

# SERVICE Manual

## **DIGITAL CAMERA**



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## **1. Repair information**

#### Guide

We listen carefully to our customers' requirements and always find an optimum solution for their needs. We are committed to your satisfaction and have procedures in place to provide you with a fair, timely and effective means to resolve problems. It combines industry leading preventive assistance with responsive support that helps us address problems quickly and effectively. We will continuously maintain and improve our services to satisfy the needs of our customers.

## 1-1 Warranty and repair service information

#### (1) General terms and conditions

It is guaranteed to be free of charge from defects in material and workmanship under normal use for a period of one year from date of purchase.

Digital Camera and lens come with a one year limited warranty from the date of purchase.

#### \* The duration of the warranty depends on the laws in the country in which it was purchased.

The following information will be required to process warranty requests:

- a. We imply warranties to one year from the original date of purchase. In the event that the purchaser is unable to provide a warranty card or proof of purchase, the warranty period will be determined by the date of manufacture. The warranty period shall be decreased to three months from the original product manufactured date.
- b. The coverage under this warranty begins on the date of your purchase of the product. In the event that a warranty card or proof of purchase is not available, a purchase receipt, preferably the purchase invoice, to confirm the date of purchase is required for warranty service.
- c. In the event that a valid date of purchase is not available, the warranty period will be determined by the date of manufacture. The warranty period shall be decreased to three months from the original product manufactured date.

#### (2) Limited Warranty

It reserves the right to retain any parts or components replaced at its discretion in the event of a defect noticed in the product. The period with respect to retaining components may vary respectively depending on its components. We are not liable to repair or replace its faulty product after the Warranty Period has expired.

#### \* We warrant its retaining camera and lenses for five years and three years for the accessories.

- a. If a warranty claim is filed after the product has been discontinued, we reserves the right to honor the components warranty. Warranty period may vary depending on the type of components.
- b. In the event that no identical warranty information is available for service repair, company has the right to provide warranty. The warranty does not affect the consumers' rights against the company related to its information.

For the length of the period indicated on the chart below, it starts with the date of original purchase.

#### (3) Warranty Period for components

Our liability under this warranty shall be limited to the following:

a. For the product which has been repaired by Samsung or Samsung authorised CSP, the item will be repaired free of charge when the same fault occurs within the warranty period. Even though the applicable warranty period may have expired, the company will be responsible for the same fault which occurs

within two months from the warranty expiration date and the item will be repaired free of charge.

b. In the event of the component that you have paid the replacement cost is returned under normal use within one year at our premises, such components will be replaced free of charge component of the product which is found to be defective.

#### <Table. 1-1 Warranty Periods for Parts>

Part Name	Warranty Period	
Battery Charger	Six months	
AC Adaptor		
Battery		
Remote Control		
CD Software	Three months	
Earphone		
Pouch for camera	Not applicable	
Cable		

# \* The Accessories Warranty period is slightly different from each country, we will follow the policy of each country.

#### (4) Repair Claims

1) Repair free of charge

Essentially, the following causes of damage are covered:

- a. Failing to function properly under normal use during the limited warranty period.
- b. Repair Services free of charge is granted for the performance of a specific contract.
- 2) Repair charges

This warranty does not cover damage caused by:

- a. Defect occurring after the expiration of the Warranty Period.
- b. Damage due to negligence, immersion in water, impact, loss and tampering.
- c. Repair or alteration performed by any party other than Samsung authorized technicians.
- d. Misuse or other improper use of the power button.
- e. Exhausted parts such as batteries, lamps and filters, etc.
- f. Defect that occurs due to sand, dirt liquid, etc. entering the inside of the product casing.
- g. Consumable parts which have ceased working through normal use such as as earphone, battery discharger and various accessories.
- h. Products purchased second hand or any damage that occurs due to a second hand or repair performed by anyone other than Samsung or a Samsung authorized service station.

i. Fire, earthquake, flood or other natural disasters.

The warranty cover period for components is listed below as per table 1-2.

#### <Table. 1-2 Warranty Period for components>

Types of consumer damages		Compensation		
		Within the warranty period	After the warranty period	
	Required for essential repair within 10 days after the purchase		Replace the product or refund	
Failing to perform or failing to function properly under normal use	Required for essential repair within one month after the purchase		Replace the product or repair at free of charge	-
	Applicable to repair Not applicable to repair	Problem occurred twice due to same malfunction	Free of charge	
		Problem occurred four times due to some other malfunction		Repair charges
		Problem occurred three times due to same malfunction	Replace the product or refund	Popoir charges
		Problem occurred five times due to some other malfunction		Repair charges
		Within the period with respect to retaining components		Replace the product at the cost of the depreciated value or refund its price added 5% of depreciation
Failing to perform or failing to function properly as a result of willful intent and negligence of customer	Ар	plicable repair	Repair charges	Repair charges
	Not applicable to (Except for defection sult of fire or floo	repair ets or malfunction as a re- d or other natural disasters	Replacement charge	Repair charge and replace the product at the cost of the depreciated value

\* The Warranty period is slightly different from each country, we will follow the policy of each country.

## 1-2 Precaution for disassembly and reassembly

	CAUTION
	<ol> <li>Use the anti-static handing procedures included with the anti-static mat to ensure that there is no electrostatic discharge and component damage.</li> </ol>
2	<ol><li>Static electricity is the biggest danger to the PCB parts you are about to disassemble or assemble. It's important to use your anti-static wrist strap to prevent damage to these components.</li></ol>
3	3. Dismantling a discrete electronic component such as main capacitor is dangerous. The capacitor contains high voltage, which can cause a severe electric shock if you touch it. This holds a charge even when the unit is not plugged in and is capable of delivering a fatal shock.
2	4. Using excessive force during disassembly and assembly can damage locking parts. Use care when handling "Locking parts" to avoid damage to FPCB or wire. Apply pressure only at the points designated in the maintenance instructions.
Ę	<ol><li>Due to increasing environmental concerns, a number of restrictions have been placed on the material content of electronic components and electronic assemblies. It requires utilizing Lead-Free (Pb-free) Soldering.</li></ol>
6	6. The following precautions must be observed when handling such components below.

#### <Table. 1-3 Precaution for disassembly and reassembly>

Component	Precautions
FPCB	<ul> <li>- FPCB is brittle material. It can be easily damaged thus it should be handled with care. It is recommended to use wooden or plastic tweezers for manual placement.</li> <li>- If you look closely at the insertion part on FPCB, color is divided into dark brown and light brown. You must be inserted into inside on connector the all part on dark brown on FPCB. So it's the only light brown on FPCB out of connector should be visible to eye. When the assembly is finished, the connector is must be assembled as ② on shown below.</li> </ul>
CCD (CMOS) IR CUT Filter LCD, LENS	Be careful not to stained your finger. It is recommended to use wooden or plastic tweezers for manual placement. Stain is often caused by the Alcohol used in these components. Find a clean, well-ventilated place to do your work.
PCB	Use an anti-static mat as well as an anti-static wrist strap to avoid ESD damage to PCB.
CONNECTOR	The use wooden or plastic tweezers is recommended for manual placement. Metal tip tweezer might make marks or damage.
BARREL	Always follow proper direction while assembling the components of the barrel.

# 2. Product specifications

## **2-1 Specifications**

#### <Table. 2-1 Specifications>

Image Sensor		
Sensor size/Type	23.5 X 15.7 mm / BSI CMOS	
Eective pixels/Total pixels	Approx. 28.2M mega-pixels / Approx. 30.7M mega-pixels	
Color filter	RGB primary color filter	
Lens Mount		
Туре	Samsung NX Mount	
Available lens	Samsung lenses (3D lens supported)	
Image Stabilization		
Туре	Lens shift (depends on lens)	
Mode	Off, Mode 1, Mode 2	
Distortion Correct		
Off/On (depends on lens)		
i-Function		
Aperture, Shutter Speed, EV, ISO, V	Vhite Balance, intelli-Zoom	
Dust Reduction		
Туре	Super sonic drive	
Display		
Туре	Super AMOLED with Touch Screen	
Size	3.0" (Approx. 76.6 mm)	
Resolution	1036 k dots	
Field of view	Approx.100 %	
Angle	Tiltable (Up 90°, Down 45°)	
Viewnder		
Туре	Electronical viewfinder (OLED) (Eye Contact Sensor)	
Resolution	XGA 2360 k dots	
Eyepoint	Approx. 21.0 mm	
Diopter adjustment	Approx4.0–+2.0 m <sup>-1</sup>	
Field of view	Approx. 100 %	
Magnification	Approx. 1.04 X (APS-C, 50 mm, -1 m <sup>-1</sup> )	
Focusing		
Туре	Hybrid AF	
Focusing point	• Total AF point: 205 points (Phase Detection AF), 209 points (Contrast AF)     • AF Range: EV -4–20	
Mode	Active AF, Single AF, Continuous AF, Manual Focus	
AF Assist Lamp	Yes	
Shutter		
Speed	Auto: 1/8,000 sec.–1/4 sec.     Manual: 1/8,000 sec.–30 sec.     Bulb	

