

3. Alignment and Adjustments

3-1 Test Mode

■ How to Approach Test Mode

You can approach the test mode by pressing the on/off switch of indoor unit for 5 seconds.



■ Test mode operation option

After installing the air conditioner, check whether each subordinate is normally operated or not by operating the test mode.

- **When an Error occurs, display the Error Mode.**
- **Operation Mode :** Cool mode. operate the cool mode by operating the compressor by force without the compressor ON/OFF according to the set temperature/indoor temperature. (Do not follow the antifreeze control)
- **Up-down louver :** Up-down swing mode
- **Indoor Fan :** Turbo



Note

- Because the test mode operates the cool mode by force not related to the set temperature / indoor temperature, check whether each subordinate is operated normally or not after completing installation and must turn off the power of the air conditioner.

3-2 Display Error and Check Method

3-2-1 Indoor Display Error and Check Method

ERROR MODE	DESCRIPTION
E101 / E102	Communication Error (Indoor ↔ Outdoor)
E121	ROOM TH sensor error
E122	INDOOR MID, INDOOR IN PIPE-TH sensor error
E154	Fan Error (Indoor)
E162	EEPROM Error (Indoor)
E163	Option Error
E203	Time out Comm. (Inv Micom ↔ Main Micom)
E221	OUT-TH(Outdoor Temperature) Sensor Error
E231	CON-TH(Cond Temperature) Sensor Error
E251	DIS-TH(Discharge Temperature) Sensor Error
E416	DIS-TH(Discharge Temperature) Over Error
E422	EEV or Valve Close error-Self diagnosis
E440	Prohibit Operation Condition Error (Heating)
E441	Prohibit Operation Condition Error (Cooling)
E458	Fan Error(Outdoor)
E461	Comp Starting Error
E462	AC Input I_Limit Trip Error
E464	IPM Over Current(O.C) Error
E465	Comp V_limit/I_limit Error
E466	DC-Link Voltage Under/Over Error
E467	Comp Wire Missing Error
E468	Current Sensor Error
E469	DC-Link Voltage Sensor Error
E470	EEPROM Data Error (no data)
E471	EEPROM Data Error (Main Micom ↔ Inv Micom)
E474	Heatsink Sensor Error
E483	Over Voltage Protection Error
E484	PFC Over Load Error
E485	Input Current Sensor Error
E488	AC Input Voltage Sensor Error
E500	Heatsink Over Temperature Error
E554	Gas Leak Error

ERROR MODE				DESCRIPTION
7-SEG	LED1	LED2	LED3	
	OPERATION	TIMER	OPTION	
E101, E102	○	●	●	Communication error (indoor ↔ outdoor)
E121	○	●	○	ROOM TH sensor error
E122, E123	●	●	○	INDOOR MID, INDOOR IN PIPE-TH sensor error
E154	○	○	●	Fan error(indoor)
E162	●	●	●	EEPROM error
E163	●	●	●	Option error
FROM E200	●	○	●	Outdoor error display
E422	●	○	●	EEV or Valve Close error-Self diagnosis

● : LAMP ON ○ : LAMP OFF ● : LAMP BLINK

* Note *

If the Set doesn't work (No power), check the Thermal fuse of Terminal block OPEN or SHORT with Multimeter.

* Measure the Thermal fuse housing PIN#1 ~ 2 :
OPEN(disconnection) -> defective product

Outdoor LED Display Error and Check Method (12K/18K/24K)

LED PATTERN			DESCRIPTION
YEL	GRN	RED	
○	○	○	Power off/VDD NG
●	●	●	Power ON reset(1sec)
○	◐	●	Normal Operation
○	○	●	Abnormal Communication (Indoor↔Outdoor)
○	●	●	
○	○	◐	IPM Over Current (O.C) Error
○	◐	○	Comp Starting Error
○	●	○	EEPROM Data Error (no data)
○	●	◐	DC-Link Voltage Under/Over Error
			PFC Over Load Error
			Over Voltage Protection Error
◐	○	◐	OUT-TH(Outdoor Temperature) Sensor Error
◐	○	●	DIS-TH(Discharge Temperature) Over Error
◐	◐	○	DIS-TH(Discharge Temperature) Sensor Error
◐	◐	●	Current Sensor Error
			Heatsink Sensor Error
			Input Current Sensor Error
◐	●	○	Comp V_limit/I_limit Error
			Heatsink Over Temperature Error
◐	●	◐	CON-TH(Cond Temperature) Sensor Error
◐	●	●	Time out Comm. (Inv Micom↔Main Micom)
●	○	○	Fan Error(Outdoor)
●	○	◐	EEPROM Data Error (Main Micom↔Inv Micom)
●	○	●	Comp Wire Missing Error
●	◐	○	Prohibit Operation Condition Error (Heating)
			Prohibit Operation Condition Error (Cooling)
●	◐	◐	DC-Link Voltage Sensor Error
			AC Input Voltage Sensor Error
●	◐	●	AC Input I_Limit Trip Error
●	●	○	Gas Leak Error
			EEV or Valve Close error-Self diagnosis
○	◐	◐	Test Operation at Cooling Mode
◐	◐	◐	Test Operation at Heating Mode

