

Maintenance Liquid 16 (ML016) Handling Procedure

Thank you for purchasing Maintenance liquid 16.

This maintenance liquid can effectively remove foreign matter from the nozzle surface compared to the maintenance liquid used in daily maintenance.

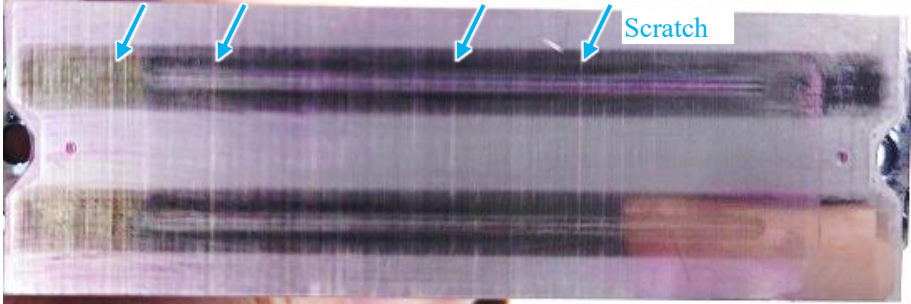
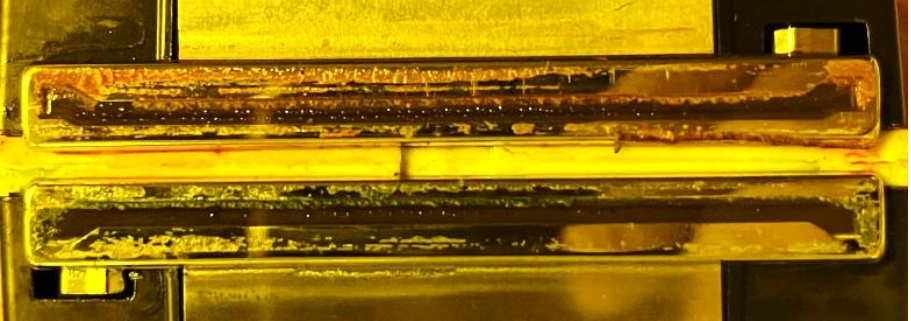
It is stronger than other maintenance liquids. Incorrect use may cause discoloration, deformation, defective discharge, or other problems. Be sure to fully understand the following usage instructions.

1. Effect of maintenance liquid 16

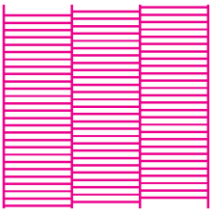
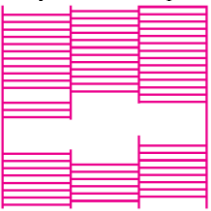
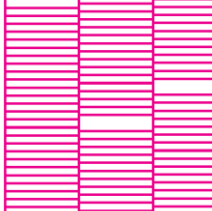
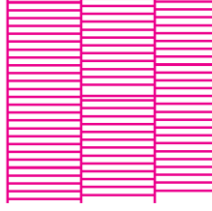
It is stronger than the maintenance liquid used for daily maintenance and effectively removes foreign matter generated on the nozzle surface. This eliminates defective discharge (nozzle drop out or deflection).

- Usually, attempt to remove the foreign matter using the maintenance liquid used for daily maintenance. Use this maintenance liquid as the last resort when the foreign matter cannot be removed.
- **Not all discharge defects can be eliminated.**
Discharge defect caused by something other than foreign matter on the nozzle surface may not be eliminated.

(Example: Scratches on the nozzle surface, cured objects on the nozzle surface or inside the head, and damage to the head, etc.)

Photograph for reference (When viewing the head from below)	
Scratches on the nozzle surface	 ↑Photograph: Vertical scratches all over (Blue arrows: particularly conspicuous scratch)
Adhesion of cured object to the nozzle surface	 ↑Photograph: Cured object adheres around the nozzle

- If a large number of discharge defects occur, they may not be solved completely. The longer the elapsed time after the occurrence, the more difficult it becomes to recover. Therefore, if you find the occurrence of defect failure even if it is a small amount, please take countermeasure as soon as possible.

Normal pattern	Abnormal pattern		
	Many nozzles drop out  Many lines are missing	Nozzles drop out  Some lines are missing	Deflection  Lines are closely spaced or doubled

2. Precautions when using the maintenance liquid 16

(1) Precautions before use

- **Before performing this maintenance for the first time, be sure to contact our engineers in advance.**
- Make sure that the ink type, printer model name, and FW version are all compatible with this maintenance liquid.
- Use the parts and gloves that included in the maintenance liquid 16 kit. When using parts other than those included in the maintenance liquid 16 kit, make sure in advance that the parts will not be affected by applying the liquid to them.
 - * This maintenance liquid is stronger than other maintenance liquids and melts rubber, plastic, etc. Otherwise, it may cause deformation.
 - * Do not use the clean stick (SPC-0527) / nozzle swab (SPC-0421) attached to other maintenance kits. They are dissolved by touching with maintenance liquid 16.

Clean stick (SPC-0527)



Nozzle swab (SPC-0421)



- Confirm the SDS of this maintenance liquid and understand the contents before use.
- When storing, store it within the storage temperature indicated on the bottle and avoid direct sunlight.

(2) Precautions during and after use

- Use appropriate protective equipment (gloves, protective glasses, etc.).
 - * When using parts other than those included in the maintenance liquid 16 kit, wet the parts with maintenance liquid 16 and check in advance that there is no problem with the parts.
- Follow the procedure in this manual. Please strictly observe the usage time described in the procedure manual.
 - * Improper use may melt or deform the parts used in the printer.
- Do not use this product on any surface other than the printhead surface.
 - * If it adheres to rubber products (cap rubber, wiper rubber, etc.) for a long time, deformation may occur.
 - * If it adheres to the painted surface, the paint may come off or discolor.
- Be careful not to rub or scratch the head surface.
 - * It may occur a defective discharge.
- When disposing this maintenance liquid and liquid adhered material, dispose according to the classification of each local government.
- When storing maintenance liquid after use, be careful not to loosen the cap. Do not expose the bottle to direct sunlight. Store it within the storage temperature indicated on the bottle.

3. Available ink types and models

This maintenance liquid can be used in the following ink and model combinations.

If you use the ink types and models that are not listed, there is a risk of discharge failure or defect.

*** We have confirmed that it can be used only when all of the conditions for ink type, model, and version are met.**

Available ink types

ELH-100	ELS-120	ELS-125	ELS-170	ELS-175	LH-100
LU-125	LUS-120	LUS-150	LUS-170	LUS-175	LUS-190
LUS-210	LUS-211	LUS-350	PR-200 *2		

***1** This maintenance liquid cannot be used with LUS-200 because the ink components may aggregate and cause discharge failure.

***2** About PR-200, only inks written "Ver.3" on the bottle can be used.

Available models

Group A *2	JFX200-2513	(Version 2.9 or later)	JFX200EX	(Version 2.6 or later)
	SIJ-320UV	(Version 2.0 or later)	UCJV300	(Version 3.2 or later)
	UJF-3042MkII	(Version 5.4 or later)	UJF-3042MkIIe	(Version 2.5 or later)
	UJF-6042MkII	(Version 5.4 or later)	UJF-6042MkIIe	(Version 2.5 or later)
	UJV55	(Version 2.6.1 or later)	UJV100	(Version 6.3 or later)
	UCJV330 *3	(Version 3.2.0 or later)		
Group B	JFX600	(All version)	UJF-7151plus	(All version)
	UJF-7151plusII	(All version)		

***1** The operation procedure differs depending on the type in Group A and Group B.
Confirm which model is in use.

***2** If you are using a model in Group A, please confirm that the version meets the above conditions.
Refer to the operation manual of the model you are using for how to check the version.
If the version is not compatible, please contact us as we will need to visit you in advance to upgrade the version.

***3** Due to the risk from the perspective of material compatibility, there are restrictions on the setting time and the number of times nozzle cleaning can be performed.

4. Maintenance liquid 16 kit Accessories

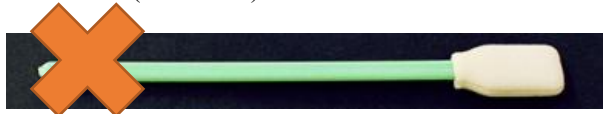
The maintenance liquid 16 kit contains the maintenance liquid 16 bottle (200ml capacity) and the following accessories.

* When using accessories other than those listed below, perform a wetness test with maintenance liquid 16 in advance to confirm that problems such as dissolution and deformation do not occur.

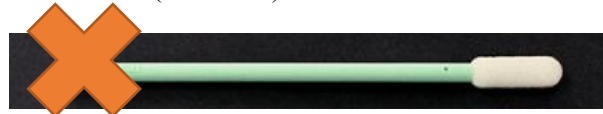
Name	Number of contents	Photograph	Precautions
Polyethylene gloves	10 sheets		
Poly dropper	5 bottles		
Maintenance cloth (SPC-0677)	30 sheets		➤ Avoid using the cloth other than this cloth because dust and thread waste adhere to the head surface and they may adversely affect discharge. ➤ Do not reuse the maintenance cloth. Use a new one.

* Clean stick (SPC-0527) / nozzle swab (SPC-0421) cannot be used for maintenance liquid 16. They are dissolved by touching with maintenance liquid 16.

Clean stick (SPC-0527)



Nozzle swab (SPC-0421)



5. Maintenance procedure (for Group A models)

* It does not need to be done daily.

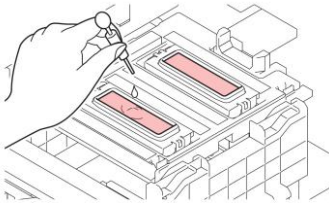
* Please perform as soon as possible if a small amount of the foreign matter is found to cause symptoms.

The more severe the symptoms, the less likely to recover.

* The parts and personal protective equipment that may adhere to the maintenance liquid, use the one which included in the kit.

When using parts other than those attached to the maintenance liquid 16 kit, perform a wetness test with maintenance liquid 16 in advance to confirm that problems do not occur.

*** Before performing this maintenance for the first time, be sure to contact our engineers in advance.**

For Group A models	
  Be sure to wear protective equipment (gloves and glasses) during maintenance. Use gloves included in the maintenance liquid 16 kit	
1	Check whether the discharge defect is recovered during normal maintenance (cleaning and nozzle cleaning). ➤ Use maintenance liquid for daily maintenance. Do not use maintenance liquid 16. ➤ Refer to “Operation Manual” “Daily Care Manual” for the maintenance procedure. ➤ If all discharge failures have been resolved, finish without proceeding to the next step.
2	Use maintenance liquid for daily maintenance to clean the wiper and cup rubber. (1) Select [MENU] > [Maintenance] from the local mode screen and press the [ENTER] key. ➤ Maintenance menu is displayed. (2) Select [Station Maintenance] > [Nozzle Wash] ➤ [WIPER CLEANING] screen is displayed. (3) Open front cover and clean the wiper using maintenance liquid and clean stick. ➤ Use maintenance liquid for daily maintenance. Do not use maintenance liquid 16. (4) After cleaning, press the [ENTER] key. ➤ [CAP CLEANING] screen is displayed. (5) Clean the cap rubber using maintenance liquid and clean stick. ➤ Use maintenance liquid for daily maintenance. Do not use maintenance liquid 16. ➤ “Fill the Liquid. Exit Next [ENT]” is displayed in the display.
3	Perform nozzle washing using maintenance liquid 16. (1) Fill the cap where the defect occurs with maintenance liquid 16. ➤ Usage: Until the cap is filled (approx. 3 cc, 1.5 drops) ➤ Be careful not to spill the maintenance liquid 16 from the cap.  (2) Press [▲][▼] to set the duration (guideline: within 10 minutes), and press [ENTER] key. * Set the UCJV330 to a setting time of 5 minutes or less. ➤ If it is not possible to select the duration, it is necessary to perform version upgrading work by service person visiting. ➤ Do not leave the nozzle washed. Perform the following steps immediately.
4	Perform the head cleaning (Hard) immediately. ➤ Refer to the “Operation Manual” for the machine used for the head cleaning procedure.
5	Perform the test printing and check the following 2 points. (1) Whether discharge defect was recovered. (2) Whether there are any abnormalities in the colors of the printed result. ➤ Failure to recover ➔ Return to step 2 and clean the wiper rubber, cap rubber, and nozzle again. - If it doesn't tend to recover after performing three times, please contact us because a head replacement is needed. * Please limit the number of nozzle cleanings for the UCJV330 to a total of 10 times from the start of head use. ➤ Recovered, but there is an abnormality in the color ➔ Return to step 4 and repeat the cleaning until the color becomes normal. ➤ Recovered and there is no abnormality in the color ➔ The work is completed.

6. Maintenance procedure (for Group B models)

* It does not need to be done daily.

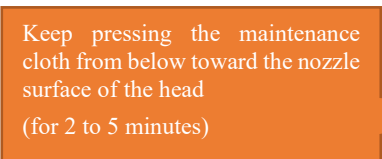
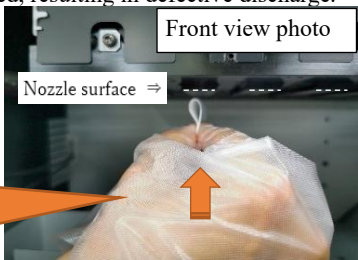
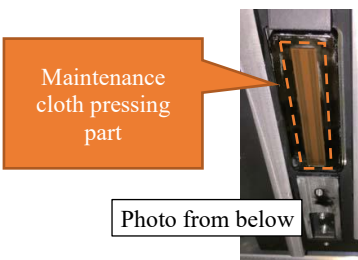
* Please perform as soon as possible if a small amount of the foreign matter is found to cause symptoms.

The more severe the symptoms, the less likely to recover.

* The parts and personal protective equipment that may adhere to the maintenance liquid, use the one which included in the kit.

When using parts other than those attached to the maintenance liquid 16 kit, perform a wetness test with maintenance liquid 16 in advance to confirm that problems do not occur.

*** Before performing this maintenance for the first time, be sure to contact our engineers in advance.**

For Group B models	
  Be sure to wear protective equipment (gloves and glasses) during maintenance. Use gloves included in the maintenance liquid 16 kit	
1	Check whether the discharge defect is recovered during normal maintenance (cleaning and nozzle surface maintenance). ➤ Use maintenance liquid for daily maintenance. Do not use maintenance liquid 16. ➤ Refer to “Operation Manual” “Daily Care Manual” for the maintenance procedure. ➤ If all discharge failures have been resolved, finish without proceeding to the next step.
2	Select [HEAD MAINT.] and cleaning the nozzle surface with Maintenance liquid 16. - Select [MENU] > [Maintenance] from the local mode screen and press the [ENTER] key. - Select [Station] > [Carriage Out] > [HEAD MAINT.] and press the [ENTER] key. ➤ The head moves to the maintenance space. - Fold the attached maintenance cloth in duplicate and drop the maintenance liquid 16 into the folded part to soak it. ➤ Drop volume: 6 cc (approximately 3 times with the attached dropper) ➤ Clean stick (SPC-0527) / nozzle swab (SPC-0421) cannot be used. They are dissolved by touching with maintenance liquid 16. ➤ Do not reuse the maintenance cloth once used. Always use the new maintenance cloth. ➤ Do not use any cloth other than the attached maintenance cloth (SPC-0677). Dust or yarn debris may stick to the head surface, causing discharge failure.  Fold the cloth in duplicate  Drop the maintenance liquid 16 into the entire folded part to soak it. - Open the maintenance cover and soak the maintenance liquid 16 with the nozzle surface of the head where discharge failure occurs. (Keep the maintenance cloth which maintenance liquid 16 soaked pressing against the entire nozzle surface of the head for 2 to 5 minutes.) ➤ Do not rub the nozzle surface or press it tightly with your fingers. The nozzle surface may be damaged, resulting in defective discharge.  Keep pressing the maintenance cloth from below toward the nozzle surface of the head (for 2 to 5 minutes)  Front view photo Nozzle surface ⇒  Maintenance cloth pressing part Photo from below - Close the maintenance cover and press the [ENTER] key. ➤ Do not leave the nozzle washed. Perform the following steps immediately.
3	Perform the head cleaning (Hard) immediately. ➤ Refer to the “Operation Manual” for the machine used for the head cleaning procedure.
4	Perform the test printing and check the following 2 points. - Whether discharge defect was recovered. - Whether there are any abnormalities in the colors of the printed result. ➤ Failure to recover ➔ Return to step 2 and clean the nozzle surface again with a new maintenance cloth. If it doesn't tend to recover after performing three times, a head replacement is needed. ➤ Recovered, but there is an abnormality in the color ➔ Return to step 3 and repeat the cleaning until the color becomes normal. ➤ Recovered and there is no abnormality in the color ➔ The work is completed.