



DIGITAL CAMERA LENS

NX Lens-XL1014/XL1014i
SAMSUNG 50~200mm
F4-5.6 ED OIS

SERVICE

Manual

DIGITAL CAMERA LENS

CONTENTS



1. Product Specification
2. Operation Instruction & Installation
3. Exploded View and Parts List
4. Disassembly and reassembly

Contents

1. Product Specification

1-1 Specifications.....	1-1
1-2 Identification of features	1-1

2. Operation Instruction & Installation

2-1 Install.....	2-1
------------------	-----

3. Exploded View and Parts List

3-1 (XL1014/XL1014i: 50-200mm F4 -5.6 OIS)	
1ST LENS BARREL ASSEMBLY	3-1
3-2 (XL1014/XL1014i: 50-200mm F4 - 5.6 OIS)	
2ND LENS BARREL ASSEMBLY	3-3
3-3 (XL1014/XL1014i: 50-200mm F4 - 5.6 OIS)	
3RD LENS BARREL ASSEMBLY	3-4
3-4 (XL1014/XL1014i: 50-200mm F4 - 5.6 OIS)	
4TH LENS BARREL ASSEMBLY.....	3-5
3-5 (XL1014: 50-200mm F4 - 5.6 OIS)	
MODE BUTTON ASSEMBLY	3-6
3-6 (XL1014i: 50-200mm F4 - 5.6 OIS)	
MODE BUTTON ASSEMBLY	3-7
3-7 (XL1014/XL1014i: 50-200mm F4 - 5.6 OIS)	
MAIN BARREL ASSEMBLY	3-8
3-8 (XL1014/XL1014i: 50-200mm F4 - 5.6 OIS)	
BASE BARREL ASSEMBLY.....	3-10
3-9 (XL1014/XL1014i: 50-200mm F4 - 5.6 OIS)	
TOTAL SUB ASSEMBLY	3-12
3-10 (XL1014/XL1014i: 50-200mm F4 - 5.6 OIS)	
TOTAL SUB-2 ASSEMBLY	3-14
3-11 PACKING ITEMS	3-16

4. Disassembly and reassembly

4-1 50-200mm Lens Disassembly.....	4-1
4-2 50-200mm 1st Mover Barrel Assy Lens Disassembly	4-10
4-3 50-200mm Lens Assembly	4-12

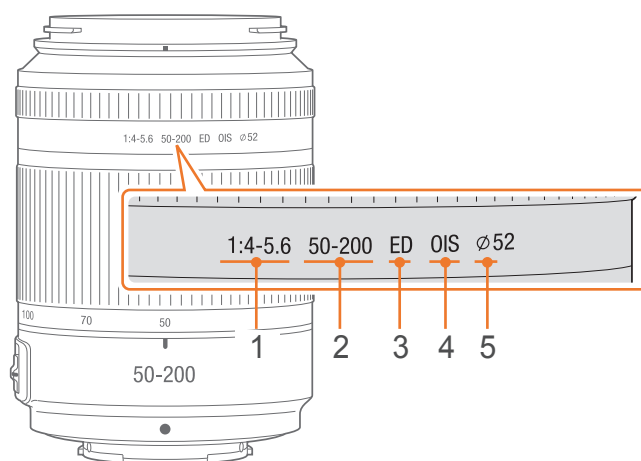
1. Product Specification

1-1 Specifications

Table. 1-1

Lens Name	SAMSUNG 50~200mm F4~5.6 ED OIS
Focus Length	50~200mm (equivalent to 77-308mm in 35mm format)
Elements in Group	17 elements in 13 groups (2 low dispersive lenses included)
Angle of View	31.4°~8.0°
Aperture	F4~5.6 (minimum: F22), (Number of Blades: 7, Circular Aperture Diaphragm)
Mount Type	Samsung NX mount
Optical Image Stabilizer	Included
Minimum Focus Distance	0.98m~infinity
Maximum Magnification	Approx. 0.2X
Lens Hood	Included
Filter Size	52mm
Max. Diameter x Length	70x100.5mm
Weight	Approx. 417g (without hood)
Operating Temperature	0~40 °C
Operating Humidity	5~85%

1-2 Identification of features



1. Aperture value	A range of supported aperture values. For example, F 1:4-5.6 means the maximum aperture value range from 4 to 5.6.
2. Focal length	The distance from the middle of the lens to its focal point (in millimeters). This figure is expressed in a range: minimum focal length to maximum focal length of the lens. Longer focal lengths result in narrower angles of view and the subject is magnified. Shorter focal lengths result in wider angles of view.
3. ED	Extra-low Dispersion lenses are aspherical lenses, which take clearer photos than standard lenses.
4. OIS	Optical Image Stabilization. Lenses with this feature can detect camera shake and effectively cancel out the movement inside the camera.
5. ø	The lens diameter. When you attach a filter to the lens, make sure that the diameters of the lens and the filter are the same..

Fig. 1-1

2. Operation Instruction & Installation

2-1 Install

2-1-1 Attach the lens



- Before mounting the lens, remove the lens cap, lens mount cover, and body cap.

1) Align the red mark on the lens with the red mark on the camera body.

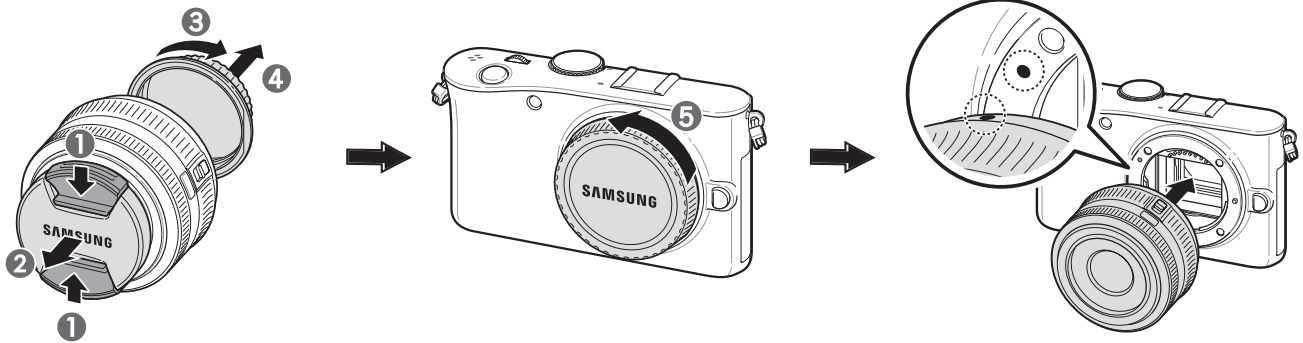


Fig. 2-1

2) Rotate the lens clockwise until it locks into place.

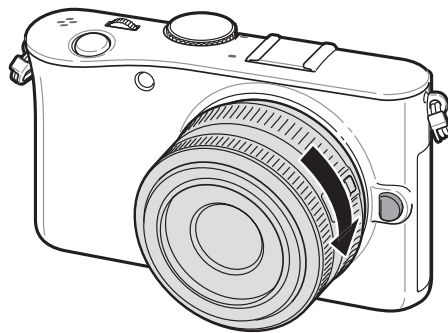


Fig. 2-2

⚠ Caution

- **If you attach a lens with the zoom lock switch, unlock it by rotating the zoom ring counter-clockwise. When the lens is locked, you cannot capture photos and the Lens is locked message appears.**
- **To lock the lens with the zoom lock switch, turn the zoom ring clockwise while pushing the zoom lock switch..**

2-1-2 Remove the lens

- 1) Turn off the camera before removing the lens.
- 2) Rotate the lens clockwise until it locks into place.

