

SB Number:	SB 2DA-012	Creation Date: 02/02/2007
Subject:	<i>MEASURES: black spots on the drum (strengthen ground of Drum Unit)</i>	
Model:	KM-2550	

When replacing a Drum Unit, a contact failure between the side plate and plate spring for conduction of Drum Unit (both at the rear side of the machine) can occur. Additionally, there is a possibility that black dots occur on the image as a result of drum leakage. Therefore, please note followings when installing a Drum Unit.

Cause

After placing a new drum unit there is a situation where the drum shaft is not grounded. This may cause pinholes on the drum surface and subsequently black dots on the print out. This may occur when the new DU is placed correctly. *The following may go wrong nonetheless:*

Ground for the DU is basically generated through the drum shaft to the machine frame. However, if the DU is inserted and the couplers on the machine and DU side do not engage correctly a problem can occur. When the machine starts normal operation it will slip into place and engage as expected. Should it take MORE than 1.5 second to properly engage there might be a contact failure between rear side plate of the machine and plate spring.

Measure

- Once the DU is installed, drive the main motor and make sure that the coupling gears are engaged. Then fix the DU with a screw. Based on this, please perform the following procedure when replacing a Drum Unit.
- To prevent drum leakage caused by a contact failure, a SPRING CL GROUND is added in the lift-up section of the rear side plate of the machine. This will increase conduction tolerance when installing a Drum Unit.

No.	Old part number	New part number	Description	Q'ty		Interchange ability	
				Old	New	Old	New
1	-----	302HF12040	SPRING CL GROUND	-	1	-	O

Field measure:

When the above-mentioned phenomenon occurs, perform measure 1 and 2 as mentioned above.

Serial number information:

Machines with serial number **A3041117-** and higher are produced to include the newly introduced SPRING CL GROUND.

If the ground connection between the grid and GND is unstable, drum leakage and damage to the surface of the photosensitive layer on the drum can occur. If this happens, toner may stick to the leak and as a result there is a chance that black spots appear on the drum.

Contents of change

- To increase ground between the MCH shield and GND, PLATE ZENNER MAIN B has been added to the inside of the rear cover. and is included in PARTS, DK-420,SP;
- To increase ground connection between the grid and MCH shield, the shape of the TERMINAL GRID at the front side of PARTS MC-420,SP has been changed as follows:
To make it easier to insert PARTS MC-420,SP, the surface cutting of the back housing on PARTS MC-420,SP has been enlarged.

No.	Old part number	New part number	Description	Q'ty		Interchangeability	
				Old	New	Old	New
1	302FT93043	302FT93045	PARTS,DK-420,SP	1	1	X	O
2	-----	302FT18431	+PLATE ZENNER MAIN B	-	1	-	O
3	302FT93081	302FT93082	+PARTS,MC-420,SP	1	1	X	O
4	-----	302FT10091	++TERMINAL GRID	-	1	-	O
5	302FT93082	302FT93083	+PARTS,MC-420,SP	1	1	O	O

Serial number information:

Machine serial number A3055376- (KM-2550) and higher have been assembled with the new parts.

Field measure:

When the above-mentioned phenomenon occurs, please follow the procedures as explained below:

PROCEDURE: Attaching PLATE DRUM ZENNER MAIN B

1. Pull out the DK-420 from the main unit.
2. Remove the claws (3 positions) fixing the rear cover of the DK-420 and, using a flat head screwdriver, remove the rear cover.
3. Remove the zenor PCB and the Plate Spring (:PS) from the rear cover. The 'open shape' of the PS is fixed by fitting it into the boss of the rear cover, so: open the 'open shape' using a flat head screwdriver.
4. Attach **PLATE ZENNER MAIN B** to the PS fixation area of the rear cover and attach the PS over it.

