

CONTENTS

1. PREFACE

1.1 SAFETY PRECAUTIONS.....	2
1.2 INSULATION RESISTANCE TEST.....	2
1.3 SPECIFICATIONS.....	3
1.4 FEATURES.....	6
1.5 CONTROL LOCATIONS.....	6

2. DISASSEMBLY INSTRUCTIONS

2.1 MECHANICAL PARTS.....	8
2.1.1 FRONT GRILLE.....	8
2.1.2 CABINET.....	8
2.1.3 CONTROL BOX.....	8
2.2 AIR HANDLING PARTS.....	9
2.2.1 AIR GUIDE AND BLOWER.....	9
2.2.2 FAN.....	9
2.2.3 SHROUD.....	10
2.3 ELECTRICAL PARTS.....	10
2.3.1 OVERLOAD PROTECTOR.....	10
2.3.2 COMPRESSOR.....	10
2.3.3 CAPACITOR.....	11
2.3.4 POWER CORD.....	11
2.3.5 THERMOSTAT.....	11
2.3.6 ROTARY SWITCH.....	11
2.3.7 MOTOR.....	12

2.4 REFRIGERATION CYCLE.....	12
2.4.1 CONDENSER.....	12
2.4.2 EVAPORATOR.....	12
2.4.3 CAPILLARY TUBE.....	13

3. INSTALLATION

3.1 SELECT THE BEST LOCATION.....	15
3.2 CHECK OF INSTALLATION.....	15
3.3 HOW TO DRAIN.....	15
3.4 HOW TO INSTALL.....	16
3.4.1 WHEN USING GASKET.....	16
3.4.2 WHEN USING INSTALLATION KITS.....	16

4. TROUBLESHOOTING GUIDE

4.1 OUTSIDE DIMENSIONS.....	19
4.2 PIPING SYSTEM.....	20
4.3 TROUBLESHOOTING GUIDE.....	21

5. SCHEMATIC DIAGRAM

5.1 CIRCUIT DIAGRAM.....	26
--------------------------	----

6. EXPLODED VIEW.....

7. REPLACEMENT PARTS LIST.....

1. PREFACE

This SERVICE MANUAL provides various service information, including the mechanical and electrical parts etc. This room air conditioner was manufactured and assembled under a strict quality control system. The refrigerant is charged at the factory. Be sure to read the safety precautions prior to servicing the unit.

1.1 SAFETY PRECAUTIONS

1. When servicing the unit, set the ROTARY SWITCH or POWER SWITCH to OFF and unplug the power cord.
2. Observe the original lead dress.
If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
3. After servicing the unit, make an insulation resistance test to protect the customer from being exposed to shock hazards.

1.2 INSULATION RESISTANCE TEST

1. Unplug the power cord and connect a jumper between 2 pins (black and white).
2. The grounding conductor (green) is to be open.
3. Measure the resistance value with an ohm meter between the jumpered lead and each exposed metallic part on the equipment at all the positions (except OFF) of the ROTARY SWITCH.
4. The value should be over 1M Ω .

