

**Press Release**

**3D Camcorder**

**HDC-SDT750**

## **Now It's Your Turn!**

### **Introducing the World's First\* 3D Camcorder.**

#### **Dynamic 3D Images Can Now Be Recorded by Anyone.**

- 1) Recording 3D images is now as easy as attaching the 3D conversion lens that comes with the world's first\* consumer 3D camcorder, the HDC-SDT750. Powerful, true-to-life 3D images like those created by Panasonic 3D recording technologies for use in Hollywood movies can now be easily recorded and viewed at home.\*\***
- 2) Even without the 3D conversion lens attached, there are countless ways to enjoy the SDT750. This innovative camcorder takes an evolutionary leap forward from the many Panasonic models that have excited users worldwide. It is equipped with a wide range of sophisticated functions, including the 3MOS System, which features improved noise reduction (NR) technologies, 1080/50p recording, iA (Intelligent Auto) mode in the new HYBRID O.I.S. (Optical Image Stabilizer), and a wealth of manual controls.**

\* As a consumer camcorder with 3D conversion lens for the AVCHD standard (as of July 1, 2010).

\*\* A TV that is capable of side-by-side method 3D playback, 3D Eyewear, and HDMI cable connection are required to play the recorded 3D images.

As a result of research conducted in collaboration with Hollywood film studios over the years, Panasonic developed a professional 3D system camera and succeeded in bringing high-quality FULL HD 3D images to the home for viewing on 3D compatible TVs. The development of the world's first\* consumer 3D camcorder, the HDC-SDT750, which allows 3D images to be recorded at home by simply attaching a 3D conversion lens, is the next step. Incorporating Panasonic broadcast technology, this new 3MOS System camcorder lets users easily create their own 3D movies, something that only professional image producers were previously able to do. Combined with a VIERA 3DTV\*\* and Blu-ray Disc™ player/recorder,\*\*\* the SDT750 makes it possible to save precious memories of friends and family in vivid, lifelike images, to further expand the world of 3D enjoyment at home.

Even without the 3D conversion lens attached, there are many ways to enjoy the SDT750, which has evolved from previous Panasonic models that have gained extreme popularity all over the world. The 3MOS System with improved NR technologies records dimly lit images in greater beauty than ever before. Other sophisticated functions include 1080/50p recording\*\*\*\* for ultra-smooth images, iA mode\*\*\*\* in the new HYBRID O.I.S., and a wealth of manual functions\*\*\*\* controlled by a manual ring for easy, creative shooting.

The high-sensitivity 3MOS System provides an effective motion image pixel count of 7,590,000 pixels (2,530,000 pixels x 3). And even with this high pixel count, newly developed technology increases sensitivity, and further-evolved NR technology achieves bright images with minimal noise when shooting under low light conditions. This maximizes the 3MOS features of excellent color reproduction, high resolution and rich gradation, and lets the user capture vividly colored images in both bright and darkly lit places.

1,080/50p recording (Full-HD 1,920 x 1,080, 50 progressive recording) \*\*\*\* in the SDT750 produces richly expressive images, with none of the detail loss and

flickering of conventional 1,080i (interlace) recording.

The iA (Intelligent Auto) function,\*\*\*\* which was highly popular on previous models, is also included, making it easy for anyone to take beautiful videos. And the SDT750 newly incorporates the HYBRID O.I.S. (Optical Image Stabilizer) system to bring clear, beautiful HD image quality to telephoto shots as well.

\* As a consumer camcorder with 3D conversion lens for the AVCHD standard (as of July 1, 2010).

\*\* The VIERA XX-XX.

\*\*\*The Blu-ray Disc™ Player XX-XX, Blu-ray Disc™ Recorder XX-XX

\*\*\*\* For information on availability while the 3D conversion lens is attached, please see the items in the Explanation of Features section.

- Model availability varies depending on country and region. JPEG format still images can be viewed with other models equipped with an SD card slot.

## **Explanation of Features**

### **[Shooting/Playback]**

#### **3D Image Shooting with the 3D Conversion Lens**

The user needs only to attach the 3D conversion lens that comes with the SDT750, the world's first\* consumer 3D camcorder, to record 3D images. Dynamic images like those that previously could only be seen at movie theaters using 3D content can now be experienced first hand. These powerful, true-to-life 3D images can now be created and viewed at home.

