Canon

Service Information

COPIER

☒**HARDWARE**
☐**SOFTWARE**

Model: iR2200/2800/3300 Series

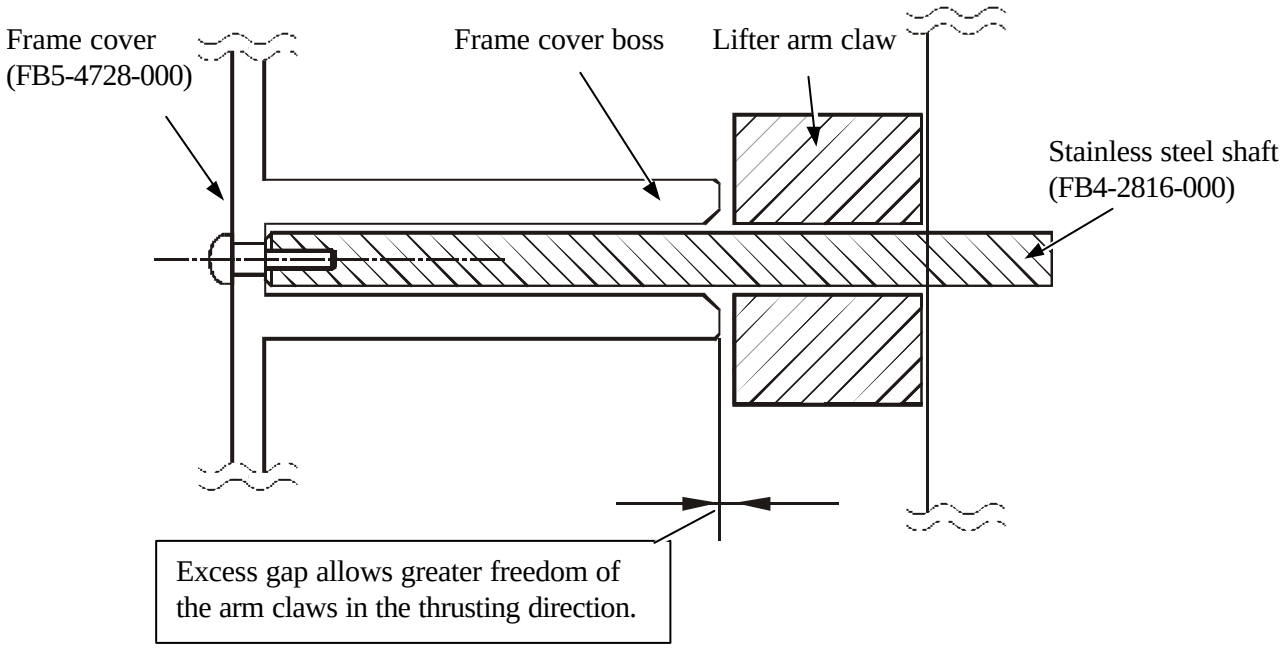
Ref. No. : FF-T01-L5-000016-01
Date : April 15, 2002

Location: Pickup Assembly FG6-5644

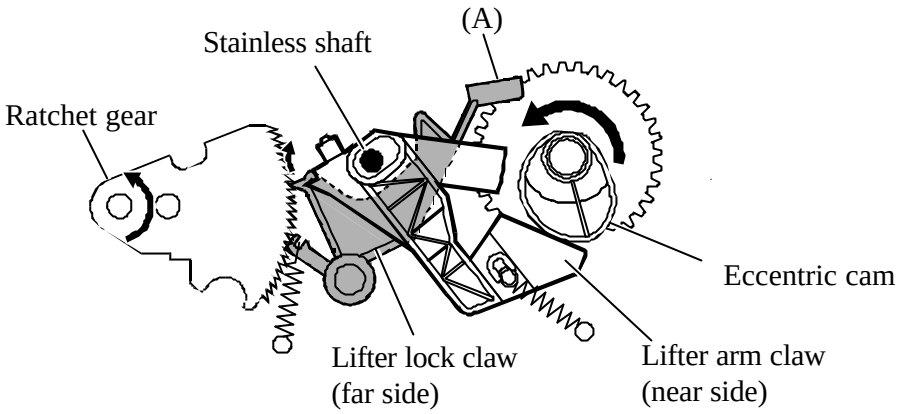
Subject: Measure Against Cassette Lifter Failure to Rise

