



COMMERCIAL
REFRIGERATOR & FREEZER

SERVICE MANUAL
PICL UNITS

MODEL: PICL1

PICL2

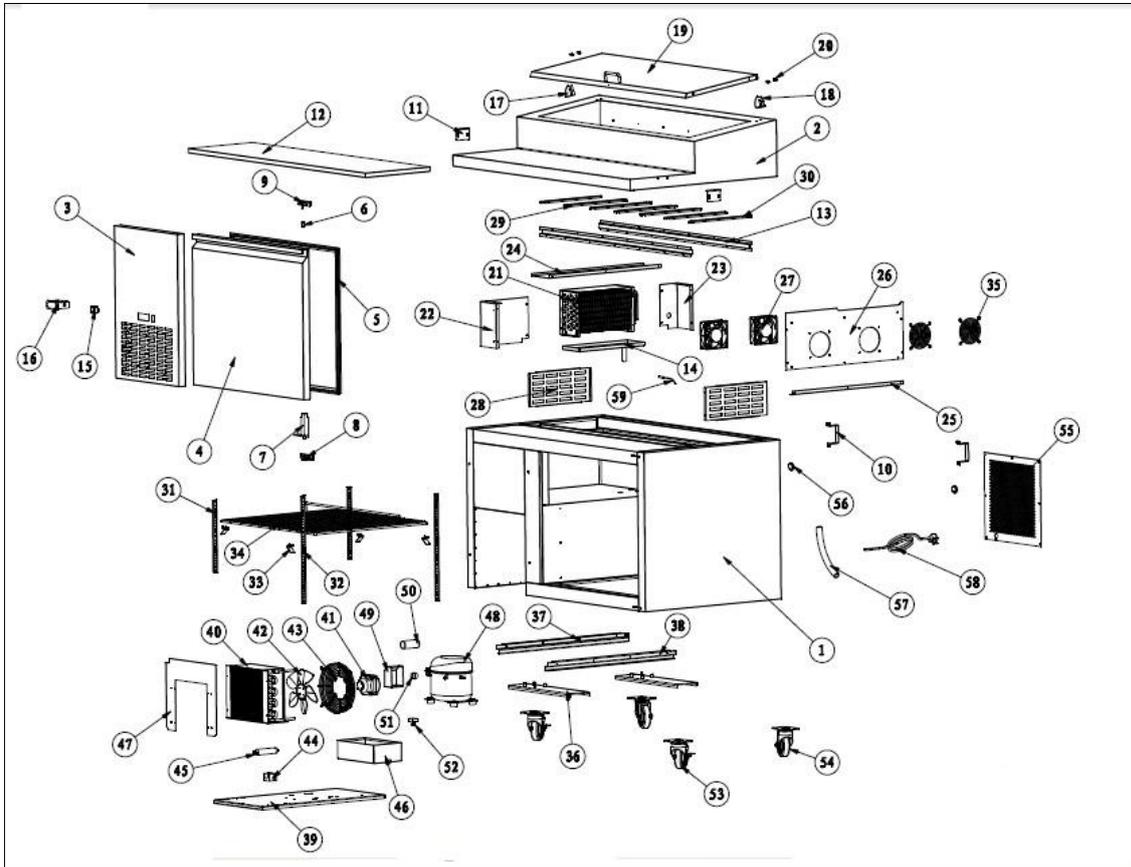
PICL3

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1. EXPLODED VIEW AND PARTS LIST

1.1 PICL1



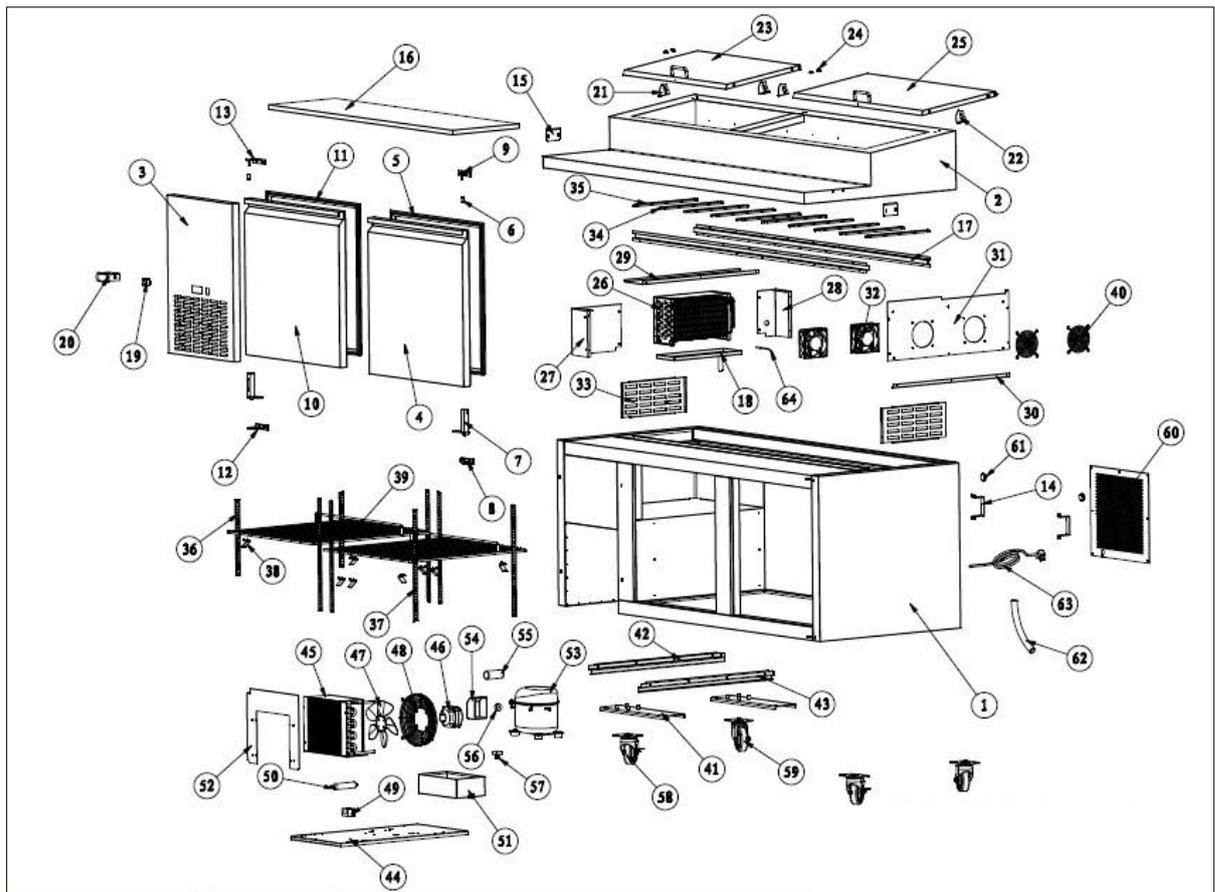
1	CABINET	31	K STRIP-3 HOLES ★
2	TOP COMPONENT	32	K STRIP-4 HOLES ★
3	CONTROL PANEL ★	33	K CLIP: 178CLIP
4	DOOR ★	34	SHELF: 178SHELFPIC1
5	GASKET: 178GSKT16809	35	EVAPORATOR FAN MOTOR COVER: 17815699
6	HINGE AXIS	36	CASTOR SUPPORTER ★
7	SPRING HINGE: 178CARTRIDGE	37	LEFT TRACK FOR COMPRESSOR INSTALLATION BOARD ★
8	BOTTOM RIGHT HINGE: 178HINGSSCLBR	38	RIGHT TRACK FOR COMPRESSOR INSTALLATION BOARD ★
9	UPPER RIGHT HINGE: 178HINGSSCLTR	39	COMPRESSOR UNIT INSTALLATION BOARD ★
10	STAND OFF BRACKET: 17818837	40	CONDENSER: 17817074
11	BRACKET FOR CUTTING BOARD	41	CONDENSER FAN MOTOR: 17819194
12	CUTTING BOARD: 178CBP1950	42	CONDENSER FAN MOTOR BLADE: 17816125
13	BRACKET FOR PAN ★	43	CONDENSER FAN MOTOR COVER:17812233
14	INNER DRAIN PAN: 17814797	44	FILTER MOUNT ★
15	POWER SWITCH: 17810365 (RED)	45	FILTER ★
16	THERMOSTAT: 17815350 (CAREL)	46	OUTER DRAIN PAN: 17810248

