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STARDEX® DIMAS ULTIMA

**AUTOMATIC TEST BENCH FOR COMMON RAIL INJECTORS
WITH EMBEDDED ELECTRONIC FLOW MEASUREMENT AND
CODING**



Safety rules for working with STARDEX DIMAS ULTIMA device.

Before using the device STARDEX DIMAS ULTIMA (further “the device”), read this manual carefully.

The device should be plugged only in a circuit of alternative current mentioned in the passport of the device. In order to power up the device, use only supply 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 damage, do not drop the device and do not put any heavy objects on its cover.

At any sign of device defect, as smoke, sparking or specific smell, unplug the device immediately and contact the nearest STARDEX service center.

All cables connected to the device must be supplied with standard plugs without mechanical damage.

Store and use away from children and pets.

The device is designed to work with high pressure systems. A user must understand the structure and principle of operation of injection systems.

Incorrect use of the device can lead to breakage of the equipment or user’s injury.

WARNING!!! Flow sensors are extremely sensitive to the ingress of foreign matter (dirt, chips, etc.). Even a small amount of foreign matter can permanently damage the flow sensor. The use of filters at the inputs of the device is absolutely necessary. The user is responsible for the cleanliness of the test fluid and the timely replacement of filters. The guarantee does not apply to the flow sensors. Possible repair or replacement is carried out by the user.

Specifications and operation directions.

Dimensions	1200x800x1600 mm
Supply voltage	380V 3F
Power consumption in stand-by mode	90 W
Power consumption at full load	Up to 3.5 kW
Operating temperature	from + 10 C to + 30C
Relative humidity	not more than 90% at 25 C
Fuel tank capacity	42 L
Cooling system type	Radiator with fan

Embedded delay sensor module	True
Embedded flow meter module	True
Embedded RLC measurement module	True
Embedded PC	True
New STARDEX SISU software compatible	True
Number of simultaneously testing injectors	1
Delay sensor in	1

Injector digital flow measurement	True
Common Rail coil injectors	True
Common Rail piezo injectors (including Delphi piezo)	True
Double coil injectors	True
Common Rail pumps	False
UIS/UPS PDE/PLD	False
Repair code generation for coil injectors Bosch IMA, Delphi C2I C3I, Denso QR	True
Repair code generation for Bosch piezo	In developing

Purpose and range of application.

- STARDEX DIMAS ULTIMA is a highly professional universal device for testing Common Rail system injectors.
- The device is designed to work with **Bosch, Delphi, Denso, Siemens, Caterpillar, AZPI** electronic systems.
- It works both with electromagnetic and piezoelectric injectors (including Delphi piezo injectors).
- STARDEX DIMAS ULTIMA enables to test current characteristics of an injector displaying a high-precision current graph on the screen and also measures the resistance, capacitance, inductance and the response time of the injectors.
- The device is equipped with a full-fledged industrial PC system powered by Ubuntu Linux, allowing you to connect a keyboard, mouse, printer, monitor and other peripheral devices.
- The device is equipped with digital flowmeters to measure the flow and return flow of injectors and pumps. The use of this technology allows assigning new repair codes for injectors.
- The memory of the device contains more than 2000 test-plans for checking Common Rail injectors of different manufactures.
- The device STARDEX DIMAS ULTIMA is a full-fledged highly professional solution which enables completed test and setting of Common Rail system injectors.

Installing the stand. First start.



- Fully release the device from the packaging and set it on wheels supplied.
- The rear part of the stand should be no closer than 0.3 m to the wall for the free operation of the cooling fan.
- Open the cover of the stand to make sure there is no damage to the equipment, wiring or fuel lines that may be caused by improper transportation.
- Set the monitor and connect it to the appropriate connectors on the rear panel.

- Pour the test (calibration) oil into the filler neck of the tank and open tank vent by turning the special valve on the tank lid.
- Install the cover panels back to the stand.
- Enable stand in a three-phase 380 V network earthed via the regular power cable. Turn the emergency stop button clockwise to overcome it.
- Launch stand with the appropriate button on the front panel.
- Stand ready to work.
- To turn off the stand, press the corresponding button on the front panel and wait for the output from the system. Now stand can be disconnected from the AC mains.

Connectors and control buttons.



Injector delivery inlet

Injector recovery inlet

Injection delay sensor connector

Injector connector



Protective shroud

Bracket

High pressure pipe

injection delay sensor

Turn on the stand.

Set the injector into the bracket.

Connect the injector to the high-pressure line.

Connect the injector to the appropriate connector on the front panel using the supplied cable.

Install injection delay sensor and connect it to a corresponding connector on the front panel

Connect the delivery and recovery flows of the injector to the corresponding fittings on the front panel.

Lower the safety shroud.

Stand ready to work.

Supply kit.

Common Rail Base Kit	
STARDEX DIMAS Ultima	1 PC.
Power cable	1 PC.
Injection delay sensor with cable	1 PC.
Bosch injectors cable	1 PC.
Delphi injectors cable type 1	1 PC.
Delphi injectors cable type 2	1 PC.
Denso injectors cable type 1	1 PC.
Denso injectors cable type 2	1 PC.
Siemens injectors cable	1 PC.
Bosch piezoelectric injectors cable	1 PC.
multisystem injectors cable type 1	1 PC.
multisystem injectors cable type 2	1 PC.
Polyamide fuel tube 6 mm \varnothing	4 m
Quick connectors 6 mm \varnothing	2 pcs.

Photo supplied.



Warranty and technical support.

The equipment has 1 year of 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.

Shipping details.

The device is packed on a Euro pallet and into a plywood box. The inner space is filled with bubble wrap.

Weight: 300 kg

Dimensions: 120x80x135 cm