Reason: Loose engagement of lifter arm claws and ratchet gear

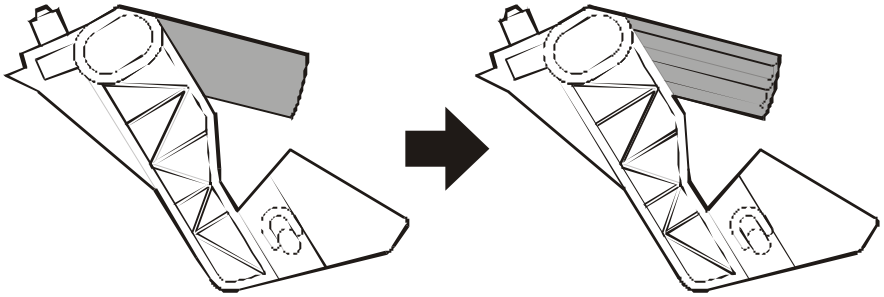
Detail: <Symptom>
Sometimes the lifter plate fails to rise and the paper empty alarm is issued even though paper is set in the cassette.
<Cause>
Because of the multiple parts tolerances involved, sometimes the space between the boss on the pickup frame cover (FB5-4728-000) and the lifter arm claws (FB6-2789-000) opens too wide, allowing the claws to travel over greater distances in the thrusting direction and eventually letting the arm claws fall out of engagement with the ratchet gear (FB6-2778-000).



Insertion of the cassette unlocks lock (A) of the lock claw, engaging the lock claw with the ratchet gear. The arm claw, driven by the rotating eccentric cam, moves up and down about the stainless steel shaft and moves up the ratchet gear.
In normal operation, the arm claw is engaged on this same ratchet gear. However, if the arm claw has too much play in the thrusting direction, the arm claw wobbles in the thrusting direction and fails to engage with the ratchet gear, that the lifter would not rise.

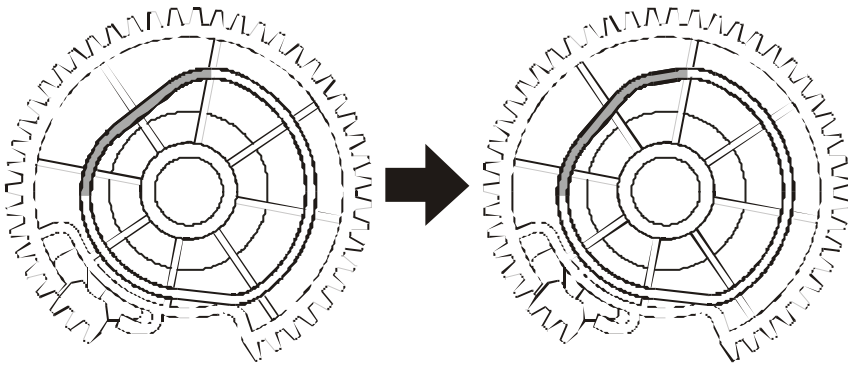


<Factory Measures>
Ribs have been provided to part of the upper and lower lifter arm claws (FB6-2789) to limit motion in the thrusting direction. At the same time, the profile of the upper liftup cam (FB6-2787) has been changed to optimize the motion of the lifter arm claws. Coinciding with these modifications, the color of the arm claws and the cams has been changed from black to white. The lower liftup cam did not need profile change and has been left unchanged.



Old (black) FB6-2789-000 New (white) FB6-2789-020

Lifter arm claw



Old (black) FB6-2787-000 New (white) FB6-2787-020

Upper liftup cam

Servicing Work:

If the problem occurs, add a 0.4 mm-thick washer onto the stainless steel shaft of each lifter arm claw to optimize play of the arm claws.

<Procedure>

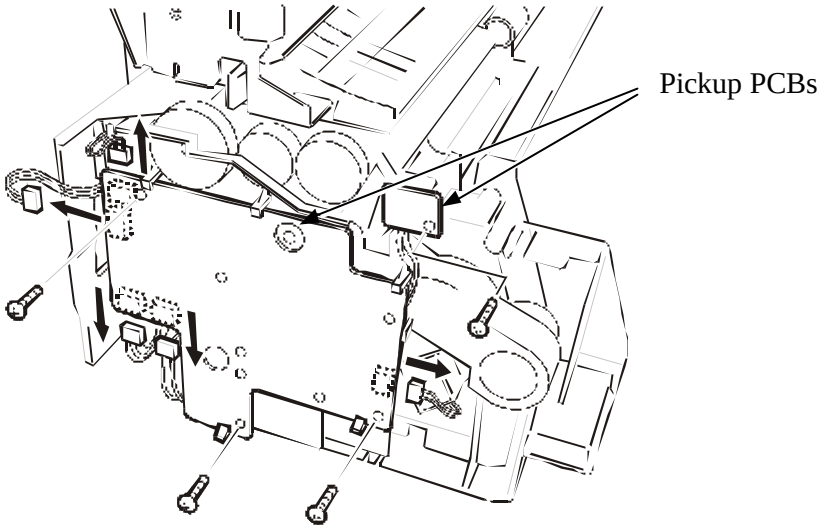
Prepare the washer specified below before starting.

