



Utilisation Regulations

General Information

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Boxberg Proving Ground
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General Provisions

Use of Boxberg Proving Ground (PBX)

Test drives by Bosch Group employees (internal use)

The following documentation is required:

- Valid PBX authorization ID for the use of vehicles on the test sections and a valid driver's license,
- Test application with PBX order confirmation.

Test drives by companies / persons not belonging to the Bosch Group (external use)

The following documentation is required:

- Valid PBX authorization ID for the use of vehicles on the test sections and a valid driver's license,
 - Signed test application with PBX order confirmation
- or**
- use agreement signed by the user and an authorized Bosch unit.

Driving demonstrations / presentations with visitors / non-Bosch personnel as part of an event:

The PBX control centre must have received the confirmed application of the organizer with a list of those participating. All participants who are not Bosch employees and are actively taking part in the driving demonstrations must sign an exclusion of liability declaration.

The organizer and / or the host to the visitors is responsible for ensuring compliance with PBX rules.

PBX Authorization ID

The PBX authorization ID is a Bosch driving permit. It is not transferable and is subject to annual renewal. The PBX authorization ID is issued by the control centre to users who repeatedly or regularly conduct test drives at the proving ground. Upon issue, users confirm with their signature that they are familiar with and will abide by the valid version of the use regulations. The authorization ID is to be immediately returned to the PBX control centre in the following cases:

- Upon loss of official driver's license,
- Upon revocation by the PBX management,
- If not renewed after the specified expiration date,
- Upon change of employment.

Access IDs

The following forms of ID entitle the holder to enter the proving ground and are to be worn visibly at all times: Bosch company ID or customer ID for external users or visitor ID. The customer and visitor IDs are issued by the control centre.

Visitors / Non-Bosch Personnel

Visitors may enter the proving ground only with a visitor ID and accompanied by the person they are visiting. Visitors are to be collected from the control centre and returned there at the end of the visit. When visitor IDs are issued, the attention of visitors / non-Bosch employees is expressly drawn to the displayed use regulations, the obligation to maintain confidentiality, and the ban on filming and taking photographs. At the end of a visit, visitor IDs are to be countersigned by the person visited and returned to the control centre.

Prototype vehicles

All users are responsible for the protection of prototypes in their care. Prototype vehicles may be placed in the garages envisaged for this purpose.



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Ban on filming and taking photographs

There is an absolute ban on filming and taking photographs at the proving ground. Anybody violating this rule will no longer be permitted access to the proving ground, and the film material will be retained and destroyed. Exceptions must be applied for from the center management. PBX shall decide whether a PBX employee will be required to accompany the filming / recording, for which the visitor shall be invoiced.

Ban on smoking and alcohol

Smoking is not permitted anywhere on the test site or inside buildings, apart from appropriately designated area outside buildings.

The consumption of alcoholic beverages and other intoxicating substances is not permitted anywhere at the PBX. All persons driving on the site must be sober at the time.

Staging events

The organizer shall nominate a representative who shall be present during the entire event.

This representative

- shall ensure the flow of information between the control centre and the event attendees,
- shall provide control centre employees with a valid list of attendees before the start of the event,
- shall inform attendees about the content of the use rules, confirm this in writing to PBX and monitor compliance with the said rules,
- shall confirm that all attendees wishing to drive at the event are in possession of a driving license.

Violations of the use rules

In the event of the use rules being violated, the control centre shall be entitled to refuse to allow the user to continue conducting tests and to inform the appropriate unit about the matter. Control centre employees and section supervisors are empowered to issue instructions.

Confidentiality

All visitors / users shall promise to maintain strict confidentiality about technical, commercial or other information they may obtain from third parties whilst present on the premises. This obligation applies to both external persons and other Bosch employees not directly involved in the matter concerned. Any indications of non-compliance with this duty of confidentiality are to be reported to the control centre immediately.

