C-452-100-**12** (1)

SONY

Camera Control Manager

Application Guide

UMC-S3CA

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Introductions

This document is the instruction manual for Camera Control Manager, a PC application software for the digital video camera “UMC-S3CA”.

If you install PC application software, you can operate the camera as well as set/adjust the image quality depending on the shooting environment.

Properly install and connect the camera, separately sold accessories, and connecting devices referring to their operating instructions, then operate the camera referring to this application guide.

The screens on this document is for reference only. They might be different from the actual screens.

Designs or specifications of the PC application software and this document are subject to change without notice.

How to use this application guide

This application guide is written with the assumption that it will be displayed on a computer.
This section describes things you should know when utilizing this application guide.
Read before operation

Jump to the related pages

When you read this document on a computer screen, clicking where the related page is displayed allows you to jump to the page with the related instruction. You can search for the related page easily.

Sample screens of the software

PC application software screens on this application guide is for sample use only. They might be different from the actual screens.
Also, the Menu screen is an example for instructions.

Printing out this application guide

When you print out this application guide, the details of screens or illustrations might not be displayed depending on the system.

Required system configurations

To control the camera, the environment below is required.
(As of July 2017)

OS

Microsoft Windows 7 (32bit, 64bit)

Windows 8.1 (32bit, 64bit)

Windows 10 (32bit, 64bit)

Operation confirmed editions
Windows 7:Ultimate, Professional
Windows 8.1:Pro
Windows 10:Pro

When you use antivirus software on the computer

If you use antivirus software, security software, personal firewall, pop-up blocker, etc., the performance of the camera, including lower frame rate of image display, might be lower.

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Using the Camera Control Manager

This section describes the functions of Camera Control Manager.

Notes

Camera Control Manager may not work properly when a firewall or anti-virus program is installed on your PC. In this case, please disable these software.

How to install Camera Control Manager

1 Download the installer of Camera Control Manager in the appropriate folder from the download site.

2 Extract the zip file which contains the downloaded installer.

3 Launch "CameraControlManager_ Setup.exe".

4 Install "Camera Control Manager" following the wizard on the screen.

Tip

Install with administrative privilege.

5 Select "Finish" to complete installation.

Launching Camera Control Manager

1 Connect the camera and PC with USB micro cable.

2 Launch the Camera Control Manager.

- On Windows 7, select **Start** menu – **All programs** – **Sony** – **Camera Control Manager** on Windows.
- On Windows 8.1 or Windows 10, select **Start** menu – **Camera Control Manager** on Windows.

3 Press Connect button.

If multiple cameras are connected, the dialogue to select the camera to connect will appear.

Screen operations and settings

1 Select buttons for Still Mode and Movie Mode

You can select Still Mode or Movie Mode.

2 Information

Displays the current camera setting status.

3 Camera setting menu

Changes the settings on the camera.

4 Power button

Turns the camera off.
To turn on the power of camera, disconnect and connect the power source.

5 Live View

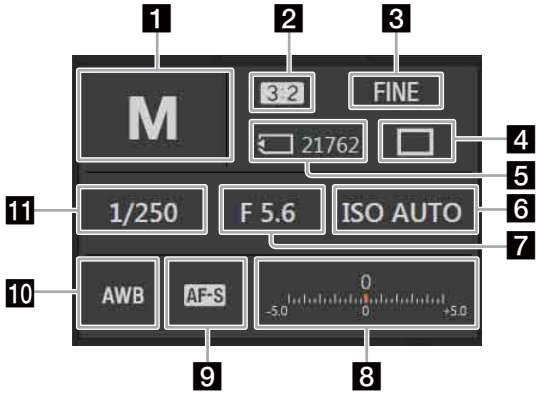
Shows images from the camera.

6 Settings tab

Controls output images from the camera.

Still image mode

Information



1 Shooting mode
Displays the current shooting mode.

2 Aspect
Displays the aspect ratio

3 Quality
Displays the currently set quality of still images.

4 Drive Mode
Displays currently set shooting method, one-shot shooting, or continuous shooting.

5 Remain
Displays the number of still images which can be stored on the memory card inserted to the camera. If a memory card is not found or is faulty, will be shown.

6 ISO Sensitivity
Displays the setting status of sensitivity against the brightness.

7 Aperture
Displays the currently set F Number.

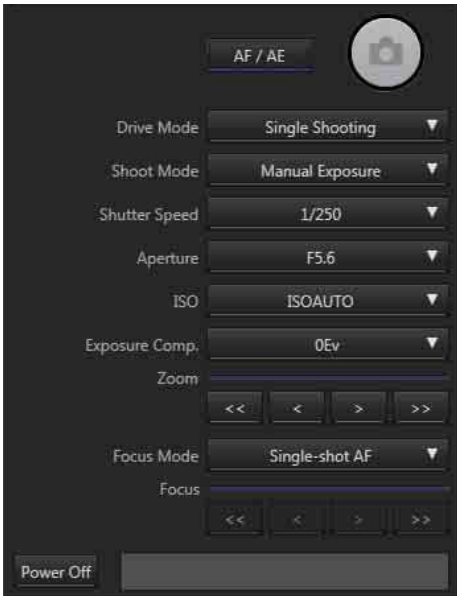
8 Exposure Compensation
Displays the exposure compensation status to make the whole image brighter or darker.

