



COMMERCIAL UPRIGHT REFRIGERATOR / FREEZER

SERVICE MANUAL

HRV-78A

HRV-128A

HRV-148A

HFV-78A

HFV-128A

HFV-148A

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I. INSTALLATION INSTRUCTIONS

1. SAFETY INFORMATION



WARNING: RISK OF FIRE / FLAMMABLE MATERIALS

IMPORTANT NOTICE

These appliances contain a small quantity of flammable refrigerant. All machines are to be serviced only by trained technicians for handling of hydrocarbon refrigerant. All electric components are spark free. Ensure they are replaced with genuine authenticated components.

IMPORTANT REFRIGERANT AWARENESS WARNING

Refrigeration system charged with flammable refrigerant.



WARNING: RISK OF FIRE / FLAMMABLE MATERIAL

R-290

R-290 (refrigerant grade propane only)

Ensure all operatives are aware of the cabinet being charged with highly flammable refrigerant.

- Keep clear of obstruction and ventilation openings in the appliance enclosure or in the structure for building in.
- Risk of fire flammable material. Never store any flammable, explosive and corrosive liquid or gas product in the appliance.

ENGLISH

WARNING



Keep Dry

Do not wet the product or use it in potentially wet conditions. This may cause electrical leakage, resulting in electric shock or fire.

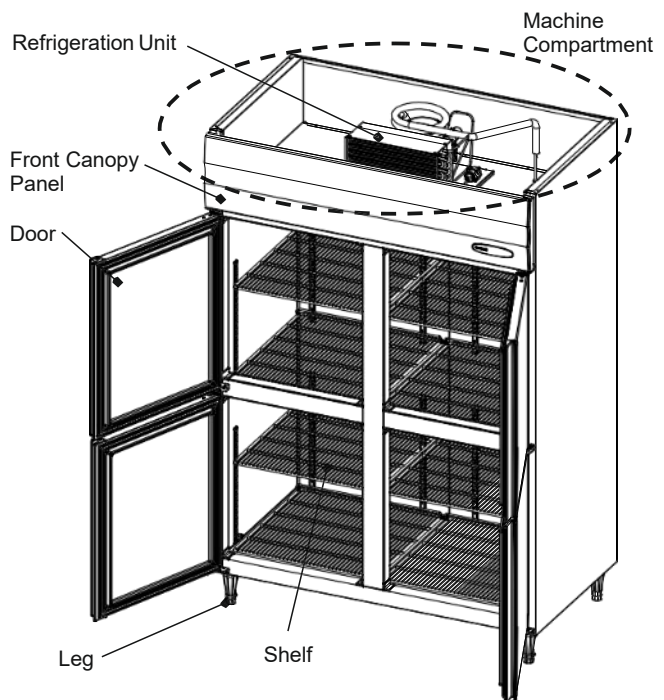
- The refrigerated unit contains R-290 and polyester lubricant. These components have a high moisture absorbing characteristics. Exposure to ambient condition should be avoided. Only approved polyester lubricants to be used. Failure to do so will void all parts and compressor warranty.
- Keep the cabinet surrounding open in order to get proper ventilation.
- Do not damage the refrigeration circuit.
- In case of damage to wiring/power cord, do not replace/repair yourself. Call your authorised service person.
- Do not use electrical appliances inside storage compartment.
- Do not move the unit while in use.

IMPORTANT

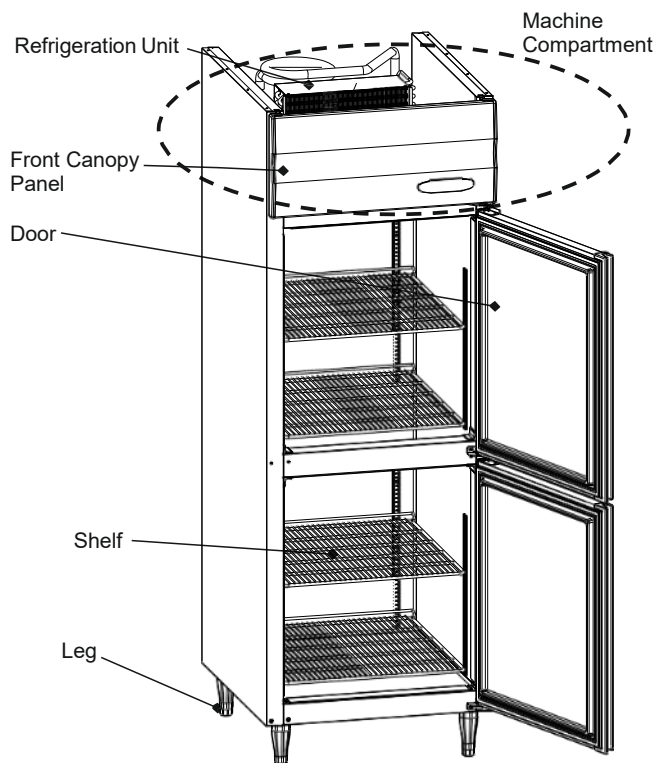
1. This booklet is an integral and essential part of the product and should be kept and preserved by the user. Please read carefully the guidelines and warnings contained herein as they are intended to provide the installer/ user with essential information for the proper installation and the continued safe use and maintenance of the product. Please preserve this booklet for any further consultation that may be necessary.
2. This is a commercial upright refrigerator/freezer, and should be destined only to be used for the purpose for which it has been expressly designed. Any other use should be considered improper and therefore dangerous. The manufacturer will not be held liable or responsible for any damage caused by improper, incorrect and unreasonable use.
3. This appliance can be used by children aged from 8 years and above and 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. Children should be supervised to ensure that they do not play with the appliance.

2. CONSTRUCTION

2.1 (HRV-148/HFV-148)

