

# CONTROLLER CS-20

## **How it works?**

The controller CS-20 is steering the pump of central heating and also the forced draught fan. The controller is designed to control the boilers for solid fuel, wood, coal and fine coal. The user has 5 versions of working modes of the controller depending on the type of fuel and the boiler. The first thing the user has to do before starting the exploitation is to set the temperature of the stove, which the controller is going to keep during the work of the boiler and to choose the working mode of the controller in the menu(F).

Function F1-wood and coal(continuous power of the blower)

Function F2 wood (power of the blower 20%+blow-offs)

Function F3 coal (power of the blower 50%+blow-offs)

Function F4 fine coal ( power of the blower 100%+blow-offs)

Function F5 own settings

In functions from F1 toF4, the controller automatically adjusts the power of the blower, the temperature of activating the central heating pump, and the temperature of damping the stove, thanks to using the algorithm control smart. The power of the blower is lowered in the function F1, when the temperature of the boiler is going to reach the temperature of the stove set by the user.

The damping of the boiler is in the range between 35 ° C to 50 ° C, heating pump is activated in the range between 30 ° C to 40 ° C, depending on the set temperature of the stove.

Function F5 lets regulate all the parameters of the controller work, that is the temperature of activating the central heating pump, central heating pump, power of the blower, breaks and the length of the blow-offs, temperature of lighting the stove.

## **How to use it?**

After switching the power, the controller switches automatically to firing up mode. We can enter to controller's menu by pressing the button □. The display should shown a flashing set temperature of the boiler, we have a possibility to set a temperature which the controller must keep- Δ◇ buttons. After setting the desired temperature, press the button□ again. The display will show F and number of the currently selected function. Then we can select the functions that we are interested by using the keysΔ◇ . After selecting the desired function the controller will return to work on itself mode. In case of F5 function you should press the button □ in order to go to the individual user's settings.

You will see the following functions:

C- the temperature of switching on

D- the power of the fan

1- Blowing off time

2- Break in blowing off

3- The temperature of extinction

4- Firing up time

The entrance to the menu occurs after pressing the button □, while the values we set by using keysΔ◇. After setting the desired values, the controller will remember them, and after a few seconds he will return to work. The controller is equipped with an alarm to indicate too high boiler's temperature (90 ° C). The Anti-stop function prevents the pump from the stagnation after the heating season by switching it on for 15 seconds every 14 days. The Antifreeze

function switches on the central heating pump in case if the temperature of the liquid in the system goes below 5°C.

### **The lock of the blower and starting the blower:**

To block the blower you need to press the symbol  $\Delta$ . On the LCD there will be announcement for F (menu is unavailable at that time). To unlock the blower you need to press the symbol  $\Delta$  again.

### **To switch on the pump for the continuous work:**

To switch on the central heating pump you need to press and hold for 3 sec. the  $\diamond$  key. The pump will work till the user again presses the  $\diamond \Delta$  key or until switching off the power by the main switch.

### **Service options**

In service options you can change the type and power of the blower during the firing up. Entering the service options is possible by switching off the power and again switching it on by holding the [F] symbol, then pressing the buttons  $\Delta \diamond$ .

d- type of blower

d1-WPA120 blower

d2-DP-01, DP-02 blower

d3-RV-14 blower

d4-DP-120 blower

F1- the maximum power of the blower during the lighting , only for the F1 function in the menu

F2- break in the blow-off for the thermostat function

After setting the type and power of the blower, after 5 seconds the controller will automatically switch to the options set in the service parameters.

### **Installation instructions**

The installation should be done by the person having the proper electrical qualifications. The sensor should be placed at the exit of the boiler by the wire-tie and isolated from the external factors by the isolation tape(it cannot be immersed in any liquid). The power cord for the pump should be connected in the following way: blue-brown- 230V, yellow-green(protective) should be connected to the ground. The controller has the thermal security which should be installed together with the central heating sensor. This is the additional security which in case of the failure of the controller, at 90 °C, cuts off the power supply to the blower. Information concerning disposal of electrical and electronic appliances.



The symbol shown above placed on the products or the enclosed documentation informs that the faulty electrical or electronic appliances cannot be thrown away together with the domestic waste. The correct way in case of disposal, reuse or recycling of actuators is to give the appliance to the specialized waste collecting centers, where it will be taken free of charge. In some countries you may give your product away to the local distributor while buying another appliance. The correct utilization of the appliance enables preventing the precious resources and avoiding the negative impact on health and environment, which may be endangered by the improper conduct with the waste. You can get the specific information

concerning the nearest collection point at the local authorities. The incorrect utilization of waste is subject to penalty provided in the appropriate local provisions.

**Guarantee**

The producer ensures the buyer that the product will work faultlessly for 24 months since the date of sale. The guarantor promises to repair the appliance, if the failures occurred due to his fault. The appliance should be delivered to the place where it was bought, enclosing this guarantee with the confirmed date of purchase. All the expenses connected with it will be due to the user. The guarantee does not cover the failures caused as a result of lightning strikes or short circuits. The guarantee for the sold commodity does not exclude, restrict nor suspend.

.....  
producer

.....  
date of sale