



Advisory



Upgrade / Repair / Retrofit



Safety Alert

Cart Swap Procedure

ProJet™ 6000/7000

Purpose: This document provides step-by-step instructions for swapping material carts on the ProJet 6000 and ProJet 7000 for software version 1.4.2116. This procedure applies to carts that have already been initialized. The system does not need to be shut down to perform this procedure.

Tools needed: 5mm allen wrench, nitrile gloves, paper towels

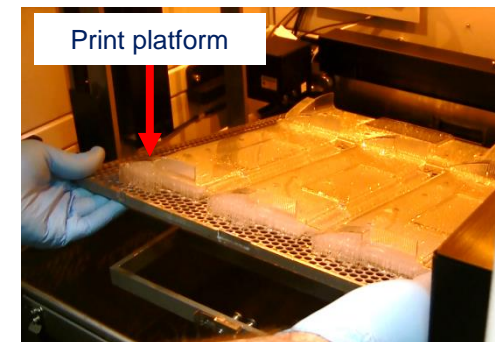
Note: Nitrile gloves should be worn during this procedure to avoid contact with the resin. Do not touch the screen with gloves on.

Note: Throughout this procedure, continually wipe any resin and debris from areas of the printer where they do not belong.

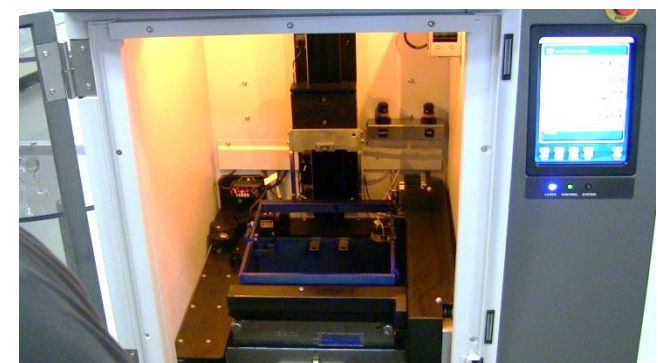
Note: Be aware of any components which may become disengaged from the proper location during this procedure, particularly the gaskets.

Remove Existing Cart

1. Ensure the chamber doors are closed.
2. If the system is not already enabled, enable it by clearing and acknowledging any alerts which may be present on the screen. After a brief period, the system will become enabled.
3. Navigate to the “Advanced” screen.
4. Press the “Elevator / Leveler” button.
5. Press “Drain Print Tray” and wait for this procedure to finish. This can take 15 to 45 minutes depending on the machine type and print tray depth. Verify the print tray is completely drained or only has a small amount of material left in the bottom.
6. If there is a printed part on the print platform, remove the platform from the chamber. No action is required if there is no part on the platform.
7. After the print tray has drained to the desired level, it will need to be removed along with the material cart.
8. Open the doors of the printer. This will disable the system.



