

Operation Details

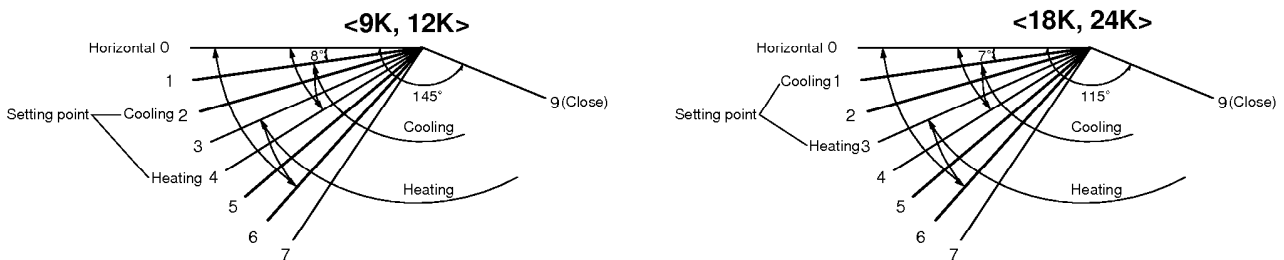
(1) The function of main control

1. Time delay Safety Control

- 3min.; The compressor operation is delayed for 3 minutes to balance the pressure of cycle.
(Protection of compressor)
- 5sec.; The indoor fan is delayed for 5 seconds, when operating initially, to prevent noises occurred by the vertical louver and wind.
- 2min.; The reversing valve is delayed for 2 minutes to prevent the refrigerant-gas for abnormal noise when the heating operation is OFF or switched to the other operation mode while compressor is off.
While compressor is running, it takes 3~5 seconds to switch.

2. Airflow Direction Control

- This function is to swing the vertical louver up and down automatically and to set it at a fixed position.
- The procedure is as the following.
 - 1st ; Press the ON/OFF Button to operate the unit.
 - 2nd ; Press the Airflow Direction Control Button to swing the vertical louver up and down automatically.
 - 3rd ; Re-press the Airflow Direction Control Button to set the vertical louver at a fixed position.



3. Cooling Operation Mode

- When selecting the Cooling(*) Mode Operation, the unit will operate according to the setting by the remote controller and the operation diagram is shown below.

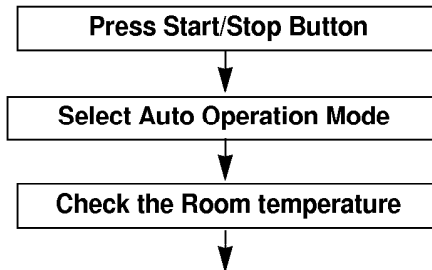
INTAKE AIR TEMP.					
SETTING TEMP. +1 °F (Compressor ON)					
SETTING TEMP. -1 °F (Compressor OFF)					
		← More than 3 minutes →		← More than 3 minutes →	
INDOOR FAN SPEED	Selecting fan speed	Low	Selecting fan speed	Low	Selecting fan speed
COMPRESSOR	ON	OFF	ON	OFF	ON

■ Protection of the indoor heat exchanger from frosting

- Compressor and outdoor fan stop when indoor pipe temperature is below 32 °F and restart at the pipe temperature is above 45 °F.

4. Auto Operation (Electronic control mode)

• The operation procedure is shown below. (Cooling & Heating Model)

