Service Manual

Deep Freezer

SCR-CH100/150/200/300H*





Product Specification
Colour :White

Category :Hard Top

Destination

India Oman Kuwait UAE KSA South Africa Nigeria Qatar

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warning or cautions to advice non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product of products dealt with in this service information by anyone else could result in serious injury or death.

INPORTANT SAFETY NOTICE

These are special components used in this equipment which are important for safety. These points are marked byin the Schematic Diagrams, Circuit Board Diagrams, Exploded Views and Replacement Parts List. It is essential that these critical parts should be replaced with manufacture's specified parts to prevent shock, fire or other hazards. Do not modify the original design without permission of manufacturer.

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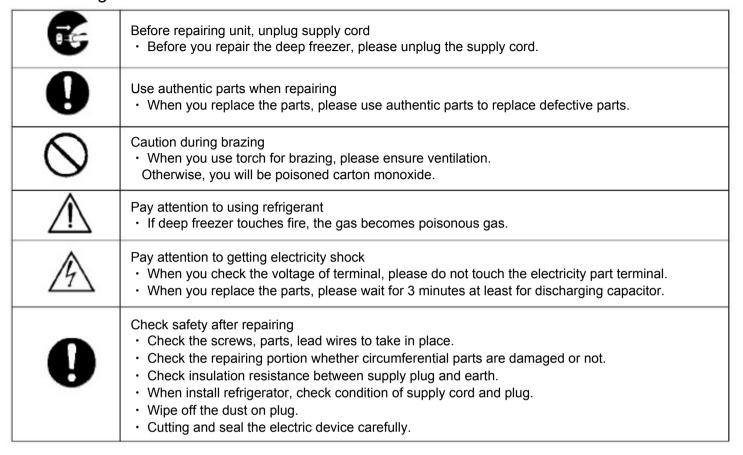


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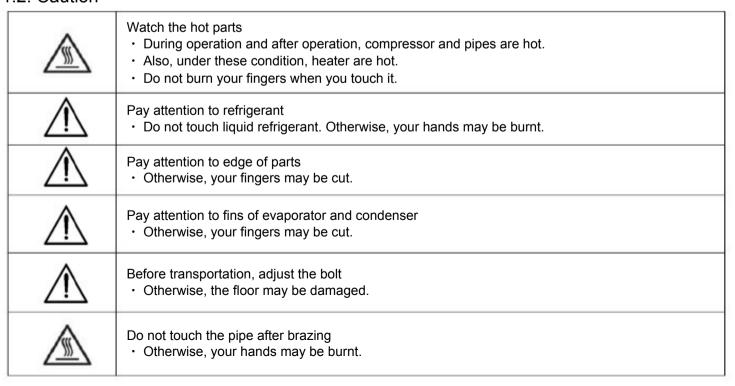
1. SAFETY CAUTIONS FOR REPAIRING

When you repair the deep freezer, please kindly take care for the following cautions.