1.3 SPECIFICATIONS

1.3.1 FOR LW-C1014CL/C1214CL

ITEMS		MODELS	LW-C1014CL	LW-C1214CL
POWER SUPPLY			1ø, 115, 60Hz	
COOLING CAPACITY	(Btu/h)		10,000	12,000
INPUT	(W)		1,050	1,260
RUNNING CURRENT	(A)		9.5	11.5
E.E.R	(BTU/W.h)		9.5	
OPERATING CONDITION	INDOOR (°C)		26.7(DB)*	19.4(WB)**
	OUTDOOR (°C)		35(DB)*	23.9(WB)**
REFRIGERANT (R-22) CHARGE			565g (19.9 Oz)	480g (17 Oz)
EVAPORATOR			2 ROW 16 STACKS, SLIT-FIN TYPE	2 ROW 13 STACKS, LOUVERED-FIN TYPE
CONDENSER			2 ROW 17 STACKS, LOUVERED-FIN TYPE	
FAN, INDOOR			BLOWER	
FAN, OUTDOOR			PROPELLER TYPE FAN WITH SLINGER-RING	
FAN SPEEDS, FAN/COOLING			2/3	
FAN MOTOR			6 POLES	
OPERATION CONTROL			ROTARY SWITCH	
ROOM TEMP. CONTROL			THERMOSTAT	
AIR DIRECTION CONTROL			VERTICAL LOUVER (RIGHT & LEFT)	
			HORIZONTAL LOUVER (UP & DOWN)	
CONSTRUCTION			SLIDE IN-OUT CHASSIS	
PROTECTOR	COMPRESSOR		OVERLOAD PROTECTOR	
	FAN MOTOR		INTERNAL THERMAL PROTECTOR	
POWER CORD			(3 WIRE WITH GROUING)	
			ATTACHMENT PLUG (CORD-CONNECTED TYPE)	
DRAIN SYSTEM			DRAIN PIPE OR SPLASHED BY FAN SLINGER	
NET WEIGHT	(lbs/kg)		90/41	95/43
OUTSIDE DIMENSION (W x H x D)	(inch)		23 ⁵ / ₈ x 15 x 21 ⁷ / ₈	
	(mm)		600 x 380 x 555	

* DB: Dry Bulb

** WB: Wet Bulb

1.3.2 FOR LW-C1230CL

ITEMS		MODELS	LW-C1230CL
POWER SUPPLY			1 \emptyset , 208/230V, 60Hz
COOLING CAPACITY		(Btu/h)	11,500/ 12,000
INPUT		(W)	1,250
RUNNING CURRENT		(A)	6.2/ 5.8
E.E.R		(BTU/W.h)	9.2
OPERATING CONDITION	INDOOR	(°C)	27(DB)* 19.5(WB)**
	OUTDOOR	(°C)	35(DB)* 24(WB)**
REFRIGERANT (R-22) CHARGE			490g (17.3 Oz)
EVAPORATOR			2 ROW 13 STACKS LOUVERED-FIN TYPE
CONDENSER			2 ROW 17 STACKS, LOUVERED-FIN TYPE
FAN, INDOOR			BLOWER
FAN, OUTDOOR			PROPELLER TYPE FAN WITH SLINGER-RING
FAN SPEEDS, FAN/COOLING			2/3 OR 0/2
FAN MOTOR			6 POLES
OPERATION CONTROL			ROTARY SWITCH OR ROCKER SWITCH
ROOM TEMP. CONTROL			THERMOSTAT
AIR DIRECTION CONTROL			VERTICAL LOUVER (RIGHT & LEFT)
			HORIZONTAL LOUVER (UP & DOWN)
CONSTRUCTION			SLIDE IN-OUT CHASSIS
PROTECTOR	COMPRESSOR		OVERLOAD PROTECTOR
	FAN MOTOR		INTERNAL THERMAL PROTECTOR
POWER CORD			(3 WIRE WITH GROUDING)
			ATTACHMENT PLUG (CORD-CONNECTED TYPE)
DRAIN SYSTEM			DRAIN PIPE OR SPLASHED BY FAN SLINGER
NET WEIGHT		(lbs/kg)	95/43
OUTSIDE DIMENSION (W x H x D)		(inch)	23 ⁵ / ₈ x 15 x 21 ⁷ / ₈
		(mm)	600 x 380 x 555

