

WD 100
Multiparameter Colorimeter



Important notice

- Please study this instruction manual carefully before using this product.
- Please operate the instrument at room temperature and proceed with COD measurement after the vial cools down to the room temperature and the uniformly-mixed reagent is completely precipitated.
- Please make sure the supply voltage and frequency conform to power specified on main unit. (input power: 12Vd.c. 1.5A; IP code: IP20)
- If using a 9V square battery, please make sure to remove the battery when the instrument is unused for a long term to prevent leakage.
- Please discard packing material according to local related regulations.
- Please make sure that the instrument is operated under the following conditions:
 - A. Indoor use
 - B. Altitude up to 2000 m
 - C. 5°C to 40°C
 - D. 80% RH Max
 - E. Over voltages category I
 - F. POLLUTION degree II
- In case of any questions in using this product, please make sure to contact your local distributor for help. Do not do any improper assembly or disassembly without authorization.
- Please clean and maintain the instrument and accessories according to the maintenance method after every use.

Unpacking

Carefully check if the shipping carton is in good condition before unpacking. Please check all supplied items according to standard package list. If you have any questions, please keep serial no. & shipping carton and contact your local dealer for help.

| Item | Assembly |
|------|--------------------|
| 1 | WD 100 Colorimeter |
| 2 | Vial Dust Cap |
| 3 | Transformer |
| 4 | Instruction manual |








WD 100 Composition table








| Position | Designation | Position | Designation |
|----------|---------------------|----------|------------------------------|
| 1 | Transformer | 5 | button |
| 2 | Vial Dust Cap | 6 | Battery cover |
| 3 | Tube insertion port | 7 | Power outlet |
| 4 | Screen | 8 | 9V square battery (optional) |

Buttons and Symbols Introduction

(1). Operation Button Description :

| Buttons | Function | Description |
|---|----------------|--|
| Data | Data | Show the data in the display |
| Menu | Menu | Back to the previous menu |
|  | UP Arrow | Scrolls up through selected menus or stored data |
|  | Down Arrow | Scrolls down through selected menus or stored data |
|  | Right Arrow | 1. Scrolls right through selected menus or stored data 2. Set the favorite curve and enter the adjustment function. |
|  | Enter | Within a menu, selects the displayed menu item. During numeric entry, accepts the displayed value. |
|  | Power | Power switch |

(2). Screen Symbol Description :

| Symbols | Description |
|---|--|
|  | Show the state of using a transformer |
|  | 100% full power. |
|  | 66% power. |
|  | 33% power. |
|  | 5% low battery, replace the battery as soon as possible. (Backlight and sound closed) |
| << | Selected option |
| < | Selected option |

Operation

Please ensure that the power supply voltage matches the voltage rating for WD 100 (100-240V AC power), the output voltage is DC12V. In the absence of the power supply case, the user can directly use 9V square battery. Please press the power button, and you can start to use WD 100.

1. Operation menu items







| Content | items | Description | Remark |
|-----------|---------------------|------------------------|--------|
| Main Menu | 1: PROG List | Standard Curve menu | |
| | 2: Favor Set | Favorite Curve setting | |
| | 3: Time | Date and time setting | |
| | 4: Backlight | Backlight setting | |
| | 5: Sound | Sound setting | |
| | 6: Auto Shut | Auto power setting | |
| | 7: Memory | Memory setting | |
| | 8. List Way | Curve menu setting | |



Curve Menu

| | | |
|--------------------|---|------------------|
| 1: COD LR | Low range COD detection curve | 10 - 150 mg/l |
| 2: COD HR | High range COD detection curve | 150 - 1500 mg/l |
| 3: COD HR+ | High Plus range COD detection curve | 1500-15000 mg/l |
| 4: NH3-N LR | Low range Ammonia Nitrogen detection curve | 0.02 - 2.50 mg/l |
| 5: NH3-N HR | High range Ammonia Nitrogen detection curve | 0.4 - 50.0 mg/l |
| 6: PO4 LR | Low range Total Phosphorus detection curve | 0.06 - 3.50 mg/l |
| 7: PO4 HR | High range Total Phosphorus detection curve | 1.0 - 50.0 mg/l |
| 8: TN LR | Low range Total Nitrogen detection curve | 0.5 - 25.0 mg/l |
| 9: TN HR | High range Total Nitrogen detection curve | 2 - 150 mg/l |
| 10: User-01 | User-01 curve | Need calibration |
| 11: User-02 | User-02 curve | Need calibration |
| 12: User-03 | User-03 curve | Need calibration |
| 13: User-04 | User-04 curve | Need calibration |
| 14: User-05 | User-05 curve | Need calibration |
| 15: User-06 | User-06 curve | Need calibration |
| 16: User-07 | User-07 curve | Need calibration |
| 17: User-08 | User-08 curve | Need calibration |
| 18: User-09 | User-09 curve | Need calibration |
| 19: User-10 | User-10 curve | Need calibration |
| 20: User-11 | User-11 curve | Need calibration |

