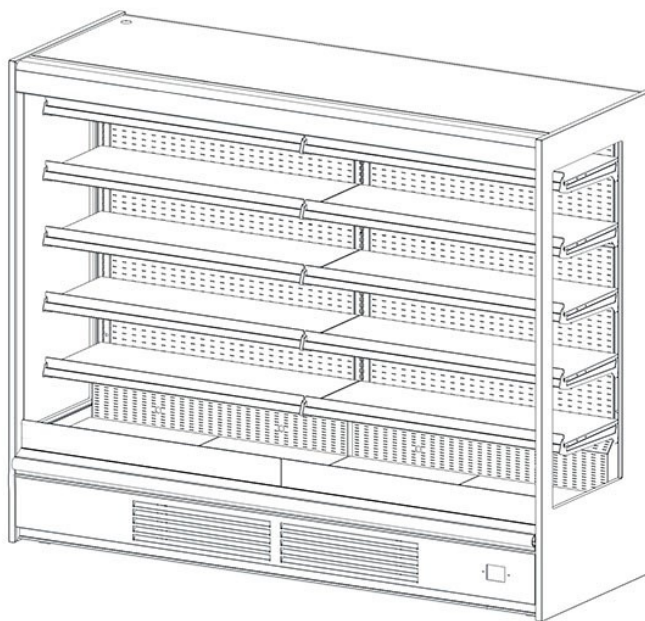




Installation, Operation & Maintenance Manual



Medium Temperature
Self-Contained Open Merchandiser
4' (IMOC4), 6' (IMOC6)

