

Laboratory Refrigerator & Freezer



Satisfaction with the requirements of European regulations and guidelines.



Real-time equipment monitoring and control system using mobile app.



Registered patent based on JEIO TECH's proprietary technology.



Certificate of medical devices management system for the manufacturers of medical devices.



Eco-friendly product that has passed environmental impact assessment tests.



Automatic defrosting does not need the work of unnecessary frost elimination.



Purifies and discharges harmful gas through internal filter.



In case of abnormal operation of the device, a voice message alarm is transmitted via telephone.



Warning alarm in case of deviation of temperature control.



It memorizes the state of power failure and operates automatically when power is restored.



2 year warranty Free A/S.



Door locking system with key.

General Application

Lab Refrigerators & Freezers: Chemical samples, various reagents, storage of culture media, temperature-sensitive materials, enzymes, preliminary cooling before freezing.

Medical refrigerators & freezers: Storage of blood and plasma, storage of medicines and vaccines in hospitals and pharmacies.

	Description	Temp. Range (°C/°F)	Volume (L / Cu ft)	Model	Page	
Laboratory	Refrigerator	• Verified by international standards • Temperature stabilization by defrost control	2 ~ 10 / 35.6 ~ 50	74, 303, 603, 805, 1327 / 2.6, 5.5, 10.7, 21.3, 28.4, 46.9	CLG CLG3	240
		• Filtered storage cabinet with refrigeration function • Stable temperature maintenance and alarm function when there is an abnormality	0 ~ 15 / 32 ~ 59	660, 1451 / 23.3, 51.2	FSR	242
	Freezer	• Model selected based on temperature range • Excellent insulation and sealing structure	-15 ~ 0 / 5 ~ 32	154, 303, 647 / 15.4, 10.7, 22.8	FHG	244
			-25 ~ -15 / -13 ~ 5	154, 303, 647 / 15.4, 10.7, 22.8	FMG	
			-35 ~ -25 / -31 ~ -13	154, 303, 647 / 15.4, 10.7, 22.8	FCG	
			-50 ~ -30 / -58 ~ -22	303, 647 / 10.7, 22.8	FDG	
	Medical	Blood Refrigerator	• Designed based on DIN 58371 (blood refrigerator conditions and tests)	0 ~ 20 / 32 ~ 68	303, 614	BSR
Pharmaceutical Refrigerator		• Stable cold storage of medicines • Designed based on DIN 58345 (pharmaceuticals refrigerator conditions and tests)	2 ~ 10 / 35.6 ~ 50	74, 303, 614	PSR PSR3	249
Blood Plasma Freezer		• Suitable for long-term storage of plasma • Designed based on DIN 58375 (plasma freezer conditions and tests)	-35 ~ -25 / -31 ~ -13	303, 647	BSF	250

※ The contents of the above and the contents of this catalog may differ depending on the specific model and conditions of use. For the information about the features and specifications that applying to each models, please check the information on the corresponding page of each models.



Laboratory Refrigerators & Freezers

Improved reliability with strict international standard verification
Stable temperature control with excellent sealing and defrost control

> **Stable temperature control and maintenance**

More precise and stable temperature control due to Lab Companion's exclusive controller.

> **Complete chamber structure**

Excellent thermal insulation and sealing to minimize heat loss for long-term use.

> **Clean use and maintenance**

Internal stainless steel material allows for clean maintenance and excellent corrosion resistance.

> **Height-adjustable and strong shelf**

Durable wire-shaped shelves provided as standard can be placed at different height.

> **Satisfies the requirements for safe cold storage of pharmaceuticals**

Temperature fluctuation and variation meets the requirements of ICH Guideline Q1A. (R2) (CLG model)

> **Application of defrost control technology of Lab Companion**

Automatic defrosting or dual refrigeration without the need for defrosting minimizes temperature changes.

> **Dew-free exterior**

Provides a clean environment with a structure that does not form dew on the door and outer wall.

> **Internal uniform temperature**

Optimized structural design for each model maintains uniform temperature inside.



Solid steel drawer shelf. (option)



Drawer type of wire shelf with excellent permeability. (option)



Key lock door.



Provides optimized selection for storage purpose Convenient safety features for safe storage

- > **Mobile monitoring system**
LC Connected system (option) to monitor the current status of the equipment through the mobile app and receipt of status messages.
- > **Door lock with key**
Door structure with key lock as standard provides a safe storage environment.
- > **Convenient mobility and installation**
Easy to move and install with casters. (except for 150 model)
- > **Convenient accessory selection supported**
Selection of various accessories such as temperature recorder as well as various shelves according to storage type.
- > **Temperature deviation notification function**
Warning when the actual temperature is out of a certain range of the set temperature. (Hi & Low Temperature)
- > **Lock function of controller**
Lock function for preventing change of controller settings prevents erroneous operation due to arbitrary changing.
- > **Self-protection system**
Door open alarm Overcurrent protection and current leakage protection.
- > **Voice alarm system supported**
Alarm system (option) that transmits voice messages to designated users when device malfunction occurs.

※ Some of the above contents are limited to specific models.



Intuitive checking of device operation information with large VFD.



Easy to use with door open button.



Mobile remote monitoring system. (option) (CLG3/PSR3 model)

Laboratory Refrigerator

Excellent structure to meet stringent international standard

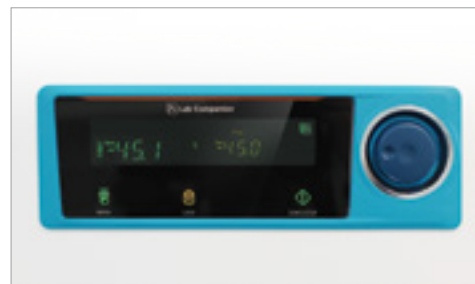


Structural Functional Features

- Stable temperature control with excellent insulation and sealing structure.
- Clean construction with no condensation on outer walls.
- Interior has excellent corrosion resistance as made of stainless steel.
- Magnetic packing door with smooth opening and closing.
- Casters for easy movement / installation. (except for 70, 150 model)
- Space-efficient configuration with double stackable. (only for 70, 150 model)
- Auto defrost function eliminates the need for separate defrosting.

