DW-86L Series Ultra Low Temperature Freezer Manual

ThanksforselectingDW-86LSeriesUltraLowTemperature Freezer.Wewouldprovidethebestproductandservicetoyou. Failuretoread,understandandfollowtheinstructionsinthis manualmayresultindamagetotheunit,injurytooperating personnel,andpoorequipmentperformance.

 ***CAUTION!***

Allinternaladjustmentsandmaintenancemustbeperformedbyqualifiedservice personnel.

Thisappliancecanbeusedbypersonswithreducedphysical,sensoryormental capabilitiesorlackofexperienceandknowledgeiftheyhavebeengivensupervision orinstructionconcerninguseoftheappliancesafewayandunderstandthe hazardsinvolved.

Children shall not play with the appliance.

Cleaninganduser maintenanceshallnotbemadebychildrenwithoutsupervision.

Alwaysusetheproperprotectiveequipment(clothing,gloves,etc).

Alwaysusedissipateextremecoldorheatandwearprotectiveclothing.

Always follow good hygienepractices.

Each individual is responsible for his or her own safety.

If the user's manual is lost or damaged, you can through our website to download or contact us by E-mail.

1. Installation andoperation

1.1 SafetyInformation

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

- ◆ Do not use this appliance for other than its intended use. This product is intended for use as a beverage Low Temperature Freezer. Consult your supplier foralternatives.
- ◆ Do not cover the front grille or block the rear air entry by placing object up against thecabinet.
- ◆ Please close attention, when used by or near children, infirmpersons.
- ◆ Ensure adequateventilation.
- ◆ Do not probe anyopenings.
- ◆ Do not touch any moving parts or hotsurfaces.
- ◆ Regulations require that all electrical work be carried out by authorized persons. For your own safety and that of others please ensure this isdone.
- ◆ Do not overload the power supply. Always ensure on the rating label. The rating label is located.
  If have any problem, please consult a qualified electrician. Caution: Never use extension leads or multiple adaptors.
- ◆ Ifthemainssupplycordisdamaged,itmustbereplacedbythemanufacturer,itsserviceagent or similarly qualified and skilled persons in order to avoidhazard.
- ◆ Disconnect the mains power supply before attempting any cleaning, removal of any covers, or maintenancework.
- ◆ Do not store explosive substances, such as aerosol cans with flammablepropellant.
- ◆ Warning: Do not use mechanical devices or other means to accelerate the defrosting process. Defrosting is performedautomatically.
- ◆ Warning: Do not damage the refrigerationcircuit.
- ◆ Warning: Do not use electrical appliances inside the storage compartment of thisappliance.

1.2 Assembly

- ◆ Remove the appliance from the packaging and peel off any protective film from allsurfaces.
- ◆ Fittheshelfsupportclipsontotheshelfsupportstrips,makingsurethattheclipsforeachshelf are of the same height and that they are securely engaged on the supportstrip.
- ◆ Unwrap each shelf carefully, to prevent damaging their protective coating or surfacefinish.
- ◆ Position the shelves onto theclips.

1.3 Positioning theproduct

- ◆ Please position the cabinet carefully being careful not to bumpit.
- ◆ The power supply flex exits the product at the bottom right hand side (as viewed from the front).For ease of access; the flex should be retrieved prior to positioning the product in its finallocation.
- ◆ The maximum recommended ambient temperature for this product is32°C
- ◆ Avoid positioning the appliance in direct sunlight or dampareas.
- ◆ Allow adequate space for the door(s) to fullyopen.
- ◆ Ensure that this product is positioned on a level surface, so as to allow the door(s) to shut and seal correctly, as well as to allow proper drainage from the evaporator tray, to prevent any overflow. If necessary, adjust the screw feet of the appliance to make itlevel.

1.4 Ventilation

- ◆ All models must have clear and unobstructed ventilation from the entire surface area of the front grille.
- ◆ The 2 and 3 door models may be built into an enclosure without the need for ventilation other than at thefront.
- ◆ The single door Low Temperature Freezers must have a minimum ventilation space of 50mm at sides andrear.
- ◆ Dimensions of the space to be provided for the appliance are referenced on page 12 of this manual.
- ◆ Dimensionsandpositionofthemeansforsupportingandfixingtheappliancewithinthisspace are referenced on page 12 of thismanual.
- ◆ WARNING:  Failure to provide the minimum ventilation space will harm the performance of your Low Temperature Freezer could cause fire and will invalidate the warranty.
- ◆ WARNING:  Keep clear of obstruction all ventilation openings in theappliance

enclosure or in the structure for building in.

◆ WARNING: You are must not store volatile, flammable and explosive materials inside thisRefrigerator.

1.5**Temperature controller**

1.5.1 Description

Digitalcontroller is used for medical and laboratory uses to design for simple refrigeration equipment controller. It measures the temperature in the cabinet, with temperature control (can be set to cooling or heating mode), the defrost control, over-temperature alarm, power failure detection alarm, remote alarm, maximum and minimum temperature records and other functions.

