

6900 Maintenance Instruction

Draining the Ink System

LINX

Equipment Required

| | | |
|----------|--|---------------|
| FA74005 | Damper Drain Tube | |
| FA16005 | Cover Removal Tool | |
| FA940052 | Tube Cutter Plastic 4 mm–14 mm | |
| FA79021 | Tube PTFE 6 mm OD x 4 mm ID, Natural, 5 metres | |
| FA65339 | Mandrel Extraction Tool | |
| FA999045 | Gloves Latex Medical (large) |) |
| FA999046 | Gloves Latex Medical (medium) |) as required |
| FA999047 | Gloves Latex Medical (small) |) |
| FA999076 | Safety Spectacles Blue | |
| | Waste ink container (at least 5 litres capacity) | |
| | Absorbent, lint-free paper towel | |

Procedure



WARNING: HAZARDOUS SUBSTANCES. THIS PRINTER USES SOLVENT AND SOLVENT-BASED INKS THAT CAN BE HAZARDOUS. THESE INKS AND SOLVENTS ARE HIGHLY FLAMMABLE, AND THE LIQUID, VAPOUR OR SPRAY CAN CAUSE IRRITATION TO THE EYES AND SKIN.

WEAR SAFETY GLASSES AND SOLVENT-RESISTANT PROTECTIVE GLOVES DURING THE FOLLOWING PROCEDURE.

THERE IS A RISK OF SEVERE IRRITATION AND TEMPORARY (REVERSIBLE) DAMAGE TO THE EYES, AND IRRITATION OF THE SKIN IF THIS SAFETY WARNING IS IGNORED.

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- 1** Shut down and switch off the printer. Make sure that it is switched off at the mains electrical supply.
- 2** Remove the ink and solvent filler caps.
- 3** Unlock the security latch on the front of the top cover and remove the cover. Position the cover so that the keyboard and display can be accessed.

- 4 Switch the printer on and select the **System Flush** option on the **Maintenance** page (Print Monitor > Menu > Maintenance). The first page of the System Flush procedure is displayed with the instruction “Check solvent level.”.

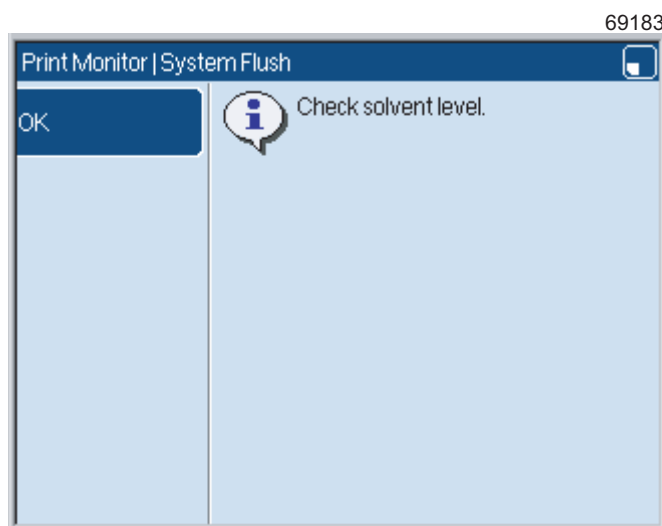


Figure 1. System Flush—First Page

- 5 To continue with the System Flush procedure (and therefore the Empty Tank sequence), it is necessary to perform a number of actions on the printer before the flush cycles can begin. These required actions are displayed on each successive **System Flush** page, and must be performed in accordance with the following expanded explanations for each instruction. Once each action has been completed, press the **OK** key, which displays the next instruction.
- 6 **Check solvent level.** This action is not applicable when draining the ink system; it is only necessary to press the **OK** key to proceed to the next instruction.
- 7 **Prop up the printer.** (Not applicable to the 6900 Spectrum printer—see NOTE below.) Before commencing the ink draining procedure, the printer must be raised by approximately 50 mm at the front left side to aid drainage of the ink. This is because the ink dip tube is situated at the rear right side of the tank.

NOTE: The 6900 Spectrum printer does not require propping up, but the **OK** key must be pressed to continue the procedure.