Use Convenience Features

- Stable control with Lab Companion's exclusive controller.
- Easy to use with clear VFD and touch key.
- Simultaneously displays set temperature and actual temperature.
- Calibration function minimizes temperature difference.
- Height-adjustable and strong shelf provided as standard.
- Built-in fluorescent lamps. (except for 150 model)
- Glass door model for easy storage status checking.
- Convenient connecting external devices through Ø50 mm cable port. (option) (except for 70,150 model)



Intuitive checking of device operation information with large VFD



Door key lock



Outstanding Safety

- The 850 and 1400 model are equipped with two refrigeration systems to maintain temperature even in the event of a single refrigeration system failure.
- Temperature deviation notification. (Hi & Low Temperature)
- Malfunction prevented by controller lock function.
- Door lock with key as standard.
- Enhanced security with digital door lock. (only CLG3)
- Notification function when the door is open for a long time.



Drawer Shelf

Satisfies The Requirements For Safe Cold Storage Of Pharmaceuticals

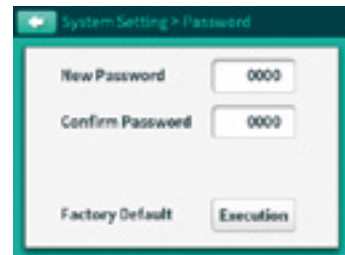
- Temperature fluctuation and variation meets the requirements of ICH Guideline Q1A. (R2)
- Stable temperature control for long-term operation.



Wire Shelf

Accessories Provided For Convenient Use

- Monitor via mobile app anytime, anywhere with LC Connected. (mobile monitoring system) (when purchased LC GreenBox, Only CLG3-70)
- Voice alarm system transmits voice messages to designated phone if there is an abnormality in operation. (option)
- Convenient use with drawer type shelf. (option)
- Selection of various temperature recorders. (option) (Dot, Chart, Thermal Line)



Digital door lock (CLG3 model)

Specification

Model	Solid door	-	CLG-150S	CLG-300S	CLG-650S	CLG-850S	CLG-1400S
	Glass door	CLG3-70	CLG-150G	CLG-300G	CLG-650G	CLG-850G	CLG-1400G
Temperature range (°C / °F)		2 to 10 / 35.6 to 50	2 to 10 / 35.6 to 50	2 to 10 / 35.6 to 50	2 to 10 / 35.6 to 50	2 to 10 / 35.6 to 50	2 to 10 / 35.6 to 50
Chamber volume (L / cu ft)		73 / 2.6	156 / 5.5	303 / 10.7	603 / 21.3	805 / 28.4	1327 / 46.9
Dimension							
Interior (W x D x H, mm / inch)		418 x 440 x 400 / 16.5 x 17.3 x 15.7	550 x 580 x 490 / 21.7 x 22.8 x 19.3	550 x 550 x 1000 / 21.7 x 21.7 x 39.4	650 x 640 x 1450 / 25.6 x 25.2 x 57.1	750 x 740 x 1450 / 29.5 x 29.1 x 57.1	1430 x 640 x 1450 / 56.3 x 25.2 x 57.1
Exterior (W x D x H, mm / inch)		522 x 600 x 725 / 20.6 x 23.6 x 28.5	683 x 791 x 870 / 26.9 x 31.1 x 34.3	670 x 770 x 1515 / 26.4 x 30.3 x 59.6	770 x 865 x 1965 / 30.3 x 34.1 x 77.4	870 x 965 x 1965 / 34.3 x 38 x 77.4	1550 x 865 x 1965 / 61 x 34.1 x 77.4
Net weight (Kg / lbs)		67 / 147.7	100 / 220.5	130 / 286.6	210 / 463	260 / 573.2	350 / 771.6
Shelf							
Quantity of wire shelf (standard/max.)		2 / 3	2 / 6	3 / 11	3 / 17	3 / 17	6 / 34
Quantity of wire shelf (slide) (max.)		3	4	7	11	11	22
Quantity of drawer shelf (slide) (max.)		2	3	5	8	8	16
Load per shelf (kg / lbs)		30	26	26	30	30	30
Fluorescent lamp		4.2W, 1ea	-	18W, 1ea	18W, 1ea	32W, 1ea	32W, 1ea
Electrical requirements (230V, 60Hz, A)		1.1	2	2.3	4	5	6
Cat. No.	Solid door	-	AAHE1001K	AAHE1011K	AAHE1021K	AAHE1031K	AAHE1041K
	Glass door	AAHE1301K	AAHE1101K	AAHE1111K	AAHE1121K	AAHE1131K	AAHE1141K
Electrical requirements (230V, 50Hz, A)		1.1	2	2.3	4	5	6
Cat. No.	Solid door	-	AAHE1002K	AAHE1012K	AAHE1022K	AAHE1032K	AAHE1042K
	Glass door	AAHE1302K	AAHE1102K	AAHE1112K	AAHE1122K	AAHE1132K	AAHE1142K
Electrical requirements (120V, 60Hz, A)		2.9	4	4.5	5	5.2	9.5
Cat. No.	Solid door	-	AAHE1003U	AAHE1013U	AAHE1023U	AAHE1033U	AAHE1043U
	Glass door	AAHE1303U	AAHE1103U	AAHE1113U	AAHE1123U	AAHE1133U	AAHE1143U

