



**INJECTION EXPLORER**

**STARDEX® 0502**

# 1. Security information

Read the instructions carefully before using STARDEX 0502 (the device).

The device must be connected only to AC 220V with cable from the delivery kit.

Getting the electrical charges on device body is strongly prohibited!

Ingress of moisture inside the device is strictly unacceptable!

Device body is constructed to protect its components from mechanical impact, while operating. Avoid body and front panel damage, do not drop the device and do not put heavy objects on the top of it.

In case of the device defect (smoke, sparks and specific smell) immediately unplug it and send the device to the service center.

All cables from the delivery kit must be supplied with standard plugs and must not have any mechanical damage.

The device does not contain self-repairable parts inside. It is strictly prohibited to open the device.

Keep and use the device in the areas, inaccessible to children and pets.

The device is designed to work with Common Rail system. The user must understand structure and working principle of injection systems.

Incorrect use of the device may cause the damage of the device or user's injury.

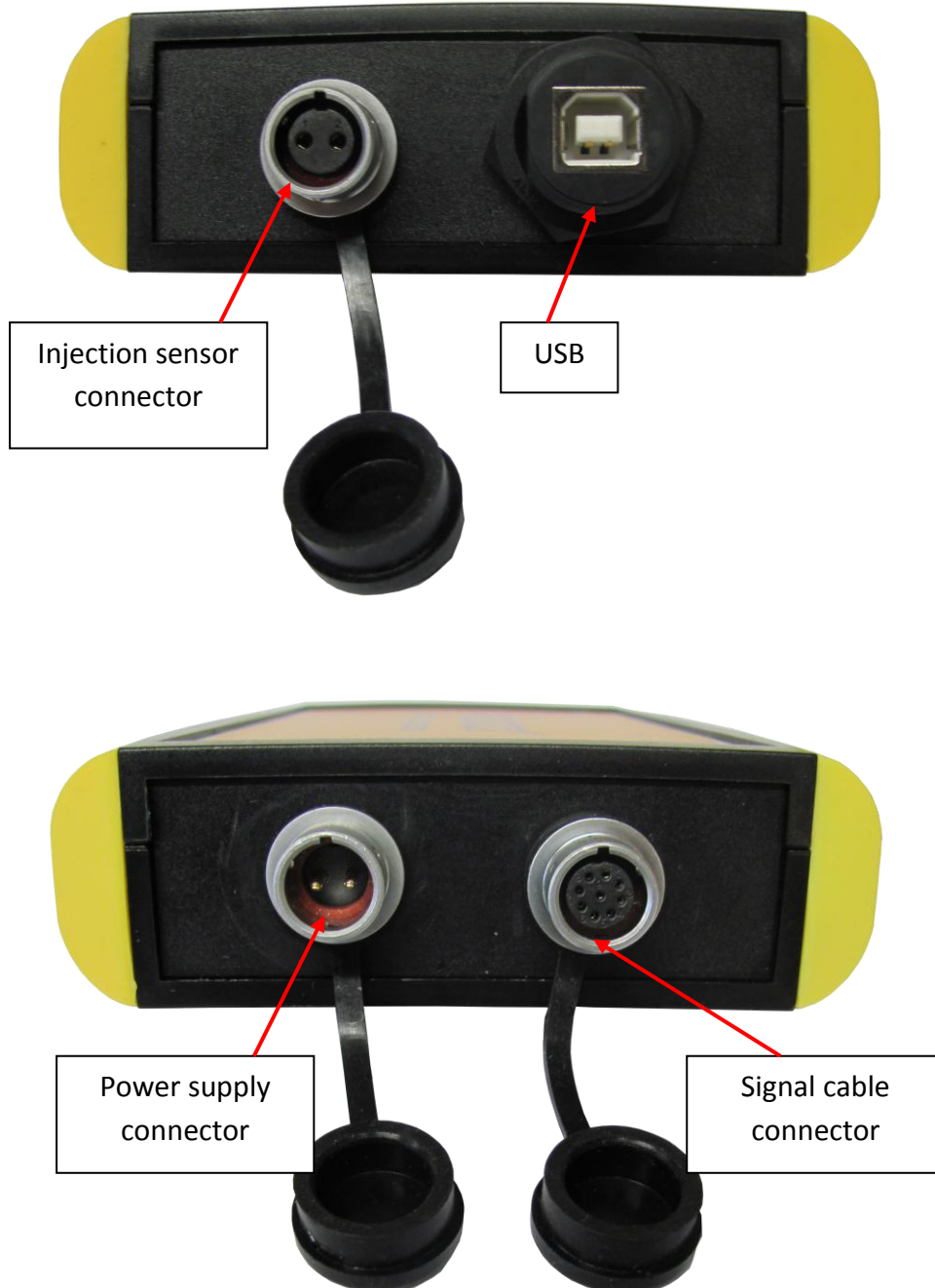
# 2. Technical requirements and operation directions

Dimensions	220x 130 x 40 mm
AC power supply	220 V 50 Hz
Power consumption	10 W
Operating temperature	0°C - 50°C
Relative humidity	no more than 90% at 25°C

### 3. General description

STARDEX 0502 - an additional device for the investigation of the injection delay, while testing Common Rail injectors on the bench with the help of STARDEX 030x simulators. The device allows you to accurately measure and record the delay time of injection (the difference in time between the submission of an electrical pulse to the injector and the beginning of spray from the nozzle) with the conclusion of the results, directly into the program STARDEX030x, in digital and graphical form. Test results are stored in STARDEX030x memory, that allows making a comparative analysis of the characteristics of the set of injectors, and making the necessary adjustments.

