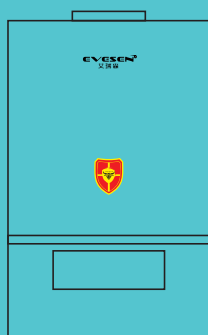


**EVESEN®**  
—— 艾瑞森 ——  
智能热水系统

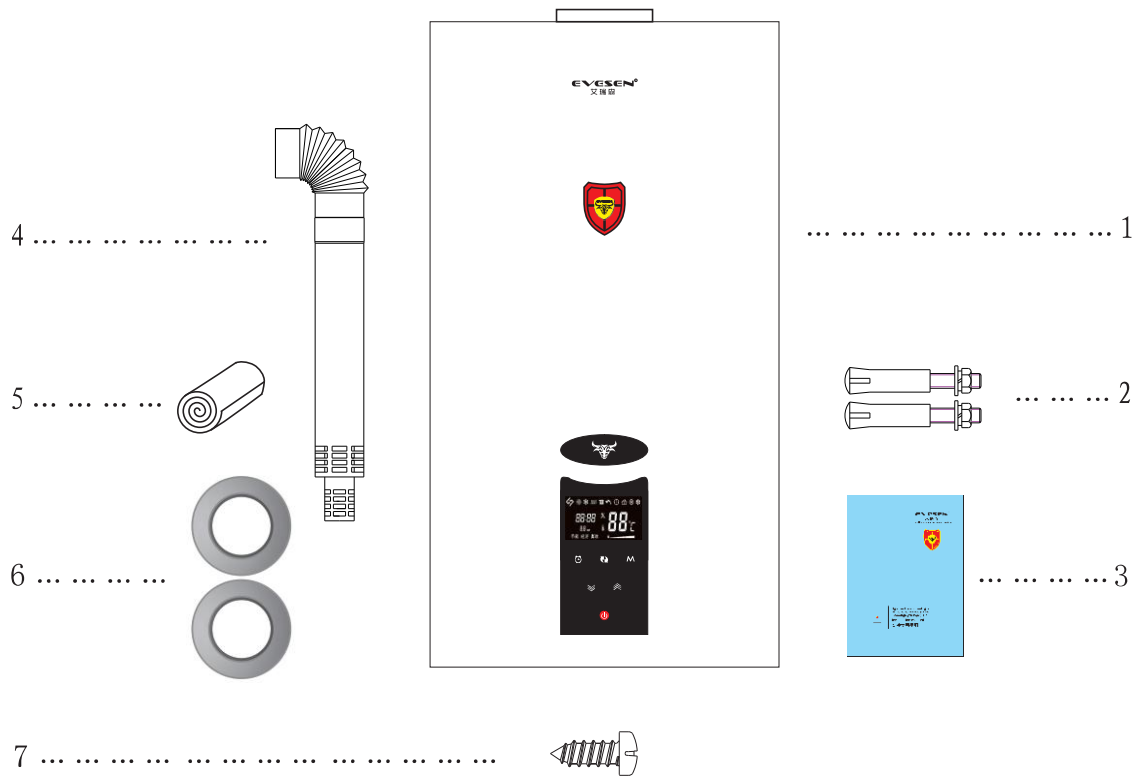


High-end central heating hot  
WATER SYSTEM EQUIPMENT  
高端中央供暖热水系统设备  
Installation manual  
安装使用手册



Content	P01
Packing list	P03
Equipment instruction	P04
Reminder reading	P05
Safe installation	P06
Equipment Structure	P07
Technical parameter	P10
Installation specification	P11
Debugging specification	P18
Use specification	P28

包装清单	P32
设备说明	P33
产品安全装置	P34
误使用风险警示	P35
设备结构图	P36
设备技术参数	P39
设备安装规范	P40
设备调试规范	P48
全预混系列安装使用规范	P58
设备使用规范	P62
附页	P65
WIFI设备调试规范	P66



↑ chart 01

◆Water heater	1	.....1
◆Screws	2	.....2
◆Installation manual	1	.....3
◆Smoke expelling pipe	1	.....4
◆Aluminized paper for sealing interface	1	.....5
◆Sealant pad	2	.....6
◆Smoke pipe lock screw	3	.....7

PS: S with aluminum exhaust pipe fasteners for two ring lock



◆The company's products are designed, manufactured and sold on the basis of the relevant national standards of the people's Republic of China:

GB 25034-2020 gas water heater

GB 20665-2015 gas water heater's energy efficiency rating and limited value

GB 17905-2008 gas heating equipment's safety-managing rules

GB 50028-2006 gas heater design specification

GB 126-2008 heater choice and installation

GB/T 19001-2008/ISO9001:2008 quality management system

◆The company's products are used for heating water and warming, suitable for multi-gases (Liquefied petroleum gas, natural gas, artificial gas);

◆This product meets the national energy efficiency standards above two levels, S100 series of products for the first level;

◆The product can be widely used (suitable for ordinary families, apartments, villas, water heating and warming demand in commercial place)

◆Should be strictly in accordance with instruction when using, if not, company will not be responsible for bad consequence

◆Before using, please carefully read the manual, notes on the equipment body, brand and security identification

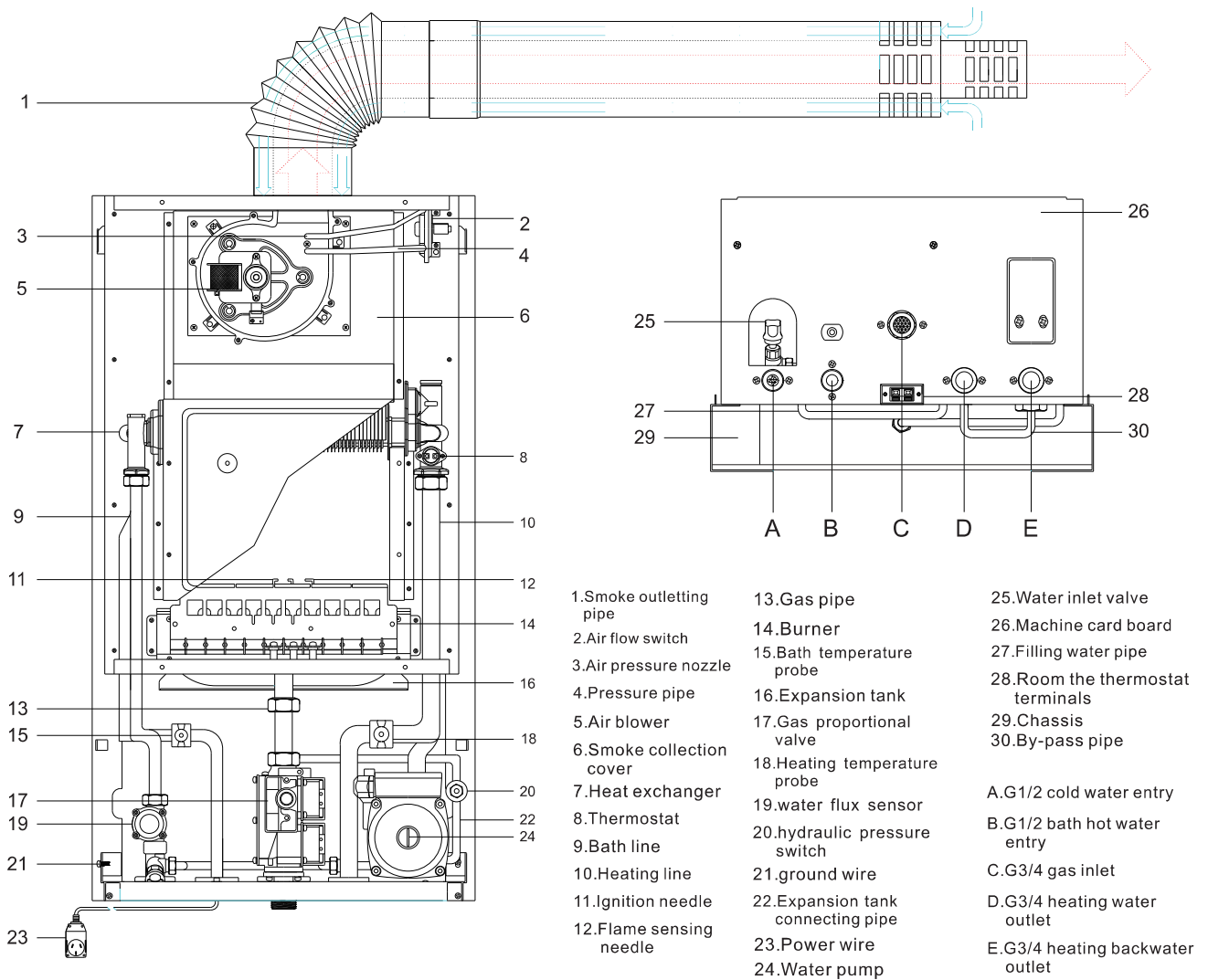


The following is useful , please read carefully

- ◆ Gas water heater must be installed and maintained by professional person according to manual and specifications;
- ◆ Non professional installation may cause gas, water ,electricity and smoke leakage non standard installation and flue off, will cause unnecessary losses to the user, and even endanger life;
- ◆ When installing , put intake and exhaust port out of the room, down 3 to 5 degrees, to avoid rain water, condensation water pour back , screw tightly to prevent smoke tube off ;
- ◆ Gas heating water stove can not installed in bedroom ,living room , bathroom and wherever has Air circulation .Can not close to any objects with Strong electromagnetic radiation like Induction cooker, microwave oven , or Perishable, explosive things around
- ◆ Gas heating water stove s power distribution system should have grounding wire, The switch should not be set in the tub or shower, Plugs, sockets should be certificated;
- ◆ Should install cut-off valve on gas pipelines ,prohibite dismantling any itmes on the machine
- ◆ After installation, detect the sealing performance of the pipes of whole heating system and water., the n wash the heating system until nothing inside
- ◆ Must be in accordance with the supply volt age required
- ◆ Must be in accordance with type of gas and the standard pressure required ;
- ◆ Check the tightness of gas pipelines regularly , if leaking happing ,please contactw ith professional person of gas company to stop it .if smelling gas inside the room ,should shut down the gas valve , open the window to circulate air .prohibit using the phone or switching inside the room which cause sparkles ,and calling help for gas company outside the room
- ◆ When out for long time in winter ,please drain the water in system or turn on anti-freezing function , otherwise water stove probably can be damaged
- ◆ Juveniles or unexperienced person can not use this equipment
- ◆ Heated water only for warming,bath water only for showing or washing hands ,no drinking
- ◆ Should periodically check all parts of the equipments
- ◆ Should Install gas leakage alarm ;
- ◆ Prohibite to open or change the machine parts, if can not use normally, please turn it off and inform after sale staff ;
- ◆ Only the manufacturer's authorized agent or technical personnel can be maintained,or change parts of the machine. The results and dates of the inspection and maintenance should be written on the machine;
- ◆ Before using , user should accept the appropriate operation training, safety and emergency knowledge;
- ◆ The user shall keep the manual, purchasing documents and related information for future reference
- ◆ If any difference between illustration and real items , Refer to the actual product. if the product is updated, the changes are produced without notice

No	Items	Function
1	Temperature sensor monitoring device	Monitoring the condition of Temperature sensor to keep the stability of heated Water
2	Dust inspection device for gas valve	Inspect if dust damage main valve on / off to keep from incomplete burning or fire
3	Water loss prevention device	In Closed boiler, make sure Water fill fully into the pipe before aginition
4	Expansion absorbing device for heating water	Maintain the minimum pressure of the load When the water in the pipe is expanded
5	Lightning protection electric device	To keep the machine safe, When lightning or abnormal voltage is encountered
6	Explosion proof combustion device	Control Gas volume and air flow in the ignition to prevent deflagration
7	Power off safety device	Immediately stop burning When power supply fails
8	Overvoltage protection device	When the input voltage exceeds the standard value, cut off the power input to protect the component function and durability
9	Automatic drainage device	Exhaust air in heating pipe, to ensure the normal cycle
10	Flow induction device	According to the flow to confirm the use of hot water, and control the combustion conditions
11	Flame induction device	To detect the flame in the combustion chamber, and control it.
12	Wind induction device	When the wind into the smoke pipe, stop combustion
13	Constant temperature device	Maintain the temperature of hot water
14	Ignition confirmation device	Confirm The combustion state according to indicator light on the controller
15	Anti overheating device	When the surface temperature of heat exchanger rises to more than 92. stop burning
16	Anti freezing device	When not used or cut off gas, forced to start circulating pump to prevent water from being frozen in the pipeline
17	Gas valve monitoring function	To monitor the gas valve opening and closing state, to ensure that the combustion chamber without flame
18	Heating water filtering device	Prevent anything from entering the boiler
19	Anti water pressure function	The three-way valve relieve water pressure in pipeline
20	Fan life prolonging device	When the fan 's speed decreases after long time, can automatically compensate within 20%
21	Filter cleaning function	Remove accumulated dirty
22	Water blockage preventing device	Water distributor blockage results in poor circulation, immediately stop working and open the bypass valve
23	Anti transfer and cutoff function	Keep the spark from turning to different place When ignited
24	Heating temperature monitoring function	According to the setting of heating temperature, properly monitoring combustion operation
25	Seasonal distinguishing function	Controller can be distinguished into winter / summer mode, to control appropriate temperature of hot water
26	Controller display function	The controller can control the operation of the host
27	Communication function with PC	Connected to Personal computer and observe the operation of the host
28	Water pump anti-locking device	After no use in long time , forced to start the pump to prevent pump locking
29	Adaptive voltage fluctuation function	When the input voltage fluctuates, it can run stably (AC 185 ~ 245V).
30	Waterproof function of transformer	Transformer has anti moisture and waterproof function
31	Incomplete combustion prevention function	When the external factors cause incomplete combustion, quickly perceived stop working
32	Gas regulating limiting function	Gas regulator can effectively limit the range of reasonable range, fully use gas.
33	Gas pressure compensation function	Gas pressure decrease due to low temperature , the boiler can operate normally.
34	Hot water temperature regulation function	Adjust the hot water temperature to meet different needs
35	Anti overpressure device	Resist high water pressure, protect machine components, stabilize hot water flow

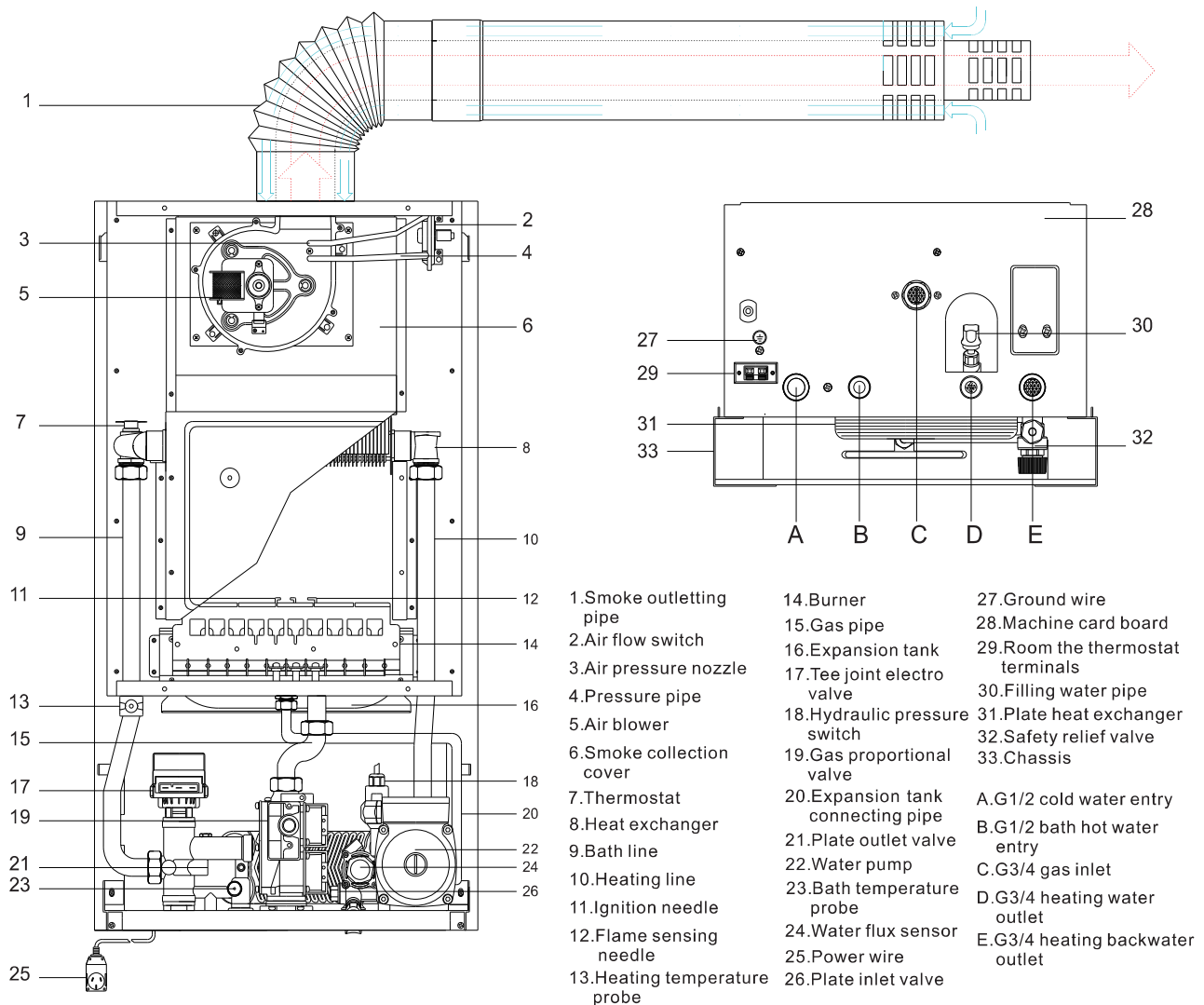
## ◆L1PB casing heat exchanger structure



## ↑ chart 02

- ◆Heat exchanger is composite structure, small pipe inside large ones, large pipe serves hot water, small pipe serves showering water
- ◆High temperature smoke from burning will heat water in the large pipe, and then shower water in small pipe
- ◆Simple structure, economic price, Reasonable interior space, simple and stable controlling system
- ◆Warming function: high temperature smoke from burning go through heat exchanger, warm the water by Heat absorbing plates, and water pump circulate heated water within equipment system which produce heating
- ◆Water heating function: high temperature smoke from burning go through heat exchanger, warm the water by Heat absorbing plates, and water warm Life hot water in inner pipes.

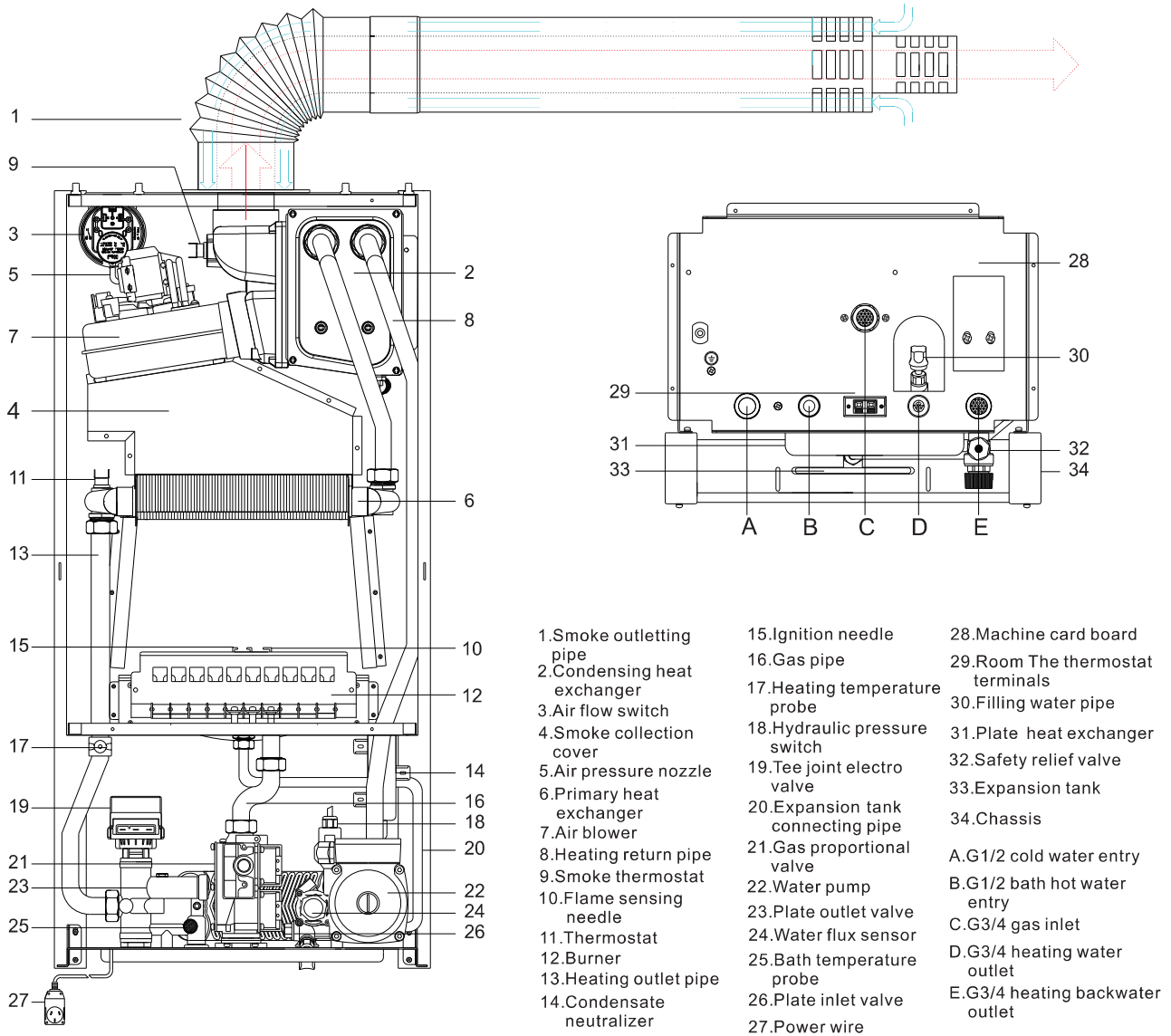
## ◆L1PB plate heat exchanger structure



## ↑ chart 03

- ◆Consists of single tubed and plated heat exchanger
- ◆Plate exchange structure is for heat convection between hot water and cold water .switch on three-way valve when showering , high temperature hot heat running water through plateexchange structure
- ◆High heat exchange efficiency,can up to 90%. Because the water storage capacity is small, the control of the water temperature is more accurate. Once the scaling phenomenon is generated, the plate heat exchanger can be cleaned and replaced easily
- ◆The control system is relatively more complex than casing system
- ◆Waming function : high temperature smoke from burning go through heat exchanger, warm the water by Heat absorbing plates , and water pump circulate heated water within euipqment system which produce heating
- ◆Water heating function: high temperature smoke from burning go through heat exchanger, warm the water by Heat absorbing plates firstly, pump circulate water between main heat exchanger and plate heater exchanger, running water and warming water exchange heat in reverse direction, and not mix in plate heat exchanger

## ◆L1PB condensation structure



## ↑ chart 04

◆Condensation water heating stove applies two way heat exchange design, Latent heat of water vapor is absorbed into the hot water

◆Smoking temperture 50~80°C heat efficiency up to 96%, save 20~30% Gas consumption than ordinary products

◆Condensation water heating stove burns efficiently, can lower the energy consumption, better environment protection, index, have longer service, and suitable all kinds of heating equipment

◆The control system is relatively more complex than casing system

◆Warming function; when equipment is activted, the heat of high temerature smoking is absorbed by core heat exchanger which transfer to condensation heat exchanger. then the water is heated in condensation heat exchanger for the first time , then go into core heat exchanger for second heating, at last heat radiation exchanger, then pump circulate water enter condensation heat exchanger for repeating anothr round

◆Water heating function: open three-way valve, press water heating function, inner circulation happening, water is warming, pump circulate water between main heat exchanger and plate heater exchanger, running water and warming water exchange heat in reverse direction, and not mix in plate heat exchanger



