

# Carousel Centrifuge Quick Guide

This quick guide will direct the user through the set up and use of the carousel centrifuge that is used for preparing capillaries in the Ruggedized Advanced Pathogen Identification Device LT (R.A.P.I.D.® LT) or LightScanner® 32 (LS32™) instruments. The centrifuge may also be used to prepare bead tubes for sample preparation.\* Tools included with the centrifuge:

1 carousel centrifuge    1 power adapter cord    1 Phillips head screwdriver

## ⚠️ WARNINGS:

- Do not disassemble any part of the centrifuge with the exception of the rotor piece as described in the “Decontamination” section of this document.
- Do not open centrifuge while in operation.
- Do not physically slow down centrifuge rotor after the cycle ends.
- Do not run centrifuge with a loosened rotor piece, a broken carousel(s) or bead tube carrier(s), or with signs of physical damage.
- Always wear the appropriate safety equipment while operating centrifuge.
- Always check for debris in bottom of centrifuge tub before running a cycle.
- In a power failure, do not open centrifuge lid until visually confirming that the rotor has come to a complete stop.

Please contact Idaho Technology's Technical Support at 1-800-735-6544 or support@idahotech.com with any questions or concerns, or visit us at www.idahotech.com for online support. To order replacement parts, please contact our Sales Department at 1-800-735-6544.

\*Optional accessories required. Contact ITI Product Support at 1-800-735-6544 or iti@idahotech.com.

## Unpacking and Setting Up

**Step 1:** Unpack the carousel centrifuge instrument (11" x 14" x 8.9"; 29 x 36 x 23 cm) and set on an open, solid, and flat surface.

**Note:** Both the centrifuge feet and the surface the centrifuge is placed on should be clean and free of dust before using the centrifuge.

**Step 2:** Plug the power cord into a grounded power supply then plug it into the back of the centrifuge. Switch power on; the green light on the front panel will light up.

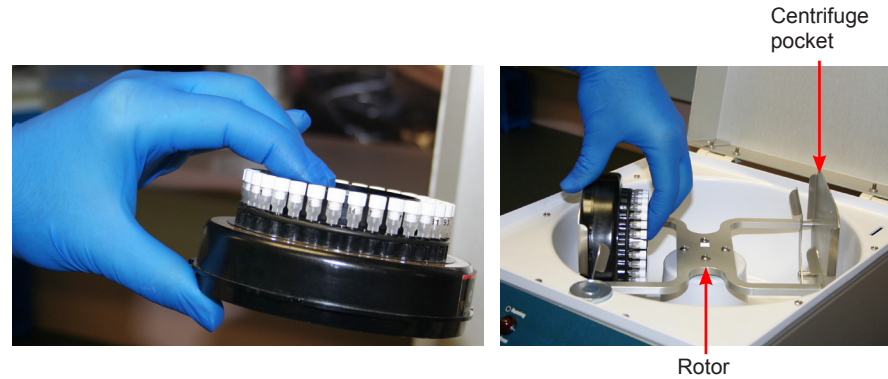


## Loading the Carousel

**Step 1:** Load carousel(s) with capillaries.

**Step 2:** Open centrifuge lid. Hold the carousel with middle and index fingers on the top of the carousel and thumb on the bottom of the carousel with the carousel facing the center of the centrifuge.

**Step 3:** Slide the carousel down between the pocket's back and the raised grooves. Ensure the tabs of the carousel are in contact with the raised grooves and make contact with the bottom of the centrifuge pocket.

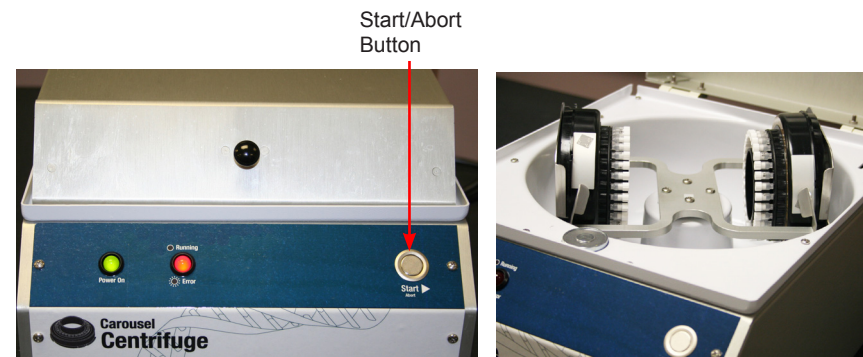


**Note:** When inserting the carousel into the centrifuge, do not make contact with the capillaries.

**Note:** If capillaries are broken during installation of the carousel, remove all debris BEFORE operating centrifuge—refer to the “Decontamination” section of this document.