1.5.2 Indicator light status description

Indicator Light	Symbol	Status	Meaning
Setting	Set	ON	Parameter setting
		OFF	Status of temperature measuring and controlling
High temperature compressor work indicator light	H	ON	High temperature compressor work
		OFF	High temperature compressor stop
		FLASH	High temperature compresso time delay
Low-temperature compressor work indicator light	L	ON	Low-temperature compressor work in non-forced refrigeration mode
		OFF	Low temperature compressor is closed in non-forced refrigeration mode
		FLASH	Forced refrigeration mode
Capillary heating indicator light		ON	Capillary heating starts
		OFF	Capillary heating is closed
High temperature alarm lamp for condenser (high temperature press circuit)	E2H	ON	High temperature alarm of secondary system condenser
High temperature protection indicator for condenser (high temperature press circuit)	E2P	ON	High temperature protection of secondary system condenser
The door opens alarm indicator light	Erd	ON	Door open alarm
Power light		ON	Grid power supply anomaly
		OFF	Normal power supply

1.5.3 Button Description

Button	Function
SET	Enter the status of parameter setting
	Switch between menu and parameter
▲(UP)	Adjust menu and parameters
	After 3s, upload the setting parameters to the copy card
▼(DOWN)	Adjust menu and parameters
	Continue to press down for 3s, download setting parameters from copy card
RST	Exit from parameter setting
	Continue to press for 3s to force the stop capillary heating output
NO BUZZER	Clear alarm
	When the main power supply is not out of power, the mandatory cooling mode will be activated for 10s

1.5.4 Functions and Parameters

1.5.4.1 In the status of temperature measuring and controlling, press Set key for 3s to enter user menu, it display the code St, then press Set key again, display the value of St. it could be modified by pressing the key UP or DWON.

1.5.4.2 When the St code displays, press the UP button to display the A8 code, and the A8 parameter value is displayed after the SET key, which can be modified by manipulating UP or DWON keys.

1.5.4.3 When the A8 code is displayed, press the UP button to display the A9 code, and the A9 parameter value is displayed after the SET key, which can be modified by manipulating UP or DWON keys.

1.5.4.4 When the A9 code is displayed, press the UP key, display the Po code, press the SET key to display 00, and then enter the control menu password through the UP or DOWN key. Once again, press SET to confirm the password entry, the controller automatically verifies the correctness of the password, and when the password is verified, it is entered into the management menu. At this time, the UP or DOWN key can be used to select other parameters including St, A8, A9 and Po, otherwise, the controller will only stay in the parameters of St, A8, A9 and Po, and cannot display other parameter items. After selecting the menu item, press the SET key to enter the current menu item parameter setting, adjust the parameter value according to the UP or DOWN key, and then press the SET key to return menu selection.

1.5.4.5 Under the status of parameter setting, pressRSTkey or no key operation within 30s, it will exit from parameter setting and automatically save the current parameter value.

1.5.4.6 The password entry of the administration menu is valid. After the parameter setting is set, the correct password must be entered again after the adjustment.

1.5.4.7 When the controller is in normal measurement and control status, it can be forced to start the capillary heater relay by pressing the RST key for 3s.

1.5.4.8 When the main power supply is not without power, press NO BUZZER button to activate the forced cooling mode for 10s.

1.5.4.9 When the controller appears, the buzzer calls, and there are two situations where the buzzer stops chirping:

1.5.4.9.1 After all the alarms are lifted, the buzzer stops chirping.

1.5.4.9.2 Press the NO BUZZER key and the BUZZER will stop ringing for ten minutes (if the fault is not removed within ten minutes, the alarm will ring after ten minutes). If a new alarm comes up after all the alarm is lifted in ten minutes, the buzzer will call again immediately. It can be modified by modifying the value of the A4 (10 minutes by default) to stop the BUZZER when the NO BUZZER key is pressed.

1.5.5 Temperature parameter setting

Parameters	Description	Min	Max	Unit	Default
St	Temperature set value	C13	C14	ºC/ºF	-80
A8	Over temperature alarm upperdeviation	0.1	20	ºC/ºF	10
A9	Over temperature alarm lower deviation	0.1	20	ºC/ºF	10
C13	Set Minimumtemperature	-95	C14	ºC/ºF	-90
C14	Set Maximum temperature	C13	85	ºC/ºF	-50
C1	Temperature difference	0.1	20	ºC/ºF	0.4

Parameter description:
St Set temperature
User set the shutdown point temperature.
C13 Theminimumset temperature
Permissible the minimum set temperature (St)
C14 The maximum set temperature
Permissible the maximum set temperature (St)
C1 Difference in temperature
When the temperature <= St, the compressor stops working; when the temperature> = St + C1, The compressor work.

