1. Product Intro

1.1. Description

The RG01L86 Ultra-low Transportable Cryogenic Freezer with free-piston Stirling engine technology differs from conventional compressor-based refrigeration. It provides high temperature efficiency, deep-temperature cooling in a lightweight package allowing true portable operation.

The RIGID RG01L86 Ultra-low Transportable Cryogenic Freezer uses direct contact technique for refrigeration, highly advanced free piston Stirling technology, wide temperature range, precise temperature control of ±0.1 °C, light weight, easy to use, specially designed power control system and built-in backup battery. Providing low temperature storage and portable carrying for different products with a stable, Al controlled, deeply-frozen environment. This product is Using a user friendly UI (User Interface) which is easy to understand and use.

It is classified for use as stationary equipment in a Pollution Degree 2 and Over-voltage Category II environment. The unit is designed to operate under the following environmental conditions:

- Indoor use
- Altitude up to 2000 Meter
- Maximum relative humidity 80% for temperatures up to 35°C

1.2. Manual Contents

This manual consist of:

- Safety Precautions
- Features
- Setup
- Product Usage
- Maintenance
- Troubleshooting
- Specifications

. Warranty

This operating manual describes all aspects of receiving, installing, using and storage of the RIGID RG01L86 Ultra-low Transportable Cryogenic Freezer.

The freezer is controlled with a User Interface (UI) screen. This operating manual describes use of the UI in Section 5.

2. Precautions for Safe Operation

Before use, please read the following safety precautions carefully to prevent you and people around you from injury and your property from being damaged. Potential hazards associated with use of the RG01L86 Ultra-low Transportable Cryogenic Freezer may impact the safety of persons in the workplace in which the freezer is placed. The freezer itself may also be damaged and/or its warranty voided by improper operation or usage. All personnel that operate, transport or place the freezer into storage should read this entire manual to understand those hazards. Consider storing this manual for ready reference within close proximity of the freezer.

Before reading the instruction of how to use, please understand the meaning of following marks and indications.

Hazard Symbols	
	**WARNING:** This symbol indicates a potentially hazardous situations which if not avoided could result in serious injury or death.
	**CAUTION:** This symbol indicates a potentially hazardous situation which if not avoided could result in minor to moderate injury or damage.
	This symbol is used to indicate important prohibited handling of the machine and alert the user to possible risks of personal injury and equipment damage.

User Advisory:

Ultra-low temperatures are dangerous, use proper precautions when operating at ultra-low temperatures. RIGID cannot be held responsible for damages or loss of stored product attributed to unintended use. In no case will RIGID be held liable for loss of stored product resulting from electrical, mechanical or structural failure. As with any ultra-low temperature freezer, appropriate back-up and redundancy considerations are the responsibility of the user.

To assure the correct use of the product, basic safety measures should always be followed including the warnings and cautions listed on the product and in this operating manual.

2.1. Warnings

WARNING! **Failure to observe WARNING signs could result in a hazard to personnel possibly resulting in serious injury or Death**	
	**Do not** put RG01L86 in water or pouring water on the unit or operate where water may drip or fall on the unit electrical box. Operation under extreme environmental conditions, e.g., in very high humidity environments (RH 80% or more) also may lead to condensation or water intrusion.
	**RG01L86** uses Free piston stirling engine with pressurized Helium gas . Do Not Drill or Puncture Inner core.
	**Do not** put RG01L86 near to fire, may catch fire which will cause the internal gas to expand or even explode.
	**Do not** put store flammable gaseous or liquids. (Danger of explosion from gasoline, thinner, spray, etc.)
	**Do not** let the children use the unit alone. Keep infant away from unit. (Risk of burn and electric shocks)
	**Do not** touch inside the freezer with wet hands while operating on ultra-low temperatures. (Risk of frostbite)
	**Do not** touch any electrical parts such as the power supply plug or any switches with a wet hand. That may cause electric shock lead to death or injury.
	If there is an unexpected sound, smell, smoke when the power is turned on, unplug the power and contact the manufacturer or supplier. Continued abnormal operation may cause electric shock or fire.
	**Do not** disassemble, modify or repair the freezer. There are no user serviceable parts inside the RG01L86 unit. Contact China Stirling for authorized repair procedures as required.
	**Do not** use if power cable, DC plug or power plug are damaged or loose. (May cause electric shock, short circuit or combustion)
	**Do not** cut, modify, damage, forcefully bend or knot the power cable. Also placing heavy objects or forcing the cable to put in small space can damage the cable resulting in electric shock.