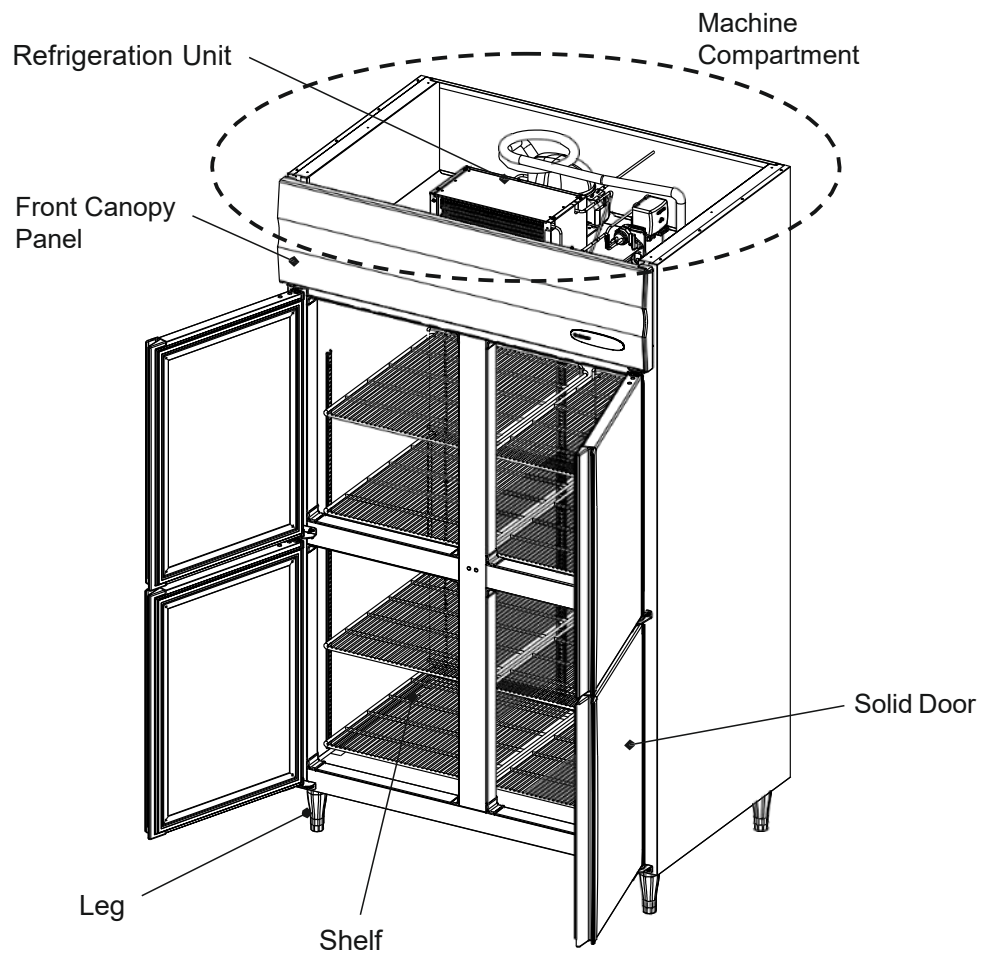


2.2 (HRV-78/HFV-78)



ENGLISH

2.3 (HRV-128/HFV-128)

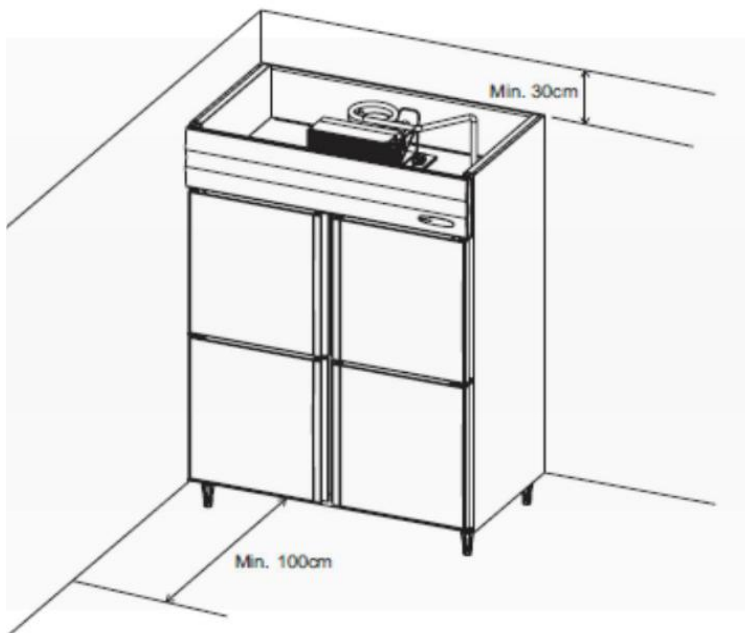


INSTALLATION REQUIREMENTS:

LOCATION:

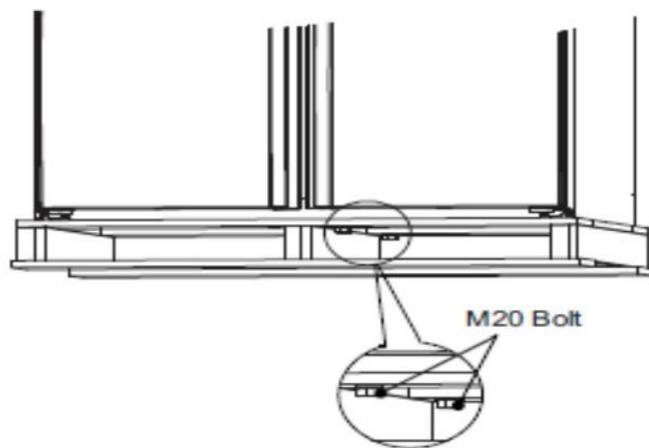
For best operating results,

- 1) The freezer should not be located next to ovens, grills and other high heat producing equipment.
- 2) The location should provide a firm foundation for the equipment.
- 3) Avoid a site where dripping is not allowed. Especially a side by side, back to back installation.
- 4) Do not expose the unit to direct sun light or higher temperatures.
- 5) Allow 100 cm clearance at front of the unit for smooth operation. Also allow 30 cm clearance from the ceiling to the top of the unit.



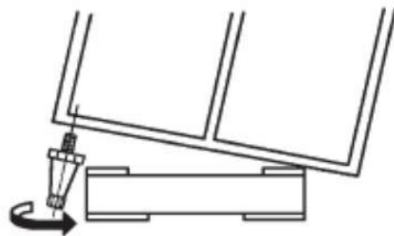
SET UP:

- 1) Cut the vinyl shipping tape and remove the carton
- 2) Take out the accessory shelves, shelf clips and legs. Attach the four shelf clips horizontally to the shelf posts. Place the shelf's on the shelf clips.
- 3) Remove the two bolts on the bottom of the unit.

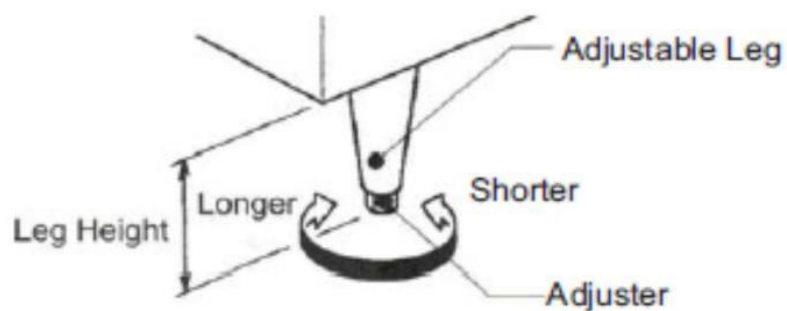


- 4) Turn the unit 90 degrees on the pallet, tilt the unit sideways, and screw in the two adjustable legs.

Note: Keep the adjusters 2 cm longer to make it easy to pull out the pallet.



- 5) Tilt the unit in opposite direction and screw the other two legs.
 6) Slide out the pallet from the unit.
 7) Install the accessory drain pan according to its installation instructions provided (Part No. 1602643).
 8) Level the freezer in both left and right, front and rear sides.



TECHNICAL SPECIFICATIONS

Model	HRV-78A	HFV-78A	HRV-128A	HFV-128A	HRV-148A	HFV-148A
Power Supply	Single phase, 220 - 240V AC, 50Hz					
Rated Current	2.2 Amp	3.1 Amp	3.8 Amp	5.5 Amp	3.8 Amp	5.5 Amp
Rated Power	460 Watt	670 Watt	760 Watt	1210 Watt	760 Watt	1210 Watt
Power cord	16 Amps / 3 meter					
Effective capacity	572 Liters		1024 Liters		1272 Liters	
Outside dimension	700 (W) x 818 (D) x 2050 (H - with 150mm leg)		1200 (W) x 818 (D) x 2050 (H - with 150mm leg)		1400 (W) x 818 (D) x 2050 (H - with 150mm leg)	
Inside dimension	596 (W) x 700 (D) x 1505 (H)		1076 (W) x 690 (D) x 1495 (H)		1296 (W) x 700 (D) x 1505 (H)	
Insulation foam blowing agent	Cyclopentane					
Refrigeration system	Forced air circulation					
Defrost system	In compressor off cycle	Heater defrost	In compressor off cycle	Heater defrost	In compressor off cycle	Heater defrost
Refrigerant	R-290					
Temperature control	Electronic controller					
Defrost control	By temperature controller					
Electric circuit protection	Non resettable fuse (Glass fuse)					
Operating condition	Ambient temperature : 5 - 43°C Voltage range rated voltage ±6%					
Shelf	4 pcs of shelves		8 pcs of shelves			
Cabinet Lamp	LED lamp x 1, 4W		LED lamp x 1, 7.5W		LED lamp x 2, 4W	