| | | | |
|---------------------|-------------------|---------------------------------|--|
| Work Menu | Start | Test screen | |
| | Info | User calibration data | Range values show in standard curve |
| | Set | Calibration parameters | No function in standard curve |
| Setting Menu | 1: Name | Setting curve names | |
| | 2: Wavelen | Setting the wavelength | |
| | 3: Unit | Setting the concentration unit | |
| | 4: Range | Setting the concentration range | The resolution is automatically set according to the setting range |
| | 5: CAL | Calibration parameter | |

2. Standard Curve and User Curve Instruction

| Item | Steps | Display |
|------|--|--|
| 1 | Turn on the power, the screen shows LOGO | ROCKER |
| 2 | Curve Menu appears after 2 seconds | 1: COD LR<<  2: COD HR |
| 3 | Press Δ button and ∇ button to select the standard curve or User curve, "<<" symbol represents the position of the option · Press \leftarrow button to enter the Work Menu | 1: COD LR  2: COD HR<< |
| 4 | Select "Start" option · Press \leftarrow button to start the test | COD HR@610nm  Start< Info |
| 5 | Insert Blank tube | COD HR@610nm  InsertBlank |
| 6 | Insert the blank vial into the vial holder and OK message will appear after 2 seconds | COD HR@610nm  BlankOK |
| 7 | Pull out the Blank vial and Insert Sample message appears | COD HR@610nm  InsertSample |





| | | |
|---|--|--|
| 8 | Insert the sample vial into the vial holder and test value will appear after 2 seconds, and then automatically save the data | C O D H R @ 6 1 0 n m  1 0 0 1 m g / L |
| 9 | Insert other sample vial into the vial holder, and retest test value | C O D H R @ 6 1 0 n m  4 8 7 . 1 m g / L |






Note:





- A. Make sure to insert each sample vial into the vial holder in the same direction to make test value more consistent.
- B. Before using the User curve, please proceed with “**3. User curve calibration instruction**”
- C. Pressing Data button can show the storage data in the display.
- D. “Over range” or “Under range” error indicates the sample concentration is too high or too low, please make a dilution or change test vials to try again.

3. User curve calibration instruction


a. Set Calibration Parameters










| Item | Steps | Display |
|------|---|--|
| 1 | Turn on the power, the screen shows LOGO | ROCKER |
| 2 | Curve menu appears after 2 seconds | 1 : C O D L R <<  2 : C O D H R |
| 3 | Press Δ/∇ button to select User curve (User-1 ~ User-11) · "<<" symbol represents the position of the option · Press \leftarrow button to enter the Work Menu | 9 : T N H R  10 : U s e r - 0 1 << |
| 4 | Press \triangleright button and "<" symbol represents the position of the option · Press \leftarrow button to enter the Setting Menu | U s e r - 0 1 @ 4 2 0 n m  S t a r t I n f o S e t < |
| 5 | Select "CAL" option · Press \leftarrow button to enter Calibration parameter. Press Δ/∇ button and "<" symbol represents the position of the option | 1 : N a m e <  2 : W a v e l e n - 4 2 0 |