9 Focus Mode
Displays the focus selected. Automatic focus or manual focus.

10 White Balance
Displays the color adjustment status.

11 Shutter Speed
Displays the set shutter speed.

Camera setting menu



AF/AE
Performs Auto Focus or Auto Exposure. Press again to cancel.
When the camera is in focus, the focus display changes into ● or ((●)).
What the focus display means

Focus display	Status
● illuminating	In focus and fixed.
((●)) illuminating	In focus. As the subject moves, the focal point changes.
(( )) illuminating	In the process of focusing.
● flashing	Out of focus.

Shutter Button
Press the shutter button to shoot.

Drive Mode
Switches single shooting and continuous shooting depending on the objective.
- Single Shooting
  Normal shooting method.
- Cont. Shooting
  When you press the shutter button, the camera starts continuous shooting; when you press it again, it stops.

Shoot Mode
Selects the shoot mode below.
- iA Intelligent Auto
  A value the camera determines the most suitable is set. Easy shooting is possible regardless of objectives and environment.
- iA+ Superior Auto
  The camera recognizes the shooting status and makes settings automatically. It performs continuous shooting when needed and saves the best image by combining photos or extracting.
- P Program Auto
  The camera automatically sets exposure (shutter speed and aperture), but other settings can be adjusted by yourself.
- A Aperture Priority
  You can adjust the aperture setting manually to change the range in which objects appear in focus and the blurriness of the background.
- S Shutter Priority
  Adjusts the shutter speed and shoots moving object with different expressions.
- M Manual Exposure
  You can adjust both the aperture setting and the shutter speed manually to shoot with your own favorite exposure setting.

Shutter Speed
Selects the shutter speed.

Aperture
Selects aperture (F number). When the aperture is small, the area around the object will be blurred. When the aperture is large, the area around the object will be focused clearly.

ISO Sensitivity
Sets ISO Sensitivity (ISO 50-409600/ISO AUTO/Multi Flame NR ISO 100-409600/Multi Flame NR ISO AUTO)

Exposure Compensation
Compensates the brightness of the whole image. (–5.0EV to +5.0EV)

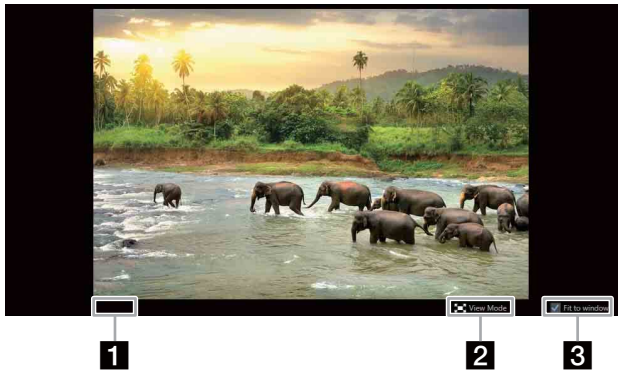
Zoom
Display the current zoom position guide. Wide side is on left, Tele side is on right.
[<<] Zooms out when pressed down.
[<] Press to zoom out slightly.
[>] Press to zoom in slightly.
[>>] Zooms in when pressed down.

Focus mode
- AF-S Single AF (AF-S)
  Press **AF/AF** and the focus is stacked, then the focus will be fixed.
- AF-C Continuous AF (AF-C)
  Keeps trying to focus on during **AF/AE** button pressed. To release, press **AF/AE** button again.
  * Focus lock is not available.
- MF Manual focus (MF)
  When Automatic focus doesn't work effectively, you may want to focus manually. Same settings will be applied for still image and movie shooting.

Focus Position
Displays the current focus position guide. Near side is on the left, Far side is on the right.
[<<] When pressed down, moves focus to the Near side.
[<] Press to move focus to the Near side slightly.
[>] Press to move focus to the Far side slightly.
[>>] When pressed down, moves focus to the Far side.

Power Off
Turns off the power of the camera.

Live View
Displays Live View.



