Multi Bypass Tray BY5010 Machine Code: D517

Field Service Manual

March 2015

Revision History

This is the Revision History for the Multi Bypass Tray BY5010 service manual.

Version	Date	Changes
Ver. 1.1	31 Mar 2015	Text, Illustrations . In procedures the order of the text and illustrations has been reversed. For each step, the text description (action) is followed by the relevant illustration. The callouts [A], [B], [C] in text refer to the illustration below, not above.

Symbols, Abbreviations and Trademarks

Conventions

Symbol	What it means
\$	Binding screw (shoulder hexagonal head)
æ	Binding screw (round flathead)
*	Black screw (heavy, fusing unit, TCRU)
•	Bushing
Ô	C-ring
Ŵ	Clip
SF.	Connector
B	E-ring
\$\$\$	FFC (Flat Film Connector)
	FFC (Flat Film Connector)
	FFC (Flat Film Connector)
۲	Gear
ş	Harness clamp
40	Harness clamp: metal: fusing unit
.	Hook (or tab release: sensors)
*	Knob screw (black)
1 2	Knob screw (sliver)
×	Pivot screw
0)°	Screw: most common: silver
Ð	Shoulder screw

Symbol	What it means
*	Shoulder screw (black)
- COD	Spring
¢0	Standoff
ø	Stud screw
P	Tapping screw (for plastic)
0	Timing belt
Ø	Washer



The notations "SEF" and "LEF" describe the direction of paper feed. The arrows indicate the direction of paper feed.



In this manual "Main Scan" means "Horizontal" and "Sub Scan" means "Vertical", both relative to the direction of paper feed.

Warnings, Cautions, Notes

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

WARNING

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

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

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

Note

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

Multi Bypass Tray BY5010



To avoid injury to your fingers, keep you hands clear of the bypass tray when removing a paper jam.

Commonly Used Terms and Abbreviations

Here is a list of commonly used terms and abbreviations that are used throughout the Field Service Manual and Appendices.

Terms	Meaning	
(ccw)	Counter-clockwise rotation of a drum, roller, gear, etc.	
(cw)	Clockwise rotation of a drum, roller, gear, etc.	
BF	Booklet Finisher SR5060 (D734)* ¹	
BW	Black and white (monochrome) copying or printing	
Bank	Paper Bank (1st, 2nd, 3rd Tray of the main machine)	
CIT	Cover Interposer Tray CI5030 (D738)* ¹	
CIT-PB	Cover Interposer Tray for Perfect Binder Type S1 (D736-2)*1	
FIN	Finisher SR5050 (D735) (corner staple only, no booklets)* ¹	
ITB	Image Transfer Belt	
JG	Junction Gate	
LCIT	Large Capacity Input Tray.	
	LCIT RT5080 (D732) or LCIT RT5070 (D733)*1	
LD	Laser Diode (Laser Unit)	
LE	Leading Edge	
LSDB	Laser Synchronization Detection Board (Laser Unit)	
MFU	Multi Folding Unit FD5020 (D740)* ¹	
PCDU	Photoconductor Development Unit	
РВ	Perfect Binder GB5010 (D736)* ¹	
PFU	Paper Feed Unit (Tray 1, Tray 2, Tray 3)	
РТВ	Paper Transport Belt (between PTR and fusing unit)	
PTR	Paper Transfer Roller	
RB	Ring Binder RB5020 (D737)	

Terms	Meaning
TCRU	Trained Customer Replacement Units
TE	Trailing Edge
TM/P	ID sensor. "ID sensor" is used in this manual. However, you may see "TM/P" in the SP codes on the operation panel.
TPU	Transit Path Unit for Perfect Binder Type S1 (D736)* ¹
TRM	Trimmer Unit 5040 (D520)* ¹
VTU	Vertical Transport Unit
*1	Optional peripheral devices.