Filtering Storage Refrigerator

**Strong deodorization function to remove hazardous gas from refrigerator and uniform temperature.
(Refrigeration temperature 0-15°C)**



FSR-650G

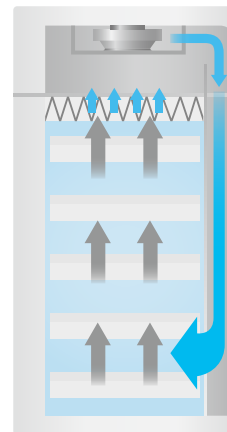
with Drawer Shelves 4ea, Spill Tray 1ea (standard)

Completed verification for hazardous gas removal capability

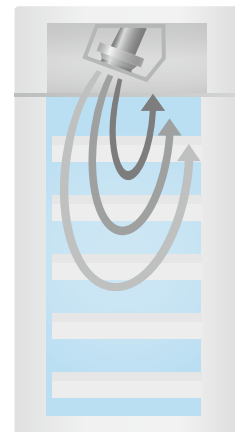
Proven ability to remove hazardous gases (SPS-KACA002-132)

Application of complex carbon filter (VOC, acid, base)

By circulating the air from the bottom of the storage to the filter at the top, hazardous gas removal and uniform temperature are provided.



Lab Companion Products



Existing commercial products

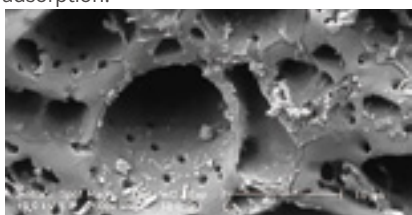
- > **Optimized air flow**
Excellent temperature uniformity and effective removal of hazardous gas through uniform air circulation throughout the cabinet.
- > **Brightness control LED lamp**
Easy to observe the inside with LED lamp, and possible to adjust the brightness to 5 levels.
- > **Filter check notification function**
Filter maintenance notification function of 1-24 month cycle makes it easy to manage the filter according to the usage environment.
- > **Easy to use as a drawer-type shelf**
Drawer-type shelf for convenient handling of inner samples installed as standard.
- > **Structure convenient for moving and installation**
Structure allows it to be moved and fixed and it can be also be safely installed horizontally.
- > **JEIO TECH exclusive controller**
Easy to use with touch, and displays useful information in real time such as VOC, temperature, humidity, filter check notifications, etc.
- > **Filter configuration customizable for application**
Various custom filter configurations supported depending on the chemical nature of the reagents to be stored.



Accessories

Lab Companion's Filter Series

- The Lab Companion's carbon filter is an excellent amorphous adsorbent with a high surface area, has fine pores and is manufactured through a multi-level impregnation process.
- Made of 100% impregnated filter, it is more than twice as efficient as general filters.
- Has the efficiency of an excellent composite filter as it simultaneously performs physical adsorption and chemical adsorption.



- Electron microscopic photographs of Lab Companion's carbon filter confirms development of numerous pores such as
Macropores (diameter of more than 500Å),
Mesopores (diameter of 20-500Å), and
Micropores. (diameter of 20Å or less)

Filter	Description	Cat. No.
Complex Carbon	Filters a wide range of chemicals, including acid, ammonia, and aldehyde.	AAAB6354
Acid	Filters acid gases such as HCl, HF, H ₂ S and CH ₃ COOH	AAAB6356
Formaldehyde	Filters formaldehyde, Acete aldehyde, etc.	AAAB6358
Ammonia / Amines	Filters Basic Gases Such As NH ₃ , (CH ₃) ₃ N etc.	AAAB6359
HEPA	Filters 99.99% of toxic dust and other 0.3µ m particles	AAAB6353

- ※ The appropriate filter is selected according to the chemical used.
- ※ Built-in pre-filter primarily filters particles to extend the life of the other filters.
- ※ Above filter should be ordered two when you apply the FSR-1400G.

Additional fitting of drawer-type shelves

Description	Cat. No.
Drawer shelf (slide) set	AAAF1511

Specification

Model		FSR-650G	FSR-1400G
Temperature range (°C / °F)		0 ~ 15 / 32 ~ 59	0 ~ 15 / 32 ~ 59
Volume	Capacity (1 L bottle *ea)	100	200
	Internal volume (L / cu ft)	660 / 23.3	1327 / 46.7
Dimensions	External (W x D x H, mm / inch)	770 x 850 x 1955 / 30.3 x 33.5 x 77	1550 x 850 x 1955 / 61 x 33.5 x 77
	Internal (W x D x H, mm / inch)	650 x 640 x 1450 / 25.6 x 25.2 x 57.1	1430 x 700 x 1450 / 56.3 x 27.6 x 57.1
	Drawer (W x D x H, mm / inch)	600 x 595 x 100 / 23.6 x 23.4 x 3.9	500 x 595 x 100 / 19.7 x 23.4 x 3.9
	Spill tray (W x D x H, mm / inch)	602 x 550 x 35 / 23.7 x 21.7 x 1.4, 1ea	602 x 550 x 35 / 23.7 x 21.7 x 1.4, 2ea
Quantity of drawer (standard/max.)		4 / 8	8 / 16
Weight (kg / lbs)		320 / 705.5	640 / 1411
Electrical requirements (230V, 60Hz, A)		3	4
Cat. No.		AAHF13111K	AAHF13121K
Electrical requirements (230V, 50Hz, A)		3	4
Cat. No.		AAHF13112K	AAHF13122K
Electrical requirements (120V, 60Hz, A)		3.7	7.3
Cat. No.		AAHF13113U	AAHF13123U

Laboratory Freezer

Maintain stable temperature by direct cooling-type refrigeration system



▮ Structural Functional Features

- Stable temperature control with excellent insulation and sealing structure.
- Clean construction with no condensation on outer walls.
- Interior has excellent corrosion resistance as made of stainless steel.
- Magnetic packing door with smooth opening and closing.
- Casters for easy movement / installation. (except for 150 model)
- Space-efficient configuration with double stackable. (only for 150 model)
- Auto defrost function eliminates the need for separate defrosting.