Product specifications

Exposure	
Materian evotors	TTL 221 (17X13) Block segment
Metering system	Metering: Multi, Center-weighted, Spot
Compensation	Still: ±5 EV, Movie: ±3 EV (1/3 EV Step)
ISO equivalent	Auto, 100–25600 (1 EV or 1/3 EV Step) * You can expand up to ISO 51200.
Drive Mode	
Mode	Single, Continuous, Timer, Bracket
Continuous shooting	Continuous shooting
Bracket shooting	Auto exposure bracketing (±3 EV), White Balance bracketing, Picture Wizard bracketing, Depth bracketing
Self-timer	2–30 sec. (1 second interval)
Flash	
Туре	Built-in flash
Mode	Smart Flash, Auto, Auto Red-eye, Fill in, Fill-in Red, 1st Curtain, 2nd Curtain, Off, Auto FP Sync (available only with supported external flashes)
Guide number	11 (based on ISO 100)
Angle of view	28 mm (35 mm film equivalent)
Sync speed	Less than 1/250 sec.
Flash EV	-2-+2 EV (1/2 EV Step), FEL
External flash	Optional Samsung external flashes
Sync terminal	Hot-shoe
Dynamic Range Expansion	
Off/Smart Range+/HDR	
White Balance	
Mode	Auto WB, Daylight, Cloudy, Fluorescent White, Fluorescent NW, Fluorescent Daylight, Tungsten, Tungsten (Auto), Flash WB, Custom Set, Color Temperature (Manual)
Micro adjustment	Amber/Blue/Green/Magenta 7 steps respectively
Effect	
Picture wizard	Standard, Vivid, Portrait, Landscape, Forest, Retro, Cool, Calm, Classic, Custom1, Custom2, Custom3, Custom4
Smart filter	Vignetting, Miniature (H), Miniature (V), Watercolor, Selective Color (R/G/B/Y 4 Colors)
Picture Wizard	
Mode	Standard, Vivid, Portrait, Landscape, Forest, Retro, Cool, Calm, Classic, Custom1, Custom2, Custom3
Parameter	Color (Red, Green, Blue), Saturation, Sharpness, Contrast, Hue
Still	
Mode	Auto, Program, Aperture Priority, Shutter Priority, Manual, Custom1, Custom2, Smart
Smart mode	Beauty Face, Landscape, Action Freeze, Rich Tones, Panorama, Waterfall, Silhouette, Sunset, Night, Fireworks, Light Trace, Multi Exposure, Samsung Auto Shot
Quality	Super Fine, Fine, Normal
Color space	sRGB, Adobe RGB
Video	
Туре	MP4 (HEVC), AVI (MJPEG)
Format	Movie: HEVC (H.265), MJPEG (VGA 30 fps only), Sound: AAC
Movie AE mode	Auto, Program, Aperture Priority, Shutter Priority, Manual, Custom1, Custom2, Smart
Frame rate	• NTSC: 60 fps, 30 fps, 24 fps • PAL: 50 fps, 25 fps, 24 fps

Fast / Slow Movie	x0.25 (1920X1080 30 fps/25 fps, 1280X720 30 fps/25 fps, 640X480 30 fps/25 fps only), x0.5 (1920X1080 60 fps/50 fps/30 fps/25 fps, 1280X720 60 fps/50 fps/30 fps/25 fps, 640X480 60 fps/50 fps/30 fps/25 fps only), x5, x10, x20		
Quality	HQ, Normal, Pro (4096X2160, 3840X2160 only)		
Sound	Stereo		
Playback			
Туре	Single image, Thumbnails (15/24), Slide show, Movie		
Edit			
Still	Auto Adjustment, Brightness, Color Temperature, Contrast, Crop, Exposure, Face Retouch, Hue, Resize, RGB Adjustment, Rotate, Saturation, Smart Filter		
Movie	Still image capture, Time trimming		
Memory			
External media	SD card, SDHC card, SDXC card (up to 64 GB guaranteed), UHS-I, UHS-II supported		
Network and Wireless Conn	ectivity		
Wi-Fi	IEEE 802.11b/g/n/ac		
NFC	Yes		
Connectivity support	Bluetooth		
Interface			
Digital output connector	USB 3.0		
Video output	HDMI (NTSC, PAL)		
External release	Yes		
USB	Yes		
Audio	3.5 mm stereo MIC input, 3.5 mm stereo output		
Battery			
Capacity	1,860 mAh		
Charging	DC 5.0 V, 2 A via Micro USB port		
Still image capturing time	500 shots (CIPA Standard)		
Physical Specification			
Dimensions (W X H X D)	138.5 X 102.3 X 65.8 mm		
Weight	Approx. 550g (body only)		
Operating Environment			
Operating Temperature	0–40 °C		
Operating Humidity	5–85 %		
Software			
i-Launcher (web version includ Samsung DNG Converter, Sa	ded), Adobe Photoshop Lightroom, msung Movie Converter, Power Media Player		
System Requirement			
Windows	Windows 7/8/8.1, Intel 3rd Gen. i5 3.4 GHz or higher (equivalent AMD processor)		
Macintosh	Mac OS 10.7 or higher		
	Fast / Slow Movie         Quality         Sound         Playback         Type         Edit         Still         Movie         Memory         External media         NFC         Connectivity support         NFC         Connectivity support         Digital output connector         Video output         External release         USB         Audio         Battery         Capacity         Charging         Still image capturing time         Physical Specification         Dimensions (W X H X D)         Weight         Operating Temperature         Operating Temperature         Operating Temperature         Windows         Macintosh		

## 2-2 Product comparison

#### <Table. 2-2 Product comparison>

Model Specs	EV-NX1	EV-NX30		
Image				
Image Sensor(size)	BSI CMOS(13.2 X 8.8 mm)	CMOS(23.5 X 15.7mm)		
Eective pixels	Approx. 28.2 mega-pixels	Approx. 20.3 mega-pixels		
Total pixels	Approx. 30.7 mega-pixels	Approx. 21.6 mega-pixels		
Weight	550 g (without battery and memory card)	368 g (without battery and memory card)		
Dimensions (W X H X D)	138.5 X 102.3 X 65.8 mm (without protrusions)	127 X 95.5 X 43.25 mm (without protrusions)		
Lens Mount	Samsung NX Mount	Samsung NX Mount		
Available lens	Samsung lenses (3D lens supported)	Samsung lenses		
Display	<ul> <li>Type : Super AMOLED with Touch Screen</li> <li>Size : 3.0" (Approx. 76.6 mm)</li> <li>Angle : Tiltable (Up 90°, Down 45°)</li> </ul>	<ul> <li>Type : Super AMOLED Touch Panel</li> <li>Size : 3.0" (Approx. 76.7 mm)</li> <li>Angle : Swivel (Horizontal 180°, Vertical 270°)</li> </ul>		
i-Function	Aperture, Shutter Speed, EV, ISO, White Balance, intelli-Zoom	①Depth, ①Zoom(X1.2, 1.4, 1.7, 2.0), ①Contrast		
Shutter	Type : Electronically controlled vertical-run focal plane shutter     Speed : - Auto: 1/8,000 sec - 1/4 sec.     - Manual:: 1/8,000 sec - 30 sec.     - Bulb	Type : Electronically controlled vertical-run focal plane shutter     Speed : - Auto: 1/8,000–1/4 sec.     - Manual: 1/8,000–30 sec.     - Bulb (time limit: 4 min)		
ISO	Auto, 100–25600 (1 EV or 1/3 EV Step)	<ul> <li>1 Step: Auto, ISO 100, ISO 200, ISO 400, ISO 800, ISO 1600, ISO 3200, ISO 6400, ISO 12800, ISO 25600</li> <li>1/3 Step: Auto, ISO 100, ISO 125, ISO 160, ISO 200, ISO 250, ISO 320, ISO 400, ISO 500, ISO 640, ISO 800, ISO 1000, ISO 1250, ISO 1600, ISO 2000, ISO 2500, ISO 3200, ISO 4000, ISO 5000, ISO 6400, ISO 8000, ISO 10000, ISO 12800, ISO 10000, ISO 12800, ISO 16000, ISO 20000, ISO 25600</li> <li>* Auto ISO settings are selectable up to ISO 3200.</li> </ul>		
Flash	Built-in flash : A-TTL popup flash     External flash : Optional Samsung external flashes	<ul> <li>Built-in flash : A-TTL popup flash</li> <li>External flash : Optional Samsung external flashes</li> </ul>		
Network and Wireless Connectivity	Wi-Fi : IEEE 802.11/b/g/n/ac, Bluetooth 3.0     Wi-Fi : IEEE 802.11b/g/n support Dual Band     NFC : Yes     Connectivity support : Bluetooth			
Storage	External memory (optional): SD card (2 GB guaranteed), SDHC card (up to 32 GB guaranteed), SDXC card (up to 64 GB guaranteed, UHS-I, UHS-II supported)	External memory (optional): SD card (2 GB guaranteed), SDHC card (up to 32 GB guaranteed), SDXC card (up to 64 GB guaranteed), UHS-1 card - Class 6 and above recommended		
	Built-in Memory : No	Built-in Memory : No		
Distortion Correct	• Type : Lens shift (depends on lens)     • Mode : Off/Mode 1/Mode 2     • Type : Lens shift (depends on lens)     • Mode : Off/Mode 1/Mode 2			
	DC 5.0 V, 2 A micro USB, USB 3.0	DC 5.0 V, 1 A micro USB, USB 2.0		
	USB Charge :Yes	USB Charge : Yes		
Power Source	BP1900(1860 mAh, 7.2 V)	60 mAh, 7.2 V) BP1410(1410 mAh, 7.6 V)		