In natural vision, people see slightly different images with their right and left eyes. This difference is called visual disparity. The brain uses visual disparity to perceive spatial depth and the appearance of solidity. This visual disparity is artificially produced for 3D images so that the brain will interpret it as depth and solid-appearing objects. The SDT750 comes with a special 3D conversion lens that records right-eye and left-eye images simultaneously through its two lenses. The right and left images (each with 960 x 1080 pixels) that enter through the lenses are recorded using the side-by-side method. By attaching the 3D conversion lens to the SDT750 3MOS System camcorder, which incorporates a variety of Panasonic broadcast technologies, and connecting the SDT750 to a TV that is capable of side-by-side method 3D playback, vividly colorful 3D images can be viewed at home.\*\*

\* As a consumer camcorder with 3D conversion lens for the AVCHD standard (as of July 1, 2010).

\*\* A TV that is capable of side-by-side method 3D playback, 3D Eyewear, and HDMI cable connection are required to play the recorded 3D images.

#### **Advanced 3MOS System**

The high-sensitivity 3MOS System has 7.59 million effective motion image pixels (2.53 megapixels x 3). This advanced image sensor separates the light received through the lens into the three primary colors -- red, green and blue -- and processes each color independently. As a result, it offers beautiful images with significantly better

color quality, detail and gradation than the 1MOS sensor system. The large-diameter F1.5 lens, 3MOS Sensor and Crystal Engine PRO have improved the efficiency of light gathering, increased sensitivity, and reduced noise to enable bright, low-noise recording even in dim lighting.

### **Crystal Engine PRO**

The SDT750 employs Intelligent Resolution technology and is equipped with Crystal Engine PRO, a high-speed processing unit that helps to record extremely clear, crisp motion images that exceed even Full-HD 1,920 x 1,080-pixel images in quality. It eliminates the color smear that tends to occur at subject edges and renders sharp, beautiful images. The Intelligent Zoom function enables 18x zooming. This function corrects image degradation in ordinary digital zooming to deliver stunningly clear Full-HD images\* even with extreme zooming. Noise reduction (NR) technology minimizes noise when recording in low light conditions, while Intelligent Resolution technology ensures sharp, bright, beautifully colored motion images. Advances in the imaging engine also provide Full-HD 1,920 x 1,080-pixel recording in all recording modes, including HE mode. This makes it possible to save more memories, in all their natural beauty.

\* Approximately 810 TV lines. 1,920 horizontal pixels x 1,080 vertical pixels.

### **Leica Dicomar Lens**

The Leica Dicomar lens on the SDT750 is manufactured using measuring instruments and quality assurance systems that have been certified by Leica Camera AG based on the company's quality standards. This lens not only suppresses ghosts and flare, but also minimizes the distortion and degradation of contrast and resolution that tend to occur at the lens periphery. This F1.5\* lens has a large 46-mm diameter to offer brighter images than previous lenses. In addition, its 35mm wide-angle\*\* capability makes it ideal for many different shooting situations, such as self-portraits and group photos indoors, and landscape shots

outdoors.

\*F3.2 when the 3D conversion lens is attached.

\*\* 35mm camera equivalent (58mm (35mm camera equivalent) when the 3D conversion lens is attached).

### **1,080/50p Recording (Full-HD 1,920 x 1,080, 50 Progressive Recording)\***

1,080/50p recording (Full-HD, 1,920 x 1,080, 50 progressive recording) conveys about twice the information of 1,080i (interlace) recording to produce ultimately beautiful image quality, exceeding even conventional Full-HD images. It minimizes afterimages and flickering caused by subject motion and renders crisp, detailed images. A 64-GB SDXC card can record approximately 27 hours 30 minutes of 1,920 x 1,080i high-definition video in HE mode, and approximately 5 hours 20 minutes of 1,920 x 1,080p Full-HD video in 1,080/50p mode.

\*Not available when the 3D conversion lens is attached.