XD1-1106-234 (XD1-1106-224 will do.)

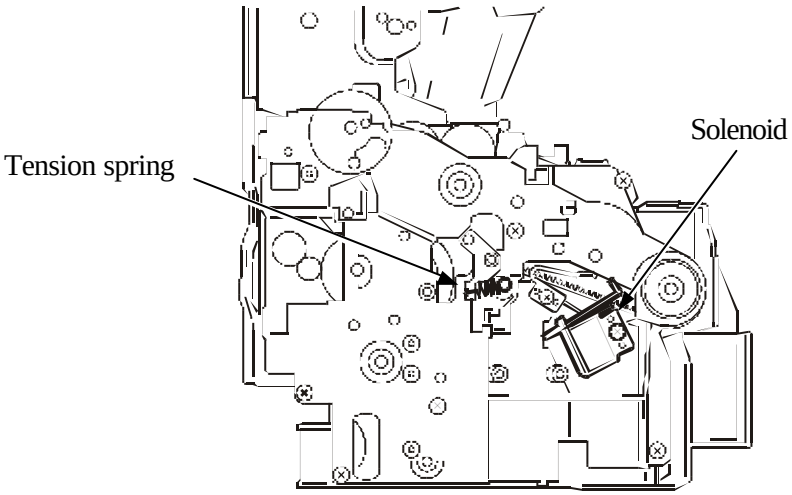
Hole diameter (mm)	Outer diameter (mm)	thickness (mm)	Quantity
ϕ6.2	ϕ12	0.4	2 pcs

1) Remove the pickup unit.

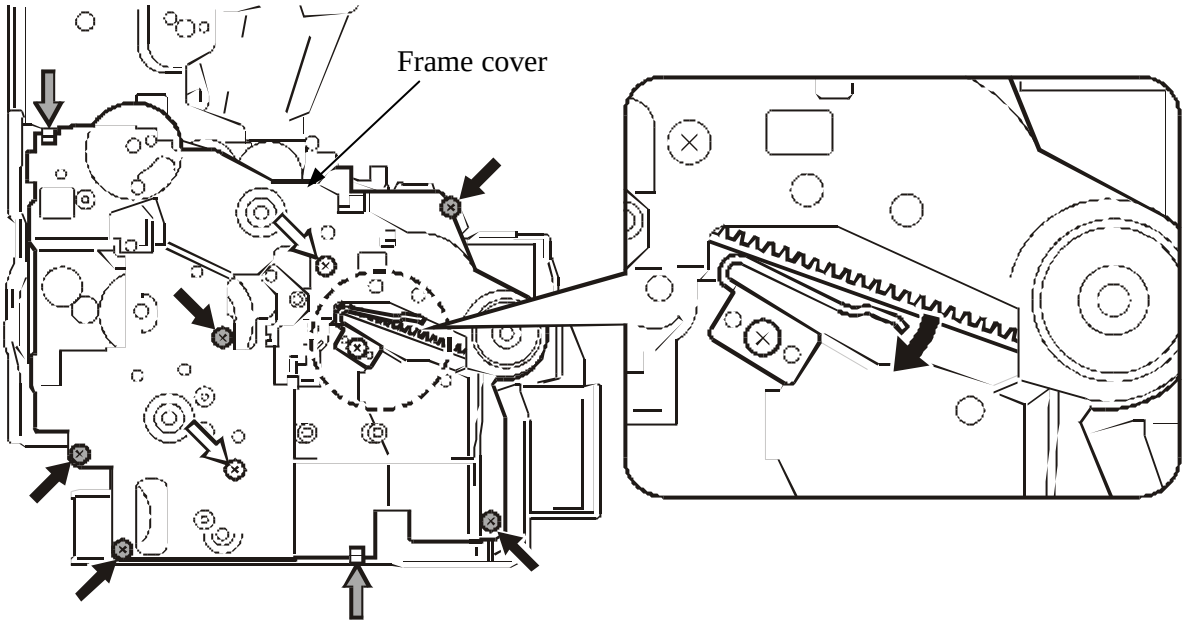
Remove (4) screws and (5) connectors. Remove the pickup PCBs while opening the claws (at 2 positions).