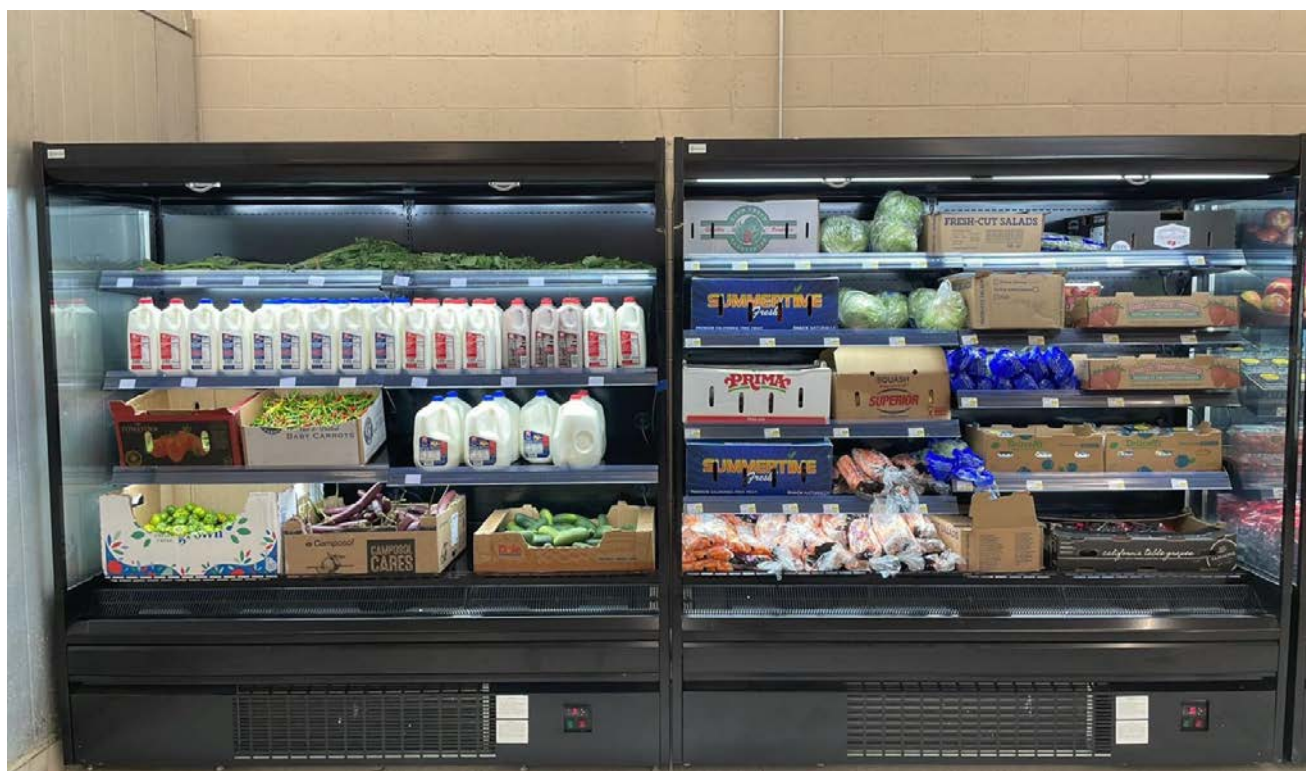


TABLE OF CONTENTS

- 1. General Information
- 2. Technical References.....
 - I. Side View & Plan View.....
 - II. Refrigeration
 - III. Electrical.....
- 3. Installation.....
- 4. Clean & Maintenance.....
- 5. Waste Treatment.....

ATTENTION

Merchandiser must operate for 24 hours before loading product!

Regularly check merchandiser temperatures.

Do not break the cold chain. Keep products in cooler before loading into merchandiser.

These merchandisers are designed for only pre-chilled products.



General Information

Thank you for choosing Icemanz for your food merchandising needs. The handbook contains important technical information, which will assist you with the proper installation and operation of your new Icemanz cases. By closely following the instructions, you can expect peak performance, attractive fit & finish and long case life.

Climate Class

All of cases are designed as per Class 3: 25°C, 60%RH

Shipping Damage

All equipment should be thoroughly examined for shipping damage before, during and after unloading. The equipment has been carefully inspected at our facilities and the carrier has assumed responsibility for safe arrival. If damaged, claim must be made to the carrier.

Apparent Loss or Damage

If there is an obvious loss or damage, it must be noted on the freight bill or express receipt and signed by the carrier's agent; otherwise, carrier may refuse claim.

Use of Symbols

Throughout this manual, symbols are used to help draw attention to important facts, procedures and warnings. These may vary from simple cleaning procedures to safety warnings, which must be adhered to at all times.



No: Indicates an incorrect procedure that should not to be carried out



Yes: Indicates the correct procedure, which should be followed.



Caution/Danger/Warning: Indicates a potentially hazardous situation, which if not avoided, may result in minor or moderate injury or property damage only.



Electrical Shock / Electrocution: Indicates a potential to be electrocuted, which if correct procedures are not adhered to, may result in serious injury and or death.