Incidents (Accidents)

Behaviour in event of vehicle failure

Vehicles rendered immobile due to a technical fault are to be secured by means of warning devices (warning triangle, hazard lights) and recovered as quickly as possible. The control centre is to be informed immediately by radio.

Behaviour in event of accidents

Accidents and other incidents are to be reported to the control centre immediately, specifying the nature and location of the incident and the number of persons who may be injured. This is to be done by radio, telephone and / or press-button fire alarm. Further action will then be initiated and coordinated by the control centre. The instructions of the response crew must be complied with. Injured persons are advised to seek medical treatment after being given first aid by the rescue service.

Continuation of tests after an accident

The control centre will inform all vehicles about accidents via radio. All test drives on the test sections are to be terminated immediately. Test drives may be continued only after express permission by the control centre.



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Conducting of tests

Road Traffic Act (Straßenverkehrsordnung StVO)

All sections, roads and connection lanes at the proving ground are subject to the provisions of the Road Traffic Act.

On all test tracks:

- Use dipped beam
- Wear seat belts
- Repairs and conversion work to vehicles shall be carried out only in the workshop area and not on or beside the test sections.

Recommendations for personal protection

- Keep a fire extinguisher in the vehicle
- Use a protective helmet
- Wear protective clothing
- Appropriate vehicle safety equipment (support wheels, roll cage, safety harness etc.)
- Make sure installed measuring equipment is correctly fastened

Note:

All drivers are responsible for their personal safety equipment and for ensuring that their vehicle is properly equipped.

Registration before using test tracks

All persons carrying out tests shall report to the control centre before doing so. They shall be given an OBU (On-Board Unit) and a radio for which they must sign for. Before using the test sections for the first time, drivers shall read the use rules and acknowledge them in writing.

Section orientation

Users of proving ground driving on the test sections for the first time or after a long interval shall be given practical orientation in the driving and behavior rules for the sections and in the handling of the technical equipment (radio, On-Board Unit) by a PBX employee before they use the test tracks.

Entering the section modules

All section modules have an entry and exit barrier. Entry is possible only with the appropriately released OBU. This is recognized by an optical sensor fitted to the barrier and lit when down. The signal goes out once correct registration and release have been identified and remains extinguished until the vehicle has cleared the barrier. If vehicles arrive from both directions (in the case of barriers with two-way traffic), this is used to signal to the drivers who can enter first. If the registration is incorrect, the sensor remains in its permanently on state. Once a section module has its maximum capacity of vehicles, the sensor flashes and the barrier remains down.

Maximum number of vehicles

The number of vehicles permitted on a section module depends on the nature and status of the current test traffic and also the safety requirements of the module in question; the capacity can be restricted by the control centre. The users may have to coordinate their requirements.

Motorbikes / cars / commercial vehicles

No commercial vehicles are permitted on the inner handling course (HC2) and the pass. Motorbikes, cars and commercial vehicles are permitted on all other sections.

Speeds

Outside the test sections, the maximum speed limit in the vicinity of buildings and car parks is 20 km/h.

On test sections:

- The maximum speed limit on access roads is 50 km/h.
- If there is any indication of surface damage, slippery patches or black ice, drivers are expected to adjust their speeds accordingly and notify the control centre of any hazards.



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All users must familiarize themselves with the specific nature of the test sections by driving at a reduced speed.

Test sections	Speeds
High-speed oval	See Standard Speeds for High-Speed Oval *1)
Driving-dynamics area	*1)
Brake-measurement tracks	*1)
Fording and splash water basins	Walking speed
Uphill tracks	50 km/h
Rough-road tracks	
• Area SWS1	50 km/h
• Area SWS2	100 km/h *1)
Handling course	*1)

*1) Drivers must adjust their speeds on test sections so that there are always sufficient stopping distances and other users are not endangered. In general, drivers should gradually build up to maximum speeds. This applies particularly when using special tires or tires with low tread. The speed recommendations are for vehicles with normal tires permitted for ordinary road use (spike tires and snow chains are not permitted).

Conducting hazardous tests

Users should heed the following if they intend to carry out hazardous tests:

- The user shall decide whether the driving maneuver is to be regarded as hazardous and thus requiring the closing off of the section module in question.
- A hazardous test must be reported by the user to the control centre in good time (by radio). The user must then await permission from the control centre to use the test section.
- The control centre will assign PBX employees or rescue crew members to the module in question.

Note:

Entering the driving-dynamics areas at speeds greater than 100 km/h constitutes an added risk, and is thus to be reported to the section supervisor; the user shall also check whether it is to be designated as a hazardous test.

Checking out before leaving the proving ground

Before leaving the site, all users must check out from the control centre and return any items handed to them at their arrival.

High-speed oval (HGO)

Driving onto the high-speed oval

The high-speed oval is to be accessed by the entrance between the two tunnel sections and not via the fast entrance to the driving-dynamics area. For fast entrances in special tests, see "Driving-dynamics area" below. The HGO is also to be left between the two tunnels

Direction of travel

Only one direction is permitted on the high-speed oval at any one time, normally counterclockwise. A change in direction may be arranged in exceptional circumstances by the control centre upon request.

Note:

It is not permitted to drive on the high-speed oval and its approach roads against the defined direction of travel or to change the direction of travel without permission.

Speeds

The following standard speeds apply to the individual lanes of the high-speed oval:

Lane 1 (inner lane)	80 km/h
Lane 2 (center lane)	120 km/h
Lane 3 (outer lane)	150 km/h

Note:

Tire pressures are to be increased before conducting driving tests in the upper speed range.

Warning:

With active dynamic driving control systems, the steep bend may cause an incorrect response from the control system. ⇒ Risk of accidents!



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Brake Tests

Brake tests to stopping may be carried out in Lane 1 (inner lane) only. The hazard warning lights are to be activated before braking.

Stopping bay / Hard shoulder

The high-speed oval has a hard shoulder meant for short stops only. There is a stopping bay on the driving-dynamics area near the fast entrance (Plan: P1).

Inner round track

General

The driving-dynamics area can be entered from two sides via the inner round track. The inner round track thus has two-way traffic (warning: on-coming vehicles!).

Eastern Basalt

On the eastern transition of the inner round track to the driving-dynamics area there is a watered blue basalt area.

Use of vehicles with support wheels

When driving vehicles with support wheels on the inner round track, the latter must be closed off. Thus prior liaison with the control centre is essential!

Driving-dynamics area (FDF)

Rules of behaviour for the driving-dynamics area

When conducting tests requiring larger amounts of space, sections of the driving-dynamics area can be marked and closed off for exclusive use by means of pylons. This requires prior liaison with the control centre.

Fast entrance from the HGO to the FDF

Using the driving-dynamics area via the fast entrance from the high-speed oval (Plan: A) is to be reported as a special test. The entry areas from the inner round track into the driving-dynamics area have to be closed off with pylons. No other test drives may be carried out on the driving-dynamics area at the same time.

Brake-measurement tracks (BMS)

Approach sections / return lanes for the braking measurement sections

The inner round track serves as an acceleration section when using the BMS. The lane along the water sections or connection roads between the distributors is to be used as the return lane.

Watered surfaces

Watered surfaces for the individual test sections are to be requested by radio from the control centre, users then have to wait until the appropriate water level has been reached.

Note:

Tile surfaces and the checkerboard are not to be used unless watered.

Only 1 vehicle may conduct an active test at any one time.

Aquaplaning basin

The water level is to be arranged with the control centre. All other tests in the vicinity of the Brake-measurement tracks are to be stopped.

Stopping bays

There are no stopping bays on the driving-dynamics area and the brake-measurement tracks. These areas are to be used only by vehicles while carrying out tests. There are parking areas for test evaluation/communication in the vicinity of the BMS return lane (Plan: P2).



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Fording and splash water basins (WDF)

The filling of the water sections is to be arranged with the control centre in good time, stating the water level required.

