

# MIDDLE EAST AND EAST AFRICA 2024

**Product Training** 





# ZF [pro]Academy

#### Training courses

#### Professionals keep their finger on the pulse

With each new generation of vehicles and products, new technologies are used - today, changes are happening faster and more radically than ever. ZF [pro]Academy ensures that you, workshop or educational institution, have your finger on the pulse. Our classroom and eLearning courses will give you exactly the knowledge you need as a professional today and tomorrow: structured, practical and prepared so that you can immediately benefit from it in your daily activities. The ZF [pro]Academy draws on many years of experience and extensive know-how as a development partner for numerous automotive companies.

#### Training options

ZF [pro]Academy offers training in product training focused on relevant industry know-how. We are constantly improving our products and skills. With this knowledge, we will be happy to help you improve your processes and productivity, and help you improve your bottom line on a regular basis.





**Product Training** 

# More information about Academy trainings:

- micky.mathew@zf.com
- praveen.vijayakrishnan@zf.com for ZF gearbox trainings in Middle East

proacademy.zf.com



#### **Product Training**

Basic Brake System-Truck

Basic Brake System-Trailer

ABS / ASR Truck

**ABS** Trailer

EBS Truck / Bus

TEBSE/RSS

Air suspension

AMT (Automated Manual Transmission)

Training for ZF Transmissions & IAM Products

ECOSPLIT - Manual Transmission Level 1+2 Training

AS Tronic - Automated Transmission Level 1+2 Training

TraXon - Automated Transmission Level 1+2 training

EcoLife - Automatic Transmission Level 1+2 Training

**ZF Testman Training** 

Trade products for CV & PC

Sachs Clutch System for Commercial Vehicle

TRW Brake Components for PC

Steering and Suspension for PC

E-Learning Basic Brake

E-Learning VCS II - Trailer ABS

E-Learning ECAS

E-Learning Trailer EBS E0

E-Learning OptiTire™

E-Learning E-APU Exchange (APS)

E-Learning OnLane Installation

#### **Useful Information**

Workshop Solution

Become a ZF [pro]Service

Course fees

Course fees include

PIN

Payment conditions

Training subscription

Map to ZF training centre



**Product Training** 

# Product Training - What is it about?



The ever faster technological development presents companies with the great challenge of constantly bringing their existing or new employees up to date with the latest knowledge. The steadily growing complexity of systems in commercial vehicles requires a new approach to service. Today, much more than in the past, testing and adjustment work requires excellent system knowledge. To this end, we have a wide range of interesting offers with which we have designed our training programme.

Vehicle owners expect their workshops to provide them with a high level of expertise in consulting, testing and adjustment work as well as in rectifying defects. The success and competitiveness of your company are essentially based on the qualification of your employees. Expand the know-how of your specialists by training with the The ZF [pro]Academy.

Our face-to-face training courses offer intensive learning content with a lot of background knowledge and a high practical component. We also offer various digital learning formats to complement our classroom training.