▮ Use Convenience Features

- Stable control with Lab Companion's exclusive controller.
- Easy to use with clear VFD and touch key.
- Simultaneously displays set temperature and actual temperature.
- Calibration function minimizes temperature difference.
- Height-adjustable and strong shelf provided as standard.
- Easy to use with door open button.

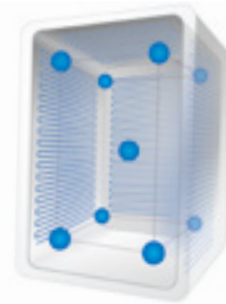
▮ Outstanding Safety

- Temperature deviation notification. (Hi & Low Temperature)
- Malfunction prevented by controller lock function.
- Door lock with key as standard.
- Notification function when door is opened for a long time.



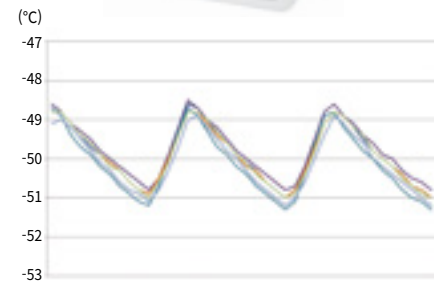
Direct Cooling-type Refrigeration System

- Cooling method with structure surrounding the internal sample space.
- The structure maintains stable temperature uniformity throughout the entire interior where the sample is placed.
- Efficient operation provided with minimal heat loss.



Accessories Provided For Convenient Use

- Voice alarm system transmits voice messages to designated phone if there is an abnormality in operation. (option)
- Convenient use with drawer type shelf. (option)
- Selection of various temperature recorders. (option)
(Dot, Chart, Thermal Line)



Specification

Model		-	FDG-300	FDG-650
		FCG-150	FCG-300	FCG-650
		FMG-150	FMG-300	FMG-650
		FHG-150	FHG-300	FHG-650
Temperature range (°C / °F)	FDG	-	-50 to -30 / -58 to -22	-50 to -30 / -58 to -22
	FCG	-35 to -25 / -31 to -13	-35 to -25 / -31 to -13	-35 to -25 / -31 to -13
	FMG	-25 to -15 / -13 to 5	-25 to -15 / -13 to 5	-25 to -15 / -13 to 5
	FHG	-15 to 0 / 5 to 32	-15 to 0 / 5 to 32	-15 to 0 / 5 to 32
Chamber volume (L / cu ft)		154 / 5.4	303 / 10.7	647 / 22.8
Dimension				
Interior (W x D x H, mm / inch)		550 x 570 x 490 / 21.7 x 22.4 x 19.3	550 x 550 x 1000 / 21.7 x 21.7 x 39.4	700 x 675 x 1370 / 27.6 x 26.6 x 53.9
Exterior (W x D x H, mm / inch)	FDG	-	805 x 800 x 1690 / 31.7 x 31.5 x 66.5	955 x 925 x 2060 / 37.6 x 36.4 x 81.1
	FCG, FMG, FHG	763 x 815 x 1055 / 30 x 32.1 x 41.5	765 x 760 x 1650 / 30.1 x 29.9 x 65	915 x 885 x 2020 / 36 x 34.8 x 79.5
Net weight (Kg / lbs)	FDG	-	180 / 396.8	280 / 617.3
	FCG	123 / 271.2	155 / 341.7	238 / 524.7
	FMG	120 / 264.6	150 / 330.7	233 / 513.7
	FHG	120 / 264.6	150 / 330.7	230 / 507.1
Shelf				
Quantity of shelf (standard/max.)		2 / 6	3 / 11	3 / 17
Load per shelf (kg / lbs)		26 / 57.3	26 / 57.3	30 / 66.1
Electrical data & Ordering information				
230V / 60Hz / A	FDG	-	5	6.5
	FCG	5.0	5.5	6.5
	FMG	4.5	4.8	5.5
	FHG	3.5	3.8	3.8
Cat. No.	FDG	-	AAHE2411K	AAHE2421K
	FCG	AAHE2301K	AAHE2311K	AAHE2321K
	FMG	AAHE2201K	AAHE2211K	AAHE2221K
	FHG	AAHE2101K	AAHE2111K	AAHE2121K
230V / 50Hz / A	FDG	-	5	6.5
	FCG	5.0	5.5	6.5
	FMG	4.5	4.8	5.5
	FHG	3.5	3.8	3.8
Cat. No.	FDG	-	AAHE2412K	AAHE2422K
	FCG	AAHE2302K	AAHE2312K	AAHE2322K
	FMG	AAHE2202K	AAHE2212K	AAHE2222K
	FHG	AAHE2102K	AAHE2112K	AAHE2122K

Refrigerator & Freezer



Refrigerator & Freezer for Medical / Blood bank

Refrigerators and freezers licensed to be manufactured as medical devices
Meets blood and pharmaceuticals storage standards (KS P 6108)

> **Completed tests conforming to the standards**

Meets blood and pharmaceuticals refrigerator and freezer specifications. Specifications and performance of products with excellent reliability.

> **Temperature measurement at 27 internal points**

Measures the temperature of the entire area where the sample is placed. Uniform temperature even with stricter standards.