DO NOT CLIMB ON TOP OF CASES
RISK OF PERSONAL PHYSICAL INJURY
AND DAMAGE TO EQUIPMENT

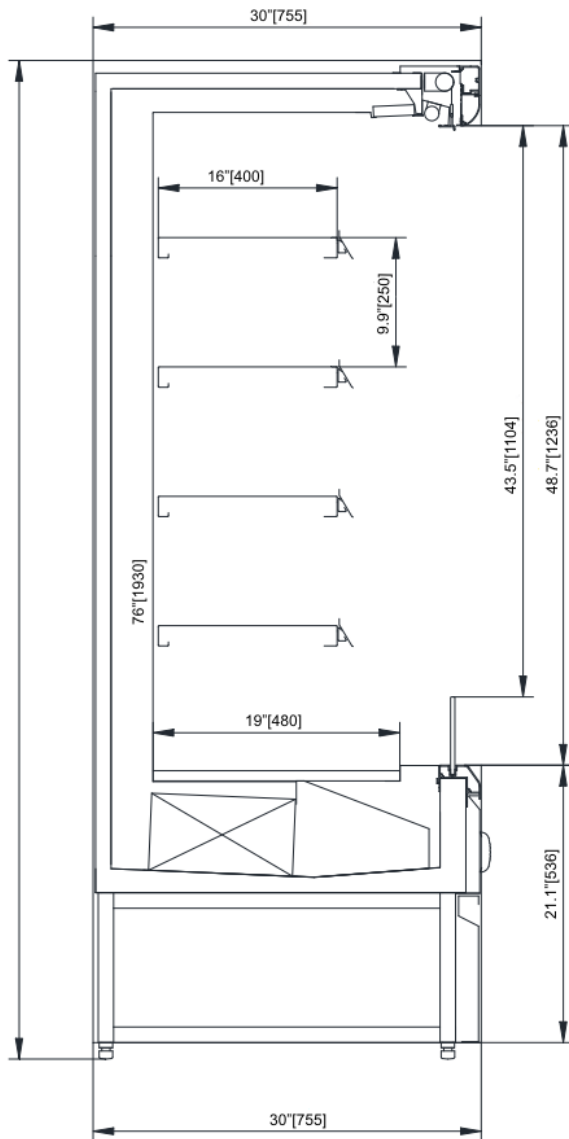
Technical References

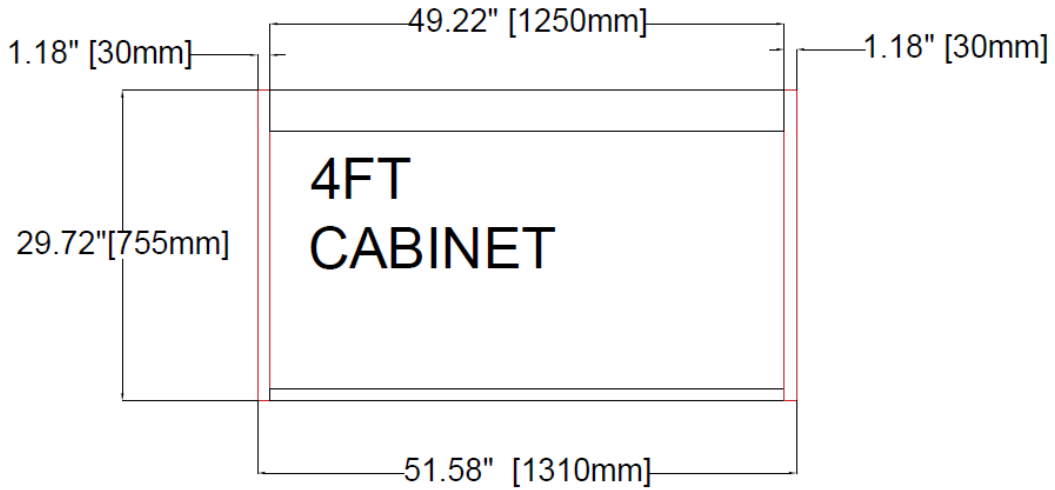
I.Side View & Plan Views

IMOC4,IMOC6

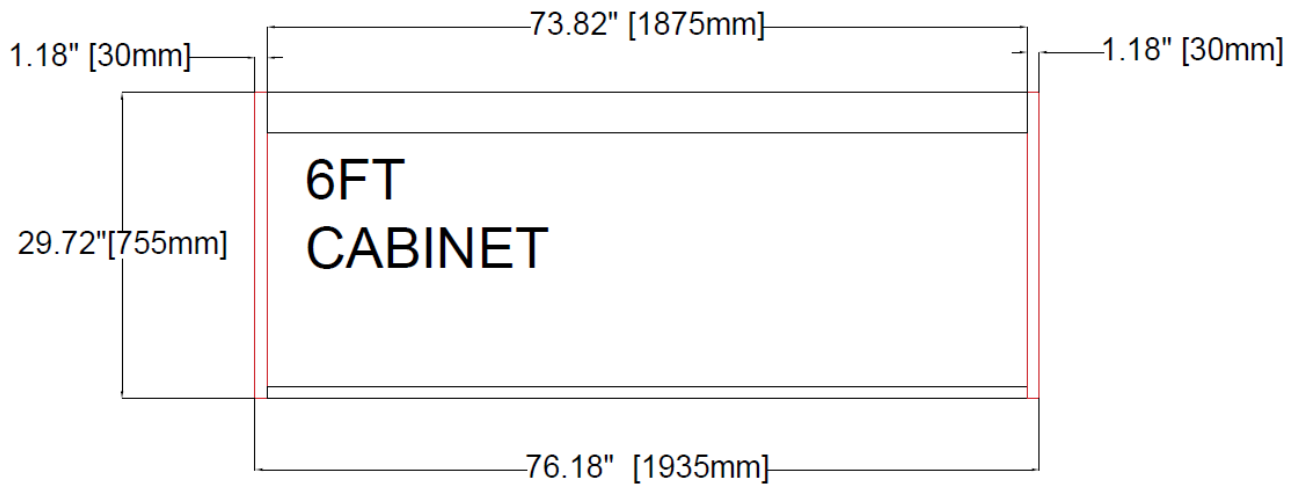
Length 1250/1875mm +Side Panel 30mm*2

Height 1930mm





Plant View



Plant View

II. Refrigeration

Serial Number	OC/2024xxxxx	Model	IMOC4
External Dimension	1310*755*1930(mm)	Climate Class	3(25℃/60%RH)
Refrigerant	R290 150g	Rated Voltage	115V 60Hz 1PH
Temperature Class	M2(-1~7℃)	Class Equipment	I
Display Area	2.81m ²	Rated Power Input	1051W
Net Volume	663L	Lighting Power	90W
Compressor Power	730W	Fan Power	182W
Anti-condensation Power	37W	Net Weight	280kg
Defrosting Heater Power	/	Manufacture Date	

Serial Number	OC/2024xxxxx	Model	IMOC6
External Dimension	1935*755*1930(mm)	Climate Class	3(25℃/60%RH)
Refrigerant	R290 140g*2	Rated Voltage	115V 60Hz 1PH
Temperature Class	M2(-1~7℃)	Class Equipment	I
Display Area	3.67m ²	Rated Power Input	1956W
Net Volume	994L	Lighting Power	140W
Compressor Power	738.2WX2	Fan Power	273W
Anti-condensation Power	55W	Net Weight	330kg
Defrosting Heater Power	/	Manufacture Date	

PRODUCT ENGINEERING DATA(PED)

SELF CONTAINED MEDIUM TEMPERATURE OPEN MERCHANDISER

DESCRIPTION	UNIT		
Model		IMOC4 (4ft)	IMOC6(6ft)
Temperature	°C	M1/M2/H1	
Climate class		3	3
Length	mm	1310	1935
Width	mm	755	
Height	mm	1930	
Display area	m ²	2.81	3.67
