

INVERTER WALL MOUNTED SPLIT (P SERIES)



TRUST AIR CONDITIONING EQUIPMENT CO.
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توجه:

شرکت تراست حق تغییر مشخصات دستگاه ها را در جهت بهبود و ارتقای کیفیت برای خود محفوظ می دارد.

1 Installation Details

1.1 Wrench torque sheet for installation

Outside diameter		Torque	Additional tightening torque
mm	inch	N.cm	N.cm
Φ6.35	1/4	1500(153kgf.cm)	1600(163kgf.cm)
Φ9.52	3/8	2500(255kgf.cm)	2600(265kgf.cm)
Φ12.7	1/2	3500(357kgf.cm)	3600(367kgf.cm)
Φ15.9	5/8	4500(459kgf.cm)	4700(479kgf.cm)
Φ19	3/4	6500(663kgf.cm)	6700(683kgf.cm)

1.2 Connecting the cables

The power cord of connect should be selected according to the following specifications sheet.

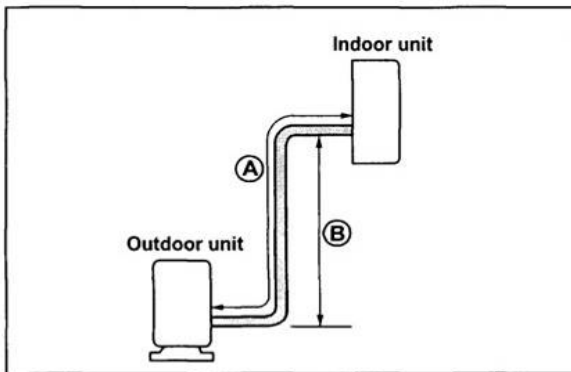
Rated current of appliance	Nominal cross-sectional area (mm ²)
>3 and ≤6	0.75
>6 and ≤10	1
>10 and ≤16	1.5
>16 and ≤25	2.5

The cable size and the current of the fuse or switch are determined by the maximum current indicated on the nameplate which located on the side panel of the unit. Please refer to the nameplate before selecting the cable, fuse and switch.

1.3 Pipe length and the elevation

The pipe length and refrigerant amount:

Model	Pipe size		Standard length (m)	Max. Elevation B (m)	Max. Length A (m)	Additional refrigerant (g/m)
	Gas	Liquid				
TMSP12HT1I3.61/I(O)4SW1R1N7(6)S	1/2" (Φ12.7)	1/4" (Φ6.35)	5	10	25	15
TMSP18HT1I3.41/I(O)4SW1R1N7(6)S	1/2" (Φ12.7)	1/4" (Φ6.35)	5	20	30	15
TMSP24HT1I3.47/I(O)4SW1R1N7(6)S	5/8" (Φ15.9)	3/8" (Φ9.52)	5	25	50	30



Caution:

The capacity test is based on the standard length and the maximum permissible length is based on the system reliability.

1.4 Installation for the first time

Air and moisture in the refrigerant system have undesirable effects as below:

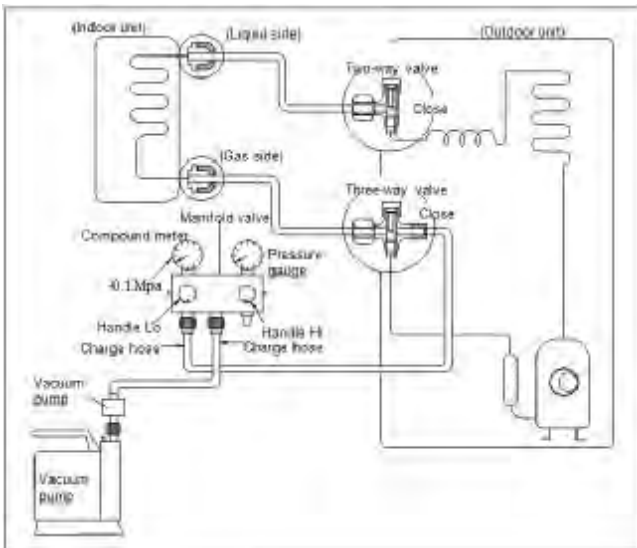
- Pressure in the system rises.
- Operating current rises.
- Cooling or heating efficiency drops.
- Moisture in the refrigerant circuit may freeze and block capillary tubing.
- Water may lead to corrosion of parts in the refrigerant system.

Therefore, the indoor units and the pipes between indoor and outdoor units must be leak tested and evacuated to remove gas and moisture from the system.

Gas leak check (Soap water method):

Apply soap water or a liquid neutral detergent on the indoor unit connections or outdoor unit connections by a soft brush to check for leakage of the connecting points of the piping. If bubbles come out, the pipes have leakage.

1. Air purging with vacuum pump



- 1) Completely tighten the flare nuts of the indoor and outdoor units, confirm that both the 2-way and 3-way valves are set to the closed position.
- 2) Connect the charge hose with the push pin of handle lo to the 3-way valves gas service port..
- 3) Connect the charge hose of handle hi

connection to the vacuum pump.

- 4) Fully open the handle Lo of the manifold valve.
- 5) Operate the vacuum pump to evacuate.
- 6) Make evacuation for 30 minutes and check whether the compound meter indicates -0.1Mpa. If the meter does not indicate -0.1Mpa after pumping 30 minutes, it should be pumped 20 minutes more. If the pressure can't achieve -0.1Mpa after pumping 50 minutes, please check if there are some leakage points.

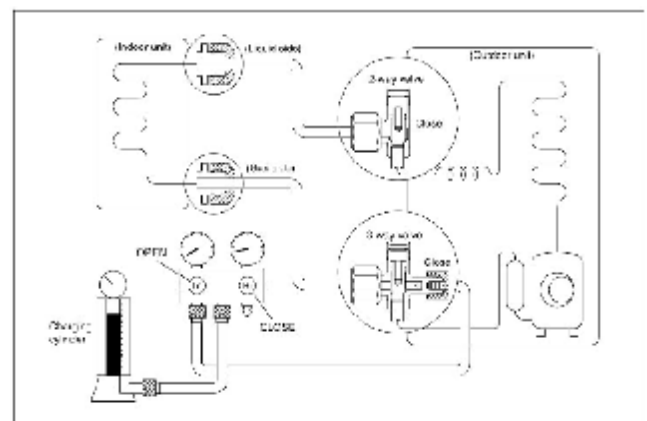
Fully close the handle Lo valve of the manifold valve and stop the operation of the vacuum pump. Confirm that the gauge needle does not move (approximately 5 minutes after turning off the vacuum pump).