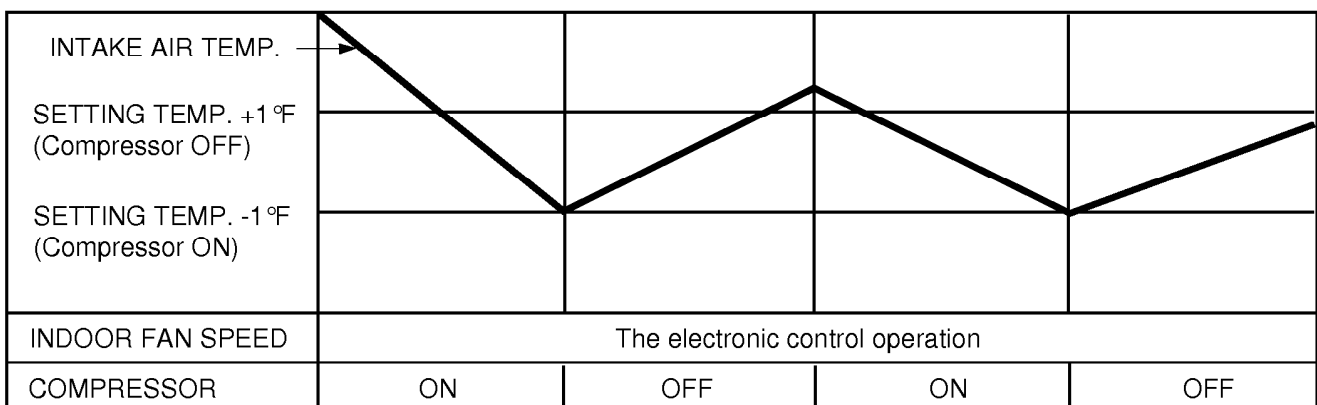


Operation mode Indoor fan speed Setting temperature				are decided automatically by the unit electronic control.
Intake-air temperature	below 70°F	Over 70°F ~ below 76°F	Over 76°F	
Operation Mode	Heating	Soft Dry	Cooling	

* If initial mode is decided, that mode is continued without the room temperature changing.

■ Auto Operation for Cooling

Operation Condition	Intake-air Temperature	Setting Temperature	Fan Speed	Air Direction Control
When Auto Operation initial start	Over 78°F	77°F	Controlled by the electronic control	In this mode, when pressing the vertical air direction control button, vertical louver swings up and down automatically.
	Over 76°F~below 78°F	Intake air -1°C		
	Over 72°F~below 76°F	Intake air -0.5°C		
	Over 68°F~below 72°F	Intake air temperature		
	below 64°F	64°F		
When pressing room temperature setting button during Auto Operation	Over 64°F~below 86°F	Electronic control		
	below 64°F	64°F		
	over 86°F	86°F		



■ **Auto Operation for Soft Dry(only Heating Model)**

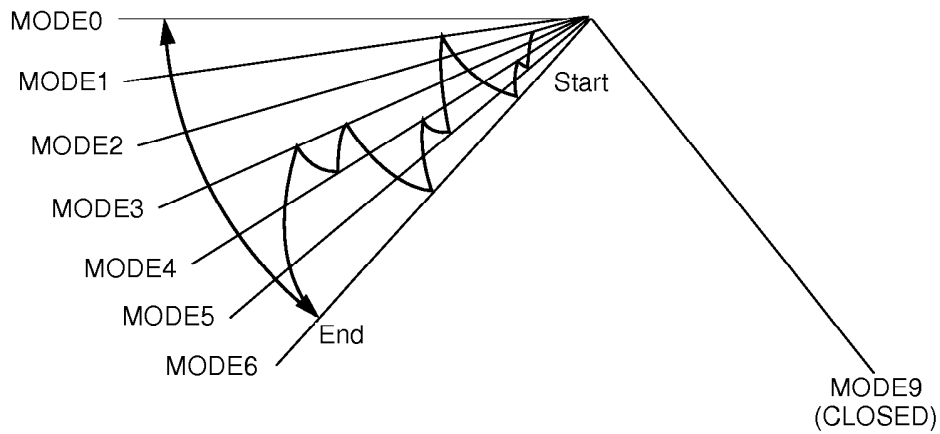
- The Setting temperature will be same that of the auto operation for cooling.
 - Compressor ON temperature; Setting temperature +2°F
 - Compressor OFF temperature; Setting temperature -1°F

Intake-air temp.	below 68°F	Over 68°F~below 70°F	over 86°F
Setting temp.	68°F	Intake air temperature +1°F	86°F