## 2-3 Accessories information

#### <Table. 2-3 Packing items information>

	Image	Desc	Part No.	
	Halang Meri	<b>Camera(</b> NX1) (including the body cap and hot-hoe cover)		EV-NX1
			EP-TA12EBE EU	GH44-02783A
			EP-TA12JBE_USA	GH44-02788A
			EP-TA12UBE_UK	GH44-02779A
			EP-TA12UBE_UAE(UK)	GH44-02791A
	SAMSUNG	Allenter	EP-TA12HBE_AUS	GH44-02781A
		Adapter (FTAOLI80KBK)	EP-TA12JBS_MEX	GH44-02786A
			EP-TA12SBE_IL	GH44-02784A
			EP-TA12BBB_BRA	GH44-02806A
			EP-TA12CBC_CN	GH44-02782A
			EP-TA12IBE_IND	GH44-02805A
			EP-TA12RBS_ARG	GH44-02785A
		USB 2.0 Cable	EA-CB5MU10E	AD39-00194A
Accessories	Accessories	Battery Charger	CHARGER_CN/TW	AD44-00261A
			NX BATTERY(BP1900)_CN	AD43-00254A
	5400	Rechargeale Battery	NX BATTERY(BP1900)_TW	AD43-00255A
	III		NX BATTERY(BP1900) _UAE	AD43-00256A
		Software CD-ROM (User manual included)	1	AD46-00450A
	Adobe Photoshop L		n DVD-ROM	Service does not apply
	SAMSUNG	Strap		AD63-08062A

	Image	Description					
		Quick Start Guide					
		Country	Part No.	Country	Part No.		
		NX1_QSG_S.CHI	AD68-08594A	NX1_QSG_SLO	-		
		NX1_QSG_ENG	AD68-08595A	NX1_QSG_SLV	-		
		NX1_QSG_GER	AD68-08596A	NX1_QSG_TUR	AD68-08605A		
		NX1_QSG_FRA	AD68-08597A	NX1_QSG_UKR	-		
		NX1_QSG_SPA	-	NX1_QSG_POL	-		
		NX1_QSG_DUT	AD68-08598A	NX1_QSG_RUM	-		
	간단설명서 ☞ <b> </b>	NX1_QSG_ITA	AD68-08599A	NX1_QSG_ENG(SEA)	AD68-08607A		
Accessories		NX1_QSG_RUS	-	NX1_QSG_SPA(SEA)	AD68-08608A		
		NX1_QSG_SWE	AD68-08600A	NX1_QSG_LAV	-		
		NX1_QSG_DAN	AD68-08601A	NX1_QSG_LIT	-		
		NX1_QSG_BUL	-	NX1_QSG_T.CHI	AD68-08606A		
		NX1_QSG_CZE	-	NX1_QSG_GRE	-		
		NX1_QSG_ARA	AD68-08602A	NX1_QSG_SER	-		
		NX1_QSG_FIN	AD68-08603A	NX1_QSG_CRO	-		
		NX1_QSG_HUN	-	NX1_QSG_VIT	-		
		NX1_QSG_PER	-	NX1_QSG_POR_BR(BR,PY)	-		
		NX1_QSG_NOR	AD68-08604A	NX1_QSG_THA	-		
		NX1_QSG_POR(PT)	-	NX1_QSG_HEB	-		

	Image	Description	Model name	Note
	- martin	Rechargeale Battery	ED-BP1900	
		Battery Charger	ED-CHARGER_CN/TW	AD44-00261A
		Remote Switch	ED-SR2NX02	
			ED-SEF580A	
	4AX 5276	Flash	ED-SEF220A	
		K Mount Adapter	ED-MA9NXK/KR	
			ED-LF405PT/KR	Compatibility lens(2050)
Optional accessories		Protector	ED-LF43PT/KR	Compatibility lens(30, 45, 16, 20)
	$( \cap )$		ED-LF52PT/KR	Compatibility lens(60, 50200)
	ternet terret and		ED-LF58PT/KR	Compatibility lens(1855, 1224)
			ED-LF67PT/KR	Compatibility lens(18200, 85)
			ED-LF405ND4/KR	Compatibility lens(2050)
		ND Filter	ED-LF43ND4/KR	Compatibility lens(30, 45, 16, 20)
			ED-LF52ND4/KR	Compatibility lens(60, 50200)
			ED-LF58ND4/KR	Compatibility lens(1855, 1224)
			ED-LF43PL/KR	Compatibility lens(30, 45, 16, 20)
		CPL Filter	ED-LF52PL/KR	Compatibility lens(60, 50200)
			ED-LF58PL/KR	Compatibility lens(1855, 1224)
		USB 2.0 Cable	EA-CB5MU05E	
	<b>A</b> ==	HDMI Cable(A to D Type)	EA-CBHD10D	
	Contraction of	Vertical Grip	ED-VGNX01	

## 2-4 About the memory card

The memory capacity may dier depending on shooting scenes or shooting conditions. These capacities are based on a 4 GB SD card.

#### <Table. 2-5 Memory card capacity>

					Quality			
	Size	Super Fine	Fine	Normal	RAW	RAW+ S.Fine	RAW+ Fine	RAW+ Normal
	28M (6480X4320)	256	471	809	84	63	71	76
	13.9M (4560X3040)	475	815	1,270	-	73	79	81
	7.1M (3264X2176)	801	1,253	1,744	-	80	83	84
	3M (2112X1408)	1,379	1,863	2,259	-	84	86	86
	23.6M (6480X3648)	299	542	911	-	66	73	77
Dist	11.9M (4608X2592)	537	905	1,376	-	75	80	82
Photo	6.2M (3328X1872)	879	1,346	1,832	-	81	83	85
	2.4M (2048X1152)	1,545	2,008	2,363	-	85	86	87
	18.7M (4320X4320)	368	653	1,064	-	70	76	79
	9.5M (3088X3088)	642	1,050	1,537	-	77	81	83
	4.7M (2160X2160)	1,064	1,553	2,015	-	82	84	86
	2M (1408X1408)	1,668	2,109	2,431	-	85	86	87

Sizo		Quali	ty	
	JIZE		HQ	Normal
	DC 24P	4096X2160 (24fps)	Appox. 07' 15"	Appox. 09' 04"
	UHD	3840X2160 (30fps)	Appox. 06' 31"	Appox. 08' 09"
	FHD	1920X1080 (60fps)	Appox. 15' 09"	Appox. 18' 58"
	FHD 30P	1920X1080 (30fps)	Appox. 26' 14"	Appox. 32' 52"
	FHD 24P	1920X1080 (24fps)	Appox. 29' 53"	Appox. 37' 27"
Video	FHD *	1920X1080 (15fps)	Appox. 35' 44"	Appox. 44' 38"
	HD	1280X720 (60fps)	Appox. 32' 18"	Appox. 40' 29"
	HD	1280X720 (30fps)	Appox. 55' 19"	Appox. 69' 26"
	VGA	640X480 (60fps)	Appox. 91' 30"	Appox. 113' 29"
	VGA 30P	640X480 (30fps)	Appox. 150' 35"	Appox. 190' 19"
	NJPEG	640X480 (MJPEG)	Appox. 18' 54"	Appox. 23' 34"

\* Image: several seve

• Available recording time may vary if you use the zoom.

• Several videos were recorded in succession to determine the total recording time.

• The maximum recording time is 29 minutes and 59 seconds per file.

## 2-5 About the battery

#### <Table. 2-6 Battery specifications>

Item	Description
Model	BP1900
Туре	Lithium-ion battery
Cell capacity	1,860 mAh
Voltage	7.2 V
Charging time* (When the battery is completely discharged)	Approx. 170 min. (Approx. 340 min. when the vertical grip is connected)

\* The gures above are based on when you use the provided USB cable and AC adaptor. Charging the battery by connecting it to a computer may take longer.

#### <Table. 2-7 Battery life>

Shooting mode	Average time / Number of photos	
Photos	Approx. 250 min./Approx. 500 photos	
Videos	Approx. 110 min. (Record videos at 3840X2160 resolution and 30 fps.)	

