



# Telehandlers

Electronic Controls and Solutions



ENGINEERING YOUR SUCCESS.

# Full System Support for Mobile Markets

## Market Knowledge and Solutions

Parker's Electronic Controls Division is committed to the material handling industry as demonstrated by our products, solutions and customer service. Parker has successfully integrated products to address the needs of telehandler manufacturers, including innovative solutions for operator displays and CAN-based control systems that increase productivity and optimize fuel consumption.

## Value in Use

Parker has dedicated specialist teams working globally to design systems and solutions to meet your most demanding requirements. Benefits include increased productivity and time to market and reduced production set-up time, fuel consumption and emissions.

## Certified Electronics

Parker offers comprehensive control systems specifically designed for the mobile industry, fulfilling the latest standards for safety and environmental protection.

User-friendly application software tools are used to build up the complete system. The modules communicate via CAN bus, allowing different gateways to other systems.

All of Parker's extensive knowledge and experience in motion control for mobile applications is built in, providing optimum control and flexibility as well as on-board and remote diagnostic capabilities.

### UTS CAN bus level-sensor

provides boom angle information used as visual feedback on display, load moment calculation, function limitation and safety interlock.



### Compact SCP analog pressure sensor

provides information from lift cylinder to monitor boom effort and derive safety interlocks.



VOICE OF THE MACHINE  
IoT Enabled



### Parker's IQAN™ Connect

provides remote connectivity for machine health monitoring, diagnostics and asset management via cloud service.

### IQAN-MC43 master controller

monitors multiple types of inputs and outputs. Its optimized current regulated outputs provide unparalleled control and feathering of Parker's proportional valves for smooth operation of boom functions.

The IQAN-MC43 also provides OEMs with advanced calculations of load moment and safety interlocks. A SIL2 safety controller exists for machines needing to respond to European Safety directives.

Multiple integrated CAN bus ports reduce wiring harness and installation costs.



IQAN-MD4 7" full-color touchscreen display provides information related to load indication, engine and hydraulics performance as well as diagnostics messages. Multiple integrated CAN ports reduce wiring and installation costs.



### IQAN-LC5 CAN joystick

provides smooth and accurate operator control of boom functions and engine power-on-demand.



### UTS CAN bus level-sensor

provides pitch and roll information of the chassis relative to ground. Information is displayed and used internally for safety interlocks and load moment calculation.



### CM0504 CAN bus slave module

provides power to high current loads such as work lights, wiper motors and engine plugs.



### IQAN-XC23 is an expansion module

with a large number of inputs and integrated CAN ports to facilitate assembly of dashboard switches and components as well as reduced wiring harness and installation costs.



## Control System Summary

- Remote diagnostics
- Fleet management telematics
- Interface to latest Tier 4 engine via J1939
- Simple fault finding
- Logging functions
- Load dependent ramps
- Power-on-demand
- Modular system architecture
- Cylinder end damping
- Simplified controls
- Fine boom feathering control
- Simple machine configuration from screen during final assembly



## Horsepower Control, Reduced Fuel Consumption and Emissions

- Selectable single high engine speed upon boom activation. Alternatively, power-on-demand may be selected to proportionally match engine power to the engaged boom or drive functions requesting only the needed engine power and avoiding unnecessary fuel consumption and emissions.
- Continued engine performance and machine throughput by limiting hydraulic output to match engine horsepower capability at any given speed.

## Load Moment Indication

- Static load chart displayed on screen. Configurable to different machine carriages. Complements hard copy of load chart typically mounted on dashboard.
- Dynamic load chart displayed on screen, indicates actual load behavior relative to allowable load lift zones.
- Selectable enabling of boom function limitation and interlocks depending on load tilt risk zone, as the load moment indication function relies on the boom angle sensor, lift cylinder pressure transducer and boom position.



Potential tilt risk zones

# Engineering Your Success with Intelligent and Innovative Solutions



## Contact Us

If you would like to discuss your mobile electronics applications, and how Parker's Electronic Controls Division can offer you a competitive advantage, please feel free to contact us at 800-221-9257 or [www.parker.com/ecd](http://www.parker.com/ecd).



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