

PANASONIC 456 SVHS CAMERA GUIDELINES

Batteries

Batteries, like tapes, can only fit in one way.

The E---F indicates how much battery power you have left. When running low, a **clear** square will flash.

Powering / Standby

At the top of the camera, the red "power" light will appear when on. If a camera is not recording for an approximate five minute span, the camera turns itself off to save power. This is called Standby Mode.

The cameras have to have their main power switch turned back on.

Recording

The camera has two record buttons, one by the grip for the thumb, and one by the zoom control- for your left hand in case you're recording on a tripod. You know you're recording when the counter display numbers in the viewfinder start changing.

The record button starts *and* stops recording. Press once to record, then again to stop.

Start recording at least five seconds **before** the footage you want actually starts. Let it roll at least five seconds **after** your shot/footage is finally done. This is important for editing later, because (1) the camcorder takes a few seconds to get rolling, and (2) the camcorder tape rewinds back a few seconds when you stop recording (and you don't want to record over the end).

Zoom Controls

Some camcorders have a manual zoom, but all have the T-W (Tight-Wide) control by the hand grip.

Focus Controls

The cameras have an Auto function for focusing. To get manual focus with a camera, you must do two things: (1) put the camera on manual mode, and (2) hit the MF button located under the viewfinder. A "MF" will light up in the viewfinder indicating you have manual focus.

How do you use manual focus? There are two methods:

(1): zoom all the way in on your subject, focus, and then pull out. This keeps the subject in focus **as long as** the subject doesn't move forward or backward or the camera doesn't move forward or backward.

(2) Another method is to put the camera on auto focus, make sure the subject is in the focus box in the viewfinder, then switch the camcorder to manual mode.

Manual focus is recommended so that if an object or person moves in front of your subject, the camcorder won't focus on it instead, subsequently blurring your picture.

White Balance

Although not obvious to the human eye, light comes in different colors. Indoor lighting has a reddish-ish hue, and has a low temperature. Outdoor lighting (the sun) is blue-ish and gives off a high temperature. Our eyes adjust so well to these different colored light sources that we hardly notice it. A camera, however, has a much tougher time; it can only distinguish one color of light at a time and reproduce colors correctly.

You have both manual and auto white balance options. On the camcorders, there's only one Auto switch, which controls focus and white balance. On auto, the camera does a decent job of distinguishing indoor from outdoor lighting, but tricky lighting situations can cause the camera to change its color balance, making the picture very blue or red.

For a precise white balance, go to Manual. Flip from Auto to Manual and hit the WB button located under the viewfinder (while zoomed in close on something white) to white balance. A flashing light will show up in the upper left of the viewfinder as you do this. It will stop flashing when balanced.

SVHS Tapes

Keep the camcorders in the "SVHS" mode (The switch is at the top of the camera- near the power).

If you put a vhs tape into the camcorder while in "SVHS" mode, the camcorder **records in vhs by default**.

Recording Audio

The camera has an on-board microphone for recording audio. With the setting on Wide, the microphone is omni-directional, picking up the sounds around and near the camera. With the setting on Tele, the microphone becomes directional, picking up primarily what the camera is aimed at. With the Zoom setting, the microphone's sensitivity is tied in to the Zoom control; the more you zoom in, the more directional the mic becomes.

Digital Effects

The Digital Mode Select switch allows you to select among the various digital effects.

For **Still or Strobe** images, flip the Digital Mode Select switch up, then hit the Still/Strobe button once. The image is now a *still*, regardless of how much you move the camera. The effect can be seen inside the viewfinder. Record for whatever length desired. Press the button again to get a *strobe* effect with your camera. Press the button again to return the camera to its normal record mode.

The cameras also have **Digital Zoom**. Normal zoom ratio is x12; by hitting "DZoom" once *and* also zooming in, you can go up to x24. By hitting "DZoom" again and zooming in, you can get up to x100. Press the button again to return the camera to its normal record mode.

For a **Tracer** effect, flip the Digital Mode Select down, then press the Tracer button. The camera will now record with an intentional after-image effect. Press Tracer again to record in normal mode.

For **Gain Up**, flip the Digital Mode Select down and press the Gain Up button. This increases the light sensitivity when recording in the dark. Press once for Gain x4, and again for Gain x8 (indicated in the viewfinder). Note that increasing the gain increases the graininess of your picture and lowers the quality.

Portrait Feature

The Portrait feature makes it possible to record a portrait with the face in focus and the background blurred. Set the switch to Portrait. The F number indication "Open" and Shutter Speed indication appear. The portrait effect is now controlled by the iris; opening the iris reduces depth of field (more of the background will blur). Closing the iris puts more of the background in focus.

AC Power Adapter

There is a power unit in the camera case, with a cable in one of the hatches that runs from the back of the camcorder to the power supply.

If you intend to use outlet power, take out the battery beforehand; the camera uses battery power first (even if plugged into the wall), and the camera could shut off on you when the battery power has drained.

Audio / Video Output

The new camcorders have the RCA A/V outputs in the back of the camera. Monitors are available for tape playback or watching while you shoot.

Headsets are recommended whenever recording sound on tape is important. Headsets plug into the audio out jacks at the back of the camera (either left or right). An Stereo-to-RCA adapter is needed to plug the headset unit into the camera.

Counter Display

When recording, the viewfinder rolls a number sequence starting at 0000. That's not very helpful; to make the VF display actual hours/minutes/seconds, flip up the hatch by the power button. Your "Counter" buttons are here. Hitting Memory/Display twice puts the counter numbers into actual time.

VCR / Camera Mode

When the hatch on top of the camera is closed, your camera functions, well, like a camera. When the hatch is opened, your camera becomes a VCR; in fact you'll see a bunch of VCR functions. While this hatch is up, you cannot record tape.

Misc.

If you see a flashing dotted rectangle in the viewfinder, it doesn't mean low battery; it's indicating there is no tape in the camcorder.

If you want to record the date and time on the video, hit the Date/Time button for new camcorders. You'll be able to toggle through options in the VF.

The fade button fades your video to black (a nice function).

To review what you've recorded in the viewfinder, press and hold the " – Camera Search + " button. You can view in either high speed in reverse or at normal speed going forward.

A battery charger connector cable is available upon request. This allows batteries to be recharged using the power supply in each camera kit. A battery should be charged at least three hours for extended use.