Product model		L1PB18	L1PB20	L1PB24	L1PB24-LN	L1PB28	L1PB32	L1PB36	L1PB40	L1PB50
Gas class		Gas 12T/ liquid gas 20Y								
Gas rated pressure (Pa)		Gas 2000/ liquid gas 2800								
Rated input heat load (kW)		18	20	24	24	28	32	36	40	50
Rated output heat load (kW)		16.02	17.8	21.36	23.76	24.92	28.48	32.04	35.6	44.5
Thermal efficiency (%)		≥ 89	≥ 89	≥ 89	≥ 96	≥ 89	≥ 89	≥ 89	≥ 89	≥ 89
Heating temperature control range (°C)		Floor heating 30~60/heating plates 30~85								
Heating system work pressure (bar)		0.5 ~3.0								
Expansion tank volume (L)		6	6	6	6	6	8	10	10	12
Reference maximum heating area (m²)		120	132	158	158	180	250	300	360	450
Bath temperature control range (°C)		30 ~ 60								
Bath temperature control range (Mpa)		0.02 ~0.6								
Bath minimum start the flow		2.5								
Bath minimum shut the flow		1.8								
Capacity of producing hot water $\Delta T=30K$ kg/min		7.56	8.4	10	11.5	12.3	13.4	15	16.7	20.87
Gas consumption	Gas m³/h	0.52 ~ 1.6	0.66 ~ 2	0.79 ~ 2.4	0.79 ~ 2.4	0.84 ~ 2.81	1 ~ 3.2	1.2 ~ 3.6	1.2 ~ 4.0	0.79 ~ 5.0
	liquid gas m³/h	0.19 ~ 0.57	0.23 ~ 0.72	0.28 ~ 0.86	0.28 ~ 0.86	0.28 ~ 0.93	0.38 ~ 1.1	0.42 ~ 1.29	0.42 ~ 1.33	0.28 ~ 1.66
Gross/ net kg		38/35	38/35	39/36	45/42	45/42	50/47	58/55	58/55	64/59
Machine size mm		740×410×320	740×410×320	740×410×320	820×400×295	740×410×320	740×462×325	780×540×335	780×540×335	820×650×380
Protection level		I -type appliance								
Waterproof grade		IPX4D								
Rated voltage and frequency		AC220V/50Hz								
Rated power W		115	115	115	120	130	150	260	260	280
Bath interface		G1/2								
Specifications		G3/4								
Gas interface specification		G3/4								
Coaxial smoke pipe specifications (mm)		Φ100×60								2×Φ100×60

Ps : This product is updated to August 2020

Please obey the following standard  
Operational specifications and requirements:

- ◆GB 17905-2008 Safety management rules for household gas burning appliances
- ◆GB 50028-2006 town gs design specifications
- ◆08S126-2008 Selection and installation of water heater
- ◆CJJ 94-2009 Safety technical specification for operation, maintenance and repair of gas facilities in town
- ◆CJJ 12-99 installation and acceptance of household gas burning appliances
- ◆CECS 215: 2006 Technical specification for gas water heating stove



## Installation reminder

- ◆Equipment installation and debugging must be completed by trained and qualified professionals, instllation personnel should read installation manual carefully, and refer to national standard specification
- ◆Company will not be resposible for the losses caused by install, debug, or change the device function without permission,use property.
- ◆Flue installation must use the one developed by company ,the company can customized longer length but the total length should not exceed 4m . each 90 degree elbow increase, correspondingly reduce 1m ,each 45 degree elbow increase, correspondingly reduce 0.5m, Flue and elbow joints should insert in place, connect tightly by screws between flue and smoking outlet, The flue connection is sealed with aluminized paper
- ◆The flue inlet and outlet must be put out of the room with down, and Tilt down 5 to 3 degrees. Flue inlet
- ◆Choose to instal in the room no one is living and has gas, water, power available The body, smoking outlet pipe, the system pipeline is strictly prohibited installed veiled
- ◆When operating, remember to close the gas valve, to prevent leakage , fire and explosion
- ◆Power sockets, switches, wiring must be installed standard, switches can not lose water or high temperature
- ◆The wall holding the equipment must be solid, equipment should be kept upright, not inclined, and try to close Exterior wall to reduce flue length
- ◆Prohibit to use retractable aluminum tubes as extension, transfer and elbow

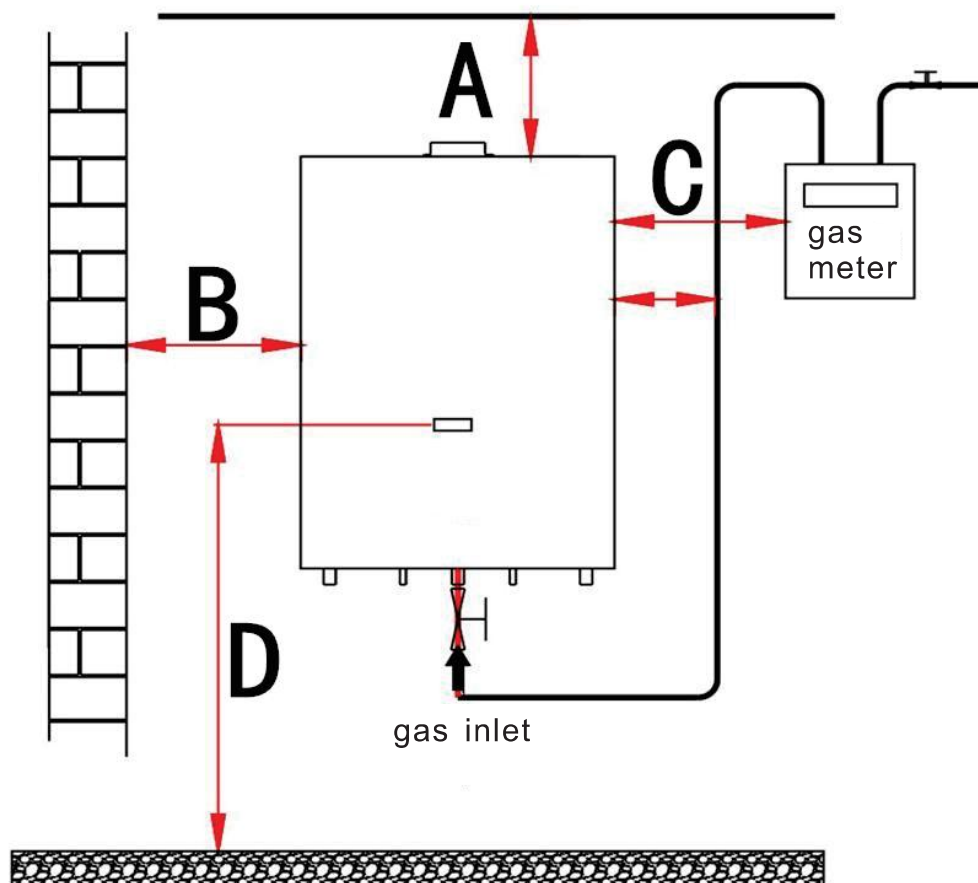


Please refer to the national standard matters and the company customer service information for unmentioned matters here





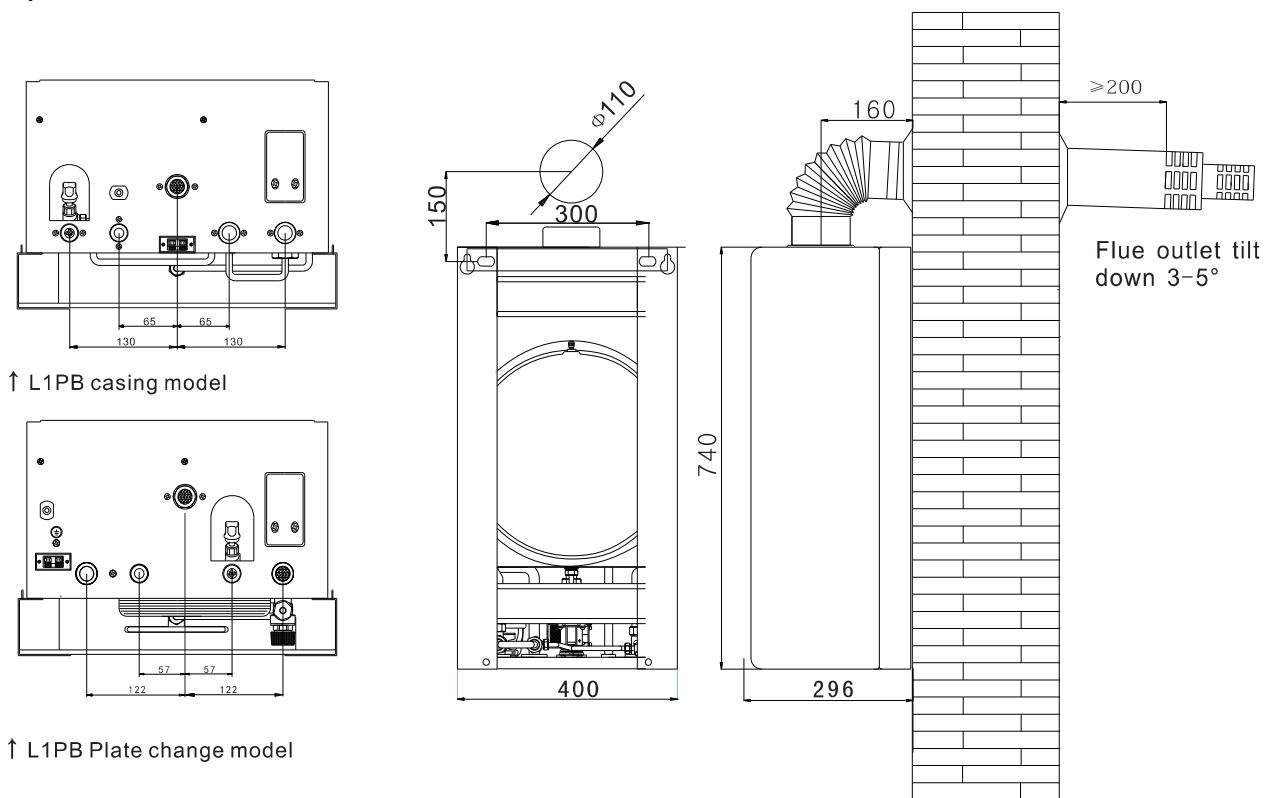
## Installation site specification



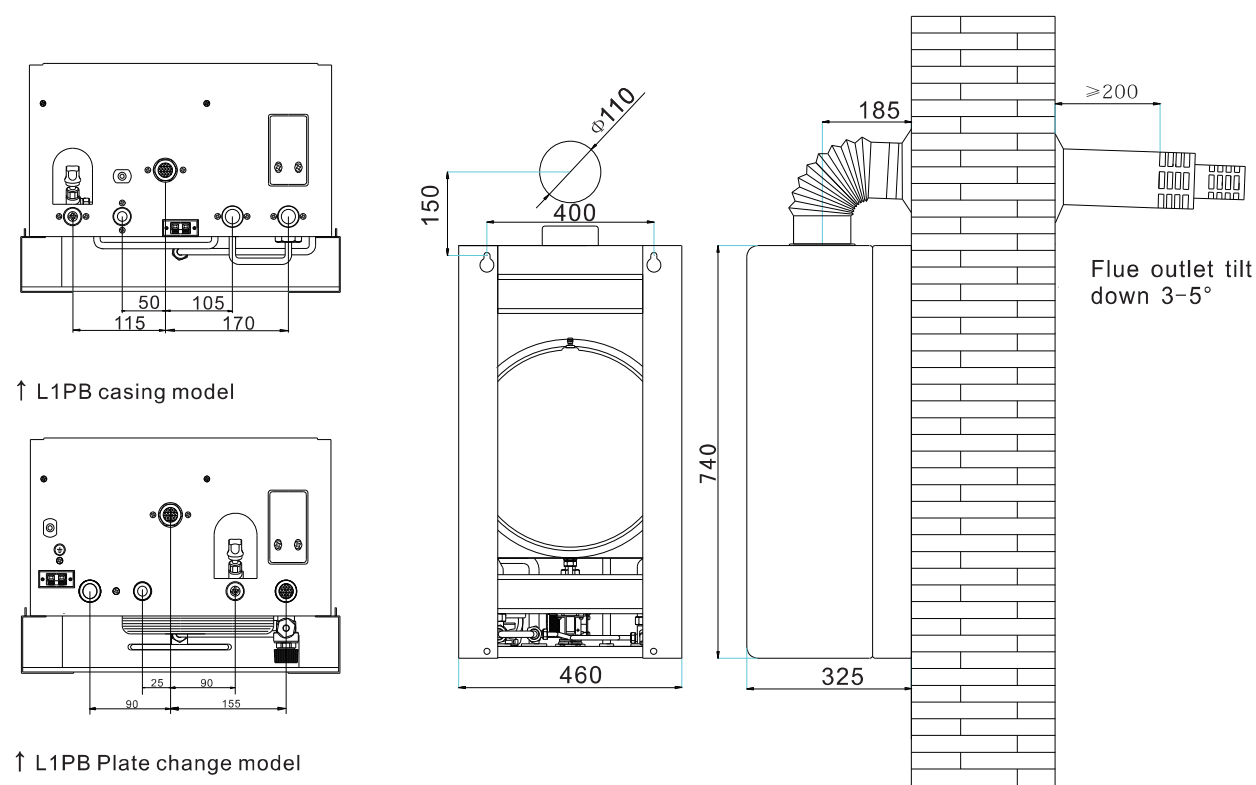
### ↑ chart 05

- ◆The equipment is not suitable for outdoor installation;
- ◆No flammable, explosive, perishable goods around ;
- ◆The direction of inlet and outlet flue should avoid the tuyere;
- ◆Prohibit installing in the bedroom, living room, bathroom and where has bad air n circulation ;
- ◆Chart 05A side : the top of equipment from the ceiling must be more than 300mm;
- ◆Chart 05B side : the distance between left equipment body and left wall must be more than 200mm;
- ◆Chart 05C side:the distance between right equipment body and gas pipes must be more than 300mm,and gas meter more than 500mm ;
- ◆Chart 05D side:the height of fire window from ground on the body depends user' s requirement.

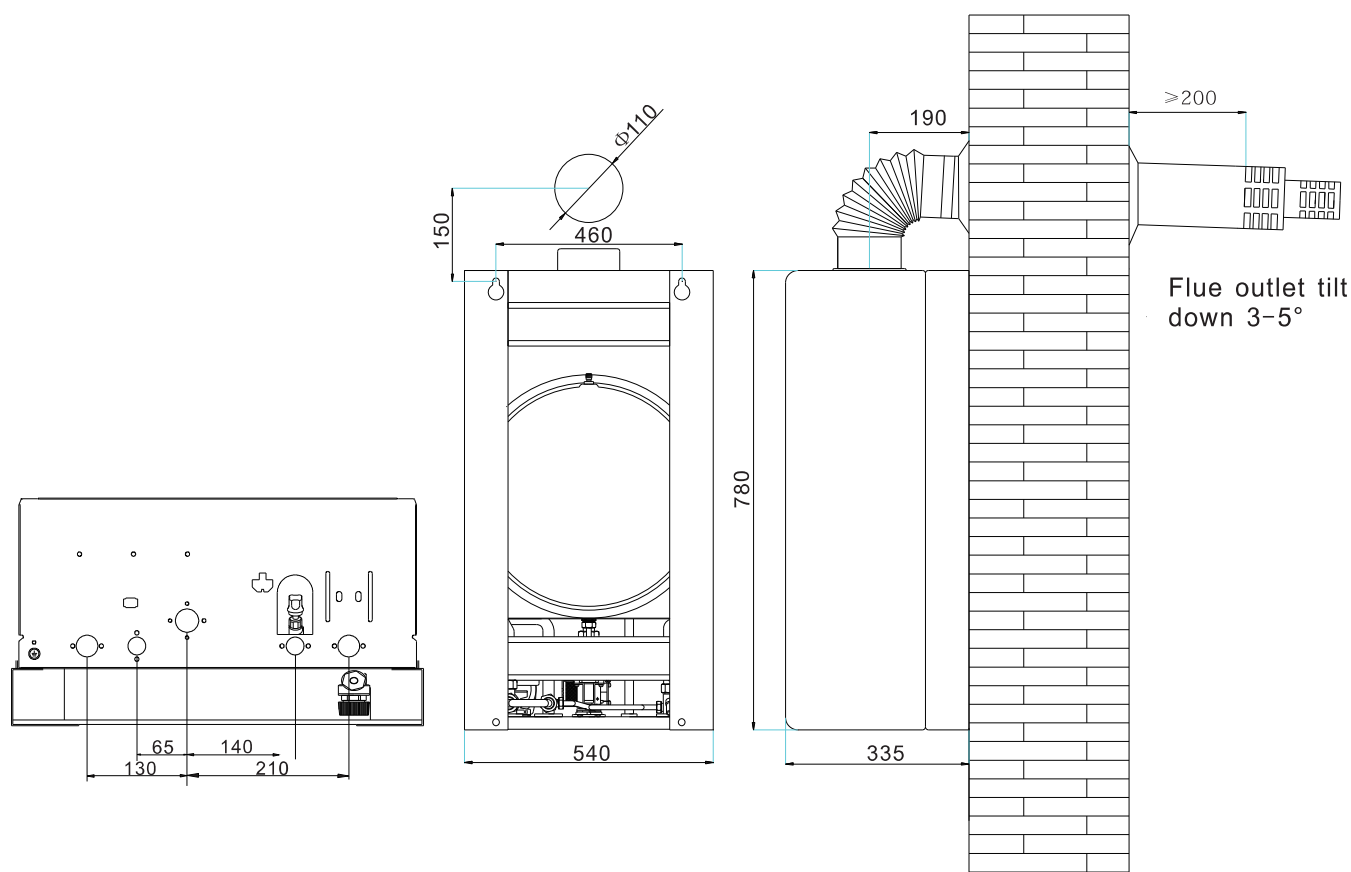
## Equipment size



↑ chart 06 L1PB20~24kW equipment size(unit:mm)



↑ chart 07 L1PB28~32kW equipment size(unit:mm)



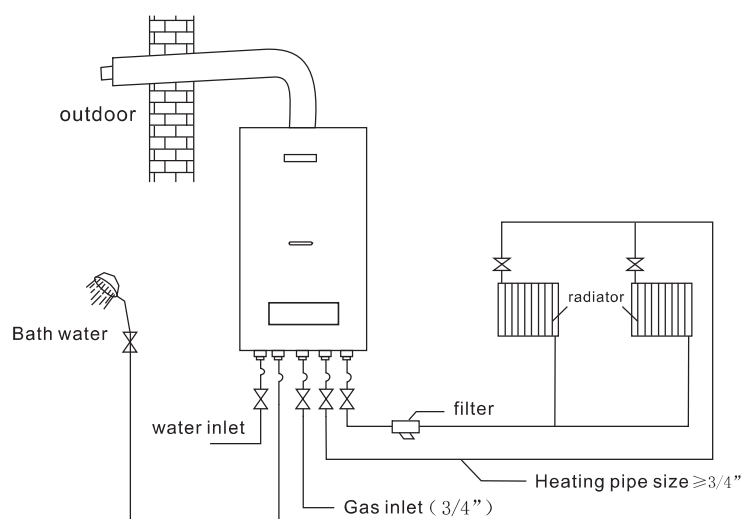
↑ chart 08: L1PB36~40kW equipment body size (unit:mm)



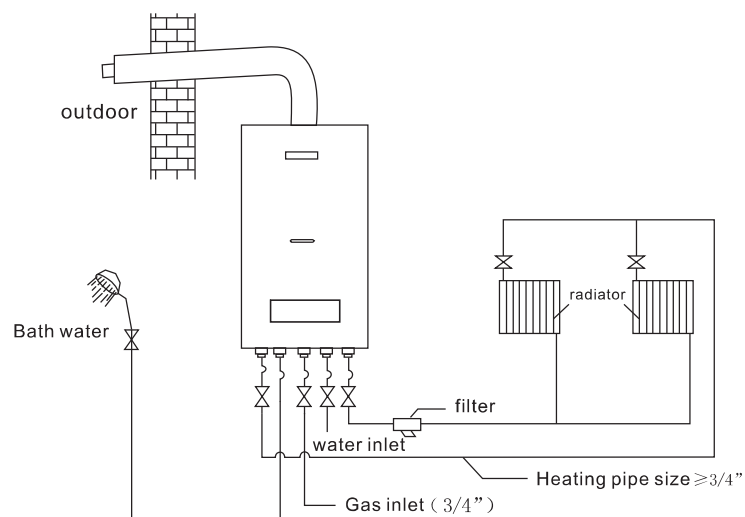
## Special reminder

- ◆ Please use safely installation tools like ladder, drill hole;
- ◆ Open the package to check its integrity, if the whole machine is damaged, please do not use, contact the supplier to replace immediately. Part of the packaging materials can be recycled (such as cartons, dust bags, etc.), shall not be discarded, so as to avoid danger and pollution;
- ◆ Pay attention to packaging to check if equipment nameplate information is in accordance with the user requirements. Such as specification, type of gas etc;
- ◆ Equipment accessories, must be original from factory ;
- ◆ Wall hanging device, must be vertical, flat, firm;
- ◆ Advise two or three people to install together ; one perosn hold the bottom and put gently down, to prevent false hang or cause damage to the equipment
- ◆ Equipment should be fastened through sctews to prevent shock and fall when the equipment is operating ;
- ◆ Please check whether the pipeline interface dust cover is intact, and there is anything inside the pipeline interface;
- ◆ Before drilling hole , please know in advance whether water pipe or wire exists inside the wall;
- ◆ The height from the ground depends on user's demands;
- ◆ When drilling hole , please pay attention to the brick debris falling downstairs, and ensure the safety of pedestrians and other items downstairs.

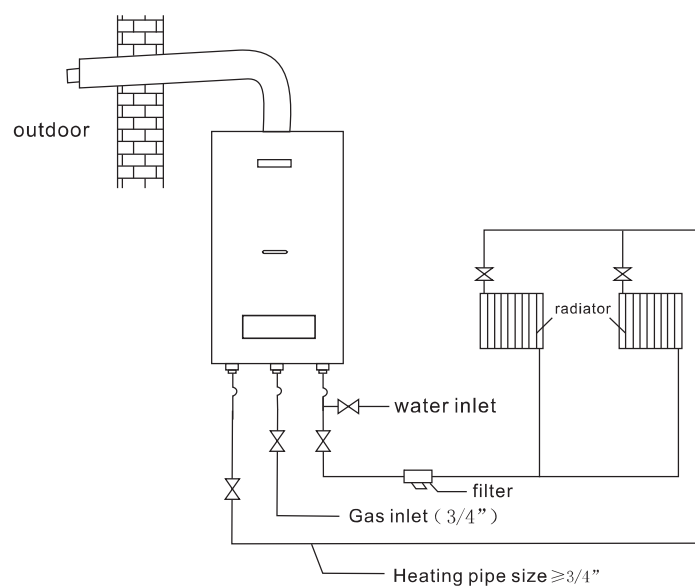
## Installation Schematic diagram



† chart09-1:L1PB installation schematic diagram(casing model)



† chart09-2:L1PB installation schematic diagram(plate model)

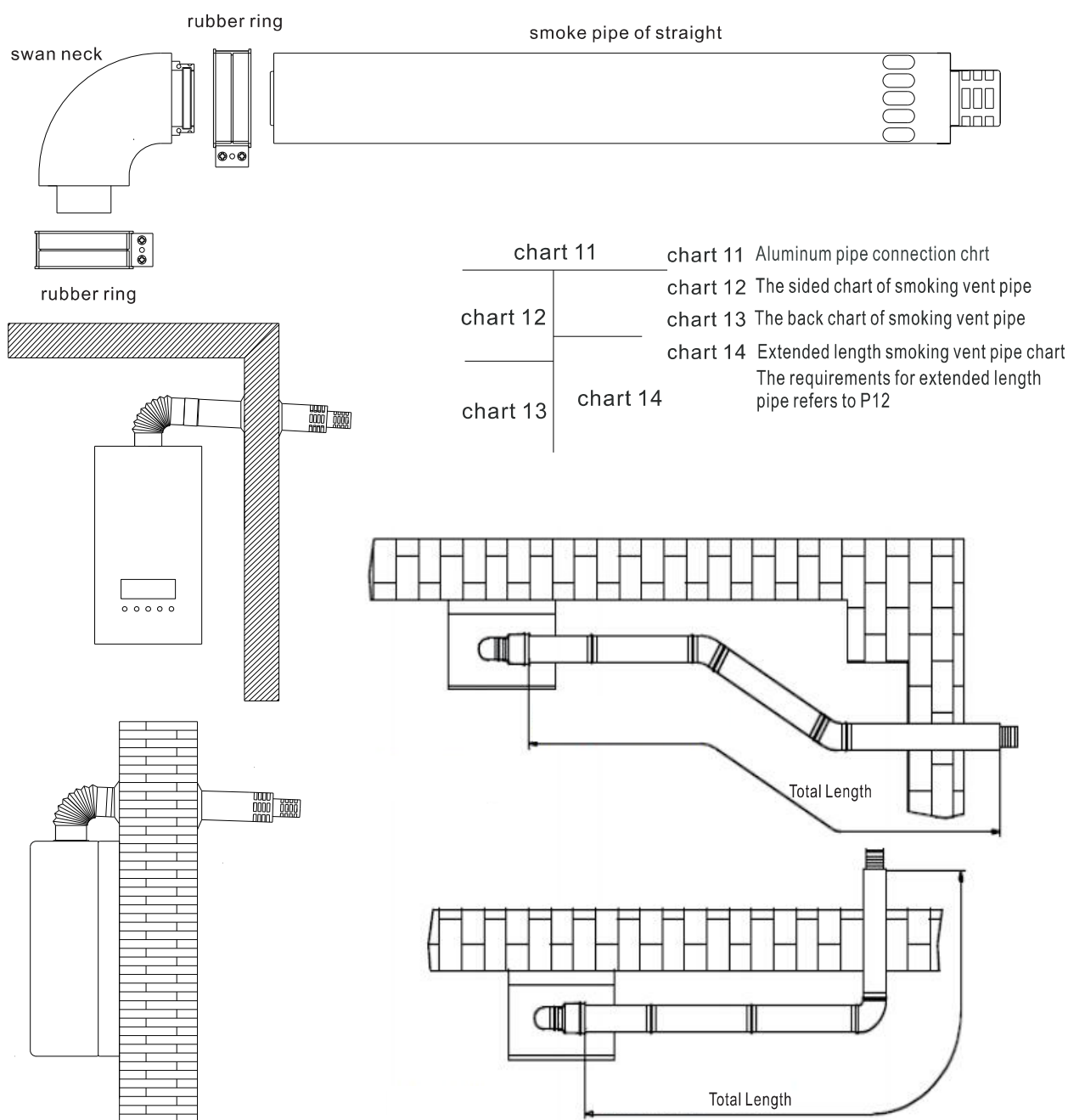


† chart10:N1PB installation schematic diagram



## Special reminder for flue instllation

- ◆According to chart 06/07/08,place the outlet position and drill holes ;
- ◆Whenconnecting gas pipes, should ensure no openings and cracks, i to prevent the waste gas leakage and return;
- ◆The gas intake and vent pipe should be connected to the connections and tightened with the distributed clamp or screw;
- ◆WhenUsing extended –length elbows and pipes, each connection must use aluminized paper to seal;
- ◆Thetotal length of vent pipe should be in accrodance with national standard 08S126,or Selection and installation of water heater on page 52 or P 10 in this manual;
- ◆Theposition of gas vent pipe should be where few people walk around or the wind is not strong. icicle caused by water vapor in winter can possibly drop and hurt people;
- ◆The gap between smoking vent pipe and drilled hole on the wall must be sealed with the flame retardant material to prevent the backflow of the waste gas into the room;
- ◆Instllation of smoking vent pipe refers to chart 11/12/13/14.





