



DIGITAL CAMERA LENS

NX Lens-XL1016
SAMSUNG 20mm F2.8

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 [XL1016 : 20mm F2.8) TOTAL ASSEMBLY	3-1
3-2 [XL1016 : 20mm F2.8) SUB BARREL ASSEMBLY	3-3
3-3 PACKING ITEMS	3-5

4. Disassembly and reassembly

4-1 Disassembly.....	4-1
4-2 Reassembly	4-4

1. Product Specification

1-1 Specifications

Table. 1-1

Lens Name	SAMSUNG 20mm F2.8
Focus Length	20mm (equivalent to 30.8mm in 35mm format)
Elements in Group	6 elements in 4 groups (1 aspheric lens included)
Angle of View	70.2°
Aperture	F2.8 (minimum: F22), (Number of Blades: 7, Circular Aperture Diaphragm)
Mount Type	Samsung NX mount
Optical Image Stabilizer	Not included
Minimum Focus Distance	0.17m~infinity
Maximum Magnification	Approx. 0.18X
i-Scene Mode	Supported (Backlight, Landscape, Sunset, Dawn, Beach&Snow, Night)
Filter Size	43mm
Max. Diameter x Length	62.2x24.5mm
Weight	Approx. 89g
Operating Temperature	0~40 °C
Operating Humidity	5~85%

1-2 Identification of features

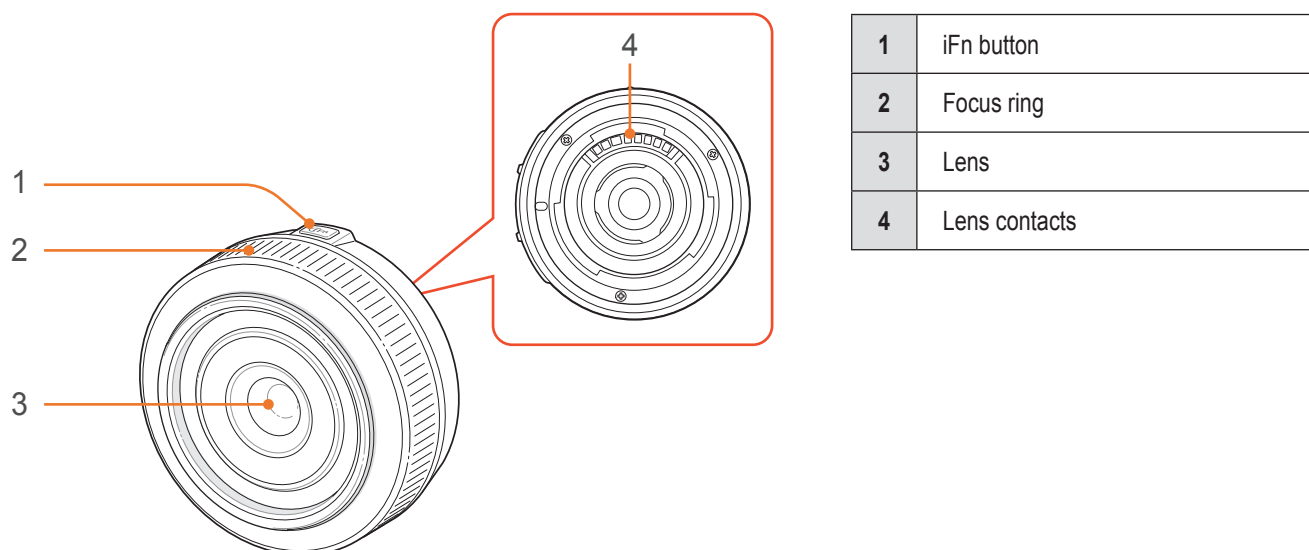


Fig. 1-1

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.

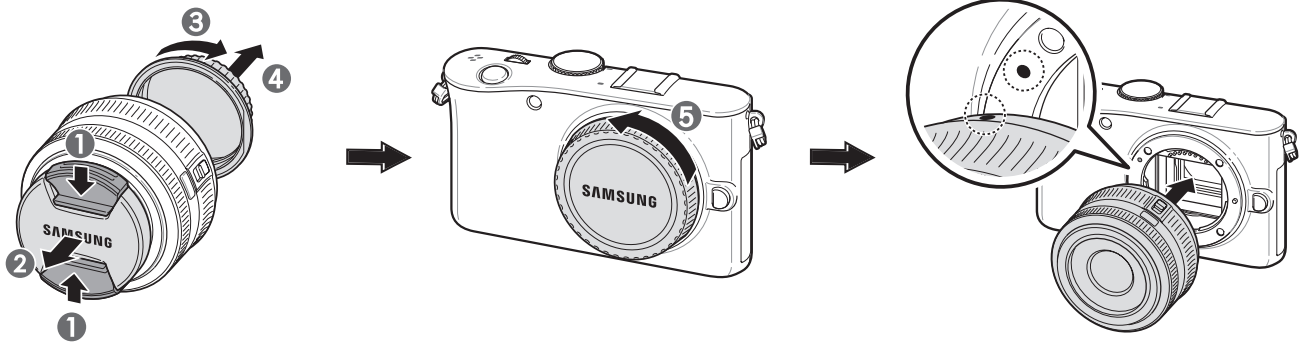


Fig. 2-1

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

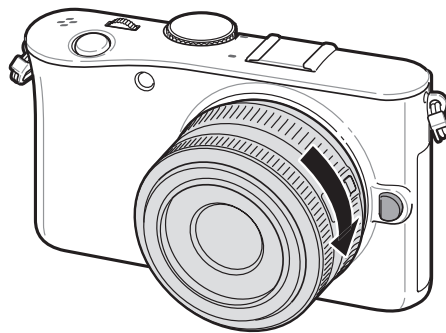


Fig. 2-2

⚠ 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.