### **HYBRID O.I.S. (Optical Image Stabilizer)\* [New]**

The newly developed HYBRID O.I.S. is a hybrid optical and electrical image stabilization system. In addition to the blurring caused by vertical or horizontal wrist movements, the SDT750 can also detect the subtle blurring that occurs when the entire arm moves vertically or horizontally. The detected blurring is corrected using a lens in the optical system and a sensor in the electrical system. In electrical image stabilization, an area of the sensor that remains unused while zooming is used. This makes it possible to suppress image degradation. Powerful correction is achieved during high-powered zooming, which allows users to capture beautiful images even when shooting on the move or while zooming, where hand-shake blur is common.

\*Normal O.I.S. works when the 3D conversion lens is attached.

## **O.I.S. Lock** [New]

In addition to the HYBRID O.I.S. system, the SDT750 provides even more powerful hand-shake correction with O.I.S. Lock. By pressing the O.I.S. Lock button on the LCD monitor, the blur detection sensitivity is maximized and all kinds of camera movements are detected as hand-shake and corrected. O.I.S. Lock is ideal for applications like bird watching, which call for zooming at a fixed angle.

- Considerable blurring occurs when panning or tilting the camera, due to the movement of the corrective lens.

## **iA (Intelligent Auto) with Face Recognition\***

The iA function automatically selects the most suitable shooting mode at the press of a button. The iA function consists of six functions: Face Recognition, the new HYBRID O.I.S., AF/AE Tracking, Intelligent Scene Selector, Face Detection and Intelligent Contrast Control. Face Recognition is very useful for capturing beautiful images of a specific person among a group of people in the frame. Face Recognition finds the registered faces of subjects and automatically optimizes the focus and exposure for them. It continues to track the subject as the person moves anywhere within the LCD frame, making it ideal for video shooting. A maximum of six faces can be registered. High recognition accuracy can be ensured under various shooting conditions by registering facial images from different angles or with different expressions for each person. Names can also be displayed on the LCD for up to three people. Smile Shot is another handy function. It automatically records a still image during motion image recording when the camcorder detects a smiling face on the subject. This makes sure that the user won't miss the best smile. HYBRID O.I.S. (Optical Image Stabilizer) provides more accurate hand-shake correction with its four-axis blur detection. With this mode, users can enjoy beautiful, steady images even when zooming or shooting on the move. AF/AE Tracking tracks a moving subject to make sure that it continues to be recorded in optimal image quality. The normal Auto mode simply adjusts the focus and exposure for a

subject at the center of the screen. With AF/AE Tracking, the user “locks on” to a subject by touching the LCD screen. The tracking function then automatically follows the subject even if it moves or turns to one side. This keeps the AF/AE settings constantly optimized for sharp, clear images of a moving subject. Intelligent Contrast Control prevents blown highlights and blocked shadows to retain natural, highly nuanced images with proper contrast. Intelligent Scene Selector detects the situation and switches the scene mode automatically. And Face Detection captures faces beautifully even in dim or backlit scenes. Each of these modes is activated, as required, by simply pressing the iA button. This allows users to capture beautiful, optimized images quickly and easily. Face Detection automatically senses the ambient lighting and adjusts the exposure accordingly. The focus also prioritizes the faces, and skin tones are smoothed for up to 15 faces at once. Faces are bright and recognizable.

\*Not available when the 3D conversion lens is attached.

- The functions included in iA may not be applied when conditions do not call for them.

### **35mm Wide-Angle Lens\***

The 35mm wide-angle lens\* is especially convenient for recording indoors or in tight spaces. It makes it possible to shoot at a close distance from the subject while fitting both the subject and the surrounding area into the frame. This has the added benefit of allowing the voice of the subject to be clearly recorded, which is an important element in video recordings. The lens captures beautiful images of wide landscapes and allows large groups of people to fit into the frame, making it highly versatile for use in all kinds of situations.

\* 35mm camera equivalent (58mm (35mm camera equivalent) when the 3D conversion lens is attached).