| | | |
|----|---|--|
| 6 | Press Δ/∇ button and press \leftarrow button to enter the Name setting | Name [User - 0 1]  => <u>U</u> ser - 0 1 |
| 7 | Wait for the input position and press Δ/∇ button to switch letters, numbers or symbols, Press \leftarrow button to select the position of the number (cyclically switch), and the name can be entered up to 10 words. | User - 0 1  => Sea C 0 <u>D</u> |
| 8 | After completing, Press \leftarrow to confirm the save, or press the Menu button not to save and return to the previous screen. | 1 : Name <  2 : Wavelen - 4 2 0 |
| 9 | Press Δ/∇ button and "<" symbol represents the position of the option · Press \leftarrow button to enter the Wavelen setting menu | Wavelen [4 2 0]  4 2 0 nm 6 1 0 nm < |
| 10 | There are two wavelengths to choose, Press \leftarrow button to confirm the storage, or press the Menu button to return to the previous screen. | 2 : Wavelen - 6 1 0 <  3 : Unit - mg / L |

| | | |
|----|---|--|
| 11 | Press Δ/∇ button and “<”symbol represents the position of the option · Press \leftarrow button to enter the Unit setting menu | Unit [mg/L]  g/L mg/L < ug/L |
| 12 | There are three Units to choose, Press \leftarrow button to confirm the storage, or press the Menu button to return to the previous screen. | 3 : Unit - mg/L <  4 : Range - 32000 |
| 13 | Press Δ/∇ button and “<”symbol represents the position of the option · Press \leftarrow button to enter the Range setting menu | Range [0 - 32000]  0 - 320000 - 3200 < |
| 14 | There are four Range to choose, Press \leftarrow button to confirm the storage, or press the Menu button to return to the previous screen. | 4 : Range - 3200 <  5 : CAL |

b. Start Calibration

| Item | Steps | Display |
|------|--|---|
| 1 | Before starting calibration, press the Δ/∇ button to view the settings of 2~4 items and confirm that the settings are correct. | 2 : Wavelength - 610 <  3 : Unit - mg/L |






| | | |
|----|--|--|
| 2 | Press the Δ/∇ button to select the CAL option and Press \leftarrow to enter the calibration parameter. | 4 : Range - 3200 <  5 : CAL |
| 3 | Insert Blank message appears | SeaCOD@610nm  InsertBlank |
| 4 | Insert the blank vial into the vial holder and OK message will appear after 2 seconds | SeaCOD@610nm  Blank OK |
| 5 | Pull out the Blank vial and check if it is correct, press \leftarrow button to confirm | SeaCOD@610nm  Blank OK < |
| 6 | After confirmation, insert a standard vial | SeaCOD@610nm  InsertStd 1 |
| 7 | Insert the sample vial into the vial holder and input concentration value message appears after 2 seconds | SeaCOD@610nm  <u>0000</u> mg/L |
| 8 | Press $\Delta/\nabla/\triangleright$ button to enter the standard concentration values | SeaCOD@610nm  000 <u>5</u> 0mg/L |
| 9 | Pull out the sample vial, and press \leftarrow button to make sure the concentration value is correct | SeaCOD@610nm  S1 : 50.0mg/L OK < |
| 10 | After confirmation, insert another standard vial | SeaCOD@610nm  InsertStd 2 |

| | | |
|----|--|---|
| 11 | <p>After completing the calibration, press Menu button and \leftarrow button to finish. Then the following message will appear:</p> <p>Save: Save the calibration parameter then exit</p> <p>Exit: Exit without saving calibration parameter</p> <p>CAL: back to the calibration parameter</p> | <pre> SeaCOD@610nm  SaveExitCAL< </pre> |
| 12 | <p>Select CAL button to go back to the calibration parameter</p> | <pre> SeaCOD@610nm  InsertStd 2 </pre> |
| 13 | <p>Repeat steps 10 to 12 for continuous adjustment of other standard concentration up to six. Finally save the calibration parameters then exit.</p> | <pre> SeaCOD@610nm  Save<Exit </pre> |

Note:

- A. Please select the appropriate calibration range to avoid insufficient resolution and increase the error.
- B. The test tube should be fixed in each direction. Ex: Align the letter A of the HACH tube with the ▲ symbol.
- C. Please prepare one Blank and at least one set standard solution for calibration experiment.
- D. Do not calibrate the same concentration standard twice to avoid the error message.
- E. Please select the appropriate concentration standard for calibration. If the absorbance of the two concentrations are too close, there will be an error message.
- F. If the set concentration exceeds the maximum value, it will automatically become the maximum value.






