

Jazz HDV146
High Definition DV



Instruction Manual

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FCC statement

This device complies with part 15 of FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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. Pertinent testing documentation is available for verification.

Preface

Thank you for purchasing this Digital Video Recorder. Please read this Manual carefully and keep in a safe place for further reference.

Note: The product Specifications and these operating instructions are printed based on latest available information and are subject to change without prior notice. The specifications of the particular video camera recorder you have purchased may slightly vary from this printed data.

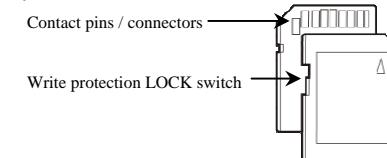
Maintenance and precautions for the video recorder

Recorder is not waterproof. Keep and store your recorder away from humidity, dust and harmful chemicals. Do not use any organic solvent to clean lens. Do not store or operate the camera in extremely hot or cold temperatures. Keep recorder clean and take care to avoid scratching or damaging the housing and the lens. Blow dust away and use soft cloth if the lens becomes dirty or contaminated.

Remove batteries if you are not planning to use camera for extended time

Maintenance and precautions for SD Memory card

SD Memory Card



- Please note the SD card has tiny LOCK slider on the side for write protection of SD memory card that helps avoid inadvertent deletion of image files. Set slider to “un-LOCK” position for storing still images or recording video.
- SD card is delicate electronic device; do not open, bend *or* overheat the card.
- Keep the card away from strong magnetic field and dirty / harsh environment.
- **⚠ Note:** If your SD card has been used previously with other devices / cameras or is brand new – the card may require to be *formatted* – please ensure you save all valuable files before formatting. Refer to page 12 for formatting information.

System Requirements

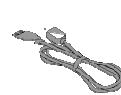
You may use the computer to download images and video from your camera, edit images, email or upload to the Internet.

Make sure that your computer complies with (below) minimum requirements:

System Requirements	
Operating System	Microsoft Windows XP, VISTA, 7
CPU	Intel Pentium 4 1GHz or above CPU
Memory	512MB or higher
Audio & Video Card	Direct X8 Audio & Video Card
Hard Drive space	1GB or higher available memory space
USB port	Standard USB1.1 or USB2.0 port

Accessories

The following accessories are packed together with your video recorder:



USB Cable



Installation CD

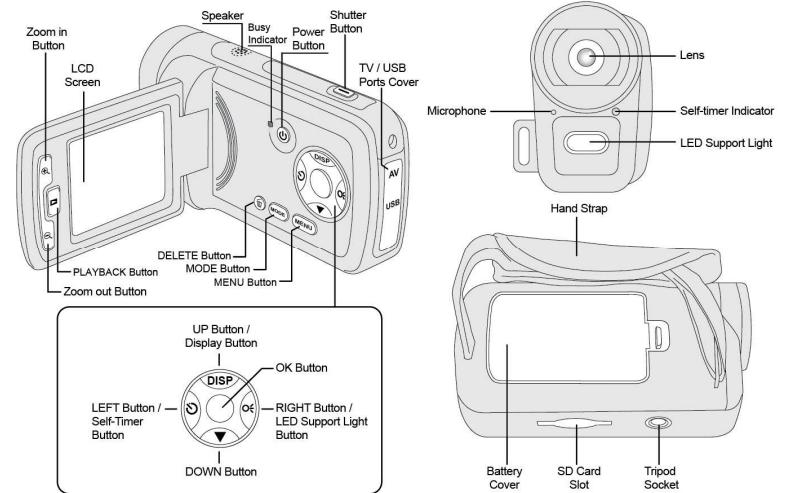


Manual, QSG, Warranty Card



AV Cable

Know Your Camera



Buttons and Function Indicators

Buttons/Indicator	Function
Power Button	Press to turn recorder ON and OFF
SHUTTER button	Press to Start / Stop Video recording or Take Still Photo
Zoom IN	Press to zoom IN
Zoom OUT	Press to zoom OUT
MENU Button	Press to OPEN or exit the MENU selection
MODE Button	Press to select desired Recording MODE: Video Recording or Taking Still Photos
PLAYBACK Button	Press to select the PLAYBACK Mode or exit / return to Recording MODE
UP Button	- Recording MODE: press UP to remove icons from LCD screen or dim the screen. - MENU selected; press to scroll UP available options.
DOWN Button	-MENU selected; press to scroll DOWN available options
LEFT Button	Selects files and MENU, moves photos to the left (when the photo is enlarged and set at Pan mode) and switches to the 10 sec delay Self-Timer Mode or vice versa.
RIGHT Button	Selects files and MENU, moves photos to the right (when the photo is enlarged and set at Pan mode) and turns LED supporting light On or OFF in Recording MODE.