● LED ON, ○ LED OFF, ◐ LED BLINKING

3-3 Setting Option Setup Method

ex) Option No. :

Note :

SEG1, SEG7, SEG13, SEG19 need not to be pressed in, so in fact the Option No. we should press in is as below.

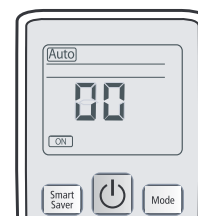
30 00 07 C2 6C 83 10 00 00 00 20 00 00 00 00 00 10 00 00

SEG1	SEG2	SEG3	SEG4	SEG5	SEG6	SEG7	SEG8	SEG9	SEG10	SEG11	SEG12	SEG13	SEG14	SEG15	SEG16	SEG17	SEG18	SEG19	SEG20	SEG21	SEG22	SEG23	SEG24
0	3	0	0	0	0	1	7	C	2	6	C	2	8	3	1	0	3	0	0	0	0	0	0
SEG25	SEG26	SEG27	SEG28	SEG29	SEG30	SEG31	SEG32	SEG33	SEG34	SEG35	SEG36	SEG37	SEG38	SEG39	SEG40	SEG41	SEG42	SEG43	SEG44	SEG45	SEG46	SEG47	SEG48
0	2	0	0	0	0	1	0	0	0	0	0	2	0	0	0	0	1	3	0	0	0	0	0

Step 1

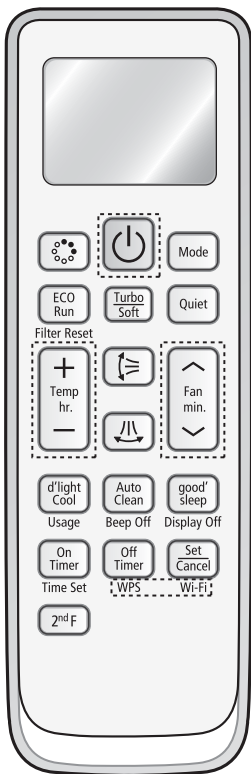
Enter the Option Setup mode.

1. Tack out the batteries of remote control.
2. Press the temperature  button simultaneously and insert the battery again.
3. Make sure the remote control display shown as .



Step 2

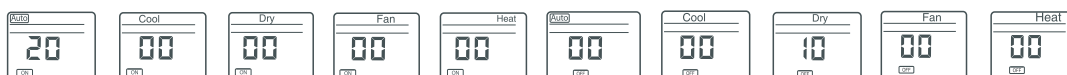
Enter the Options Setup mode and select your options asscording to the following procedure.

	Feature	Display
	1 The default value is  . Every time you push the  button, the display panel reads  Auto → Cool → Dry → Fan → Heat,  Auto → Cool → Dry → Fan → Heat repeatedly.	
	2 Push the  button to set the display panel to 3 . Every time you push the  button, the display panel reads 0→1→2→3→.....→9→A→b→c→d→E→F repeatedly.	
	3 Push the  button to  . Every time you push the  button, the display panel reads 0→1→2→3→.....→9→A→b→c→d→E→F repeatedly.	
	4 Push the  button to  . Push the  button to set the display panel to 7 . Every time you push the  button, the display panel reads 0→1→2→3→.....→9→A→b→c→d→E→F repeatedly.	
	5 Push the  button to  . Push the  button to set the display panel to C . Every time you push the  button, the display panel reads 0→1→2→3→.....→9→A→b→c→d→E→F repeatedly.	
	6 Push the  button to set the display panel to 2 . Every time you push the  button, the display panel reads 0→1→2→3→.....→9→A→b→c→d→E→F repeatedly.	

