



-40°C Low Temperature Freezer Instruction Manual

NOTE: Reasonable product improvements and technical updates without notice.

Dear Customer:

Thanks for selecting DW-40L/W Series Low Temperature Freezer. We would provide the best product and service to you. Failure to read, understand and follow the instructions in this manual may result in damage to the unit, injury to operating personnel, and poor equipment performance.



CAUTION!

- ◆ All internal adjustments and maintenance must be performed by qualified service personnel.
- ◆ This appliance can be used by persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.
- ◆ Children shall not play with the appliance.
- ◆ Cleaning and user maintenance shall not be made by children without supervision.



Important operating and/or maintenance instructions. Read the accompanying text carefully.



Potential electrical hazards. Only qualified persons should perform procedures associated with this symbol.



Hot surface(s) present which may cause burns to unprotected skin or to materials which may be damaged by elevated temperatures.



Extreme temperature hazards, hot or cold. Use special handling equipment or wear special, protective clothing.

- ***Always use the proper protective equipment (clothing, gloves, etc).***
- ***Always use dissipate extreme cold or heat and wear protective clothing.***
- ***Always follow good hygiene practices.***
- ***Each individual is responsible for his or her own safety.***

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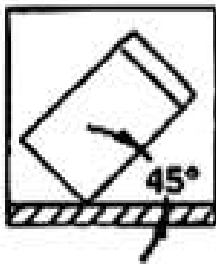
The -40°C Freezers described in this manual are high performance units which can be used for research and in situations that directly support medical applications. If the user's manual is lost or damaged, you can through our website to download or contact us by E-mail.

1. Transportation and Installation

1.1 Safety Information

All electrical work must be executed by suitably qualified persons. When using any electrical appliance, safety precautions must always be observed.

1. When you transport the freezer, the angle between the compartment body and the ground should be no less than 45°, and you should never place the freezer up-side down.



2. Do not use any of the external part as loading points, for example, the handle, the door or the hinge.
3. When the freezer is installed or used, all the package (including board and foam plastic) should be got rid of.
4. Keeping the freezer stable to avoid vibration and noise.
5. The freezer should be installed in the place with good ventilation, a space of at least 10cm should be allowed between the surrounding wall and the cabinet wall for air condition.
6. It should be placed far from heating source and not under direct sunshine to avoid decrease of the efficiency of refrigeration.
7. Install the freezer in a dry place so as to prevent rust on the compartment body, which may affect the electric insulation.

1.2 Cautions

1. The freezer must be connected with earth correctly, never with the heating pipe and coal gas pipe.
2. In case of any damage on the electric wire and plug, please contact the after service and never do it yourself. When plug out, please take the plug, not the wires.
3. If the voltage is unstable, please choose the suitable automatic voltage regulator.

4. Connection the power to check the freezer before using, the freezer can be used until the temperature decreases obviously after 40 minutes.
5. You should adjust the electronic thermostat (display board) according to the requested temperature and quantity of the stuff and the environmental temperature.
6. Till the temperature of inner cabinet decreases to requested temperature and then putting the stuff in.
7. FAST FREEZE allows the compressor to run continuously (no more than 3 hours) so the freezer can reach low temperatures in the shortest time possible. You can use this feature when adding a substantial amount of unfrozen stuff to the freezer. Press the “FAST FREEZE” keystroke, the ‘FAST FREEZE” lights is on. Press the “FAST FREEZE” keystroke again to turn off the function when the temperature reaches freezing temperatures.

NOTE: “FAST FREEZE” will be turned off after 3 hours.

8. Never put hot stuff in the freezer directly only after it has been cooled naturally outside.
9. The stuff should be put into the freezer partially, each lot will not be more than the figure which is equal to the capacity (L) divide by 20.
10. Not full the freezer or make it crowded, and there should be reasonable space between the stuff for better freezing.
11. If power cut off is needed, you should wait for at least 5 minutes before turn on again to avoid damage to the compressor.



