Before using your air conditioner, please read this manual carefully and keep it for future reference.

# WINDOW/WALL-TYPE ROOM AIR CONDITIONER

## UNIVERSAL IISED'S MANIJAI

Prior to installation this air-conditioning unit must be submitted for approval by the utility service which provides electricity.

#### **SOCIABLE REMARK**

## The following contents apply only the countries of Europe.

<u>DISPOSAL:</u> Do not dispose this product as unsorted municipal waste. Collection of such waste separately for special treatment is necessary.

It is prohibited to dispose of this appliance in domestic household waste. For disposal, there are several possibilities:

- A) The municipality has established collection systems, where electronic waste can be disposed of at least free of charge to the user.
- B) When buying a new product, the retailer will take back the old product at least free of charge.
- C) The manufacture will take back the old appliance for disposal at least free of charge to the user.
- As old products contain valuable resources, they can be sold to scrap metal dealers.

Wild disposal of waste in forests and landscapes endangers your health when hazardous substances leak into the ground-water and find their way into the food chain.



#### **CONTENTS**

| . 1 |
|-----|
| 4   |
| 5   |
| 9   |
| 10  |
| 13  |
| 14  |
|     |

#### Read This Manual

Inside you will find many helpful hints on how to use and maintain your air conditioner properly. Just a little preventive care on your part can save you a great deal of time and money over the life of your air conditioner. You'll find many answers to common problems in the chart of troubleshooting tips. If you review our chart of Troubleshooting Tips first, you may not need to call for service at all.

## **△** CAUTION

- Contact the authorised service technician for repair or maintenance of this unit.
- · Contact the installer for installation of this unit.
- The air conditioner is not intended for use by young children or infirm persons without supervision.
- Young children should be supervised to ensure that they do not play with the air conditioner.
- If the power cord is to be replaced, replacement work shall be performed by authorised personnel only.
- Installation work must be performed in accordance with the national wiring standards by authorised personnel only.

#### SAFETY PRECAUTIONS

To prevent injury to the user or other people and property damage, the following instructions must be followed. Incorrect operation due to ignoring of instructions may cause harm or damage. The seriousness is classified by the following indications.

| WARNING          | This symbol indicates the possibility of death or serious injury.      |  |
|------------------|--|--|
| <b>A</b> CAUTION | This symbol indicates the possibility of injury or damage to property. |  |

■ Meanings of symbols used in this manual are as shown below.

| 0 | Never do this.  |
|---|-----------------|
| 0 | Always do this. |

## **↑** WARNING

- Otherwise, it may cause electric shock or fire due to excess heat generation.
- unit by inserting or pulling out the power plug.
- It may cause electric shock or fire It may cause electric shock or fire. due to heat generation.
- - If the power cord is damaged, it must be replaced by the manufacturer or an authorised service centre or a similarly qualified person in order to avoid a hazard.

- Do not modify power cord length or share the outlet with other appliances.
- It may cause electric shock or fire due to heat generation.
- It may cause electric shock.

ODo not allow water to run into electric parts.

It may cause failure of machine

or electric shock.

- This could damage your health.

Incorrect installation may cause

fire and electric shock. O Do not open the unit

- Incorrect earthing may cause electric shock.
- It may cause fire and electric shock.
- It is not designed to cool the entire house.
- It may cause fire and electric
- ODo not use the power cord close to heating appliances
- It may cause fire and electric shock.
- It may cause electric shock.
  - It may cause an explosion or fire.
- . It may cause explosion, fire and, burns.
- **○** Do not disassemble or modify unit.
- It may cause failure and electric shock.



- When the air filter is to be removed, do not touch the metal parts of the unit.
- It may cause an injury.

Do not clean unit when

cause an injury.

power is on as it may cause

fire and electric shock, it may

- conditioner with water.
- Water may enter the unit and degrade the insulation. It may cause an electric shock.
- O Do not put a pet or house plant where it will be
- This could injure the pet or plant.
- O Hold the plug by the heat of the power plug when taking it out
- It may cause electric shock and damage.

- Ventilate the room well wher used together with a stove, etc.
- An oxygen shortage may occur.
- O Do not use for special purposes.
- Do not use this air conditioner to preserve precision devices, food, pets, plants, and art objects. It may cause deterioration of quality, etc.
- Turn off the main power switch when not using the unit for a long time.
- It may cause failure of product or fire.

O Do not place obstacles around air-inlets or inside of air-outlet.