	Feature	Display
	7 Push the button to . Push the button to set the display panel to 6 . Every time you push the button, the display panel reads 0→1→2→3→.....→9→A→b→c→d→E→F repeatedly.	
	8 Push the button to set the display panel to 8 . Every time you push the button, the display panel reads 0→1→2→3→.....→9→A→b→c→d→E→F repeatedly.	
	9 Push the button to . Push the button to set the display panel to 8 . Every time you push the button, the display panel reads 0→1→2→3→.....→9→A→b→c→d→E→F repeatedly.	
	10 Push the button to set the display panel to 3 . Every time you push the button, the display panel reads 0→1→2→3→.....→9→A→b→c→d→E→F repeatedly.	
	11 Push the button to . Push the button to set the display panel to 1 . Every time you push the button, the display panel reads 0→1→2→3→.....→9→A→b→c→d→E→F repeatedly.	
	12 Push the button to .	
	13 Push the button to .	
	14 Push the button to .	

Step 3 Upon completion of the selection, check you made right selections.

Press the Mode () Selection key to set the display part and check the display part.
→ The display part shows like below when each time you press Mode button.

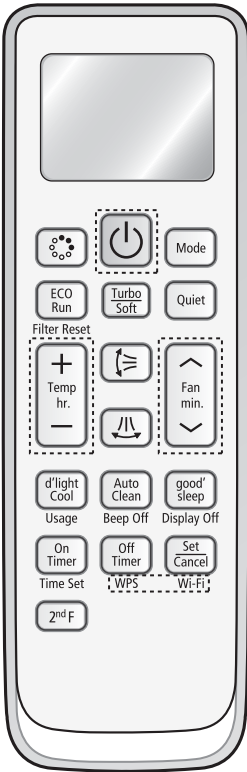


Step 4 Pressing the ON/OFF button ().

When pressing the operation ON/OFF key with the direction of remote control for unit, the sound "Ding" or "Diriring" is heard and the OPERATION ICON() lamp of the display is flickering at the same time, then the input of option is completed.
(If the deriving sound isn't heard, try again pressing the ON/OFF button.)

Step 5

Enter the Options Setup mode and select your options according to the following procedure.

	Feature	Display
	1 Step 1 (Enter the Option Setup mode) is executed. (Seg25 ~ 48 for setting remote control Setup)	
	2 Push the  Mode button to set the display panel to 2. Every time you push the  button, the display panel reads 0-1-2-3-... 9-A-b-c-d-E-F repeatedly.	
	3 Push the  button to 	
	4 Push the  button to 	
	5 Push the  button to 	
	6 Push the  button to 	
	7 Push the  button to 	
	8 Push the  button to 	
	9 Push the  button to 	
	10 Push the  Mode button to set the display panel to 1. Every time you push the  button, the display panel reads 0-1-2-3-... 9-A-b-c-d-E-F repeatedly.	
	11 Push the  button to 	
	12 Push the  button to 	

Step6 Upon completion of the selection, check your made right selections.

Press the  Mode Selection key to set the display part and check the display part.
→ The display part shows like below when each time you press Mode button.



Step7 Pressing the ON/OFF button).

When pressing the operation ON/OFF key with the direction of remote control for unit, the sound 'Ding' or 'Ding ring' is heard and the OPERATION ICON (≡) lamp of the display is flickering at the same time, then the input of option is completed. (If the deriving sound is not heard, try again pressing the ON/OFF button.)

Step8 Unit operation test-run.

First : Remove the battery from the remote control.

Second : Re-insert the battery into the remote control.

Third : Press ON/OFF key with the direction of remote control for set.

■ Error mode

1. If all lamps of indoor unit are flickering, Plug out, plug in power plug again and press ON/OFF key to retry.
2. If the unit is not working properly or all lamps are continuously flickering after setting the option code, see if the correct option code is set up for its model.

■ Option Items

Model	1-6	7-12	13-18	19-24	25-30	31-36	37-42	43-48
AR09HSFNBWK/ET	010005	156A1B	271921	372734	034040	103341	200000	300000
AR12HSFNBWK/ET	010005	156A3B	272328	372734	034746	10474E	200000	300000
AR09HSFSBWK/ZE	010005	156A1B	271921	372734	034040	103341	200000	300000
AR09HSFNBWK/ZE	010005	156A1B	271921	372734	034040	103341	200000	300000
AR12HSFSBWK/ZE	010005	156A3B	272328	372734	034746	10474E	200000	300000
AR12HSFNBWK/ZE	010005	156A3B	272328	372734	034746	10474E	200000	300000
AR12HSFSRWK/ER	010005	15623B	272328	372704	034746	10474E	200000	300000
AR12HSFNRWK/ER	010005	15623B	272328	372704	034746	10474E	200000	300000
AR09HSSDRWK/ER	011345	15621B	271920	372714	033D3E	102F3F	200000	300000
AR09HSFSBWK/ET	010005	156A1B	271921	372734	034040	103341	200000	300000