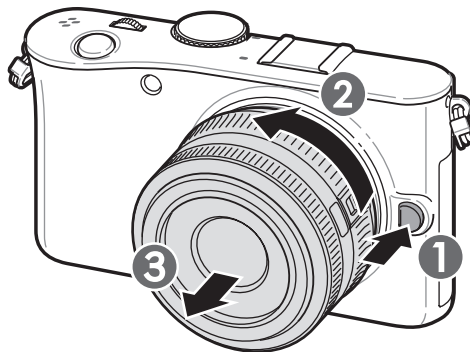


Fig. 2-3

⚠ Caution

- Samsung is not responsible for damage caused by using another manufacturer's lenses.
- When not using the lens, attach the lens cap and lens mount cover to protect the lens from dust and scratches.
- Do not attach or remove lenses in dusty, dirty areas. Dust and foreign particles can damage the lens or the camera.
- Do not touch the inside of the camera mount. Dust and foreign particles can damage the lens.
- When not using a lens, attach the body cap.

2-1-3 Setting the automatic/manual focus function



- The focus can be adjusted automatically or manually by using the AF/MF switch on the side of the lens.

1) Use of automatic focus

Set the AF/MF switch of the camera to AF. The focus is adjusted automatically if pressing half of the shutter button.

2) Use of manual focus

Set the AF/MF switch of the lens to MF. The focus can be adjusted manually by turning the focus ring.

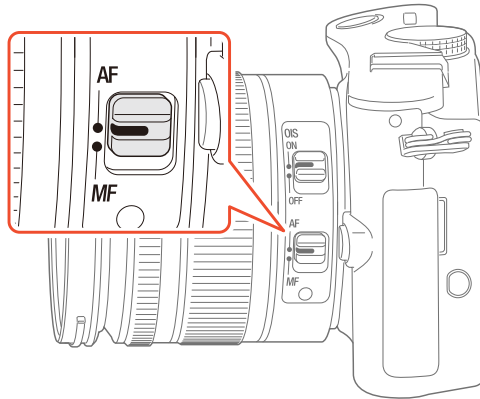


Fig. 2-4

2-1-4 Optical Image Stabilization (OIS)



- When using the optical image stabilization (OIS) function in taking pictures, the user can accurately focus pictures since this function minimizes camera shaking.

1) The OIS function can be used only in the case that the lens in use has the OIS function.

2) To use this function, please set [OIS] to ON.

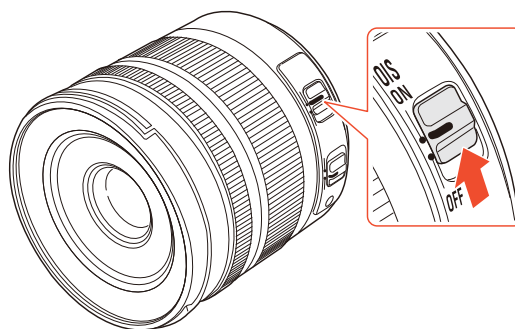
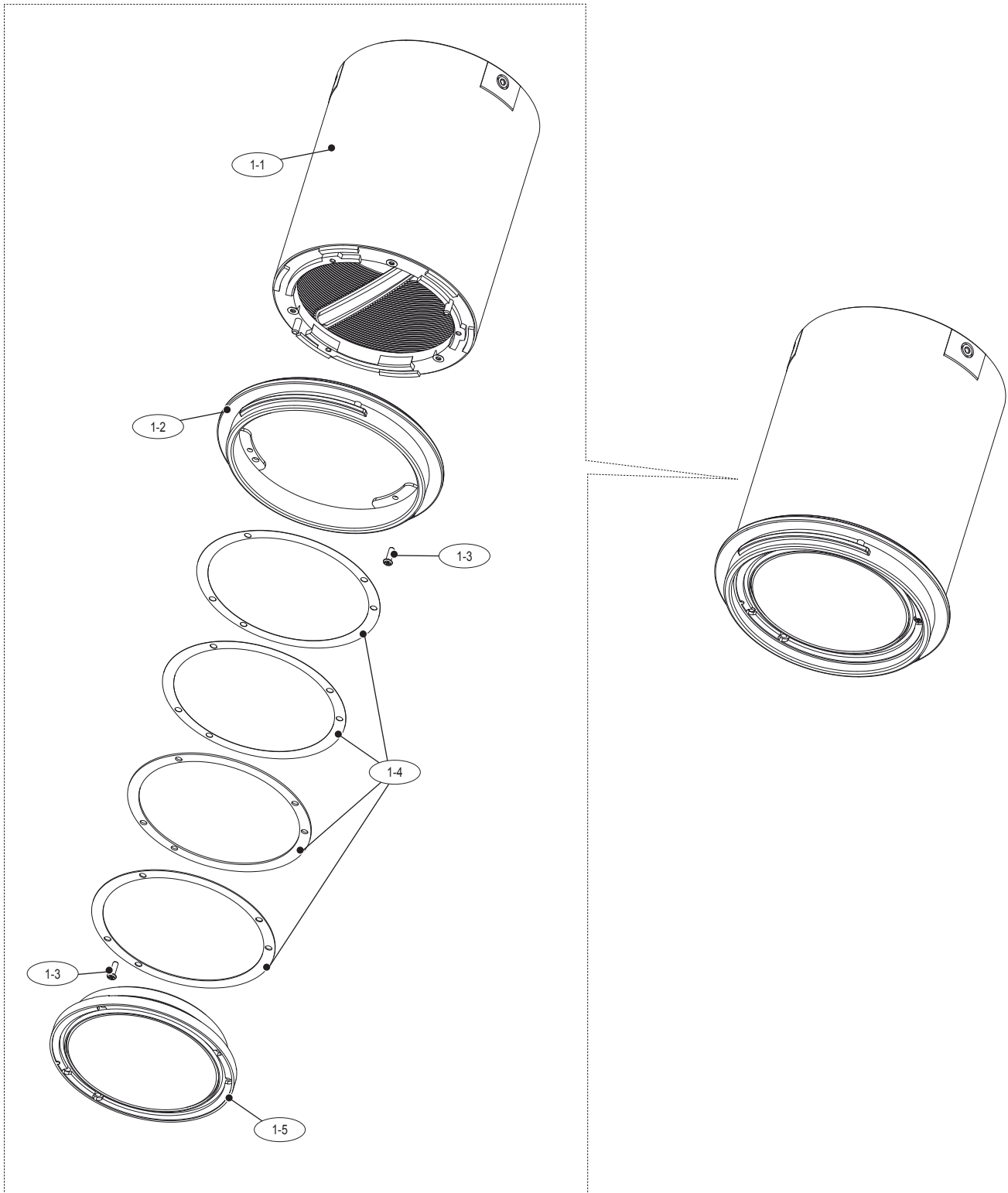


