

Pinnacle
SCIENTIFIC AND MEDICAL EQUIPMENT

OPERATIONS MANUAL

FOR

LABPLUS SERIES MODELS

PHARMACY/LABORATORY REFRIGERATOR

PR-LP-60-1-GD/SD
PR-LP-110-1-GD/SD
PR-LP-300-1-GD/SD
PR-LP-400-1-GD/SD
PR-LP-600-1-GD/SD

PHARMACY/LABORATORY FREEZER

PF-LP-100-1-SD
PF-LP-400-1-SD
PF-LP-600-1-SD



PLEASE READ CAREFULLY BEFORE OPERATION

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Pinnacle Scientific would like to thank you for choosing your new piece of equipment from our range. We believe that you have made the right decision in your purchase, and we assure you of continued support in appreciation of your investment with us.

Please read the following contents of this manual before operation to ensure you obtain the most benefit from your investment.

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Section 1: Inventory Checklist

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Section 1: Inventory Checklist

All E Series models are delivered with the below items:

- USB stick including Operations Manual
- One set of keys for door lock

Section 2: Transportation

- When transporting your unit, it must be kept in a vertical position to prevent any damage to the internal components of the unit.
- Should the unit need to be tilted for any reason, please do not tilt over 40°.
- Position your unit away from direct heat sources or direct sunlight.
- Do not place your unit in a location where high moisture levels are present. The recommended ambient temperature for this product is 25°C. The system is capable of operating within an ambient temperature range of 10°C to 32°C, with 32°C being the maximum recommended operating temperature

Section 3: Installation & Operation

- Introduction and stocking
 1. Carefully remove all packaging from the unit and dispose of thoughtfully.
 2. Ensure the baskets are positioned securely (if applicable) or place shelves at the desired height within the unit (if applicable).
 3. Situate the cabinet near its final position and plug the mains into the power socket.
 4. Ensure the cabinet is on firm even ground, and if required adjust the feet to level the unit (left rotation increases the height / right rotation decreases the height).
 5. Ensure there is adequate ventilation space surrounding the unit (60mm at the rear and 60mm to the side). Failure to do so may affect the performance of your unit.

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TO ENSURE THE MOST EFFICIENT OPERATION OF YOUR UNIT, PLEASE NOTE THE FOLLOWING.

REFRIGERATORS

- Only load refrigerators to less than 70% capacity and distribute contents evenly. To operate effectively the cold air produced by the unit must be able to circulate inside the cabinet.
- Do not place solid trays on the shelves that cover more than 60% of the area and ensure that boxes have at least 20mm of free space between them.
- Ensure that product is at least 40mm away from the fans on the top shelf.
- Storage on the base of the unit is not recommended.

FREEZERS

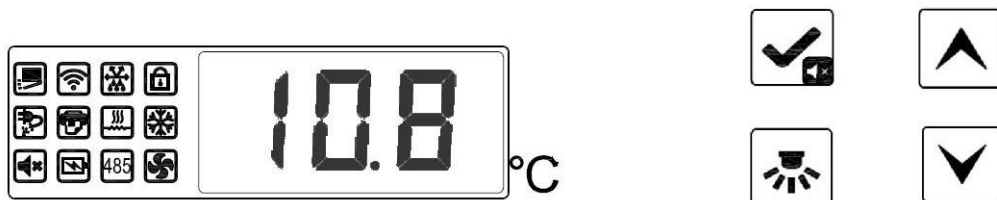
- Load freezers to less than 75% but when required, no more than 90% capacity.
- Do not put hot goods in the freezer, wait until they are at room temperature.

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Front Panel Display



Key symbols	Key Name
	Set/Mute
	Up
	Down
	Light On/Off

MODEL

FACTORY SET TEMPERATURES

STANDARD PHARMACY/LABORATORY REFRIGERATOR

PR-LP-60-1-GD/SD	5 °C
PR-LP-110-1-GD/SD	5 °C
PR-LP-300-1-GD/SD	5 °C
PR-LP-400-1-GD/SD	5 °C
PR-LP-600-1-GD/SD	5 °C

PHARMACY/LABORATORY FREEZER

PF-LP-100-1-SD	-20.0 °C
PF-LP-400-1-SD	-20.0 °C
PF-LP-600-1-SD	-20.0 °C

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ALARM ERROR CODE & DESCRIPTION

Error Codes	Symbol	State	Meaning
Door open indicator light		bright	Door open
		extinguish	Door closed
Defrosting indicator light		bright	Defrosting state
		extinguish	Non defrosting state
Key lock indicator light		bright	Key lock status
		extinguish	Key non locked state
Power failure lamp		bright	The working power supply is disconnected
		extinguish	Normal working power supply
Door heating indicator light		bright	Door heating open
		extinguish	Door heating closed
Cooling indicator light		bright	Compressor operation
		extinguish	Compressor operation
Mute indicator light		bright	Alarm sound mute
		extinguish	Alarm sound not muted
Low battery indicator light		bright	Low battery
		extinguish	The battery voltage is normal
Fan indicator light		bright	Evaporator fan working
		extinguish	Evaporator fan has stopped

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➤ Low Battery Alarm

When you turn the fridge on EB will be displayed. To get rid of this message, turn the battery switch on, which is located inside the fridge under the front control panel. When the battery is low, the controller will display "BL", please contact CSK Group.