- 7) Turn the flare nut of the 3-way valves about 45° counterclockwise for 6 or 7seconds after the gas

coming out, then tighten the flare nut again. Make sure the pressure display in the pressure indicator is a little higher than the atmosphere pressure. Then remove the charge hose from the 3 way valve.

- 8) Fully open the 2 way valve and 3 way valve and securely tighten the cap of the 3 way valve.

2. Air purging by refrigerant



Procedure:

- 1). Confirm that both the 2-way and 3-way valves are set to the closed position.
- 2). Connect the charge set and a charging cylinder to the service port of the 3-way valve.

3). Air purging.

Open the valves on the charging cylinder and the charge set. Purge the air by loosening the flare nut on the 2-way valve approximately 45° for 3 seconds then closing it for 1 minute; repeat 3 times.

After purging the air, use a torque wrench to tighten the flare nut on the 2-way valve.

4). Check the gas leakage.

Check the flare connections for gas leakage.

5). Discharge the refrigerant.

Close the valve on the charging cylinder and discharge the refrigerant by loosening the flare nut on the 2-way valve approximately 45° until the gauge indicates 0.3 to 0.5 Mpa.

6). Disconnect the charge set and the charging cylinder, and set the 2-way and 3-way valves to the open position.

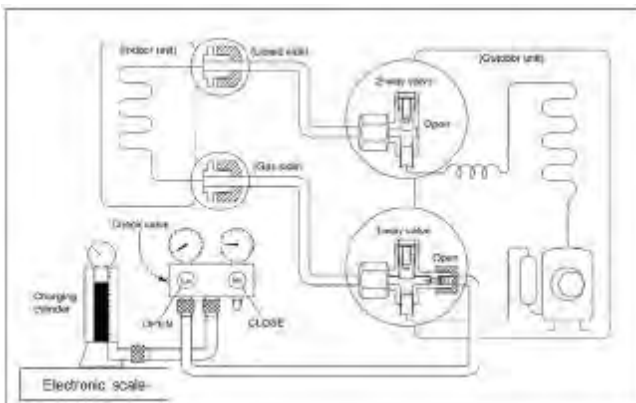
Be sure to use a hexagonal wrench to operate the valve stems.

7). Mount the valve stems nuts and the service port cap.

Be sure to use a torque wrench to tighten the service port cap to a torque 18N·m.

Be sure to check the gas leakage.

3. Adding the refrigerant if the pipe length >5m



Procedure:

1). Connect the charge hose to the charging cylinder, open the 2-way valve and the 3-way valve.

Connect the charge hose which you disconnected from the vacuum pump to the valve at the bottom of the cylinder. If the refrigerant is R410A, make the cylinder bottom

up to ensure the liquid charge.

2). Purge the air from the charge hose.

Open the valve at the bottom of the cylinder and press the check valve on the charge set to purge the air (be careful of the liquid refrigerant).

3) Put the charging cylinder onto the electronic scale and record the weight.

4) Operate the air conditioner at the cooling mode.

5) Open the valves (Low side) on the charge set and charge the system with liquid refrigerant.

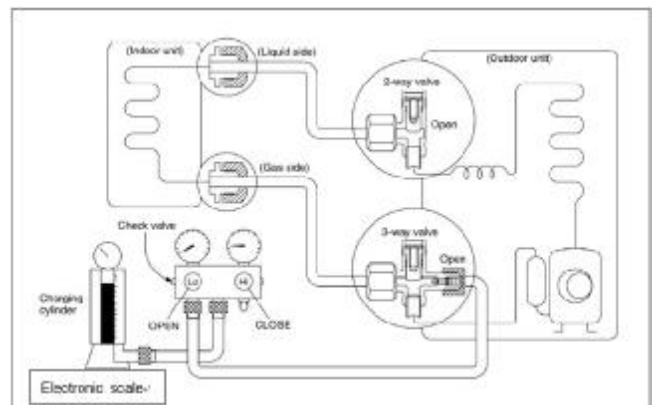
6).When the electronic scale displays the proper weight (refer to the table), disconnect the charge hose from the 3-way valve's service port immediately and turn off the air conditioner before disconnecting the hose.

7). Mount the valve stem caps and the service port

Use torque wrench to tighten the service port cap to a torque of 18N.m.

Be sure to check for gas leakage.

1.5 Adding the refrigerant after running the system for many years



Procedure:

1). Connect the charge hose to the 3-way service port, open the 2-way valve and the 3-way valve. Connect the charge hose to the valve at the bottom of the cylinder. If the refrigerant is R410A, make the cylinder bottom up to ensure liquid charge.

2). Purge the air from the charge hose.

Open the valve at the bottom of the cylinder and press the check valve on the charge set to

purge the air (be careful of the liquid refrigerant).

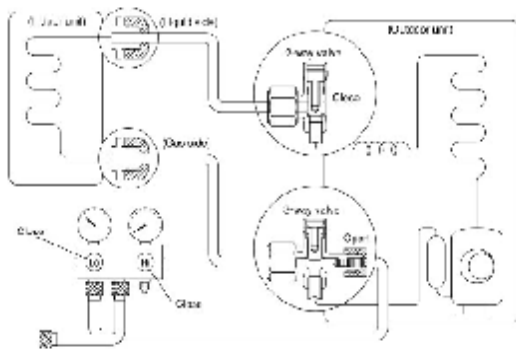
- 3) Put the charging cylinder onto the electronic scale and record the weight.
- 4) Operate the air conditioner at the cooling mode.
- 5) Open the valves (Low side) on the charge set and charge the system with liquid refrigerant.
- 6).When the electronic scale displays the proper weight (refer to the gauge and the pressure of the low side), disconnect the charge hose from the 3-way valve's service port immediately and turn off the air conditioner before disconnecting the hose.
- 7). Mount the valve stem caps and the service port

Use torque wrench to tighten the service port cap to a torque of 18N.m.

Be sure to check for gas leakage.

1.6 Re-installation while the indoor unit need to be repaired

1. Collecting the refrigerant into the outdoor unit



Procedure

- 1). Confirm that both the 2-way and 3-way valves are set to the opened position
Remove the valve stem caps and confirm that the valve stems are in the opened position.
Be sure to use a hexagonal wrench to operate the valve stems.
- 2). Connect the charge hose with the push pin of handle Lo to the 3-way valves gas service port.
- 3). Air purging of the charge hose.

