

# TOSHIBA

## OWNER'S MANUAL

R32

***INVERTER***

ENGLISH



### **AIR CONDITIONER (SPLIT TYPE)**

For general public use

Indoor unit

**RAS-18PKVSG-E**

**RAS-B22, 24PKVSG-E**

Outdoor unit

**RAS-18, 22, 24PAVSG-E**



1120650227-1

## PRECAUTIONS FOR SAFETY



Read the precautions in this manual carefully before operating the unit.



This appliance is filled with R32.

- Keep this manual where the operator can easily find it.
- Read the precautions in this manual carefully before operating the unit.
- This appliance is intended to be used by expert or trained users in shops, in light industry and on farms, or for commercial use by lay persons.
- The precautions described herein are classified as DANGER, WARNING and CAUTION. They both contain important information regarding safety. Be sure to observe all precautions without fail.

### **DANGER**

- Do not install, repair, open or remove the cover. It may expose you to dangerous voltages. Ask the dealer or the specialist to do this.
- Turning off the power supply will not prevent potential electric shock.
- The appliance shall be installed in accordance with national wiring regulation.
- Means for disconnection from the supply having a contact separation of at least 3 mm in all poles must be incorporated in the fixed wiring.
- The appliance must be stored in a room without continuously operating ignition sources (for example, open flames, an operating gas appliance or an operating electric heater).
- In order to avoid fire, explosion or injury, do not operate the unit when harmful gases (e.g. flammable or corrosive) are detected near the unit.

### **WARNING**

- Do not expose your body directly to cool or warm air for a long time.
- Do not insert your finger or any article into the air inlet/outlet.
- When an abnormality (burning smell, etc.) occurs, stop the air conditioner and disconnect the power supply or turn off the breaker.
- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.
- This appliance is not intended for use by person (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- The air conditioner must be installed, maintained, repaired and removed by a qualified installer or qualified service person. When any of these jobs is to be done, ask a qualified installer or qualified service person to do them for you.
- Children should be supervised to ensure that they do not play with the appliance.

## PRECAUTIONS FOR SAFETY

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- Do not use any refrigerant different from the one specified (R32) for complement or replacement. Otherwise, abnormally high pressure may be generated in the refrigeration cycle, which may result in a failure or explosion of the product or an injury to your body.
- Do not use means to accelerate the defrosting process or to clean, other than those recommended by the manufacturer.
- The appliance shall be stored in a room without continuously operating ignition sources (for example: open flames, an operating gas appliance or an operating electric heater).
- Be aware that refrigerants may not contain an odour.
- Do not pierce or burn as the appliance is pressurized. Do not expose the appliance to heat, flames, sparks, or other sources or ignition. Else, it may explode and cause injury or death.
- Appliance and pipe-work shall be installed, operated and stored in a room with a floor area larger than  $A_{\min}$  m<sup>2</sup>.

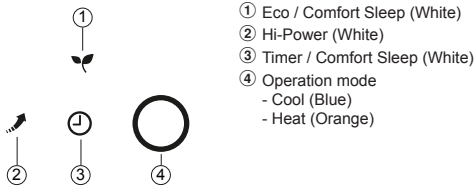
How to get  $A_{\min}$  m<sup>2</sup> :  $A_{\min} = (M / (2.5 \times 0.22759 \times h_0))^2$

M is the refrigerant charge amount in appliance in kg.  $h_0$  is the installation height of the appliance in m: 0.6 m for floor standing/1.8 m for wall mounted/1.0 m for window mounted/2.2 m for ceiling mounted. (For these units recommend installation height 2.5 m)

### CAUTION

- Do not wash the unit with water. It may cause an electric shock.
- Do not use this air conditioner for other purposes such as preserving food, breeding animal, etc.
- Do not step or put anything on the indoor/outdoor unit. It may cause an injury or damage the unit.
- Do not touch aluminium fin because it may cause an injury.
- Before cleaning the unit, turn off the main switch or the circuit breaker.
- When the unit won't be used for a long time, turn off the main switch or the circuit breaker.
- It is recommended that maintenance be performed by a specialist when the unit has been operated for a long time.
- The manufacturer shall not assume any liability for the damage caused by not observing the description of this manual.