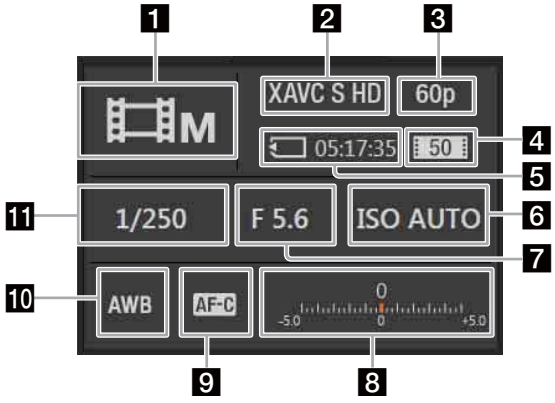
1 Focus Indication
Indicates the status of Auto Focus.

2 View Mode
Minimizes **Settings** tab area to expand the display area.

3 Adjusts to the window size
You can change the display of LiveView.

Movie image mode

Information



1 Shooting mode
Displays the current shooting mode.

2 Movie File Format
Displays the movie recording format.

3 Frame Rate
Displays the frame rate of the movie to be recorded.

4 Bit rate
Displays the bit rate of the movie to be recorded.

5 Available recording time
Displays the available recording time for the memory card in the camera. If a memory card is not found or is faulty, will be shown.

6 ISO Sensitivity
Displays the setting status of the sensitivity against the brightness.

7 Aperture
Displays the currently set F Number.

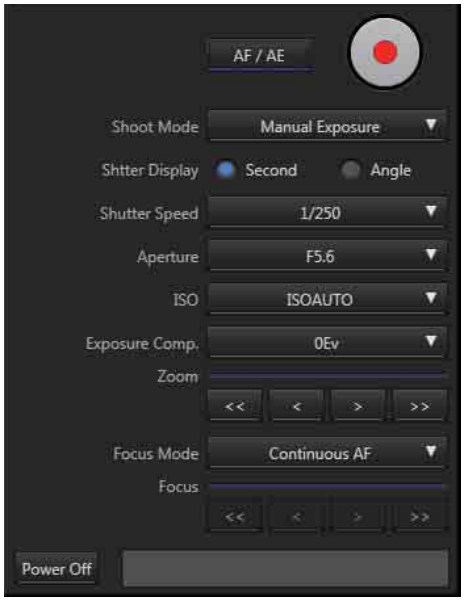
8 Exposure Compensation
Displays the exposure compensation status to make the whole image brighter or darker.

9 Focus Mode
Displays the focus selected. Automatic focus or manual focus.

10 White Balance
Displays the color adjustment status.

11 Shutter Speed
Displays the set shutter speed.

Camera setting menu



AF/AE
Performs Auto Focus or Auto Exposure. Press again to cancel.

Movie Start Stop
Specifies start and stop of recording.

Shoot Mode

- P Program Auto
  The camera sets the exposure automatically.
- A Aperture Priority
  Adjust the aperture manually and shoot by changing the focusing range and background blur.
- S Shutter Priority
  Adjust the shutter speed manually and shoot moving objects with different expressions.
- M Manual Exposure
  Adjust the exposure (shutter speed and aperture) manually.
- iAuto Intelligent Auto
  Shoots in a condition the camera thinks is suitable.
- HFR P High frame rate
  The camera sets the exposure automatically and shoots slow motion movies.
- HFR A High frame rate
  Adjusts the aperture automatically and shoots slow motion movies changing the focusing range and background blur.

- HFR S High frame rate
  Adjust the shutter speed manually and shoot moving objects in slow motion with different expressions.
- HFR M High frame rate
  Adjust the exposure (shutter speed and aperture) manually and shoot slow motion movies.

Shutter Display
Sets the displaying method of the exposure time.
- Second
  Indicates with time.
- Angle
  Indicates with opening angle.

Switching the shutter display, shutter display will be set one from the below.
- Shutter Speed
  Sets the time of exposure.
- Shutter Angle
  Sets the exposure time with angles.

Aperture
Selects the aperture (F number). When the aperture is small, the area around the object will be blurred. When the aperture is large, the area around the object will be focused clearly.

ISO Sensitivity
Sets the ISO Sensitivity. (ISO AUTO/ISO 100 - ISO 409600)

Exposure Compensation
Compensates the brightness of the whole image. (–2.0EV to +2.0EV)

Zoom
Using zoom features other than optical zoom allows better zooming than with zoom lens magnification. When you are using a lens equipped with power zoom capabilities, you can operate the power zoom feature. This displays the current zoom position guide. The Wide side is on the left, and Tele side is on the right.
[<<] Zooms out when pressed down.
[<] Press to zoom out slightly.
[>] Press to zoom in slightly.
[>>] Zooms in when pressed down.

Focus Mode
- AF-C Continuous AF
  Always keeps focusing on.
  * Focus lock is not available.
- MF Manual Focus
  When Automatic focus doesn't work effectively, you may want to focus manually. Same settings will be applied for still image and movie shooting.

