



**COMMERCIAL REACH-IN REFRIGERATOR & FREEZER
SERVICE MANUAL
FOR USE BY QUALIFIED SERVICE TECHNICIANS**

REACH-IN MODELS:

A Series:

178A19FHC
178A19RHC
178A23FHC
178A23RHC
178A49FHC
178A49RHC

SS Series:

178SS1F2HC
178SS1FHC
178SS1R2HC
178SS1RGHC
178SS1RHC
178SS2F4HC
178SS2FHC
178SS2R4HC
178SS2RGHC
178SS2RHC
178SS3FHC
178SS3RHC

Warning

DANGER - RISK OF FIRE OR EXPLOSION. FLAMMABLE REFRIGERANT USED. TO BE REPAIRED ONLY BY TRAINED SERVICE PERSONNEL. DO NOT PUNCTURE REFRIGERANT TUBING.

PELIGRO - RIESGO DE INCENDIO O EXPLOSION. REFRIGERANTE INFLAMABLE UTILIZADO. PARA SER REPARADO SOLAMENTE POR PERSONAL DE SERVICIO CALIFICADO. NO PINCHAR LA TUBERÍA REFRIGERANTE.

DANGER - RISQUE DE FEU OU D'EXPLOSION. LE FRIGORIGÈNE EST INFLAMMABLE. CONFIER LES RÉPARATIONS À UN TECHNICIEN SPÉCIALISÉ. NE PAS PERFORER LA TUBULURE CONTENANT LE FRIGORIGÈNE.

CAUTION - RISK OF FIRE OR EXPLOSION. FLAMMABLE REFRIGERANT USED. CONSULT SERVICE MANUAL/OWNER'S GUIDE BEFORE ATTEMPTING TO SERVICE THIS PRODUCT. ALL SAFETY PRECAUTIONS MUST BE FOLLOWED.

ATENCION - RIESGO DE INCENDIO O EXPLOSIÓN. REFRIGERANTE INFLAMABLE UTILIZADO. CONSULTE EL MANUAL DE REPARACIÓN / GUÍA DEL PROPIETARIO ANTES DE INTENTAR DAR SERVICIO A ESTE PRODUCTO. DEBEN CUMPLIR CON TODAS LAS PRECAUCIONES DE SEGURIDAD.

ATTENTION - RISQUE DE FEU OU D'EXPLOSION. LE FRIGORIGÈNE EST INFLAMMABLE. CONSULTER LE MANUEL DU PROPRIÉTAIRE/GUIDE DE RÉPARATION AVANT DE TENTER UNE RÉPARATION. TOUTES LES MESURES DE SÉCURITÉ DOIVENT ÊTRE RESPECTÉES.

CAUTION - RISK OF FIRE OR EXPLOSION DUE TO PUNCTURE OF REFRIGERANT TUBING; FOLLOW HANDLING INSTRUCTIONS CAREFULLY. FLAMMABLE REFRIGERANT USED.

ATENCION - RIESGO DE INCENDIO O EXPLOSIÓN DEBIDO A LA PERFORACION DE LA TUBERÍA REFRIGERANTE; SIGA LAS INSTRUCCIONES DE MANIPULACIÓN CON CUIDADO. REFRIGERANTE INFLAMABLE UTILIZADO.

ATTENTION - RISQUE DE FEU OU D'EXPLOSION SI LA TUBULURE CONTENANT LE FRIGORIGÈNE EST PERFORÉE; SUIVRE LES INSTRUCTIONS DE MANUTENTION AVEC SOIN. LE FRIGORIGÈNE EST INFLAMMABLE.

CAUTION - RISK OF FIRE OR EXPLOSION DUE TO FLAMMABLE REFRIGERANT USED. FOLLOW HANDLING INSTRUCTIONS CAREFULLY IN COMPLIANCE WITH LOCAL GOVERNMENT REGULATIONS.

ATENCIÓN - RIESGO DE INCENDIO O EXPLOSIÓN DEBIDO A REFRIGERANTE INFLAMABLE UTILIZADO. SIGA LAS INSTRUCCIONES DE MANIPULACIÓN CON CUIDADO CONFORME A LAS REGLAS DE LA MUNICIPALIDAD.

ATTENTION - RISQUE DE FEU OU D'EXPLOSION SI LE FRIGORIGÈNE EST INFLAMMABLE. SUIVRE LES INSTRUCTIONS DE MANUTENTION AVEC SOIN CONFORMÉMENT AUX RÈGLEMENTATION GOUVERNEMENTALE LOCAUX.

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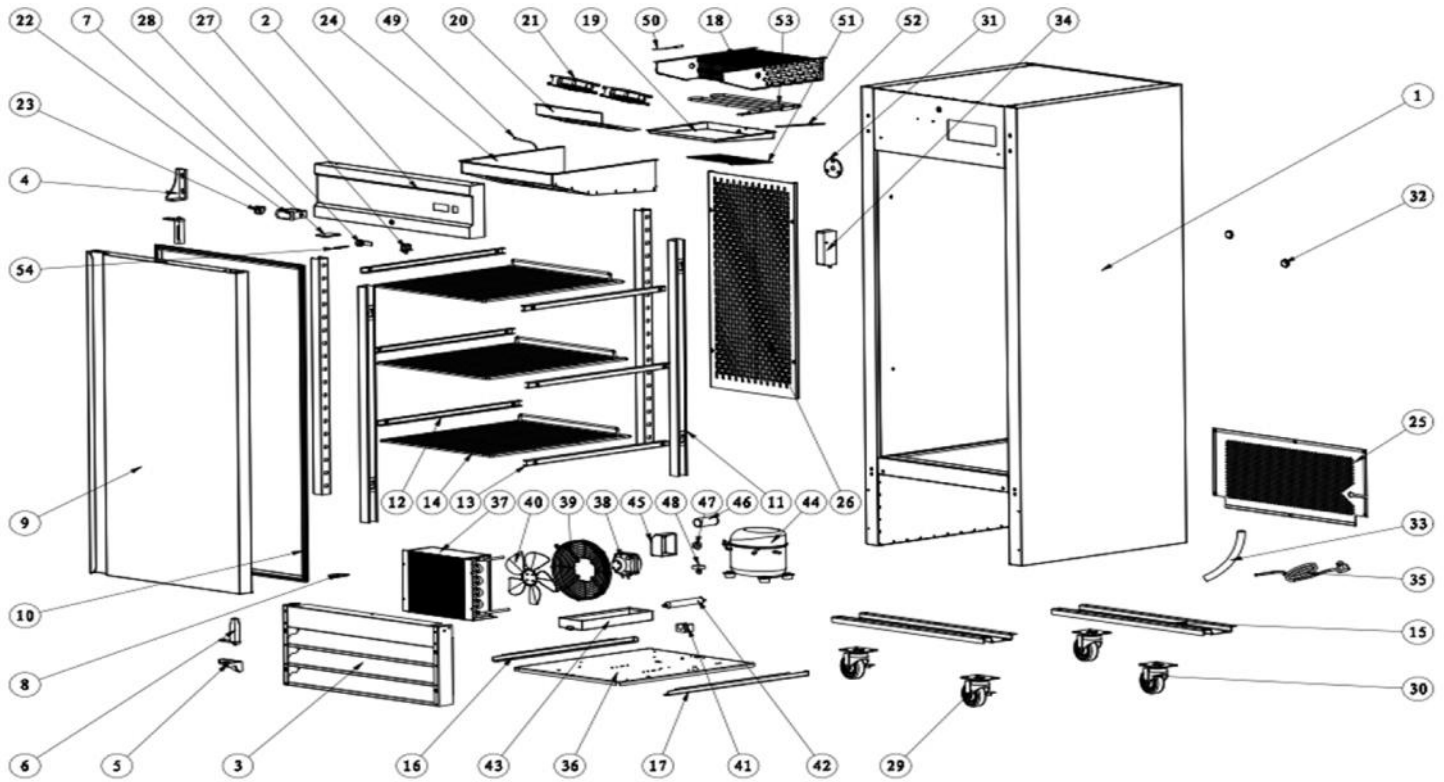
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1. EXPLODED VIEW AND PARTS LIST

1.1 SS1HC series

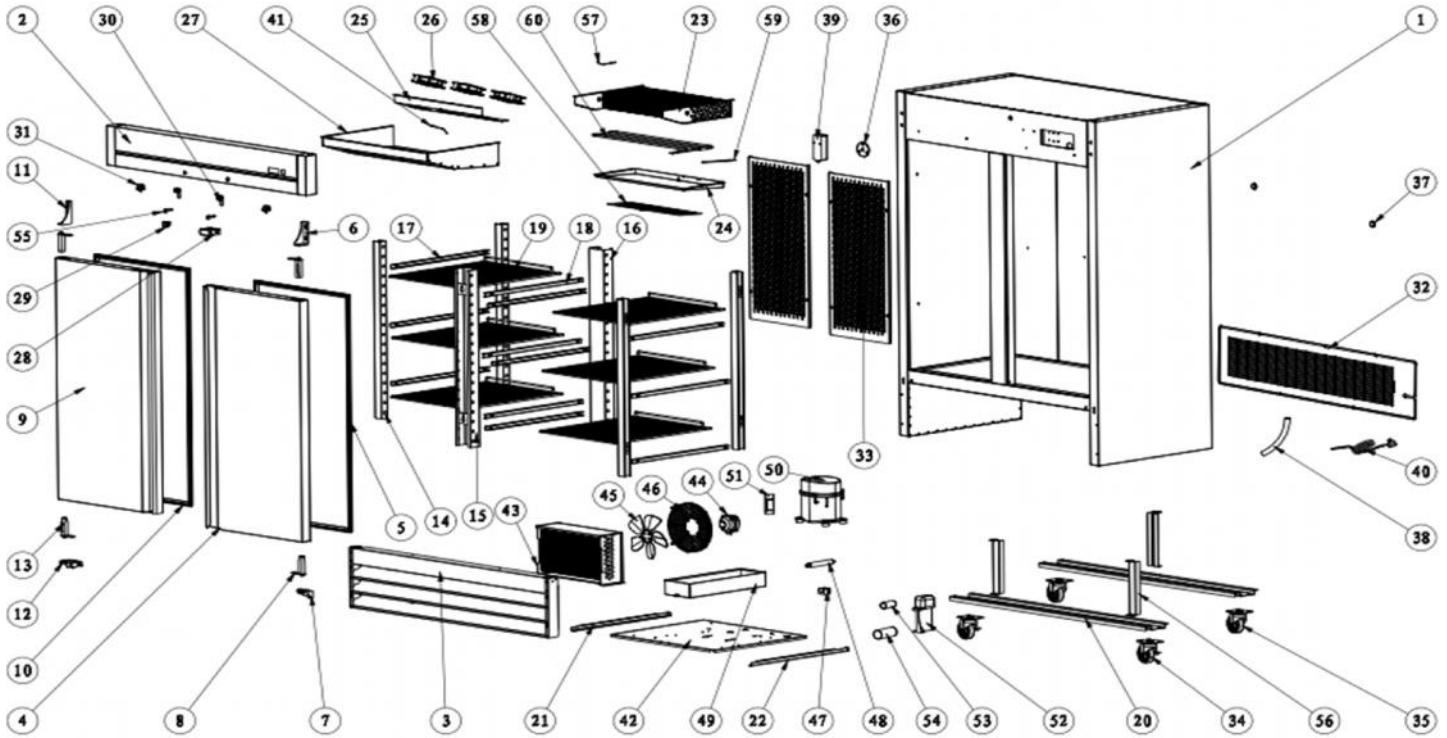


PARTS LIST:

★★ - Consult Factory

1	CABINET	28	LOCK: 17813009
2	CONTROL PANEL: 17812900	29	4" CASTER WITH BRAKE: 17816412
3	FRONT GRILL: 17814693 (1R/1F)	30	4" CASTER: 17819301
4	UPPER RIGHT HINGE: 178HINGCFDTR (1R/1F) 178HNGCFDGTR (1RG)	31	DRAIN PLUG ★★
5	BOTTOM RIGHT HINGE: 178HINGCFDBR (1R/1F) 178HNGCFDGBR (1RG)	32	FOAMING HOLE COVER: N/A
6	SPRING HINGE: 178CARTRIDGE	33	DRAIN HOSE ★★
7	TOP COVER FOR REVERSIBLE DOOR ★★	34	LIGHT COMPONENTS: 17819014 (cover) 17818242 (1RG LED) 17816351 (1R/1F bulb)
8	BOTTOM COVER FOR REVERSIBLE DOOR ★★	35	POWER CORD: 17810175
9	DOOR: 17815080 (1R/1F) 17815468 (1RG)	36	COMPRESSOR UNIT INSTALLATION BOARD ★★
10	GASKET: 178GSKT11571	37	CONDENSER: 17815157HC (1R/1RG) 17818779HC (1F)
11	BRACKETS: 17818646	38	CONDENSER FAN MOTOR: 17814905
12	LEFT SHELF TRACK: 178SHELFRAIL	39	CONDENSER FAN COVER: 17815467
13	RIGHT SHELF TRACK: 178SHELFRAIL	40	CONDENSER FAN MOTOR BLADE: 17811089
14	SHELF: 178SHELFCFD	41	FILTER BRACKET: N/A
15	LEG SUPPORTER ★★	42	FILTER: C032S
16	LEFT TRACK FOR ASSEMBLING PANEL ★★	43	OUTER DRAIN PAN: 17816356
17	RIGHT TRACK FOR ASSEMBLING PANEL ★★	44	COMPRESSOR: 17812317 (1R/1RG) 17816586 (1F)
18	EVAPORATOR: 17818872HC	45	SPLICE BOX ★★
19	INNER DRAIN PAN: 17815065	46	START CAPACITOR ★★
20	FAN MOTOR INSTALLATION PANEL ★★	47	OVERLOAD PROTECTOR ★★
21	EVAPORATOR FAN MOTOR: 17813407	48	STARTER ★★
22	THERMOSTAT: 17819947 (1R/1RG) 17819471 (1F)	49	TEMPERATURE SENSOR OF CABINET INSIDE: 17813890/17813892
23	POWER SWITCH: 17810365	50	EVAPORATOR TEMPERATURE SENSOR: 17813890/17813892
24	EVAPORATOR COVER: 17818696	51	DRAIN PAN HEATER: 17815641 (freezer only)
25	BACK GRILL ★★	52	DRAIN HOSE HEATER: 17813722 (freezer only)
26	COMPONENTS FOR BACK SHELF ★★	53	DEFROST HEATER: 17813517 (freezer only)
27	DOOR SWITCH: 17817409	54	KEY: 17811836