## 1 INDOOR UNIT DISPLAY



- Display brightness can be adjusted, follow procedure on ⑪.

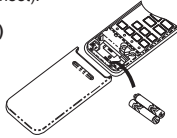
## 2 PREPARATION BEFORE USE

### Preparing Filters

1. Open the air inlet grille and remove the air filters.
2. Attach the filters. (see detail in the accessory sheet).

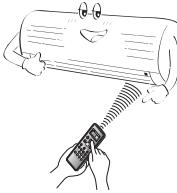
### Loading Batteries (when use wireless operation.)

1. Remove the slide cover.
2. Insert 2 new batteries (AAA type) following the (+) and (-) positions.



### Clock Setup

1. Push **CLOCK** by tip of the pencil.  
If timer indication is flashing, go to the next step 2.
2. Press **ON** or **OFF** : adjust the time.
3. Press **SET** : Set the time.



### Remote Control Reset

- Push **RESET** by tip of the pencil or
1. Remove the batteries.
  2. Press **POWER**.
  3. Insert the batteries.

## 3 AIR FLOW DIRECTION

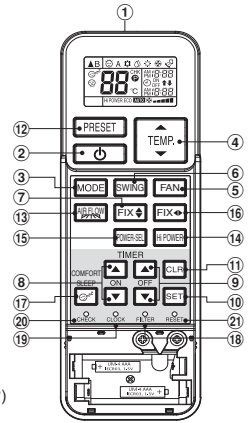
1	Press <b>FIX</b> : Move the louver in the desired vertical direction.	
2	Press <b>FIX</b> : Move the louver in the desired horizontal direction.	
3	Press <b>SWING</b> : For select louver swing operation.	<ul style="list-style-type: none"> <li>• Vertical (Up-Down) swing</li> <li>• Horizontal (Left-Right) swing</li> </ul>
4	Press <b>AIR FLOW</b> : To select provided air flow direction	<p>"Pi" sound when air flow direction is set and "Pi Pi" sound when air flow direction is canceled and return to manually setting.</p>

### Note:

- Do not move the louver manually by hands or others.
- The louver may automation positioning by some operation mode.

## 4 REMOTE CONTROL

- ① Infrared signal emitter
- ② Start/Stop button
- ③ Mode select button (MODE)
- ④ Temperature button (TEMP)
- ⑤ Fan speed button (FAN)
- ⑥ Swing louver button (SWING)
- ⑦ Set louver Up-Down button (FIX ↓)
- ⑧ On timer button (ON)
- ⑨ Off timer button (OFF)
- ⑩ Setup button (SET)
- ⑪ Clear button (CLR)
- ⑫ Memory and Preset button (PRESET)
- ⑬ AIR FLOW selection button (AIR FLOW)
- ⑭ High power button (HI-POWER)
- ⑮ Power selection button (POWER-SEL)
- ⑯ Set louver Left-Right button (FIX ←)
- ⑰ Comfort sleep button (COMFORT SLEEP)
- ⑱ Filter reset button (FILTER)
- ⑲ Set clock button (CLOCK)
- ⑳ Check button (CHECK)
- ㉑ Reset button (RESET)



### Note:

- The provided Remote Controller is a wireless type, which also can be used as a wire. Please see "How to Connect The Remote Controller for Wired Operation", located in installation instruction, in case of wired control is required.
- In wire operation, remote controller will return to initial condition (PRESET, TIMER and CLOCK will return to initial condition) when user shutdown power supply of Air conditioner.

## 5 AUTOMATIC OPERATION

To automatically select cooling, heating, or fan only operation

1. Press **MODE** : Select A.
2. Press **TEMP** : Set the desired temperature.
3. Press **FAN** : Select AUTO, LOW, LOW+, MED, MED+, HIGH or Quiet.