Open the handle Lo valve of the manifold valve slightly to purge air from the charge hose for 5 seconds and then close it quickly.

- 4). Set the 2-way valve to the close position.
- 5). Operate the air conditioner at the cooling cycle and stop it when the gauge indicates 0.1MPa.
- 6). Set the 3-way valve to the closed position immediately

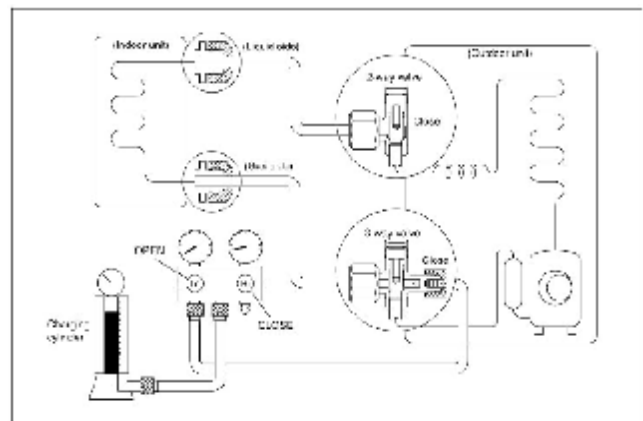
Do this quickly so that the gauge ends up indicating 0.3 to 0.5Mpa.

Disconnect the charge set, and tighten the 2-way and 3-way valve's stem nuts.

Use a torque wrench to tighten the 3-way valves service port cap to a torque of 18N.m.

Be sure to check for gas leakage.

2. Air purging by the refrigerant



Procedure:

- 1). Confirm that both the 2-way and 3-way valves are set to the closed position.
- 2). Connect the charge set and a charging cylinder to the service port of the 3-way valve
Leave the valve on the charging cylinder closed.
- 3). Air purging.
Open the valves on the charging cylinder and the charge set. Purge the air by loosening the flare nut on the 2-way valve approximately 45° for 3 seconds then closing it for 1 minute; repeat 3 times.
After purging the air, use a torque wrench to tighten the flare nut on the 2-way valve.
- 4). Check the gas leakage
Check the flare connections for gas leakage.
- 5). Discharge the refrigerant.
Close the valve on the charging cylinder and

discharge the refrigerant by loosening the flare nut on the 2-way valve approximately 45' until the gauge indicates 0.3 to 0.5 Mpa.

6). Disconnect the charge set and the charging cylinder, and set the 2-way and 3-way valves to the open position

Be sure to use a hexagonal wrench to operate the valve stems.

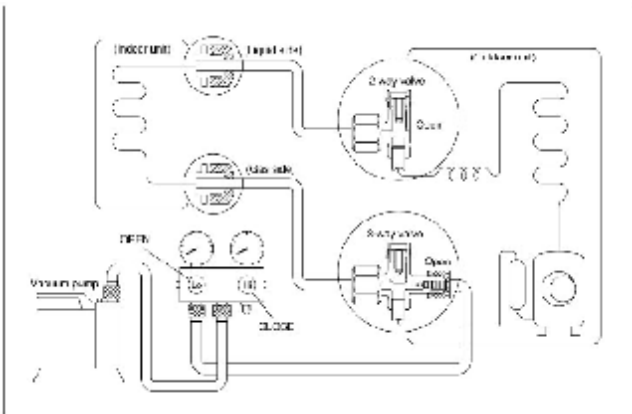
7). Mount the valve stems nuts and the service port cap

Be sure to use a torque wrench to tighten the service port cap to a torque 18N.m.

Be sure to check the gas leakage.

1.7 Re-installation while the outdoor unit need to be repaired

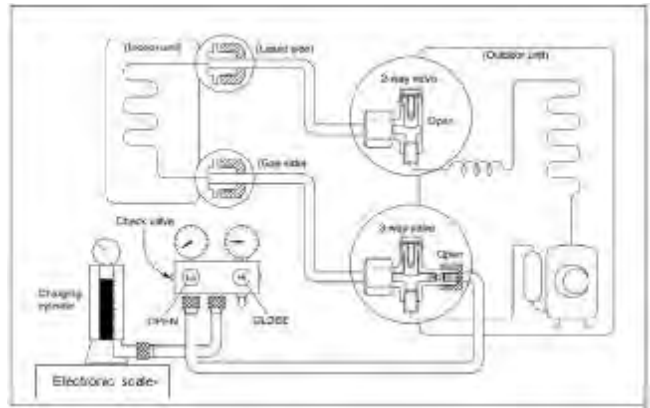
1. Evacuation for the whole system



Procedure:

- 1). Confirm that both the 2-way and 3-way valves are set to the opened position.
- 2). Connect the vacuum pump to 3-way valve's service port.
- 3). Evacuation for approximately one hour. Confirm that the compound meter indicates -0.1Mpa.
- 4). Close the valve (Low side) on the charge set, turn off the vacuum pump, and confirm that the gauge needle does not move (approximately 5 minutes after turning off the vacuum pump).
- 5). Disconnect the charge hose from the vacuum pump.

2. Refrigerant charging



Procedure:

- 1). Connect the charge hose to the charging cylinder, open the 2-way valve and the 3-way valve

Connect the charge hose which you disconnected from the vacuum pump to the valve at the bottom of the cylinder. If the refrigerant is R410A, make the cylinder bottom up to ensure liquid charge.

- 2). Purge the air from the charge hose

Open the valve at the bottom of the cylinder and press the check valve on the charge set to purge the air (be careful of the liquid refrigerant).

- 3) Put the charging cylinder onto the electronic scale and record the weight.

- 4). Open the valves (Low side) on the charge set and charge the system with liquid refrigerant

If the system cannot be charge with the specified amount of refrigerant, or can be charged with a little at a time (approximately 150g each time) , operating the air conditioner in the cooling cycle; however, one time is not sufficient, wait approximately 1 minute and then repeat the procedure.

- 5).When the electronic scale displays the proper weight, disconnect the charge hose from the 3-way valve's service port immediately

If the system has been charged with liquid refrigerant while operating the air conditioner, turn off the air conditioner before disconnecting the hose.

- 6). Mounted the valve stem caps and the service port

Use torque wrench to tighten the service port

cap to a torque of 18N.m.
Be sure to check for gas leakage.