1.2 SS2HC series

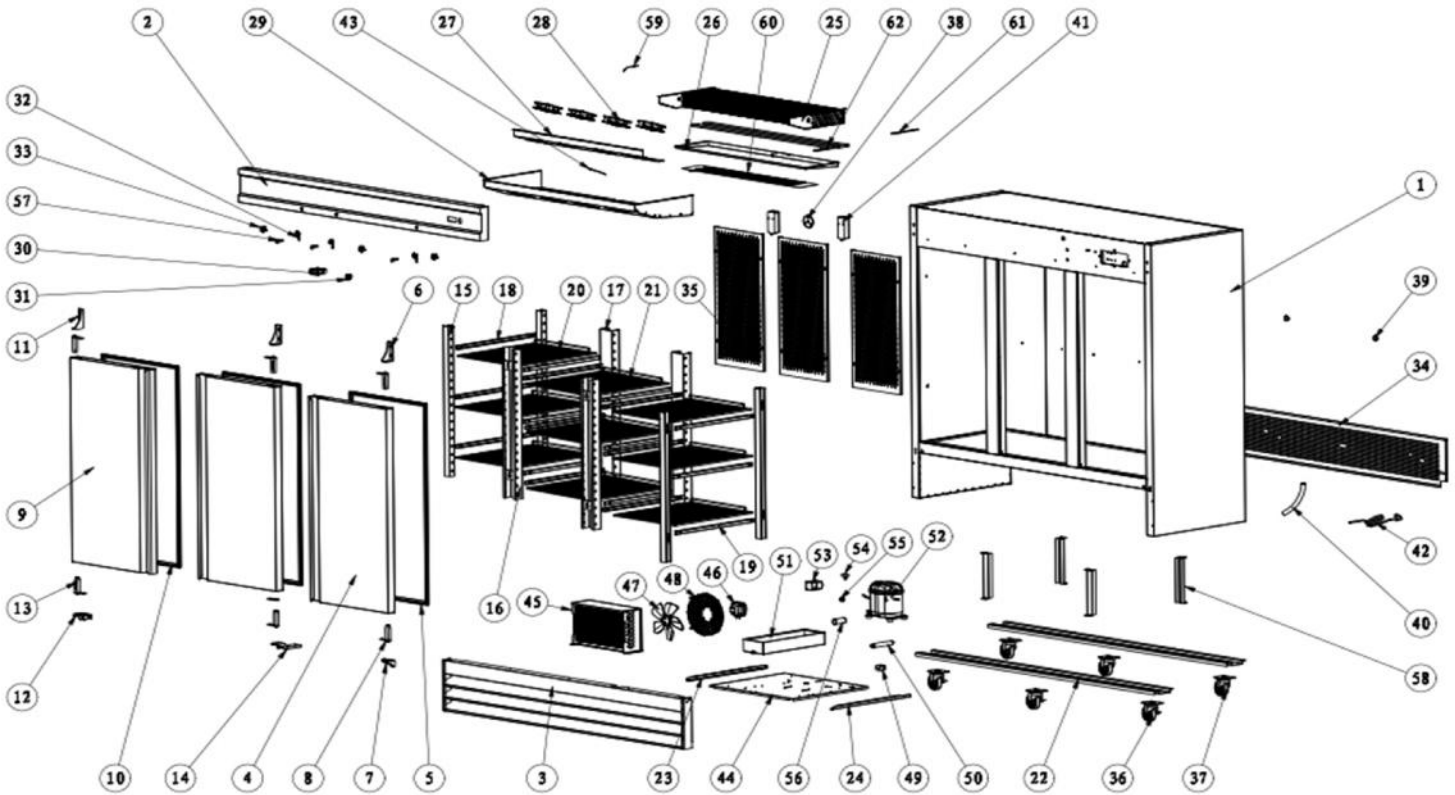


PARTS LIST:

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1	CABINET	31	DOOR SWITCH: 17817409
2	CONTROL PANEL: 17812901	32	BACK GRILL ★★
3	FRONT GRILL:17814694	33	COMPONENTS FOR BACK SHELF ★★
4	RIGHT DOOR: 17818905 (2R/2F) 17817564 (2RG)	34	4" CASTER WITH BRAKE: 17816412
5	GASKET: 178GSKT10521 (2R/2F) 178GSKT10563 (2RG)	35	4" CASTER: 17819301
6	UPPER RIGHT HINGE: 178HINGCFDTR (2R/2F) 178HNGCFDGTR (2RG)	36	DRAIN PLUG: 17813588
7	BOTTOM RIGHT HINGE: 178HINGCFDBR (2R/2F) 178HNGCFDGBR (2RG)	37	FOAMING HOLE COVER: N/A
8	SPRING HINGE: 178CARTRIDGE	38	DRAIN HOSE ★★
9	LEFT DOOR: 17818905 (2R/2F) 17817562 (2RG)	39	LIGHT COMPONENTS: 17819014 (cover) 17818242 (2RG LED) 17816351 (2R/2F bulb)
10	GASKET: 178GSKT10521 (2R/2F) 178GSKT10563 (2RG)	40	POWER CORD: 17810175
11	UPPER LEFT HINGE: 178HINGCFDTL (2R/2F) 178HNGCFDGTL (2RG)	41	TEMPERATURE SENSOR OF CABINET INSIDE: 17813890/17813892
12	LEFT BOTTOM HINGE: 178HINGCFDBL (2R/2F) 178HNGCFDGBL (2RG)	42	COMPRESSOR UNIT INSTALLATION BOARD: ★★
13	SPRING HINGE: 178CARTRIDGE	43	CONDENSER: 17818779HC (2R/2RG) 17811539HC (2F)
14	BRACKETS: 17818646	44	CONDENSER FAN MOTOR: 17815815 (2F)
15	MIDDLE BRACKETS: 17818644	45	CONDENSER FAN BLADE: 17812660 (2F)
16	BACK BRACKETS: 17818645	46	CONDENSER FAN COVER: 17815699 (2F)
17	LEFT SHELF TRACK: 178SHELFRAIL	47	FILTER BRACKET: N/A
18	RIGHT SHELF TRACK: 178SHELFRAIL	48	FILTER: C032S
19	SHELF: 178SHELFCD	49	OUTER DRAIN PAN: 17817655
20	LEG SUPPORTER ★★	50	COMPRESSOR: 17812325 (2R/2RG) 17816583 (2F)
21	LEFT TRACK FOR ASSEMBLING PANEL ★★	51	SPLICE BOX ★★
22	RIGHT TRACK FOR ASSEMBLING PANEL ★★	52	CAPACITOR BRACKET ★★
23	EVAPORATOR: 17816999HC	53	START CAPACITOR ★★
24	INNER DRAIN PAN: 17817891	54	RUN CAPACITOR ★★
25	FAN MOTOR INSTALLATION PANEL ★★	55	KEY: 17811836
26	EVAPORATOR FAN MOTOR: 17813407	56	CABINET SUPPORTER: N/A
27	EVAPORATOR COVER: 17815699	57	EVAPORATOR TEMPERATURE SENSOR 17813890/17813892
28	THERMOSTAT: 17819947 (2R/2RG) 17819471 (2F)	58	DRAIN PAN HEATER: 17815642 (freezer only)
29	POWER SWITCH: 17810365	59	DRAIN HOSE HEATER: 17813722 (freezer only)
30	LOCK: 17813009	60	DEFROST HEATER: 17817764HC (freezer only)

1.3 SS3HC series

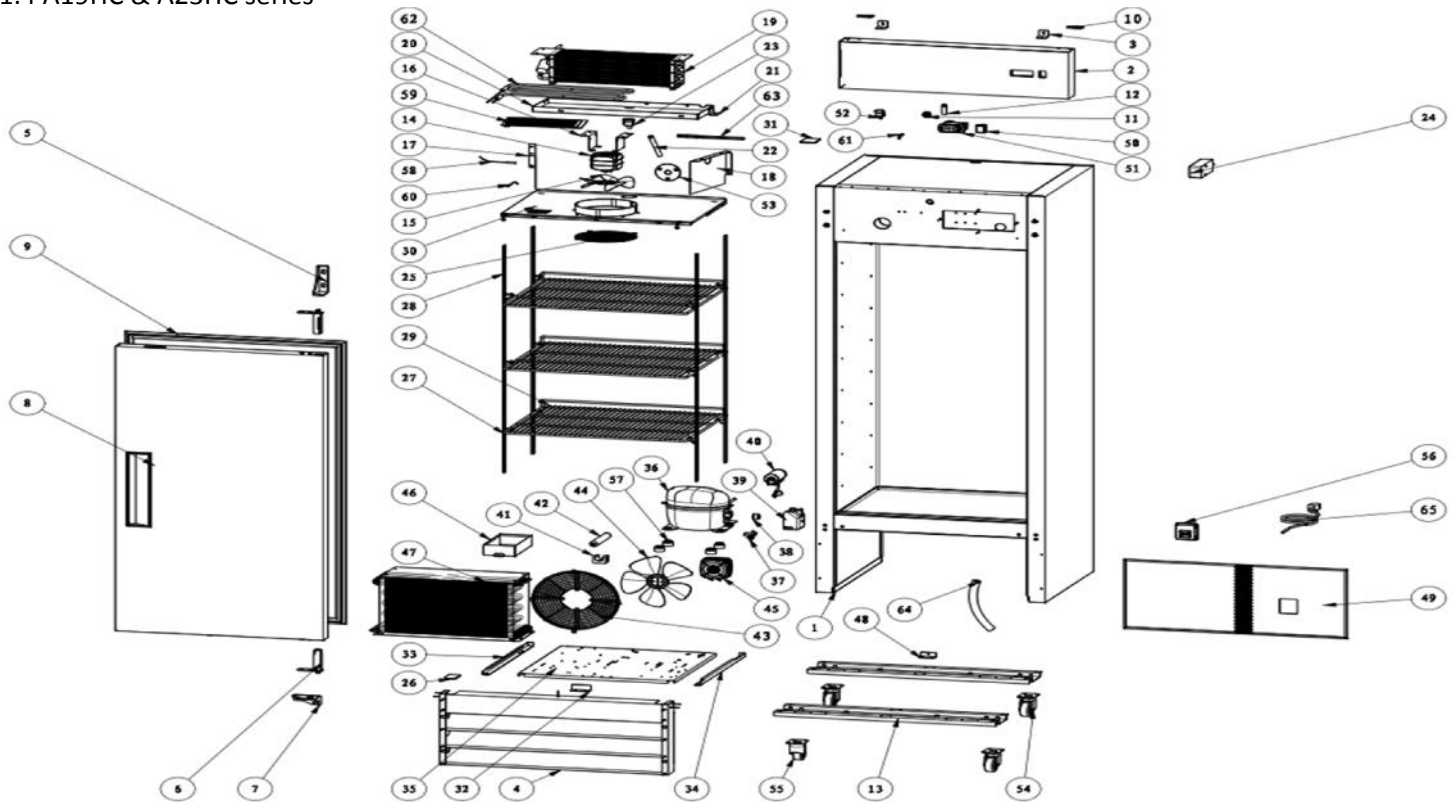


PARTS LIST:

★★ - Consult Factory

1	CABINET	32	LOCK: 17813009
2	CONTROL PANEL: 17812092	33	DOOR SWITCH: 17817409
3	FRONT GRILL: 17814695	34	BACK GRILL ★★
4	RIGHT DOOR: 17818905	35	COMPONENTS FOR BACK SHELF ★★
5	GASKET: 178GSKT10521	36	4" CASTER WITH BRAKE: 17816412
6	UPPER RIGHT HINGE: 178HINGCFDTR	37	4" CASTER: 17819301
7	BOTTOM RIGHT HINGE: 178HINGCFDBR	38	DRAIN PLUG: 17813588
8	SPRING HINGE: 178CARTRIDGE	39	FOAMING HOLE COVER: N/A
9	LEFT DOOR: 17818905	40	DRAIN HOSE ★★
10	GASKET: 178GSKT10521	41	LIGHT COMPONENTS: 17819014 (cover) 17816351 (bulb)
11	UPPER LEFT HINGE: 178HINGCFDTL	42	POWER CORD ★★
12	LEFT BOTTOM HINGE: 178HINGCFDBL	43	TEMPERATURE SENSOR OF CABINET INSIDE: 17813890/17813892
13	SPRING HINGE: 178CARTRIDGE	44	COMPRESSOR UNIT INSTALLATION BOARD: ★★
14	MIDDLE BOTTOM HINGE: 178HINGBFDBM	45	CONDENSER: 17811539HC
15	BRACKETS: 17818646	46	CONDENSER FAN MOTOR: 17810976 (3R) 17815815 (3F)
16	MIDDLE BRACKETS: 17818644	47	BLADE OF CONDENSER FAN MOTOR: 17817114 (3R) 17812660 (3F)
17	BACK BRACKETS: 17818645	48	CONDENSER FAN COVER: 17812098
18	LEFT SHELF TRACK: 178SHELFRAIL	49	FILTER BRACKET: N/A
19	RIGHT SHELF TRACK: 178SHELFRAIL	50	FILTER: C032S
20	SHELF: 178SHELFCFD (Right & Left)	51	OUTER DRAIN PAN: 17812622
21	MIDDLE SHELF: 178SHELFCFD3	52	COMPRESSOR: 17816582 (3R) 17816585 (3F)
22	LEG SUPPORTER ★★	53	SPLICE BOX ★★
23	LEFT TRACK FOR ASSEMBLING PANEL ★★	54	STARTER ★★
24	RIGHT TRACK FOR ASSEMBLING PANEL ★★	55	OVERLOAD PROTECTOR ★★
25	EVAPORATOR: 17810051	56	START CAPACITOR ★★
26	INNER DRAIN PAN: 17811448	57	KEY: 17811836
27	FAN MOTOR INSTALLATION PANEL ★★	58	CABINET SUPPORTER ★★
28	EVAPORATOR FAN MOTOR: 17813407	59	EVAPORATOR TEMPERATURE SENSOR: 17813890/17813892
29	EVAPORATOR COVER: 17815699	60	DRAIN PAN HEATER : 17815643 (freezer only)
30	THERMOSTAT: 17819947 (3R) 17819471 (3F)	61	DRAIN HOSE HEATER: 17813722 (freezer only)
31	POWER SWITCH: 17810365	62	DEFROST HEATER: 17817359 (freezer only)

