

Patriot Jr. Operating Manual

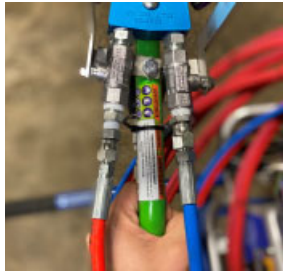
The following manual is intended as a guide to aid in the initial assembly of the Patriot Jr.™ (PJR), regular setup and installation of Flexible FAST™ 15-gallon drums, operation procedures for dispensing Flexible FAST adhesive, and a checklist for short-term or long-term shutdown. For more information, visit the Patriot Jr. website at www.patriotjr.com.

Brand New PJR Setup:

1. If not already installed, mount the PJR Reactor onto the PJR Cart. **MAKE SURE ALL CLIPS AND HOLD DOWNS ARE SECURE.**
2. Connect fluid hoses to the pump and the gun. Ensure hoses are connected properly according to PJR directions and videos.



Pump Hoses



Gun Hoses

3. If using the Vee-Air gun, mount the air compressor onto the bottom rack of the PJR cart. The air compressor will sit below the PJR reactor. **MAKE SURE ALL CLIPS AND HOLD DOWNS ARE SECURE.**



Flexible FAST Drum Setup:

1. Ensure the storage compartment located on the backside (or drum side) of the PJR is closed and in a locked position.



2. With the help of another person, carefully stand the PJR Cart in an upright position. **DO NOT ATTEMPT with only one person.**



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3. Carefully open the Flexible FAST drums and connect the PJR fittings. **USE WHITE LITHIUM GREASE AT EVERY CONNECTION BEFORE FITTINGS ARE INSTALLED.**

- a. The large bung fitting connects to the desiccant dryer.
- b. The small bung fitting connects the drum to the machine.

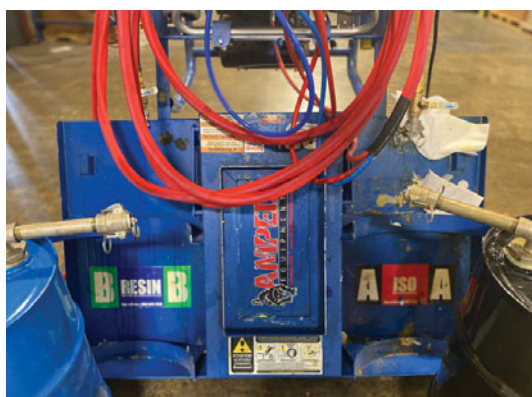


Large Bung



Small Bung

4. Using the color-coded labels located on the backside (or drum side) of the PJR, place each drum in a vertical position next to the PJR cart. Ensure each drum corresponds with the proper A- and B-side.



5. Once all fittings have been installed and are absent of air/fluid leaks, you may then carefully place the drums onto the drum rack while it is in its vertical position.

NOTE: Once the A- and B-sides have been designated, DO NOT CROSS-CONTAMINATE WITH OPPOSITE CHEMICAL AT ANY TIME.

6. Secure drums firmly to the cart using the provided ratchet straps. Make sure drum straps are in the **locked position** before proceeding to the next step.



7. Connect corresponding cam lock fitting to A and B drums and ensure vent pipes remain capped.

- a. **DOUBLE CHECK ALL FITTINGS AND CLIPS** to ensure everything is secure and tightened.
- b. **DOUBLE CHECK FLUID VALVES** to ensure they are in the closed position.



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8. With the help of another person, pull the PJR Cart down from the upright position. Pull the PJR Cart all the way down so that the drums are parallel to the deck. Ensure both the wheels and rear legs are firmly on the deck.



Switching out Flexible FAST Drums:

1. Ensure all fluid valves are closed and machine has been properly powered down.
2. Ensure Flexible FAST drums are strapped to the cart and the storage compartment is closed and in a locked position.
3. With the help of another person, carefully stand the PJR Cart in an upright position. **DO NOT ATTEMPT with only one person.**
4. Remove the ratchet straps from the drums.
5. Remove the PJR fittings from the used drums and install bung caps into the bung holes.
6. To install new drums onto the PJR cart, refer to steps 4-8 from the *Flexible FAST Drum Setup*.

Daily Startup and Dispensing Procedures:

1. Apply a small amount of pump lube to each piston on the A- and B-side pumps.



2. If using a generator, place the generator in the tray between the drums. Ensure it is properly fueled and oiled.
3. Plug the PJR Reactor chord into your power source. **DO NOT USE IDLE CONTROL if using a generator.**
4. Remove the tape on the top and the bottom sides of each desiccant drier. Install a desiccant drier into the vent fittings on each drum.



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5. **Before turning on the PJR machine**, ensure that both recirculation valves are completely closed.



6. Completely open both fluid valves leading from the drums. You should see A- and B-side materials fill up the clear tubing prior to the next step.



Fluid Valve (closed position)

7. Turn the orange power switch to "on".

8. Without using a mixing tip, open valves on the gun and set the flow dial to either 1 or 2. This will start pulling material and filling up the pump, hose, and gun.



9. Check for two equal streams of A- and B-chemical to visibly flow from the gun.
10. Once fluids are flowing evenly with no air pockets, close the fluid valves on the gun and turn the safety to "on". Apply white lithium grease to the threads on a **NEW** static mixing tip and install the mixing tip onto the gun.

11. **Bead Application**

- a. With gun valves closed, turn the flow dial to 3-5



- b. Release the safety and open fluid valves on the gun to begin applying adhesive.