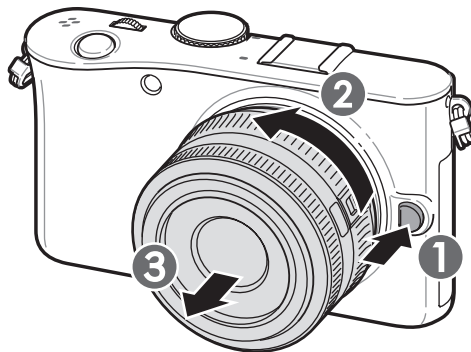


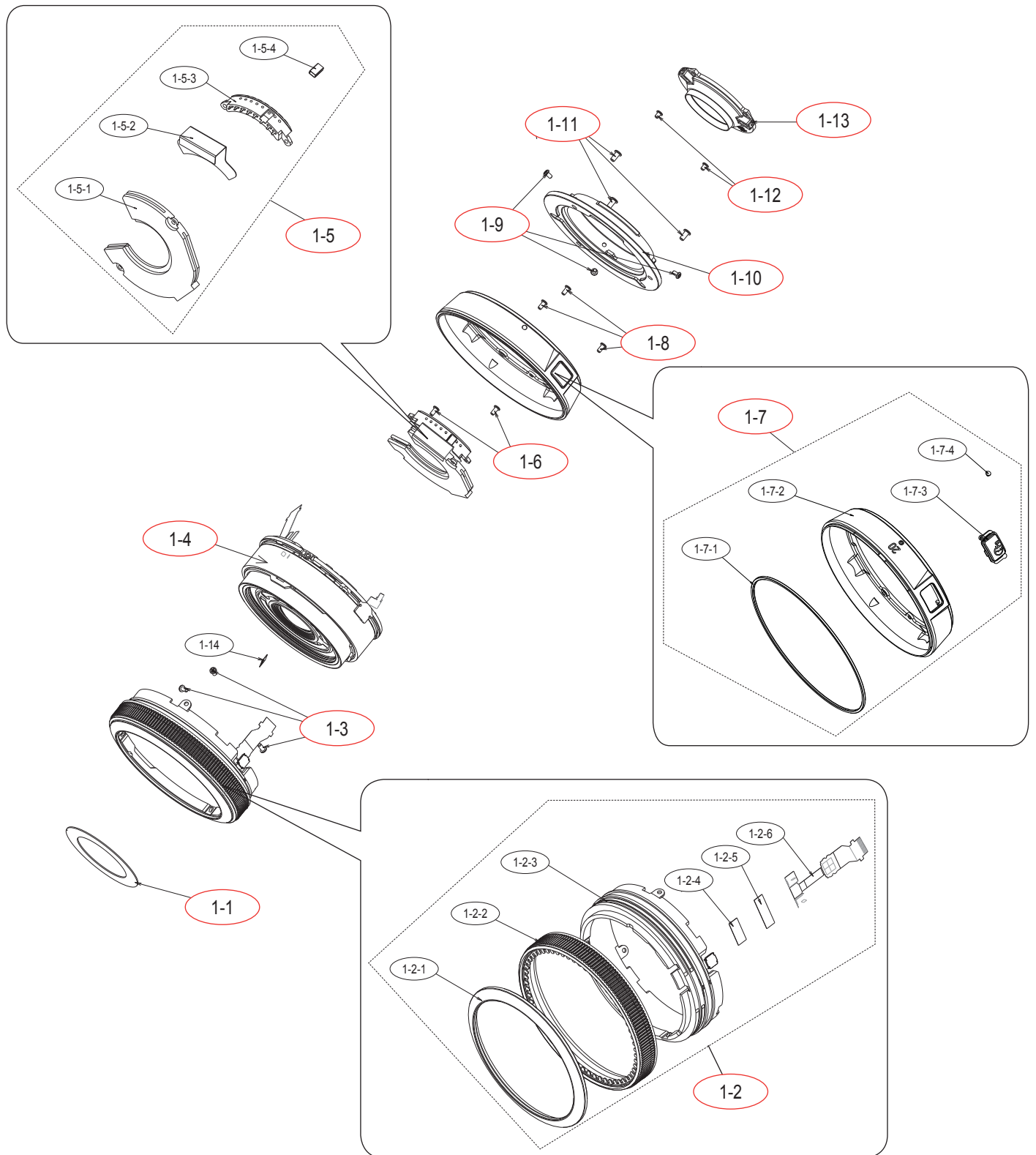
Fig. 2-3

⚠ 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.

