

1. Introduction

Thank you for choosing Champion F-33 Series centrifuge from Ample Scientific. Champion F-33 Series features:

- Unique vortex ventilation system keeps chamber temperature cool and preserves sample integrity
- Wide-mouth design for convenient access to samples while facilitating centrifuge cleaning and maintenance
- Temperature controlled motor to extend centrifuge life expectancy
- Well balanced system minimizing vibration and maximize operation safety

2. Product Structure

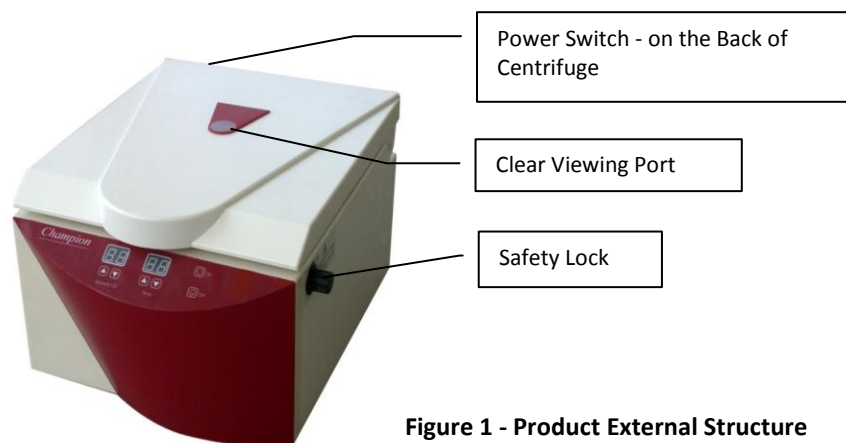
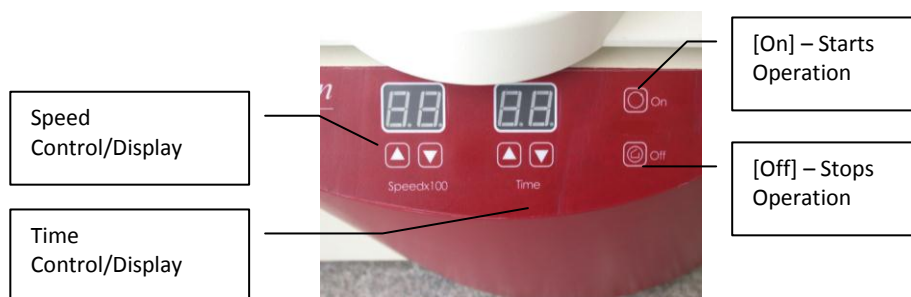


Figure 1 - Product External Structure



3. Installation and Setup

1. Inspect centrifuge for any damages. Contact distributor for questions regarding damages.
2. Place centrifuge on steady and leveled surface. The centrifuge should be kept at least 300mm away from surrounding objects in a well-ventilated environment. F-33 Series is for indoor use only.
3. Lid can be unlocked by rotating the 'Safety Lock' clockwise. Hold 'Safety Lock' in the unlocked position to open lid.
4. Make sure all eight of 15ml rotor buckets are installed in rotor. Insert provided semi-circular cushions into buckets. Remove any loose pieces or packing material in the centrifuge chamber.
5. Turn the Power Switch on. The Power Switch is located on the back of the centrifuge.
6. Set 'Timer' for 1 minute, and 'Speed' to highest setting. Press 'On' to start operation.
7. Make sure there is little to no vibration and the whirring sound produced is smooth. If excessive vibration or abnormal sound occurs, stop the centrifuge and contact distributor immediately
8. Your centrifuge is now ready to be used. Please use enclosed 'Customer Service Card' to register your machine. Upon registration, you will receive a unique Product Warranty Card as your certification of authenticity. Customers who failed to register their purchased product may be ineligible for manufacturer's limited 1-year warranty.