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1. Replacement and Adjustment

Common Procedures

Opening the Bypass Tray

🔁 Important

- This Multi-Bypass Tray can be installed on the A3 LCT RT5100, A3 LCT RT5080, or the A4 LCT RT5070.
- The procedures in this manual apply to the Multi Bypass Tray, regardless of which unit that it is used with.
- 1. Pull in the direction indicated by the arrow at the front left cover.



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- When moving the LCT with the bypass unit attached, grip and push the body of the LCT unit.
- To avoid damaging the bypass tray, never attempt to push or rotate the assembled units by pulling or pushing on the bypass tray.

Covers

Right Front Cover

1. At the front, remove the screw cover.



2. Remove the right front cover [1] (@²x1)



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Left Front Cover

- 1. Remove the right front cover.
- 2. Disconnect the right side [1] (Salar x1).
- 3. Disconnect the left side [2] ($\mathfrak{O}x$ 1). You need a short screwdriver to remove this screw.



4. Remove the cover.



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Rear Cover

- 1. Disconnect the rear cover.
 - [1] Covered screw (🕅 x1)
 - [2] Rear screw (@[®]x1)
 - [3] Well screw (@x1)



2. Remove the cover.



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Top Cover

- 1. Remove the front covers, and the rear cover. (See previous sections).
- At the front, remove the screw cover [1] and screw below, and then remove the front screw [2] (\$ x2).



3. At the rear, disconnect the top cover and remove it (Ox1).



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Feed Tray

- 1. Remove the covers.
- 2. At the right rear corner, disconnect the ground wire and open the clamps (🖗x1, x3).



m263d8201

3. Disconnect the harnesses (🎯 x2).



m263d8202

- 4. At the front, disconnect hinge plate [1] and swing the hinge plate to the right ($\Im^{r}x1$).
- 5. At the rear, disconnect hinge plate [2] (\$\$\vert^*x1)\$.
- 6. Carefully disconnect the hinge and spring [3].



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- 7. Pull the harnesses through the frame [1].
- 8. Remove the feed tray [2].

9. Turn over the feed tray. There are three sensors on the bottom of the feed tray.

1	Paper end sensor
2	Paper width sensor
3	Paper length sensor



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Motors

Paper Feed Motor, Paper Transport Motor

- 1. Remove rear cover
- 2. Disconnect:
 - [1] Paper feed motor (🖗x1, 🎸x1)
 - [2] Transport motor (🎯 x1)



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3. Disconnect the transport motor (@x2)



d517r825

4. Disconnect the timing belt behind the motor and remove the motor ($\Im x1$).



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5. Disconnect the paper feed motor (@x2).



d517r827

6. Disconnect the timing belt behind the motor and remove the motor (\mathbb{S}_{x1}).



d517r828

Lift Motor

- 1. Remove rear cover
- 2. Remove the paper feed motor. (page 16)
- 3. Disconnect the motor bracket [1] (@*x3).
- 4. Disconnect the motor [2] and remove it (🕸x1).



d517r830

5. Separate the motor and bracket (@x2).



d517r831

Relay Motor

1. Remove cover [A] ($\mathfrak{O}^{p}x2$).



d194z0307

2. Free the harness (🕸x9, 🎯 x1).



m263d8206

3. Disconnect and remove bracket [A] (@x3).



m263d8207

C Important

- The harness is difficult to remove so when you remove it, handle it carefully to avoid damaging it.

4. Disconnect the relay bracket motor and then remove it with motor [A] attached and timing belt [B] removed (@x3, @x1).



d194z0315

5. Separate the motor and bracket (@x2).



d517r842

Re-installation

When you re-install the harness:

- Work carefully so it does not get pinched.
- Make sure the permanent bands are positioned at the clamps as shown in the photo.



Fan

- 1. Remove:
 - Remove rear cover.
 - Paper Transport Motor.
- 2. Remove the fan (\$x1, \$x1, \$x2)



d517r829

Sensors

Paper Feed Sensor

- 1. Remove the front, rear, and top covers.
- 2. Disconnect the sensor bracket [1] (x1, x1).
- 3. Remove the sensor [2] ($\Im x$ 1, $\checkmark x$ 3).



d517r835

Lift Sensors

- 1. Remove the front, rear, and top covers.
- 2. Disconnect the sensor bracket [1] (x1).
- 3. Disconnect and remove the sensors ($\Im x_1$, ∇x_3 each).