Fig. 2-5

3. Exploded View and Parts List

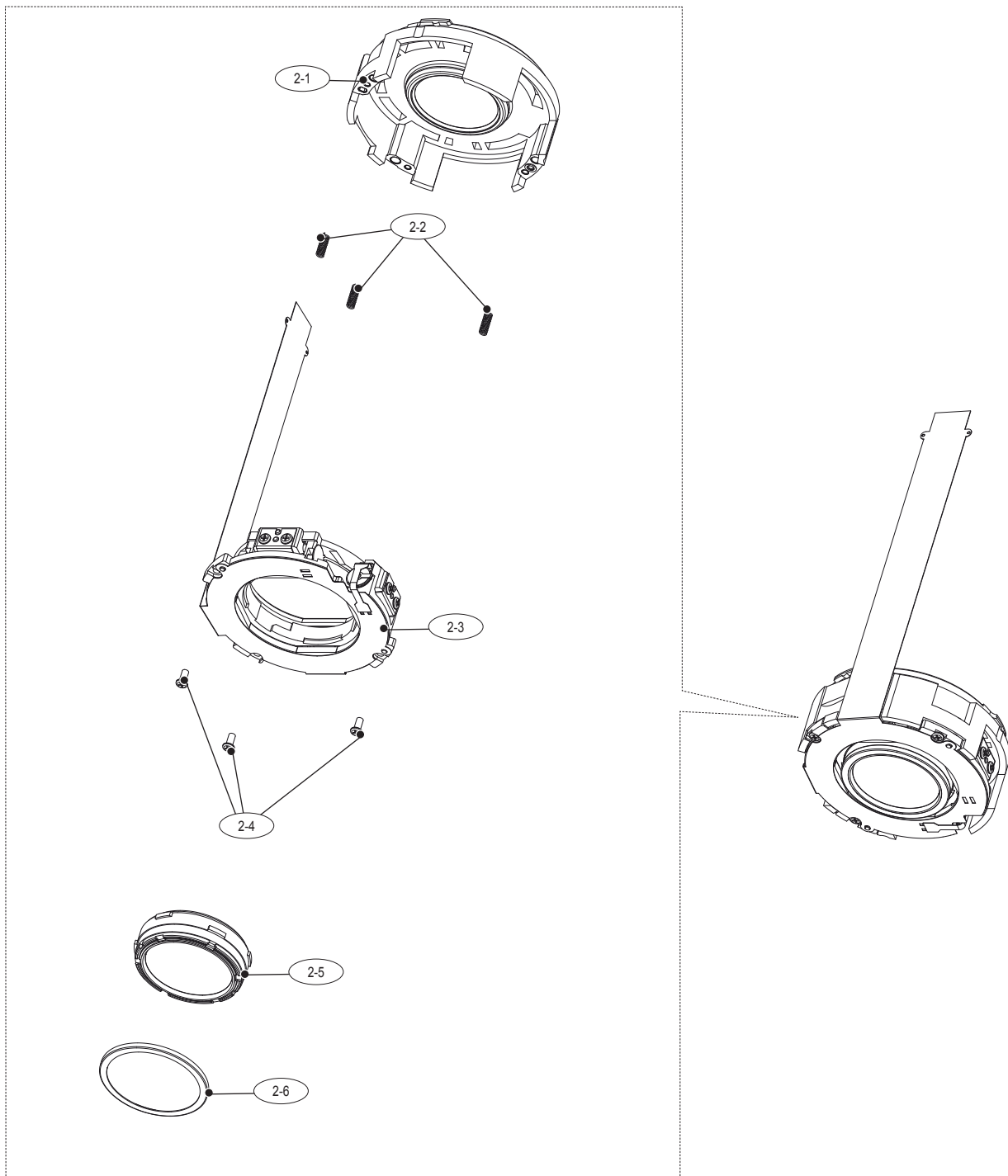
3-1 (XL1014/XL1014i: 50-200mm F4 -5.6 OIS)1ST LENS BARREL ASSEMBLY



Exploded View and Parts List

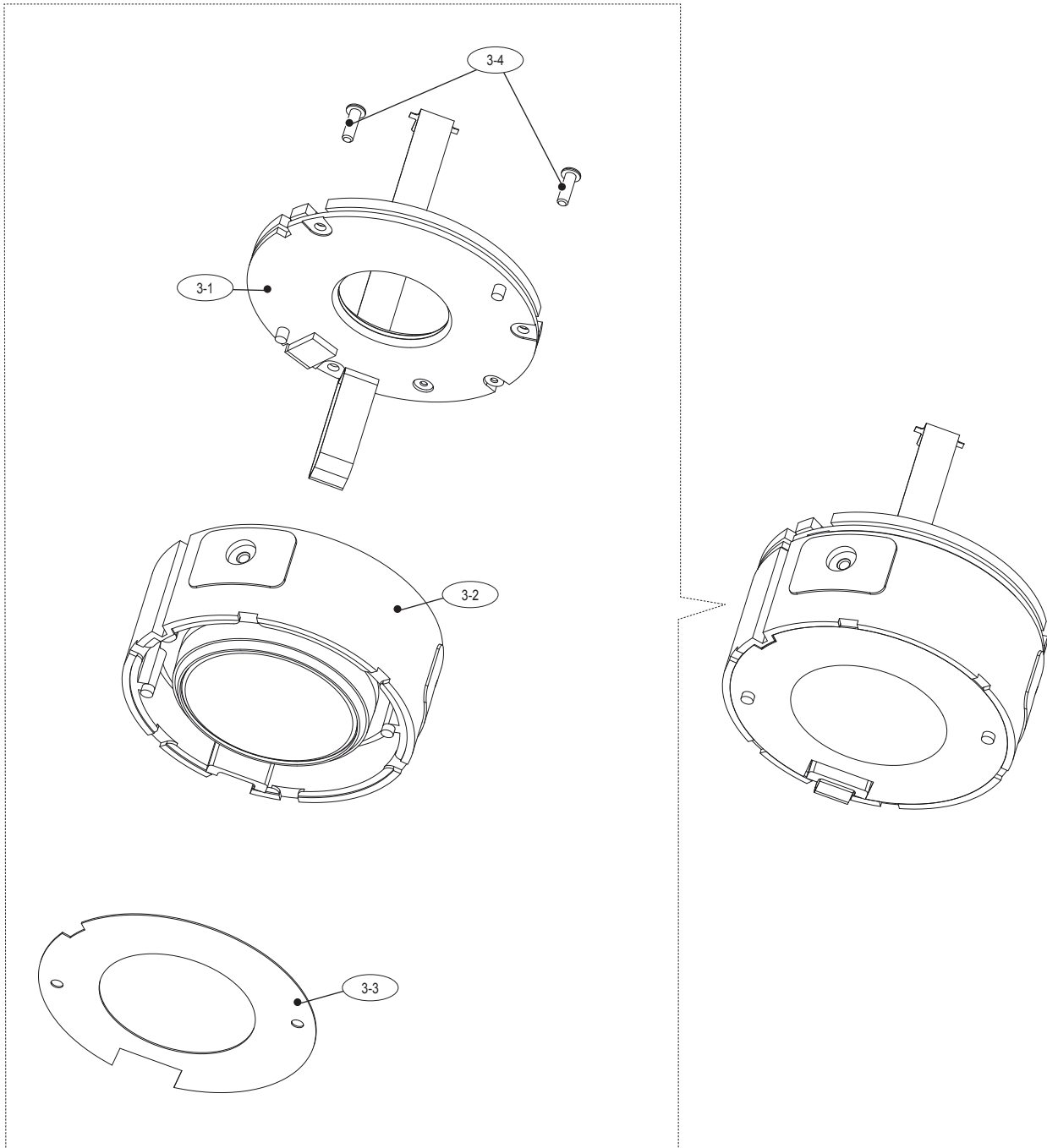
Loc. No	Parts No.	Description	Q ty	Available	Remark
1-1	AD67-01281B	1ST_BAREEL	1	X	
1-2	AD67-01293B	FRONT_BARREL	1	X	
1-3	6003-001630	SCREW_1435	3	X	
1-4	AD61-04203A	PLATE-1ST ADJUST WASHER 03	1	X	
	AD61-04204A	PLATE-1ST ADJUST WASHER 05	1	X	
1-5	6003-001658	SCREW-1460	3	X	
1-6	AD67-01282A	1ST_LENS_BARREL	1	X	