WARNING: LETHAL VOLTAGE. DANGEROUS VOLTAGES EXIST IN THIS EQUIPMENT WHEN ELECTRICAL POWER IS APPLIED.

EXTREME CARE MUST BE TAKEN WHEN WORK IS DONE ON THE PRINTER WHILE ELECTRICAL POWER IS APPLIED AND THE TOP COVER IS REMOVED. THE CORRECT, STANDARD ELECTRICAL SAFETY PRECAUTIONS MUST BE TAKEN.

THERE IS A DANGER OF INJURY OR DEATH FROM ELECTRIC SHOCK IF THE CORRECT ELECTRICAL SAFETY PRECAUTIONS ARE NOT TAKEN.

- 8 **Orientate filter and damper.** Ignore the instruction regarding the filter. Carefully lift the feed damper clear of the ink system enclosure. Hold the feed damper in the vertical position with the drain cap uppermost.

- 9 **Connect bleed line to damper.** Remove the damper drain cap and connect the Damper Drain Tube Luer fitting (included in the Damper Drain Tube kit) to the damper drain. Insert the other end of the drain tube into a waste container of at least 5 litres capacity. Orientate the damper so that the drain is at the bottom, that is, at its lowest position, as shown in the following illustration.

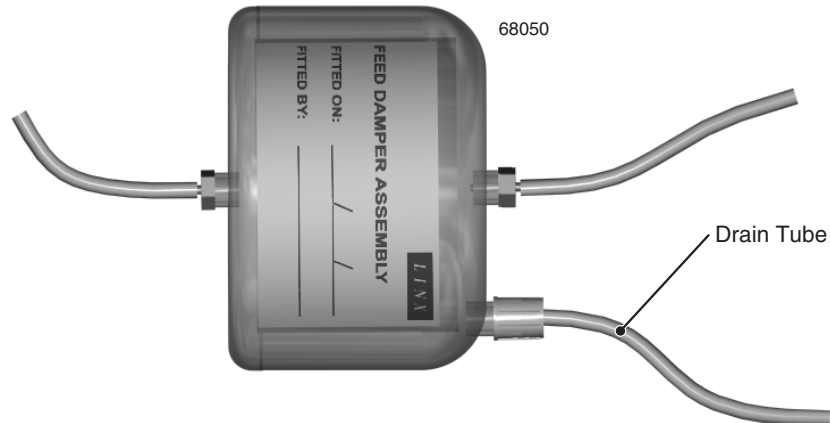


Figure 2. Feed Damper Orientation with Drain Tube Connected

- 10 When the required actions have been completed, the following page is displayed.

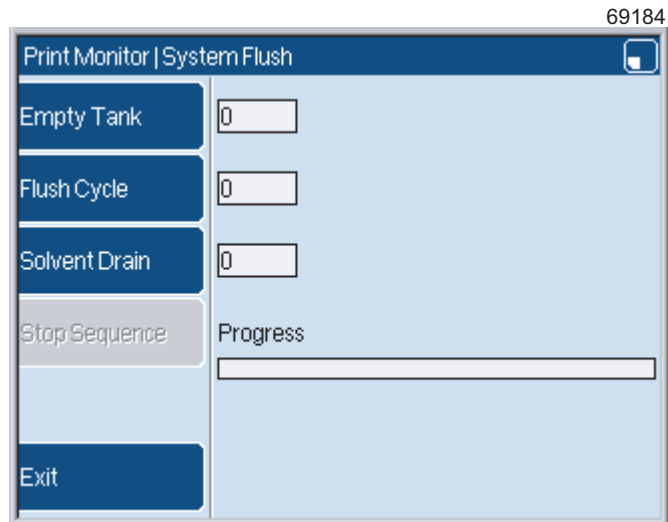


Figure 3. System Flush Options Page

- 11 Press the **Empty Tank** key, which displays the instruction “Turn on tap to bleed line.”.



IMPORTANT: The bleed line tap is used in the Linx manufacturing process only. There is no bleed line in the service engineer’s Damper Drain Tube kit, therefore, any action referring to the bleed line tap should be ignored.