12. WARNING: Never store any flammable, explosive and corrosive liquid or gas in the freezer and keep it away from them.

1.3 Defrost

Defrost when the frost thickness on the wall of the cabinet reaches 5mm to optimize the freezing capacity

1. Put the stuff into other low temperature storage.
2. Cut off the power, use the defrost removal, do not apply sharp tools.
3. After defrosting, clean the wall with dry cloth, and then power on.

1.4 Following Phenomena Are Normal:

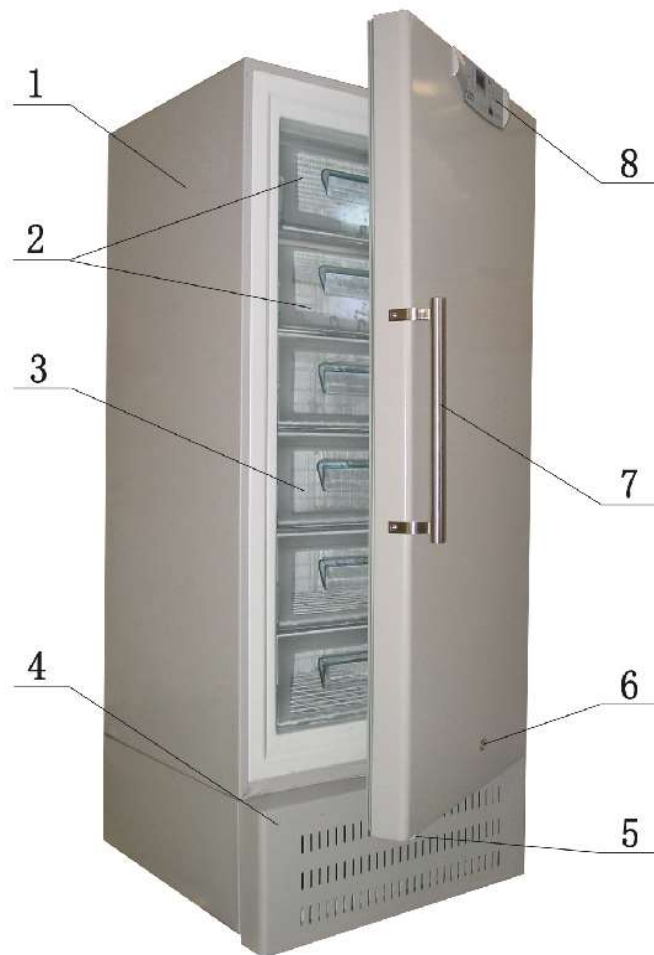
1. There will be sound of flowing water when the freezer is running.
2. The frozen stuff do not melt even if a long time power off.
3. When the environment humidity is too high, there will be dew condensed on the surface of the freezer.
4. When the machine is running, the condenser and compressor will be hot.

2. Operation

This product is designed to operate at a recommended ambient temperature under 32°C.

2.1 Product Description

- 1.Box
- 2.Cover
- 3.Basket
- 4.Heat radiating board
- 5.Door alarm switch
- 6.Lock
- 7.Handle
- 8.Electronic thermostat (display board)



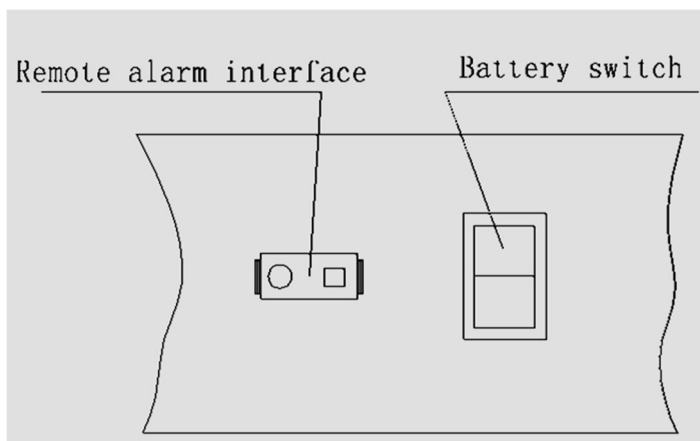
2.2 Technical Data:

MODEL	DW-40L280
ANTIELECTRICITY	I
CAPACITY (L)	280
INPUT POWER (W)	340
RATED VOLTAGE (V)	220~240
AMBIENT TEMPERATURE (°C)	10~32
INNER TEMPERATURE (°C)	-10~-40
NET WEIGHT (kg)	106
OVERALL DIMENSION (mm)	717x710x1745

Note:

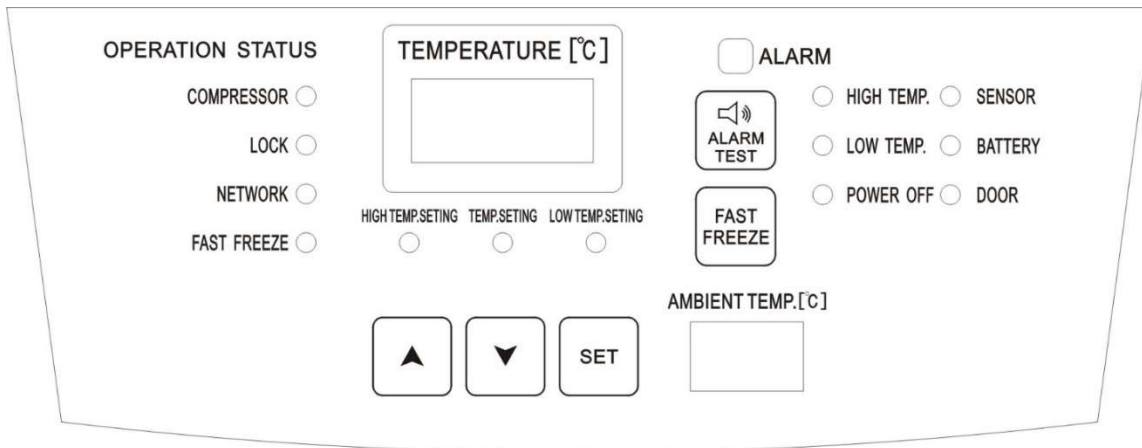
1. The inner temperature of interior center can decrease to -44°C (No load) at the environment temperature 25°C.
2. The inner temperature of interior center can decrease to -40°C (No load) at the environment temperature 32°C.

2.3 Function of Backup Battery



It when the freezer will be used, please open the backup battery switch behind box body. The freezer at least works at least 24 hours, the backup battery can be charged full. The backup battery can supply the electronic thermostat the power to alarm and work for 18~24 hours when the outside power supply is cut off.

2.4 Function of Display Board



2.4.1 Indicator Light

Indicator light	Status	Meaning
COMPRESSOR	Light off	Compressor stops
	Light on	Compressor works
NETWORK	Light off	No network information
	Light on	Network information transmits
FAST FREEZE	Light on	Compressor runs continuously (no more than 3 hours)
LOW TEMP. SETING	Light on	Display low alarm temp.
LOCK	Light on	Keystrokes locked
	Light flashes	Keystrokes unlock
TEMP. SETING	Light on	Display inner temp.
	Light flashes	Display setting temp.
HIGH TEMP. SETING		Display high alarm temp.
HIGH TEMP. SETING	Light on or flash	Display control temp. confine
+ TEMP. SETING		
+ LOW TEMP. SETING		

2.4.2 Keystroke Function

- ALARM TEST:** Test buzzer alarm (normal status); Cancel buzzer alarm (alarm status).
- FAST FREEZE:** Press the keystroke, compressor runs continuously (no more than 3 hours); Press the keystroke again, quit “fast freeze”, compressor runs normally.
- ▲ :** Press the keystroke, the parameter increases 0.1°C (parameters setting status).
- ▼ :** Press the keystroke, the parameter decreases 0.1°C (parameters setting status).
- SET:** Confirm the parameter or change the parameter (parameters setting status).
- ▼ + SET:** Press ▼ and SET keystrokes together for more than 3S, keystrokes unlock.
- FAST FREEZE + SET:** Press “FAST FREEZE” and “SET” keystrokes together for more than 3S, enters adjust sensor temp. status.