3-2 (XL1014/XL1014i: 50-200mm F4 - 5.6 OIS) 2ND LENS BARREL ASSEMBLY



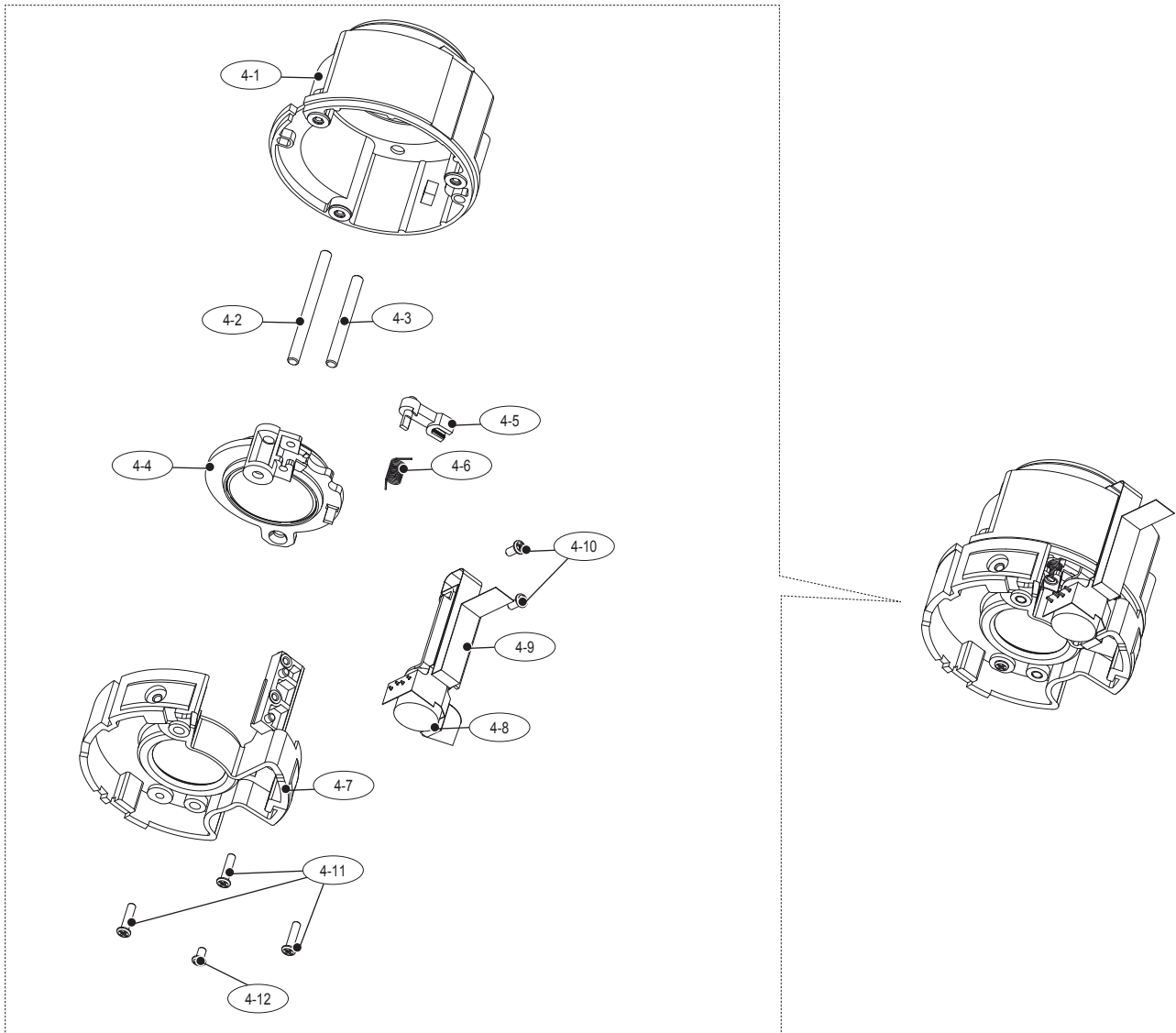
Loc. No	Parts No.	Description	Q ty	Available	Remark
2-1	AD67-01285A	2-2ND_LENS_BARREL	1	X	
2-2	6107-001828	OIS_ADJUST_SPRING	3	X	
2-3	AD97-17567B	OIS Module ASSY	1	X	
2-4	6003-001630	SCREW_1435	3	X	
2-5	AD67-01284A	2-1ST_LENS_BARREL	1	X	
2-6	AD61-04313A	2-1st_Lens_Barrel_Cap	1	X	

3-3 (XL1014/XL1014i: 50-200mm F4 - 5.6 OIS) 3RD LENS BARREL ASSEMBLY



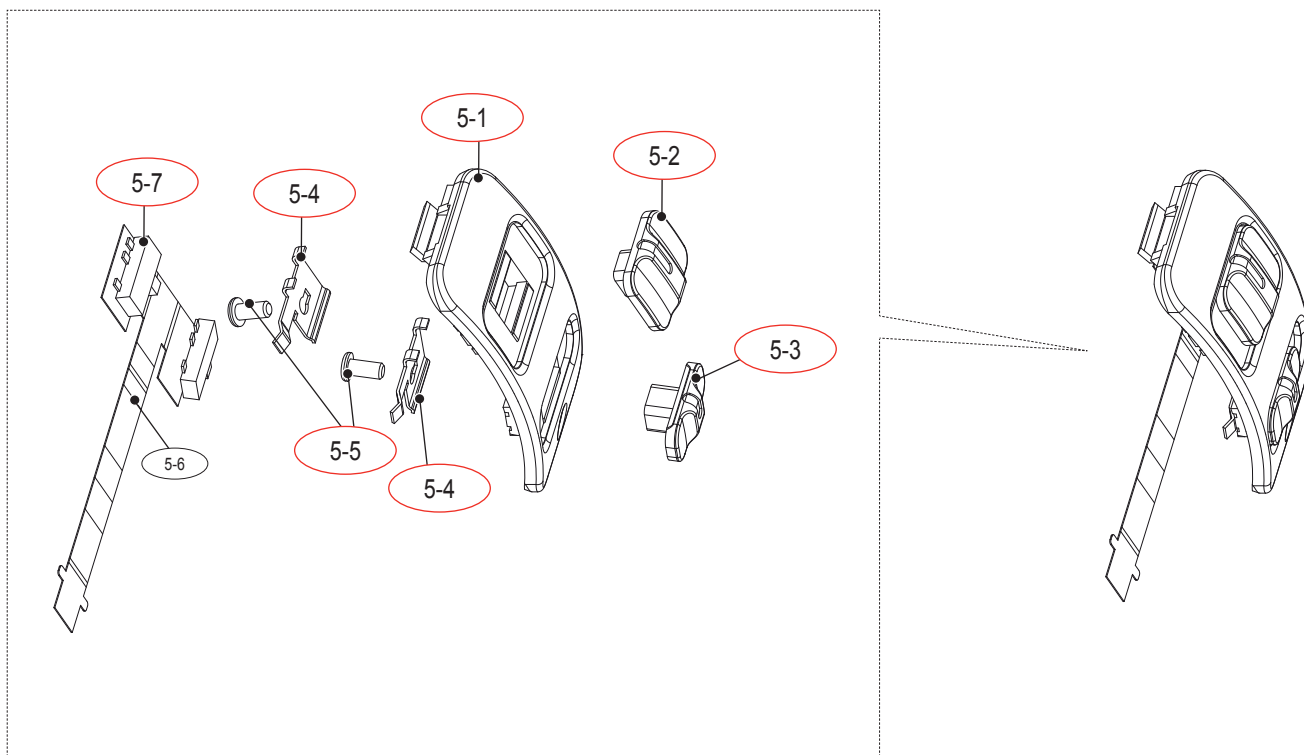
Loc. No	Parts No.	Description	Q ty	Available	Remark
3-1	AD97-17535A	IRIS ASSY_NX50-200	1	X	
3-2	AD67-01286A	3RD_LENS_BARREL	1	X	
3-3	AD61-04211A	3RD_LENS_MASK	1	X	
3-4	6003-001630	SCREW_1435	2	X	

