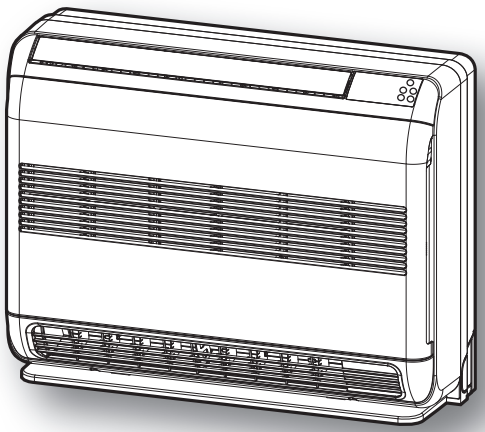
TOSHIBA

R32 or R410A

INVERTER

OWNER'S MANUAL

ENGLISH



AIR CONDITIONER
For general public use

Indoor unit (Single Type)
RAS-B10, 13, 18J2FVG-E

Outdoor unit (Single Type)
RAS-10, 13, 18J2AVSG-E
RAS-10, 13J2AVSG-E1

Indoor unit (Multiple Type)
RAS-M07J2FVG-E

1112150196

PRECAUTIONS FOR SAFETY

	Read the precautions in this manual carefully before operating the unit.		This appliance is filled with R32.

■ Warning indications on the air conditioner unit (Except : RAS-M07J2FVG-E)

Warning indication	Description
	CAUTION **BURST HAZARD** Open the service valves before the operation, otherwise there might be the burst.

- 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.

PRECAUTIONS FOR SAFETY

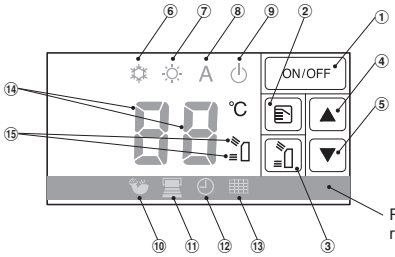
- This appliance is not intended for use by person (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- The air 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.
- Do not use any refrigerant different from the outdoor unit specified 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.
- When the indoor unit is connected with multi-split R32 outdoor unit 3M26, 4M27 and 5M34. Please see IMS outdoor unit installation manual and consult your dealer about the minimum floor area.

⚠ 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 & UNIT OPERATION PANEL

This indoor unit can be operated with the unit operation panel or using remote control.
Operational contents will be followed the one which was operated later.
If change the set temperature with operation panel of unit, temperature indication will be changed, but the temperature display on the remote control will not change. If set the air flow only with the upper port, a little air flow may happen at the lower port.

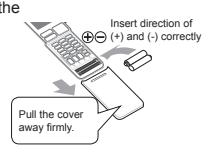


① OPERATION button : Unit operation ON/OFF button, turn off FILTER CHECK Indicator.
② MODE button : Operation mode (Auto→Cooling→Heating→Auto→ • • •)
※ CHILD LOCK function : Press MODE button for 3 seconds. (It is possible to operate even when stopping.)
To cancel CHILD LOCK function, press MODE button for 3 seconds once again.
When CHILD LOCK function is activated, 3 beeps will sound.
When press MODE button to cancel the function, a beep will sound and then 3 seconds later 3 beep sound may occur.
The indicator button will be invalid while the child lock function is activated. (When press the button, 1 beep will sound).
Operation with remote control during the CHILD LOCK function works.
This function is cancelled when the power supply is off or failure.
③ AIR OUTLET SELECT button : Cooling, Auto (Upper & Lower→Upper→ Upper & Lower→ • • •)
Dry (upper only)
Heating (Upper & Lower→Upper→Lower→Upper & Lower→ • • •)
On cooling operation, whichever air outlet is set, only Upper is used when the room temperature approaches the set temperature.
During stop operation : Open/close the lower air outlet grille.
When the TEMPERATURE indicator display “CL” the lower air outlet grille will be in closed status.
When the TEMPERATURE indicator display “OP” the lower air outlet grille will be in open status.
④ TEMPERATURE button (Up) : Setting temperature increase by 1°C (17°C→ 18°C→ • • • 30°C)
⑤ TEMPERATURE button (Down) : Setting temperature decrease by 1°C (30°C→29°C→ • • • 17°C)
⑥ COOL and DRY indicator (Blue)
⑦ HEAT indicator (Orange)
⑧ Refrigerant leak detection sensor (Green)
※ Require connecting refrigerant leak detection sensor which available as accessory. Please inquire the dealership.
⑨ OPERATION or FAN ONLY indicator (Green)
⑩ Hi POWER indicator (Green)
⑪ FLOOR indicator (Orange)
⑫ TIMER indicator (Yellow)
⑬ FILTER CHECK indicator (Red)
⑭ TEMPERATURE indicator (Blue)
⑮ AIR OUTLET indicator (Green)