4. Operation

1. Turn on centrifuge using power switch on the back.
2. Open centrifuge lid. Make sure there are no particles or liquid in centrifuge chamber.
3. Make sure all eight of the 15ml rotor buckets are installed into rotor, even if you plan to spin less than 8 tubes. **Do not use buckets from another manufacturer or substitute buckets from one centrifuge to another*¹.**

4. Loads should be balanced before centrifugation. Test tubes across from each other should be of equal weight and size. Use sample fluid or water to provide balance^{*2}. Please install tubes into rotor buckets according to the following configurations:

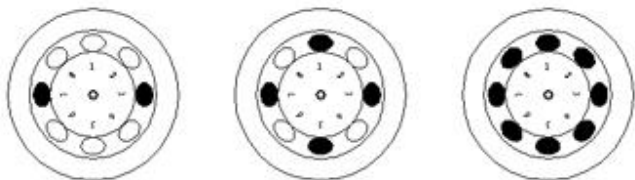


Figure 2 - Sample Balancing Diagram

5. When centrifuging test tubes smaller than 15ml, please use provided small-tube-inserts as appropriate. Make sure test tube sits at the bottom of rotor bucket or insert. Do not spin sample if test tube is hung by its cap.
6. Close and lock lid by firmly pressing it down. Centrifuge will not operate unless lid is properly locked.
7. Set desired speed in increments of 100rpm, and set desired time in increments of 1 minute.
8. Press [On] to start centrifugation.
9. Centrifuge will automatically stop when timer reaches '0'. You may terminate centrifugation early by pressing [Off].
10. Centrifuge will stop acceleration if lid is unlocked/opened during centrifugation and starts deceleration immediately.
11. Always turn off the power switch if centrifuge is not in use.

^{*1} – each set of rotor buckets are carefully matched to ensure optimal balance. Using inappropriate rotor buckets may damage buckets as well as shortening life of centrifuge motor.

^{*2} – Proper sample balancing will improve sample separation and extend the life of centrifuge. Glass test tubes are more likely to break if sample loads are imbalanced.

5. Maintenance and Care

With proper care and maintenance, F-33 series centrifuge will provide years of service to your laboratory. Please follow the recommended guidelines:

1. Always disconnect the power source before performing cleaning and maintenance.
2. Use quality test tubes. Lower quality tubes are more likely to fracture, leaking its contents into the rotor buckets even under low rpm.
3. Never force a test tube into the rotor bucket. The test tube should always be able to rest at the bottom of bucket/insert. If the cap of test tube is too large and prevents the test tube from resting at the bottom of bucket/insert, the test tube is not compatible with F-33 series centrifuge.
4. Keep rotor buckets clean. If a test tube breaks inside the rotor bucket, either dispose the entire rotor bucket and its content or safely dispose the sample and broken glass. Make sure to thoroughly clean and disinfect the inside and outside of the rotor buckets.
5. Centrifuge is recommended to be cleaned at least once every week. Any spilled sample in the chamber and on the centrifuge must be immediately wiped and cleaned. Only use mild cleaning solutions when cleaning the centrifuge. Strong and acidic cleaners are not recommended for cleaning and should never be used on the centrifuge. The rotor and buckets can withstand up to 120°C for sterilization. Do not autoclave. Consult manufacturer before cleaning or sterilizing the centrifuge with any methods not specified by the manufacturer.
6. The centrifuge should be kept and stored in the following condition for optimal performance:
 - a. Ambient temperature of 0-30°C
 - b. Relative humidity of $\leq 30\%$
 - c. Atmosphere clear of electroconductive dusts, explosive gas, and corrosives

5. Prohibited Usage of Centrifuge

1. Do not store or use the centrifuge in conditions not specified¹.
2. Do not let unqualified persons operate the centrifuge.
3. Do not operate without properly installing the rotor and rotor buckets
4. Do not overload the rotor².
5. Do not use rotor or any accessories that are damaged or corroded.
6. Do not use rotor and accessories not included in the original package or not recommended by the manufacturer. (except for standard test tubes)
7. Do not use chemicals that cause damage and corrosion to the rotor and accessories.
8. Do not centrifuge medium that is flammable or explosive³
9. Do not operate near explosive materials³

Note:

¹ – Incorrect power input will damage the centrifuge, preventing proper operation

² – Overloading the centrifuge will prevent motor from working properly and shortening centrifuge life.

³ – Putting the centrifuge near explosives increases the risk of centrifuge exploding

Champion F-33 Series Centrifuge



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User Guide

Ample Scientific L.L.C.