• The gures above are based on the CIPA test standards. Your results may dier depending on your actual usage.

• Available shooting time diers depending on background, shooting interval, and use conditions.

• Several videos were recorded in succession to determine the total recording time.

## 2-6 New Features - Bluetooth

This feature allows you to exchange files with other devices.

Set to connect your camera to a smart phone automatically via the Bluetooth feature. If the devices have previously been connected and you launch Samsung Camera Manager on the smart phone, they will connect via Bluetooth automatically.



## 3. Disassembly and reassembly

## 3-1 Body disassembly - General repair







Open the BATTERY COVER, and separate the LOCK using the REMOVE TOOL as in the picture above.

0

arrow to remove.

Remove two connectors.

Pull the connector to take it apart..

Pull FPCB in the direction of the



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9

FRONT CASE ASSY

Remove the FRONT CASE ASSY.













### \rm CAUTION —

There is a risk of electric shock when you remove the component of TOP ASSY. Please refer to step 23 for discharging electricity.


















## 3-2 Body disassembly - Professional repair







**CAUTION** Be careful not to lose PIN when you follow step 7.











#### 3-3 Body assembly - Professional repair

















## 3-4 Body assembly - General repair

































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# 4. Troubleshooting

#### 4-1 SD card related problems

Problem		
There is no sound from the camera.		
	Solution	Images for reference
1	<ul> <li>Check the pins on your SD card. Make sure there is no dirt on the contacts.</li> <li>Check if the SD card is damaged.</li> </ul>	
2	<ul> <li>Check the SMD of the SD card socket on Main PCB.</li> <li>Check the detect pins of your SD card.</li> </ul>	ALPS C461

### 4-2 Power related problems

#### Problem

Power does not turn on.

Solution

1 Check the connection of the connector between MAIN PCB and TOP PCB.

2 Check the connection of LCD FPCB.

(It can be a display problem.)

#### Images for reference



#### 4-3 LCD related problems

Problem		
Touchscreen is not responding.		
Solution		
Check the connection of LCD FPCB.		
Images for reference		
## 4-4 Error messages



# 4-5 Top related problems

#### Problem

#### Power, Mode dial, display indicator and assist illuminator no longer work.

Solution

Check the connection between MAIN PCB and TOP FPCB..

Images for reference



Problem

Check the connection between MAIN PCB and TOP FPCB.

Solution

Check the connection between Main PCB and DRIVE FPCB.

#### Images for reference



## 4-6 EVF related problems

#### Problem

#### EVF is not working. / MAIN LCD screen is working, but the EVF screen is not displayed.

Solution

Check the connection between MAIN PCB and EVF FPCB.

Images for reference



# 4-7 Shutter related problems



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# 4-8 Button related problems

Problem

Buttons on the back of the camera.

(Menu, Fn, Record, Playback, Delete and 5-way controller button) no longer work.

Solution

Check the connection of BACK KEY FPCB.

Images for reference



## 4-9 Proximity sensor related problems

Problem
Proximity sensor is not working.
Solution
Check the connection of proximity sensor FPCB.
Images for reference

## 4-10 Audio playback and recording problems





# 4-11 Display problems

# Problem There is horizontal or vertical noise in images. / The LCD monitor does not display clear images. / The image on the display is distorted. / LCD monitor is blank. Solution • Check the connection of LCD FPCB. 2 Check the connection of CIS FPCB. Images for reference

# 4-12 External flash problems

#### Problem

#### The flash does not fire.

#### Solution

- 1 Check the connection between MAIN PCB and drive FPCB.
- **2** Check the soldering points of the HOTSHOE at TOP.

#### Images for reference



# 4-13 Built-in flash problems

Problem

#### The flash does not fire.

#### Solution

- 1 Check the connection between MAIN PCB and STROBO FPCB.
- Check the connection between the internal STROBO WIRE HARNESS and STROBO FPCB.

#### Images for reference





## 4-14 NFC related problems

#### Problem

#### NFC is not working.

#### Solution

See if the NFC CLIP on MAIN PCB is bent. Check the connection between the NFC CLIP and the antenna module. (You should remove the front cover to check the antenna module.)



### 4-15 BT/Wi-Fi problems

#### Problem

BT/Wi-Fi is not working.

#### Solution

See if a RF antenna is properly assembled. Make sure it is not damaged.

#### Images for reference





a.B.R.

## 5. PCB diagrams

## 5-1 MAIN PCB





#### PCB diagrams

## 5-2 STROBO FPCB



# 5-3 TOP FPCB



## **5-4 BACK KEY PCB**



#### PCB diagrams

## 5-5 DRIVE FPCB



# 5-6 HOTSHOE FPCB



# 5-7 PROX FPCB



#### PCB diagrams

## **5-8 VGRIP FPCB**



### **5-9 POWER KEY FPCB**



BOTTOM



# 5-10 CIS HPCB

TOP



# 5-11 COMMAND FPCB

TOP

# 6. Block diagram



# 7. Firmware update

6

#### 7-1 Product Initialization

This section explains how you can initialize the product settings to factory-set defaults.

1. Save the 'nx\_dev.adj' file in the top-level folder of your SD card and insert the card into your camera.



Fig. 7-1

2. Turn the camera on.



Fig. 7-2

3. Select 'Smart Auto' mode.





4. Press the buttons in numerical order below.

**1** Down  $\rightarrow$  **2** OK  $\rightarrow$  **3** Up  $\rightarrow$  **4** OK  $\rightarrow$  **5** Right  $\rightarrow$  **6** EV + OK(Hold down EV button and press OK.)



Fig.7-4



5. Select "2. SYSTEM PARAMETER" and press the OK button.



6. Press the OK button to check the box "(1) FACTORY RESET".



Fig. 7-6

- 7. Turn the camera off.
- 8. Turn the camera on and check if the initialization is complete.

(0)

#### 7-2 Body Firmware Update Using User Menu

- This section explains how you can update your camera with the latest version of firmware.
- Use AC adaptor or fully-charged battery for the update.
- Formatting will erase all saved data on the device. Please back up your data before updating.
- 1. Save the latest firmware file (nx1.bin) in the top-level folder of your SD card and insert the card into your camera.



Fig. 7-7

- 2. Turn the camera on.
- 3. Select "MENU  $\rightarrow$   $\textcircled{del} \rightarrow$  Device Information  $\rightarrow$  Software Update".
- 4. Select "Body Firmware".



Fig. 7-8

5. Select 'Yes' to begin the update.





- 6. It may take five minutes to update the firmware, and the camera will be rebooted twice during the update.
  - Even if the screen turns off automatically during the update, do not turn the camera off or operate camera controls. Please wait until the update is completed.
  - When the update is completed, the camera will turn itself on and the monitor will display the update completed message.
  - If the message will not disappear, press the shutter button one time.



Fig. 7-10

## 7-3 Lens Firmware Update Using User Menu

- This section explains how you can firmware in latest version the equipped camera lens.
- Use AC adaptor or fully-charged battery for the update.
- Formatting will erase all saved data on the device. Please back up your data before updating.
- 1. Save the latest firmware file (lens.bin) in the top-level folder of your SD card and insert the card into your camera.



Fig. 7-11

- 2. Turn the camera on.
- 3. Select "MENU  $\rightarrow$   $\textcircled{del} \rightarrow$  Device Information  $\rightarrow$  Software Update".
- 4. Select "Lens Firmware".



Fig. 7-12

5. Select 'Yes' to begin the update.



Fig. 7-13

- 6. It may take five minutes to update the firmware, and the camera will be rebooted twice during the update.
  - Even if the screen turns off automatically during the update, do not turn the camera off or operate camera controls. Please wait until the update is completed.
  - When the update is completed, the camera will turn itself on and the monitor will display the update completed message.
  - If the message will not disappear, press the shutter button one time.



Fig. 7-14

Ø

## 7-4 Body Firmware Update Using DEV Mode

- This section explains how you can update your camera with the latest version of firmware.
- Use AC adaptor or fully-charged battery for the update.
- Formatting will erase all saved data on the device. Please back up your data before updating.
- 1. Save the 'nx\_dev.adj, nx.bin' file in the top-level folder of your SD card and insert the card into your camera.



Fig. 7-15

2. Turn the camera on.



Fig. 7-16

3. Select 'Smart Auto' mode.





4. Press the buttons in numerical order below.

**1** Down  $\rightarrow$  **2** OK  $\rightarrow$  **3** Up  $\rightarrow$  **4** OK  $\rightarrow$  **5** Right  $\rightarrow$  **6** EV + OK(Hold down EV button and press OK.)



Fig.7-18

5. Select "1. FW UPDATE" and press the OK button.



Fig. 7-19

6. Select "(1) BODY F/W UPDATE" and press the OK button.



Fig. 7-20

- AEL MOBILE AF SUPER AMOLED (1) BODY F/W UPDATE CAMERA Fn MENU ion : 0.24 on : DSP\_NX1GLUANI2\_PV1 DISF d Version : DV2 / Micom Verson : 26 BOard FW update by pressing the [OK] key **1** SAMSUNG
- 7. The monitor will display firmware information. Press the OK button to begin the update.

