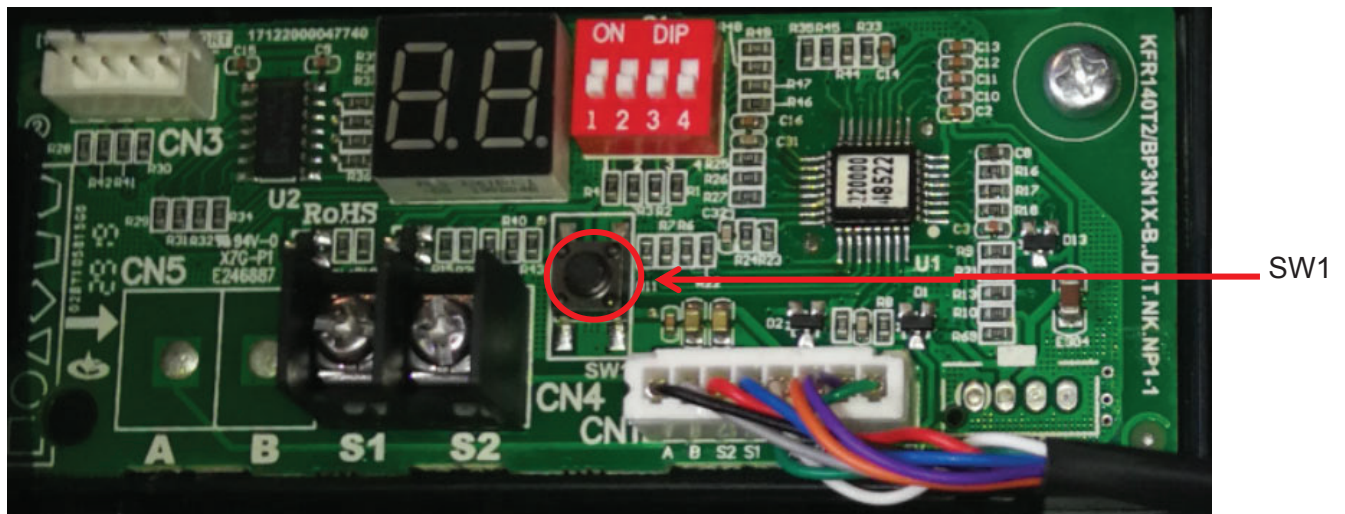


MULTI ZONE DIAGNOSTIC ASSISTANCE

For RO-MD18-AB-Q HO-MT28-AC-Q

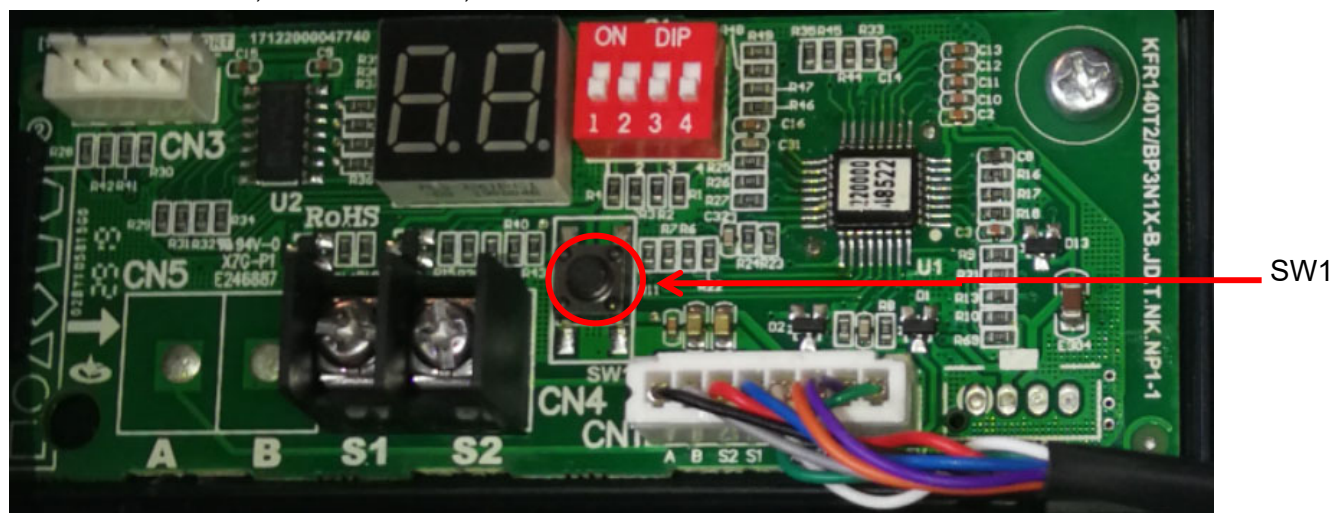


Number of Presses	Display	Remark										
0	Normal display	Displays running frequency, running state, or malfunction code										
1	Quantity of indoor units with working connection	Actual data <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Display</th> <th>Number of indoor unit</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>1</td> </tr> <tr> <td>2</td> <td>2</td> </tr> <tr> <td>3</td> <td>3</td> </tr> <tr> <td>4</td> <td>4</td> </tr> </tbody> </table>	Display	Number of indoor unit	1	1	2	2	3	3	4	4
Display	Number of indoor unit											
1	1											
2	2											
3	3											
4	4											

		5	5
2	Outdoor unit running mode code	Off: 0, Fan only: 1, Cooling: 2, Heating: 3, Forced cooling: 4. Forced defrost: A	
3	Indoor unit A capacity	The capacity unit is horse power. If the indoor unit is not connected, the digital display shows the following: "____" (6K(AG):0.6,6K(EP)/9K:1,12K:1.5,18K:2.0,24K/30K/33K/36K:2.5)	
4	Indoor unit B capacity		
5	Indoor unit C capacity		
6	Indoor unit D capacity		
7	Indoor unit E capacity		
8	Indoor unit A capacity demand code	Norm code*HP (6K(AG):HP=0.6,6K(EP)/9K:HP=1,12K: HP=1.5,18K: HP=2.0,24K/30K/33K/36K: HP=2.5)	
9	Indoor unit B capacity demand code		
10	Indoor unit C capacity demand code		
11	Indoor unit D capacity demand code		
12	Indoor unit E capacity demand code		
13	Outdoor unit amendatory capacity demand code		
14	The frequency corresponding to the total indoor units' amendatory capacity demand		
15	The frequency after the frequency limit		
16	The frequency sending to compressor control chip		
17	Indoor unit A evaporator outlet temperature (T _{2B} A)	If the temperature is lower than -9 °C, the digital display shows "-9." If the temperature is higher than 70 °C, the digital display shows "70." If the indoor unit is not connected, the digital display shows: "____"	