4. Calibration Information Instruction

| Item | Steps | Display |
|------|--|--|
| 1 | Turn on the power, the screen shows LOGO | ROCKER |
| 2 | Curve menu appears after 2 seconds | 1 : C O D L R <<  2 : C O D H R |
| 3 | Press Δ/∇ button and "<<" symbol represents the position of the option, Press \leftarrow button to enter the Work Menu | 1 1 : U s e r - 0 2  1 2 : U s e r - 0 3 << |
| 4 | Select "Info" option, Press \leftarrow button to enter the User calibration data | U s e r - 0 3 @ 4 2 0 n m  S t a r t I n f o < S e t |
| 5 | Calibration results: OK: Calibration parameters are correct. NG: Calibration parameters are in error, please go back to CAL and recalibrate. | U s e r - 0 3 @ 4 2 0 n m  C A L p o i n t = 2 0 K |
| 6 | Press Δ/∇ button to check concentration value and press \leftarrow button or Menu button back to the previous menu | U s e r - 0 3 @ 4 2 0 n m  S 1 = 1 5 0 . 0 0 m g / L |

Note:

- (1) Standard curves show range of reading value, and sser curves show calibration information.

5. Storage Data Instruction






| Item | Steps | Display |
|------|--|--|
| 1 | Press the Data button in all menu excepting setting menu and it will display the stored information | 1 : C O D L R <<  2 : C O D H R |
| 2 | Storage information includes the date, test time, curve name, curve range, data number and concentration value. | C O D H R @ 6 1 0 n m  0 2 2 4 8 7 . 1 m g / L |
| 3 | Date, time, curve name and range will show in the first row and switch in every 2 seconds. Press ▷ button to manual switch the information | 2 0 1 8 / 0 7 / 1 6 0 8 : 3 4  0 2 2 4 8 7 . 1 m g / L |
| 4 | Press Δ/▽ button to display different number of measurement data | 2 0 1 8 / 0 7 / 0 6 0 8 : 3 3  0 2 1 9 9 9 . 9 m g / L |
| 5 | After checking data, press the Menu button to leave | 1 : C O D L R <<  2 : C O D H R |

Note:

- (1) The maximum storage number is 100 records, the oldest record will be replaced if storage data is more than 100 records.

6. Favorite Curve Setting Instruction





a. Set the favorite curve

| Item | Steps | Display |
|------|---|--|
| 1 | Turn on the power and switch to the Curve Menu | 1 : C O D L R <<  2 : C O D H R |
| 2 | Press Δ/∇ button to select the curve to be set as the favorite set, and the "<<" symbol represents the option position. | 8 : T N L R <<  9 : T N H R |
| 3 | Press \triangleright button to set the curve as favorite collection. The indicator symbol * displays in front of curve name. Press \triangleright button again to cancel the setting. | 8 : * T N L R <<  9 : T N H R |
| 4 | Repeating step 3~4 and complete the setting, press Menu button to return to Main Menu, press Δ/∇ button to select Favor Set and \leftarrow button to enter it. | ☆ 1 : T N L R <<  ☆ 2 : T N H R |
| 5 | Press Δ/∇ button to select the curve name, press \leftarrow button to enter the work menu, and start measurement with reference to Instruction 2. | T N H R @ 4 2 0 n m  S t a r t < I n f o |




Note:

- A. When turning on WD 100, it will choose the curve list: "Favor Set" or "PROG List" automatically according to the list you used and turned off last time.
- B. The maximum number of favorite curves can be up to 8.

b. Delete the favorite curve

| Item | Steps | Display |
|------|---|--|
| 1 | <p>In the favorite curve menu, press Δ/∇ button to select the curve to be deleted, and the "<<" symbol represents the option position.</p> | <p>☆ 1 : T N L R << </p> <p>☆ 2 : T N H R</p> |
| 2 | <p>Press \triangleright button, and delete message shows up.</p> <p>1. ThisOne: delete only this one curve 2. All: delete all curves</p> | <p>☆ 1 : T N L R << </p> <p>De l ? T h i s O n e < A l l</p> |
| 3 | <p>Press \leftarrow button to confirm execution or press Menu button to leave.</p> | <p>☆ 1 : T N H R << </p> <p>☆ 2 : P O 4 L R</p> |
| 4 | <p>If you select "All" , you will see the message "No Favor Data".</p> | <p></p> <p>N o F a v o r D a t a</p> |