- 12 Due to the unique design of the 6900 Spectrum ink tank, it is not possible to drain all of the ink with the Empty Tank function. Therefore, to enable all of the ink to be removed, proceed with the following step 12 sub-items.

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- 12a** Disconnect and remove the ink pick-up pipe, which is connected between the ink tank lid (Festo connection) and the pump/PRV (pressure relief valve) T-piece. Discard the pipe but retain the Festo nut.
- 12b** Connect a new 360 mm length of 6 mm OD tube to the pump/PRV T-piece.
- 12c** Remove the mandrel and filter assembly from the ink filler tube using the Mandrel Extraction Tool.
- 12d** Insert the free end of the new length of pipe into the ink tank and push it down until it reaches the base of the tank. Hold the pipe in place for the duration of the Empty Tank sequence to make sure that all the ink is removed.

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CAUTION: Pump Damage. Do not allow the ink system pump to run in a dry condition. Use the Empty Tank sequence only the number of times required to empty the system of ink. The pump must not be run for longer than 30 seconds after the change in the sound of the pump indicates that cavitation (ink starvation) has occurred. Damage to the pump can occur if the pump is allowed to run continuously in a dry condition.

- 13** Press the **OK** key to continue the procedure, which starts the pump. The pump runs at maximum pressure for approximately 1 minute and 40 seconds, and then automatically stops on completion of the Empty Tank sequence. During the sequence a **Progress** bar gives an indication of how much of the sequence has been completed. Press the **Stop Sequence** key if the audible pitch of the pump changes indicating that the ink tank is empty.

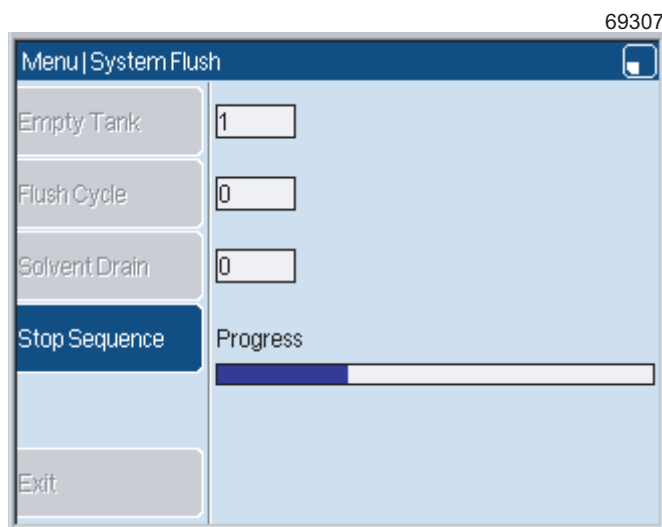


Figure 4. Empty Tank Sequence in Progress

- 14** At some point towards the end of the Empty Tank sequence the 'ink low' condition will be reached. Make sure that the **System Event** page is displayed with the System Warning message "3.03 Ink Low". Press the **OK** key on the **System Event** page to accept the warning.
- 15** If the tank is not empty after a single Empty Tank sequence, select the **Empty Tank** option again to repeat the sequence. Press the **Stop Sequence** key when the audible pitch of the pump changes, indicating that the ink tank is empty.

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- 16** At this point the ink pick-up pipe on the 6900 Spectrum must be reconnected to the ink pick-up connection on the tank lid. To do this, proceed with the following step 16 sub-items.

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- 16a** Withdraw the drain pipe from the ink tank and wipe off any surplus ink from the end.
- 16b** Cut the pipe to a length of 55 mm using the Tube Cutter.
- 16c** Fit the Festo nut (retained earlier) over the end of the newly cut pipe.
- 16d** Insert the end of the pipe into the ink pick-up connection on the tank lid, and fit and tighten the Festo nut.
- 16e** Refit the mandrel and filter assembly to the ink filler tube using the Mandrel Extraction Tool.

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- 17** Disconnect the drain tube from the damper and refit the drain cap.
- 18** Reposition the damper back in its original location in the ink system enclosure.
- 19** The 'Draining the Ink System' maintenance instruction is now completed.