Volume	l	663	994
Refrigerant		R290	R290
Evaporator Fans Wattage	W	31x2	31x3
Condenser Fans Wattage	W	60x2	60x3
Wattage-Canopy (LED)	W	18x1	14x2
Wattage-Shelf(LED)	W	18x4	14x8
Wattage-Controller	W	12	12
Heater wire Wattage	W	37	55
Wattage-Compressor	W	1450	738.2x2

III. Electrical

Power Supply & Electrical Connection

Case Length	Volts	Hz	Phase	Total amps	Min.Circuit Ampacity	Max.Overcurrent Protection
4'	115	60	1	20.5A	24.35A	32.5A
6'	115	60	1	28.8A	33.48A	49.53A



NEMA 5-20P (2 Pole 3 Wire, 20A 125V grounding Plug) for 4' open merchandiser
With 3M length cable.



NEMA L5-30 (2 Pole 3 Wire, 30A 125V Grounding Locking Plug) for 6' Open merchandiser
With 3M length cable.

Controller Operation



CAUTION:

The controller parameters have been set before leaving the factory, please do not change at will, if in special circumstances, please contact the after-sales service.

PJS2* easy - Controllore elettronico con inter



→ **LEGGI E CONSERVA
QUESTE ISTRUZIONI** ←
**READ AND SAVE
THESE INSTRUCTIONS**

  **NO POWER
& SIGNAL
CABLES
TOGETHER**
READ CAREFULLY IN THE TEXT!

ENG Display and functions

During normal operation, the controller displays the value of the probe set using parameter /4 (=1 ambient probe, default, =2 second probe, 3= third probe). In addition, the display has LEDs that indicate the activation of the control functions (see Table 1), while the 3 buttons can be used to activate/deactivate some of the functions (see Table 2).