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17	LEFT HINGE FOR THE LID: 17810932	47	AIR SHIELD BOARD ★
18	RIGHT HINGE FOR THE LID: 17810933	48	COMPRESSOR: 17814554
19	LID: 17815779	49	SPLICE BOX ★
20	LID HINGE PIN: 17815331	50	START CAPACITOR ★
21	EVAPORATOR: 17816024	51	OVERLOAD PROTECTOR ★
22	LEFT SUPPORT OF EVAPORATOR COVER ★	52	STARTER ★
23	RIGHT SUPPORT OF EVAPORATOR COVER ★	53	4" CASTER WITH BRAKE: 17816412
24	UPPER SUPPORT OF EVAPORATOR COVER ★	54	4" CASTER: 17819301
25	BOTTOM SUPPORT OF EVAPORATOR COVER ★	55	BACK GRILL ★
26	EVAPORATOR FAN COVER ★	56	FOAMING HOLE COVER ★
27	EVAPORATOR FAN MOTOR: 17813407	57	DRAIN TUBE(Φ16mm) ★
28	INNER GRILL ★	58	POWER CORD: 17810175
29	PAN BRACKET-1" WIDE: 178PICB25331	59	TEMPERATURE SENSOR OF CABINET INSIDE: 17813890
30	PAN BRACKET-9/16" WIDE: 178PICB15331		

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1.2 PICL2

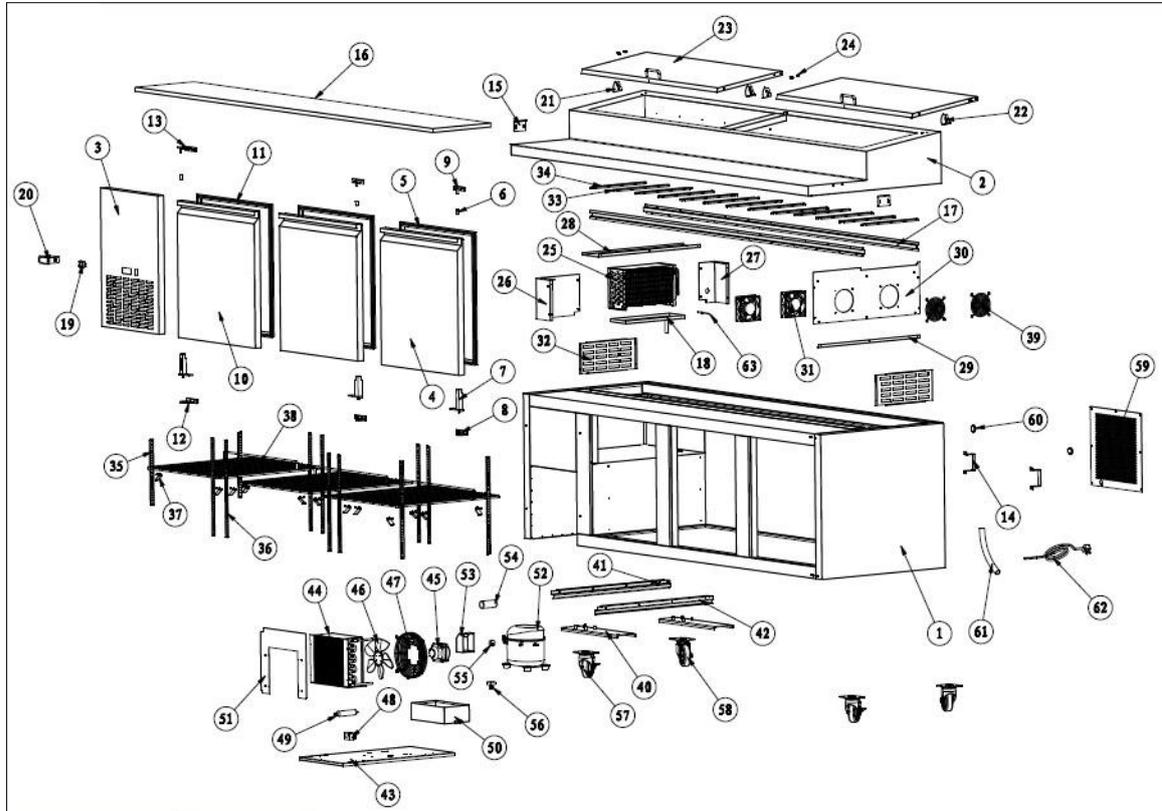


1	CABINET	33	INNER GRILL: ★
2	TOP COMPONENT	34	PAN BRACKET-1" WIDE: 178PICB25331
3	CONTROL PANEL ★	35	PAN BRACKET-9/16" WIDE: 178PICB15331

