

QDR INSTRUCTION MANUAL

FOR USE IN: Any factory containing wet benches. This QDR model is simple and effective to use. It is an excellent controller of the QDR tank for cleaning. It helps with water consumption and saves much time.

APPEARANCE: This QDR model contains four settings with each setting containing seven cleaning steps. Each of the seven cleaning steps can be timed between 0 and 999 seconds. This allows for 7900 different cleaning options

EASY TO USE: The top display of this QDR model is incredibly clear. It displays the current data settings and one of the four chosen modes. The buttons are easily pressed to modify any chosen setting.

EASILY REPLACEABLE: Due to normal working practices, chemicals may spill or attach to the control panel but this QDR model is easily replaceable. The entire QDR model need not be replaced only certain cables or parts, therefore being truly cost effective.

EXTRA FEATURE: The resistivity option can be used in the same tank as the QDR model.



A: The 4 settings: F0 to F3

B: The top display shows chosen steps 1 to 7

C: Displays different cleaning options 0 to 9

Outlet Number	Outlet Options
0	Spray
1	Fill
2	Bubbling
3	Drain
4	Spray & Fill
5	Spray & Bubbling
6	Spray & Drain
7	Fill & Drain
8	Fill & Bubbling
9	Reclaim

D: Displays time of each option in descending seconds.

F0 to F3: The Main Settings

0 to 9: Cleaning Options-don't need to Auto run. Can use buttons as a menu to choose which option you require eg. SP is spray BM is fill

ICB-800-RELAY

ICB Output Connect Point

X0	Star / Stop
X1	A / D Finish
Y0	Spray
Y1	Fill
Y2	Bubbling
Y3	Drain
Y4	Lamp Flash

<1> ICB-800 Pin Assignment

- (01) Relay-com
- (14) Relay-Y0 (SPRAY)
- (03) Relay-Y3 (DRAIN)
 - (16) Relay-Y4 (RECLAIM)
 - (7, 8, 18, 19, 20) GND (24V)
- (02) Relay-Y1 (FILL)
- (15) Relay-Y2 (BUBBLE)
- (05) Input X0 (START/STOP)
- (06) Input X1 (A/D COMPLETE)
- (10, 11, 22, 23) 24V

<2> Data Setting Display Mode

A	B	-	C
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DISPLAY SETTING MODE

	D1	D2	D3
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TIME DISPLAY

- 1) Whenever the 4 mode setting buttons (F0 to F3) are depressed you enter the data setting display mode
- 2) Data Display mode as seen in the above diagram: -
 - A: Displays chosen setting F0 to F3
 - B: Displays chosen step 1 through 7
 - C: Displays chosen cleaning option 0 through 9

- D: I) displays duration of step 1 through 4 and step 7 between 0 and 999 seconds.
II) Step 5 displayed between 0 and 99 seconds
III) Step 6 displayed between 0 and 998 seconds

(Please note that actual time is 999 so Step 6 is suspended while waiting for A/D complete information)

- 3) To choose a setting press one of the F0 to F3 buttons
- 4) To choose a step press "ENT" or ENTER and steps 1 through 7 will be displayed.
- 5) If "SET" button is not depressed you will be in the display mode. When the "SET" button is depressed, SETTING MODE is activated. When first pressing the "SET" button you may now choose cleaning options 0 through 9. Depressing the "SET" button a second time will allow you to choose the duration in seconds for your chosen cleaning option 0 through 9. Once the bench is in operation, without waiting, you may now enter the setting mode and enter new data that will only be activated when the start button is depressed.
- 6) After 30 seconds, if no button is depressed in SETTING MODE the machine will revert back to the DISPLAY MODE.
- 7) If the 9th button "DIS" is depressed the total time for each setting is displayed.

<3> Working Mode

- 1) In the DISPLAY MODE, depressing button "0" is exactly the same function as the START and STOP button.
- 2) In Step 5 (see above diagram) D2 displays the amount of times steps 1 through 4 are repeated. 0 through 9 can only be repeated 9 times. If the display in D2 (see above diagram) reads 0 there are no repeating cycles. D3 (see above diagram) displays the number of times of water drainage after which the water will be recycled depending on your choice of repeating cycle. If in D3 (see above diagram) the display shows 0 then no water will be recycled only drained.
- 3) In Step 6, if the time chosen is below 999 seconds that will be the duration of Step 6. However, if the time is set at 999 seconds then the machine will wait for A/D complete information or resistivity.

<4> **Display Mode**

A	B	-	C
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A: Displays chosen setting F0 through F3

B: Displays chosen step 1 through 7

C: Displays chosen cleaning option 0 through 9

D1	D2	D3	D4
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D: Displays time in descending seconds between 0 through 65535

(Please note that the 10 thousand numbers cannot be displayed)

<5> **General**

5.1. When the ICB-800 model is in operation the Run LED light will flash until the time is complete or you press stop.

5.2. When the cycle is complete the displays numbers will flash until stop is depressed.

5.3. When the cycle is complete a buzzer will sound.