* DB: Dry Bulb

** WB: Wet Bulb

1.3.3 FOR LW-C1230XL

ITEMS		MODELS	LW-C1230XL
POWER SUPPLY			1ø, 208/230V, 60Hz
COOLING CAPACITY	(Btu/h)		11,500/12,000
INPUT	(W)		1,250/1,300
RUNNING CURRENT	(A)		6.2/5.8
E.E.R	(BTU/W.h)		9.2
HEATING CAPACITY	(Btu/h)		9,200/11,200
INPUT	(W)		2,900/3,500
RUNNING CURRENT	(A)		14/15.3
OPERATING CONDITION	INDOOR (°C)		26.7(DB)* 19.4(WB)**
	OUTDOOR (°C)		35(DB)* 23.9(WB)**
REFRIGERANT (R-22) CHARGE			490g (17.3 Oz))
EVAPORATOR			2 ROW 13 STACKS LOUVERED-FIN TYPE
CONDENSER			2 ROW 17 STACKS, LOUVERED-FIN TYPE
FAN, INDOOR			BLOWER
FAN, OUTDOOR			PROPELLER TYPE FAN WITH SLINGER-RING
FAN SPEEDS, FAN/HEATING/COOLING			1/2/2
FAN MOTOR			6 POLES
OPERATION CONTROL			ROTARY SWITCH OR ROCKER SWITCH
ROOM TEMP. CONTROL			THERMOSTAT
AIR DIRECTION CONTROL			VERTICAL LOUVER (RIGHT & LEFT)
			HORIZONTAL LOUVER (UP & DOWN)
CONSTRUCTION			SLIDE IN-OUT CHASSIS
ELECTRIC HEATER			3.5KW, 230V
PROTECTOR	COMPRESSOR		OVERLOAD PROTECTOR
	FAN MOTOR		INTERNAL THERMAL PROTECTOR
	ELECTRIC HEATER		FUSE LINK, BIMETAL THERMOSTAT
POWER CORD			(3 WIRE WITH GROUDING)
			ATTACHMENT PLUG (CORD-CONNECTED TYPE)
DRAIN SYSTEM			DRAIN PIPE OR SPLASHED BY FAN SLINGER
NET WEIGHT		(lbs/kg)	97/44
OUTSIDE DIMENSION (W x H x D)	(inch)		23 ⁵ / ₈ x 15 x 21 ⁷ / ₈
	(mm)		600 x 380 x 555

* DB: Dry Bulb

** WB: Wet Bulb

1.4 FEATURES

- Designed for COOLING ONLY.
- Powerful and whispering cooling.
- Slide-in and slide-out chassis for the simple installation and service.
- Side air-intake, side cooled-air discharge.
- Built-in adjustable THERMOSTAT
- Washable one-touch filter
- Compact size
- Reliable and efficient rotary compressor is equipped.

1.5 CONTROL LOCATIONS

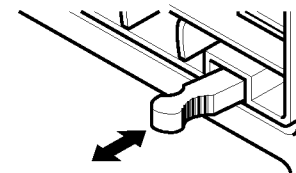
1.5.1 COOLING ONLY MODEL

• VENTILATION

The ventilation lever must be in the CLOSE position in order to maintain the best cooling conditions.

When a fresh air is necessary in the room, set the ventilation lever OPEN position.

The damper is opened and room air is exhausted.



CLOSE VENT OPEN

• THERMOSTAT

Thermostat will automatically control the temperature of the room. Select a higher number for a cooler temperature in the room. The temperature is selected by positioning the knob to the desired position.

The **5** or **6** position is a normal setting for average conditions.

• OPERATION

OFF (○) : Turns the air conditioner to off.