> **Dew-free exterior**

Provides a clean environment with a structure that does not form dew on the door and outer wall.

> **Application of defrost control technology of Lab Companion's**

Automatic defrosting without the need for defrosting minimizes temperature changes.

> **Temperature deviation notification function**

Warning when the actual set temperature is out of a certain range of the set temperature. (Hi & high and Low Temperature)

> **Temperature recorder provided as standard**

7-day pie chart recorder included as standard. Temperature recording can be maintained even during power failure.

> **Door lock with key lock**

Door structure with key lock as standard provides a safe storage environment.

> **Controller lock function**

Lock function for preventing change of controller settings prevents erroneous operation due to arbitrary changing.

※ Some of the above contents are limited to specific models.



Stable temperature uniformity in the entire area where the sample is placed.



Steel drawer type shelf. (option)



Intuitive checking of device operation information with large VFD. (4.7 inches)



Safe use with patented Dual Management System Includes voice alarm system and convenient and useful functions

> Temperature monitoring with independent temperature sensor

Separate temperature sensors connected to the display monitors the internal temperature independently.

> Dual management system (patent)

When the main controller fails, the sub-controller automatically operates and controls temperature until the user recognizes the failure of main controller and acts, allowing the sample to be safely stored.

> Voice alarm system included as standard

Alarm system that transmits a voice messages to a designated users in case of abnormal operation of the equipment.

External battery also works in case of power failure. Delivers voice messages to up to seven phones.



In case of power supply cut such as power failure.



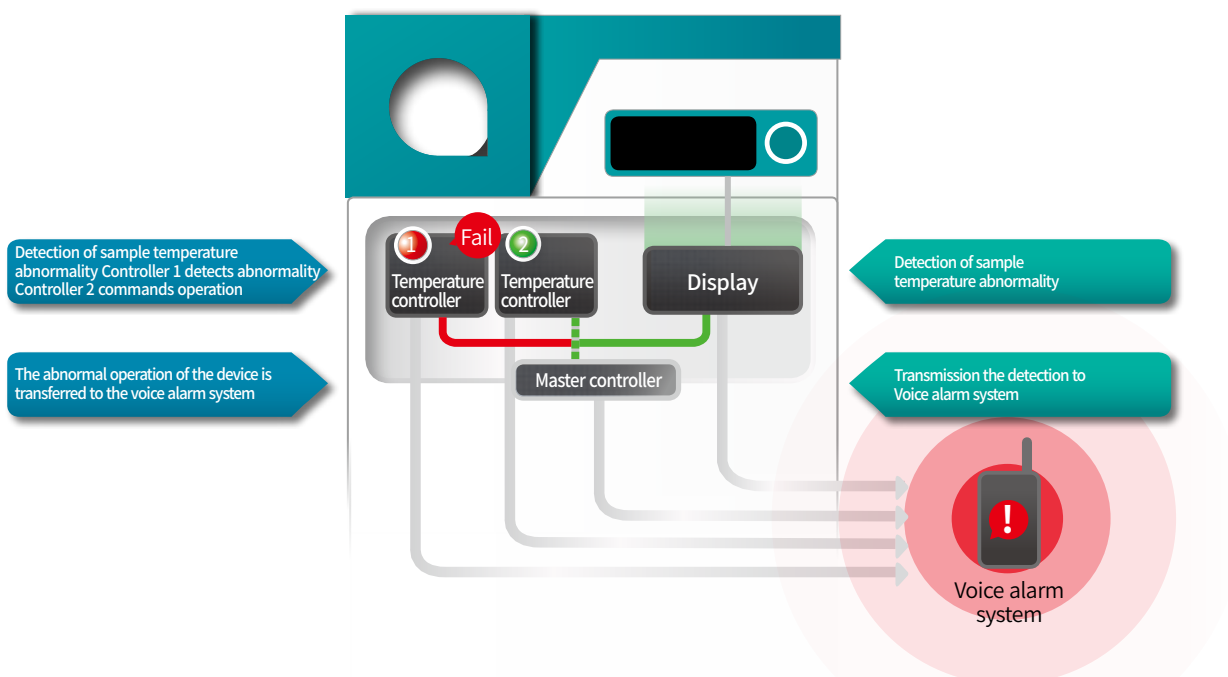
If there is abnormal temperature rise/fall.



If the temperature of the sample is abnormal.



If the door is opened for a long time.



Blood Bank Refrigerator



Dedicated refrigerator optimized for blood storage

Obtained Medical Device Certificate

- Certificate of medical device management systems.

Structural Functional Features

- Applies patented Dual Management System to keep stand-by controller operating automatically and maintains stable temperature even if main controller fails. (patent reg.10-1550400)
- Separate temperature sensors connected to the display monitor the internal temperature independently.
- Verified temperature uniformity with measurements performed at 27 points.
- Designed based on DIN 58371. (blood refrigerator conditions and tests)
- Equipped with easy-to-move/install caster.
- Clean use with dew-free structure.
- Excellent insulation and sealing structure.



BSR-3001

with Drawers 4ea (standard), Recorder (standard)

Use Convenience Features

- Built-in voice alarm system transmits voice messages to specified users (up to 7 phones) if there is an abnormality in the device.
- Includes 7-day circular chart temperature recorder.
- Stable temperature control by dedicated controller.
- Application of Lab Companion's specialized defrost control technology.
- Convenient drawer type shelf included as standard.
- Glass door and LED lighting make it easy to observe inside.

Outstanding Safety

- Temperature deviation alarm function . (Hi & Low Temperature)
- Malfunction prevented by controller lock function.
- Door lock with key as standard.
- Alarm function when door is opened for a long time.