➤ Unlock/Lock the Controller

When the controller is unlocked and there is no button operation for 90 seconds, the controller will lock automatically, and the button lock indicator light will turn on. When the controller is locked, you can view the control temperature, mute, and turn the light on and off. While the other button functions are locked. To unlock the controller, press the down button then the set/mute button. The button lock indicator will turn off and the controller will be unlocked.

➤ Start controller temperature recording

When the recorder hasn't started the controller will display "LoF". Press the light key for 10 seconds and the controller will stop displaying 'LoF', this means that the controller has started recording the temperatures. Controller must be unlocked to perform this.

➤ Setting Time

When powered on, the display board does not immediately enter the normal working state, but instead will display Y-M-D-H-N-SS which means the year day and hour needs to be input to the controller. Once the data has been input, press, and hold the set/mute button for 3 seconds.

➤ Set Temperature

Once the unit is plugged in and switched on, the display will show the temperature inside the unit and the compressor will commence operation after a short time delay (the indicator light will also turn on). This temperature noted on the display is generated by probes inside the unit and will continue to cool until it reaches the correct factory set temperature. To check the set temperature, press and hold down the SET button to access the 1st level menu. Scroll until you see the "Set" symbol and press the set button. This will then display the current set temperature. To adjust the set temperature, press the up and down buttons to set your desired temperature. Press and hold down the set button until you hear a beep then release. You have now adjusted the setpoint.

➤ Minimum / Maximum Temperature Recording

Your unit will record the minimum low and maximum high temperatures when connected to mains electricity. This information can be accessed if you press and hold the  button for three seconds. The display will show **MAX** followed by the maximum temperature recorded (since the last reset) and then **MIN** and the lowest temperature recorded (since the last reset). Next, the current sensor temperature will be displayed. The minimum and maximum temperatures will reset automatically.

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➤ Door Alarm

If the door of the unit is left open for more than four minutes, an audible alarm will sound, and the front panel will flash 'DO' alternatively at 3 second intervals. Once the door is closed, the alarm will stop sounding and the fridge will return to normal.

➤ Power Outage Alarm

When the external power supply is disconnected, the controller will alarm and display "PF" at 3 second intervals. Once the unit is connected back to power, it will revert to normal operation.

➤ High / Low Temperature Alarm

Should the temperature in your unit meet or exceed the high temperature or meet or exceed the low temperature an audible sound will alarm, and the display unit will show the applicable error message. The alarm will continue to sound until the issue has been rectified, however you can silence the alarm whilst investigating the issue, simply press  on the display.

The cause of the rise or drop in temperature should be investigated immediately and once established it is recommended that you check the unit to ensure the temperature returns to normal. If this does not happen or you continue to have temperature complications with your unit, please phone CSK on 1300 358 045 for assistance.

Possible causes of a high temperature alarm:

- Door has been left open for a long period of time.
- Overstocking or restocking of unit.
- Adequate airflow around products.

Possible causes of a low temperature alarm:

- Extremely cold items being placed in the unit.

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HIGH/LOW TEMPERATURE GUIDE

<u>MODEL</u>	<u>HIGH TEMPERATURE</u>	<u>LOW TEMPERATURE</u>
PHARMACY/ LABORATORY REFRIGERATOR		
PR-LP-60-1-GD/SD	8.0°C	2.0°C
PR-LP-110-1-GD/SD	8.0°C	2.0°C
PR-LP-285-1-GD/SD	8.0°C	2.0°C
PR-LP-400-1-GD/SD	8.0°C	2.0°C
PR-LP-600-1-GD/SD	8.0°C	2.0°C
PR-LP-60-1-GD/SD	8.0°C	2.0°C
PHARMACY/LABORATORY FREEZER		
PF-LP-100-1-SD	-10.0 °C	-30.0 °C
PF-LP-400-1-SD	-10.0 °C	-30.0 °C
PF-LP-600-1-SD	-10.0 °C	-30.0 °C

➤ Reset Alarm

To reset the alarm, press and hold the  button. This will clear active alarm history.

➤ USB Data Export

When the USB is plugged into the USB port on the fridge, the controller will keep once and display "on". The USB generated a PDF file of the data of the current and previous month. After the data transfer is completed the controller will beep again and display "End" and revert back to normal display. We recommend the data be imported onto the USB once a month.

➤ Internal Light

The LED light is fixed to the internal top panel of the refrigerator. The refrigerator light is set to automatically come on when the door is opened. You can turn the light on by pressing .

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Remote Alarm

All unit alarms as per the *Alarm Error Code & Description Table* will output to the volt free contact for digital output (located at the rear of the unit) in addition to a power loss alarm.

The maximum rating for the connection is 1A 30VDC.



IF AVAILABLE, WE STRONGLY SUGGEST THAT THIS FACILITY BE CONNECTED TO A 24/7 SURVEILLANCE SYSTEM. CONTACT YOUR SECURITY SERVICE PROVIDER FOR ASSISTANCE.

