

XMT□- { 6000 6000P

Intelligence Digital Temperature controller

OPERATING INSTRUCTIONS

Warning:

● **connection warning**

Installed the outside protection circuit can prevent system malfunction caused by the invalidation and fault of the instrument

To avoid the invalidation and fault of the instrument, choose appropriate fuse to protect the power supply and input/output wire against strong current impulse

● **power supply**

To avoid the invalidation and fault of the instrument, please supply the power with rated voltage
To avoid the electric shock and instrument invalidation, supply the power after all the connection is finished.

● **forbid to use the instrument close to explosive gas**

To avoid the fire, explosion and instrument damage, forbid to work in the location of explosive, incendive and steamy gas.

● **forbid to touch inside of the instrument**

To avoid the electric shock or combustion, severely forbid to touch inside of the instrument. Only the service engineer of our company can check the inside lines or exchange the components. There is high voltage inside, it is quite dangerous.

● **forbid to modify the instrument**

To avoid the accident and instrument invalidation, severely forbid to modify the instrument

● **maintenance**

To avoid electric shock, instrument invalidation and malfunction, only our service engineer can exchange the parts.

To ensure the durative and safe use of the instrument, it should be maintained termly.
Some parts in the instrument will be damaged at any moment as time fly

Firstly, thank you for using our products. In order to provide effective for you, please read the instruction carefully before use and installation and keep it.

1. General

XMT - 6000 Intelligence digital temperature controller is an economized and reliable intelligent industrial control meter. It is widely used for measure and automatic control of temperature in the fields of metallurgy, chemical industry, machinery, light industry, ceramic, petrol industry, heat processing, etc.

Main characteristics:

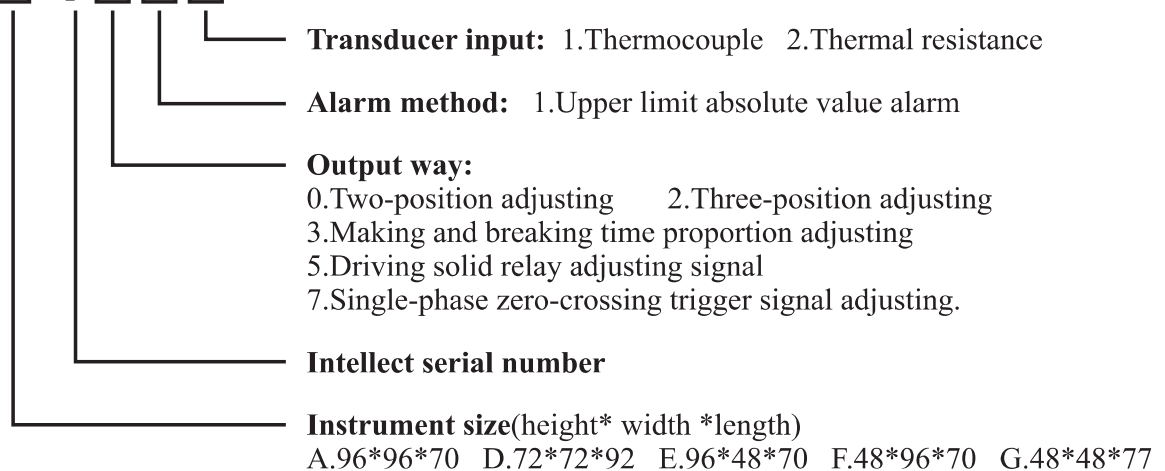
- § Can choose either single-row digit display or double-row digit display
- § freely set span by password operation
- § adjust to zero or full degree by software.

2. Main technical parameter

- ① Input signal: E, K, S, Pt100, Cu50
- ② Basis error: input whole span $\pm 0.5\%$ ± 1 character
- ③ Resolving power: 1°C , 0.1°C
- ④ Alarm function: upper limit absolute value alarm.
- ⑤ Alarm output: relay contact: AC 250V, 3A (resistance)
- ⑥ Control output: a. Relay contact: AC 250V, 3A (resistance)
b. Solid relay output
c. Zero-crossing trigger signal output
- ⑦ Control way: time proportion control, digit control
- ⑧ Power voltage: AC $220\text{V} \pm 10\%$ 50/60Hz or AC $85 \sim 264\text{V}$ 50/60Hz
- ⑨ Working environment: working temperature range form 0°C to 50°C , humidity $\leq 85\%$ (non-dewfall), and without cauterization.

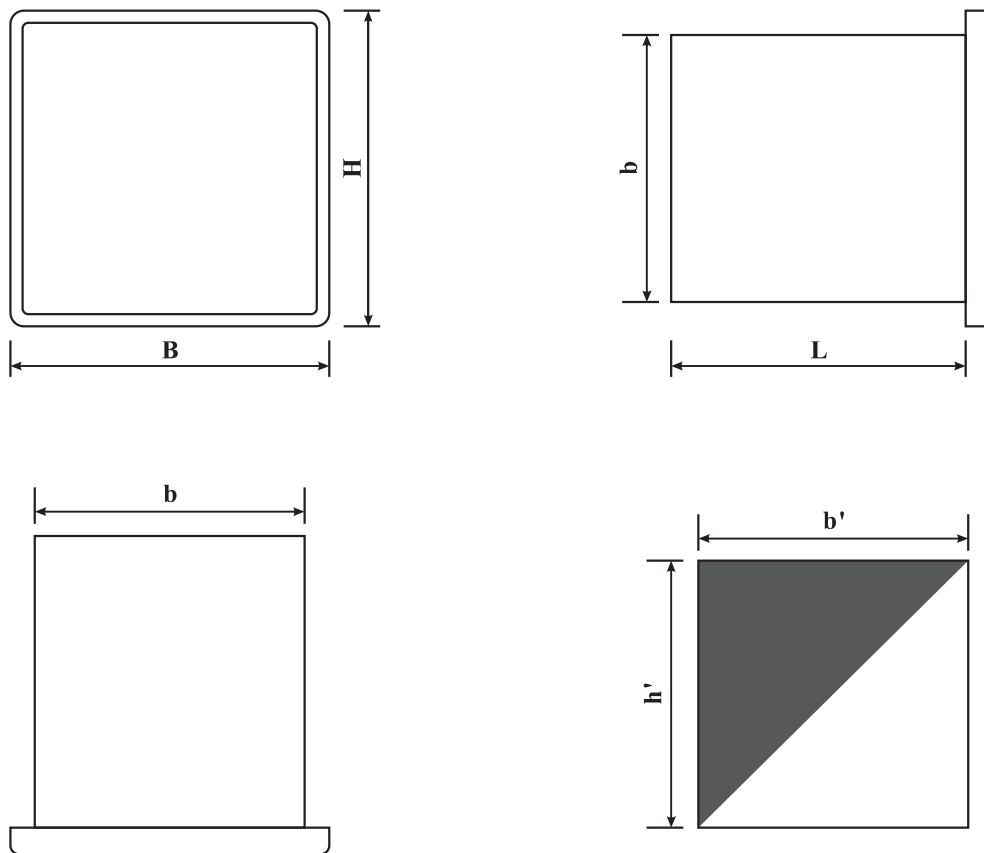
3. Makeup of the type and relative significance

XMT - **6**



Notice: added P to the type, it refers to single-row display.

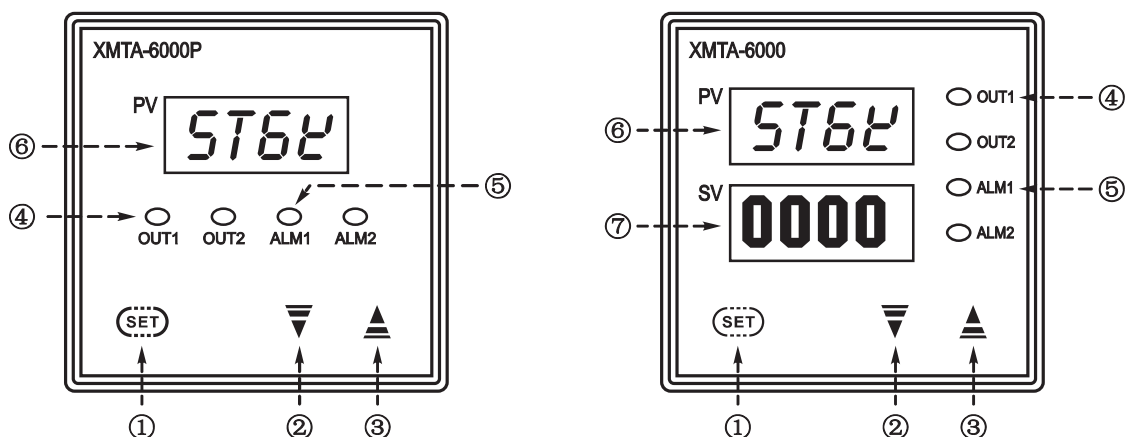
4. Panel exterior and punching hole size



Unit:mm

Mode	Panel size (H*B)	Shell body size (h*b*L)	Punching hole size (h'*b')
XMTA	96*96	90*90*70	(90+1)*(90+1)
XMTD	72*72	66*66*92	(66+1)*(66+1)
XMTE	96*48	90*45*70	(90+1)*(45+1)
XMTF	48*96	45*90*70	(45+1)*(90+1)
XMTG	48*48	44*44*77	(44+1)*(44+1)

5. Panel parts designation



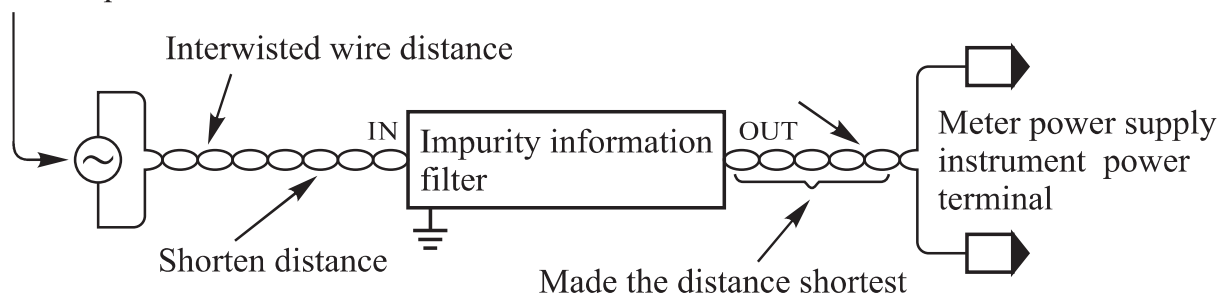
- ① function key ② Minus key ③ plus key ④ output indicating
 ⑤ upper limit alarm indicating ⑥ measuring value ⑦ setting value

6. Connection

(1) connection notice:

- ①. Thermocouple input, should use the corresponding compensated lead
- ②. Thermal resistance input, should use low resistance and indistinctive three leads
- ③. The input signal wire should keep far away from the instrument power wire, driving power wire and load wire avoided the disturbance of impurity information.
- ④. Generally, the instrument power wire should not be disturbed by driving power wire.
 - § If it is disturbed by outside impurity information, must use impurity information filter.
 - § Shorten the intertwined distance of power wire. shorter is better for reducing impurity information.
 - § Installed the impurity information filter in instrument board and connect it with ground, and reduce the connection distance of the impurity information output and instrument power terminal.
 - § Do not install the safety device and switch in the output end of filter avoided reduction of filtering.

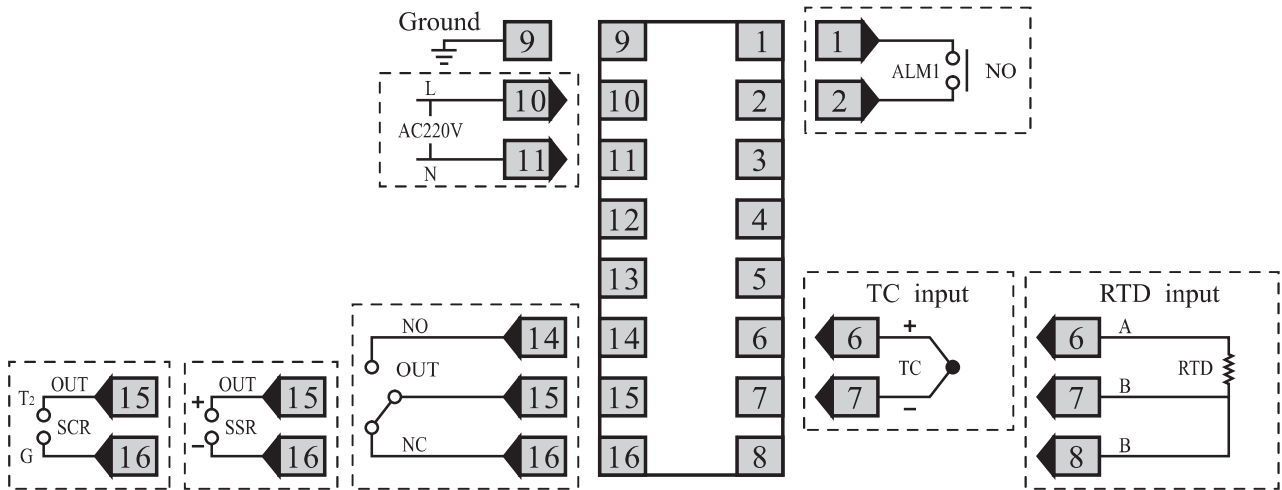
Instrument power



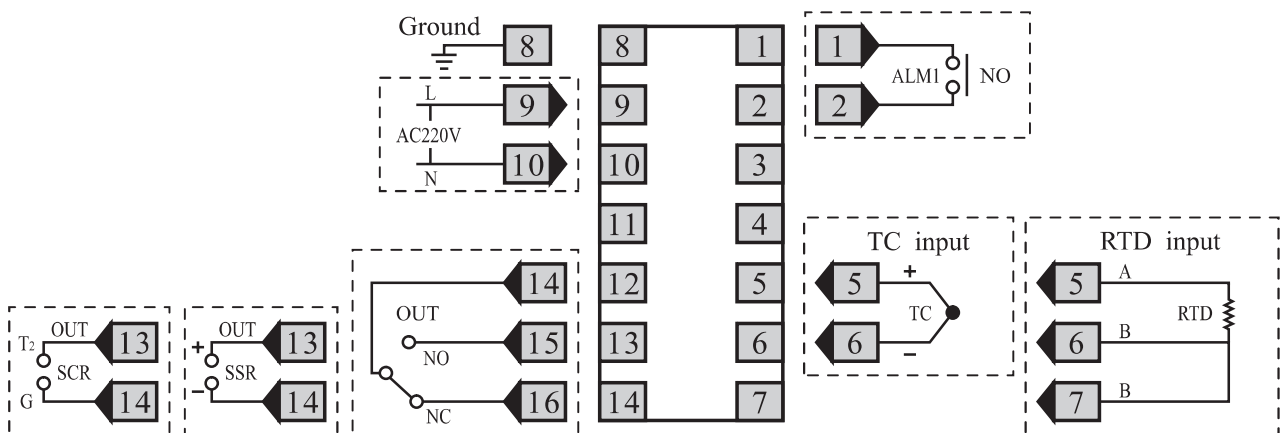
- ⑤.the connection should comply with each national standard,the power wire should use 600V PVC insulated wire(JISC3307)
- ⑥.After the power supply electrified, the instrument for relay input need five or six minutes to start up.If used as the signal such as outside connecting circuit,please use time delay relay.
- ⑦.The instrument has no power switch and fuse,if need,they can be installed additionally.
Suggested fuse specification: rated voltage 250V,rated current 1 A.
Fuse type: time delay fuse
- ⑧.Do not tighten the terminal screw extremely. In addition, should use appropriate terminal screw connection slice.(screw type M3*6,suggested torque 0.4Nm) [4kgf.cm]

(2) Connection diagram:

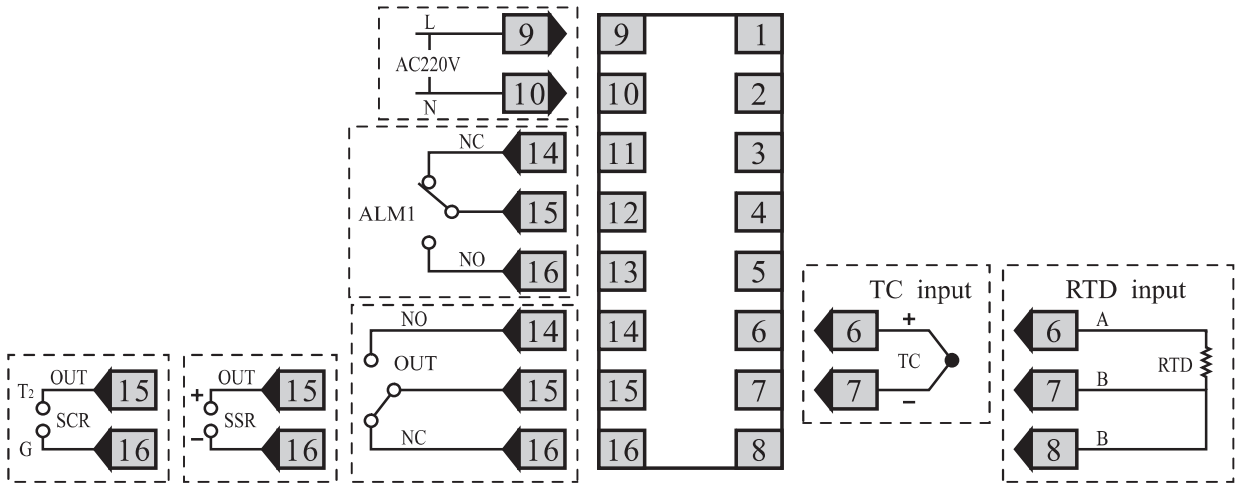
<XMTA>



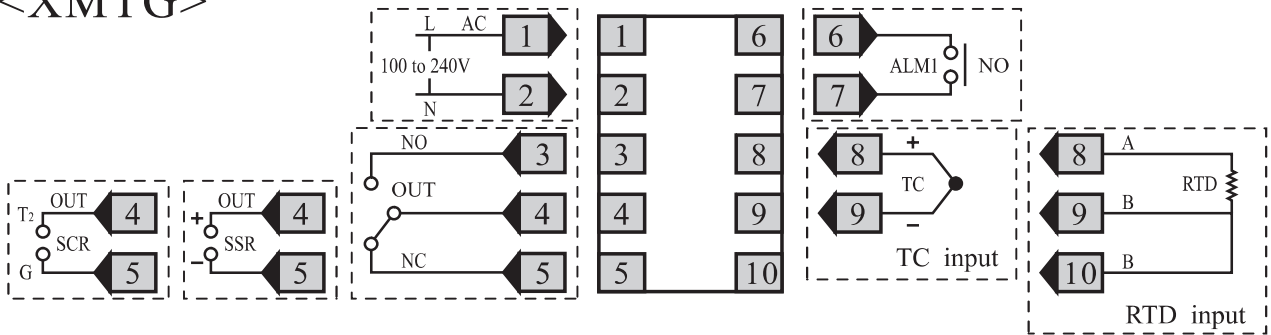
<XMTD>



<XMTE> <XMTF>



<XMTG>



7. Setting character

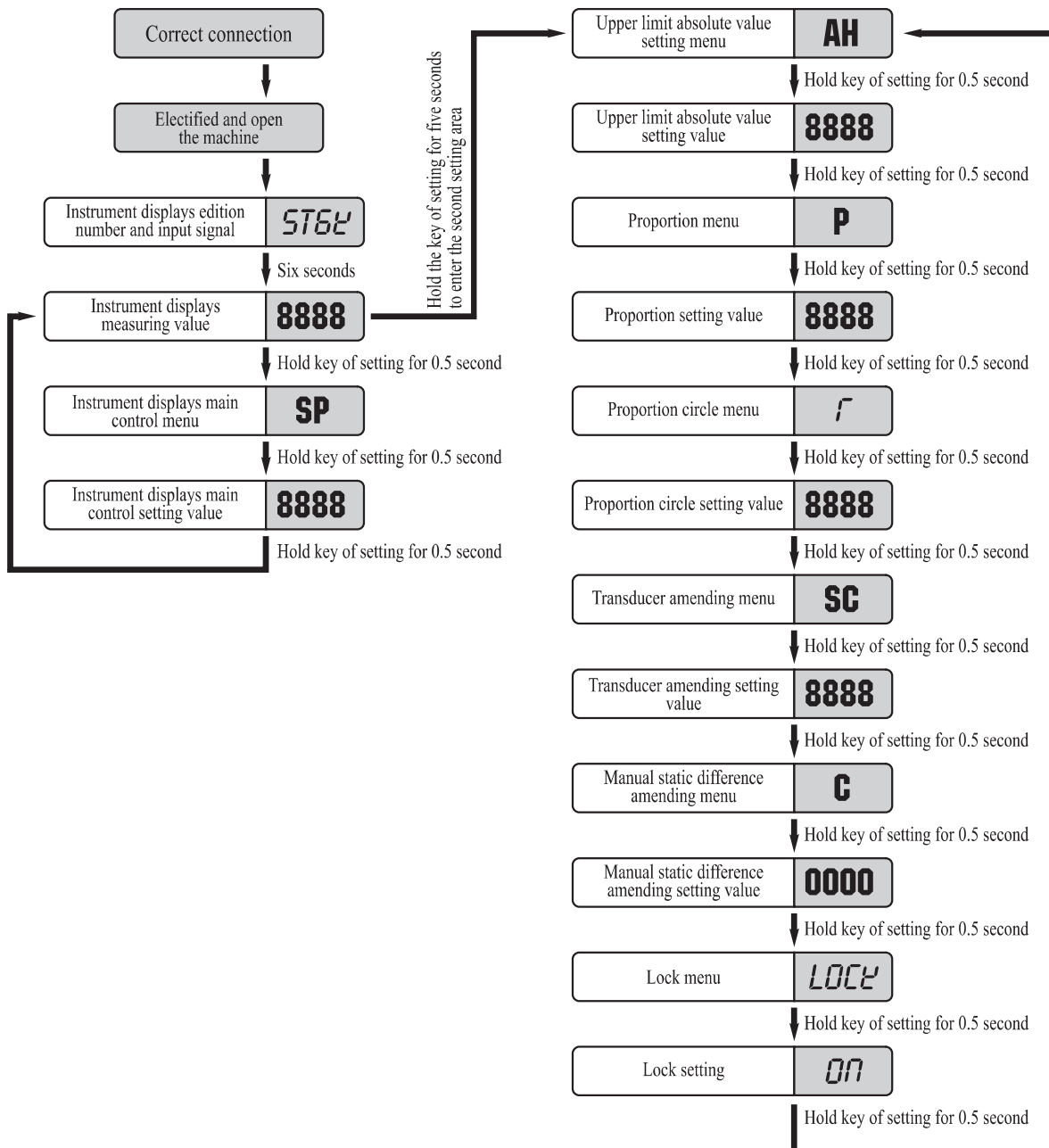
Press key of setting in turn to display the below characters according to the ordinal. For different function, some of the character may not exist in your instrument.

Character	Designation	Setting range	Explanation	Setting value of leaving factory
SP	Main control setting	0~100% FS	Set main control value	Random
AH	Upper limit absolute value alarm setting	0~100% FS	Set upper limit absolute alarm valus	Random
HC	Main control backlash setting	1~99	Set main control backlash value	2°C
P	Proportion range	1~50%	Set proportion	3%
f	Proportion circle	1~99	Set proportion circle	20 or 2 seconds
SC	Transducer amending setting	-99~+99	Amend the transducer	0°C
G	Manual static	-99~+99	Amend temperature control error	0°C
LOCK	Setting lock	ON/OFF	ON,all parameters can be amended, OFF,all parameters can not be amended.	ON

