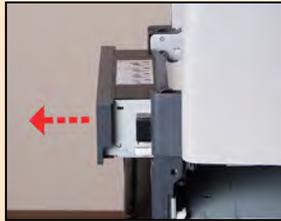




**A1** OUTPUT BIN



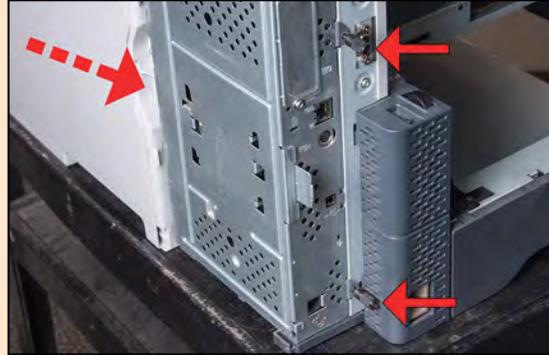
**A2** DUPLEXER



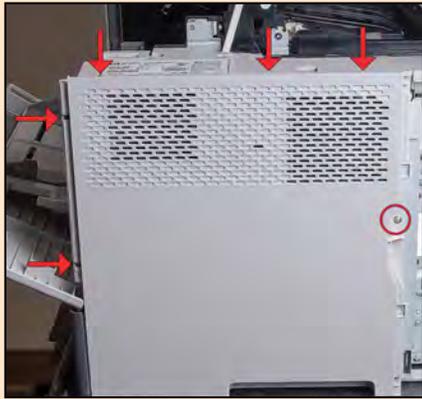
**A3** FUSER ENTR. GUIDE



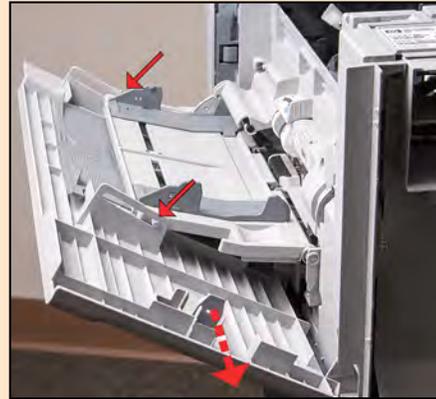
**A4** FORMATTER COVER



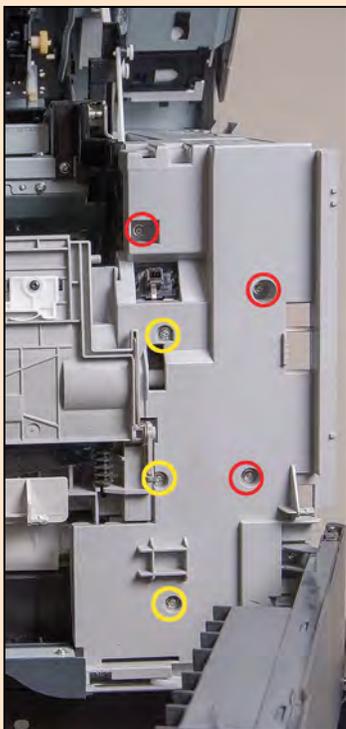
**A5** FORMATTER



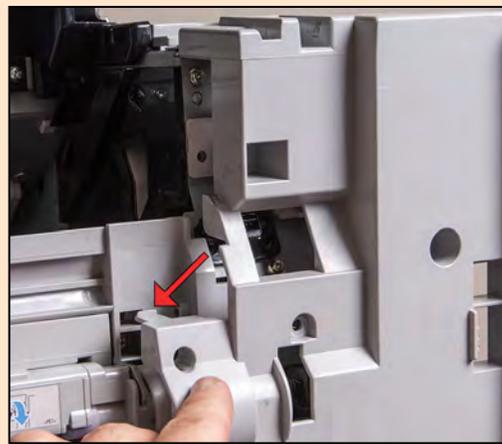
**A6** REAR COVER



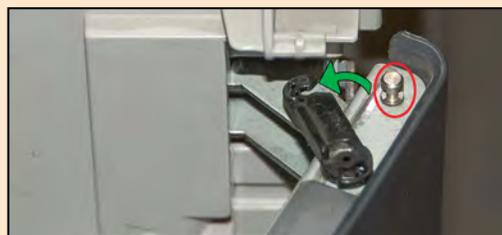
**A7** RIGHT COVER ASM



**A8** FEED ASM COVER



**A9** FEED ASM COVER, HIDDEN TAB



**A10** JAM ACCESS DOOR

**PRINTER REPAIR ARTICLE**

**HP LJ 4345/M4345**

**Swing Plate Replacement**

Grinding noise near the fuser means it is time to replace the fuser, the fuser drive gear (the black gear in the swing plate asm) and possibly the entire swing plate asm.

The "short cut" method of removing the fuser drive gear without removing the swing plate assembly was discovered by LPT's Craig Kaltenberg ("A Simple Shortcut," Service Edge, Fall 2007; the article dealt with the 4200/4300/4250/4350). The idea is to remove the fuser drive gear and spacer from the swing plate asm and inspect the remaining white gear. When this gear appears undamaged, the time-consuming replacement of the swing plate assembly may be avoided.

If the printer has had several "shortcuts" already, we recommend replacing the swing plate assembly and not taking the shortcut.

The article is in three parts. Part A covers the removal of parts up to the point where the technician may attempt the shortcut (Part B) or proceed to remove the swing plate assembly (Part C).

**TOOLS**

- pick (or very slender slotted screwdriver)
- magnetized Phillip's screwdriver (3.5 inch shaft or longer)
- cloth
- needle-nose pliers

**A. INITIAL PARTS REMOVAL.**

1. **CABLES.** Power off the printer and disconnect the power cable and other external cables.
2. **TONER CARTRIDGE.** Pop open the top of the printer by pulling the release tab on the right side. Remove and cover the toner cartridge.