PROEDURE TO OPEN THE CANOPY:

STEP 1



STEP 2



STEP 3

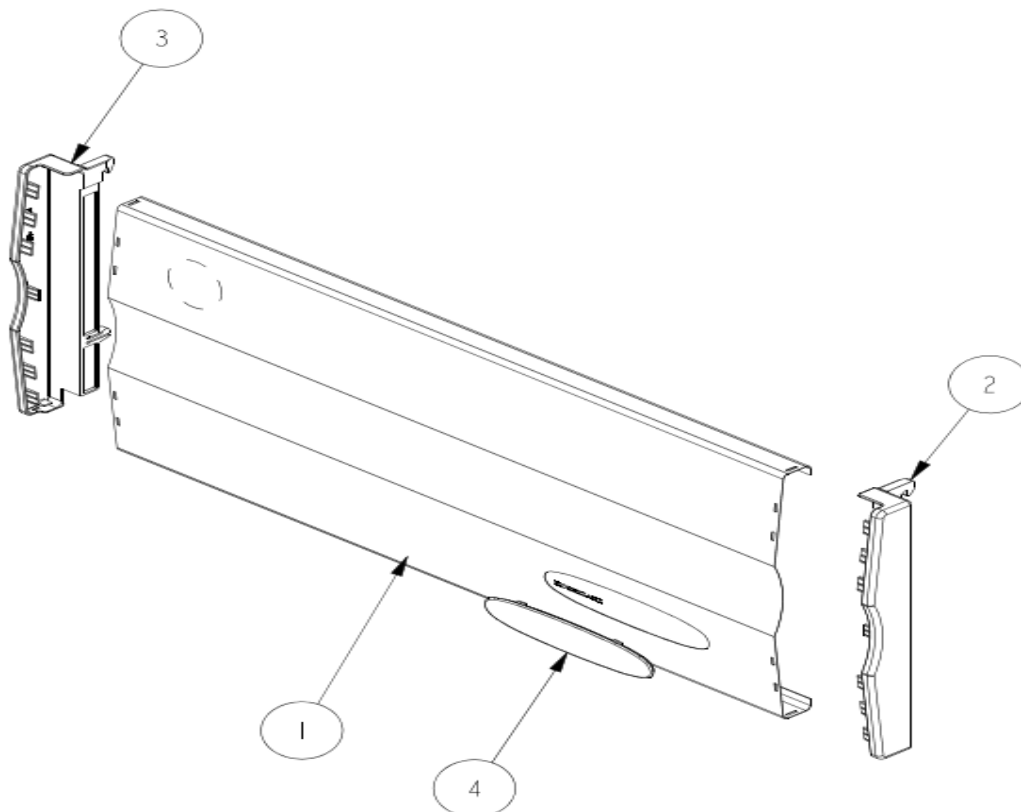


Step 1: Catch the canopy on both sides at the bottom.

Step 2: After that pull canopy on your side, the locks will release at bottom as shown in figure.

Step 3: Then remove the canopy by lifting it up as shown in figure.

After removing the canopy, you can get the access to machine room for service.



PROCEDURE TO REPLACE EVAPORATOR FAN MOTOR:



Unscrew the four screws T4 X 12 (4 pcs) fitted to fan guard.

EVAPORATOR MOTOR 10W

STEP 2

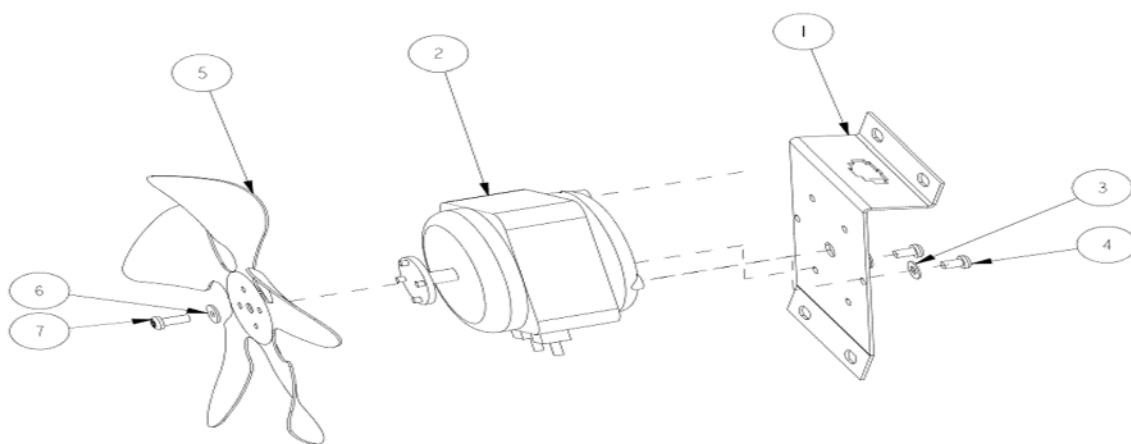


STEP 3



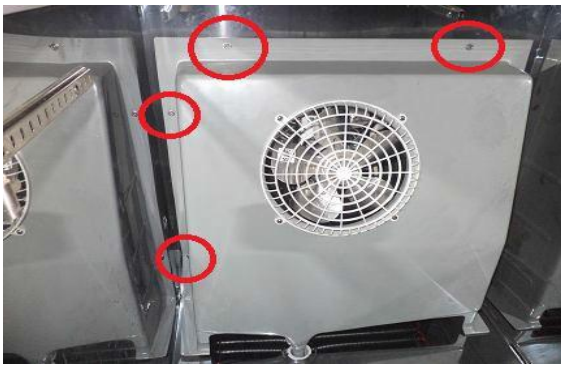
Unscrew the Impeller (5x8,V 34) motor screw and take out with washer.

Unscrew the four screws N4 X 8 (4 pcs) fitted to the motor bracket, then remove the motor from the bracket.



PROCEDURE TO REPLACE DEW COLLECTOR HEATER:

STEP 1



Unscrew the six screws M5 TAPTITE fitted to the dew collector as shown in above figure.

STEP 2



After unscrewing the six screws, open the dew collector, then you can find aluminum plate fixed to the dew collector. Open the aluminum plate by lifting it up.

STEP 3



After removing the aluminum plate, you can find a wire heater pasted with foil sticker as shown in figure.

Remove the heater and heater connector from power box as shown in figure. Install the new heater, then fix the parts as per the sequence.

Dew Collector Heater specification:

Type: foil heater, located below evaporator coil, power - 28 W, voltage - 230 V AC

PROCEDURE TO REPLACE DEFROST HEATER

Open the dew collector as explained previously.

After opening the dew collector, you can find the heater fitted to the evaporator coil as shown in figure below.

Heater Specification: Type: Immersion Heater

Location : Inside evaporator coil



Unscrew the four screws as shown in figure, remove the heater connector from the power box assembly. Then remove the heater and change with new one.



PROCEDURE TO REPLACE DEFROST SENSOR

STEP 1



Step 1: Open the dew collector assembly as explained previously.

STEP 3



Step 3: After opening the dew collector, you can find a sensor fitted in between the evaporator fins as shown in figure.

Step 4: Remove the sensor from the evaporator fins and replace with new one.

Step 5: After replacing with new sensor, reassemble the parts vice versa.

STEP 2



Step 2: Unplug the sensor connector from the power.

PROCEDURE TO REPLACE APPLICATION SENSOR

STEP 1



Step 1: Open the dew collector assembly as explained previously.



STEP 2



Step 2: Unplug the sensor connector from the power box.

Step 3: After opening the dew collector, you can find a sensor fitted to bracket as shown in figure.