Specification

Model	BSR-3001	BSR-6501	
Temperature range (°C / °F)	0 to 20 / 32 to 68 ¹⁾	0 to 20 / 32 to 68 ¹⁾	
Chamber volume (L / cu ft)	303 / 10.7	614 / 21.7	
Refrigerator (HP)	1 / 6	1 / 3	
Dimension			
Interior (W x D x H, mm / inch)	550 x 550 x 1000 / 21.7 x 21.7 x 39.4	700 x 640 x 1370 / 27.6 x 25.2 x 53.9	
Exterior (W x D x H, mm / inch)	670 x 770 x 1515 / 26.4 x 30.3 x 59.6	820 x 860 x 1885 / 32.3 x 33.9 x 74.2	
Net weight (Kg / lbs)	130 / 286.6	210 / 463	
Shelf			
Quantity of drawers	4	6	
Load per shelf (kg / lbs)	26 / 57.3	30 / 66.1	
Electrical data & Ordering information			
230V / A	50/60Hz, 2.8	50Hz, 3.8	60Hz, 3.8
Cat. No.	AAHE41051K	AAHE41121K	AAHE41111K
120V / 60Hz / A	60Hz, 5.5	60Hz, 7.5	
Cat. No.	AAHE41031U	AAHE411311U	

※ According to DIN 58371 (Definition, requirements, testing of blood refrigerators)

1) 4°C Set point

Accessories Page 251 Shelf, Drawer, Recorder, Remote Alarm

Pharmaceutical Refrigerator



Stable cold storage for pharmaceuticals provided

Obtained Medical Device Certificate

- Certificate of medical device management systems.

Structural Functional Features

- Applies patented Dual Management System to keep stand-by controller operating automatically and maintains stable temperature even if main controller fails. (patent reg.10-1550400) (except for PSR3-70 model)
- Separate temperature sensors connected to the display monitor the internal temperature independently.
- Verified temperature uniformity with measurements performed at 27 points.
- Designed based on DIN 58345 (pharmaceuticals refrigerator conditions and tests)
- Equipped with easy-to-move/install caster.
- Clean use with dew-free structure.

Use Convenience Features

- Monitor via mobile app anytime, anywhere with LC Connected (mobile monitoring system) connection. (when purchased LC GreenBox, only PSR3-70)
- Built-in voice alarm system transmits voice messages to specified users (up to 7 phones) if there is an abnormality in the device.
- Includes 7-day circular chart temperature recorder. (except for PSR3-70 model)
- Stable temperature control by dedicated controller.
- Application of Lab Companion's specialized defrost control technology.
- Glass door and LED lighting make it easy to observe inside.



PSR3-70

with Wire Shelf 2ea (standard),
Battery, Recorder, Drawer Shelf 1ea (option)



Digital door lock (PSR3 model)

Outstanding Safety

- Temperature deviation alarm function. (Hi & Low temperature)
- Malfunction prevented by controller lock function.
- Door lock with key as standard.
- Notification function when door is opened for a long time.
- Back up battery in case of power failure. (option, PSR3)
- Enhanced security with digital door lock. (only PSR3)

Specification

Model	PSR3-70 (CE Certified)		PSR- 3001	PSR- 6501	
Temperature range (°C / °F)	2 to 10 / 35.6 to 50 ¹⁾		2 to 10 / 35.6 to 50 ¹⁾	2 to 10 / 35.6 to 50 ¹⁾	
Chamber volume (L / cu ft)	73 / 2.6		303 / 10.7	614 / 21.7	
Refrigerator (HP)	-		1 / 6	1 / 3	
Dimension					
Interior (W x D x H, mm / inch)	418 x 440 x 400 / 16.5 x 17.3 x 15.7		550 x 550 x 1000 / 21.7 x 21.7 x 39.4	700 x 640 x 1370 / 27.6 x 25.2 x 53.9	
Exterior (W x D x H, mm / inch)	522 x 600 x 725 / 20.6 x 23.6 x 28.5		670 x 770 x 1515 / 26.4 x 30.3 x 59.6	820 x 860 x 1885 / 32.3 x 33.9 x 74.2	
Net weight (Kg / lbs)	67 / 147.7		130 / 286.6	210 / 463	
Shelf					
Quantity of shelves (standard/max.)	2 / 3		3 / 11	3 / 15	
Load per shelf (kg / lbs)	30 / 66.1		26 / 57.3	30 / 66.1	
Electrical data & Ordering information					
230V / A	50Hz, 1.1	60Hz, 1.1	50/60Hz, 2.8	50Hz, 3.8	60Hz, 3.8
Cat. No.	AAHE6302K	AAHE6301K	AAHE60151K	AAHE60221K	AAHE60211K
120V / A	60Hz, 2.9		60Hz, 5.5	60Hz, 2.9	
Cat. No.	AAHE6303U		AAHE60313U	AAHE60231U	

※ According to DIN 58345 (pharmaceuticals refrigerator conditions and tests)

1) 4°C Set point

Accessories Page 251 Shelf, Drawer, Recorder, Remote Alarm, LC GreenBox

Blood Plasma Freezer



Dedicated freezer suitable for storage of plasma

Obtained Medical Device Certificate

- Certificate of medical device management systems.

Structural Functional Features

- Applies patented Dual Management System to keep stand-by controller operating automatically and maintains stable temperature even if main controller fails. (patent reg.10-1550400)
- Separate temperature sensors connected to the display monitor the internal temperature independently.
- Verified temperature uniformity with measurements performed at 27 points.
- Designed based on DIN 58375 (blood plasma freezer conditions and tests)
- Equipped with easy-to-move/install caster.
- Clean use with dew-free structure.