3. Exploded View and Parts List

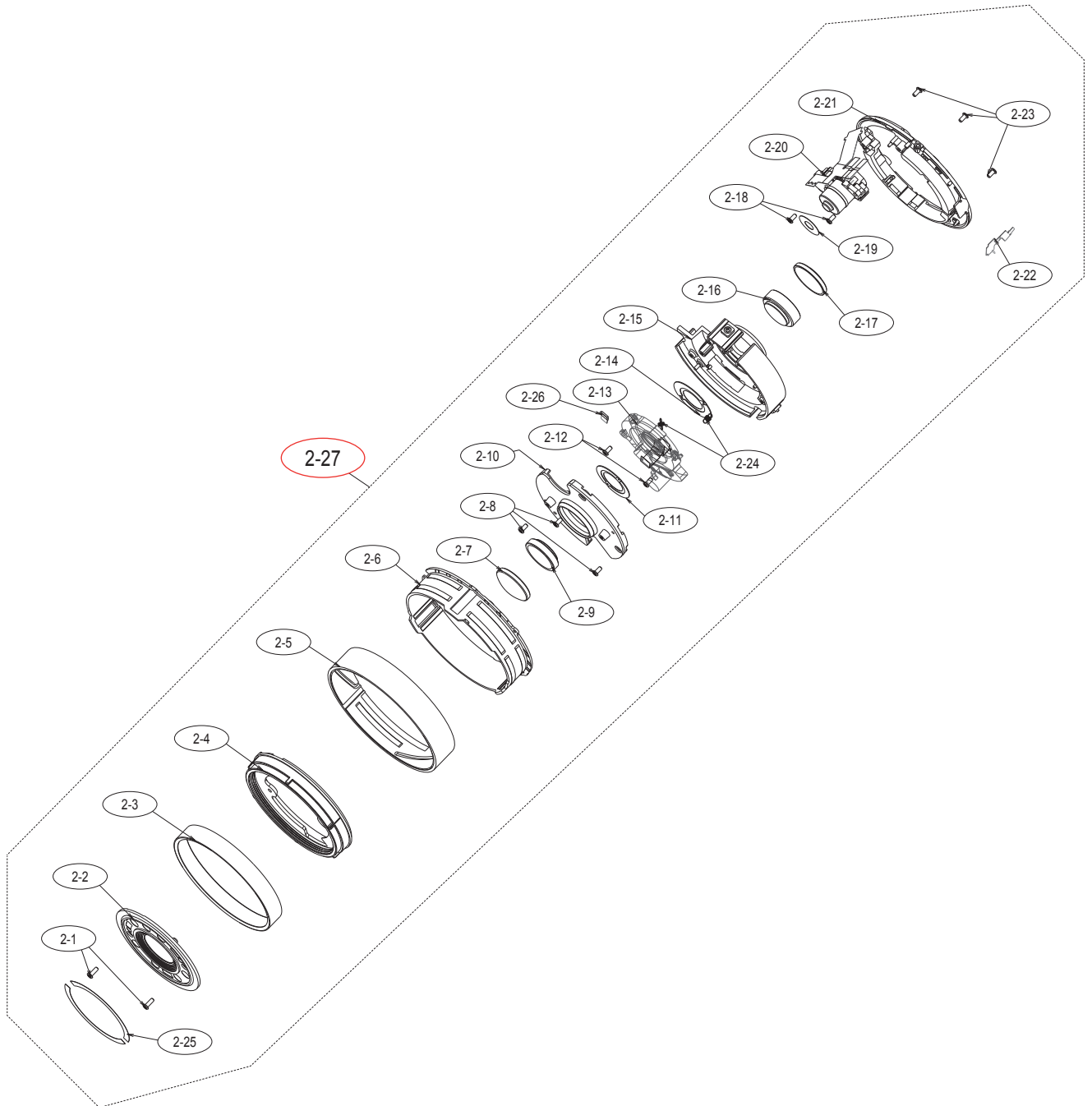
3-1 (XL1016 : 20mm F2.8) TOTAL ASSEMBLY



Exploded View and Parts List

Loc. No	Parts No.	Description	Q ty	Available	Remark
1-1	AD63-05419B	NAME PLATE	1	O	
1-2	AD97-20101A	FOCUS RING ASSY_XL1016_BK	1	O	BLACK
	AD97-20101B	FOCUS RING ASSY_XL1016_WT	1	O	WHITE
1-2-1	AD63-05414A	OUTER COVER	1	X	
1-2-2	AD67-01812A	FOCUS GRIP_BK	1	X	BLACK
	AD67-01812A	FOCUS GRIP_WT	1	X	WHITE
1-2-3	AD67-01814A	FOCUS RING	1	X	
1-2-4	AD63-05800A	CUSHION SHIELDFOAM_ESD	1	X	
1-2-5	AD63-05736A	PI TAPE	2	X	
1-2-6	AD92-01351A	MF PI FPCB	1	X	
1-3	6003-001660	SCREW_B,M1.4,L3,NI	3	O	
1-4	AD97-20104A	SUB BARREL ASSY_XL1016	1	O	BLACK/WHITE
1-5	AD92-01446A	ASSY PCB LENS MAIN;XL1016	1	O	BLACK/WHITE
1-5-1	AD92-01394A	HPCB ASSY	1	X	
1-5-2	AD41-01311A	CONTACT FPCB	1	X	
1-5-3	AD61-04213A	CONTACT ASSY	1	X	
1-5-4	AD63-04940A	CUSHION SHIELDFOAM_EMI	1	X	
1-6	6003-001660	SCREW_B,M1.4,L3,NI	2	O	
1-7	AD97-20100E	MAIN BARREL ASSY_XL1016_BK	1	O	BLACK
	AD97-20100F	MAIN BARREL ASSY_XL1016_WT	1	O	WHITE
1-7-1	AD63-05436B	BLUE RING	1	X	
1-7-2	AD67-01816E	MAIN BARREL_XL1016_BK	1	X	BLACK
	AD67-01816F	MAIN BARREL_XL1016_WT	1	X	WHITE
1-7-3	AD64-03054C	I BUTTON_XL1016_BK	1	X	BLACK
	AD64-03054D	I BUTTON_XL1016_WT	1	X	WHITE
1-7-4	AD66-00680A	SET POINT	1	X	
1-8	6003-001660	SCREW_B,M1.4,L3,NI	3	O	
1-9	6003-001674	SCREW_B,M1.4,L2.5,NI	3	O	
1-10	AD61-04237B	MOUNT	1	O	BLACK/WHITE
1-11	6003-001716	SCREW_M1.7,L3.5,NI	3	O	
1-12	6001-002181	SCREW_M1.4,L2.5,ZPC(BLK)	2	O	
1-13	AD63-05413A	MOUNT COVER	1	O	
1-14	AD63-05735A	FOCUS TAPE	1	X	

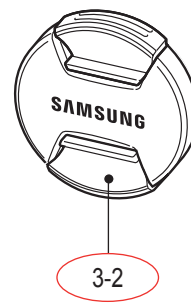
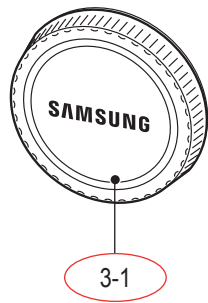
3-2 (XL1016 : 20mm F2.8) SUB BARREL ASSEMBLY



Exploded View and Parts List

Loc. No	Parts No.	Description	Q ty	Available	Remark
2-1	6003-001630	SCREW_M1.4,L3.5,ZPC(BLK)	2	X	
2-2	AD63-05412A	FRONT COVER	1	X	
2-3	AD63-05420A	FRONT RING	1	X	
2-4	AD67-01813A	FILTER BARREL	1	X	
2-5	AD67-01815A	CAM BARREL	1	X	
2-6	AD67-01811A	GUIDE BARREL	1	X	
2-7	AD67-01817A	G1 LENS	1	X	
2-8	6003-001751	SCREW_M1.4,L4,ZPC(BLK)	3	X	
2-9	AD67-01823A	G2/3 LENS	1	X	
2-10	AD67-01808A	1ST LENS BARREL	1	X	
2-11	AD63-05417A	1ST LENS SHIELD	1	X	
2-12	6003-001706	SCREW_M1.4,L3,ZPC(BLK)	2	X	
2-13	AD97-19840A	IRIS ASSY	1	X	
2-14	AD63-05418A	2ND LENS SHIELD	1	X	
2-15	AD67-01809A	2ND LENS BARREL	1	X	
2-16	AD67-01824A	G4/5 LENS	1	X	
2-17	AD67-01822A	G6 LENS	1	X	
2-18	6003-001630	SCREW_M1.4,L3.5,ZPC(BLK)	2	X	
2-19	AD63-05529A	MOTOR TAPE	1	X	
2-20	AD97-19841A	AF MODULE ASSY	1	X	
2-21	AD67-01810A	FIX BARREL	1	X	
2-22	AD92-01350A	AF INF FPCB	1	X	
2-23	6003-001706	SCREW_M1.4,L3,ZPC(BLK)	3	X	
2-24	6107-002787	FIX SPRING	2	X	
2-25	AD63-04512A	FRONT DECO TAPE	2	X	
2-26	AD63-05421A	IRIS FPCB TAPE	1	X	
2-27	AD97-20104A	SUB BARREL ASSY_XL1016	1	O	BLACK/WHITE