Step 4: Remove the sensor bracket by unscrewing three screws and replace with the new one.

Step 5: After replacing with new sensor, reassemble the parts vice versa.

PROCEDURE TO REPLACE CONDENSER FAN MOTOR:

STEP 1



STEP 2



Step 2: After removing the bracket, unscrew the three screws N3 X 30 SUS fitted with the motor.

Motor Specification: MOTOR 10W -

Step 1: Remove the condenser motor bracket from the unit frame by unscrewing the four screws M5 X 12.

STEP 3



Step 4: After removing the fan motor, change with new one and reassemble the parts as per the sequence.

Step 3: Unplug the connector from the power box, remove the impeller (5x10" V 28) connected to the motor by unscrewing the motor screw as shown in figure.

HOW TO ENTER INTO THE CONTROLLER PERAMETERS:

To change the parameter's value, operate as follows:

1. Enter the programming mode by pressing the SET + DOWN keys for 3s ("C" or "F" LED starts blinking).
2. Select the required parameter. Press the "SET" key to display its value.
3. Use UP or DOWN to change its value.
4. Press "SET" to store the new value and move to the following parameter.

To exit: Press SET + UP or wait 15s without pressing a key.

NOTE: the set value is stored even when the procedure is exited by waiting the time-out to expire.

HOW TO ENTER THE HIDDEN MENU

1. Enter the programming mode by pressing the SET + DOWN keys for 3s ("C" or "F" LED starts blinking).
2. Release the keys, then push again the SET + DOWN keys for more than 7s. The L2 label will be displayed immediately followed by the Hy parameter.

NOW YOU ARE IN THE HIDDEN MENU.

3. Select the required parameter.
4. Press the "SET" key to display its value.
5. Use UP or DOWN to change its value.
6. Press "SET" to store the new value and move to the following parameter.

To exit: Press SET + UP or wait 15s without pressing a key.

PROCEDURE TO REPLACE CONTROLLER:

STEP 1



Remove the power box assembly by unscrewing the two screws placed on either side to the leg control box as shown in figure.

STEP 2



Then unplug all the connectors connected to power box assembly. Now the power box is free from unit assembly.

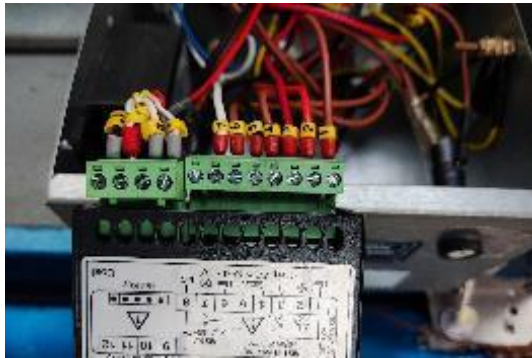


STEP 3

Unscrew the three screws M4 X 8 fitted to the control box cover as shown in figure.



STEP 4



After the removal of top cover, DIXEL CONTROLLER is visible as shown in figure.

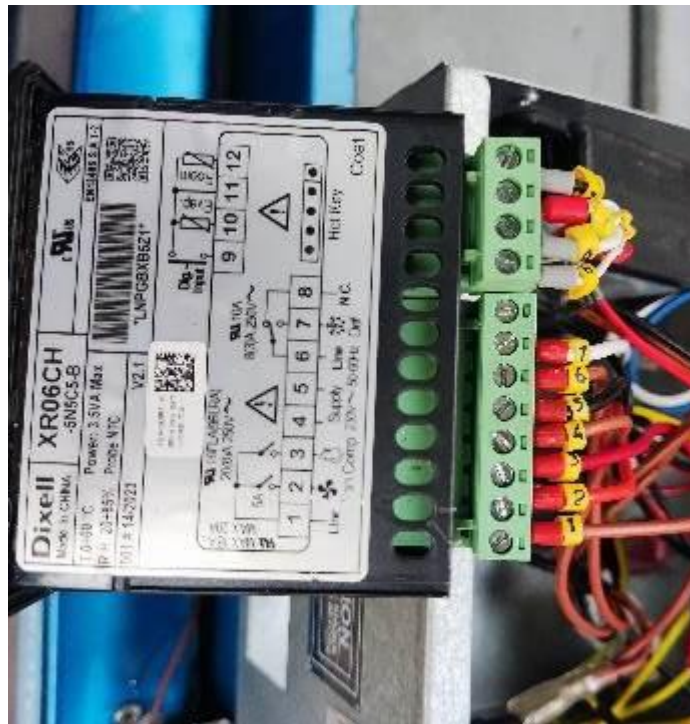
STEP 5



Now remove the side brackets connected on either side as shown in figure.

Now the DIXEL CONTROLLER can be removed from power box.
Replace it with new one and adopt the procedure vice versa to reassemble the power box.

DIXEL CONTROLLER CONNECTION



- | | |
|-----------------------|--------------------------|
| 1. LOOP FOR LIVE WIRE | 6. LOOP FOR LIVE WIRE |
| 2. FAN MOTOR | 7. DEFROST HEATER |
| 3. COMPRESSOR | 8. NO COMMECTION |
| 4. LIVE 230 V | 9. DOOR SWITCH |
| 5. NEUTRAL | 10-11 DEFROST SENSOR |
| | 11-12 APPLICATION SENSOR |

PROCEDURE TO REPLACE DOOR SWITCH:

STEP 1



STEP 2



STEP 3



Unscrew the door hinge and remove door switch from hinge hole as shown in step 1.
Remove switch wire from socket as shown in step 2.
Replace new door switch and fix vice versa.
Check door switch position while closing door as shown in step 3.

PROCEDURE TO REPLACE DOOR GASKET:



Remove the old gasket by pulling it from any of the four corners.
Fix the gasket into the groove from any one of the four corners and then simply press.
Make sure that the gasket is fixed into the groove throughout the door.

PROCEDURE TO REPLACE DOOR ASSEMBLY:

STEP 1



STEP 2



STEP 3



Step 1: Remove the top door hinge by unscrewing the two screws fixed to the cabinet.

Step 2: Remove the top door by pulling it upwards as shown in figure.

Remove the middle hinge by unscrewing the two screws fixed to the cabinet. Now you can remove the bottom door by pulling it upwards.

Step 3: Replace the doors accordingly and assemble them by reversing the procedure.