Fig. 7-21

- 8. It may take five minutes to update the firmware, and the camera will be rebooted twice during the update.
  - Even if the screen turns off automatically during the update, do not turn the camera off or operate camera controls. Please wait until the update is completed.
  - When the update is completed, the camera will turn itself on and the monitor will display the update completed message.
  - If the message will not disappear, press the shutter button one time.



Fig. 7-22

## 7-5 Lens Firmware Update Using DEV Mode

- This section explains how you can firmware in latest version the equipped camera lens.
  Use AC adaptor or fully-charged battery for the update.
  Formatting will erase all saved data on the device. Please back up your data before updating.
- 1. Save the 'nx\_dev.adj, lens.bin' file in the top-level folder of your SD card and insert the card into your camera.



Fig. 7-23

2. Turn the camera on.



Fig. 7-24

3. Select 'Smart Auto' mode.





4. Press the buttons in numerical order below.

**1** Down  $\rightarrow$  **2** OK  $\rightarrow$  **3** Up  $\rightarrow$  **4** OK  $\rightarrow$  **5** Right  $\rightarrow$  **6** EV + OK(Hold down EV button and press OK.)



Fig.7-26

--AEL MOBILE AF SUPER AMOLED DEV Mode Fn MENU 1. FW UPDATE 2. SYSTEM PARAMETER DISP 3. ADJUSTMENT CONTROL 4. LENS CONTROL 5. CARD CONTROL 6 SAMSUNG

5. Select "1. FW UPDATE" and press the OK button.

Fig. 7-27

6. Select "(2) LENS F/W UPDATE" and press the OK button.



Fig. 7-28



7. The monitor will display firmware information. Press the OK button to begin the update.

Fig. 7-29

- 8. It may take five minutes to update the firmware, and the camera will be rebooted twice during the update.
  - Even if the screen turns off automatically during the update, do not turn the camera off or operate camera controls. Please wait until the update is completed.
  - When the update is completed, the camera will turn itself on and the monitor will display the update completed message.
  - If the message will not disappear, press the shutter button one time.



Fig. 7-30

#### 7-6 Main PCB Recovery

This section explains how you can recover main PCB when the camera is not working due to unexpected problem during updating.
 All data on the device will be saved. You do not need to manage the data to begin the recovery process.

#### Preparation 2

- 1. Get a Micro SD card that is less than 1GB in size
- Cards with a capacity less than 1GB are recommended.
- Some cards cannot be read. If the update cannot be processed, change the card and try it again.
- 2. Get tweezers.
- To make the TP spot electrically shorted.
- 3. Get recovery files: downloader.bin, nx1.bin
- File will differ depending on the model. Do not mix files.
- 1. Save recovery files(downloader.bin, nx1.bin) to memory card.
- 2. Remove all the Exterior screws  $\rightarrow$  EYE PIECE  $\rightarrow$  EVF COVER screws  $\rightarrow$  EVF COVER  $\rightarrow$  BACK COVER.
- 3. Solder the TP spot in a red circle of the picture below to make it electrically shorted. - Note that solder needs to be removed later.





- 4. Attach the connector of back cover to the main PCB, and turn the power key on.
- 5. Insert the memory card from Step 1 and fully-charged battery into the camera.
- 6. LED lamp will be on in seconds. When the light is on, remove solder at the TP spot from Step 3.
- 7. Note that the monitor will automatically turns off and on during the task.
- 8. When all tasks is completed, a message will appear on the LCD monitor. - When all tasks is completed, a message will appear on the LCD monitor.
- 9. Attach the BACK COVER  $\rightarrow$  EVF COVER  $\rightarrow$  EVF COVER screws  $\rightarrow$  EYE PIECE  $\rightarrow$ Exterior screws.
- 10. Turn the camera on and check if the camera works.

# 8. Adjustment

#### 8-1 Adjustment process guide

After replacing the following parts, you need to adjust the following items.
The table below provides information about the necessary adjustment process.

#### 1. Please refer to the table information before beginning the adjustment process.

#### <Table. 8-1>

	MAIN PCB	CIS ASSY	SHUTTER	MOUNT	Required Equipment	
Firmware update	0	0	0	0	Every Service Cases	
CIS TILT ADJ	X	0	0	0	TILT Adjustment	
CIS DOT DATA	0	0	Х	Х	Shutter Adjustment, CIS Dot Data File	
SHUTTER ADJ	0	Х	Х	Х	Shutter Adjustment	
ISO ADJ	0	0	Х	Х	Linkt Day 2000/C Master Land	
AWB ADJ	0	0	Х	Х	LIGHT BOX 3200K, Master Lens	
EFS ADJ	0	0	Х	Х	Light Box 3300K, LV16	
VFPN & DEFECT ADJ	0	0	Х	Х	Mount Cap	
COLOR SHADING	0	0	Х	Х	Light Box 5500K 16-50mm PWZ Lens	
GYRO	0	Х	Х	Х	Mount Cap	
COUNTRY CODE	0	Х	Х	Х	Change Script	
MAC ADDR, SERIAL NO, BLUE TOOTH ADDR	0	Х	Х	Х	Change Script	
PAF	0	0	Х	Х	PAF Light Box, Controller	
WiFi ON/OFF	Х	Х	Х	Х	Special Request Only	

#### 2. Required equipment specification

- Light Source Box 1 : LV-1450DC (3200K±50, Lv12)
- Light Source Box 2 : LSB-1/10 (5500K±100, Lv12)
- Light Source Box 3 : For Compact DSC (3300K, Lv. 16)
- Light Source Box 4 : PAF Light box & Controller
- Master Lens
- 30mm Lens
- 16-50mm PWZ Lens
- Tilt adjustment : RSM-5000(CSC center)
- Shutter adjustment : RFS-5910A (CSC center)







5500K



PAF Light Box & Controller

Fig. 8-1

## 8-2 CIS TILT Adjustment

Proceed CMOS Tilt adjustment after replacing CMOS ASSY.

#### <Adjustment method>

- 1. Set the CIS Tilt adjustment tools. (Kyoritsu (RSM-5000))
- 2. Once you press the Start button, Tilt adjustment will complete automatically.
- 3. After adjustment completion, Apply glue on three screws to fix the screw position as illustrated in Fig. 8-6.



Fig. 8-2

<Adjustment Result>

Adjust specification for Mount side and FLANGE BACK side : 25.55mm(-35mm/+15mm) Adjust specification for CMOS sensor TILT side from center: -30um/+30um

# 8-3 CIS DOT DATA & SHUTTER ADJ



Adjust the CIS data input and Shutter Speed.
 Preparation : PC, Program(NX1\_ShutterTester\_Ver5.1.exe)

#### <Adjustment method>

1. Extract dot data in C drive as NXCISTEMP\_NX1.





2. Open CIS DOT DATA folder.

JA FILES
🕌 LOG
libeay32.dll
S mfc100.dll
S msvcr100.dll
msvcr100d.dll
MSVCRTD.DLL
NX1 DOT DATA_141114.bxt
NX1_ShutterTester_Ver5.1.exe
Pcomm.dll
PIMACOM.dll
<ul> <li>setup.ini</li> </ul>
🔊 ssh.dll
AUSBSet.exe
🚳 zlib1.dll



- 3. Copy "info.tgw" the file SD card.
- 4. Insert the card and connect the camera to PC.
- 5. Excute USBSet1.1.exe.

#### 🚜 USBSet1.1.exe

6. Cut USB ID, Clear channels and move to Channel 1.





#### Adjustment

7. Execute NX1\_ShutterTester\_Ver5.1.exe Program.



Fig. 8-6

8. Select Option → Script File Open → "NX1 DOT DATA Shutter\_141114.txt". -Please check script file name & script command on window as below.

NX1 ShutterTester 5.1(Sep 22 2014,14:29:56), NXPTP_DLL 2.0 Test(Sep 29 2014,13:37:48)									
NX1 DOT				Script file r	PASS 72 FAIL 36				
🖌 START	X STOP	READY							
РТР	RFS	NO SENSOR A	SENSOR B	SENSOR C	ITEM	DATA			
AutoStart	Scanner								
Model : Testing Tim FTP Conne	e : 0.0 sec	۲	ш		<	m •			
PSy_Deam forms of     Sys_Deam notes     Sys_Deam forms of     Sys_Deam forms of     Sys_Deam forms     Sys_Deam     Sys_Sys_Deam     Sys_Sys_Sys_Deam     Sys_Sys_Sys_Deam     Sys_Sys_Sy									

Fig. 8-7

9. Open "setup.ini" and change port number as shutter adjustment port





10. When turning on the camera, the process will proceed automatically.(DOT serial number input not required)

11. When it finishes normally, then there is a final message, "ADJ. Finished!" with green screen at camera And there is PASS message on the PC program.