3. **CASSETTE.**
4. **OUTPUT BIN/DELIVERY ASM.** On the left side of the printer, pull out the output bin and delivery assembly, which can remain as a unit (Fig. A1).
5. **DUPLEXER.** Below the output bin is the duplexing unit or the duplexing unit cover assembly. Remove. (Fig. A2).
6. **FUSER ENTRANCE GUIDE & FUSER.** With your finger, flex the fuser entrance guide at the point indicated in Fig. A3 and remove it. Then remove the fuser by squeezing the blue tabs up and pulling the fuser out.
7. **FORMATTER COVER.** Pull to the right to remove, exposing the formatter (A4).

8. **FORMATTER** (Fig A5). Remove two elongated black screws. The formatter slides off to the right like the formatter cover. Give the formatter a tug at the point shown.

9. **REAR COVER**. With the tray 1 door and the toner door open, remove one screw and pry at the five points indicated in A6 to remove the rear cover.

10. **RIGHT COVER ASM**. Separate the multi-purpose tray from the right cover by flexing the plastic guides that hold the mp tray pins (see Fig. A7). Pull the right cover to the right to remove.

11. **FEED ASM COVER**. This inside cover is on the right side. Open the jam access door and remove three long screws (yellow circles in A8) and three normal screws (red circles). Then release one of the hidden tabs (A9). Push up and pull off at the bottom.

12. **JAM ACCESS DOOR**. Pull the retainer away from the shaft on the jam-access door hinge (A10). Use a needle-nose pliers to pull out the shaft. Then slide the entire door to the left (toward the front of the MFP) until the white plastic retainer arm clears the slot in the chassis.

13. **REAR-TOP COVER**. Pry up at hidden tab (the green arrow in A11, then the tab with the hole (circle). Put your fingers underneath the center of the panel (the arrow in A11) and slide the panel to the left.

14. **FAN SHROUD**. Remove two screws, shown in Fig. A12.