Section 4: Maintenance & Service



IT IS ESSENTIAL THAT YOU TURN OFF AND UNPLUG THE UNIT FROM THE MAINS FOR SAFETY.



TRANSFER THE CONTENTS WHERE THEY CAN BE STORED AND MONITORED AT THE CORRECT TEMPERATURES BEFORE CLEANING.



DO NOT USE SOLVENTS OR CORROSIVES OF ANY KIND WITHIN THE UNIT.

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➤ General Cleaning - When Required (*All Models*)

- Clean the inside of the cabinet with warm water and a neutral detergent and then dry all surfaces thoroughly.
- Wipe down the exterior with a damp cloth to maintain the external finish.
- Do not allow the display unit, cables or mains plug to get wet and be mindful not to let water seep into these elements.

➤ Clean Condenser Coil – Every 3 Months (*Freezer Models Only*)

It is recommended to clean the condenser coil at the rear of the freezer.

1. Switch off the unit and unplug from mains power.
2. Using a vacuum cleaner with a soft brush attachment, clean the coil to remove dust and debris.
3. Switch the freezer back on.

➤ Defrosting – When Required (*Freezer Models Only*)

After extended periods of operation ice may build on the evaporator and this may impair the performance of the product.

Reasons for this build up:

- High climatic humidity
- Excessive use
- Extended door openings
- Moist items being placed in the chamber
- Too low an operating temperature

In order to rectify the build-up of ice, it is recommended that a manual defrost is performed as per the below:

1. Do not use mechanical devices or other means to accelerate the defrosting process, other than those recommended by the manufacturer.
2. To defrost the freezer, switch the unit off at the mains power outlet.

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3. Open the freezer door to naturally defrost. The level of ice build-up will determine how long the unit should remain turned off for (recommend 12 hours). Be mindful of the water that will come from the fridge as this may cause a slip hazard.

➤ Annual Preventative Maintenance Service – 12 Monthly (*All Models*)

CSK Group recommend that you have your unit serviced annually to ensure its ongoing performance, economical operation and warranty conditions.

Please contact CSK Group on the details below to book your service technician.



1300 358 045



info@cskgroup.com.au

➤ General Product Warnings

- Do not allow children to play with the packaging and destroy plastic bags safely.
- Do not allow children to play with or sit on the unit or its door/s.
- For safety, the appliance must be properly earthed in accordance with specifications.
- This appliance is not intended for use by persons with reduced physical, sensory, or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction by a person responsible for their safety.
- Do not damage any parts of the appliance which carry refrigerant by piercing, perforating, crushing, twisting, or scraping. If the refrigerant comes into contact with the eyes, it may cause serious eye injury.
- Always remember to unplug the appliance before cleaning. Never unplug your appliance by pulling on the power cable. Always grip plug firmly and pull straight out from the socket. Always check that the plug and cable are undamaged.
- Do not use electrical appliances inside the freezer, unless they are of the type recommended by the manufacturer.
- If the supply cord is damaged, it must be replaced by Pinnacle Scientific.
- All repairs must be carried out by qualified technicians, never try to repair a unit yourself

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Section 5: Troubleshooting

PROBLEMS	POSSIBLE CAUSES	POSSIBLE SOLUTIONS
The unit does not operate	Bad connection of mains or fuse burn out	- Unplug the power cord, wait 5 minutes and re-connect the plug to power supply - Replace with a new fuse
Abnormal operation of the compressor or a noticeable buzz sound	The power voltage is out of rated range Mechanical failure	Disconnect the power supply immediately and reconnect with normal voltage. It is necessary to have a voltage stabilizer in case of poor power supply. Contact for service:  1300 358 045  info@cskgroup.com.au
Compressor operates for long periods of time & there is no sign of frost on the surface of the evaporator	Refrigeration system has a fault (leakage or blocked) Product warm when loaded Mechanical failure	Contact for service:  1300 358 045  info@cskgroup.com.au
There is frost or ice on the rear wall of the inner cabinet and internal temperature is too low, the compressor never stops running	Issue with the controller	Contact for service:  1300 358 045  info@cskgroup.com.au
The internal temperature is too high and the compressor never stops operating	Bad heat dissipation and ventilation of condenser	Improve ventilation
	Too many warm goods were put in at one time	Remove some goods so air can circulate
	Door is being opened too frequently during initial cool down	Allow the unit to cool down adequately, prevent product access during this phase

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Too noisy	Mechanical failure	Contact for service:  1300 358 045  info@cskgroup.com.au
	The pipes near the compressor are touching	Carefully separate the touching pipes
The side of unit is hot	The condenser in the side wall gives out heat as part of standard operation	No action required
Condensation on the glass door	High ambient temperature or humid conditions	• Dry with a cloth • Relocate to a location with <60% humidity
The display shows 'P1o or P2o' and compressor does not run	The temperature sensor is open circuit	Contact for service:  1300 358 045  info@cskgroup.com.au
The display shows 'P1c or P2c' and compressor does not run	The temperature sensor is short circuit	Contact for service:  1300 358 045  info@cskgroup.com.au