2 PREPARATION BEFORE USE

Preparing Filters
1. Open the air inlet grille and remove the air filters.
2. Attach the attachment filters (see detail in the Installation Manual).

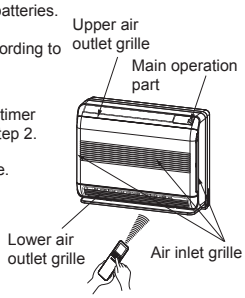
Loading Batteries
1. Remove the battery cover.
2. Insert 2 new alkaline batteries (AAA type) following the (+) and (–) positions.



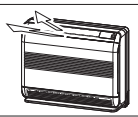
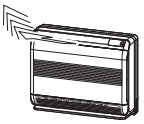
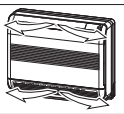
Removing the batteries
1. Remove the cover, and take out the batteries.
2. Reattach the cover.
   • Please dispose of the batteries according to the local regulation.

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
1. Remove the batteries.
2. Press ⏻.
3. Insert the batteries.



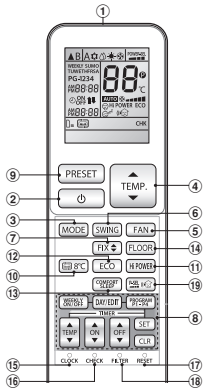
3 AIR FLOW DIRECTION

1	Press FIX : Move the louver in the desired vertical direction.	
2	Press SWING : Swing the air automatically and press again to stop.	
3	For horizontal direction, adjust manually.	

Note:
- Do not move the vertical louver manually by others.
- The vertical louver may automation positioning by some operation mode.
- On heating operation, in case of AIR OUTLET SELECT is set as Lower, upper louver is not operate even if swing is set by remote, though receiving history is recorded.
- When changed the air flow to up/down or upward blowing, the swing operation will be performed.
- At the time of FLOOR WARMING OPERATION, the air will blow downward only and it cannot order to swing operation with remote control.

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 button (FIX)
⑧ Weekly timer setting button
⑨ Memory and Preset button (PRESET)
⑩ Fireplace/8°C heating operation button (8°C)
⑪ High power button (Hi POWER)
⑫ Economy button (ECO)
⑬ Comfort sleep button (COMFORT SLEEP)
⑭ Floor warming mode button (FLOOR)
⑮ Clock Reset button (CLOCK)
⑯ Check button (CHECK)
⑰ Reset button (RESET)
⑱ Filter reset button (FILTER)
⑲ Power selection/Silent operation (outdoor unit) button (P-SEL)



5 AUTOMATIC / COOLING (DRY) / HEATING / FAN ONLY OPERATION

1. Press MODE : Select Auto A. Cool, Dry, Heat or Fan only.
2. Press TEMP. : Set the desired temperature. Min. 17°C, Max. 30°C.
3. Press FAN : Select AUTO, LOW, LOW+, MED, MED+, HIGH, and Quiet ().

※ AUTOMATIC OPERATION : Choose cooling or heating operation automatically.
※ In DRY OPERATION mode, it can not select air volume.