DIXELL XR06CH-5N5C5-B ELECTRONIC TEMPERATURE CONTROLLER PARAMETER SETTINGS FOR SUS FREEZER MODELS (Controller Version: 2.1)							Revision	C
							Date	30-Sep-2023
Sr. No.	Display on controller	Parameters	VIS	Min.	Max.	UOM	Factory setting	HFV-78A
1	Set	Set point		LS	UP	°C	-5.0	-20.0
							REGULATION PARAMETERS	
2	Hy	Differential	Pr1	0.1	25	°C	2.0	5.0
3	LS	Minimum Set Point	Pr2	-55.0	SET	°C	-55.0	-25.0
4	US	Maximum Set Point	Pr2	SET	9.9	°C	99.0	-7.0
5	ot	First probe calibration	Pr1	-9.9	9.9	°C	0.0	2.0
6	P2	Second probe presence	Pr1	n - y		-	yes	y
7	oE	Second probe calibration	Pr2	-9.9	9.9	°C	0.0	0.0
8	od	Outputs activation delay at start up	Pr2	0	99	Min	0	3
9	AC	Anti-short cycle delay	Pr1	0	50	Min	1	4
10	Cy	Compressor ON time faulty probe	Pr2	0	99	Min	15	20
11	Cn	Compressor OFF time faulty probe	Pr2	0	99	Min	30	10
12	Mc	Minimum compressor ON time	Pr2	0	99	Min	0.0	5.0
							DISPLAY PARAMETERS	
13	CF	Measurement units	Pr2	°C	°F	°C / °F	°C	°C
14	rE	Resolution (only for °C)	Pr1	dE	in	dE	dE	dE
15	Ld	Default Display	Pr2	P1, P2, P3, P4, SP, dr		P1	P1	P1
16	dy	Display delay	Pr2	0	15	Min	0	1
							DEFROST PARAMETERS	
17	td	Defrost type	Pr1	EL - in		-	EL	EL
18	dE	Defrost termination temperature	Pr1	-50.0	50	°C	8	30
19	id	Interval between defrost cycles	Pr1	0	99	Hrs	6	5
20	Md	Maximum length for defrost	Pr1	0	99	Min	30	20
21	dd	Start defrost delay	Pr2	0	99	Min	0	0
22	dF	Display during defrost	Pr2	rt - in - sp - dE		-	it	dE
23	dt	Drip time	Pr2	0	99	Min	0	2
24	dP	Defrost at power-on	Pr2	y - n		-	no	n
25	dn	Defrost mode	Pr1	dP - in - cd		-	15	dP
26	yd	Auto defrost start temperature band	Pr1	0	99	°C	15	60
27	cd	Minimum continuous duration	Pr1	0	60	°C	5	30
28	Mi	Auto defrost on delay	Pr1	0	24	Hrs	2	2
29	hu	Avoid times about startup delay	Pr1	0 ÷ 99 times		-	5	5
30	cu	The hours to trigger accumulative defrost	Pr1	0 ÷ 10 h		Hrs	5	3
							FANS PARAMETERS	
29	FC	Fans operating mode	Pr1	cn - on - cY - oY		-	On	cn
30	Fd	Fans delay after defrost	Pr1	0	99	Min	10.0	5.0
31	FS	Fans stop temperature	Pr2	-50.0	50.0	°C	2	50
32	Fn	Fan on time with compressor off	Pr2	0	15	Min	0	2
33	FF	Fan off time with compressor off	Pr2	0	15	Min	0.0	2
							ALARM PARAMETERS	
34	AU	Maximum temperature alarm	Pr1	-50.0	99.0	°C	99.0	99.0
35	AL	Minimum temperature alarm	Pr1	-55.0	99.0	°C	-55.0	-55.0
36	Ad	Temperature alarm delay	Pr2	0	99	Min	15.0	15.0
37	dA	Exclusion of temperature alarm at startup	Pr2	0	99	Min	90	90
38	Ef	End defrost by timeout alarm flag	Pr2	n - y		-	y	y
39	AE	Manually Ed alarm remove	--	n - y		-	n	y
							DIGITAL INPUT PARAMETERS	
40	iP	Digital input polarity	Pr1	cL - oP		-	CL	oP
41	iF	Digital input configuration	Pr1	EL - bL - dr - dF - LI - db EA / bA / do / dF / Au / Hc		-	do	do
42	di	Digital input delay	Pr1	0	99	Min	15	1
43	nS	Pressure switch number	Pr1	0	15	Min	15	15
44	dC	Compressor and fan status when open door	Pr2	no / Fn / cP / Fc		-	FC	Fn
45	rd	Regulation with door open	Pr2	n - y		-	yes	y
							OTHER SETTING	
46	d1	Thermostat probe display	Pr2	Read only		-	-	Live App probe Temp
47	d2	Evaporator probe display	Pr1	Read only		-	-	Live Def probe Temp
48	rL	Firmware release	- - -	Read only		-	2.1	2.1
49	Pt	Parameter code table	- - -	Read only		-	-	1

PVR WR-87285 ELECTRONIC TEMPERATURE CONTROLLER PARAMETER SETTINGS FOR SUS REFRIGERATOR MODELS (REVISION : 02)								Revision Date		F 30-09-23	
Sr. No.	Display on controller	Parameters	VIS	Min Value	Max value	UOM	Factory setting	RTW / RTWH120 / 126, RTW / RTWH150 / 156, RTW / RTWH180 / 186, RTW / RTWH177 / 127, SRC900-HL, RTDW-120/130/ 137 /170 / 180 / 187	HRV-78 / 128 / 148A		
0	PS	PASSWORD	-	-99	99	..	11	11	11		
SET MODE PARAMETER								SET MODE PARAMETER			
1	SP	Set point(SP)	-	LS	HS	°C/°F	2.0	2.0	2.0		
								PROGRAMMING MODE REGULATION PARAMETER			
2	P2	High Temperature Limit	-	(P3+1)°C	80°C	°C/°F	80	80	80		
3	P3	Low Temperature Limit	-	-40°C	(P2-1)°C	°C/°F	-40	-40	-40		
4	HS	Maximum Set Point Limit	-	SP	80°C	°C/°F	12	12	12		
5	LS	Minimum Set Point Limit	-	-40°C	SP	°C/°F	-2	-2	-2		
6	P4	Differential	-	0.1°C	20°C	°C/°F	2.5	2.5	1.5		
7	P5	Probe Calibration	-	-10°C	10°C	°C/°F	0	0.0	0		
8	P6	Time delay between relay restart time.	-	0 Min	99 Min	Minutes	3 Min	3.0	3		
9	Ot	Minimum ON Time For Compressor	-	0 Min	20 Min	Minutes	5 Min	0	5		
10	E1	Relay status on Probe Failure (0:OFF, 1:Continuous ON 2:Cyclic)	-	0.0	2	Value	2	2.0	2		
11	Cn	Compressor OFF Time Fault Probe	-	1 Min	99 Min	Minutes	10 Min	10.0	10		
12	Cy	Compressor ON Time Fault Probe	-	1 Min	99 Min	Minutes	20 Min	20	20		
								DEFROST PARAMETER			
13	P7	Defrost duration	-	0 Min	99 Min	Minutes	60 Min	60.0	60		
14	P8	Defrost frequency.	-	1 Hr	31 Hrs	Hours	4 Hrs	4	4		
15	L0	Defrost Probe Enable/Disable (0 = Defrost Probe Disable 1 = Defrost Probe Enable)	-	0	1	Value	1	1	1		
16	d5	To set probe 2 offset calibration (Defrost probe)	-	-10°C	10°C	°C/°F	0	0	0		
17	L7	Defrost Stop temperature	-	L8+1	50	°C/°F	4	4	4		
18	L8	Defrost Start temperature	-	-40	L7-1	°C/°F	-12	-15	-15		
19	L9	Defrost start temperature delay	-	0	99	Minutes	30	15	15		
								DISPLAY PARAMETER			
20	dF	Display during defrost (0:Room Temperature 1: dF)	-	0	1	Value	1	1	1		
21	du	Display update during defrost	-	0 Min	15 Min	Minutes	1 Min	1	1		
22	Ad	Power On Time Delay For Alarm	-	0 Min	99 Min	Minutes	20 Min	20	20		
23	CF	Unit Selection for Temperature (0 =°C 1 =°F)	-	0	1	°C/°F	NA	0	0		
								OTHER PARAMETER			
24	CA	Controller Action working mode (0 = Cooling mode with Defrost 1 = Cooling mode without Defrost 2 = Heating Mode)	-	0.0	2.0	Value	0	0	0		
25	PA	To Change Password	-	-99	99	Value	11	11.0	11		
26	LP	Keypad Lock (0 : Unlock 1 : Lock)	-	0	1	Value	0	0	0		
27	UP	Upload Parameters to Pro-key	-	0	1	Value	0	0.0	0		
28	FS	Factory Set (0 : No 1: Yes)	-	0	1	Value	0	0	0		
29	EP	Exit Programming									

PVR CONTROLLER ALARM:

OPERATING MESSAGES (Normal Mode)	
Ht High temperature alarm Temperature above the maximum high temperature limit.	Lt Low temperature alarm Temperature below the minimum low temperature limit.
dL Probe fail Defrost probe short circuit, circuit open or without probe, or temperature is < -40°C	AL Probe fail Appliance probe short circuit, circuit open or without probe, or temperature is < -40°C
dH Probe fail Defrost probe temperature is > 80°C	AH Probe fail Appliance probe temperature is > 80°C
LL Last low temperature Last low temperature logged.	LH Last high temperature Last high temperature logged.
LP Keypad lock Keypad is locked	dF Defrost Defrost in progress.
rS In log function: When LL and LH values are cleared.	