Paper End Sensor

- 1. Remove the feed tray. (page 13)
- 2. Turn the feed tray upside down and lay it on a flat surface.
- 3. Release tab [1] and remove the sensor cover [2] (**T** x1).



d517r814

- 4. Turn over the sensor cover [1].
- 5. Remove the sensor [2] (x1).



d517r815

Paper Length Sensor

- 1. Remove the feed tray (page 13)
- 2. Turn the feed tray upside down and lay it on a flat surface.
- 3. Release the hook.



d517r819

- 4. Remove the sensor cover [1] and turn it over.
- 5. Remove the sensor [2] (🎯 x1)



d517r820

Paper Width Sensor

- 1. Remove the feed tray. page 13
- 2. Turn the feed tray upside down and lay it on a flat surface.
- 3. Disconnect the sensor plate [1] (\$\$\vert x1)\$.



d517r816

4. Remove the sensor plate (**T**x3).



d517r817

- 5. Disconnect the sensor cover [1] (**T** x2).
- 6. Turn the sensor cover over [2] and remove the sensor harness from the cover.



d517r818

Paper Height Sensors

- 1. Remove
 - Front and rear covers
 - Feed Tray
- 2. Paper height sensors 1, 2, and 3 are mounted on the frame.
 - The left photo shows the sensors and connectors on the front side of the frame.
 - The right photo shows where the sensor pawls protrude from the back of the frame.



d517r832

3. To remove a sensor, disconnect it from the frame and harness ($\mathbf{\nabla} x3$, $\mathbf{\nabla} x1$).

Relay Sensor

- 1. Remove the covers for the relay motor removal. page 18
- 2. Remove the front inner cover [1] (@*x1).
- 3. Disconnect the top cover [2] at the front (\Im x2).



d517r843

- 4. Disconnect the top cover [1] at the rear ($\Im x2$).
- 5. Remove the top cover [2].



- 6. Remove the sensor bracket [1] (Sx1).
- 7. Remove the sensor [2] (🖗x1, 🌾x1).



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Rollers

Overview



The bypass feed rollers can be accessed from the top of the LCIT.

Roller Removal

1. The rollers are behind the snap-off cover.



- 2. Pull off cover [A].
- 3. Remove screw [B].



d571r752

- 4. Remove plate [A].
- 5. Remove screw [B].



d517r753

6. Push the sensor positioning plate to the left.



d517r754

Note

- If this plate is not pushed to the left, you will not be able to remove the feed roller.
- 7. Remove:
 - [A] Pick-up roller snap ring and roller.
 - [B] Feed roller snap ring and roller.



d517r755

8. Remove separation snap ring and roller [A].



d517r756

9. Turn on the machine and wait for it to warm up.

10. Re-set the PM Count for the replaced rollers.

Switch, Solenoid, PCB

Tray Lift Switch

- 1. Remove the front covers
- 2. Disconnect and remove the switch ($\Im x1, \Re x1, \Im x1$)



d517r846

Pickup Solenoid

- 1. Remove the covers.
- 2. Disconnect the solenoid [1] \$\context{(x1)}\$.
- 3. Unfasten solenoid [2] (Sx1).



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4. Remove the solenoid.



d517r834

Re-installation

- When re-installing the solenoid, make sure that the arm of the solenoid is positioned above and in contact with the plate of the pick-up roller shaft below.
- To confirm correct installation, manually move the solenoid to the left and right. When the solenoid plunger is moved, the pick-up roller should move up and down smoothly.

Bypass Tray PCB

- 1. Remove rear cover.
- 2. Disconnect connectors (\$\$ x9).
- 3. Disconnect the board at [1] and [2] ([∞]x2, [∞]x2).





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4. Remove the board.



d517r823

MEMO

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