## 8-4 Entering the CS Mode



Describes how to enter to CS Mode the Camera

**1.** Save the 'Adjustment, nx\_cs.adj' file in the top-level folder of your SD card and insert the card into your camera. - The files inside the Adjustment folder as shown below.



Fig. 8-9

2. Turn the camera on.



Fig. 8-10

3. Select 'Smart Auto' mode.







Fig. 8-12

5. Displayed the CS Mode as shown below.



Fig. 8-13
## 8-5 ISO Adjustment



This section describes how to proceed the adjustment relating to the image quality.
Preparation : LIGHT BOX (3200K, LV12), Master Lens(F#5.6)

#### <Adjustment method>

1. Install the master lens to the camera and then setting the camera to the Light source box of 3200K.



Fig. 8-14

**2. Insert the memory card containing the two adjustment files in below into the camera.** - Adjustment folder, nx\_cs.adj files

#### 3. To enter the CS MODE.

- Smart Auto mode  $\rightarrow$  1 Down  $\rightarrow$  2 OK  $\rightarrow$  3 Up  $\rightarrow$  4 OK  $\rightarrow$  5 Right  $\rightarrow$  6 OK (Hold down EV button and press OK.)
- 4. When you select the ISO, adjustment will automatically start.

CS M	ode
	1. CIS Dot Data
	2. Shutter
	3. ISO
	4. AWB
	5. EFS



### 8-6 AWB Adjustment



This section describes how to proceed the adjustment relating to the image quality.

Preparation : LIGHT BOX (3200K, LV12), Master Lens(F#5.6)

#### <Adjustment method>

1. Install the master lens to the camera and then setting the camera to the Light source box of 3200K.



- **2.** Insert the memory card containing the two adjustment files in below into the camera. Adjustment folder, nx\_cs.adj files
- 3. To enter the CS MODE. - Smart Auto mode  $\rightarrow$  Down  $\rightarrow$  OK  $\rightarrow$  Up  $\rightarrow$  OK  $\rightarrow$  Right  $\rightarrow$  OK (Hold down EV button and press OK.)

4. When you select the AWB, adjustment will automatically start.

CS M	ode
	1. CIS Dot Data
	2. Shutter
	3. ISO
	4. AWB
	5. EFS
	6 VEPN&DEFECT



## 8-7 EFS (Electronic First Shutter) Adjustment



Describes the how to adjustment associated for the Electron First Shutter properties.
Preparation : Light Box (for compact DSC, 3300K, LV16 ±0.2)

#### <Adjustment method>

1. Install the master lens to the camera and then setting the camera to the Light source box of 3300K.



Fig. 8-18

- 2. Insert the memory card containing the two adjustment files in below into the camera. - Adjustment folder, nx\_cs.adj files
- 3. When you select the EFS from the CS MODE, adjustment will automatically start.



Fig. 8-19

4. If the adjustment is completed, "EFS SUCCESS!" message is displayed.

#### 5. Check the adjustment result.

- With Shutter speed of 1/4000s, MF focus, take a picture of LV16 of Light box. Check if there's horizontal noise on the image.



## 8-8 VFPN & DEFECT Adjustment



This section describes how to correct the vertical noise & defect pixel according to CIS Temperature.
Preparation : Mount Cap

#### <Adjustment method>

1. Install the mount cap to block the light.



Fig. 8-21

**2.** Insert the memory card containing the two adjustment files in below into the camera. - Adjustment folder, nx\_cs.adj files

#### 3. To enter the CS MODE.

- Smart Auto mode  $\rightarrow$  (1) Down  $\rightarrow$  (2) OK  $\rightarrow$  (3) Up  $\rightarrow$  (4) OK  $\rightarrow$  (3) Right  $\rightarrow$  (6) OK (Hold down EV button and press OK.)
- 4. When you select the VFPN&DEFEC, adjustment will automatically start.

CS Mo	ode	
	6. VFPN&DEFECT	
	7. COLOR_SHADING	
	8. COUNTRY CODE	
	9. SN & MAC ADDR	
	A. WIFI ON	
	R Show information	



## 8-9 COLOR SHADING Adjustment



This section describes how to adjust the brightness and color deviation gap between center and around. Light Box 5500K, 16-50mm Lens

#### <Adjustment method>

1. Install the 16-50mm Lens to the camera and then setting the camera to the Light source box of 5500K.



- 2. Insert the memory card containing the two adjustment files in below into the camera. - Adjustment folder, nx\_cs.adj files
- 3. To enter the CS MODE.
- Smart Auto mode  $\rightarrow$  (1) Down  $\rightarrow$  (2) OK  $\rightarrow$  (3) Up  $\rightarrow$  (4) OK  $\rightarrow$  (5) Right  $\rightarrow$  (6) OK (Hold down EV button and press OK.)
- 4. When you select the COLOR\_SHADING, adjustment will automatically start.

CS M	ode
	6. VFPN&DEFECT
	7. COLOR_SHADING
	8. COUNTRY CODE
	9. SN & MAC ADDR
	A. WIFI ON
	R Show information



### 8-10 COUNTRY CODE Setting (Wi-Fi)

1. Open Scripts file and input country code as country code table.

It is required to reset up Wi-Fi setting for the specified country after replacing the Main PCB.

#### <Adjustment method>

- Country code, see page 8-17.	
// change country_code : // sys_param shipment_country set // ex. sys_param shipment_country	[country_code] set 55
start	
osd clear	
//////change here ////////// sys_param shipment_country set 55	Country Code EX > sys_param shipment_country set 55 (korea code : 55)
Fig	J. 8-25

2. Insert the memory card containing the two adjustment files in below into the camera.

- Adjustment folder, nx\_cs.adj files

3. To enter the CS MODE.

- Smart Auto mode  $\rightarrow$  (1) Down  $\rightarrow$  (2) OK  $\rightarrow$  (3) Up  $\rightarrow$  (4) OK  $\rightarrow$  (5) Right  $\rightarrow$  (6) OK (Hold down EV button and press OK.)

#### 4. When you select the COUNTRY CODE, adjustment will automatically start.

CS M	ode
	6. VFPN&DEFECT
	7. COLOR_SHADING
	8. COUNTRY CODE
	9. SN & MAC ADDR
	A. WIFI ON
	R Show information



- If the camera is not set region after replacing the Main PCB or is purchased from overseas, there are some issues as below.
  - 1) User does not use SNS service country-specific.
- 2) Do not support multiple languages for display and input when using Wi-Fi.
- 3) Wi-Fi telecommunication speed may be down.

## 8-11 SN & Mac ADDR Setting

It is required to input Serial number and Mac Address after replacing the Main PCB.

#### <Adjustment method>

1. Open Scripts file and input serial number and Mac address.



- **2.** Insert the memory card containing the two adjustment files in below into the camera. Adjustment folder, nx\_cs.adj files
- 3. To enter the CS MODE.
  - Smart Auto mode  $\rightarrow$  (1) Down  $\rightarrow$  (2) OK  $\rightarrow$  (3) Up  $\rightarrow$  (4) OK  $\rightarrow$  (5) Right  $\rightarrow$  (6) OK (Hold down EV button and press OK.)
- 4. When you select the SN & MAC ADDR, adjustment will automatically start.

CS M	ode	
	6. VFPN&DEFECT	
	7. COLOR_SHADING	
	8. COUNTRY CODE	
	9. SN & MAC ADDR	
	A. WIFI ON	
	R Show information	



- 5. If the setting is completed, "ADJ. Finished!" message is displayed.
  - When the original Mac address is gone and is changed to new one, please change SSID of NFC tag as new Mac address.

8-12 PAF Adjustment

Preparation : PAF Light Box, PC, PAF Light Controller, USB to Serial Cable.

#### <Adjustment method>

#### 1. Connecting.

- 1) Copy "info.tgw" file to SD card and insert the SD card into the camera.
- 2) Please connect camera to PAF equipment and connect USB cable.



Fig. 8-29

#### 2. Run PAF program (DITester.exe)

#### 3. Read Script file

- Select LOG2 → Script Load → "NX1\_CH2\_PAF.txt"PAT Script → Close and open the program again.
- 4. If the script is loaded correctly, then the script name is on channel 2.



Fig. 8-30

#### 5. USB to serial port setting.

1) After installing USB to serial cable driver, please connect cable to PC.

2) Check COM port number in device manger



3) Select "SETUP VIEW" and then Change COM port number in second channel and its speed as 9600.

4) Close and open the program again.