18	Indoor unit B evaporator outlet temperature (T _{2B} B)		
19	Indoor unit C evaporator outlet temperature (T _{2B} C)		
20	Indoor unit D evaporator outlet temperature (T _{2B} D)		
21	Indoor unit E evaporator outlet temperature (T _{2B} E)		
22	Indoor unit A room temperature (T ₁ A)	If the temperature is lower than 0 °C, the digital display shows "0." If the temperature is higher than 50 °C, the digital display shows "50." If the indoor unit is not connected, the digital display shows: "____"	
23	Indoor unit B room temperature (T ₁ B)		
24	Indoor unit C room temperature (T ₁ C)		
25	Indoor unit D room temperature (T ₁ D)		
26	Indoor unit E room temperature (T ₁ E)		
27	Indoor unit A evaporator temperature (T ₂ A)	If the temperature is lower than -9 °C, the digital display shows "-9." If the temperature is higher than 70 °C, the digital display shows "70." If the indoor unit is not connected, the digital display shows: "____"	
28	Indoor unit B evaporator temperature (T ₂ B)		
29	Indoor unit C evaporator temperature (T ₂ C)		
30	Indoor unit D evaporator temperature (T ₂ D)		
31	Indoor unit E evaporator temperature (T ₂ E)		
32	Condenser pipe temperature (T ₃)		
33	Outdoor ambient temperature (T ₄)		
34	Compressor discharge temperature (T ₅)	The display value is between 30–129 °C. If the temperature is lower than 30 °C, the digital display shows "30." If the temperature is higher than 99 °C, the digital display shows single and double digits. For example, if the digital display shows "0.5", the compressor discharge temperature is 105 °C.	
35	AD value of current	The display value is a hex number. For example, the digital display tube shows "Cd", it means AD value is 205.	
36	AD value of AC voltage		
37	AD value of DC voltage		
38	EXV open angle for A indoor unit	Actual data/4. If the value is higher than 99, the digital display shows single and double digits. For example, if the digital display shows "2.0", the EXV open angle is 120×4=480p.	
39	EXV open angle for B indoor unit		
40	EXV open angle for C indoor unit		

