



Centrifuge **Operation** and **Troubleshooting**

OPERATION

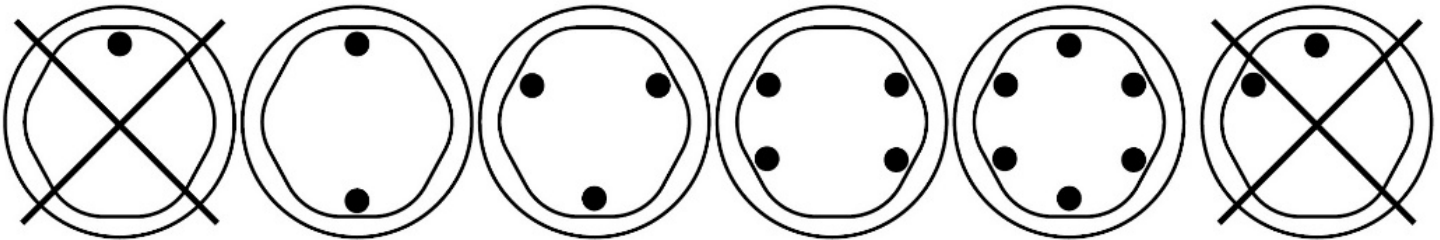
- Place the tubes into the tube holders. Be sure to follow the rules for balanced loads as listed in the next section. All tube holders must be present for the centrifuge to run.
- Close the lid and turn the lid knob clockwise to its complete stop position.
- The front panel LED is illuminated for the currently selected cycle. To select another cycle, press the UNLOCK button in succession until the desired cycle is selected.
- Pushing the START button on the control panel will start the spin cycle.
- When the cycle is completed, the rotor will slow to a complete stop and the lid light will flash.
- The unlocking mechanism will engage for 60 seconds allowing entry into the rotor chamber. To unlock after more than 60 seconds have elapsed, press the UNLOCK button. The lid will unlock for another 15 seconds.
- Turn the lid knob counterclockwise and open the lid. The lid light will turn off.
- You may now safely remove the samples.

BALANCING LOADS

Your centrifuge must contain a balanced load to work properly. Spinning balanced loads will extend the life of the centrifuge and produce better results. Use the following rules when loading the rotor. If an odd number of samples is to be spun, fill a tube with water to match the weight of the unpaired sample and place it across from this sample.

Opposing tube holders must be equally loaded or empty or loaded with equally weighted samples. When loading only 3 tubes, they must be of equal weight.

6 TUBE CENTRIFUGES



SETTINGS

		(1) Chemistry	(2) Coag (PPP)	(3) Urine
HORIZON 6	RPM	3,600	3,300	1,900
	Time	10	15	5
	G-Force	1,800 xg	1,500 xg	500 xg

PROBLEM	POSSIBLE CAUSE	SOLUTION
The lid does not open	No power	<ul style="list-style-type: none"> • Check line cord • Check circuit breaker on underside of centrifuge • Check wall outlet
	Lid knob is not completely closed	Rotate the lid knob fully clockwise before pressing the 'OPEN' button
	Lid lock is active (Unlock timed out)	Press the 'OPEN' button to de-activate the lid lock
	Lid tray is unplugged from control board or defective	Check wiring
	Control board is damaged	Replace control board

NOTE: To gain access to the rotor - Remove the 'OPEN/CLOSE' sticker and slide the lid latch lever toward the front of the centrifuge. This will unlock the lid.

PROBLEM	POSSIBLE CAUSE	SOLUTION
Excessive vibration	Rotor improperly loaded	Load equally filled tubes symmetrically in the rotor; all carriers and/or tube holders must be present in the rotor
	Debris lodged within the rotor or tube carriers	Carefully inspect all rotor pockets, tube holders and crevasses for debris, and clean thoroughly
	Centrifuge housing is loose	Tighten or replace screws
	Missing/damaged feet	Replace feet
	Motor failure	Replace motor
	Rotor damaged	Replace rotor

PROBLEM	POSSIBLE CAUSE	SOLUTION
Rotor does not spin	No power	<ul style="list-style-type: none"> • Check line cord • Check circuit breakers on underside of centrifuge • Check wall outlet
	Lid not properly latched	Press down firmly on lid and rotate lid knob clockwise until the 'LATCHED' light illuminates
	Internal connection failure	Check wiring
	Control board failure	Replace control board
	Motor failure	Replace motor