2.2. Cautions

	CAUTIONS! **Failure to observe CAUTIONS signs could result in a hazard to personnel injury AND damage to the equipment**
	Operating the unit in extreme environment conditions (35°C 、 RH 80%) using Air conditioner is recommended to extend the life span of the unit.
	**Do not** fill up the freezer to the top, leave clearance on top for closing the door properly. (Temperature may rise causing damage to stored products)
	Be especially careful that materials at ultra-low temperatures are not spilled onto skin or clothing. (Risk of frostbite and injury)
	**Do not** use freezer in the car trunk without any adequate ventilation. (Temperature may rise causing damage to product)
	**Do not** place weight or any object on the unit. (Freezer body may be damaged)
	When removing the power plug be sure to hold plug not cable. (There is Danger of causing electric shock or short circuit)
	Avoid strong physical shock or dropping of objects on the unit. (This may cause damage to electronic components inside)
	Remove the plug before turning off engine of the vehicle. (Power does not turn off after switching off the engine in some vehicles, freezer can draw power from car battery)
	**Do not** put ice or liquid water directly in the freezer, always use suitable containers. Also do not store dry ice. (May cause malfunction or burst)
	**Do not** use glass containers when the contents might freeze and expand
	**Do not** block the air vents of Freezer (May cause malfunction).
	**Do not** use hard and/or sharp objects, such as knives, screw drivers, etc. to remove any frost or ice from Freezer. Freezer cabinet is coated through proprietary technology that can be damaged. Defrosting the freezer is described later in this operating manual.

Warning: Unauthorized modification to the unit, controls or free-piston Stirling engine is prohibited and will void all warranty provisions.

3. Features of the RG01L86

The RIGID RG01L86 Freezer is designed to provide ultra-low temperature for storage and transportation for the product need ultra low temperature such as drugs, vaccine and clinical trail products intended for medical purposes and many other products.

3.1. FPSC and Refrigeration

The RIGID RG01L86 Ultra-low Transportable Cryogenic Freezer use RS 100 Free Piston Stirling cooler as the refrigeration core. The RS series Stirling engine uses approximately 3 grams of helium gas as a working fluid. Working in full temperature zone, low power consumption, low noise, complete 360 degree omnidirectional defense shake. Freezer have built-in heating system used for defrosting and also for keeping the hot temperature of cabinet when ever needed.

3.2. Power and Temperature Control

Freezer is equipped with built-in battery providing the backup power to freezer for one hour to give stable temperature all the time. G.pro control board with Al algorithm programming control the FPSC power to maintain the temperature of freezer, temperature sensors (PT 100) measures the internal freezer temperature and machine cold head temperature and provides input to the controller. The UI provides the display and control for setting the desired temperature for freezer.

3.3. Power Adapter and Cord

A simple line cord change can allow for multiple power and receptacle types. Make sure to use the cord and plug appropriate for your location. Power Adapter operation range is:

- Voltage input 100 V AC-240V AC (Standard three-pin plug)
- Frequency 50Hz or 60Hz
- Output DC 24V / 5A (Max)

3.4. Thermal Insulation

For the protection of transported and stored products from the outside temperature, freezer is designed with dual thermal insulation for the better results, RIGID RG01L86 Ultra-low Transportable Cryogenic Freezer have

high performance vacuum insulated panels VIP and polyurethane foam insulation.

3.5. Graphical User Interface

The User Interface (UI) is implemented on a touch screen control on the top of the unit. The UI allows the user to:

- Display all temperature and power status
- Display freezer and WIFI status
- Display freezer identification information
- Set the temperature and Power
- Set freezer control and communications parameters

3.6. Tracking and Monitoring

Equipped with the new Stage mOS 3.0 and LOTA FPSC control hardware, built-in Glonass, GPS global positioning and timing system, 4G LTE / Wi-Fi / Bluetooth / Zigbee all-weather stable connection, remote start and stop, configuration monitoring, real-time temperature curve , 6DOF motion processor collects and analyzes all equipment motion data, opening a new chapter for your precise medical products transport and storage service.