3-3 PACKING ITEMS



Loc. No	Parts No.	Description	Q ty	Available	Remark
3-1	AD63-03989A	COVER-MOUNT CAP	1	0	
3-2	AD97-18381A	ASSY LENS-CAP	1	0	

4. Disassembly and reassembly

4-1 Disassembly

MOUNT COVER_XL1016 / MOUNT_XL1014_SL Disassembly

1. Remove the 6 screws.

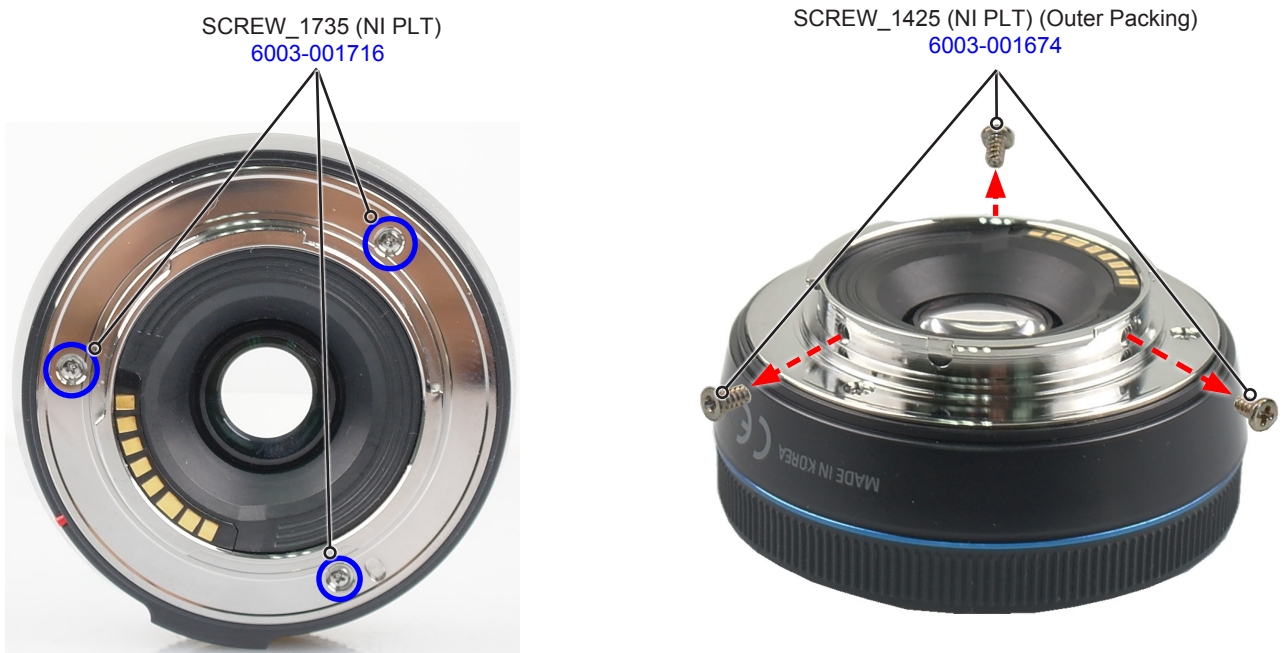


Fig. 4-1

2. After Remove the MOUNT COVER_XL1016. Remove the 2 screws.



Fig. 4-2

3. Remove the **MOUNT_XL1014**



Fig. 4-3

MAIN HPCB_ASSY_XL1016 Disassembly

1. After Remove the **5 FPCBs** as illustrated in Fig A. Remove the **2 screws**.



Reference

Explanation of each FPCB name and damage symptoms

- ① Contact FPCB damage
Error message saying "No Lens found."
- ② MF PI FPCB damage
MF doesn't work.
i-Fn dial malfunction and doesn't work.
i-Fn mode doesn't converted
- ③ AF PI FPCB damage
AF FAIL, AF doesn't work.
- ④ IRIS FPCB damage
Fno adjustment doesn't work.
- ⑤ AF module FPCB damage
AF doesn't work.

SCREW_1430 (NI PLT)
6003-001660

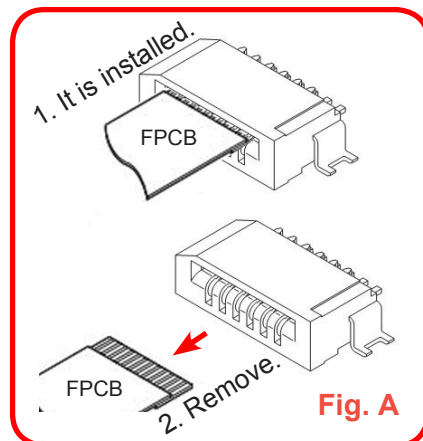
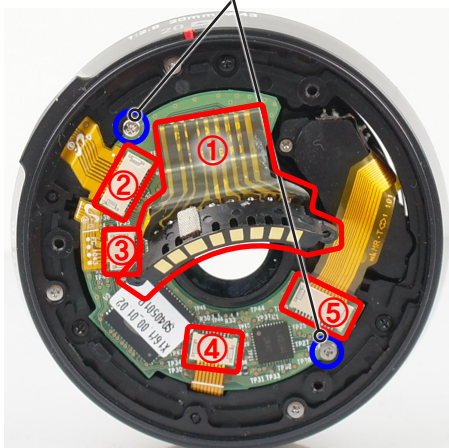