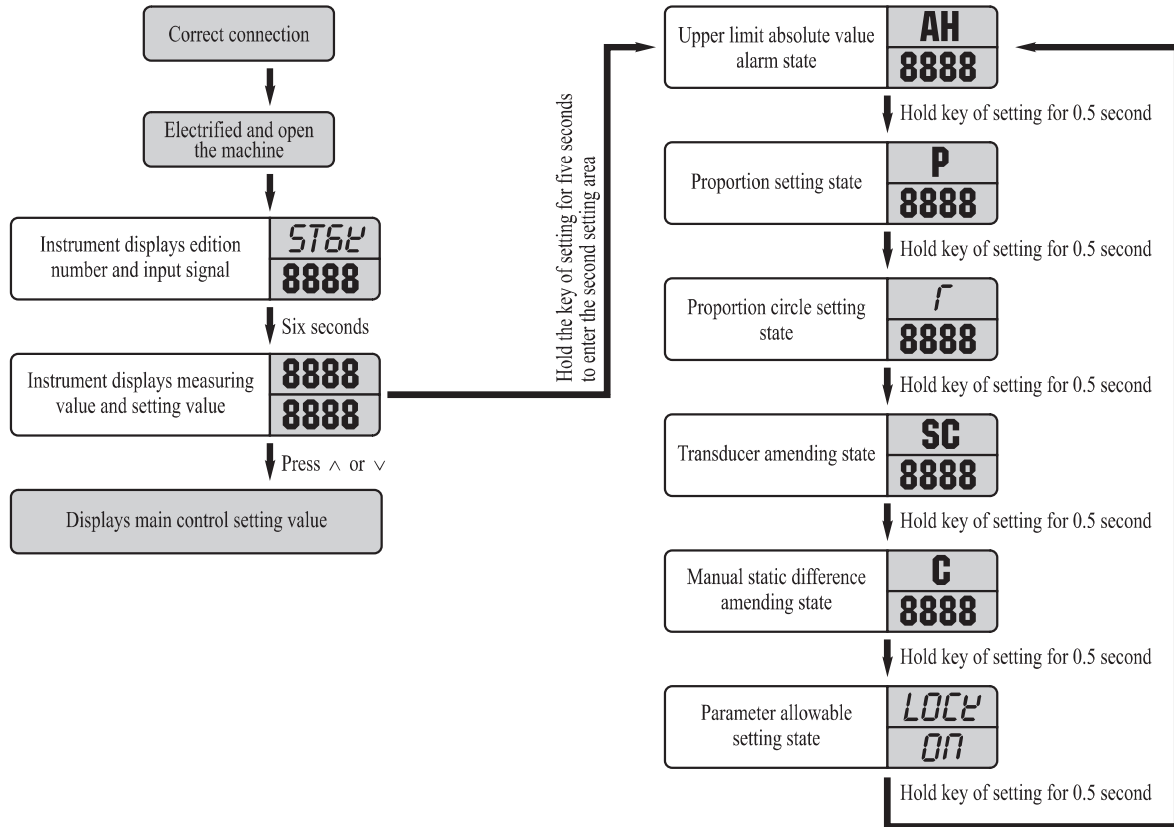
8. Operating explanation

The operation of the instrument with main control way of time proportion type

< Single-row display >

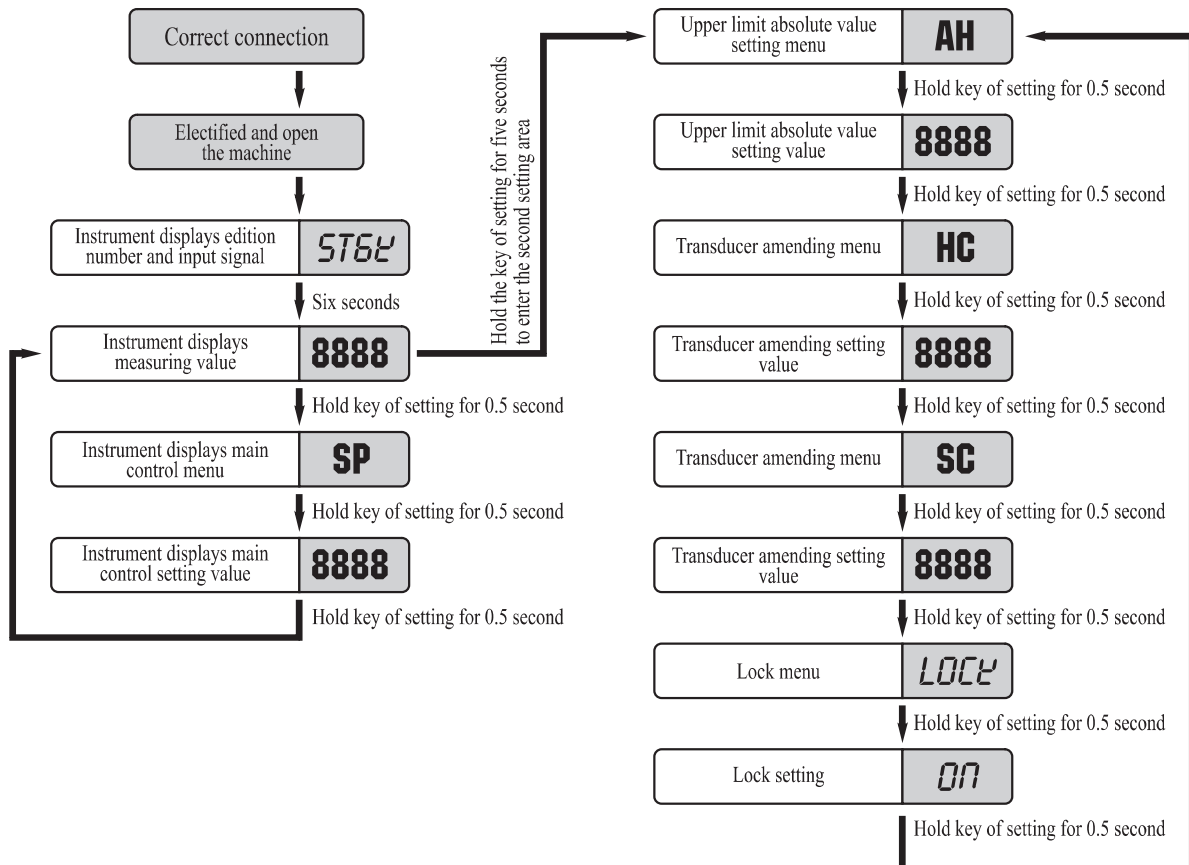


< Double-row display >

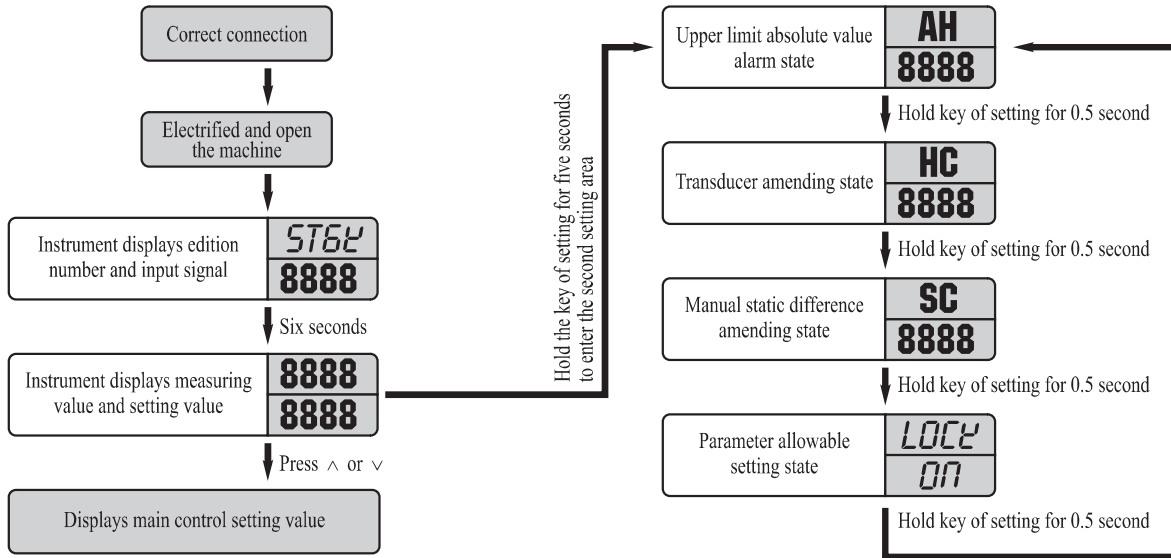


The operation of the instrument with main control way of digit type

< Single-row display >



< Double-row display >



Notice: ON, all parameter can be amended
 OFF, all parameter can not be amended

6. Instrument maintenance

- ① There is no erodent gas in installation environment, good connection
- ② Testing the position of the components should reflect the change of the span immediately and correctly.
- ③ The connection of the instrument should be operating according to the requirement and relational rules carefully, avoided the damage and disturbance caused by wrong connection and illogical wiring.
- ④ If found the instrument flickering should check if the input signal wire is broken, and in good connection or not, then, correct it.
- ⑤ If found the instrument than display nothing, should check if the power wire and power supply is normal or not.
- ⑥ Under the normal working condition, if the instrument can not effect the scheduled functions and can be connected, as well as signal input problem and power supply problem, the consumers should read the instruction carefully and check the setting value.
- ⑦ If the key isn't working, please check if the parameter is locked or not.