Focus Position
Indicates the guide of the focus position when manual focus is enabled. Near side is on the left, Far side is on the right.
[<<] When pressed down, moves focus to the Near side.
[<] Press to move focus to the Near side slightly.
[>] Press to move focus to the Far side slightly.
[>>] When pressed down, moves focus to the Far side.

Power Off
Turns off the power of the camera.

Live View

Displays Live View.

1 Movie Rec Status
Indicates the status of movie recording. During recording video, red circle and shooting time will be displayed. If you start this program while recording, the shooting time restarts at zero.

2 View Mode
Minimizes **Settings** tab area to expand the display area.

3 Adjusts to the window size
You can change the display of LiveView.

Settings tab

Still tab

Still Save Media

Chooses the media to save still images.

- Memory Card
  Stores the shot still images on the memory card in the camera.
- PC
  Stores the shot still images on PC.

Still Save Folder

Select folder to save shot still images in with **Select Folder** button.
The following folders are accessible under the current user folder.

Image Size

Chooses the image size from L, M, or S.

Aspect Ratio

Chooses the aspect ratio between 3:2 (normal aspect ratio) and 16:9 (high vision television ratio).

Quality

- Standard/Fine/Extra fine
  File format: JPEG
  Images will be recorded in JPEG format and compressed. Compressibility ratio will be higher and the data amount will be lower in **Extra fine**, **Fine**, **Standard** order. The number you can record in a single memory card will grow, though the quality will be poor.
- RAW
  File format: RAW
  File format without digital processing. Select this when you will process images on a PC in accordance with your professional objectives. Image size is always fixed with the maximum size and the image size will not be displayed on the screen.
- RAW+JPEG
  File format: RAW+JPEG
  RAW images described above and JPEG images will be recorded at the same time. This mode is helpful when you want to save both image types; JPEG to view and RAW to process. JPEG quality is **Fine**.

High ISO NR

Sets the noise reduction process when shooting with an ISO sensitivity set to high. (Normal / Low / Off)

Long Exposure NR

To reduce granularity noise which stands out when exposing for a long time, processes noise reduction when the shutter speed is set to 1 second or slower. (On / Off)

Front Curtain Shutter

Sets whether to use the front curtain shutter function. (On / Off)

Silent Shooting

Shoots without shutter sound. (On / Off)

AF-C Priority Setup

Sets the timing to release the shutter when **Focus Mode** is **Continuous AF**.
(AF / Release / Balanced Emphasis)

AF-S Priority Setup

Sets the timing to release the shutter when **Focus Mode** is **Single AF**.
(AF / Release / Balanced Emphasis)

Steady Shot

Sets the Steady Shot level when shooting. (On/Off)

Movie tab

File Format
Specifies the format to record movie. (XAVC S 4K/ XAVC S HD)

This unit supports “XAVC S”.

What is XAVC S?
Format to record high resolution images including 4K with high- compressing using MPEG-4 AVC/H.264 in MP4 file format. This enables recording in high resolution while maintaining the data amount at a certain level.

XAVC S recording format and its feature

Recording format	Bit rate	Feature
XAVC S 4K	Approx. 100 Mbps or 60 Mbps	Records with 4K resolution (3840 × 2160)
XAVC S HD	Approx. 100 Mbps, Approx. 60 Mbps, Approx. 50 Mbps, Approx. 16 Mbps, Approx. 12 Mbps	Records with HD resolution (1920 × 1080).

Bit rate indicates the recording data amount for certain time.

Record Setting
- 30p/25p, 100Mbps
- 30p/25p, 60Mbps
- 24p, 100Mbps
- 24p, 60Mbps
- 60p/50p, 50Mbps
- 30p/25p, 50Mbps
- 24p, 50Mbps
- 120p/100p, 100Mbps
- 120p/100p, 60Mbps
- HFR 30p/25p, 16Mbps
- HFR 24p, 12Mbps

Auto Slow Shut (On/Off)
Turning On the Auto Slow Shut enables shooting with lower noise in the dark. When you turn it to Off, the image will be darker than when On. However, the objects can be shot in a stable, smooth way.

Steady Shot
Sets the Steady Shot level when shooting. (On/Off)

TC Format
Selects the recording format of the time code.
- DF
  Records time code with the drop frame* method.
- NDF
  Records the time code with the non drop frame method.

* The time code will be processed at 30 frames in 1 second. However, the actual NTSC image signal's frame frequency is approx. 29.97 frame/sec, so a gap will be generated between the actual time and time code in long time recording. Drop frame corrects the gap to make the time code and actual time equal. In drop frame, the first 2 frames will be dropped each minute except every 10th minute. Processing without this correction is called non-drop frame.

Notes

When you record in 24p, it is fixed as **NDF**.