2. Disassemble Guide

Note: This disassemble guide take 24K indoor units as an example.

2.1 How to Remove the filter

STEP1:

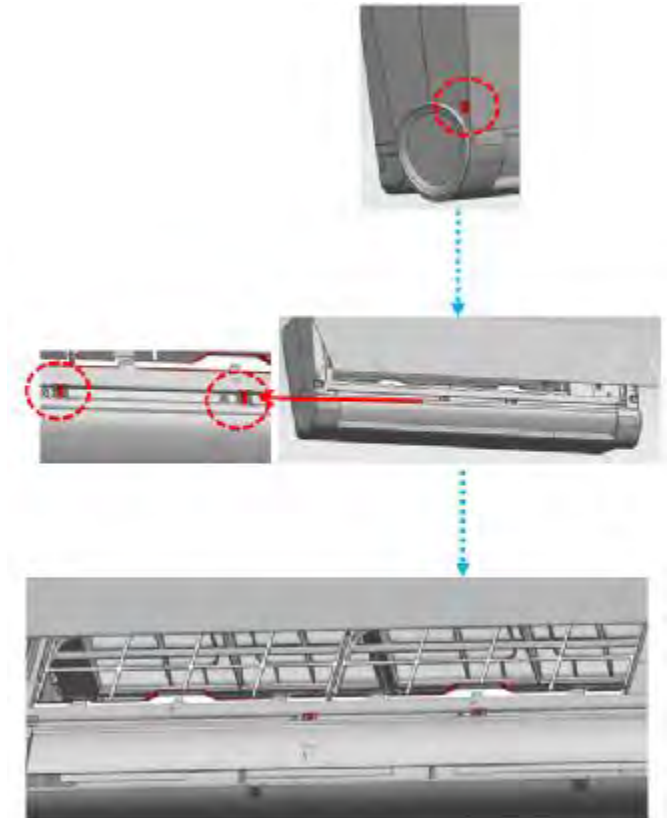
Press the button on the both side of the indoor unit;

STEP2:

Open the panel, and because of two snap-fit, open it vigorously;

STEP3:

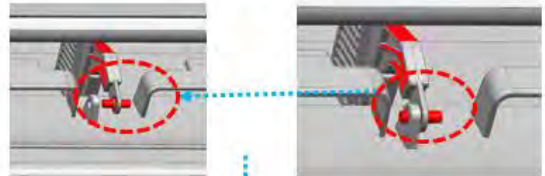
Pull the filter, then job is done.



2.2 How to Remove the horizontal louver

STEP1:

Open the horizontal louver ,push the locker towards left to open it.



STEP2:

Bend the horizontal louver lightly, and pull it from the indoor unit.



2.3 How to Remove the panel assembly

STEP1:

Press the button on the both side of the indoor unit;



STEP2:

Because of two snap-fit, open the panel vigorously without any Worries;



STEP3:

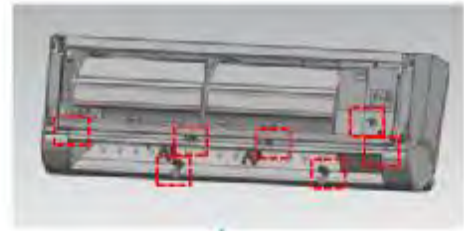
Loosen the display board connector ,Pull the panel with both side plates;



2.4 How to Remove the PCB

STEP1:

After disassembling the panel and the louver, remove 7 screws (For 9 K and 12K units, have 5 screws. For 18K units, have 4 screws) and electrical cover;



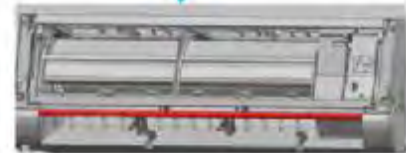
STEP2:

Grab air grid with two hands and pull it upwards along the direction indicated in right image vigorously, so that the snap-fit inside can be disassembled, this is the key step for removing the frame;



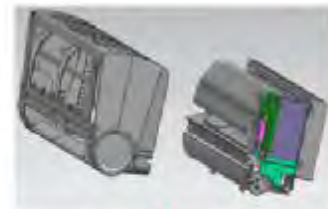
STEP3:

Grab the frame (red side) and disassemble the snap-fit inside;



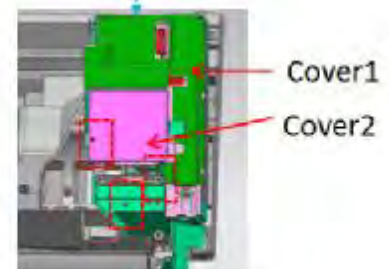
STEP4:

Separate the frame part and the base plate part ;



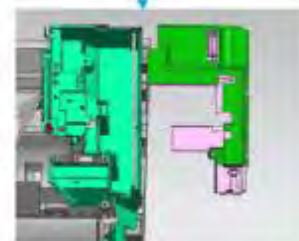
STEP5:

Remove the 3 Screws, and then remove the cover1 and cover2.



STEP6:

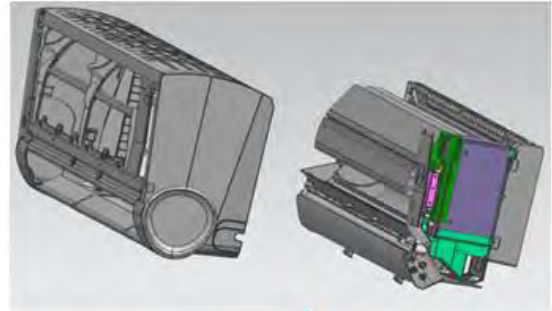
Open the cover and the PCB can be seen and taken.



2.5 How to Remove the Electrical control box

STEP1:

Separate the frame part and the base plate part;



STEP2:

Remove the Screw on the cover of the electrical control box.



STEP3:

Disconnect the wires of the motor and the V-shape light, then pull out the coil temp and loose the earth wire.