Fig. 4-4

2. Remove the MAIN HPCB_ASSY_XL1016

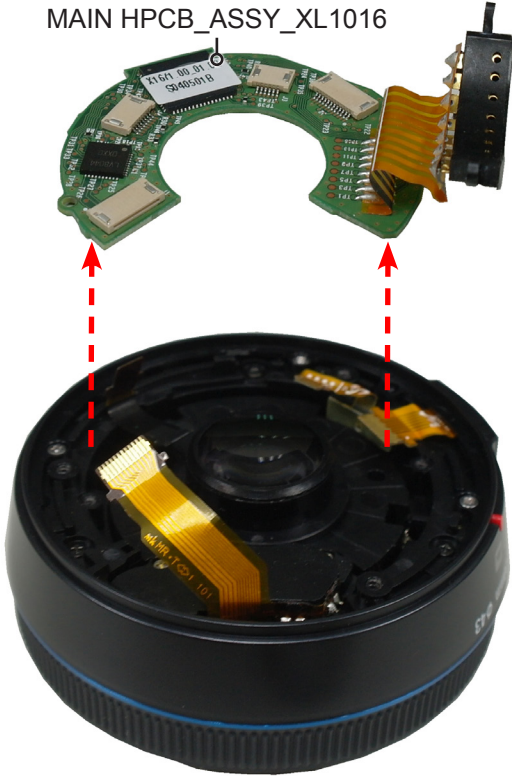


Fig. 4-5

MAIN BARREL_BK Disassembly

1. After Remove the 3 screws. Remove the MAIN BARREL_BK

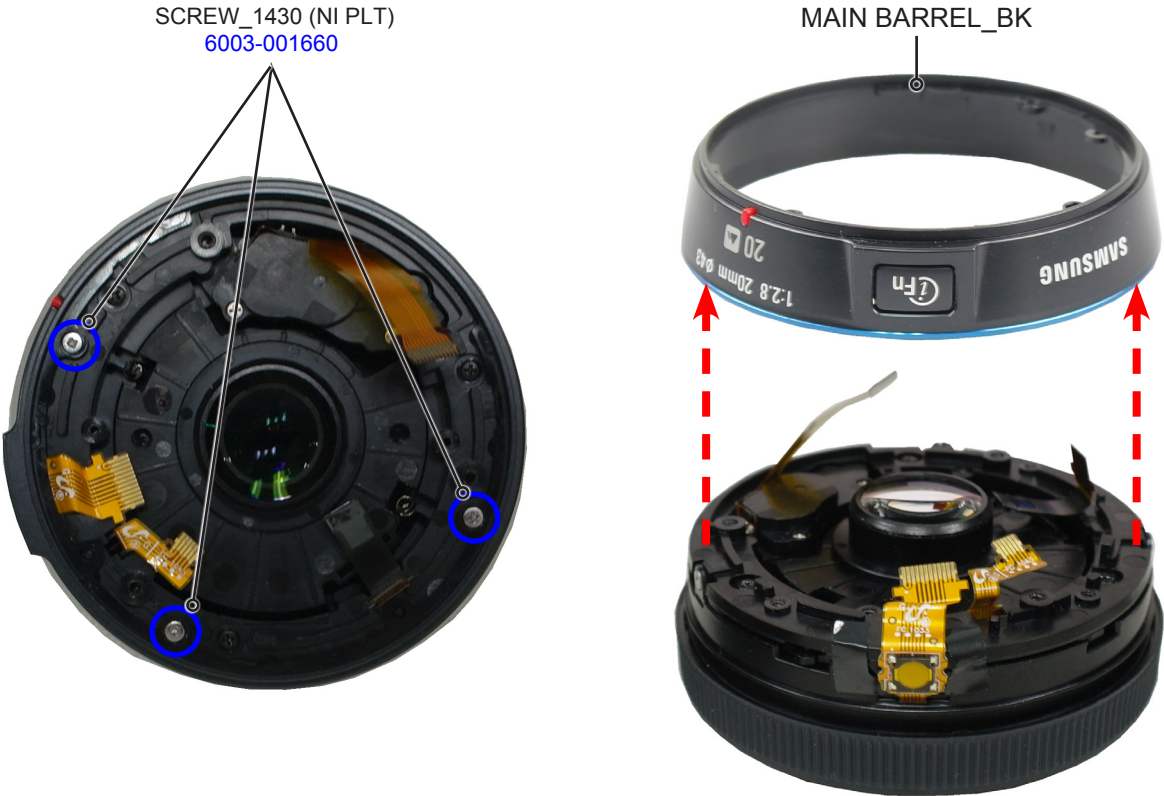


Fig. 4-6

FOCUS RING ASSY Disassembly

1. After Remove the **3 screws**. Remove the **FOCUS RING ASSY**

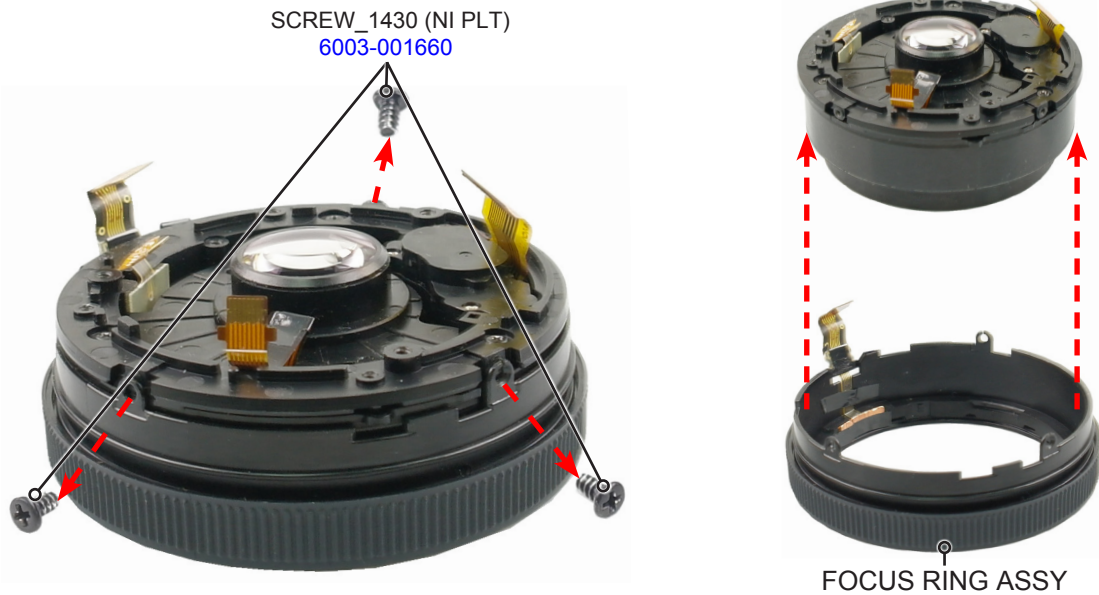


Fig. 4-7

4-2 Reassembly

FOCUS RING ASSY Reassembly

1. Align the parts marked by **a**, **b** and **c** respectively as illustrated in **Fig. A** and **B**. Then install the **FOCUS RING ASSY**