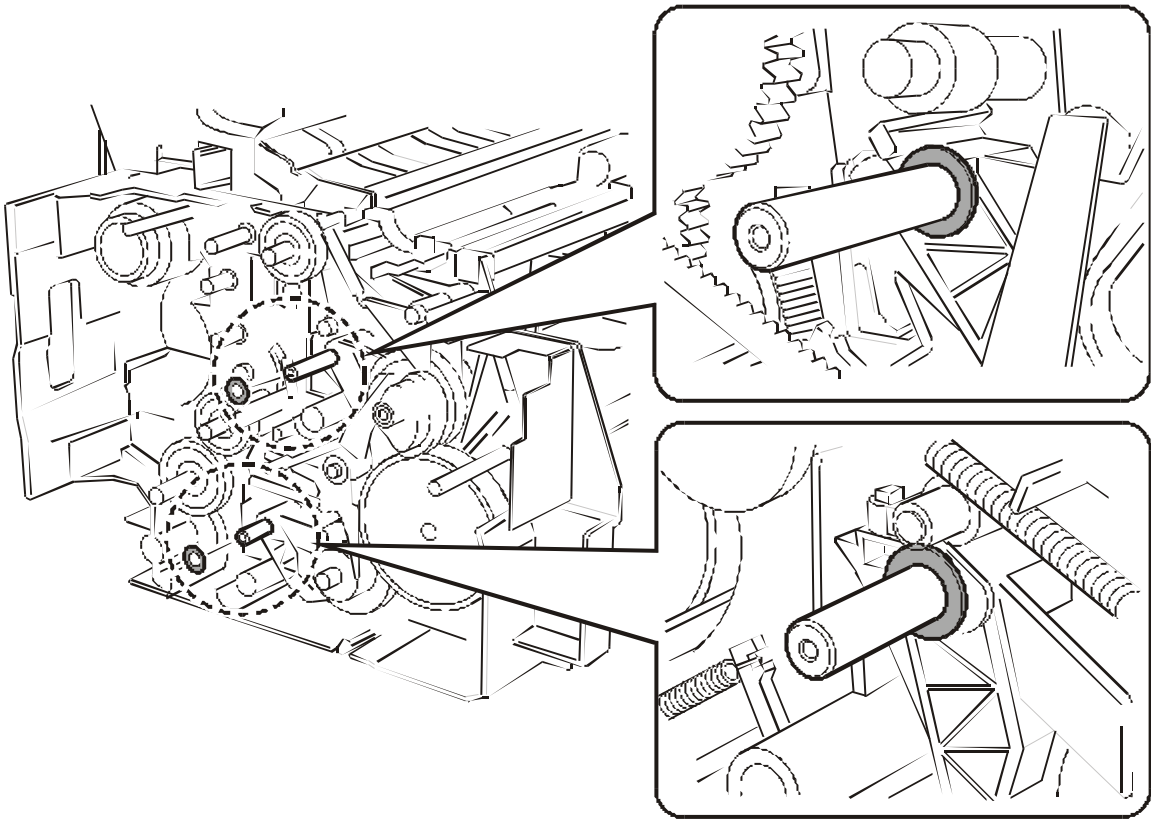
2) Remove the tension spring and the solenoid (with 1 screw).



