

# Quick Guide

## 1848R

Max. RPM/RCF	Fixed-angle	18,000 rpm / 30,536 xg
	Swing-out	13,000 rpm / 16,438 xg, 5,750 rpm / 3,050 xg
Max. Capacity	Fixed-angle	8 x 50 mL conical, 48 x 1.5/2.0 mL
	Wind shield	24 x 2.0 mL, 4 MTPs
Temp. range	-10°C ~ 40°C	
Time control	Pulse, timed <10 hr or continuous (00:00)	
ACC/DEC	9 (Max 9) / 10 (Natural 0)	

### Display & Control

**Display**  
Status of RPM, RCF, Time, Temperature, ACC, DEC, Running, Lid open/close

**Setting Speed**  
Touch once : RPM  
Touch twice : RCF

h:m °C  
RPM 09:59 TEMP 4  
10000

RPM / RCF
TIME
TEMP <sup>\*</sup>
ACC / DEC
PROG

←
0
±
←

**Key Lock / UnLock**

**Start / Stop**

**Lid Open**

**End Alarm**  
Sound volume (level : 0 ~ 10, 0 : silent)

**At Set Speed**  
On : Counts the time at set speed / Off : Counts the time from starting  
Touch more than 2 sec. : Repeat time of end alarm (time : 0 ~ 99, 0 : silent)

**Setting Time**      **Setting ACC / DEC**      **Pulse**

**Temp / Fast Cool**  
Touch for more than 2 seconds to reach rapid refrigeration up to setting temp.

**Program SAVE / CALL**  
Touch once : CALL / Touch twice : SAVE (up to 100)

### Operation

RPM / RCF

or

TIME

or

TEMP <sup>\*</sup>

or

ACC / DEC

or

PROG

[RPM / RCF / Time / Temp. / ACC / DEC / Program save, call]  
- Touch a parameter to be changed.

- Set the desired values by touching the numeric keys. - Press the Enter.

**Setting Run Parameters**

h:m/ms
°C

09:59 TEMP 4

TEMP <sup>\*</sup>
ACC / DEC
PROG

Set the desired run speed.  
- Touch the Start/Stop key more than 3 sec.

**Pulse**

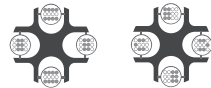
## Precautions for Use

### 1. Level the device

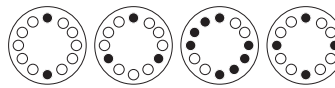
Check the instrument level by using the bubble leveler.

### 2. Balance the rotor

Load tubes symmetrically with identical weight.



Correct arrangement for Swing-out rotor

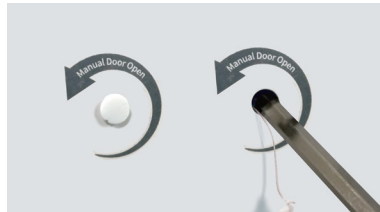


Correct arrangement for Angle rotor



### 3. Tighten the lid with the rotor

Fixed angle rotors must always be centrifuged with the rotor lid.



### 4. Emergency lid open

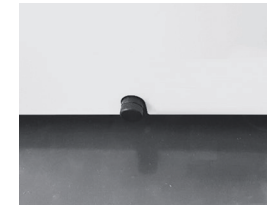
Wait for the rotor to stop before activating emergency. Remove the Emergency cap on the right side of the device. Insert the wrench into the hole and turn it counter clockwise.

### 5. Lubrication



Grease (Lubricant)

Whenever there is stiff sensation, use the provided lubricant to lubricate the bucket grooves, swing-bucket rotor pivots and the angle rotor thread



### 6. Keep the chamber dry

Clean the centrifuge chamber and rotor with a cloth dampened in mild detergent then dry completely. Keep the chamber dry and the lid open when not in use.

### 7. Empty the condensate

Empty the condensate regularly by removing the drain cap on the left side of the device.

## Common Error Codes

If you continue to get below error messages, contact technical support team. For other error codes, refer to the operating manual supplied with the device.

Error code	Possible Causes	Actions
Error8	Imbalance error	Check weight-balances of samples.
Error9	Rotor ID or RPM sensor error	Check the rotor is firmly tightened.
Error12	Temperature sensor error	Wipe the temperature sensor with a soft cloth. (Temperature sensor is on the bottom of the chamber.)
Error16	Compressor temperature sensor error	Leave a safety clearance of 30 cm around the device during operation and check compressor fan is working properly.

# GYROZEN

Order & Inquiry : +82-2-3452-7736 | [info@gyrozen.com](mailto:info@gyrozen.com)  
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