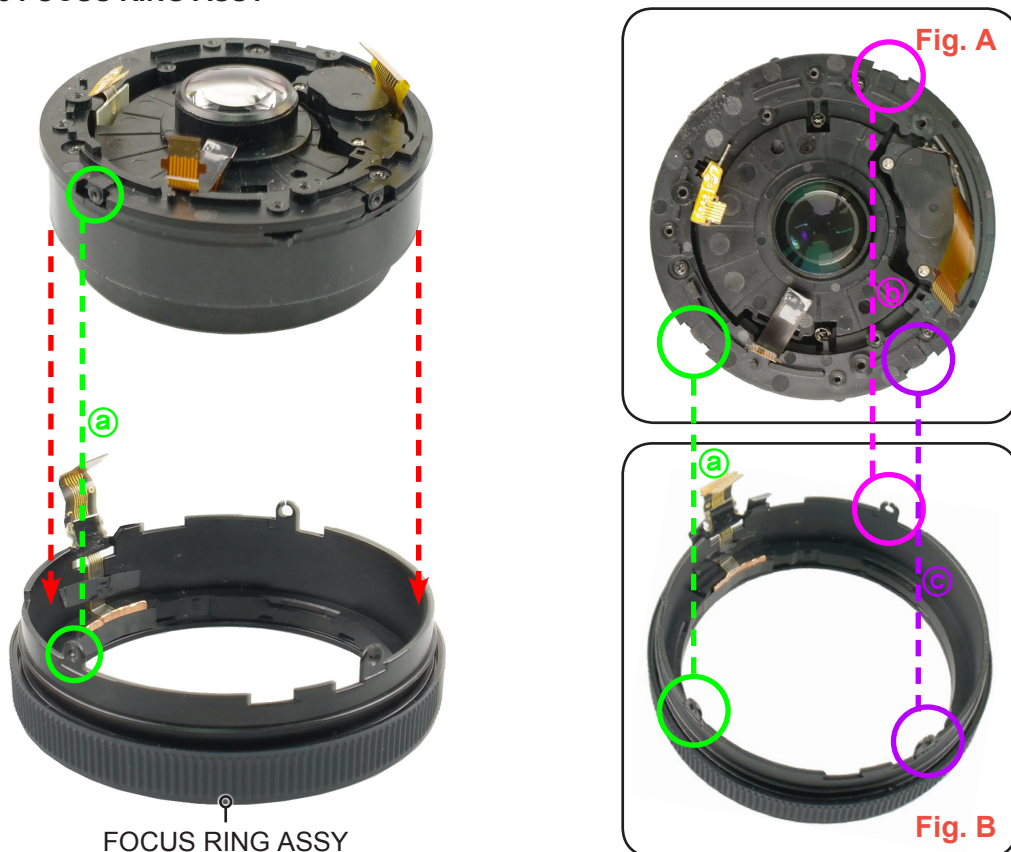


Fig. 4-8

2. Tighten the 3 screws.

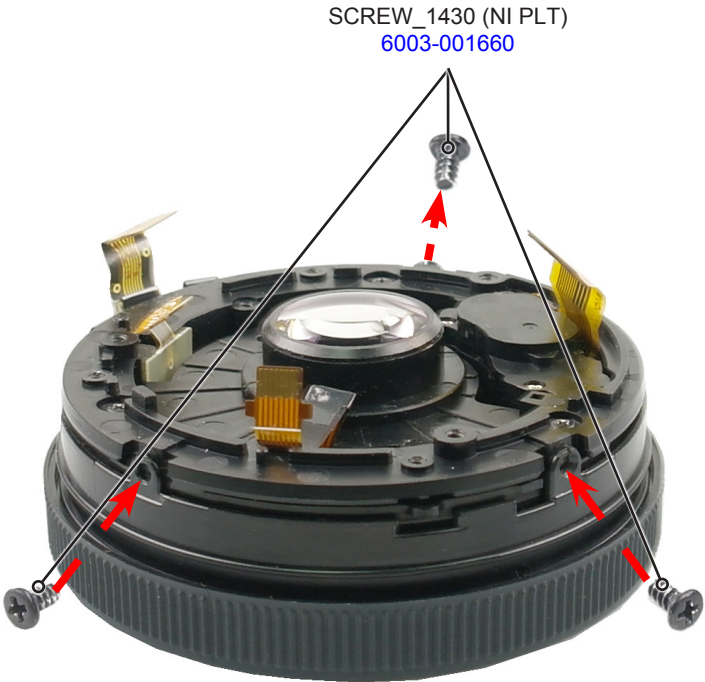


Fig. 4-9

MAIN BARREL ASSY Reassembly

1. After the parts made by (a) Then Install the MAIN BARREL ASSY. Tighten the 3 screws.

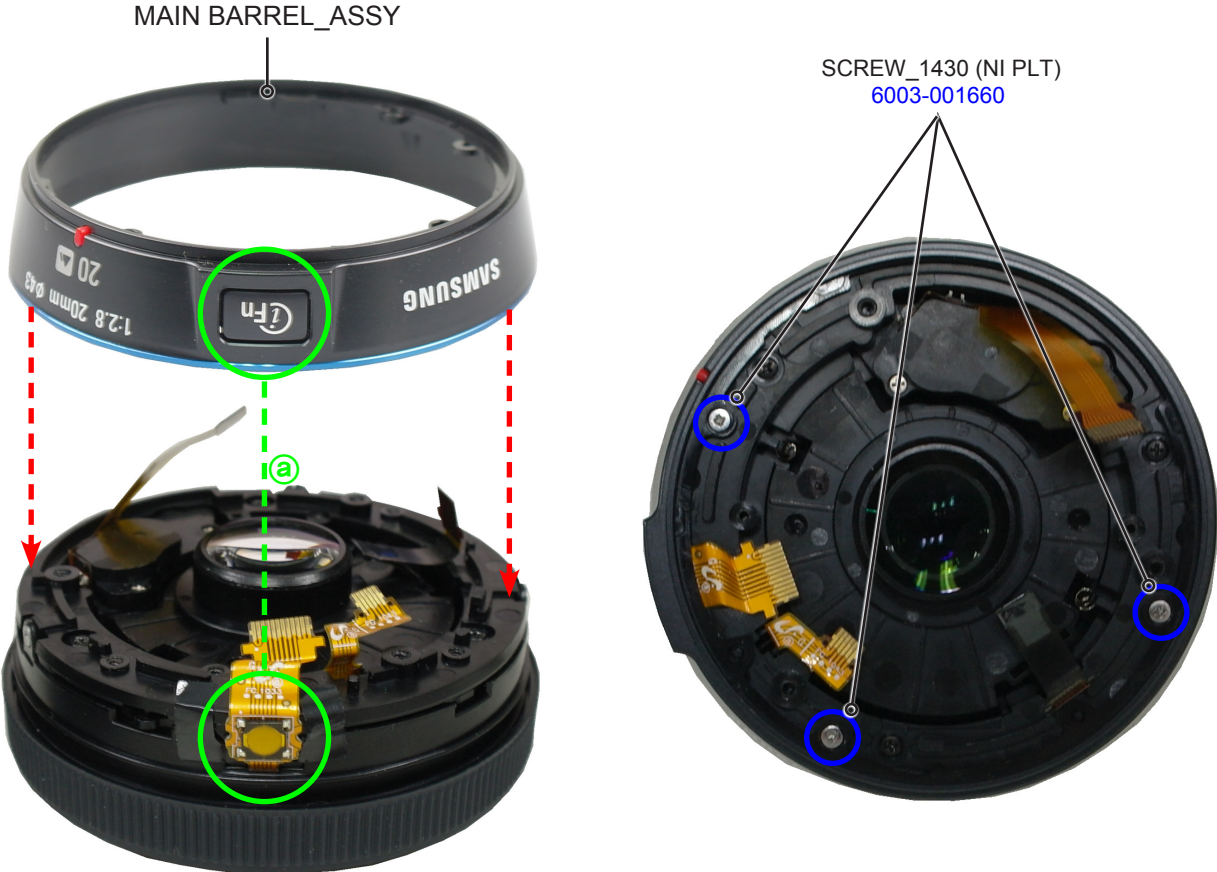


Fig. 4-10

MAIN HPCB_ASSY_XL1016 Reassembly

1. Align the parts made by (a) and (b) respectively as illustrated in Fig. C and D. Then install the **MAIN HPCB_ASSY_XL1016**

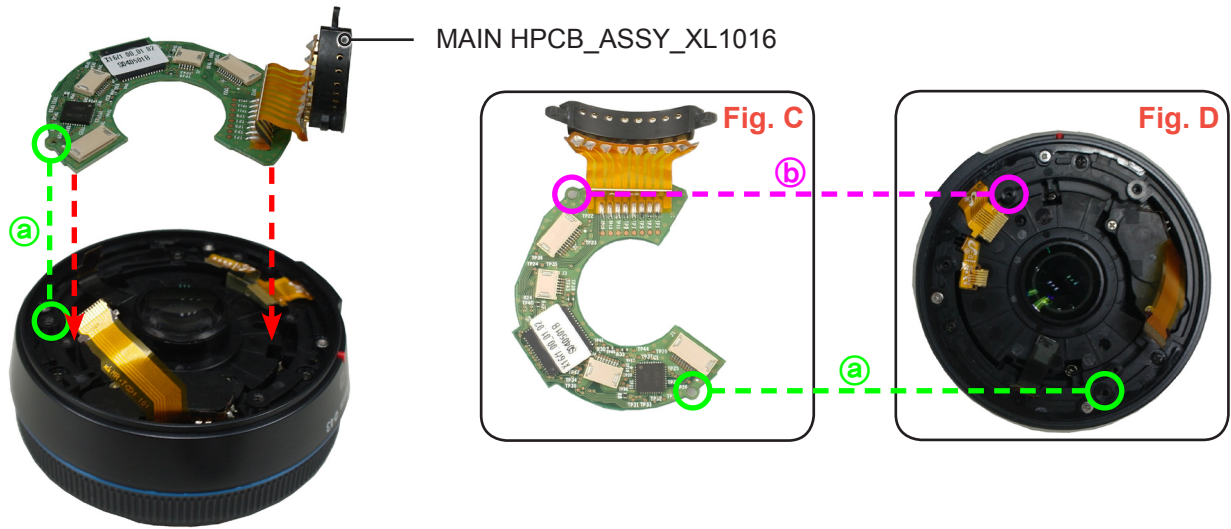


Fig. 4-11