6 Hi POWER OPERATION

To automatically control room temperature and airflow for faster Auto, cooling or heating operation (except in DRY mode).

Press Hi POWER : Start and stop the operation.

7 FLOOR WARMING OPERATION

Heating will operate with downward blowing only.
Temperature of air outlet will be higher than usual.

Press ☞ [FLOOR] : Start and stop the operation.

Note: FLOOR operation can active in Heat mode only.

8 ECO OPERATION

To automatically control room temperature to save energy (except in DRY mode).

Press ☞ [ECO] : Start and stop the operation.

Note: Cooling operation; the internal set temperature will increase automatically 1 degree by 2 hours (maximum 2 degrees increase). For heating operation the internal set temperature will decrease.

9 TIMER OPERATION

Set the timer when the air conditioner is operating.

	Setting the ON Timer	Setting the OFF Timer
1	Press ☞ [ON ▲▼] : Set the desired ON timer.	Press ☞ [OFF ▲▼] : Set the desired OFF timer.
2	Press ☞ [SET] : Set the timer.	Press ☞ [SET] : Set the timer.
3	Press ☞ [CLR] : Cancel the timer.	Press ☞ [CLR] : Cancel the timer.

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.
- Press ☞ [CLR] to cancel the daily timer operation.

10 PRESET OPERATION

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

1. Select your preferred operation.
2. Press and hold ☞ [PRESET] until stop blinking and the Ⓟ mark displays.
3. Press ☞ [PRESET] : Operate the preset operation.

11 FIREPLACE AND 8°C HEATING OPERATION

Fireplace Operation

Keep indoor unit's fan blowing continuously during thermo off, to circulate heat from other sources over the room. There are three setting parameters: Default setting > Fireplace 1 > Fireplace 2

Fireplace 1:

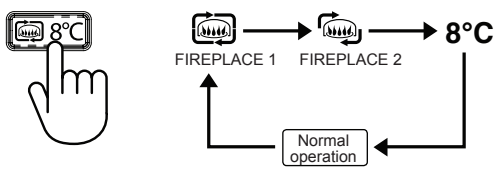
During thermo off period, the indoor unit's fan will continue to run by the same speed, previously selected by end-user.

Fireplace 2:
During thermo off period, the indoor unit's fan will continue to run at super-low speed, programmed from factory.

8°C Heating Operation (8°C)

Heat mode operation for keep room temperature (5-13°C) with less of energy usage.

Fireplace and 8°C Heating Operation



Note:
- While Fireplace operation on heating mode, indoor unit fan always runs and cold air breezing might be occurred.
- Fireplace and 8°C will operate in Heating mode only.

12 COMFORT SLEEP OPERATION

For comfortable sleep, automatically control air flow and automatically turn OFF (Except in DRY mode).

1. Press ☞ [COMFORT SLEEP] : Select 1, 3, 5 or 9 hrs for OFF timer operation.
2. Press ☞ [CLR] to cancel the comfort sleep 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.

13 AUTO RESTART OPERATION

This product is designed so that, after a power failure, it can restart automatically in the same operating mode as before the power failure.

Information
The product was shipped with Auto Restart function in the OFF position. Turn it ON as required.

How to turn ON the Auto Restart Function
- Press and hold the [OPERATION] button on the indoor unit for 3 seconds (3 beep sounds and OPERATION lamp blink 5 time/sec for 5 seconds).

How to turn OFF the Auto Restart Function
- Press and hold the [OPERATION] button on the indoor unit for 3 seconds (3 beep sounds but OPERATION lamp does not blink).

Note: In case of ON timer or OFF timer are set, AUTO RESTART OPERATION does not activate.

14 FILTER RESET

⚠ Firstly, turn off the circuit breaker.

FILTER lamp lights on; the filter must be cleaned.
To turn off the lamp, push OPERATION button on the indoor unit or the FILTER button on the remote control.

Note: The filter indicator turns on after about 1000 hours.