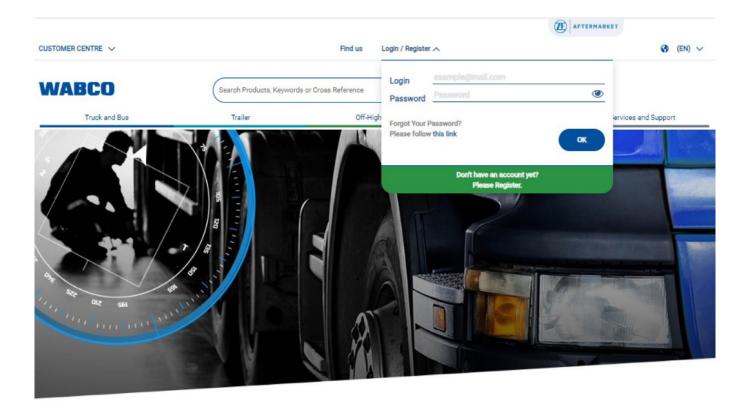
#### E-Learning

A E-learning is the easiest way to use the knowledge and services of the The ZF [pro]Academy. All you need is a computer/tablet and Internet access. Wherever you are and whenever you have time, you can register online and access The ZF [pro]Academy training courses. The ZF [pro]Academy E-Learning enables efficient learning and helps to save time and money. Even complex content is presented in an easily comprehensible manner using sound and images. Animations and video make learning diversified and interesting. Tasks, questions and a final test ensure successful learning. The courses are available in various languages. For some of our e-learning programmes you will receive a PIN (Personal Identification Number) after successful completion of the course.

# E-Learning booking via WABCO Customer Centre & My Dashboard

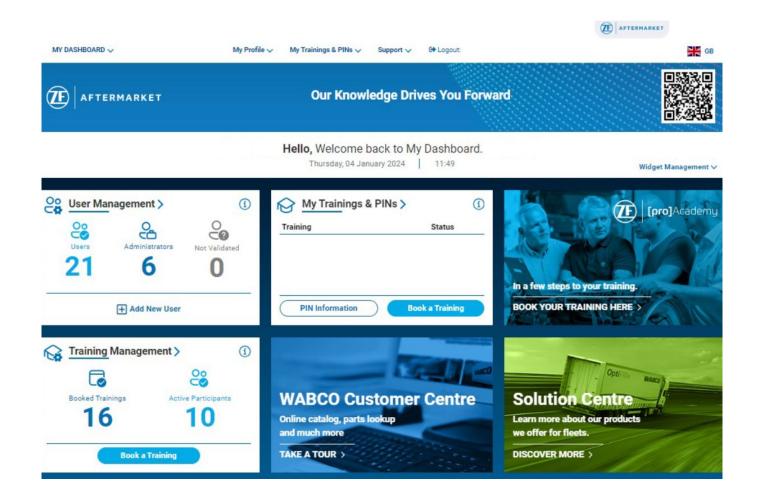


- Visit WABCO Customer Centre
- Log in with your username (usually e-mail address) and password.



In My Dashboard, you can book your trainings by clicking on 'Book a Training'.





- Choose the training you'd like to book.
- · Please check if your order is correct before you submit it.



# **BASIC AIR BRAKE - TRUCK**



#### **Objective:**

 To understand the general layout of the the braking system on trucks for serviceand diagnostic purposes.

# Study of the different brakes

# Study of the truck different systems:

# 1. Introduction of WABCO components

- Compressor
- Air dryer
- 4 Circuit protection valve
- Parking brake
- Service brake
- Trailer control
- Brake chambers

#### 2. Installation and maintenance



200 142 000 0



Duration 1 dav

Price : 100 €



# **BASIC BRAKE SYSTEM-TRAILER**



#### **Objective:**

 To understand the braking systems on a trailer for service and diagnostic purposes.

# Deepen study on systems studied in part one

#### Study of the trailer:

# 1. Introduction of WABCO components

- Coupling heads
- Load sensing valve for Mechanical and Air suspension
- Adjustment of LSV
- Relay emergency valve
- Service & Parking functions
- Trailer control
- Brake Chambers

#### 2. Installation and maintenance

# Deepen study on systems studied in part one

- Lift axle valve
- Leveling valve



200 142 003 0



Duration 1 day

Price : 100 €

To get more information, please contact us per email:

micky.mathew@zf.com



# **ABS / ASR TRUCK**



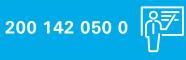
#### **Objective:**

 For all persons confronted to braking problems in order to understand the ABS and ASR systems on trucks. For service and diagnostic purposes.

### **ABS** characteristics Study of the truck:

- 1. Scheme
- 2. Components and functions
- 3. Installation hints and parameter settings
- 4. Service
- 5. Diagnostics





100 €



# **ABS TRAILER**



#### **Objective:**

 For all persons confronted to braking problems in order to understand the ABS systems on trailers. For service and diagnostic purposes.

