

# COD Reactor

WD325



## English Operating Manual

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**WIGGENS**

**COD Reactor**

**WD325**

## Congratulations!

You have made an excellent choice.

WIGGENS wants to thank you for the trust you have placed in us.

This operating manual has been designed to help you gain an understanding of the operation and possible applications of our instruments. For optimal utilization of all functions, we recommend that you thoroughly study this manual prior to beginning any operation.

### The WIGGENS Quality Management System



ISO 9001  
Certificate Registration No. 01 100084841

## Unpacking and Inspection

Unpack the instruments and accessories and inspect them for possible transport damage. Damage should be reported to the responsible carrier, railway, or postal authority, and a damage report should be requested. These instructions must be followed fully for us to guarantee our full support of your claim for protecting against loss from concealed damage. The form required for filing such a claim will be provided by the carrier.

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**Important:** keep operating manual for future use

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## Unpacking and checking

Before unpacking this instrument, please check first the packing case is complete without any damage. After unpacking, please check the accessories are complete as listed also. If there is any problem with the unit, please keep the serial number along with packing case and contact your local distributor for replacement immediately.

Please dispose of the packing materials in compliance with your local environmental protection policy.

## Accessories

- Power cord      X1
- User Manual     X1

## Installation

Before installation, please ensure the voltage, current and frequency of your socket fit in with the unit. The related information can be found at the back of instrument. The socket should be connected to earth for safety.

## Functions

1. **On/Off:** power switch.
2. ◀ ▶ operating mode selection.
3. ▲ ▼ set temperature or time value.

Press the button once, the value will increase or decrease by one unit and keep pressing the button, the value will change fast. clear: pressing clear button will zero the temperature setting when setting the temperature valve and make the time setting unlimited. When setting the time valve. start/stop: after setting time and temperature valve, press this button to start and stop the operation by pressing it again. cod indicator: when the power switch is turned on, the default operating mode is cod, then press start/stop button, the unit will start heating up to 150°C and start timer for 120 minutes.

The LED display will indicate the remaining time instead of the current temperature.

When the setting time is finished, the unit stops heating and the alarm will beep for a few seconds.

4. **st:** when st indicator is light, the temperature can be set by pressing  $\Delta$  or  $\nabla$
  5. **timer:** when timer indicator is light, the time can be set by pressing  $\Delta$  or  $\nabla$
  6. **pt:** when pt indicator is light, the LED display indicates the actual temperature.
  7. **heating:** when the indicator is light, the unit is being heated.
  8. **hot top:** when the temperature is over  $70^{\circ}\text{C}$ , the indicator will flash to warn user not to touch.
  9. **alarm:** when the temperature is over  $210^{\circ}\text{C}$ , the unit will shut down automatically and the alarm indicator will light to warn..
- In STOP condition, all setting and display functions are feasible.

## Operating Procedure

Ensure that the power cord is connected with socket before operation.

Switch on<sup>①</sup> then the COD indicators<sup>®</sup> lights.

Temperature Setting:

When the LED light shifts to "st" (set temp.), the LED display will show the last temperature setting value. Press  $\Delta$  or  $\nabla$  to change the setting value.

Effective setting value within  $0^{\circ}\text{C}$ - $200^{\circ}\text{C}$ (actual workable range: ambient temp.

$+5^{\circ}\text{C}$ ~ $200^{\circ}\text{C}$ ).When the setting value is "0", the LED display will show "OFF" rather than "0".show "OFF" rather than "0"

Press "clear" key to zero the setting value.

Press "start/stop" key to start heating (when the heating temp. reaches up to  $70^{\circ}\text{C}$  then SSS light begins flashing). When the heating temp. reaches the setting temp. then the timer starts counting down (if the timer has a setting value) until the setting time is finished then the unit will beep for 10 sec. to warn operator and stop heating automatically.

### **COD Mode:**

The default heating mode is COD. If you need to digest samples in COD mode, please press Start/Stops button to start operation. WD325 will start to heat to 150°C and start timer for 120 minutes. The LED Display will indicate the remaining time. When time is finished, the alarm will beep for 10 sec

COD mode is the only mode that will light COD and PT indicators.

### **Time setting:**

Shift the indicator to timer by pressing ◀ or ▶ then press △ ▽ to set the desired time.

The time will be unlimited if pressing "clear" key.

### **Extra Program Setting (P1, P2, P3):**

**P1:**When turning on the unit, COD indicator lights up then press "clear" key and ◀ key at the same time for around 3 sec., "P11" will show on LED and release the keys then 100.0.

(Default Heating Temp.) will show on LED. Reset a new heating temp. by pressing △ or ▽ key and then press "clear" to finish setting. After "P12" has shown for 1 sec. then 30 (Default Heating Time) will show on LED. Reset a new heating time by pressing △ or ▽ key and then press clear key to finish setting. Then LED will show COD,"P1" setting is finished.

**P2:** Follow the above same steps to reset P2 program by pressing "clear" key and ▶ key.

**P3:**Follow the above same steps to reset P3 program by pressing "clear" key and ▶ key.

The P1, P2, P3 will display the last setting valve instead of the default valve after rebooting.

### **Extra Program Execution (P1, P2, P3):**

When turning on the unit, COD shows up on LED, press "clear" key and ◀ key at the same time for less 3 sec. then "P1" shows up on LED; press "clear" key and ▶ key at the same time for less 3 sec. then "P2" shows up on LED; press "clear" key and △ key at the same time for less 3 sec. then "P3" shows up on LED.

When "P1" shows up on LED then press start/stop key to run P1 program.

Follow the same steps to run P2 or P3 program.

## Temperature Calibration:

When LED light shifts to "pt" indicator, LED display will indicate the actual heating temperature then  $\Delta$ 、 $\nabla$  "Clear" keys are all ineffective.

Calibration at Ambient Temperature: press  $\triangleleft$  or  $\triangleright$  select "pt" indicator then LED display will indicate the present ambient temp. Press  $\triangleleft$ 、 $\triangleright$  at the same time for 3 sec then LED display will show "30.0.".Then press  $\Delta$  or  $\nabla$  to input the present room temperature, press "clear" key to finish the calibration. Then LED display will show "CALL" and the actual calibrated temperature after 3 sec.

Calibration at High Temperature: when the unit is being heated and reaching the setting temperature with stability then press  $\triangleleft$ 、 $\triangleright$  at the same time until LED display shows "150.0"Then press  $\Delta$  or  $\nabla$  to input the Calibrated temp. and then press "clear" key to finish the calibration. The LED display will show "CALH" and the actual calibrated temperature after 3 sec.

## Warranty

We guarantee the perfect functioning of this instrument against defects in material, design, and workmanship, when use under appropriate conditions and in accordance with the instruction manual for a period of **TWO YEARS** from the date of initial shipment.

This warranty covers all parts and components of the instrument except those normally requiring frequent replacement, such as tubing, gasket, O-rings, etc. We will not be liable for any personal injury, misuse, improper maintenance, negligence or accident.

## Product Liability

Under no circumstances shall Wiggins be liable for indirect, consequential or otherwise special or unrelated damages of any kind.

Wiggins reserves the right to make technical changes without prior notice.

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