41	EXV open angle for D indoor unit		
42	EXV open angle for E indoor unit		
43	MVI valve open angle		
44	EVI valve open angle		
45	Frequency limit symbol	Bit7	Reserve
		Bit6	Frequency limit caused by voltage
		Bit5	Frequency limit caused by current.
		Bit4	Reserve.
		Bit3	Frequency limit caused by IPM.
		Bit2	Frequency limit caused by Compressor discharge temperature(T5)
		Bit1	Frequency limit caused by Outdoor heat exchanger pipe temperature(T3)
		Bit0	Frequency limit caused by Middle indoor heat exchanger coil temperature(T2)
		The display value is a hexadecimal number. For example, the digital display show 2A, then Bit5=1, Bit3=1, and Bit1=1. This means that a frequency limit may be caused by current, IPM or T3.	
46	T2B fault	00:No fault,01:T2B-A fault ,02:T2B-B fault ,03:T2B-C fault,04:T2B-D fault, 05:T2B-E fault, 06:T2B-F fault(The display priority is A-B-C-D-E-F)	
47	Average value of T2	(Sum T2 value of all indoor units)/(number of indoor units in good connection)(The heating is the average value of T2, and the cooling is the average value of T2B)	
48	Outdoor unit fan motor state	Off: 0, Super ultra high speed:1, Super high speed:2, High speed:3, Med speed: 4, Low speed: 5, Breeze:6, Super breeze: 7	
49	Reason of stop		

For HO-MQ36-AC-Q, HO-MP48-AB-Q, HO-MP55-AB-Q



Number of Presses	Display	Remark												
0	Normal display	Displays running frequency, running state, or malfunction code												
1	Quantity of indoor units with working connection	Actual data <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Display</th> <th>Number of indoor unit</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>1</td> </tr> <tr> <td>2</td> <td>2</td> </tr> <tr> <td>3</td> <td>3</td> </tr> <tr> <td>4</td> <td>4</td> </tr> <tr> <td>5</td> <td>5</td> </tr> </tbody> </table>	Display	Number of indoor unit	1	1	2	2	3	3	4	4	5	5
Display	Number of indoor unit													
1	1													
2	2													
3	3													
4	4													
5	5													