LEDs and associated functions









icon	function	normal operation			start up
		ON	OFF	blink	
	compressor	on	off	request	ON
	fan	on	off	request	ON
	defrost	on	off	request	ON
AUX	aux	output on	output off	-	ON
	alarm	all	no alarm	-	ON
	clock	RTC fitted and enabled, at least 1 time band set	RTC not fitted or disabled, not even 1 time band set	-	ON if RTC fitted

Table of functions activated by the buttons

button		normal operation		start up	
		pressing the button alone	pressed together		
	up ON/OFF	more than 3 s: toggle ON/OFF	Pressed together start/stop continuous cycle or defrost (refer to H6)	-	-
	down light	more than 1 s: swich ON/OFF light			
	set mute	- 1 s.: display/set the set point - more than 3 s: access parameter setting menu (enter password '22') - mute audible alarm (buzzer)	-		for 1 s RESET current EZY set

Tab. 2

Setting the set point (desired temperature)

- press SET for 1 s, the set value will start flashing after a few moments;
- increase or decrease the value using UP or DOWN;
- press SET to confirm the new value.

Switching the device ON/OFF

Press UP for more than 3 s. The control and defrost algorithms are now disabled and the instrument displays the message "OFF" alternating with the temperature read by the set probe.

Switching Light ON/OFF

Press DOWN for more than 1s.

Manual defrost

Press UP and DOWN together (depends on H6) for more than 3 s.

Continuous cycle

Press UP and DOWN together (depends on H6) for more than 3 s.

Access and setting type F (frequent) and type C (configuration) parameters

1. press SET for 3 s (the display will show "PS");
2. • to access the type F and C parameter menu, enter the password "22" using UP/DOWN;
• to access the F parameter menu only, press SET (without entering the password);
3. scroll inside the parameter menu using UP/DOWN;
4. • to display/set the values of the parameter displayed, press SET, then UP/DOWN and finally SET to confirm the changes (returning to the parameter menu).

To save all the new values and exit the parameter menu, press SET for 3 s;

To exit the menu without saving the changed values (exit by timeout) do not press any button for at least 60 s.

Summary Table of Operating Parameters**Parameters table**

Item	Code	Description	Default	Factory setting
1	PS	password	22	22
2	rd	Control differential($^{\circ}\text{F}$)	2	5.4
3	st	Temperature set point($^{\circ}\text{F}$)	4	39.5
4	C0	Comp. and fans start delay after start-up (minute)	0	3
5	C1	Minimum time between consecutive compressor starts(minute)	0	3
6	C2	Min. compressor off time	0	3
7	dl	Interval between two defrosts(hours)	8	6
8	dt	End defrost temperature($^{\circ}\text{F}$)	4	53.6
9	dP	Max. or effective defrost duration (minute)	30	30
10	dd	Dripping time after defrost	2	3
11	/5	Set $^{\circ}\text{C}$ or $^{\circ}\text{F}$	0	1

Electrical Wiring (1P,115V,60Hz)

Electrical wiring for 4' Open Merchandiser

Electrical Wiring for 110V/60Hz 4' Open Merchandiser

Self evaporation by Electrical Heating

图例说明

□ 4mm²端子

说明：
1、图中未标注的
线径为美标18#，wiring not marked is 18AWG

18	Q1	空气开关/Air Break Switch	60mmx20mmx10
17	T1	变压器/Tad Driver	72W UL
16	E2	蒸发器加热器/ Evaporation Fan	240W (F7C) 120V
15	E1	蒸发器加热器/ Evaporation Fan	240W (F7C) 120V
14	F1	压缩机/FUSE	10A UL
13	Comp.	压缩机/Compressor	820W 115V
12	C.F	冷凝风机/Cool. Fan	
11	E.F	蒸发器风机/Evap. Fan	
10	A.H	加热丝/Anti-static Heater	
9	SW2	行开关/Levelling Switch	
8	SW1	脚踏开关/Coaling Switch	
7	L	照明灯/Light	24W
6	T	接码端子/Terminal	
5	SI	柜温探头/Zone Temp. Sensor	
4	S2	化霜探头/Def. Terminal Sensor	
3	TC	温控器/Temp. Controller	CR60115V 1P/2525110V
2	KM	交流接触器/Contactor	LC1-D0873line
1	P1	电源插头/Power Plug	115Vac 60Hz 30A

此虚线框内为冷柜电控盒部装组件
115Vac 60Hz 30A

接地线在内衬板上进行转接，内衬板上
接地线应使用O型端子，端子排上接地线
使用针型端子
The grounding wire is transferred
on the inner lining plate.
the grounding wire on the inner
lining plate should use O-type
terminals
the grounding wire on the terminal
block should use pin terminals

