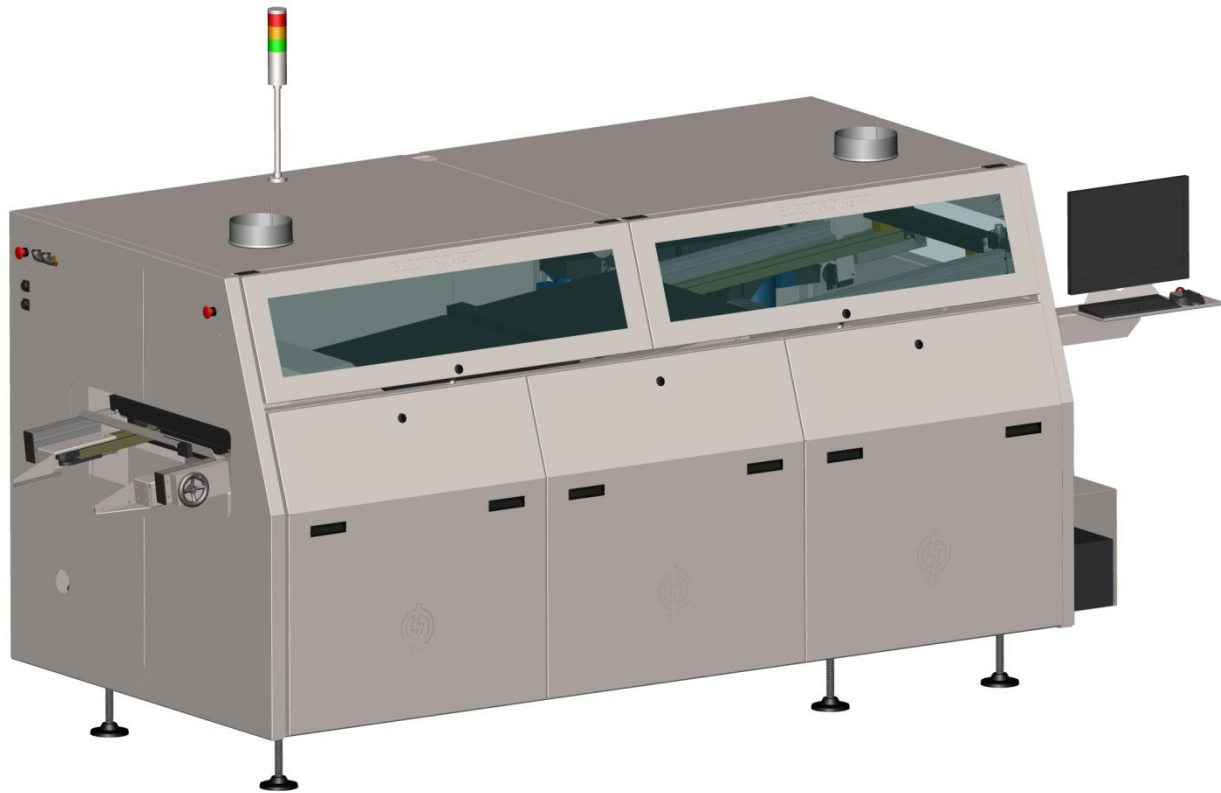




# VectraES<sub>2</sub>™

## WAVE SOLDERING SYSTEM



## QUICK CHANGE SOLDER POT

Manual Part #2-9317-972-00-0



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## HAZARDS

This equipment exposes personnel to potential health and safety hazards. Listed below are warning tags installed on the system that warn of hazards that may be encountered during operation. Refer to the following information to ensure a safe operating environment for personnel.



### Lead Hazard

Working with this equipment may involve exposure to lead which may cause serious health hazards. Always wear protective clothing and an approved breathing apparatus when handling or working around products containing lead. Consult local authorities for acceptable lead limits in the air and in blood as these limits vary by region.



### Electrical Hazard

This equipment involves exposure to high voltage, which shock, burn, or cause death.



### Mechanical Hazard

This equipment involves exposure to mechanical hazards. Use caution and avoid having hands or fingers caught in any moving mechanism. Long hair, jewelry, and other parts of loose attire could be caught in moving mechanisms and cause injury.



### Burn Hazard

This equipment involves exposure to situations which may result in burn hazards if procedures are not properly followed. The operator must use extreme caution and wear the recommended safety garments prior to coming in contact with hot surfaces or components.



### Weight Hazard

When attempting to move heavy equipment or components, it is imperative to use the proper rigging equipment. Hand lifting will cause serious personal injury.