2	Outdoor unit running mode code	Off: 0, Fan only: 1, Cooling: 2, Heating: 3, Forced cooling: 4. Forced defrost: A
3	Indoor unit A capacity	The capacity unit is horse power. If the indoor unit is not connected, the digital display shows the following: "____" (9K:1HP, 12K:1.2HP, 18K:1.5HP, 24K:2.0HP)
4	Indoor unit B capacity	
5	Indoor unit C capacity	
6	Indoor unit D capacity	
7	Indoor unit E capacity	
8	Indoor unit A capacity demand code	Norm code*HP (9K: HP, 12K: 1.2HP, 18K: 1.5HP, 24K:2.0HP)
9	Indoor unit B capacity demand code	
10	Indoor unit C capacity demand code	
11	Indoor unit D capacity demand code	
12	Indoor unit E capacity demand code	
13	Outdoor unit amendatory capacity demand code	
14	The frequency corresponding to the total indoor units' amendatory capacity demand	
15	The frequency after the frequency limit	
16	The frequency sending to compressor control chip	
17	Indoor unit A evaporator outlet temperature ($T_{2B}A$)	If the temperature is lower than -9°C , the digital display shows "-9." If the temperature is higher than 70°C , the digital display shows "70." If the indoor unit is not connected, the digital display shows: "____"
18	Indoor unit B evaporator outlet temperature ($T_{2B}B$)	
19	Indoor unit C evaporator outlet temperature ($T_{2B}C$)	
20	Indoor unit D evaporator outlet temperature ($T_{2B}D$)	
21	Indoor unit E evaporator outlet temperature ($T_{2B}E$)	
22	Indoor unit A room temperature (T_1A)	If the temperature is lower than 0°C , the digital display shows "0." If the temperature is higher than 50°C , the digital display shows "50." If the indoor unit is not connected, the digital display shows: "____"
23	Indoor unit B room temperature (T_1B)	
24	Indoor unit C room temperature (T_1C)	
25	Indoor unit D room temperature (T_1D)	
26	Indoor unit E room temperature (T_1E)	
27	Indoor unit A evaporator temperature (T_2A)	If the temperature is lower than -9°C , the digital display shows "-9." If the temperature is higher than 70°C , the digital display shows "70." If the indoor unit is not connected, the digital display shows: "____"
28	Indoor unit B evaporator temperature (T_2B)	
29	Indoor unit C evaporator temperature (T_2C)	
30	Indoor unit D evaporator temperature (T_2D)	
31	Indoor unit E evaporator temperature (T_2E)	
32	Condenser pipe temperature (T_3)	
33	Outdoor ambient temperature (T_4)	
34	Compressor discharge temperature (T_5)	The display value is between $30\text{--}129^{\circ}\text{C}$. If the temperature is lower than 30°C , the digital display shows "30." If the temperature is higher than 99°C , the digital display shows single and double digits. For example, if the digital display shows "0.5", the compressor discharge temperature is 105°C .
35	AD value of current	The display value is a hex number. For example, the digital display tube shows "b6", it means AD value is 182.
36	AD value of AC voltage	The display value is a hex number. The actual AC voltage is AD value + 60 For example, the digital display tube shows "Cd", it means AD value is 265.
37	AD value of DC voltage	The display value is a hex number. For example, the digital display tube shows "Cd", it means AD value is 205.
38	EXV open angle for A indoor unit	Actual data/4.