DIXELL CONTROLLER ALARM:

Alarm	Cause	Outputs
P1	Room probe failure	Compressor output according to "Cy" e "Cn"
P2	Evaporator probe failure	Defrost end is timed
HA	Maximum temperature alarm	Outputs unchanged
LA	Minimum temperature alarm	Outputs unchanged
EA	External alarm	Outputs unchanged
CA	Serious external alarm	All outputs OFF
Da	Door Open	Compressor and fans restart
Ed	Defrost end by Md	Defrost end

ENGLISH

1. START UP

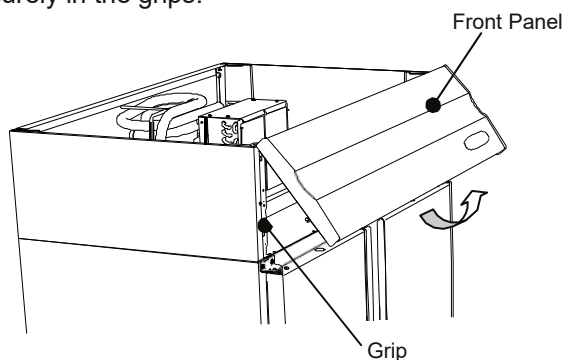
- 1) Plug in the unit.
- 2) The compressor and condenser fan motor will start in 3 minutes.

2. FRONT PANEL

To open and close the front canopy panel:

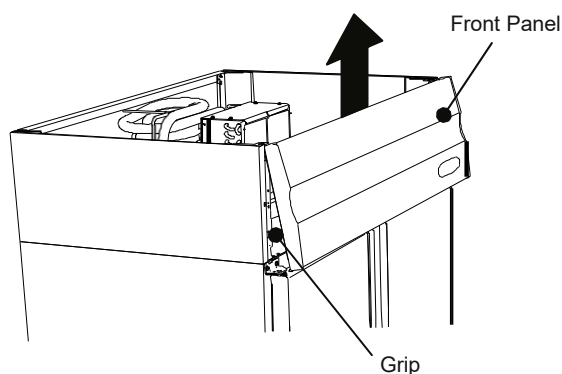
Pull each side of the front panel toward you to release it from the grip on each side of the bottom, and swing up the front panel as shown.

To close the front panel, fit both sides of the bottom securely in the grips.



To remove the front canopy panel:

Release both sides of the bottom from the grips, and lift it off vertically.



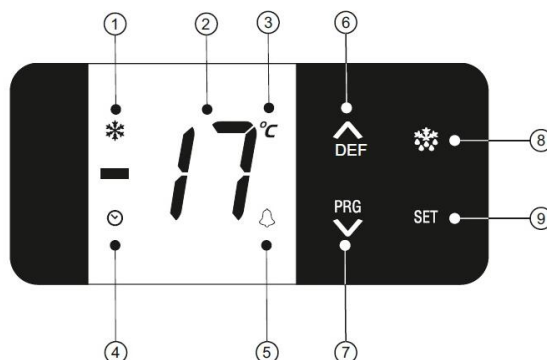
3. CABINET TEMPERATURE SETTING

IMPORTANT

The temperature range given below is only the adjustable range. The actual cabinet temperature depends on the ambient temperature and other conditions.

The cabinet temperature is factory-adjusted to 2°C for the refrigerator and -20°C for the freezer. If necessary, readjust the temperature as follows.

Refrigerator (HRV):



1. Compressor Indicator
2. Screen
3. Temperature Unit Indicator
4. Time Delay Indicator
5. Alarm Indicator
6. Up Key
7. Down Key
8. Defrost Key
9. Set Key

- 1) Open the front panel.
- 2) Temperature setting:
Touch & hold SET key for 2 sec to enter in to set mode.

Display will show set value. The set point value can now be modified by using the UP/DOWN key. After selecting the desired value, touch the set key and user can see "- -" which confirms that the set point has been stored in memory.

If no operation for 60 seconds. Then temperature will not save and system exit from the temperature setting mode.

Function	Set range	Default	Unit
Temperature Setting HRV	-2 to +12	+2	°C

IMPORTANT

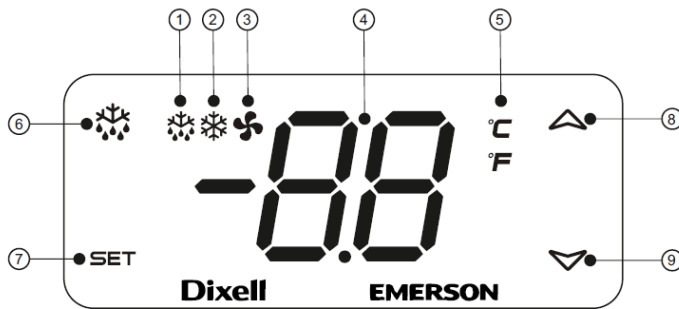
The displayed cabinet temperature is adjusted to be almost equal to the temperature at the center of the cabinet without foods. But it can be different from the actual temperature depending on arrangement of stored foods, frequency of door opening or measuring points.

Common (HRV / HFV):

The compressor stops when the cabinet temperature reaches down to the set temperature or minimum compressor ON time whichever comes later, and starts when the cabinet temperature rises to the set temperature + differential or minimum compressor OFF time whichever comes later.

The average cabinet temperature will be around the set temperature.

Freezer (HFV):

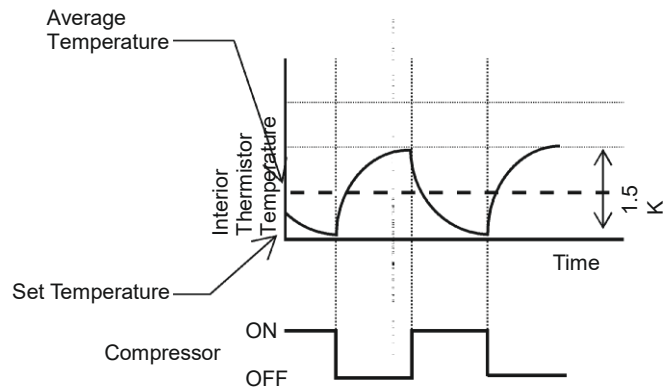


Indicator

1. Compressor Indicator
2. Fan Indicator
3. Screen
4. Measurement Unit Display
5. Defrost Key
6. Set Key
7. Up Key
8. Down Key

1. Push the SET key for more than 2 seconds to change the set point value.
2. The value of the set point will be displayed and the "°C" LED starts blinking.
3. To change the set value, push the up or down arrows within 10s.
4. To memorise the new set point value, push the SET key again or wait 10s.

Function	Set range	Default	Unit
Temperature Setting HFV	-7 to -25	-20	°C



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4. DEFROST

Automatic defrost cycle

Freezer:

The freezer automatically defrosts the evaporator after 5 hours from previous defrost or from refrigeration start or based on auto defrost start temperature. The defrost indication will turn on and display the message "dF".

Refrigerator:

The refrigerator automatically defrosts the evaporator after 4 hours from previous defrost or from refrigeration start. The defrost indication will turn on and display the message "dF" alternately with the temperature measured by control probe.