4	RIGHT DOOR ★	36	K STRIP-3 HOLES ★
5	GASKET: 178GSKT18130	37	K STRIP-4 HOLES ★
6	HINGE AXIS	38	K CLIP: 178CLIP
7	SPRING HINGE: 178CARTRIDGE	39	SHELF: 178SHELFPIC2
8	BOTTOM RIGHT HINGE: 178HINGSCLEBR	40	EVAPORATOR FAN MOTOR COVER: 1785699
9	UPPER RIGHT HINGE: 178HINGSCLETR	41	CASTOR SUPPORT ★
10	LEFT DOOR	42	LEFT TRACK FOR COMPRESSOR INSTALLATION BOARD ★
11	GASKET: 178GSKT18130	43	RIGHT TRACK FOR COMPRESSOR INSTALLATION BOARD ★
12	BOTTOM LEFT HINGE: 178HINGSCLEBL	44	COMPRESSOR UNIT INSTALLATION BOARD
13	UPPER LEFT HINGE: 178HINGSCLETL	45	CONDENSER: 17815157
14	STAND OFF BRACKET: 17818837	46	CONDENSER FAN MOTOR: 17810976
15	BRACKET FOR CUTTING BOARD	47	CONDENSER FAN MOTOR BLADE: 17811089
16	CUTTING BOARD: 178CBP1971	48	CONDENSER FAN MOTOR COVER: 17812233
17	BRACKET FOR PAN ★	49	FILTER MOUNT ★
18	INNER DRAIN PAN: 17816747	50	FILTER ★
19	POWER SWITCH: 17810365 (RED)	51	OUTER DRAIN PAN: 17810248
20	THERMOSTAT: 17815350 (CAREL)	52	AIR SHIELD BOARD ★
21	LEFT HINGE FOR THE LID: 17810932	53	COMPRESSOR: 17810635
22	RIGHT HINGE FOR THE LID: 17810933	54	SPLICE BOX ★
23	LID (SMALL): 17815165	55	START CAPACITOR ★
24	LID HINGE PIN: 17815331	56	OVERLOAD PROTECTOR ★
25	LID (LARGE): 17815779	57	STARTER ★
26	EVAPORATOR: 17813347	58	4" CASTER WITH BRAKE: 17816412
27	LEFT SUPPORT OF EVAPORATOR COVER ★	59	4" CASTER: 17819301
28	RIGHT SUPPORT OF EVAPORATOR COVER ★	60	BACK GRILL ★
29	UPPER SUPPORT OF EVAPORATOR COVER ★	61	FOAMING HOLE COVER ★
30	BOTTOM SUPPORT OF EVAPORATOR COVER ★	62	DRAIN TUBE(Φ16mm) ★
31	EVAPORATOR FAN COVER ★	63	POWER CORD: 17810175
32	EVAPORATOR FAN MOTOR: 17813407	64	TEMPERATURE SENSOR OF CABINET INSIDE: 17813890

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1.3 PICL3



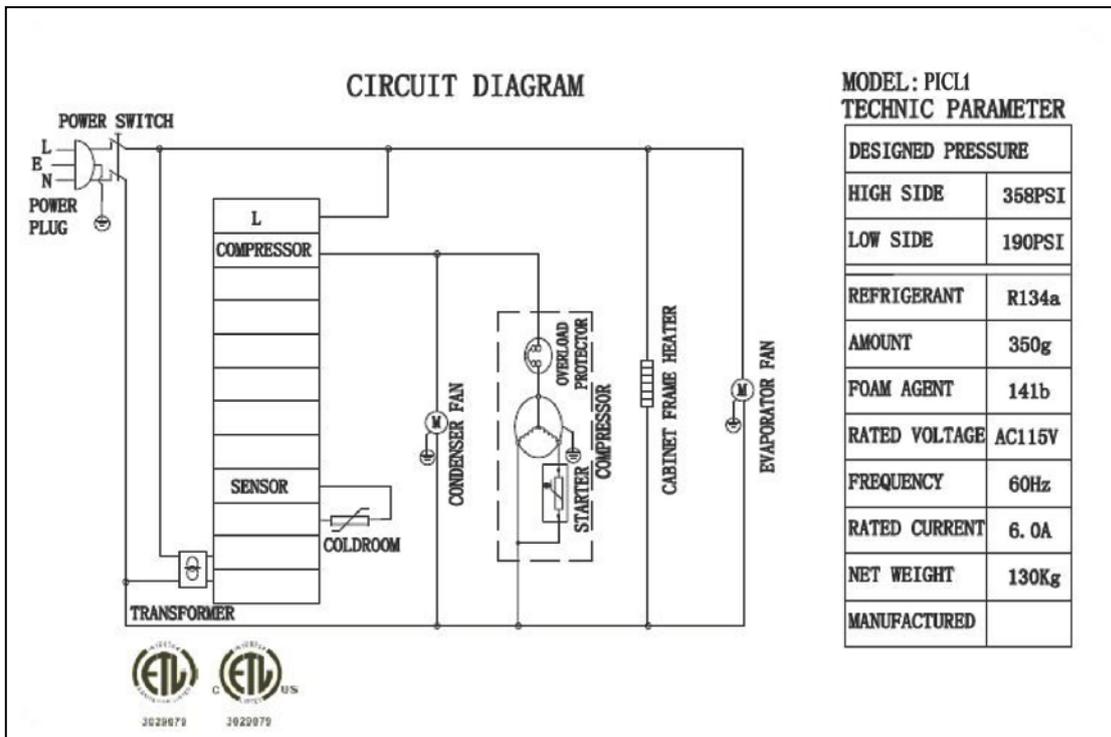
1	CABINET	33	PAN BRACKET-1" WIDE: 178PICB25331
2	TOP COMPONENT	34	PAN BRACKET-9/16" WIDE: 178PICB15331
3	CONTROL PANEL ★	35	K STRIP-3 HOLES ★
4	DOOR (MIDDLE AND RIGHT)	36	K STRIP-4 HOLES ★
5	GASKET: 178GSKT17749	37	K CLIP: 178CLIP
6	HINGE AXIS	38	SHELF: 178SHELFPIC3
7	SPRING HINGE: 178CARTRIDGE	39	EVAPORATOR FAN MOTOR COVER: 17815699
8	BOTTOM RIGHT HINGE: 178HINGESCLBR	40	CASTER SUPPORT ★
9	UPPER RIGHT HINGE: 178HINGESCLTR	41	LEFT TRACK FOR COMPRESSOR INSTALLATION BOARD ★
10	DOOR(LEFT)	42	RIGHT TRACK FOR COMPRESSOR INSTALLATION BOARD ★
11	GASKET: 178GSKT17749	43	COMPRESSOR UNIT INSTALLATION BOARD ★
12	BOTTOM LEFT HINGE: 178HINGESCLBL	44	CONDENSER: 17818779
13	UPPER LEFT HINGE: 178HINGESCLTL	45	CONDENSER FAN MOTOR: 17810976
14	STAND OFF BRACKET: 17818837	46	CONDENSER FAN MOTOR BLADE: 17811089
15	BRACKET FOR CUTTING BOARD	47	CONDENSER FAN MOTOR COVER: 17812233
16	CUTTING BOARD: 178CBP1992	48	FILTER MOUNT ★
17	BRACKET FOR PAN ★	49	FILTER ★
18	INNER DRAIN PAN: 17812712	50	OUTER DRAIN PAN: 17810248
19	POWER SWITCH: 17810365 (RED)	51	AIR SHIELD BOARD ★