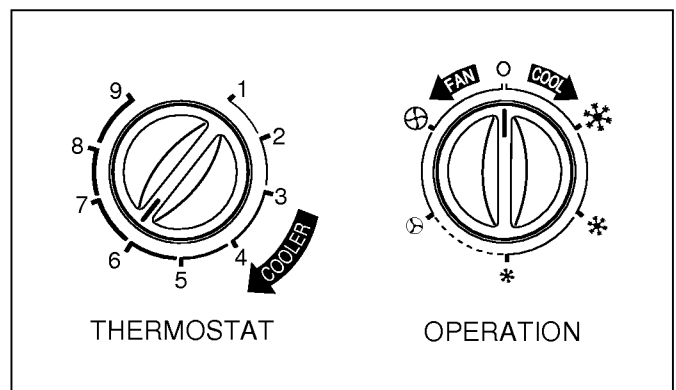
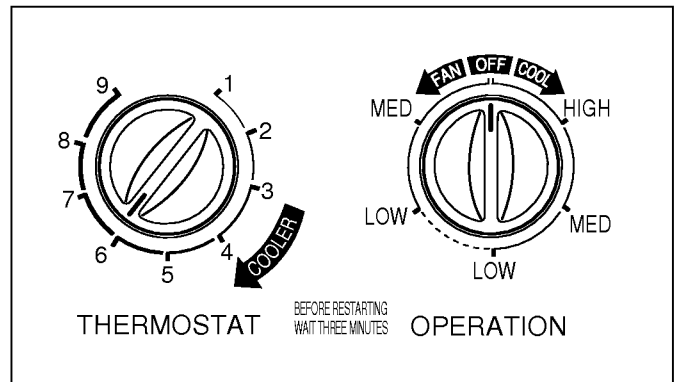
MED FAN (⊕) : Permits the medium fan speed operation without cooling.

LOW FAN (⊗) : Permits the low fan speed operation without cooling.

HIGH COOL (*) : Permits cooling with the high fan speed operation.

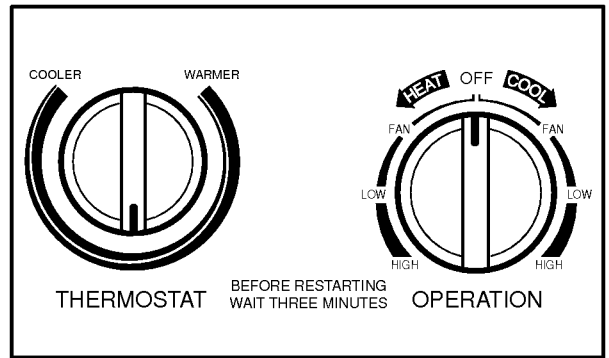
MED COOL (*) : Permits cooling with the medium fan speed operation.

LOW COOL (*) : Permits cooling with the low fan speed operation.



• OPERATION

- OFF : Turns the air conditioner to off.
- FAN : Permits the LOW fan speed operation without cooling(heating).
- LOW COOL : Permits cooling with the low fan speed operation.
- HIGH COOL : Permits cooling with the high fan speed operation.
- LOW HEAT : Permits heating with the low fan speed operation.
- HIGH HEAT : Permits heating with the high fan speed operation.

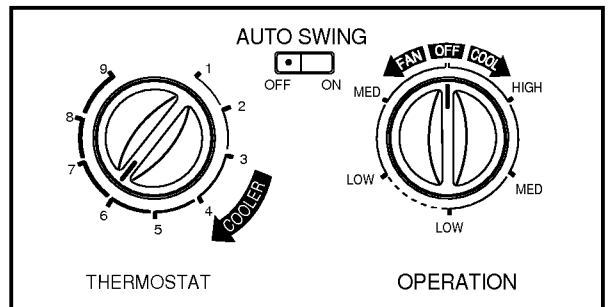


• AUTO SWING

- ON (Δ): Air swing is operated automatically while "AUTO SWING" knob is set to "ON" position.
- OFF (\uparrow): Stops the operation of auto swing.

• OPERATION

- HIGH : Permits cooling with the high fan speed operation.
- LOW : Permits cooling with the low fan speed operation.



• TIMER

The timer can control the operation times within 12 hours. If you set the timer switch at the "1" position, after 1 hour the unit will be stopped automatically. If you want to operate continuously, set the timer switch at the "CONSTANT" position. The timer switch cannot rotate further clockwise from the "CONSTANT" position. If you set the timer switch at the "STOP" position, the unit will be stopped all operations.