TC Make
Selects the method to record the time code on recording media.
- Preset
  Records the newly set time code to recording media.
- Regenerate
  Reads the last recorded time code on the recording media and records following that read value. The time code will run in **Rec Run** mode regardless of the **TC Run** settings.

TC Preset
Sets the time code.

TC Run
Selects the running way of the time code.

- Rec Run
  The time code will run only during recording.
  Records following the time code on the last recorded image.
- Free Run
  The time code will run continuously.

TC/UB Disp. Setting

Sets the contents to display on the monitor when HDMI information display is **On**.
(Counter/TC/U-Bit)

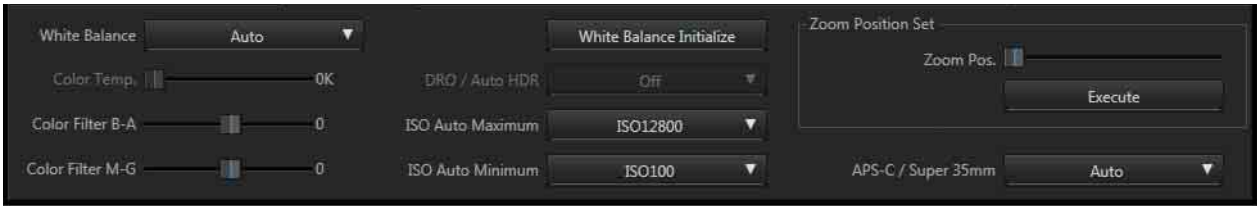
UB Preset

Sets the user bit.

UB Time Rec

Selects whether to record the time as a user bit code.
(On / Off)

Image tab



White balance
Adjusts the color. It is possible to adjust the color to fit the light source and adjust it slightly by combining color temperature and color filter.

- Auto
- Daylight
- Shade
- Cloudy
- Incandescent
- Fluor.: Warm White
- Fluor.: Cool White
- Fluor.: Day White
- Fluor.: Daylight
- Color Temperature
- Underwater Auto

Color temperature
Sets the color temperature.

Color Filter B-A
Adjusts the color filter. Moving toward right makes the image in favor of amber. Moving toward left makes the image in favor of blue.

Color Filter M-G
Adjusts the color filter. Moving toward right makes the image in favor of green. Moving toward left makes the image in favor of magenta.

White balance initialize
Initialize color temperature and color filter values.

DRO/Auto HDR
Corrects brightness and contrast automatically.
(Off/D range optimizer 1 to 5/Auto HDR1 to 6)

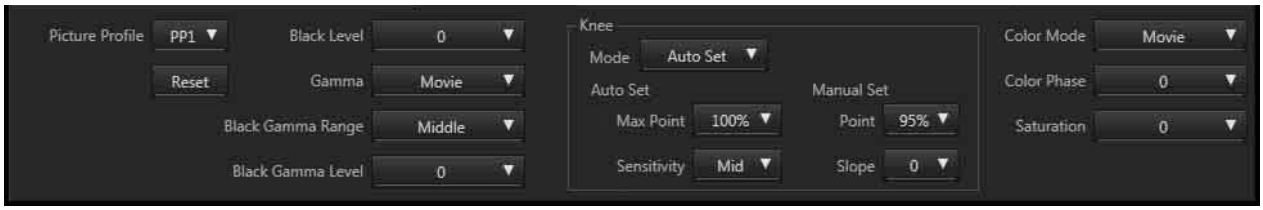
ISO Auto Maximum
Sets the desired value.

ISO Auto Minimum
Sets the desired value.

Zoom Position Set
Zoom to the specified position.
Move the tab to fix the zoom position, then press **Execute** to move zoom to the specified position.

APS-C/Super 35mm
When you set this **On**, it records in APS-C size or Super 35mm size.
Still image: APS-C size equivalent
Video: Super 35mm equivalent
(On/Auto/Off)

Picture Profile 1 tab



Picture Profile

Changes the settings of color and gradation. By using the preset value or adjusting the value of **Gamma** or **Details**, you can adjust the quality as you like.

PP1	Example setting using **Movie** gamma
PP2	Example setting using **Still** gamma
PP3	Example setting of natural color tone using the **ITU709** gamma
PP4	Example setting of a color tone faithful to the **ITU709** standard
PP5	Example setting using **Cine1** gamma
PP6	Example setting using **Cine2** gamma
PP7	Example setting using **S-Log2** gamma
PP8	Example setting using the **S-Log3** gamma and the **S-Gamut3.Cine** under **Color Mode**
PP9	Example setting using the **S-Log3** gamma and the **S-Gamut3** under **Color Mode**

Reset

Reverts the selected picture profile settings to the initial state. Contents in Picture Profile 2 tab will be reverted to the initial state.

Black Level

Sets the black level (–15 to +15).

Gamma

Selects the Gamma curve.