2.4.3 Set Mode of Inner Temp., Alarm Temp. And Control Temp.

S.N.	Operation function	Keystroke Operation	Display Status
1		-----	Display inner temp.
2	Keystrokes unlock	Press ▼ and SET keystrokes together for more than 3S	Indicator light of “LOCK” and the temperature in the “TEMPERATURE [°C]” window flash together.
3	Adjust inner temp.	Press ▲ or ▼ keystroke	Indicator light of “LOCK” and “TEMP. SETING”, inner temperature in the “TEMPERATURE [°C]” window flash together. Inner temp. increase or decrease.
4		Press SET keystroke	Indicator light of “LOCK” and “TEMP. SETING”, inner temperature in the “TEMPERATURE [°C]” window are on together.
5	Adjust high alarm temp.	Press SET keystroke	Indicator light of “LOCK” and “HIGH TEMP. SETING”, the high alarm temperature in the “TEMPERATURE [°C]” window flash together.
6		Press ▲ or ▼ keystroke	Indicator light of “LOCK” and “HIGH TEMP. SETING”, the high alarm temperature in the “TEMPERATURE [°C]” window flash together. High alarm temp. increase or decrease.
7		Press SET keystroke	Indicator light of “LOCK” and “HIGH TEMP. SETING”, the high alarm temperature in the “TEMPERATURE [°C]” window are on together.
8	Adjust low alarm temp.	Press SET keystroke	Indicator light of “LOCK” and “LOW TEMP. SETING”, the low alarm temperature in the “TEMPERATURE [°C]” window flash together.
9		Press ▲ or ▼ keystroke	Indicator light of “LOCK” and “LOW TEMP. SETING”, the low alarm temperature in the “TEMPERATURE [°C]” window flash together. Low alarm temp. increase or decrease.
10		Press SET keystroke	Indicator light of “LOCK” and “HIGH TEMP. SETING”, the low alarm temperature in the “TEMPERATURE [°C]” window are on together.
11	Adjust control temp. confine	Press SET keystroke	Indicator light of “LOCK”, “HIGH TEMP. SETING”, “TEMP. SETING” and “LOW TEMP. SETING”, the control temp. confine in the “TEMPERATURE [°C]” window flash together.
12		Press ▲ or ▼ keystroke	Indicator light of “LOCK”, “HIGH TEMP. SETING”, “TEMP. SETING” and “LOW TEMP. SETING”, the control temp. confine in the “TEMPERATURE [°C]” window flash together. Control temp. confine increase or decrease.
13		Press SET keystroke	Indicator light of “LOCK”, “HIGH TEMP. SETING”, “TEMP. SETING” and “LOW TEMP. SETING”, the control temp. confine in the “TEMPERATURE [°C]” window are on together.

Note: In course of setting parameters, it is no more than 8S between press the keystrokes twice.

2.4.4 Parameter Default

Parameter	Default (°C)
Inner temperature	-36
Control temp. confine	1.1
Adjust sensor temperature	-2.5
High alarm temperature	-26
Low alarm temperature	-45

Note: Compressor works according to inner temp. and adjust sensor temp., for example:

- Compressor Turns on at $-36+1.1 = -34.9\text{ }^{\circ}\text{C}$
- Compressor Turns off at $-36-1.1 = -37.1\text{ }^{\circ}\text{C}$

