

SONY

Technical News

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PV19NEX525	Digital Imag	Digital Imaging Group		2019/06/03				
Subject								
SEL135F18GM inner dust repair method								
Model (System model)		Destination	Serial number			Color		
SEL135F18GM		All	All	~	All	All		
				~				

SYMPTOM

There are user's claims of lens inner dust of SEL135F18GM.

CAUSE

Dust remaining inside moves and appears.

REQUIRED PART / TOOL / SOFTWARE

Part No.	Part Description	
A5010262A	OPTICAL BLOCK FOR SERVICE	
A5008498A	2-3 GROUP BLOCK ASSY K (8002)	



A5010262A

This lens is for dust repair return use only.



A5008498A

Mount Holder(8002) 473533501 is fixed, but it is a flexible board protective member, so please remove it and use it.

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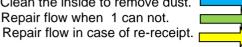
SOLUTION

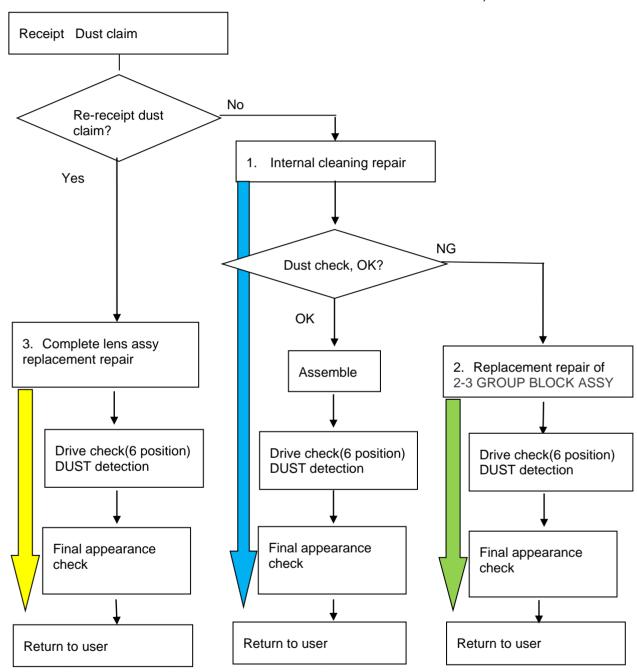
[Dust cleaning repair flow]

Carry out repair service of lens pointed out dust according to the following flow.

- 1. Internal cleaning repair
- 2. Replacement repair(A5008498A)
- Complete lens assy replacement repair

Clean the inside to remove dust. Repair flow when 1 can not.





- •Dust removal work is to remove user indicated dust and dust of the same level as indicated dust.
- Perform product disassembly, assembly, and adjustment with reference to the SEL135F18GM Service Manual.
- •Do not use IRIS Block Assy (8002) (A2231382A). In the future, use the 2-3 group block assy(8002) K (A5008498A).
- •The service optical block (A5010262A) is limited to the use only for re-receipt of dust indication. It can not be used for other mechanical parts repair or repair such as optical adjustment.

However, if it is impossible to remove dust due to the environment and technical circumstances of the service site, it is possible to use the service optical block.

[Cautions on disassembly and assembly work]

- In order to prevent the infiltration of dust attached during disassembly, proceed with disassembly while cleaning the parts during disassembly.
- If the peeling operation of the adhesive is carried out at the time of disassembly, clean the area around the adhesive and the adhesive sufficiently.

[About repair work environment and tools]

•Please perform an environment check in the repair environment (clean room, clean booth) owned by each site and perform repair work in a clean environment.



Portable Clean Bench (J-6082-865-A)

Prepare the following jigs (or equivalent jigs).

· Air blow with tip needle

A jig that blows off and removes dust and dirt adhering to the inner lens surface by blowing air from the tip of the needle.

Collect general parts, make jigs and use them.

Component part

•Air blow Use one that is easy to install a straw or needle at the tip

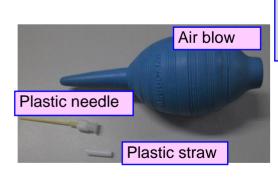
•Plastic needle Use thin and long needles. The use of metal needles is not impossible,

It is attracted to the magnet mounted on the lens barrel, and it is difficult to accurately

aim the dust.

•Plastic straw Cut and use the necessary amount

About each part, please use as a jig after cleaning dirt and dust in advance.



Processing 1

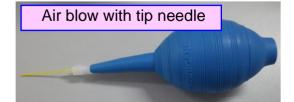
Press the straw piece into the tip of the blowe



Processing 2

Attach the needle to the straw





Plastic needle

Soft Needle(J-6082-996-A)

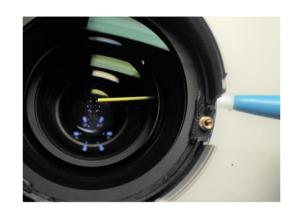


Insert needle or clean stick from here.

Blow the dust from here.