3-4 (XL1014/XL1014i: 50-200mm F4 - 5.6 OIS) 4TH LENS BARREL ASSEMBLY



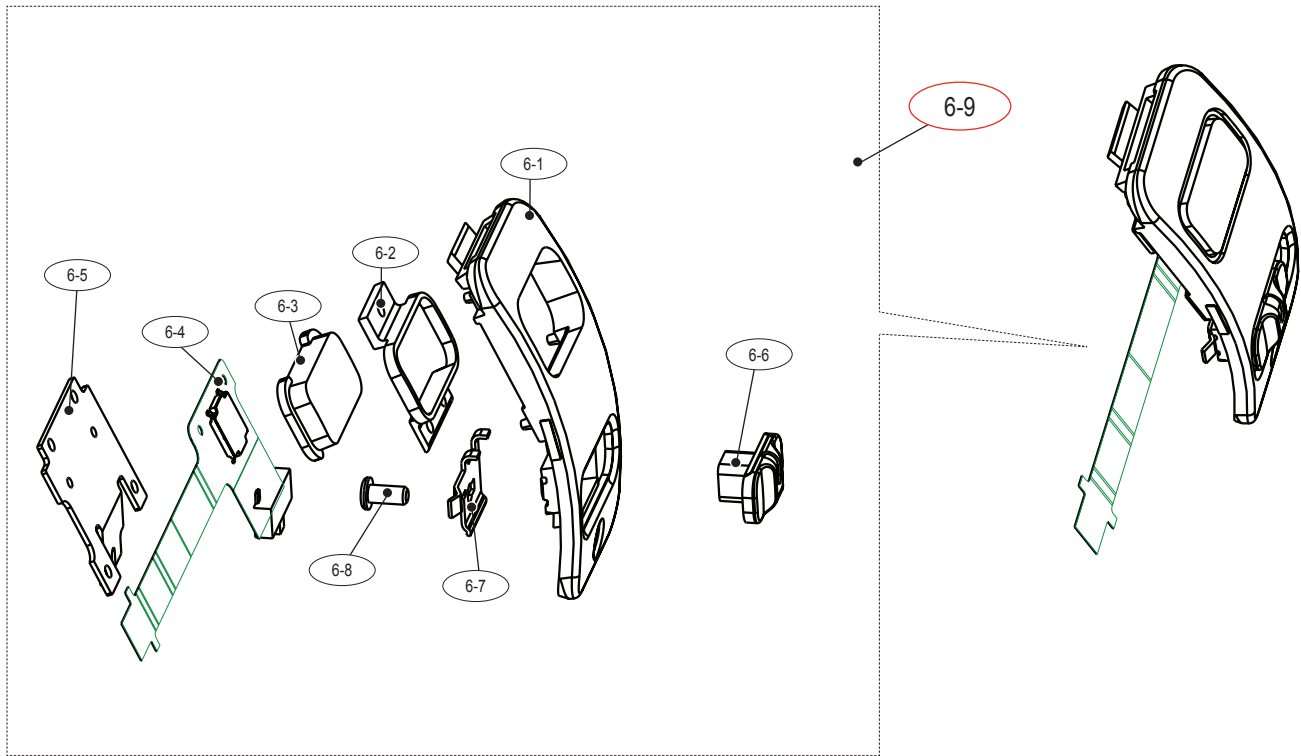
Loc. No	Parts No.	Description	Q ty	Available	Remark
4-1	AD67-01289A	4-3RD_LENS_BARREL	1	X	
4-2	AD66-00718A	AF_GUIDE_SHAFT_A	1	X	
4-3	AD66-00719A	AF_GUIDE_SHAFT_B	1	X	
4-4	AD67-01288A	4-2ND_LENS_BARREL	1	X	
4-5	AD61-04191A	AF_CLIP	1	X	
4-6	6107-001827	AF_GUIDE_SPRING	1	X	
4-7	AD67-01287A	4-1ST_LENS_BARREL	1	X	
4-8	AD97-17489A	STEP_MOTOR_ASSY	1	X	
4-9	AD41-01308A	AFPI_FPCB_ASSY	1	X	
4-10	6003-001629	SCREW_1425	2	X	
4-11	6003-001775	SCREW_1450	3	X	
4-12	6003-001629	SCREW_1425	1	X	

3-5 (XL1014: 50-200mm F4 - 5.6 OIS) MODE BUTTON ASSEMBLY



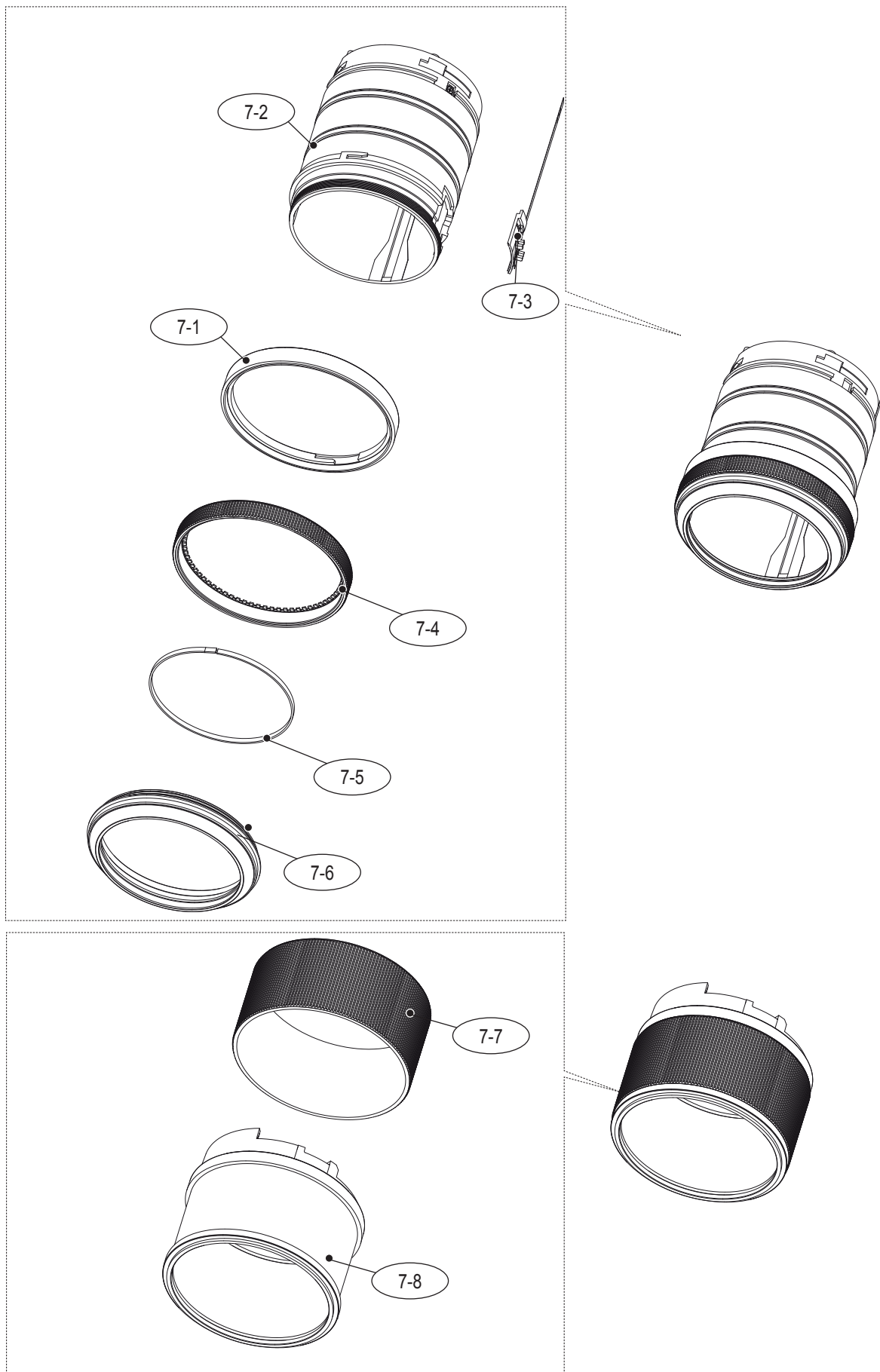
Loc. No	Parts No.	Description	Q ty	Available	Remark
5-1	AD63-04205A	BUTTON_COVER	1	O	
5-2	AD64-02658A	OIS_mode_SHIFT_BUTTON	1	O	
5-3	AD64-02659A	AF-MF_SHIFT_BUTTON	1	O	
5-4	AD61-04209A	SWITCH_BUTTON_PLATE	2	O	
5-5	6003-001629	SCREW_1425	2	O	
5-6	3408-001149	SWITCH_SLIDE	1	X	
5-7	AD41-01310A	SWITCH_FPCB_ASSY	1	O	