20	THERMOSTAT: 17815350 (CAREL)	52	COMPRESSOR: 17818892
21	LEFT HINGE FOR THE LID: 17810932	53	SPLICE BOX ★
22	RIGHT HINGE FOR THE LID: 17810933	54	START CAPACITOR ★
23	LID: 17813724	55	OVERLOAD PROTECTOR ★
24	LID HINGE PIN: 17815331	56	STARTER ★
25	EVAPORATOR: 17811952	57	4" CASTER WITH BRAKE: 17816412
26	LEFT SUPPORT OF EVAPORATOR COVER ★	58	4" CASTER: 17819301
27	RIGHT SUPPORT OF EVAPORATOR COVER ★	59	BACK GRILL ★
28	UPPER SUPPORT OF EVAPORATOR COVER ★	60	FOAMING HOLE COVER ★
29	BOTTOM SUPPORT OF EVAPORATOR COVER ★	61	DRAIN TUBE(Φ16mm) ★
30	EVAPORATOR FAN COVER: ★	62	POWER CORD: 17810175
31	EVAPORATOR FAN MOTOR: 17812073	63	TEMPERATURE SENSOR OF CABINET INSIDE: 17813890
32	INNER GRILL ★		

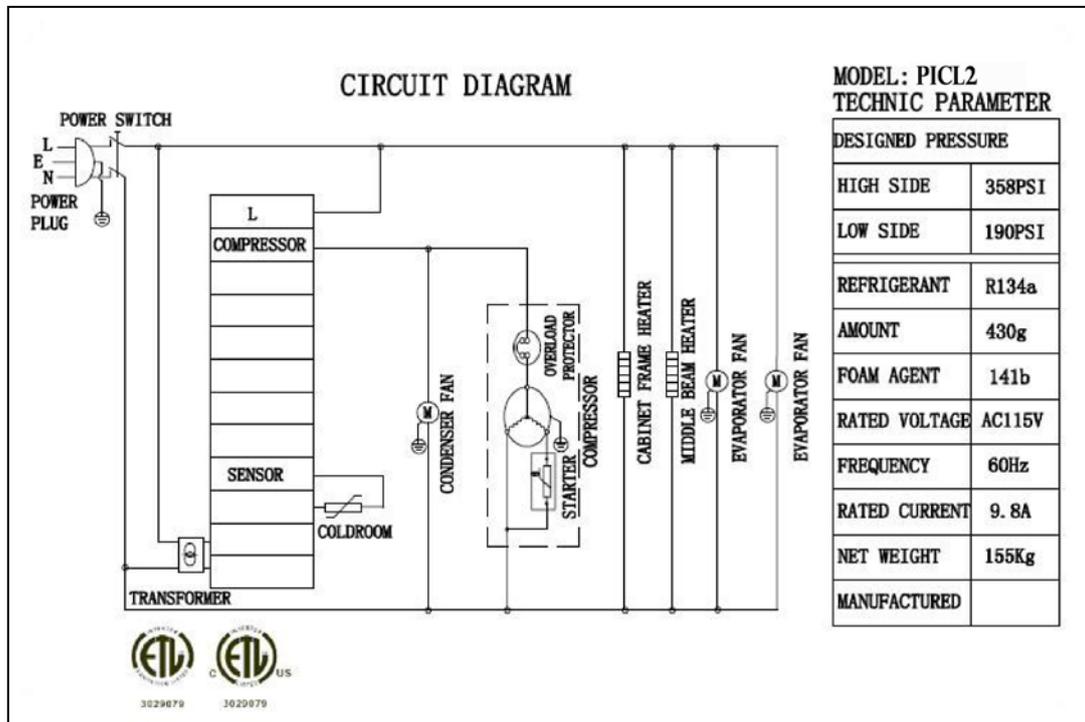
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2. WIRING DIAGRAM