1.4 A19HC & A23HC series

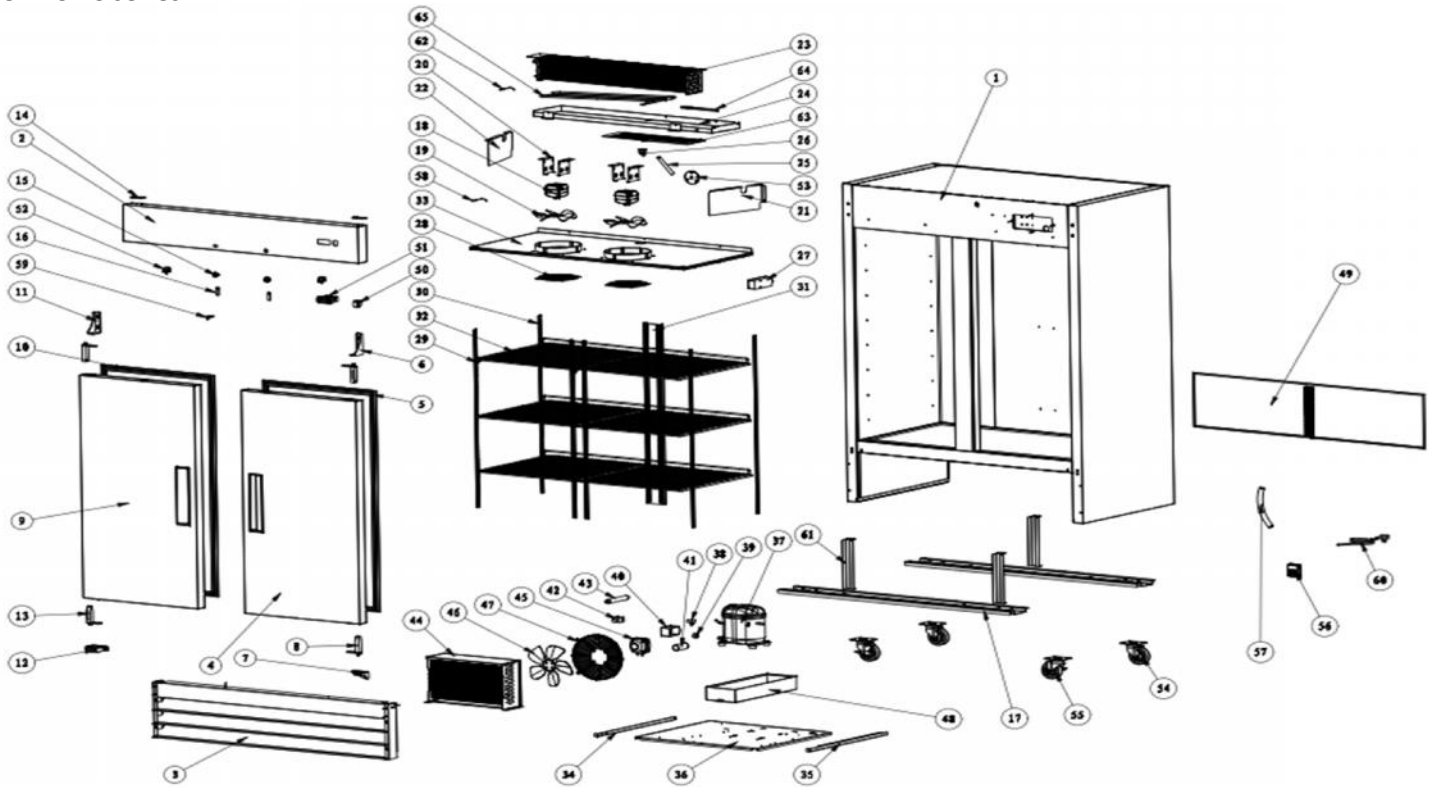


PARTS LIST:

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1	CABINET	35	COMPRESSOR UNIT INSTALLATION BOARD: N/A
2/3	(2) CONTROL PANEL (3) CONTROL PANEL MOUNTS ★★	36	COMPRESSOR: 17812317 (A19R/23R) 17816586 (A19F/23F)
4	FRONT GRILL: 17814693	37/38	(37) STARTER (38) OVERLOAD PROTECTOR ★★
5	UPPER RIGHT HINGE: 178HINGATR	39/40	(39) SPLICE BOX (40) START CAPACITOR ★★
6	SPRING HINGE: 178CARTRIDGE	41/42	(41) FILTER BRACKET: N/A (42) FILTER DRIER: C032S
7	BOTTOM RIGHT HINGE: 178HINGABR	43	CONDENSER FAN COVER: 17815467
8	DOOR: 1785654	44	CONDENSER FAN BLADE: 17811089 (A19) 17817114 (A23)
9	GASKET: 178GSKT11571	45	CONDENSER FAN MOTOR: 17816212
10	CONTROL PANEL HINGE ★★	46	OUTER DRAIN PAN: 17816356
11/12	(11) LOCK : 17813009 (12) LOCK BOLT	47	CONDENSER: 17815868HC (A19F) 17815862 (A19R) 17815868HC (A23F) 17816852 (A23R)
13	LEG SUPPORTER ★★	48/49	(48) BACK GRILL MOUNT (49) BACK GRILL: ★★
14/15	(14) EVAPORATOR FAN MOTOR: 17816223 (15) EVAPORATOR FAN MOTOR BLADE: 17814791 (A19) 17816125 (A23)	50	POWER SWITCH: 17810365
17/18	(17) RIGHT AIR GUIDE SHEET (18) LEFT AIR GUIDE SHEET ★★	51	THERMOSTAT: 17819947 (19R/23R) 17819471 (19F/23F)
19	EVAPORATOR: 17815283HC (A19/23R) 17815892HC (A19/23F)	52	DOOR SWITCH: 17817409
20	EVAPORATOR DRAIN PAN: 17815065	53	DRAIN PLUG ★★
21	EVAPORATOR DRAIN PAN MOUNT ★★	54	4" CASTER: 17819301
22/23	(22) DRAIN HOSE ★★(23) ELBOW PIPE ★★	55	4" CASTER WITH BRAKE: 17816412
24	LIGHT COMPONENTS: 17819014 (cover) 17816351 (bulb)	56	POWER PLUG FITTING BASE ★★
25	EVAP. FAN MOTOR COVER: 17816624 (A19R/F) 17816623 (A23R/F)	57	COMPRESSOR MOUNT ★★
26	BOTTOM COVER FOR REVERSIBLE DOOR ★★	58	TEMPERATURE SENSOR OF CABINET INSIDE: 17813890/17813892
27/28	(27) K-CLIP: 178CLIP (28) PILASTER: 17811668	59	DRAIN PAN HEATER: 17815641 (A19F/A23F)
29	SHELF: 178SHELFA19	60	EVAPORATOR TEMPERATURE SENSOR: 17813890/17813892
30	EVAPORATOR COVER: 17818696	61	KEY: 17811836
31	TOP COVER FOR REVERSIBLE DOOR ★★	62	DEFROST HEATER: 17813517 (A19F/A23F)
32	LIMITED BLOCK OF INSTALLATION BOARD ★★	63	DRAIN HOSE HEATER: 17813722 (A19F/A23F)
33	LEFT TRACK FOR ASSEMBLING PANEL ★★	64	DRAIN HOSE ★★
34	RIGHT TRACK FOR ASSEMBLING PANEL ★★	65	POWER CORD: 17810175

1.5 A49HC series



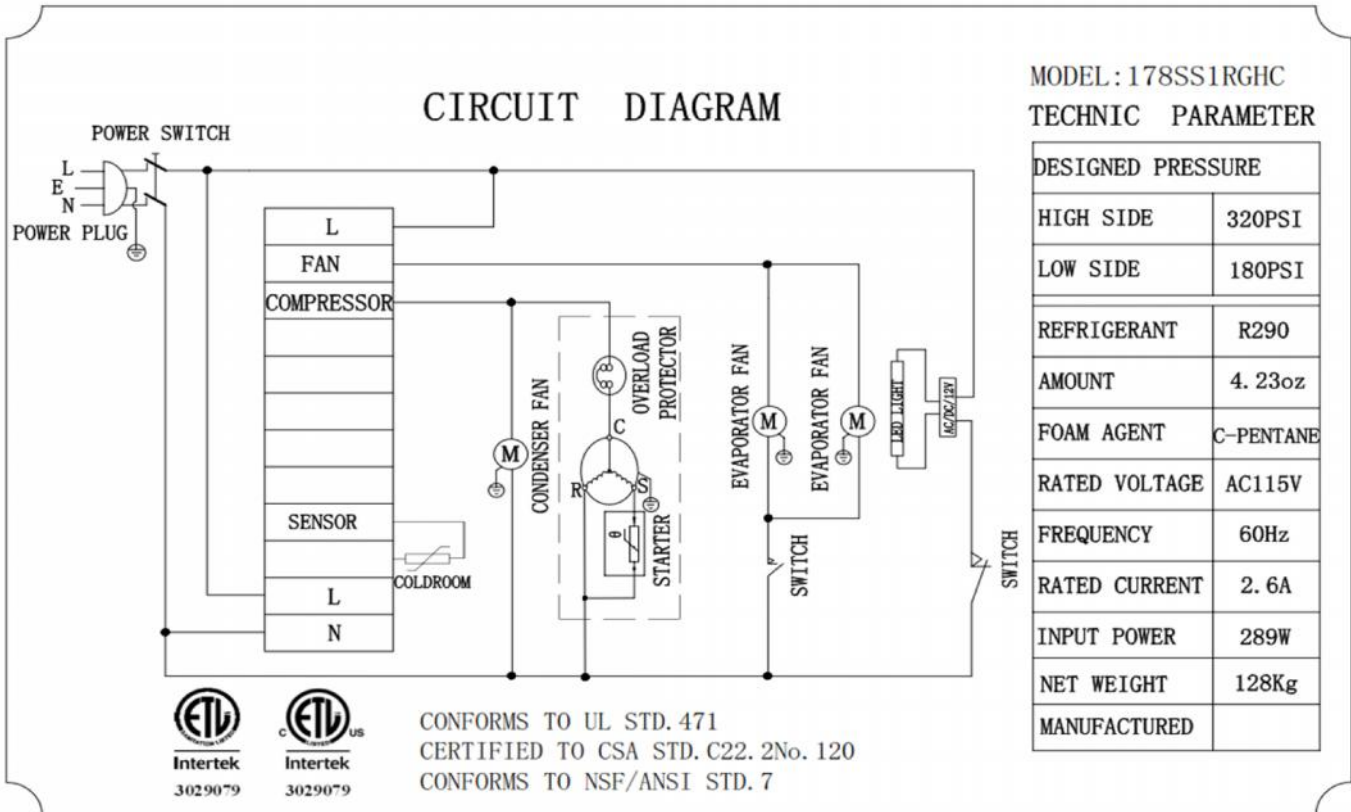
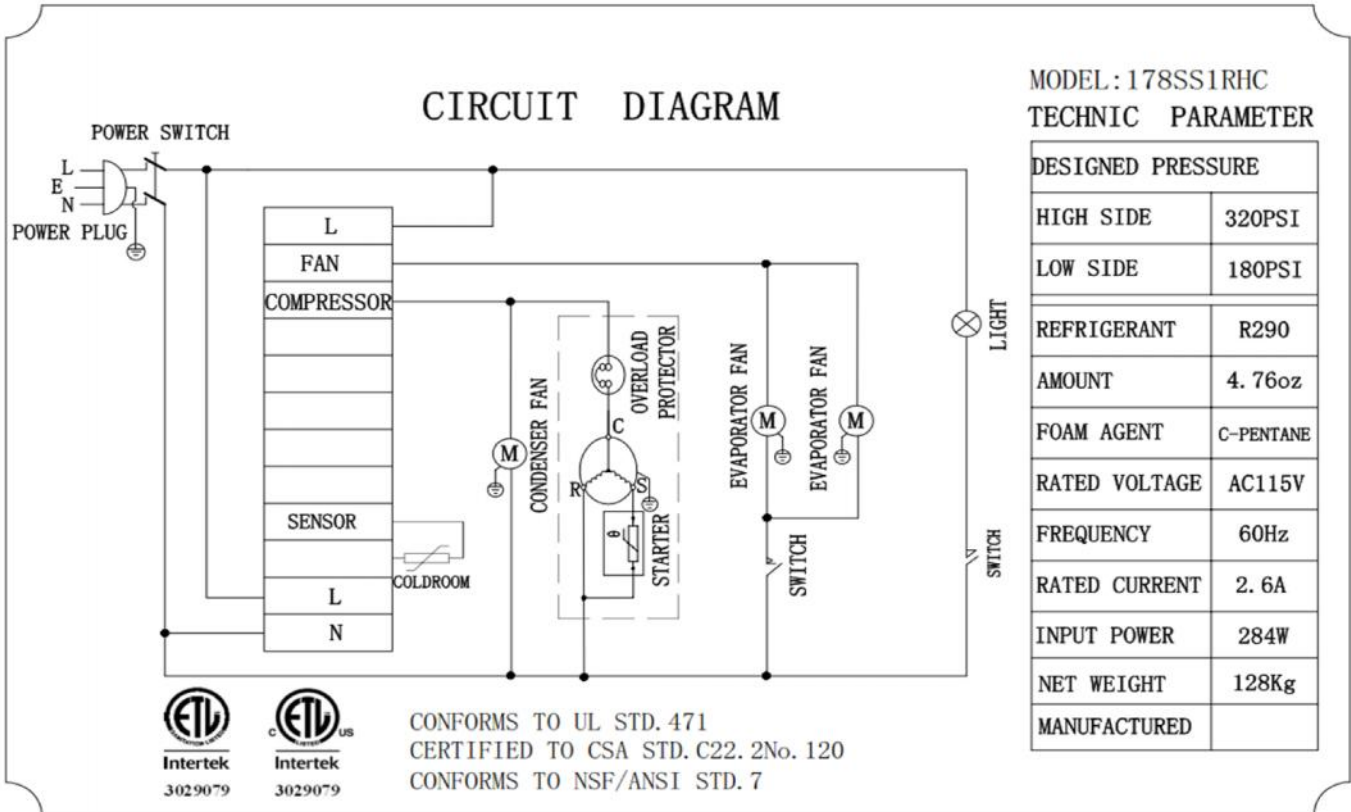
PARTS LIST:

★★ - Consult Factory

1	CABINET	34	LEFT TRACK FOR ASSEMBLING PANEL ★★
2	CONTROL PANEL ★★	35	RIGHT TRACK FOR ASSEMBLING PANEL ★★
3	FRONT GRILL:17814694	36	COMPRESSOR UNIT INSTALLATION BOARD: N/A
4	RIGHT DOOR: 17815678 (reversible)	37	COMPRESSOR: 17812325 (49R) 17816583 (49F)
5	GASKET: 178GSKT10521	38	STARTER ★★ (39) OVERLOAD PROTECTOR ★★
6	UPPER RIGHT HINGE: 178HINGATR	40	SPLICE BOX ★★ (41) START CAPACITOR ★★
7	BOTTOM RIGHT HINGE: 178HINGABR	42	FILTER BRACKET: N/A
8	SPRING HINGE: 178CARTRIDGE	43	FILTER: C032S
9	LEFT DOOR: 17815678 (reversible)	44	CONDENSER: 17815868HC (A49R) 17817161HC (A49F)
10	GASKET: 178GSKT10521	45	CONDENSER FAN MOTOR: 17816215
11	UPPER LEFT HINGE: 178HINGATL	46	CONDENSER FAN BLADE: 17817114
12	LEFT BOTTOM HINGE: 178HINGABL	47	CONDENSER FAN COVER: 17815699
13	SPRING HINGE: 178CARTRIDGE	48	OUTER DRAIN PAN: 17816995
14	CONTROL PANEL HINGE ★★	49	BACK GRILL ★★
15/16	(15) LOCK: 17813009 (16) LOCK BOLT	50	POWER SWITCH: 17810365
17	LEG SUPPORTER ★★	51	THERMOSTAT: 17819947 (49R) 17819471 (49F)
18	EVAPORATOR FAN MOTOR: 17816223	52	DOOR SWITCH: 17817409
19	EVAPORATOR FAN BLADE: 17816125	53	DRAIN PLUG: 17813588
20	EVAPORATOR FAN MOTOR MOUNT ★★	54	4" CASTER: 17819301
21/22	(21) RIGHT AIR GUIDE SHEET (22) LEFT AIR GUIDE SHEET ★★	55	4" CASTER WITH BRAKE: 17816412
23	EVAPORATOR: 17817854HC (A49F) 17816485 (A49R)	56	POWER PLUG FITTING BASE ★★
24	INNER DRAIN PAN: 17817891	57	DRAIN HOSE ★★
25/26	(25) DRAIN HOSE ★★ (26) ELBOW PIPE ★★	58	TEMPERATURE SENSOR OF CABINET INSIDE: 17813890/17813892
27	LIGHT COMPONENTS: 17819014 (cover) 17816351 (bulb)	59	KEY: 17811836
28	EVAPORATOR FAN MOTOR COVER: 17816625	60	POWER CORD: 17810175
29	K Clip: 178CLIP	61	CABINET SUPPORTER: ★★
30	Pilaster: 17811668	62	EVAPORATOR TEMPERATURE SENSOR: 17813890/17813892
31	BACK BRACKETS ★★	63	DRAIN PAN HEATER: 17815642 (freezer only)
32	SHELF: 178SHELFA	64	DRAIN HOSE HEATER: 17813722 (freezer only)
33	EVAPORATOR COVER	65	DEFROST HEATER: 17817764HC (freezer only)

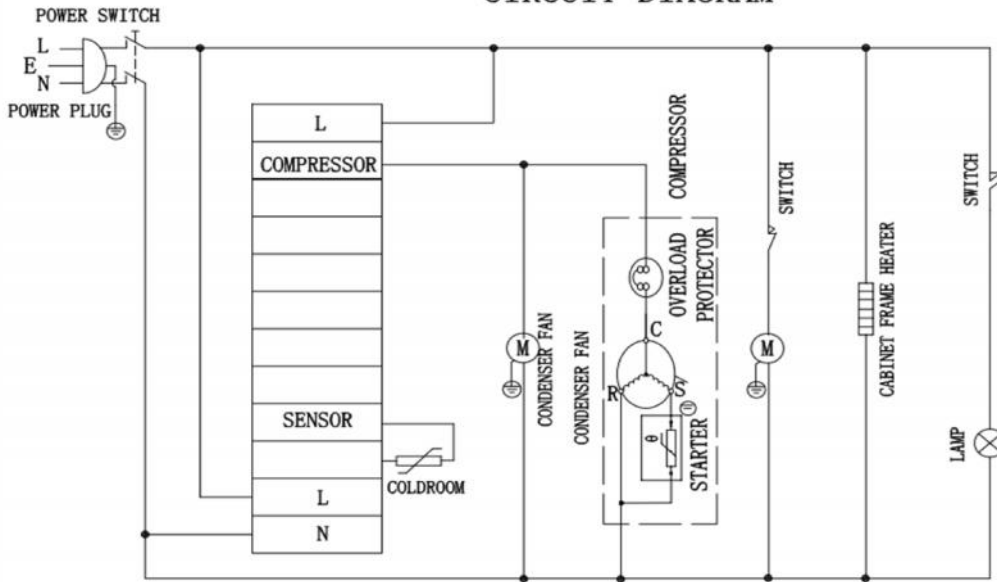
2. WIRING DIAGRAMS

2.1 One door refrigerators: SS1RHC/SS1RGHC/A19RHC/A23RHC



CIRCUIT DIAGRAM

MODEL : 178A19RHC TECHNIC PARAMETER



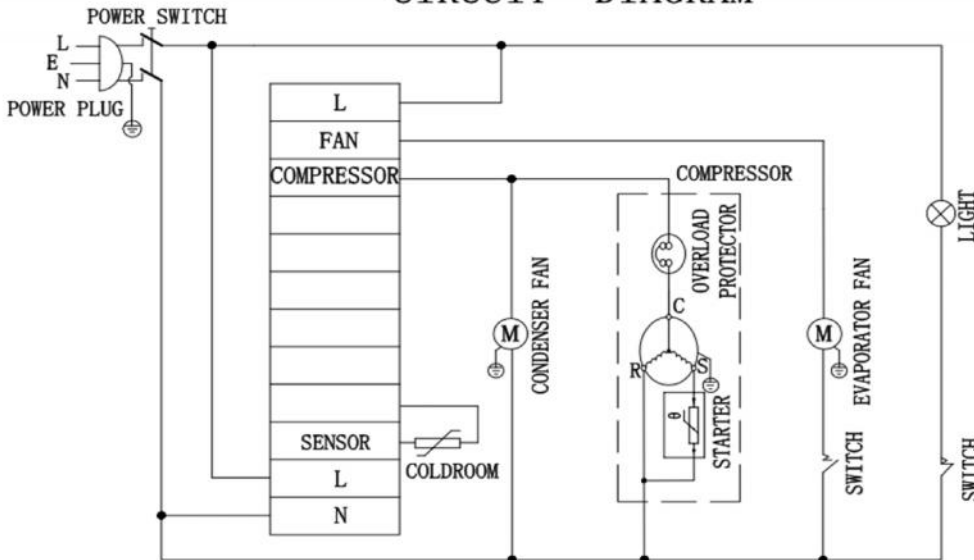
DESIGNED PRESSURE	
HIGH SIDE	320PSI
LOW SIDE	180PSI
REFRIGERANT	R290
AMOUNT	3.53oz
FOAM AGENT	C-PENTANE
RATED VOLTAGE	AC115V
FREQUENCY	60Hz
RATED CURRENT	2.8A
INPUT POWER	297W
NET WEIGHT	128Kg
MANUFACTURED	



CONFORMS TO UL STD. 471
CERTIFIED TO CSA STD. C22. 2No. 120
CONFORMS TO NSF/ANSI STD. 7

CIRCUIT DIAGRAM

MODEL : 178A23RHC TECHNIC PARAMETER

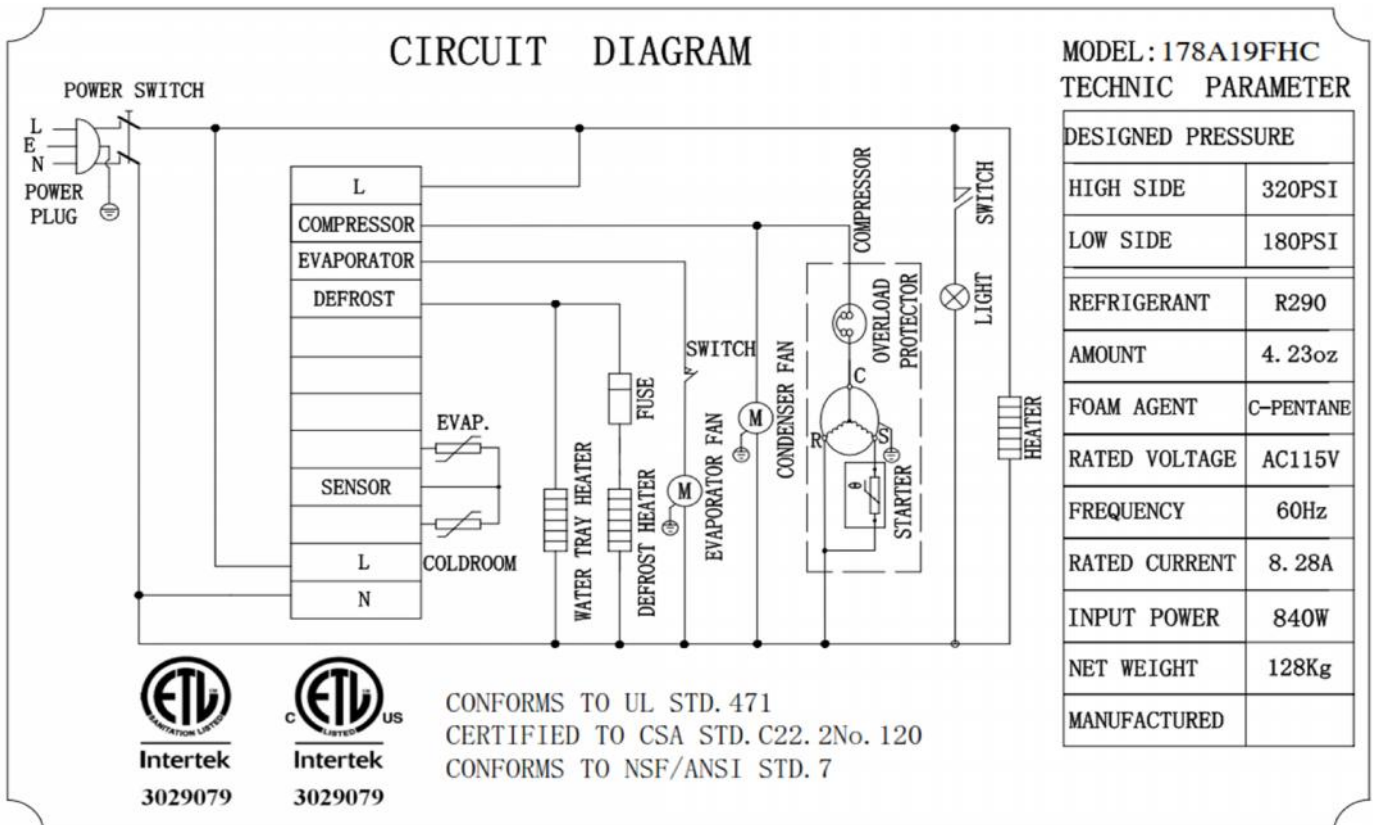
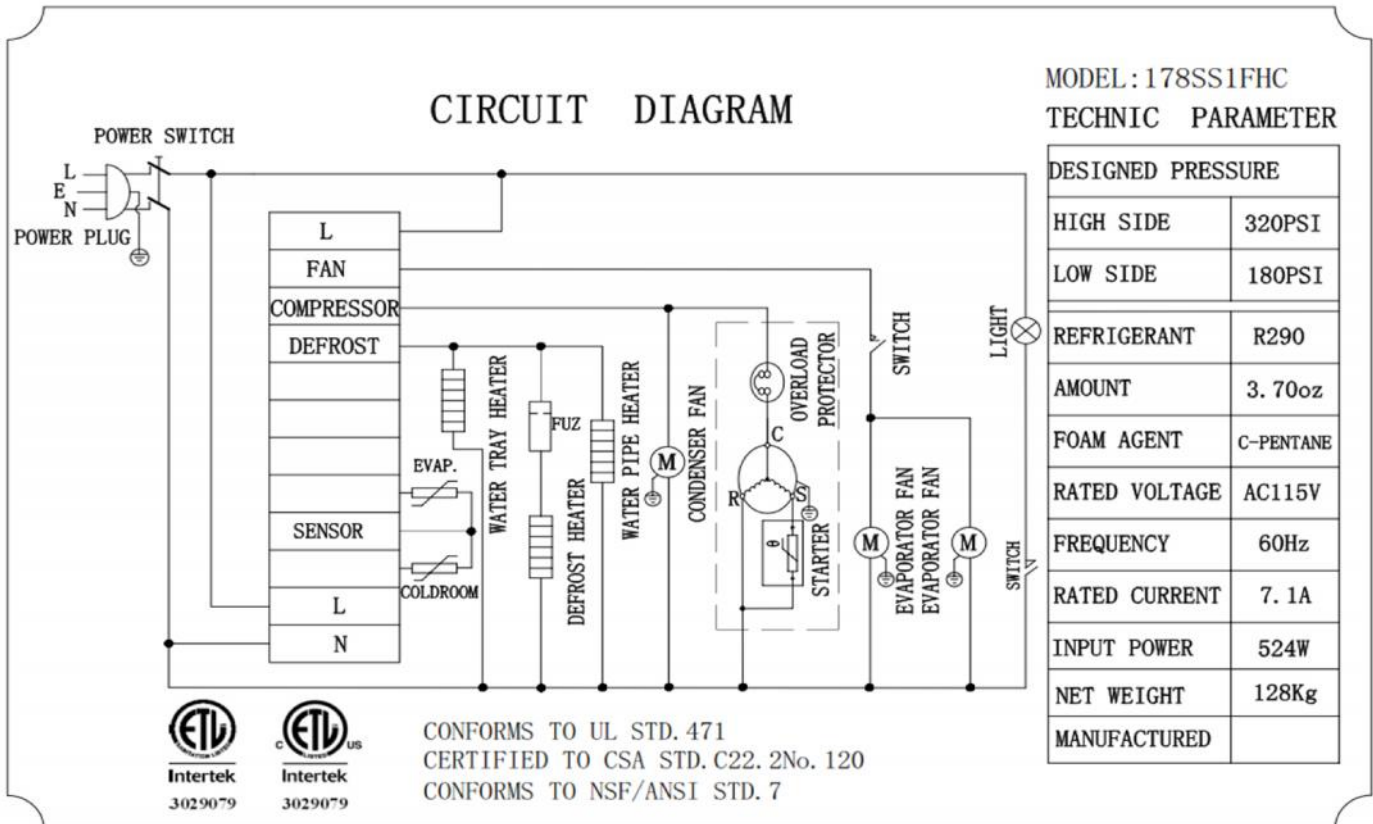