- Movie
  Standard Gamma curve for movie
- Still
  Standard Gamma curve for still image
- Cine1
  Make the contrast of dark parts smooth and the gradation of bright parts clear to make the image calm (HG4609G33 equivalent).
- Cine2
  Almost same effect as **Cine1** is achievable. Select this when you want to treat the video signal under 100% when editing (HG4600G30 equivalent).
- Cine3
  Makes the contrast between bright and dark parts stronger than **Cine1** and **Cine2**, and makes gradation change on the black side clearer.
- Cine4
  More clearer contrast in dark parts than in **Cine3**. Less clear contrast in dark parts and clearer contrast in bright parts than **Movie**.
- ITU709
  Gamma curve equivalent to ITU709.
- ITU709(800%)
  Gamma curve for scene check shots with **S-Log2** or **S-Log3** in mind.
- S-Log2
  Gamma curve for **S-Log2**. Setting with post-shooting image processing in mind.
- S-Log3
  Gamma curve for **S-Log3**. Setting with post-shooting image processing in mind. The characteristic is more close to film.

Black Gamma

Corrects decreased intensity gamma.

- Range
  Selects the range to correct (Wide/Middle/Narrow)
- Level
  Selects the strength of correction (–7 (max. black compress) to +7 (max. black stretch)

Knee

Sets points or slopes to compress video signals in order to set the high-intensity part signal of objects in the dynamic range of camera and avoid white out. When you select **Movie**, **Still**, **Cine1**, **Cine2**, **Cine3**, **Cine4**, **ITU709**, **ITU709 (800%)**, **S-Log2**, **S-Log3** for **Gamma** and **Auto Set** for **Mode**, **Knee** will be **Off**. If you set **Mode** to **Manual Set**, functions of **Knee** will be available.

- Mode
  – Auto Set
  – Manual Set

- Auto Set
  – Max Point
    Sets the max value of Knee point. (90% to 100%)
  – Sensitivity
    Sets the sensitivity. (High/Mid/Low)
- Manual Set
  – Point
    Sets the Knee point. (75% to 105%)
  – Slope
    Sets the tilt of Knee slope. (–5 (less tilt) to +5 (more tilt))

Color Mode

- Movie
  Color which fits when **Gamma** is **Movie**.
- Still
  Color which fits when **Gamma** is **Still**.
- Cinema
  Color which fits when **Gamma** is **Cine1**.
- Pro
  Color which is closest to the standard quality of Sony professional use cameras (when combined with ITU709 gamma).
- ITU709 Matrix
  Color which is faithful to ITU709 standard (when combined with ITU709 gamma).
- Black & White
  Sets intensity to 0 to shoot with B/W.
- S-Gamut
  Setting with post-shot image processing in mind to use when **Gamma** is **S-Log2**.
- S-Gamut3.Cine
  Setting with post-shot image processing in mind to use when **Gamma** is **S-Log3**. Shooting in color range which is easy to adjust for digital cinema color range is possible.
- S-Gamut3
  Setting with post-shot image processing in mind to use when **Gamma** is **S-Log3**. Shooting in a wide color range is possible.

Color Phase

Sets the color phase. (–7 to +7)

Saturation

Sets the saturation of color. (–32 to +32)

Picture Profile 2 tab

Picture Profile

Reset

Reverts the selected picture profile settings to the initial state. Contents in Picture Profile 1 tab will be reverted to the initial state.

Color Depth

Changes the brightness for each color phase. More effective for highly colored objects while there are no effects on no color objects. Switching to the + side makes the color darker and deeper. Switching to the + side makes the color lighter and lower. I is effective when **Color Mode** is set to **Black & White**.

- R (Red): –7 to +7
- G (Green): –7 to +7
- B (Blue): –7 to +7
- C (Cyan): –7 to +7
- M (Magenta): –7 to +7
- Y (Yellow): –7 to +7

Detail

- Level
  Sets the strength of **Detail** (–7 to +7).
- Adjust
  Selects the value manually.
  – Mode
  Selects the setting between Auto/Manual
  – V/H Balance
  Sets the balance of vertical (V) DETAIL/ horizontal (H) DETAIL. (–2 (V is stronger) to +2 (H is stronger))
  – B/W Balance
  Selects the balance of bottom (B) DETAIL/upper (W) DETAIL. (Type1 (B is stronger) to Type 5 (W is stronger))
  – Limit
  Sets the limit level. (0 (limit level is low (easy to set limit)) to 7 (limit level is high (difficult to limit)))
  – Crispning
  Sets the level of crispning. (0 (light crispning level) to 7 (deep crispning level))
  – Hi-Light Detail
  Sets the **Detail** level of the high-lighted part. (0 to 4)

System1 tab

4K Output Sel.
- Memory Card+HDMI
- HDMI only (30p/25p)
- HDMI only (24p)