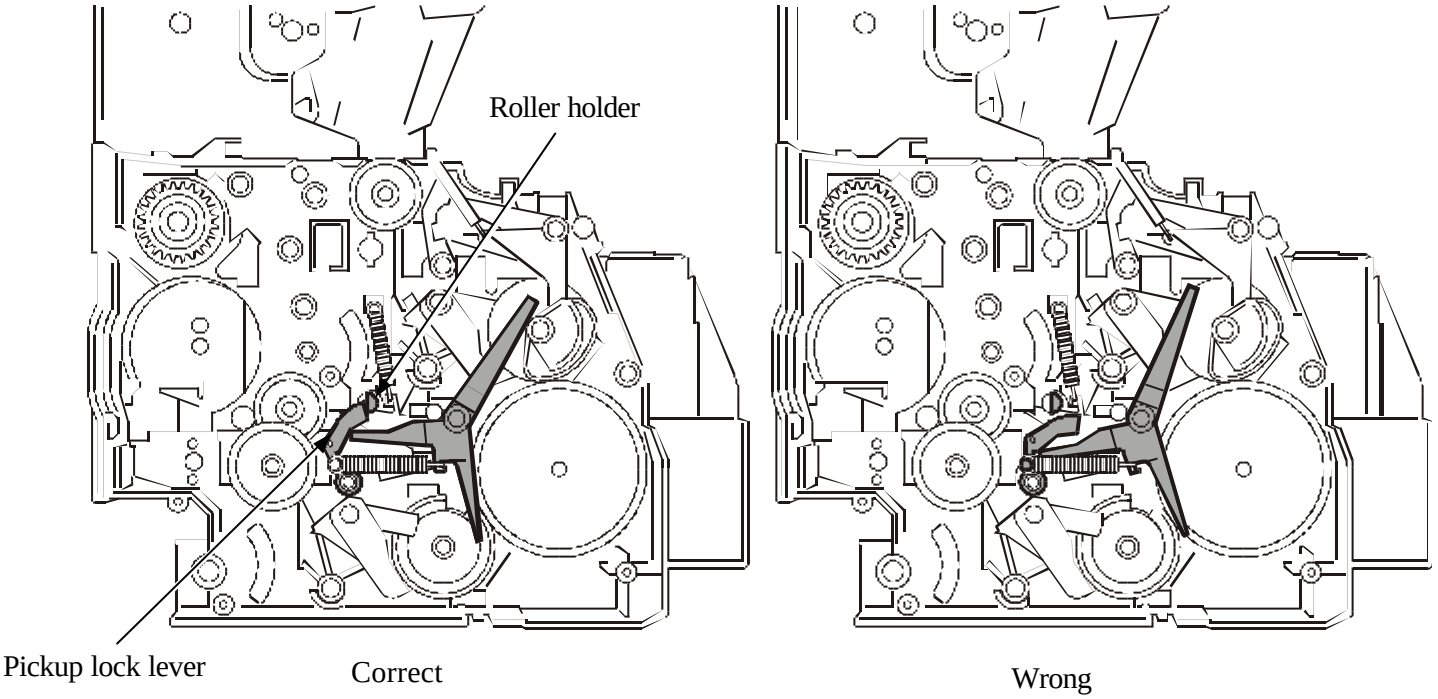
3) Remove the (7) screws and claws (at 2 positions), and remove the frame cover. When taking off the frame cover, press the plate spring to pass it under the belt.



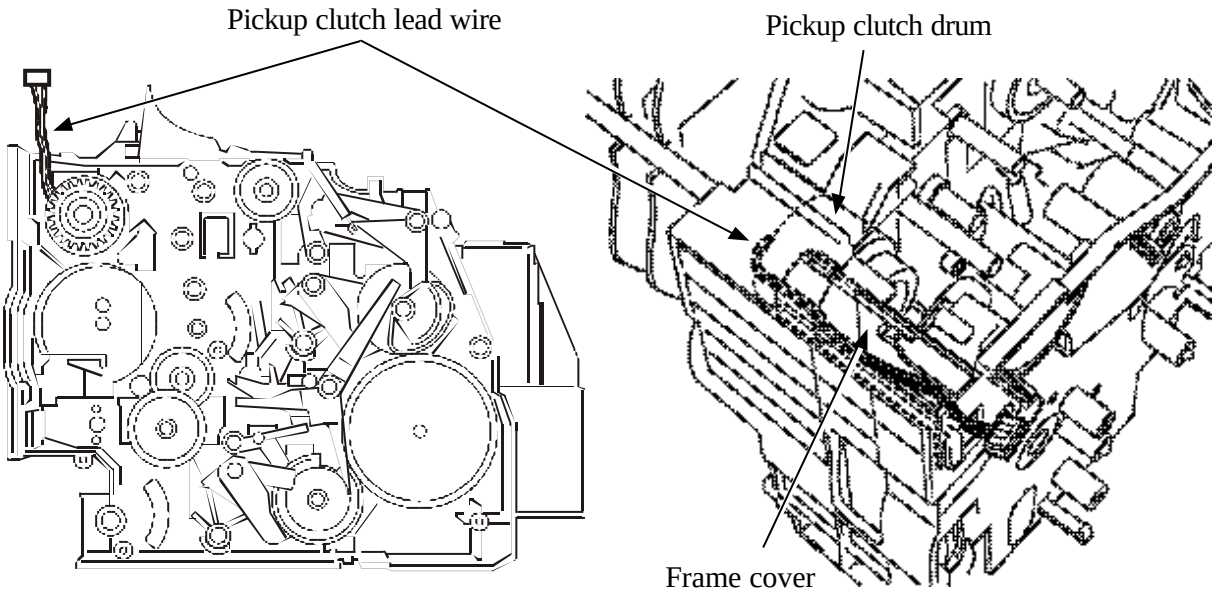
4) Place the prepared washers onto the shafts of the upper and lower lifter arm claws.



