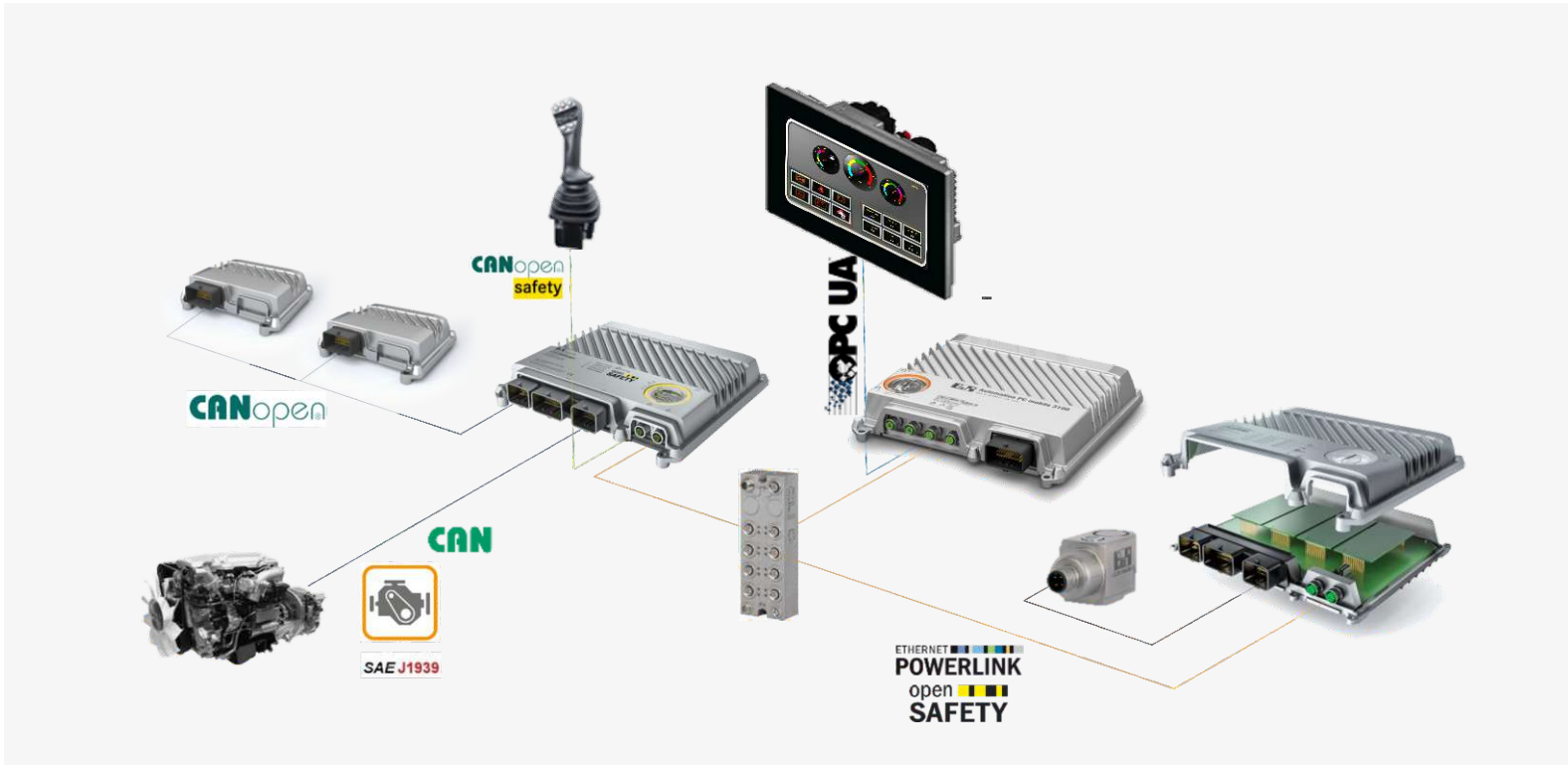


# Your automation partner for mobile automation

The demands placed on commercial vehicles have evolved dramatically over the years. With new functions being added all the time and requirements for operating efficiency and quality higher than ever, these vehicles need an automation system that is both powerful and scalable.

Our new mobile automation lineup gives you all the tools you need to build and defend your competitive edge as a technological leader in your market. With an innovation-driven technology partner at your side, your mobile equipment will stand out with best-in-class electronics and software.