Operation with windows

opened may cause wetting

of indoor and soaking of household furniture.

- It may cause failure of appliance or accident.
  - not use strong detert such as wax or powe
- Appearance may be deteriorated due to change of product color or scratching of its surface.

- © Ensure that the installation bracket of the outdoor appliance is not damaged due to prolonged exposure.
- If bracket is damaged, there is concern of damage due to falling of unit.
- Do not place heavy object on the power cord and ensure that the cord is not compressed
- There is danger of fire or electric shock.

- Always insert the filters securely. Clean filter once every two weeks.
- Operation without filters may cause failure.
- O Do not drink water drained from air conditioner.
- It contains contaminants and could make you sick.

- Use caution when unpacking and installing. Sharp edges could cause injury.
- If water enters the unit, turn the unit off at the power outlet and switch off the circuit breaker. Isolate supply by taking the power-plug out and contact a qualified service technician.

## **SAFETY PRECAUTIONS**(prior to operation)

#### Preparing for operation

- 1. Contact an installation specialist for installation.
- 2. Plug in the power plug properly.
- 3. Do not use a damaged or non-standard power cord.
- 4. Do not share the same outlet with other appliances.
- 5. Do not use an extension cord.
- 6. Do not start/stop operation by plugging/unplugging the power cord.

#### Usage

- Exposure to direct airflow for an extended period of time could be hazardous to your health. Do not expose occupants, pets, or plants to direct airflow for extended periods of time.
- 2. Due to the possibility of oxygen deficiency, ventilate the room when used together with stoves or other heating devices.
- Do not use this air conditioner for non-specified special purposes (e.g. Preserving precision devices, food, pets, plants, and art objects). Usage in such a manner could harm such property.

#### Cleaning and maintenance

- Do not touch the metal parts of the unit when removing the filter. Injuries can occur when handling sharp metal edges.
- 2. Do not use water to clean inside the air conditioner. Exposure to water can destroy the insulation, leading to possible electric shock.
- 3. When cleaning the unit, first make sure that the power and circuit breaker are turned off.

#### Service

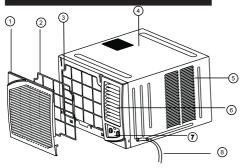
For repair and maintenance, contact your authorised service dealer.

#### **Operating Temperature**

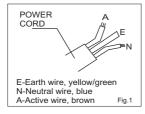
| Cooling operation | Outdoor temp:<br>Indoor temp: | 18-43°C(T <sub>1</sub> Environment)<br>17-32 °C(T <sub>1</sub> Environment) | 21-52°C(T <sub>3</sub> Environment)<br>17-32°C(T <sub>3</sub> Environment) |
|-------------------|-------------------------------|---|--|
| Heating operation | Outdoor temp:                 | -5-24°C(T <sub>1</sub> Environment)   | -7-24°C(T <sub>3</sub> Environment)  |
|                   | Indoor temp:                  | 0 -27 °C(T <sub>1</sub> Environment)  | 0-30°C(T <sub>3</sub> Environment)   |

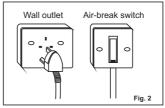
Note: Performance may be reduced outside of these operating temperatures.

#### **UNIT PARTS IDENTIFICATION**

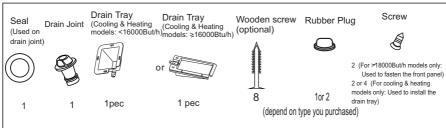


- 1. Front panel
- 2. Air filter
- 3. Frame
- 4. Cabinet
- 5. Air inlet grille (outdoor side)
- 6. Air outlet grille
- 7. Operation knob
- 8. Power supply cord
- 1. Power cord conductors are distinguished according to color as follows (see Fig.1)
- For your safety and protection, this unit is earthed through the power cord (see Fig.2)
   Please contact the manufacturer or its service agent or a similar qualified person if you want to replace it.
- Be sure that the unit being correctly grounded. The wall outlet (Air-break switch)should be provided with reliable earth wire.
- 4. The unit should be provided with an individual circuit and the circuit breaker/fuse rating should be the same as that of the power cord and wall outlet.





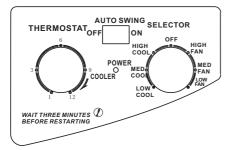
#### **Accessories**

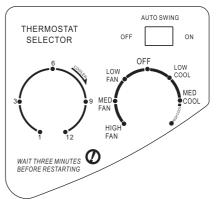


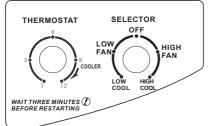
**NOTE**:All the illustrations in the manual are for explanation purpose only. Your air conditionar may be slightly different. The actual shape shall prevail.