6) Remove print platform with printed parts, if necessary



ProJet 6000 Elevator at start position



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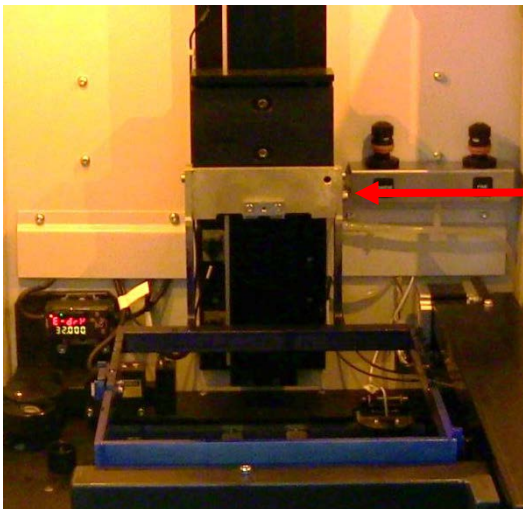
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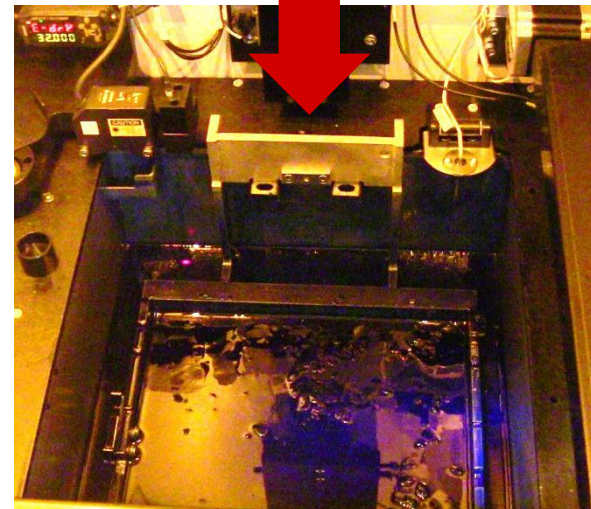
ProJet™ 6000/7000

ProJet 6000 Cart Removal (continued)

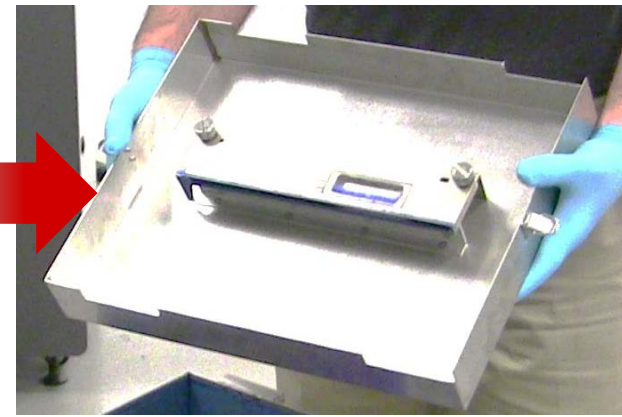
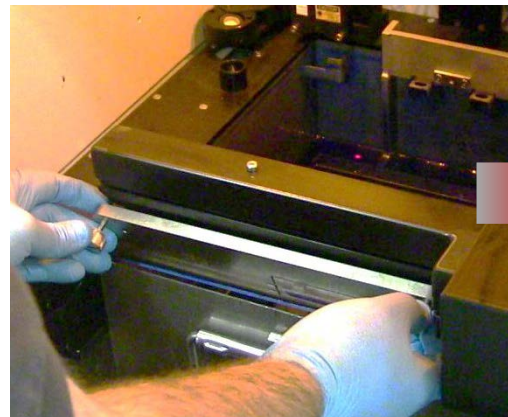
- Loosen the bolt on the right side of the elevator fork assembly using a 5mm allen wrench.
- Carefully lift the fork assembly off of the elevator and place it into the print tray.



Loosen lower bolt
with 5mm allen
wrench to remove
fork assembly



- Remove the print tray applicator by loosening the thumb screws and carefully pulling it off of its mount. Install the print tray applicator in its storage position in the print tray lid.
- Ensure that the gasket ring of the print tray applicator arm is still attached. If it has come off with the blade, replace it onto the arm.