DESIGNED PRESSURE	
HIGH SIDE	320PSI
LOW SIDE	180PSI
REFRIGERANT	R290
AMOUNT	4.23oz
FOAM AGENT	C-PENTANE
RATED VOLTAGE	AC115V
FREQUENCY	60Hz
RATED CURRENT	2.76A
INPUT POWER	304W
NET WEIGHT	128Kg
MANUFACTURED	

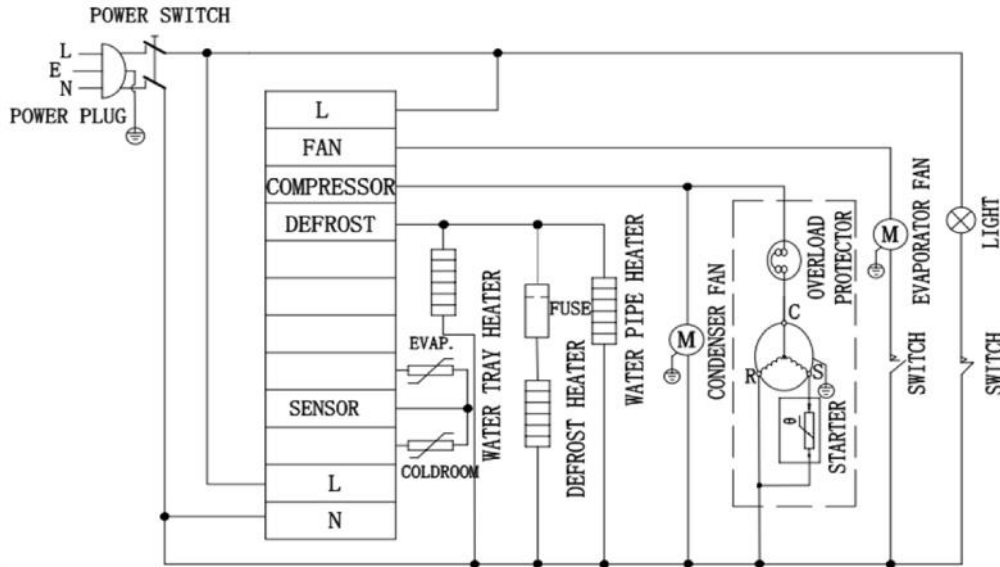


CONFORMS TO UL STD. 471
CERTIFIED TO CSA STD. C22. 2No. 120
CONFORMS TO NSF/ANSI STD. 7

2.2 One door freezers: SS1FHC/A19FHC/A23FHC



CIRCUIT DIAGRAM



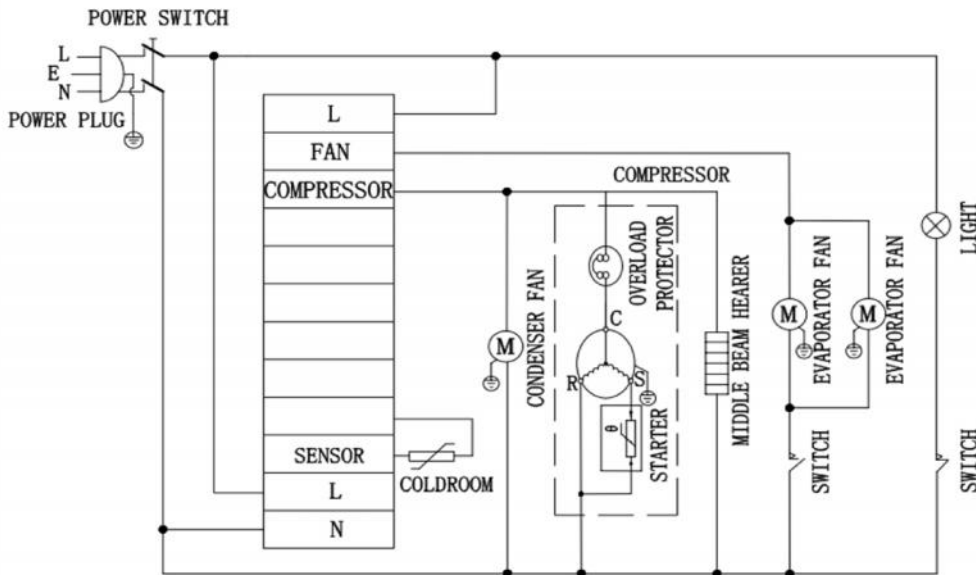
MODEL: 178A23FHC TECHNIC PARAMETER

DESIGNED PRESSURE	
HIGH SIDE	320PSI
LOW SIDE	180PSI
REFRIGERANT	R290
AMOUNT	4.23oz
FOAM AGENT	C-PENTANE
RATED VOLTAGE	AC115V
FREQUENCY	60Hz
RATED CURRENT	7.92A
INPUT POWER	633W
NET WEIGHT	127Kg
MANUFACTURED	



CONFORMS TO UL STD. 471
 CERTIFIED TO CSA STD. C22.2No. 120
 CONFORMS TO NSF/ANSI STD. 7

CIRCUIT DIAGRAM



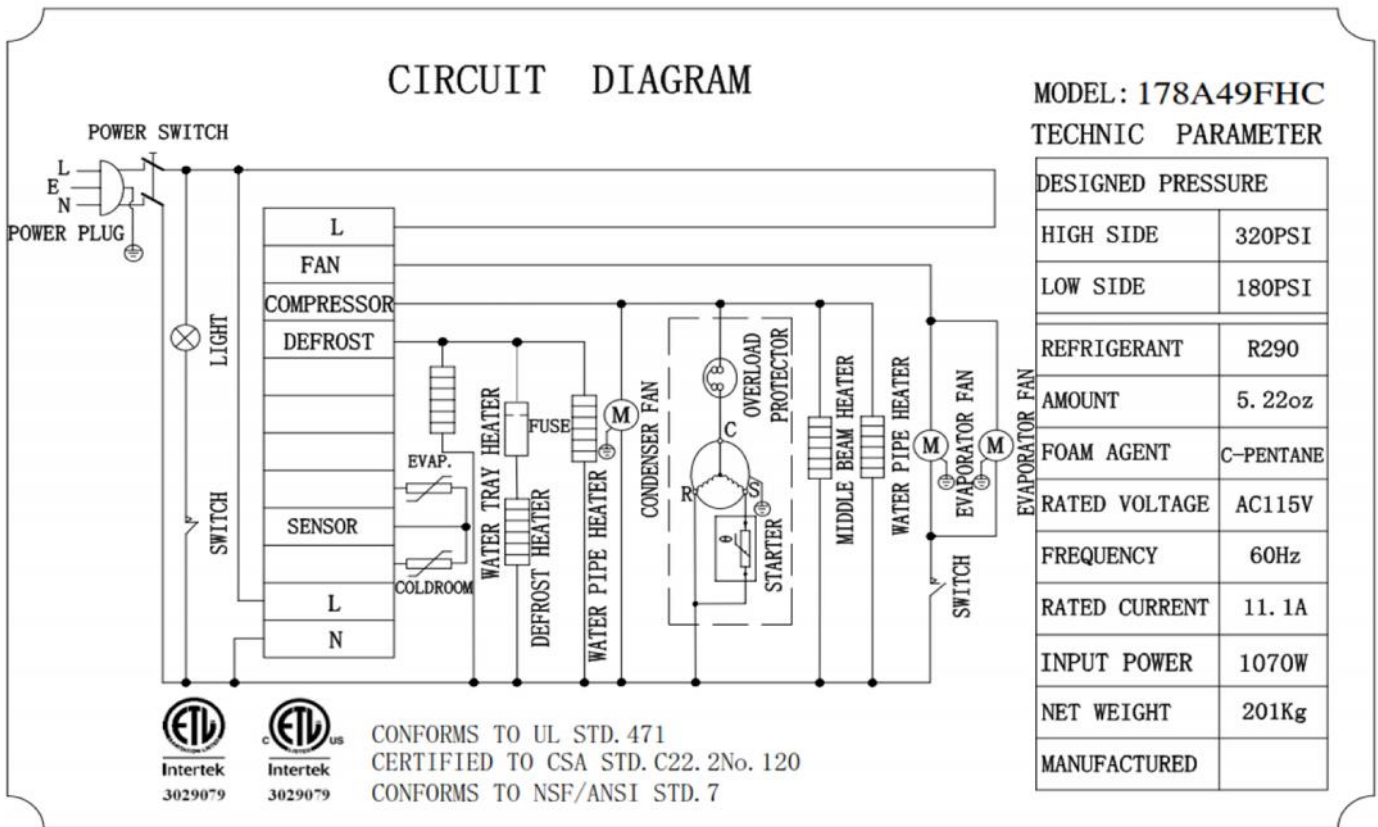
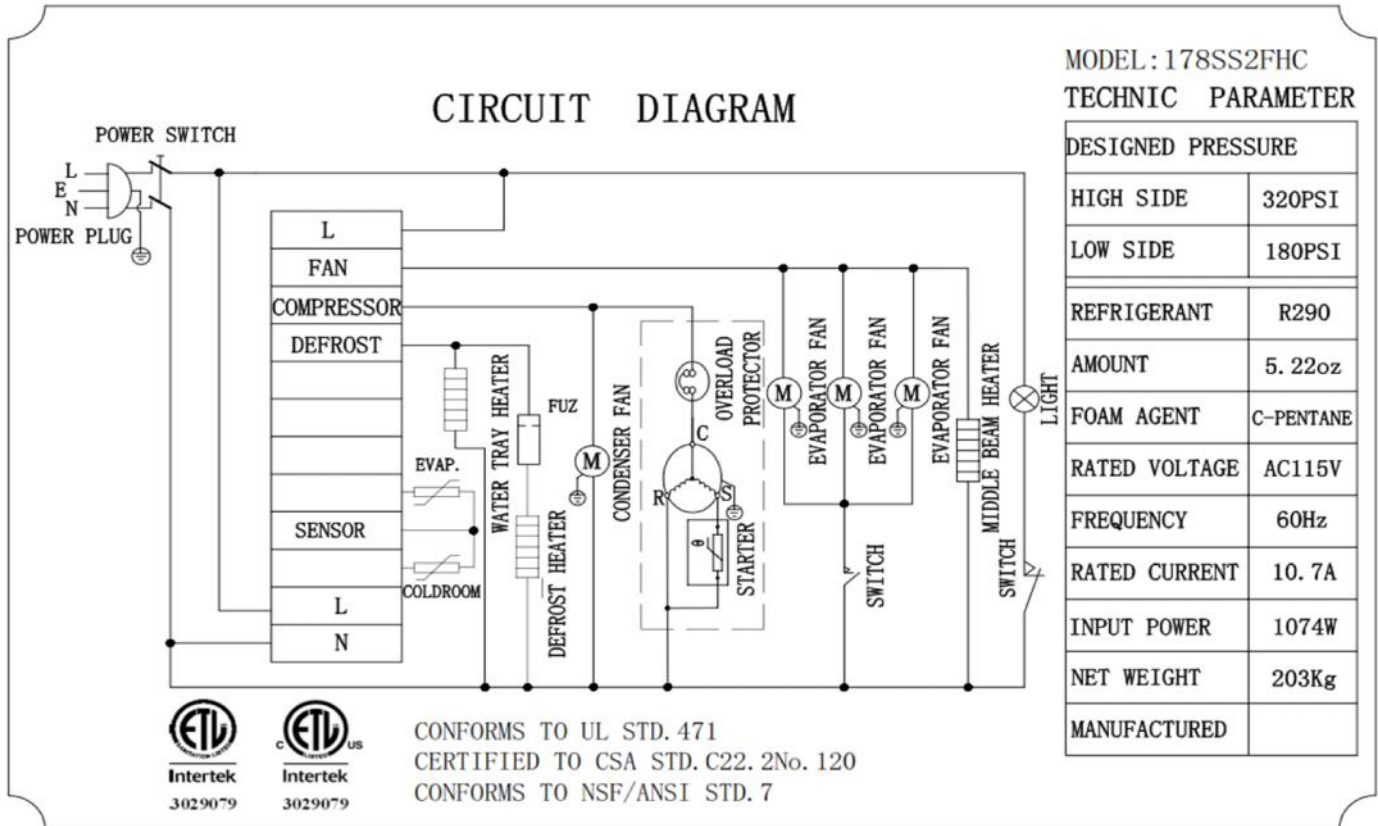
MODEL: 178A49RHC TECHNIC PARAMETER

DESIGNED PRESSURE	
HIGH SIDE	320PSI
LOW SIDE	180PSI
REFRIGERANT	R290
AMOUNT	4.93oz
FOAM AGENT	C-PENTANE
RATED VOLTAGE	AC115V
FREQUENCY	60Hz
RATED CURRENT	4.56A
INPUT POWER	468W
NET WEIGHT	199Kg
MANUFACTURED	