### 4. Switching on/off the device, connectors



- 1) Connect STARDEX 030x and STARDEX 0502, using the USB cable supplied.
- 2) Install the signal cable, that comes with STARDEX 0502, instead of the regular injector's cable at STARDEX 030x.
- 3) Connect the signal cable to the appropriate STARDEX 0502 connector.
- 4) Connect the remaining end of the signal cable to the injector with the help of the appropriate cap STARDEX 030x supplied.
- 5) Install injection sensor on the injector nozzle.
- 6) Connect injection sensor to the appropriate STARDEX 0502 connector.
- 7) Connect STARDEX 0502 to 220v outlet, using power supply from the delivery kit.
- 8) Device is ready.
- 9) To Turn off the device, disconnect it from the AC network.
- 10) All the connections to the device must be carried out, while it is unpowered.

## 5. Interface description and control buttons



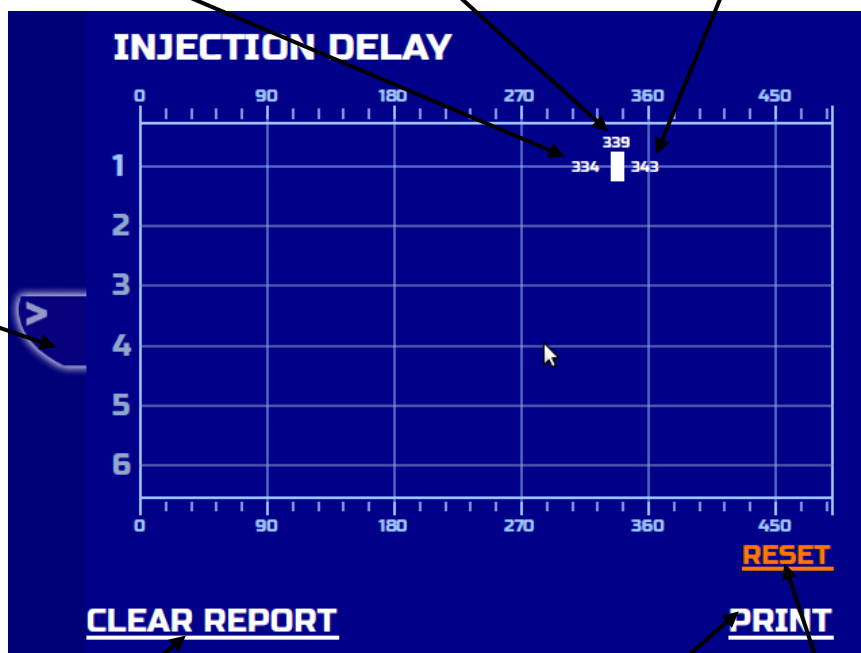
Injector select buttons

Injection delay window

Minimum delay value

Average delay time

Maximum delay time



Exit

Clear report

Print

Reset

## **6. Installation on the test bench and the beginning of work.**

Prepare STARDEX 0502 to work, as described in Chapter 4. In STARDEX 030x, go into the injectors test. Select the test mode (usually Full load). Activate the injector number 1 and make it work. Wait about a minute in order to fill the nozzle line. Go to the injection delay window and click Reset. Wait about 30 seconds until the average value of injection delay stops changing. Write down results. Close injection delay window and stop the operation of the injector.

To check the next injector (using with STARDEX 0304), mount the injection delay sensor on it. Activate the injector number 2 (further 3, 4, 5, 6) and make it work. Follow the procedures, that are described above. Do the same for the other injectors from the kit.

**To get the correct results of injection delay time exploration for the kit of injectors, it is necessary to test all injectors in the same mode (RPM, fuel pressure, pulse length and frequency).**

**It is also necessary to activate the tested injectors one by one, or the test results may be distorted.**

## 7. Supply kit

STARDEX 0502	1 pc.
Power supply	1 pc.
Signal cable*	1 pc.
Injection sensor	1 pc.
Quick connector 7 mm	1 pc.
Quick connector 9 mm	1 pc.
USB cable	1 pc.
Technical description	1 pc.

**\*Attention! Signal cables vary, depending on with which STARDEX device (0305 or 0304) will be used.**

**When ordering, please specify!**



## **8. Warranty and technical support.**

The equipment has 1-year warranty. The manufacturer is not responsible for the damage, due to violation of the operation terms, misuse including unskillful or mistaken personnel actions and if there are traces of mechanical impact. Post-warranty service of device is performed at cost components and the work. The manufacturer reserves the right to design modifications, equipment and the warranty period without advance notice.

## **9. Shipping details.**

The product is packed into bubble wrap and carton box.

Weight - 2 kg.

Length - 250 mm.

Width - 150 mm.

Height - 200mm.

## **MANUFACTURED BY:**

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