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

15 SELF CLEANING OPERATION (COOL AND DRY OPERATION ONLY)

Cleaning operation
This function is used to dry the inside of the air conditioner to reduce the growth of mold, etc. inside the air conditioner.
- When the unit shuts down after having operated for 10 or more minutes in the cooling or dry mode, the cleaning operation is started automatically, and the TIMER indicator on the unit's display panel turns on.

Cleaning operation duration
- The cleaning operation lasts for 30 minutes if the unit has been operating in the cooling or dry mode for 10 minutes or more.

Note:
- SELF CLEANING operation is default setting from factory.
- How to cancel SELF CLEANING operation.
  Press and hold MODE button on operation panel for more than 10 seconds (less than 20 seconds). When canceling, 4 beeps sound.
- How to activate SELF CLEANING operation.
  Press and hold MODE button on operation panel for more than 10 seconds (less than 20 seconds). Then, 4 beeps will sound and operation lamp will blink for 5 seconds.

16 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 blowing warm air.
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 outdoor 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.

Operation \ Temp.	Outdoor Temperature	Room Temperature
Heating	-20°C ~ 24°C	Less than 28°C
Cooling	-15°C ~ 46°C	21°C ~ 32°C
Dry	-15°C ~ 46°C	21°C ~ 32°C

※ Concerning multiple connections, please inquire to the dealership or refer to the catalog.

17 TROUBLESHOOTING (CHECK POINT)

The unit does not operate.	Cooling or Heating is abnormally low
• The power main switch is turned off. • The circuit breaker is activated to cut off the power supply. • Stoppage of electric current. • ON timer is set.	• The filters are blocked with dust. • The temperature has been set improperly. • The windows or doors are opened. • The air inlet or outlet of the outdoor unit is blocked. • The fan speed is too low. • The operation mode is DRY. • POWER SELECTION function is set 75% or 50% (**This function is depend on remote controller**).

Note: When there is an abnormality in the product, abnormal code (2 digits) will be displayed on the unit display panel. Please contact the dealership.

In case of multiple connection

- Check whether the operation mode is different from what has been selected for the units in the other rooms (The following combinations of operations cannot be performed: COOL and HEAT, DRY and HEAT).
- Select the same operation mode as for the other rooms.

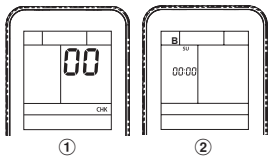
18 REMOTE CONTROL A-B SELECTION

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

Remote Control B Setup.

1. Push and hold CHECK button on the Remote Control by the tip of the pencil. "00" will be shown on the display. (Picture ①)
2. Press MODE during pushing CHECK. "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.



① ②

Unit B setup.

Press and hold MODE button for more than 20 seconds.
When A setup changed to B setup : 5 beeps will sound and operation lamp blinks for 5 seconds.
When B setup changed to A setup : 5 beep will sound.

19 ADJUSTING BRIGHTNESS OF UNIT DISPLAY PANEL

1. Press and hold AIR OUTLET SELECT button then press MODE button for 3 times (All lamp of the unit display panel will be switched on). (At that time, please press and hold the AIR OUTLET SELECT button)
2. Press and hold AIR OUTLET SELECT button on Unit display panel, then press TEMPERATURE button (Up), (Down) for select the desired brightness.
3. Brightness will be settled when AIR OUTLET SELECT button is released. Although the temperature indicator is switched off, if press the temperature button (up) and (down), the set temperature will be indicated, and then can adjust the temperature.
   10 seconds after stopped pressing the button, the temperature indication will be switched off.

4 stages of brightness can be changed.

