

INTIEL INTIEL

Self service car wash controller INT0193

User's manual



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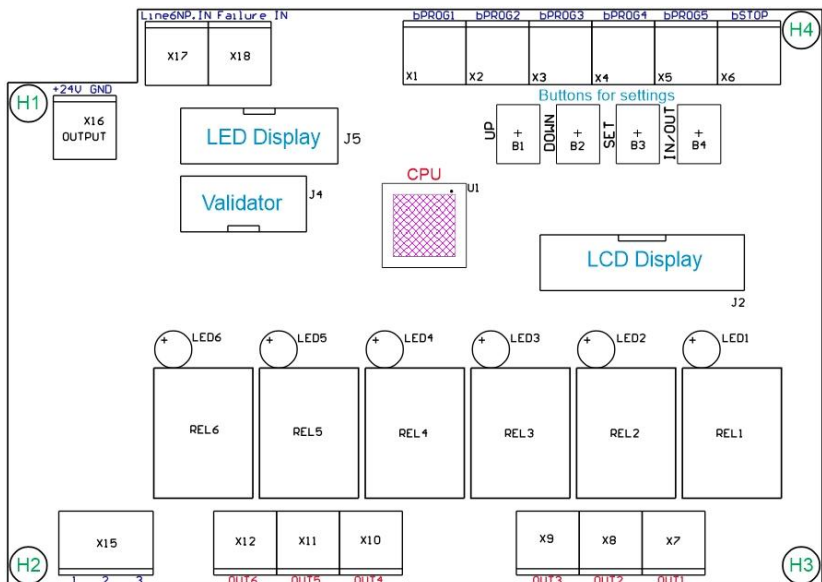
Application:

The controller is used to manage self-service car washes without the intervention of an employee. Provides the user with the opportunity to use various programs in a cell from the car wash.

Features:

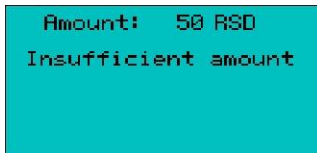
- Monochrome graphic display with a resolution of **128×64** pixels
- Ability to plug in a large LED display with high brightness for time tracking
- 6 inputs for connection with a coin validator (*10 Pin connector*)
- Power supply of the coin validator through the controller (*12Vdc*)
- 5 buttons for program selection and 1 for emergency stop (or pause)
- 6 relay outputs (*independent contact*)
- “Operator” mode for settings, time settings, prices, validator channels and saving statistics
- Ability to accumulate credit without the need for coins
- Ability to switch between different programs, as the controller recalculates the remaining time, depending on the time used and the value of the selected programs
- Output: **24Vdc**
- Nominal supply voltage: **~230V/50-60Hz**

Main board view:



1. $X1 \div X6$ – Terminals for connecting buttons
 - **X1** For “Operator” mode: Menu scroll button - *forward* or *up*. Button “Program 1 start”;
 - **X2** For “Operator” mode: Menu scroll button - *back* or *down*. Button “Program 2 start”;
 - **X3** For “Operator” mode: Value change button. Button “Program 3 start”;
 - **X4** For “Operator” mode: Enter or exit a submenu. Button “Program 4 start”;
 - **X5** Button “Program 5 start”;
 - **X6** “Stop” or “Pause/Stop” button.
2. $X7 \div X12$ – Relay outputs. *Independent contact type*.
3. **X15** – Terminal for connecting power supply board – 2x9V/6VA.
4. **X16** – Output 24V DC.
5. **X17** – Input that can be used to accumulate amount, no validator required. The value is determined from menu *Settings: Validator - Line6*.
6. **X18** – “FAULT regime” signal input.
7. **J2** – Connector for LCD indication plug in.
8. **J4** – Connector for Validator RM5 type plug in.
9. **J5** – Connector for LED indication plug in.
10. $LED1 \div LED6$ – Service LED indication for the relay outputs.

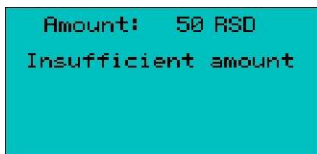
Working mode



Insert a coin or token into the coin mechanism. Its value will be shown on the display and will accumulate with each subsequent coin.

To start a program, press the button corresponding to the number of the program you have selected.

The buttons are connected to terminals $X1 \div X6$.



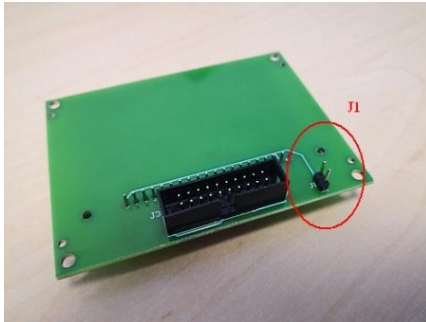
If the cost of the selected program is higher than the amount value. A shortage message will be displayed.



The program has been launched. The remaining time is displayed with numbers and a graph. It can also be monitored on the additional LED indication.