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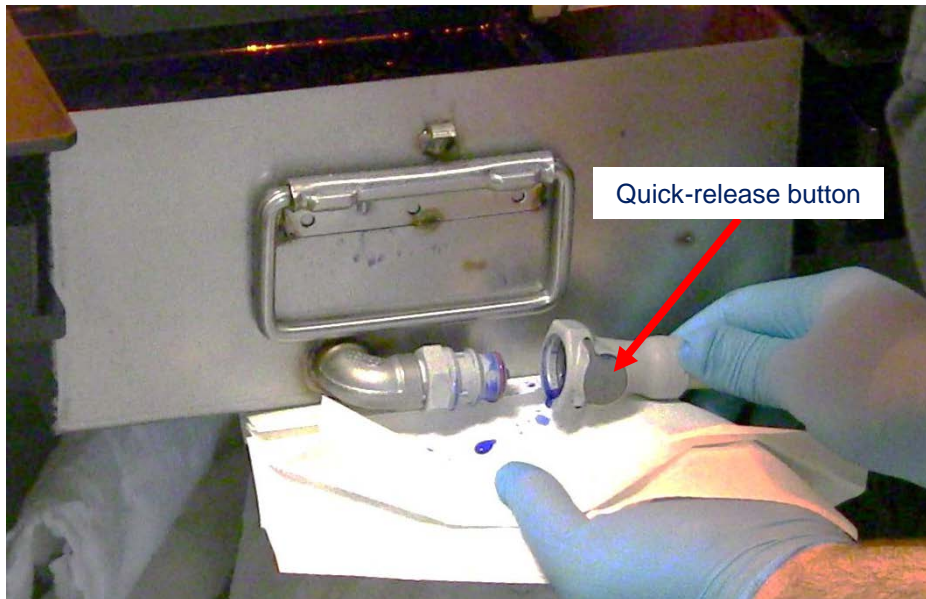
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ProJet 6000 Cart Removal (continued)

6. Remove the cart hose from the print tray by depressing the quick-release button and disengaging the connector from the print tray. Resin may drip out of this connector, be sure to have a towel handy.
7. Move the hose out of the way temporarily.
8. Remove the umbilical cable from the material cart by unlatching the connector and pulling it out. The cable can be placed on the tray above the material cart.





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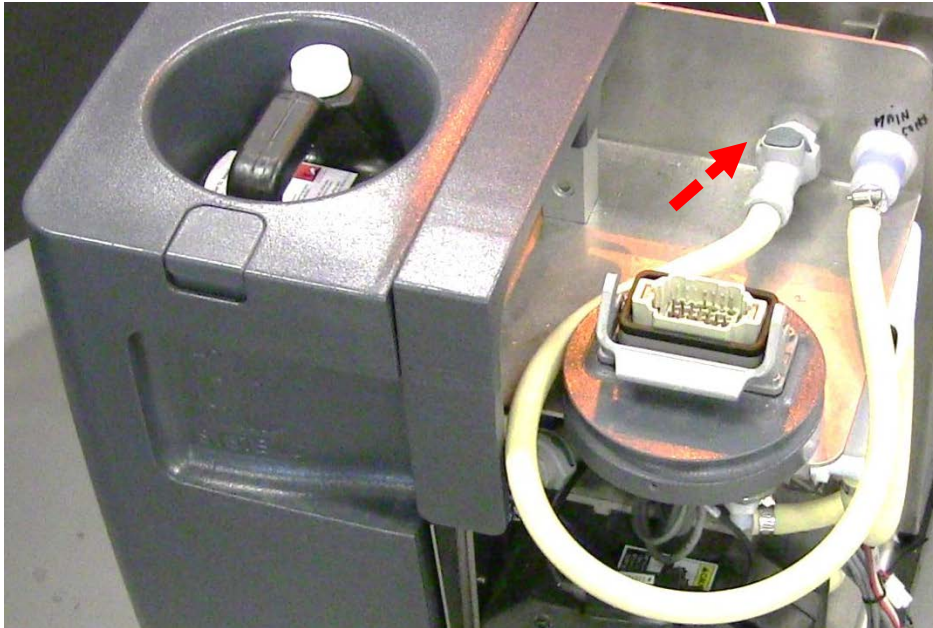
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Cart Swap Procedure