## Reminder for Water electrical system installation

- ◆ Add the filter in the water inlet (discharge of sewage);
- ◆ Pipeline diameter of heating system must be more than 16mm, must carry out hydrostatic pressure test to prevent leakage;
- ◆ Not using the 90 degree elbow in pipeline interface between Heating system and domestic hot water system;
- ◆ Non-shaped structure in pipeline to avoid gas blocking;
- ◆ When doing hydrostatic pressure test, close the water inlet and outlets valve, cause testing pressure is more than 0.6MPa the limited pressure is 0.3MPa
- ◆ The inlet and outlet interface must be flexible, and equipped with the cut-off valve;
- ◆ Life hot water pipelines must be more than 16mm diameter, the distance between equipment and water position should be less than 15m;
- ◆ The equipment and heat-absorbing plates should be connected by parallel not series connection, refers to chart 15/16/17;
- ◆ Gas pipes should be exclusive or professional, prohibit switching gas valve when installing pipelines and advise to install gas leakage alarm;
- ◆ Water vapor interface must be installed unveiled;
- ◆ Socket, switch installation location should avoid damp, high temperature. Socket switches shall conform to national standard requirements;
- ◆ Before water electricity installation, the total power supply should be cut off;
- ◆ User's electricity distribution system should have grounding wire, which should be strong and reliable
- ◆ After the electrical installation is complete, the wires used can not be in contact with heating or domestic hot water pipes.

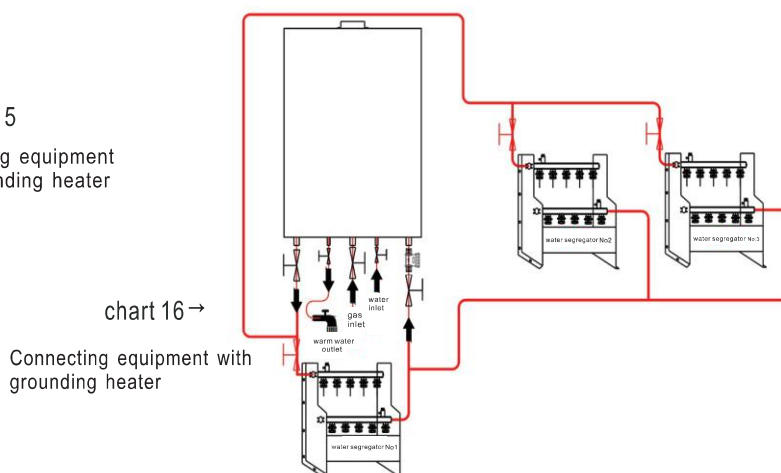
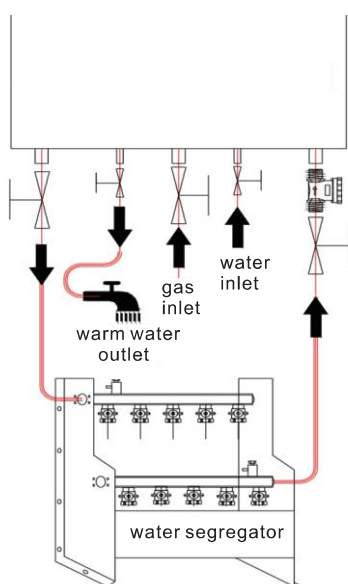
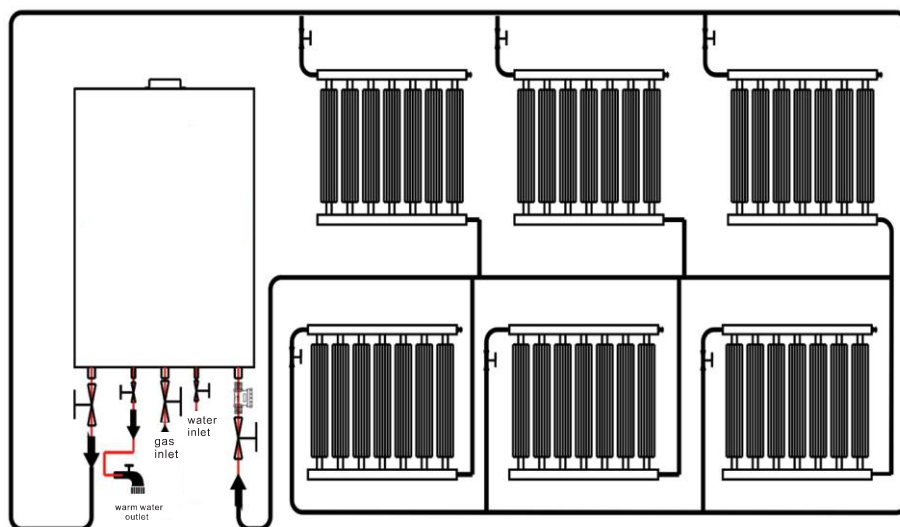


chart 17 →  
Parallel equipment and heat-absorbing plates





## First Reminder for debugging

◆Before debugging, please check the related items.

NO	Items	Inspection method	Standard	Measurement
1	Power voltage	1. Detect power voltage with multimeter 2. In the morning / noon / evening / midnight the test must be in accordance with the standards.	AC200V ~AC250V	If the voltage fluctuation is serious, the regulator should be used.
2	Smoking pipe installation	1. smoking pipe installation should be comply with "standard norms of smoking pipe installation ". In order not to affect the combustion, boiler can be installed outside the wall ( take into account the need for shelter from the rain /wind)	Installation standards	Improper installation must be corrected.
		2. Confirmation of combustion: the color of the burning flame should be confirmed (if the flame color is not normal, should immediately stop the combustion and analyze reasons.)	Light blue	Check the gas type and combustion status
		3. Confirm the sound of ignition and combustion	low	Check ignition needle and distance between combustion and gas pressure
		4. Confirm the connection status of smoking pipe	Sealed	Straightly right ,and inserted into the end
3	Upper Water pressure	1. Tap water pressure is not more than 0.2MPa (0.1MPa equivalent to 1kg water pressure)	Qualified	Equip upper water pipe with pressure relief valve to adjust the pressure
		2. Check whether there is water hammer. (water hammer can cause intermittent stop in heating, especially when the user uses the booster pump	Without this phenomenon	Installation check valve
4	Gas pressure	1.Check the pressure that the dynamic pressure of gas source (combustion pressure) 2. should check leakage On the gas pipeline connection parts	Qualified	1. Gas pressure should be inspected in separate time. 2. Check leakage with soap water.
5	Using method	Allow the user to understand correctly the operating method of the controller	Instruction manual	Demonstration and explanation
6	Hot water pipeline	1. Check whether upper water pipe line and hot water line is connected reversely 2.Check whether the heat preservation measure of upper water pipe line and hot water pipeline is good	Good	1. If connected reversely, it must be corrected. 2.implement insulation measures
7	Flow switch	1. Disconnect the connector to flow sensor ,and open the hot water; connect electrical box end with flow sensor by short circuit, and to observe the response of the boiler 2. If the boiler starts, the flow sensor is abnormal 3. If you can not start, the connection line is open circuit or the main control board is abnormal	Start	1. Remove water flow switch, clean or replace 2. Check connection line and main control board

◆Confirm that the water gas electric connection is normal, nothing inside the pipeline. when supplying water ,the first water pressure control within 0.15 ~ 0.2MPa, and no ventilation;

◆Water supply steps: Open the water inlet valve→Close sanitary hot water outlet valve→open Heating water return valve→Rotate water supply valve 3 to 4 rounds in counter clockwise direction→Hear “Chi Chi” sound, it is supplying water →unscrew heat absorbing plates or gas outlet valve(use the diversion pipe or basin to hold the water outflowing from hole when outletting gas ,and just rotate gas outlet valve one round )→only water outflow without gas out when outletting gas ,please in time turn off valve→Pay attention to water pressure gauge, If water pressure reach 0.15MPa, please close the water supply valve in clockwise direction;

◆If water pressure lower than 0.05MPa,the equipment will stop working, please restart water supply steps to reach water pressure within 0.1~0.15MPa;

◆When the water pressure is too low, please add the pump to the water pipe;

◆If water leakage happening when water replenishment, stop supplying water to check problems.





## Second Reminder for debugging

◆ Please carry out different boot operation according to the different styles



↑ chart 18 A style



↑ chart 20 G style



↑ chart 21 S style



↑ chart 19 X style




↑ chart 22 S1 style








↑ chart 24 C6 style

## ◆ A、S、G、X、S1、C6 type Control program operation instructions


### 1.Button operation

“turn on/ off”Button——Open or close the system. Icon is “”

“up/down” Button——Bath, heating water outlet temperature setting and system parameter function setting icon is “  “ ”









“heating/ bath” button——Bath, heating mode conversion, icon is “”








“function”—— Sectional heating (timed heating) switch, icon is “M”






“timing”—— Sectional heating setting, icon is “”




### 2. Sectional heating (timed heating) and parameter settings










a. Beijing time setting: firstly “” Button, Switch to “” turn off state → press “” button twice, “” Flashes display hour setting, press “” Button” Fixed current hour—→press again “” button, “” means minutes setting, press “” Button” fix current minutes→after 5 seconds, automatically save the settings.






b. Sectional heating settings: “Under the heating mode” press “” button once, Screen on the right shows 0 and on the left display “” WEEK→ press “” button, Screen on the right shows “”, Screen on the right 0 flashes—→press “” button once, press again “” button and switch into “” (means 0 points without heating, complement shutdown operation, the system automatically start anti freeze function)

b.1 If the user gets up at 6:00 in the morning, press “” button and leaves home at 8:00, Screen on the right 1:00 flashes→ press “” button switch into “” → follow the order to switch 0:00 to 4:00 into “” and 5:00 ~ 7:00 into “”.









b.2 when arrive home at 12:00, go out at 14:00, press “” button switch 8:00~10:00 into “”, and 11:00~13:00 into “”;






b.3 When arrive home at 18:00, and not go out in the evening: press “” button switch 14:00~17:00 into “”, and 18:00~23:00 into “”

c. Press “” button exit, it is for Monday setting, press “” button once, and press “” button into Tuesday → again press “” button once into Tuesday sectional heating setting, follow Method above → set Wednesday to Sunday setting.





d. When finished, press the “” button to save, screen on the left shows temperature, press “” button, screen on the right display, then press the “” button, and then press the “” button into the day of the week, and finally press “” button to save.


### 3. Sectional heating (timed heating) use and cancellation





a. Under Heating mode, press the “” button→screen on the left Monday flashes, again press “” button → screen on the left switch into “”, again press “” button, screen on the left Tuesday flashes, again press “” button →screen on the left switch into “”, according to the actual situation switch from Monday to Sunday into  or  →screen on the right 24 hours yellow time icon display, means entering Sectional heating mode.

b. Under Sectional heating mode, press the “” button→again press “” button switch into “” (from Monday to Sunday into  )→finally press the “” button exit →screen on the right 24 hours yellow time icon disappear, means Sectional heating mode is cancelled, entering Manual heating mode

### 4. Bath/heating Daily use procedure

a. Bath operation step 1: Power is on, screen display  → press the “” button to boot, again press “” button switch into summer mode → press “” button, Set the bath water temperature 40 ~ 42 degrees C (after the first set, no longer set any more)→Open the hot water valve, shows shower icon→hot water outlets after 5 seconds

b. Bath operation step 2: under heating mode, Open the hot water valve→, shows shower icon→ press “” button, Set the bath water temperature 40 ~ 42 degrees C (after the first set, no longer set any more)→hot water outlets after 5 seconds

c. Heating operation procedure(manual heating ): Power is on, screen display  , → press the “” button, again press “” button switch into winter mode → press “” button, set heating outlet-water temperature (According to the room temperature, adjust water temperature. ) →boiler works into set temperature, automatically shut down→ after three minutes, outlet-water temperature is lower than the set temperature, boiler starts working again→repeating working like this.

d. Heating operation procedure(sectional heating ): set according to the third operation of Sectional heating (timed heating) use and cancellation.



↑ chart 23 C style



↑ chart 23 F style

### ◆ A and S style control system operating instructions:

#### 1.Button instruction

- “” timing button: use to Set timing, under heating mode, press this button 3 seconds, start or close timing function
- “” setting button: use to set parameters, timing and system parameters
- “” winter /summer button: winter /summer mode switch button, after boost , press it enter working mode to choose “Winter mode” or “ summer mode”
- “” Down button: To adjust the setting temperature and time, down the set value, Per click to drop a value, long press down the value continuously.
- “” Up button: To adjust the setting temperature and time, up the set value, Per click to drop a value, long press up the value continuously.
- “” turn on/off button: turn on/off button, press on or off. under the parameter setting state use it as exit button, can remove the fault state.

#### 2. System time setting

Under shut down state, press “” button, Clock display “” hour time flashes , press “” button and “” button to change the value. After setting hour time , press “” button, “” minute time flashes, press “” button and “” button to change the parameters .

note: Time setting must be in the form of 24 hours




#### 3. Timing choice


Under winter mode, press “” open timing function, “” con flashes, press “” button, choose among three timing mode -“Energy saving, economical, or high efficiency” mode





Note: after setting the timing mode, press the down button, set required water temperature for timing section

Mode	Working time section				Working time
	Morning	Noon	Evening	before dawn	
Mode 1 Energy saving	05/06/07	12	17/18/19/20	01/02	10hours
Mode 2 economical	05/06/07/08	11/12	17/18/19/20/21	02/03	13hours
Mode 3 high efficiency	05/06/07/08	11/12	17/18/19/20/21/22	01/02/03	15hours

### 4. Bath /heating Daily use procedure




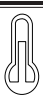












a. Bath operation step 1: Power is on, screen display  →press “” button, switch into summer mode→press  temperature button to set bath water temperature 40 ~ 42 degrees C (after the first set, no longer set any more)→Open the hot water valve, shows shower icon→hot water outlets after 5 seconds

b. Bath operation step 2: under heating mode, Open the hot water valve→shows shower icon→press  temperature button to set bath water temperature 40 ~ 42 degrees C (after the first set, no longer set any more)→hot water outlets after 5 seconds

c. Heating operation procedure (manual heating): Power is on, screen display  →press “” button,  into winter mode→press “ temperature” button, set heating outlet-water temperature (According to the room temperature, adjust water temperature.)→boiler works into set temperature, automatically shut down→after three minutes, outlet-water temperature is lower than the set temperature, boiler starts working again →repeating working like this.

d. Heating operation procedure(sectiona heating): set according to the third operation of Sectional heating (timed heating) use and cancellation

## Instruction for screen-displaying icons

Icon	Name	Instruction
	Summer mode	When Displaying ,only run the bath function, not run the heating function
	Winter mode	When Displaying, run the bath and heating function
	Day timing	When Displaying, Indicates that the heating mode runs at the setting day time
	Hour timing	When Displaying, Indicates that the heating mode runs at the setting hour time
	Heating mode	When Displaying, Indicates that the heating mode is running, if starting bath mode, it Will stop working
	Bath mode	When Displaying, Indicates that the bath mode is running
	Indoor temperature control	When Displaying, Indicates that the indoor temperature switch is on
	Antifreeze	When Displaying, Indicates that Antifreeze protection function is working
	Water temperature	Show the heating and bath temperature or show fault
	Wind machine	When Displaying, Indicates that the Wind machine is running
	Pump	When Displaying, Indicates that the pump is running
	Fault	When flashing, Indicates Equipment fails, Displaying fault code
	Week	When Displaying, means having setting the timing function at this day, not displaying means not setting in this day (S-type means having timing section setting)
	Flame	Displaying the size of the flame when the machine works, nothing means no flame
	Time	Displaying current BeiJing time (manual setting)
	Time section	The time period is divided into 24 parts, and the displaying part means working current time section and not displaying the time section not working



### Third reminder for debugging

- ◆ Under normal supply of water and gas, Confirm smoking-outlet pipe, gas pipe installation and connection are qualified, Ventilation for the first ignition operation of equipment
- ◆ Notice: When the first ignition is not successful, please turn off the gas valve, Then check if the smoking outlet pipe installation is standard, whether there is air in the gas pipe, or the ignition of the equipment is normal. etc.
- ◆ If the first ignition is successful, please check whether the flame is out of flame, flame is not uniform, the flame is too high or too low.
- ◆ Check constant temperature function of shower, open hot water valve, see if the water temperature can be constantly within  $42 \pm 2$  degree in 5-15 seconds , check water flow and flame situation ;
- ◆ Check heating function, set The temperature up to 80 degrees Celsius to check the water temperature rising is normal, and every temperature rising time can not be less than 1 second;
- ◆ When supplying heat, check if any part or pipelines has leakage ;
- ◆ When supplying heat, doing gas outletting operation on the cooling system, and make sure normal water pressure;
- ◆ After 1 to 2 hours of continuous operation; switch all the valve into balanced situation and make sure all heat radiation units in consistent temperature ;then repeating switch machine several times
- ◆ After All the system run normally, check the airtightness of smoking outletting system and gas pipes, then debugging is completed.

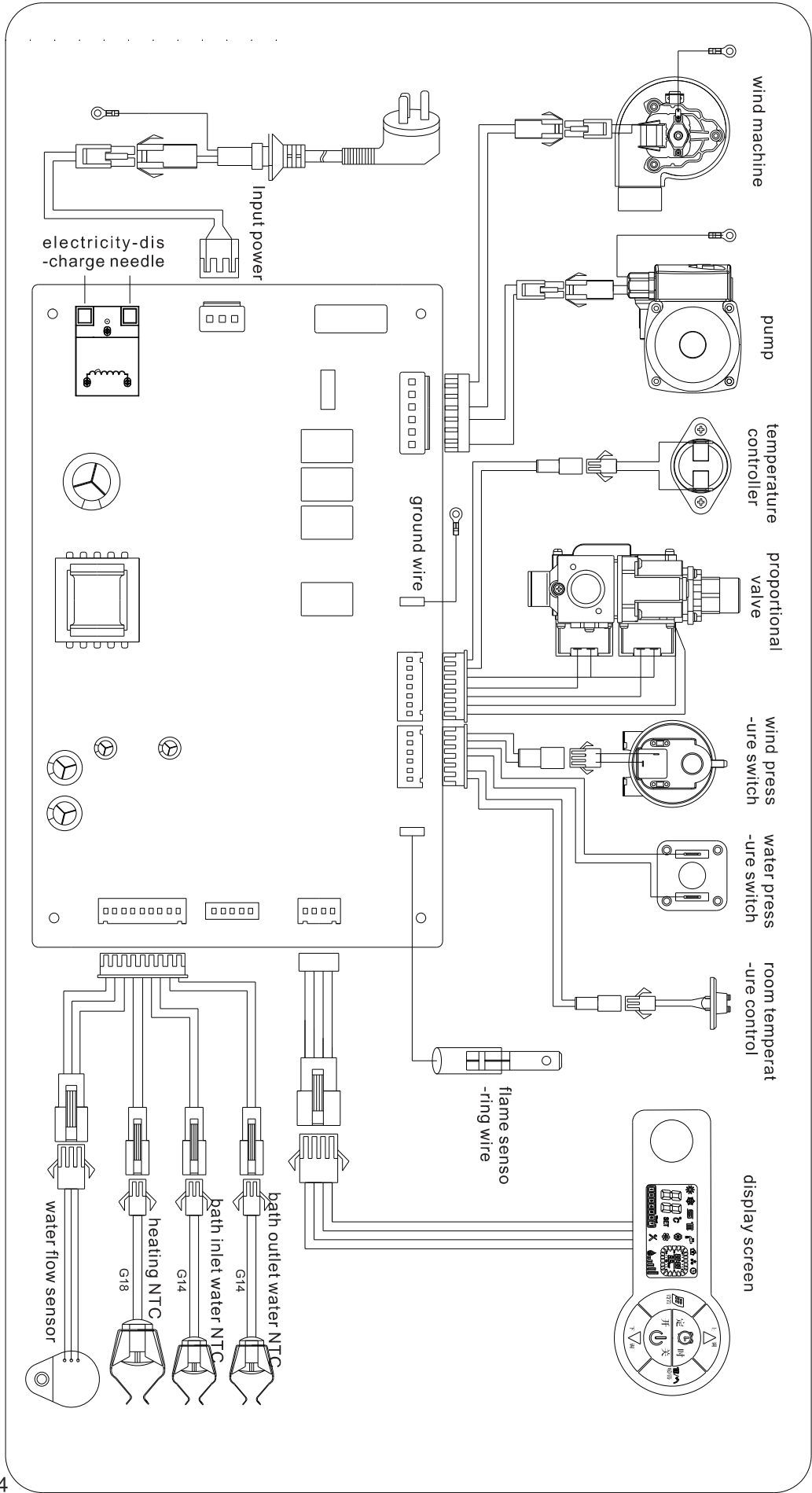
### Fault description:

Fault code	Fault type and definition	Remarks
E0	Low temperature icing alarm	Automatically restored when Temperature is higher than 1 degrees C
E1	Ignition fails	Can not automatically restored
E2	Wind pressure fault	Automatically restored within 15min
E3	Mechanical temperature controller fault	Can not automatically restored
E4	Temperature probe over temperature alarm	Can not automatically restored
E5	Bathroom water inlet temperature probe fault	Can not automatically restored after repair
E6	Bathroom water temperature probe fault	Can not automatically restored after repair
E7	Heating temperature probe fault	Can not automatically restored after repair
E8	Fake flame fault	Can not automatically restored after repair
E9	Water pressure fault	Can not automatically restored after repair
If failing, please contact the seller, please do not disassemble and repair by self		

## Failure causes and treatment methods

Fault	Reasons	Measurement
No showing	1.power is not on 2.main board insurance tube has been damaged 3.line connection is bad	1.put power on 2.change insurance tube 3.check lines
Equipment does not work	1.heating water pressure is too low 2.temperature setting is not reasonable	1.complement replenishment 2.check settings
Wind machine start and stop working	1.smoking pipe is blocked 2.Wind pressure switch is damaged 3.air pressure pipe fall off or connect reversely 4.wind machine is not activated	1.clean smoking pipe 2.change Wind pressure switch 3.connect again air pressure pipe 4.change wind machine
Ignition failure or flameout	1.not open gas valve or insufficient gas valve 2.Ignition needle is damaged	1.check gas 2.change Ignition needle
Temperature probe fault	1.damage 2.Poor connection	1.change probe 2.connect again
Over -Temperature	1.Cooling system or bath pipe is blocked 2.Backwater filter is blocked 3.heat exchanger is blocked 4.pump is damaged	1.clean pipe 2.clean filter 3.change heat exchanger 4.change pump
Bath temperature not reach the set temperature	1.too low Cold water flow 2.too low gas flow	1.adjust water flow 2.ask gas company to repair the pipeline
Heating temperature not reach the set temperature	1.poor performance of building insulation 2.no much Radiation units 3.equipment power does not match the Apartment layout	1.improve building insulation 2.increase radiation units 3.change bigger power equipment
Bath function not work	1.water flow sensor impeller stuck 2.small water flow 3.set the temperature is too low	1.clean or change Water flow sensor 2.increase water flow 3.check setting temperature
Increasing pressure of heating system	1.not close water supply valve 2.Inadequate pressure or no pressure in expansion tank	1.close water supply valve 2.increase pressure or change expansion tank

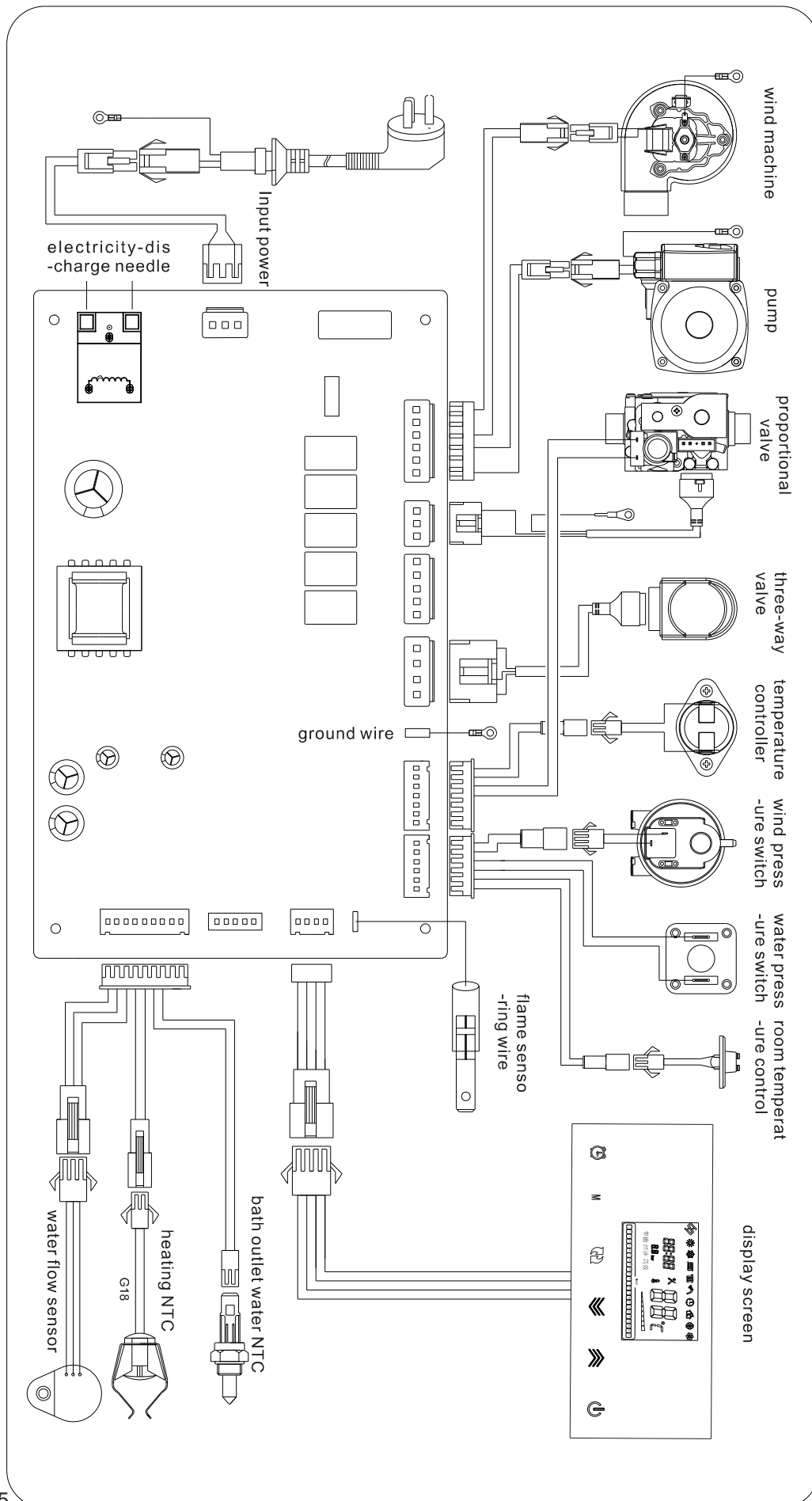
◆ Casing pipe electric control system wiring diagram



↑ chart24



◆ plate exchanger electric control system wiring diagram



↑ chart 25





## Reminder for user training

- ◆after completing debugging,should train user how to operate the equipment ;
- ◆Training bath and heating function operation;
- ◆Training failure learning;
- ◆Training safe operation knowledge;
- ◆Training Emergency Treatment to water or electricity leakage;
- ◆Training maintenance knowledge;
- ◆Inform contact way after sales;
- ◆Answering questions to the user.



## Reminder for Daily self inspection and maintenance

- ◆Daily check
  1. Check pressure change of heating system pressure change, the pressure value is between 1 ~ 1.5bar;
  2. Check whether the gas pipes and smoking outlet pipes fall off, damaged or blocked;
  3. Check whether the screen display is ok, if not please inform the customer service staff ;
  4. Check if the power cord is damaged by rats or other reasons;
  5. after heating supply in the end of year; please change the equipment into summer mode
  6. Before supplying heating, should ask the service personnel to do the annual maintenance.
- ◆Safety emergency treatment
  1. If leakage, immediately call the Gas Company professionals to take measures to stop the leakage . when smelling gas inside the room, Should be shut down the gas valve, open the window, circulate air . prohibit to call inside the room, switch power supply or do any action that makes sparks. call outside to inform the Gas Company and inform the customers service staff;
  2. If leakage, please turn off the gas, inform the customers service staff immediately
- ◆Daily use and maintenance
  1. Before cleaning the equipment, should be closed down the water, electricity and gas ;
  2. Do not wash by water or corrosive cleaner to clean;
  3. If no use for long term, should drain water within the system, and close shut down gas, electricity , and water ;
  4. If no use for long term, should ask customer service staff to check before using
  5. During using , no flammable, perishable, moist or heated items around;
  6. Can not change use property during routine use;
  7. Juveniles, inexperienced person can not operate the equipment.



## Reminder for manual Maintenance specification

- ◆ Wall hanging gas boiler maintenance should be a full inspection, cleaning, and maintenance, to water pipes ,electric circuit, gas pipes, combustion and related accessories etc, Wall hanging gas boiler maintenance should be once a year , artificial gas wall hanging boiler once a month (heating period), the content of maintenance as follows:
  - a. cleaning burner and nozzle
  - b. clean heat exchanger (if necessary, clean up)
  - c. cleaning wind machine and Venturi tube
  - d. clean smoking pipe and check the fixed conditino
  - e. check and clean up the ignition electrode
  - f. clean dust and dirt in combustion chamber
  - g. inspect and clean automatic bypass, temperature sensor, safety valve and other water components
  - h. clean the auxiliary board , and inspect, check the minimum starting water flow of sanitary hot water
  - i. clean the dirt and dirt in the water system
  - j. check and clean gas valve
  - k. check and adjust gas pressure to the normal value
  - l. check the safety device, block the smoking pipe to see if the fire is extinguished and protected
  - m. check the pressure of the expansion tank (if insufficient, inflate to 1 + 0.2bar)
  - n. overally inspect and test boiler combustion
  - o. Check the cleaning outside of the boiler, and inform the user the status of the boiler
- ◆ Wall hanging gas boiler's regular maintenance, can prolong the service life, improve the working efficiency, reduce the incidence of failure, Which is cond-ucive to the normal and safe operation.(especially the boiler has been used more than two years).



## Reminder for manual Maintenance specification

- ◆ In order to reduce gas consumption, energy consumption and environmental pollution, recommend the user to sign contracts with authorized dealers, including annual inspection, maintenance, repair and maintenance
- ◆ Before operation, gas valve should be closed;
- ◆ The air tightness of the equipment parts should be checked before operation;
- ◆ Before operation, the power supply should be cut off;
- ◆ When operating the system pipeline, should outlet the water inside the system;
- ◆ When replacing parts of the equipment, please use the original accessories from factory;
- ◆ during maintenance process, should replace aging sealing ring;
- ◆ after Check and maintainance, operate in accordance with this manual on P17 page.

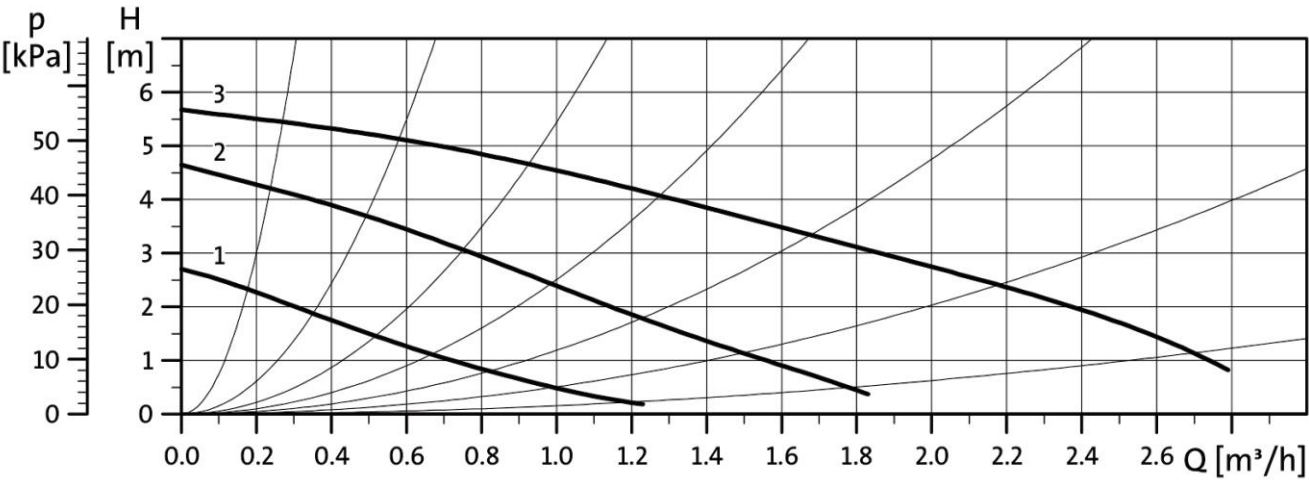
## Equipment maintenance journal

User		Equipment fitter		Equipment mode	
Production date		Installation date		Gas type	
Overhaul project	date				
	Inspection result				
cleaning burner and nozzle					
clean heat exchanger					
cleaning wind machine and venturi tube					
clean smoking pipe and check the fixed condition					
check and clean up the ignition electrode					
clean dust and dirt in combustion chamber					
inspect and clean automatic bypass					
temperature sensor					
safety valve					
clean Vice plate					
check the minimum starting water flow of sanitary hot water					
clean the dirt and dirt in the water system					
check and clean gas valve					
gas pressure					
block the smoking pipe to see if the fire is extinguished and protected					
check the pressure of the expansion tank					
check the gas tightness and tracheal aging					
check the sealing performance of water system					
Fully inspect and test boiler's working state					

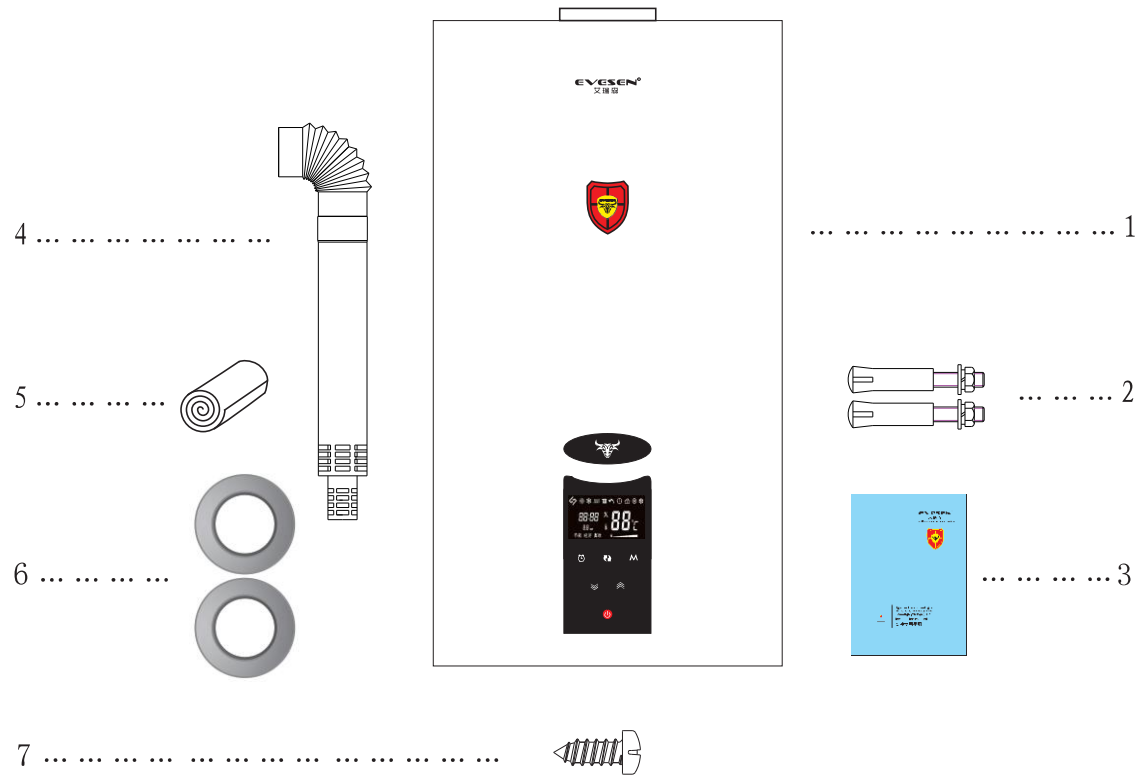
◆ maintenance results marks √, repair △, and replacement ○

Remarks:

◆ Pressure characteristic curve of water pump:



Remarks:



↑ 图01

◆燃气采暖热水炉整机	1台	.....1
◆安装膨胀螺钉	2个	.....2
◆安装使用手册	1本	.....3
◆排烟管	1条	.....4
◆排烟管接口密封用铝箔纸	1个	.....5
◆排烟管穿墙密封胶垫	2个	.....6
◆排烟管锁紧螺丝	3个	.....7

◆本公司系列产品基于中华人民共和国相关国家标准设计、制造、销售:

GB 25034-2020 燃气采暖热水炉

GB 20665-2015 家用燃气快速热水器和燃气采暖热水炉能效限定值及能效等级

GB 17905-2008 家用燃气燃烧器具安全管理规则

GB 50028-2006 城镇燃气设计规范

08S126-2008 热水器选用及安装

GB/T19001-2016/ISO9001:2015 质量管理体系要求

◆本公司系列产品用于生活热水与供暖,适用多种气质(液化石油气、天然气、人工煤气);

◆本产品使用范围广,适用于普通家庭、公寓、别墅、普通商用等场所的热水和供暖需求;

◆使用设备时,应严格按照使用指南进行操作,对于不按照使用说明操作导致的后果,本公司概不负责;

◆使用设备前请仔细阅设备说明书及设备机身上的注意事项、铭牌及安全标识。



## 以下信息为您安全使用提供帮助，请仔细阅读

- ◆燃气采暖热水炉必须由专业人员严格按照说明书要求和相关规定进行安装与维护;
- ◆非专业人员安装本公司产品可能会造成燃气采暖热水炉漏水、漏气、漏电、烟管安装不规范以及烟道脱落,都将给用户造成不必要的损失,甚至危及生命;
- ◆安装烟道时必须将进、排气口伸出室外,向下倾斜 $3 \sim 5^\circ$ ,以防止雨水、冷凝水倒灌,并用自攻螺丝将烟管与热水炉出烟处连接紧固,以防烟管脱落;
- ◆燃气采暖热水炉严禁安装在卧室、客厅、浴室以及空气不流通的区域,不能暗装,并且不应靠近电磁炉、微波炉等强电磁辐射的物件,周围严禁堆放易燃、易腐、易爆等物品;
- ◆燃气采暖热水炉的配电系统应有接地线,器具连接的开关不应设置在浴盆或淋浴设备的房间,插头、插座应通过相关认证;
- ◆安装燃气采暖热水炉时,应在热水炉的燃气管道上安装燃气截止阀,严禁拆动器具上的任何密封件,器具上的锁紧装置不应随意调节,请使用专用燃气管路;
- ◆安装后,应检测整个采暖系统及冷水、卫生用水管路的密封性能,然后对采暖系统进行反复冲洗,直至确认无异物为止;
- ◆必须使用与产品相适应的燃气种类与标准压力;
- ◆必须使用与产品相适应的电源电压;
- ◆定期检查燃气供气管路的气密性,可以用肥皂水检查接头处有无气泡产生或专业仪器检查接头处,如有漏气,立即请燃气公司专业人员,采取措施制止漏气.当日常发现室内有燃气气味时,应关闭燃气总阀,开门开窗,使空气流通,期间严禁在室内打电话、开关电源或做出导致产生火花的动作,并到室外打电话告知燃气公司上门检修;
- ◆冬季室内长期无人居住时,务请把系统中的水排尽或启动防冻功能(进入防冻,必须保证供电、供气和合适水压),否则本产品有被冻坏的可能;
- ◆严禁未成年人或没有操作经验的人使用本产品;
- ◆系统内热水只能用于供暖,洗浴热水只能用于淋浴洗手等用途,严禁饮用;
- ◆以一个采暖季为周期,建议对热水炉风机、集烟罩、热交换器和燃烧器及采暖管路进行清洗维护;
- ◆严禁私自打开或改动本机配件、结构和使用性质,如不能正常使用,请停机,及时通知售后人员;
- ◆建议您安装燃气泄漏报警装置;
- ◆只有制造商授权的代理商或技术人员才可以维修、更换零部件和整机维修。检查人员在产品维修后应在产品上进行标示维修和检查的结果及日期;
- ◆用户在接收使用本产品前,必须接受相应的操作培训、安全应急知识;
- ◆用户应保存好本产品的说明书,购买凭证及相关资料,以备日后查阅和参考使用;
- ◆本产品说明书中插图与实物可能有少许差别,请以实物为准,产品如有更新换代,产生的变动,恕不另行通知。

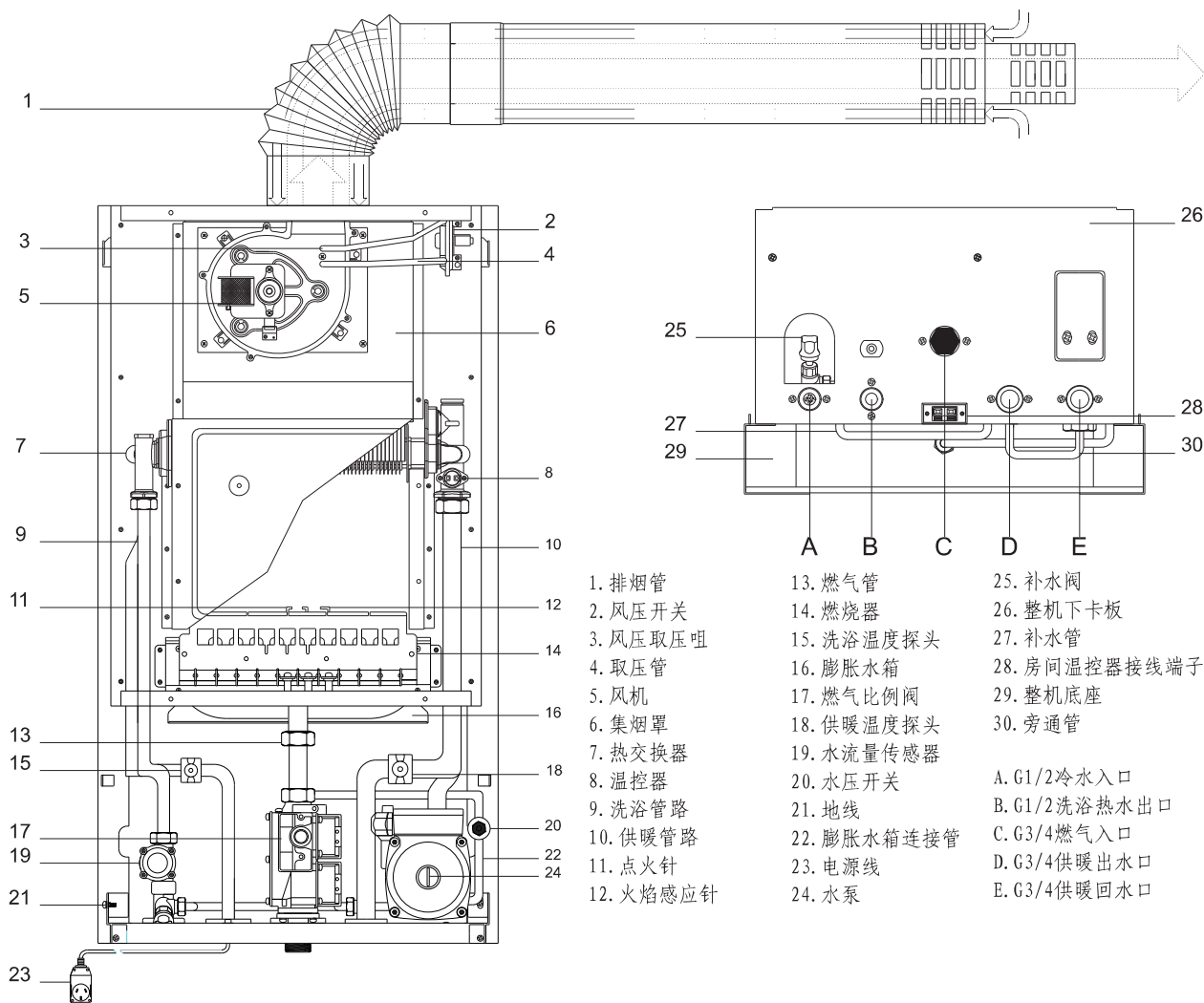


## 误使用风险警示

在说明书中应对可预期误使用风险提出警示，至少应包括以下内容

- a) 安装不当会引起对人、畜和物的危害；
- b) 器具安装应严格按说明书要求和相关规定执行；
- c) 只有制造商授权的代理商或技术人员才可以维修、更换零部件或整机；
- d) 应使用原装配件，以免降低产品的安全性；
- e) 应使用原配烟道，不能随意改用其他烟道，严禁用单管烟道代替同轴烟道
- f) 器具维修时涉及燃气调压阀和控制器的维修应找器具制造商；
- g) 不应购买经销商改装的器具，而应买生产企业的原装产品，以确保安全性；
- h) 安装器具时应在器具前的管道上安装燃气截止阀
- i) 器具不应靠近电磁炉、微波炉等强电磁辐射电器安装；
- j) 严禁拆动器具上的任何密封件；
- k) 器具清洁时不应使用有腐蚀性的清洁剂
- l) 器具严禁安装在卧室、客厅，浴室；
- m) 儿童和不会使用的人不应操作器具，儿童严禁玩弄器具；
- n) 用户自己不应动采暖安全阀和采暖水排泄阀，应由专业人员来处理；
- o) 器具不宜暗装；
- p) 维修和检查人员在产品维修后应在产品上进行标示维修和检查的结果；
- q) 房间的配电系统应有接地线；器具连接的开关不应设置在有浴盆或淋浴设备的房间；插头、插座应通过相关认证；
- r) 指出器具防冻功能起作用的条件，提示用户为了避免器具或管路冻坏，在冬季长期停机时，应将器具采暖和生活热水系统内的水全部排空；或者只排生活热水，而在采暖水中加入防冻剂。
- s) 如电源线损坏，为避免危险，应由制造商或制造商认可的维修人员来更换。

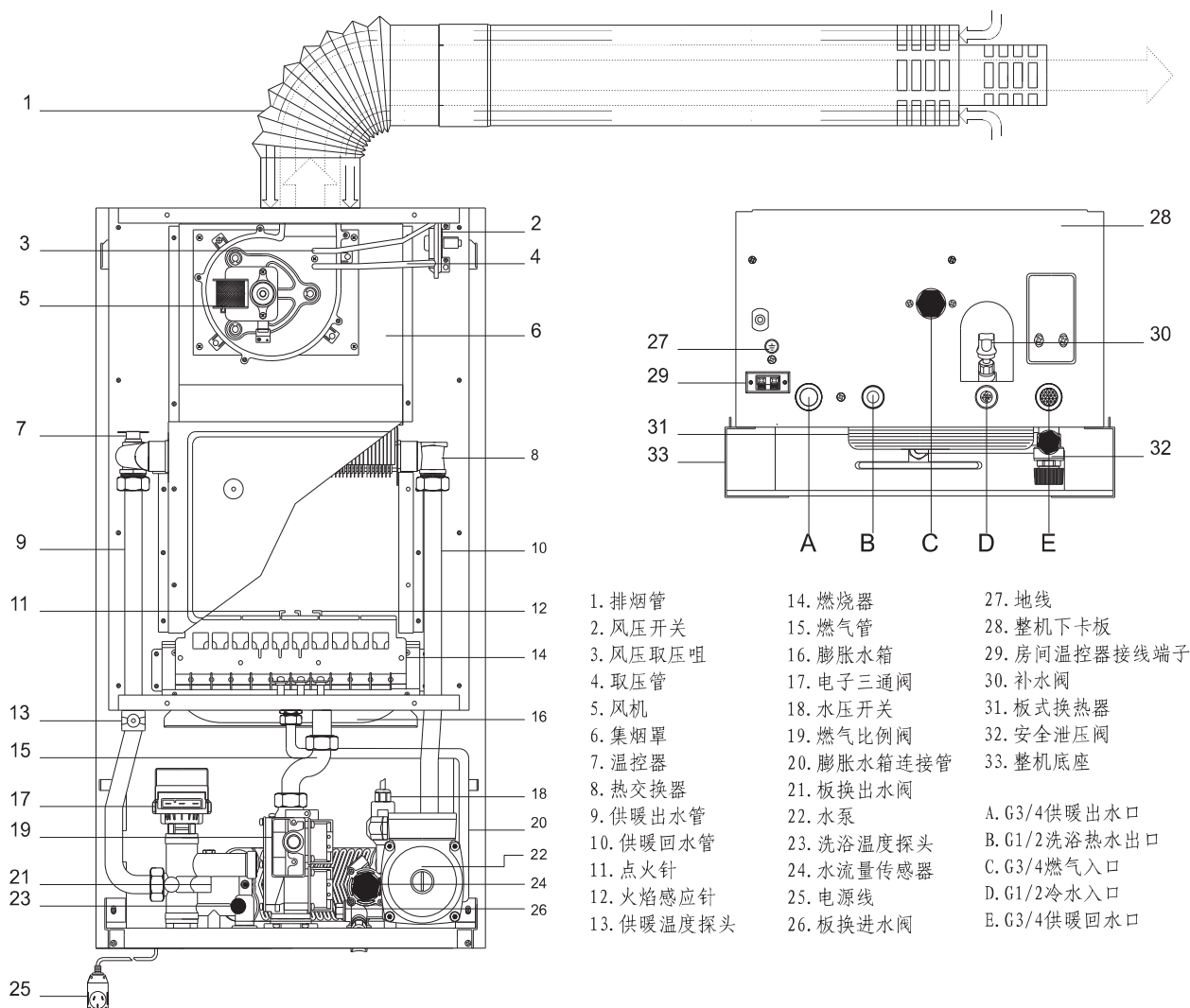
◆L1PB套管式结构图



↑ 图02

- ◆主热交换器是复杂的复合型结构，大管（外管）套小管（内管），大管通供暖水，小管通洗浴水；
- ◆套管式结构控制系统相对简单，控制系统稳定性高；
- ◆采暖功能：燃气燃烧后产生的高温烟气通过热交换器，经吸热片吸收热量将采暖水加热，循环水泵使采暖水在壁挂炉与采暖系统内循环，从而提供采暖，此时生活热水不流动；
- ◆热水功能：燃气燃烧后产生的高温烟气通过热交换器，经吸热片吸收热量首先将采暖水加热，然后再通过采暖热水传导内部管路中的生活热水，此时，采暖系统水路不循环（热水优先）。

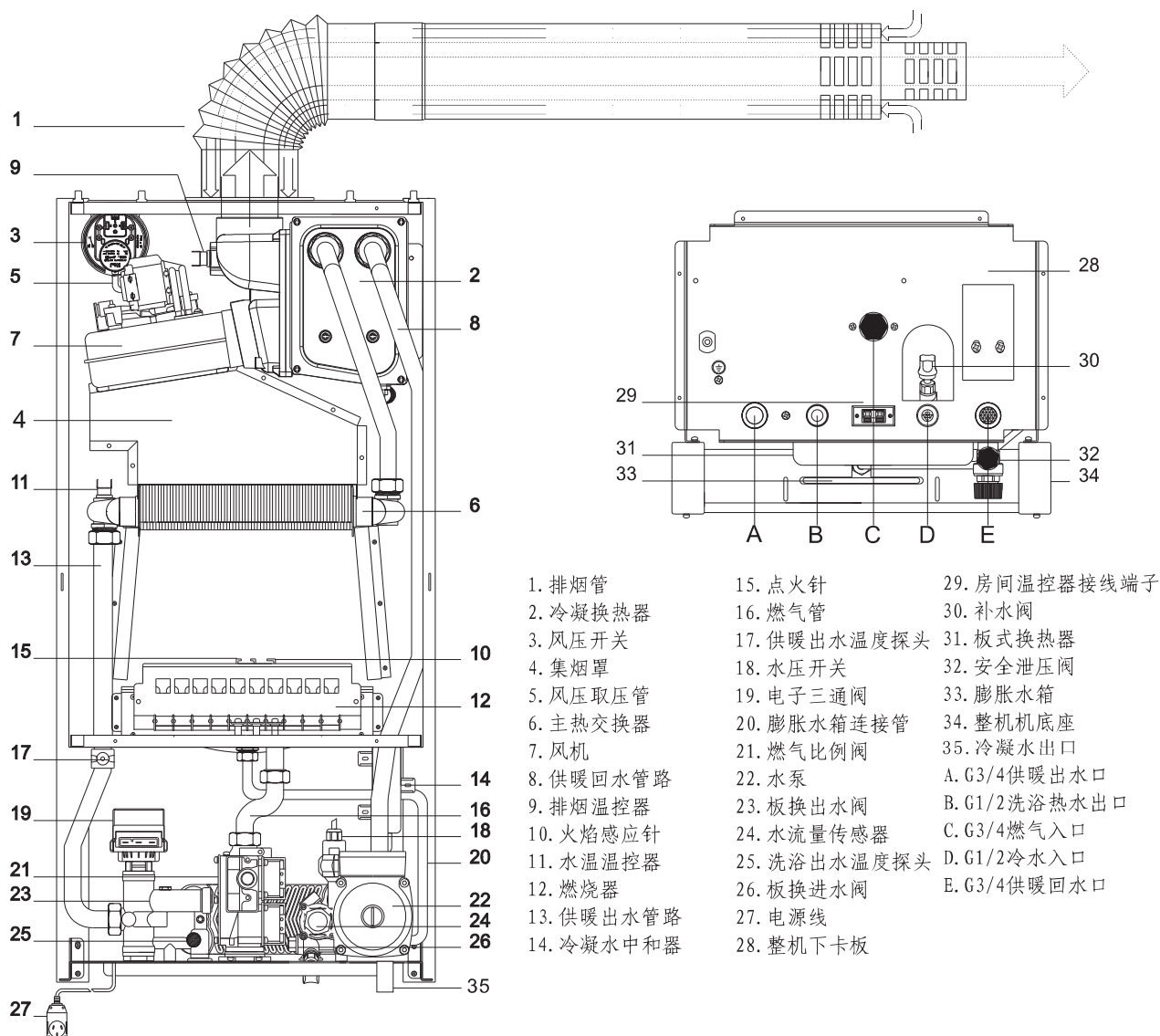
## ◆L1PB板换式结构图



↑ 图03

- ◆由一个单管的主热交换器和一个板式热交换器组成;
- ◆板换结构是一层热水一层冷水对流换热.洗浴时三通阀切换,通过内循环的高温热水在板换处将进来的自来水加热;
- ◆板式结构由于储水容积较小,对出水温度的控制更为精确;一旦产生结垢现象,板式热交换器方便清理和易于更换;
- ◆采暖功能:燃气燃烧后产生的高温烟气通过主热交换器,经吸热片吸热将采暖水加热,循环水泵使采暖水在壁挂炉采暖系统内循环,从而提供采暖,此时生活热水不工作;
- ◆热水功能:燃气燃烧后产生的高温烟气通过主热交换器,经吸热片吸热首先将采暖水加热,循环水泵将一次水在壁挂炉的主换热器与板式换热器间进行壁挂炉内的小循环,自来水通过板式换热器与采暖一次水进行逆向流动热交换,二者在板式换热器中并不发生混合。

◆ L1PB冷凝式结构图



↑ 图04

- ◆ 本公司冷凝热水炉采用二次换热结构设计,将水蒸气潜热吸收于热水;
- ◆ 排烟温度低,一级能效,更节能,更环保。
- ◆ 冷凝热水炉在工作过程中由于燃烧产生废气的热量被回收利用使得能耗更低,环保指标更好,适用于各种采暖系统;
- ◆ 控制系统相对套管系统复杂;
- ◆ 采暖功能: 设备启动,循环水泵运行,点火运行,燃烧后产生高温烟气,由主热交换器吸收后产生的余热进入冷凝换热器,此时采暖回水进入冷凝热交换器经过第一次加热,再进入主热交换器进行第二次加热,最后水流进入供暖系统循环。
- ◆ 热水功能: 首先控制系统打开三通阀,采暖水按上面"采暖功能"运行,进行内循环,采暖水加热,循环水泵使一次水在壁挂炉的主换热器与板式换热器间进行炉内的小循环,自来水通过板式换热器与采暖一次水进行逆向流动换热,二者在板式换热器中并不发生混合。

设备技术参数

产品型号		L1PB18	L1PB20	L1PB24	L1PB24-LN	L1PB28	L1PB32	L1PB36	L1PB40	L1PB50
燃气类别		天然气 12T/液化气 20Y								
额定燃气压力 Pa		天然气 2000/液化气 2800								
生活热水额定热负荷 kW		18	20	24	24	28	32	36	40	50
采暖额定最大/最小热负荷 kW		18/5.4	20/6.6	24/7.2	24/7.3	28/9.3	32/10.56	36/11.9	40/13.2	50/10
采暖额定最大/最小热输出 kW		16.2/4.8	17.6/5.8	21.4/6.4		24.9/8.3	28.48/9.4	32.1/10.6	35.6/11.7	45/9
采暖额定冷凝最大/最小热输出 kW					23.5/6.8					
能效等级		2级	2级	2级	1级	2级	2级	2级	2级	2级
膨胀水箱容积 L		6	6	6	6	6	8	10	10	12
参考最大供暖面积 m²		120	132	158	158	180	250	300	360	450
洗浴温度调节范围℃		30~60								
供暖温度调节范围 ℃		地暖 30~60/暖气片 30~80								
洗浴最小启动流量 L/min		2.5								
洗浴最小关闭流量 L/min		1.8								
产热水能力 Δt=25k kg/min		8.8	9.7	11.3	11.5	13	14.6	16.3	18	25.3
耗气量	天然气 m³/h	0.52~1.6	0.66~2	0.79~2.4	0.79~2.4	0.84~2.81	1~3.2	1.2~3.6	1.2~4.0	0.79~5.0
	液化气 m³/h	0.19~0.57	0.23~0.72	0.28~0.86	0.28~0.86	0.28~0.93	0.38~1.1	0.42~1.29	0.42~1.33	0.28~1.66
毛重/净重 kg		38/35	38/35	39/36	45/42	45/42	45/42	58/55	58/55	64/59
外形尺寸 mm		740×410×320	740×410×320	740×410×320	820×400×295	740×410×320	740×462×325	780×540×335	780×540×335	800×650×380
额定电功率 W		125	125	125	125	125	135	255	255	280
洗浴适用水压范围 MPa		0.025~0.8								
供暖系统最高工作压力 MPa		0.3								
额定电压及频率		AC 220V 50Hz								
电击防护类型		I 类电器								
外壳防护等级		IPX4								
洗浴接口规格		G1/2								
供暖接口规格		G3/4								
燃气接口规格		G3/4								
同轴烟管规格 mm		Φ100×60								2×Φ100×60

注：此配置更新至2023年7月

## 请遵守标准规范

必须遵守如下操作规范和要求：

- ◆GB 17905-2008 家用燃气燃烧器具安全管理规则
- ◆GB 50028-2006 城镇燃气设计规范
- ◆08S126-2008 热水器选用及安装
- ◆CJJ 94-2009 城镇燃气设施运行，维护和抢修安全技术规程
- ◆CJJ 12-99 家用燃气燃烧器具安装及验收规程
- ◆CECS 215:2006 燃气采暖热水炉应用技术规程



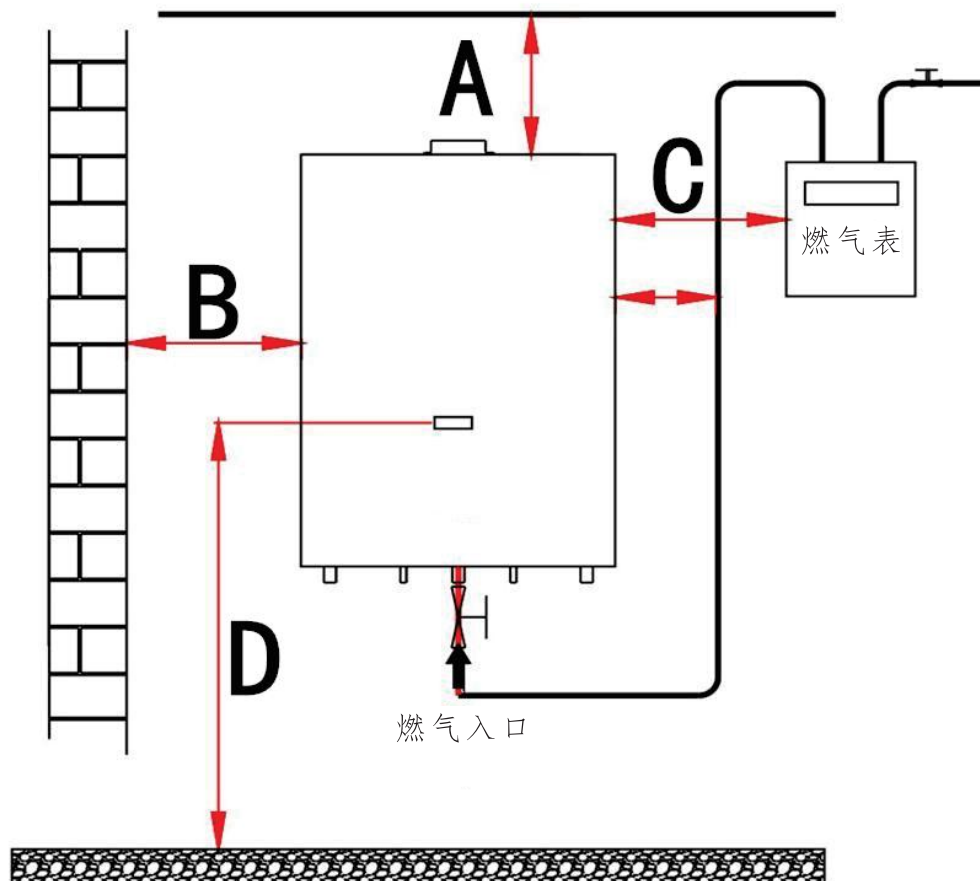
### 安装要求提醒

- ◆设备安装及调试必须由经培训且审查合格的专业人员完成，安装人员应仔细阅读本安装使用手册，请参照国家标准规范进行施工；
- ◆因用户私自安装、调试或更改设备功能、使用性质等造成的人员伤亡和财产损失，本公司不负任何责任；
- ◆烟道安装必须使用本公司研制的专用烟道，烟道最大允许安装长度1米，烟道与弯头边接处应插装到位，并用合适的自攻螺丝钉将烟管与设备出烟处连接紧固，烟道边接处用铝箔纸密封；
- ◆烟道进出气口必须完全伸出室外，并向下倾斜3~5°，烟道进出口四周距离1m内不能有遮挡物；
- ◆正常选择安装在有燃气、上下水、电源、向外排气比较方便且无人居住的房间，设备机身，排烟管，各系统管路严禁暗装；
- ◆对燃气组件进行相关操作时，切记关闭燃气阀，以防漏气发生火灾及爆炸；
- ◆电源插座，开关，线路必须安装规范。严禁非标线，不接地，插座开关靠近水源，高温等情况；
- ◆设备悬挂墙体应坚固可靠，设备应保持竖直，不得有倾斜，安装位置应尽量靠近外墙，以减少烟道长度；
- ◆严禁使用可伸缩铝制烟管作为加长节、转接和弯头。
- ◆冷凝式机器的冷凝水排水要求：冷凝水的排水管应采用随机配送的或类似的非金属的软管；连接在机器上冷凝水出口的排水管的走向应低于机器的冷凝水出口，冷凝水应能顺畅的排出，无滞留，且应排入到地下污水管道内。

**未尽事项请参照国家标准规范及公司售后资料**



## 安装场地规范



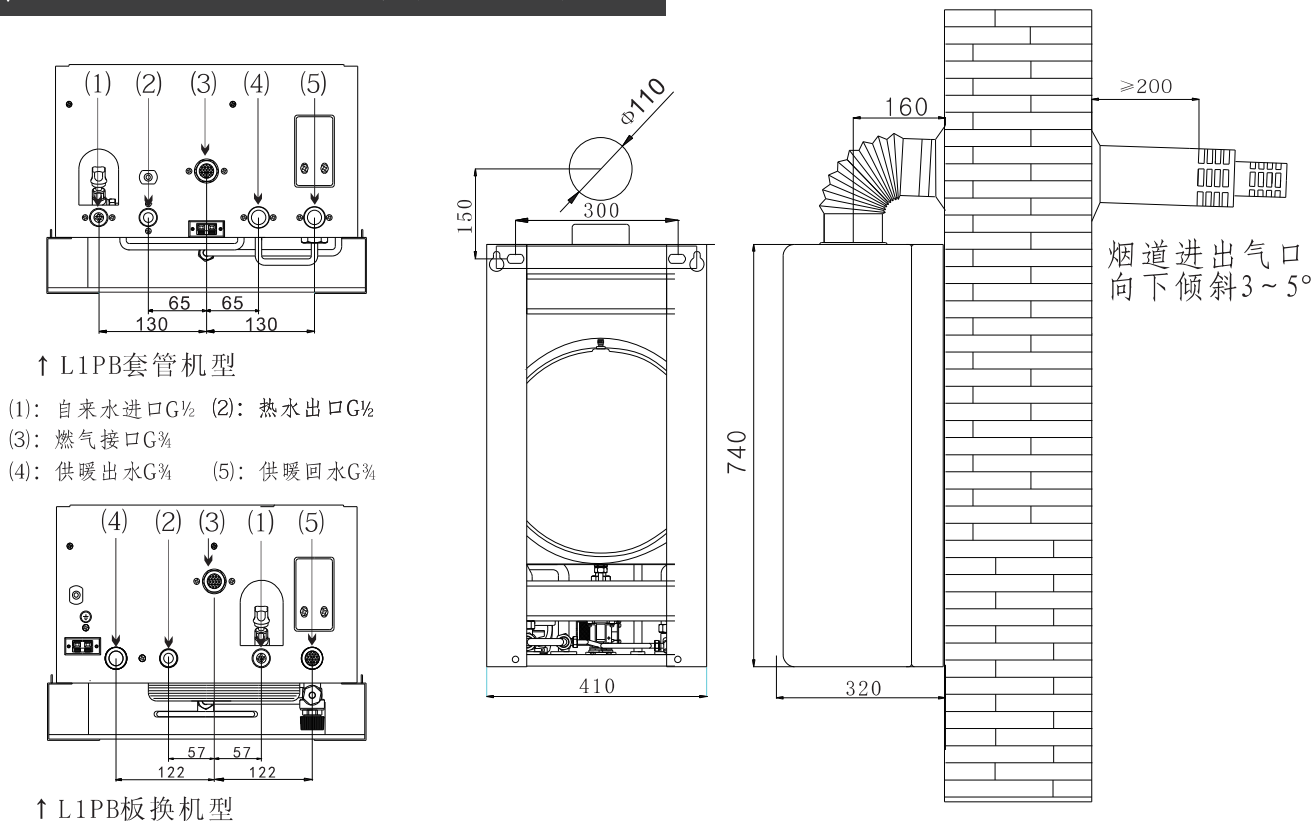
↑ 图05

- ◆该设备不宜室外安装；
- ◆周围严禁有易燃、易爆、易腐等物品；
- ◆注意排烟管进出口方向避开风口；
- ◆设备严禁安装在卧室、客厅、浴室以及空气不流通的区域；
- ◆图05A面:设备机身顶部距天花板必须大于300mm以上；
- ◆图05B面:设备机身左侧距左墙必须大于200mm以上；
- ◆图05C面:设备机身右侧距燃气管必须大于300mm以上,距燃气表必须大于500mm以上；
- ◆图05D面:设备机身观火窗距地面的高度须满足用户操作。

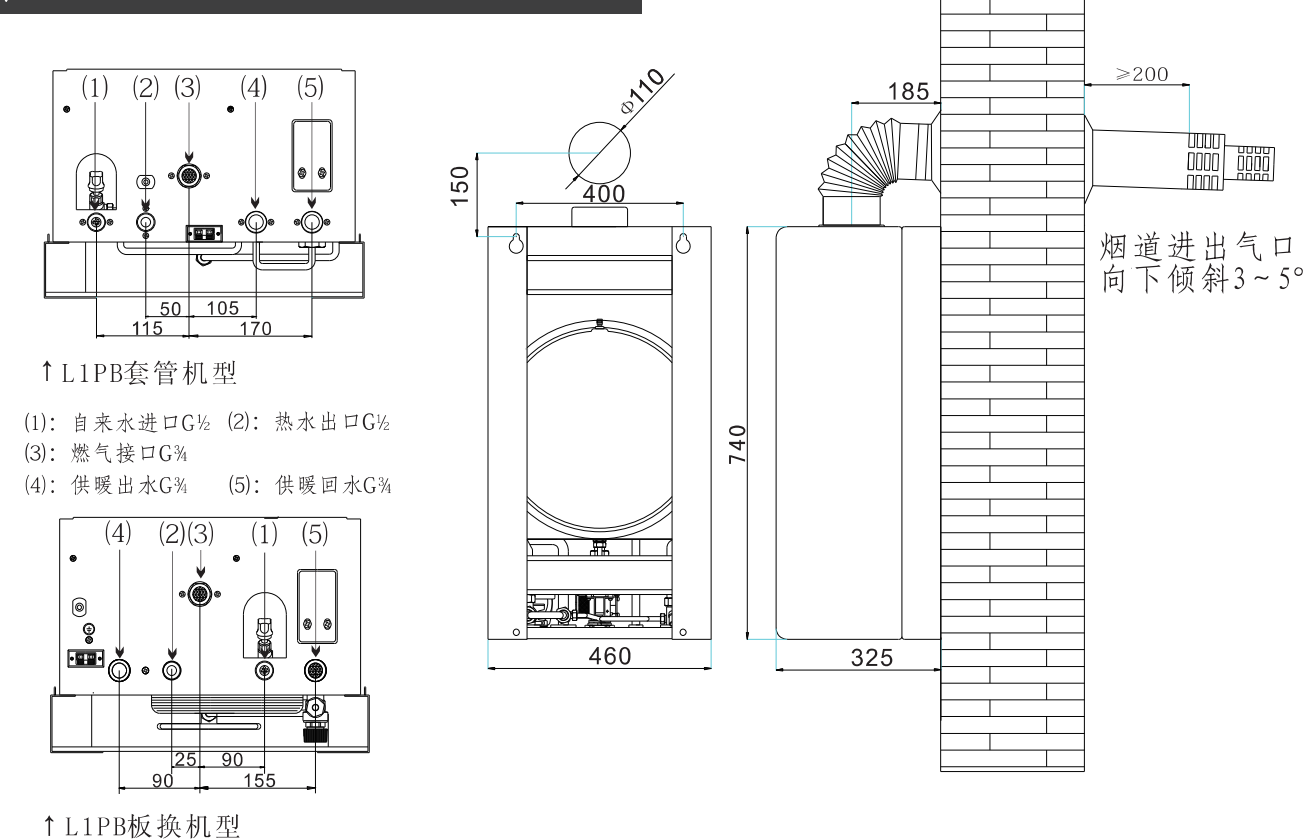


# 设备挂机尺寸参考

↓图06 L1PB18~28kW设备挂机尺寸(单位: mm)

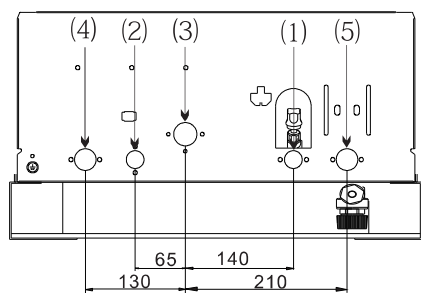


↓图07 L1PB32kW设备挂机尺寸(单位: mm)



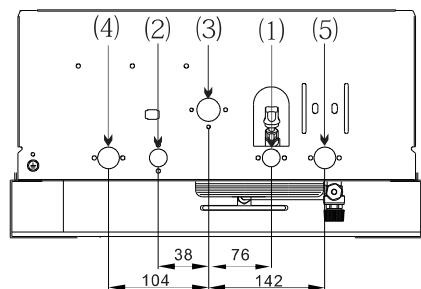


↓图08 L1PB36~40kW设备挂机尺寸(单位:mm)

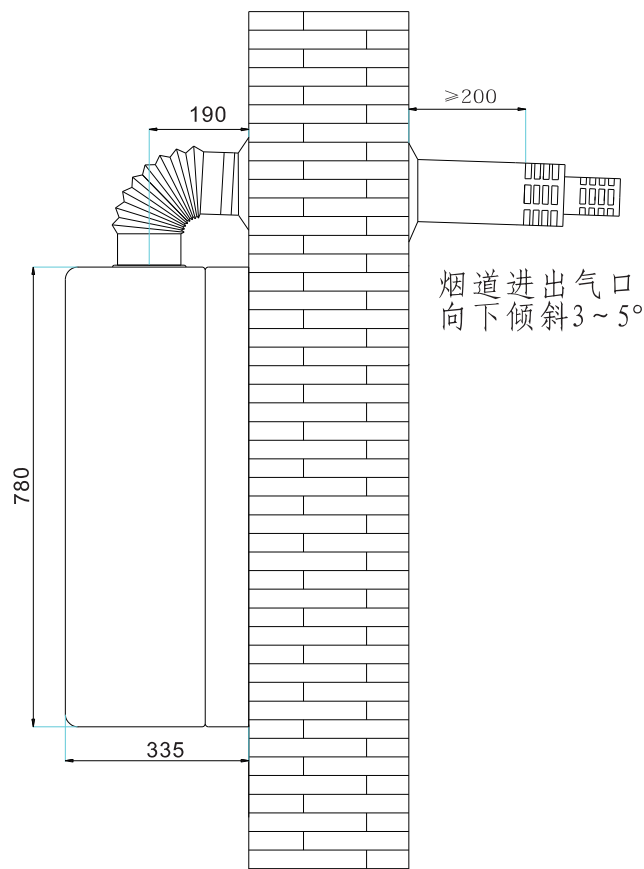
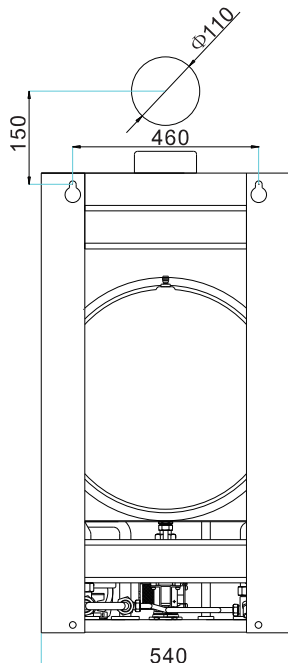


↑L1PB套管机型

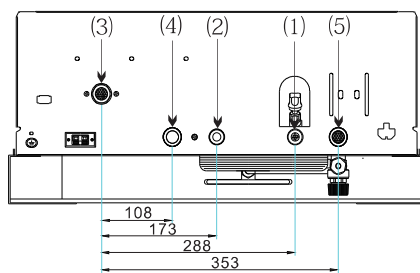
- (1): 自来水进口G $\frac{1}{2}$  (2): 热水出口G $\frac{1}{2}$   
 (3): 燃气接口G $\frac{3}{4}$   
 (4): 供暖出水G $\frac{3}{4}$  (5): 供暖回水G $\frac{3}{4}$



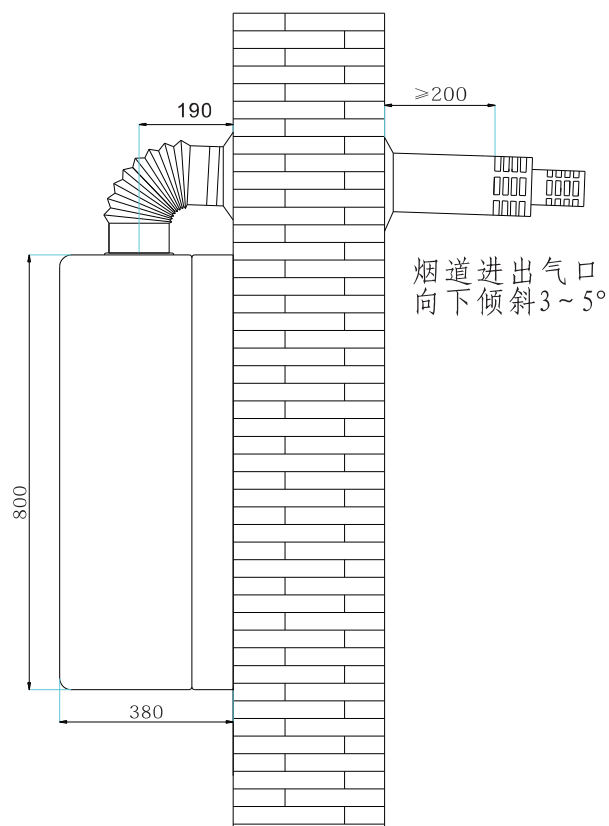
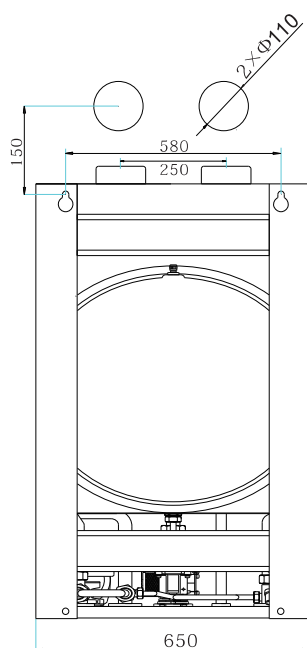
↑L1PB板换机型



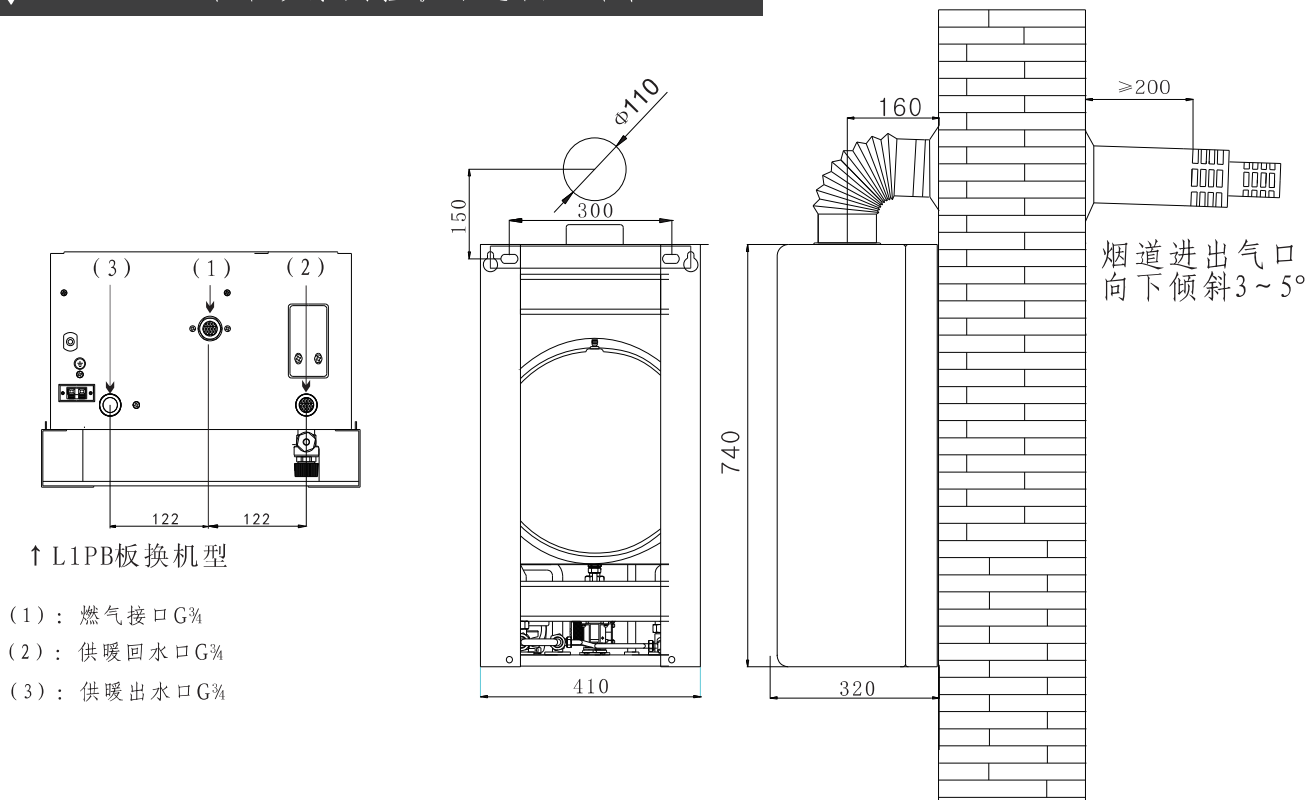
↓图09 L1PB50kW设备挂机尺寸(单位:mm)



- (1): 自来水进口G $\frac{1}{2}$  (2): 热水出口G $\frac{1}{2}$   
 (3): 燃气接口G $\frac{3}{4}$   
 (4): 供暖出水G $\frac{3}{4}$  (5): 供暖回水G $\frac{3}{4}$



↓ N1PB18-28单采暖系列挂机示意图（单位：mm）

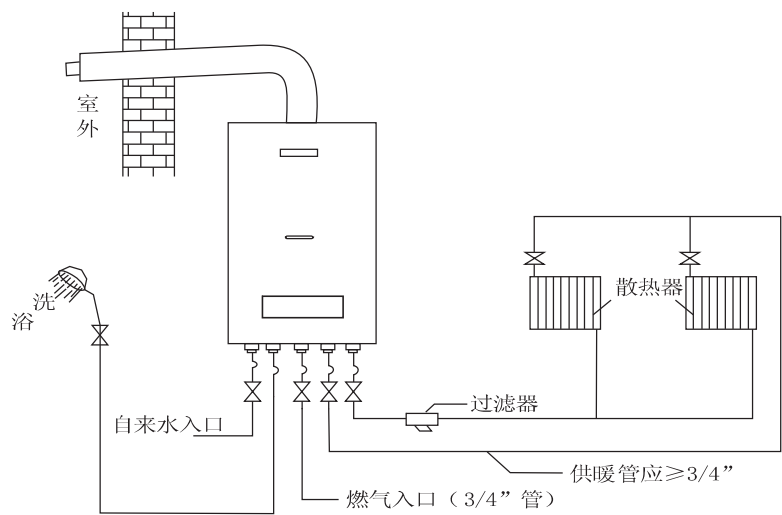


## 特别提醒

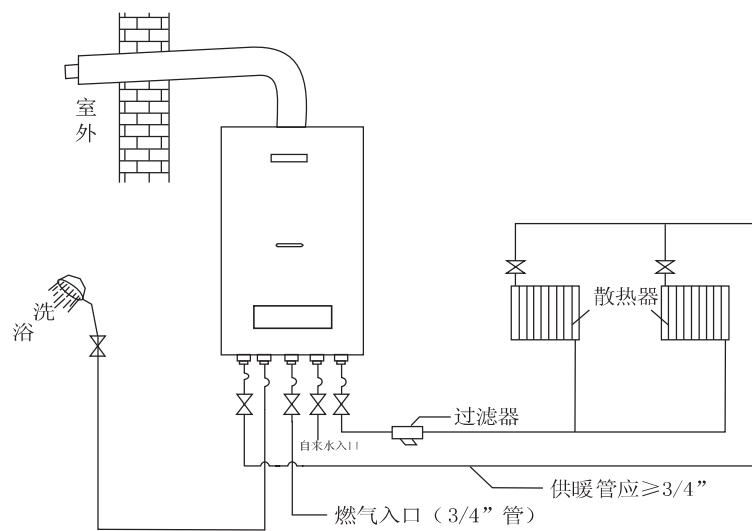
- ◆ 安装施工时请安全使用梯子、电钻、开孔器等安装工具；
- ◆ 打开包装后检查其完整性,如有整机损坏,请先不要使用,第一时间与供货商联系更换,部分包装物料可回收使用(如纸箱、防尘袋等),不得随便丢弃,以免引起危险和污染；
- ◆ 注意包装说明,设备铭牌上信息是否符合用户要求。如型号规格、燃气种类等；
- ◆ 设备所用相关配件请用原厂配件；
- ◆ 所挂设备墙面,必须垂直、平整、牢固；
- ◆ 在挂设备时建议两至三人,安装时须托住底部,轻轻放下,以防止虚挂,对设备造成损坏；
- ◆ 设备挂上墙后,并用螺母紧固,防止在锅炉运行中产生震动及跌落；
- ◆ 所挂设备请检查各管路接口防尘盖是否完好,并检查各管路接口内是否有异物；
- ◆ 安装打孔前,请事先了解该墙内部是否有自来水管路及电线；
- ◆ 设备安装高度要具可操作性,根据用户实际情况定；
- ◆ 设备与燃气灶横向距离必须保证800mm以上；
- ◆ 排烟管墙孔在打孔时,请注意砖石杂物落向楼下,切实保证楼下行人及其它物品安全。

系统安装示意图

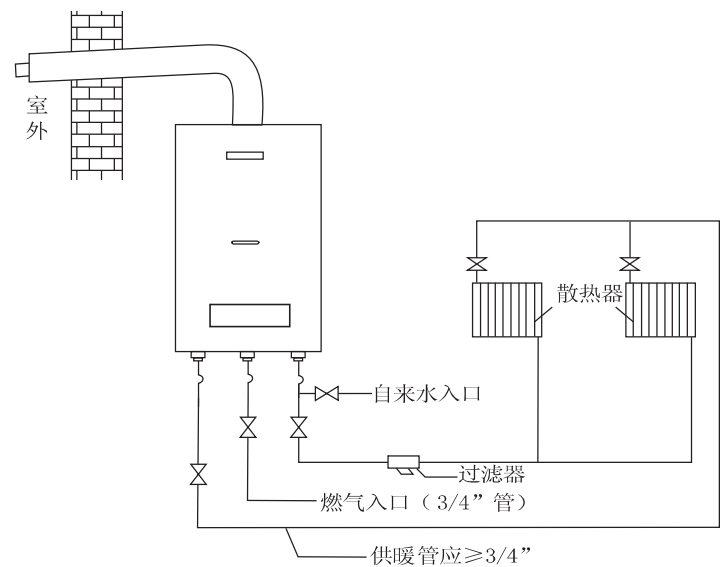
↓图10-1 L1PB型安装示意图(套管)



↓图10-2 L1PB型安装示意图(板式换热)



↓图10-3 N1PB 单采暖型安装示意图





特别提醒排烟管安装

- ◆先根据设备图06/07/08/09 安装尺寸定好排烟口出口位置,用开孔器开孔;
- ◆装上排气管,注意连接吸、排气管时,应保证无脱口和裂缝,以防止废气泄漏和回流;
- ◆将吸、排气管连接在设备的吸、排气接口,用配送的卡箍或螺丝拧紧;
- ◆使用弯管和加长管时,注意每一个连接口必须用铝箔纸带密封
- ◆排烟管安装总长度请参照国家标准08S126热水器选用及安装第52页或本手册P41;
- ◆排烟管的位置,应设在人们不常走动、风力不强的地方为宜。因为冬天废气中的水蒸气易在排气管端口形成冰柱,掉落时有砸伤人员的危险;
- ◆排烟管与墙体通孔之间的缝隙,须用阻燃材料进行封堵,以防废气回流进入室内;
- ◆排烟管安装方法见图11/12/13/14。
- ◆冬天不用时请用隔风物套住烟管进出风口,以防倒风进入冻坏设备。



图11

图11 铸铝烟管连接图例

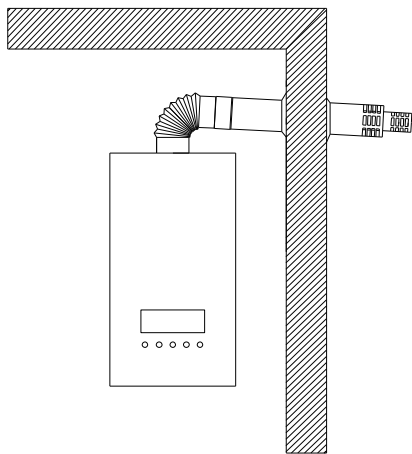


图12

图12 排烟管侧出图例

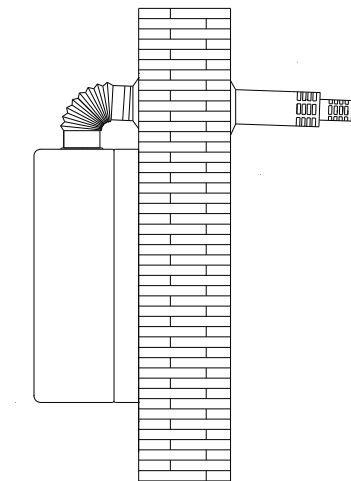


图13

图13 排烟管背出图例

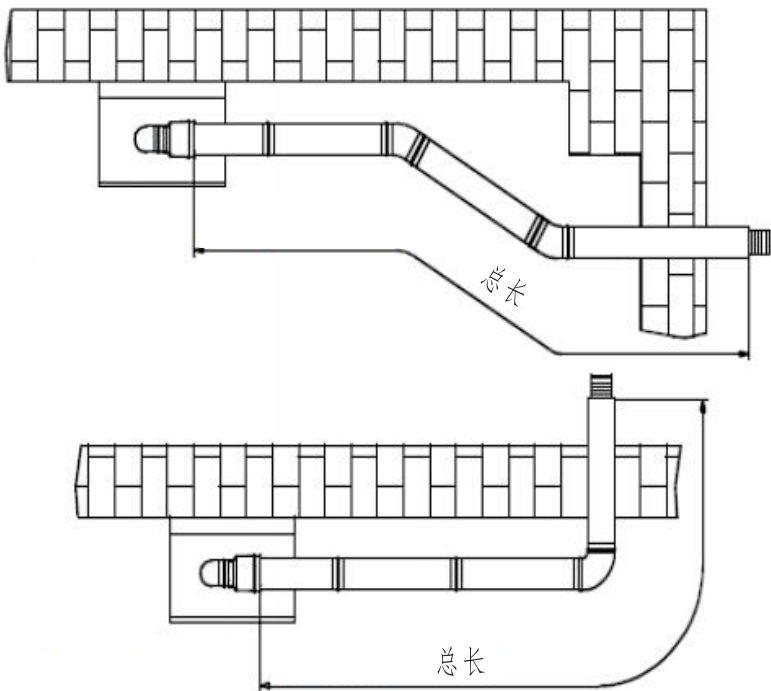


图14

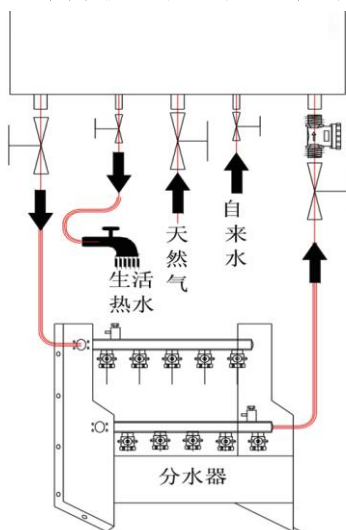
图14 加长排烟管图例  
加长总长要求按P39说明



## 特别提醒水电系统安装

- ◆ 供暖系统在设备回水口前加装过滤器(含排污功能);
- ◆ 供暖系统管路内径须大于16mm,安装完成后必须进行水压密闭试验,不得有泄漏之处;
- ◆ 供暖系统与生活热水系统管路接口不建议使用90°弯接头或者尽量少用;
- ◆ 供暖系统尽可能避免出现"U"型龙门结构,以免产生气堵,若实在避免不开,应在最高点加装自动排气阀;
- ◆ 管路试压时,请关闭设备出回水阀门,因管路试压在0.6MPa以上,而设备限压为0.3MPa;
- ◆ 设备各系统进出接口必须采用活接口,并且各进出口必须加装截止阀门;
- ◆ 生活热水管路进出建议用内径16mm以上管路,设备距最远用水点建议不超过15m;
- ◆ 设备与暖气片连接,建议采用并联方式,不建议采用串联,参考图15/16/17;
- ◆ 设备燃气管路必须采用专用燃气管路,安装燃气管路过程中严禁开关燃气阀门.建议安装燃气泄漏报警装置;
- ◆ 设备水气各接口必须明装,至少预留维护维修工作空间;
- ◆ 电源插座、开关安装位置应避开潮湿、高温等地方。插座开关应符合国家标准要求;
- ◆ 在对电气安装前,应断开总电源;
- ◆ 用户家的配电系统应有接地线,接地线应牢固并可可靠接地;
- ◆ 电气安装完成后,所使用的电线不能与采暖或生活热水管路接触。

以下为板式机型安装示例



← 图15

设备与地暖单连图例

图16 →

设备与地暖并连图例

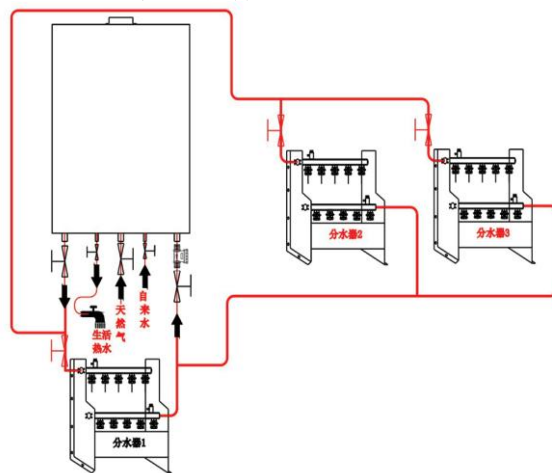
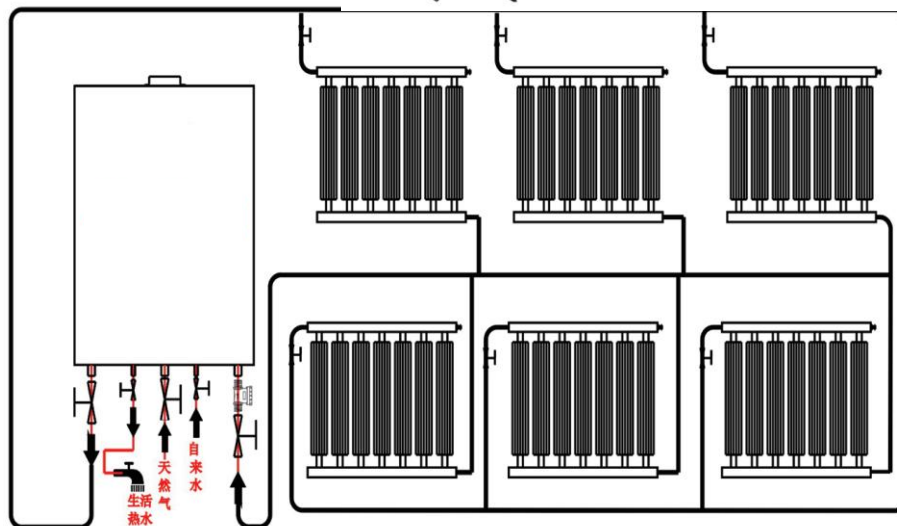


图17 →

设备与暖气片并联图例





## 特别提醒系统调试第一步

◆设备调试前，请对相关项目进行检查

NO	项 目	检 查 方 法	标 准	对 策
1	电源电压	1. 用万用表检测电源电压 2. 在早晨/中午/晚上/午夜时分检测须符合标准	AC200V ~ AC250V	如电压波动严重时，应使用稳压器。
2	烟道安装	1. 安装烟道须符合“烟道安装规范”。为不影响燃烧，可将锅炉安装在墙外（须考虑避雨防风的需要）	安装标准	不恰当的安装必须纠正
		2. 确认燃烧性：应确认燃烧火焰的颜色。（如火焰颜色不正常时，应立即中止燃烧并分析原因。）	淡蓝色	希望检查燃气种类及燃烧状态
		3. 确认点火声音与燃烧声音	低	检查点火针与燃烧排间距及燃气压力
		4. 确认烟道的连接状态	密封	对正，插到底
3	上水压力	1. 自来水压力最大不超过 0.3 MPa 为好 （0.1 MPa 相当于 1kg 水压）	合格	在上水管路上配置减压阀来调整压力
		2. 检查是否有水击（水击可能导致采暖中发生间歇性停止。如用户使用增压泵时尤其多发此现象。）	无此现象	安装检验阀
4	气源压力	1. 检查一次压力即燃气气源的动压（燃烧中压力） 2. 对燃气管路连接部位，应进行漏气检查	合格	1. 燃气压力应分时间段进行检查。 2. 用肥皂水检查漏气
5	使用方法	让用户正确了解操控器的操作方法	使用说明书	演示讲解
6	热水管路	1. 检查上水管线与热水管线是否接反 2. 检查上水管线与热水管线的保温措施是否良好	顺序 良好	1. 如有接反，须纠正 2. 实施保温措施
7	流量开关	1. 断开流量传感器接插件；打开热水；将电气盒端流量传感器连接线短路，并观察锅炉的反应 2. 若锅炉启动，说明流量传感器异常 3. 如不能启动，说明连接线开路或者主控板异常	启动	1. 将水流量开关拆下，清洗或者更换。 2. 检查连接线和主控板

◆确认水气电连接正常，管路内无杂质，然后进行补水操作，首次补水压力控制在0.15~0.2MPa，补水时，严禁通电通气；

◆补水操作步骤：打开自来水进口阀门→关闭卫生热水出口阀门→并将采暖出回水阀门打开→找到设备底补水阀，逆时针旋转3至4圈→听到管内有“嗤嗤”的声音，表示正在补水→拧松暖气片或分水器上的排气阀进行边补水边排气（排气时有水从孔内流出，请用导流管和水盆收集，注意排气阀只需拧开一圈）→当排气孔只排水不排气时，请及时关闭→注意水压表压力，如果达到0.15MPa，请顺时针关闭补水阀；

◆后续操作过程中如果水压低于0.05MPa时，设备会停止工作，请按补水操作步骤把水压补到0.1~0.15MPa之间；

◆如果当地自来水水压过低时，请在进户自来水管上加装增加泵；

◆如果在补水过程中发现管路有漏水现象，请及时停止补水，进行检修工作。










◆首次补水后因管路内有空气，水泵自动排气阀会排气，水压有少许下降，补水稳定后即可。



特别提醒系统调试第二步

◆请根据不同款型进行不同的开机操作

按 键 说 明

图 标	说 明
  	开/关 机键      冬季/夏季模式转换键
M   RE	功 能 设 置 键
 	洗浴/采暖转换键      冬季/夏季模式转换键
  	上调键   设置温度上调键
  	下调键   设置温度下调键
 	时间设置键   定时功能进入键

◆当以下机型外观不能满足现有设备对照时，请参考以上按键说明操作



↑ 图18    A款



↑ 图22    S1款



↑ 图20    G款



↑ 图19    X款










↑ 图21 S款





↑ 图24 C6款







◆ A、S、G、X、S1、C6款控制系统操作说明：

一. 按键说明

- “” 定时键：设置定时使用，在供暖模式状态长按 3 秒，开启或者关闭定时功能
- “**M**” 设置键：设置参数时使用，定时设置及系统参数设置进入
- “” 冬夏键：冬夏模式转换键,在开机状态下按下进入工作模式选择 “冬季模式” 或 “夏季模式”
- “” 下调键：往下调节设定温度及时间，对设定值的数值进行下调，每按一下下降一个值，长按连续下调数值
- “” 上调键：往上调节设定温度及时间，对设定值的数值进行上调，每按一下上升一个值，长按连续上调数值
- “” 开关机键： 开机和关机键，按下开机或关机。参数设定状态下作确认退出键使用，可清除故障状态。

“” “” 开机/夏季和冬季模式/关机键(C6和G款)：按下开机键开机，再按下会在夏季和冬季模式中切换，再按下关机。参数设定状态下做确认退出使用，可清除故障状态。

二、系统时间设置

关机状态下按 “**M**” 键，进基准时间设置，时钟显示窗口 “” 小时段闪烁，操作 “” 键和 “” 键可以对数值进行改变。设置完小时段后再接触 “**M**” 键，“”分钟段闪烁 操作 “” 键和 “” 键对参数进行更改

注意：基准时间设置必须按 24 小时时间格式



三、定时选择

在冬季模式，操作 “🕒” 打开定时功能，定时功能开启后，定时图标 “🕒” 点亮。  
操作 “M” 键，可在“节能、经济、高效”三种定时模式之间选择

注意：确定定时模式后，按上下调键，设置定时段所需供暖水温。三种定时模式时间段为系统自带程序、无需手动设置

模式 名称	运行时间段				运行 时间
	早上	中午	晚上	凌晨	
模式 1 节能	05/06/07	12	17/18/19/20	01/02	10 小时
模式 2 经济	05/06/07/08	11/12	17/18/19/20/21	02/03	13 小时
模式 3 高效	05/06/07/08	11/12	17/18/19/20/21/22	01/02/03	15 小时

四、洗浴/供暖日常使用步骤

a. 洗浴操作步骤一：通电，屏显🔌→按 “🔌” 键开机，再按 “冬夏” 键调到夏季模式→按 “🚿🚿” 键，设定洗浴出水温度40~42℃（第一次设置过后，后面无须再设置）→打开热水阀，屏显花洒图标→5 秒钟后开始出热水；

b. 洗浴操作步骤二：供暖状态下， 直接打开热水阀→屏显花洒图标→按 “🚿🚿” 键，设定洗浴出水温度 40~42℃（第一次设置过后，后面无须再设置）→5 秒钟后开始出热水；

c. 供暖操作步骤（手动供暖）：通电，屏显🔌→按 “🔌” 键，再按 “🏠” 键调到冬季模式→按 “🚿🚿” 键，设定供暖出水温度（根据房间温度，时实调节水温）→炉子工作，达到设定温度，自动停机→3 分钟后，出水温度低于设定温度的回差条件，炉子再次启动→如此循环。

d. 供暖操作步骤（分段供暖）：按第三条定时供暖使用和取消操作。



↑ 图23 C款











F款








◆ C/F 款控制程序操作说明






1. 按键操作



- “开关” 键——开启或关闭系统，图标为 “🔌”
- “上调和下调” 键——洗浴、供暖的出水温度设置和进系统参数功能设置 . 图标为 “▲▼” 或 “+ -”
- “暖/浴” 键——洗浴、供暖模式转换，图标为 “🔄”
- “功能” ——分段供暖（定时供暖）开关，图标为 “M”
- “定时” ——进入分段供暖设置，图标为 “🕒”



2. 分段（定时）供暖设置和参数设置





a. 北京时间设置：先按“ ”键，转换到“ ”关机状态下一→接着按“ ”键两下，“ ”闪烁表示小时设定，按“ ”键修正当前小时时间一→再按一次“ ”键，“ ”表示分钟设定，按“ ”键修正当前分钟时间一→松手 5 秒后，自动保存。







b. 分段供暖设置：在“供暖模式下”，按“ ”键一下，屏右显示 0 点和屏左显示、WEEK 一→此时按“ ”键，屏右显示，屏右 0 点闪烁一→按“ ”键一下，再按“ ”键调至（表示 0 点这个时间无须供暖，进行关机操作，系统自动启动防冻功能）；

b. 1 如果用户早上 6:00 起床，8:00 出门按“ ”键一下，屏右 1:00 点闪烁一→按“ ”键调至一→如此顺序把 0:00~4:00 点全调，5:00~7:00 点调；









b. 2 到了中午用户回家时间为 12:00 点，14:00 时再次出门：就按上调键至 8:00~10:00，全调，11:00~13:00 点调；






b. 3 到了下午用户回家时间为 18:00 点，并且晚上不在出门：就按上调键至 14:00~17:00 点，全调，18:00~23:00 点调；

c. 按“ ”键退出，此为星期一设置，按“ ”键一下，再按“ ”键至星期二一→再按“ ”键一下，进入星期二分段供暖设置，方法同上 一→后面星期三至星期日设置方法同上；





d. 全部设置完，按“ ”键保存，屏左显示温度，再按“ ”键，屏左显示，再按键，接着按“ ”键至当天星期几，最后按“ ”键保存。


### 3. 分段（定时）供暖使用和取消




a. 供暖模式下，按“ ”键一→屏左下星期一闪烁，再按“ ”键一→屏左调至，再按键，屏左下星期二闪烁，再按“ ”键一→屏左调至，星期一至星期日根据实际情况调节或一→屏右 24 小时黄色时间图标显示，表示已进入分段供暖模式；

b. 在分段供暖状态下，按“ ”键一→再按“ ”键调到（星期一至星期日全调）一→最后按“ ”键退出一→屏右 24 小时黄色时间图标消失，表示已取消分段供暖模式，进入手动供暖模式。

### 4. 洗浴/供暖日常使用步骤

a. 洗浴操作步骤一：通电，屏显一→按“ ”键开机，再按“ ”键调到夏季模式一→按“ ”键，设定洗浴出水温度 40~42℃（第一次设置过后，后面无须再设置）一→打开热水阀，屏显花洒图标一→5 秒钟后开始出热水；

b. 洗浴操作步骤二：供暖状态下，打开热水阀一→屏显花洒图标一→按“ ”键，设定洗浴出水温度 40~42℃（第一次设置过后，后面无须再设置）一→5 秒钟后开始出热水；

c. 供暖操作步骤（手动供暖）：通电，屏显一→按“开关”键，再按“ ”键调到冬季模式一→按“ ”键，设定供暖出水温度（根据房间温度，时实调节水温）一→炉子工作，达到设定温度，自动停机一→3 分钟后，出水温度低于设定温度的回差条件，炉子再次启动一→如此循环。

d. 供暖操作步骤（分段供暖）：按第三条分段（定时）供暖使用和取消操作。

特别提醒设备显示屏图标说明

图示	名称	说明
	夏季模式	显示时，只能运行洗浴功能，不通运行采暖功能
	冬季模式	显示时，可以运行采暖和洗浴功能
	日定时	显示时，表示采暖模式在已开启日定时的时段运行
	时定时	显示时，表示采暖模式在已开启以时为单位定时的时段运行
	采暖模式	显示时，表示正在运行采暖功能，此模式开启洗浴功能，则停止闪烁
	洗浴模式	显示时，此时正在运行洗浴功能
	室内温控	显示时，表示室内温控开关处于接通状态
	防冻	显示时，表示此时进入防冻保护功能
	水温	显示供暖与洗浴水温或显示故障
	风机	显示时，表示风机正在运行
	水泵	显示时，表示水泵正在运行
	故障	闪烁显示时，表示设备出现故障，并同时显示故障代码
	星期	表示星期几定时,无显示则该天无定时(S款此标志为定时时间段)
	火焰	显示时表示燃烧状况及火力大小
	时间	显示时，表示北京时间
	时段	分 24 个段，显示为正在工作，不显示为此时段不工作



特别提醒系统调试第三步

- ◆水电正常情况下,请再次确认排烟管、燃气管安装连接合格,通气对设备进行首次点火操作;
- ◆请注意:首次点火不成功时,请关闭燃气阀门,然后检查排烟管安装是否规范,燃气管内是否有空气,设备内的点火情况是否正常等情况;
- ◆首次点火成功,请通过观火孔查验火焰是否有离焰、火焰不均匀、火焰过高或过低,同时再次查验燃气管路气密性;
- ◆先对洗浴功能要求检查其恒温性能,把温度设置 38~42℃,开启热水阀,水温是否能在 5~15秒内恒温在 $42\pm 2^{\circ}\text{C}$ 之内,同时检查水流量及火焰状况;
- ◆然后对供暖功能要求检查其升温性能及管路通畅性能,把温度设置在80℃,水温上升是否正常,每上升一度的时间不能低于1秒;
- ◆供暖模式时,请再次检查各散热单元及管路是否有漏水的情况;
- ◆供暖模式时,请再次对散热系统进排气操作,同时保证水压正常;
- ◆待连续运行1~2小时后,对各散热单元的阀门开关大小进行流量平衡,使其各散热单元温度一致,再重复几次开关机;
- ◆各系统均能正常运行,再次检查排烟系统、燃气气密性,调试完毕。

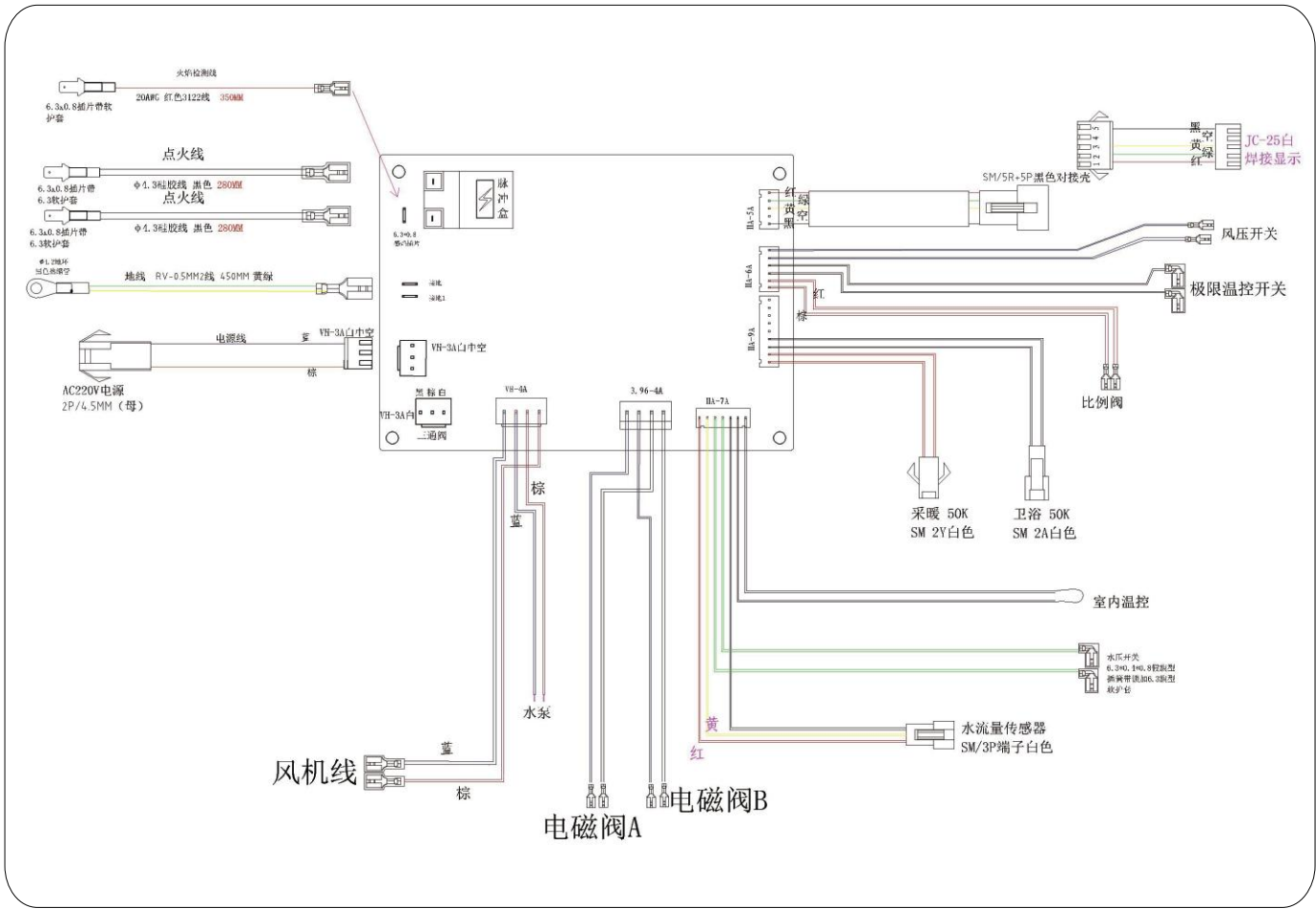
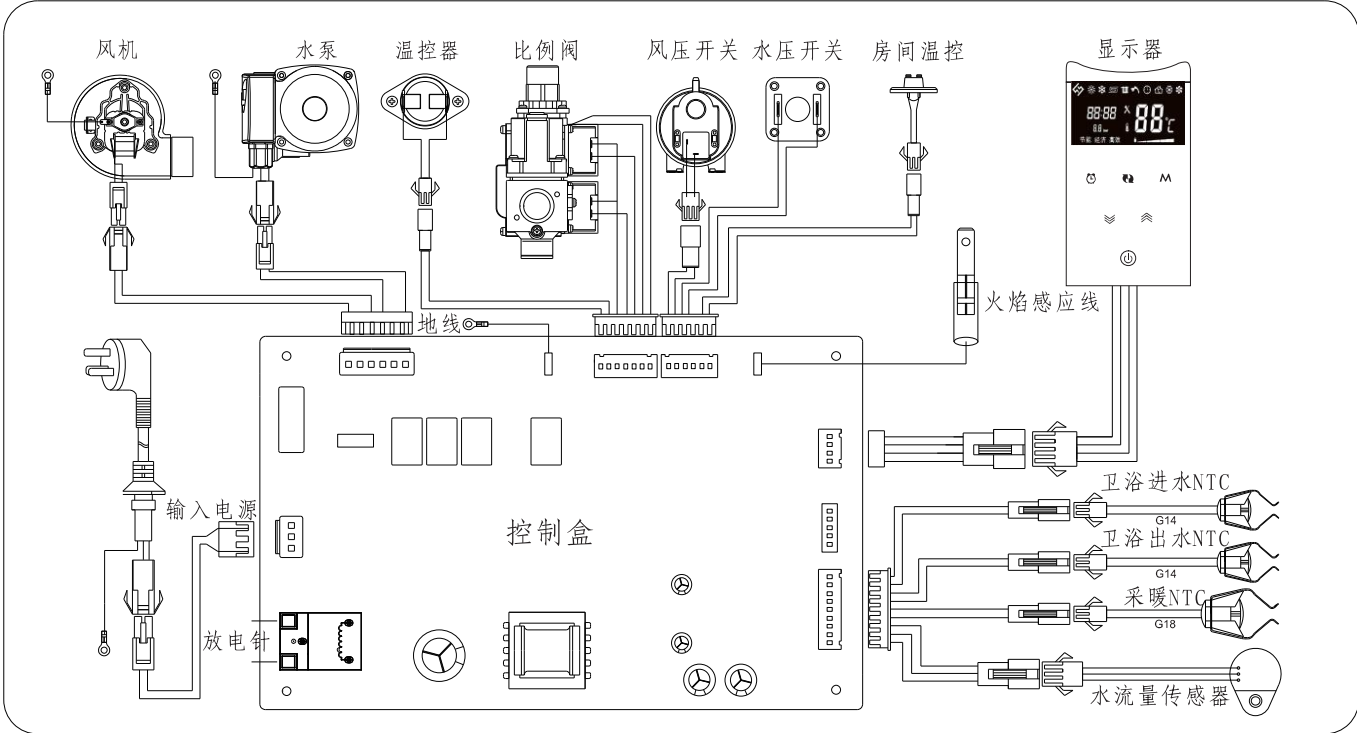
故障说明

故障代码	故障类型	故障说明
E0	低温结冰报警	系统温度低于0℃
E1	点火失败或者意外熄火	点火三次失败,不可自动恢复
E2	风压或者风机故障	排烟系统故障,或风压系统故障
E3	机械温控器故障	系统温度超过95℃警报,或温控故障
E4	温度探头超温故障	温度探头超温故障,或探头故障
E5	卫浴进水温度探头故障	卫浴进水探温故障
E6	卫浴出水温度探头故障	卫浴出水探温故障
E7	供暖温度探头故障	供暖出水探温故障
E8	火焰检测故障(伪火或残火)	系统熄火后有残火
E9	水压故障	系统缺水,或水压探测故障
EC	通讯故障	主控器与显示屏线路连接故障
ER	供暖探头温度变化异常故障(或水路异常)	补水或排气或自动恢复
EE	数据存储器故障	断电重启或不可自动恢复
EF	主阀电路故障	阀体线路或不可自动恢复
如遇故障请咨询销售商,请勿自行拆机维修		

故障原因及处理方法

故障现象	原因	处理方法
无显示	1. 电源未接通 2. 主板保险管已坏 3. 线路接触不良	1. 接通电源 2. 更换保险管 3. 检查线路
设备不工作	1. 供暖系统水压过低 2. 温度设置不合理	1. 补水操作 2. 重新检查设置
风机启动后又停止工作	1. 烟道堵塞 2. 风压开关损坏 3. 风压取压管脱落或反接 4. 风机不启动	1. 清理烟道 2. 更换风压开关 3. 重新连接风压管 4. 更换风机
点不着火或熄火	1. 燃气阀门未开或压力不足 2. 点火针损坏	1. 检查燃气 2. 更换点火针
温度探头故障	1. 损坏 2. 引线接触不良	1. 更换探头 2. 重新连接
温度过高	1. 散热系统或洗浴管路堵塞 2. 回水过滤装置堵塞 3. 热交换器堵塞 4. 水泵损坏	1. 清洗管路 2. 清洗过滤网 3. 更换热交换器 4. 更换水泵
洗浴温度达不到设定温度	1. 冷水流量过低 2. 燃气流量过低	1. 调节水流量 2. 请燃气公司检修管路
供暖温度达不到设定温度	1. 房屋保温性能差 2. 散热单元过少 3. 设备功率与户型不匹配	1. 改善房屋保温性能 2. 增加散热单元 3. 更换更大功率设备
洗浴功能不工作	1. 水流量传感器叶轮卡住 2. 水流量过小 3. 设置温度过低	1. 清洗或更换水流量传感器 2. 增大水流量 3. 重新检查设定温度
供暖系统压力不断升高	1. 未关补水阀 2. 膨胀水箱气压不足或无气压	1. 关闭补水阀 2. 膨胀水箱加压或更换

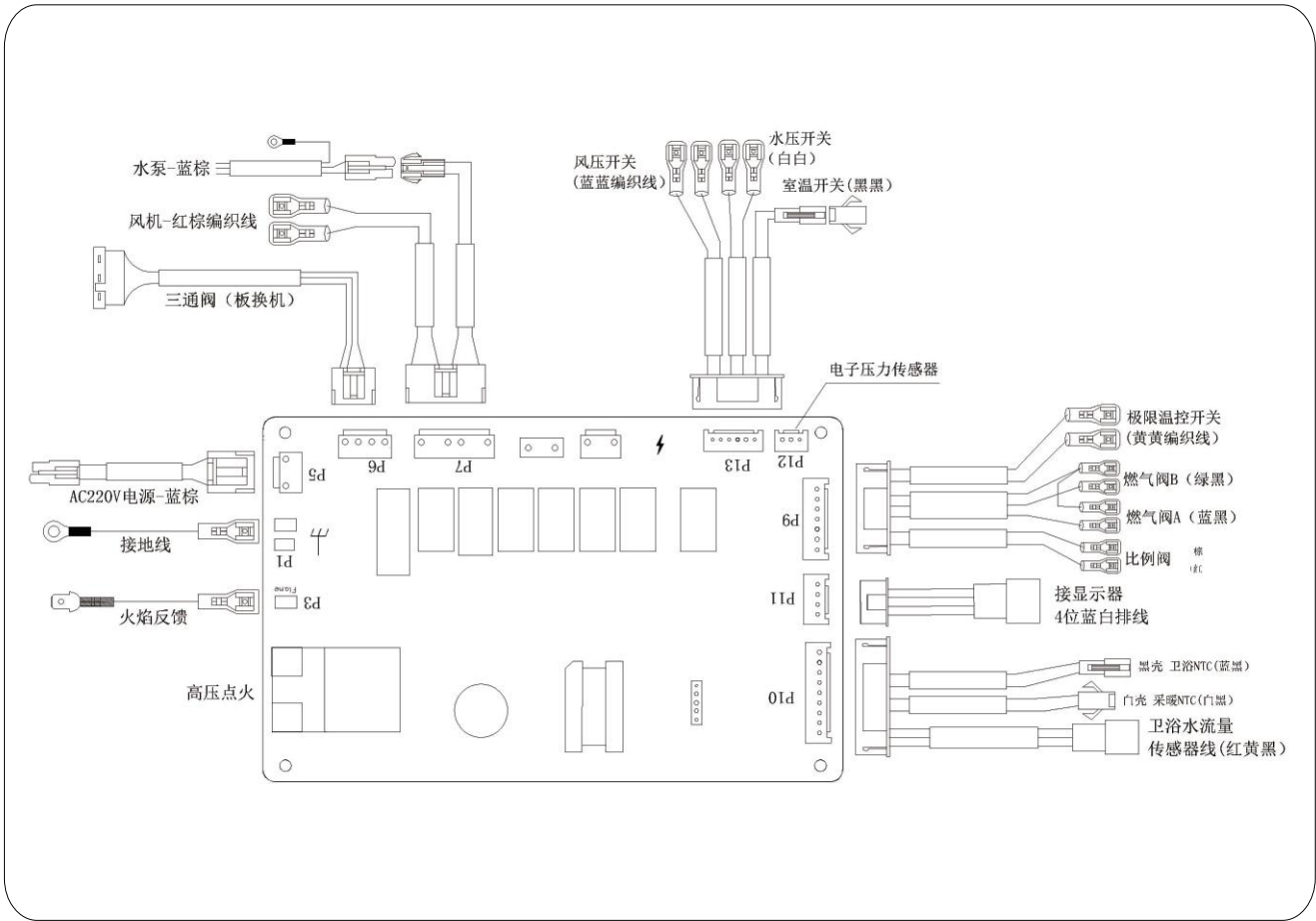
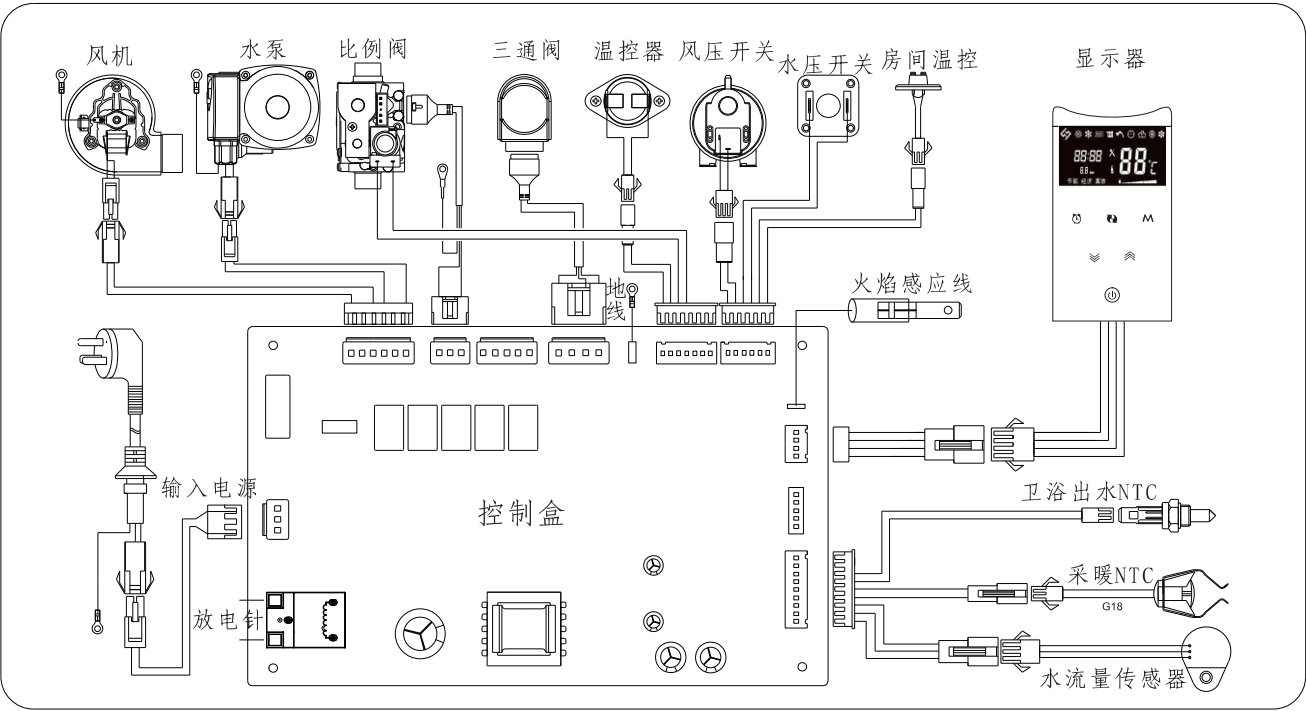
◆ 套管电控系统接线图