■ **Auto Operation for Heating(only Heating Model)**

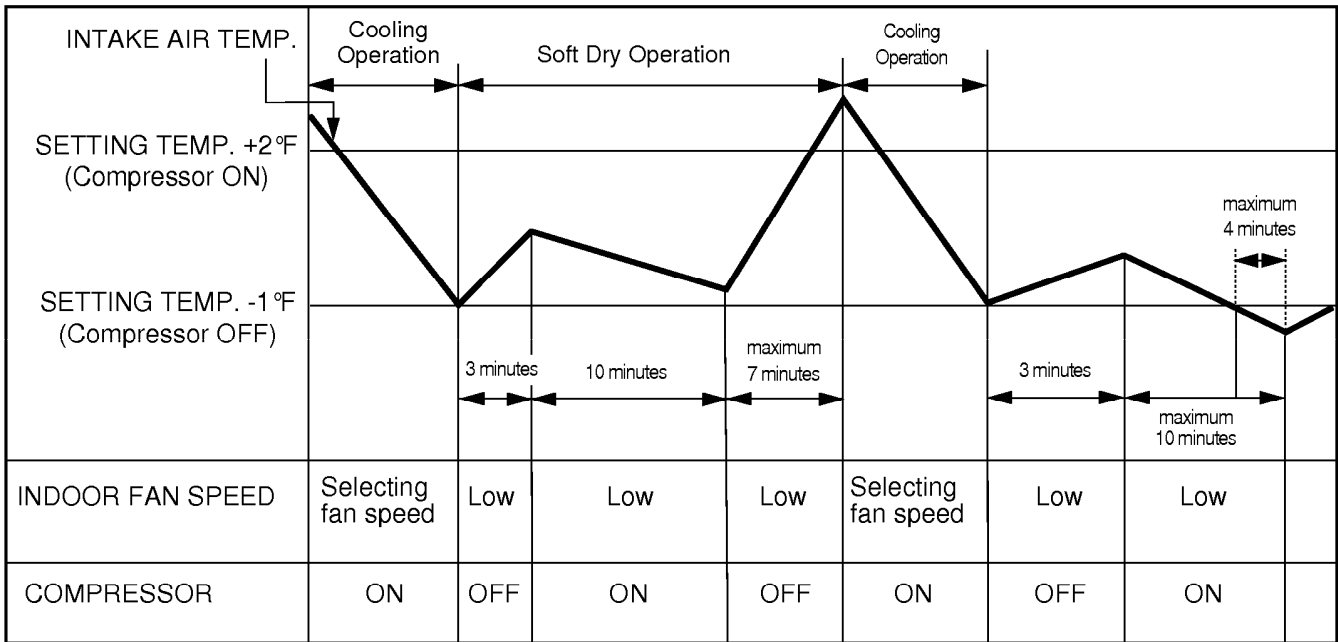
- Compressor ON temperature; Setting temperature
- Compressor OFF temperature; Setting temperature +6°F

■ **Vertical louver auto operation** : In Auto operation mode, when pressing the vertical airflow direction control button, vertical louver moves as shown below.