Fig. 8-31

#### 6. Execute USBSet1.1.exe.



7. Cut USB ID, Clear channels and move to Channel 2.

Catuch channel insert a uch rable dick Daviet chan	(1) Cut USB ID		
Chan1 WW?WUS8#VID_04E88PID_1398#682247417	18082#(a56cbf10-6530-11d2-901f-00c04fb951ed)	Move to Channel	2
Chan2			2
Chan3			
Chan4			
Chan5			
Chan6			
Chan7			
Chan8			
Chan9	3 CLICK		
Chan10			
Clear channels	Regist channels	7	
	20	hn	

Fig. 8-32

- 8. Execute PAF adjustment Program.
- 9. When turning on the camera, the process will proceed automatically.
- 10. When it finishes normally, then there is a final message, "PAF Adjust done" with green screen at camera And there is PASS message on the PC program.

A NX Adjust 1.3(Nov 12 2014,15:21:17)		- X -
TEST VIEW Mode Select INQS SETUP		HELP
15		TOT:0 (0.0%)
12		(OK:0, NG:0)
11> osd bg_color green DASS . 20.7	800	TOT.6 (33.3%)
CHD_SUCCESS D'Adjustment/NXT/PAF	NXI/NXI_CH2_PAF.tot	(OK:2, NG:4)
2		TOT:0 (0.0%)
3-2		(OK:0, NG:0)
4		TOT:0 (0.0%)
4>		(OK.0, NG.0)
		TOT.0 (0.0%)
3>		(OK:0, NG:0)
SciptLeed	st view setup view manual v	NEW LOYD RESET
Log1 Log2 Log3 Log4 Log5		
12: 26:29] COPI : Doen Fel 17: 56:29] 		

Fig. 8-33

## 8-13 How to uninstall WI-FI Function

#### <Adjustment method>

#### 1. Select WIFI ON from the CS MENU.

CS Mo	ode	
	6. VFPN&DEFECT	
	7. COLOR_SHADING	
	8. COUNTRY CODE	
	9. SN & MAC ADDR	
	A. WIFI ON	
	R Show information	



2. When ON / OFF switch appears, the switch is select to OFF.

- If you select OFF, the Wi-Fi is turned off.

<Table. 8-2 Country code>

No.	Country	Cord	No
-	DEFAULT		47
1	AFGHANISTAN	001	48
2	ALBANIA	002	49
3	ALGERIA	003	50
4	ANGOLA	004	5
5	ARGENTINA	005	52
6	ARMENIA	006	53
7	AUSTRALIA	007	54
8	AUSTRIA	008	5
9	AZERBAIJAN	009	56
10	BANGLADESH	010	5
11	BENIN	011	58
12	BOSNIA ANDHERZEGOVINA	012	59
13	BRAZIL	013	60
14	BULGARIA	014	6
15	BURKINA_FASO	015	62
16	CAMEROON	016	6
17	CANADA	017	64
18	CANARY	018	6
19	CAPEVERDE	019	66
20	CHILE	020	67
21	CHINA	021	68
22	COLOMBIA	022	69
23	CONGO	023	70
24	CROATIA	024	7
25	CYPRUS	025	
26	CZECHREPUBLIC	026	7:
27	DENMARK	027	
28	DJIBOUTI	028	
29	EGYPI	029	
30	ERITREA	030	
31		031	70
22		032	
30	GAMBIA	033	8
35	GEORGIA	035	8
36	GERMANY	036	8
37	GHANA	037	84
38	Greece	038	8
39	GSS CO	039	86
40	GUINEA	040	8
41	Guinea-Bissau	041	88
42	HONGKONG	042	89
43	HUNGARY	043	90
44	INDIA	044	9
45	INDONESIA	045	92
46	IRAN	046	
1 70			1 .

No.	Country	Cord
47	IRAQ	047
48	ISRAEL	048
49	ITALY	049
50	IVORY COAST	050
51	JAPAN	051
52	JORDAN	052
53	KAZAKHSTAN	053
54	KENYA	054
55	KOREA	055
56	Kyrgyzstan	056
57	LAS_PALMAS	057
58	LATVIA	058
59	LEBANON	059
60	LIBERIA	060
61	LIBYA	061
62	MACEDONIA	062
63	MADAGASKAR	063
64	MALAWI	064
65	MALAYSIA	065
66	MALI	066
67	MAURITANIA	067
68	MAURITIUS	068
69	MAYOTTE	069
70	MEXICO	070
71	MONGOLIA	071
72	MONTENEGRO	072
73	MOROCCO	073
74	MOROCCO	074
75	MYANMA	075
76	NAMIBIA	076
77	NEPAL	077
78	NETHERLANDS	078
79	NEW_ZEALAND	079
80		080
81	PAKISTAN	081
82	PALESTINE	082
83	PALESTINE	083
84	PARAGUAY	084
85		085
80		080
87		087
00	PORTUGAL	000
09		009
90		090
91		091
92	RWANDA	092
93	SAMPLE	093

No.	Country	Cord
94	SAUDI_ARABIA	094
95	SEBJ	095
96	SECD	096
97	SEGZ	097
98	SENEGAL	098
99	Serbia	099
100	SESH	100
101	SESY	101
102	SIEL(CALCUTTA)	102
103	SIEL(CHENNAI)	103
104	SIEL(DELHI)	104
105	SIEL(MUMBAI)	105
106	SIERRALEONE	106
107	SINGAPORE	107
108	SINGER_SRI	108
109	SLOVAKIA	109
110	SLOVENIA	110
111	SLOVENIA	111
112	SOUTH_AFRICASPAIN	112
113	SPAIN	113
114	SRI_LANKA	114
115	SRILANKA	115
116	SUDAN	116
117	SWEDEN	117
118	SWITZERLAND	118
119	SYRIA	119
120	TAIWAN	120
121	TAJIKISTAN	121
122	TANZANIA	122
123	THAILAND	123
124	TOGO	124
125	TUNISIA	125
126	TURKEY	126
127		127
128	U.A.E	128
129	UGANDA	129
130	UKRAINE	130
131		131
132		132
133		133
134		134
135		135
130		130
13/		137
138		138
139	ZIMBABWE	139

# 9. Exploded view and parts list

### 9-1 BODY ASSEMBLY

The Exploded view and parts list is displayed the only code of the BASIC MODEL.

Later on the parts codes and derived models may have changed, please refer to the Exploded View on GSPN site.



Loc. No	Parts No.	Description	Q ty	Available	Remark
1	AD97-24516A	ASSY-CASE REAR;NX1	1	Х	
2	AD97-24527A	ASSY-COVER TOP;NX1	1	Х	
3	AD97-24519A	ASSY-CASE FRONT;NX1	1	Х	
4	AD97-24492A	ASSY CMOS;NX1	1	0	
5	AD97-24447A	ASSY-EYEPIECE;NX1	1	0	
6	AD97-24450A	ASSY COVER-EVF;NX1	1	0	
7	AD97-24451A	ASSY-EVF_KNOB;NX1	1	0	
8	AD67-02982A	RUBBER-VGRIP COVER	1	0	
9	AD63-07462A	CUSHION SHIELD FOAM-BACK	1	0	
10	AD61-06447A	HOLDER-TRIPOD;NX1,ZN,BLACK	1	0	
11	AD92-02268A	ASSY PBA MAIN-NX1 MAIN	1	0	

Exploded view and parts list

Loc. No	Parts No.	Description	Q ty	Available	Remark
12	6107-002736	SPRING-CS	3	0	
13	6001-002279	SCREW-MACHINE;CH,HEXA,M1.7,L4,ZPC(BLK)	3	0	
14	AD63-08065A	COVER-HOT SHOE;NX1,PC,BLACK	1	0	
15	AD66-01033A	DAMPER-SHUTTER;Allegro,HNBR,nat	2	0	
16	AD63-07526A	SHEET-FRAME BACK;NX300,ST850GFL	1	0	
17	AD97-23800A	ASSY-SHUTTER_COPAL	1	0	
18	6001-003186	SCREW-MACHINE;PH,+,M1.4,L5.0,ZPC(BLK)	13	0	
19	6001-002005	SCREW-MACHINE;PH,+,M1.4,L4,NI PLT(SIL)	7	0	
20	6001-001811	SCREW-MACHINE;PH,+,M1.4,L3,NI PLT,SWRCH1	2	0	
21	6003-001630	SCREW-TAPTYPE;PH,+,B,M1.4,L3.5,ZPC(BLK)	1	0	
22	6003-001658	SCREW-TAPTYPE;PH,B,M1.4,L6,ZPC(BLK)	1	0	
23	6009-001410	SCREW-SPECIAL;CH,+,M1.4,L4.7(2.5),ZPC(WHT)	2	0	
24	AD59-00248A	UNIT-BODY_PROX SENSOR	1	0	
25	AD62-00227A	PAD GAP-THERMAL;NX1,SI RUBBER,BLACK	1	0	

# 9-2 CMOS ASSEMBLY



Loc. No	Parts No.	Description	Q ty	Available	Remark
1	AD92-02270A	ASSY PBA MAIN-NX1 CIS FPCB;NX1,NX1 CIS F	1	0	