# Deepen study on systems studied in part one

- 1. Scheme
- 2. Components and functions
- 3. Installation hints and parameter settings
- 4. Service
- 5. Diagnostics



200 142 051 0



Duration

Price 80 €



# **EBS TRUCK OR BUS**



#### **Truck**

- 1. Scheme
- 2. Components and functions
- ECU
- Foot brake
- Axle modulator
- Proportional relay valve
- Redundancy valve
- Trailer control valve
- 3. Service
- 4. Diagnostics

#### Bus

- General EBS features
- EBS systems history and properties
- EBS brake management
- EBS system functions
- CAN data bus and CAN data
- messages
- ESC
- EBS and ESC components
- Diagnosis philosophy
- Diagnostic hardware and software
- Diagnostic software EBS EURO

200 142 105 0



Duration day

Price : 100 €



## TEBSE/RSS



# Study of the different EBS components

#### General T EBS features:

- TEBS E basics
- Roll over stability support
- Lift axle control
- Brake parameter setting using brake
- Calculation
- Parameter setting review through
- EBS software
- End of line test

#### Auxiliary functions:

- Trailer Intelligent Program
- ISS, ODR, SmartBoard, axle lifting ...
- GIO functions
- TailGuard etc ...

#### Hint:

For the ones who have performed an EBS E training already, you can ask for an update on EBS E2 (200 142 108 0).



200 142 101 0



Duration 1 day

Price : 100 €



# **AIR SUSPENSION**



#### **Objective:**

 For all technicians in order to know the pneumatic suspension systems and the lift axles systems.

# Air suspension components

#### Drawing study (trailer)

# Study of systems that belong to the air suspension (setting, maintenance):

- Charging valve
- Levelling valve
- Lift axle valve (pneumatic/ electric)
- Pressure limiting valve
- Rotary Slide valve

200 142 170 0



Duration 5 h

Price : 80 €

To get more information, please contact us per email:

micky mathew@zf.com



# **AMT**(AUTOMATED MANUAL TRANSMISSION)



#### Objective:

- Learn about disassembly and assembly of the gear changing unit and the overhaul of the Gear changing system on the automated manual
- Does not include the repair of the gearbox itself



# 200 142 610 0



Duration

Price 80 €





#### Subject:

 ECOSPLIT – Manual Transmission Level 1+2 Training

#### **Objective:**

- To understand the working principal and maintenance of Ecosplit GB and a detailed study for service and diagnostic purposes.
  - Overview & function of Ecosplit transmission
  - Power Flow
  - Gear Shift Mechanism and Variants
  - Operation and maintenance
  - PTO applications

200 600 007 0



Duration

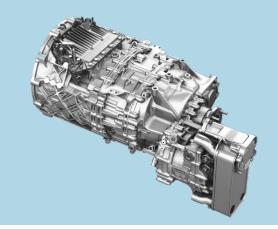
4 h

Classroom training

Price:

80 Euro per person (min 6 person or max 10 per class)

- micky.mathew@zf.com
- , - nraveen vijavakrishnan@zf.com





#### Subject:

 AS Tronic – Automated Transmission Level 1+2 Training

#### **Objective:**

- To understand the working principal and maintenance of AS Tronic GB and a detailed study for service and diagnostic purposes.
  - Development of the ZF transmission systems
  - Highlights and customer benefits
  - Overview, function and maintenance of AS Tronic transmission
  - Operation concept
  - Power Take Off (PTO)
  - Trouble shooting and diagnosis using ZF-Testman (add on module)

200 600 006 0



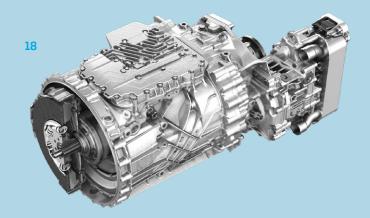
Duration

o II Classroom traij

Price:

80 Euro per person (min 6 person or max 10 per class)

- micky.mathew@zf.com
- · nraveen vijavakrishnan@zf.com





#### Subject:

TraXon – Automated
 Transmission Level 1+2 training

#### **Objective:**

- To understand the working principal and maintenance of TraXon GB and a detailed study for service and diagnostic purposes.
  - Development of the ZF transmission systems
  - Highlights and customer benefits
  - Overview, function and maintenance of TraXon transmission
  - Benefits
  - Operation concept
  - Power Take Off
  - Expansion Modules
  - Trouble shooting and diagnosis using ZF-Testman (add on module)

200 600 005 0



Duration :

Classroom trainin

Price .