#### AIR CONDITIONER FEATURES

TYPE1



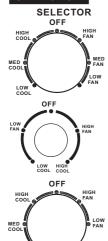




**POWER** indicator(some models without): This indicator light remains on when the unit is on and goes off when the SELECTOR is on "OFF" position.

**NOTE**: The outline of the operation panel is based on typical model, the function is the same with your air conditioner while some difference may exist in appearance.

#### SELECTOR



LOW

The controls featured in this manual are representative of many available models. Your model may offer slightly different features.

#### Cool Mode

airflow.

The desired cool setting is selected by rotating the knob to the right to the appropriate location.

"HIGH COOL" has maximum cooling effect and airflow.

"LOW COOL" has minimum cooling effect and airflow.

"MED COOL" has the intermediate cooling effect and

"OFF" will completely shut off the unit.



#### Fan Mode

Rotate the knob to the left to select your choice of fan speeds for air circulation.

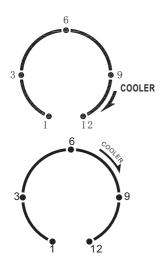
**Note:** When selecting a fan speed, the compressor will not run.

#### Note

When turning the SELECTOR knob from "LOW COOL" to "HIGH COOL", keep your speed slow as far as possible. Do not change the operation mode between "LOW COOL" and "HIGH COOL" too often.

#### **THERMOSTAT**

#### **THERMOSTAT**



#### **Thermostat**

The thermostat is used to set the desired room temperature when the unit is being operated in the COOL MODE.

To set the desired room temperature, rotate the thermostat switch to the desired setting. After the set temperature is achieved the thermostat will automatically start and stop the compressor in order to maintain the desired set temperature.

Rotate the thermostat selector clockwise for higher cool settings. Higher cool settings will provide lower room temperature. Rotate the thermostat selector counter clockwise for lower cool settings. Lower cool settings will provide higher room temperature.

NOTE: During the cooling operation of the unit, when the thermostat knob is rotated clockwise, allow at least three minutes before turning back the knob to the "COOLER" direction. Otherwise the fuse may blow due to an overload of the unit.

## AUTO SWING(on some models)

Horizontal air flow adjustment (automatically)



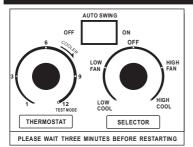
#### AUTO SWING



When the AUTO SWING switch is turned to "ON" position, the vertical louvers automatically oscillate right and left sweeping the cold air alternately to obtain comfortable cooling. The vertical louvers may be stopped at any position when the AUTO SWING switch is turned "OFF".

## **CONDITIONER FEATURES**

TYPE 2



NOTE:Do not rotate the knob from HIGH COOL to LOW COOL and from 12 to 1 in the clockwise direction.TEST MODE feature some models without.

NOTE: The outline of the operation panel is based on typical model, the function is the same with your air conditioner while some difference may exist in appearance. Some models without AUTO SWING feature.

HIGH

FAN

HIGH

COOL

HIGH

FAN

LOW

FAN

IOW

COOL

MED

COOL

**SELECTOR** 

LOW

FAN

LOW

COOL

HIGH

COO

LOW COOL

LOW

FAN

MED

FANL

HIGH

FΔN

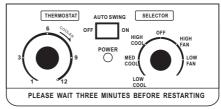
MED

COOL

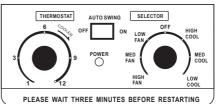
OFF

OFF

OFF



NOTE: Do not rotate the knob from LOW FAN to LOW COOL and from 12 to 1 in the clockwise direction.



NOTE: Do not rotate the knob from LOW COOL to HIGH

FAN and from 12 to 1 in the clockwise direction.

NOTE:POWER indicator (some models without):This indicator light remains on when the unit is on and goes off when the SELECTOR is on "OFF" position.

The controls featured in this manual are representative of many available models. Your model may offer slightly different features.

#### Cool Mode

The desired cool setting is selected by rotating the knob to the appropriate location.

has maximum cooling effect and airflow. "HIGH COOL"

"LOW COOL" has minimum cooling effect and airflow.

"MED COOL" has the intermediate cooling effect and airflow.

"OFF" will completely shut off the unit.