15. **REAR METAL SHIELD** (Fig. A13). Remove seven screws. The purple fan cable needs to be unplugged but, being short, holds the shield tightly. It may be wrapped around a pin as well. Try lifting the shield above the printer, wiggling gently to unwind the cable if need be. This will expose the DC controller so you can unplug the cable.

16. **REAR SIDE COVER** (corner cover where AC power cable plugs in). Remove one screw on top. (Fig. A14, arrow.)

17. **FORMATTER CONNECTORS**. Remove two silver screws from both connectors (Fig. A14, circles). Let the connectors hang.

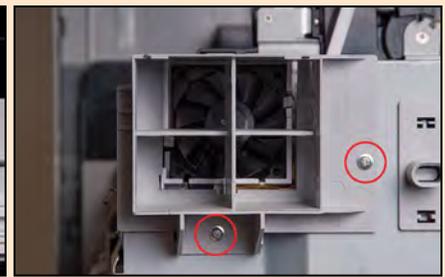
18. **METAL SHIELD FOR PFC POWER SUPPLY**. Remove 4 black and 6 silver screws, shown in Fig. A15.

- a. **REINSTALLATION**. The holes for the black screws have "B" stamped next to them. Don't put them in the wrong holes.

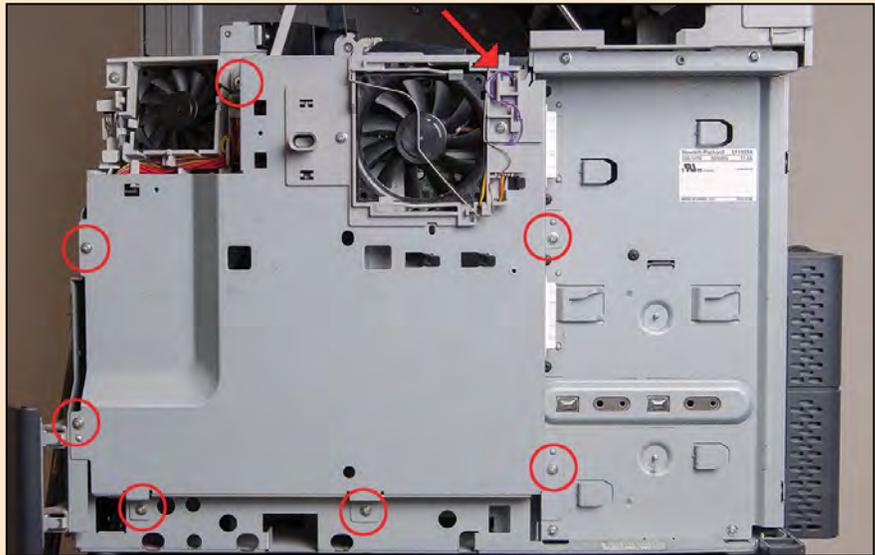
19. **PFC POWER SUPPLY**. Remove four screws and three connectors (Fig. A16). Free the cable on the right from its cable guide.