Manual defrost cycle

Refrigerator:

To start the manual defrost cycle, press the defrost key for 2 seconds. The defrost indicator will turn on and display the message "dF".

Freezer:

Push the defrost key for more than 2 seconds and a manual defrost will start. The defrost indicator will turn on and display the message "dF".

5. INDICATOR LIGHTS

Refrigerator

Indicator	Symbol	Status	Function
Compressor		On	Compressor is on
		Off	Compressor is off
Time Delay		On	Compressor is ON and in time delay for switching OFF (Ot Parameter)
		Flashing	Compressor is in time delay and about to start
Alarm		On	Alarm indication on
		Off	Alarm indication off

Freezer

Indicator	Symbol	Status	Function
Compressor		On	Compressor running
		Off	Compressor off
		Flashing	Compressor start delay
Evaporator fan		On	Evaporator fan running
		Off	Evaporator fan off
		Flashing	Evaporator fan start delay
Defrost		On	Defrosting
		Off	Defrost stopped
Temperature		On	Measurement Unit
		Flashing	Programming mode

6. SHUT DOWN

- 1) Before shutting down the unit, move the stored foods into another storage refrigerator/freezer.
- 2) Unplug the unit or disconnect the main power supply.
- 3) When preparing the unit for long storage, clean the cabinet interior and door gaskets, dry them thoroughly and store the unit in a dry place.

III. SERVICING OF APPLIANCE

IMPORTANT

1. Disconnect the appliance from power source during servicing & when replacing parts.
Note: Do not power off unit from controller key.
2. For good performance of cabinet, clean the condenser once in a month.
3. Clean the dust from condenser by means of soft wire brush, blower or vacuum cleaner.
Note: Do not use water for cleaning condenser.
4. Do not touch or wet the machine compartment parts. This could result in failure or breakdown.
5. To prevent possible damage, do not clean the plastic parts with water above 40°C

1. INTERIOR, EXTERIOR, SHELF

- ✦ Disconnect the appliance from power source before cleaning.
- ✦ Clean the interior and exterior at least once a week for sanitation.
- ✦ Clean off the interior and exterior with a soft cloth soaked in cold or warm water containing the proper amount of neutral cleaner and wrung dry. Do not use a water jet to clean the machine compartment.
- ✦ Chemical agents other than neutral cleaner might cause damage to the interior and exterior surfaces.
- ✦ Any remaining detergent will damage metal or plastic surfaces. Use a soft cloth dampened with warm water to wipe it off.
- ✦ Do not use the following items. They could damage painted or plastic surfaces:
Polishing powder, alcohol, thinner, benzine, acidic or alkaline detergent, hot water, petroleum, soap powder, metal scourer or brush, etc. Especially detergent to clean grease on ventilator or microwave.