1.1. Warning



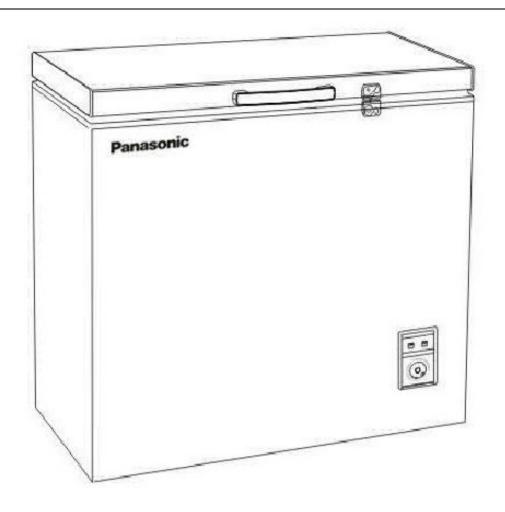
1.2. Caution



2. SPECIFICATION AND COMPONENTS

Model	SCR-CH100H*	SCR-CH150H*	SCR-CH200H*	SCR-CH300H*	
Color code	lor code White		White	White	
Power source (AC), Plug	AC 220~240 V , 3PIN PLUG	AC 220~240 V , 3PIN PLUG	AC 220~240 V , 3PIN PLUG	AC 220~240 V , 3PIN PLUG	
Frequency	50 Hz	50 Hz	50 Hz	50 Hz	
Input Current (Amp.)	1.0 A	1.5 A	1.5 A	2.0 A	
Specification	2		2		
Capacity (L)	100L	150L	200L	300L	
Net weight (kg)	27 kg	31 kg	36 kg	44 kg	
Product dimension (mm) (WxDxH)	568 x 560 x 845	760 x 560 x 845	980 x 560 x 845	1055 x 735 x 835	
Installation space (mm)	Side:100 mm (min) , Back:100mm (min)	Side:100 mm (min) , Back:100mm (min)	Side:100 mm (min) , Back: 100mm (min)	Side:100 mm (min) , Back: 100mm (min)	
Energy label	4 Stars	4 Stars	4 Stars	4 Stars	
Climate Type	Т	Т	Т	Т	
Temperature control	MANUAL CONTROL	MANUAL CONTROL	MANUAL CONTROL	MANUAL CONTROL	
Defrosting	Manual	Manual	Manual	Manual	
Defrosting control	MANUAL CONTROL	MANUAL CONTROL	MANUAL CONTROL	MANUAL CONTROL	
Inner liner	Aluminium sheet	Aluminium sheet	Aluminium sheet	Aluminium sheet	
Refrigerant charge	120g	120 g	140 g	170 g	
Refrigerant Name	R-134a	R-134a	R-134a	R-134a	
Oil charge	150 \pm 10ml	155ml	155ml	160±10ml	
Electric parts	20			100	
Thaermostat	СВ	СВ	СВ	СВ	
Compressor	WV43H	PW4.5VK	PW5.5VK	ATD60L	
Fan motor	w/o except 5	w/o except 5	With fan	With fan	

3. PRODUCT DIMENSION





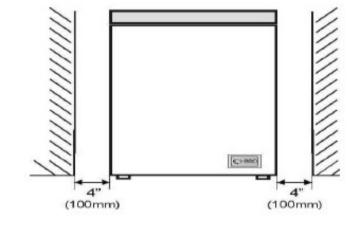
4. INSTALLATION INSTRUCTION

This section explains how to install your appliance for the most energy-efficient, safe and quiet operation.

If possible avoid placing the appliance near cookers, radiators or in direct sunlight as this will cause the compressor to run for long periods. If installed next to a source of heat or refrigerator, maintain the following minimum side clearances:

From Cookers 4" (100 mm)
From Radiators 12" (300 mm)
From Fridges 4" (100 mm)

•Make sure that sufficient room is provided around the appliance to ensure free air circulation. Ideally, A space of no less than 100mm must be left around the freezer, and ensure you allow gaps as shown in the below diagram.



The appliance should be located on a smooth surface.

It is forbidden to use the refrigerator outdoors.

Protection from moisture. Do not locate the freezer in moist space to avoid the metal parts rusty. And do not spray water to the freezer, otherwise it will weaken the insulation and causes current leakage.

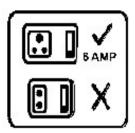
Refer to "Cleaning and Care" section to prepare your appliance for use.

If the freezer is installed in unheated areas, garages etc. condensation may form on the outer surfaces in cold weather. This is quite normal and is not a fault. Remove the condensation by wiping with a dry cloth.

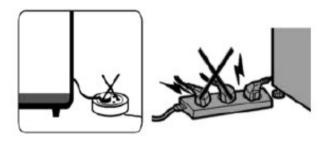
5. OPERATING INSTRUCTION

Electrical Supply Connection

• Deep Freezer should be connected with AC220 ~ 240 V 50Hz single phase.



- · Use of extension cord is not recommended.
- · A separate circuit should be drawn from the mains to minimize the voltage drop.



WARNING:

- · Keep ventilation openings in the appliance enclosure, clear of obstruction.
- Do not use mechanical devices or other means to accelerate the defrosting process, other than those recommended by the manufacturer.
- · Do not damage the refrigerant circuit.
- Do not use electrical appliances inside the food storage compartment of the appliances, unless they are of the type recommended by the manufacturer.

6. CARE AND MAINTENANCE

Before you start to use the freezer, please check that:

The interior is dry and air can circulate freely at the rear.

Clean the interior as recommended under "CLEANING AND CARE"

Insert the plug into the wall socket and switch on the electricity supply, then the Red light is On.

Avoid accidental disconnection by taping over the switch. Green light will glow and the compressor will start running (see Freezer Operation page 6).

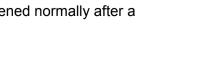
You will hear a noise as the compressor starts up. The liquid and gases sealed within the refrigeration system may also give rise to noise, whether the compressor is running or not which is quite normal.

If you going to store already frozen food open the freezer lid and check that the freezer has reached the correct temperature. Then you can put in your already frozen food.