The RIGID RG01L86 Ultra-low Transportable Cryogenic Freezer has the following features:

1. UI Screen
UI screen is on top of the freezer lid, easy operate and easy to look.

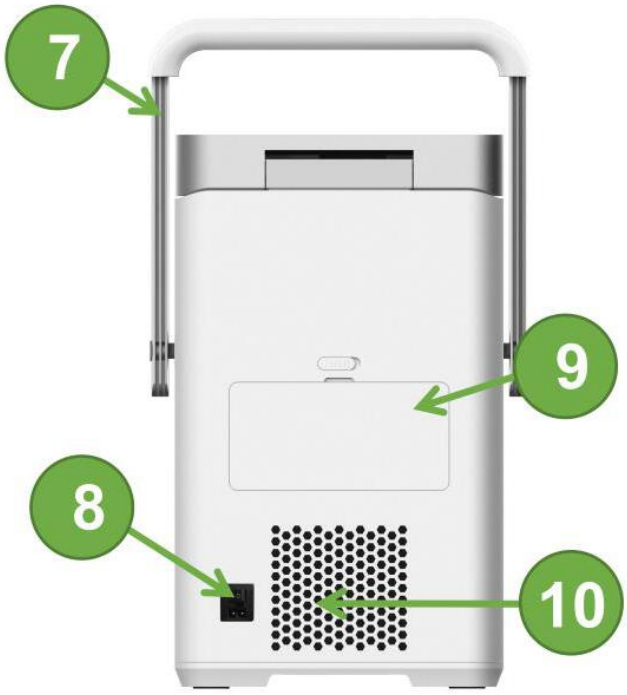
2. Lid lock and latch
Freezer has two lock systems, once is manual lock and other is digital RFID lock for better protection and security of the stored items. Lid latch for positive closure.

3. Freezer lid
Freezer is equipped with well designed insulated lid.
Providing backup power to freezer for 1 hour.

4. Lid gasket
Outer moisture seal.

5. Freezer cabinet
Metallic cabinet with proprietary coating and with double insulation for better protection of stored items.

6. Air vent and Filter
Intake air for cooling of FPSC and filter to protect it from dust.



7. Handle

Aluminium handle with foam, strong easy to carry.

8. Power Switch and DC Socket

Switch to turn ON/OFF the power to Freezer, DC socket is tagged with polarized signs to avoid errors.

9. Backup Battery

Replaceable battery with locked cover. Providing backup power to freezer unit for more than 1 hour.

10. Exhaust Vent

4.Unpacking and Setup

NOTE: Prior to setting up the RG01L86, inspect the unpacked unit and any included items for shipping damage. Compare all contents to the packing list for completeness.

4.1. Unpacking

Remove the Freezer and all accessories from the box. Carefully inspect the freezer and all accessories for any shipping damage. Check the packing list to verify that the shipment is complete.

Included Items:

- Packing List
- Operating Manual (this document)
- Qualification Certificate
- Freezer
- AC Adapter
- Power Cord
- Cigarette lighter cable (Optional)

Unpack freezer unit and included components, ensure all packaging material has been removed around the air inlet and outlet holes.

4.2. Setup

Place the Freezer on the floor or any flat surface, make sure the freezer switch is turned off as show in the picture;

A. Using AC Power source:

After unpacking the Freezer, it can be connect to a power source. The Freezer can be used with either the AC Power source through AC-DC adaptor comes with the Freezer for lab, home or office use or the 12V-24V DC Power supply for mobile use in vehicles, it is recommended that the initial pull-down to Set-point be completed via AC power.

Power Cord　　Power Adapter

During setup, identify the power cord and plug configuration available and then locate the appropriate line cord to attach with power adapter.
Use the B-type DC plug to connect the adaptor to Freezer, insert the plug in to DC socket, press the plug firmly into the connection port. Turn ON the Freezer by using the switch on the machine above the socket.
Once the power switch is turned ON, unit will be powered and display screen will be ON after a "BEEP". Follow the instructions from section 5 of this operating manual to setup the parameters on the UI.

B. Using DC Power source:

Use B-type Plug with cigarette lighter for using DC power source of 12V-24V.
Use same same procedure as AC system.

Cigarette Lighter Cable

NOTE: For use with 12 volt automotive systems 10 A DC is required, consult your automotive specialist if your vehicle lacks 10 A rated 12V outlets.

5.Operation

4.3. Responsible Operation

Responsibility for freezer operation should be part of the policy and procedure documentation or guidelines for the Freezer usage. Safety requirements are integral to these responsibilities, use this product only in the way described in the product literature and in this manual. Before using it, verify that this product is suitable for its intended use. If this equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

Important changes to the freezer settings require sustained button pushes, this helps prevent accidental changes to the settings during transportation.