	Temperature indicator	Other lamp
1	Usual	Usual
2	Darkness	Darkness
3	Turn off	Darkness
4	Turn off	Turn off

20 CHANGE AIR OUTLET GRILLE ON STABLE TIME (COOLING ONLY)

On cooling operation, whichever air outlet is set, only Upper is used when the room temperature approaches the set temperature.
In case to keep up/down blowing, operate as below;
Press and hold AIR OUTLET SELECT button for more than 10 seconds (less than 20 seconds) (4 beeps will sound then "1" indication at TEMPERATURE indicator will light up for 5 seconds).
For return to the former status, press and hold AIR OUTLET SELECT button for more than 10 seconds once again (In this time, 4 beeps will sound then "0" indication at TEMPERATURE indicator will blinks for 5 seconds).

21 AIR INLET GRILLE MAINTENANCE

Wash the air inlet grille with water using the soft sponge or towel.

- Dry it well in a shadow area after washing.
- Scour heavy dirt with neutral detergent for kitchen, and rinse it with the water (Do not use the wire wool).
- Do not press the front panel strongly. It may be cracked.

22 POWER-SELECTION AND SILENT OPERATION (OUTDOOR UNIT)

Power-Selection (P-SEL)

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

Note:

- When the level is selected, POWER-SEL level flashes on remote 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-SELECTION function limits the maximum current, inadequate cooling or heating capacity may occur.

Silent Operation

Keep outdoor unit operating silently to ensure either yourself or neighborhood will have a tight sleep in nighttime. By this feature, the heating capacity will be optimized to deliver such silent experience. The silent operation can be selected from one of two purposes (Silent 1 and Silent 2).
There are three setting parameters: Standard level > Silent 1 > Silent 2

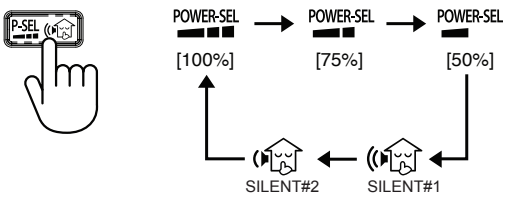
Silent 1:
Though operating silently, the Heating (or Cooling) capacity is still prioritized to ensure having sufficient comfort inside the room.
This setting is a perfect balance between the Heating (or Cooling) capacity and the Sound level of outdoor unit.

Silent 2:
Compromising the Heating (or Cooling) capacity to the Sound level in any circumstance where the outdoor unit's sound level is highly prioritized.
This setting has a purpose to reduce the maximum sound level of outdoor unit by 4 dB(A).

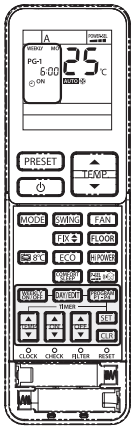
Note:

- While activating of Silent operation, inadequate heating (or cooling) capacity may occur.

Power-Selection and Silent Operation (Outdoor Unit)



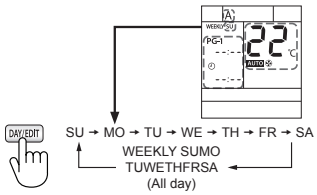
23 WEEKLY TIMER OPERATION



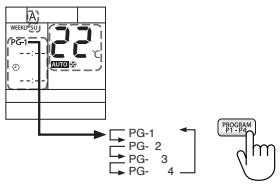
How to set WEEKLY TIMER

1. Press DAY/EDIT to enter WEEKLY TIMER setting.

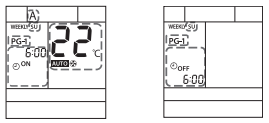
2. Press DAY/EDIT to select desired day in sequence.
   The sequence of day symbol appears on the LCD.



3. Press PROGRAM P1-P4 to select the program number.
   - The program 1 is ready for setting while DAY/EDIT is pressed PG-1 appears on the LCD.
   - Press PROGRAM P1-P4 to change the program number in the sequence program 1 to program 4.

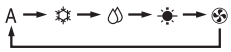


4. Press ON or OFF to select the desired time.
   - The time can be set between 0:00 and 23:50 in 10 minute intervals.
   - Press and hold the button to change setting time for 1 hr.
   - Only one of ON or OFF timer can be set on each program.