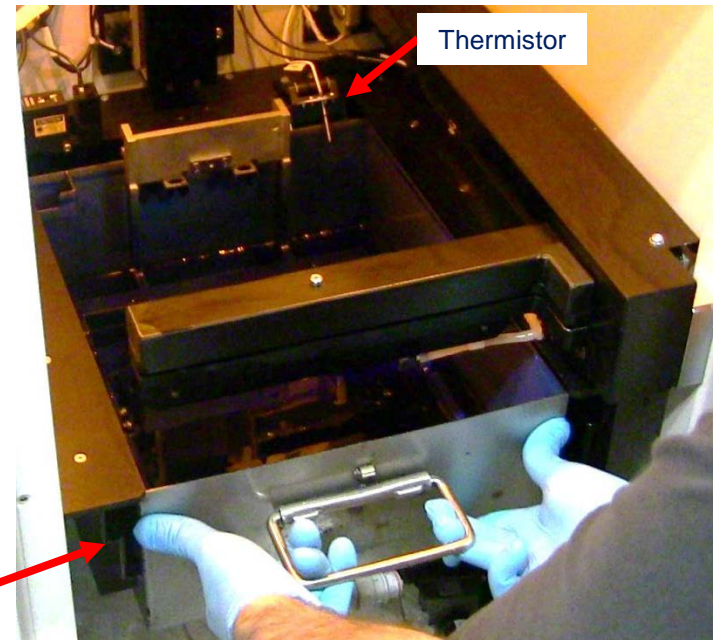
ProJet™ 6000/7000

ProJet 6000 Cart Removal (continued)

9. Free the hose which was set aside and pull the material cart out of the print chamber.
10. Once the cart is out, connect the hose to the free connector on the material cart. Eliminate slack by wrapping it around the grooved component on the umbilical connector.



11. Using the handle on the print tray, carefully remove the tray from the print chamber. Ensure that the thermistor is swiveling freely and is not damaged in the process.
12. There are two grooves holding the rails of the tray in the chamber. The top rail will disengage first. At this point, it is possible for the tray to fall if it is not being handled carefully.
13. Once the handles on the side of the print tray are available, continue pulling the tray out using the side handles.
14. Once the print tray has been removed, set it on top of the cart and secure the tray lid with the print tray applicator blade onto the tray using the latches.



Double-grooved rails



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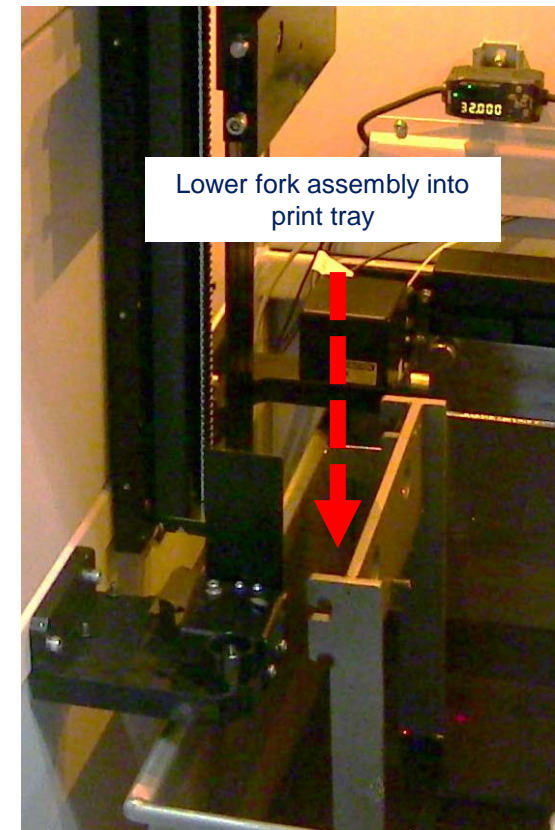
B. ProJet 7000 Cart Removal

Note: On the ProJet 7000, the print tray and the material cart are one unit. They are separate on the ProJet 6000.

1. To avoid getting resin on the profiler, swivel the lid over the profiler to cover it.



2. Using a 5mm allen wrench, loosen the lower bolt on the front side of the fork assembly to remove it from the elevator. Once the bolt is loose, carefully lift the fork assembly off of the elevator and place it into the print tray.