STEP4:

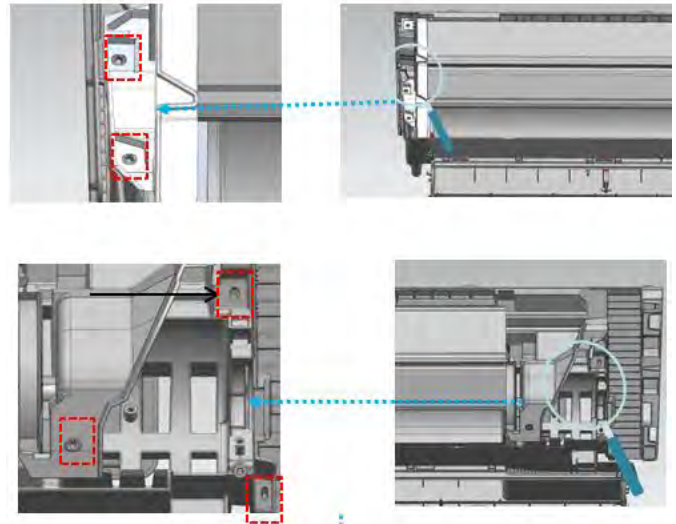
Press the snap-fit with the screw-driver, and then remove the electrical control box.



2.6 How to Remove the Chassis assembly

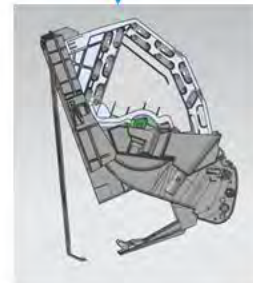
STEP1:

After removing the electrical box, remove 5 screws shown in the pictures.



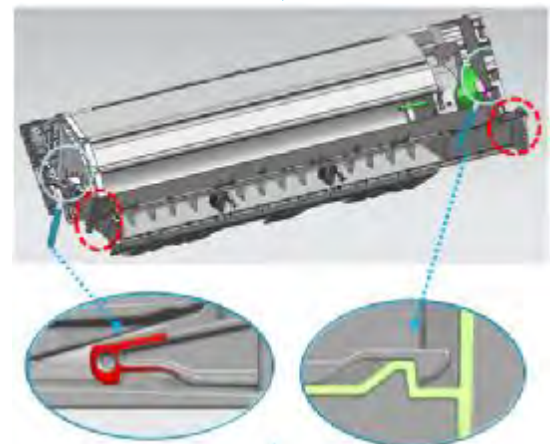
STEP2:

The chassis is hold by the installation plate and two snap-fit designs. Grab the indoor unit and pull it away from the installation plate.



STEP3:

Grab both corner of the basis chassis like picture shown; and then pull it away from the upper chassis with a few resistance because of two snap-fit designs.



STEP4:

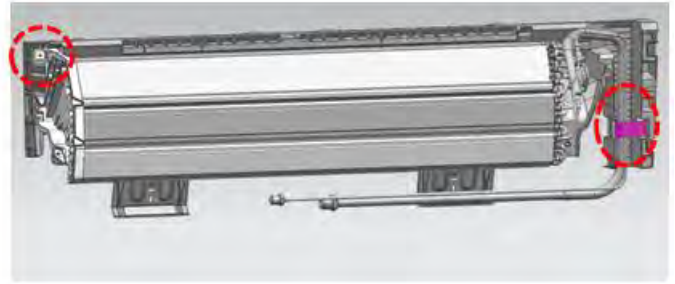
After that, the chassis is disassembled.



2.7 How to Remove the Evaporator assembly

STEP1:

After removing the Chassis assembly.
Removing the screw and unfolding the pipe clamp board shown in the picture;
and the evaporator can be taken.



3. Operation Characteristics

Mode	Cooling operation	Heating operation	Drying operation
Temperature			
Room temperature	17°C~32°C (62°F~90°F)	0°C~30°C (32°F~86°F)	10°C~32°C (50°F~90°F)
Outdoor temperature	0°C~50°C (32°F~122°F)	-15°C~30°C (5°F~86°F)	0°C~50°C (32°F~122°F)
	-15°C~50°C (5°F~122°F) (For the models with low temperature cooling system)		

CAUTION:

1. If the air conditioner is used beyond the above conditions, certain safety protection features may come into operation and cause the unit to operate abnormally.
2. The room relative humidity should be less than 80%. If the air conditioner operates beyond this figure, the surface of the air conditioner may attract condensation. Please set the vertical air flow louver to its maximum angle (vertically to the floor), and set HIGH fan mode.
3. The optimum performance will be achieved during this operating temperature zone.

4. Electronic function

4.1 Abbreviation

- T1: Indoor room temperature
- T2: Coil temperature of evaporator
- T3: Coil temperature of condenser
- T4: Outdoor ambient temperature
- T5: Compressor discharge temperature

4.2 Display function

4.2.1 Icon explanation on indoor display board.



Digital display:

Displays the temperature settings when the air conditioner is operational.

Displays the room temperature in Fan and Drying mode.

Displays the self-diagnostic codes.

Displays 'ON' for three seconds when Timer ON, Fresh, Swing, Turbo or Silence feature is activated.

Displays 'OF' for three seconds when Timer OFF is set.

Displays 'OF' for three seconds when Fresh,

Swing, Turbo or Silence feature is cancelled.

Displays 'dF' under defrosting operation.

Displays 'cF' when anti-cold air feature is activated under heating mode.

Displays 'SC' during self clean operation (if applicable).

Displays 'FP' when freeze protection is turned on. (if applicable).

Displays 'eco' When ECO function is activated. (if applicable).



WIFI control display(optional)

Displays when the WIFI control feature is activated. (Not available when the unit does not have this function)

NOTE:

A guide on using the infrared remote is not included in this literature package.

4.2.2 V-shape light area



Lights up in different color

according to the operation mode:

In (AUTO)COOL and DRY mode,
the light is blue.

In (AUTO)HEAT mode, the light is orange.

The light is off in Fan mode.

When room light is turned off, the
display window will slowly darken after 5
seconds, and the buzzer turned off. It will be
back to normal after the light is turned on.

4.3 Main Protection

4.3.1 Three minutes delay at restart for compressor

Less than 1 minute delay for the 1st time stand-up and 3 minutes delay for others.

4.3.2 Temperature protection of compressor top

The unit will stop working when the compressor top temp. protector cut off, and will restart after the compressor top temp. protector restart.

4.3.3 Temperature protection of compressor discharge

Compressor discharge temp. $T_5 > 115^{\circ}\text{C}$ for 5s, compressor stops.

4.3.4 Fan speed is out of control

When indoor fan speed keeps too low (300RPM) for certain time, the unit will stop and the LED will display the failure

4.3.5 Inverter module protection

The Inverter module has a protection function about current, voltage and temperature. If these protections happen, the corresponding code will display on indoor unit and the unit will stop working.

4.3.6 Indoor fan delayed open function

When the unit starts up, the louver will be active immediately and the indoor fan will open 7s later.