HDMI Resolution
- Auto
- 2160p/1080p
- 1080p
- 1080i

24p/60p Output Switch
- 60p
- 24p

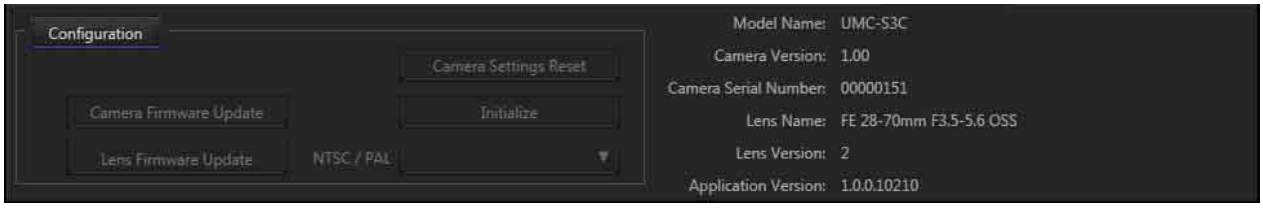
HDMI Info. Display
(On/Off)

TC Output
(On/Off)

REC Control
(On/Off)

Format
Formats the media inserted to the camera.

System2 tab



Configuration
Pressing the Configuration button enables the settings below. Camera image output stops. Press again to go back to shooting.
Environment Settings button is disabled during recording movie.

Camera Firmware Update
Perform this update when this unit's firmware update is released.

Lens Firmware Update
Perform this update when the control firmware update of lens on the camera is released.

Camera settings reset
Reverts the main shooting settings on this unit to the factory settings. Refer to table 1 for details.

Initialization
Reverts the main settings on this unit to the factory settings. Refer to table 1 for details.

NTSC/PAL Selector
(NTSC/PAL)

Other information displayed

Model Name
Displays the model name of camera.

Camera Version
Displays the version of the camera.

Camera Serial Number
Displays the serial number of the camera.

Lens Name
Displays the model name of the lens on the camera.

Lens Version
Displays the version of the lens.

Application Version
Displays the version of this software.

Notes

If the settings above are performed, the camera will restart automatically.

Initialize, Camera Setting Reset

Function name	Camera Setting Reset	Initialize
Drive Mode	●	●
Shoot Mode	●	●
Shutter Display		
Shutter Speed	●	●
Shutter Angle	●	●
Aperture		●
ISO Sensitivity	●	●
Exposure Compensation	●	●
Focus Mode	●	●
Still Save Media		●
Image Size	●	●
Aspect Ratio	●	●
Quality	●	●
High ISO NR	●	●
Long Exposure NR	●	●
e-Front Curtain Shut.		●
Silent Shooting		●
Priority Set in AF-C		●
Priority Set in AF-S		●
SteadyShot	●	●
Movie File Format	●	●
Movie Record Setting	●	●
Auto Slow Shutter	●	●
SteadyShot	●	●
TC Format		●
TC Make		●
TC Preset		●
TC Run		●
TC/UB Disp. Setting		●
UB Preset		●
UB Time Rec		●
White Balance	●	●
Color Temperature	●	●
Color Filter B-A	●	●
Color Filter M-G	●	●

Function name			Camera Setting Reset	Initialize
DRO/AutoHDR			●	●
ISO Auto Maximum			●	●
ISO Auto Minimum			●	●
APS-C/Super 35mm				●
Picture Profile			●	●
Black Level			●	●
Gamma			●	●
Black Gamma			●	●
	Black Gamma Range		●	●
	Black Gamma Level		●	●
Knee			●	●
	Mode		●	●
	Auto Set		●	●
		Max Point	●	●
		Sensitivity	●	●
	Manual Set		●	●
		Point	●	●
		Slope	●	●
Color Mode			●	●
Saturation			●	●
Color Phase			●	●
Picture Profile			●	●
Color Depth			●	●
	R		●	●
	G		●	●
	B		●	●
	C		●	●
	M		●	●
	Y		●	●
Detail			●	●
	Level		●	●
	Adjust		●	●
		Mode	●	●
		V/H Balance	●	●
		B/W Balance	●	●
		Limit	●	●
		Crispning	●	●
		Hi-Light Detail	●	●
4K Output Sel.				●
HDMI Resolution				●
24p/60p Output Switch				●

Function name	Camera Setting Reset	Initialize
HDMI Info. Display		●
Time Code Output to HDMI		●
REC Control		●
NTSC/PAL Selector		●

●: Resets to the factory setting

Message

Pop-up messages are listed below.
Pop-up message will appear depending on the situation. Refer to this table when you want to know the contents and remedy of each message.

