

DVR 945HD Digital Video Camera

User Manual



Vivitar®

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Introduction

Thank you for purchasing this digital video camera. Everything you need to take quality digital photos and videos is included with your digital video camera.

Vivitar makes capturing those special moments as easy as possible.

Note: Your digital video camera needs an SD Memory card (up to 32GB) for normal use.

SD Memory cards are not included and need to be purchased separately.

Important: You must use only a Class 4 ④ SDHC Memory card or higher.

Please read this manual carefully first in order to get the most out of your digital video camera.

What's Included

- 1) Digital Video Camera
- 2) USB cable
- 3) TV Cable
- 4) Vivitar Experience Image Manager Software
Installation CD
- 5) Lens Cover Strap
- 6) Hand Strap (not shown)



Note: Class 4 (or higher) SDHC Memory card and batteries not included.

Camera Technical Specifications

Image Sensor	CMOS Sensor
Image Resolution	4032x3024(12M) / 3648x2736(10M) / 3648x2048(7MHD) / 2592x1944(5M) / 2048x1536(3M) / 1920x1080(2M-HD) / 640x480(VGA)
Video Resolution	1280X720 (HD), VGA 640X480, QVGA 320X240
File Format	JPEG/AVI
External Memory	Class 4 (or higher) SDHC Memory card (up to 32GB)
LCD Display	2.7 Inch TFT
Lens	f=5.7mm, F2.8
Zoom	4X Digital Zoom
Exposure	-3.0EV ~ +3.0EV
White Balance	Auto / Daylight / Cloudy / Incandescent / Fluorescent
ISO	Auto / 100 / 200 / 400
Scene	Auto / Scenery / Portrait / Night Scenery / Night Portrait / High Sensitivity / Beach
Language	English / French / Spanish / Portuguese / German / Dutch / Italian / Russian / Turkish
Flash	2 LED Flash lamps
Self-Timer	2 / 5 or 10 second delay
Anti-Shake	Yes
Print Photos	Yes
Face Detect	Yes
Smile Capture	No
Macro Switch	Yes
Interface	USB 2.0
System Requirements	Windows XP (SP 3), Vista (SP1) and Windows 7 ; Mac OSX v10.5.x and above
Battery	4 * AAA (1.5V) batteries
Working Temperature	0~40 °C

Computer System Requirements – Windows

To be able to download photos and videos to your PC, you will need the following minimum configuration:

- Microsoft® Windows XP with Service Pack 3, Windows Vista with Service Pack 1 or Windows 7
- Pentium® 4 processor (or above)
- 512 MB of RAM, with 250 MB of free hard disk space
- 16-bit Color monitor, 1024 X 768 recommended screen resolution
- CD-ROM Drive
- QuickTime® 6 or higher
- Microsoft® Internet Explorer 7 or higher
- Windows Media Player 10 or higher
- DirectX 9 or higher
- Internet connection required

Computer System Requirements – Macintosh

To be able to download photos and videos to your Macintosh, you will need the following minimum configuration:

- Intel processor running Mac OS X v10.5.x or later
- 256 MB RAM, 250 MB free hard disk space
- Display: 1024 x 768 or higher-resolution monitor
- QuickTime® 6 or higher
- Internet connection required

Parts of the Camera

1. Power button
2. EV+ / Up / Slideshow
3. EV- / Down Button
4. Self-Timer / Left Button
5. Delete / Right Button
6. SET / LED ON-OFF Button
7. MODE Button
8. MENU Button
9. ViviLink button
10. Lens Cover
11. Digital Lens
12. Macro Switch
13. Speaker
14. Shutter Button
15. Zoom Out / Zoom In
16. Indicator Light
17. USB Slot / TV- Out Slot
18. HDMI Slot
19. Wrist Strap
20. Tripod Socket
21. SD Memory Card slot
22. Battery Compartment
23. LED Flash Light
24. Microphone



Initial Camera Setup

Flip open the LCD screen. When powering the camera ON **for the first time** the camera will take you through the initial camera setup.

Powering the Camera ON

1) Installing the Batteries






Make sure the batteries have been inserted properly into your digital camera, according to the polarity shown inside the battery compartment.

Use 4 x AAA (1.5v) batteries. Alkaline batteries are recommended. (Batteries not included.)

Note:

- Remove the batteries from the camera when not in use for an extended period.
- Do not mix alkaline and non-alkaline batteries.
- Some camera features (Flash) will not work if the battery power level is low.
- When the battery power is low the battery icon turns red and the camera will automatically turn off a few seconds later.
- The energy status of the power is displayed on LCD as shown below:

 *Full battery power*  *Medium battery power*  *Low battery power*

2) Installing the SD Memory Card



IMPORTANT: You must use only a Class 4 SDHC Memory card or higher.

Make sure a Class 4 (or higher) SD card (up to 32GB) has been properly inserted into your camera. SD card not included.

To properly insert the SD Card:

- Push the SD card into the slot in the direction shown on the camera.
- Push the SD card until you hear a slight clicking sound. This indicates the SD card has been inserted correctly.

Note:

- After the camera is powered on, an SD icon will appear on the LCD display. If you do not see the SD icon on the display, please check if the card was inserted properly.
- Make sure the SD card is not locked (check the lock switch on the side of the SD card).
If the SD card is locked this will prevent the camera from saving captured photos to the SD card.

3) Powering ON the camera

Press the **POWER**  button to turn on the camera.



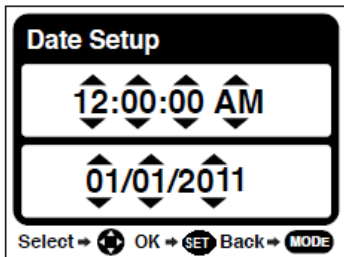
Setting the Camera Language

- 1) You will first be prompted to select a language for the camera. The Language selection menu will appear. Select the language of your choice and press the **SET** button to confirm the selection.
- 2) After selecting a language, you will be asked if you would like to continue with the initial camera setup. A message will appear: “Continue with Camera Setup?” Select “Yes” to continue or “No” to exit the setup.

Note: If you select “No” and decide to leave the camera setup, the camera will be set to its default settings. These settings can be adjusted at any time manually through the menus in the camera.

Setting the Date and Time

The next step in the initial camera setup is to set the date and time on the camera.



Set the Date and Time as Desired and press the **SET** button to confirm the selection and move to the next part of the camera setup.

Setting the Vivilink Default Option

Once the Date and Time have been set, you will be asked to set the default Vivilink destination for photos and videos taken with your camera.

The Vivilink technology allows you to quickly and easily upload your camera's photos and videos to the social networks of your choice with the accompanying software application.


- 1) First you will be asked to choose the default Vivilink social network for Photos. Highlight the desired default social network and press the **SET** button to confirm the selection.
- 2) Next you will be asked to choose the default Vivilink social network for Videos. Highlight the desired default social network and press the **SET** button to confirm the selection.

After the Vivilink Video option is confirmed the camera is now ready to use.


Powering ON/OFF Your Digital Video Camera

- Make sure the batteries have been inserted properly into your digital camera.
- Make sure an SD card has been inserted into your camera.
(SDHC Class 4 card up to 32GB - SD Card not included)

Powering the camera ON

Press the  **Power** button to turn your camera ON. The camera will be in Video Capture mode to start.

Powering the camera OFF

While the camera is on, you can press the  **Power** button again at any point to turn your camera OFF. You will see a “Goodbye” splash screen and then the camera will power off completely.

Note: Your digital video camera also has an Auto Power Off feature that automatically turns off your camera after a specific period of time that your camera is left idle. The Auto Power Off time can be set from the ‘Auto Power Off’ menu settings.

Changing Camera Mode

Your camera has three main modes:

- 1) **Video Capture Mode** - Use this mode to capture videos with your camera.
- 2) **Photo Capture Mode** - Use this mode to capture photos with your camera.
- 3) **Playback Mode (for photos and videos)** - Use this mode to view the photos and videos you have already taken with your camera.

When the camera is first powered ON, the Video Capture Mode will be active. The icons that appear on the LCD screen are the best default settings so that you can begin to capture and enjoy clear quality photos.

To change the active camera mode, make sure the camera is powered ON and press the **MODE** button on the top left of the LCD Panel.



When in Video Capture Mode, this icon will display on the top-left corner of the LCD display




When in Photo Capture Mode, this icon will display on the top-left corner of the LCD display



When in Playback Mode, this icon will display on the top-left corner of the LCD display

Navigating the Menus

Each camera mode has a set of menus specific to that mode.

- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll between the various menus for the current mode.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
Alternatively, push the Zoom button **UP** or **DOWN** to highlight the desired menu selection.
- 4) Press the **SET** button to confirm and select the highlighted menu option.
- 5) If the selection can be remembered by the camera, a selection icon  will appear to the right of the selected menu option. Changes made to these options will remain as is until you decide to change them again at a later time.
- 6) Some menu options are single-use functions that are not remembered by the camera and do not display this icon when selected.
- 7) At any time you can press the **MODE** button to exit the menus and return to the previous screen.

Camera Options: Flash LED Lights, Macro


LED Flash Option


- To increase the lighting in dark situations while capturing videos and photos, press the **SET** button to activate the 2 LED Flash Lights on the front of the camera below the lens.
- Press the **SET** button again to turn the LED Flash Lights off.

Macro Switch Option /


Your camera contains a Macro Switch that allows you to manually enable or disable the Macro mode on your camera. While using the Macro mode, you can capture images at close range (30 ~ 45 cm).


MACRO MODE ON:

To turn the Macro mode ON, slide the Macro Switch on the side of your camera DOWN to the flower icon .

