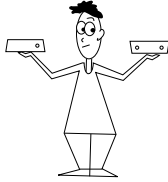


Featured Printer Technical Article

Registration, Transfer Compatibility in HP LJ 4200/50, 4300/50

The various registration and transfer assemblies of the HP LaserJet 4200/4250/4300/4350 family do not interchange as freely as one might expect.

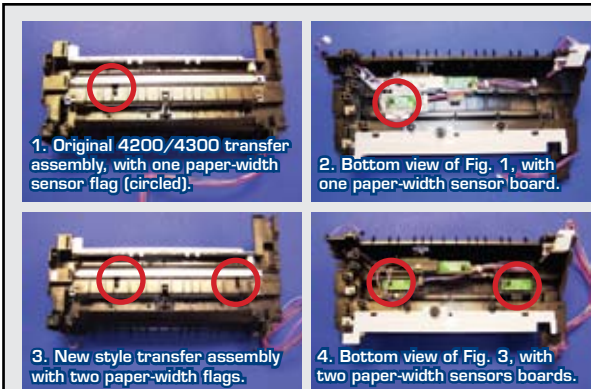


or actuator, nests within the 'u' when paper presses it, blocking the light and triggering a signal. In this case, about half the sensors are in the transfer assembly, which is the mounting block for the registration assembly.

There are three versions of the transfer assembly, all beginning with RM1-0007: the 4250/4350 version, having four paper sensors and a 15-pin connector to the DC controller; the original and unavailable 4200/4300 version; and its replacement. These two differ from the 4250/4350 version in having a 12-wire cable harness, a 12-wire pin connector, and only three sensors. However, the replacement has four flags (one is a dummy) like the 4250/4350 in order to use the same transfer assembly frame. Note also that the replacement has two part numbers.

In the wrong printer, the registration assembly will generate false paper jams and the transfer assembly will not install at all. Printer technicians need to know the subtle physical differences and part numbers of the different versions.

This printer family, like others, detects paper presence and width by means of u-shaped sensors. One branch of the 'u' emits light and the other detects it. A plastic flag,



1. Original 4200/4300 transfer assembly, with one paper-width sensor flag (circled).

2. Bottom view of Fig. 1, with one paper-width sensor board.

3. New style transfer assembly with two paper-width flags.

4. Bottom view of Fig. 3, with two paper-width sensors boards.

Transfer Identification

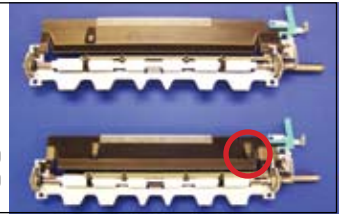
The original 4200/4300 transfer assembly resembles Figures 1 and 2, while the replacement 4200/4300 "hybrid" transfer assembly corresponds to Figures 2 and 3. The 4250/4350 resembles Figures 3 and 4.

HP PN	LPT PN	#Snsr/pins	Notes:
RM1-0007-000CN	RM1-0007-R	3 / 12	4200/4300 only. Unavailable original version. Figs. 1,2.
RM1-0007-100CN	RM1-0007-N	3 / 12	Hybrid with extra sensor-less flag. Figs. 2,3.
RM1-0007-180CN	Same as -100CN		
RM1-0007-190CN	RM1-0007-190-R	4 / 15	4250/4350 only. Figs. 3,4.

Registration Identification

The 4250/4350 (lower) has a right-side notch for a sensor flag.

HP PN	LPT PN	# of Notches	Compatibility
RM1-0011-000CN	RM1-0011-R	One	4200/4300 only
RM1-0011-060CN	RM1-1098-R	Two	4200/4250/4300/4350
RM1-1098-030CN	RM1-1098-R	Two	4200/4250/4300/4350



The original registration assembly has a clearance notch for the PS106 flag, on the left side, but no such notch on the right (see figure above). This presents a problem only if it is used with the 4250/4350 transfer assembly, which has the additional actuator flag on the right. With no clearance notch, that flag cannot move freely, and you will get false paper jams. A 4200 or 4300 printer with the "hybrid" transfer assembly will not have a problem with the old-style registration assembly, as the extra actuator flag is a "dummy" and has no sensor.

The registration assembly for the 4250/4350 has clearance notches on both sides. HP changed the part number of this

part, resulting in three numbers. To avoid confusion, LPT offers two distinct part numbers (1) RM1-0011-R for all old-style (one-notch) assemblies, and (2) RM1-1098-R for all new-style (two-notch) assemblies. Note that the new-style assembly is "backward-compatible" – i.e., it will work on all printers in this series, since having an "extra" notch causes no problems. The above table summarizes registration assembly compatibility.

—Dennis Kosterman



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Technical Supplement

Sensors in LJ 4200/50, 4300/50 Transfer Assembly

Most sensors in the HP LaserJet 4200/50, 4300/50 printer family are used in other LaserJets, and are easy to obtain and replace. Sensors in the transfer assembly are another matter. They are soldered into small circuit boards and connected by a wiring harness, and neither the individual sensors nor the sensor/harness assembly are available from HP. To replace these sensors, you need to replace the entire transfer assembly.

It may also be useful to know which sensors are in the transfer assembly, and what they do. The table above should clarify this.

Note that the actuator flag for PS102 (on the “front” surface of the transfer assembly) is not included in any version. However, the flag *is* included, along with the associated torsion spring, with one

Sensors in the Transfer Assembly

Sensor	Desc.	Sensor included in:	Actuator flag included in:
PS102	Pre-feed sensor	All versions	None!
PS103	Top-of-page sensor	All versions	All versions
PS106	Paper-width sensor #1	All versions	All versions
PS109	Paper-width sensor #2	-190 version only	All except -000 version

version of the paper feed assembly, RM1-0012-R. The -N version does not include them. For all other sensors in the transfer assembly, both sensor and flag are included.

These and other articles can be found at www.lbrty.com.