## **Manual Ring\***

The manual ring provides easy, fingertip control over the focus, zoom, exposure (iris), shutter speed and white balance settings. Using the ring is much more intuitive, comfortable, and user-friendly than accessing a menu screen. With the manual ring and manual operation, the SDT750 is a pleasure to use and offers the freedom to craft unusually expressive images.

\*The white balance setting is available when the 3D conversion lens is attached.

## **5.1-Channel Surround Sound System**

Only Panasonic offers a 5.1-channel sound system that uses five microphones. When voices recorded from the front, right, left and back are played on a 5.1-channel home cinema system, viewers are surrounded by clear, detailed sound that makes them feel as if they are right in the middle of the action. A Zoom Mic function\* links the microphone's action to the camera's action. When zooming in on a bird in the distance, for example, the microphones also zoom in on the bird in link with the lens zooming operation and record the bird's chirping accordingly. The Focus Microphone function, which has been made possible by five highly directional microphones, picks up the sounds from sources in the area in front of the camcorder, regardless of whether the lens is focusing on a near or distant object. It also allows footage recorded in 3D to be enjoyed with lifelike images and dynamic sounds.

\* Not available when the 3D conversion lens is attached.

## **Wind Noise Canceller**

The technology of the previous Wind Cut function has evolved to form the Wind Noise Canceller. The function automatically detects and suppresses only wind noise, to ensure natural sounds with lifelike ambience.

**1.0-sec\* Quick Power-On Helps Catch Sudden Shooting Opportunities\*\***

The camcorder turns on or off when the LCD is opened or closed. This enables recording to start in only approx. 1.0 seconds\* from the time the LCD is opened. The camcorder's quick start-up ability helps to capture those spur-of-the-moment shots, while also saving energy by allowing the user to keep the LCD closed and the power off when not shooting. The Quick Start mode\*\*\* further sets the camcorder to ON or standby status when the LCD is opened or closed. When the Quick Start mode is used together with 1.0-sec Quick Power-On, the camcorder is able to start recording in only approx. 0.6 second from the time the LCD is opened. This is especially handy when recording intermittently. Plus, an Eco mode\*\*\*\* automatically turns off the power when the camcorder is not operated for five minutes, reducing wasteful energy use and saving battery power.

\* When the LCD is opened, with the lens cover detached from the lens. Depending on the recording conditions, the start time may be longer than approx. 1.0 second.

\*\*Not available when the 3D conversion lens is attached.

\*\*\*This mode can be selected from the menu. When in Quick Start standby mode, about 80% of the power used in Rec Pause mode is being consumed, so the recording time will be reduced.

\*\*\*\* Set to ON when shipped from the factory.

**Pre-Rec**

When the Pre-Rec function is on, the camcorder continuously records three seconds of images into an internal buffer memory. Then, provided that the camcorder is aimed at the subject in advance, when the Record button is actually pressed, the three seconds immediately prior are added at the beginning of the clip being recorded. For example, this can be used to capture a soccer player in the act of kicking the ball even if the Record button wasn't pressed until after a goal was made. The Pre-Rec function is especially helpful in capturing sudden shooting opportunities.

**Highlight Playback\***

The Highlight Playback function is designed for users who want to view recorded images as quickly as possible. It detects zooming, panning, scene changes, faces, etc., in recorded images as "highlights" by using the I.I.S. (Intelligent Index System). Then, it automatically plays back the detected highlight scenes according to a set time interval. It even allows the user to select music stored in the camcorder and plays it together with the video as background music. With the addition of the new Face Highlight Playback mode, the function can also detect faces registered in the Face Recognition function. Giving priority to the detected faces, parts that are recognized as being clearly recorded are extracted from a long recording, for quick playback complete with music.

\* Not available when the 3D conversion lens is attached.

**Touch-Screen Operation\***

The SDT750 features a touch-screen that allows icons displayed on the LCD to be easily operated by touching them with a fingertip. The touch-screen lets users operate a variety of functions intuitively without taking their eyes off of the subject on the LCD. The SDT750 is equipped with a large, 3.0-inch LCD\*\* that offers easier viewing and improved touch operation.

\* On the LCD, recorded 3D images are displayed only as the 2D images that were recorded with the left lens.

\*\*The LCD in the model for Europe is described as being 7.6 cm (which equals 3.0 inches).