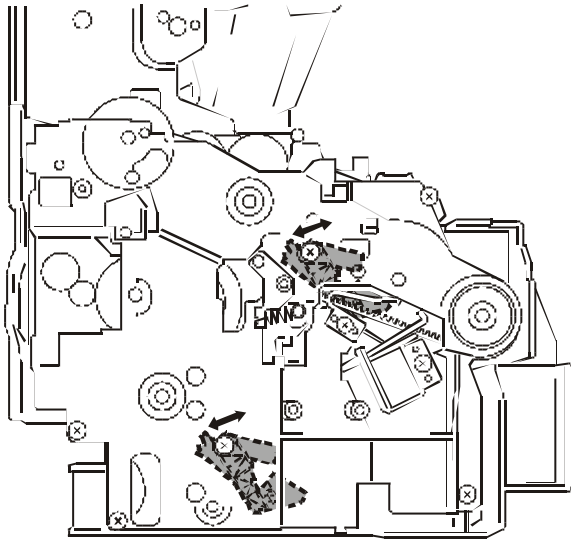
5) Verify that the pickup lock lever (FB6-2792-000) is properly in contact with the half-moon arm of the roller holder (FF6-0109-000). If the lever is wrongly placed as shown in the figure below, the lifter of the lower cassette is kept active all the time, causing jam, skew, and noise.



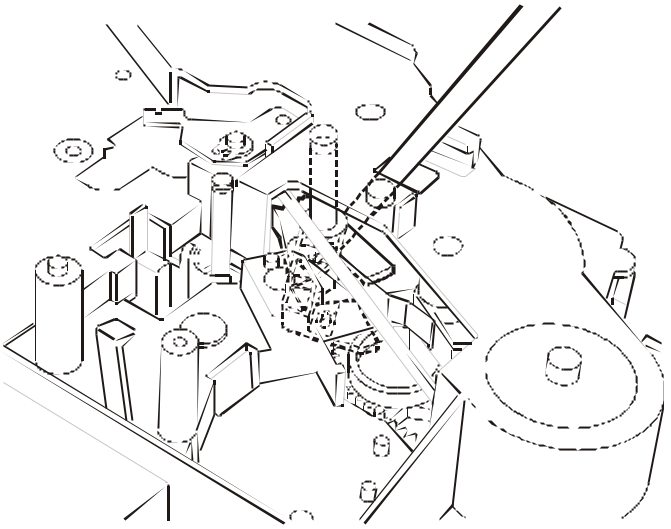
6) Mount the frame cover by reverse procedure of step 2 and 3. (Pass the plate spring under the driving belt, and fasten 1 solenoid, 1 tension spring, 7 screws and 2 claws.) When mounting the frame, be careful not to drop the (2) white plastic bearings.
When installing the frame cover, run the lead wire of the pickup clutch over the frame cover so that the wire will not fall in contact with the pickup clutch drum. For ease of operation, stand the pickup unit on its side with the cover-mounting face up, so that the driving belt will not come off. Take precaution not to let the pickup unit turn down.



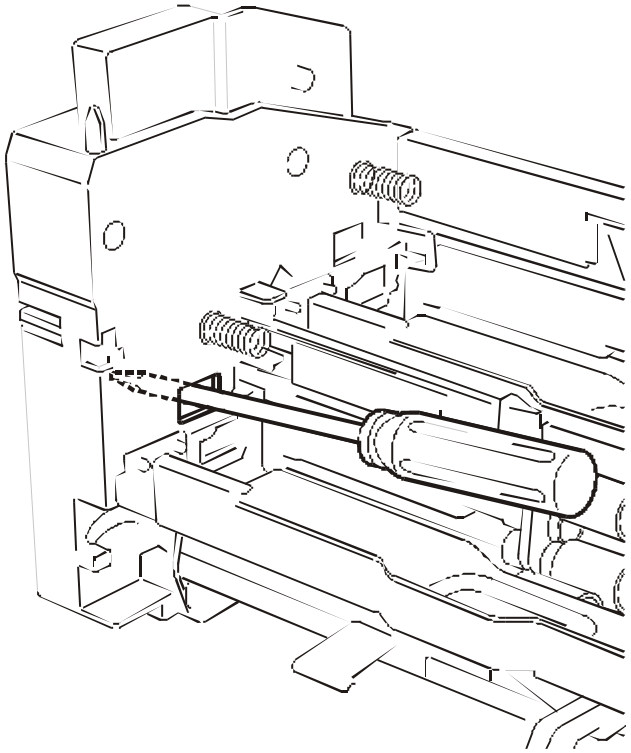
7) Move the arm claws using a screwdriver to check that both the upper and lower arm claws move smoothly, without catch.