Do not load the appliance immediately after it is Switched ON. Wait until the correct storage temperature has been reached. We recommend that you check the temperature with an accurate thermometer

Important Notes:

- If there is a power failure do not open the lid. Frozen food should not be affected if the failure lasts for less than 20 hours. If the failure is longer, then the food should be checked and eaten immediately or cooked and then refrozen.
- If you find that the lid of the deep freezer is difficult to open just after you have closed it, don't worry. This is due to the pressure difference which will equalize and allow the lid to be opened normally after a few minutes.



6.1 CARE AND MAINTENANCE

Cleaning and Care

We recommend that you Switch OFF the freezer at the socket outlet and pull out the mains plug before cleaning.

Never use any sharp abrasive instrument, soap, household cleaner, detergent and wax polish for cleaning.

Use lukewarm water to clean the cabinet of the freezer with a cloth and wipe it dry.

Caution: Do not pour water directly on your appliance near the compressor area

Use a damp cloth wrung out in a solution of one teaspoon of bicarbonate of soda to one pint of water to clean the interior and wipe it dry.

Excess deposit of ice should be removed on a regular basis using a plastic ice scraper available from your local store. Large accumulation of ice will impair the performance of the freezer.

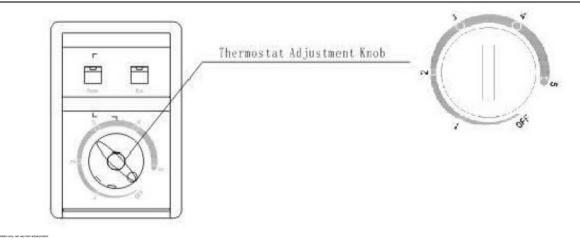
If the freezer is not going to be used for a long period of time switch it OFF, remove all food, clean it and leave the lid ajar.

Check lid seals regularly to ensure they are clean and free from food particles.

Important Notes:

Never use water wash the compressor position, wipe it with a dry cloth thoroughly after cleaning to prevent rust.

7. Temperature Control



6.1 Temperature adjustment

The temperature of the freezer is adjusted by means of the knob assembled on the thermostat. "1,2,3,4,5" do not represent a specific temperature. The smaller the No. the higher the temperature, whereas. So, position "5" is being the lowest temperature. Figures mean:

"OFF": Forced Shutdown Point

1—5 : Frozen Interval (from -12 $^{\circ}$ to -26 $^{\circ}$)

The achieved temperatures can vary according to the conditions of use of the appliance, such as: place of the appliance, ambient temperature, and frequency of lid opening, extent of filling with food of the freezer. The position of the thermostat knob will change according to these factors. Normally, for an ambient temperature of approx. 25°C, the thermostat should be adjusted to the mild position.

We recommended that you check the temperature with a thermometer to ensure that the Freezer is kept to the desired temperature. Remember you must take your reading very quickly since the thermometer temperature will rise very rapidly after you remove it from the freezer.

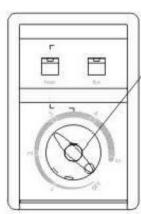
Please remember each time the lid is opened cold air escapes and the internal temperature rises. Therefore never leave the lid open and ensure it is closed: immediately after Food is put in or removed.

Indicator lights

The indicator light set is placed on the front side of the freezer for easy visibility.

Indicator lights mean the following:

- □ Red LED shows that the appliance is supplied with electric energy.
- □Green LED shows that the compressor is working.



7.1Storing Frozen Food

Prepackaged commercially frozen food should be stored in accordance with the frozen food manufacturer's instructions for a freezer compartment.

To ensure that the high quality achieved by the frozen food manufacturer and the food retailer is maintained the following should be remembered:

- 1. Put packets in the freezer as quickly as possible after purchase.
- 2. Do not exceed "Use By", "Best Before" dates on the packaging.

Freezing Fresh Food

Place fresh food to be frozen near the side walls to ensure fast freezing and away from already frozen food, if possible.

Freezing capacity of your appliance in a 24 hours period is as below:

Product Capicity (volume)	Frozen Food storage Capicity (Kg/lb)
100 ltr	5 kg / 11.2lb
150 ltr	7 kg /15.4 lb
200 ltr	10 kg /22lb
300 ltr	15 kg / 33lb

Never exceed this maximum capacity. Do not freeze too large a quantity at any one time. The quality of the food is best preserved when it is frozen right through to the center as quickly as possible. Take special care not to mix already frozen food and fresh food.

