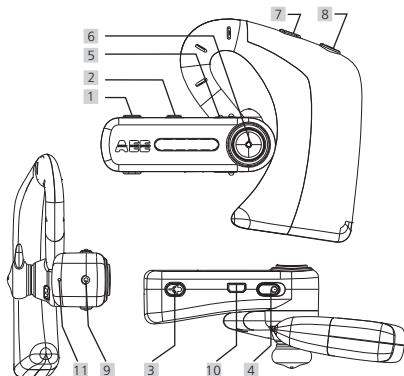> Auto standby function;

Product Description

　　As a high-end mini high-definition digital video camera designed to meet the market demand, this product features leading-edge performance in functions such as digital video recording, voice storage, sound-activated video recording, USB data transmission, USB charging and Bluetooth transmission, etc. Besides, the product has been awarded many patents of invention and technology.

Do not litter! Recycle properly.

Product Structure

1	Shutter	7	Bluetooth Headset Volume Loop Control
2	Stop	8	Bluetooth Power Switch/Answer/Ring Off
3	Voice Recording	9	Camera Lens
4	Voice operated switch	10	USB Interface
5	Camera Power Switch	11	Voice Recording MIC
6	Video Recording		

Operating Instruction

1. Switching On
Turn the power switch of camera to "ON" to switch on PD20. At this moment, the red indicator light is always on with the corresponding prompt tone.

2. Video Recording
(1): Manual Recording
In the state of power on, press "Video Recording" to start video recording. The green indicator light will flash slowly with the corresponding prompt tone; press "Stop" during video recording, the recording will be stopped and saved into a file in *. AVI format; during long term video recording, the system will generate a file automatically in every 30 minutes;
(2): Voice-activated Recording: Turn on PD20 and turn the voice operated switch to "On",
    a: If the external sound goes beyond 75db, PD20 will auto enter the video recording mode to start recording; during long term video recording, the system will generate a file automatically in every 30 minutes;
    b: If the external sound remains under 75db for 3 minutes, PD20 will enter the state of standby;
    c: In standby state, if the external sound goes beyond 75db again, Pd20 will auto enter the video recording mode to start recording again;

3. Photo Shooting
In the state of power on, press "Shutter" once, and then the system will take two pictures automatically. The green indicator light will flash twice and the corresponding prompt tone is given;

4. Voice RecordingIn the state of power on, press "Voice Recording" to record sound; then the corresponding prompt tone is given and the red indicator light will flash slowly. During recording, press "Stop",the record will be stopped and saved into a file and the corresponding prompt tone will be given at this moment; during long voice recording, the system will generate a file automatically in every 30 minutes;

Note:
During the functional shift between video recording, voice recording and photo shooting, in case that PD20 is recording video or sound, you need to press "Stop" firstly to save the current file of video or voice recording; otherwise, the other buttons do not work.

5. Awakening from Standby
In the state of power on, if there is no any operation within 3 min, the system will enter the standby state; in the standby state, you can press "Video Recording", "Voice Recording" or "Shutter" to awake the system to implement the corresponding task; if you press "Stop", the system will be awaken to enter the state of power on.

6. Battery level Detection
In the state of power on, long press "Video Recording" for 4s, the battery level will be detected. The battery level of PD20 is determined according to the number of times the red indicator light flashes (flashing times: 1-4); the more times the red indicator light flashes, the lower the power is. (See the schematic diagram of indicator lights for details).

7. Memory Space Detection

In the state of power on, long press "Shutter" for 4s, the free space of memory will be detected. The free space of PD20 is determined according to the number of times the red indicator light flashes (flashing times: 1-4) ; the more times the green indicator light flashes, the less the free space is. (See the schematic diagram of indicator lights for details).

8. U-Disk Mode/ Update of RTC Time

Use a data cable to connect a PC with the machine; turn POWER switch to ON and enter U-Disk mode. Double click (as shown in Figure 1) the icon of hard disk to enter the dialog box for inputting password (as shown in Figure 2, default password: PD20);then input the password and click "OK" to confirm the password. After inputting the correct password, the dialog box for changing password and update option of RTC time (as shown in Figure 4) will pop up; if the password needs to be changed, you will input new password and click "Change password" and then the option "U-Disk"; in this way, the password is changed successfully, and the hard disk is decrypted simultaneously. If you click "Sync Data/Time" and then "U-Disk", the time will be changed automatically (at that moment, the setup time is in conformity with the time of the computer).

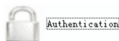Figure 1   Figure 2

PROG (G:)   Authentication

−7−

Figure 3

Figure 4

Figure 5

PD20_4G.INI
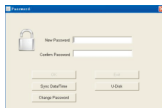
Figure 6

After entering U-Disk, you'll see a text file as shown in Figure 5；you can set the file to enable/disable video recording loop overwrite, select TV-OUT output system and change TV-OUT password.

After entering U-Disk, open the configuration file as shown in Figure 5; and then set it as shown in Figure 6:

(1) If configuration setting is "NTSC_PAL=1", TV OUT output system will be PAL; if configuration setting is "NTSC_PAL=0", TV OUT output system will be NTSC.

(2) If configuration setting is
 "VIDEO_RECORD_MODE=1"the loop overwrite function will be enabled; if configuration setting is "VIDEO_RECORD_MODE=0", the loop overwrite function will be disabled.
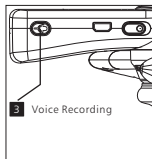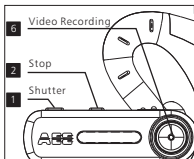
(3)Enter the main menu of TV OUT by password. The initial password is "000000"; if you want to change the password, you can set any six digit password in configuration setting "TVOUT_PASSWORD=000000".