39	EXV open angle for B indoor unit	If the value is higher than 99, the digital display shows single and double digits. For example, if the digital display shows "2.0", the EXV open angle is 120×4=480p.		
40	EXV open angle for C indoor unit			
41	EXV open angle for D indoor unit			
42	EXV open angle for E indoor unit			
43	MVI valve open angle			
44	EVI valve open angle			
45	Frequency limit symbol	Bit7	Reserve	The display value is a hexadecimal number. For example, the digital display show 2A, then Bit5=1, Bit3=1, and Bit1=1. This means that a frequency limit may be caused by current, IPM or T3.
		Bit6	Frequency limit caused by voltage	
		Bit5	Frequency limit caused by current.	
		Bit4	Reserve.	
		Bit3	Frequency limit caused by IPM.	
		Bit2	Frequency limit caused by Compressor discharge temperature(T5)	
		Bit1	Frequency limit caused by Outdoor heat exchanger pipe temperature(T3)	
		Bit0	Frequency limit caused by Middle indoor heat exchanger coil temperature(T2)	
46	T2B fault	00:No fault,01:T2B-A fault, ,02:T2B-B fault ,03:T2B-C fault,04:T2B-D fault, 05:T2B-E fault, 06:T2B-F fault(The display priority is A-B-C-D-E-F)		
47	Average value of T2	(Sum T2 value of all indoor units)/(number of indoor units in good connection)(The heating is the average value of T2, and the cooling is the average value of T2B)		
48	Outdoor unit fan speed	See next list		
49	Reason of stop			
50~59	Reserve			
60	Air injection enthalpy inlet temperature T6A	If the temperature is lower than -9 °C, the digital display shows "-9." If the temperature is higher than 70 °C, the digital display shows "70." If the indoor unit is not connected, the digital display shows: "——"		
61	Air injection enthalpy outlet temperature T6B			
62	Condenser coil middle temperature T3B			
63	Refrigerant tube inlet temperature T5			
64	Target discharge temperature	The display value is between 0–199 °C. If the temperature is lower than 30 °C, the digital display shows "30." If the temperature is higher than 99 °C, the digital display shows single and double digits. For example, if the digital display shows "0.5", the compressor discharge temperature is 105 °C.		
65	F indoor unit capacity			
66	F indoor unit capacity demand code			
67	F indoor unit evaporator outlet temperature (T _{2eF})	If the temperature is lower than -9 °C, the digital display shows "-9." If the temperature is higher than 70 °C, the digital display shows "70." If the indoor unit is not connected, the digital display shows: "——"		
68	F indoor unit room temperature (T _{1F})	If the temperature is lower than 0 °C, the digital display shows "0." If the temperature is higher than 50 °C, the digital display shows "50." If the indoor unit is not connected, the digital display shows: "——"		
69	F indoor unit evaporator temperature (T _{2F})	If the temperature is lower than -9 °C, the digital display shows "-9." If the temperature is higher than 70 °C, the digital display shows "70." If the indoor unit is not connected, the digital display shows: "——"		
70	EXV open angle for F indoor unit	Actual data/4. If the value is higher than 99, the digital display shows single and double digits. For example, if the digital display shows "2.0", the EXV open angle is 120×4=480p.		
71	IPM module temperature	The display value is between 0–199 °C. If the temperature is higher than 99 °C, the digital display shows single and double digits. For example, if the digital display shows "5.0", the compressor discharge temperature is 150 °C.		

Outdoor unit fan speed	Display
Super ultra high speed A++	00
Super high speed A+	01
High speed A	02
Medium speed B	03
Low speed C	04
Breeze D	05
Super breeze E	06
The eighth gear F	07
The ninth gear G	08
The tenth gear H	09
The eleventh gear J	0A
The twelfth gear K	0b
The thirteenth gear L	0C
The fourteenth gear M	0d
The fifteenth gear N	0E

7.3.2 Outdoor Unit Digital Display

A digital display is featured on the outdoor PCB.

The LED displays different codes in the following situations:

- Standby: “- -.”
 - Compressor operation: the running frequency.
 - Defrosting mode: “dF” or alternative displays between running frequency and “dF” (ach appears for 0.5s.)
 - Forced cooling mode: the LED displays “FC” or alternative displays between running frequency and “FC” (each appears for 0.5s).
 - Compressor pre-heating: “PH” or alternative displays between running frequency and “PH” (each appears for 0.5s.)
 - Oil return process: “RO” or alternative displays between running frequency and “RO” (each appears for 0.5s.)
 - Low ambient cooling mode: “LC” or alternative displays between running frequency and “LC” (each appears for 0.5s.)
 - PFC module protection occurs three times within 15 minutes: “E6” or alternates between displays of running frequency and “E6” (each appears for 0.5s.)
 - In protection or malfunction, the LED displays an error code or protection code.
- “PH”, “RO”, “LC”, “E6” are not suitable for RO-MD18-AB-Q, HO-MD18-AB-Q, RO-MT28-AC-Q, HO-MT28-AC-Q, RO-MQ36-AC-Q. “LC”, “E6” are not suitable for HO-MQ36-AC-Q.