- When enabled, the Macro mode will allow your camera to focus on an object that is close to the camera.
- The flower icon  will appear on the LCD and indicates that the Macro mode is ON.

MACRO MODE OFF:

To turn the Macro mode OFF slide the Macro Switch on the side of the camera UP to the mountain  icon.

- The mountain  icon will appear on the LCD display.
- When Macro mode is off, images can be captured from 1.5m - ∞ (infinity).

Note: The Macro mode must be turned **OFF** when you want to use the following features:

Flash, Face Detect, and Smile Capture.

Not all cameras included these features. Refer to the 'Camera Specifications' section to view the features included with this camera.


Video Capture Mode


The Video Capture Mode allows you to capture videos with your digital video camera.

When the camera is first powered ON, the camera will be in Video Capture Mode.

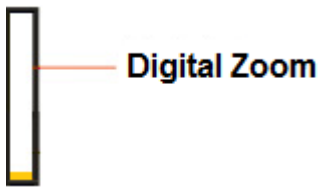
Taking a Video

- 1) While in Video Capture Mode use the LCD display to direct the camera at the scene you would like to capture.
- 2) You can magnify your subject up to 4 times using the digital zoom while capturing your photos and recording your videos.

Push the Zoom control button up, the **T**  button, to zoom in on the object.

Push the Zoom control button down, the **W**  button, to zoom back out.

The following Digital Zoom Indicator appears on the right side of the LCD screen:







The zoom indicating bar moves up when you Zoom In (**T**) and moves down when you Zoom Out (**W**).





- 3) Press the **Shutter** button on the top of the digital video camera to START the video capture.
- 4) A red, blinking icon appears at the top of the LCD screen indicating that the record is in progress.
On the top right, the recording time appears, indicating the amount of elapsed time as the video is being captured.
- 5) To STOP the video record, press the **Shutter** button again.
- 6) The video is automatically saved to the camera's SD memory card.

Video Capture Mode Quick Function Buttons

Your digital video camera has four directional control buttons that function as Quick Function buttons.

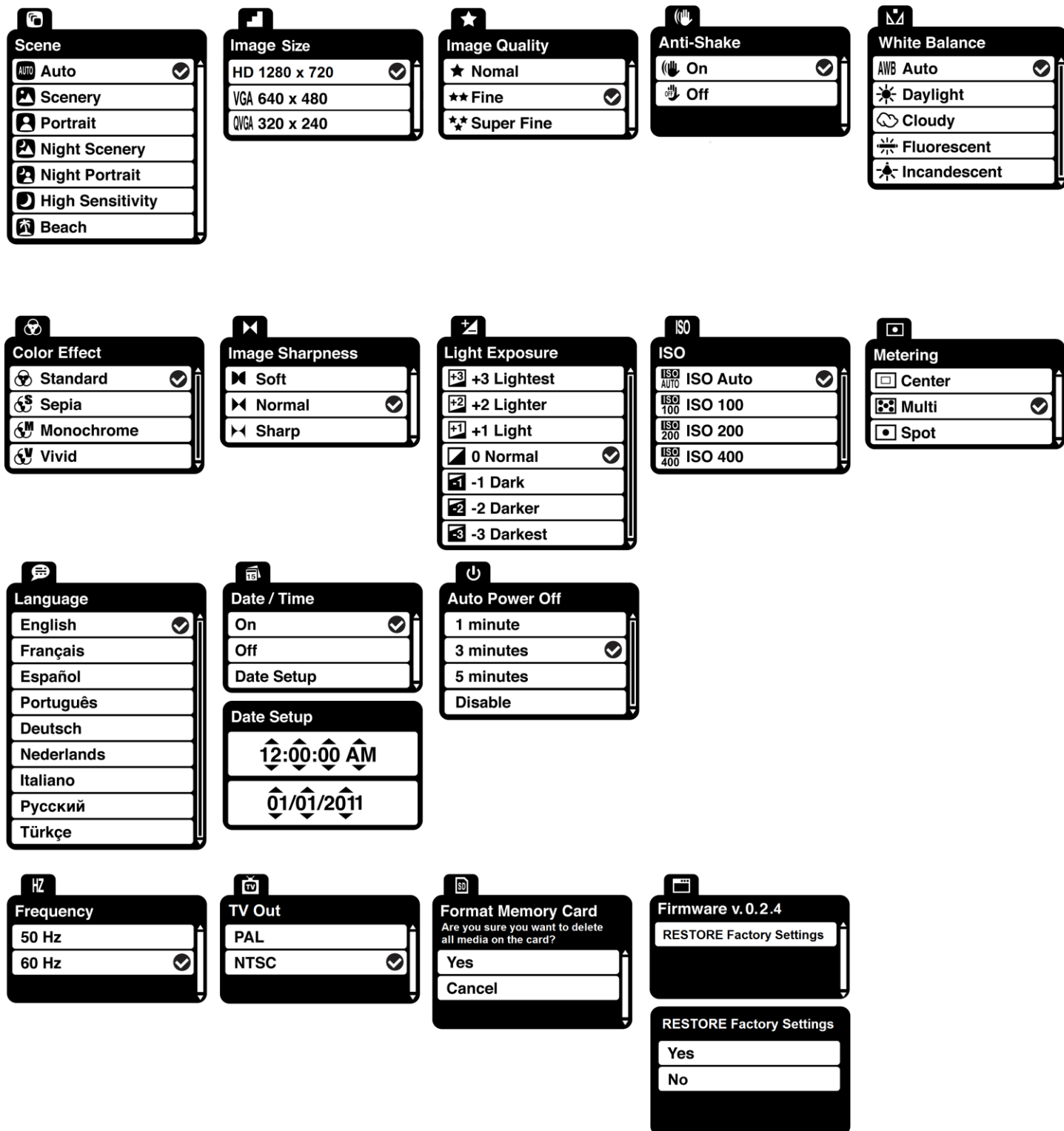
Quick Function Button	Function
Left	No function in Video Capture Mode
EV + Up	 Light Exposure – Changes the Light Exposure Setting
 Right	 Delete - Opens the 'Delete This Video' option and allows you to view and delete the last video taken as well as previously captured videos
EV - Down	 Light Exposure – Changes the Light Exposure Setting

Other

Shutter	STARTS/STOPS the video capture
 ViviLink	 ViviLink - Opens the ViviLink for Videos menu
MENU	Opens the menu options for Video Capture Mode
MODE	<ul style="list-style-type: none"> • Toggles between the Video Capture Mode, Photo Capture Mode, and Playback Mode • Exits the menu screen
SET	<ul style="list-style-type: none"> • Turns On/Off the LED Lights • Saves your selected option in the Menu view
T/Zoom In 	Zooms In
W/Zoom Out 	Zooms Out

Video Capture Mode Menus

The following are the menus that appear in your camera's Video Capture Mode:



Scene Menu

The Scene Menu allows you to choose scene settings that let your camera to adapt properly to your current environment.


- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'Scene' menu.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 4) Press the **SET** button to confirm and select the highlighted menu option.
- 5) A  selected option icon will appear on the selected item.
- 6) Press the **LEFT** or **RIGHT** button to select the next menu item.
- 7) Press the **MODE** button to exit the menu and return to your previous mode.
- 8) An icon reflecting your selection will display on the LCD screen.
- 9) Remember that this setting will be saved by your camera until you manually change the setting or restore the camera's default factory settings.

Image Size Menu

The Image Size menu allows you to choose the desired size of the images taken by your camera. Keep in mind that images with a higher resolution will also take up more of your camera's memory.



- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'Image Size' menu.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 4) Press the **SET** button to confirm and select the highlighted menu option.
- 5) A  selected option icon will appear on the selected item.
- 6) Press the **LEFT** or **RIGHT** button to select the next menu item.
- 7) Press the **MODE** button to exit the menu and return to your previous mode.
- 8) An icon reflecting your selection will display on the LCD screen.
- 9) Remember that this setting will be saved by your camera until you manually change the setting or restore the camera's default factory settings.


Image Quality Menu ★

The Image Quality menu allows you to select the desired quality level of the images taken by your camera. Keep in mind that images with a higher image quality level will also take up more memory on your camera.

- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'Image Quality' menu.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 4) Press the **SET** button to confirm and select the highlighted menu option.
- 5) A  selected option icon will appear on the selected item.
- 6) Press the **LEFT** or **RIGHT** button to select the next menu item.
- 7) Press the **MODE** button to exit the menu and return to your previous mode.
- 8) An icon reflecting your selection will display on the LCD screen.
- 9) Remember that this setting will be saved by your camera until you manually change the setting or restore the camera's default factory settings.

Anti-Shake Menu


The Anti-Shake feature reduces image corruption that can be caused by movement of the camera while capturing the image.

- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'Anti-Shake' menu.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 4) Press the **SET** button to confirm and select the highlighted menu option.
- 5) A  selected option icon will appear on the selected item.
- 6) Press the **LEFT** or **RIGHT** button to select the next menu item.
- 7) Press the **MODE** button to exit the menu and return to your previous mode.
- 8) An icon reflecting your selection will display on the LCD screen.
- 9) Remember that this setting will be saved by your camera until you manually change the setting or restore the camera's default factory settings.

White Balance Menu

The White Balance feature allows your camera to adjust the coloring of the captured images depending on the type of light source in the current environment.

Properly adjusting the White Balance setting to match your current environment will allow the camera to properly balance the colors in the images that are taken with your camera.

- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'White Balance' menu.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 4) Press the **SET** button to confirm and select the highlighted menu option.
- 5) A  selected option icon will appear on the selected item.
- 6) Press the **LEFT** or **RIGHT** button to select the next menu item.
- 7) Press the **MODE** button to exit the menu and return to your previous mode.
- 8) An icon reflecting your selection will display on the LCD screen.
- 9) Remember that this setting will be saved by your camera until you manually change the setting or restore the camera's default factory settings.

Color Effect Menu

You can choose to add a color effect to the images taken with your camera.



- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'Color Effect' menu.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 4) Press the **SET** button to confirm and select the highlighted menu option.
- 5) A  selected option icon will appear on the selected item.
- 6) Press the **LEFT** or **RIGHT** button to select the next menu item.
- 7) Press the **MODE** button to exit the menu and return to your previous mode.
- 8) Remember that this setting will be saved by your camera until you manually change the setting or restore the camera's default factory settings.

Image Sharpness Menu

You can set the level of sharpness in the images taken with your camera. The sharpness level dictates if the edges of objects in the image are more or less distinct.


- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'Image Sharpness' menu.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 4) Press the **SET** button to confirm and select the highlighted menu option.
- 5) A  selected option icon will appear on the selected item.
- 6) Press the **LEFT** or **RIGHT** button to select the next menu item.
- 7) Press the **MODE** button to exit the menu and return to your previous mode.
- 8) An icon reflecting your selection will display on the LCD screen.
- 9) Remember that this setting will be saved by your camera until you manually change the setting or restore the camera's default factory settings.

Light Exposure Menu

The Light Exposure setting helps you control the amount of light that enters your camera's lens. This setting should be adjusted when the environment is lighter or darker than normal.

When the environment has more light than is needed, reduce the exposure setting (by using the negative - count) to reduce the amount of light allowed into the lens by your camera.

If the environment has less light (darker) than is needed, increase the exposure setting (by using the positive + count) to increase the amount of light allowed into the lens by your camera.


- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'Light Exposure' menu.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 4) Press the **SET** button to confirm and select the highlighted menu option.
- 5) A  selected option icon will appear on the selected item.
- 6) Press the **LEFT** or **RIGHT** button to select the next menu item.

- 7) Press the **MODE** button to exit the menu and return to your previous mode.
- 8) An icon reflecting your selection will display on the LCD screen.
- 9) Remember that this setting will be saved by your camera until you manually change the setting or restore the camera's default factory settings.

ISO Menu

The ISO menu allows you to set the level of sensitivity that your camera has to light in the surrounding environment. When the ISO level is increased, the image sensor in your camera will be more sensitive to light and allow you to capture images in lower-light situations. The higher sensitivity to light however, may reduce the quality of the images that are taken.

When the ISO is reduced, the image sensor in your camera will be less sensitive to light and will optimize the image quality in environments with bright lighting.

- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'ISO' menu.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 4) Press the **SET** button to confirm and select the highlighted menu option.
- 5) A  selected option icon will appear on the selected item.
- 6) Press the **LEFT** or **RIGHT** button to select the next menu item.
- 7) Press the **MODE** button to exit the menu and return to your previous mode.
- 8) An icon reflecting your selection will display on the LCD screen.
- 9) Remember that this setting will be saved by your camera until you manually change the setting or restore the camera's default factory settings.


Metering Menu

The Metering setting will affect how your camera focuses when capturing an image. Depending on your selection, the camera will be more sensitive to focusing on particular areas in the display and adjust the image color and lighting accordingly.

Center – Averages the light metered from the entire frame, but giving greater weight to the subject in the center


Multi – Used in standard conditions the camera divides and adjusts the settings of the image into several zones for light metering such as complex light conditions, position of subject, brightness, background, direct light and scenes

Spot – Meters the area within the spot point frame at the center of the LCD to set the exposure on the subject in the center of the monitor.

- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'Metering' menu.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 4) Press the **SET** button to confirm and select the highlighted menu option.
- 5) A  selected option icon will appear on the selected item.
- 6) Press the **LEFT** or **RIGHT** button to select the next menu item.
- 7) Press the **MODE** button to exit the menu and return to your previous mode.
- 8) An icon reflecting your selection will display on the LCD screen.
- 9) Remember that this setting will be saved by your camera until you manually change the setting or restore the camera's default factory settings.

Language Menu

You can select your camera's language setting by selecting the desired language from the Language menu.

- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'Language' menu.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 4) Press the **SET** button to confirm and select the highlighted menu option.
- 5) A  selected option icon will appear on the selected item.
- 6) Press the **LEFT** or **RIGHT** button to select the next menu item.
- 7) Press the **MODE** button to exit the menu and return to your previous mode.
- 8) Remember that this setting will be saved by your camera until you manually change the setting or restore the camera's default factory settings.

Date/Time Menu


When you capture an image with your camera, the image will include a time stamp with the date and time that the image was taken.

The Date/Time menu allows you to set your camera's date and time as desired. You can also disable the timestamp for future images that will be taken with your camera.

On – The timestamp will appear on photos taken

Off – The date stamp will not appear on photos taken

To Enable/Disable the Timestamp:

- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'Date/Time' menu.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 4) Press the **SET** button to confirm and select the highlighted menu option.
- 5) A  selected option icon will appear on the selected item.
- 6) Press the **LEFT** or **RIGHT** button to select the next menu item.
- 7) Press the **MODE** button to exit the menu and return to your previous mode.
- 8) Remember that this setting will be saved by your camera until you manually change the setting or restore the camera's default factory settings.


To Set the Date and Time:

- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the Date/Time menu.
- 3) Press the **UP** or **DOWN** button to highlight the 'Date Setup' menu option, and then press the **SET** button to open the menu.
- 4) Scroll through the date and time menus with the **RIGHT** and **LEFT** direction buttons.
- 5) For each field in the menu, use the **UP** and **DOWN** direction buttons to set the specific date and time.
- 6) When you have finished setting the date and time, press the **SET** button to save your settings and return to the previous mode.
- 7) Press the **MODE** button to exit the menu without saving your settings and return to your previous screen.

Auto Power Off Menu

You can use the Auto Power Off feature in order to conserve your camera's battery life. The designated time represents when your camera will automatically power off.

When the camera sits idle for the designated period of time, the camera will shut off completely and will need to be turned on again with the power button before the next use.


- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'Auto Power Off' menu.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 4) Press the **SET** button to confirm and select the highlighted menu option.
- 5) A  selected option icon will appear on the selected item.
- 6) Press the **LEFT** or **RIGHT** button to select the next menu item.
- 7) Press the **MODE** button to exit the menu and return to your previous mode.
- 8) Remember that this setting will be saved by your camera until you manually change the setting or restore the camera's default factory settings.

Frequency Menu

The options in the Frequency menu represent the frequency of the electrical current in fluorescent lighting sources in your locale. If your camera is set to a frequency that does not match your country's electric current, you may see flickering or waves on the images taken by your camera.

50Hz – UK, Europe and Australia

60Hz – US, Canada and South America


- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'Frequency' menu.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 4) Press the **SET** button to confirm and select the highlighted menu option.
- 5) A  selected option icon will appear on the selected item.
- 6) Press the **LEFT** or **RIGHT** button to select the next menu item.
- 7) Press the **MODE** button to exit the menu and return to your previous mode.
- 8) Remember that this setting will be saved by your camera until you manually change the setting or restore the camera's default factory settings.

TV Out Menu

TV Out allows you to select the TV option appropriate for you to view your captured images on your television. See *“Connecting the Digital Video Camera to the HDTV”* for further information on how to connect your digital video camera to your television.

NTSC – television and video standard used in America, Canada

PAL – television and video standard used in Europe

- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the ‘TV Out’ menu.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 4) Press the **SET** button to confirm and select the highlighted menu option.
- 5) A  selected option icon will appear on the selected item.
- 6) Press the **LEFT** or **RIGHT** button to select the next menu item.
- 7) Press the **MODE** button to exit the menu and return to your previous mode.
- 8) Remember that this setting will be saved by your camera until you manually change the setting or restore the camera’s default factory settings.

Format Memory Card Menu

You can use the Format Memory Card menu to delete all of the content that is currently on your camera’s memory card.

Keep in mind that formatting the memory card will permanently delete all of the content on your camera’s memory card.

This option will delete all of the content at one time. If you would like to delete individual images, use the delete menu in the camera’s Playback mode.

- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the ‘Format Memory Card’ menu.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 4) To exit without formatting the card, select ‘Cancel’ and press the **SET** button.
- 5) To proceed with the format, select ‘Yes’ and press the **SET** button.

You will be asked to confirm the formatting of the memory card.

- Select ‘No’ to exit without formatting.

- Select 'Yes' and press the **SET** button to begin.

The memory card will be completely formatted.

Firmware (Factory Default Settings) Menu

Use this menu to view the Firmware version on your camera and to reset your camera settings to the Factory Default Settings.

- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'Firmware' menu.
- 3) The 'RESTORE Factory Settings' is selected.
- 4) Press the **SET** button to reset the camera to the factory default settings.
- 5) You will be asked to confirm the resetting to the factory default settings.
 - Select 'No' and press the **SET** button to exit the menu and return to the previous mode without resetting to the default settings.
 - Select 'Yes' and press the **SET** button to proceed with the reset.

You will then automatically exit the menu and return to the previous mode with the digital camera settings set to the Factory Default Settings.

Note: After RESETTING to the default settings, it is recommended to select your system Language, Date/Time and Vivilink for Photos and Videos. If you do not, the next time your camera is powered on, you will be prompted to define those settings.

Video Playback Mode

The Playback Mode allows you to review and edit photos and videos that you've already taken with your camera.