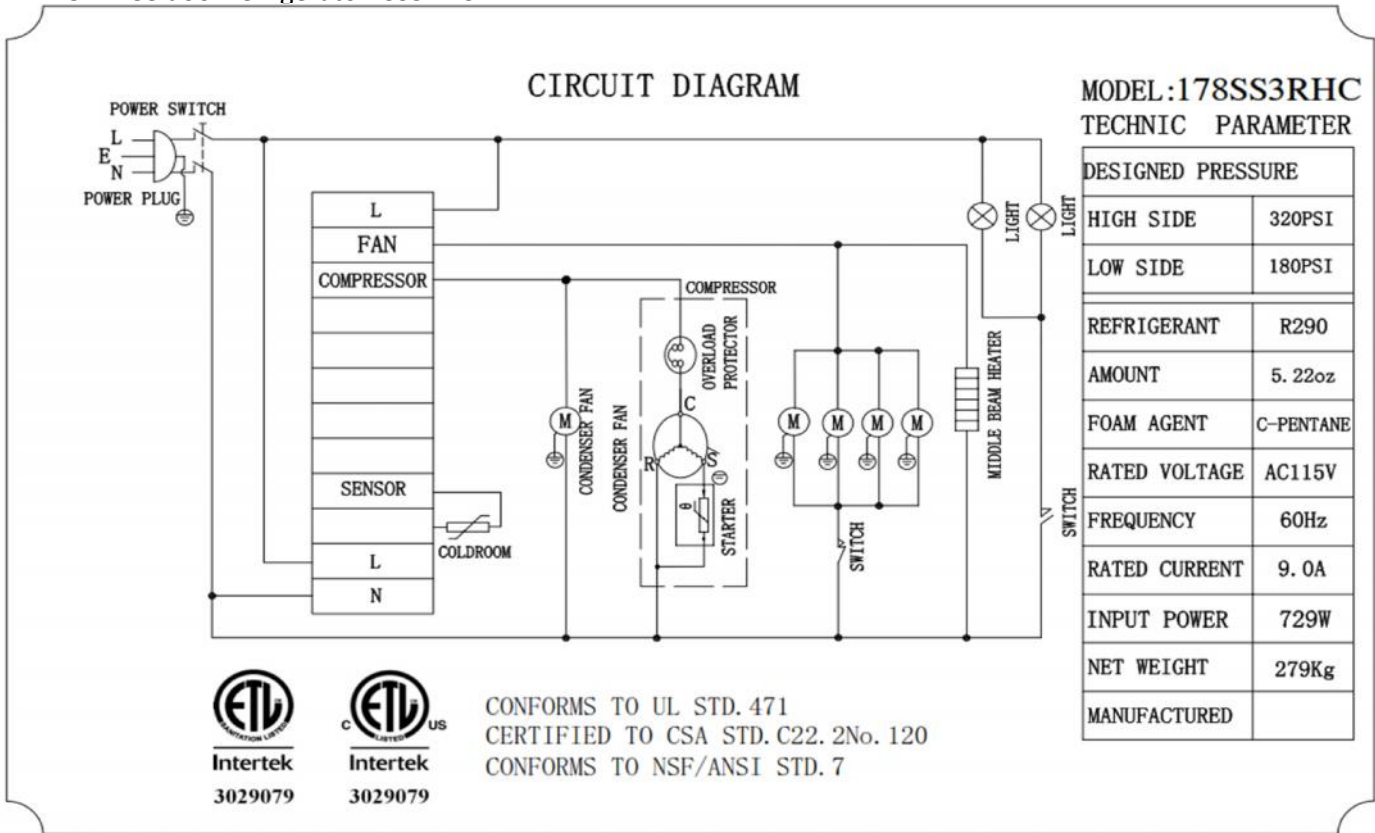


CONFORMS TO UL STD. 471
CERTIFIED TO CSA STD. C22. 2No. 120
CONFORMS TO NSF/ANSI STD. 7

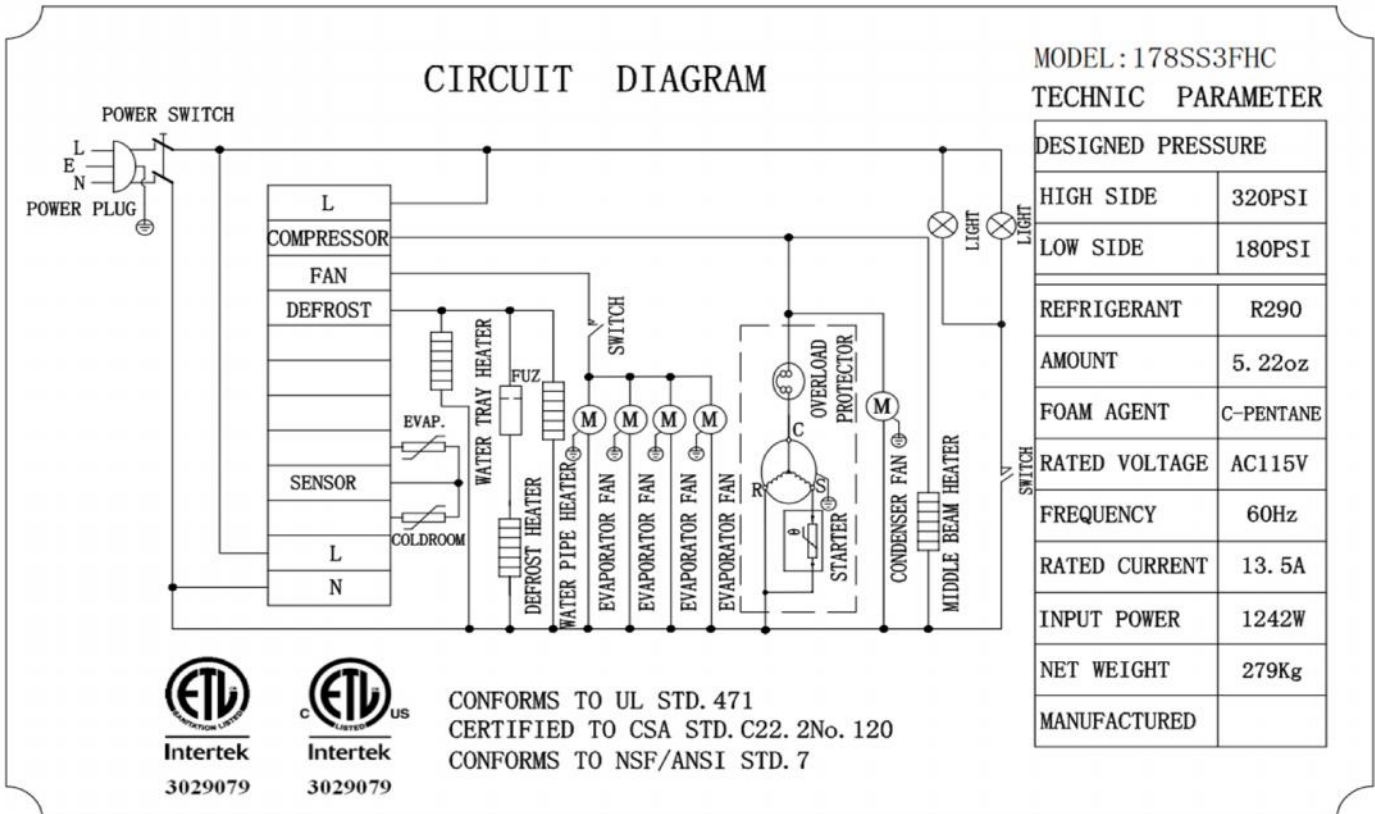
2.4 Two door freezers: SS2FHC/A49FHC



2.5 Three door refrigerator: SS3RHC

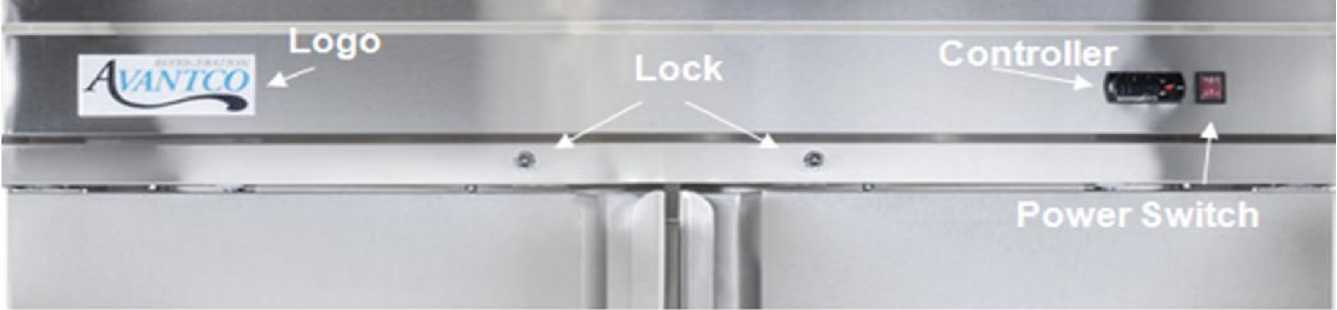


2.6 Three door freezer: SS3FHC



3. PART DETAILS

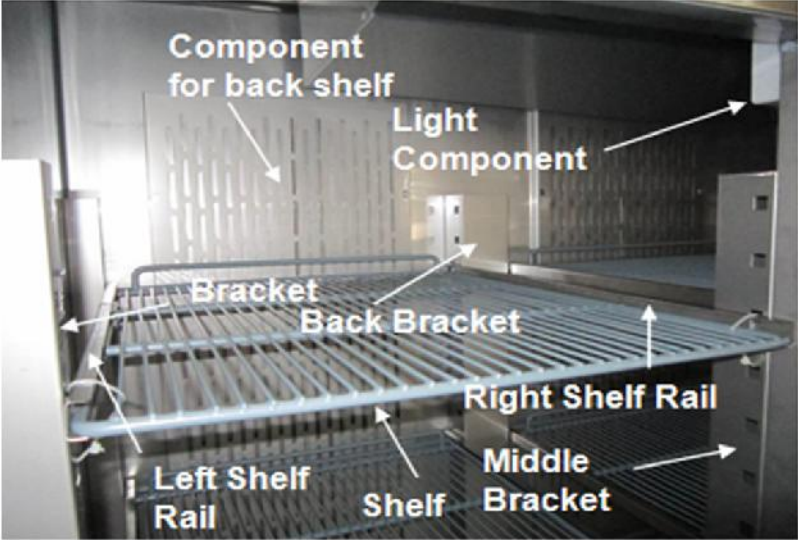
3.1 Control Panel



3.2 Door

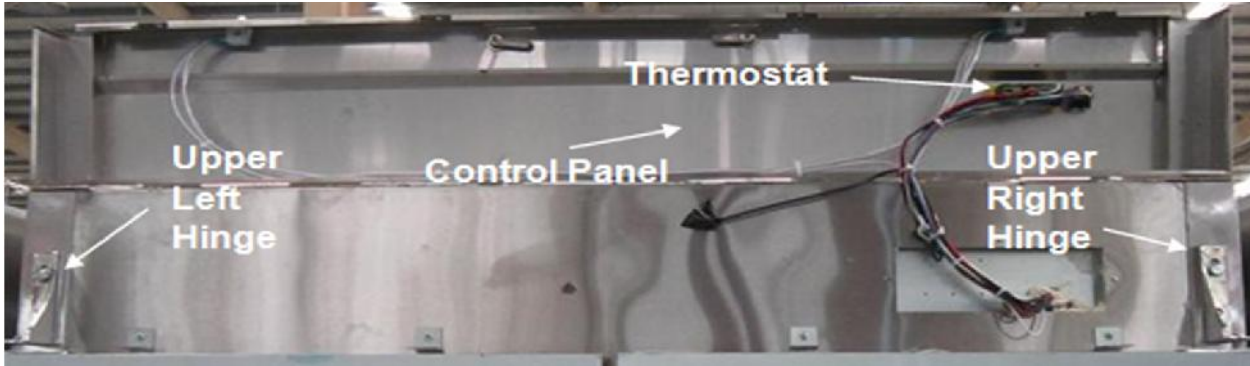


3.3 Shelf, Shelf Rails & Brackets



3.4 Hinges

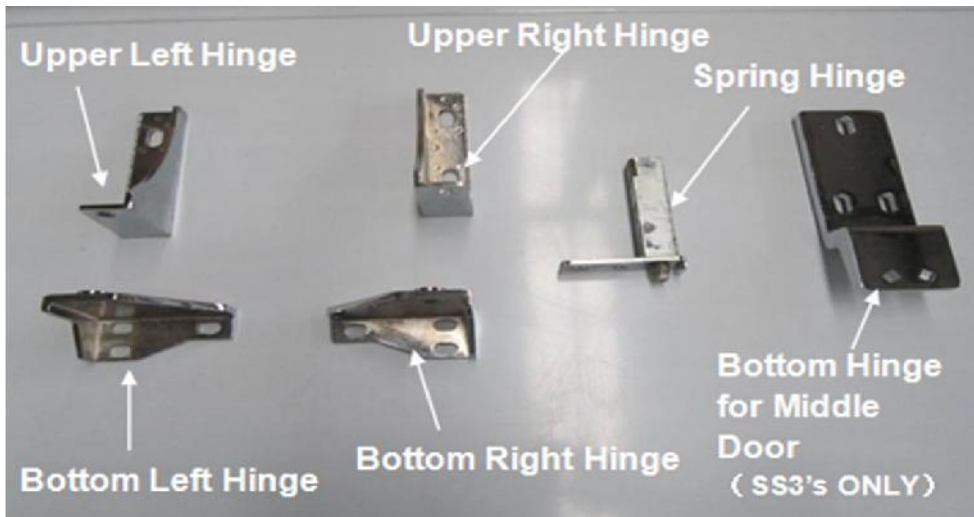
Upper Hinges



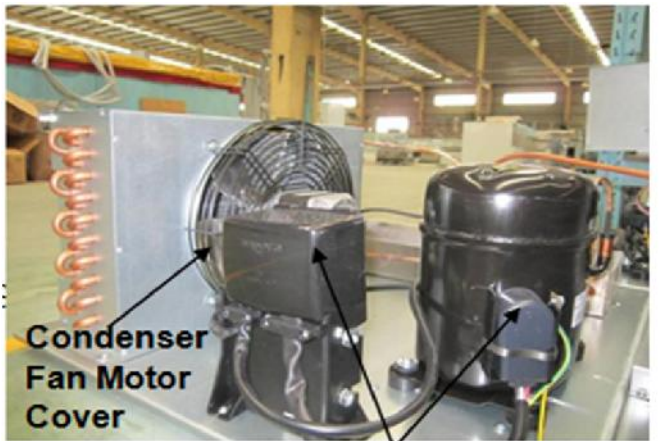
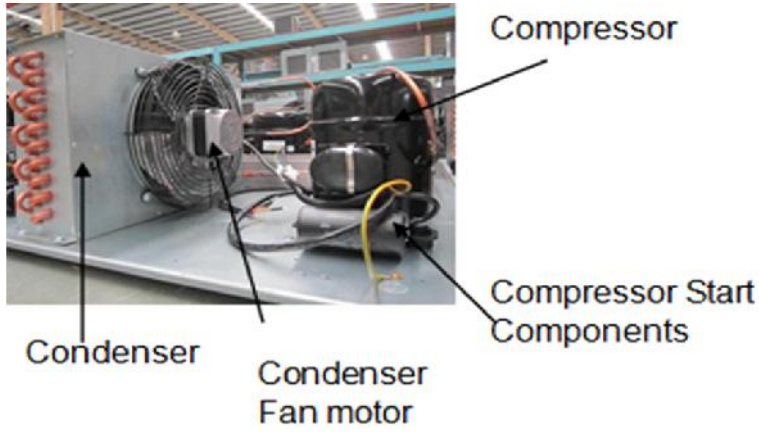
Bottom Hinges