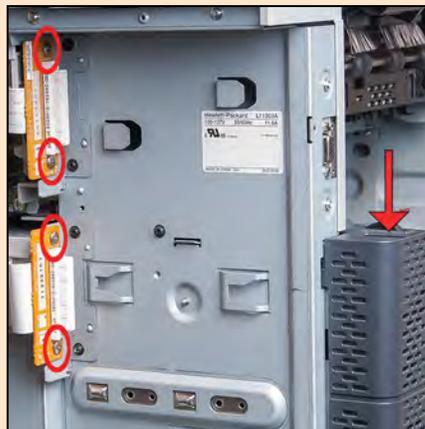
**A11 LIFT TABS, INSERT FINGERS**



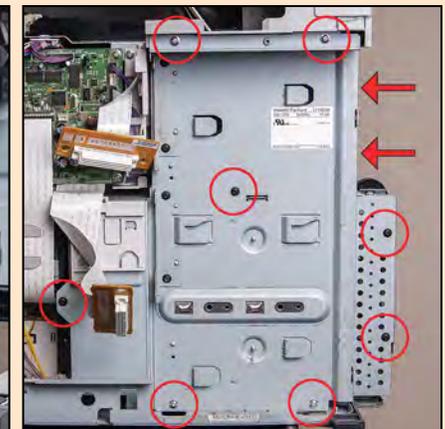
**A12 FAN SHROUD**



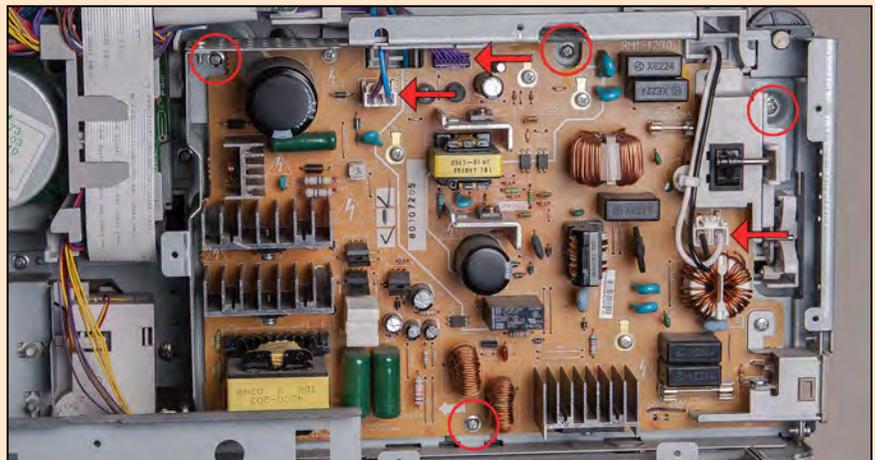
**A13 REAR METAL SHIELD, SEVEN SCREWS AND CABLE**