2.4.5 Set Mode of Adjusting Sensor Temp. Parameter

S.N.	Operation Function	Keystroke Operation	Display Status
1		— —	Display inner temp.
2	Enter adjust mode	Press FAST FREEZE and SET keystrokes together for more than 3S	Display “BOF” in the “TEMPERATURE [°C]” window.
3	Adjust sensor temp.	Press SET keystroke	Indicator light of “TEMP. SETING” and the adjusting sensor temp. in the “TEMPERATURE [°C]” window Flash.
4		Press ▲ or ▼ keystroke	Indicator light of “TEMP. SETING” flashes, the adjusting temp. parameter in the “TEMPERATURE [°C]” window increases or decreases.
5		Press SET keystroke	Indicator light of “TEMP. SETING” and the adjusted sensor temp. in the “TEMPERATURE [°C]” window are on.

2.4.6 Alarm Functions

Alarm Types	Cause	Light	Buzzer	Remote Alarm Interface
High temp.	Inner temp. exceeds high alarm temp.	Indicator light of “ALARM” and “HIGH TEMP.” flash together.	Pulse noise	On
Low temp.	Inner temp. exceeds low alarm temp.	Indicator light of “ALARM” and “LOW TEMP.” flash together.	Pulse noise	On
Power off	Power off	Indicator light of “ALARM” and “POWER OFF” flash together.	Pulse noise (not less than 18 hours)	On
Battery malfunction	The volt of battery is lower, or the battery switch is off.	Indicator light of “ALARM” and “BATTERY” flash together, display “E5” in the “TEMPERATURE [°C]” window.	Pulse noise	On
Sensor malfunction	The sensor open-circuit or short-circuit.	Indicator light of “ALARM” and “SENSOR” flash together, display “E0” in the “TEMPERATURE [°C]” window.	Pulse noise	On

Note:

- You can press the **ALARM TEST** keystroke to turn off the buzzer.
- The battery can supply power to alarm for almost 18~24 hours in case of power off.
- The battery completes charge for almost 24~48 hours.
- In case of sensor malfunction, compressor operations follow the mode: Works for 15 minutes and stops for 5 minutes.

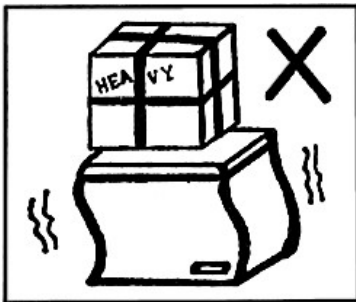
3. Trouble Shooting

If your appliance develops a fault, please check the following table before making a call to the helpline.

TROUBLES	REASON	SOLUTION
Unfreezing	Inner temperature set higher	Adjust temperature
	Plug and outlet not connected well	Make them connect well
	Fuse broken off	Change the fuse
Compressor can not stop working	Turn on the 'Fast Freeze'	Turn off the 'Fast Freeze'
	Inner temperature set lower	Adjust temperature
	Too much stuff stored in one time	Reduce the quantity
	Thick frost	Defrost
	Too much times of door-opening	Reduce the times of door-opening
	Too near the wall	Far from the wall
	Near the hot source or sun	Change the place
	Ambient temperature is higher	Decrease the ambient temperature
Big noise	Refrigerating tubes connected	Separate them
	Ground is not flat	Change the place

4. Maintenance And Cleanness

1. Do not open the door frequently and too long to save energy.
2. Never leave heavy or hot stuff on the top of the freezer to avoid deforming.



3. Cut off the power before cleaning.
4. To clean the freezer, please use soft cloth dampened in some moderate detergent and hot water.
5. Use warm water to clean oil or fruit juice stain on the gasket in order to keep its elasticity. Apply some talcum powder to it to prolong its service life.
6. The freezer should not be left unused for a long time, to stop using the freezer, disconnect the main power first, then clean the inside and leave the door open for 2~3 days to dry it.

5. Disposal

If in any doubt, please consult your Local Authority, contact us or contact the reseller from whom you purchased the appliance.

Certificate of Quality

Checker: