



E-II-YDHW-0907

ENGLISH

INSTALLATION MANUAL

DIGITAL SCROLL SERIES
AIR-CONDITIONER WALL-MOUNTED TYPE



Models:

YDHW-22C(A/B)15A

YDHW-28C(A/B)15A

YDHW-36C(A/B)15A

YDHW-45C(A/B)15A

YDHW-56C(A/B)15A

For correct installation, read this manual before starting installation.

Only trained and qualified service personnel should install, repair or service air conditioning equipment. Users should not install the air conditioner by themselves.

All pictures are only sketches. If there is any difference between pictures in this manual and the actual shape of the air conditioner you purchased, the actual shape shall prevail.

1 - SAFETY PRECAUTIONS



Installation in the following places may cause trouble. If it is unavoidable, please, consult with the local dealer.

- A place full of machine oil.
- A saline place such as coast.
- A place full of sulfide gas such as hot-spring resort.
- Places where there are high frequency machines such as wireless equipment, welding machine, and medical facility.
- A place of special environmental conditions.
- The appliance shall not be installed in the laundry.

Indoor Unit

- A place where is no obstacle near the inlet and outlet area.
- A place which can bear the weight of the indoor unit.
- A place which allows the air filter to be removed.
- A place where the reception range is not Exposed to direct sunlight.
- A place where the connective pipe and drain hose is easy to led out.
- A place 1m or more to TV, radio instrument, in the center of the room is perfect.
- The indoor unit should be installed 2.3 meters or more above the floor.

2 - INDOOR UNIT INSTALLATION



1. Drilling A Hole and Mounting Installation Plate

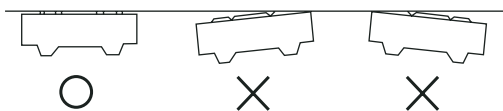
1. Fix the installation plate.

1. Install the installation plate horizontally on structural parts in the wall with the spaces provided around the plate.
2. In case of brick, concrete or similar type walls, make 6mmdia. holes in the wall. Insert clip anchors for appropriate mounting screws.
3. Fix the installation plate on the wall.

2. Drilling a hole.

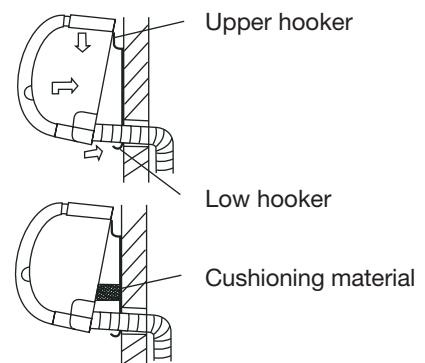
1. Determine the pipe hole position using the installation plate, and drill the pipe hole (N95mm) so it slants slightly downward.
2. Always use a wall hole conduit when piercing metal lath, ply wood or metal plate.

Installation Plate



3. Indoor Unit Installation

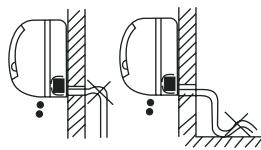
1. Pass the piping through the hole in the wall.
2. Put the upper claw at the back of the indoor unit on the upper hook of the installation plate, move the indoor unit from side to side to see that it is securely hooked.
3. Piping can easily be made by lifting the indoor unit with a cushioning material between the indoor unit and the wall. Get it out after finish piping.
4. Push the lower part of the indoor unit up on the wall, Then move the indoor unit from side to side, up and down to check if it is hooked securely.



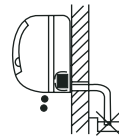
2. Connective Pipe and Drainage Installation

1. Drainage

1. Run the drain hose sloping downward. Do not install the drain hose as illustrated below.



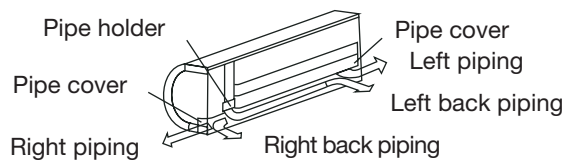
Do not form a rise



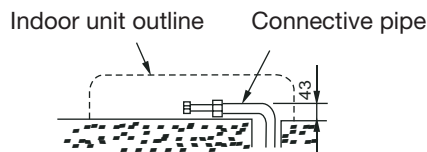
Do not put the hose end into water

2. When connection extension drain hose, insulate the connecting part of extension drain hose with a shield pipe

2. Connective pipe



- For the left-hand and right-hand piping, remove the rear plate bushing from the left side of the rear plate.
- Explain to clients that the pipe cover must be kept as it may be used when relocate the air conditioner to any other place.
- For the left-hand and rear-left-hand piping, install the piping as shown. Bend the connective pipe to be laid at 43mm height or less from the wall.



3. Fix the end of the connective pipe. (Refer to Tightening Connection in REFRIGRANT PIPING CONNECTION)

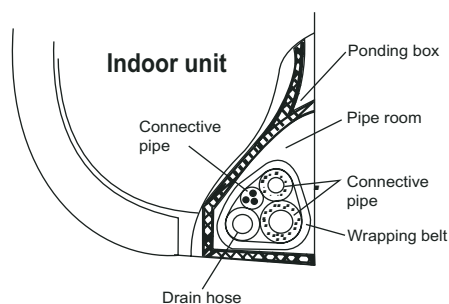
CAUTION

- Connect the indoor unit first then the outdoor unit and bend and arrange the pipe carefully.
- Do not allow the piping to let out from the back of the indoor unit.
- Be careful not to let the drain hose slack.
- Insulate both of the auxiliary piping.
- Banding the drain hose under the auxiliary pipe.
- Do not allow the piping to let out from the back of the indoor unit.

3. PIPING AND BANDAGING

Wind the connective cable, drain hose and wiring with tape securely, evenly as shown below.

- Because the condensed water from rare of the indoor unit is gathered in ponding box and is piped out of room. Do not put anything else in the box.



3 - REFRIGERANT PIPING CONNECTIONS



CAUTION

Ventilate the air if there was any refrigerant leakage during the installation.

Leaked refrigerant will generate poisonous gas if meeting fire.

Make sure there is no refrigerant leakage after the installation.

Leaked refrigerant will generate poisonous gas if meeting fire.

Allowed Length and Drop of Pipes

Requirements are different when installing the outdoor unit, please refer to outdoor unit installation manual for detailed information.

Material and Size of the Pipes

Three length (3m,5m,10m) of pipes are available to purchase.

Pipe Material		Copper Pipe for Air Conditioner	
Models		R22/R407C	R410A
Size(mm)	(Gas side)	φ16	φ12.7
	(Liquid side)	φ9.53	φ6.35

Refrigerant Volume to Be Added

- Refrigerant volume to be added is calculated according to outdoor unit installation manual.
- Be sure to add refrigerant measuring by a scale.

CAUTION

- If the added refrigerant volume is inadequate (too much or insufficient), the compressor malfunction will be caused. Be sure to calculate the refrigerant volume carefully.
- The service man should write down the piping length and the added refrigerant volume in the nameplate, which is on the electric control box cover of outdoor unit, for diagnosing the compressor and refrigeration circulation malfunction.

Connection of the Refrigerant Pipe

- Two wrenches should be used when connecting the pipes.
- The tightening torque is shown below:

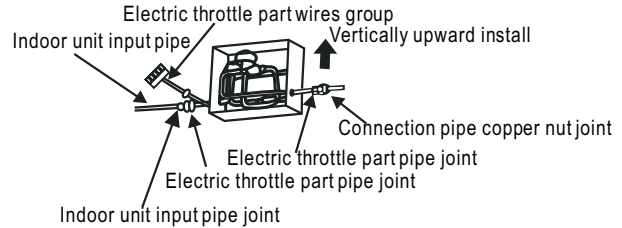
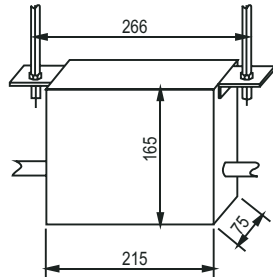


Outer diameter(mm) of connection piping	Tightening Torque (N·m)
φ9.53	15~18
φ16	25~33
φ19	35~40

4 - INSTALL ELECTRIC THROTTLE PART



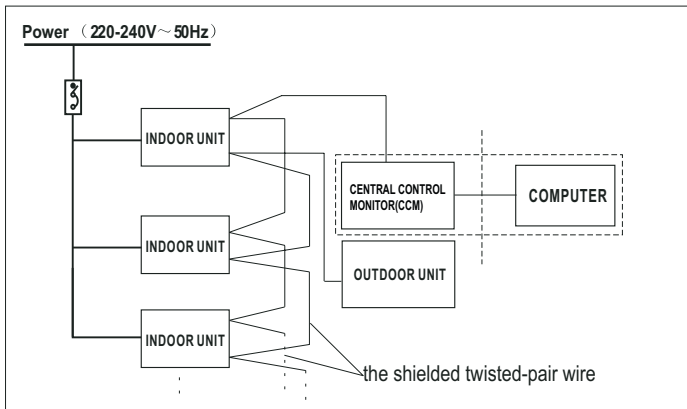
- Please refer to the following figures to install.
- The installation size is shown as follows:



NOTE

- The electric throttle part should be installed vertically upward, the slant and inversion are not allowed.
- Use two spanners to connect the electric throttle parts with indoor/outdoor pipes to avoid the copper pipe cracking.
- The size of electric throttle part : 215(L)X165(W)X75(H)mm.
- Please pay attention to the connection orientation when connecting.(Refer to the label sticking on the electric throttle part.)
- The electric throttle part wires group connector is corresponding to the connector CN 15 on the indoor PCB.

Wiring Chart



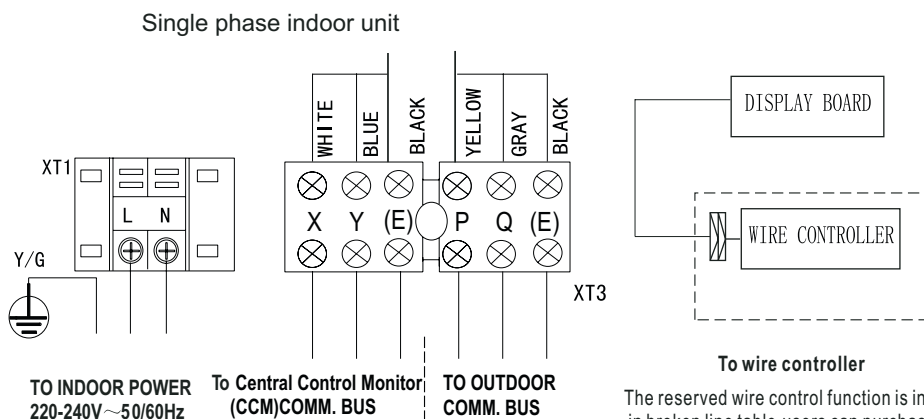
Caution:

The reserved function is indicated in broken line table,users can select it when necessary.

Terminal Board Diagram

Please refer to the indoor unit wiring diagram for the wiring.

Note: The air-conditioners can connect with Central Control Monitor (CCM). Before operation, please wiring correctly and set system address and network address of indoor units.



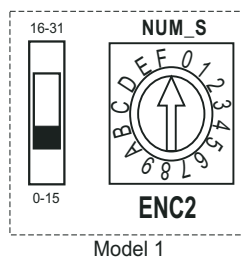
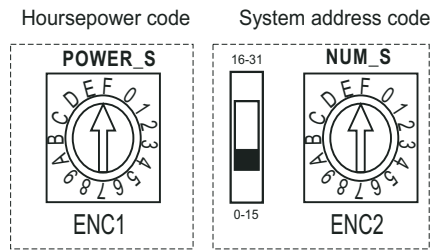
Please adopt the shielded twisted-pair wire, and connect the shielded layer to (E)

The reserved wire control function is indicated in broken line table,users can purchase the wire controller when necessary

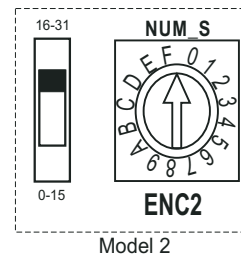
5 - CONTROL



Please number the indoor units during the installation . For example, for the first outdoor unit ,the number of the first indoor unit is 1-1, the second indoor unit is 1-2, and the set address is 1 and 2 respectively , the others is analogical.



Model 1 show the address '0-F' respectively, that is, '0-15' indoor unit



Model 2 show the address '0-F' respectively, that is, '16-31' indoor unit

CAUTION









- 1.The system together have 32units(0-31),everyone has only system addresscode, If two addresses are the same in one system , the abnormal operation will occur.
- 2.Please switch off the power before setting,otherwise the unexpected error will occur.

ENC1	Toggle switch	For set horsepower
Note: The horsepower has been set before leaving the factory , anyone can't modify it except the maintenance person.	Code	Capacity(Horsepower)
	0	2200W(0.8HP)
	1	2800W(1.0HP)
	2	3600W(1.2HP)
	3	4500W(1.5HP)
	4	5600W(2.0HP)

6 - NETWORK ADDRESS SETTING



Every air-conditioner in network has only one network address to distinguish each other. Address code of air-conditioner in LAN is set by code switch on Network Interface Module (NIM), and the set range is 0-63.

Toggle switch set		Network address code
S1	S2	
		00~15
		16~31
		32~47
		48-63

DE - COMMISSIONING DISMANTLING & DISPOSAL

This product contains refrigerant under pressure, rotating parts, and electrical connections which may be a danger and cause injury!

All work must only be carried out by competent persons using suitable protective clothing and safety precautions.



Read the Manual



Risk of electric shock



Unit is remotely controlled and may start without warning

1. Isolate all sources of electrical supply to the unit including any control system supplies switched by the unit. Ensure that all points of electrical and gas isolation are secured in the OFF position. The supply cables and gas pipework may then be disconnected and removed. For points of connection refer to unit installation instructions.
2. Remove all refrigerant from each system of the unit into a suitable container using a refrigerant reclaim or recovery unit. This refrigerant may then be re-used, if appropriate, or returned to the manufacturer for disposal. **Under No circumstances should refrigerant be vented to atmosphere.** Where appropriate, drain the refrigerant oil from each system into a suitable container and dispose of according to local laws and regulations governing disposal of oily wastes.
3. Packaged unit can generally be removed in one piece after disconnection as above. Any fixing down bolts should be removed and then unit lifted from position using the points provided and equipment of adequate lifting capacity. Reference MUST be made to the unit installation instructions for unit weight and correct methods of lifting. Note that any residual or spilt refrigerant oil should be mopped up and disposed of as described above.
4. After removal from position the unit parts may be disposed of according to local laws and regulations.