8. Defrosting

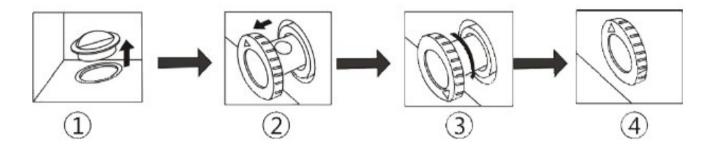
Defrost twice a year or when a frost layer of around 7 mm (1/4") has formed.

Alternatively you may Switch OFF the freezer at the socket outlet and pull out the mains plug. Extract the water conduit and put in a water container.

6 hours before the defrosting, please set the thermostat knob at "MAX" position to make sure the food is at the lowest temperature when you get it out. All food should be wrapped in several layers of newspaper and stored in a cool place (e.g. fridge or larder).

Remove the freezer basket. Leave the lid open. Containers of warm water may be placed carefully in the freezer to speed up the defrosting.

Never use hairdryers, electrical heaters or other such electrical appliances for defrosting. When defrosting has finished flow out defrost water which collects at the bottom of the freezer as the below diagram and dry the interior thoroughly. Switch ON the Fast Freeze and leave it ON for about three hours.



There is a water conduit at the bottom of the freezer, when defrosting, extract the rubber cover, defrosted water will drip into the hole and flow out.

(NOTES: PLEASE KEEP THE RUBBER COVER WELL DURING THE DEFROSTING AND PUT IT

BACK AFTER DEFROSTING IS DONE)

Extract the water conduit by 20-25mm until the water hole can be seen.

Twist the water conduit until the arrow points downward.

After defrosting is done, make sure there is no more water coming out before out the water conduit in place and make the arrow point upward.

Important Notes:

- •Do not use pointed or sharp-edged objects such as knives or forks to remove the frost.
 - Never use hairdryers, electrical heaters or other such electrical appliances for defrosting.

9. Do's & Don't

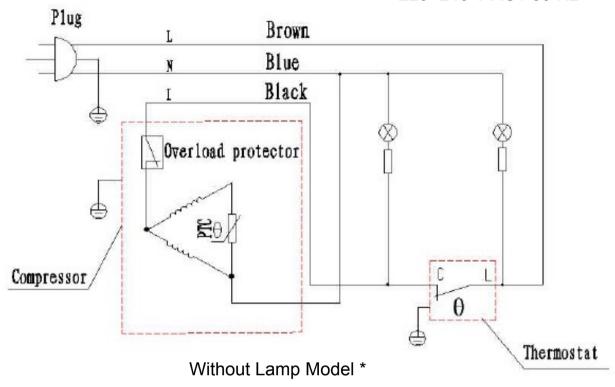
Do's and Don'ts

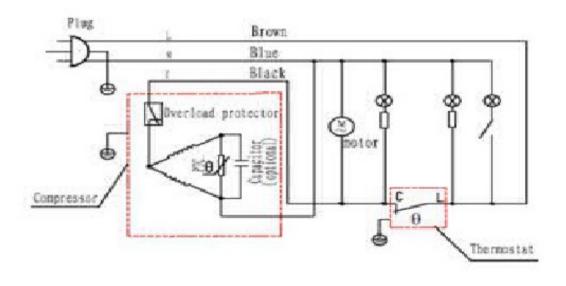
- Do Defrost food from the freezer thoroughly in a fridge or in a microwave oven following Defrosting and cooking instructions.
- Do Ensure that deep freezer lid is completely closed after each use. Do Defrost frozen meat completely before cooking.
- Do Close the lid gently.
- Do Check contents of the freezer at regular intervals.
- Do Clean and defrost your freezer regularly (See "Defrosting")
- Do Keep food for as short a time as possible and adhere to "Best Before", "Use By" dates.
- Do Store commercially frozen food in accordance with the instructions given on the packets that you buy
- Do Always choose high quality fresh food and be sure it is thoroughly clean before you freeze it.
- Do –Prepare fresh food for freezing in small portions to ensure rapid freezing.
- Do Wrap all foods in aluminum foil or freezer quality plastic bags and make sure any air is excluded.
- Do- Wrap frozen food when you buy it and put it in to the freezer as soon as possible.
- Do Store small items in the basket provided.
- Do Storage temperature of Ice Cream is too low, it is too hard to eat-Remove Ice Cream from Freezer before serving.
- Don't Leave the lid open for long periods as this will make the freezer more costly to run and cause excessive ice formation.
- Don't Use pointed sharp edged objects such as knives, forks to remove the ice. Don't Put hot food in the freezer. Let it cool down first.
- Don't Put liquid-filled bottles or sealed cans containing carbonated liquids into the freezer as they may burst.
- Don't Store poisonous or dangerous substances in the freezer. Your freezer has been designed for the storage of edible foodstuffs only.
- Don't Exceed the maximum freezing capacity (5 kg in any 24 hours) when freezing fresh food.
- Don't Consume ice-cream and water ices direct from the freezer. The low temperature may cause 'freezer burns' on lips.
- Don't Freeze fizzy drinks.
- Don't –Try to keep frozen food which has thawed, it should be eaten within 24 hours or cooked and refrozen.
- Don't Remove items from the freezer with wet hands. Don't Shut the lid with force. You will damage the appliance. Don't Clean with Water near the Compressor area.