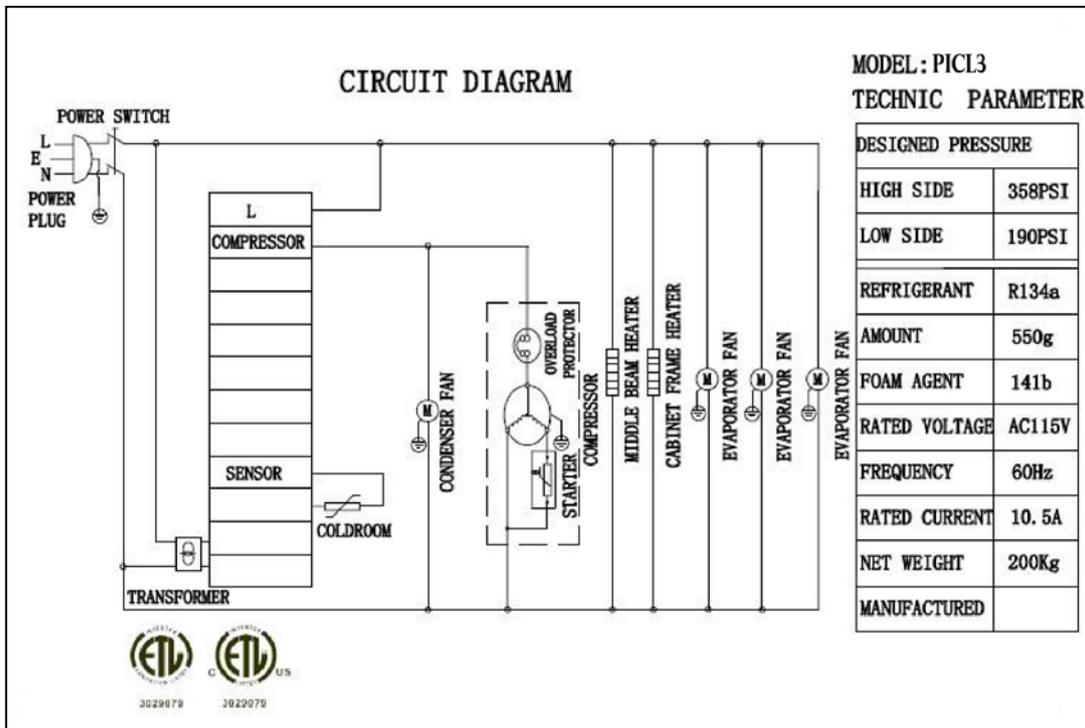
2.1 PICL1



2.2 PICL2

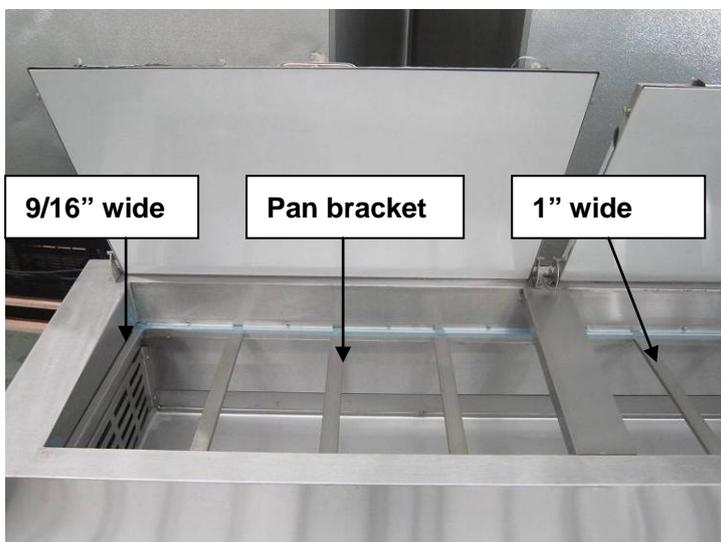
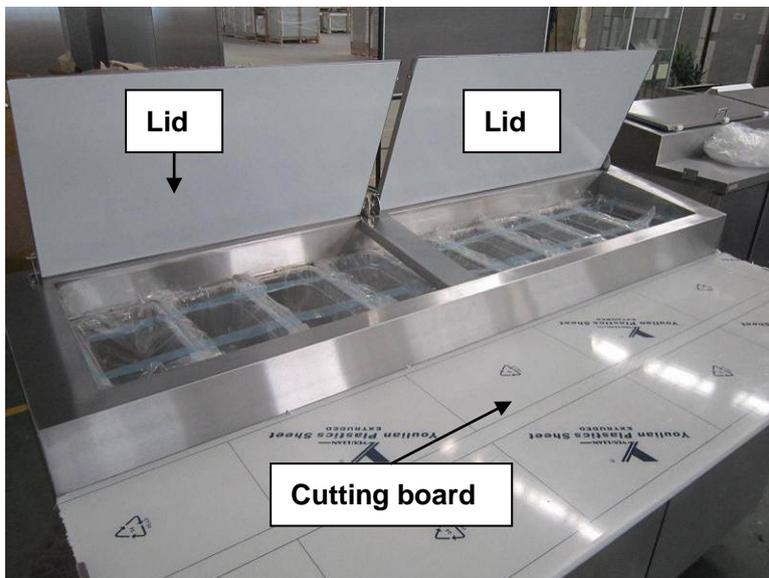
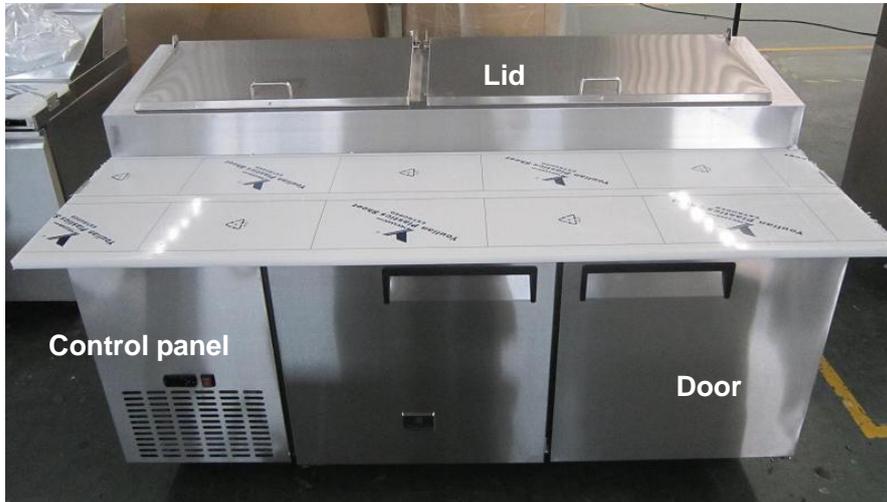