Turning the Freezer ON/OFF requires a Touch on the Power button. The default display is the cooling temperature of Freezer, other displays such as Set-point, ambient temperature, machine hot side temperature etc., are tagged with such names and described in detail in the UI guideline section.

Operation for the AC and DC system is described in the section 4, operation in vehicle DC system need extra precautions to avoid any incidents.

Notes on operation in a vehicle:

1. Connect cigarette lighter plug to vehicle after starting the engine.
2. The vehicle engine should be running during the operation of Freezer to prevent accidental discharge of the battery.
3. Do not operate the Freezer in an unattended vehicle. This may lead to overheating if left in the sun and subsequent damage to stored contents.

Disconnecting from power:

1) Tum OFF the Freezer (Press Power button on UI)
2) The Freezer will give beep sound while the unit turns off,
3) Turn OFF the switch and unplug adaptor cable from the Freezer after 30 sec of beep if battery is fully charged.
4) Do the same while using the freezer in the vehicle.
5) If you unplug the Freezer while it is on, you will hear a sudden noise as the free-piston Stirling engine power is switched from main power supply to battery and will cause the noise. This noise (described as a "bonk") is not indicative of damage.

5.2. UI operation guidelines

Values for the RIGID Ultra-low Transportable Cryogenic Freezer RG01L86 parameters can be viewed and modified through the UI (User Interface) touch screen. Important changes to the Freezer settings require sustained button pushes, UI have screen lock that helps prevent accidental changes to the settings. Temperature can be set as needed on main screen with a touch.
The UI is programmed with default values for most parameters. Unless parameters limits are set manually, machine will work on default values.

The applicable model and operation:
Current program of the RG01L86 freezer is applicable to G-pro driver board and 4.5 inch IPS resistive touch screen. Program version number cab be seen on the display screen.
Have a Quick View at Simple operation procedure, programming is done for friendly interface and equipment running. Keep on reading for details about the UI and ifs usage.

The interface description:
The program has designed a total of 6 (six) operation interfaces: the boot interface, the main interface, the Wi-Fi setting interface and the Wi-Fi configuration interface, user setting interface and factory setting interface. The switching between the interfaces is realized by touching the appropriate buttons or specific area of screen. Each interface is describe below with each point. Read carefully for better understanding and usage to avoid any mishap or incident.

1. Boot interface display instructions:

After booting, the screen displays RIGID logo for one second.

2. The main interface displays the operation instructions:

This interface is the default display interface and consists of 14 parts:

1. Display Logo, you can set whether to display it through the factory interface;
2. Battery level display
3. Display the current mode (off / cooling / heating)
4. Display the set target temperature
5. Change target temperature
6. Temperature curve, showing the current temperature curve;
7. Display the current temperature inside the cabinet
8. Display ambient temperature
9. Machine running time;
10. Press to lock or unlock the cabinet door
11. Press to enter the user setting interface
12. Press to enter Wifi configuration interface
13. Press the Power Button to ON/OFF the machine
14. Screen status display

3. Wi-Fi setting interface displays operation instructions:

This consists of 5 parts:

1) Back button, click to return to the previous interface

2) Official LOTA page QR code

1. Scan QR code
2. Pay attention to the public number

3 .Follow the page prompts after scan

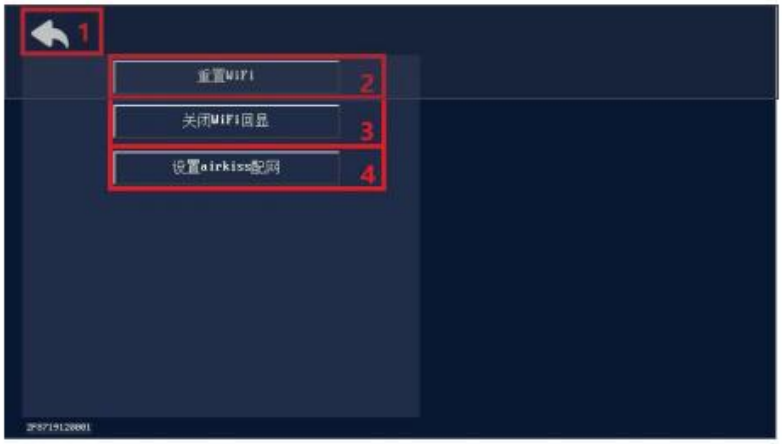
3) Wi-Fi configuration

4) OTA upgrade

5) Program version number

4. Wi-Fi configuration operation instructions

This interface consists of 4 parts:



1. Back button, click to return to the previous interface;
2. Reset the Wi-Fi. Use it when airkiss is stuck or Wi-Fi is abnormal. Click to restore the Wi-Fi configuration to factory settings. Connect USR-215 or USR-126 to the hand held terminal and enter "10.10.100.254" in the browser to configure
3. Turn off Wi-Fi echo (must click after resetting the configuration)
4. Set up airkiss distribution network (must click after resetting the configuration)

5. User setting interface operation instructions

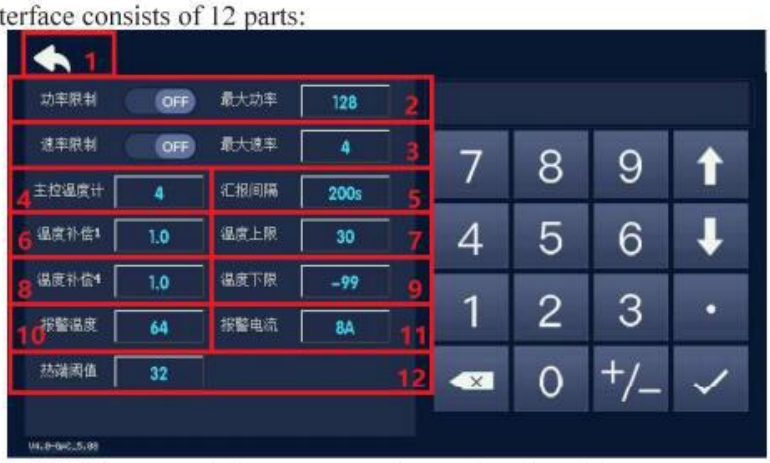
The interface consists of 11 parts:

1. Back button, click to return to the previous interface;
2. Automatic switch button,
3. Turn on the password button, click to set the password according to personal needs, ON/OFF
4. RFID management, NFC card management;
5. Screen off time display, click to set the screen display time;
6. Brightness setting display, click to set the display brightness of the screen;
7. Unpacking times display, showing the current number of times the box has been opened during work;
8. DC voltage, DC current, AC current, power, machine boost command, current temperature and set temperature, T3 hot end temperature, T2 ambient temperature, T4 cold end temperature;

9. Input display
10. Number buttons
11. Continuously click 6 times at bottom left corner of screen to enter factory setting interface

6. Factory setting interface operation instructions

The interface consists of 12 parts:



1. Back button, click to return to the previous interface;
2. Maximum power: set the maximum power required by the machine, turn the power limit to "ON" to run the machine at the set power
3. Maximum rate: Machine boost rate setting. Turn on the rate limit to "ON" to limit the machine boost rate.
4. Master control temperature: The machine contains 5 thermometers. The temperature of T1 is used as the master control temperature.
5. Reporting interval: the time interval for reporting data to the server
6. Temperature compensation 1: T1 temperature compensation
7. Upper temperature limit: upper target temperature setting
8. Temperature compensation 4: T4 temperature compensation
9. Lower temperature limit: lower target temperature setting
10. Alarm temperature: the hot end temperature reaches this temperature the alarm be ON and machine will stops.
11. Alarm current: When the machine is running, the AC current reaches the set point the alarm be ON and machine will stops.
12. Hot-end threshold: limit the operating power of the machine when hot forging reaches this temperature.

5.3 Error / Alarms and Troubleshooting

Errors are displayed on the UI screen as E#, as show below;

