

Quick Guide

1696R

Max. RPM/RCF	Fixed-angle	16,000 rpm / 27,590 xg
	Swing-out	5,000 rpm / 5,394 xg
Program	100	
Temp. range	-11°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 RPM Setting RCF Options Key Lock Pulse Short spin

Setting Time Setting Temperature Program Save Power Saving Mode

Setting Acceleration Setting Deceleration Program Shortcuts

Start / Stop
Fast Cool
Lid Open
Program Call

Operation

Setting Run Parameters
Touch the parameter to be changed.
→ Touch the numeric buttons to set the desired values.
→ Touch the Enter button

Saving / Calling up a Program
Touch the Save or Call button.
→ Touch the numeric buttons to set the desired program number.
→ Touch the Enter button.

Pulse
Touch and hold the Pulse button.

Fast Cool
Touch the Fast cool button.

Precautions for Use

Before Use	After Use
<p>Tighten the lid with the rotor</p> <p>Fixed angle rotors must always be centrifuged with the rotor lid.</p> <p>Level the device</p> <p>Check the instrument level by using the bubble leveler which is in the tool box.</p>	<p>Keep the chamber dry</p> <p>Wipe up the moisture in the chamber with a dry cloth after use. Keep the lid open when not in use.</p>
<p>Balance the rotor</p> <p>Load tubes symmetrically with identical weight.</p> <p>Correct arrangement for Swing-out rotor Correct arrangement for Angle rotor</p>	<p>Cleaning and lubrication</p> <ul style="list-style-type: none"> Clean the centrifuge chamber and rotor with a cloth dampened with a mild detergent and dry completely. After cleaning, lubricate bucket grooves, pivots of swing-bucket rotors and threads of the angle rotors using the lubricant which is in the tool box. <p>Grease (Lubricant)</p>
<p>Emergency lid open</p> <p>Wait for the rotor to stop before activating emergency.</p> <ul style="list-style-type: none"> Remove the Emergency cap on the left side of the device. Insert the wrench into the hole and turn it clockwise. 	<p>Empty the condensate</p> <p>Empty the condensate regularly by removing the drain cap on the left side of the device.</p>

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	Turn the power off and restart it after 2 hours.