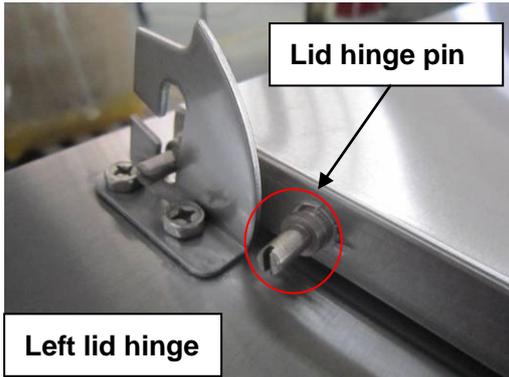
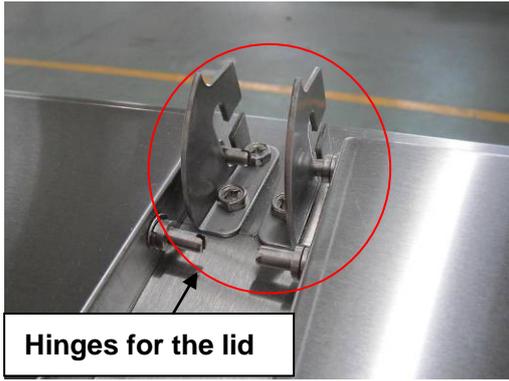
2.3 PICL3



3. PART DETAIL

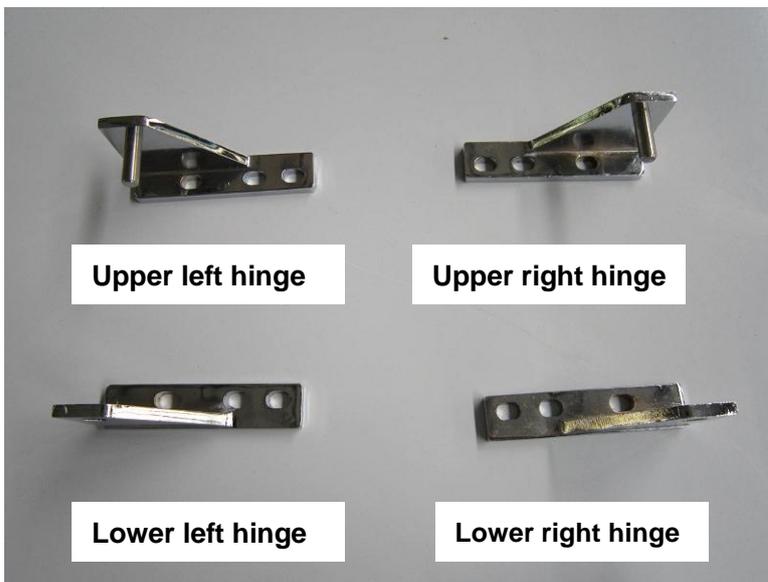
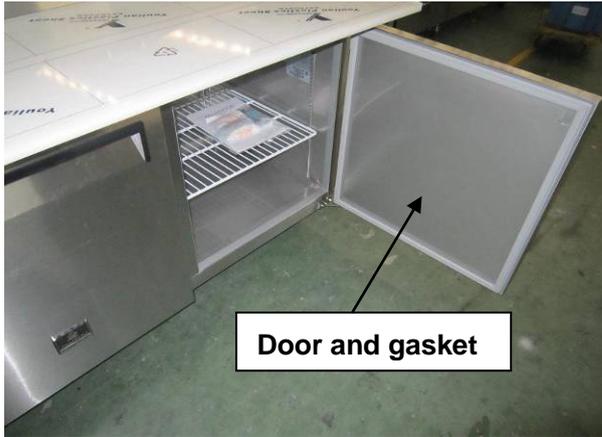
3.1 Front view



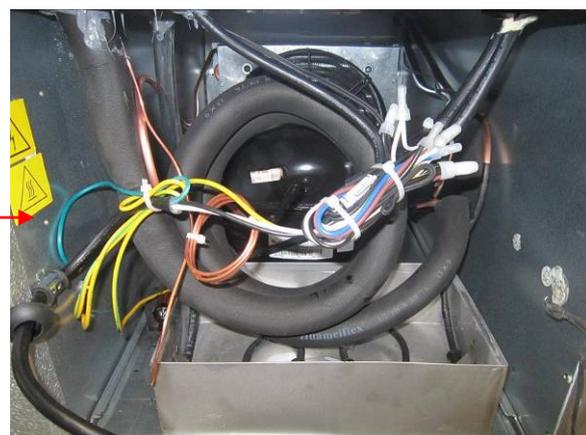


The unit after removing control panel



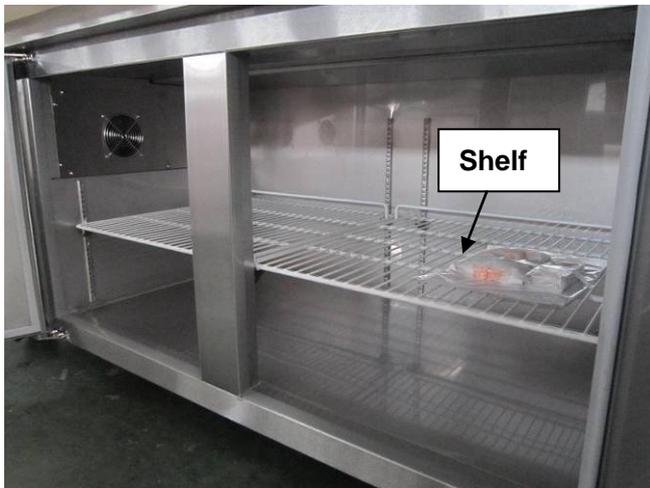


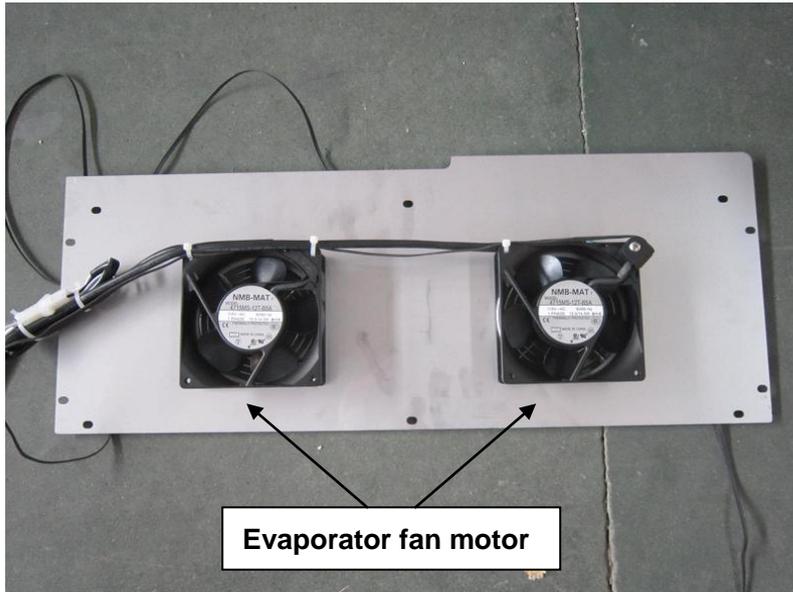
3.2 Back view





3.3 Inner view





Evaporator fan motor



Evaporator and inner drain pan

4. CONTROLLER INSTRUCTION

4.1 Refrigerator controller

Digital controller model: PJEZ



Dimensions (mm)