“Operator” mode

1. To access the mode it is necessary to place a jumper on J1. It is located on the LCD indication.



Additional buttons B1-B4 located on the main board can be used for ease of adjustment.

2. The controller enter in “Operator” mode



3. With buttons 1 (UP) and 2(DOWN) the desired settings is selected:
 - Statistics – view of the number of launched programs
 - Program 1 – settings Program 1 parameters
 - Program 2
 - Program 3
 - Program 4
 - Program 5
 - Validator – setting the value for each of the 6 inputs from a coin mechanism
 - Other – system option settings

4. Statistics

```
Settings: Statistics
Number of starts
*Pr.4:    0 1  0
Pr.5:    0 1  0
Reset all records
```

With buttons 1 or 2 is selected *Settings: Statistics*. By pressing button 4(IN/OUT) a submenu is entered.

For each of the five programs, the number of intermediate starts (first column) and the number of initial starts are saved. Use buttons 1 and 2 to move the marker * to the desired program, and use button 3(SET) to reset its individual statistics. “Reset all records” resets statistics for all 5 programs.

To exit the submenu, press button 4.

5. Validator

```
Settings: Validator
Output-value (RSD)
Line1:    10
*Line2:    20
Line3:    50
```

With buttons 1 or 2 is selected *Settings: Validator*. By pressing button 4(IN/OUT) a submenu is entered.

On the left are listed the output lines (channels) for the coin and on the right is the value equivalent.

Use buttons 1 and 2 to move the marker to the output line that will be set.

To change its value, press button 3. The value starts to flash, then select the desired value with buttons 1 and 2 and confirm again with button 3.

To exit the submenu, press button 4.

6. Program 1 ÷ 5

```
Settings: Program 1
*   CAR WAX
Pr.cost (RSD):100
Out1(sec):s  0 e 25
Out2(sec):s  0 e  0
```

```
Settings: Program 1
Out2(sec):s  0 e  0
Out2(sec):s  0 e  0
Out2(sec):s  0 e  0
Out2(sec):s  0 e  0
* Total(min): 0.25
```

With buttons 1 or 2 is selected *Settings: Program 1 ÷ Program 5*.

By pressing button 4(IN/OUT) a submenu is entered.

Use buttons 1 and 2 to move the marker on the desired position and change with button 3

- change the name of a program. Can be selected from a list of factory stored names;
- change the cost of the program;
- changing the time intervals for operation of each relay output;
- Total time of the program. It is automatically calculated based on the setting of the individual time intervals.

The time intervals are set in seconds from 0 to 600. By setting the start and end of the program launch.

Example setting for Output 1.

If we choose 5 to start (s) and 40 to end (e), total time of the program will be 0:40 min.

Relay output 1 it will ON from the 5th to the 40th second from the start of the program.

Each relay output can operate independently of the others.

When the marker * is on "**Total (min):**" by pressing button 3, all already set time intervals of the current program can be reset.

To exit the submenu, press button 4.

7. Other

```

Settings: Other
* Switch programs: YES
Amount saving: NO
Time to reset: 30
Button PAUSE: NO
  
```

```

Settings: Other
Time for pause: 5
* No Cost resume: NO
FAULT resume: NO
Time accumulate: NO
  
```

With buttons 1 or 2 is selected *Settings: Other*. By pressing button 4(IN/OUT) a submenu is entered. Use buttons 1 and 2 to move the marker on the desired position and change with button 3.

- *Switch programs* – permission to switch from program to program. The controller automatically calculates the remaining time, depending on the time already used and the cost of the selected programs;
- *Amount saving* – the current amount of money is saved in the controller's memory. In the event of a power failure, the amount is not lost;
- *Time to reset* – a time is set after which, if no program is started, the accumulated money is reset. A setting of 0 (NO) disables the option. It can be set from 1 to 30min.;

- *Button PAUSE* – terminal X6 is used to connect a button to temporarily stop the program. After pressing the button, the time stops and the outputs are turned off. When the button is pressed again, a forced STOP is performed. To exit the "PAUSE" mode and continue working, the button of the current program or the button of another program must be pressed (if an option „Switch programs” is enabled);
- *Time for pause* – a time is set that starts to run after entering the "PAUSE" mode. After the time has elapsed, the current program is forced to stop. With setting 0 (NO), exit from "PAUSE" mode is performed only manually. It can be set from 1 to 10 min.;
- *No cost regime* – programs can be started without taking away from the current amount of money or when there is no amount of money;
- *FAULT regime* – It is activated by a key, a button or by a signal from another device. A warning appears on the display;
- *Time accumulate* – (***the option is under development***);

To exit the submenu, press button 4.

Exit from "Operator" mode - by removing a jumper J1.

Contents of the package

- main board
- power supply board
- LCD indication
- LED indication (option)
- 10 pin ribbon cable
- 14 pin ribbon cable (option)
- 20 pin ribbon cable
- user's manual

Warranty

The warranty period of the product is 24 months from the day of purchase, but no more than 28 months from the date of production, subject to compliance with the requirements for installation, operation and transport