NOTE: Because two PS are attached on top of each other, there is a concern that poor grounding can occur caused by the floating PS. Therefore, when attaching the PS, push it using the flat head screwdriver and securely fix it to the previous shape by closing the open shape (step 3). Additionally, check if the distance between the leading edge of PS and the Rear Cover is 5mm(+1.0mm/-0.5mm)

5. Check the continuity to make sure that the Plate Zenner MAIN B and the PS are grounded.

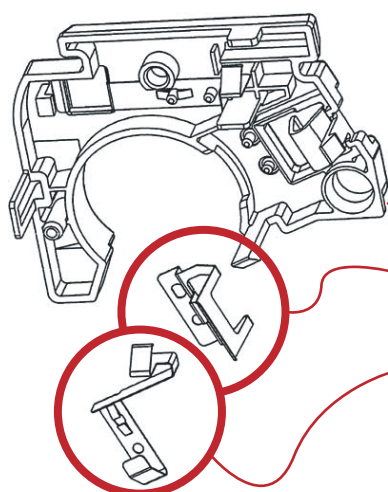
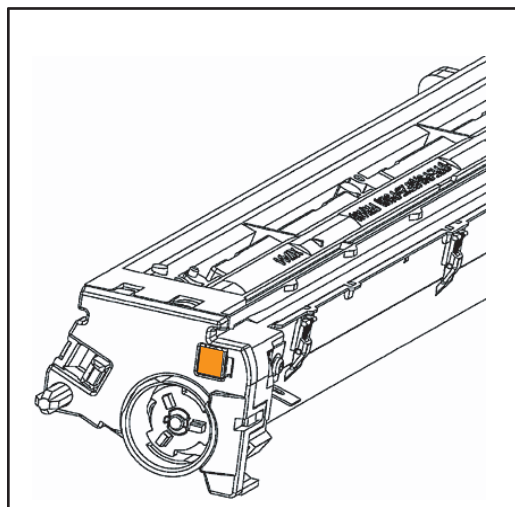
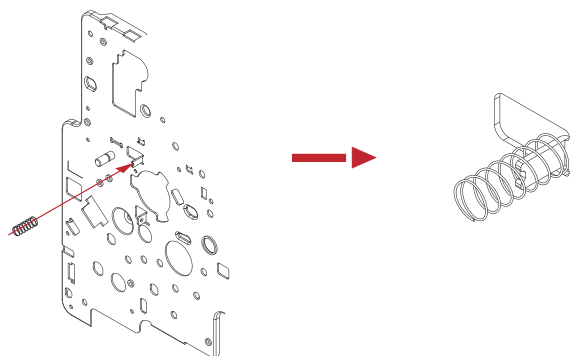
PROCEDURE: attaching the TERMINAL GRID

1. Remove the main charger from the drum unit
2. Remove the grid in order to gain access to/remove the old TERMINAL GRID. In doing so, verify that the pulleys (G) at both ends of the main charger unit do not sink into their housing (If they do sink down, please replace the main charger).

NOTE: For more information on the sunk pulleys, please find it on page 2 of this bulletin.

3. Push the new **TERMINAL GRID** firmly into the housing
4. Check the continuity between the grid and shield to see that it is grounded.

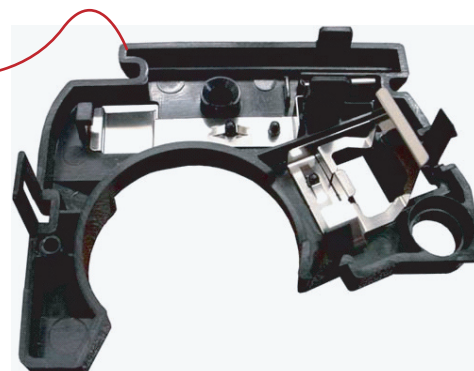
Machine frame side: place the spring as done in the illustration. Contact between the spring and the plate (orange in illustration) will ensure that the DU is grounded.



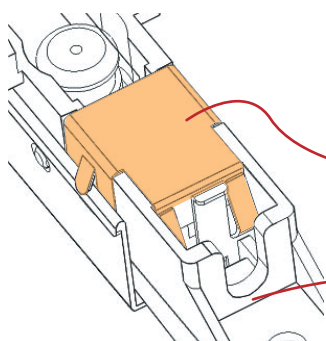
REAR COVER (of DK-420, SP)