- When you first turn on the camera, the camera will be in Video Capture mode by default.
- Press the **MODE** button twice to open the **Playback** Mode.
- The latest captured image appears on the LCD screen.

If there are no images stored, a message (No File) appears.

Playing Videos on Your Camera

1) Select your Video:

- Once in Playback mode, press the **LEFT** or **RIGHT** button to scroll through the images on your camera's memory card until you find the video you would like to view.
- Each captured image (video and photo) is displayed on the LCD screen.
- Videos appear with an '**AVI**' icon on the top left of the LCD screen.

2) Play your selected video:

- Press the **Shutter** button to START playing the video.
- Press the **Shutter** button again to PAUSE the video and to continue playing and pausing as needed.
- To fully STOP the video and restore the icons to the LCD, press the **SET** button.

NOTE: While the Video is playing, all the icons on the top section of the LCD disappear.

Thumbnail View

Easily navigate and select the image you wish to view by using the Thumbnail View.

The images on your camera will be displayed in a 3 X 3 matrix where you can use the direction buttons to scroll and select images from the thumbnails.

- 1) Push the **Zoom** button down (**W/Zoom Out**) to open the Thumbnail View.
- 2) All the images (videos and photos) saved on your on your SD Memory card appear in the Thumbnail View.
- 3) Press the **UP / DOWN / LEFT / RIGHT** buttons to scroll and select the image you wish to view.
- 4) Press the **SET** button to enlarge the image full size.
- 5) Once the selected video is full size you can play and view the video.

Video Playback Mode Quick Function Buttons

Your digital video camera has four directional control buttons that function as Quick Function buttons.

Quick Function Button	Function
Left	Displays the PREVIOUS image
Up	No function in Video Playback Mode
Right	Displays the NEXT image
Down	No function in Video Playback Mode

Other

Shutter	STARTS/STOPS the video playback
V ViviLink	V ViviLink - Opens the ViviLink for Videos menu
MENU	Opens the menu options for Video Playback Mode
MODE	<ul style="list-style-type: none">• Toggles between the Video Capture Mode, Photo Capture Mode, and Playback Mode• Exits the menu screen
SET	<ul style="list-style-type: none">• Saves your selected option in the Menu view• STOPS video playback
W/Zoom Out	Opens Thumbnail View <ul style="list-style-type: none">• To Navigate in the Thumbnail View: press the UP / DOWN / LEFT / RIGHT direction buttons• To select an AVI (video) in the Thumbnail View: press the SET button

Video Playback Mode Menus

The following are the menus that appear in your digital video camera's Video Playback Mode:




Delete Menu

While in the Playback mode, you can delete videos from your digital video camera through the delete menu.

- 1) View the image you would like to delete.
- 2) Press the **MENU** button to open the menus for the current mode.
- 3) Press the **LEFT** or **RIGHT** button to scroll and select the 'Delete' menu.
- 4) Press the **UP** or **DOWN** button to scroll through the menu options.
- 5) To delete this one video, select 'Delete This Video'.
- 6) To delete all the images (including all unlocked photos and videos) on your camera's memory card, select 'Delete All Images'.
- 7) Press the **SET** button to select and save the desired option.
- 8) You will be asked to confirm your selection.
- 9) The images will be deleted as desired.

ViviLink Menu

The ViviLink technology allows you to quickly and easily upload your camera's photos and videos to the social networks of your choice with the accompanying Vivitar Experience Image Manager application.

- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'ViviLink' menu.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 4) Press the **SET** button to confirm and select the highlighted menu option.
- 5) A  selected option icon will appear on the selected item.

- 6) Press the **LEFT** or **RIGHT** button to select the next menu item.
- 7) Press the **MODE** button to exit the menu and return to your previous mode.
- 8) An icon appears on the image with the selected Vivilink destination site.
- 9) Remember that the Vivilink feature is deactivated by default. A Vivilink destination will only be assigned to a photo or video if you manually set it from this menu, from the Vivilink menu in Playback mode, or from the menu accessed by pressing the **ViviLink** button.
- 10) Changing the Vivilink destination site will also make the selected site the new default Vivilink option. A new default can be selected at any time through this menu.

Protect/Lock Menu

Pictures and videos taken with your camera can be protected or “locked” to prevent any deletion or alteration being made to the files.

- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the ‘Protect/Lock’ menu.
- 3) Press the **UP** or **DOWN** button to scroll through the menu options.
- 4) Press the **SET** button to select and save the desired option.
- 5) Press the **MODE** button to exit the menu and return to your previous mode.
- 6) Any image that is locked displays a lock symbol on the LCD screen when viewing that image in the Playback mode. Images that are not locked will not display the lock symbol.
- 7) Remember that you cannot delete locked videos.


Photo Capture Mode


The Photo Capture mode allows you to capture pictures with your digital camera.

After powering on your camera, press the **MODE** button once to open the **Photo Capture Mode**.

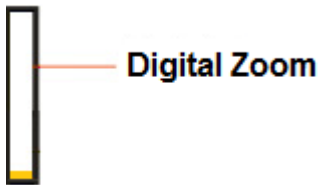
Taking a Picture

- 1) While in Photo Capture Mode, use the LCD display to direct the camera at the scene you would like to capture.
- 2) You can magnify your subject up to 4 times using the digital zoom while capturing your photos and recording your videos.

Push the Zoom control button up, the **T**  button, to zoom in on the object.

Push the Zoom control button down, the **W**  button, to zoom back out.

The following Digital Zoom Indicator appears on the right side of the LCD screen:









The zoom indicating bar moves up when you Zoom In (**T**) and moves down when you Zoom Out (**W**).

- 3) Press the **Shutter** button on the top of the digital video camera to take the picture.
- 4) The picture is automatically saved to the SD card.

Photo Capture Mode Quick Function Buttons

Your digital video camera has four directional control buttons that function as Quick Function buttons.

Quick Function Button	Function
 Left	 Self-Timer – Activates the Self-Timer options
EV + Up	 Light Exposure – Changes the Light Exposure Setting
 Right	 Delete - Opens the 'Delete This Photo' option and allows you to view and delete the last photo taken as well as previously captured photos
EV - Down	 Light Exposure – Changes the Light Exposure Setting

Other



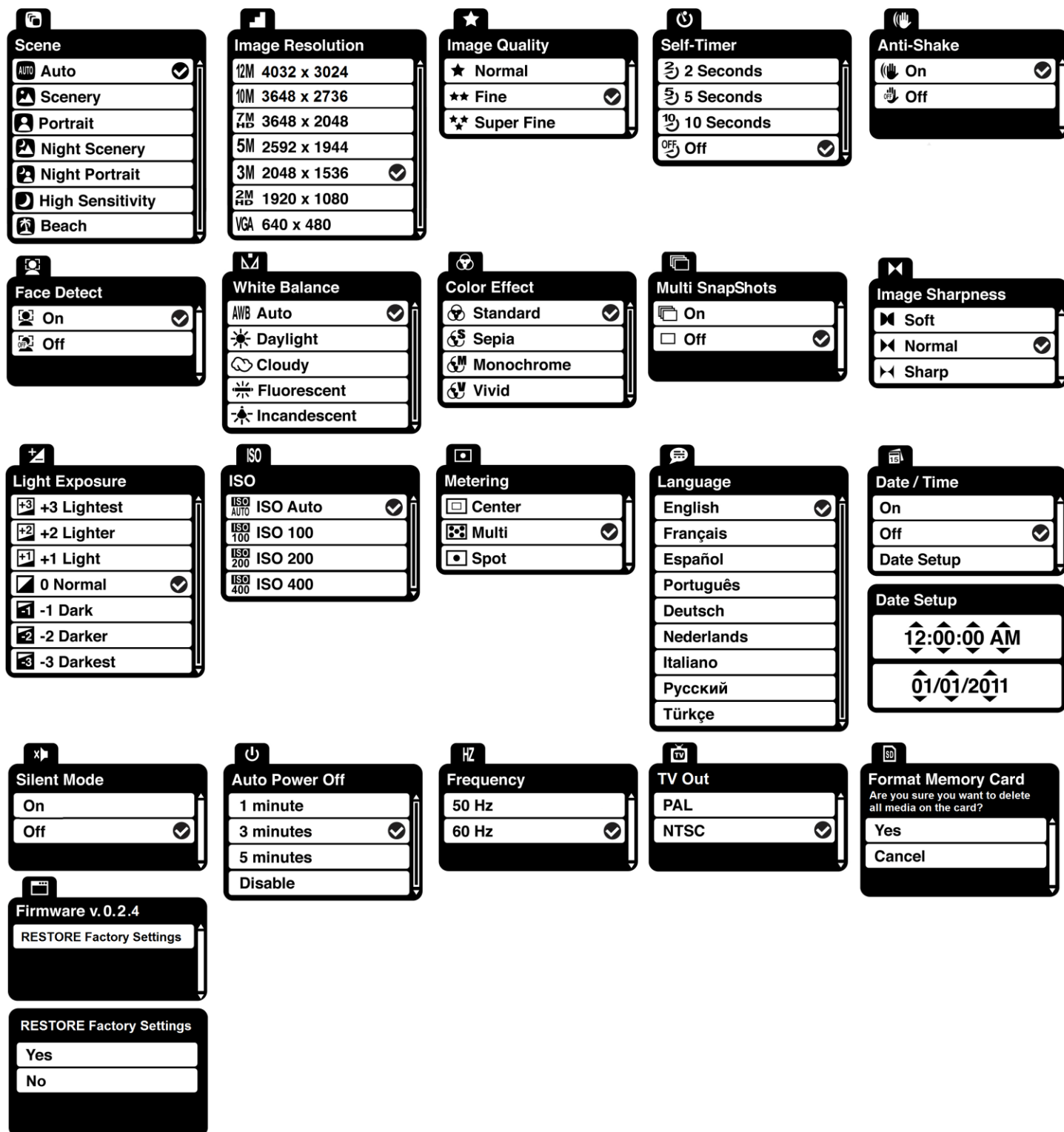
Shutter	Captures your photo
 ViviLink	 ViviLink - Opens the ViviLink for Photos menu
MENU	Opens the menu options for Photo Capture Mode
MODE	<ul style="list-style-type: none"> • Toggles between the Video Capture Mode, Photo Capture Mode, and Playback Mode • Exits the menu screen
SET	<ul style="list-style-type: none"> • Turns On/Off the LED Lights • Saves your selected option in the Menu view
T/Zoom In	Zooms In
W/Zoom Out	Zooms Out

Photo Capture Mode Menus

The following are the menus that appear in your digital video camera's Photo Capture Mode:



Scene Menu

The Scene Menu allows you to choose scene settings that let your camera to adapt properly to your current environment.


- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'Scene' menu.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 4) Press the **SET** button to confirm and select the highlighted menu option.
- 5) A  selected option icon will appear on the selected item.
- 6) Press the **LEFT** or **RIGHT** button to select the next menu item.
- 7) Press the **MODE** button to exit the menu and return to your previous mode.
- 8) An icon reflecting your selection will display on the LCD screen.
- 9) Remember that this setting will be saved by your camera until you manually change the setting or restore the camera's default factory settings.

Image Resolution Menu

The Image Resolution menu allows you to choose the desired size of the images taken by your camera. Keep in mind that images with a higher resolution will also take up more of your camera's memory.


- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'Image Resolution' menu.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 4) Press the **SET** button to confirm and select the highlighted menu option.
- 5) A  selected option icon will appear on the selected item.
- 6) Press the **LEFT** or **RIGHT** button to select the next menu item.
- 7) Press the **MODE** button to exit the menu and return to your previous mode.
- 8) An icon reflecting your selection will display on the LCD screen.
- 9) Remember that this setting will be saved by your camera until you manually change the setting or restore the camera's default factory settings.

Image Quality Menu ★

The Image Quality menu allows you to select the desired quality level of the images taken by your camera. Keep in mind that images with a higher image quality level will also take up more memory on your camera.

- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'Image Quality' menu.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 4) Press the **SET** button to confirm and select the highlighted menu option.
- 5) A 🗖 selected option icon will appear on the selected item.
- 6) Press the **LEFT** or **RIGHT** button to select the next menu item.
- 7) Press the **MODE** button to exit the menu and return to your previous mode.
- 8) An icon reflecting your selection will display on the LCD screen.
- 9) Remember that this setting will be saved by your camera until you manually change the setting or restore the camera's default factory settings.

Self-Timer Menu ⌚


The Self-Timer menu allows you to set a delay between the time that the camera's Shutter button is pressed and the actual capture of the picture.

This is an optimal feature if you don't just want to take the picture but would also like to be in the picture yourself. Just set the desired Self-Timer delay, press the **Shutter** button on your camera and position yourself in front of the camera as desired.

- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'Self-Timer' menu.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 4) Press the **SET** button to confirm and select the highlighted menu option.
- 5) A 🗖 selected option icon will appear on the selected item.
- 6) Press the **LEFT** or **RIGHT** button to select the next menu item.
- 7) Press the **MODE** button to exit the menu and return to your previous mode.
- 8) An icon reflecting your selection will display on the LCD screen.
- 9) Remember that this setting will be saved by your camera until you manually change the setting or restore the camera's default factory settings.

Anti-Shake Menu


The Anti-Shake feature reduces image corruption that can be caused by movement of the camera while capturing the image.

- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'Anti-Shake' menu.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 4) Press the **SET** button to confirm and select the highlighted menu option.
- 5) A  selected option icon will appear on the selected item.
- 6) Press the **LEFT** or **RIGHT** button to select the next menu item.
- 7) Press the **MODE** button to exit the menu and return to your previous mode.
- 8) An icon reflecting your selection will display on the LCD screen.
- 9) Remember that this setting will be saved by your camera until you manually change the setting or restore the camera's default factory settings.


Face Detect Menu

The Face Detect feature when set to 'On' allows the camera to use a subject's face as the basis for balancing the other colors and focus in the digital video camera's display. This feature is meant to ensure that the color and focus of your pictures will be consistently sharp and high-quality.

Note: To properly use the Face Detect option, please ensure the following:

- **MACRO Mode OFF** - Face Detect will not work if the camera is in Macro mode.
To turn MACRO Mode OFF: Push the Macro Switch on the side of the camera down for the mountain  icon to appear on the LCD.
- **Anti-Shake ON** – Ensure that the Anti-Shake option is set to 'On'. The Anti-Shake option is 'On' by default when you start using your camera and assists you in properly focusing the image.
- **Distance from the camera** – The subject's face must be no further than 8 to 9 feet (3.5 meters) from the camera and the face must cover at least 20% (1 / 5th) of the picture previewed on the LCD screen.
- **Facing the camera** – The face of the subject(s) you are photographing must be facing the camera and must hold the pose for at least 4 to 5 seconds until the green square(s) appears around the subject's face.


Face Detect will not work with a side shot of the subject's head.

- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'Face Detect' menu.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 4) Press the **SET** button to confirm and select the highlighted menu option.
- 5) A  selected option icon will appear on the selected item.
- 6) Press the **LEFT** or **RIGHT** button to select the next menu item.
- 7) Press the **MODE** button to exit the menu and return to your previous mode.
- 8) An icon reflecting your selection will display on the LCD screen.
- 9) Remember that this setting will be saved by your camera until you manually change the setting or restore the camera's default factory settings.

White Balance Menu


The White Balance feature allows your camera to adjust the coloring of the captured images depending on the type of light source in the current environment.

Properly adjusting the White Balance setting to match your current environment will allow the camera to properly balance the colors in the images that are taken with your camera.

- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'White Balance' menu.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 4) Press the **SET** button to confirm and select the highlighted menu option.
- 5) A  selected option icon will appear on the selected item.
- 6) Press the **LEFT** or **RIGHT** button to select the next menu item.
- 7) Press the **MODE** button to exit the menu and return to your previous mode.
- 8) An icon reflecting your selection will display on the LCD screen.
- 9) Remember that this setting will be saved by your camera until you manually change the setting or restore the camera's default factory settings.

Color Effect Menu

You can choose to add a color effect to the images taken with your camera.

- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'Color Effect' menu.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 4) Press the **SET** button to confirm and select the highlighted menu option.
- 5) A  selected option icon will appear on the selected item.
- 6) Press the **LEFT** or **RIGHT** button to select the next menu item.
- 7) Press the **MODE** button to exit the menu and return to your previous mode.
- 8) Remember that this setting will be saved by your camera until you manually change the setting or restore the camera's default factory settings.

Multi SnapShots Menu

When enabled, the Multi SnapShots feature allows you to take five rapid snapshots in a row with a single click of the Shutter button.

This feature can be effective when trying to capture a particular moment in a sporting event or other scenes with quick movements.



- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'Multi Snapshots' menu.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 4) Press the **SET** button to confirm and select the highlighted menu option.
- 5) A  selected option icon will appear on the selected item.
- 6) Press the **LEFT** or **RIGHT** button to select the next menu item.
- 7) Press the **MODE** button to exit the menu and return to your previous mode.
- 8) An icon reflecting your selection will display on the LCD screen.
- 9) Remember that this setting will be saved by your camera until you manually change the setting or restore the camera's default factory settings.

Image Sharpness Menu

You can set the level of sharpness in the images taken with your camera. The sharpness level dictates if the edges of objects in the image are more or less distinct.


- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'Image Sharpness' menu.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 4) Press the **SET** button to confirm and select the highlighted menu option.
- 5) A  selected option icon will appear on the selected item.
- 6) Press the **LEFT** or **RIGHT** button to select the next menu item.
- 7) Press the **MODE** button to exit the menu and return to your previous mode.
- 8) An icon reflecting your selection will display on the LCD screen.
- 9) Remember that this setting will be saved by your camera until you manually change the setting or restore the camera's default factory settings.

Light Exposure Menu

The Light Exposure setting helps you control the amount of light that enters your camera's lens. This setting should be adjusted when the environment is lighter or darker than normal.

When the environment has more light than is needed, reduce the exposure setting (by using the negative - count) to reduce the amount of light allowed into the lens by your camera.

If the environment has less light (darker) than is needed, increase the exposure setting (by using the positive + count) to increase the amount of light allowed into the lens by your camera.


- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'Light Exposure' menu.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 4) Press the **SET** button to confirm and select the highlighted menu option.
- 5) A  selected option icon will appear on the selected item.
- 6) Press the **LEFT** or **RIGHT** button to select the next menu item.

- 7) Press the **MODE** button to exit the menu and return to your previous mode.
- 8) An icon reflecting your selection will display on the LCD screen.
- 9) Remember that this setting will be saved by your camera until you manually change the setting or restore the camera's default factory settings.

ISO Menu

The ISO menu allows you to set the level of sensitivity that your camera has to light in the surrounding environment. When the ISO level is increased, the image sensor in your camera will be more sensitive to light and allow you to capture images in lower-light situations. The higher sensitivity to light however, may reduce the quality of the images that are taken.

When the ISO is reduced, the image sensor in your camera will be less sensitive to light and will optimize the image quality in environments with bright lighting.

- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'ISO' menu.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 4) Press the **SET** button to confirm and select the highlighted menu option.
- 5) A  selected option icon will appear on the selected item.
- 6) Press the **LEFT** or **RIGHT** button to select the next menu item.
- 7) Press the **MODE** button to exit the menu and return to your previous mode.
- 8) An icon reflecting your selection will display on the LCD screen.
- 9) Remember that this setting will be saved by your camera until you manually change the setting or restore the camera's default factory settings.


Metering Menu

The Metering setting will affect how your camera focuses when capturing an image. Depending on your selection, the camera will be more sensitive to focusing on particular areas in the display and adjust the image color and lighting accordingly.

Center – Averages the light metered from the entire frame, but giving greater weight to the subject in the center


Multi – Used in standard conditions the camera divides and adjusts the settings of the image into several zones for light metering such as complex light conditions, position of subject, brightness, background, direct light and scenes

Spot – Meters the area within the spot point frame at the center of the LCD to set the exposure on the subject in the center of the monitor.

- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'Metering' menu.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 4) Press the **SET** button to confirm and select the highlighted menu option.
- 5) A  selected option icon will appear on the selected item.
- 6) Press the **LEFT** or **RIGHT** button to select the next menu item.
- 7) Press the **MODE** button to exit the menu and return to your previous mode.
- 8) An icon reflecting your selection will display on the LCD screen.
- 9) Remember that this setting will be saved by your camera until you manually change the setting or restore the camera's default factory settings.

Language Menu

You can select your camera's language setting by selecting the desired language from the Language menu.

- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'Language' menu.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 4) Press the **SET** button to confirm and select the highlighted menu option.
- 5) A  selected option icon will appear on the selected item.
- 6) Press the **LEFT** or **RIGHT** button to select the next menu item.
- 7) Press the **MODE** button to exit the menu and return to your previous mode.
- 8) Remember that this setting will be saved by your camera until you manually change the setting or restore the camera's default factory settings.

Date/Time Menu


When you capture an image with your camera, the image will include a time stamp with the date and time that the image was taken.

The Date/Time menu allows you to set your camera's date and time as desired. You can also disable the timestamp for future images that will be taken with your camera.

On – The timestamp will appear on photos taken

Off – The date stamp will not appear on photos taken

To Enable/Disable the Timestamp:

- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'Date/Time' menu.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 4) Press the **SET** button to confirm and select the highlighted menu option.
- 5) A  selected option icon will appear on the selected item.
- 6) Press the **LEFT** or **RIGHT** button to select the next menu item.
- 7) Press the **MODE** button to exit the menu and return to your previous mode.
- 8) Remember that this setting will be saved by your camera until you manually change the setting or restore the camera's default factory settings.


To Set the Date and Time:

- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'Date/Time' menu.
- 3) Press the **UP** or **DOWN** button to highlight the 'Date Setup' menu option, and then press the **SET** button to open the menu.
- 4) Scroll through the date and time menus with the **RIGHT** and **LEFT** direction buttons.
- 5) For each field in the menu, use the **UP** and **DOWN** direction buttons to set the specific date and time.
- 6) When you have finished setting the date and time, press the **SET** button to save your settings and return to the previous mode.
- 7) Press the **MODE** button to exit the menu without saving your settings and return to your previous screen.

Silent Mode Menu

You have the option of activating the camera's Silent mode to disable all of the sound effects (except for beeps heard during the Self-Timer countdown) that the camera emits when performing camera functions.


NOTE: The camera features that emit sounds include - Power On, Power Off, Shutter 'Click' and Self-Timer.

- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'Silent Mode' menu.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 4) Press the **SET** button to confirm and select the highlighted menu option.
- 5) A  selected option icon will appear on the selected item.
- 6) Press the **LEFT** or **RIGHT** button to select the next menu item.
- 7) Press the **MODE** button to exit the menu and return to your previous mode.
- 8) Remember that this setting will be saved by your camera until you manually change the setting or restore the camera's default factory settings.

Auto Power Off Menu

You can use the Auto Power Off feature in order to conserve your camera's battery life. The designated time represents when your camera will automatically power off.

When the camera sits idle for the designated period of time, the camera will shut off completely and will need to be turned on again with the power button before the next use.


- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'Auto Power Off' menu.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 4) Press the **SET** button to confirm and select the highlighted menu option.
- 5) A  selected option icon will appear on the selected item.
- 6) Press the **LEFT** or **RIGHT** button to select the next menu item.
- 7) Press the **MODE** button to exit the menu and return to your previous mode.
- 8) Remember that this setting will be saved by your camera until you manually change the setting or restore the camera's default factory settings.

Frequency Menu

The options in the Frequency menu represent the frequency of the electrical current in fluorescent lighting sources in your locale. If your camera is set to a frequency that does not match your country's electric current, you may see flickering or waves on the images taken by your camera.

50Hz – UK, Europe and Australia

60Hz – US, Canada and South America


- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'Frequency' menu.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 4) Press the **SET** button to confirm and select the highlighted menu option.
- 5) A  selected option icon will appear on the selected item.
- 6) Press the **LEFT** or **RIGHT** button to select the next menu item.
- 7) Press the **MODE** button to exit the menu and return to your previous mode.
- 8) Remember that this setting will be saved by your camera until you manually change the setting or restore the camera's default factory settings.

TV Out Menu

TV Out allows you to select the TV option appropriate for you to view your captured images on your television. See *"Connecting the Digital Video Camera to the HDTV"* for further information on how to connect your digital video camera to your television.

NTSC – television and video standard used in America, Canada

PAL – television and video standard used in Europe

- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'TV Out' menu.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 4) Press the **SET** button to confirm and select the highlighted menu option.
- 5) A  selected option icon will appear on the selected item.
- 6) Press the **LEFT** or **RIGHT** button to select the next menu item.
- 7) Press the **MODE** button to exit the menu and return to your previous mode.

- 8) Remember that this setting will be saved by your camera until you manually change the setting or restore the camera's default factory settings.

Format Memory Card Menu

You can use the Format Memory Card menu to delete all of the content that is currently on your camera's memory card.

Keep in mind that formatting the memory card will permanently delete all of the content on your camera's memory card.

This option will delete all of the content at one time. If you would like to delete individual images, use the delete menu in the camera's Playback mode.

- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'Format Memory Card' menu.
- 3) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 4) To exit without formatting the card, select 'Cancel' and press the **SET** button.
- 5) To proceed with the format, select 'Yes' and press the **SET** button.

You will be asked to confirm the formatting of the memory card.

- Select 'No' to exit without formatting.
- Select 'Yes' and press the **SET** button to begin.

The memory card will be completely formatted.

Firmware (Factory Default Settings) Menu

Use this menu to view the Firmware version on your camera or to reset your camera settings to the Factory Default Settings.

- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'Firmware' menu.
- 3) The 'Restore Factory Settings' is selected.
- 4) Press the **SET** button to reset the camera to the factory default settings.
- 5) You will be asked to confirm the resetting to the factory default settings.
 - Select 'No' and press the **SET** button to exit the menu and return to the previous mode without

resetting to the default settings.

- Select 'Yes' and press the **SET** button to proceed with the reset.

You will then automatically exit the menu and return to the previous mode with the digital camera settings set to the Factory Default Settings.

Note: After RESETTING to the default settings, it is recommended to select your system Language, Date/Time and VivLink for Photos and Videos. If you do not, the next time your camera is powered on, you will be prompted to define those settings.

Photo Playback Mode

The Playback Mode allows you to review and edit photos and videos that you've already taken with your camera.

- When you first turn on the camera, the camera will be in Video Capture mode by default.
- Press the **MODE** button twice to open the **Playback** Mode.
- The latest captured image appears on the LCD screen. If there are no images stored, a message (No File) appears.

Viewing Photos on Your Camera

1) Select your Photo:

- Once in Playback Mode, press the **LEFT** or **RIGHT** button to scroll through the images on your camera's memory card until you find the image you would like to view.
- Each captured image (video and photo) is displayed on the LCD screen.
- Photos appear with a '**JPG**' icon on the top left of the LCD screen.

2) Zooming In/Out of your selected Photo:

- Push the **T / Zoom In** button up to Zoom In and magnify the selected photo.
Use the **UP / DOWN / LEFT / RIGHT** buttons to navigate around the photo.
- Push the **W/Zoom Out** button down to Zoom Out of the selected photo.
Use the **UP / DOWN / LEFT / RIGHT** direction buttons to navigate around the photo.

Thumbnail View

Easily navigate and select the image you wish to view by using the Thumbnail View.

The images on your camera will be displayed in a 3 X 3 matrix where you can use the direction buttons to scroll and select images from the thumbnails.

- 1) Push the **Zoom** button down (**W/Zoom Out**) to open the Thumbnail View.
- 2) All the images (videos and photos) saved on your on your SD Memory card appear in the Thumbnail View.
- 3) Press the **UP / DOWN / LEFT / RIGHT** buttons to scroll and select the image you wish to view.
- 4) Press the **SET** button to enlarge the image full size.
- 5) Once the selected photo is full size, you can Zoom In or Zoom Out of the photo.

Photo Playback Mode Quick Function Buttons

Your digital video camera has four directional control buttons that function as Quick Function buttons.