2. After Connect the **5 FPCBs** as illustrated in Fig E. Tighten the **2 screws**.



Reference

Explanation of each FPCB name and damage symptoms

- ① Contact FPCB damage
Error message saying "No Lens found."
- ② MF PI FPCB damage
MF doesn't work.
i-Fn dial malfunction and doesn't work.
i-Fn mode doesn't converted
- ③ AF PI FPCB damage
AF FAIL, AF doesn't work.
- ④ IRIS FPCB damage
Fno adjustment doesn't work.
- ⑤ AF module FPCB damage
AF doesn't work.

SCREW_1430 (NI PLT)
6003-001660

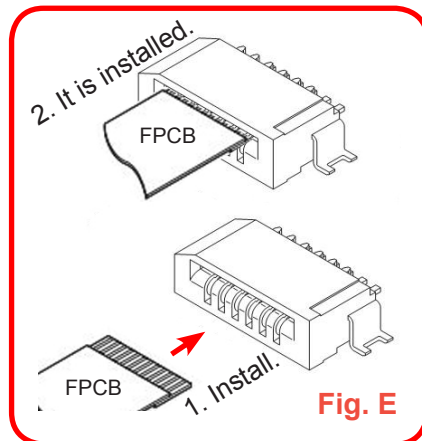
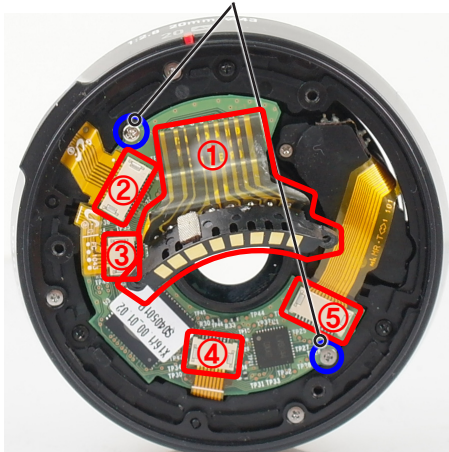