Every aspect of the B&R automation system is designed for modular, concurrent engineering. This gets your products to market faster and allows you to react flexibly to new requirements and special requests. Decoupled hardware and software make it easy to switch out hardware components at any time. With B&R, you will be satisfying your customer's requirements faster than ever.



B&R  
Industrial Automation Pvt. Ltd.

Mumbai Pune road,  
Wakadewadi, Pune, India

t +91 20 4147 8999

office.in@br-automation.com  
www.br-automation.com/en-in/

Your local contact  
www.br-automation.com/contact

## Integrated automation Global presence Solid partnership



## Mobile Automation Automation solution for Backhoe Loader



MM-FO-MA-BHL-IN-01





## Mobile Automation

Technology advancements have paved their way into off-highway and mobile machinery segment comprising of agriculture, mining, construction and infrastructure equipment. There is an increasing demand for connected and smart equipment enabling higher possibilities on the field for such heavy outdoor equipment. However, the heavy vehicle off-highway equipment industry is technology craving at the same time is very cost sensitive. Thus, a fine balance must be maintained for reducing costs and offering best in class features in vehicles.

Off-highway equipment OEMs consistently focus on incorporating innovations and technology advancements in their vehicles such as enhanced controls and safety, fleet management, telematics, connected fleets, connectivity solutions, easier maintenance and diagnostics, virtualization among many other next generation technologies.

### Highlights

- Controllers for harsh conditions
- Modular X90 control and I/O system
- Safety for mobile machines
- 24/7 equipment availability
- Software stacks for special functions
- Freely programmable blocks as per requirement
- One software for all products
- Simulation saves time and boosts quality
- IoT ready equipment
- One partner – One solution

# Automation solution for Backhoe Loader

### Dashboard

- Next gen touch screen operator panel
- Intuitive & Operator friendly GUI
- Real time engine data
- Web based HMI
- USB interface

### IoT ready equipment

- Supports Cloud Connectivity
- Secure remote maintenance & diagnostics
- Fleet Management
- Telematics & vehicle tracking

### Arm control

- Serial kinematics with hydraulic control
- Load balancing
- Overload calculation
- Condition based maintenance (Predictive maintenance)

### Engine compatibility

- BS IV or V
- Ready with SAE J1939
- I/O Link and ISOBUS communication

### Enhanced controls

- Speed & steering control during inclined operation
- Integrated safety interlocks

### Bucket control

- Calculation of displacement based on bucket dimensions
- In-built mapp components for ease of programming
- Dynamic weighing of loads and safe indicators

### Digitized equipment with secure remote access

- Effective fleet management with added security
- Open & standardized communication for cloud and M2M
- Secure and easy data logging
  - Save equipment data directly to the cloud
- X90 controllers provide secure access to equipment
- Change machine settings and parameters

### Predictive maintenance

- Higher equipment availability
- Reduce unplanned downtime
- Efficient maintenance and diagnostics
- Reduce service costs
- Higher productivity and profitability



### Highest software quality

- mapp J1939 prepares important diesel engine data for application
- Develop 3x faster
- Lower lifecycle costs
- Guaranteed software quality

mapp  
TECHNOLOGY



Power panel mobile

- Suitable for use in harsh environments
- Openness through web standards
- Fast HMI design with mapp View



Mobile control system

- Flexible and modularly expandable
- Powerful ARM processor
- Real-time bus system



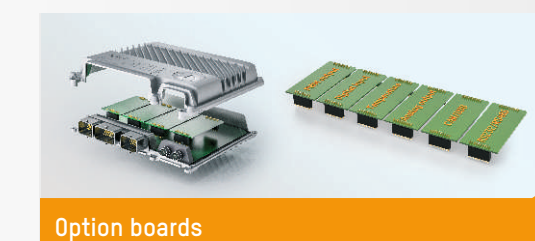
Automation PC mobile

- Intel processor based controller
- Extremely shock and vibration-resistant
- Edge computing, security gateway, EPR gateway



Remote I/O

- CANopen interface
- 32 multifunction inputs and outputs
- Decentralized, compact I/O expansion
- Modular and scalable for future expansion



Option boards

- Adaptable controller
- Unique control functions
- Extensive selection of modules