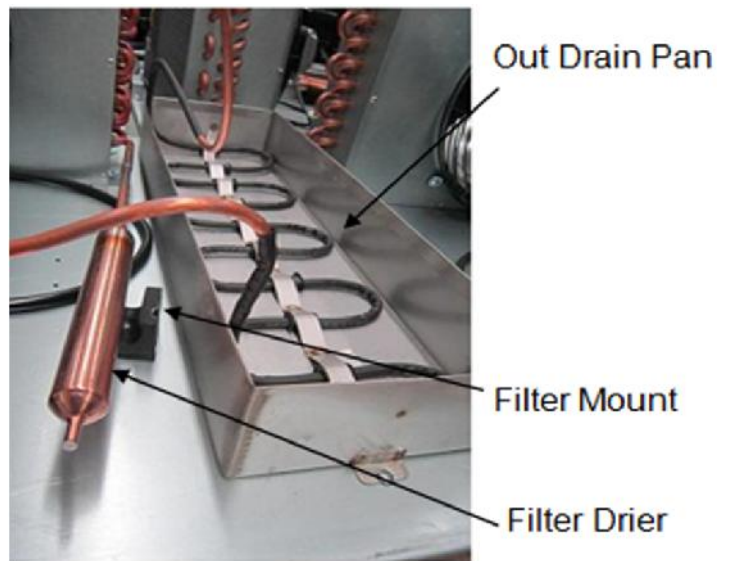
Hinge Comparison



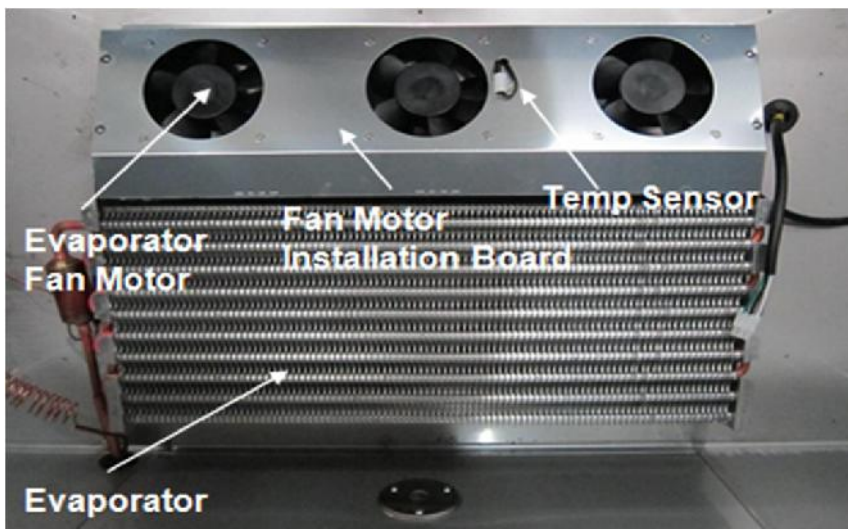
3.5 Refrigeration System



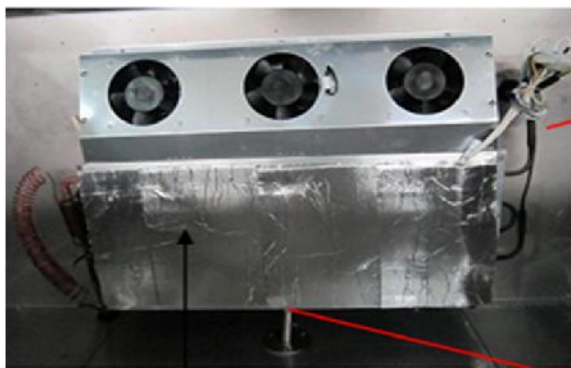
Compressor Start Components



3.6 Cooling System



★ Freezers only: Defrost Heater, Inner Drain Pan Heater, Drain Hose Heater & Defrost Sensor



4. CONTROLLER INSTRUCTIONS

4.1 Refrigerator Controller

Digital Controller Model: PZGX



Dimensions (mm)

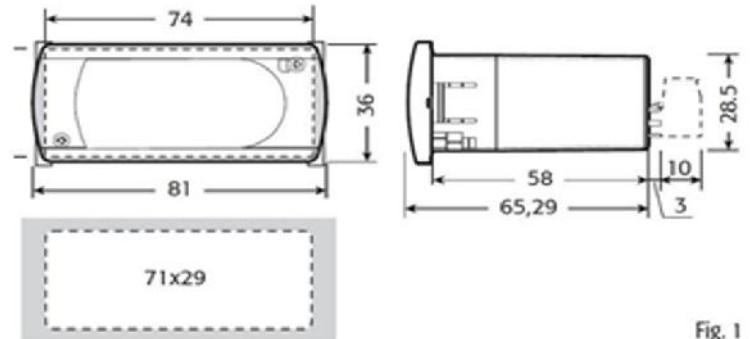


Fig. 1

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). The three controller buttons can be used to activate/deactivate various 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		Pressed together	for 1 s display firmware vers. code
	set mute	- 1 s.: display/set the set point - more than 3 s: access parameter setting menu (enter password '22') - mute audible alarm (buzzer)	-	start parameter reset procedure	for 1 s RESET current EZY set

Tab. 2

Additional Controller Instructions

Setting the set point (desired temperature value)

1. Press **SET** for 1 second, the set temperature will start flashing after a few moments;
2. To increase or decrease the temperature, use the **UP** or **DOWN** button;
3. Press **SET** to confirm new temperature.

Switching the device ON/OFF

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

Placing the device into a manual defrost

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

Placing the device into a continuous cycle

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

Accessing 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;
3. Scroll inside the parameter menu using **UP/DOWN**;
4. To set the value of the parameter displayed, press **SET**, then **UP/DOWN** and finally **SET** to confirm the changes (returning to the parameter menu).

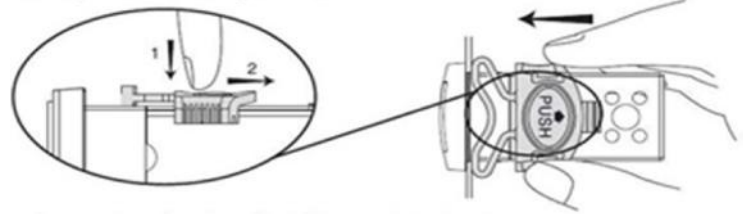
To save all of the new values and exit the parameter menu, press **SET** for 3 seconds;

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

4.2 Freezer Controller
Digital Controller Model: IR33

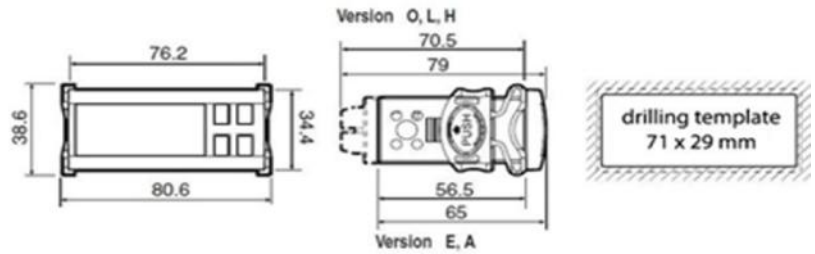


ir33/ir33 panel mounting:



Panel mounting by two lateral sliding plastic brackets

Dimensions (mm)



Signals on the display

The blinking status indicates a request for activation that cannot be implemented until the end of the corresponding delay times.

Icon	Function	ON	OFF	blink	Startup
	COMPRESS.	compressor ON	comp. OFF	compressor request	
	FAN	fan ON	fan OFF	fan request	
	DEFROST	defrost in progress	defrost not required	defrost request	
AUX	AUX	auxiliary output AUX active	auxiliary output AUX not active	anti-sweat heater function active	
	ALARM	delayed external alarm (before the expiry of the time 'A7')	no alarm present	alarms in normal operation (eg. high/low temp.) or alarm from ext. digital input immediate or delayed	
	CLOCK	at least one timed defrost has been set	no timed defrost is present	clock alarm	ON if Real-Time Clock pre-
sent	LIGHT	auxiliary output LIGHT ACTIVE	auxiliary output LIGHT NOT ACTIVE	anti-sweat heater function active	
	SERVICE		no malfunction	malfunction (eg. EEPROM error or probe fault)	
HACCP	HACCP	HACCP function	HACCP function enabled	HACCP alarm (HA and/or HF) not enabled	
	CONTINUOUS CYCLE	enabled	not enabled	request	

Setting the set point (desired temperature value)

To display or change the set point, proceed as follows:

1. Press the "Set" button for more than 1 second to display the set point;
2. Increase or decrease the value of the set point using the " $\frac{\blacktriangle}{aux}$ " and " $\frac{\blacktriangledown}{def}$ " respectively, until reaching the desired value;
3. Press the "Set" button again to confirm the new value.

Alarms with manual reset

Alarms with manual reset can be reset by pressing the " $\frac{Prg}{mute}$ " and " $\frac{\blacktriangle}{aux}$ " for more than 5 seconds.

Placing the device into a manual defrost

If the temperature conditions allow, a manual defrost can be enabled, by pressing the " $\frac{def}{\blacktriangledown}$ " button for more than 5 seconds.

Placing the device into a continuous cycle

Pressing the buttons " $\frac{\blacktriangle}{aux}$ " and " $\frac{def}{\blacktriangledown}$ " simultaneously for more than 5 seconds enables the continuous cycle function.

During operation in continuous cycle, the compressor continues to operate for the time "cc" and stops when reaches the "cc" time out or the minimum temperature envisaged (AL = minimum temperature alarm threshold).

Continuous cycle setting: "cc" parameter (continuous cycle duration): "cc"=0 never active; "c6" parameter (by passing the alarm after the continuous cycle): "cc" = 0 never active; it avoids or delays the low temperature alarm after the continuous cycle.

Accessing the configuration parameter (type C)

1. Press the " $\frac{Prg}{mute}$ " and "Set" buttons at the same time for more than 5 seconds, the display will show "00" (password prompt).
2. Press "Set", use the " $\frac{\blacktriangle}{aux}$ " or " $\frac{def}{\blacktriangledown}$ " buttons to display the number "22" (parameter access password).
3. Confirm by pressing "Set".
4. The display will show the first modifiable "C" parameter.

Accessing the configuration parameter (type F)

1. Hold the " $\frac{Prg}{mute}$ " button for more than 5 seconds (if there are active alarms, first mute the buzzer), the display will show the first modifiable "F" parameter.

Modifying the parameters

After having displayed the parameter, either type "C" or type "F", proceed as follows:

1. Use the " $\frac{\blacktriangle}{aux}$ " or " $\frac{def}{\blacktriangledown}$ " buttons to scroll the parameters until the parameter to be modified is reached. When scrolling the parameters, an icon is shown on the display that represents the category of the parameter.
2. Alternatively, press the " $\frac{Prg}{mute}$ " button to display a menu that can be used to quickly access the group of

parameters to be modified.

3. Scroll the menu using the " $\frac{\blacktriangle}{aux}$ " and " $\frac{\blacktriangledown}{def}$ " buttons displays the codes of the various categories of parameters, accompanied by the corresponding icon on the display (if present).
4. Once having reached the desired category, press "Set" to go directly to the first parameter in the chosen category (if no parameter is visible, pressing the "Set" button will have no effect)
5. At this stage, modify the parameters or return to the "Category" menu, using the " $\frac{Prg}{mute}$ " button.
6. Press "Set" to display the value associated with the parameter.
7. Increase or decrease the value using the " $\frac{\blacktriangle}{aux}$ " or " $\frac{\blacktriangledown}{def}$ " buttons respectively.
8. Press "Set" to temporarily save the new value and return to the display of the parameter.
9. Repeat the operation from point 1 or point 2.
10. If the parameter has sub-parameters, press "Set" to display the first sub-parameter.
11. Press the " $\frac{\blacktriangle}{aux}$ " or " $\frac{\blacktriangledown}{def}$ " button to display all the sub-parameters.
12. Press "Set" to display the associated value.
13. Increase or decrease the value using the " $\frac{\blacktriangle}{aux}$ " or " $\frac{\blacktriangledown}{def}$ " button respectively.
14. Press "Set" to temporarily save the new value and return to the display of the sub-parameter code.
15. Press " $\frac{Prg}{mute}$ " to return to the display of the parent parameter.

Saving the new values assigned to the parameter

To permanently save the new values of the modified parameters, press the " $\frac{Prg}{mute}$ " button for more than 5 seconds, thus exiting the parameter setting procedure. All the modifications made to the parameters temporarily saved in the RAM can be canceled and "normal operation" is resumed by not pressing any buttons for 60 seconds. All the modifications made to the parameters that were temporarily saved will be lost.

4.2 Correct Settings for Carel Controllers

Correct Settings for CAREL Controllers (115V)			
MODE	PZGX(REFRIG)	IR33(FREEZER)	DISPLAY
/5	1	1	TEMPERATURE UNIT F/C
/c1	0	0	CABINET OFFSET
/c2	0	0	EVAP OFFSET
St	33	-7	USER SET POINT
<u>rd</u>	7	7	DIFFERENTIAL
r1	33	-10	LOW LIMIT
r2	43	10	HIGH LIMIT
c0	2	2	COMPRESSOR DELAY
<u>dl</u>	3	3	DEFROST INTERVAL TIME
dt1	43	58	DEFROST TERMINATION TEMP
dP1	20	20	MAX DEFROST DURATION
F0	N/A	2	FAN OPERATING FUNCTION
F1	N/A	41	FAN STARTING TEMPERATURE
F2	N/A	1	FAN STOPS WHEN COMPRESSOR STOPS
F3	N/A	1	FAN MODE DURING DEFROSTING

5. MAIN PARTS - REPLACEMENT INSTRUCTIONS

CAUTION!! Before beginning, see that the unit has been disconnected from the power supply (pull the power plug) and that the unit has had time to cool down.

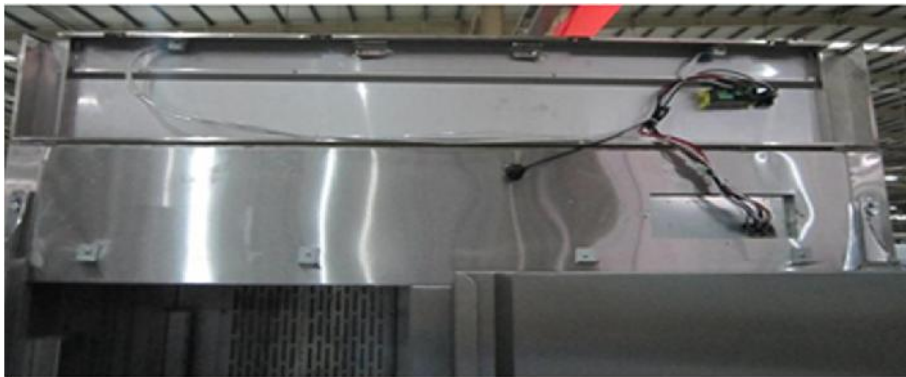
5.1 Control Panel Components

- Control Panel
- Controller
- Power Switch
- Door Switch
- Lock Assembly and Key

A. Remove the screws located on the bottom of the control panel.



B. Flip up the control panel and place it on top of the cabinet. You can now replace the controller, power switch, lock assembly or door switch here.