Code	Screen alarm	Possible cause	Phenomenon investigation	Possible reasons	Trouble shooting
E0	Voltage abnormality	DC voltage is abnormal	Fuse blown	Fuse blown	Replace fuse
			Fuse not blown	Power supply error	Check or replace the power supply
E1	DC current abnormal	DC current greater than 10A	Other	Component damage	Contact after-sales to return to factory for maintenance
E2	Abnormal AC current	AC current greater than set value	Check set point	Setting value is too small	Modify alarm current setting
			Other	Component damage	Contact after-sales to return to the factory for maintenance
E3	High temperature at hot end	Hot end temperature is more than 55°C	High ambient temperature	ambient temperature	Use in the working temperature range
			Air outlet blocked	Air outlet blocked	Keep the air outlet unobstructed
			Fan 1 does not turn	Fan 1 not wired	Check fan 1 wiring
				Fan 1 damaged	Contact after-sales to return to the factory for maintenance
E4	Cold end high temperature	Cold end temperature is more than 55°C	High ambient temperature	ambient temperature	Use in the working temperature range
			Fan 2 does not turn in heating mode	Fan 2 not wired	Check the fan 2 wiring
				Fan 2 damaged	Contact after-sales to return to the factory for

					maintenance
EA	Fan abnormal	Whether fan 2 is normal	Fan 2 frosting	frosting	Defrost
			Fan 2 does not turn	Fan 2 not wired	Check the fan 2 wiring
				Fan 2 damaged	Contact after-sales to return to the factory for maintenance
EB	Fuse open	DC voltage is 0V	Fuse blown	Fuse blown	Replace fuse
EC	Insufficient power supply	DC voltage less than 11.8V	Battery powered	Battery depletion	Replace power supply or battery
			Power supply	Power supply error	Check or replace the power supply

6. Maintenance & Service

The RG01L86 Ultra-low Transportable Cryogenic Freezer is designed for years of trouble-free operation without a major maintenance. To prevent costly and inconvenient repairs and maintain your Freezer to an optimum level of performance, follow the recommended preventative cleaning maintenance and contact an authorized service provider if needed.

6.1. Cleaning the Freezer

Clean the exterior surfaces of the RG01L86 Ultra-low Transportable Cryogenic Freezer as needed by using a soft cloth and mild detergent, do not use solvent (such as bleach) or harsh abrasive cleansers or pads.
When changing the goods or in the event of excess frost accumulation inside the freezer, turn OFF and empty the Freezer compartment and clean it with soft dry clothes and avoid using any sharp objects to remove the frost.

6.2. Air Intake Filter Cleaning

Clean accumulated dust and dirt on the air intake filter every month. Remove the screws of side cover to open it and separate the filter from the unit. Gently clean the filter with a vacuum cleaner. If there are stubborn residues use a soft brush to work them loose.

6.3. Managing Freezer Contents

The RG01L86 Ultra-low Freezer is designed for storage and transport of different materials such as, Vaccine, biological samples and other medical purpose usage which require ultra-low and well-regulated temperature.

- The temperature set-point for the freezer should be changed as appropriate for the materials being stored using the User Interface (UI) as described in the section 5.
- Materials may be placed in the freezer in any convenient arrangement that does not block or prevent the door of freezer from closing completely.
- For best results operate freezer at full capacity with real or simulated product to increase the thermal mass and maintain optimal stability.
- Disinfect with suitable sterilizing agent if the freezer has been used for bio-hazards, before using it for any other goods or material.
- Before putting the freezer in storage when not used, turn OFF the power and allow the freezer to come to room temperature and dry the inside of the freezer compartment and clean any spills.

7. Troubleshooting

Trouble	Possible cause	Troubleshooting
Freezer does not Turn ON	Power is not getting to the Freezer	Insert Power plug inside the adapter tightly
		Assure that the wall plug is firmly seated
	DC plug is not properly inserted	Check the DC plug and insert in the socket firmly
	Car cigarette lighter fuse has blown	Change the fuse and try to start the Freezer
Freezer does not achieve desired set-point	The door seal of the Freezer is not good	Inspect the inner door and door seal for damage and replace if necessary
	Inadequate air circulation	Remove airflow obstructions from external fan inlet and outlet vents
	Filter is clogged	Filter need the maintenance, clean it properly
	Improper environment	Remove freezer from direct sunlight, hot room, etc.
Abnormal noise of Freezer	Loose side cover	Look for loose side cover and Lock screw properly
	Stirling machine noise	Return to factory for maintenance

Note:

The Freezer is designed for storage and transport of medical products. In order to get the best effect, please follow the following principles:

- At least 2cm clear space shall be reserved on the top for closing door.
- Avoid directly putting objects higher than the ambient temperature into the freezer.
- Reduce the frequency and duration of door opening as much as possible.