标记	处数	分区	更改文件号	签名
设计	姚清源	2024.4.13	标准化	年月日
审核				
工艺				
共 1 张 第 1 张				比例
MWDD0000032				


Single condensing unit, 115V, Self evaporation by electrical heating 单压缩机115V电加热自蒸发

Installation

Location&Environment







Store conditions

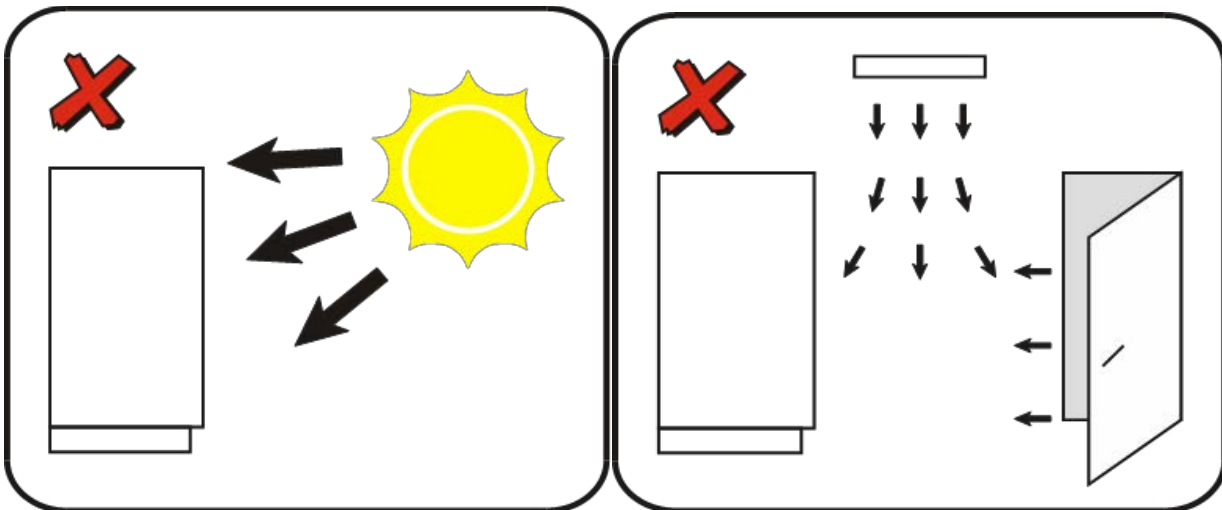
The cases are designed to operate in following conditions. Any heat or air movement in the area should be avoided, as this will affect performance.

 Merchandisers should not be located within close proximity to ventilation ducts, open doors, direct sunlight, etc.

AMBIENT TEMPERATURE	< 25°C
RELATIVE HUMIDITY	< 60%
AIR SPEED	< 0.2m/s

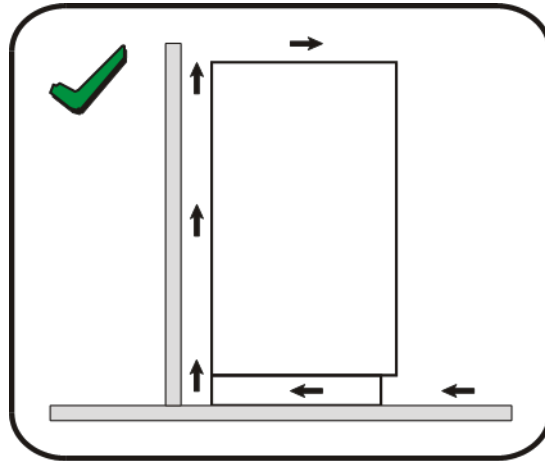
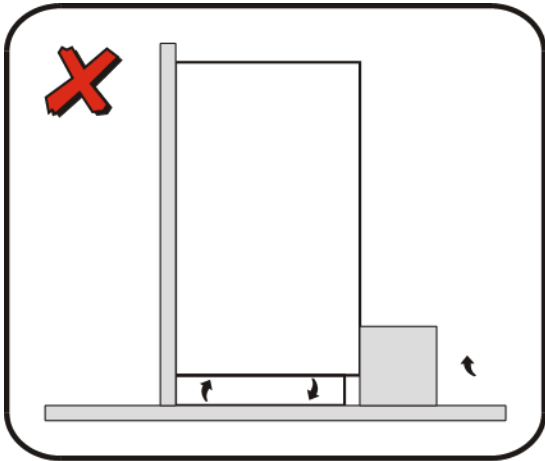
Using conditions:

-  Must be used in the air-conditioned stores;
-  Cannot be placed in direct sunlight;
-  Cannot be placed near the heat sources;
-  Cannot be placed near the doorway;
-  Cannot be placed in the area that air conditioning blows straight;
-  Cannot be placed in leaking or damp areas.