OK Button	Press to confirm MENU / option changes and start and stop playing video
DELETE Button	PLAYBACK Mode - press to delete selected displayed file; recorded Video or taken Still Photo
Busy Indicator	Indicates Recording / Video Playing / Processing Status
Self-Timer Indicator	Flickers during Self-Timer countdown process

Getting Started

Note: Your recorder requires batteries and SD/SDHC Memory Card inserted to operate. These are not supplied and should be obtained separately. SD/SDHC memory card with capacity up to 8GB may be used in your camera.

Installing Batteries

- Open the Battery cover and insert three fresh AAA alkaline batteries into the battery compartment.
- Note batteries plus and minus terminals location; install batteries as indicated. Close the battery cover.

Installing SD Memory Card

- Position and insert SD Memory card into the SD card slot.

- Note the orientation of the card and insert as indicated. Press it down until the card becomes locked. Do not force card during insertion as the card or card slot could become damaged.

To remove or replace the SD card, press the card down. The card will pop up and you may remove card from the video recorder.

Notes:

- Note that the card has a tiny “LOCK” slider located on the side. Set this slider to “non-LOCK” position before inserting and taking video or still images.
- Turn OFF the video recorder before inserting / removing or changing the memory card;
- Insert the memory card according to the position mark. Do not force. If the card cannot be inserted easily please check card alignment and position then repeat installation.

Turning Video Recorder ON and OFF

- Open the LCD Screen
- Press the Power button to turn video recorder ON.
- LCD screen becomes active and the recorder is ready to operate.
- Press the Power button again to turn recorder OFF.
- Please note that recorder will turn OFF automatically when turned ON and left idle for 1min to save battery power.

Select the MODE

When activated the recorder is set to Video Recording mode.

- Press the MODE button to select Still Photo Mode, press MODE button again to return to Video Recording Mode
- Press the PLAYBACK button to select the playback function. Press the PLAYBACK button to exit playback mode and return to the Video Recording or Still Photo Mode.

Note that the Video Recording is the default Mode – when you turn the Power ON – recorder will be set in Video Recording mode.

Basic Functions

Video Recording mode selected

- Press the Shutter Button to start recording the video clip, press the Shutter Button again to stop recording.

Taking Still Photo selected (Still Photo Mode)

- Keep recorder steady and press the Shutter Button to take a Still Photo.

Playback mode

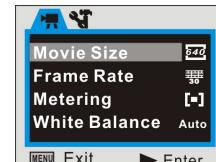
- Press the PLAYBACK Button to select the Playback mode.
- LCD screen will show latest Photo or Video.
- You can use LEFT / RIGHT buttons to scroll through your files; press OK button and start playing Video. Press OK button again to STOP playing.

Advanced Functions

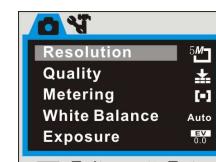
MENU setup

- Video Recording or Still Photo Mode; press the MENU button to enter available settings and options for each Mode. Use the UP / DOWN Buttons to scroll and select desired setting.
- Press OK or the Right button to enter available sub-menu.
- Press Up / Down button to scroll to intended option and press OK button to confirm setting.
- Press the Menu button to exit the Video or Still photo Menu mode and return to Preview / scene Mode.

See below images showing samples of the MENU screens in Video and Photo taking Modes;



▲ Video Menu



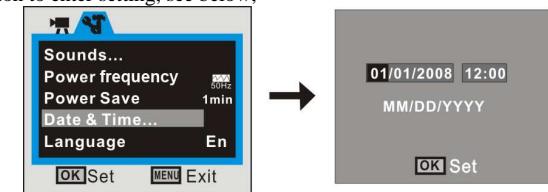
▲ Photo Menu

Note: When 'HD' video resolution is selected, 'Frame Rate' option is disabled.

Setting Date and Time

After inserting batteries you can set Date & Time.

- Press the MENU Button then the RIGHT Button to enter Internal Setting.
- Use UP / DOWN Buttons to select Date & Time Setting. Press OK, then the LEFT / RIGHT Button to enter setting, see below;



- In the setup window, press the LEFT / RIGHT Button to select desired numbers (date/time), see highlighted digits.
- Press the UP / DOWN button to adjust, then press OK to confirm.
- You may press the MENU Button to cancel and exit setting.
- Note that you need to set date & time again after replacing exhausted batteries.