### Liquid Metal Eruption Hazard

This equipment involves exposure to molten metal which may erupt during the heat-up process. Also, any foreign liquids permitted to enter a molten metal solder pot will result in violent eruptions. Always wear appropriate safety glasses and high temperature gloves and garments when working around the solder pot.



### Breathing Hazard

Noxious fumes are created during the soldering process. The gases and vapors emitted from the solder and flux are contained in the machine and should be avoided. Inhaling noxious vapors may cause headaches, eye redness, stomach aches, and breathing problems.



### Flammable

Installation of this equipment involves potential fire hazards due to excessive heat, as well as the normal sparks created by electric motors during operation. Flux and solvents used in the soldering process may contain flammable components. Keep all other flammable materials and solvents clear of the solder machine.

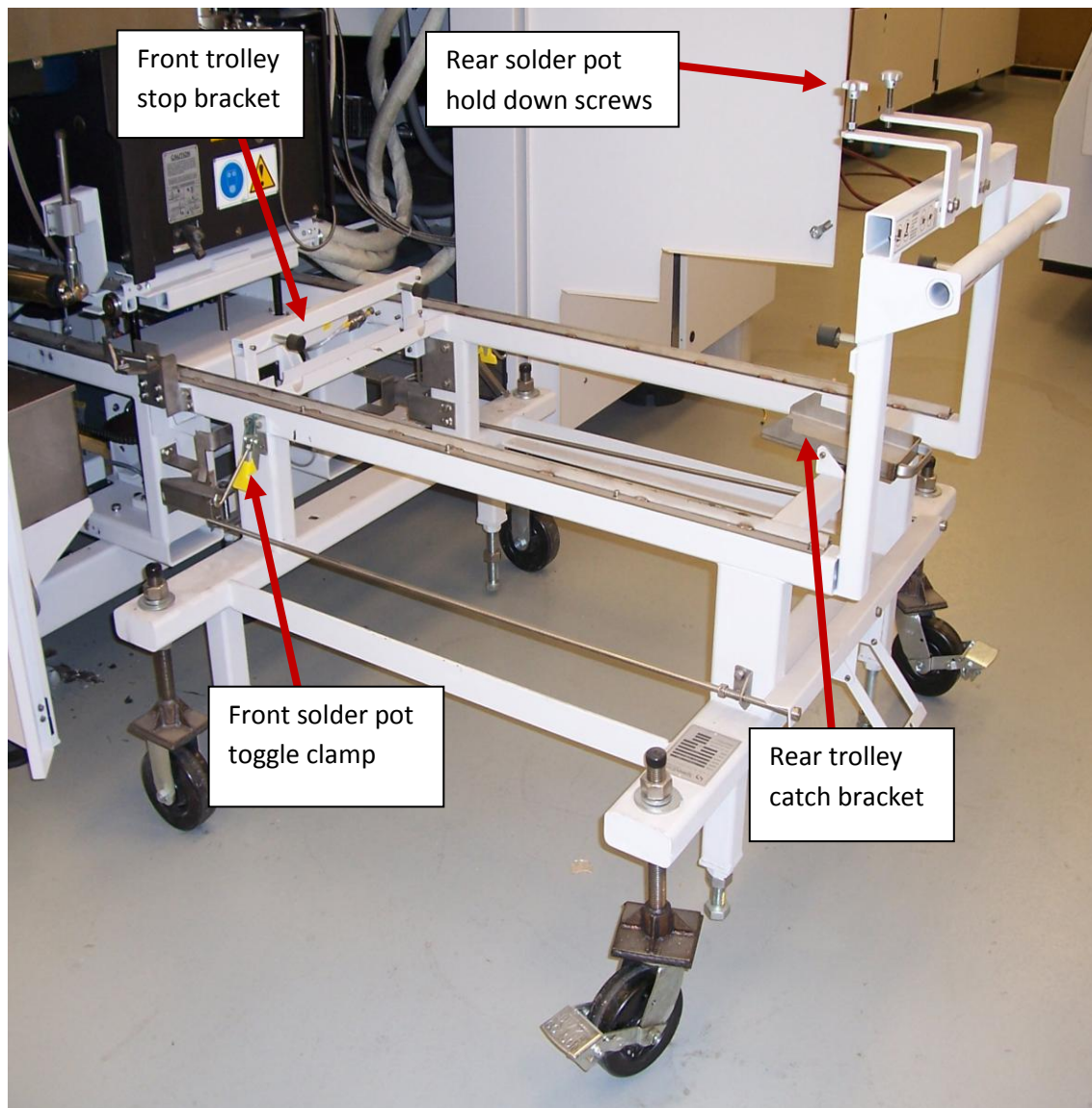


### Compressed Gas Hazard


Compressed air and nitrogen can cause explosion of components inside the machine if not regulated below the maximum pressure as listed in the Engineering Data Sheet.