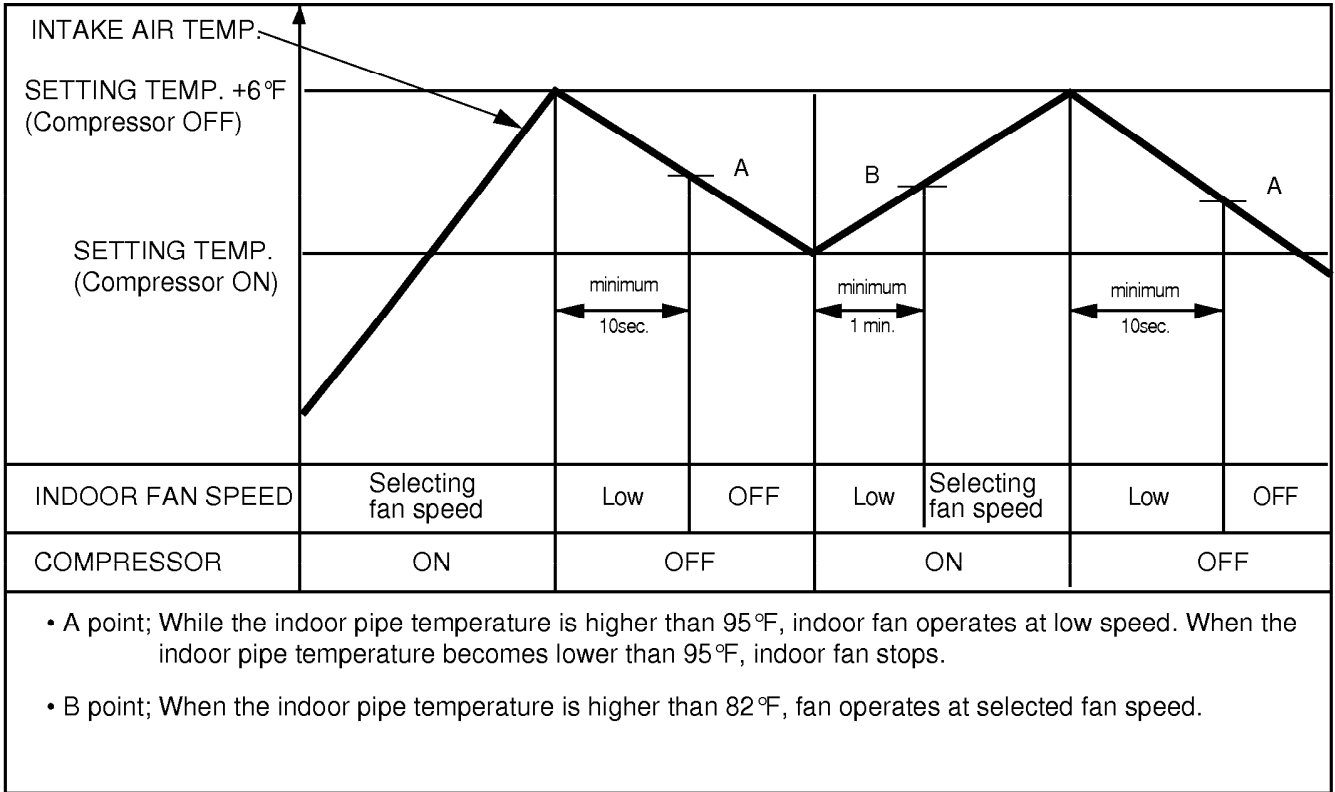
5. Soft Dry Operation Mode

- During Soft Dry Operation, the compressor ON temperature is the setting temperature plus 2°F, the compressor OFF temperature is the setting temperature minus 1°F.
- When the room temperature rises over the compressor ON temperature, the operation mode is switched to the Cooling operation.
- When the room temperature falls between the compressor ON temperature and OFF temperature, the operation mode is switched to the Soft Dry Operation.
- The operation diagram is shown below.



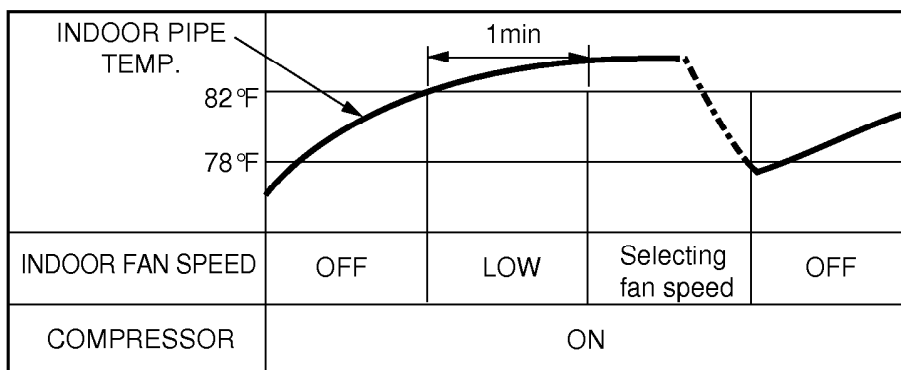
6. Heating Operation Mode(only Heating Model)

The unit will operate according to the setting conditions by the remote controller.
The operation diagram is shown below.