## 6 COOLING / HEATING / FAN ONLY OPERATION

1. Press **MODE** : Select Cool, Heat, or Fan only.
2. Press **TEMP** : Set the desired temperature.  
Cooling: Min. 17°C, Heating: Max. 30°C,  
Fan Only: No temperature indication
3. Press **FAN** : Select AUTO, LOW, LOW+, MED, MED+, HIGH or Quiet.

## 7 DRY OPERATION

For dehumidification, a moderate cooling performance is controlled automatically.

1. Press **MODE** : Select Dry.
2. Press **TEMP** : Set the desired temperature.

Note: Dry mode fan speed is set to Auto only.

## 8 HI-POWER OPERATION

To automatically control room temperature and airflow for faster cooling or heating operation (except in DRY and FAN ONLY mode)

- Press **HI-POWER** : Start and stop the operation.

## 9 POWER-SELECTION OPERATION

This function is used when its circuit breaker is shared with other electrical appliances. It limits the maximum current/power consumption to 100%, 75% or 50%. The lower the percentage, the higher the saving and also the longer the compressor lifetime.

- Press : Select (for 100%), (for 75%), (for 50%)
- When the level is selected, PWR-SEL level flashes on LCD display for 3 seconds. In case of 75% and 50% level, number "75" or "50" also flashes for 2 seconds.
  - Due to the reason that POWER SELECT FUNCTION limits the maximum current, inadequate cooling capacity may occur.

## 10 TIMER OPERATION

Set the timer when the air conditioner is operating.

	Setting the ON Timer	Setting the OFF Timer
1	Press  : Set the desired ON timer.	Press  : Set the desired OFF timer.
2	Press  : Set the timer.	Press  : Set the timer.
3	Press  : Cancel the timer.	Press  : Cancel the timer.

Daily timer allows the user to set both the ON & OFF timers and will be activated on a daily basis.

### Setting Daily Timer

1	Press  : Set the ON timer.	3	Press
2	Press  : Set the OFF timer.	4	Press  button during the (↑ or ↓) mark flashing.

- During daily timer is activating, both arrows (↑, ↓) are indicated.
- Note:**
- Keep the remote control in accessible transmission to the indoor unit; otherwise, the time lag of up to 15 minutes will occur.
  - The setting will be saved for the next same operation.

## 11 DISPLAY LAMP BRIGHTNESS ADJUSTMENT

To decrease the display lamp brightness or turn it off.

- Press and hold for 3 seconds until brightness level (d0, d1, d2 or d3) is shown on remote control LCD then release the button.
- Press Rise or Decrease to adjust brightness in 4 levels.

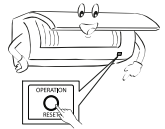
Remote control LCD	Operation display	Brightness
d3	Lamp illuminates full brightness.	100%
d2	Lamp illuminates 50% brightness.	50%
d1	Lamp illuminates 50% brightness and the operation lamp is turned off.	50%
d0	All lamps are turned off.	All turned off

- In the examples of d1 and d0, the lamp illuminates for 5 seconds before going off.

## 12 TEMPORARY OPERATION

In case of the misplaced or discharged remote control

- Pressing the RESET button, the unit can start or stop without using the remote control.
- Operation mode is set on AUTOMATIC operation, preset temperature is 24°C and fan operation is automatic speed.



## 13 PRESET OPERATION

Set your preferred operation for future use. The setting will be memorized by the unit for future operation (except airflow direction).

- Select your preferred operation.
- Press and hold for 3 seconds to memorize the setting. The mark displays.
- Press : Operate the preset operation.

## 14 AUTO RESTART OPERATION

To automatically restart the air conditioner after the power failure (Power of the unit must be on.)

### Setting

- Press and hold the RESET button on the indoor unit for 3 seconds to set the operation. ("Pi Pi Pi" sound and OPERATION lamp blink 5 times/sec for 5 seconds)
- Press and hold the RESET button on the indoor unit for 3 seconds to cancel the operation. ("Pi Pi Pi" sound but OPERATION lamp does not blink)
  - In case of ON timer or OFF timer are set, AUTO RESTART OPERATION does not activate.