Formatting SD Card

With non-locked SD card inserted into the camera, you can format the card.

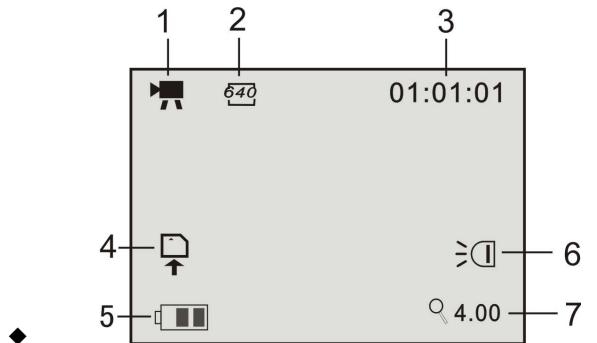
- Press the MENU Button then the RIGHT Button to enter Internal Setting.
- Use UP / DOWN Buttons to select Format Setting. Press OK, then UP / DOWN Button to

select 'Yes' option.

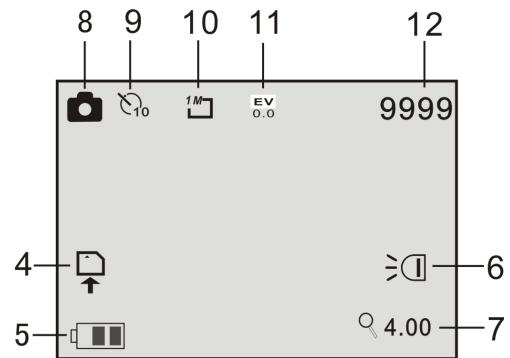
LCD screen information

Below are images of the LCD screen with related icons and information visible when the recorder is set to Video Recording or the Still Photo Mode.

- **Video Recording Mode**



-Still Photo mode



Function and explanation of the corresponding icons

1	Video Mode	Indicates that the Video Recording mode is set
2	Video Format	Indicates the Video Resolution; currently shown as “640” (VGA Mode)
3	Recording Time	Indicates the remaining available Video Recording time
4	SD Card	 SD card is inserted
5	Battery status	Indicates batteries status; shown “2/3 left”
6	LED Supporting Lamp	The LED Supporting Lamp is ON (active)
7	Zoom range	Indicates the zoom range; currently “4.00 x” shown
8	Photo Mode	The recorder is set at the Still Photo Mode
9	Self-timer Countdown	Indicates the self-timer countdown mode is set.

10	Image Size	Indicates the Still Photo resolution; shown "1Mpix"
11	Exposure	Indicates the selected exposure value; currently shown "0"
12	No. of available Still Photos	Indicates the number of remaining Still Photos that may be taken

Video Recording available options

Select the Video Recording mode and press the MENU Button to select available options. Press UP / DOWN Buttons to scroll options, press OK or RIGHT to enter sub-menu and display available settings.

Main Menu	Sub-menu	Explanation
Movie Size	1280x720	HD Resolution Video format
	640x480	VGA Resolution Video format
	320x240	QVGA Resolution Video format
Frame Rate	High	Video recorded with high Frame rate.
	Low	Video recorded with low Frame rate.
Metering Mode	Center	Exposure is measured in central area of

			the scene
	Multi		Exposure is measured in several spots of the recorded scene (default)
	Spot		Exposure is measured in central spot of the recorded scene
White Balance	Auto		Automatic White Balance; suggested for typical use (default)
	Daylight		Suitable for a bright, clear sky
	Cloudy		Suitable for overcast sky
	Fluorescent		Suitable for fluorescent indoor light
	Tungsten		Suitable for tungsten source light

Still Photo available options

Main Menu	Sub-menu	Explanation
Resolution	3264x2448	8Mpix Resolution
	2592x1944	5Mpix Resolution
	2048x1536	3Mpix Resolution
	1280X1024	1.3Mpix Resolution
	640x480	0.3Mpix Resolution
Quality	Super Fine	Super Fine Image quality
	Fine	Good Image quality
	Normal	Normal Image quality
Metering	Center	Exposure is measured in central area of the scene
	Multi	Exposure is measured in several spots of the recorded scene (default)
	Spot	Exposure is measured in central spot of the recorded scene

White Balance	Auto	Automatic White Balance; suggested for typical use (default)
	Daylight	Suitable for a bright, clear sky
	Cloudy	Suitable for overcast sky
	Fluorescent	Suitable for fluorescent source light
	Tungsten	Suitable for tungsten source light
Exposure	EV	Adjusts scene brightness, use LEFT / RIGHT Buttons
Driver Mode	Off	Self-timer is off status
	Self-timer 2s	2 sec delay self-timer mode
	Self-timer 10	10 sec delay self-timer mode
	Burst	Takes three photos in quick succession

Playback Mode

Press the PLAYBACK Button to select the Playback Mode.