10. SCHEMATIC DIAGRAM

Model: SCR-CH100H/150H/200H/300H

220~240 V AC / 50 Hz





With Lamp Model *

11. COMPRESSOR TROUBLESHOOTING

DEFECTS	REASONS	RECTIFICATION	INSTRUMENT
Body Short.	When the winding insulation of the compressor motor gets damaged or punctured then the current flow through the shell and gets grounded.	For any compressor defects first you have to check the "continuity" between the terminals and compressor shell.	1.Multimeter 2.Megger 3.Continuity Tester.
Open winding.	When the winding insulation of the compressor winding then due to high temperature coil melt at any point i.e. there is no continuous path for the current to flow.	Check the resistance and if the reading is "Infinite" then replace the compressor.	1.Multimeter 2.Continuity Tester.
Short winding.	When the excess current flows then high temp is generated in the winding and there is chances which may results in the damage or failure of insulation of the winding.	Check the resistance of winding, if coil resistance is lesser than the normal, then replace the compressor.	1.Multimeter.
No operation at low voltage or high voltage.	If the compressor does not operate at low voltage or high voltage of the compressor voltage range, the compressor is rejected.	1.Keep the supply at the lowest voltage as per specifications with the help of variac. If compressor does not run then reject the compressor. 2.Keep the supply at the highest voltage as per specifications with the help of variac. If compressor does not run then reject the compressor.	1.Multimeter.
Poor pumping.	It is observed when there is brazing leak inside the compressor at discharge line-discharge connector joint.	Check the discharge pressure at compressor discharge end. If it is less then 12.6kg/sq.cm compressor is rejected as poor pumping.	Dial pressure gauge unit.
No pumping.	It is observed due to brazing failure at discharge line-discharge connector joints.	Check the discharge pressure at compressor discharge end. If it is zero or negative then compressor is rejected for no pumping.	Dial pressure gauge unit.
Jammed (High A mps).	If there is jam in-between piston & cylinder or any moving part of the compressor. Then the starting torque required will be more and the compressor draws high current.	If the compressor run for 30 seconds then starting current exceeds 7 to 8 amps for 5 to 15 seconds and OLP trips off then the compressor is rejected as Jammed / High Amps.	Ammeter.
Oil Pumping.	Lubricant oil is filled in the compressor for the cooling of windings, moving parts. Some times the compressor pumps out oil along with the refrigerant.	Run the compressor for ½ hours and check the quantity of oil at discharge connector. If it is more than 50cc. Then reject the compressor for oil pumping.	50.cc measuring cup.
Noise.	Noise may be due to suction muffler fitment loose, stator resting spring loose, rotor shaft hitting to the shell or foreign particle.	Run the compressor and check the abnormal noise. If it is, then replace the compressor.	Test jig.