**Step 4:** Insert another filled or empty carousel to act as a counter-balance.

**Step 5:** Close the centrifuge lid and press the Start/Abort button once. The red light will be on during the cycle.

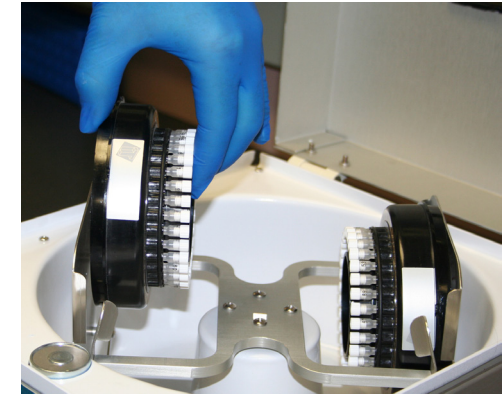


**Note:** If the rotor becomes unbalanced, the red light will begin to flash and the centrifuge will automatically stop. If it is necessary to stop the centrifuge for any other reason before completing the cycle, press the Start/Abort button.

**Step 6:** When the red light turns off, the lid lock has been deactivated and the carousels can be removed from the centrifuge.

**Step 7:** Remove carousel from centrifuge by placing the thumb on the bottom part of the carousel while placing the index and middle finger on the top of the carousel.

**Step 8:** Slowly pull the carousel straight up out of the centrifuge pocket.

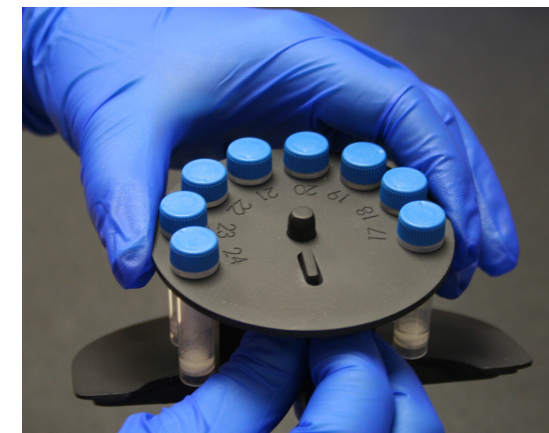


**Note:** When removing the carousel from the centrifuge, do not make contact with the capillaries.

## Loading the Bead Tube Carrier

**Step 1:** Remove the bead tube disc from the Disruptor Genie™.

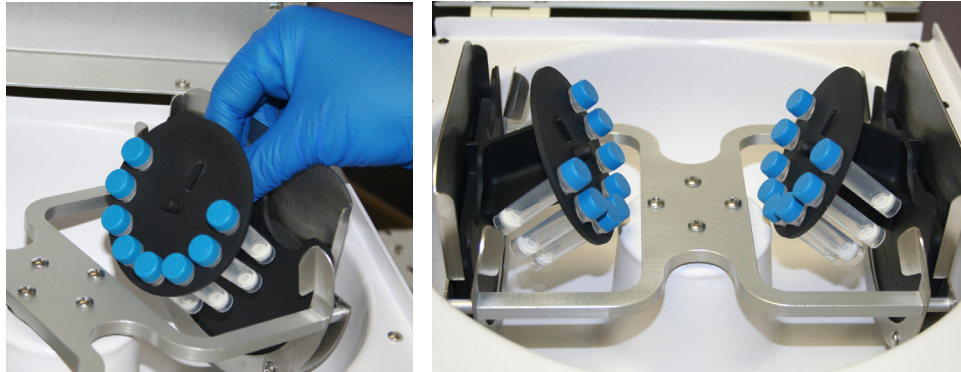
**Step 2:** Holding the bead tube disc in one hand, take the bead tube carrier in the other hand and fit the bead tube disc over the carrier by aligning the bead tube disc's center openings with the raised portions of the bead tube carrier. The numbering on the bead tube disc should face up.



