CARBON ZAPP

ETBr X

Injector & Pump Control
Bench Extension Module

CloudX

The revolutionary
simulator that modernizes
any test bench for
all types of fuel systems.

INNOVATION DRIVEN

→

**Engineering Forward
Mobility Solutions!**

ETBʀ ⫽X

Injector & Pump Control
Bench Extension Module

The revolutionary
simulator that modernizes
any test bench for
all types of fuel systems.

Overview to the New ETBʀ-X

Precise and repeatable Diesel & Gasoline Components Testing

[1] Pump Testing

5-15 minutes testing time per pump

CRp / GDp Pump (All Brands and Types).

Capable for all EU6 technologies with Sync Operation such as Denso HP5, Bosch CP4-EU6, VDO-EU6 technology and more...

Heavy-Duty CR pump (CPN5S2, CAT, Cummins, HP0 etc..)

Testing of All brands and types PCV's [Pressure Control Valves]

Testing of All brands and types of RDS [Rail Pressure Sensors]

Testing of all types of High Pressure Rails

[4] Injectors Testing & Coding*

6-12 minutes testing and coding* time per injector

CRi / CRiN / GDi injectors (All Brands and Types).

Capable for all EU6 technologies such as VCC and NCC technology, iART, PCRS5,

XPI, F2X and F3X systems and more...

CRIN 4.2 Heavy Commercial-Vehicle injectors (max. 2 Large Diesel Engine CRiN injector (QSK, MTU, L 'Orange, etc..)

[1] HEUi Testing & Coding*

6-8 minutes testing and coding* time per injector

Dynamic and static measurement of the actual overflow

Dual-Coil HEUi Injector testing capable

Accurate and automatic measurement of the NOP without disassembling the injector

[1] EUi/EUp Testing & Coding* (requires HK1400A Cambox)

6-10 minutes testing and coding* time per injector

Capable for all EU6 technologies

Expandable to Future Systems

New database and Coding is continiously being updated to new EU6 applications

SPECIALISTS

CRDi - EUi/EUP - HEUi - CRP
ENGINE - GDi - EFi - GDi Pumps

Service Center

AUTHORIZED

The optimized test bench
simulator for every fuel system.

Conventional Test Bench
(EPS625 or similar)

BCR.1   ## BCR.4   ## ETBʀ-X

Injector holder (1 / 4) injectors, with Common-Rail,
Pressure Control and protective hood,
ready to mount on a conventional bench.

ETBr ⫽X → Points

Expandable and Fully Configurable
Modular Unit for Every Diesel
and Gasoline Specialist.

Electrical and Hydraulic connectors,
fittings and adapters are available
for all Systems in the Market.

ETBr ⫽X
→

Injector & Pump Control
Bench Extension Module

SPECIALISTS

CRDi - EUi/EUP - HEUi - CRP
ENGINE **- GDi - EFi - GDi Pumps**

01.

• 0, 1 or 4 Injectors Measuring Ports

• Actuate 1-4 Injectors / Components

• Measure Response time
  for 1-4 injectors

02.

• External Control of any Test Bench.

• Connect With Cambox for Operation.

03.

• Measure up to 1 Pump

• Post Measurement Oils return
  back to Test Bench Tank.

04.

HMI - 10" Touchscreen with CloudX
Based AZO.V3 Software.

05.

WiFi, USB and Ethernet
Connectivity

06.

Emergency STOP

07.

Drain Pan with Waste Port

08.

Cooling System

CRp pump outlet portable cooling

system & stand for the ETBRX bench

AZO SOFTWARE

The unique, compact & Universal solution for every Test Bench in the market to operate with the latest technology Diesel and Gasoline Systems.

→ **Features**

Control Unit for Every Test Bench in the Market

Compact Size Attachment for Every Laboratory

Expandable and Modular Apparatus

Pressure Control up to 2800 bar

Up to EU6 System Technologies Capable

Semi-Automatic Operation of Cambox

Operating, Measuring & Coding of All Types & Makes

IoT Cloud computing Platform - Industry 4.0 Complaint

The Diesel Specialists Affordable Choice

→ **Characteristics**

Xtremely Fast Testing Times without any Compromise

New Design for every Service Station

Optimized Working Area

EU6 Systems Testing and Coding*

CloudX Capabilities

Coding capability for all brands and types available in the market today. Bosch, Denso, Delphi, CAT, Cummins*, John Deere, ISUZU*, HINO*,KOMATSU*, E1/ E3/ DAF/ Smart Pump, F2X and F3X (Beta) EU6 technologies and more added every day...

Off-Highways CR applications testing and coding (John Deere, Komatsu, Hino, Isuzu)

Cummins XPI*, Caterpillar-Perkins C4/C6 and other Medium and Heavy-Duty testing and coding

Live Response Time Measurement at every test plan

BIP Actuation Measurement for all Heavy-Duty type solenoids (EUI & CR)

Adaptability for every type of Diesel and Gasoline Injectors in the market (optional)

Continuous Database updates and new Software capabilities to meet the market needs.

Android Powered 10' HMI with unlimited flexibility and connectivity competencies.

