THIS MONTH, from the
TECH FILES
of Liberty Parts Team...

Lexmark Paper Size Issue

LPT clients have been calling lately about their inability to alter the paper size menu setting in the mainstream Lexmark printers (the Optra S, Optra T and T series). In fact, this menu "setting" is actually a read-only indication of the detected paper size, and if it does not match what is in the tray, something is wrong with the physical size-sensing process. This could be a defective cassette or bent leaf springs, but most commonly, the paper-size switches are the cause of the problem. In this case, the solution is to replace the small circuit board containing the switches.

We will explain identification and replacement of these boards, first the various Tray 1 boards, then the optional tray boards.

ITC BOARD — FIGURE 1. The Tray 1 board is usually called the ITC board ("input tray card" or "internal tray card," depending where you look). Despite appearances, its three styles are not interchangeable, as the connectors are keyed differently.

PN **99A0128** (Board A in Fig. 1) is used in all Optra S, Optra T, and T62x series printers, **56P1139** (B in Fig. 1) is used in the T52x series, and **56P1350** (C in Fig. 1) is used in the T63x series.

The removal of ITC boards is easy. It is mounted to the outer surface of the chassis on the left side of the printer. Remove the left cover and the large main board, then unplug the cable and remove two screws.

OPTION TRAY BOARDS — FIGURE 2. In Trays 2 and higher, the board is called "option tray board" or simply tray board. There are numerous part numbers, but the boards are mostly interchangeable. A few of these boards are shown in the figure to indicate the differences. The different part numbers are: **99A0284** (Board 2 in Fig. 2); **99A0397**, **99A1967** (Board 3), **56P0557**, **40X3351** (Board 1).

Referring to Fig. 2, there are two important differences: (1) Boards 2 and 3 have two extra connectors (along the right side in the figure) that Board 1 does not have; (2) On Board 3, the small connector in the upper left corner has a jumper plugged into it; the other two boards do not have this jumper.

The extra connectors are only significant when the board is installed in the

Optra S 500/500 dual feeder. In this feeder, there are two tray boards (upper and lower). The lower board (99A0300) is unique to that feeder; the upper board is the same board used in all the other feeders. It can be any of the numbers listed above except the 40X3351. Why not that one? Because it is missing the extra two connectors, which are used to connect to the lower board (and only used for that, so this is irrelevant for all other feeders). The easy rule of thumb is that the first four boards listed above can be used in any optional feeder; the 40X3351 can be used anywhere except in the Optra S 500/500 dual feeder.

Figure 2. Option Tray Boards

The significance of the jumper has to do with the difference between 250-sheet and 500-sheet feeders. In short, if you are installing the board in a 250-sheet feeder, the jumper must be there. If you are installing it in a 500-sheet feeder, the jumper must not be there. If you get this wrong, the printer will hang in "Performing Self Test" when powered up. The boards do not come with the jumper, so if you are installing the board in a 250-sheet feeder, take the jumper from the old board and transfer it to the new one. If the jumper is missing, it is available separately. The part number is 99A0627.

Installation of the option tray boards is a bit more involved, so follow the correct sequence. For most feeders, first remove the tray, then the pick arm assembly (remove three screws, unplug two cables, and disconnect the large spring on the side) and paper out sensor arm; then remove the plastic bar across the front of the feeder (one screw), and finally, free

the left rail by removing six screws (two from the top, four from the side; these last four will require a T10 Torx screwdriver) and squeezing two retaining clips (accessible from the bottom). You will not be able to completely remove this rail, due to a captive electrical cable, but you can get it out far enough to access the tray board, which is then easily removed by removing three screws and unplugging the cables. Remember to reconnect the large spring on the right side when reinstalling the pick arm assembly.

As with HP printers, this is a large subject, due to the many different printer models and tray configurations. Fortunately, Lexmark used the same basic scheme through all the models, so once you have solved this problem on one of them, you will know how to solve it on all the rest as well. And if the problem is in an optional tray, you can even use the same board on all of them!

—Dennis Kosterman

Figure 1. Tray 1 Boards