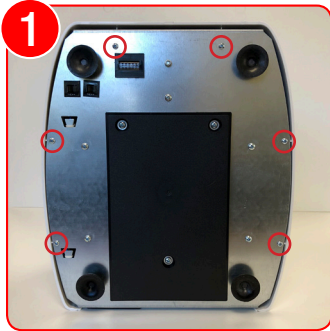
PROBLEM	POSSIBLE CAUSE	SOLUTION
Shutting down or beeping at beginning of cycle	Centrifuge is not properly balanced	Review 'Balancing Loads' instructions and ensure the centrifuge is properly balanced
	All tube holders are not present	Insert all tube holders into centrifuge before operation

PROBLEM	POSSIBLE CAUSE	SOLUTION
Clicking noise during braking	Rotor is loose	Tighten rotor nut

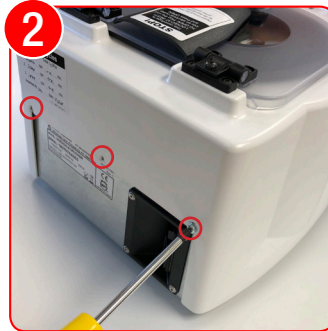
PROBLEM	POSSIBLE CAUSE	SOLUTION
Whistling noise while running	Debris in air intake / exhaust ports	Remove power before clearing debris
	Damaged gasket	Requires service

To remove the lid tray assembly:

NOTE: If replacing the lid tray assembly, insert the new assembly and follow steps 1-7 in reverse to install the replacement.



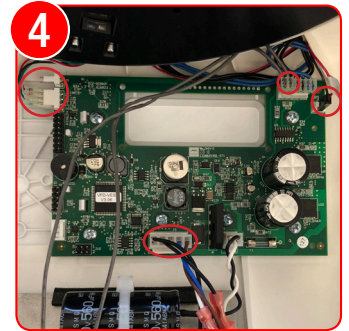
1 Remove the 6 outer screws on the bottom of the centrifuge (circled in red)



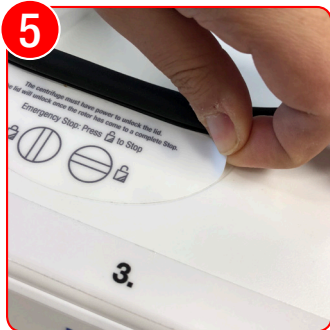
2 Remove the 3 screws on the back of the centrifuge (circled in red)



3 Lift the cabinet off of the base of the machine



4 Remove red circled wires from the PC board



5 Sit the cabinet upright and peel off the OPEN/CLOSE label on the top of the centrifuge



6 Remove the two screws under the label



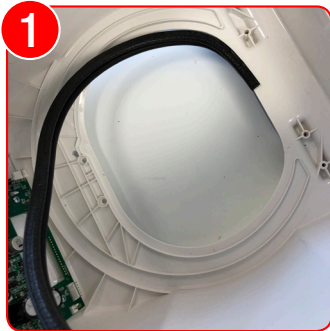
7 Flip the cabinet on its top and remove the two inner screws that are holding the lid tray assembly to the cabinet



8 Remove the lid tray assembly

To replace the lid gasket:

NOTE: Follow steps 1-8 in the "Remove the Lid Tray Assembly" section first.



1 Pull off the damaged lid gasket



2 Starting at 12 o'clock position, apply the new gasket around the lid well; clip off any excess



1 Flip the machine on its back and unscrew the damaged foot/feet

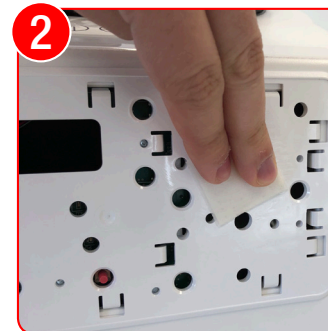


2 Screw the replacement foot/feet into the stud on the base of the centrifuge

To replace the front panel label:



1 Peel off the damaged sticker



2 Wipe the surface with alcohol



3 Replace the new front panel label, making sure that it is properly aligned in the channel on the molded panel