C. You may also remove the screws that are located on top of the control panel and remove the control panel from the cabinet. Here, you will also be able to replace the controller, power switch, lock assembly, door switch and control panel.

CAUTION!! When disassembling or reassembling the control panel from the top, please make sure to hold the control panel in order to prevent it from falling off and scratching the cabinet.

D. To reassemble, reverse the order of the instructions.

5.2 Door, Hinges, and Gaskets

- A. Disassemble the control panel as described above.
- B. Remove the screws located on each side of the front grill and remove.



- C. Remove the top hinge * Note: Make sure when removing the last screw that you are firmly holding onto the door. You can replace the top hinge and spring loaded hinge here.



D. Remove the bottom hinge.

CAUTION!! When removing the hinges, the door should be supported by another person to avoid injury.



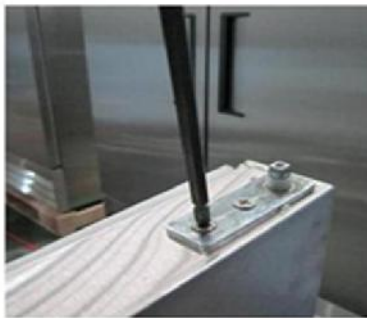
E. Once the top and bottom hinges have been removed, you may remove the door and replace the top/bottom hinges, spring loaded hinge and door.



Upper hinge



Lower hinge



Spring hinge

F. To reassemble the door, reverse the order of instructions. Assemble the bottom hinge while lifting the door and then assemble the top hinge.

G. To replace the door gasket, pull off the gasket and install the new gasket using a soft hammer to ensure proper alignment in the door channel. Once installed, it is recommended that you clean the gasket with a damp, soft cloth and dry with a clean cloth.



5.3 Field Reversible Doors (Solid One Door Models Only)

Please note: It is recommended to have a second person when reversing doors.

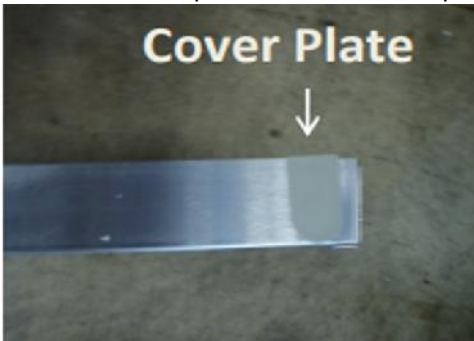
Parts Needed:

- 178CFD1KITFR hinge kit (SS Series) which includes the following parts:
 - Part# 178HINGCFDTL: Top Left Hinge Bracket
 - Part# 178HINGCFDBL: Bottom Left Pivot Hinge

- 178AKITFR hinge kit (A Series) which includes the following parts:
 - Part# 178HINGATL: Top Left Hinge Bracket
 - Part# 178HINGABL: Bottom Left Pivot Hinge

A. Disassemble the control panel, front grill, hinges and door as described above.

B. Move the cover plate on the bottom panel from the left to the right side of the panel.



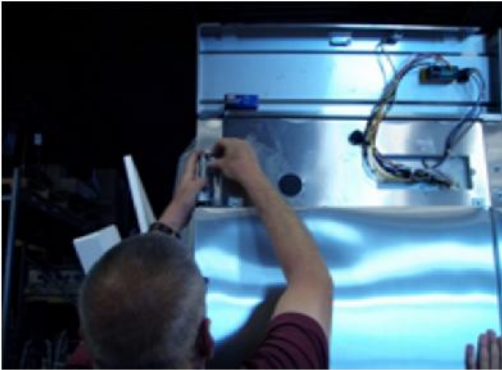
C. Rotate the door 180 degrees. Next, you will need to set the new bottom hinge to full open. It must spring closed clockwise for door to close properly. Once the hinge is set, install the new bottom hinge onto the unit.



D. Place the spacer onto the bottom hinge and place the door onto the spacer. Once the door is on the bottom hinge correctly, close the door.



E. Set the top hinge the same way you set the bottom. Once the hinge is set properly, install the top hinge on the left side.



F. Once the top hinge has been installed, check the door for proper operation. If door is closing properly, move the left cover plate to the right side.



G. Reassemble the control panel and front grill.

5.4 Refrigeration System

- Compressor & Compressor Components
- Condenser Coil
- Condenser Fan Motor, Blade and Cover
- Outer Drain Pan
- Filter Drier

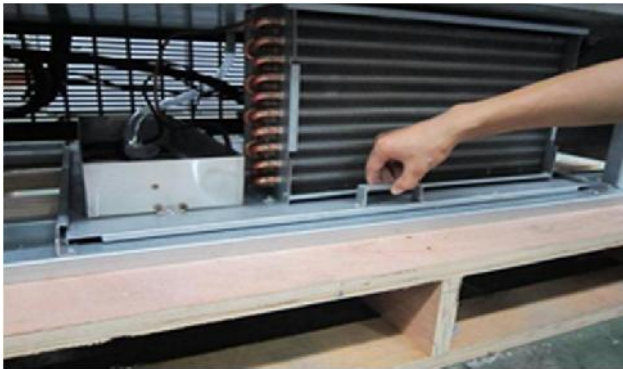
A. Remove the screws located on both sides of the front grill and set the grill aside.



B. Remove the screw used to mount the condensing unit's installation board.



C. Slide out the condensing unit in order to replace and clean parts.



WARNING: BURN HAZARD

Hot surface inside.
Allow to cool before servicing.

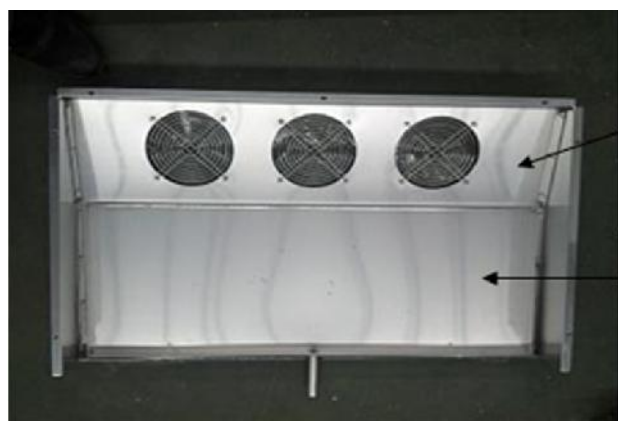
5.5 Cooling System

- Evaporator Cover, Evaporator Coil, and Temperature Sensor
- Evaporator Fan Motors and Fan Covers
- Evaporator Drain Pan
- Defrost Heater, Drain Pan Heater, Drain Line Heater and Defrost Sensor (**Freezer Models Only**)

A. To replace the evaporator fan motor cover, remove the 4 screws and replace.



B. To replace the evaporator cover and evaporator drain pan, remove the screws located on each side of the evaporator cover (left, right and front).



Evaporator cover

Evaporator drain pan
(Refrigerator models only)

C. Evaporator components are as pictured:

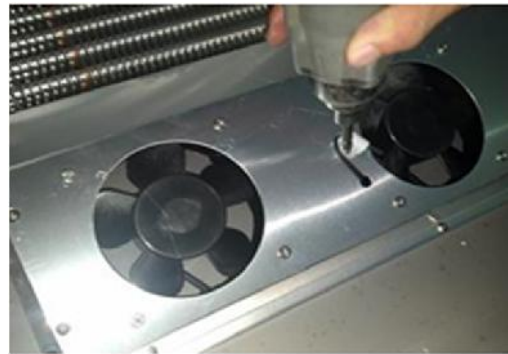
Refrigerator Models:



Freezer Models:

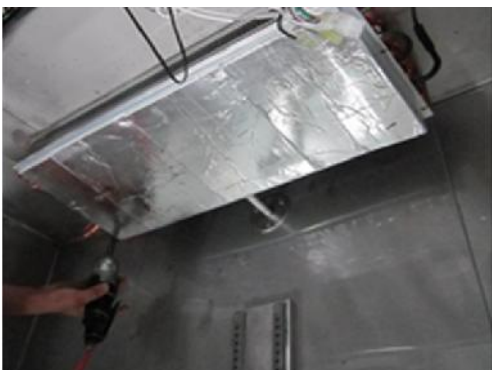


D. Remove the screws located on the fan motor installation board and the temperature sensor mount to replace the fan motors or temperature sensor.



E. Remove the screws located on each side of the evaporator drain pan and disconnect the cable connectors to replace the evaporator drain pan, drain pan heater, and drain line heater.

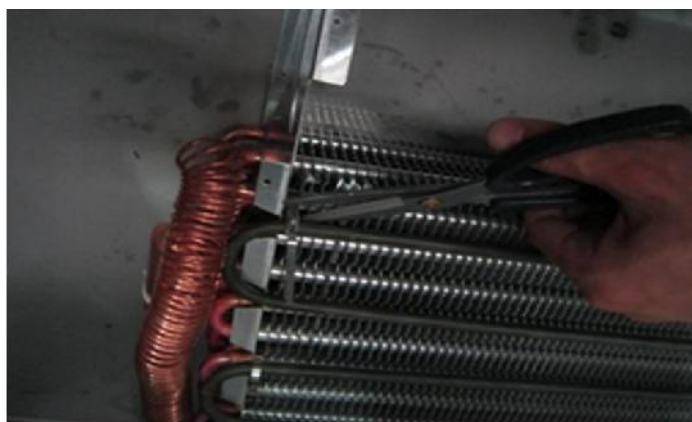
(Freezer Models Only)



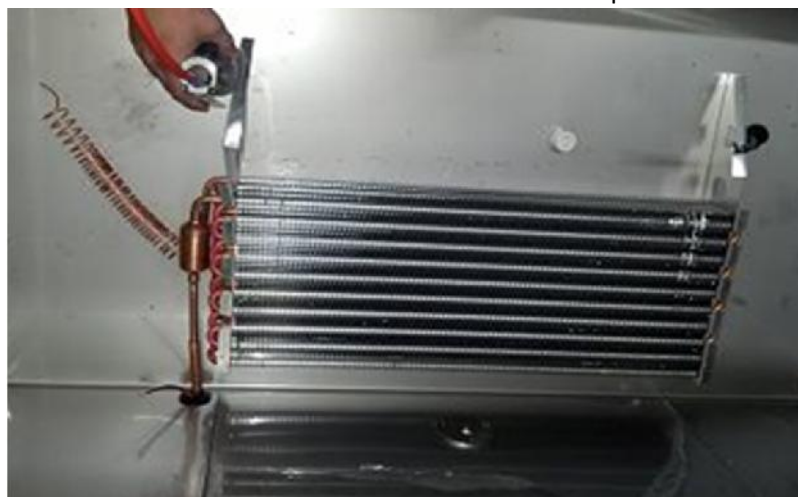
F. Photo of the evaporator coil once the evaporator fan motor and drain pan have been removed.
(Freezer Models Only)



G. In order to replace the defrost heater and temperature sensor, the control panel must also be disassembled. Once disassembled, cue the metal pins used to mount the defrost heater. Disconnect the cable connector and replacethe defrost heater.
Please note: You will want to re-mount the defrost heater after installation.
(Freezer Models Only)



H. Remove the screws located on each side of the evaporator coil in order to replace.



I. To reassemble the evaporator components, complete the steps in the reverse order.

5.6 Other

- Lamp Components
- Power Cord, Back Grill, and AC Contactor
- Shelf and Shelf Rail Components

Lamp Components:

A. Remove the screws used to mount the lamp components and replace.



Power Cord, Back Grill, and AC Contactor:

A. Remove the screws located on each side of the back grill.



B. Remove the back grill and remove the screws used to mount the power cord connector and replace the power cord.

CAUTION!! *When replacing the power cord, make sure the unit is unplugged to prevent electrical shock.*



C. Remove the screw used to mount the AC Contactor and replace. **(Model SS3FHC Only)**

CAUTION!! When replacing the AC Contactor, make sure the unit is unplugged to prevent electrical shock.

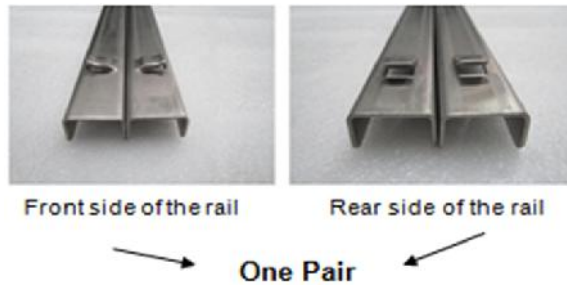


Shelf and Shelf Rail Components:

A. Slide the shelf towards you in order to replace or clean the shelving. You will also need to remove the shelf in order to place a full-size food pan on the shelf rails.



B. Replace and clean the shelf rails by pulling upward and out. **(SS Series Only)**



C. Lift up on the front bracket (channel) to replace or clean. **(SS Series Only)**



D. Remove the screws used to mount the back component in order to replace the back bracket (channel). **(SS Series Only)**



E. Assemble the bracket (channel) by lining up the screw with the mounting bracket and pushing down on the bracket (channel) until secure. **(SS Series Only)**



F. Install the shelf rails by lining up the clips on the rail with the holes on the bracket and pushing down.
(SS Series Only)




6. CLEANING AND MAINTENANCE

6.1 Cleaning

CAUTION!! Prior to cleaning, ensure the unit is unplugged.

A. Clean the exterior and interior of the cabinet with a damp and soft cloth. Dry and polish the cabinet with a soft and dry cloth.

▪  recommends Noble Chemicals Excel Stainless Steel Cleaner/Metal Polish



B. Use a vacuum cleaner and soft brush to carefully clean the surface of a dirty condenser coil.



Soft brush



Vacuum cleaner



① Use soft brush to sweep



② Use vacuum cleaner



WARNING: BURN HAZARD

Hot surface inside.
Allow to cool before servicing.

Tips for Cleaning:

1. Clean the interior and exterior regularly.
2. Never use harsh or abrasive chemicals such as scouring powder or cleaners containing alcohol or solvents that could damage the unit's surface.
3. To prevent cooling problems, clean the condenser regularly.
4. NEVER use a stiff brush to clean the unit.
5. Do NOT power wash the unit.

6.2 Maintenance

- A. It is recommended that you clean the exterior, interior, and condenser coil on a monthly basis.
- B. Check the main power cord for damage regularly. Never operate the unit if the cord is damaged.
- C. In case of damage or malfunction, please contact our Customer Service Center at 1-800-678-5517.
- D. If the unit is not going to be used for long periods of time, unplug the unit and remove product. Clean and dry the unit thoroughly.
- E. Only a qualified technician using OEM replacement parts and accessories should perform repairs and maintenance on the unit. DO NOT attempt to repair the unit yourself.