3-6 (XL1014i: 50-200mm F4 - 5.6 OIS) MODE BUTTON ASSEMBLY



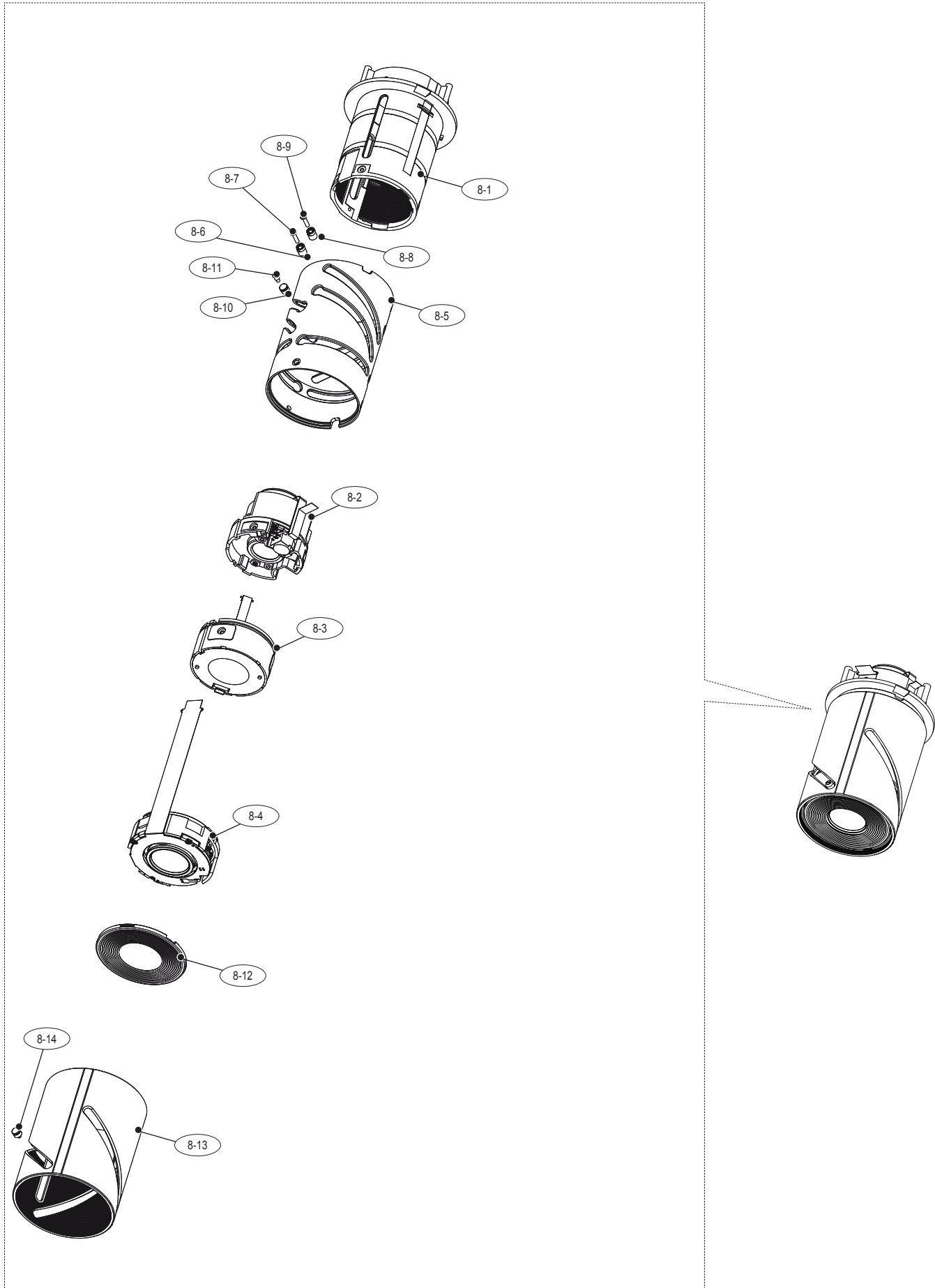
Loc. No	Parts No.	Description	Q ty	Available	Remark
6-1	AD63-04205C	COVER-I BUTTON	1	X	
6-2	AD64-03332B	DECO RING-BUTTON	1	X	
6-3	AD64-03331B	BUTTON IFUNCTION	1	X	
6-4	AD92-01619A	SWITCH FPCB ASSY	1	X	
6-5	AD61-05235A	PLATE BUTTON	1	X	
6-6	AD64-02659A	BUTTON-AF MF SHIFT	1	X	
6-7	AD61-04209A	SWITH PLATE	1	X	
6-8	6003-001629	SCREW	1	X	
6-9	AD97-20945B	ETC ASSY-IFN BUTTON_i Version	1	O	

3-7 (XL1014/XL1014i: 50-200mm F4 - 5.6 OIS) MAIN BARREL ASSEMBLY



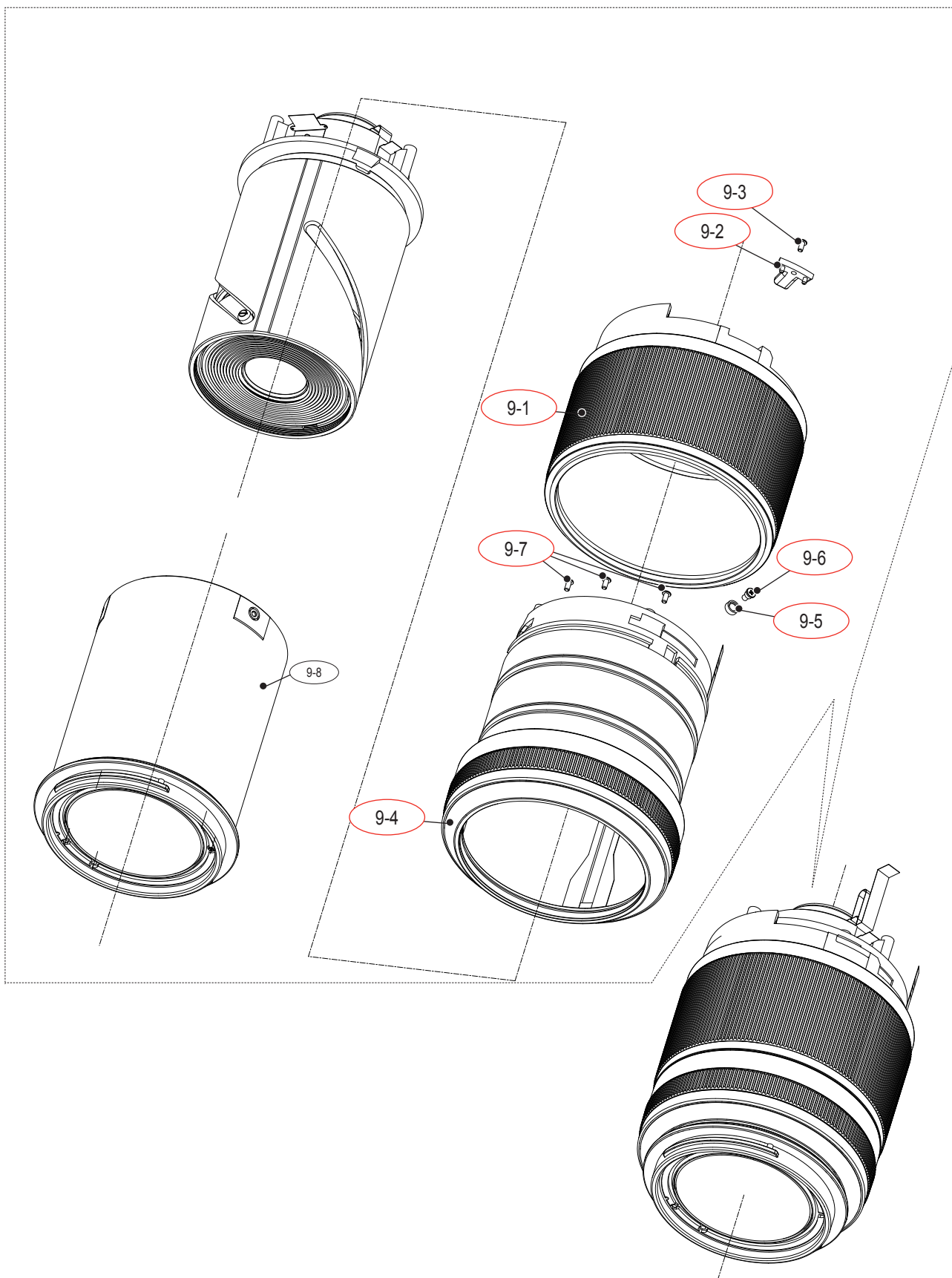
Loc. No	Parts No.	Description	Q ty	Available	Remark
7-1	AD63-04202A	COVER MIDDLE	1	X	XL1014
	AD63-04202C	COVER MIDDLE_i Version	1	X	XL1014i
7-2	AD67-01291A	MAIN_BARREL	1	X	
7-3	AD41-01309A	MFPI FPCB ASSY	1	X	
7-4	AD67-01295A	BARREL FOCUS	1	X	XL1014
	AD67-01295B	BARREL FOCUS_i Version	1	X	XL1014i
7-5	AD63-04240A	DUST_SHIELD	1	X	
7-6	AD67-01350A	FRONT_RING	1	X	
7-7	AD63-04223A	ZOOM_RUBBER_GRIP	1	X	XL1014
	AD63-04223B	GRIP ZOOM RUBBER_i Version	1	X	XL1014i
7-8	AD67-01292B	ZOOM_BARREL	1	X	