- The cabinet should be located in such a manner that air will freely circulate the evaporative tray and back of the case to avoid the formation of condensation. A gap of 100mm needs to be maintained to the back of the display case for a heat exhaust vent.
- The finished backs on these cases and oversized end caps ensure adequate air flow spacing.

Failure to allow the air to escape may lead to condensation and water pooling or the case tripping out on high pressure.




Ensure that adequate refrigeration, electrical isolation, and circuit protection is incorporated within the final installation as necessary to meet all relevant requirements and match the design criteria of the supply systems.

STEP 1

The Case can be forked at the indicated position on the back of the case with a dedicated fork slot.



NEVER! lift from the refrigeration tray, electrical tray or underside of gable end as this could cause significant damage. Lifting should only be done by pre-determined fork lift slots at rear of case

 **Caution:** lifting from the underside of the cabinet may cause significant damage.

Extreme care should be taken to avoid damage to refrigeration and electrical equipment mounted beneath or at the rear of the case. A label affixed to the reverse of the cabinet gives clear lifting instructions

The case should be kept horizontal, avoid flipping over and leaning during the movement. Level on flat ground and drainage unblocked.

After placement, adjust foot bolt at the bottom to make sure balance and, otherwise, it will cause the cabinet stress non-uniformity and noise.

STEP 2

There is one pair of such supporting parts in the accessories bag, to install them at the back of the case to make sure the 100mm gap between the case and the wall.



Once case has been located to clear and level surface . Case can then be pushed on it's permanently mounted wheels to positioning point.

STEP 3

Shelf Mounting

Locate shelf frames in slotted column to required height and angle. Only use recommended shelf configurations as case performance can be affected by over-stocking or incorrect shelving configurations.



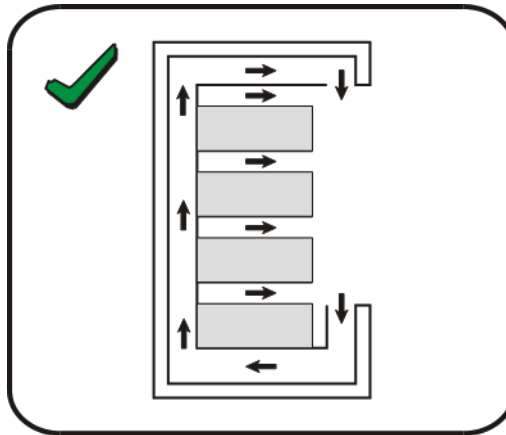
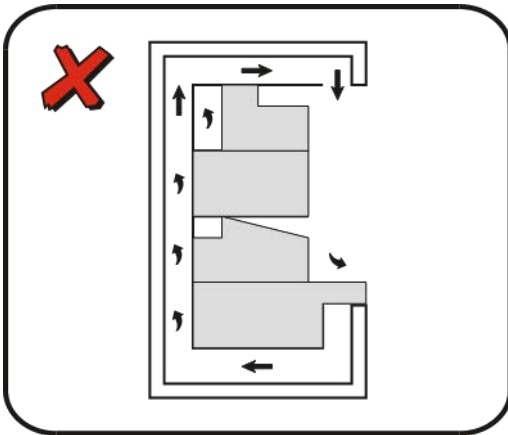
Caution: Do not load individual shelves with more than 150 kg/m²

Loading of Merchandise

⚠ Caution: Always allow air space between the product and the shelf or canopy above in order to maintain cold air circulation. It is also imperative that the air return grille remains clear and free of blockages at all times. Blocking the grille with decoration, advertising, product etc will cause the problems with the case air flow and temperature. Products stacked too tightly will not allow air flow around the product or case and this will cause problems.