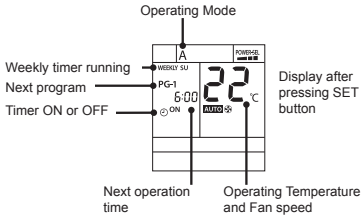


*OFF timer is used to stop the air conditioner only. The display does not show Operation mode, Temperature, Fan speed and others.

5. Press MODE to select desired operation.



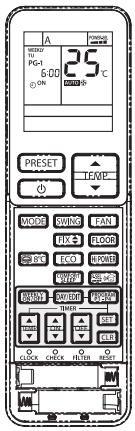
6. Press TEMP or TEMP to select desired temperature.
   - The temperature can be set between 17°C and 30°C.
7. Press FAN to select the desired fan speed.
8. Add operations, if required.
   - Press 8°C to use 8°C operation.
     (Notes: Fireplace cannot select and memorize in weekly function)
   - Press ECO to use ECO operation.
   - Press Hi POWER to use Hi POWER operation.
   - Press SILENT to use Silent operation.
   - Press FLOOR to use FLOOR operation.
9. Adding or editing the program.
   The program can be set to perform on all the required days until SET is pressed to confirm the setting 10.
   If adding or editing a program is required, please repeat steps 2 - 8 before setting confirmation.
10. After adding or editing, press SET to confirm the setting*.



*Point remote control at air conditioner receiving module then, press SET button until you hear the "BeepBeep" sound. This means the setting operation has been completed. As the air conditioner is receiving the signal, you will hear separate "Beep" sounds corresponding to the number of days in the selected setting. An incomplete setting is indicated if the TIMER lamp is blinking. Press WEEKLY ON/OFF twice.

Notes :

1. Place the remote control where the indoor unit can receive the signal. This will increase the accuracy of the timing between the remote control and the air conditioning unit.
2. The ON/OFF timer can be set during the WEEKLY TIMER operation. In this situation, the air conditioner will first follow the normal timer until it is complete; then, it will return to the WEEKLY TIMER function.
3. During WEEKLY TIMER operation, all of operation such as MODE, TEMP, FAN, Hi POWER, ECO and etc., can be adjusted but when the clock reaches the program setting, the operation will return to the set items in the program.
4. When the remote control is sending a signal to the air conditioner, avoid interference from objects that can block the signal.



Edit Weekly timer program

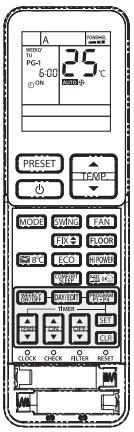
To edit the program after confirming the weekly timer setting, follow steps 1 - 3 below.

1. Press DAY/EDIT.
   - The day of the week and the program number of the current day will be displayed.
2. Press DAY/EDIT to select the day of the week and press PROGRAM P1-P4 to select program number to be confirmed.
   - Resetting the operation.
3. Press SET to exit confirming mode.

Deactivating WEEKLY TIMER operation

Press WEEKLY ON/OFF while "WEEKLY" is displayed on the LCD.

- The "WEEKLY" indicator will disappear from the LCD. However, the program will remain in the remote control.
- The TIMER lamp goes off.
- To reactivate the WEEKLY TIMER operation, press WEEKLY ON/OFF again, LCD shows the next program. The program after reactivation, is related to the clock time.



To delete programs

The individual program

1. Press DAY/EDIT.
   - The day of the week and the program number is displayed.
   - Select the day to delete the program.
2. Press PROGRAM P1-P4 to select the program number to be deleted.
3. Press CLR.
   - ON or OFF timer will be cleared and the LCD will blink.
4. Press SET to delete the program.
   - Press SET while the LCD is blinking. The program has now been deleted.

All programs

1. Press DAY/EDIT.
   - The day of the week and the program number will be displayed.
2. Press CLR and hold for 3 seconds.
   - All programs will be deleted and LCD displays current operation.

Notes :

Make sure the remote control receiving module on the air conditioner receives the signal from the remote control.

TOSHIBA