If the unit runs in heating mode, the indoor fan will be also controlled by anti-cold wind function.

4.3.7 Compressor preheating functions

Preheating permitting condition:

When $T_4(\text{outdoor ambient temperature}) < 3^{\circ}\text{C}$, the preheating function will be activated.

4.3.8 Sensor protection at open circuit and breaking disconnection.

When there's only one temperature sensor in malfunction, the air conditioner will keep working but show the error code, in case of any emergency use.

When there's more than one temperature sensor in malfunction, the air conditioner will stop working.

4.3.9 Refrigerant leakage detection

This function is only active in cooling mode. It can better prevent the compressor being damaged by refrigerant leakage or compressor overload.

Open condition:

When compressor is active, the value of the Coil temperature of evaporator T2 has no change or very little change.

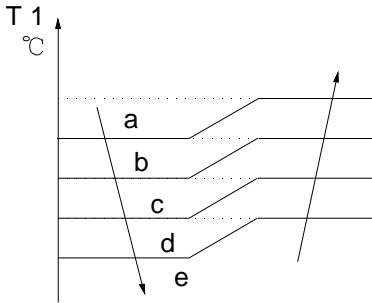
4.3.10 Zero crossing detection error protection

If AC detects time interval is not correct for continuous 240s, the unit will stop and the LED will display the failure. The correct zero crossing signal time interval should be between 6-13ms.

4.4 Operation Modes and Functions

4.4.1 Fan mode

- (1) Outdoor fan and compressor stop.
- (2) Temperature setting function is disabled, and no setting temperature is displayed.
- (3) Indoor fan can be set to high/med/low/auto.
- (4) The louver operates same as in cooling mode.
- (5) Auto fan:



4.4.2 Cooling Mode

4.4.2.1 Compressor running rules

When $T1 - T_s < \Delta T - 2^\circ\text{C}$, the compressor will stop,

when $T1 - T_s > \Delta T - 0.5^\circ\text{C}$, the compressor will be activated.

ΔT is the programmed parameter of temperature compensation.

When the AC run in mute mode, the compressor will run with low frequency.

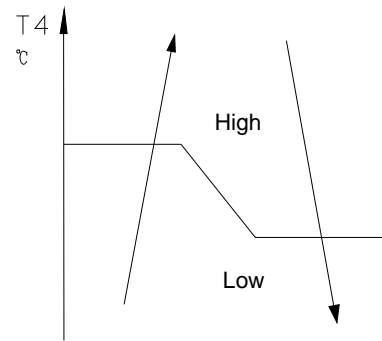
When the current is more than setting value, the current protection function will be activated, and the compressor will stop.

4.4.2.2 Outdoor fan running rules

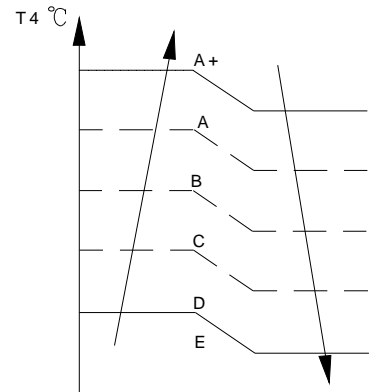
The outdoor unit will be run at different fan speed according to $T4$.

For different outdoor units, the fan speeds are different.

For TMSP12HT113.61/I(O)4SW1R1N7(6)S ,
TMSP18HT113.41/I(O)4SW1R1N7(6)S models,



For TMSP24HT113.47/I(O)4SW1R1N7(6)S model,



4.4.2.3 Indoor fan running rules

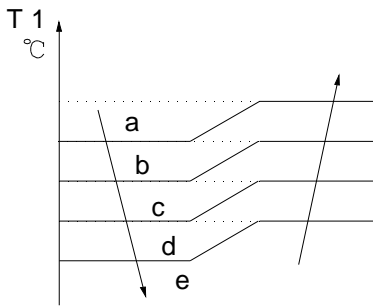
In cooling mode, indoor fan runs all the time and the speed can be selected as high, medium, low and auto.

When the setting temp. is reached, if the compressor stop running, indoor fan motor will run in Minimum speed or setting speed.

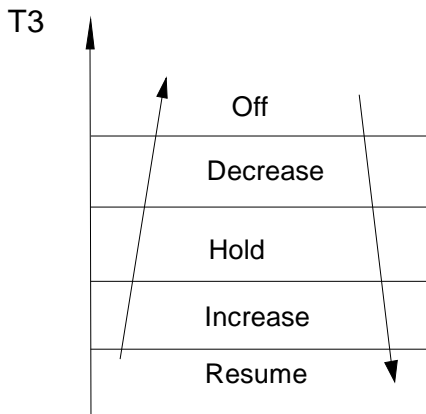
The indoor fan is controlled as below:

Setting fan speed	$T1 - T_d$ $^\circ\text{C}$ ($^\circ\text{F}$)	Actual fan speed
H	A	H+ (H+=H+G)
	B	H (=H)
	C	H- (H-=H-G)
M	D	M+ (M+=M+Z)
	E	M (M=M)
	F	M- (M-=M-Z)
L	G	L+ (L+=L+D)
	H	L (L=L)
	I	L- (L-=L-D)

The auto fan acts as below rules:



4.4.2.4 Condenser temperature protection



When condenser temperature temp. is more than setting value, the compressor will stop.

4.4.2.5 Evaporator temperature protection

When Evaporator temperature temp. is less than setting value, the compressor will stop.

4.4.3 Heating Mode

4.4.3.1 Compressor running rules

When $T1 - T_s > -\Delta T$, the compressor will stop,

when $T1 - T_s < \Delta T - 1.5$, the compressor will be on. ΔT is the programmed parameter of temperature compensation.

When the AC run in mute mode, the compressor will run with low frequency.

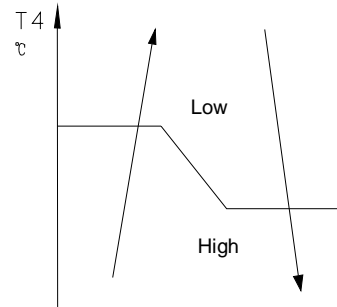
When the current is more than setting value, the current protection function will be activated and the compressor will stop.