HOSHIZAKI COMMERCIAL REFRIGERATOR

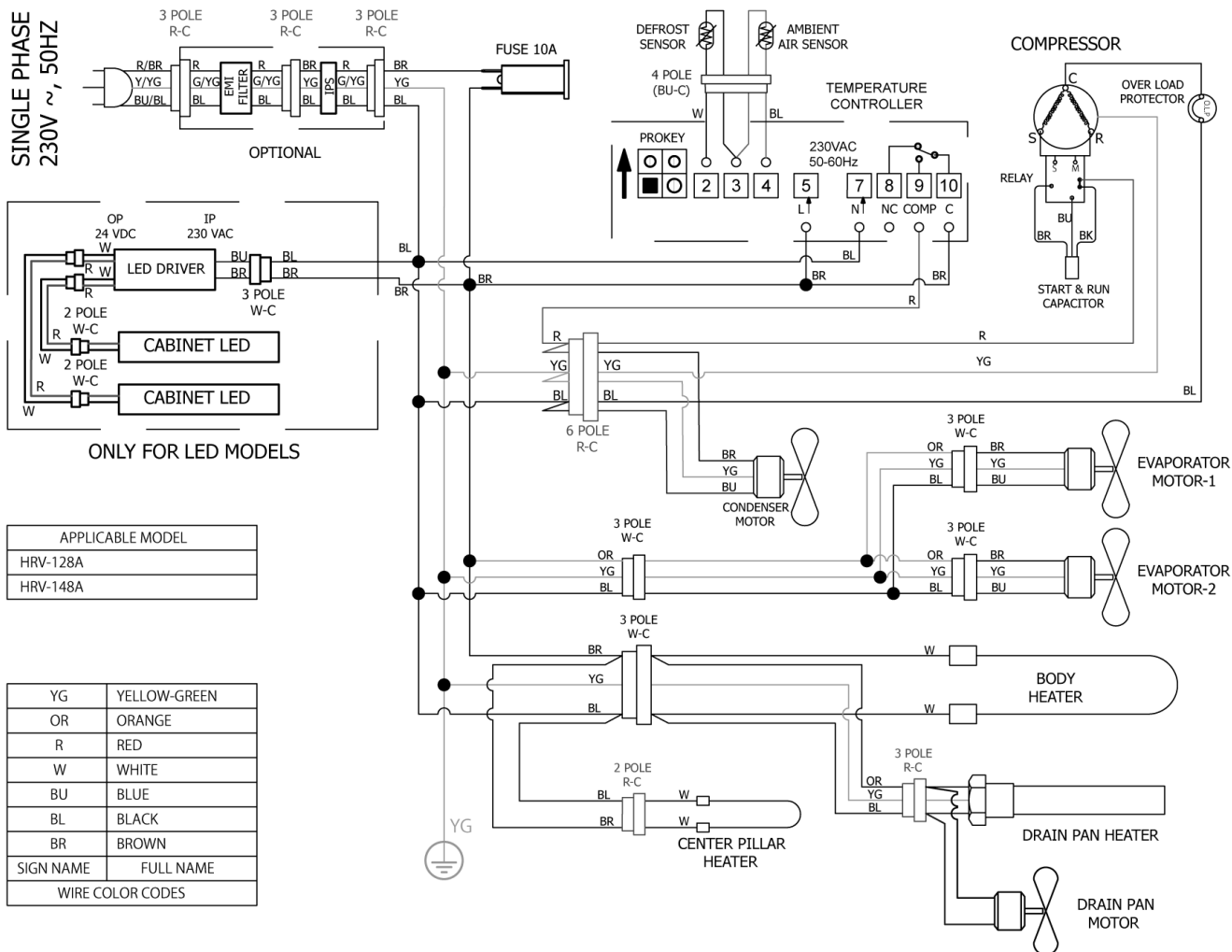
HRV-78A



ELECTRICAL WIRING DIAGRAM

3V0020L01B

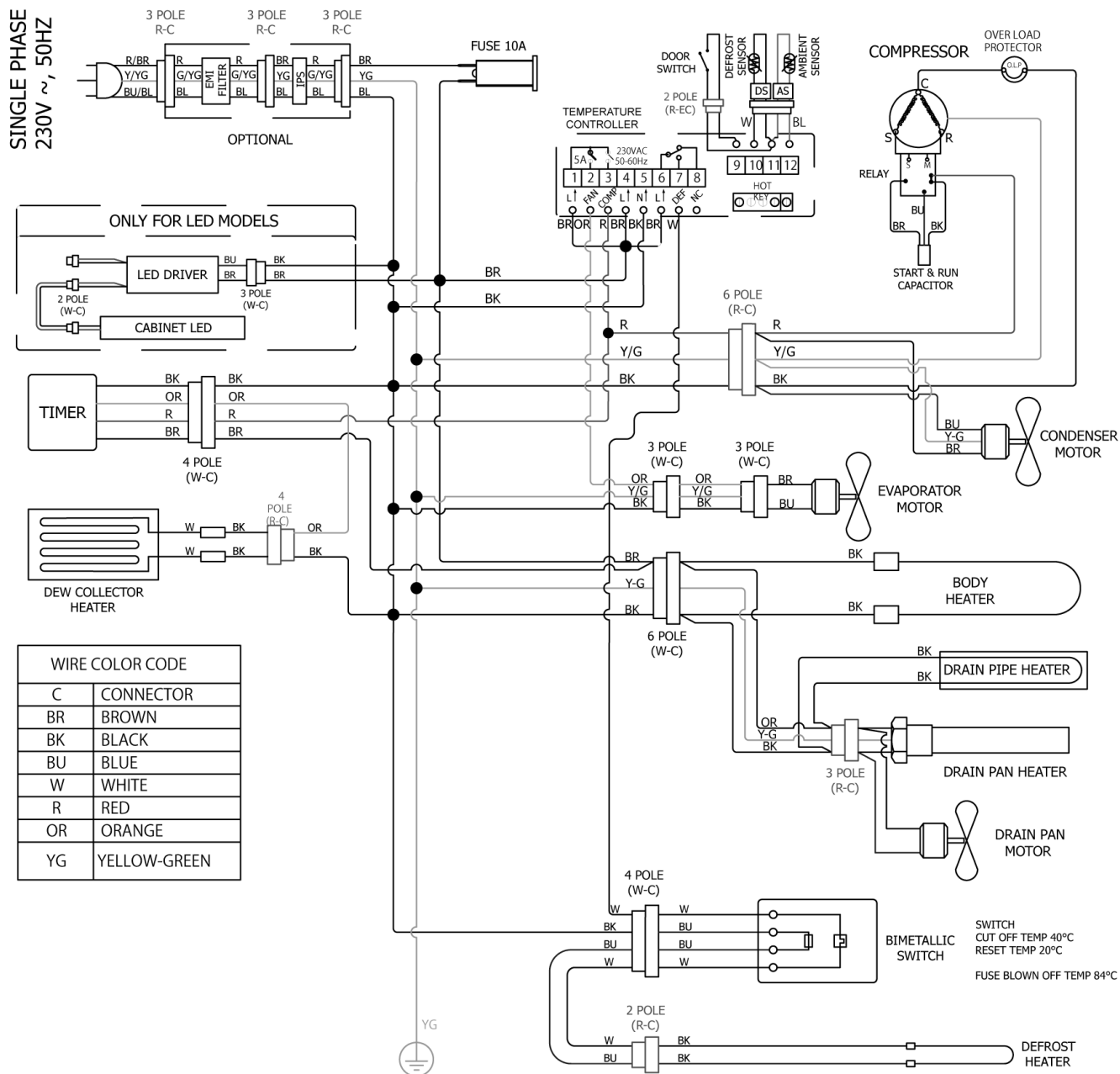
HOSHIZAKI COMMERCIAL REFRIGERATOR HRV-128/148A



ELECTRICAL WIRING DIAGRAM

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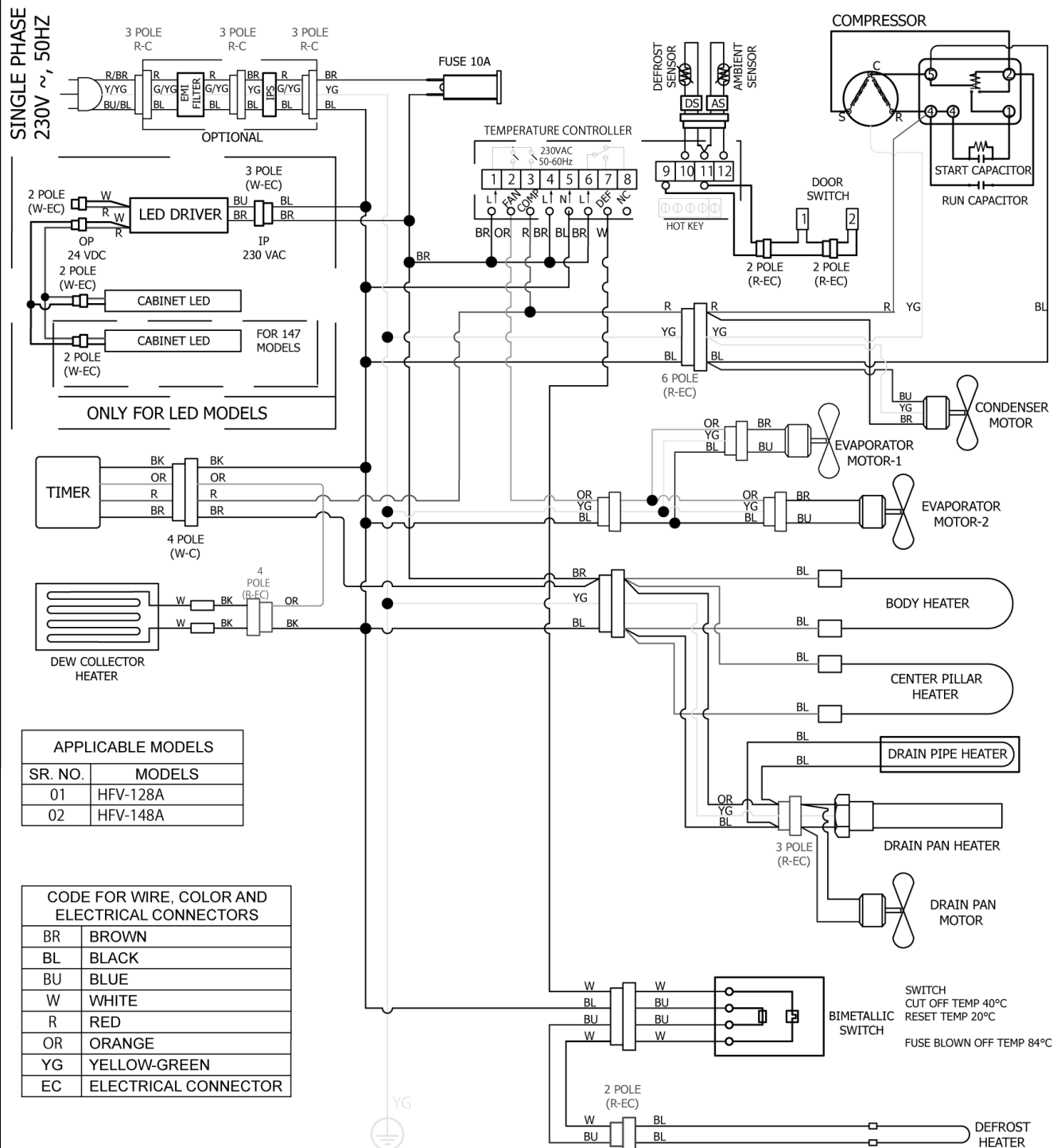
HOSHIZAKI COMMERCIAL FREEZER HFV-78A



ELECTRICAL WIRING DIAGRAM

3V0022L01B

HOSHIZAKI COMMERCIAL FREEZER HFV-128/148A



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DISPOSAL

To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.

IMPORTANT



The insulation foaming agent used for the unit body contains flammable gas cyclopentane. With this in mind, dispose of the properly.

WARRANTY

Hoshizaki warrants to the original owner/user that all Hoshizaki branded products shall be free of defects in material and/or workmanship for the duration of the "warranty period". The warranty shall be effective for one year from the date of installation. Hoshizaki's liability under the terms of the warranty are limited and shall exclude routine servicing, cleaning, essential maintenance and/or repairs occasioned by misuse and installations not in accordance with Hoshizaki guidelines.

Warranty repairs should be completed by an approved Hoshizaki dealer or service agency using genuine Hoshizaki components.

To obtain full details of your warranty and approved service agency, please contact your dealer/supplier.

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