## 15 COMFORT SLEEP OPERATION

For comfortable sleep, automatically control air flow and automatically turn OFF.

- Press : Select 1, 3, 5 or 9 hrs for OFF timer operation.

**Note:** The cooling operation, the set temperature will increase automatically 1 degree/hour for 2 hours (maximum 2 degrees increase). For heating operation, the set temperature will decrease.

## 16 SELF CLEANING OPERATION (COOL AND DRY OPERATION ONLY)

To protect bad smell caused by the humidity in the indoor unit.

- If the button is pressed once during "Cool" or "Dry" mode, the fan will continue to run for other 30 minutes, then it will turn off automatically. This will reduce the moisture in the indoor unit.
- To stop the unit immediately, press the more 2 times within 30 seconds.

## 17 MAINTENANCE

Firstly, turn off the circuit breaker.

### Indoor Unit and Remote Control

- Clean the indoor unit and the remote control with a wet cloth when needed.
- No benzene, thinner, polishing powder or chemically-treated duster.

### Air filters

Clean every 2 weeks.

- Open the air inlet grille.
- Remove the air filters.
- Vacuum or wash and then dry them.
- Reinstall the air filters and close the air inlet grille.

## 18 OPERATION AND PERFORMANCE

1. Three-minute protection feature: To prevent the unit from being activated for 3 minutes when suddenly restarted or switched to ON.
2. Preheating operation: Warm up the unit for 5 minutes before the heating operation starts.
3. Warm air control: When the room temperature reaches the set temperature, the fan speed is automatically reduced and the outdoor unit will stop.
4. Automatic defrosting: Fans will stop during defrost operation.
5. Heating capacity: Heat is absorbed from outdoors and released into the room. When the outdoor temperature is too low, use another recommended heating apparatus in combination with the air conditioner.
6. Consideration for accumulated snow: Select the position for outdoor unit where it will not be subjected to snow drifts, accumulation of leaves or other seasonal debris.
7. Some minor cracking sound may occur when unit operating. This is normal because the cracking sound may be caused by expansion/contraction of plastic.

**Note:** Item 2 to 6 for Heating model




### Air conditioner operating conditions

Operation	Temp.	
	Outdoor Temperature	Room Temperature
Heating	-15°C ~ 24°C	Less than 28°C
Cooling	-15°C ~ 46°C	21°C ~ 32°C
Dry	-15°C ~ 46°C	17°C ~ 32°C

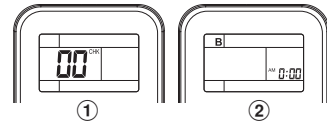
## 20 REMOTE CONTROL A-B SELECTION

To separate using of remote control for each indoor unit in case of 2 air conditioners are installed nearby.

### Remote Control B Setup.

1. Press RESET button on the indoor unit to turn the air conditioner ON.
2. Point the remote control at the indoor unit.
3. Push and hold  button on the Remote Control by the tip of the pencil. "00" will be shown on the display. (Picture ①)
4. Press  during pushing . "B" will show on the display and "00" will disappear and the air conditioner will turn OFF. The Remote Control B is memorized. (Picture ②)

- Note:**
1. Repeat above step to reset Remote Control to be A.
  2. Remote Control A has not "A" display.
  3. Default setting of Remote Control from factory is A.



## 19 TROUBLESHOOTING (CHECK POINT)

The unit does not operate.	Cooling or Heating is abnormally low.
<ul style="list-style-type: none"> <li>• The power main switch is turned off.</li> <li>• The circuit breaker is activated to cut off the power supply.</li> <li>• Stoppage of electric current</li> <li>• ON timer is set.</li> </ul>	<ul style="list-style-type: none"> <li>• The filters are blocked with dust.</li> <li>• The temperature has been set improperly.</li> <li>• The windows or doors are opened.</li> <li>• The air inlet or outlet of the outdoor unit is blocked.</li> <li>• The fan speed is too low.</li> <li>• The operation mode is FAN or DRY.</li> <li>• POWER SELECTION function is set 75% or 50% (<b>This function is depend on remote controller</b>).</li> </ul>

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