↑ 图24

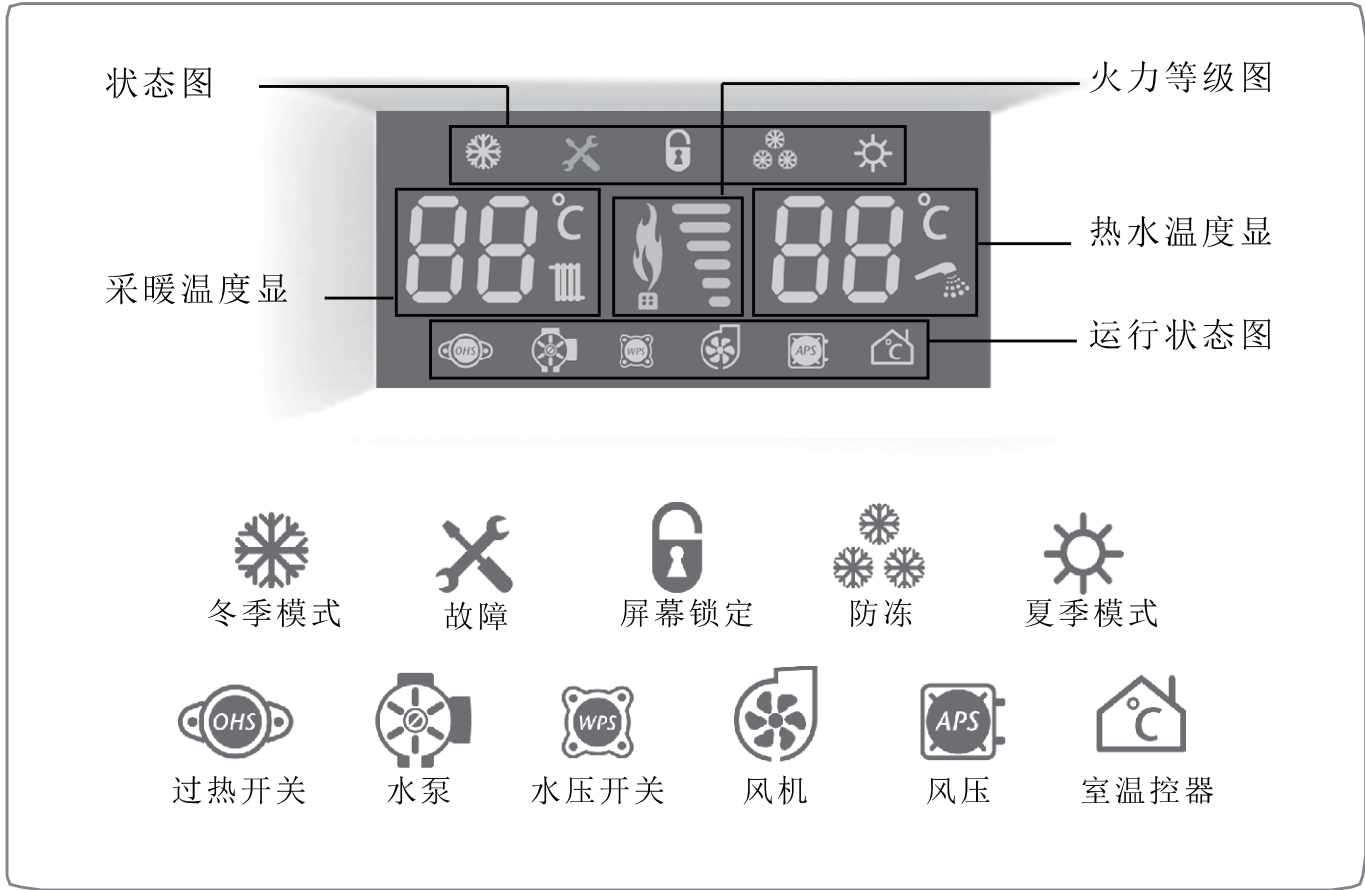
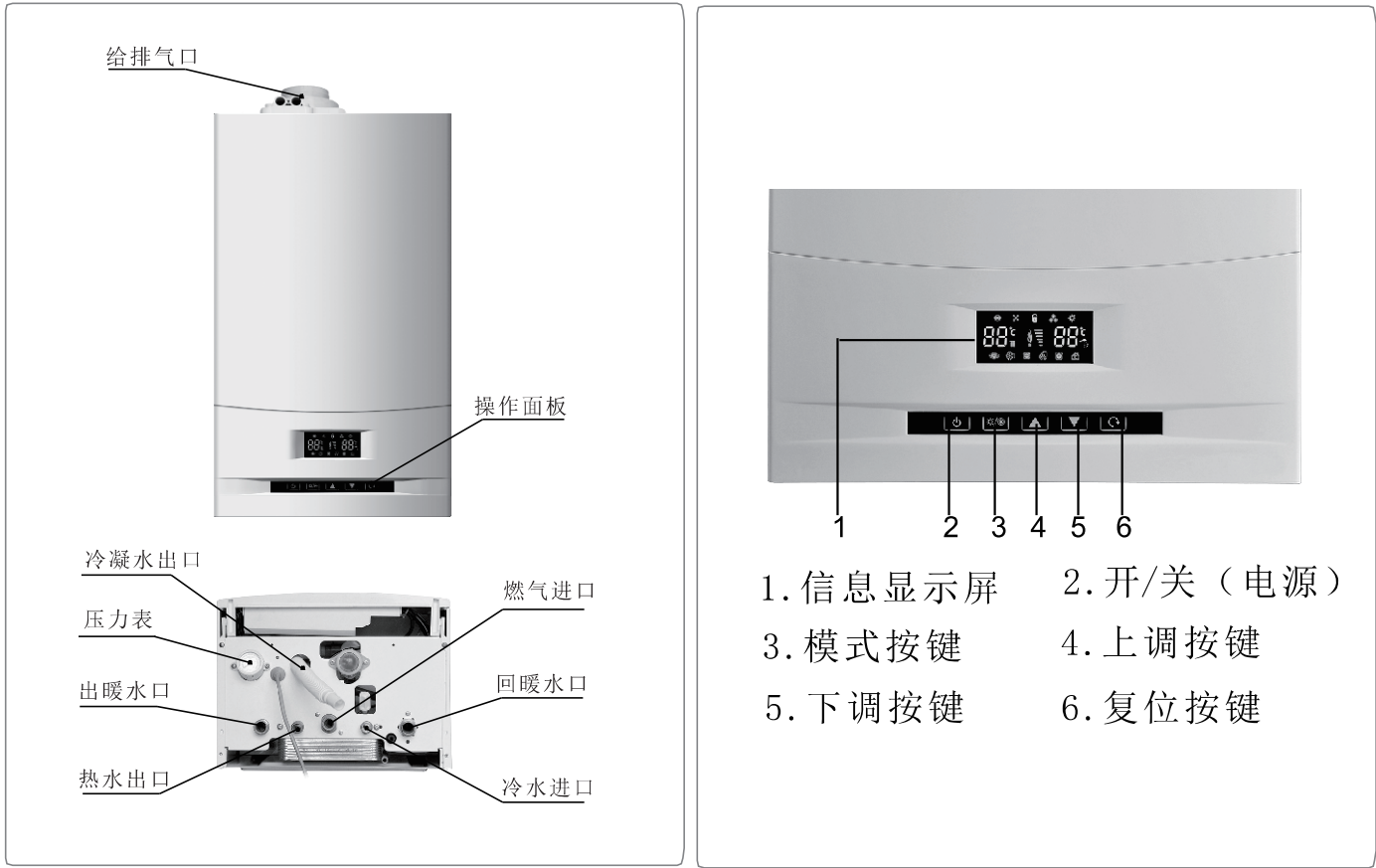


◆板换式电控系统接线图



↑ 图25







全预混燃气采暖热水炉结构





## 面板操作按键功能

注意：关机状态时按键仅显示电源模式按键。

- 【开/关】 按键-长按5秒作为开/关机按键，屏幕锁定后为解锁键，设置状态作为确认键。
- 【模式】/ 按键-开机状态为冬/夏转换按键，开机状态长按5秒为设置键。
- 【上调】 按键—设置采暖、热水温度。
- 【下调】 按键—设置采暖、热水温度。
- 【下调】 按键—故障时复位故障重启壁挂炉，进入菜单设置状态按复位键保存退出菜单。

## 开/关壁挂炉方法

- 长按【开/关】 键大于5秒进行开/关机切换（开/关和模式背光每2秒显示0.3秒）

## 锁键 / 解锁键的方法

- 操作按键60秒无输入，系统自动锁定键输入，锁键图标长亮。
- 锁键后，按【开/关】按键以外任意按键进入解锁状态，锁键图标闪烁显示，5秒内按【开/关】键即解锁。

## 采暖温度的设定方法

例）采暖温度要 55℃时，

- 采暖状态直接按【上调▲/下调▼】按键即可对采暖出水温度进行设置，此时预置温度闪灭显示，将温度设定 55℃即可。
- 在采暖时热水的使用具有优先权，打开热水龙头就会按照设定的热水温度运行。
- 关闭热水龙头，自动恢复到采暖状态。

## 热水温度的设定方法

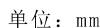
例）热水温度要 45℃时，

- 夏季模式直接按【上调▲/下调▼】按键即可对热水出水温度进行设置，此时预置温度闪灭显示，将温度设定45℃即可。（在任意时候执行热水工作，均可直接进行设置。）

故障显示及维修方法

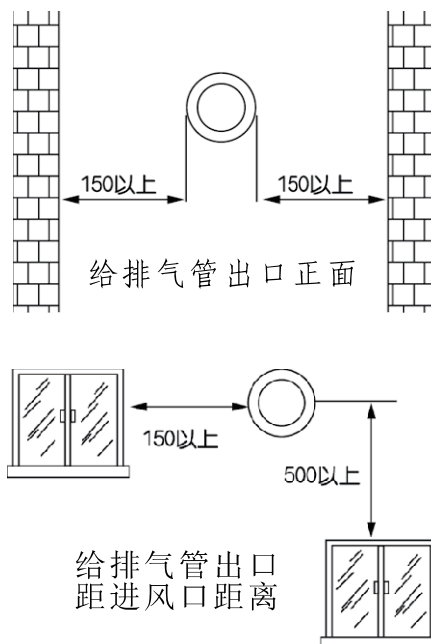
故障显示	代码意义	故障原因
E1	烟道故障	风压、风速故障
E2	取暖NTC故障	探头开路、短路
E3	淋浴NTC故障	探头开路、短路
E4	过热故障	管道水温 $\geq 93^{\circ}\text{C}$ ，过热开关断开
E5	燃气阀电路故障	燃气阀输出电路异常
E6	点火失败	检测不到火焰
E7	假火故障	火焰检测电路异常
E8	回水NTC故障	探头开路/短路：温度 $\geq 90^{\circ}\text{C}$
E9	烟温NTC故障	探头开路/短路：温度 $\geq 90^{\circ}\text{C}$
EA	室外NTC故障	探头开路、短路
EB	残火故障	关闭4秒后有火焰
EC	通讯故障	通信中断或受干扰
ET	过热熔断器故障	过热熔断保护器断开或烟温 $\geq 99^{\circ}\text{C}$
EP	管道故障	水压开关不动作
EE	EEPROM故障	EEPROM 存储数据错误
EL	变频水泵故障	变频水泵故障或电功率 $\leq 12\text{W}$
LV	电源电压过低	电源电压低于150V
HV	电源电压过高	电源电压高于270V

- 单位: mm



- 各房间的阀门最好装在回水分配器上。
- 为了防止冻裂，在长期外出时请打开各房间的阀门。

5. 机器内排出来的冷凝水需用排水管排入到地下污水管道内。





## 特别提醒用户培训

- ◆设备调试完毕后，必须对用户进行操作培训；
- ◆培训洗浴和供暖功能操作；
- ◆培训故障学习；
- ◆培训安全操作知识；
- ◆培训漏水漏气漏电应急处理；
- ◆培训维护保养知识；
- ◆告知售后联系方式；
- ◆对用户进行答疑解惑。



## 特别提醒用户日常自检与保养

### ◆日常检查

1. 检查供暖系统压力变化，压力表示值在1~2 bar之间；
2. 检查燃气管线和排烟管是否脱落，损坏或堵塞；
3. 检查显示屏是否有故障及代码显示，如有请通知售后人员；
4. 检查电源线是否有老鼠或其它原因导致破损情况；
5. 每年供暖结束后要把机器运行状态设置到夏季模式；
6. 每年供暖前，应请售后人员上门做年度检修维护。

### ◆安全应急处理

1. 如有漏气，立即请燃气公司专业人员，采取措施制止漏气。当日常发现室内有燃气气味时，应关闭燃气总阀，开门开窗，使空气流通，期间严禁在室内打电话、开关电源或做出导致产生火花的动作，并到室外打电话告知燃气公司和通知售后人员；
2. 如有漏水等情况，请关闭燃气，第一时间通知售后处理。

### ◆日常使用保养

1. 清洁设备前，应关闭水电气；
2. 清洁时不应用水洗或使用有腐蚀性的清洁剂进行清洁；
3. 长期不使用时，应排干系统内的水，并关闭水、电、气；
4. 长期不使用，再次使用前必须请售后人员检修后方可使用；
5. 日常使用期间，严禁周围悬挂其它易燃、易腐、易潮、易热物品；
6. 日常使用时不能更改设备的使用性质；
7. 严禁未成年人及无操作经验的人操作。



### 特别提醒设备年度维护保养规范

- ◆ 燃气壁挂炉的维护保养应该是全方位的对壁挂炉进行检查、清洗、保养，包括水路、电路、气路、燃烧部分及相关配件等方面。壁挂炉的维护保养一般为一年一次（人工煤气更频繁），维护内容主要有：
  - a. 清洁燃烧器及喷嘴；
  - b. 清洁热交换器（如果必要，用清洁剂清理）；
  - c. 清洁风机及文丘里管；
  - d. 清洁烟道及检查固定情况；
  - e. 检查及清理点火电极；
  - f. 清洁燃烧室灰尘和积垢；
  - g. 检查清洁自动旁通，温度传感器，安全阀等水利组件；
  - h. 清洗副板换，检查卫生热水最小启动流量；
  - i. 清洗水系统的垢质和污物（如果必要，用清洁剂清理）；
  - j. 检查清洁燃气阀；
  - k. 检查及调节二次燃气压力至正常值；
  - l. 检查安全装置，堵住烟道看火焰是否熄灭且有保护；
  - m. 检查膨胀水箱压力（若不足，则充至正常）；
  - n. 全面检查测试壁挂炉燃烧情况；
  - o. 检查清理壁挂炉的外部，并告知用户壁挂炉的状况；
- ◆ 壁挂炉定期的维护保养，可以延长壁挂炉使用的寿命，提高壁挂炉的工作效率，减少故障发生率，有利于壁挂炉正常安全运行。经过定期维护保养的燃气壁挂炉，使用寿命、节能性和故障率都要比没有进行定期维护保养的好，（尤其是已经运行两年以上的壁挂炉）。



### 特别提醒设备维护保养注意事项

- ◆ 为了降低燃气耗气量，降低能耗，减少环境污染，我们建议用户与授权经销商签订合同，包括年检、维护、检修；
- ◆ 对带气组件进行操作前，应关闭燃气阀；
- ◆ 对带气组件进行操作前，应检查其气密性；
- ◆ 对带电组件进行操作前，应切断电源与设备连接；
- ◆ 对系统管路进行操作时，应考虑对系统进行排水；
- ◆ 对设备部分配件进行更换时，请使用原厂配件；
- ◆ 在维修过程中，应对老化的密封圈进行更换；
- ◆ 检查/维护后请按本手册P49页重新操作设备。

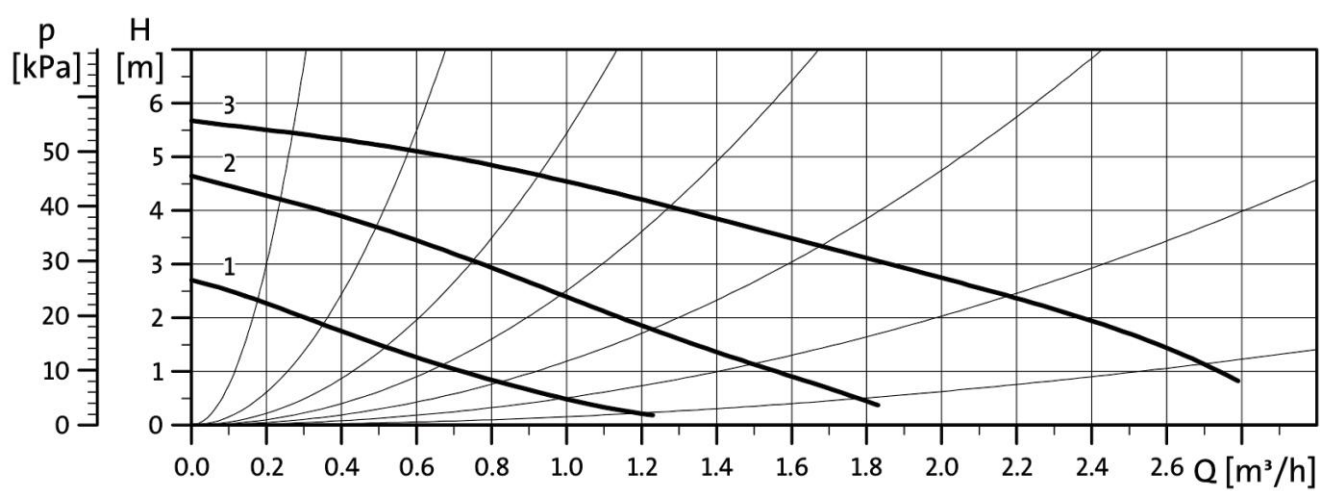
设备检修日志

用户		设备安装员		设备型号	
生产日期		安装日期		燃气类型	
检修项目	日期				
	检修结果				
清洁燃烧器及喷嘴					
清洁热交换器					
清洁风机及文丘里管					
清洁烟道及检查固定情况					
检查及清理点火电极					
清洁燃烧室灰尘和积垢					
检查清洁自动旁通阀					
温度传感器					
安全阀					
清洗副板换					
检查卫生热水最小启动流量					
清洗水系统的垢质和污物					
检查清洁燃气阀					
二次燃气压力					
堵住烟道是否熄灭且有保护					
检查膨胀水箱压力					
检查燃气气密性及燃气管老化					
检查水路系统密封性					
全面检查测试锅炉运行情况					

◆检修结果合格打“√”，修复打“△”，更换部件打“○”

附页：

◆ 水泵压力特性曲线图：



## ◆ WIFI安装连接操作使用说明（适用于有WIFI功能的机器）

### 1 软件安装



扫描二维码下载涂鸦智能app 软件:



A. 进入APP后注册一个账号,手机蓝牙打开,手机连接到家里路由器（WIFI）.在连接wifi过程中有2.4G的选2.4G,无2.4G的直接选择使用的wifi即可.





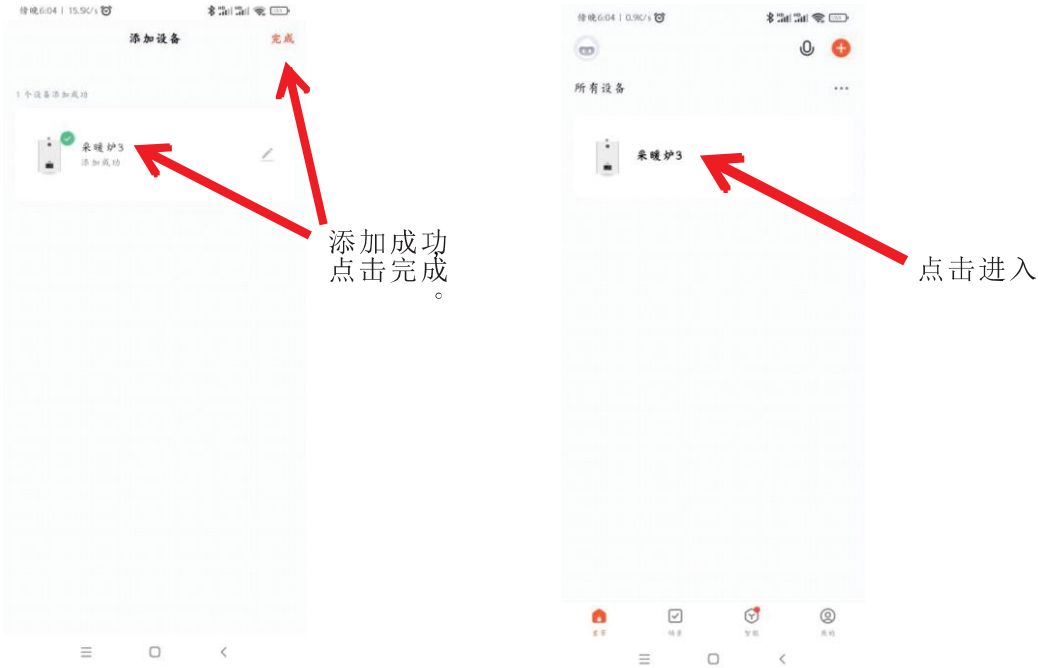
B. 如果显示屏有按键锁的请解除，无按键锁标识的直接进入下一步；关机状态下长按“上调键”键3S此时蜂鸣器“滴”一声响，wifi图标闪烁证明进入了WiFi配对，当图标微慢闪时说明正在与手机通讯连接中，长亮时说明通讯成功。

C. 在APP设置界面中，点击+号图标或者添加设备



D. 点击添加设备

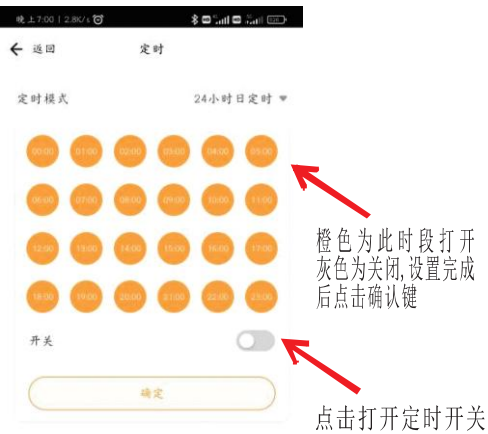




E. 操作界面：



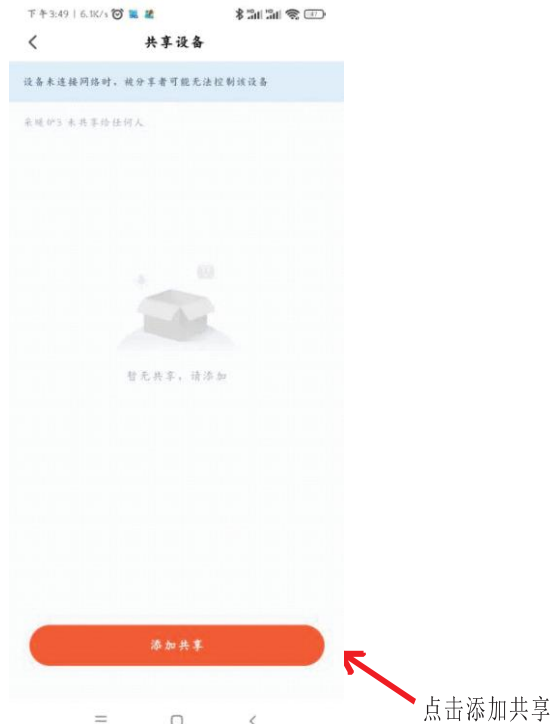
## F. 点击设置，进入设置“云定时设置”



## 编辑界面:



## G. 添加共享





H . 涂鸦设置”





本公司保留产品设计与规格修改的权利，届时恕不另行通知，所有资料经过仔细核对，以求准确。如有参数变更，本公司不承担因此产生的后果，印刷过程中可能令资料与实物有轻微差别，请以实物为准。  
Our company reserves the right to modify the design and specifications of products and products are subject to change without notice. All the documentation is carefully checked to ensure accuracy. In case of specification variations, our company does not bear the responsibilities for the consequences arising therefrom. Actual product may differ slightly from images.

National Hotline  
全国服务热线

400-6321-936  
www.evesen.com

Zhongshan City ZhengSen Electric co., Ltd ( Make )  
中山市正森电器有限公司 ( 出品 )  
Address: Dongfeng town, zhongshan city of guangdong province in the east sea five road no. 163  
地址: 广东省中山市东凤镇东海五路163号  
Telephone: 0760-87951718 Fax: 0760-22775866  
电话: 0760-87951718 传真: 0760-22775866