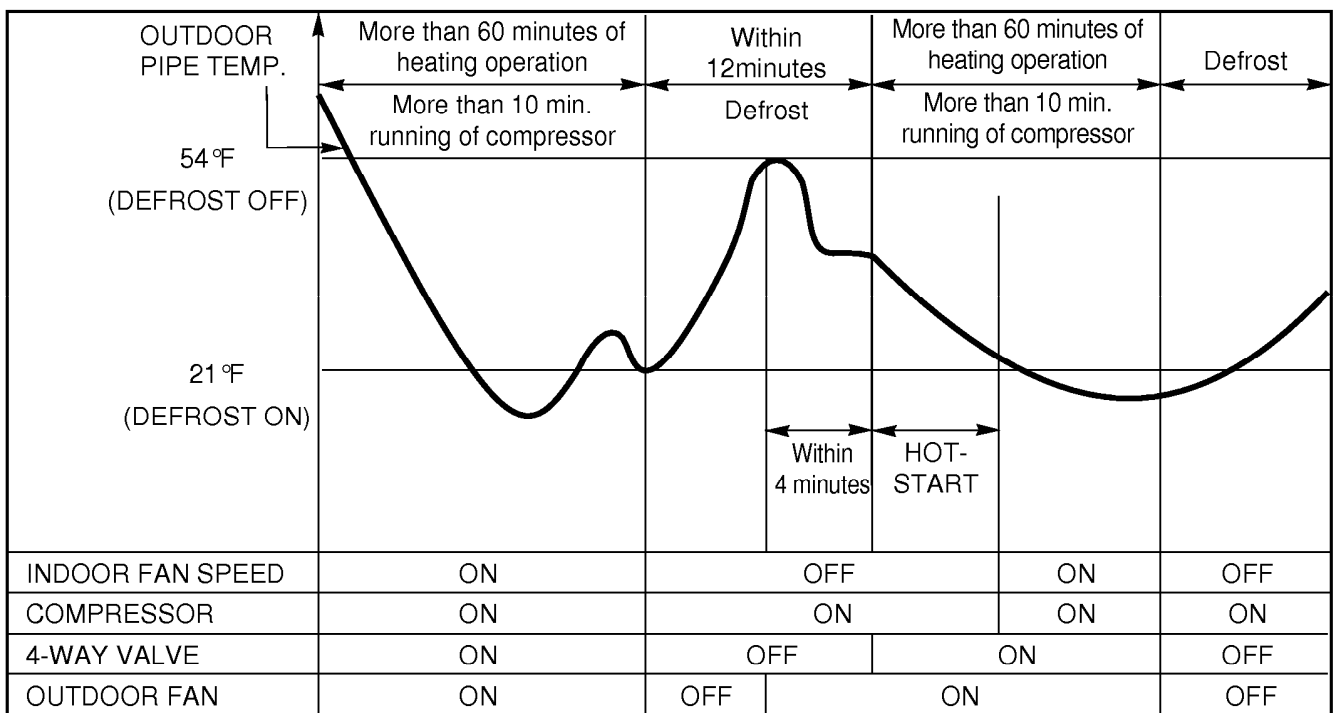
■ Hot-Start Control

- The indoor fan stops until the indoor pipe temperature will be reached at 82°F.
- During heating operation, if indoor pipe temperature falls below 78°F fan stops.
- The operation diagram is shown below.



■ Defrost Control

- Defrost operation is controlled by timer and sensing temperature of outdoor pipe.
- The first defrost starts only when the outdoor pipe temperature falls below 21°F after 60 minutes passed from starting of heating operation and more than 10 minutes operation of compressor.
- Defrost ends after 12 minutes passed from starting of defrost operation or when the outdoor fan operates within 4 minutes after the outdoor pipe temperature rises over 54°F even if before 12 minutes.
- The second defrost starts only when the outdoor pipe temperature falls below 21°F after 60 minutes passed from ending of the first defrost and more than 10 minutes operation of compressor.

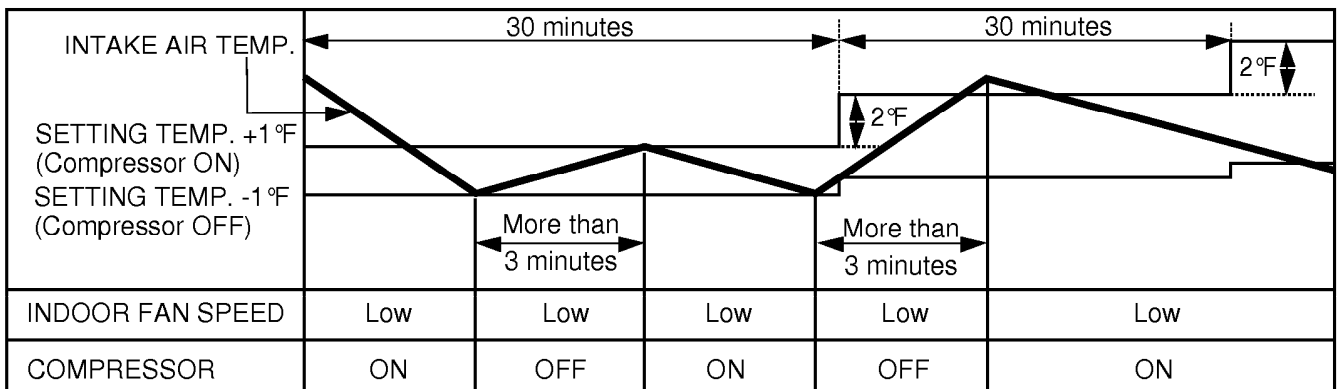


7. Cooling or Heating Mode with Sleep Mode Auto Control

- When selecting the Cooling(✳) or the Heating(✳) combined with the Sleep Mode Auto Control(☆), the operation diagram is as following.