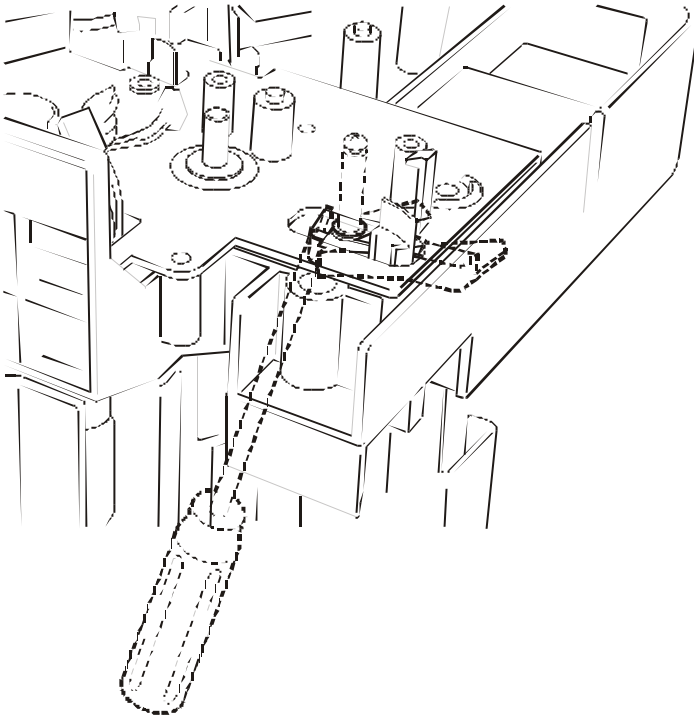


Motion of upper and lower arm claws



Check motion of the upper arm claw by eye.



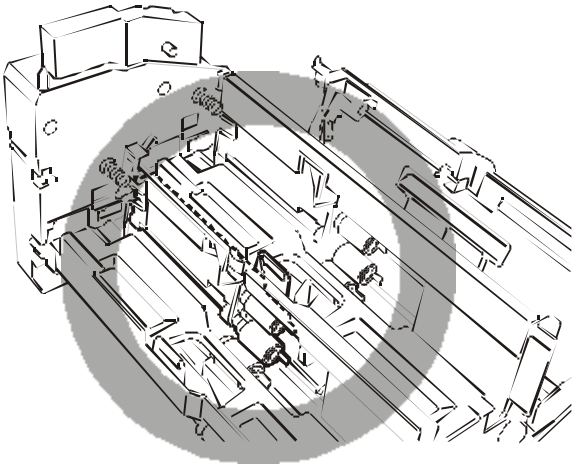


Place a screwdriver at the position shown in the figure to check motion of the lower arm claw by eye.

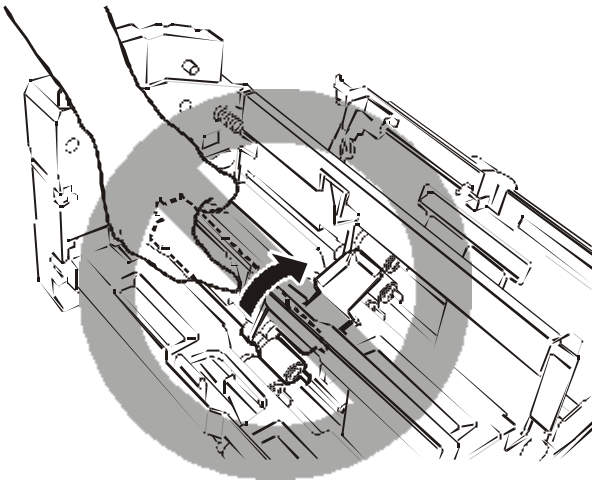
8) Reverse the procedure of step 1 to mount the 2 pickup PCBs onto the frame cover. (4 screws, 5 connectors, and claws at 2 positions) Mount the pickup unit onto the main body, and check that paper is picked up smoothly from both the upper and lower cassettes.

<Notes on handling the pickup unit>

Never push up the pickup roller holder of the lower cassette while the lifter for the upper cassette is up, as shown *wrong* in the figure below. It produces the wrong state shown in the figure in step 5, keeps the lifter for the lower cassette active all the time, and generates jam, skew, and noise. If the pickup roller holder for the lower cassette has been pushed up inadvertently while the lifter for the upper cassette is up, disassemble the unit and reassemble the pickup lock lever and the roller holder properly.