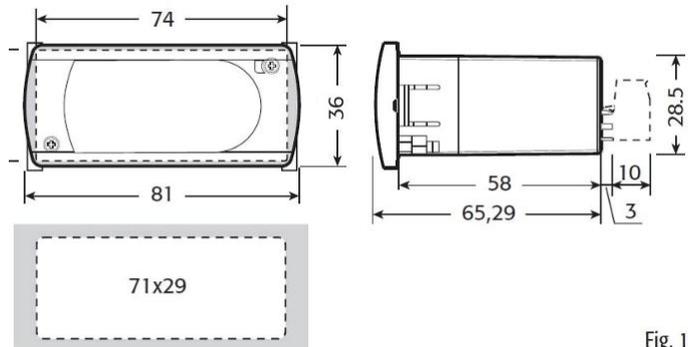


Fig. 1

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

Tab. 1

Table of functions activated by the buttons - models S, X, Y, C

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	-	
	down defrost	more than 3 s: start/stop defrost			
	set mute	- 1 s.: display/set the set point - more than 3 s: access parameter setting menu (enter password '22') - mute audible alarm (buzzer)	-	Pressed together start parameter reset procedure	for 1 s display firmware vers. code for 1 s RESET current EZY set

Tab. 2

Setting the set point (desired temperature)

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

Switching the device ON/OFF

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

Manual defrost

Press for **DOWN** more than 3 seconds (the defrost starts only if the temperature conditions are valid).

Continuous cycle

Press **UP** and **DOWN** together for more than 3 seconds.

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

1. Press **SET** for 3 seconds (the display will show "PS");
2. To access the type F and C parameter menu, press **SET**, enter the password "22" using **UP/DOWN**, press **SET** to confirm;
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 seconds;
To exit the menu without saving the changed values (exit by timeout) do not press any button for at least 60 seconds.

5. REPLACEMENT OF MAIN PARTS

CAUTION!!!

Before beginning with replacement work make sure the device has been disconnected from the power socket (pull the power plug) and has been cooled down.

5.1 Door

A. Unscrew the bottom hinge. Unscrew the last screw while applying pressure and while holding the door to prevent damage or injury.



After unscrewing the bottom hinge, you can pull down the door from the device and replace the door/hinge/hinge cartridge/gasket.

B. Install a new door. Assemble the lower hinge with the hinge cartridge first.



C. Match the upper hinge and hinge axis, and install the bottom hinge while applying pressure.



5.2 Compressor and condenser unit

A. Remove the control panel.



B. You can replace controller and power switch here.



C. Remove the back grill.



D. Disconnect the wire connection, you can pull out the compressor unit and replace main parts here.



5.3 Evaporator unit

A. Unscrew all the screws around the evaporator fan cover.



B. Remove the evaporator fan cover.



C. You can replace the evaporator fan motor here.



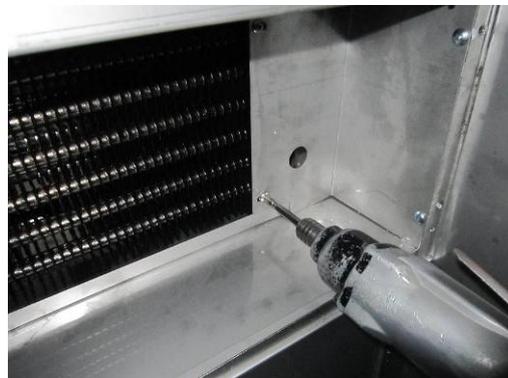
D. You can disconnect the connection and remove evaporator fan cover.



E. The figure of evaporator unit after removing the cover.



F. Unscrew each supporter of evaporator unit.



G. The figure of the evaporator unit after removing the supporters.



H. Disconnect the welding and replace evaporator and inner drain pan here.



6. CLEANING AND MAINTENANCE

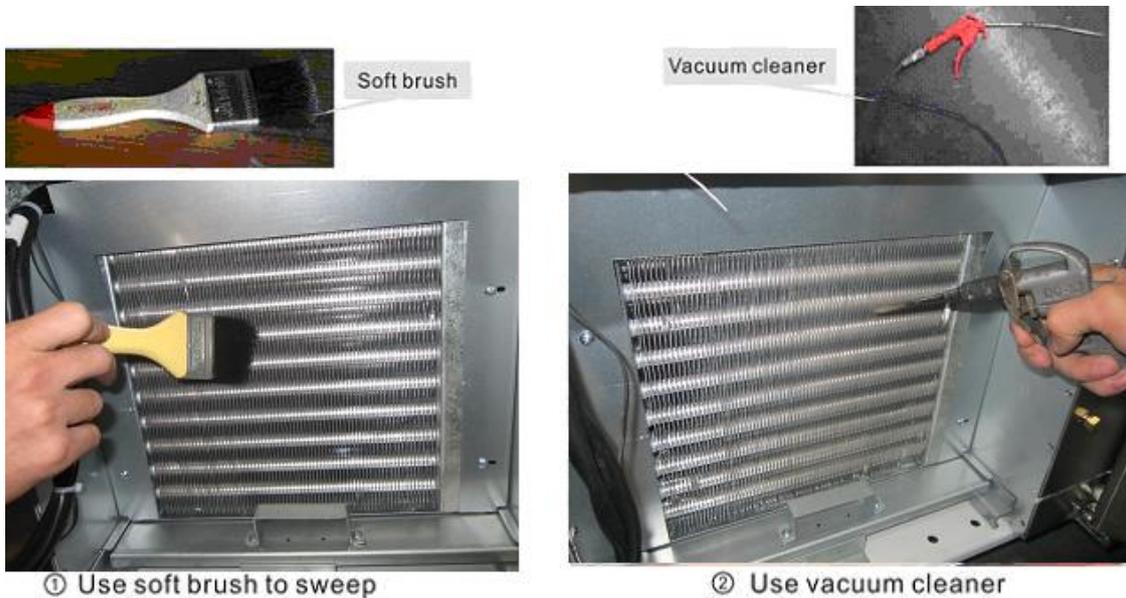
6.1 Cleaning

CAUTION!!! Before cleaning the cabinet, ensure it is disconnected from the main power supply.