**Auto Power LCD**

The Auto Power LCD automatically adjusts the brightness of the LCD screen according to the shooting environment for comfortable use in virtually all situations. In dark places, such as inside a theater or room, the screen brightness is reduced to approximately 1/3 the normal level to minimize the possibility of disturbing nearby people. In bright outdoor places, the screen brightness is increased to approximately twice the normal level to make the screen images easier to see in

sunlight.

\* Manual adjustment is also possible.

### **Time Lapse Recording**

Time Lapse Recording is a convenient function that plays a scene such as a sunset or a blooming flower at an accelerated speed in fast-forward fashion, just like the unique effects used in TV programs. Time Lapse Recording is provided in the SDT750. By setting the recording interval to 1 sec, 10 sec, 30 sec, 1 min or 2 min, the user can view an otherwise long recording in a reduced time period. For example, when a scene is recorded at the 1-sec interval setting, a 10-minute sunset scene can be played back in approximately 10 seconds,\* making the slow change in the subject appear as if it were taking place in a very short time.

Interval recording with lifelike 3D images is also possible by attaching the 3D conversion lens to the SDT750. For example, when a blooming flower is recorded using interval 3D recording, the appearance of the flower as it gradually opens outward is so realistic, and the image is so stunningly beautiful, that the viewer might even imagine the sweet aroma of the flower as it blooms.

\* Approximately 10 sec for NTSC areas, approximately 12 sec for PAL areas.

### **50 Frames/sec High Speed Burst Shooting\***

This function lets the camcorder snap up to 50 consecutive 2.1-megapixel still images per second for a total of 180 consecutive images in about four seconds. It can be used to analyze a golf swing, tennis stroke or other motion. It can also be used to get good shots of subjects in fast motion. The user can fire off a number of shots without stopping, then keep the best ones and delete the rest.

\* Not available when the 3D conversion lens is attached.

**[Networking]****Easy 3D Playback on 3D compatible TVs/AVCHD Compatible Player/Recorders**

The 3D images recorded with the SDT750 can be easily played back\* by connecting the SDT750 to a 3D compatible TV, such as a VIERA 3DTV.\*\* In addition, it is also possible to play SD Memory Cards that have 3D images recorded onto them by using an AVCHD compatible player/recorder,\*\*\* such as a Panasonic Blu-ray Disc™ player/recorder.\*\*\*\*

\* A TV that is capable of side-by-side method 3D playback, 3D Eyewear, and HDMI cable connection are required to play the recorded 3D images.

\*\* The VIERA XX-XX.

\*\*\* If the player/recorder is incompatible with 3D, the 3D mode must be set on the TV manually.

\*\*\*\* The Blu-ray Disc™ Player XX-XX, Blu-ray Disc™ Recorder XX-XX

- Model availability varies depending on country and region.

**VIERA Link™**

The SDT750 is compatible with Panasonic's VIERA Link. The user can simply connect it to a VIERA TV via an HDMI mini cable, and operate the camcorder using the TV remote control and following on-screen prompts. A VIERA TV supporting a 1920 x 1,080p display\* lets the user view high-resolution motion images recorded in 1,080p without any image quality degradation. Also, when playing 3D content, the 3D compatible VIERA TV will automatically switch to the side-by-side method, for smooth viewing of 3D content with no manual settings necessary.

\* The VIERA XX-XX.

- Model availability varies depending on country and region.

## **SD Networking with VIERA and a Blu-ray Disc™ Player**

The VIERA Image Viewer function lets the user view recorded images on the large screen of a Panasonic VIERA\* TV by simply inserting an SD Memory Card containing the images into the card slot on the TV\*\*. Video recordings can be easily played by using a Panasonic Blu-ray Disc™ player/recorder.\*\*\*

\* The VIERA XX-XX.

\*\* The 3D content cannot be directly played from a VIERA SD card slot.

\*\*\* The Blu-ray Disc™ Player XX-XX, Blu-ray Disc™ Recorder XX-XX

- Model availability varies depending on country and region. JPEG format still images can be viewed with other models that are equipped with an SD card slot.