Note: After saving the configuration settings, the settings will be valid by restarting the machine.

9. TV OUT
Use AV cable to connect TV with the machine; turn POWER switch to ON and enter TV OUT mode; the standby red and green indicator lights are always on. After entering TV OUT mode, operate the machine as follows:
  1: During file selection, if you press "Shutter", the last file will be selected; if you press "Voice Recording", the next file will be selected;
  2: During file confirmation, if you press "Video Recording", the video/audio file will be played or paused;
  3: You can long press "Voice Recording" to fulfill fast forward of video/audio file;
  4: You can long press "Shutter" to fulfill fast rewind   of video/audio file;
  5: You can press "Stop" to stop playing the video/audio file and return;
  6: You can long press "Stop" for 2s to delete the File.

10. PC Camera
Turn voice operated switch to ON; connect USB with PC, and then turn POWER switch to ON; at this moment, the machine will enter PC Camera function, i.e. it can be used as a visual communication medium, and the green light flashes fast.

11. Bluetooth Call Recording
When making a call via Bluetooth, press "Voice Recording" to start the voice recording function; then the call information will be recorded and saved in the real-time way.

Operating Instruction for Bluetooth Headset

1. Bluetooth Pairing
If you long press "Answer/Ring Off" of headset for 5s, the prompt tone "click" will be given; at this moment, the blue light flashes fast, which indicates Bluetooth headset has been started for pairing.

2.Start Bluetooth function of mobile phone to search for Bluetooth devices, and "D20" will pop up on the mobile phone, which indicates PD20 Bluetooth headset has been searched. You can "Pair" the Bluetooth headset via mobile phone; after successful pairing, a prompt tone "tick" will be given; at this moment, the blue light will flash in every 3 min, which indicates Bluetooth headset has been connected with the mobile phone.

3. Dialing
After dialing and getting through, the headset will be used normally pairing with the mobile phone.

4. Answering
After hearing the prompt tone from headset, if you press "Answer/Ring Off" on the headset, the prompt tone "boom" will be given, which indicates the call has been answered.

5. Rejection
After hearing the prompt tone from headset, if you long press "Answer/Ring Off" on the headset for 2s, the prompt tone "tick" will be given, which indicates the call has been rejected.

6. Ringing Off
After making a call, if you press "Answer/Ring Off", the prompt tone "boom" will be given, which indicates you have ringed off.

7. Volume Control
If you want to turn up the volume, you can press "Volume Control" once; if you want to turn down the volume, you can long press "Volume Control".

8. Turn off Bluetooth Headset
If you long press "Answer/Ring Off" on the headset for 3s, the blue light will be on for 1s and then off. At this moment, the Bluetooth headset is turned off, with the prompt tone "toot-boom".

Power Supply Certification

This product uses the power supply passing authoritative certifications.

UL
USA Power Supply Certification

C-TICK
Australia Power Supply Certification

CE
EU Power Supply Certification

GS
Germany Power Supply Certification

CCC
PRC Power Supply Certification

PSE
Japan Power Supply Certification

BS
UK Power Certification

Package Accessories

Vehicle Power Adaptor

USB Power Supply

AV Cable

USB Cable

USB Connector

Convertible Rubber Earcap

Installation Disc

Portable Power Supply and Accessories

USB charging cable

MINI B 8PIN Discharge wire

Cloth bag

Velcro

Note: There might be some disparities between the picture and the real object. Packaging is subject to change without prior notice.

Product Structure

Function	Red Light	Green Light	Bluetooth Headset	Memory Battery
Switch on	Always on		Switch on with the prompt tone "click"	
Battery charging	Flash slowly			
Fully charged	Always on			
Low power indication	Flash fast for 30s and switch off automatically		Low power warning, with continuous warning tone "toot"	
PC Cam Mode		Flash fast		
Video recording		Flash slowly	Video recording, with the short prompt tone "boom"	
Photo shooting		Flash twice	Photo shooting, with the shutter sound, "clickety-clack"	
Voice recording	Flash slowly		Voice recording, with the short prompt tone "tick"	
Card is full		Always on for 30s and enter the state of dormancy	Full card warning, with the prompt tone "uh-huh…toot"	
TV OUT mode	Always on	Always on		
Data transmission (Decryption state)		Flash fast		
Data transmission (Non-decryption state)	Flash alternately	Flash alternately		
Turn on voice operated switch	Flash three times			
In the voice-activated video recording mode, the system will enter the standby mode if no sound is detected for 3min	Flash three times, and then enter the stand by mode			
Battery level detection Long press "Stop" for 4s	Flash once			3/4~1
	Flash twice			1/2~3/4
	Flash three times			1/4~1/2
	Flash four times			0~1/4
Memory space detection Long press "Video Recording" for 4s		Flash once		3/4~1
		Flash twice		1/2~3/4
		Flash three times		1/4~1/2
		Flash four times		0~1/4

Function & parameter

Item	Spec
Sensor	3000000 Color CMOS
View Angle	80°
Battery	380mAh Li-battery (rechargeable)
Current Consumption	150mA/3.7V(max)
Battery Capability	2.5 hours recording
SD Card Capability	4GB Nand Flash
Storage temperature	-20℃—60℃
Working temperature	-10℃—50℃
Working humidity	15~85%RH
Storage media	Flash (Build-in)
Picture format	JPEG 2048*1536
Voice file format	Wav
Video Function and Format	AVI Video Files D1 (736 × 480@30 (Max.)FPS) Video Codec: M-JPEG
Mini USB	USB 2.0
Operation platform	Windows 98SE/2000/Me/XP/Vista/Win7

Specifications are subject to some changes without prior notice.