A. Clean exterior and interior of the device with a moist and soft cloth. Dry and polish the device with a soft and dry cloth after cleaning.



B. Use a vacuum cleaner and soft brush to delicately clean the surface of the condenser unit.



Tips for cleaning

1. Clean the device regularly.
2. Never use harsh cleaning substances such as scouring powder or cleaners containing alcohol or solvents that could damage the device's surface
3. Condenser unit must always be kept clean and free of dust. If not, the device will not perform well.
4. Never use a stiff brush to clean the device.
5. Do not pressure wash the unit.

6.2 Maintenance

1. Clean the exterior and interior of the device and condenser unit regularly.
2. Check the main power cord for damage from time to time. Never operate the device when the cord is damaged. A damaged cord must immediately be replaced by customer service or a qualified electrician.
3. In case of damage or malfunction, please contact our customer service center at 1-800-678-5517.
4. If the device is not going to be used for a long period time, remove the plug from its socket and remove the food in the device. Clean and dry the device thoroughly.
5. Only a qualified technician and using original spare parts and accessories should carry out repairs and maintenance of the device. Do not attempt to repair the device yourself.

7. TROUBLESHOOTING

TROUBLESHOOTING GUIDE	Before calling for service, review this list. It may save you time and expense. This list includes common occurrences that are not the result of defective workmanship or materials in this appliance.	
PROBLEM	CAUSE	CORRECTION
APPLIANCE OPERATION		
Appliance does not run.	·Appliance is plugged into a circuit that has a ground fault.	·Use another circuit. If you are unsure about the outlet, have it checked by a certified technician.
	·Temperature control is in the "OFF" position.	·See "controller instruction".
	·Appliance may not be plugged in, or plug may be loose.	·Ensure plug is tightly pushed into outlet.
	·House fuse blown or tripped circuit breaker.	·Check/replace fuse with a 15 amp time delay fuse. Reset circuit breaker.
	·Power outage.	·Check house lights. Call local Electric Company.
Appliance runs too much or too long.	·Room or outside weather is hot.	·It's normal for the appliance to work harder under these conditions.
	·Appliance has recently been disconnected for a period of time.	·It takes hours for the appliance to cool down completely.
	·Large amount of warm or hot food have been stored recently.	·Warm food will cause appliance to run more until the desired temperature is reached.
	·Door is opened too frequently or kept open too long or slightly open.	·Warm air entering the appliance causes it to run more. Open the door less often. Completely close the door.
	·Temperature control is set too low.	·Set controller to a warmer setting. Allow several hours for the temperature to stabilize.
	·Appliance gaskets are dirty, worn, cracked or poorly fitted.	·Clean or change gasket. Leaks in the lid seal will cause appliance to run longer in order to maintain desired temperature.
Interior appliance temperature is too cold.	·Temperature control is set too low.	· Set controller to a warmer setting. Allow several hours for the temperature to stabilize.
Interior appliance temperature is too warm.	·Temperature control is set too warm.	· Set controller to a colder setting. Allow several hours for the temperature to stabilize.
	·Door is opened too frequently or kept open too long.	·Warm air entering the appliance causes it to run more. Open the door less often.
	·Appliance door may be slightly open.	·Completely close the door.
	·Large amount of warm or hot food have been stored recently.	·Wait until the appliance has had a chance to reach its selected temperature.
	·Appliance has recently been disconnected for a period of time.	·Appliance requires several hours to cool down completely.
Appliance external surface temperature is warm.	·The external appliance walls can be as much as 30°F warmer than room temperature.	·This is normal while the compressor works to transfer heat from inside the appliance cabinet.

PROBLEM	CAUSE	CORRECTION
SOUND AND NOISE		
Louder sound levels whenever appliance is on.	·Modern appliances have increased storage capacity and more stable temperatures. They require heavy duty compressors.	·This is normal. When the surrounding noise level is low, you might hear the compressor running while it cools the interior.
Louder sound levels when compressor comes on.	·Appliance operates at higher pressure during the start of the ON cycle.	·This is normal. Sound will level off or disappear as appliance continues to run.
Popping or cracking sound when compressor comes on.	·Metal parts undergo expansion and contraction, as in hot water pipes.	·This is normal. Sound will level off or disappear as appliance continues to run.
Bubbling or gurgling sound.	·Refrigerant (used to cool appliance) is circulating.	·This is normal.
Vibrating or rattling noise.	·Appliance is not level. It rocks on the floor when it is moved.	·Level the appliance by putting wood or metal shims under part of the appliance.
	·Floor is uneven or weak.	·Ensure floor can adequately support appliance. Level the appliance by putting wood or metal shims under part of the appliance.
	·Appliance is touching the wall.	·Re-level appliance or move appliance slightly.
WATER / MOISTURE / FROST INSIDE APPLIANCE		
Moisture forms on inside appliance walls.	·Weather is hot and humid, which increases internal rate of frost build up.	·This is normal.
	·Door is slightly open.	·Make sure the door is closed completely.
	·Door is kept open too long or is opened too frequently.	·Open the door less often.
ODOR IN APPLIANCE		
Odors in appliance.	·Interior needs to be cleaned.	·Clean interior with sponge, warm water, and baking soda.
	·Foods with strong odors are in the appliance.	·Cover the food tightly.
DOOR PROBLEMS		
Door will not close.	·Appliance is not level. It rocks on the floor when it is moved slightly.	·Level the appliance by putting wood or metal shims under part of the appliance.
	·Floor is uneven or weak.	·Ensure floor can adequately support appliance. Level the appliance by putting wood or metal shims under part of the appliance.
LIGHTING PROBLEMS		
Light bulb is not on.	·The fluorescent lamp or light bulb is burned out.	·Turn off the power and install a new lamp.
	·No electric current is reaching the appliance.	·Check the plug and house light.