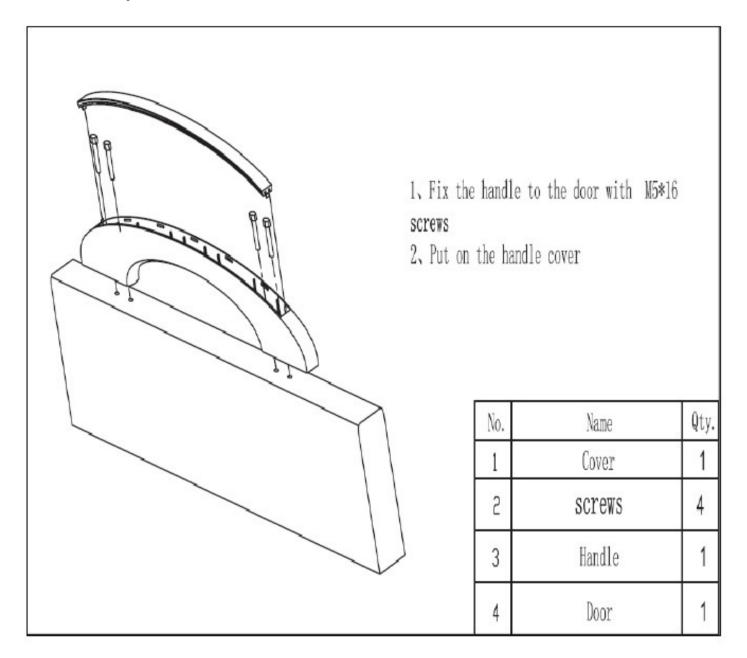
12. TROUBLESHOOTING GUIDE

Problem Solving / Trouble Shooting

- If the appliance does not operate when Switched ON, check;
 The plug is inserted properly in the socket and that the power supply is ON.
 (To check the power supply to the socket, plug in another appliance)
- The fuse has blown / circuit breaker has tripped / main distribution switch has been Turned OFF.
- The temperature control has been set correctly.
- New plug is wired correctly if you have changed the fitted molded plug. If the appliance is still not operating after the above checks, please contact nearest Panasonic Authorized dealer.

13. Exploded View and Replacement Parts List

Handle Assy. Parts List



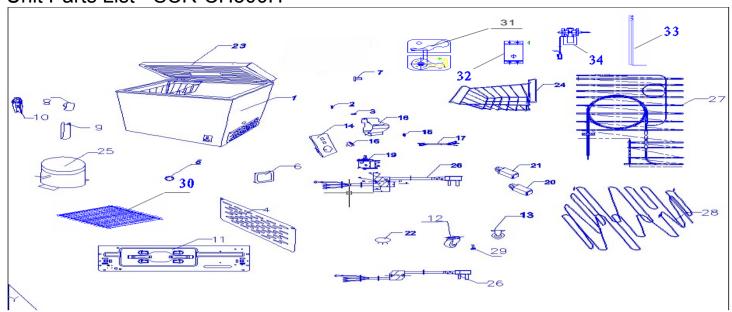


Important safety notice:

Components identified by markare special characteristics important to safety. When replacing any of these components, use only manufacturer's specified parts.

13.1. Exploded View and Replacement Parts List

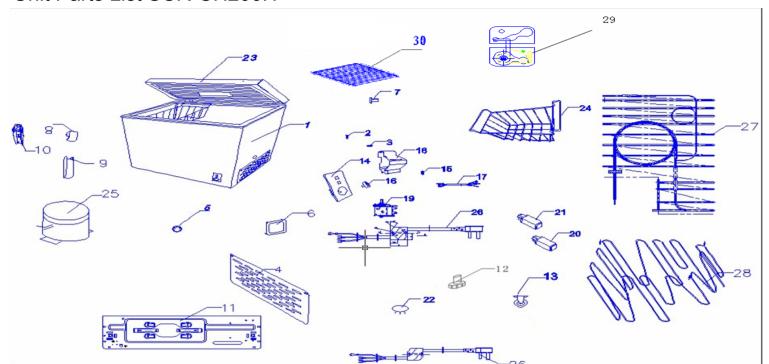
Unit Parts List - SCR-CH300H



NO	NAME	CODE	QUANTITY	NO	NAME	CODE	QUANTITY
1	Cabinet	G1241.1.1	1	18	Thermostat cover	G1009.4.1-2	1
2	Screw	GB/T6560	2	19	Thermostat	G1011.4.1-1	1
		BCD-248W.1.1.1-					
3	Screw	11	10	20	indicate light	G1001.4.1-3	1
4	Ventilated mask	G1008.1-1	1	21	indicate light	G1001.4.1-3/HR	1
	Injection hole						
5	cover	G1001.1-3	1	22	Injection hole cover	G1001.20-2	1
6	Cover	G1001.1-4	1	23	Foamed door	G1241.20.1	1
7	Cover	G1001.1.1.3-6	1	24	Basket	G1008.5-2	1
8	Hinge up cover	B0120.2.3-1	2	25	Compressor	ATD60L	1
						Q/MLKT-	
9	Hinge cover	B0120.2.3-2	2	26	Plug	138B/C.AB4W.D2BA	1
					Evaperator		
10	Hinge	G1008.1.2.1	2	27	assembly	G1117.3.1	1
	Compressor						
11	traverse	G1111.1.3	1	28	Condenser assembly	G1008.3.2	1
12	directional wheel	G1002.1.2	2	29	Screw	GB29.2	16
13	universal wheel	G1002.1.3	2	30	wire shelf	G1241.5-1	1
14	Thermostat box	G1009.4.1-1	1	31	lock	G1011.20.2	1
15	Screw	B0213.1.1-14	1	32	Fan motor base1	G1241.1-1	1
16	Thermostat knob	G1001.4-5	1	33	fan motor base2	G1241.1-2	1
17	Thermostat wire	G1241.4.1-1	1	34	fan motor	G1241.4.1-2	1