3-8 (XL1014/XL1014i: 50-200mm F4 - 5.6 OIS) BASE BARREL ASSEMBLY



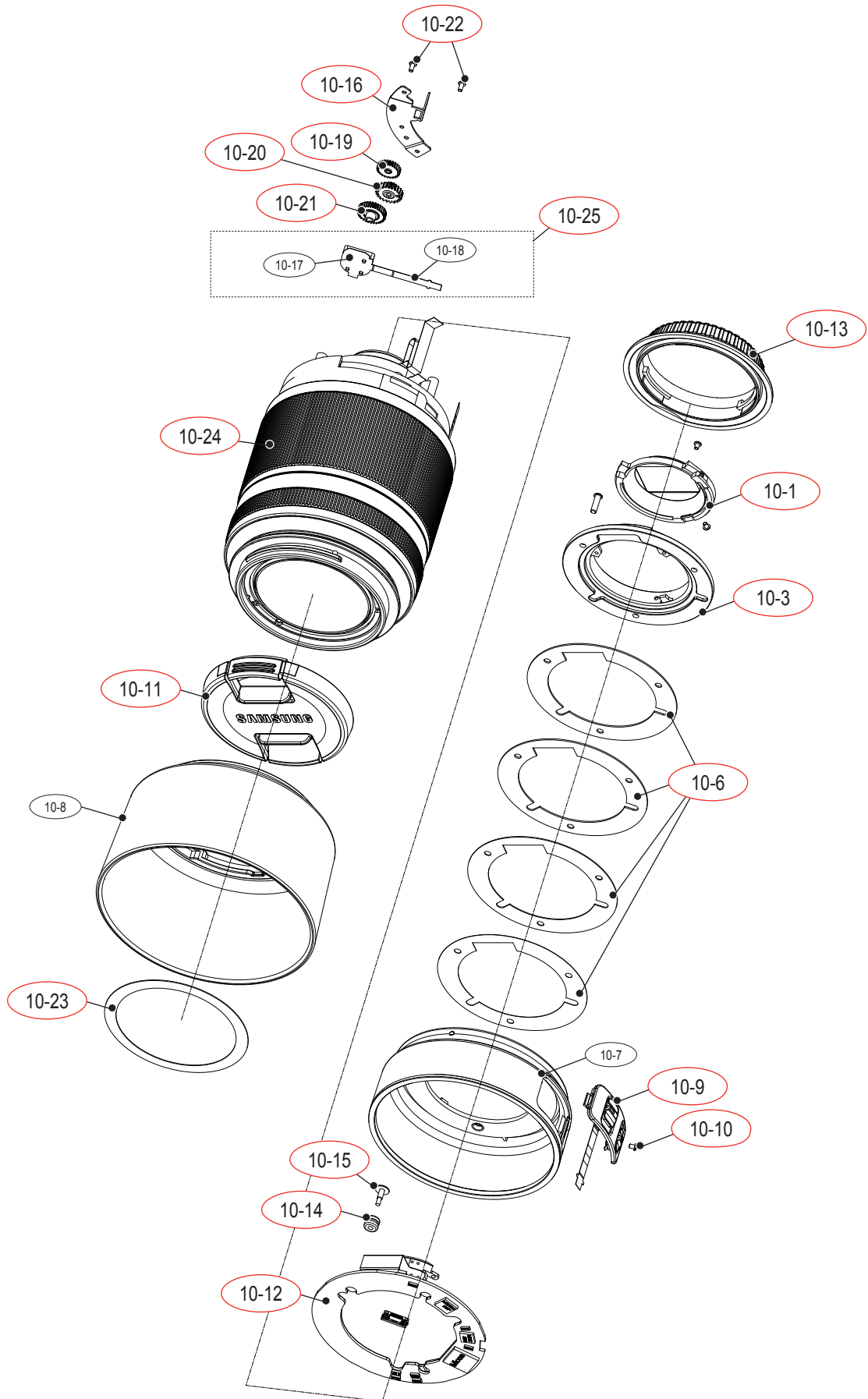
Loc. No	Parts No.	Description	Q ty	Available	Remark
8-1	AD67-01290A	BASE_BARREL	1	X	
8-2	AD97-18603A	4TH_BARREL_ASSY	1	X	
8-3	AD97-18602A	3RD_BARREL_ASSY	1	X	
8-4	AD97-18601A	2ND_BARREL_ASSY	1	X	
8-5	AD67-01349A	CAM_BARREL	1	X	
8-6	AD61-04239A	COLLAR_A	3	X	
8-7	6003-001704	ROLLER_STEM_A	3	X	
8-8	AD61-04239A	COLLAR_A	3	X	
8-9	6003-001704	ROLLER_STEM_A	3	X	
8-10	AD61-04240A	COLLAR_B	3	X	
8-11	6003-001642	ROLLER_STEM_B	3	X	
8-12	AD61-04314A	2ND_LENS_MASK	1	X	
8-13	AD67-01283A	1ST_GUIDE_BARREL	1	X	
8-14	AD61-04238A	1ST_GUIDE_PIN	3	X	

3-9 (XL1014/XL1014i: 50-200mm F4 - 5.6 OIS) TOTAL SUB ASSEMBLY



Loc. No	Parts No.	Description	Q ty	Available	Remark
9-1	AD97-18597A	ZOOM_BARREL_ASSY	1	O	XL1014
	AD97-18597C	SUB BARREL ASSY-ZOOM_i Version	1	O	XL1014i
9-2	AD66-00716A	CAM_LINK	1	O	
9-3	6003-001630	SCREW_1435	1	O	
9-4	AD97-18598A	MAIN_BARREL_ASSY	1	O	XL1014
	AD97-18598C	SUB BARREL ASSY-MAIN_i Version	1	O	XL1014i
9-5	AD61-04241A	COLLAR_C	3	O	
9-6	AD66-00722A	ROLLER_STEM_C	3	O	
9-7	6003-001703	SCREW_1735	3	O	
9-8	AD97-18600A	1ST_LENS_BARREL_ASSY	1	X	

