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# 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 or green & yellow) 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 or O) of the ROTARY SWITCH.
4. The value should be over 1MΩ.

## 1.3 SPECIFICATIONS

### 1.3.1 FOR HBLG140(LWM1411BCG)/HBLG180(LWM1833BCG)/HBLG240(LWN2430BCG)

| ITEMS \ MODELS | | HBLG140(LWM1411BCG) | HBLG180(LWM1833BCG) | HBLG240(LWN2430BCG) | REMARK |
|---|---|---|---|---|---|
| POWER SUPPLY | | 1Ø, 115V, 60Hz | 1Ø, 208/230V, 60Hz | | |
| COOLING CAPACITY (Btu/h) | | 14,000 | 17,500/ 18,000 | 23,500/24,000 | |
| INPUT (W) | | 1,380 | 1,800/ 1,850 | 2,760/2,820 | |
| RUNNING CURRENT (A) | | 12.0 | 9.0/ 8.3 | 13.7/12.7 | |
| REFRIGERANT (R-22) CHARGE(g) | | 680(24.0 OZ) | 800(28.2 OZ) | 890(31.4 OZ) | |
| OPERATING TEMPERATURE | INDOOR (℃) | 26.7(DB) 19.4(WB) | | | |
| | OUTDOOR (℃) | 35(DB) 23.9(WB) | | | |
| EVAPORATOR | | 3 ROW 15 STACKS | | 4 ROW 18 STACKS | LOUVERED-FIN TYPE |
| CONDENSER | | 2 ROW 19 STACKS, L-BENDED TYPE | | 2 ROW 19 STACKS, U- 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 | EXTERNAL OVERLOAD PROTECTOR | INTERNAL OVERLOAD PROTECTOR | | |
| | FAN MOTOR | INTERNAL THERMAL PROTECTOR | | | |
| POWER CORD | | 1.8m(3WIRE WITH GROUNDING) | 1.6m (3 WIRE WITH GROUNDING) | 1.3m (3 WIRE WITH GROUNDING) | |
| | | ATTACHMENT PLUG(CORD-CONNECTED TYPE) | | | |
| DRAIN SYSTEM | | DRAIN PIPE OR SPLASHED BY FAN SLINGER | | | |
| NET WEIGHT (lbs/kg) | | 117/53 | 120/54 | 146/66 | |
| OUTSIDE DIMENSION (W x H x D) | (inch) | 26 x $16^{27}/_{32}$ x $26^{9}/_{16}$ | | 26 x $16^{27}/_{32}$ x $30^{5}/_{16}$ | |
| | (mm) | 660 x 428 x 675 | | 660 x 428 x 770 | |

## 1.3.2 FOR HBLG18H(LWM1830BXG)

| ITEMS \ MODELS | | | HBLG18H(LWM1830BXG) | REMARK |
|---|---|---|---|---|
| POWER SUPPLY | | | 1Ø, 208/ 230V, 60Hz | |
| COOLING | CAPACITY (Btu/h) | | 17,500/ 18,000 | |
| | INPUT (W) | | 1,940/ 2,000 | |
| | RUNNING CURRENT (A) | | 9.6/ 9.0 | |
| | E.E.R. (Btu/W.h) | | 9.0 | |
| HEATING | CAPACITY (Btu/h) | | 9,800/ 12,000 | |
| | INPUT (W) | | 3,100/ 3,670 | |
| | RUNNING CURRENT (A) | | 15.0/ 16.0 | |
| OPERATING TEMPERA-TURE | COOLING | INDOOR (℃) | 26.7 (DB) 19.4 (WB) | |
| | | OUTDOOR (℃) | 35 (DB) 23.9 (WB) | |
| | HEATING | INDOOR (℃) | 21.1 (DB) 15.6 (WB) | |
| | | OUTDOOR (℃) | 8.3 (DB) 6.1 (WB) | |
| REFRIGERANT (R-22) CHARGE(g) | | | 740 (26.1 OZ) | |
| EVAPORATOR | | | 3 ROW 15 STACKS | LOUVERED-FIN TYPE |
| CONDENSER | | | 2 ROW 19 STACKS, L-BENDED TYPE | |
| FAN, INDOOR | | | BLOWER | |
| FAN, OUTDOOR | | | PROPELLER TYPE FAN WITH SLINGER-RING | |
| FAN SPEEDS (FAN/COOLING/HEATING) | | | 1/ 2/ 2 | |
| 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 | |
| ELECTRIC HEATER | | | 3.5 KW, 230V | |
| PROTECTOR | COMPRESSOR | | INTERNAL OVERLOAD PROTECTOR | |
| | FAN MOTOR | | INTERANL THERMAL PROTECTOR | |
| | ELECTRIC HEATER | | FUSE LINK, BIMETAL THERMOSTAT | |
| POWER CORD | | | 1.6m (3 WIRE WITH GROUDING) | |
| | | | ATTACHMENT PLUG (CORD-CONNECTED TYPE) | |
| DRAIN SYSTEM | | | DRAIN PIPE OR SPLASHED BY FAN SLINGER | |
| NET WEIGHT | | (lbs/kg) | 123/ 56 | |
| OUTSIDE DIMENSION (W x H x D) | | (inch) | 26 x $16^{27}/_{32}$ x $26^{9}/_{16}$ | |
| | | (mm) | 660 x 428 x 675 | |