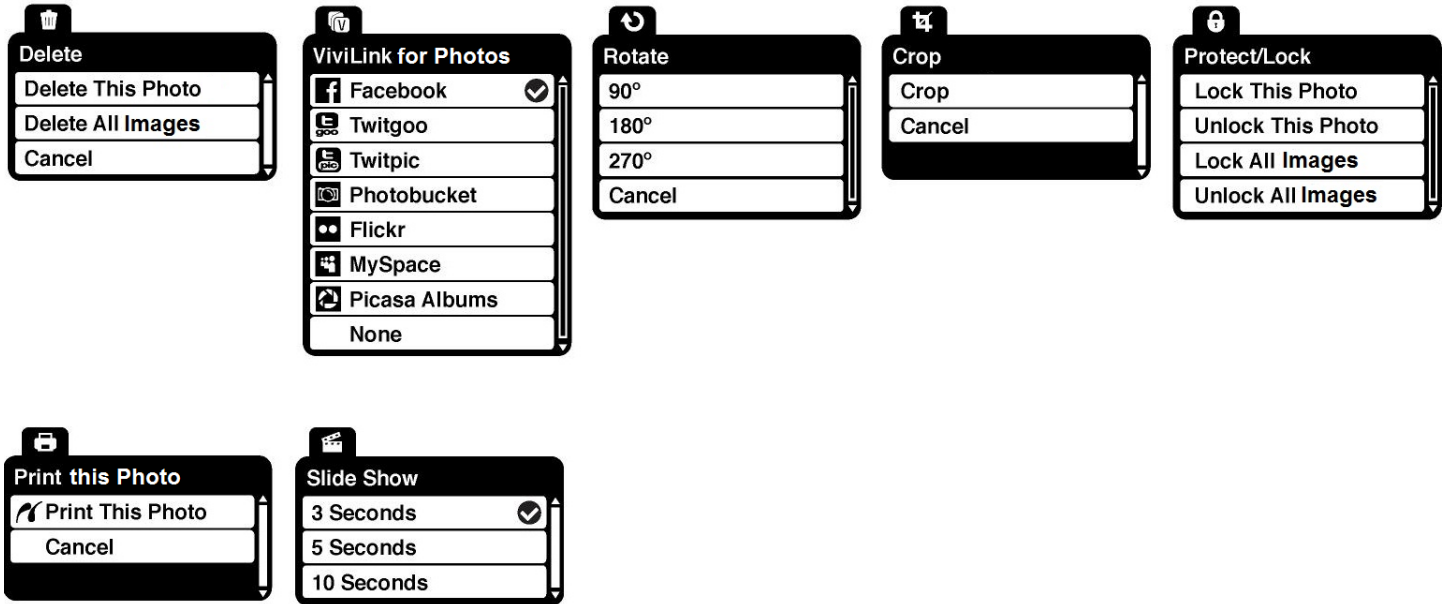
Quick Function Button	Function
Left	Displays the PREVIOUS image
Up	Views all the Photos as a Slide Show with 3, 5 or 10 second intervals (to exit the Slide Show, press any button)
Right	Displays the NEXT image
Down	No function in Photo Playback Mode

Other

V ViviLink	V ViviLink - Opens the ViviLink for Photos menu
MENU	Opens the menu options for Photo Playback Mode
MODE	<ul style="list-style-type: none"> • Toggles between the Video Capture Mode, Photo Capture Mode, and Playback Mode • Exits the menu screen
SET	<ul style="list-style-type: none"> • Saves your selected option in the Menu view • Selects an image in Thumbnail View
W/Zoom Out	<p>Opens Thumbnail View:</p> <ul style="list-style-type: none"> • To Navigate in the Thumbnail View: push the direction button UP / DOWN / LEFT / RIGHT • To select an JPG (photo) in the Thumbnail View: press the SET button • To Zoom in push the T/Zoom In button. To Zoom back out, push the W/Zoom Out button. Use the UP / DOWN / LEFT / RIGHT direction button to navigate within the Zoomed in photo.

Photo Playback Mode Menus

The following are the menus that appear in your digital video camera's Photo Playback Mode:




Delete Menu

While in the Playback mode, you can delete videos from your digital video camera through the delete menu.

- 1) View the image you would like to delete.
- 2) Press the **MENU** button to open the menus for the current mode.
- 3) Press the **LEFT** or **RIGHT** button to scroll and select the 'Delete' menu.
- 4) Press the **UP** or **DOWN** button to scroll through the menu options.
- 5) To delete this one video, select 'Delete This Photo'.
- 6) To delete all the images (including all unlocked photos and videos) on your camera's memory card, select 'Delete All Images'.
- 7) Press the **SET** button to select and save the desired option.
- 8) You will be asked to confirm your selection.
- 9) The images will be deleted as desired.

ViviLink Menu

The ViviLink technology allows you to quickly and easily upload your camera's photos and videos to the social networks of your choice with the accompanying Vivitar Experience Image Manager application.

- 1) View the photo you would like to add a ViviLink.
- 2) Press the **MENU** button to open the menus for the current mode.
- 3) Press the **LEFT** or **RIGHT** button to scroll and select the 'ViviLink' menu.
- 4) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 5) Press the **SET** button to confirm and select the highlighted menu option.
- 6) A  selected option icon will appear on the selected item.
- 7) An icon will appear on the image with the selected ViviLink destination site.
- 8) Remember that the ViviLink feature is deactivated by default. A ViviLink destination will only be assigned to a photo or video if you manually set it from this menu, from the ViviLink menu in Photo Playback mode, or from the menu accessed by pressing the **ViviLink** button.
- 9) Changing the ViviLink destination site will also make the selected site the new default ViviLink option. A new default can be selected at any time through this menu.

Rotate Menu

Use this menu to rotate the pictures that you've taken with your camera.

- 1) View the photo you would like to rotate.
- 2) Press the **MENU** button to open the menus for the current mode.
- 3) Press the **LEFT** or **RIGHT** button to scroll and select the 'Rotate' menu.
- 4) Press the **UP** or **DOWN** button to highlight the desired menu selection.
- 5) Press the **SET** button to confirm and select the highlighted menu option.
- 6) The selected picture will now appear rotated in the Playback mode.

Crop Image Menu

You can crop any picture on your camera with the Crop feature.

- 1) View the photo you would like to crop.

- 2) Press the **MENU** button to open the menus for the current mode.
- 3) Press the **LEFT** or **RIGHT** button to scroll and select the 'Crop' menu.
- 4) Press the **UP** or **DOWN** button to highlight the 'Crop' option.
- 5) Press the **SET** button to open the 'Crop' option.
- 6) The Crop window opens on the selected picture.
- 7) To define the desired crop area:
 - Use the **W** and **T Zoom** buttons on the camera to enlarge or shrink the Crop box.
 - Use the directional buttons to move the Crop box up, down, right or left.
- 8) When you are ready to crop, press the **Shutter** button.
If you would like to exit without cropping, press the **SET** button.
- 9) When you see the cropped picture appear, press the **Shutter** button again to save or press the **SET** button to cancel and return to the previous menu.
- 10) If you selected to save, the cropped picture will now be saved and will appear as a new picture to your memory card.

Protect/Lock Menu

Pictures and Videos taken with your camera can be protected or "locked" to prevent any deletion or alteration being made to the files.

- 1) View the photo you would like to protect/lock.
- 2) Press the **MENU** button to open the menus for the current mode.
- 3) Press the **LEFT** or **RIGHT** button to scroll and select the 'Protect/Lock' menu.
- 4) Press the **UP** or **DOWN** button to scroll through the menu options.
- 5) Press the **SET** button to select and save the desired option.
- 6) Press the **LEFT** or **RIGHT** button to select the next menu item.
- 7) Press the **MODE** button to exit the menu and return to your previous mode.
- 8) Any image that is locked will display a lock symbol on the LCD screen when viewing that image in the playback mode. Photos that are not locked will not display the lock symbol.
Remember that you cannot delete or edit locked photos.

Print This Photo Menu


You can use the Print Photos menu to print the photos that are on your camera directly to a Pictbridge compatible printer.

- 1) Scroll through your pictures and find the one you would like to print.
- 2) Press the **MENU** button to open the menus for the current mode.
- 3) Press the **LEFT** or **RIGHT** button to scroll and select the 'Print This Photo' menu.
- 4) Press the **UP** or **DOWN** button to scroll through the menu options.
- 5) Press the **SET** button when highlighting the 'Print This Photo' option to print the selected photo.
- 6) You will be asked to connect the camera to the Pictbridge printer.
- 7) Connect the USB cable provided in the package from the camera to the Pictbridge port of the printer.
- 8) Once connected, follow the instructions on the printer to proceed with the printing process.
- 9) Select the 'Cancel' option to exit the menu and return to the previous mode.

Slide Show Menu

You can view a Slide Show of all the pictures taken with your camera by pressing the **UP** Quick Function button while in Playback mode.

The Slide Show menu allows you to set the interval length of time that each picture will display during the slide show.

- 1) Press the **MENU** button to open the menus for the current mode.
- 2) Press the **LEFT** or **RIGHT** button to scroll and select the 'Slide Show' menu.
- 3) Press the **UP** or **DOWN** button to scroll through the menu options.
- 4) Press the **SET** button to select and save the desired option.
- 5) A  selected option icon will appear on the selected item.
- 6) Press the **LEFT** or **RIGHT** button to select the next menu item.
- 7) Press the **MODE** button to exit the menu and return to your previous mode.
- 8) Remember: While in Playback mode, press the **UP** Quick Function button to initiate the Slide Show.
- 9) Press any button to exit the slide show and return to the previous mode.

Connecting the Digital Video Camera to the HDTV

The digital video camera has an HDMI port to use your larger HDTV screen in place of the camera's LCD screen. On plugging the HDMI Cable (purchased separately) to the digital video camera's HDMI slot and to the TV, the LCD screen turns blank.