7. Ranking of Curve Set Instruction

| Item | Steps | Display |
|------|---|---|
| 1 | Turn on the power, the screen shows LOGO | ROCKER |
| 2 | Curve menu appears after 2 seconds | 1 : C O D L R <<  2 : C O D H R |
| 3 | Press Δ/∇ button to select the curve, then press \triangleright button for more than 1 sec to start twinkling, and the curve ranking setting is on. | 8 : T N L R  9 : T N H R << |
| 4 | Press the Δ/∇ button to change the curve ranking, press \leftarrow button to confirm the change and save it, or press the Menu button to discard the change and return to the Curve Menu. | 1 : T N H R  2 : C O D L R |

Note:

- (1) Curve ranking in “Favor Set” cannot be changed, the ranking will refer to the “PROG List”.




8. Date and Time Setup Instruction

| Item | Steps | Display |
|------|--|--|
| 1 | Turn on the power and press the Menu button back to the Main Menu | 1 : C O D L R <<  2 : C O D H R |
| 2 | Press Δ/∇ button to select Time, press \leftarrow button to enter the time setup | 2 : F a v o r S e t  3 : T i m e << |
| 3 | Press $\Delta/\nabla/\triangleright$ button to change the number, and press \leftarrow button to store setting and leave | D a t a : 2 0 1 7 / 0 7 / 1 6  T i m e : 0 9 : 3 4 |

Note:

- (1) Date and Time setting is automatically saved even if pressing the Menu button to leave.




9. Backlight Setting Instruction

| Item | Steps | Display |
|------|---|---|
| 1 | Turn on the power and press the Menu button back to the Main Menu | 1 : C O D L R <<  2 : C O D H R |
| 2 | Press Δ/∇ button to select the Backlight, press \leftarrow button to enter the Backlight setup | 4 : B a c k l i g h t <<  5 : S o u n d |
| 3 | Press \triangleright button to select an option, and press \leftarrow button to save. On: Turn on the backlight without auto turn-off. Auto: Turn on the backlight and auto turn-off. Off: Turn off the backlight. | B a c k l i g h t [A u t o]  0 n << A u t o O f f |




Note:

- (1) When selecting "Auto", the backlight will be turned off to save power if no operation in 3 minutes and turn on automatically as soon as any operation.

10. Sound Settings Instruction




| Item | Steps | Display |
|------|--|---|
| 1 | Turn on the power and press the Menu button back to the Main Menu | 1 : C O D L R <<  2 : C O D H R |
| 2 | Press Δ/∇ button to select the Sound and press \leftarrow to enter the sound setup | 4 : B a c k l i g h t  5 : S o u n d << |
| 3 | Press \triangleright button to select an option, and press \leftarrow button to save. On: Turn on the sound; Off: Turn off the sound | S o u n d [0 n]  0 n << 0 f f |

11. Auto Shutoff Setting Instruction

| Item | Steps | Display |
|------|--|---|
| 1 | Turn on the power and press the Menu button back to the Main Menu | 1 : C O D L R <<  2 : C O D H R |
| 2 | Press Δ/∇ button to select the Auto Shut and press \leftarrow button to enter the Auto Shut setup | 6 : A u t o S h u t <<  7 : M e m o r y |
| 3 | Press \triangleright button to select an option, and press \leftarrow button to save. On: Turn on the Auto Shut; Off: Turn off the Auto Shut | A u t o S h u t [0 n]  0 n << 0 f f |

Note: When "Auto Shut" is on, the machine will turn off automatically if no operation in 10 minutes.




12. Memory Setting Instruction

| Item | Steps | Display |
|------|---|---|
| 1 | Turn on the power and press the Menu button back to the Main Menu | 1 : C O D L R <<  2 : C O D H R |
| 2 | Press Δ/∇ button to Memory and press \leftarrow button to enter the Memory setup | 6 : A u t o S h u t  7 : M e m o r y << |
| 3 | Press \blacktriangleright button to select and press \leftarrow button to save. Yes: Screen shows the menu according to menu used and shutdown last time. No: Screen shows the Curve menu every time. | M e m o r y [N o]  Y e s << N o |


Note:

- (1) If you change to the Yes option, the menu before shutdown will be saved and next time you turn it on, it will appear. The Memory setting is convenient for users who use the same curve and range every time the same.
- (2) The original setting is No option. If change to the Yes option, you can press the Menu button return to the Curve menu.