The LCD screen will display latest Still Photo or Video.

Use LEFT / RIGHT Buttons and scroll through your files; see the Video icon on the left

bottom corner identifying the Video Record.

Press OK Button to start Playing Video.

You can “zoom” the displayed photo images by pressing the zoom IN / OUT buttons. When the image is zoomed IN, press OK button and you can “pan” the displayed image by pressing directional buttons. To exit from Pan and Zoom status, press OK button again.

You can view other photos or video files by pressing Left/ Right keys.

Thumbnail mode

Press Zoom Out button to enter the Thumbnail / Playback mode.

You can use the direction key to select desired image file, and press OK key to exit this Thumbnail mode and return to full screen display mode.

PLAYBACK Mode, MENU options

Press MENU Button to display available Playback Menu options, see screen below;



Playback, Photo Menu Options

Main Menu	Sub-menu	Explanation
Lock	Lock/Unlock One	Locks/ Unlock selected file
	Lock All	Locks All files
	Unlock All	Unlock All files
Delete	One	Deletes current file
	All	Deletes All files
Slide Show	Start	Starts slide show
	Interval	1sec~10sec interval
	Repeat	Yes / No all displayed slides

Start-up Image	Set	Set the current photo as the Start-up Image
	Cancel	Cancel setting this operation

Playback, Video clip MENU Options

When you browse and select previously recorded Video Clips, you have two available options:

Lock and Delete – options are the same as Playback Photo Options explained above on page #20-22.

Internal Setting Available Options

You can change Internal setting according to your preference.

- Press the MENU button and press the RIGHT Button to enter into the Internal Setting, see the screen below with highlighted option:



▲Setting Menu

- Press the UP / DOWN Button to choose desired Menu and press OK or RIGHT Button to enter into the corresponding sub-menu.
- Press UP / DOWN Button to select desired setting / option then press OK confirm your setting.

Press the MENU button to exit the Menu.

Internal Setting Options

Following Internal Setting options are available:

Main Menu	Sub-menu	Explanation
Sounds	Shutter	ON / OFF
	Start-up	ON / OFF
	Beep	ON / OFF
	Volume	0 / 1 / 2 / 3 (3 is the loudest)
Power Frequency	50Hz	Setting for 50HZ electric power frequency
	60Hz	Setting for 60HZ electric power frequency
Power Save	1min	Auto Power-OFF after 1 min
	3min	Auto Power-OFF after 3 min
	5min	Auto Power-OFF after 5 min
Date & Time	/	Sets date, time, and date format
Language	En	Displays Menu in English
	Fr	Displays Menu in French
	Es	Displays Menu in Spanish

	Ita	Displays Menu in Italian
	Po	Displays Menu in Portuguese
	Du	Displays Menu in Dutch
TV	NTSC	Recorder's TV output is set to NTSC
	PAL	Recorder's TV output is set to PAL
USB	MSDC	USB output is set to MSDC mode (Mass Storage Media)
	PCCAM	USB output is set to PCCAM mode (Web-Cam)
Start-up Image	OFF	The Start-up Image mode is disabled
	System	Default image stored in the camera is set as Start-up Image.
	My Image	A photo taken by the camera can be selected as the Start-up Image
Format	Yes/No	Format memory card
Reset All	Yes /No	Resets to the factory setting

Make connections

- You can review all your files on the video recorder's LCD screen when the PLAYBACK Mode is selected.
- Also you can connect recorder with the computer to review, store or upload your files to the internet.
- In addition, your recorder may be connected to TV so you may see your videos and images on your TV screen.

Connection to computer

 Before connecting recorder to computer it is strongly recommended that you first install programs from supplied CD.

Installing and using Magix software

- Please refer to pages 28-29 for Driver and Software installation instruction.
- Installed Magix software Video Easy SE (Special Edition) and Photo Manager 9 are *editing programs* which will allow you to edit your still photos and will provide you direct access to upload your video to YouTube.
- Please refer to **Instruction Manual** for full details or if you have any question how to use Magix software.
- The Magix **Instruction Manual** is bundled on the supplied CD.

Connecting video recorder to computer

Open the USB cover and – using supplier USB cable - connect video recorder's USB port with available USB input on your computer.