## Loading the Bead Tube Carrier (continued)


**Step 3:** Hold the arm of the bead tube carrier using the thumb and index finger (shown in the left photo below).

**Step 4:** Lower the bead tube carrier into the centrifuge pocket with the front portion lining up with the raised grooves of the centrifuge pocket. Slide the bead tube carrier down against the back of the centrifuge pocket until the bead tube carrier is in contact with the bottom of the pocket.



**Step 5:** Insert another filled bead tube carrier to act as a counter-balance or evenly distribute tubes between two bead carriers.

**Step 6:** Close the centrifuge lid and press the **Start/Abort** button once. The red light will be on during the cycle.

 **Note:** If it is necessary to stop the centrifuge before completing the cycle, press the **Start/Abort** button.


**Step 7:** When the red light turns off, the lid lock has been deactivated and the bead tube carriers can be removed from the centrifuge.

**Step 8:** Remove bead tube carrier by holding the back arm of the carrier with the thumb and index finger and pulling the carrier up out of the centrifuge pocket.

## Decontamination

The decontamination and cleaning procedures in this section are intended to limit the spread of DNA, RNA, PCR amplicon, or biohazards. It is essential to decontaminate all areas that are at possible risk for contamination to prevent false-positive readings in later experiments. Always wear the appropriate safety equipment while cleaning. The list of items below is necessary for proper cleaning if breakage occurs or for routine cleaning of the centrifuge. Use only the decontamination methods and products recommended by Idaho Technology:


- 10% bleach solution in a squeeze or spray bottle
- Distilled water in a squeeze or spray bottle
- 95% ethanol in a squeeze or spray bottle (required for biohazardous material only)
- DNAZap™, or equivalent DNA degrading system
- Paper towels
- Bleach wipes (not required)
- Phillips head screwdriver (provided with centrifuge)

 **Note:** For pre-PCR spills, complete steps 1–8, 10–12.  
For biohazardous spills, complete steps 1–12.

**Step 1:** In the unlikely event of capillary/bead tube breakage, immediately shut down the run cycle by pressing the **Start/Abort** button, wait for the red indicator light to stop flashing, and turn the power switch on the back of the centrifuge to 'off.' Unplug the power cord from the power source.

**Step 2:** Wait 10–15 seconds, then open the lid slowly. Inspect the inside of the centrifuge for debris.

**Step 3:** Wet a paper towel with 10% bleach solution and wipe down the inside of the centrifuge to pick up any pieces of debris with paper towel. Dispose of these paper towels in a biohazard garbage bag.

 **Note:** This step should be repeated as many times as necessary until all debris has been removed from the centrifuge.

**Step 4:** Set a paper towel or lab mat down on an open surface next to the centrifuge.

**Step 5:** With a Phillips head screwdriver, remove the four screws that attach the rotor to the centrifuge, then remove the rotor and set it on the paper towel.



**Step 6:** Wet a paper towel with 10% bleach solution and wipe down the entire inside and outside of the centrifuge.

**Step 7:** Repeat Step 6 twice for a total of three bleach wipes.

**Step 8:** Wet a paper towel with water and wipe down inside, outside, and rotor.

**Step 9:** If working with a biohazardous material, wet a paper towel with 95% ethanol solution and wipe the inside of the centrifuge and rotor.




**Step 10:** Change gloves.

**Step 11:** Wet a paper towel with water and wipe down inside, outside, and rotor of centrifuge for a total of two water wipes of the centrifuge.

**Step 12:** Place rotor back into position so that the four screw openings on the rotor align with the four holes on the centrifuge. Replace screws and tighten down until secure.

## Technical Specifications

<b>Dimensions and Weight</b>	11 x 14 x 8.9 in. (28 x 36 x 23 cm) 16.4 lbs (7.4 kg)
<b>Power Supply</b>	Power: 60 W Fuse: 250 V 1.6 A Frequency: 50–60 Hz AC Supply: 90–240 VAC
<b>Operating Environment</b>	15–30°C (59–86°F)
<b>Relative Humidity</b>	20–80%, noncondensing
<b>Recommended Clearance Envelope</b>	30 cm
<b>Symbols</b>	 Caution or risk of danger ~ Alternating current
<b>Certifications</b>	