Use the digital video camera normally to capture and playback photos and videos.

The images will appear on the TV instead of on the digital video camera's LCD screen.

Note: *The only limitation of using the TV screen is that the digital video camera is now not portable.*

Connecting to an HDTV with the HDMI Cable

- 1) Connect the digital video camera to an HDTV with the HDMI cable by inserting the smaller end of the cable into the HDMI slot of the camera, and the larger end into the HDMI port on the television.
- 2) Power on the HDTV and the digital video camera, and select the appropriate HDMI source from your television menu settings.
- 3) Set the TV format on the digital video camera to suit the TV format of your TV set (NTSC or PAL). In the Video and Photo Capture Menus, use the TV Mode Menu to select the TV format.
- 4) When the digital video camera is set to Video or Photo Capture mode, you can preview what you would like to record on the HDTV screen and view the recording on the HDTV.
- 5) When the digital video camera is set to Playback mode, you can review all the captured photos and videos on the HDTV.

Installing the Software

You must be connected to the internet to install and run the Vivitar Experience Image Manager software.

- 1) Insert the installation CD into your CD-ROM drive. The installation screen should automatically open.



- 2) On PC: The Vivitar Experience Image Manager Installer window appears. If the window does not appear, open the application's CD/DVD drive and click on "Setup.exe" to launch the installer.
- 3) On Macintosh: Click the icon that appears on the desktop to install the Vivitar Experience Image Manager.
- 4) If you do not have internet access at the time of inserting the CD-ROM, connect to the internet and then click the "Install Vivitar Experience Image Manager" button to begin the installation.



Note: If you do not have internet access, you can still download media from the camera. Click the "How to transfer photos and videos from my camera to my computer" button for instructions.

- 5) If you have internet access, the “Choose your language” window opens, choose your language and click “Next” to open the next window.
- 6) Select your camera model from the list and click “Next” to open the next window.
- 7) Click “Next” to confirm your camera model selection and to install the application.
- 8) Please wait while the application is being installed on your computer.
- 9) Please review the license terms.

On PC and Macintosh: Click the “I accept the terms of this license agreement” and then click “Next” to continue.

- 10) On PC only: Let the “Vivitar Experience Image Manager” installer create the folder to where the program will be installed, and then click “Install”.

- 11) Please wait while the application continues the installation process on your computer.

- 12) On PC: Click the “Close” button when the installation is complete.

The application will automatically open.

- 13) On Macintosh: Click the “Quit” button when the installation is complete.

Click the “Launch Vivitar Experience Image Manager” to open the application

- 14) If you close the application you can run the Vivitar Experience Image Manager from the Programs (PC) or Application (Mac) menu on your computer.



Connecting the Camera to the Computer

- 1) Use the USB cable that came with your camera to connect your camera to your computer.
- 2) Power the camera on.
- 3) The first time you connect the device to the computer you will have to wait a few seconds until the computer recognizes the device.

Getting Photos and Videos from Your Camera to Your Computer

An SD card needs to be inserted. Do not disconnect the cable during transfer. Doing so will cancel the transfer of any files on their way to your computer.

- 1) Select the “Get Images” button from the Main menu.



- 2) The “Get media from device” window opens.
- 3) You can select to download photos, videos or both.
- 4) Select your camera (removable disk) from the device window. If your camera is the only USB device connected then it will be selected automatically.
- 5) Select a location on the computer where to place the new photo and video files.
- 6) Add the new photo and video files to albums if desired.
- 7) Select to remove the media files from the selected device (removable disk) after the import.
- 8) Click the “Get Media” button to transfer the photos and videos from your camera to your computer.
- 9) A media download progress bar appears on the bottom left showing the number of media files downloading to your computer. A message appears when the download is complete.
- 10) The photo and video files that you selected are now downloaded to your computer to the selected folder and albums ready for your use.

Get started!

Using the Vivitar Experience Image Manager, you can:

- Upload and manage photos and videos to and from the most popular photo sharing and social networking sites - Facebook, Flickr, Picasa, MySpace, Photobucket, Twitpic, Twitgoo and YouTube
- Seamlessly transfer photos and videos from one social network to another
- Organize your images by creating offline and online albums
- Edit images using automatic and manual tools
- Use automatic “Geotagging” with built in Google Maps

For more details on how to use the Vivitar Experience Image Manager open the ‘Help Guide’ from the Help menu or click the “Take a Tour” button on the application’s Home screen.

Transferring Images from my Camera to my Computer Manually

Transferring Photos and Videos: WINDOWS

- 1) Use the supplied USB cable to connect your camera to your computer.
- 2) ‘MSDC’ appears on the LCD – indicating that your camera is now connected to the computer as a Mass Storage Device.
- 3) A window appears with a list of options, select “Open folder to view files” and click ‘OK’.
- 4) Open the DCIM folder and the folder inside to view the media files.
- 5) Select the media and copy the files from this folder into your computer. Alternatively, select the files and choose ‘Copy’ from the Edit menu. Then select a folder and choose ‘Paste’ from the Edit menu.
- 6) We recommend that you copy the images into the Pictures/My Pictures folder and the videos into the Videos/My Videos folder.
- 7) Do not disconnect the USB cable during transfer. Doing so will cancel the transfer of any files on their way to your computer.

Transferring Photos and Videos: MACINTOSH

- 1) Use the supplied USB cable to connect your camera to your computer.
- 2) 'MSDC' appears on the LCD – indicating that your camera is now connected to the computer as a Mass Storage Device.
- 3) The camera's device icon appears on the desktop.
- 4) Click on the device icon and open the DCIM folder and the folder inside to view the media files.
- 5) Select the files and drag them into your computer. Alternatively, select the files and choose 'Copy' from the Finder's Edit menu. Then select a folder and choose 'Paste' from the Edit menu.
- 6) We recommend that you copy the images into the Pictures folder and the videos into the Movies folder.
- 7) Do not disconnect the USB cable during transfer. Doing so will cancel the transfer of any files on their way to your computer.

Transferring Photos and Videos: Apple iPad

NOTE: Please check your device packaging for compatibility with the iPad.

Apple iPad Camera Connection:

For models that are compatible with the iPad, photos and videos can be imported from your digital camera to your iPad by following either one of the options below:

1) Connecting your digital camera to your iPad using an iPad Camera Connector:

Plug the Camera Connector into the dock connector port on your iPad, and then attach your digital camera using a USB cable (included) to the Camera Connector.

NOTE: The iPad Camera Connector is not included. This item may be purchased separately.

2) Using an iPad SD Card Reader:

Connect the SD Card Reader to your iPad, then insert your digital camera's SD Memory card into the slot to import photos and videos directly from your camera's SD card.

NOTE: The iPad SD Card Reader is not included. This item may be purchased separately.

After you make the connection, your iPad automatically opens the 'Photos' application. This allows you to choose which photos and videos to import and to organize them into albums.

Camera Maintenance

The digital video camera is a delicate device. Please handle your digital video camera with care to avoid damaging it.

Do not expose your digital video camera to heat sources.

Do not use you digital video camera in wet or moist conditions.

Sakar Warranty Card

This warranty covers for the original consumer purchaser only and is not transferable. Products that fail to function properly **UNDER NORMAL USAGE**, due to defects in material or workmanship will be repaired at no charge for parts or labor for a period of one year.

What Is Not Covered By Warranty:

Damages or malfunctions not resulting from defects in material or workmanship and damages or malfunctions from other than normal use, including but not limited to, repair by unauthorized parties, tampering, modification or accident.

What To Do When Service Is Required:

When returning your defective product (postage pre-paid) for service, your package should include:

- 1) Copy of **original** bill of sale.
- 2) A detailed written description of the problem.
- 3) Your return address and telephone number (Daytime).

MAIL TO ADDRESS BELOW:

<u>Sakar US</u>	<u>Sakar UK/Europe</u>	<u>Sakar Australia</u>
Sakar International Attention: Service Department 195 Carter Drive Edison, NJ 08817	Attention: Service Department 2D, Siskin Parkway East 4020 Middlemarch Business Park Coventry, CV3 4PE	Return faulty camera to the Refund Counter at the store where purchased

Technical Support

For technical support issues please visit our website at **www.vivitar.com**. You can find manuals, software and FAQ's at the website. Can't find what you are looking for? E-mail us at **support@vivitar.com** and one of our technical support team members will answer your questions. For phone support in the US please call 1-800-592-9541, in the UK call 0800 917 4831, in Australia call 1800-006-614. If you would like to call from anywhere else, please visit **www.vivitar.com** for your local toll free number.

Troubleshooting

Q: I have taken photos and selected the "Get Images" button. I get a message that the images were successfully transferred but the photos do not appear on my computer. What do I do?

First ensure that you have in fact taken photos. Press the Shutter button to take some sample photos and then try downloading them again.

With test photos if the camera powers off before you upload them to the computer the photos are not stored in the camera's memory. These photos should be uploaded quickly before the camera powers off.

If the photos are saved to the SD memory card then all the photos should appear.

Q: How do I make sure I don't lose important pictures?

This camera requires an SD card for normal use. If the camera powers off nothing will happen to the images stored on the SD memory card. We recommend always downloading your photos to your computer as soon as possible to prevent unintentional data loss.

Q: I deleted images using the Vivitar Experience Image Manager. The images were also deleted from my computer. How do I recover images that I accidentally deleted?

All images deleted using the Vivitar Experience Image Manager are sent to your computer's Recycle or Trash Bin and can be retrieved from there.

DVR945HD-121511-TA-3 FW: 20HDC4JS5131F17SA1