#### Fan Mode

Note

Rotate the knob to select your choice of fan speeds for air circulation.

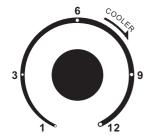
Note: When selecting a fan speed, the compressor will not run.

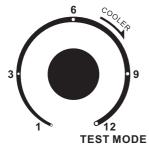
#### HIGH COOL

When turning the SELECTOR knob from "LOW COOL" to "HIGH COOL", keep your speed slow as far as possible. Do not change the operation mode between "LOW COOL" and "HIGH COOL" too often.

#### **THERMOSTAT**

#### **THERMOSTAT**





#### Thermostat

The thermostat is used to set the desired room temperature when the unit is being operated in the COOL MODE.

To set the desired room temperature, rotate the thermostat switch to the desired setting. After the set temperature is achieved the thermostat will automatically start and stop the compressor in order to maintain the desired set temperature. Rotate the thermostat selector clockwise for higher cool settings. Higher cool settings will provide lower room temperature. Rotate the thermostat selector counter clockwise for lower cool settings. Lower cool settings will provide higher room temperature.

#### NOTE:

TEST MODE is used to test the compressor and make sure unit is working properly. Do not use this position for regular operation.

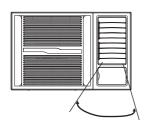
During the cooling operation of the unit, when the thermostat knob is rotated counterclockwise. allow at least three minutes before turning back the knob to the "COOLER" direction. Otherwise the fuse may blow due to an overload of the unit.

### **AUTO SWING (ON SOME MODELS)**

Horizontal air flow adjustment (automatically)(on some models) OFF



ON



When the AUTO SWING switch is turned to "ON" position, the vertical louvers automatically oscillate right and left sweeping the cold air alternately to obtain comfortable cooling. The vertical louvers may be stopped at any position when the AUTO SWING switch is turned "OFF".

Vertical air flow adjustment (manually)



To adjust vertical air flow direction, adjust any one of the horizontal louver blades. When turning up or down the horizontal louver blades, always keep horizontality the top or bottom blades. This can effectively prevent water drops condensed on the front panel of the unit.

#### **Vent Control**

The vent control is located above the control knobs. The operation method is different on different models (see the following figures).

For maximum cooling efficiency, CLOSE the vent. This will allow internal air circulation. OPEN the vent to discharge stale air.



CLOSE - VENT - OPEN

To open the vent, pull the lever toward you To close it, push it in.



CLOSE --- OPEN

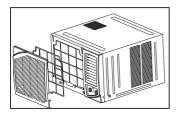
To open the vent, set the lever to the right position To close it, set the lever in the left position.

**NOTE:** The VENTILATION LEVER should normally be kept in the CLOSED position during cooling for maximum cooling effect. The "OPEN" position is used only for ventilation.

## **CARE AND CLEANING**



Clean your air conditioner occasionally to keep it looking new. Be sure to unplug the unit before cleaning to prevent chock or fire hazards.



#### Air Filter Cleaning

The air filter should be checked at least once a month to see if cleaning is necessary. Trapped particles in the filter can build up and cause an accumulation of frost on the cooling coils.

## **CARE AND CLEANING (CONTINUED)**

- Hold the slot under the front panel, then uplift it onwards, and remove the front panel.
- Pinch the handle under the air filter and make the air filter arched, remove it from the underside to upside.
- · Wash the filter using liquid dishwashing detergent and warm water. Rinse filter thoroughly.
- Gently shake excess water from the filter. Be sure the filter is thoroughly dry before replacing.
- Or, instead of washing you may vacuum the filter clean.

**Note:** Never use hot water over 40°C(104°F) to clean the air filter. Never attempt to operate the unit without the air filter.

#### **Cabinet Cleaning**

- Be sure to unplug the air conditioner to prevent shock or fire hazard. The cabinet
  and front may be dusted with an oil-free cloth or washed with a cloth dampened in
  a solution of warm water and mild liquid dishwashing detergent. Rinse thoroughly
  and wipe dry.
- · Never use harsh cleaners, wax or polish on the cabinet front.
- Be sure to wring excess water from the cloth before wiping around the controls.
- Excess water in or around the controls may cause damage to the air conditioner.
- · Plug in air conditioner.

**NOTE:** Never use water over 50°C, alcohol, gasoline, acid, solvent or brush to clean the front panel as this will damage the surface of the part.

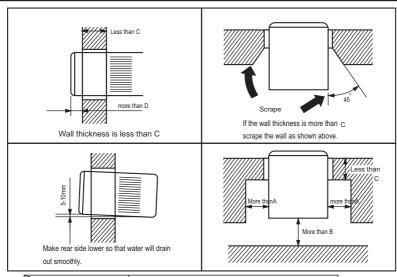
#### Winter Storage

If you plan to store the air conditioner during the winter, remove it carefully from the window according to the installation instructions. Cover it with plastic or return it to the original carton.

## **INSTALLATION**

- & Select The Best Location
- Install the unit at a place having sufficient strength to support the unit securely.
- For maximum efficiency, install the air conditioner on a side of a house or building which favors more shade than direct sunlight.
- Provide sufficient clearance or space around the air inlet and air outlet so that air flow will not be obstructed, following figures give detailed requirements.
- Only trained and qualified service personnel should install, repair or service air conditioning equipment. Users should not install the air conditioner by

## **INSTALLATION(CONTINUED)**

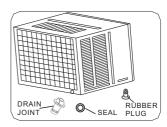


|   | Size(mm) |
|---|----------|
| A | 400      |
| В | 500      |
| С | 210      |
| D | 60       |

#### **The Treatment of Condensed Water**

To meet different requirement of different type of air conditioner, there are two kinds of methods for your choice to treat the condensed water. You can choose back drainage or non-drainage. See the following procedures to perform back drainage:

- Fit the seal onto the drain joint (which provided with your air conditioner accessory).
- Remove the rubber plug from the back of the unit. (If applicable), and insert the rubber plug(which provided with your air conditioner accessory) into the bottom drain hole of the unit.
- Attach the drain joint to the back of the cabinet where you remove the plug and rotate 90° to securely assemble them.
- 4. Connect the drain joint with a extension drain hose (Locally purchased)

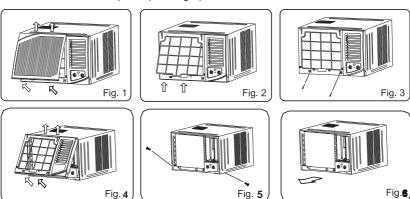


**Note:** If you choose non-drainage, both the bottom and the back drain hole of the unit should be inserted with the rubber plug.

## Installation Steps

#### Step 1. Remove the front panel and the air filter

- 1. Hold the slot under the front panel, then uplift it outwards, and remove the front panel (See Fig.1).
- 2. Pinch the handle under the air filter and make the air filter arched, remove it from the slot from underside to upside (See Fig.2).

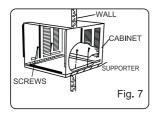


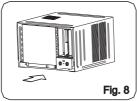
#### Step 2. Remove the frame.

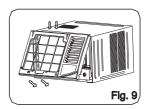
Remove the two fixed screws from the frame. (see Fig.3)
Grasp the left corner in the frame's underside, the loosen the frame. (see Fig.4)

#### Step 3. Installation

- Remove the screws fix the chassis-fixing board and cabinet. some Models have two
  more screws on the back of the cabinet. (see Fig.5)
- 2. Grasp the handle on the chassis and carefully slide the air conditioner out of the cabinet. (see Fig.6)
- 3. When need to drain off water, intall the drain plug on the Chassis board. Then fix the cabinet on the supporter (provide for yourself or contact the dealer)(see Fig.7).
- 4. Push the unit chassis into the cabinet. (see Fig.8)
- 5. Fix the chassis and cabinet. (see Fig.5)





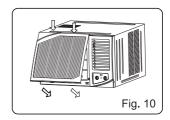


#### Step 4. Install the frame

- 1. Install the frame. (see Fig.9)
- 2. Fix the screws on the frame. (see Fig.3)

#### Step 5. Install the front panel and the air filter.

- 1. Install the air filter into the frame's slot from upside to underside. (see Fig.2)
- Hang the front panel on the frame's buckle, then press the front panel into the frame's slot until hear a click. (see Fig.10)



## TROUBLESHOOTING TIPS

Before calling for service, review this list. It may save you time and expense. This list includes common occurrences that are not the result of defective workman-ship or materials in this appliance.