- Turn the Recorder ON
- Go to My Computer, then select the Removable Disc "X" which represents your video recorder.
- Open the folders and find your recorded Videos and Photos.
- You may open any files to review pictures or playback video (using typical programs installed on your computer) or you may simply **store** selected photos and videos on your computer.

Webcam Function

Note: To use video recorder as a Webcam you must first install the Driver.

Please install Driver bundled on supplied CD BEFORE connecting video recorder to computer (for the first time only); see instruction below.

Installing driver and software

The accessory CD contains the camera driver and provided software **MAGIX Video easy SE** / **MAGIX Photo Manager 9** (for photo and video processing).

Installation interface

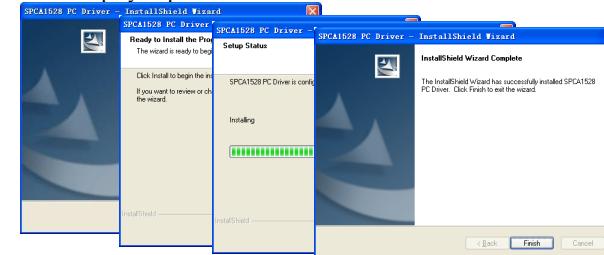
Please insert the CD into the CD-ROM, the system will automatically run the installer in the CD, and the screen shows the installation wizard window as below.



(The installer may take several seconds to start, depending on the PC performance. If the installation window doesn't appear, please run "Windows Explorer", and select "SoftwareInstaller.exe" in the CD.)

Installing driver

In the installation wizard window, click the "Install Driver" button and follow the wizard to install step by step.



Please restart the PC after installing the driver.

**Run the software MAGIX Video easy SE / MAGIX Photo Manager 9, click the button in the wizard window and follow the prompt to install step by step.
For usage, please click the "Software operation explanation" button in the installation wizard window.**

Operating Webcam

- Set the USB mode of the recorder at PCCAM setting.

- Connect the recorder to the computer.

USB output is set to MSDC mode (Mass Storage Media)

Connecting video recorder to TV

Connecting to TV provides another way to review your recorded video and still pictures on the TV screen.

- Use supplied TV/ AV cable and connect TV/AV connector of the recorder with AV input of your TV.

- Set your TV to the AV input mode and turn video recorder power ON.

- Select the PLAYBACK mode of the recorder and review or display all your records in the same way as you have seen on recorder's LCD screen.

Enjoy watching your photos and videos on the big screen!

Specifications

Video Resolution	HD 1280X720, VGA 640×480, QVGA 320x240
Still Photo Resolution	8Mpix 3264 X 2448, 5Mpix 2592X1944, 3Mpix 2048X1536, 1.3Mpix 1280X1024, 0.3Mpix 640x480
Available MODES	Video Recording, Still Photo taking, Playback
File Format	JPEG, AVI
Memory	Slot for External SD card (up to 8GB) capacity (SD card not supplied)
Zoom	Digital, 4 X range
Screen	2.0" TFT LCD
Self-Timer	2 sec / 10sec delay
White Balance	Auto / Sunlight / Overcast / Fluorescent / Tungsten
USB Interface	USB2.0 (cable supplied)
TV Output	NTSC / PAL
Power	Three AAA Alkaline batteries (not supplied)

Auto Power OFF	1min / 3min / 5min
Menu Language	English/French/Spanish/Italian/Portuguese/Dutch
Operating System	Windows XP / Vista / Windows7

Note: The product specifications are printed based on latest available information and are subject to change without prior notice.

The specifications of your purchased recorder may be slightly different from above data.

Troubleshooting

Condition	Cause/ Remedy
The video recorder can not be turned ON	Insufficient power, please install new batteries. Batteries installed incorrectly. Reinstall batteries, note correct polarity alignment.
Can not take a picture or record any videos	The SD Card is not inserted. Insert the SD card for photo taking / video recording. Write protection switch on the SD card is set to LOCK-ed position. Remove the SD Card and set the switch to non-LOCK position.
Unclear or blurred photos	Keep recorder steady while recording video or taking photos. Use tripod or support video recorder while recording.

Dark photo or videos	Insufficient light during video or picture taking. Use exposure control or add an additional light to improve light condition.
Automatic shutdown	Insufficient power remaining- please replace the batteries. To save power, the video recorder automatically shuts down after one minute, three or five minutes of inactivity.
Video or Photo file can not be deleted	Write protection switch on the SD card is set to LOCK position. Remove SD card and set the switch to un-LOCK position and re-insert the card.

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