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# Universal User Manual

EN\_Universal\_User\_Manual\_2\_V09-171010.docx



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# 1 General

This document describes the use of the joysteer® system **exclusively** for trained users with an appropriate driving licence.

This document applies to the joysteer® system generation 2.0.

The main change from generation 1.0 to 2.0 is as following:



**Display module**

*joysteer® generation 2.0*



**Alarm module**

*joysteer® generation 1.0*

## 1.1 Area of usage and specification

joysteer® is designed for use in class M1/ N1 vehicles with an overall weight up to 3500kg within Europe.

<b>Condition</b>	<b>Value</b>
Tested temperature conditions	-35°C ... +85°C
Life time	15 years or 500'000 km or 8300 hours
Required Maintenance interval 1:	Every 12 month irrespective of the driven distance with System inspection with Parameter-set inspection
Required Maintenance interval 2:	Every 24 month or at 70'000 km with System inspection with Parameter-set inspection with replacement of backup-battery

## 2 Disclaimer

Bozzio AG refuses their product liability if one or more of the following facts are given:

- Driving the system by users who do not possess an appropriate driving licence  
Exception: driving accompanied by an authorized driving instructor
- Driving with accompanying driving instructor without installation of an Instructor switch
- Installation/ maintenance/ repairs by companies not trained by Bozzio AG
- Installation/ maintenance/ repairs by personnel not trained by Bozzio AG
- Installation/ maintenance/ repairs not according to the manuals
- Installation/ maintenance/ repairs of components/ modules, which are not mentioned in the part list
- Installation/ maintenance/ repairs of any MMI (Man Machine Interface), which has not been released by Bozzio AG in written form
- Usage of parameter-sets which do not correspond to the “rules” of the Servicemanager
- Any modifications to the cable harness

### **Important:**

- By opening the modules any warranty of the manufacturer is omitted  
(Exception: energyAlarm module).

### 3 Display module













#### 3.1 System error messages and measures to be taken

**Important:**

- The visual and acoustic alarms must be checked whenever the system is started.
- Start driving is only allowed, if the System is up and running (Green LED and Display message “System O.K”).
- The joysteer© system must only be operated when the vehicle engine is running.
- The park position P has to remain during the start-up.
- The park brake has to be engaged during the start-up.
- The system contains a dynamic Force feedback which is not relevant to the safety of the system and therefore can fall away. The user has to be sure to be able to control the car at any time, even when the force feedback is falling away.
- The display module must be checked regularly during operation.

System error messages appear in the display. A system error message is always shown in combination with the lighting up of an indicator lamp. In case of doubt the LED's are decisive (safety-critical) and not the displayed message.

The following table shows the error messages and their measures.

<b>Error level</b>	<b>Indicators</b>		<b>Meaning</b>	<b>Measures</b>
0	Green		System OK	None
1	Green & yellow	 	Deterioration of system status. Service necessary.	Vehicle must be driven immediately with limited functioning to the same car adaption company where it came from.
2	Green, yellow, red & sound	   	As for level 3. Depending on circumstances, driving vehicle directly to the car adaption company possible if approved by car adaption company.	Vehicle must be parked as quickly as possible in a safe place. The same car adaption company from which the vehicle came must be contacted. Depending on circumstances, it is permissible to drive on to the car adaption company as instructed by the car adaption company. Depending on circumstances, the vehicle can be repaired only in the car adaption company.
3	Green, red & sound Red & sound	  	The system is subject to a non-transient error. The system will not tolerate any further error. <b>Driving the vehicle further is not allowed under any circumstances.</b>	Vehicle must be parked as quickly as possible in a safe place. The same car adaption company from which the vehicle came must be contacted. The vehicle must be repaired on the spot by the car adaption company or taken in tow. The vehicle may be moved without using the joysteer® system.

## 4 Driving with joysteer®

### Important:

The system must be initialised first whenever driving with joysteer® (see the sections 4.1 Switching on the system and 4.2 Initializing steering).

### 4.1 Switching on the system

1. Ensure that the park brake is engaged before you start the system.
2. Turn the vehicle ignition (the joysteer® system will start automatically)
3. Start the vehicle engine

### 4.2 Initializing steering

Initialize the steering system by turning the MMI clockwise or anti-clockwise through straight-ahead position, until the vehicle steering wheel takes over the movement. Now the steering function is activated.

### 4.3 Initializing gas

Accelerating can happen with the conventional accelerator pedal or with the joysteer® system, but not with both. Only the **firstly operated input unit** is activated. To use the other input unit, the vehicle has to stop (parking position), and the ignition has to be switched off for at least 30 seconds.

If the vehicle is driven conventionally:

- ➔ After starting the engine: operate accelerator pedal for a short time twice

If the vehicle is driven with the joysteer® system:

- ➔ After starting the engine: operate MMI throttle twice for a short time

### 4.4 Conventional driving with the J-PAS Function

1. Operate the switch for conventional driving
2. Turn on the vehicle ignition.
3. Await the display Text "J-PAS"
4. Check if there is no Error message (Display and LED)
5. Start the vehicle engine

With the main system switch X321 car adaption companies and car breakdown services are able to avoid the starting of the joysteer® system. (The switch interrupts the vehicles ignition signal to the joysteer® system.)



## 4.5 Shutdown the system

There can be found 2 installation methods, with or without Shutdown button.

Shutdown without button:

1. Put the vehicle into Park position.
2. Switch off ignition or the joysteer® system.

Shutdown with button:

1. Put the vehicle into Park position.
2. Switch off Ignition or the joysteer® system.
3. Manually confirmation with the shutdown button.

Shutdown is only possible, when the vehicle is in the Park position, otherwise an Error message occurs.

If the shutdown button is installed, then the driver has the final responsibility to assure the car is in a safe position and cannot roll away.

## 5 Maintenance

**Important:**

**It is absolutely necessary to observe the prescribed service interval. Services must be carried out by a nominated car adaption company. See chapter 1.1**

It is mandatory that user **and** the vehicle report to the nominated car adaption company every year for a driving test and that the driving parameters should be readjusted if necessary. This driving test needs to be carried out as described in the maintenance manual.

## 6 Service and repairs

The joysteer® system is a safety-critical application. Therefore, the user is not allowed to open the module mechanically or to modify it.

**Important:**

If it is suspected that fuses in the energy alarm module ought to be replaced, this can be done only by the nominated car adaption company which installed the system.

## 7 Safety information

No.	Description
1	The user must be trained for driving with joysteer®.
2	<p>The driver must be made aware that if the alarm sounds and the red alarm lamp lights up, he or she must stop at the next safe opportunity. If the alarm comes on again after the system is switched off and on, the vehicle must be transported to the repair shop with the system switched off.</p> <p>Important:</p> <p>For safety reasons the vehicle speed is reduced 10 Minutes after the alarm sound and the red lamp lighting up! The vehicle speed is then limited to 40km/h.</p>
3	The user must be instructed to check the visual and acoustic alarms when starting the system.
4	<p>A functional test is defined for the staff carrying out the regular technical inspection of the vehicle (refer to the maintenance manual).</p> <p>N.B.: Default from ECE-R79, release 2, section 5.5.2. E.g.: Checking the indicator lights and steering function on initialization and steering standing still.</p>