Fig. 4-12

MOUNT_XL1014_SL / MOUNT COVER_XL1016 Reassembly

1. After Install the **MOUNT_XL1014_SL**. Tighten the **3 screws**.

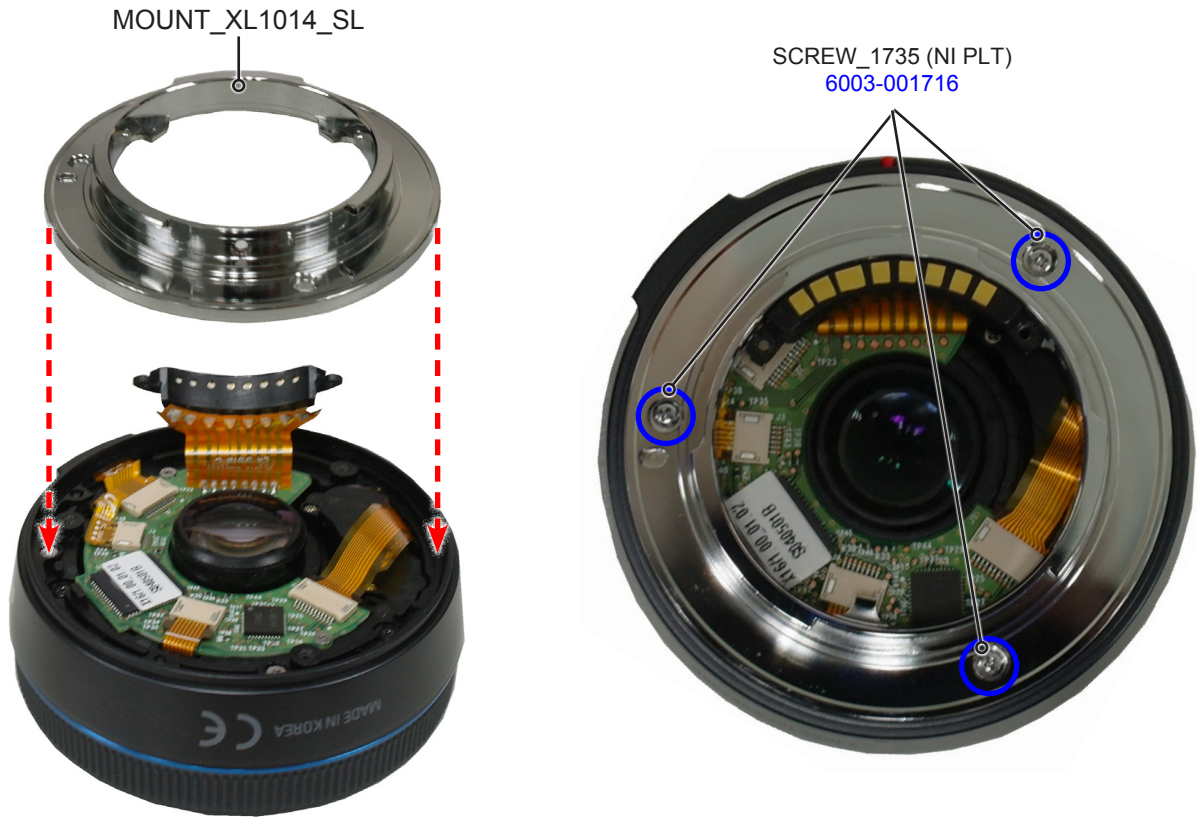


Fig. 4-13

2. After Tighten the **2 screws**. Install the **MOUNT COVER_XL1016**.



Fig. 4-14

Disassembly and Reassembly

3. Tighten the **3 screws**.

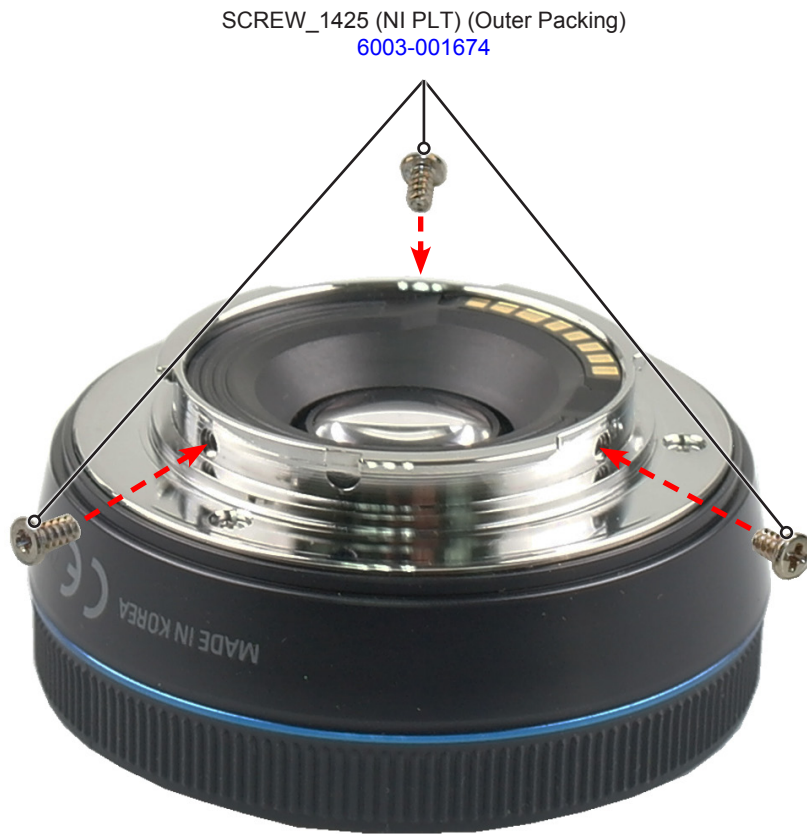


Fig. 4-15



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

This Service Manual is a property of Samsung Electronics Co.,Ltd.
Any unauthorized use of Manual can be punished under
applicable International and/or domestic law.

© 2011 SAMSUNG Electronics Co.,Ltd
All rights reserved.
Printed in Korea
Code No: EC-NX lens