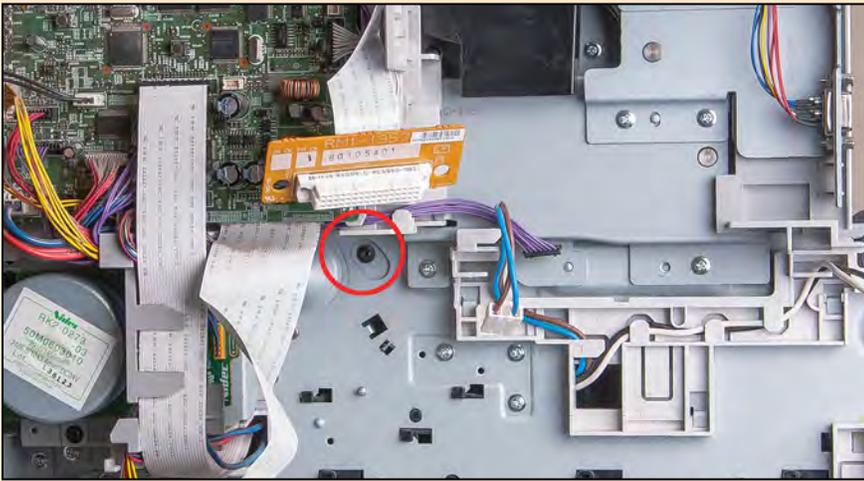
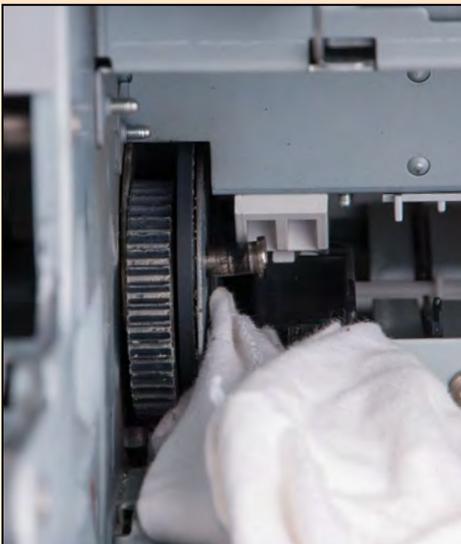
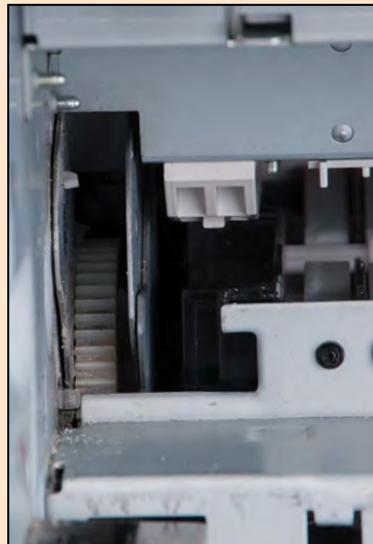
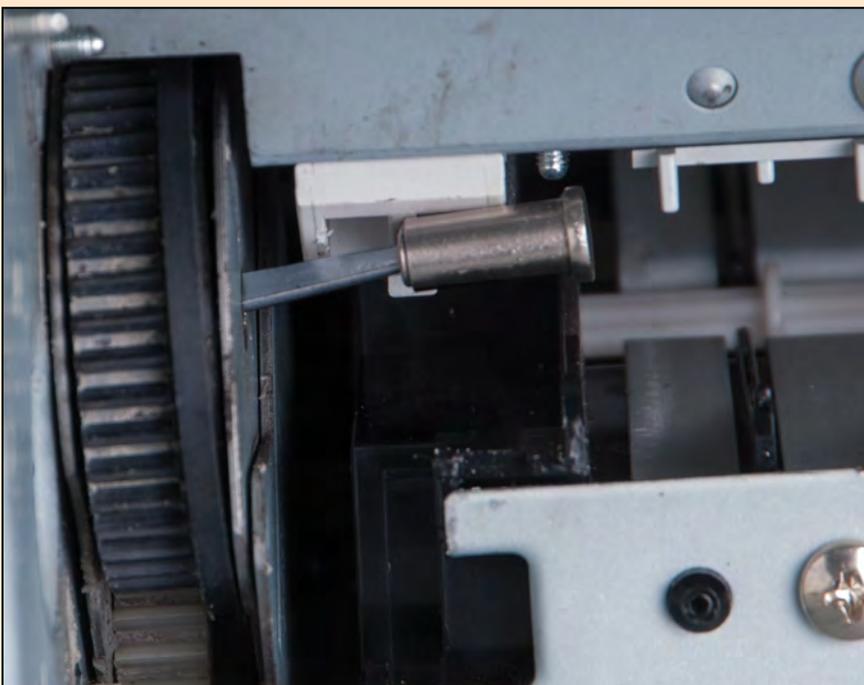
**A14 CONNECTORS, R. R. COVER**



**A15 METAL SHIELD FOR PFC PS**



**A16 PF POWER SUPPLY, 4 SCREWS, 3 CONNECTORS**

**B1** SCREW OF SWING PLATE PIN**B2** CLOTH TO CATCH PIN**B3** INSPECT WHITE GEAR**B4** REINSTALLING PIN, USING PICK TO GUIDE