Air return grille remains clear, blocking the grille will cause problems.



⚠ Failure to enable cold air to circulate as designed can lead to improper product temperature and also effects the operation of the case.

Clean & Maintenance

Clean

Daily Clean

Use a damp cloth with a mild soap, to wipe down the internal panels ,front panels and all areas that may contact retail products. More frequent cleaning might be necessary depending on product types displaying.

One Month Clean

Remove and wash removable condensing unit mesh

Clean the front of the Condenser Unit using an evaporator comb to remove dust and other particles. Take care not to damage refrigeration pipes

Six Month Clean

Deep cleans should be carried out involving dismantling, cleaning and inspecting the case to ensure correct operation of all areas. Only qualified personnel should carry out this process.

When cleaning cases only use non-abrasive, odorless detergent cleaner suitable for food hygiene environments, diluted to the manufacturers recommended concentration.

When cleaning debris from the case base, in order to avoid blockages or damage, the following points must be observed:

- i. When working inside the case take care not to damage any components such as fan blades or probes and do not put strain on any cables.
- ii. Where electrical components are fitted with plug and sockets, these should be removed prior to cleaning.
- iii. Do not directly apply water to fan motors or any other electrical components in the case.
- iv. Only use a soft cloth and mild glass cleaner for cleaning glass or mirrored components.
 - Be sure to rinse and/or dry completely.

Maintenance

General Check List

General Checks should only be carried out by qualified and approved refrigeration and electrical engineers.

- 1) Ensure all cable connections are secured; especially all screw terminals, earth leads and straps.
- 2) Ensure insulation is sound to all electrical components including expansion valves, fans, controls, earth and terminals
- 3) Ensure the case internals are free of any foreign materials.
- 4) Electrical safety tests including earth continuity and insulation resistance should be conducted on the case yearly or more frequently if the prevailing electrical regulations specify.
- 5) Ensure that the correct fuse rating and type is fitted for all circuits.
- 6) Ensure all fans, valves, lights, blinds and controls are working correctly.
- 7) Check condenser for damage
- 8) Check evaporator coil for damage.
- 9) Ensure that there are no refrigerant leaks.
- 10) Check drainage connections and tray
- 11) Check that all case panels, glass and trims are secure.



Always electrically isolate case via disconnect switch before carrying out any work that effect or expose electrical components or moving parts such as fan blades

WASTE TREATMENT

When the refrigeration device (such as display case or its parts) scrap, due to the device has an element of pollution to the environment, please do not discard it at will, please contact the local environmental protection department, reasonable handle, to avoid the pollution of the environment.

PRE-POWER CHECKLIST

Before powerng-up the case, be certain that all of the steps listed below have been completed to ensure propper case functionality, safety and compliance with warranty terms.

- Have you thoroughly examined the case for shipping damage?
- Have you checked the case away from the door, ventilation ducts & direct sunlight?
- Have you checked the display case grounded?
- Have you kept at least 100mm gap between the case and the back wall ?
- Once case positioned, have you horizontal leveled the case ?
- Have you applied the sealant to the end breakers of adjoining cases? (if any cases lined up)
- Have you checked that the voltage of the receptacle you are going to use for power and the voltage required for the case match ? (case required : 115V, 60HZ, sticker next to the plug)
- Have you cheked the air grille clear and no blocking ?
- Have you checked products on shelf not stacked too tightly?

Attention

Please read the operation manual detaily before using!

Please keep the display case away from the open door, ventilation dust& direct sunlight.

Please keep at least 100mm distance between the case and the back wall

Please keep the case grounded and leveled horizontally

Case designed as per class 3: 25°C, 60%RH

Please leave air gap above and never stack products too tightly

To clean condensor fans monthly and carry out deep clean every 6 months by qualified personnel.

When cleaning cases, to avoid electrical shock, be sure all electric power is turned off before cleaning.

Do not spray cleaning solution or water directly on fan motors or any electrical connections.

All lighting receptacles must be dried off prior to insertion and re-energizing the lighting circuit.

THANKS FOR CHOOSING ICEMANZ PRODUCTS. WE WISH YOU A NICE EXPERIENCE WITH OUR DISPLAY CASES.