PLATE ZENNER MAIN B
p/n: 302FT18431

PLATE SPRING

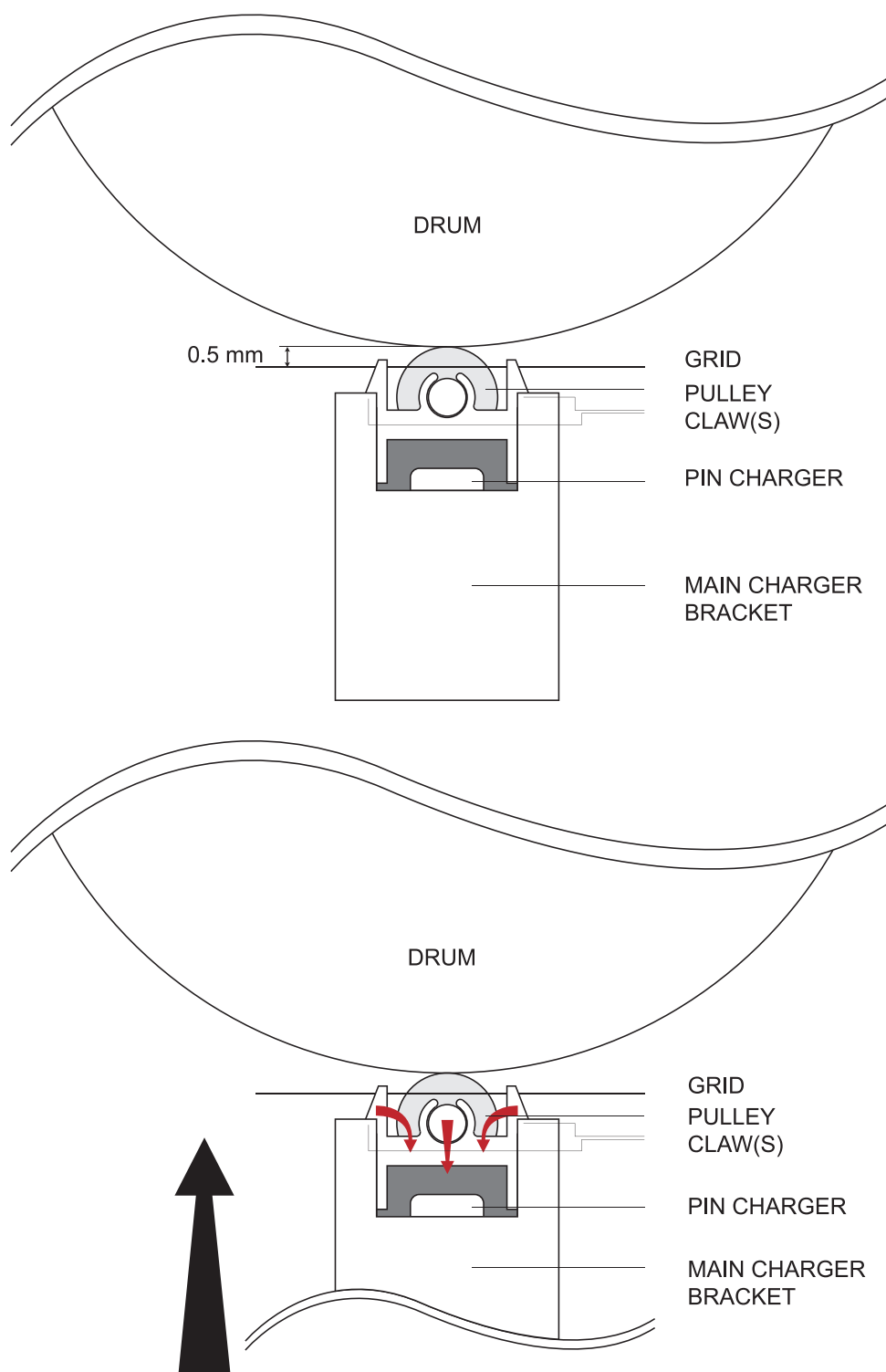


TERMINAL GRID



TERMINAL GRID
p/n: 302FT10091

MAIN CHARGER



When excessive force is put on the MC unit in the direction of the drum, there is a possibility that the claws of the pulley bracket are pushed in and then down. If this happens, the space between the grid and drum decreases (it should be 0.5 millimeter) and small charges can jump between the tungsten wire and the drum surface creating pinholes.

To prevent this, small changes have been made to the Main charger bracket. Additionally, the end-user should be educated in the correct removal/insertion, and operation of the drum unit and main charger.