New database and Coding is continiously being updated to new EU6 applications

SPECIALISTS

CRDi - EUi/EUP - HEUi - CRP
ENGINE - GDi - EFi - GDi Pumps

Build your **ETBr-X** according to your Testing Needs now and Upgrade it Anytime in the Future on your own.

ETBr X → SPECIFICATIONS

	DESCRIPTION	UNIT	ETBR-X (CZ-007092)
Machine Dimensions	Length	mm	510
	Width	mm	650
	Height	mm	550
Weight		kg	23 (Basic Version)
HMI	Tablet Touchscreen	Inches	10
Internet Update	WiFi / Ethernet	-	YES / YES
Pressure Source	Type		External: Pressure coming from another Test Bench or external source
Test Oil	Type		(DxL-ISO) ISO4113 Calibration Oil
Test Oil Tank	Capacity	Liters	-
Max Pressure	Pressure	Bar	2800
Max RPM	Max Revolutions Per Minute	RPM	-
Max Pumps	Pumps Test (Optional)	Slots	1
Max Injectors	Test Injectors (Optional)	Slots	4
		Types	4 CRI / 1 HEUI / 1 EUI-EUIP
Main Power Supply	Phases	Number	1
		TYPE	1P+N
	Voltage	VAC	100 - 240
	Frequency	Hz	50/60
	Current	Ampere	5
	Max Consumption	kVA (100V/240V)	0.5 / 1.2
Operating Temperature	Min / Max Room Temperature	Celsius	6 / 35
IVM Sensors (Optional)	Measurement Sensors (Full Version / Pumps)	Type / Quantity	XKM / 1 *
		Type / Quantity	DFM500 / 1 *

PRESSURE SOURCES
External: Pressure coming from another Test Bench or external source Application Electrical Pump 12VDC

MEASUREMENT SENSORS
XKM [Dynamic Meas. Sensor]: High Accuracy: ± 0,1%, Exceptional Repeatability ±0,05%, Measur. Range: 1-1000ml/min
DFM 500 [Dynamic Measurement Sensor]: Accuracy: ± 1%, Repeatability 0,5%, Measurement range: 5-500l/h/min

APPLICATIONS
Passenger Car/ Motorcycles: Volumes up to 120mm3/H
Light Duty: Volumes up to 200mm3/H
Medium Duty: Volumes up to 300mm3/H
Heavy Duty: Volumes up to 650mm3/H
Marines: Volumes up to 1500mm3/H

CloudX
is Carbon Zapp
IoT Cloud computing
Platform.

Powerful innovations at your fingertips with CZ CloudX computing Platform

CZ CloudX computing technology Platform as a service (PaaS) is a complete enviroment in the cloud, with resources that enable clients the full control of their Bench with cloud based Apps access them over a secure Internet connection. With middleware, development tools, business intelligence (BI) services, database management systems and more.

CloudX allows clients to access live online updates of database, remote operation and status report of their bench. Generate remote reports for handling, printing, filling and organizing from machine database. Instant activation of features on a pay-as-you-go basis. Multiple machines management support. Complete machine cloud back-up and instant trouble shooting via X-Connect directly from CZ factory. Receive notifications on your smart devices for machine maintenance tasks like Oils, Filters, Service, and more.

Explore today new powerful innovations at your fingertips with CZ CloudX computing Platform.

CloudX Features

→

IoT Cloud Platform Industry 4.0

Remote Operation and Status Report of Client Bench

Generating remote reports for handling, printing, filing and organizing from machine database

Multiple machines management

Instant Activation of Features on a pay-as-you-go basis

Notifications on Client smart devices for machine maintenance tasks like Oils, Filters, Service, and more

Complete machine cloud back-up

Instant troubleshooting via CX-Connex directly from CZ Factory

Live Online Updates of Database and supporting new requests from clients

EXPANDING CAPABILITIES

Space saving, accessory organizers for everyday tasks. Increased productivity and uncluttered space.

Extras

MTBʀ-X & PTBʀ-X

01.
Desk & Harness Shelf

02.
Hydraulic Hose Side Panel Pocket with Drain

Ultrasonic Shelf

for GTBʀ-X, ITBʀ-X, HTBʀ-X

/ CZ Base Trolley

/ Hose & Harness Side Organizer
(max. 2 pcs per trolley)

Carbon Zapp Trolley

→

Ideal workshop organizer to fit most parts of the machine like harnesses, hoses, adapters, tools and flanges. Can be easily transformed to a Cambox and/or pump rack for easy transfer and storing.

/ CRp Flange Drawer Organizer
(max. 1 pc per trolley)

/ Cambox/Pump Transfer Rack
(max. 2 pcs per trolley)

Carbon Zapp Trolley
Fully Configured Setup

SCAN ME

**VIEW CZ Digital
Product Catalog**

**CARBON
ZAPP**

Headquarters & Production
New Address
Isiodou 18 (Industrial Park)
194 00 Koropi, Attica-Greece

German Branch
A.I.S. GmbH
75438 Knittlingen, Germany

email contact@carbonzapp.com
tel +30 210 9856110
fax +30 210 9928655

carbonzapp.com