8. Specifications

8.1. Freezer Specifications

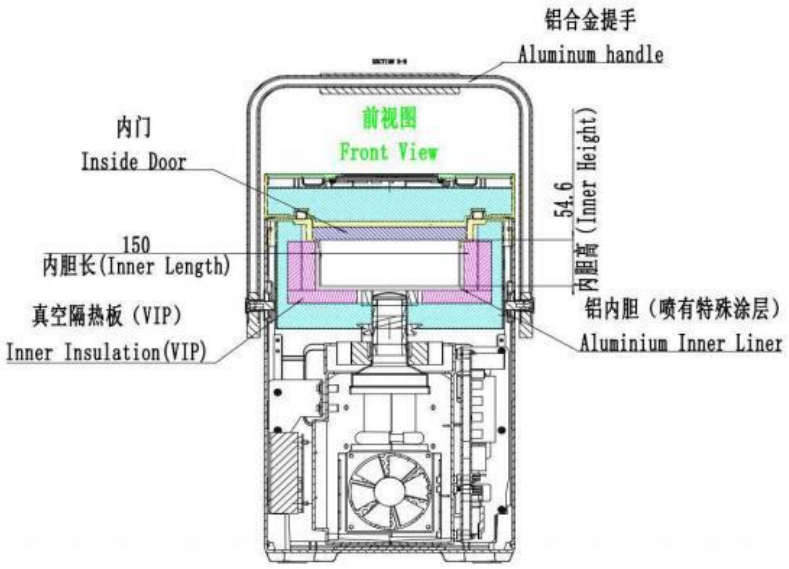
The technical specification for Ultra-low Transportable Cryogenic Freezer is given below in detail:

Electric Power	110V - 240V (±10%) at either 50 or 60 Hz or 12-24V DC from mobile source
Maximum Power	100 watts (1 amps @120VAC, 0.5 amps @220VAC, 8 amps@ 12VDC, 4 amps@ 24VDC
Operating Frequency	80Hz
Cooling Engine	Helium charged free-piston Stirling engine with continuous modulation
Temperature Range	-86ºC to 4ºC @ 32ºC (90ºF) ambient, ± 3°C at -86ºC top to bottom, adjustable in 1°C increments
Environmental Conditions	Non-corrosive, non-flammable, non-explosive Indoor use Altitude up to 2,000m Temperature -20ºC to 45ºC Maximum relative humidity 80% for temperature up to 31°C decreasing linearly to 50% at 40°C
Internal Volume	01L
External Dimensions	270x311x450 mm (L x W x D)
Internal Dimensions	150x134x54.5 mm (L x W x D)
Net Weight	13.5kg
Insulation	High performance vacuum insulated panels VIP and polyurethane foam
Noise	Low noise, <55 dB(A) at 1 meter
Temperature Sensor	RTD (PT100 Class A) and 18B20 sensors (packed with Stainless Steel)
Cooling method	Direct contact heat transfer
Cooling Performance	-99°C@Ambient 25°C (After 2.5 hours) 23W heat lift @ -80°C cold heat temperature
Battery Back-up	1 hour Battery Back-up for whole unit
Lock System	Dual lock system (RFID digital lock and manual lock)