4.4.3.2 Outdoor fan running rules

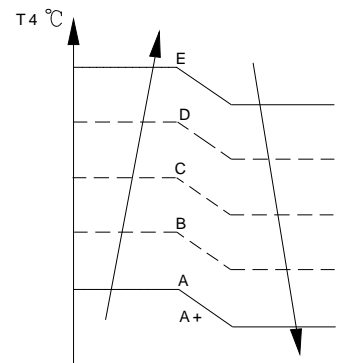
The outdoor unit will be run at different fan speed according to $T4$.

For different outdoor units, the fan speeds are different.

For TMSP12HT1I3.61/I(O)4SW1R1N7(6)S ,
TMSP18HT1I3.41/I(O)4SW1R1N7(6)S models,



For
TMSP24HT1I3.47/I(O)4SW1R1N7(6)S model,



4.4.3.3 Indoor fan running rules

When the compressor is on, the indoor fan can be set to high/med/low/auto/mute.

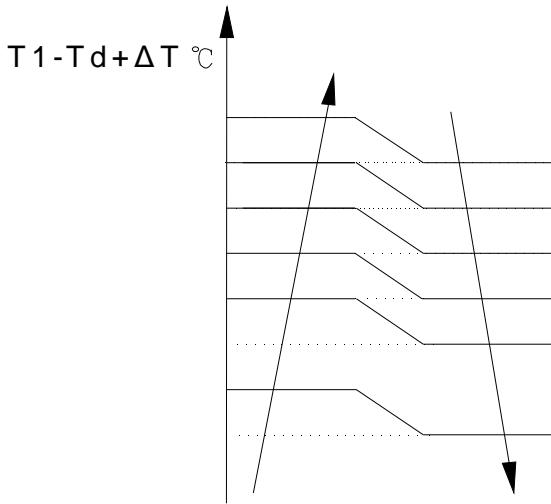
When indoor unit coil temp. is low, the anti-cold air function will start and indoor fan motor will run at low speed, the speed can't be changed, when the temp. is lower than setting value, the indoor fan motor will stop.

When the indoor temp reaches the setting temp., the compressor will stop, the indoor fan motor will run at the minimum speed or setting speed. (The anti-cold air function is valid).

The indoor fan is controlled as below:

Setting fan speed	$T1 - T_d$ °C	Actual fan speed
H	(High)	H- (H=H-G)
	(Normal)	H (=H)
	(Low)	H+(H+=H+G)
M	(High)	M-(M-=M-Z)
	(Normal)	M(M=M)
	(Low)	M+(M+=M+Z)
L	(High)	L-(L-=L-D)
	(Normal)	L(L=L)
	(Low)	L+(L+=L+D)

Auto fan action in heating mode:



4.4.3.4 Defrosting mode

AC will enter the defrosting mode according to the value of temp. of T3 and the value range of temp. change of T3 and also the compressor running time.

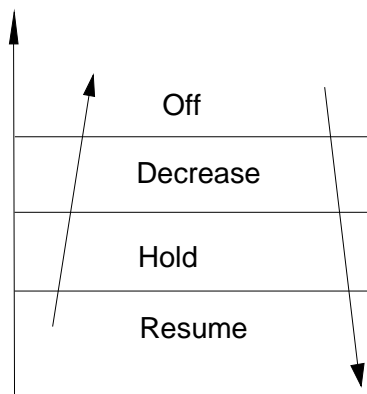
During the defrosting mode, the compressor keep running, indoor and outdoor motor will stop, defrost lamp of the indoor unit will be lighted

“**DF**.” Will be displayed.

If any one of the following items is satisfied, the defrosting will finish and the machine will turn to normal heating mode.

- T3 rises to be higher than TCDE1°C.
- T3 keeps to be higher than TCDE2°C for 80 seconds.
- The machine has run for 15 minutes in defrosting mode.

4.4.3.5 Evaporator coil temperature protection



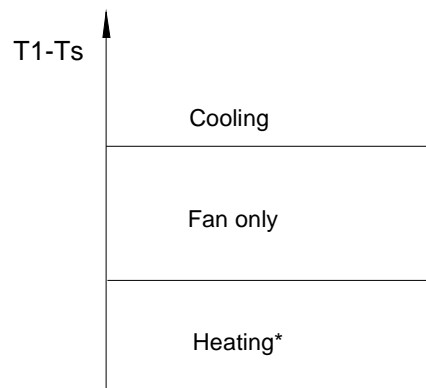
When evaporator temperature temp. is more

than the setting protection value, the compressor will stop.

4.4.4 Auto-mode

This mode can be chosen with remote controller and the setting temperature can be changed between 17°C~30°C

In auto mode, the machine will choose cooling, heating or fan-only mode according to ΔT ($\Delta T = T1 - Ts$).



Heating*: For cooling only models, they will run at fan speed

Indoor fan will run at auto fan of the relevant mode.

The louver operates same as in relevant mode. If the machine switches mode between heating and cooling, the compressor will keep stopping for certain time and then choose mode according to T1-Ts.

If the setting temperature is modified, the machine will choose running function again.

4.4.5 Drying mode

Indoor fan speed is fixed at breeze and can't be changed. The louver angle is the same as in cooling mode.

All protections are active and the same as that in cooling mode.

4.4.6 Forced operation function

Forced cooling mode:

The compressor and outdoor fan keep running

and the indoor fan runs at low speed. After running for 30 minutes, AC will turn to auto mode with 24°C setting temperature.

Forced auto mode:

The action of forced auto mode is the same as normal auto mode with 24°C setting temperature.

When AC receives signals, such as switch on, switch off, timer on, timer off, mode setting, fan speed setting, sleeping mode setting, follow me setting, it will quit the forced operation.

4.4.7 Economy function

4.4.7.1 The sleep function is available in cooling, heating or auto mode.

4.4.7.2. Operation process in sleep mode is as follow:

When cooling, the setting temperature rises 1°C (be lower than 30°C) every one hour, 2 hours later the setting temperature stops rising and the indoor fan is fixed at low speed.

When heating, the setting temperature decreases 1°C (be higher than 17°C) every one hour, 2 hours later the setting temperature stops rising and indoor fan is fixed at low speed. (Anti-cold wind function has the priority).

8.4.7.3 Operation time in sleep mode is 7 hours. After 7 hours the AC quits this mode and turns off.

4.4.7.4 Timer setting is available

4.4.8 Auto-Restart function

The indoor unit is equipped with auto-restart function, which is carried out through an auto-restart module. In case of a sudden power failure, the module memorizes the setting conditions before the power failure. The unit will resume the previous operation setting (not including swing function) automatically after 3 minutes when power returns.