# 1.4 FEATURES

- Designed for cooling only.
- Powerful and quiet cooling.
- Slide-in and slide-out chassis for the simple installation and service.
- Reversible inlet grille.
- Side air-intake, side cooled-air discharge.
- Built in adjustable THERMOSTAT.
- Washable one-touch filter.
- Compact size.

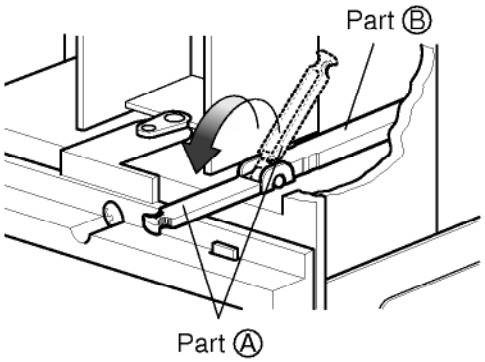
# 1.5 CONTROL LOCATIONS

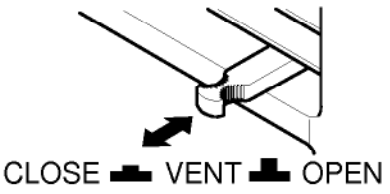
## 1.5.1 COOLING ONLY MODEL

### • 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 to the OPEN position.
The damper is opened and room air is exhausted.

**NOTE**: Before using the ventilation feature, make the lever, as shown. First, pull down part Ⓐ to horizontal line with part Ⓑ.



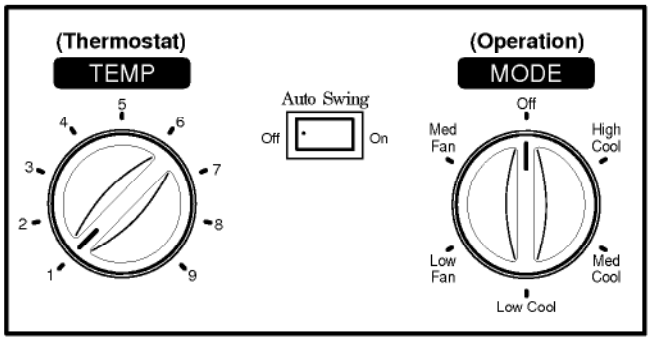

### • THERMOSTAT

Thermostat will automatically control the temperature of the room. Select the higher number for the lower temperature of 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(HBLG140/HBLG180/HBLG240)

OFF : Turns the air conditioner 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.




### • AUTO SWING

ON : Air swing is operated while OPERATION knob is set to the COOL position.

OFF :Stops the operation of air swing.

## 1.5.2 COOLING AND HEATING MODEL

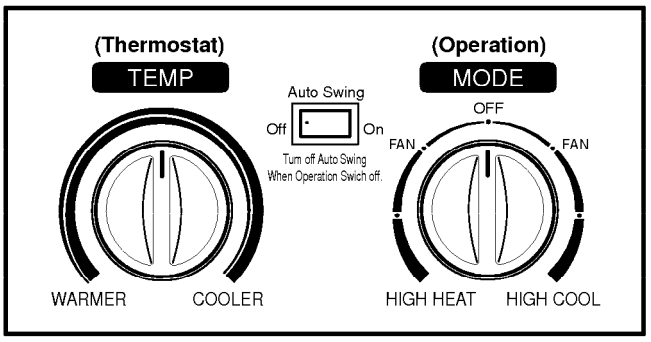
### • CAUTION

When the air conditioner has been performing its cooling operation and is turned off or set to the fan position, wait at least 3 minutes before resetting to the cooling operation again.

### • THERMOSTAT

Turn the thermostat control to the desired setting. The centrol position is a normal setting for average conditions. You can change this setting, if necessary, in accordance with your temperature preference.

The thermostat automatically controls cooling or heating, but the fan runs continuously whenever the air conditioner is in operation. If the room is too warm, turn the thermostat control clockwise. If the room is too cool, turn the themostat control anticlockwise.




### • OPERATION(HBLG18H)

| | |
|---|---|
| OFF | :Turns the air conditioner 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 : Starts the operation of air swing.

OFF : Stops the operation of air swing.

• Before you turn the unit off, please press the Auto Swing switch to off.

A slight heat odor may come from the unit when first switching to HEAT after the cooling season is over. This odor, caused by fine dust particles on the heater, will disappear quickly.