80 Euro per person (min 6 person or max 10 per class)

- micky.mathew@zf.com
- · praveen.vijayakrishnan@zf.com





#### **Subject:**

 EcoLife – Automatic Transmission Level 1+2 Training

#### **Objective:**

- To understand the working principal and maintenance of Ecolife GB and a detailed study for service and diagnostic purposes.
  - Design and function of EcoLife
  - Maintenance and operation
  - Trouble shooting and diagnosis using ZF-Testman (add on module)
  - All innovations in the functionality and diagnosis of EcoLife and EcoLife 2

### 200 600 001 0



Duration : 7 hrs

Price:
80 Euro per person
(min 6 person or max 10 per class)

- micky.mathew@zf.com
- praveen.vijayakrishnan@zf.com





#### Subject:

ZF Testman Training

#### **Objective:**

- How to use the diagnostic tool
- Data Monitoring & Data logger
- Trouble shooting and diagnosis using ZF-Testman

200 600 009 0



Duration

4 hrs

Onsite training. Vehicle needed

Price:

80 Euro per person (max 6 person per class)

- micky.mathew@zf.com
- praveen.vijayakrishnan@zf.com



# TRADE PRODUCTS FOR CV & PC



#### **Subject:**

 Sachs Clutch System for Commercial Vehicle

#### **Objective:**

- To understand the working principal and maintenance of clutch systems and a detailed study for service and diagnostic purposes.
  - Function of Clutch
  - Clutch Actuation Systems
  - Clutch Cover Types and Dampers
  - Clutch Disc Run-out
  - Dual Mass
     Flywheel & X Tend
  - Failure Patterns

200 600 010 0



Duration: 3hrs

Classroom training

Price:

50 Euro per person (min 6 person or max 10 per class)

- micky.mathew@zf.com
- · nraveen vijavakrishnan@zf.com



## TRADE PRODUCTS FOR CV & PC



#### Suitable for:

 TRW Brake Components for PC (Need to check with sales managers if this training needs to be opened).

#### **Objective:**

- To understand the working principal and maintenance of TRW brake components and a detailed study of its products.
  - Brake System Components
  - Disc Brake
  - Brake Pad Components and Accessories
  - COTEC & DTEC Pads
  - Drum Brake
  - Brake Fluid Why to change?
  - Vapor Lock
  - Noise Diagnostic & Good Practices (field visit optional)

## 200 700 206 0



Duration : 5hrs

Classroom training

Price:
80 Euro per person
(min 6 person or max 10 per

- micky.mathew@zf.com
- praveen.vijayakrishnan@zf.com



# TRADE PRODUCTS FOR PC



#### Subject:

Steering and Suspension for PC

#### **Objective:**

- To understand the different types of suspension & steering systems and a detailed study of its products.
  - Function and type of Suspension
  - Steering Systems
  - Suspension and steering linkages
  - Quality and testing

200 700 202 0



Duration

3 hrs

Classroom training

Price .

50 Euro per person(6 person or more per class)

contact us per email:

- · micky.mathew@zf.com
- praveen.vijayakrishnan@zf.com



### E-LEARNING BASIC BRAKE



#### Suitable for:

Mechanics, Workshop Technicians, Service Engineers, Counter Sales Staff.

#### **Objective:**

This course imparts basic knowledge of compressed air braking systems in motor vehicles and trailers. You will be able to complete the final test at the end. After successful completion, you will receive a certificate indicating your successful participation in this course.