Uphill tracks (SGH) / Garage entrance

Access/Departure

The uphill tracks can be reached via the North circle. After passing the hill, return is only via the 5% incline against the direction of travel (uphill vehicles have priority). The section module may not be entered or left via the garage entrance.

Watered tiles

Watering of the tiles is to be requested by radio from the control centre, users then have to wait until the water level has been reached.

Note:

Tile surfaces are not to be used unless watered!

Rough-road tracks (SWS)

Rough-road tracks for lower speeds (SWS1)

The rough-road tracks for speeds up to 50 km/h can be reached via the South circle (Plan: 6a). They are located in the same section module as the noise-measurement track, the area for testing park distance control systems and the pavement crossing. Not all of the various section can be used simultaneously.

Note:

Until further notice, the area for testing park distance control systems may only be used by Bosch employees.

Rough-road tracks for higher speeds (SWS2)

The rough-road tracks for higher speeds (approx. 100 km/h) are located along the inner round track (Plan: 6b). They can be used in both directions.

Noise-measurement Track (GMS)

The noise-measurement track is located in the rough-road tracks for lower speeds. The module is to be closed off in liaison with the control centre while carrying out noise measurements.

Gravel Track (GVS)

The gravel track (Plan: 6c) may be used only after contacting and approval by control centre. Tires and vehicle underside are to be cleaned of gravel immediately after using the section. Otherwise no other sections may be used straight away.

Handling Course (HLK)

Access / Departure and direction of travel

In general the handling course is to be used in a counter-clockwise direction only. Drivers are not permitted to drive against the direction of travel or change the direction without permission. Exceptions are to be arranged with the control centre.

Note:

Stopping is not permitted in concealed parts of the handling course! Activate hazard warning lights when stationary!

Watering

A part of the inner handling course (HC2) can be watered. This is to be requested from the control centre when required.



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Use of Premises

Provision of premises

The proving ground fixtures and fitting are to be treated with care and kept clean. Any damage or faults are to be reported to the control centre immediately.

When registering at the control centre, users will be issued with keys for the rented rooms. Afterwards the rooms are to be left tidy. All keys are to be returned to the control centre before leaving the proving ground, this applies for each day where rooms have been rented for several days. If keys are lost, the user shall be held liable for any resulting damage or loss. The proving ground cannot accept any liability for items brought into the center by the user.

Offices / workshops / conference rooms

The corresponding operating and safety instructions are to be complied with when using machines, equipment and devices made available. If necessary, the user must obtain the required information from the control centre.

As and when required, the control centre will open the telephone and data lines in the relevant rooms.

No rooms other than those rented may be entered.

Kitchen / catering area

The kitchen is not generally accessible but reserved for use by authorized catering companies. The Catering area is used for daily lunches and special events. The kitchen range may be used by Bosch employees only. Equipment and furnishings are to be kept clean. Dirty crockery is to be placed in the dishwasher.

Sundry

Fuel stations

The proving ground has a fuel station with diesel and super-grade petrol. This is available to Bosch-internal and external users.

Bosch employees can use the fuel cards issued to the test vehicles. External users must report to the control centre for a fuel card before using the fuel station. The fuel will be invoiced via CP/CAR-Si.

Please heed the operating and safety instructions displayed at the fuel station.

Storage for special fuels

There is a temperature-controlled storage unit for special fuels (1000l A1 fuel). Its use is to be arranged with the control centre.