If the needle tip contacts the lens surface, there is a concern that dirt may be attached, so clean the needle tip before use.





Cleaning stick (Sticky tip attached)

A jig that captures and removes dust and dirt on the inner lens surface with the adhesive part at the tip of the stick

Use a narrow type because it is inserted from the gap on the side of the lens barrel.

Similar general-purpose tools are commercially available, so select one that is easy to obtain at each site.

<Operation notice>

When cleaning, be careful to hold down the tip slowly. Do not rub the tip.

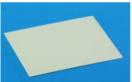
As dirt will be transferred, always keep the adhesive end of the jig clean.

Press the tip against the adhesive sheet (eg TIP CLEANING SHEET) before and after use to transfer dust and dirt or Soak the tip in alcohol and wipe it off with a cleaning cloth.

The adhesive sheet may be substituted with commercially available Scotch(cellophane) tape or the like. Use the cleaning stick while bending if necessary.



Example of Cleaning stick Cleaning stick $II (\phi 2.4 mm)$ (J-6082-726-A)



Adhesive sheet example TIP Cleaning Sheet (J-6082-663-A)



Scotch(cellophane) tape

Insert from the side hole and let dust adhere and remove



· Wrapping material

Wrapping film to wrap around to prevent dust intrusion when removing dust after removing the exterior of the lens barrel。

Use the wrapping as needed during repair work.





Internal cleaning repair flow (details)

Exterior cleaning and dust removal

Air blow and solvent cleaning Sufficiently remove dust remaining on parts so that they do not enter inside during reassembly

Check dust position.

Use the transmitted light from the G1 side to check the position of the dust in advance.



DISASSY and Wrapping

Remove the dust with Cleaning Stick Air blow with tip needle.

Disassemble to Mount block Assy, Rear Cover block Assy(8002) ,IRIS ring block assy(8002) and Inner barrel block assy(8002).

Wrap the opening that is not used for cleaning work.





Wrapping

Air blow with tip needle.



Cleaning Stick







Dust removal from

openings K and L

Concerned area of dust adhesion

•1G Front A (Frontmost exposed part, cleanable)

·1G Back B ·2G Front C

⇒Opening K

·2G Back D ·IRIS Front E

·3G Back H ·4G Front I

⇒Opening L

·IRIS Back F ·3G Front G

⇒Not available

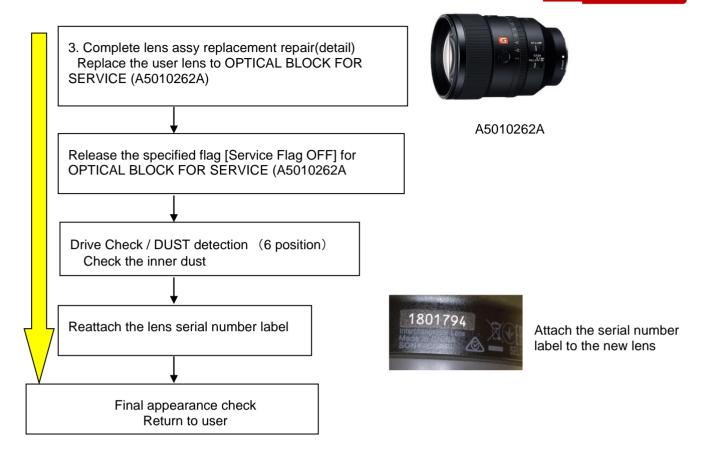
No indication ⇒Not available

•4G Back J (Exposed area on the rear surface, cleanable)

F G 1Gp 2Gp

Sony CONFIDENTIAL For Authorized Servicer No Dust removed? Yes Yes Dust remain at •2G Back D •IRIS Front E •IRIS Back F •3G Front G No 2. Replace 2-3G Assy(8002) K •1G Back B •2G Front C A508498A ⇒Remove 1G and Clean up A2216074A/A2216075A A508498A However, when cleaning and ·3G Back H ·4G Front I repairing is impossible due to ⇒Remove 4G and clean up work environment or technical circumstances A508498A A2203664A ⇒3Complete lens assy replacement repair Reassemble Reassemble Reassemble **Resolution Check** Resolution Check Resolution Check Optical readjustment Optical readjustment Drive Check / DUST detection (6 position) Activate Dust detection of E-mount lens Adjustment, and deposit dust by operating the lens. After operation, check the internal dust. NOTE: If dust is detected, start over. Perform the dust detection operation in 6-position. (Completed in about 5 minutes) 6-position (Normal, Upside down, Grip Up, Grip down, Frontside up, Frontside down)

Final appearance check / Return to user



Other notes

As shown in the photo below, some product lens are with tape attached to the 2-3 group assy (8002) at K side. If you received such lens, please do not peel off the tapes, as there is a concern of dust.











Tape added lens Do not remove the tape

REVISION HISTORY

REV	QTY	DATE	MEMO
\triangle	х	xxxx.xx	