BSF-650
with Recorder (standard)

Use Convenience Features

- Built-in voice alarm system transmits voice messages to specified users (up to 7 phones) if there is an abnormality in the device.
- Includes 7-day circular chart temperature recorder.
- Stable temperature control by dedicated controller.
- Application of Lab Companion's specialized defrost control technology.

Outstanding Safety

- Temperature deviation alarm function. (Hi & Low Temperature)
- Malfunction prevented by controller lock function.
- Door lock with key as standard.
- Alarm function when door is opened for a long time.

Specification

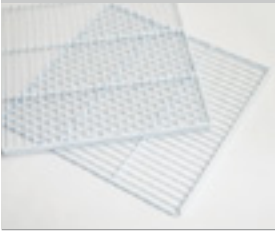
Model	BSF-300		BSF-650	
Temperature				
Range (°C / °F)	-35 to -25 / -31 to -13		-35 to -25 / -31 to -13	
Chamber volume (L / cu ft)	303 / 10.7		647 / 22.8	
Refrigerator (HP)	1 / 4		1 / 2	
Dimension				
Interior (W x D x H, mm / inch)	550 x 550 x 1000 / 21.7 x 21.7 x 39.4		700 x 675 x 1370 / 27.6 x 26.6 x 53.9	
Exterior (W x D x H, mm / inch)	765 x 760 x 1650 / 30.1 x 29.9 x 65		915 x 885 x 2020 / 36 x 34.8 x 79.5	
Net weight (Kg / lbs)	150 / 330.7		240 / 529.1	
Shelf				
Quantity of drawers	4		6	
Load per shelf (kg / lbs)	26 / 57.3		30 / 66.1	
Electrical data & Ordering information				
230V / A	50Hz, 5.5	60Hz, 5.5	50Hz, 7.5	60Hz, 7.5
Cat. No.	AAHE5102K	AAHE5101K	AAHE5112K	AAHE5111K
120V / A			60Hz, 11	
Cat. No.	AAHE5103U		-	

※ According to DIN 58375 (Blood plasma freezer conditions and tests)

Accessories Page 251 Shelf, Drawer, Recorder, Remote Alarm

Accessories

Wire Shelf



- Provides uniform temperature conditions throughout the storage area thanks to space between wires.

Remote Alarm



- When a device malfunctions, a voice message is transmitted to the users.

Drawer Shelf (Slide)



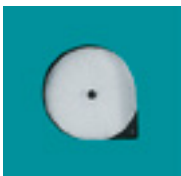
- The drawer shelf of a rigid steel plate makes easy to handle storage inside.

Wire Shelf (Slide)



- Wire type with good airflow, and convenient to use as drawer type.

Recorder with Sensor (Chart)



- 24/7 circular chart recorder.
- Easy replacement of the recording paper.
- Independent sensor that are separate from the product.

Recorder with Sensor (Thermal Line)



- Graph/Digital mode.
- Thermal-type temperature recorder.
- Independent sensor that are separate from the product.

Recorder with Sensor (Dot)



- Up to 6 channels supported.
- Set recording range and speed.
- Paper width: 1000mm.
- Independent sensor that are separate from the product.

Stand with Caster



- Convenient use of small devices.
- Easy to move/fix with casters.

Electric Socket



- Power supply for AC 230V.
- Includes cover as standard.

Accessories

Model	Standard				Option							
	Wire Shelf	Drawer Shelf (Slide)	Recorder (Chart)	Remote Alarm	Wire Shelf (Slide)	Drawer Shelf (Slide)	Recorder (Chart)	Recorder (Dot)	Recorder (Thermal line)	Electric Socket	Stand with Caster	Remote Alarm
CLG3-70	AAAE15081	N/A	N/A	N/A	AAAE15091	AAAE15101 ¹⁾	N/A	N/A	AAAE15631	N/A	N/A	AAAE15511
CLG-150	AAAE1511	N/A	N/A	N/A	AAAE1514	AAAE1517	N/A	AAAE1562	AAAE1563	N/A	AAAE1542	AAAE1551
CLG-300	AAAE1511	N/A	N/A	N/A	AAAE1514	AAAE1517	AAAE1501	AAAE1562	AAAE1563	AAAE1532 ²⁾	N/A	AAAE1551
CLG-650	AAAE1512	N/A	N/A	N/A	AAAE1515	AAAE1518	AAAE1501	AAAE1562	AAAE1563	AAAE1532 ²⁾	N/A	AAAE1551
CLG-850	AAAE1513	N/A	N/A	N/A	AAAE1516	AAAE1519	AAAE1501	AAAE1562	AAAE1563	AAAE1532 ²⁾	N/A	AAAE1551
CLG-1400	AAAE1512	N/A	N/A	N/A	AAAE1515	AAAE1518	AAAE1501	AAAE1562	AAAE1563	AAAE1532 ²⁾	N/A	AAAE1551
FDG-300	AAAE1511	N/A	N/A	N/A	AAAE1514	AAAE1517	AAAE1501	AAAE1562	AAAE1563	N/A	N/A	AAAE1551
FDG-650	AAAE1512-1	N/A	N/A	N/A	AAAE1515-1	AAAE1518-1	AAAE1501	AAAE1562	AAAE1563	N/A	N/A	AAAE1551
FCG-150	AAAE1511	N/A	N/A	N/A	AAAE1514	AAAE1517	AAAE1501	AAAE1562	AAAE1563	N/A	AAAE1542	AAAE1551
FCG-300	AAAE1511	N/A	N/A	N/A	AAAE1514	AAAE1517	AAAE1501	AAAE1562	AAAE1563	N/A	N/A	AAAE1551
FCG-650	AAAE1512-1	N/A	N/A	N/A	AAAE1515-1	AAAE1518-1	AAAE1501	AAAE1562	AAAE1563	N/A	N/A	AAAE1551
FMG-150	AAAE1511	N/A	N/A	N/A	AAAE1514	AAAE1517	AAAE1501	AAAE1562	AAAE1563	N/A	AAAE1542	AAAE1551
FMG-300	AAAE1511	N/A	N/A	N/A	AAAE1514	AAAE1517	AAAE1501	AAAE1562	AAAE1563	N/A	N/A	AAAE1551
FMG-650	AAAE1512-1	N/A	N/A	N/A	AAAE1515-1	AAAE1518-1	AAAE1501	AAAE1562	AAAE1563	N/A	N/A	AAAE1551
FHG-150	AAAE1511	N/A	N/A	N/A	AAAE1514	AAAE1517	AAAE1501	AAAE1562	AAAE1563	N/A	AAAE1542	AAAE1551
FHG-300	AAAE1511	N/A	N/A	N/A	AAAE1514	AAAE1517	AAAE1501	AAAE1562	AAAE1563	N/A	N/A	AAAE1551
FHG-650	AAAE1512-1	N/A	N/A	N/A	AAAE1515-1	AAAE1518-1	AAAE1501	AAAE1562	AAAE1563	N/A	N/A	AAAE1551
BSR-3001	N/A	AAAE1517	AAAE1501	AAAE1551	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AAAE1551
BSR-6501	N/A	AAAE1518	AAAE1501	AAAE1551	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AAAE1551
PSR3-70	AAAE15081	N/A	N/A	N/A	AAAE15091	AAAE15101 ¹⁾	N/A	N/A	AAAE15631	N/A	N/A	AAAE15511
PSR-3001	AAAE1511	N/A	AAAE1501	AAAE1551	AAAE1514	AAAE1517	AAAE1501	N/A	N/A	N/A	N/A	AAAE1551
PSR-6501	AAAE1512	N/A	AAAE1501	AAAE1551	AAAE1515	AAAE1518-1	AAAE1501	N/A	N/A	N/A	N/A	AAAE1551
BSF-300	N/A	AAAE1517	AAAE1501	AAAE1551	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AAAE1551
BSF-650	N/A	AAAE1518	AAAE1501	AAAE1551	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AAAE1551