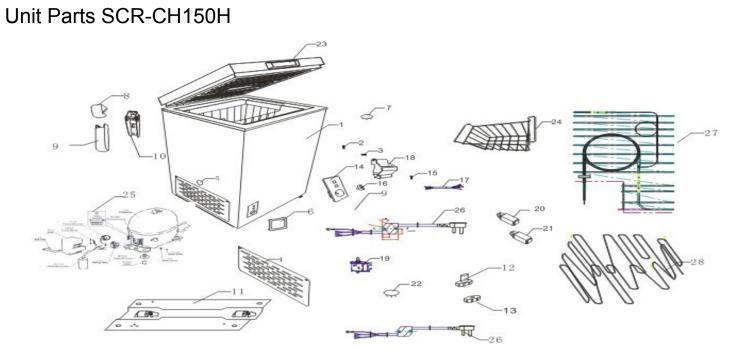
13.2. Exploded View and Replacement Parts List

Unit Parts List SCR-CH200H



					1		
NO	NAME	CODE	QUANTITY	NO	NAME	CODE	QUANTITY
1	Cabinet	G1244.1.1	1	18	Thermostat cover	G1009.4.1-2	1
2	Screw	GB/T6560	2	19	Thermostat	G1011.4.1-1	1
		BCD-248W.1.1.1-	4	20			
3	Screw	11	4	20	indicate light	G1001.4.1-3	1
4	Ventilated mask	G1001.1-2	1	21	indicate light	G1001.4.1-3/HR	1
	Injection hole		1	22			
5	cover	G1001.1-3	1	22	Injection hole cover	G1001.20-2	1
6	Cover	G1001.1-4	1	23	Foamed door	G1244.20.1	1
7	Cover	G1001.1.1.3-6	1	24	Basket	G1002.5-2	1
8	Hinge up cover	BD-106.1.2A-1	2	25	Compressor	PW5.5VK	1
			2	26		Q/MLKT-	
9	Hinge cover	BD-106.1.2A-2	2	26	Plug	138B/C.AB4W.D2AC	1
			2	27	Evaperator		
10	Hinge	BD-106.1.2A.1	2	2/	assembly	G1109.3.1	1
	Compressor		1	28			
11	traverse	G1001.1.4	1	20	Condenser assembly	G1207.3.2	1
12	Adjust foot	B0501.1-2	2	29	Door lock	G1011.20.2	1
13	Screw	GB29.2	14	30	wire shelf	G1244.5-1	1
14	Thermostat box	G1009.4.1-1	1	29	LOCK&KEY	G1011.20.2	1
15	Screw	B0213.1.1-14	1	30	OUTSIDE HANDLE	G1111.20.2	1
16	Thermostat knob	G1001.4-5	1	32	fan motor base1	G1241.1-1	1
		G1001.4.1-	1	33			
17	Thermostat wire	1/AE4FV	–		fan motor base2	G1241.1-2	1

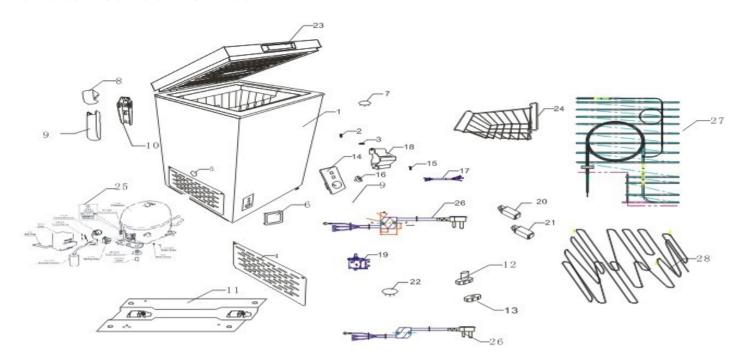
13.3. Exploded View and Replacement Parts List