1.5.6 Alarm Code

Alarm code	Fault Description
E1	Tank temperature sensor failure
E2	Condensing sensor fails
E3	Ring temperature sensor failure
E4	Evaporator sensor failure
E1H	Tank temperature super high temperature alarm
E1L	Tank temperature superLow temperature alarm
E3H	Ring temperature and ultra high temperature alarm
E3L	Ring temperature and ultra low temperature alarm
E2H	High temperature alarm of condenser
E2P	High temperature protection of condenser
Erd	Door open alarm

2. Product description

Model		DW-86L280	DW-86L360	DW-86L480	DW-86L590
Technical Data	Cabinet type	Vertical	Vertical	Vertical	Vertical
	ClimateClass	N	N	N	N
	CoolingType	Direct Cooling	Direct Cooling	Direct Cooling	Direct Cooling
	DefrostMode	Manual	Manual	Manual	Manual
	Refrigerant	CFC-Free,Mixing	CFC-Free,Mixing	CFC-Free,Mixing	CFC-Free,Mixing
Performance	Temperature Range (°C)	-40~-86	-40~-86	-40~-86	-40~-86
Control	Temperature Control	Microprocessor Control Board			
	Display	LCD + Dual LED			
Material	Interior	Galvanized steel powder coating/Stainless Steel			
	Exterior	Galvanized steel powder coating			
	Shelf	Stainless steel			
	Door	Solid Door			
Electrical Data	Voltage/Frequency	220V/50Hz &110V/60Hz			
Dimensions	Capacity (L)	280	360	480	590
	External Dimension (*W/D/H)*	620*650*1920 (mm)	620*780*1920 (mm)	780*780*1920 (mm)	920*780*1920 (mm)
Functions	High/low Temperature Alarm	Y	Y	Y	Y
	High Ambient Temp	Y	Y	Y	Y
	RemoteAlarm Contact	Y	Y	Y	Y
	HotCondenser	Y	Y	Y	Y
	PowerFailure Alarm	Y	Y	Y	Y
	High/low Voltage Alarm	Y	Y	Y	Y
	Sensor Error Alarm	Y	Y	Y	Y
	Low Battery Alarm	Y	Y	Y	Y
	Door Ajar Alarm	Y	Y	Y	Y
Accessories	Shelf	3	3	3	3
	Test Hole	Y	Y	Y	Y
	Racks&Boxes	Optional	Optional	Optional	Optional

3. Operation

This product is designed to operate at a recommended ambient temperature of 32℃ and as such ,is categorized as a climate class 3 product.

3.1 Access topower

◆ Close the door of theappliance.

DW-86L Series.....Setting

3.2 SettingTemperature

◆ Press down to decrease the settemperature.

◆ Press up to increase the settemperature.

DW-86L Series.....Cleaning and Maintenance

4. Cleaning

◆ WARNING: You must disconnect the plug before cleaning ormaintenance.

◆ Do not use abrasive cleaning agents which may scratch and harm the delicate interior finishes of yourappliance.

◆ Always wipe dry aftercleaning.

◆ The agent or qualified technician must carry out repair ifrequired.

4.1 CleanthefilterofsingledoorLowTemperatureFreezer

◆ The filter must be kept clean and free of dust at all times. It is recommended that the cleaning routinebeconductedatintervalsappropriatetothespeedofaccretionofdustonthefilterand inanyeventatleasteverymonth.Failuretokeepthefiltercleanwilldamagetherefrigeration system and invalidate the warranty.

◆ Pull the filter upwards to remove it from its locating place under the glassdoor.

◆ Use a vacuum cleaner, preferably with a rush attachment, to remove built updust.

◆ Refit the filter to its original location to ensure continual efficient operation ismaintained.

4.2 Clean thecondenser

◆ The condenser must be kept clean and free of dust at all times. It isrecommended that the cleaningroutinebeconductedatintervalsappropriatetothespeedofaccretionofdustonthe condenser. Failure to keep the condenser clean will damage the refrigeration system and invalidate thewarranty.

◆ WARNING:  The condenser is a delicate component and is easily damaged. Never use a stiff brush or sharp objects to clean it. Never usewater.

5. Maintenance

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

Fault	Probable Cause	Action
The appliance is not working	The unit is plugged in correctly	Check the unit is plugged in correctly
	Plug or lead is damaged	Call our agent or qualified technician
	Power supply	Check power supply
	Internal wiring fault	Call our agent or qualified technician
The appliance turns on, but the temperature is too high or too low	Filter or condenser blocked with dust	Clean filter or condenser
	Doors are not shut properly	Check doors are shut and seals are not damaged
	Appliance is located near a heat source or air flow to the condenser is being interrupted	Move the appliance to a more suitable location
	Ambient temperature is too high	Increase ventilation or move appliance to a Low Temperature Freezer position
	Insufficient airflow to the fans	Remove any blockages to the fans
	Appliance is overloaded	Reduce the amount stored in the appliance
	Factory default parameters adjusted	Call our agent or qualified technician
The LED lights not working	Led light short Leaded damage	Call our agent or qualified technician
The appliance is unusually loud	The appliance is touching a neighboring object	Check installation position and chan ge if necessary
	The appliance has not been installed in a level or stable position	Check installation position and change if necessary

6. Disposal

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