Decurler Unit DU5010 Machine Code: D544

Field Service Manual

Safety, Conventions, Trademarks

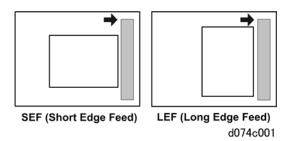
Conventions

Common Terms

This is a list of symbols and abbreviations used in this manual.

Symbol	What it means
\$	Binding screw (shoulder hexagonal head)
8	Binding screw (round flathead)
*	Black screw (heavy, fusing unit, TCRU)
4	Bushing
ℰ	C-ring
E)Ø	Connector
©	E-ring
_	FFC (Flat Film Connector)
	FFC (Flat Film Connector)
•	Gear
Ą	Harness clamp
P	Harness clamp (metal: fusing unit)
•	Hook (or tab release)
₽	Knob screw (black)
4/0	Knob screw (sliver)
A	Pivot screw
F	Screw (common screw)
all.	Shoulder screw
affilia".	Spring

Symbol	What it means
%	Standoff
₽	Stud screw
F	Tapping screw (for plastic)
0	Timing belt



The notations "SEF" and "LEF" describe the direction of paper feed, with the arrows indicating paper feed direction.

Warnings, Cautions, Notes

In this manual, the following important symbols and notations are used.

MARNING

 A Warning indicates a potentially hazardous situation. Failure to obey a Warning could result in death or serious injury.

ACAUTION

 A Caution indicates a potentially hazardous situation. Failure to obey a Caution could result in minor or moderate injury or damage to the finisher or other property.

Important

 Obey these guidelines to avoid problems such as misfeeds, damage to originals, loss of valuable data and to prevent damage to the machine.

UNote

• This information provides tips and advice about how to best service the machine.

General Safety Instructions

For your safety, please read this manual carefully before you use this product. Keep this manual handy for future reference.

Safety Information

Always obey the following safety precautions when using this product.

Safety During Operation

In this manual, the following important symbols and notations are used.

Switches and Symbols

Where symbols are used on or near switches on machines for Europe and other areas, the meaning of each symbol conforms with IEC60417.



Responsibilities of the Customer Engineer

Reference Material for Maintenance

- Maintenance shall be done using the special tools and procedures prescribed for maintenance of
 the machine described in the reference materials (service manuals, technical bulletins, operating
 instructions, and safety guidelines for customer engineers).
- Use only consumable supplies and replacement parts designed for use of the machine.

Before Installation, Maintenance

Installation, Disassembly, and Adjustments



 After installation, maintenance, or adjustment, always check the operation of the machine to make sure that it is operating normally. This ensures that all shipping materials, protective materials, wires and tags, metal brackets, etc., removed for installation, have been removed and that no tools

- remain inside the machine. This also ensures that all release interlock switches have been restored to normal operation.
- Never use your fingers to check moving parts causing spurious noise. Never use your fingers to lubricate moving parts while the machine is operating.

Special Tools

CAUTION

- Use only standard tools approved for machine maintenance.
- For special adjustments, use only the special tools and lubricants described in the service manual.
 Using tools incorrectly, or using tools that could damage parts, could damage the machine or cause injuries.

During Maintenance

General

CAUTION

- Before you begin a maintenance procedure: 1) Switch the machine off, 2) Disconnect the power plug from the power source, 3) Allow the machine to cool for at least 10 minutes.
- Avoid touching the components inside the machine that are labeled as hot surfaces.

Power

MARNING

- Always disconnect the power plug before doing any maintenance procedure. After switching off
 the machine, power is still supplied to the main machine and other devices. To prevent electrical
 shock, switch the machine off, wait for a few seconds, then unplug the machine from the power
 source.
- Before you do any checks or adjustments after turning the machine off, work carefully to avoid
 injury. After removing covers or opening the machine to do checks or adjustments, never touch
 electrical components or moving parts (gears, timing belts, etc.).
- After turning the machine on with any cover removed, keep your hands away from electrical components and moving parts. Never touch the cover of the fusing unit, gears, timing belts, etc.

Organic Cleaners

ACAUTION

- During preventive maintenance, never use any organic cleaners (alcohol, etc.) other than those
 described in the service manual.
- Make sure the room is well ventilated before using any organic cleaner. Use organic solvents in small amounts to avoid breathing the fumes and becoming nauseous.
- Switch the machine off, unplug it, and allow it to cool before doing preventive maintenance. To avoid fire or explosion, never use an organic cleaner near any part that generates heat.
- Wash your hands thoroughly after cleaning parts with an organic cleaner to contamination of food, drinks, etc. which could cause illness.

Power Plug and Power Cord

WARNING

- Before servicing the machine (especially when responding to a service call), always make sure that
 the power plug has been inserted completely into the power source. A partially inserted plug could
 lead to heat generation (due to a power surge caused by high resistance) and cause a fire or other
 problems.
- Always check the power plug and make sure that it is free of dust and lint. Clean it if necessary. A
 dirty plug can generate heat which could cause a fire.
- Inspect the length of the power cord for cuts or other damage. Replace the power cord if necessary. A frayed or otherwise damaged power cord can cause a short circuit which could lead to a fire or personal injury from electrical shock.
- Check the length of the power cord between the machine and power supply. Make sure the power
 cord is not coiled or wrapped around any object such as a table leg. Coiling the power cord can
 cause excessive heat to build up and could cause a fire.
- Make sure that the area around the power source is free of obstacles so the power cord can be removed quickly in case of an emergency.
- Make sure that the power cord is grounded (earthed) at the power source with the ground wire on the plug.
- Connect the power cord directly into the power source. Never use an extension cord.
- When you disconnect the power plug from the power source, always pull on the plug, not the
 cable.

After Installation, Servicing

Disposal of Used Items

ACAUTION

• Always dispose of used items in accordance with the local laws and regulations regarding the disposal of such items.

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1. Replacement and Adjustment

Decurler Unit and Electrical Components

Decurler Unit

Removal Procedure

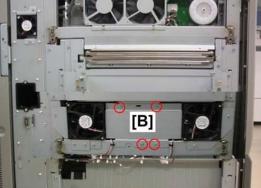
ACAUTION

Most parts in the decurler unit have been precisely adjusted at the factory. Do not remove the parts
for which replacement procedures are not mentioned in this manual. Otherwise, adjustment for the
decurler unit requires special tools.

Only the following parts can be replaced without decurler unit adjustment.

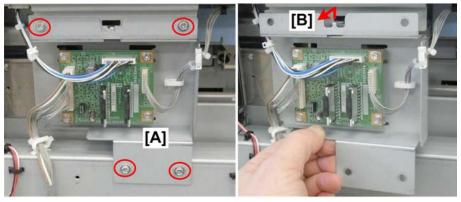
- DDRB (Decurler Drive Board)
- Decurler Unit Motor
- Decurler Feed Motor
- Decurler Unit HP and Limit Sensor





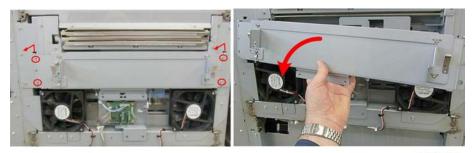
d074r003

- 1. Left cover [A] of the main machine (\mathcal{F} x7)
- 2. Bracket [B] (🗗 x4)



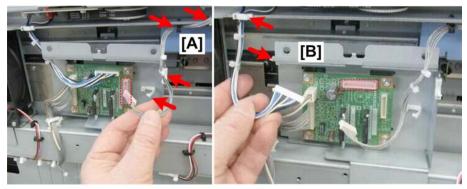
d544r003

- 3. Disconnect the DDRB bracket [A] (*\begin{align*} x4 \).
- 4. Lift the bracket off its hook [B] so that it hangs free.



d544r004

5. Disconnect the cover and remove it ($\ref{x4}$).



d544r005

- 6. Disconnect harness [A] at the front (🖾 x1, 🖨 x4).
- 7. Disconnect harness [B] at the rear (\mathfrak{S} x1, \mathfrak{S} x2).



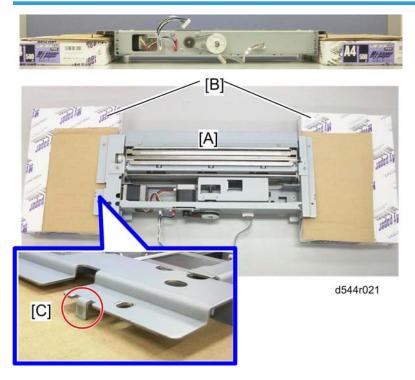
d544r006

8. Make sure harnesses [A] and [B] are separated from the clamps so that they will not snag when you remove the decurler unit.



d544r007

- 9. Remove the decurler unit from the side of the main machine.
- 10. Keep the decurler unit in the "Maintenance Position" as described below.



Lay the Decurler Unit [A] on temporary supports [B] as shown above. The entrance guide of the decurler unit must not touch the floor or any object. Otherwise, the mylars on the entrance gate may be bent or folded.

- Keep this position during maintenance.
- Place an object like a sheet of cardboard on the supports so that the frame projection [C] does not damage the supports.

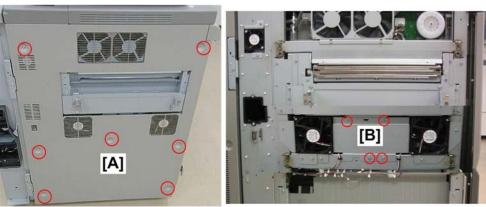
SP Settings After Installing a New Decurler Unit

1. Switch on the machine and enter the SP mode.

d999i016

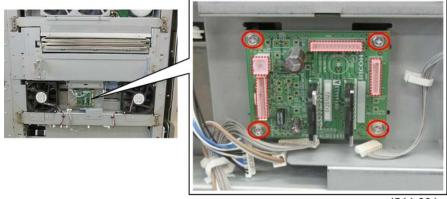
- 2. Refer to the accessory sheet and enter the settings for SP1927 and SP1928.
- 3. Exit SP mode and turn off the main machine.

DDRB



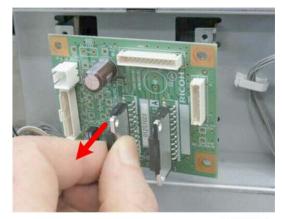
d074r003

- 1. Left cover [A] of the main machine (Fx7)
- 2. Bracket [B] (🗗 x4)



d544r001

3. Disconnect the DDRB (x4, *x4).

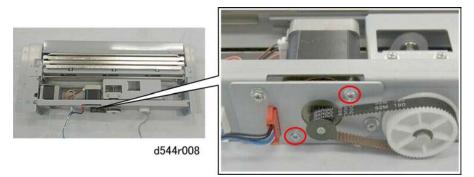


d544r002

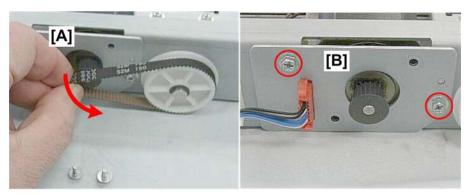
4. Remove the DDRB.

Decurler Unit Motor

1. Decurler unit (**p.9)



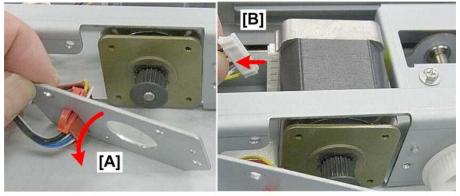
2. Disconnect the motor (Fx2).



d544r009

3. Disconnect:

- [A] Timing belt (\mathbf{O} x1)
- [B] Motor mount (Fx2).



d544r010

- 4. Pull away the motor mount [A].
- 5. Disconnect the motor at [B] (x1).

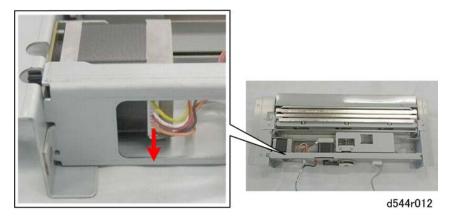


d544r011

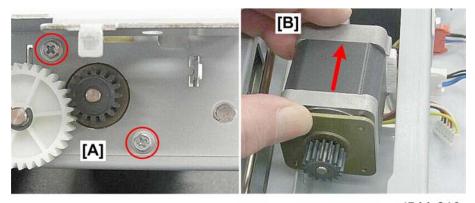
6. Pull the motor through the frame to remove it.

Decurler Feed Motor

1. Decurler unit (p.9)



2. On the rear side, disconnect the motor (x1).



d544r013

- 3. At the rear side of the unit [A], disconnect the motor (${\cal F}$ x2).
- 4. Pull the motor [B] out from rear to front.

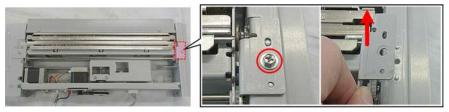


d544r014

5. Remove the motor.

Decurler Unit HP and Limit Sensor

1. Decurler unit (IPp.9)



d544r015

2. On the front side, remove the rack of the front pinion gear ($\slash\hspace{-0.6em}P$ x 1).



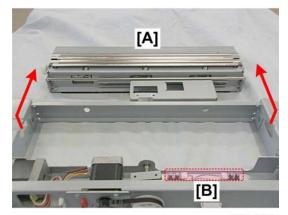
d544r016

3. On the rear side, remove the rack of the rear pinion gear (\mathcal{F} x1).



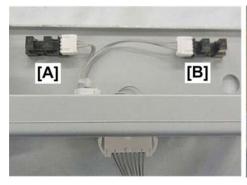
d544r017

4. In the center, disconnect the tongue bracket (Fx2).



d544r018

5. Remove the decurler unit assembly [A] so that you can see both sensors [B].



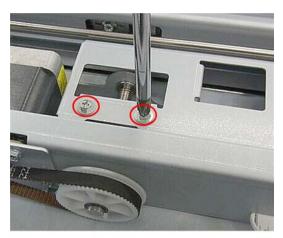


d544r019



- [A] is the decurler unit HP sensor and [B] is the decurler unit limit sensor.
- 6. Disconnect a sensor (📬 x1).
- 7. On the other side of the unit, release the sensor ($\mathbf{T} \times 3$).

Re-installation



d544r020

- 1. Set the decurler unit assembly in the frame.
- 2. Fasten the tongue bracket before you attach the front and rear racks (Fx2).
 - This ensures that the assembly is perfectly aligned so that the front and rear racks will mesh correctly with the front and rear pinion gears below.
 - When you re-attach the front and rear rack, make sure that the racks are flat and meshed with the pinion gears below before you re-fasten the screws.

MEMO