NO	NAME	CODE	QUANTITY	NO	NAME	CODE	QUANTITY	
1	Cabinet	G1101.1.1	1	16	Thermostat knob	G1001.4-5	1	
2	Screw	GB/T6560	2	17	Thermostat wire	G1001.4.1-1/AE4FV	1	
3	Screw	248W.1.1.1-11	2	18	Thermostat cover	G1009.4.1-1	1	
4	Ventilated mask	G1001.1-2	1	19	Thermostat	G1011.4.1-1	1	
	Injection hole							
5	cover	G1001.1-3	1	20	indicate light	G1001.4.1-3	1	
6	Cover	G1001.1-4	1	21	indicate light	G1001.4.1-3/HR	1	
7	Cover	G1001.1.1.3-6	1	22	Injection hole cover	G1001.20-1(A1)	1	
8	Hinge up cover	BD-106.1.2A-1	2	23	Foamed door	G1101.20.1	1	
9	Hinge cover	BD-106.1.2A-2	2	24	Basket	G1002.5-2	1	
10	Hinge	G1101.1.2-1	1	25	Compressor	PW4.5VK	1	
						Q/MLKT-		
10	Hinge	G1001.1.3.1	1	26	Plug	138B/C.AB4W.D2AC	1	
	Compressor				Evaperator			
11	traverse	G1001.1.4	1	27	assembly	G1243.3.1	1	
12	Adjust foot	BCD-185E.1.6	2	28	Condenser assembly	G1207.3.2	1	
13	Screw	GB29.2	8	29	LOCK&KEY	G1011.20.2	1	
14	Thermostat box	G1009.4.1-1	1	30	OUTSIDE HANDLE	G1111.20.2	1	
15	Screw	B0213.1.1-14	1					

13.4. Exploded View and Replacement Parts List

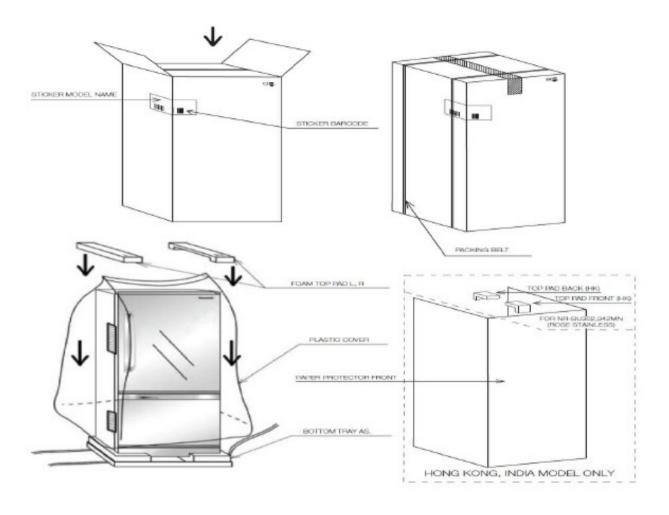
Unit Parts List - SCR-CH100H



NO	NAME	CODE	QUANTITY	NO	NAME	CODE	QUANTITY
1	Cabinet	G1242.1.1	1	16	Thermostat knob	G1001.4-5	1
2	Screw	GB/T6560	2	17	Thermostat wire	G1001.4.1-1/AE4FV	1
3	Screw	248W.1.1.1-11	2	18	Thermostat cover	G1009.4.1-2	1
4	Ventilated mask	G1001.1-2	1	19	Thermostat	G1011.4.1-1	1
5	Injection hole cover	G1001.1-3	1	20	indicate light	G1001.4.1-3	1
6	Cover	G1001.1-4	1	21	indicate light	G1001.4.1-3/HR	1
7	Cover	G1001.1.1.3-6	1	22	Injection hole cover	G1001.20-2	1
8	Hinge up cover	BD-106.1.2A-1	2	23	Foamed door	G1242.20.1	1
9	Hinge cover	BD-106.1.2A-2	2	24	Basket	G1001.5-1	1
10	Hinge	BD-106.1.2A.1	2	25	Compressor	WV43H	1
11	Compressor traverse	G1009.1.4	1	26	Plug	Q/MLKT- 138B/C.AB4W.D2AC	1
12	Adjust foot	BCD-185E.1.6	2	27	Evaperator assembly	G1242.3.1	1
13	Screw	GB29.2	8	28	Condenser assembly	G1212.3.2	1
14	Thermostat box	G1009.4.1-1	1	29	LOCK&KEY	G1011.20.2	1
15	Screw	B0213.1.1-14	1				

13.5. Exploded View and Replacement Parts List

Packing Exploded View



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