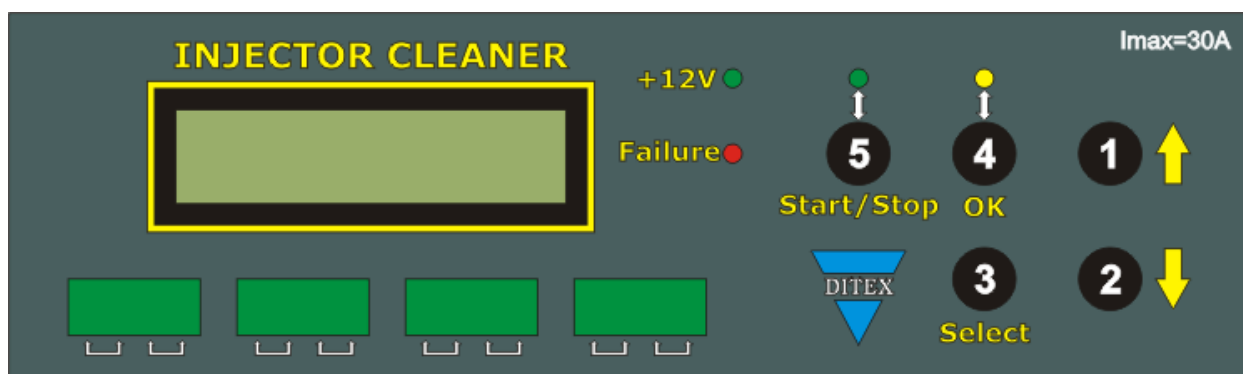


INJECTOR CLEANER

User's manual

1. Connect the injector cleaner to fully charged 12V car battery through the power supply cable provided in the kit. The polarity of the voltage has to be taken into account. The red cable should be connected positive end of the car battery and the black cable to the negative one.
2. The Injectors are connected to the device and are arranged on the stand in the ultrasonic pan. Then pour enough cleaning fluid in the tank.
3. Using the switch located on the back of the casing we turn the control electronics power on. It should be noted that there is no electricity flowing through the injectors yet.
4. After its initial test the injector cleaner's computer establishes itself, by default, in mode for cleaning standard 15 ohm injectors. If we want to change this mode and choose another one, we must use buttons **1** and **2**.



5. After the correct mode is selected, if the initial parameters of the mode suit us we can start the cleaning process by pressing **5** (Start/Stop).
6. **3** allows us to change the frequency of opening and closing the injectors (RPM of the crankshaft of the engine), to change the open state time of the injectors (from 2.5mS to 10 mS), and to change the cleaning cycle duration (from 5 min to 20 min). After pressing **3** the parameter which is currently selected for change flashes, if you push the button one more time the next parameter which can be adjusted starts to flash. The change of the value of the selected parameter itself is done by buttons **1** and **2**.



7. Once we have made the desired changes we must confirm the new settings by pressing ④. If we want to use the settings we chose again after turning off the device, we don't have to re-set them again because after pressing ④ they are automatically recorded in an external memory of the microprocessor, which is provided for this purpose.
8. If we want to re-set all factory settings for all the modes we must first press ② and keep it pressed while we switch over the ON/OFF key on the back and wait for the device to pass the initial test of the control electronics. It should be noted that we can not re-set the settings of a single mode.
9. After finishing a complete cleaning cycle we can repeat it by pressing ⑤ (Start/Stop) again.
10. Changing the cycle time in any of the three cleaning modes is done after we stop the cycle using the following procedure: ③ Is pressed and held until a menu with ① and ② appears and the desired time in range from 5 min to 20 min is confirmed by pressing ④ and again ③ to exit from this menu.
11. When we finish the working with the injector cleaner we don't need to disconnect it from the car battery. It is enough to turn off the device using ON/OFF switch located on the back of the casing. When it is turned off it won't consume power from the battery.
12. If you need to return the presets you can turn off the device from the ON/OFF switch, press and hold button ②, and turn on the power through ON/OFF switch.

Recommended cleaning method

We recommend conducting two cycles of cleaning. An initial short one (5-10 minutes), respectively, in standard mode or in low ohm injectors mode, depending on the resistance of the injectors being cleaned – low ohm injectors or high ohm injectors. In this cycle we can use already used, but filtered cleaning fluid. Then we change the fluid with new one and perform the second cleaning using the "Self-cleaning" mode. In this mode the deposits are mechanically destroyed and consequently the disposal of most of the domestic deposits in the injectors.

Requirements to ultrasonic pan

To increase the efficiency of cleaning it is recommended to use an ultrasonic pan. There are no specific requirements for its quality and power. Very good results are achieved with regular cleaners, which are suitable for domestic purposes.

Cleaning fluid



You can use acetone, alcohol or specialized degreasing water-based liquid. We recommend using cleaning solutions for degreasing and removing deposits in automobile parts formed by steel, aluminum, copper and their alloys, produced on the basis of alkaline and surfactants. Such cleaning solutions are manufactured and marketed under different names and trademarks. The one we offer is relatively cheap and with proved quality.