| Problem  | Solution  |  |
|--|---|--|
| Air conditioner does not start   | Wall plug disconnected. Push plug firmly into wall outlet.  |  |
|  | House fuse blown or circuit breaker tripped. Replace fuse with time delay type or reset circuit breaker.  |  |
|  | Selector Control in OFF position. Turn selector to the desired FAN or COOL setting.   |  |
|  | Unit turned off by moving thermostat to a higher number and then immediately turning back to a colder number. Wait approximately 3 minutes. Listen for compressor to start. |  |
|  | Unit turned off and then on too quickly. Turn unit off and wait 3 minutes before restarting.  |  |
|  | Thermostat set too low. Adjust thermostat to higher number for cooling.   |  |
| Air from unit does<br>not feel cold<br>enough  | Turn selector to a higher COOL position.  |  |
|  | Thermostat set too warm. Set thermostat to colder temperature.  |  |
|  | Room temperature below 18 $^{\circ}$ C(64 $^{\circ}$ F). Cooling may not occur until room temperature rises above 18 $^{\circ}$ C(64 $^{\circ}$ F).                         |  |
|  | Temperature sensing tube touching cold coil, located behind air filter. Straighten tube away from coil.   |  |
| Air conditioner<br>cooling, but room<br>is too warm- ice<br>forming on cooling<br>coil behind<br>decorative front. | Outdoor temperature below 18 $^{\circ}$ C(64 $^{\circ}$ F). To defrost the coil, set selector to FAN position. Then, set thermostat to warmer position.                     |  |
|  | Air filter may be dirty. Clean filter. Refer to Care and Cleaning section. To defrost, set selector to FAN.   |  |
|  | Thermostat set too cold for night-time cooling. To defrost the coil, set selector to a FAN position. Then, set thermostat to a warmer position.                             |  |

| Problem   | Solution  |  |
|---|---|--|
| Air conditioner                                   | Dirty air filter- air restricted. Clean air filter. Refer to Care and Cleaning section.   |  |
| cooling, but room is too warm- NO                 | Thermostat set too warm. Turn thermostat clockwise to a colder setting.   |  |
| is too warm- NO<br>ice forming on                 | Air directional louvers positioned improperly. Position louvers for better air distribution.  |  |
| cooling coil behind decorative front.             | Front of units is blocked by drapes, blinds, furniture, etc restricts air distribution.<br>Clear blockage in front of unit.                             |  |
|   | Doors, windows, registers, etc. Open- cold air escapes. Close doors, windows, register.   |  |
|   | Unit recently turned on in hot room. Allow additional time to remove" Stored heat from walls, ceiling, floor and furniture.                             |  |
| Air conditioner turns on and off rapidly          | Dirty air filter- air restricted. Clean air filter.   |  |
|   | Outside temperature extremely hot. Set to high cool to bring air past cooling coils more frequently.  |  |
| Noise when unit is cooling                        | Air movement sound. This is normal . If too loud, turn selector to lower FAN setting.   |  |
|   | Sound of fan hitting water-moisture removal system. This is normal when humidity is high. Close doors, windows and registers.                           |  |
|   | Window vibration - poor installation. Refer to installation instructions or check with installer.   |  |
| Water dripping<br>INSIDE when<br>unit is cooling. | Improper installation. Tilt air conditioner slightly to the outside to allow water drainage. Refer to installation instructions - check with installer. |  |
| Water dripping OUTSIDE when unit is cooling.      | Unit removing large quantity of moisture from humid room. This is normal during excessively humid days.   |  |

## **SPECIFICATIONS**

#### Unit dimensions:

| MODEL<br>(Btu/h) | BODY DIMENSION(mm)<br>(W X H X D) |
|------------------|-----------------------------------|
| 5000 0000        | 445X320X415                       |
| 5000~6000        | 450X346X535                       |
| 7000~9000        | 450X346X535                       |
| 9000~12000       | 560X400X640                       |
| 9000-12000       | 600X380X560                       |
| 15000~16000      | 660X434X620                       |
| 15000~24000      | 660X428X680                       |
| .5555 21000      | 660X428X780                       |

## Minimum norminal cross-sectional area of conductors:

| Rated current of appliance (A) | Nominal cross-sectional area (mm²) |
|--------------------------------|------------------------------------|
| >3 and <6                      | 0.75                               |
| >6 and <10                     | 1                                  |
| >10 and <16                    | 1.5                                |
| >16 and <25                    | 2.5                                |

## Suggest Minimum Wire Size(AWG: American Wire Gage):

| Appliance Amps | AWG Wire Size |
|----------------|---------------|
| 10             | 18            |
| 13             | 16            |
| 18             | 14            |
| 25             | 12            |
| 30             | 10            |