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- c. Ensure the adhesive is dispensed at a minimum ½"–¾" wet bead and proper spacing is followed.



12. **Splatter Application**—The equipment settings listed below must be followed for approved splatter application

- a. PJR Flow Dial Setting: 6



- b. Air Compressor Pressure: 80psi
c. Air Setting on Gun: ⅙ turn or 0.5 setting.
Open ONE valve only.



- d. Fluid Valves on Gun: 100% open

NOTE: Pressure may need adjusted depending on the temperature of the material

13. When you have reached a stopping point, ensure gun is pointed in a safe direction and close any open fluid or air valves on the gun.
14. Once valves are closed, discard the used static mixing tip and replace with a new one.

Short-Term Shutdown Checklist (Overnight/Lunch Break)

1. Ensure you have reached a proper stopping point and the gun valves are closed.
2. Turn down the fluid dial to it's "off position, turn off the power switch, and unplug the power chord on the PJR.



3. Apply a new static mixing tip and apply white lithium grease through the grease fittings on the gun. Fill mixing tip with about 2"–3" of grease.



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4. Close both fluid valves leading from the drums to the pump.
5. Remove desiccant driers from the drums. Apply tape to the top of each drier and cover with a plastic bag as needed.
6. Add caps back on the vent tube top. **Remember to use white lithium grease on all fittings.**



7. Apply a small amount of pump lube to each piston.
8. Wrap up hose and gun and protect all equipment with the provided green PJR cover. Secure as needed.

Long-Term Shutdown Checklist (2 weeks or longer)

The following steps are to be completed at the end of each job or when the PJR will not be used for 14 days or longer.

1. Ensure the gun valves are closed and the machine has been shut down properly.
2. Close both fluid valves leading from the drums to the pump.
3. Remove desiccant driers from the drums. Apply tape to the top of each drier and cover with a plastic bag as needed.
4. Add caps and plugs back on the vent tube top. **Remember to use white lithium grease on all fittings.**
5. With the help of another person, carefully stand the PJR Cart in an upright position. **DO NOT ATTEMPT with only one person.**

6. Disconnect inlet hoses from the drums. Ensure fitting on the drum has been properly plugged/capped.



Side A



Side B

7. Using the open end of the additional set of connector hoses provided, connect the appropriate hose to the A- and B-side inlet camlocks.
8. Place A-side hose into a container of ISO Flush.



9. Place B-side hose into a container of ISO Flush.



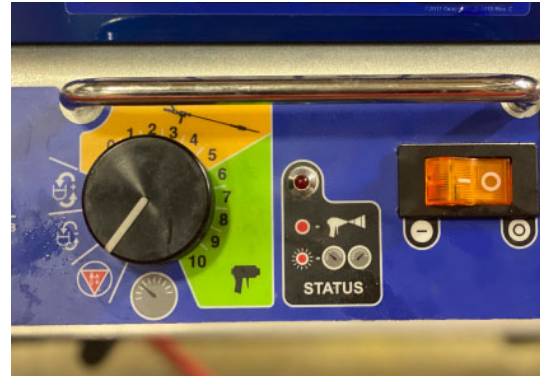
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10. Using an empty trash receptacle, open both fluid valves from the drums and both fluid valves on the gun.
11. Turn on power and set flow dial to "circulate" and allow flush to run through pump, hose, and gun until clear fluid is observed.



12. Once clear fluid is observed, close fluid valves on the gun **AND** from the drums.
13. Turn fluid dial down to "off".
14. Pull the flush hoses from the ISO Flush containers and insert hoses into new containers of Surf-A-Lube.
15. Using a trash receptacle, open both fluid valves from the drums and both fluid valves on the gun.
16. Turn flow dial to "circulate" and allow lube to run through pump, hose, and gun until clear lube is present.
17. Once clear lube is observed, close fluid valves on the gun and from the drums.

18. Turn down the fluid dial to its "off position, turn off the power switch, and unplug the power chord on the PJR.



19. Apply a new static mixing tip and apply white lithium grease through the grease fittings on the gun. Fill mixing tip with about 2"-3" of grease.
20. Disconnect additional connector hoses and install plugs/caps on cam locks.



Side A



Side B

21. Wrap up hose and gun and protect all equipment with the provided green PJR cover. Secure as needed.



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Prevention Tips

1. Use white lithium grease for all fittings, securements, plugs/caps, and threads for static mixing tips. This helps prevent material buildup and seals all possible passages for air and moisture.
2. Apply pump lube before and after each use to both pistons.
3. Letter label or color-code fittings, desiccant driers, plugs/caps and containers. This helps ensure that fittings and accessories stay on their designated A- or B-side.
4. Ensure all openings have been plugged unless being vented properly.
*Replace desiccant driers when needed.

Blue = Good to use
Pink = Needs replaced
5. When in doubt, flush it out. Flushing your machine regularly and often will significantly increase the operating life of your PJR and reduce downtime on the jobsite.

Troubleshooting

1. Proper storage of material is essential. Ensure the material temperature of Flexible FAST is always kept between 70°F–90°F.
2. Ensure both passages on the gun are clear by using a ¼" drill bit.
3. Ensure both fluid valves from the drum are in the "open" position.
4. Ensure both ends of the desiccant driers are completely open.
5. Ensure the Y-Screens are clear and free of debris or crystals. Clean or replace as needed.
6. Ensure hose assemblies from the drums are clear of debris or crystals. Replace if needed.
7. Ensure all fittings are completely secure and tightened with no fluid or air leaks.
8. Ensure hoses are free of all kinks and twists.
9. Ensure a new static mixing tip is being used after stopping for 30 seconds or longer.