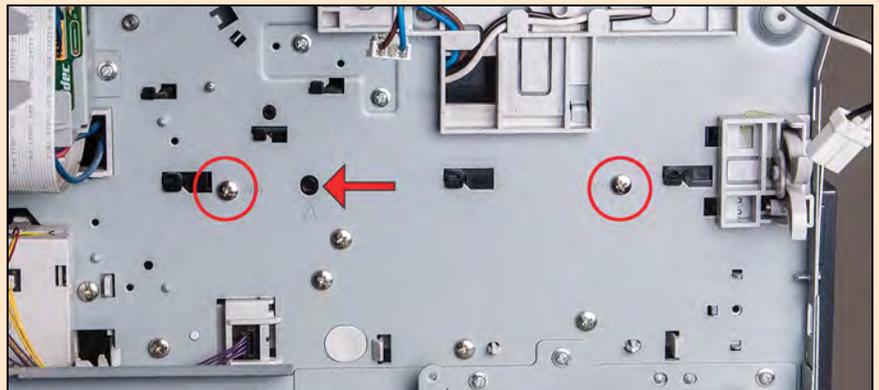
## B. SHORTCUT – FUSER DRIVE GEAR

The shortcut lets the technician replace the black fuser drive gear and spacer and inspect the white gear for obvious signs of damage. If no damage to the white gear is apparent, then only the black gear and spacer are replaced.

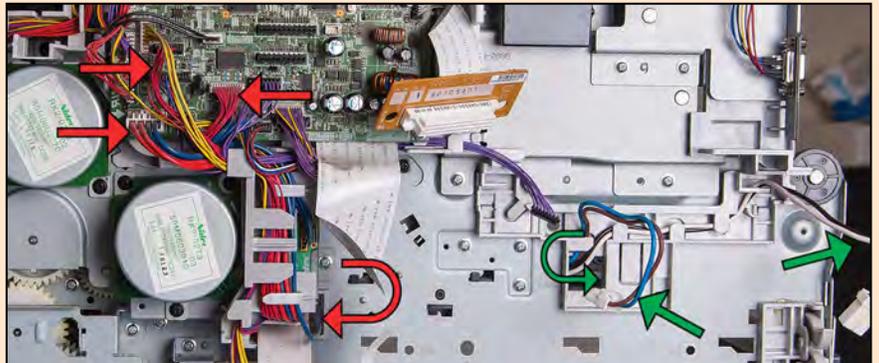
1. **PIN & SCREW.** The black gear and spacer are held in place by a hollow pin, which has a screw holding it place on the outside.
  - a. Remove this screw, which is indicated in Fig. B1. If it spins but does not come out, secure the pin with a long-nosed screwdriver as you unscrew it.
  - b. **PLACE CLOTH & REMOVE PIN.** To avoid having the pin fall into the printer, stuff a cloth into the crevice next to the swing plate. Then slide the pin out. (Fig. B2).
2. **BLACK GEAR & SPACER.** Pull out the spacer and gear. If the gear becomes stuck half-way, insert a pick in the center hole and apply pressure to remove it.
3. **INSPECT WHITE GEAR.** Check the gear for obvious breakage (Fig. B3), and if you find any, replace the swing plate assembly, as shown in Part C.
4. **INSTALL FUSER DRIVE GEAR & SPACER.**
  - a. If the white gear looks ok, put the new fuser drive gear in place, then the spacer to the right of the gear. Their flat sides should face each other.
  - b. To keep everything aligned while you reinstall the pin, first insert a pick or slender screwdriver through the screw hole from the outside of the printer and have it pass through the centers of the gear and spacer.
  - c. Install the pin, slowly pushing out the pick or screwdriver as you do so. You can use your fingers, but it is better to set the pin on the end of the pick (with a needle-nose pliers), as in B4. This makes it very easy to push the pin into place with your fingers.
  - d. Add the screw and reverse the steps in Part A.