Correct
The upper lifter is down. (No problem)



Wrong
Do not push up the lower pickup roller holder while the upper lifter is up.

Service Parts:

No.		Description	Part number	Q'ty	Stock	Inter-change-ability	P.C. Stock date
1	Old	CAM, LIFT UP, UPPER	FB6-2787-000	1→0	C	*1 No Yes	310-16
	New	CAM, LIFT UP, UPPER	FB6-2787-020	0→1	D		In stock
2	Old	CLAW, LIFTER ARM	FB6-2789-000	2→0	C	No Yes	310-19
	New	CLAW, LIFTER ARM	FB6-2789-020	0→2	D		Mid of Apr.
3	Old	PAPER PICK-UP ASSEMBLY	FG6-5644-060	1→0	C	No Yes	103-23
	New	PAPER PICK-UP ASSEMBLY *2	FG6-5644-090	0→1	D		In stock

*1: Replacing parts 1 and 2 simultaneously equals the permanent measures.
(Technically, it is possible to mount either of these parts alone as an independent remedy from another. However, the effect can be unsatisfactory.)

*2: FG6-5644-090 is not stocked. Instead, FG6-5644-100, which implements the measures against noise from the vertical path with cassette pedestal W1, is in stock.

Affected Machines:

Product Name	Product Code	Destination	Serial Number
iR2200G	6583A019AA	120V UL GOV	MPC00451
iR2800G	6379A019AA	120V UL GOV	MPK00326
iR3300G	6378A019AA	120V UL GOV	MPD00527
iR2200	6583A002BA	120V UL	MPG10598 to 11590, 11661
iR2800	6379A002BA	120V UL	MPJ04031
iR3300	6378A003BA	120V UL	MPH05936
iR2200	6583A002AA	120V UL	NSQ01299
iR2800	6379A002AA	120V UL	NST00431
iR3300	6378A003AA	120V UL	NSS01190
iR2200	6583A003AA	230V ITA	PRC00271
iR2200	6583A003BA	230V ITA	PSQ00607
iR2800	6379A007AA	230V ITA	PSE00201
iR2800	6379A007BA	230V ITA	PST00221
iR3300	6378A002AA	230V ITA	PRH00251
iR3300	6378A002BA	230V ITA	PSS00941
iR2200	6583A009AA	230V OTH	PRD00222
iR2200	6583A009BA	230V OTH	PSR00181
iR2800	6379A008AA	230V OTH	PSG00041
iR2800	6379A008BA	230V OTH	PSV00086
iR3300	6378A008AA	230V OTH	PRJ00201
iR3300	6378A008BA	230V OTH	PSU00481
iR2200	6583A004AA	230V UK	QDR00901
iR3300	6378A004AA	230V UK	QDT00821
iR2800	6379A009AA	230V UK	QDW00885
iR2200	6583A004BA	230V UK	QEF01431
iR2800	6379A009BA	230V UK	QEH00606
iR3300	6378A004BA	230V UK	QEG00661
iR2200	6583A005AA	230V CA	RDN00331
iR2200	6583A005BA	230V CA	REE00381
iR2800	6379A013BA	230V CA	REG00356
iR3300	6378A011AA	230V CA	RDP00451
iR3300	6378A011BA	230V CA	REF00551
iR2200	6583A006AA	230V FRN	SCP00701
iR2200	6583A006BA	230V FRN	SDD01506
iR2800	6379A010AA	230V FRN	SDB00581
iR2800	6379A010BA	230V FRN	SDJ00802
iR3300	6378A005AA	230V FRN	SCX00691
iR3300	6378A005BA	230V FRN	SDF00391
iR2200	6583A007AA	230V GER	TDF00701
iR2200	6583A007BA	230V GER	TDS01501
iR2800	6379A011AA	230V GER	TDM00501

iR2800	6379A011BA	230V GER	TDU01026
iR3300	6378A006AA	230V GER	TDJ00983
iR3300	6378A006BA	230V GER	TDT00665
iR2200	6583A008AA	230V AMS	UGU01951
iR2200	6583A008BA	230V AMS	UHK03350
iR2800	6379A012AA	230V AMS	UHC00951
iR2800	6379A012BA	230V AMS	UHM02646 to 2670, 02738
iR3300	6378A007AA	230V AMS	UGW01773
iR3300	6378A007BA	230V AMS	UHL01516