3-10 (XL1014/XL1014i: 50-200mm F4 - 5.6 OIS) TOTAL SUB-2 ASSEMBLY

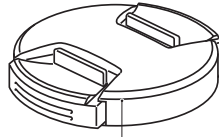


Loc. No	Parts No.	Description	Q ty	Available	Remark
10-1	AD63-04204A	MOUNT_INNER_COVER	1	O	
10-2	6003-001674	SCREW_1425 (NI PLT)	3	O	
10-3	AD61-04237B	LENS_MOUNT	1	O	
10-4	6003-001755	SCREW_2060	3	X	
10-5	6001-002181	SCREW_1425 (MACHINE)	2	O	
10-6	AD61-04206A	PLATE-BF ADJUST WASHER 03	1	O	
	AD61-04207A	PLATE-BF ADJUST WASHER 05	1	O	
10-7	AD97-18513C	COVER BASE_i Version	1	X	XL1014i
10-8	AD67-01294B	HOOD-BARREL	1	X	
10-9	AD97-18599A	SUB BARREL ASSY-MODE BUTTON	1	O	XL1014
	AD97-20945B	ETC ASSY-IFN BUTTON_i Version	1	O	XL1014i
10-10	6003-001630	SCREW_1435	1	O	
10-11	AD97-18604A	55MM_FRONT_CAP_ASSY	1	O	
10-12	AD92-01102A	ASSY PCB LENS MAIN;XL1014	1	O	XL1014
	AD92-01102B	ASSY PCB LENS MAIN;XL1014i	1	O	XL1014i
10-13	AD63-03989A	COVER-MOUNT CAP	1	O	
10-14	AD63-04224A	PCB_CUSHION	3	O	
10-15	6009-001583	1465W_SCREW	3	O	
10-16	AD61-04208A	PM_GEAR_PLATE	1	O	
10-17	3406-001156	POTENTIO_METER_ASSY	1	X	
10-18	AD41-01312A	POTENTIO_METER_FPCB	1	X	
10-19	AD66-00711A	PM_GEAR_A	1	O	
10-20	AD66-00712A	PM_GEAR_B	1	O	
10-21	AD66-00713A	PM_GEAR_C	1	O	
10-22	6003-001630	SCREW_1435	2	O	
10-24	AD61-04212A	PLATE NAME	1	O	XL1014
	AD61-04212C	PLATE NAME_i Version	1	O	XL1014i
10-25	AD92-00990A	ASSY SMD INSERT-PM;XL1014	1	O	

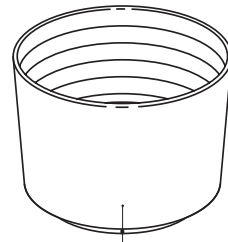
3-11 PACKING ITEMS



6-1



6-2



6-3

Loc. No	Parts No.	Description	Q ty	Available	Remark
6-1	AD63-03989A	REAR-MOUNT CAP	1	0	
6-2	AD97-18604A	ASSY_FRONT_CAP	1	0	
6-3	AD97-19361A	ASSY BARREL-LENS HOOD	1	0	

4. Disassembly and reassembly

4-1 50-200mm Lens Disassembly

Precaution for disassembly/reassembly

1. Set up the repair table where the anti-static mat is installed to disassemble and reassemble the camera.
2. When handling the key PCB of the camera, wear the anti-static band on the wrist to prevent any error from static electricity.
3. When handling key parts, be careful of the following.

<Table 4-1>

Part	Precaution
F PCB Type	When assembling the F PCB to the CONNECTOR with a pin set, be careful not to cause dents or tears on the PCB.
CCD and IR CUT	When handling the parts, be careful not to leave any fingerprints. Use the pin set with soft tips. When cleaning the parts with alcohol, be careful not to cause any stains. Do the repair work in a dust free environment.
PCB Type	Always use the anti-static mat and wrist band, as the parts can be damaged from static electricity from the hand.
CONTACT Type	Be careful of damage of deformation of parts from the pin set.

No.	Disassembly image	Disassembly description
1		<p>disassemble the Lens on 50mm position, as its official position</p>
2		<p>Remove 3 Screws.</p>
3		<p>Remove 3 screws of Mount Cover.</p>

No.	Disassembly image	Disassembly description
4		<p>Disassemble the Mount Cover.</p>
5		<p>Remove 2 Screws.</p>
6		<p>Disassemble the Mount and 1st Adjust Washer.</p>

No.	Disassembly image	Disassembly description
7		Remove 1 Screw.
8		Remove 1 Connector.
9		Remove Momode Button Assy.

No.	Disassembly image	Disassembly description
10		<p>Remove INDEX RING.</p>
11		<p>Remove the 5 Connectors, 3 Screws of Main PCB Assy.</p>
12		<p>Disassemble the Main PCB Assy.</p>



No.	Disassembly image	Disassembly description
13		Remove 2 Screws.
14		Disassemble the PM Plate and Gear.
15		Remove 4 Screws and CAM link.

No.	Disassembly image	Disassembly description
16		<p>Disassemble the Zoom Barrel Assy..</p>
17		<p>Remove 3 Screws and 3 Collars.</p>
18		<p>Disassemble the Main Barrel Assy.</p>

No.	Disassembly image	Disassembly description
19		<p>Disassemble the 1st Barrel Assy.</p>
20		<p>Remove 3Screws.</p>
21		<p>Disassemble the Guide Barrel. <i>(Check the MTF and do the adjustment after assembly)</i></p>

No.	Disassembly image	Disassembly description
22		<p>Remove 9 Screws and 9 Collars. (After marking the eccentric roller of "a,b" with location and direction, please disassemble.)</p>
23		<p>Disassemble the Cam Barrel.</p>
24		<p>2nd, 3rd 4th Barrel Assy.</p>

4-2 50-200mm 1st Mover Barrel Assy Lens Disassembly

No.	Disassembly image	Disassembly description
1		<p>Take apart the NAME PLATE</p>
2		<p>Take apart the NAME PLATE (When assembled the 1st LENS BARREL, Match each pooffs on the image)</p>
3		<p>Remove 3 Screws of 1st Lens Barrel Assy.</p>

No.	Disassembly image	Disassembly description
4		<p>Remove 1st lens Barrel Assy and 1st Adjust Washer.</p>
5		<p>Remove 3 Screws of Front Barrel.</p>
6		<p>Disassemble the Front Barrel.</p>



■ For the assembly procedure as this, refer to the BARREL disassembly part.

4-3 50-200mm Lens Assembly

No.	Disassembly image	Disassembly description
1		<p>Assemble the FPCB at the 3RD barrel ass'y comes out "a".</p>
2		<p>Assemble the 3RD BARREL ASSY.</p>
3		<p>Assemble the FPCB at the 4TH barrel ass'y comes out "a".</p>

No.	Disassembly image	Disassembly description
4		<p>Assemble the 4TH BARREL ASSY.</p>
5		<p>Assemble "a" parts at the SUB BARREL ASSY into the "b" at the CAM BARREL.</p>
6		<p>Assemble the 9 Screws and 9 Collars. <i>(Assemble below eccentric roller of "a,b" as the inscribed location and direction.)</i></p>

No.	Disassembly image	Disassembly description
7		<p>Assemble "a" at the Cam barrel Ass'y matched with "b" at the Guide baarel while the camcorder status is wide.</p>
8		<p>Assemble the 3 1ST GUIDE PIN.</p>
9		<p>To assemble match the Point "a". (Be careful about the location of "c", FPCB.)</p>

No.	Disassembly image	Disassembly description
10		<p>This is the assembled state of the 1ST BARREL ASSY. <i>(Be careful about the location "a", FPCB.)</i></p>
11		<p>MAIN BARREL ASSY relationship "a" part is "b" Set for mark segment and assembles.</p>
12		<p>Assemble the MAIN BARREL ASSY.</p>

No.	Disassembly image	Disassembly description
13		<p>Assemble the 3 Screws and 3 Collars.</p>
14		<p>Assemble the Zoom Barrel Ass'y while the camcorder status is wide and tighten the Cam Link using a screw at "a" position.</p>
15		<p>Assemble the 3 Screws.</p>

No.	Disassembly image	Disassembly description
16		<p>Assemble the PM gear A/B/C at below pictured direction.</p>
17		<p>Assemble the 2 Screws and PM PLATE.</p>
18		<p>Assemble the 3 Screws and MAIN PCB ASSY.</p>

No.	Disassembly image	Disassembly description
19		<p>Assemble the 5 Connectors.</p>
20		<p>Assemble the INDEX RING.</p>
21		<p>Assemble the 1ST ADJUST WASHER.</p>

No.	Disassembly image	Disassembly description
22		<p>Assemble "a" between AF switch and OIS switch and tighten the 3 pcs of Mount screw.</p>
23		<p>Assemble the 2 Screws.</p>
24		<p>Assemble the 3 Screws and MOUNT COVER.</p>

No.	Disassembly image	Disassembly description
25		<p>Assemble the 1 Connector.</p>
26		<p>Assemble the 1 Screws of MODE BUTTON ASSY.</p>
27		<p>Assemble the Mount.</p>



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

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