Message	Contents	Display condition	Remedies
Connect the camera with PC, and click [Connect].	At application launch	Waiting for connection between camera and application	Confirm that the camera's power is on, then connect the camera and PC with a USB cable and press **Connect** button.
Cannot find the supported camera. Please confirm the connection between camera and PC. If camera has been already connecte, disconnect and connect again.	Device is not connected.	Connect without connecting device	Confirm that the camera's power is on, then connect the camera and PC with a USB cable and press **Connect** button.
The camera is disconnected. The application will be closed.	Device is disconnected	Connecting cable disconnected	Reconnect the cable to the camera, restart the application, and press the **Connect** button.
Some problems occur on the camera.	Critical error	Unspecified error	Turn off the camera and turn it on again.
Unable to save the image since the hard disk is full.	During still image shooting	During shooting with the hard disk full	Images cannot be saved as the hard disk is full. Increase the capacity or change the location to be saved to the memory card.
Do you want to switch to NTSC? After switching, the camera will reboot. Please connect again after the camera reboots.	NTSC Switching Execution confirmation	NTSC/PAL Selector	Displays when the video signal format is switched. Press **OK** if you confirm to execute.
Do you want to switch to PAL? After switching, the camera will reboot. Please connect again after the camera reboots.	PAL Switching Execution confirmation	NTSC/PAL Selector	Displays when the video signal format is switched. Press **OK** if you confirm to execute.
Do you want to initialize the main shooting settings to the default settings?	This asks for confirmation before resetting the camera settings	When you try to reset the camera settings	Displays when you format the camera setting. Press **OK** if you confirm to execute.
Do you want to initialize all the settings to the default settings? After initializing is completed, the camera will reboot. Please connect again after the camera reboots.	System formatting Execution confirmation	When you try to initialize the system	Displays when you format all the settings of the camera. Press **OK** if you confirm to execute.
Do you want to initialize the memory card in the camera?	Media format Execution confirmation	When you try to format the media	Formats the memory card inserted to the camera. Press **OK** if you confirm to execute.

Message	Contents	Display condition	Remedies
Do you want to initialize PP(number) settings to the default settings? * PP(number) contains the value of picture profile selected (PP1 to PP9).	This asks for confirmation before resetting the picture profile	When you try to reset the picture profile	Reverts the selected value of Picture Profile settings to the factory settings. Press **OK** if you confirm to execute.
Do you want to turn off the camera?	Power off confirmation	Power Off	Turns the camera's power off. Press **OK** if you confirm to execute.
Do you want to update the camera software? Please select the update file.	File selection (main body)	Software update of camera or lens	Select the camera update file.
Do you want to update the lens software? Please select the update file.	File selection (lens)		Select the lens update file.
Do you want to start updating? While updating, do not disconnect or turn off the camera.	Update execution confirmation		If you confirm to start update, press **Next**.
Transferring the update data... While transferring, do not disconnect or turn off the camera.	Transferring update files		Transferring update files to the camera. Do not disconnect USB cable; do not turn off the camera during the transfer.
Updating... This process takes several minutes. While updating, do not disconnect or turn off the camera.	Executing update		Executing update. Do not disconnect the USB cable or turn off the camera during update.
Update has been completed.	Update completed		Update completed. Pressing the **Finish** button restarts the application then connect it again.
Update has been failed.	Update failed		Failed to update. Turn off the camera and turn it on again then check the version.

Getting help

Refer to the table below when you encounter trouble during use of the PC application. For other situations, refer to the operating instructions of your PC.

Installing the software

Symptoms	Cause	Remedy
I cannot install.	Your OS is not supported.	Check the computer environment (refer to the required system configurations on this document).
	All Windows programs are not finished.	If you install while other programs are launched, a malfunction may occur. Make sure to shut down all Windows programs.
	Hard disk is full.	Increase the hard disk capacity.

Connecting the camera to PC

Symptoms	Cause	Remedy
The camera unit is not recognized.	USB cable is not connected.	Check if the USB cable is firmly connected. Disconnect and connect the USB cable. If the symptom remains, remove the USB cable, restart PC, then re-connect the cable.
	Power is off.	Check if the camera's power is on.
	USB hub is used.	This behavior is not supported. Connect the USB cable directly to the USB terminal on the PC.
	Something is wrong with the USB port.	If there is another USB port, connect the cable to the port.
The camera unit is recognized, but is not launching properly.	USB hub is used.	This behavior is not supported. Connect the USB cable directly to the USB terminal on the PC.
Camera settings cannot be changed.	Lens settings have priority.	Change the lens settings.
Date and time stamps on the pictures and videos are not correct.	Date and Time information of you PC was changed after the application had been connected to the camera.	When you modify the date and time information on your PC, restart the application.
The application does not work properly.	Another program may be trying to operate the camera.	If another program tries to operate the camera while the application is controlling it, the application may be disconnected or stop working properly. Close another program which is trying to control the camera when you use the application to operate it.

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