#### Content:

These main topics will be dealt with:

- Basic functions of device control and physical principles
- Statutory provisions relating to braking systems
- The most important drawing and function symbols for braking systems
- Introduction to ABS and ASR
- Air suspension fundamentals, system example of a conventional air suspension system
- Design and operating mode of typical braking systems for towing vehicles, buses and trailers
- The operating principle of the most important devices in compressed air braking systems

#### Hint:

- The course can be taken differently, depending on your previous knowledge:
- If you are new to the subject of compressed air braking systems, you should would through the complete course starting with module 1.
- If you already have basic knowledge, of drawing symbols for brake diagrams in particular, you can go directly to module 2 to learn about brake diagrams for towing vehicles, buses and trailers
- If you are first interested in the way individual devices work, you can also start with module 3.

200 300 106 0



Duration:

Price 70 €

To get more information, please contact us per email:

micky.mathew@zf.com



# **E-LEARNING VCS II - TRAILER ABS**



#### Suitable for:

Mechanics, Workshop Technicians, Service Engineers, Trailer Specialists.

#### **Objective:**

This course focuses on VCS II, the Vario Compact ABS of the second generation for trailer vehicles. Once you have passed the final test, you will receive a so-called "licence letter". With this letter you will be able to obtain your PIN for the VCS II Diagnosis Software.

#### Content:

These are the main topics that will be dealt with:

- Structure and mode of action of an antiblocking system (ABS) for vehicles with an air brake system
- Properties, functions, and characteristics of a VCS II system
- Initial start-up of a VCS II system by means of the WABCO
- Diagnostic Software Diagnosis and repair of a VCS II system by means of the WABCO Diagnostic Software

#### Hint:

You can work through the course according to your particular previous knowledge:

- If you are a newcomer to ABS, you should work through the modules in the sequence shown.
- If you are an advanced user, you can begin with module 2 straight away.
- If you are a professional and you feel sufficiently qualified for the final test, you can start taking it at any time

200 300 101 0



Duration:

Tariff 70 €



## **E-LEARNING ECAS**



#### Suitable for:

Mechanics, Workshop Technicians, Service Engineers.

#### **Objective:**

This course focuses on ECAS, the Electronic Air Suspension System for motor vehicles and trailers. Once you have passed the final test, you will receive a so-called "licence letter".

With this letter you will be able to obtain your PIN2 for the ECAS Diagnostic Software.

#### Content:

These are the main topics that will be dealt with:

- Structure, mode of action and system functions of ECAS systems on the motor vehicle and the trailer
- Operation mode of the components of an ECAS system
- Calibration of the system by means of the WABCO PC diagnosis
- Diagnosis and maintenance of an ECAS system using the WABCO PC diagnosis

#### Hint:

You can work through the course according to your particular previous knowledge:

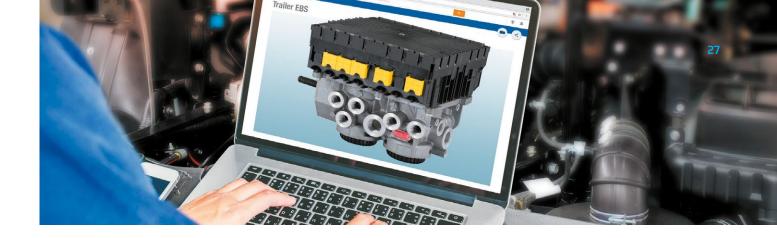
- If you are a newcomer to ECAS, you should work through the modules in the sequence shown.
- If you are an advanced user, you can begin with module 2 straight away.
- If you are a professional and you feel sufficiently qualified for the final test, you can start taking it at any time.

200 300 102 0



Duration:

Tariff 70 €



## **E-LEARNING TRAILER EBS E0**



#### Suitable for:

Mechanics, Workshop Technicians, Service Engineers, Trailer Specialists.