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ProJet 7000 Cart Removal (continued)

- To remove the print tray applicator blade from the print tray applicator arm, carefully loosen the two thumb screws on the front of the blade until the blade disengages from the arm. Install the print tray applicator in its storage position in the print tray lid.



- Disconnect the umbilical cable from the material cart. To do this, lower the latch on the connector and pull the umbilical cable out. The cable will hang close to the connector. Ensure that the cable is not damaged in the course of removing the tray and cart.





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ProJet 7000 Cart Removal (continued)

5. On the left rail of the print chamber, there is a locating pin which is fastening the print tray. Disengage the locating pin by pulling it up and turning it either clockwise or counterclockwise to set it on top of its bracket.
6. Carefully pull the handle of the print tray and roll the cart out of the print chamber.
7. Cover the print tray with the lid and fasten it using the latches.





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Install New Material Cart**ProJet 6000**

1. Remove the print tray lid and set it aside.
2. Carry the print tray to the printer and insert the upper supports of the tray's side rails into the lower grooves of the guides on the sides of the print chamber, with the front handle of the tray facing away from the back of the print chamber.
3. Slide the print tray fully into place, ensuring that the thermistor is swiveling correctly and is not damaged in the process. The probe of the thermistor will end up protruding down into the print tray.
4. Unfasten the print tray applicator blade from the holding location inside the lid.
5. Hand-fasten the thumb screws of the the blade onto the print tray applicator arm by aligning the holes of the blade with the pins on the arm.
6. Replace the elevator fork assembly onto the elevator and fasten the bolt which was loosened earlier using a 5mm allen wrench.
7. Roll the material cart into the build chamber half way.
8. With a towel handy, disconnect the hose from the material cart by depressing the button and pulling free. Clean up any resin which leaks during the process.
9. While the holding the hose out of the way, push the material cart fully into the print chamber.
10. Route the hose to avoid other components of the printer and connect it to the print tray.
11. Connect the umbilical cable to the cart and secure the latch. The connector is keyed so that it is inserted in the correct orientation.
12. Close the chamber doors and enable the system.
13. Move the build platform to the build start position.
14. Press "Advanced."
15. Press "Elevator / Leveler."
16. Press "Level Print Tray." This will raise the resin level to the proper print height.
17. Check that the build platform is level and that the start position value is set correctly. Adjust if necessary. Refer to the User Guide.

ProJet 7000

1. Remove the print tray lid and set it aside.
2. Using the handles on the print tray, push the cart into the print chamber. Ensure there is nothing obstructing the cart, such as the umbilical cable, the profiler, or the thermistor.
 - A. Move the cart along the guides at the bottom of the print chamber.
 - B. Be very careful to note that the thermistor at the back of the chamber is not stuck and swivels into the tray as required. If done correctly, the thermistor will automatically be positioned into the tray when the cart is pushed into place.
3. Fasten the cart with the locating pin at the left of the print chamber. This may require maneuvering the cart so that the pin fits into the hole.
4. Swivel the profiler cover to open.
5. Plug the umbilical cable back in and and engage the latch. The connector is keyed to ensure proper orientation.



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6. Replace the print tray applicator blade which was stored in the cart lid.
 - A. Inspect the vacuum of the print tray applicator arm and ensure that the gasket ring is present in the center hole of the arm.
 - B. Align the holes on the blade with the pins on the arm.
 - C. Place the blade onto the arm and hand-fasten the thumb screws on the blade.
7. Lift the elevator fork assembly out of the print tray and mount it to the elevator.
8. Fasten the lower bolt of the fork assembly using a 5mm allen wrench.
9. Install the print platform.
10. Close the chamber doors and enable the system.
11. Move the build platform to the build start position.
12. Press “Advanced.”
13. Press “Elevator / Leveler.”
14. Press “Level Print Tray.” This will raise the resin level to the proper print height.
15. Check that the build platform is level and that the start position value is set correctly. Adjust if necessary. Refer to the User Guide.