## INTRODUCTION

The quick-change solder pot option allows for easy changeover between Sn/Pb solder and lead-free alloys. The quick-change solder pot is inserted in a cart on rollers making it simple to move the pot to and from a storage location. There are multiple safety features to ensure the pot is locked onto the cart. The time it takes to switch pots and become operational is approximately 5 hours. The solder pot heaters must be turned off for a period of time to allow the solder time to cool down so that the top of the solder has solidified (this may take 2 to 3 hours). Another ½ hour is required to complete the disconnect procedure, lock the pot onto the cart, change the pots and reconnect the new solder pot. About 3 ½ hours are required for the solder in the new pot to reach operating temperature. Refer to the below diagram for the safety devices that must be secured before disconnecting the cart with a solder pot from the machine.



## SOLDER POT CHANGE OUT PROCEDURE

<ol style="list-style-type: none"> <li>1. Turn off the solder heaters for at least 1 hour and up to 3 hours to allow the solder to cool. The top of the solder bath needs to solidify.</li> </ol>	
<ol style="list-style-type: none"> <li>2. Roll out the solder pot onto the cart. The pot moves to a service position at the approximate midpoint of the cart.  Note that there is a safety support leg mounted next to each wheel. After the cart is secured to the machine, the legs should be adjusted so that they are approximately 6.35 mm (0.25 in.) from the floor. When transporting the cart, ensure that the legs are raised sufficiently to allow clearance.</li> </ol>	




### CAUTION!

The solder pot is very hot. To avoid burns, caution must be taken when working around the solder pot. Wear protective clothing and eyewear.






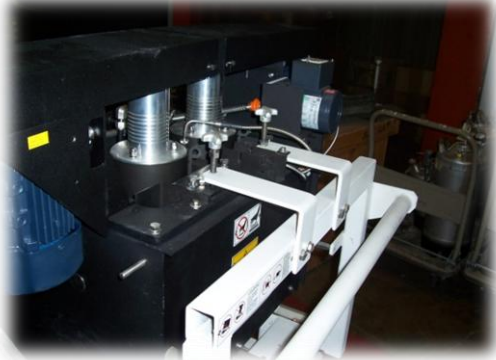



### WARNING!

Exit the machine software, turn off main machine power and lock out prior to disconnecting or reconnecting any electrical connector.

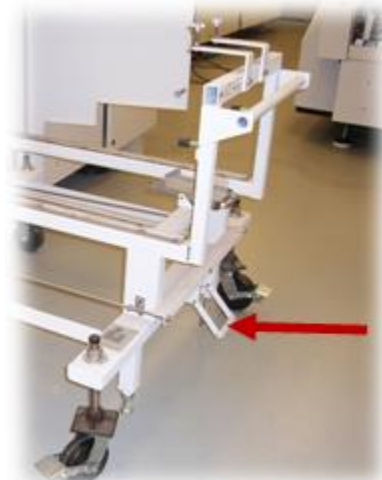
<ol style="list-style-type: none"> <li>3. Disconnect the solder pot electrical plug connectors located near the top of the electrical cabinet on the inside of the machine.</li> </ol>	
<ol style="list-style-type: none"> <li>4. If equipped with nitrogen lines, disconnect these next.</li> </ol>	



<p>5. Secure the wire bundles and nitrogen lines so they do not interfere with the removal of the cart from the machine.</p>	
<p>6. Disconnect the solder pot trolley from the actuator by unscrewing the connecting shaft from the actuator clevis.</p>	
<p>7. Carefully roll the pot out by hand from the service position (midpoint) to the transport position (rear).</p>	
<p>8. Lock the trolley into the safety catch bracket at the rear of the cart.</p>	

<p>9. Lock down the pot with the hold-down screws at the top of the rear bar. Use the locking nuts to secure these screws.</p>	
<p>10. Raise the front trolley stop bracket and secure it in the up and locked position.</p>	
<p>11. Secure the front toggle clamps on each side of the pot to the holes in the brackets that mount to the solder pot legs.</p>	
<p>12. Release the brakes on the rear solder cart wheels.</p>	

13. Push the locking release arm to unlock the cart from the machine and pull back on the cart. The cart is now free to move to its storage location.



14. To install the new cart and solder pot, reverse the procedure. Verify rollout tracks are lined up, solder cart latching mechanisms are fully engaged, and rear wheels are locked before reversing this procedure.