## C. REMOVING THE SWING PLATE

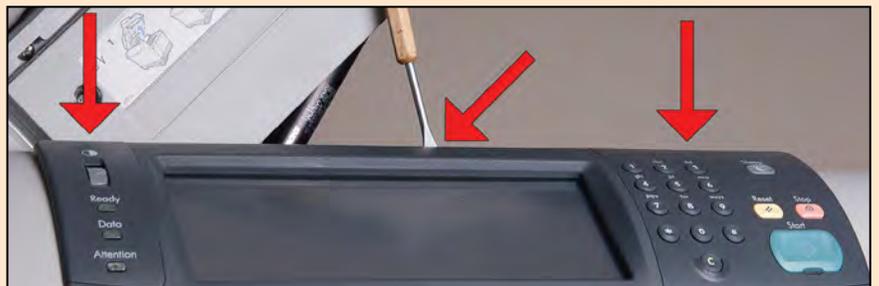
1. **REAR GUIDE.** Remove two screws. Push in the round tab and slide the black plastic guide to the right (Fig. C1).
2. **CABLES.**
  - a. Disconnect two white ribbon cables from the green DC controller and leave them hanging.
  - b. Unplug two red cables and one blue and red cable from the DC controller (C2, red arrows). Using your pick or screwdriver to separate these cables from the cable guide and push them through the hole below them, along with the two white ribbon cables.
  - c. There are two cables to the right. Push these through the hole beneath them (C2, green arrows) and unplug connectors.
3. **CONTROL PANEL.** Pry at the three top slots and unplug connector to remove control panel. (C3)
4. **SCANNER TOP COVER FLATBED FLANGE.** Pry up the right end of this plastic strip and separate it from the printer (C4).
5. **FRONT COVER.** Remove two screws on the top (C5), two on the bottom (C6) and one on the right side (C7, circle). The cover is now being held in place by hidden tabs on both sides. Press with your pick or a slotted screwdriver at these when you meet resistance while taking off the cover (the lower arrow in Fig. C7 in particular).
6. **FAN DUCT.** Remove two screws and pull out the duct (C8).
7. **POWER SUPPLY SHIELD.** Remove the metal panel beneath the main fan by removing two screws (C9).
8. **FAN & THERMISTOR CABLES.** Unplug two cables beneath the main fan (C10).
9. **POWER SUPPLY SCREWS.** To the left of the main fan is a recessed area with three screws. There is a similar area on the other side. Remove all six screws (Fig. C10).
10. **ENGINE POWER SUPPLY.** Pull it out (C11).
11. **SUPPORT GUIDE.** Press the round tab (circled, C12) and slide out the power supply support guide (C13).