If the memorization condition is forced cooling mode, the unit will run in cooling mode for 30 minutes and turn to auto mode as 24°C setting temp.

If AC is off before power off and AC is required

to start up now, the compressor will have 1 minute delay when power on. Other conditions, the compressor will have 3 minutes delay when restarts.

4.4.9 Refrigerant Leakage Detection

With this new technology, the display area will show “EC” when the outdoor unit detects refrigerant leakage. This function is only available in cooling mode.

4.4.10 Intelligent Light Detection

When room light is turned off, the display window and V-shape light area will slowly darken after 5s, and the buzzer turn off. It will back to normal after the light is turned on.

NOTE: When the room light is dark, you can press the LED button on the remote controller to turn on/off the display window.

4.4.11 Smart Air Manager function

This mode can be chosen with SWING DIRECT button on remote controller .And only available under Cooling mode or Fan mode. The swing act routinely in other modes.

The swing is controlled by natural wind Curve. It will blow out very comfortable and quiet wind, which brings you feeling of nature.

When the AC receives signals, such as switch on, switch off or mode switch, it will exit this function.

4.4.12 8°C Heating(optional)

In heating operation, the preset temperature of the air conditioner can be as lower as 8°C, which keeps the room temperature steady at 8°C and prevents household things freezing when the house is unoccupied for a long time in severe cold weather.

4.4.13 Self clean(optional)

For heat pump models which are provided with this function, after running in cooling or drying mode, if the user press “Self Clean” button on remote controller, firstly, indoor unit runs in fan only mode for a while, then low heat operation

and finally runs in fan only again. This function can keep the inside of indoor unit dry and prevent breeding of mold.

4.4.14 Follow me(optional)

1) If the indoor PCB receives the signal which results from pressing the FOLLOW ME button on remote controller, the buzzer will emit a sound and this indicates the follow me function is initiated. But when the indoor PCB receives signal which sent from remote controller every 3 minutes, the buzzer will not respond. When the unit is running with follow me function, the PCB will control the unit according to the temperature from follow me signal, and the temperature collection function of room temperature sensor will be shielded, but the error detective function of room temperature sensor will be still valid.

2) When the follow me function is available, the PCB will control the unit according to the room temperature from the remote controller and the setting temperature.

3) The PCB will take action to the mode change information from remote controller signal, but it will not be affected by the setting temperature.

4) When the unit is running with follow me function, if the PCB doesn't receive any signal from remote controller for 7 minutes or pressing FOLLOW ME button again, the follow me function will be turned off automatically, and the temperature will control the unit according to the room temperature detected from its own room temperature sensor and setting temperature.

4.4.15 Silence operation (optional)

Press the "silence" button on remote controller to initiate SILENCE function. When the Silence function is activated, the compressor running

frequency will keep lower than F2 and the indoor unit will bring faint breeze, which will reduce the noise to the lowest level and create a quiet and comfortable room for you.

4.4.16 Point check function

Press the LED DISPLAY or LED or MUTE button of the remote controller three times, and then press the AIR DIRECTION or SWING button three times in ten seconds, the buzzer will keep ring for two seconds. The air conditioner will enter into the information enquiry status. You can press the LED DISPLAY or AIR DIRECTION button to check the next or front item's information within 27 seconds. When the AC enter the "information enquiry" status, it will display the code name in 2 seconds, the details are as follows.

Enquiry information	Displaying code	Meaning
T1	T1	T1 temp.
T2	T2	T2 temp.
T3	T3	T3 temp.
T4	T4	T4 temp.
T2B	Tb	T2B temp.
TP	TP	TP temp.
TH	TH	TH temp.
Targeted Frequency	FT	Targeted Frequency
Actual Frequency	Fr	Actual Frequency
Indoor fan speed	IF	Indoor fan speed
Outdoor fan speed	OF	Outdoor fan speed
EXV opening angle	LA	EXV opening angle
Compressor continuous running time	CT	Compressor continuous running time
Causes of compressor stop.	ST	Causes of compressor stop.
Reserve	A0	
Reserve	A1	
Reserve	b0	
Reserve	b1	
Reserve	b2	
Reserve	b3	
Reserve	b4	
Reserve	b5	
Reserve	b6	
Reserve	dL	
Reserve	Ac	
Reserve	Uo	
Reserve	Td	
Smart Air swing amplitude	dA	Smart Air swing amplitude
Smart Air swing speed	dS	Smart Air swing speed
Smart Air swing period	dT	Smart Air swing period

When the AC enter into the information enquiry status, it will display the code value in the next 25s, the details are as follows.

Enquiry information	Display value	Meaning	Remark
T1,T2,T3,T4, T2B,TP,TH, Targeted Frequency, Actual Frequency	-1F,-1E,-1d,-1c,- 1b,-1A	-25,-24,-23,-22,-21,-2 0	1. All the displaying temperature is actual value. 2. All the temperature is °C no matter what kind of remote controller is used. 3. T1,T2,T3,T4,T2B display range:-25~70, TP display range:-20~130. 4. Frequency display range: 0~159HZ. 5. If the actual value exceeds the range, it will display the maximum value or minimum value.
	-19—99	-19—99	
	A0,A1,...A9	100,101,...109	
	b0,b1,...b9	110,111,...119	
	c0,c1,...c9	120,121,...129	
	d0,d1,...d9	130,131,...139	
	E0,E1,...E9	140,141,...149	
F0,F1,...F9	150,151,...159		
Indoor fan speed /Outdoor fan speed	0	OFF	
	1,2,3,4	Low speed, Medium speed, High speed, Turbo	For some big capacity motors.
	14-FF	Actual fan speed=Display value turns to decimal value and then multiply 10. The unit is RPM.	For some small capacity motors, display value is from 14-FF(hexadecimal), the corresponding fan speed range is from 200-2550RPM.
EXV opening angle	0-FF	Actual EXV opening value=Display value turns to decimal value and then multiply 2.	
Compressor continuous running time	0-FF	0-255 minutes	If the actual value exceeds the range, it will display the maximum value or minimum value.
Causes of compressor stop.	0-99	For the detailed meaning, please consult with engineer	Decimal display
Reserve	0-FF		
Smart Air swing amplitude	2~28	Angle 2~28°	
Smart Air swing speed	5~20	(5~20)*4ms/slap	
Smart Air swing period	5~25	5~25 seconds	



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برترین نام و نشان های تجاری ایران