13. Curve Arrangement Instruction

| Item | Steps | Display |
|------|---|--|
| 1 | Turn on the power and press the Menu button back to the Main Menu | 1 : C O D L R <<  2 : C O D H R |
| 2 | Press Δ/∇ button to select the List Way, press \leftarrow button to enter the List Way setup | 6 : M e m o r y  7 : L i s t W a y << |
| 3 | <p>Press \triangleright button to select an option, and press \leftarrow button to save.</p> <p>Fix: The ranking of arrangement is fixed.</p> <p>Auto: The ranking is automatically adjusted according to the measurement frequency.</p> <p>Reset: The reset is arranged in the original set.</p> | L i s t W a y [F i x]  F i x < A u t o R e s e t |

14. Shutdown Instruction

| Item | Steps | Display |
|------|---|--|
| 1 | <p>Press the power button and Press ▷ button to select an option, and press ↵ button to save.</p> <p>Yes: Turn off the power</p> <p>No: Back to the previous menu</p> | <p>S h u t d o w n ? </p> <p>Y e s << N o</p> |

Note:

- (1) In the shutdown screen, the power button is equivalent to ↵ button; Menu button can cancel the shutdown directly.
- (2) Data loading and storage will be performed during power-on and power-off. It takes a few seconds before pressing the power button to turn it on and off.

Maintenance

1. Clean the exterior of the instrument with a moist cloth and a mild soap solution and then wipe the instrument dry.
2. If the instrument is not used for a long time, be sure to put on the dust cover.
3. Explosion hazard. Expired batteries can cause hydrogen gas buildup inside the instrument. Replace the batteries before they expire and do not store the instrument for long periods with the batteries installed.
4. If the tube insertion port is dirty, please swab it with alcohol to avoid reading interference problems.

Troubleshooting

| Possible cause | Solution |
|--|---|
| Instrument fails to start | <ol style="list-style-type: none">1. No electrical supply → Check the power supply conform to power specified on main unit or the switch is broken2. Battery error → Change a new 9V square battery3. Internal part failure → Contact technical support |
| The screen is not displayed | Contact technical support |
| Screen without backlight | <ol style="list-style-type: none">1. Backlight setting → Turn on the backlight2. Battery error → Change a new 9V square battery3. Internal part failure → Contact technical support |
| No button sound | <ol style="list-style-type: none">1. Sound setting → Turn on the sound2. Battery error → Change a new 9V square battery3. Internal part failure → Contact technical support |
| No response after pressing the button | Contact technical support |

| | |
|---|---------------------------|
| No response after inserting the vial | Contact technical support |
| Instrument is not configured | Contact technical support |
| Could not read program data | Contact technical support |
| Could not write program data | Contact technical support |

Ordering Information

| | |
|--------------|--|
| 191100-01 | WD100 Portable Multiparameter Colorimeter with US plug adaptor(100-240V) |
| 191100-02 | WD100 Portable Multiparameter Colorimeter with EU plug adaptor(100-240V) |
| 179250-11 | CR 25, COD Reactor, AC110V, 60Hz |
| 179250-22 | CR 25, COD Reactor, AC220V, 50Hz |
| HAC-2125825 | HACH COD vial 150 mg/l (25/PK) |
| HAC-2125815 | HACH COD vial 150 mg/l (150/PK) |
| HAC-2125925 | HACH COD vial 1500 mg/l (25/PK) |
| HAC-2125915 | HACH COD vial 1500 mg/l (150/PK) |
| HAC-2415925 | HACH COD vial 15000 mg/l (25/PK) |
| HAC- 2672245 | HACH Total Nitrogen vial 0.5 - 25.0 mg/l (50/PK) |
| HAC- 2714100 | HACH Total Nitrogen vial 2 - 150 mg/l (50/PK) |
| HAC- 2742645 | HACH Total Phosphorus vial 0.06 - 3.50 mg/l (50/PK) |
| HAC- 2767245 | HACH Total Phosphorus vial 1.0 - 100.0 mg/l (50/PK) |
| HAC- 2604545 | HACH Nitrogen Ammonia vial 0.02 - 2.50 mg/l (50/PK) |
| HAC- 2606945 | HACH Nitrogen Ammonia vial 0.4 - 50.0 mg/l (50/PK) |