1) CLG3-70, PSR-70 offer 3 different drawer type : Digital type (AAAE15101), Key lock type (AAAE15102), Unlocked type (AAAE15103)

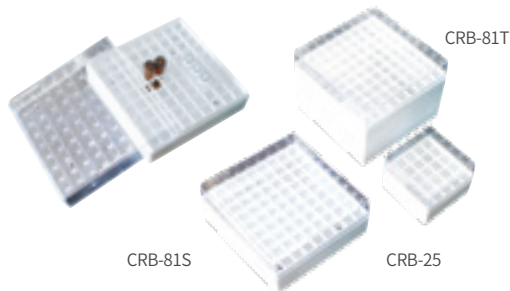
2) 230V (Korean style). If user want 120V (US style) socket, user need to choose AAAE1532.

3) We proved cable port (AAAE1521) only for CLG-300, 650, 850, 1400.

Related Product

Cryo Box

- Excellent durability even at ultra-low temperature with stable PC material.
- Easily distinguish samples with numbers on the covers.
- Cover, tray and dividers are separated for easy cleaning.
- Pressurized sterilization possible. (autoclavable)



CRB-81T

CRB-81S

CRB-25

Model	CRB-25	CRB-81S	CRB-81T
Tube size (ml)	1.2 to 2.0	1.2 to 2.0	5
Max. Mountable tube	25 (5 x 5)	81 (9 x 9)	91 (9 x 9)
Dimension (W x D x H, mm / inch)	77 x 77 x 53 / 3 x 3 x 2.1	132 x 132 x 54 / 5.2 x 5.2 x 2.1	132 x 132 x 96 / 5.2 x 5.2 x 3.8
Cat. No.	AAAJ7001	AAAJ7002	AAAJ7003

※ 5 packs for one set. (each Cat. No.)

Storage Box

- Excellent chemical resistance due to polypropylene material.
- The circular grooves at the bottom ensure stable mounting of tubes.
- Easy to separate samples with numbers and letters on covers.
- Pressurized sterilization possible. (autoclavable)



Model	SRB-100
Tube size (ml)	1.2 to 2.0
Max. Mountable tube	100 (10 x 10)
Dimension (W x D x H, mm / inch)	140 x 140 x 53 / 5.5 x 5.5 x 2.1
Cat. No.	AAAJ7011

※ 5 packs for one set.

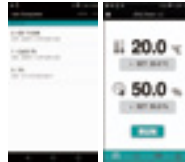
Accessories for CLG3-70 / PSR3-70

LC GreenBox

- Real-time monitoring of equipment connected to LC Connected possible through the dedicated mobile application for Lab Companion's.
(Supported from Android 6.0 Marshmallow version and above. iOS devices to be supported in the future)
- Each lab member can access connected devices for which they have access permission through their personal mobile app.
- One LC GreenBox can communicate with up to four Lab Companion's devices via an RS-232 port and can be expanded via multiple LC GreenBoxes.
- Real-time alarms for events concerning connected equipment.
(temperature deviation, long-term door opening, power failure, and etc.)



LC GreenBox



Real-time monitoring through mobile devices



Connection up to 4 devices



Power failure notification

Cat. No.	Description	Dimension (W x D x H, mm / inch)
AAAQ1011	LC GreenBox	156 x 94 x 34 / 6.1 x 3.7 x 1.3

Battery

- Activate/deactivate battery via settings.
- When the setting of battery is ON, a warning alarm occurs if the power is turned off during operation.
- The recorder also records power failure events.

Cat. No.	Description
AAAE15301	Battery