## 9-3 REAR ASSEMBLY



Loc. No	Parts No.	Description	Q ty	Available	Remark
1	6001-001811	SCREW-MACHINE;CH,+,M1.4,L3,NI PLT,SWRCH1	8	0	
2	6003-001630	SCREW-TAPTYPE;PH,+,B,M1.4,L3.5,ZPC(BLK),	3	0	
3	6107-001781	SPRING-CS;SUS304WPB,PI0.18,3.8,ID1.8,OD2	1	0	
4	AD02-00286A	TAPE SPONGE-GRIP REAR R;ACRYL FOAM,WL10,	1	0	
5	AD02-00321A	TAPE SPONGE-DECO MOUNT;NX1,ACRYL	1	0	
6	AD61-05314A	PLATE-MOUNT SPRING;NX200,STS	1	0	
7	AD61-06445A	HOLDER-MOUNT;NX1,AL,SILVER	1	0	

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Exploded view and parts list

Loc. No	Parts No.	Description	Q ty	Available	Remark
8	AD61-06497A	PLATE-GROUND R;NX1,CU,SILVER	1	0	
9	AD61-06535A	MOUNT-LENS;NX1,STS316L	1	0	
10	AD63-07593A	SHEET-CONNECTOR;NX300,ST850GFL	3	0	
11	AD63-07861A	T/SHEET-CONDENSOR;NX30,TESA 4982	1	0	
12	AD63-08024A	GRIP-REAR R;NX1,TPU,BLACK,PC GF10%	1	0	
13	AD64-04167A	DECORATION-MOUNT;NX1,SUS,SILVER	1	0	
14	AD66-00945A	SHAFT-LENS DETECT;NX200,SUS303,SILVER	1	0	
15	AD67-02616A	CAP-MOUNT;NX300,PC,BLACK	1	0	
16	AD67-02990A	RUBBER-O-RING PLATE MOUNT;NX1,S	1	0	
17	AD92-02265A	ASSY PBA MAIN-NX1 VGRIP FPCB;NX1,NX1	1	0	
18	AD92-02276A	ASSY PBA MAIN-NX1 STROBO FPCB;NX1,NX1	1	0	
19	AD97-24440A	ASSY-CASE REAR SUB;NX1	1	0	
20	AD97-24442A	ASSY-HDMI;NX1	1	0	
21	AD97-24452A	ASSY-INNER MOUNT HOLDER;NX1	1	0	
22	AD97-24489A	ASSY COVER-BATTERY;NX1	1	0	
23	AD97-24548A	ASSY-CHAMBER_SUB;NX1	1	0	
24	AD97-24535A	ASSY-SD CARD_AS;NX1	1	0	
25	6001-003049	SCREW-MACHINE;PH,M1.7,L5,SILVER,	4	0	
26	6003-001859	SCREW-TAPTYPE;PH,+,M1.4,L5.0,ZPC(BLK)	1	0	
27	AD02-00335A	TAPE SPONGE-WP FRONT E;NX1	1	0	
28	AD02-00350A	CONDUCTIVE GASKET-NX1_GASKET_WIFI	1	0	
29	AD02-00368A	TAPE SPONGE-WP FRONT H;NX1	2	0	
30	AD63-05786A	SHEET-LEFT;HMX-H300,SED+TESA4972	2	0	
31	AD02-00282A	TAPE SPONGE-WP SD CARD A;NX1	1	0	

# 9-4 VGRIP FPCB ASSEMBLY



Loc. No	Parts No.	Description	Q ty	Available	Remark
1	3001-002750	MICRO SPEAKER	1	0	

## 9-5 FRONT CASE ASSEMBLY



Loc. No	Parts No.	Description	Q ty	Available	Remark
1	6001-001811	SCREW-MACHINE;CH,+,M1.4,L3,NI PLT	6	0	
2	6001-002742	SCREW-MACHINE;CH,M1.4,L2.5,ZPC(BLK)	4	0	
3	6003-001659	SCREW-TAPTYPE;PH,+,B,M1.4,L4,ZPC(BLK)	3	0	
4	AD02-00283A	TAPE SPONGE-WP SD CARD B;NX1	1	0	
5	AD02-00310A	TAPE SPONGE-WP FRONT A;	1	0	
6	AD02-00311A	TAPE SPONGE-WP FRONT B;	1	0	
7	AD02-00312A	TAPE SPONGE-WP FRONT C;	1	0	
8	AD02-00333A	TAPE SPONGE-BTOB VGRIP;NX1	1	0	
9	AD02-00336A	TAPE SPONGE-WP FRONT F;NX1	1	0	
10	AD02-00338A	TAPE DOUBLE FACE-FRONT GRIP;NX1	5	0	

Exploded view and parts list

Loc. No	Parts No.	Description	Q ty	Available	Remark
11	AD02-00345A	CONDUCTIVE GASKET-NX1_GASKET	1	0	
12	AD61-05966A	MAGNET-TILT A;NX300,Nd-Fe-B	2	0	
13	AD61-06429A	CASE-GRIP FRONT;NX1,TPU+PC,BLACK	1	0	
14	AD63-05161A	T/SHEET-SPEAKER RUBBER;PL150	2	0	
15	AD67-02956A	LENS-ACCESS;NX3000,PC,3020HFM/WH	1	0	
16	AD97-24432A	ASSY-WHEEL KEY_NX1;CSC,NX1	1	0	
17	AD97-24520A	ASSY COVER BACK-OLED TILT;NX1,BLACK	1	0	
18	AD97-24536A	ASSY-FRONT KEY;NX1	1	0	
19	AD97-24537A	ASSY-WIFI KEY;NX1	1	0	
20	AD97-24538A	ASSY-EVF KEY;NX1	1	0	
21	AD97-24539A	ASSY-PLATE EVF;NX1	1	0	
22	AD97-24540A	ASSY-CASE FRONT SUB;NX1	1	0	
23	AD63-07549A	SHEET-TILT FPCB;NX300,EFX01	1	0	
24	AD02-00368A	TAPE SPONGE-WP FRONT H;NX1	2	0	
25	AD02-00369A	TAPE SPONGE-WP FRONT I;NX1	2	0	

# 9-6 TOP CASE ASSEMBLY



Loc. No	Parts No.	Description	Q ty	Available	Remark
1	6001-002158	SCREW-MACHINE;PH,+,M1.4,L3.5,NI PLT	7	0	
2	6001-002641	SCREW-MACHINE;BH,+,M1.4,L3.5,NI PLT	3	0	
3	6003-001633	SCREW-TAPTYPE;CH,+,B,M1.4,L3,ZPC(BLK)	2	0	
4	6003-001658	SCREW-TAPTYPE;PH,B,M1.4,L6,ZPC(BLK)	1	0	
5	6003-001659	SCREW-TAPTYPE;PH,+,B,M1.4,L4,ZPC(BLK)	3	0	
6	AD02-00348A	CONDUCTIVE GASKET-NX1_SPONGE GASKET	1	0	
7	AD61-06233A	PLATE-LEVER POWER;NX30,STS	1	0	
8	AD97-24443A	ASSY-CASE TOP SUB;NX1	1	0	
9	AD97-24445A	ASSY-HOLDER BUTTON SHOT;NX1	1	0	
10	AD97-24446A	ASSY-HOLDER POP UP;NX1	1	0	
11	AD97-24453A	ASSY-LEVER_POWER;NX1	1	0	
12	AD97-24525A	ASSY-EVF;NX1	1	0	
13	AD97-24526A	ASSY-TOP LCD;NX1	1	0	
14	AD97-24542A	ASSY-RUBBER LIGHT KEY;NX1	1	0	
15	AD97-24543A	ASSY-TOP LCD SPONGE;NX1	1	0	
16	AD02-00305A	TAPE SPONGE-TOP REAR;	1	0	
17	AD02-00356A	TAPE SPONGE-STROBO N;NX1	2	0	
18	AD02-00359A	TAPE SPONGE-POWER LEVER WASHER;NX1	1	0	
19	AD02-00366A	TAPE SPONGE-STROBO S;NX1	1	0	
20	AD02-00369A	TAPE SPONGE-WP FRONT I;NX1	2	0	

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## 9-7 TOP SUB CASE ASSEMBLY





Loc. No	Parts No.	Description	Q ty	Available	Remark
1	AD61-06005B	PLATE-SPRING SHOE_WH	1	0	
2	AD97-24524A	ASSY-TOP LEFT	1	Х	
3	AD67-02581A	RUBBER-MIC	1	0	
4	3003-001198	MIC-CONDENSER	1	0	

## 9-8 TOP LCD ASSEMBLY



Loc. No	Parts No.	Description	Q ty	Available	Remark
1	AD67-02581A	RUBBER-MIC	1	0	
2	3003-001198	MIC-CONDENSER	1	0	





Area	Web Site
Europe, MENA, CIS, Africa	https://gspn1.samsungcsportal.com
E.Asia, W.Asia, China, Japan	https://gspn2.samsungcsportal.com
N.America, S.America	https://gspn3.samsungcsportal.com

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