## **[Archiving and Editing]**

### **Easy 3D Copying with a Panasonic DVD Burner and AVCHD Compatible Recorder**

Connecting the SDT750 with a USB cable to a Panasonic DVD burner (optional) and pressing a single button is all it takes to copy 3D images copied with the SDT750 from an SDXC, SDHC, or SD Memory Card to a DVD disc (DVD-RAM/DVD-R/DVD-R DL/DVD-RW, DVD+R/DVD+R DL/DVD+RW). It is also possible to burn images onto a DVD/Blu-ray Disc™ using an AVCHD compatible recorder\*, such as a Panasonic Blu-ray Disc™ recorder.\*\*

\*To burn the content onto a BD/DVD, the data must be copied to an HDD

\*\* The Blu-ray Disc™ Recorder XX-XX

- Model availability varies depending on the country and the region.

### **One-Touch Copy of Videos to DVD in Selected Format and Easy Playback**

Connecting the SDT750 with a USB cable to a Panasonic DVD burner (optional) and pressing a single button is all it takes to copy recorded video clips from an SDXC, SDHC, or SD Memory Card to a DVD disc (DVD-RAM/DVD-R/DVD-R DL/DVD-RW, DVD+R/DVD+R DL/DVD+RW). The camcorder lets the user select

either the AVCHD\* or MPEG-2 recording format\*\* according to the playback environment. Select the AVCHD format for HD playback on a large-screen TV using a Blu-ray Disc™ player or DVD burner. Or choose MPEG-2 for easy playback using a DVD player. This makes video archiving and playback much more convenient.

\*A 50p video is down-converted into 50i when copied.

\*\* When converting 3D images into the MPEG-2 format, they are displayed only as the 2D images that were recorded with the left lens.

### **PC Editing**

The SDT750 comes with HD Writer AE 2.6T PC editing software (for Windows OS). This software allows users to easily edit recorded 3D images, and save them onto PCs or BD/DVD discs. HD Writer AE 2.6T features a "Smart Wizard" that starts up as soon as the SDT750 is connected to the USB port of a PC. By simply following the on-screen guidance, even someone who has never used the software can easily copy video clips to a PC or BD/DVD disc without getting lost in the process. HD Writer AE 2.6T also enables easy uploading of a video clip to YouTube™ and Facebook without the need for any cumbersome processes, so that an inexperienced user can post video clips on the web.\*

By linking with the Intelligent Shooting Selection Playback function, the software automatically detects and deletes scenes that are determined unnecessary by the SDT750 (such as blurry images due to hand-shake, scenes shot against light, etc.). And when combined with the Highlight Playback function, the software saves only scenes that are selected by the SDT750 as highlight scenes (zoomed images, scene changes, etc.) to let the user choose to view only interesting scenes. The software also allows the user to specify only certain image files for transferring to a PC. This eliminates the bother of transferring both wanted and unwanted files in an automatic data transfer. Also, by connecting the SDT750 to a PC with a USB cable and using the camcorder's Conversion Assist function, the ordinarily time-consuming task of converting and archiving data from 50p to 50i format can be easily done at high speed.

HD Writer AE 2.6T even remembers which image files have been copied to the PC, so there is no worry about copying the same file again later. This is convenient when users have recorded large amounts of data on an SDXC, SDHC, or SD Memory Card and copy it over several sessions. When copying images to a DVD disc, users can select either the Full-HD AVCHD format or the DVD-Video format\*\*. Use AVCHD for images that will be viewed using a Blu-ray Disc™ player/recorder,\*\*\* and DVD-Video (standard-definition) for discs that will be played on a DVD player. Image data can also be transferred to Apple's Mac computer\*\*\*\* for editing with iMovie.

\* When uploading 3D images from a PC onto the web, they must be converted into 2D images.

\*\* When 3D images are used for the DVD-Video format, they become 2D images.

\*\*\* The Blu-ray Disc™ Player XX-XX, Blu-ray Disc™ Recorder XX-XX.

Model availability varies depending on country and region. JPEG format still images can be viewed with other models that are equipped with an SD card slot.

\*\*\*\* The 3D mode is not supported.

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