#### **Objective:**

This course focuses on Trailer EBS E, the latest Electronic Braking System from WABCO. Once you have passed the final test, you will receive a so called "licence letter". With this letter you will be able to obtain your PIN 2 for the Trailer EBS E Diagnostic Software.

#### Content:

These are the main topics that will be dealt with:

- Structure and mode of action of an EBS system for vehicles with an air brake system
- Properties, functions, and characteristics of a Trailer EBS E system
- Calibration of the distance sensor of the integrated electronic air suspension system ECAS
- Parameterization of a Trailer EBS
   E system using encrypted
   parameter sets
- Workshop start-up of a Trailer EBS E system by means of the WABCO diagnostic software

#### Hint:

You can work through the course according to your particular previous knowledge:

- If you are a newcomer to Trailer EBS you should work through the modules in the sequence shown.
- If you are an advanced user, in the 1st module you may check only the innovations introduced with the E generation. After that you may proceed with the 2nd module.
- If you are already a professional and you feel sufficiently qualified for the final test, you can start taking it at any time.

200 300 104 0



Duration:

Tariff:



## E-LEARNING OPTITIRE™



#### Suitable for:

Mechanics, Workshop Technicians, Service Engineers.

#### **Objective:**

This course covers OptiTire, the latest-generation tire-pressure monitoring system for commercial vehicles. After passing the final test you will receive a so-called "licence letter". This will provide you with your PIN2 for the OptiTire diagnostic software.

Hint:

- The course can be taken differently, depending on your previous knowledge: As a newcomer to OptiTire, you should work through the modules in the sequence shown.
- As an advanced student you can start directly with module 2.
- If you are already comfortable with the field and feel ready for the final test, you can start on it anvtime.

200 300 110 0



#### Content:

These main topics will be dealt with:

- Design, mode of operation and system functions of OptiTire systems in commercial vehicles
- Functionality of the components of an OptiTire system
- Installation and retrofitting of OptiTire systems
- Parameter setting and start-up of the system using the OptiTire diagnostic software
- Diagnosis and repair by means of OptiTire diagnosis



# E-LEARNING E-APU EXCHANGE (APS)



#### Suitable for:

 Mechanics, Workshop Technicians, Service Engineers.

#### **Objective:**

- E-APU is the abbreviated designation for an Electronic Air Processing Unit that is installed in commercial vehicles and buses.
- The SCANIA designation APS denotes the same component.
- To replace a defective device with this new E-APU, the parameter values from the old unit must be transferred to the new E-APU. The corresponding special function must be enabled in the APS-EAPU Diagnostic Software from WABCO for this purpose. For this you will require a PIN, which you can obtain free of charge in this course.

#### Hint:

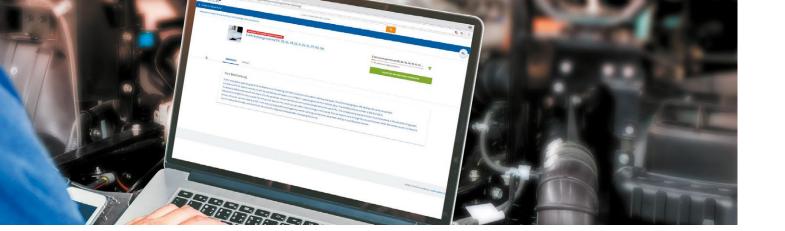
First we need to work through this course however: either the online version, or the print version, which you can download as a PDF. In this way you acquire the knowledge required for carrying out the E-APU parameter setting in a professional manner. You will receive the PIN letter with the PIN for the APS-EAPU Diagnostic Software after you have agreed to the final declaration. If you are already comfortable with the field and feel ready for the final test, you can start on it anytime.

200 300 301 0



Duration:

Tariff:
Free of charge



# **E-LEARNING ONLANE INSTALLATION**



#### Suitable for:

 Mechanics, Workshop Technicians, Service Engineers.