**C1 REAR GUIDE**



**C2 CABLES AND HOLES**



**C3 PRY OUT CONTROL PANEL**



**C4 PRY UP FLANGE**



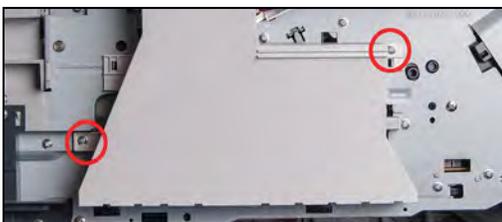
**C5 FRONT COVER, TOP SCREWS**



**C6 FRONT COVER, BOTTOM SCREWS**



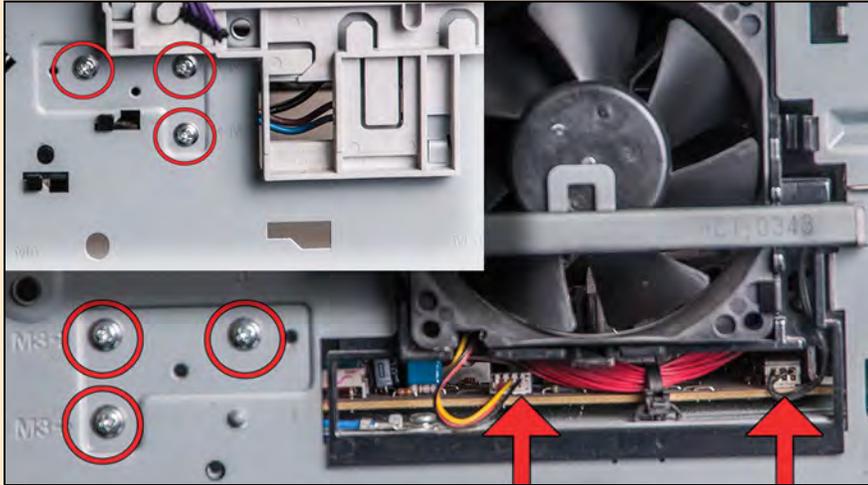
**C7 SCREW, TABS**



**C8 FAN DUCT**



**C9 POWER SUPPLY SHIELD**



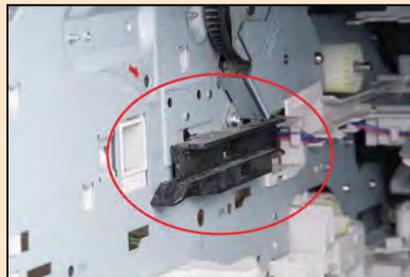
**C10 POWER SUPPLY SCREWS (BOTH SIDES); FAN CABLES**



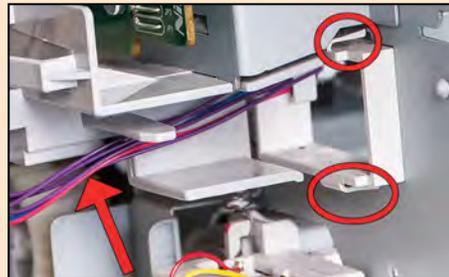
**C11 ENGINE POWER SUPPLY**



**C12 TAB FOR SUPPORT GUIDE**



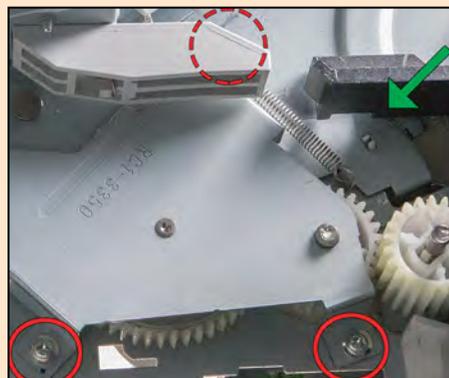
**C13 SUPPORT GUIDE**



**C14 CABLE AND PROTECTOR**



**C15 SWING PLATE TOP SCREW**



**C16 SWING PLATE SCREWS**

**12. CABLE PROTECTOR.**

- a. Unplug and unwind the red, blue and purple wire set (see the arrow in C14) from its cable harness.
- b. Squeeze three tabs, two of which are visible in C14, and push the cable protector inside the printer, letting it hang.

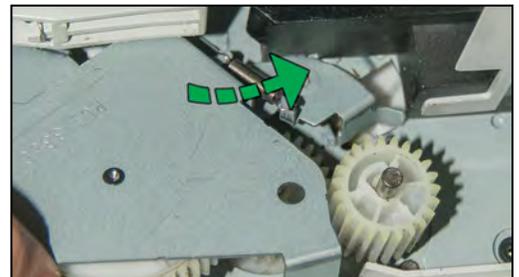
**13. SWING PLATE.**

- a. Remove three screws (red circles in figures C15 and C16). Approach the top screw (C15) from the toner door, while the others can be reached through the cassette cavity in the lower front.
- b. The swing plate nestles under a black piece of plastic that is the part of the transfer block assembly. The green arrow in C16 shows the area in question. Be mindful of this obstacle as you remove (and install) the swing plate asm. From the front of the printer, pull the swing plate assembly down and rotate it away from the printer.

**14. REINSTALLING THE SWING PLATE.**

- a. Set the upper right part of the swing plate asm beneath the black transfer block (C17).
- b. Push the swing plate up so that it is wedged beneath the transfer block.
- c. Snap it into place. Fig. C18 shows a key connection point
- d. Replace the three screws, starting with the top one, in case you drop the screw inside the swing plate and need to remove it again.
- e. The fuser drive gear should move slightly when the top of the printer is fully opened, and snap down again as the door is closed.
- f. Reassemble the printer by reversing the preceding instructions.

—R. Reinke



**C17 SWING PLATE TUCKS UNDER TRANSFER BLOCK**



**C18 SNAP IT IN PLACE**