## Latest U.S.A. Video Culture Updates Finally, a camera with anti-shake function has arrived

After autofocus, what's next for the camera? First report on the Chinon CV-T80, a camera with auto image stabilization (auto image stabilization function)

\*\* The CHINNON CV-T80 is an OEM product manufactured by Panasonic. (Comment from the proposer) A dreamlike camcorder has appeared on the US market. The CV-T80, which will be released this fall by Chinon America, is a full-size VHS camcorder equipped with an auto image stabilizer and 10x zoom. The exterior is characterized by a style reminiscent of a spaceship from a science fiction movie, with a lens part that is quite impressive and has a built-in innovative auto image stabilizer. List price is \$2,499.95 (Panasonic USA has also announced the PV-460 with the same specifications, but it has not yet been decided whether it will be released in Japan).

## Equipped with 10x zoom from 8 to 80 mm

This time, I'd like to report on Chinon's video camera with auto image stabilization, which was just announced in the US. After you start using a video camera for a while, you start to notice camera shake when shooting handheld. When you play back the tape, you can't help but notice camera shake when you're walking or on a vehicle, or when you're panning or zooming on the telephoto side, even though you thought you were holding the camera steady. If you use a tripod, the camera won't shake, but it's not always possible to use a tripod, and the mobility of the video camera, which has been made so small, is significantly reduced.

Research into ways to deal with this "camera shake" that occurs when shooting handheld has been going on for decades, including in the days of still photography and cinema, and gyro stabilizers are sold for professional equipment, but they are expensive and quite heavy, making them out of reach for amateurs who just enjoy home videos. However, technological developments in recent years have made gyro-sensors and actuators (driving devices) smaller and cheaper, making them suitable for amateur use.

The Chinon EZ Movie/Pro CV-T80, which was just announced in the US, is the first video camera to put this camera shake prevention measure into practical use. (Panasonic USA also announced it at the same time under the model name PV-460, but since I had the opportunity to get my hands on the Chinon model CV-T80, I will be reporting on that model.) The CV-T80 inherits the appearance of Panasonic's domestic model NV-MS100, but removes the digital functions and S-VHS compatibility and incorporates an auto image stabilizer (hereafter abbreviated as AIS) and an 8-80mm 10x zoom lens, so its basic camera functions are also geared towards enthusiasts.

## Surprisingly light, weighing in at just 3.4kg

First, let's talk about the new AIS. The AIS suspends the lens and image sensor assembly in the camera, and has two gyro-sensors that detect vertical (yawing) and horizontal (pitching) vibrations. Based on the signal from the gyro-sensors, the assembly is driven by a motor in the opposite direction to the "shake" to produce a stable image.

Before I actually saw the CV-T80, I imagined that the lens and image sensor would be quite bulky and heavy if they were suspended in the air, and then fitted with gyro-sensors and a drive unit and placed inside the camera. When I actually held it in my hands, it looked heavy because the lens part was boxed, but it weighed about 3.4 kg, which is lighter than the NV-MS100, and

considering that it was a full-size VHS, it was well put together as the first AIS model.

The AIS has two modes; AI1 is for panning and only corrects vertical shaking, while AI2 is for filming from a vehicle or while walking and corrects both vertical and horizontal shaking. Also, if you turn the AIS off, it will stay in a fixed position just like a normal video camera. The AIS switch is located on the side of the viewfinder where the NV-MS100's digital effects switch was located; sliding it once selects AI1, sliding it again selects AI2, and sliding it once more turns AI off. There is an LED next to the switch that lights up green for AI1 and red for AI2. Also, an "AI" sign is overlaid on the viewfinder to indicate that AIS is in use.

According to the documentation, this AIS can correct and absorb 75% of the "blur" that occurs in normal handheld shooting, and even though I tried it for a short time, I could not put a clear number on it as 75%, but just looking through the viewfinder I could see that it was quite effective. However, if you use AI1 and AI2 incorrectly (for example, if you use simple panning A1), the pan itself will be corrected, causing it to become jerky or swing back at the end of the pan, so it seems necessary to understand how to use AI1 and AI2 well before using the Chinon CV-T80. Also, when using AIS, the photographer has to see the image through the viewfinder with the right eye, where the "blur" has been corrected, while the left eye is mentally correcting the "shaking" that the human body naturally has, so matching cannot be done well, and sometimes it feels as if only the eye through the viewfinder is seasick. However, after a while I got used to this phenomenon.

## Great effect with telephoto and macro photography

What's more, I was impressed by the fact that the AIS enabled me to capture a stable image without blur even at maximum telephoto and macro shooting. With this, I feel I can take pictures with confidence even when shooting handheld.

As mentioned above, the other functions are aimed at enthusiasts, and although it does not have a digital mechanism, it has a 1/2-inch, 330,000-pixel CCD, two recording/playback heads, a flying erase head, SP mode for both recording and playback, built-in VISS/VASS, auto white balance (manual for outdoor and indoor use is also possible), backlight compensation and fade, three electronic shutter speeds of 1/50, 1/500, and 1/1000 seconds, a Piezo-type TTL autofocus with a choice of two-zone AF areas, and macro AF up to 2.5 cm away. The 8-80mm F1.6 lens is AIS-enabled, so it is enclosed in a housing as mentioned above.

What's unique about this camera is the manual focus. The lens inside the housing can no longer be turned directly by hand as before, but now has a large knob with an electronic dial. This large knob is quite easy to use, and reminded me of the old cine cameras. The zoom is also now motorized.

This time, it was announced in the US before the domestic release. Some readers may wonder, "Why in the US at this time of year?" The reason is, as I have previously mentioned in this column, 60% of the annual sales of home electronics products in the US market are concentrated in the Christmas shopping season from October to December. In other words, unlike in Japan, if a product is not on the shelves by the end of September, it will not be advertised by dealers and customers will not request it.

It is expected that more than 7 million integrated video cameras (over 1.7 million in Japan) will be sold in the US market this year.