#### **Objective:**

- The OnLane system is a lane departure warning system for installation or retrofit in vehicles:
- A camera in the windscreen watches the lane markings and warns the driver with a warning sound or by vibrating the driver's seat in the event of any inadvertent lane-change.
- After installation of the hardware the system must be parameterized and calibrated. For this you will require a PIN, which you can obtain free of charge in this course. However, first we need to work through this E- Tutorial, which you can download as a PDF. In this way you acquire the knowledge required for carrying out the OnLane parameter setting and the calibration in a professional manner.
- You will receive the PIN letter with the PIN for the OnLane Diagnostic Software after you have agreed to the final declaration.

200 300 302 0



Duration : From 1h to 2h

Tariff 70€



#### OUR SOLUTIONS FOR WORKSHOPS: MAKE YOUR WORKSHOP SMARTER



#### AIR PRESSURE TEST CASE - 435 002 007 0

The WABCO Air Pressure Test Case is the perfect workshop tool to measure the pressure in a vehicle's braking and suspension system. It allows you to perform official vehicle inspections to the highest legal standards. With a wide range of connection options, it enables easy testing of all commercial vehicles.



#### AGRICULTURE AIR PRESSURE TEST CASE - 435 002 011 0

The WABCO Agriculture Air Pressure Test Case is a toolkit designed to test compressed air procurement systems in tractors, or the air braking systems in agricultural and forestry trailers. If you own a larger fleet of agricultural vehicles, or have a workshop that repairs, tests or retrofits their compressed air systems, this test kit will be a valuable addition to your toolset.



#### **ULTRASONIC LEAKAGE FINDER - 400 606 410 0**

The WABCO Ultrasonic Leakage Finder is a convenient workshop tool to detect air leakages. The device indicates the presence and size of a leak using both audible and visual signals. Using the Ultrasonic Leakage Finder saves time and prevents potential customer claims.



#### **ULTRASONIC SEAL LEAKAGE DETECTOR - 452 600 100 0**

The WABCO Ultrasonic Seal Leakage Detector is a practical ultrasonic tool used to detect leakage in door and window seals. It detects both the location and size of leaks



#### BRAKE AND SUSPENSION TEST CASE - 453 197 003 0

The WABCO Brake and Suspension Test Case is the perfect tool to test and repair brake components. With this tool, you are able to perform vehicle inspections, post-repair check-ups, brake simulations and pressure measurement of air brakes and suspension systems. The Brake and Suspension Test Case offers you all these functions in a mobile trolley that can be stored efficiently or used on any workbench.



#### BIO-CLEANING SYSTEM SET - 300 100 007 0

The WABCO Bio-Cleaning System Set is the ideal workshop accessory for fast-cleaning of used vehicle parts and workshop tools. The liquid cleaning products provided by WABCO feature natural components and are harmless to humans and the environment. This makes both cleaning and recycling cheaper and more convenient.



#### **ZF TESTMAN**

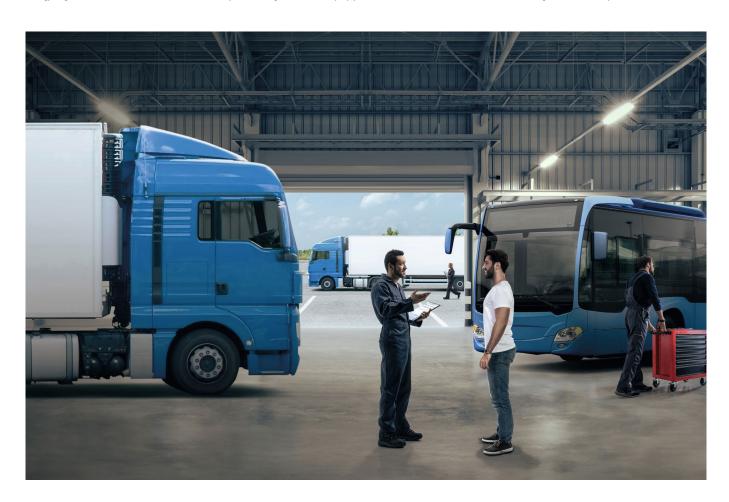
ZF Testman tests all electronically controlled ZF products online via telemetry or laptop, whether the vehicle is moving or stationary.