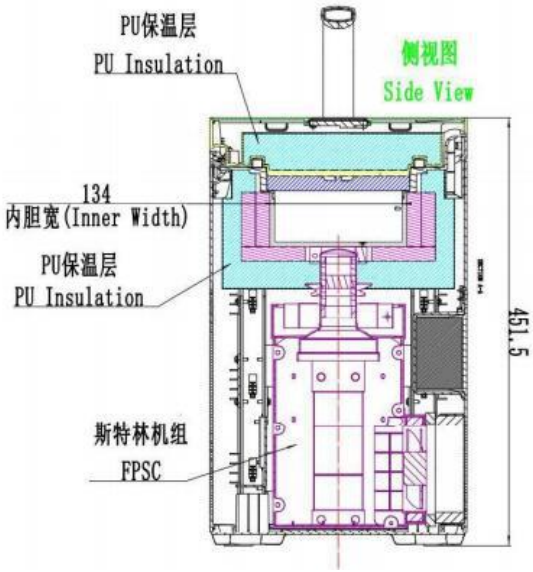
8.2. Freezer Dimensions and Description

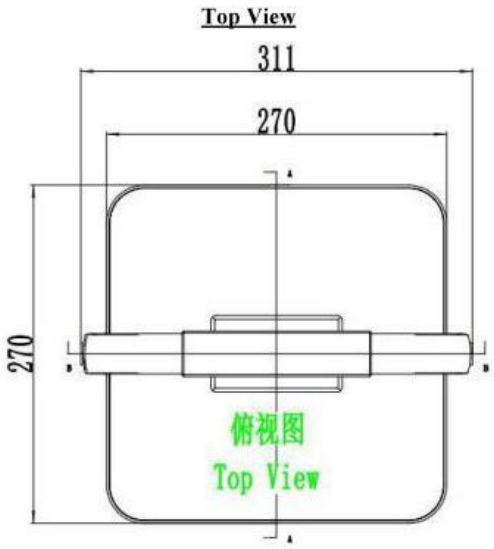
Dimensions of RIGID Ultra-low Transportable Cryogenic Freezer are shown in the pictures below, all the dimensions are in mm (millimeter). Major internal parts of the unit is also clearly mentioned in the pictures different views.

Front View



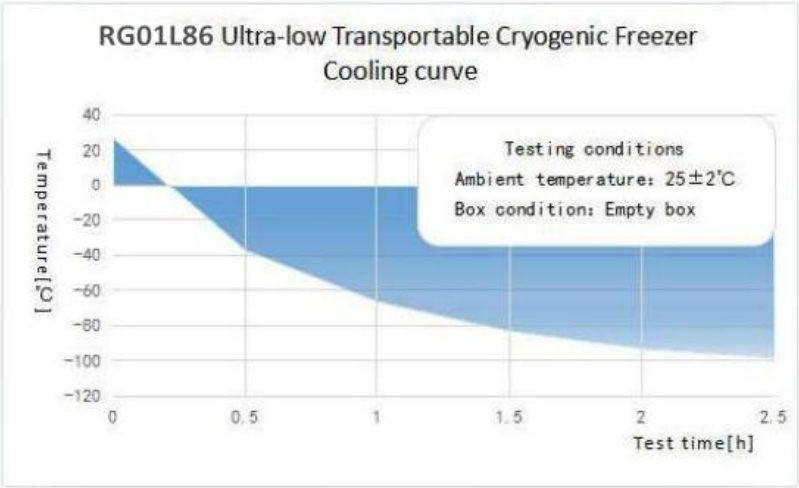
Side View





8.3. Freezer Performance Characteristics

Ultra-low Transportable Cryogenic Freezer performance test graph is given below. Freezer reach -86℃ from ambient 25℃ in less than two hours when freezer is in empty condition.



9.Warranty:

The following Warranty applies to the RG01L86 freezer manufactured by RIGID. In order to maintain maximum uptime and to optimize customer service, RIGID reserves the right to exchange the product with a serviceable new or previously used replacement at its discretion.

Limited Warranty, China;

- The warranty period starts TWO WEEKS after the original date of shipment from RIGID.
- The RIGID RG01L86 Ultra-low Transportable Cryogenic Freezer is warranted for a period of ONE YEAR for materials and labor.
- The RIGID free-piston Stirling engine is warranted for a full THREE YEARS, parts only, from original date of shipment from RIGID.
- If a service issue arises, contact RIGID Service Department to register Warranty Service and initiate a resolution.
- RIGID will not be responsible for charges incurred for service calls made by a third party prior to authorization by RIGID.
- RIGID retains the right to replace any product in lieu of servicing it in the field.
- Liability in all events is limited to the purchase value only.
- Under no circumstances will RIGID be responsible or held liable for consequential or incidental damages associated with loss of stored product in the event of an equipment failure.
- Extended warranty programs are available. Contact RIGID for a custom warranty solution.

International Distributor Limited Warranty;

- Warranty will start ONE MONTH after the ship date from RIGID.
- RIGID warrants that Distributor shall acquire products purchased here under free and clear of all liens and encumbrances.
- RIGID further warrants all products to be free from defects in materials under normal use and service for a period of ONE YEAR.

. The RIGID free-piston Stirling engine is warranted for a full THREE YEARS, parts only.

- RIGID shall provide to Distributor, without charge, replacement parts to substitute for parts that must be replaced by reason of valid warranty claim.
- This warranty obligation is limited solely to the replacement of replaceable defective parts.
- All service charges with respect to the repair or replacement of defective parts of products shall be the responsibility of the Distributor or Distributor's customer.
- The Distributor shall perform general services on behalf of RIGID in the distribution area, including repairs and parts replacement at the Distributor's expense, which may be passed on to Distributor's customer, at Distributor's discretion.