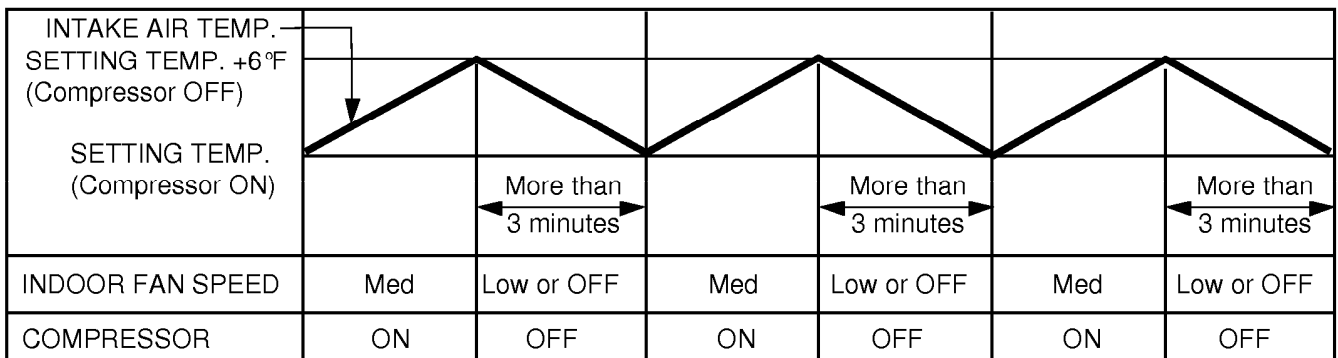
■ Cooling Mode with the Sleep Mode

- The setting temperature will be automatically raised by 2°F 30 minutes later and by 4°F 1 hour later.
- The operation will be stopped after 1, 2, 3, 4, 5, 6, 7 hours.



■ Heating Mode with the Sleep Mode(only Heating Model)

- The operation will be stopped after 1, 2, 3, 4, 5, 6, 7 hours.

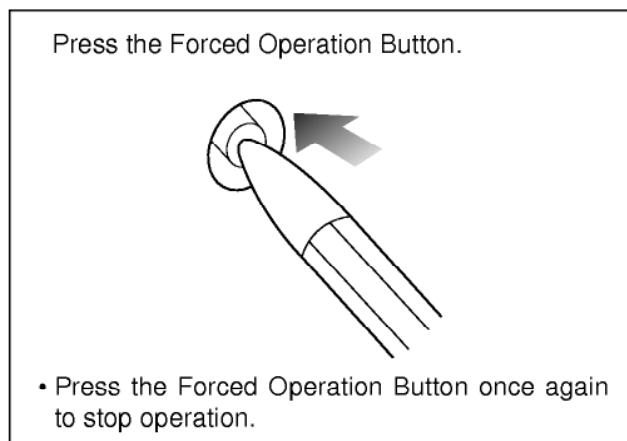
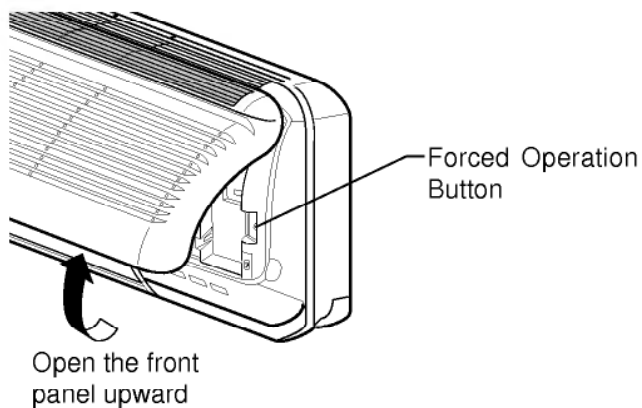


8. Forced Operation

- If you lose wireless remote controller, you can operate the unit with forced operation button.
- The standard conditions are shown below.

	Cooling Model	Heating Model		
		Room Temp \geq 76°F	70°F \leq Room Temp < 76°F	Room temp < 70°F
Operation Mode	Cooling	Cooling	Soft Dry	Heating
Indoor Fan Speed	High	High	Soft Dry Rule	High
Setting Temp.	72°F	72°F	74°F	76°F

- Unit operates in low fan speed for first 15 seconds, then switched to proper operation mode according to intake air temperature.



9. Crank Case Heater Coil Control(only Heating model)

- When the power is applied to the set, the heater operates unconditionally.
- Except for the heating mode operation, the heater is always to be off.
- During the heating mode operation, the heater and compressor are operated by turns.
(Compressor ON ; Heater OFF, Compressor OFF ; Heater ON)