Parking near the buildings

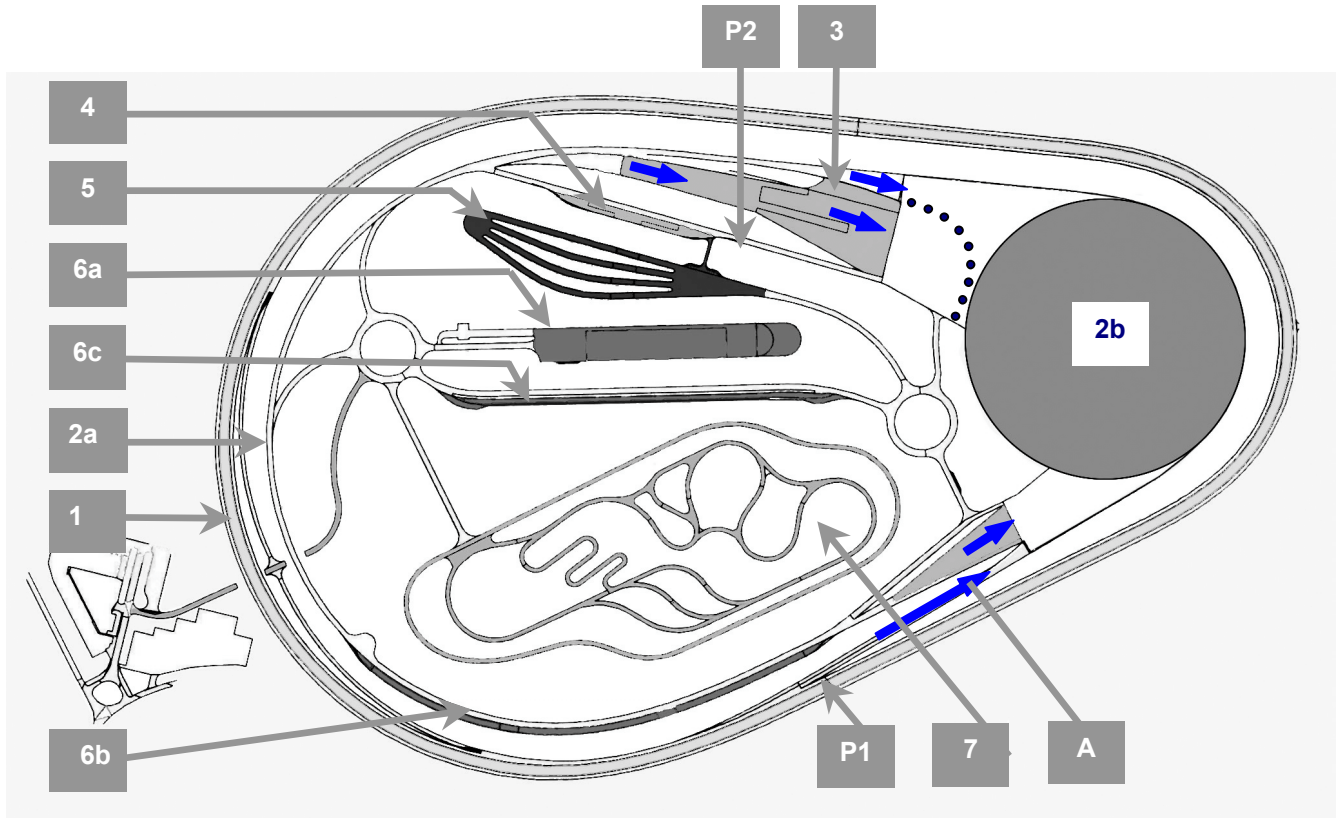
When parking near the buildings make sure that the vehicle does not cause any hindrance or hazards to other users. If possible use the designated parking areas.

Note:

No parking whatsoever is permitted in the vicinity of the fuel station and fire brigade exit.

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Track Plan



- 1 High-speed oval (HGO)
- 2a Inner round track
- 2b Driving-dynamics area (FDF)
- 3 Brake-measurement tracks (BMS)
- 4 Fording and splash water basins (WDF)
- 5 Uphill tracks (SGH)
- 6a Rough-road track (SWS1) 50 km/h and noise-measurement track
- 6b Rough-road track (SWS2) 100 km/h
- 6c Gravel track (GVS)
- 7 Handling course (HLK)

- A Fast entrance from the HGO to the FDF
- P1 Parking/stopping bay at HGO
- P2 Parking/stopping bay at BMS

Designated direction of travel