# Become a ZF [pro]Service

ZF [pro]Service provides you with a global network of expert support. provides you with a global network of expert support.

WABCO Partners network backs WABCO's world-renowned electronic braking, vehicle control, suspension and drive with a powerful new concept for the global aftermarket – ensuring that regardless of what you need, a WABCO expert is where you are.

ZF [pro]Service are certified, onsite experts fully trained equipped to service all ZF and WABCO systems and products.



#### How to become a ZF [pro]Service

As a ZF [pro]Service, you become a member of our international network of workshops that has earned an industry-leading reputation for offering optimum product support and service.

We ensure that you and your staff are ideally equipped to provide world-class product support and service to a broad range of commercial vehicles. ZF offers professional training, diagnostic software and hardware, and onsite support – among other tools and knowhow. It's everything your workshop needs to satisfy continued customer demands in our innovative and rapidly evolving industry.

#### To get more details, please contact:

 Micky Mathew micky.mathew@zf.com Mobile: +971 50 4621686



#### Course fees include:

Course material

Certification and License Letter

(On successful completion of the course including the final exam and continuous assessment)

Lunch

#### PIN

The acquisition of PIN allows the user not only to diagnose but also to the change of parameters, which have an important functional impact. However, driving safety and vehicle operation may be disrupted if the code is used by an untrained person.

Therefore, before publishing the PIN, ZF as the system and the manufacturer's diagnostic program, requires that the user attends a training program. The PIN is assigned to a specific user, this user has not the right to give this code to another person who did not follow the same training. The user acknowledges and accepts that its name is stored in a database as well as his personal statement. Traceability is possible together with the statement submitted for each user during modification of the ECU.

#### Payment conditions

Advance / Full payments before training through bank transfer or wire transfer, bank details will be given on the invoice.

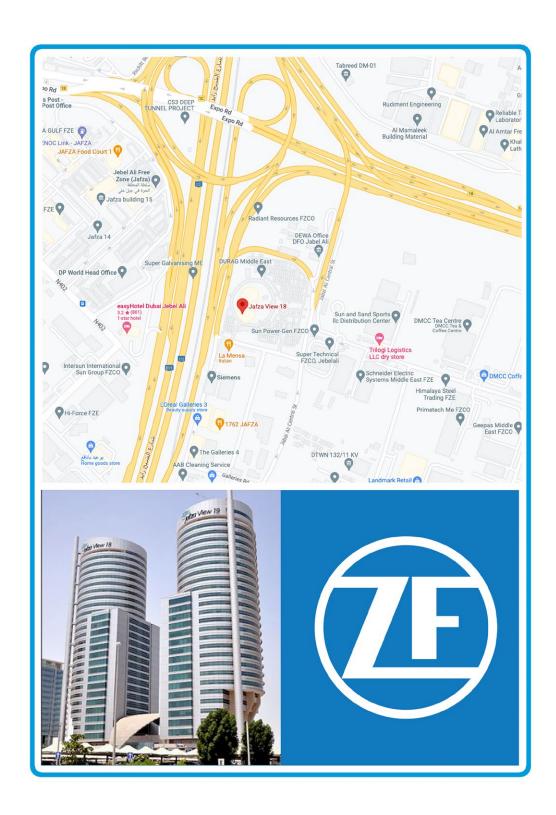
All mentioned prices exclude VAT.

# Training subscription

Signature:

Mr. / Mrs :		
Company:		
Customer code	:	
(or stamp)		
Date	Participants Name	Subject
We commit to a	pay the training fee of :	

# Map to ZF training centre



#### ZF [pro]Academy

JAFZA VIEWS 18 25TH Floor Office 01 Tel +971 50 4621686

proacademy.zf.com ZF [pro]Academy

JAFZA VIEWS 18 25TH Floor Office 01 Tel +971 50 4624686