Wireless mobile machine control

Remote control solutions for smooth and precise control of industrial machinery

Visit the website to learn more about Eaton wireless and wired solutions
Trusted wireless technology for high-value mobile hydraulic machinery

For more than 25 years, Eaton’s OMNEX remote control products have been used to wirelessly control high value machinery in harsh environments with utmost reliability, precision and durability.

OMNEX is the industry pioneer and leader in developing rugged radio remote controls for heavy machinery and field operations.

Our global network of hydraulic and electrical engineers develop OEM solutions for applications that require high degrees of operator flexibility and safety when operating and manipulating vehicle-mounted equipment and mobile machinery.

Our customers are top OEM machinery builders who want to leverage wireless control to achieve greater safety and productivity for machine operators.

Eaton products offer the latest technology, provide enhanced ergonomics and controller aesthetics, and put more and better machine information and power into operators’ hands.

Seamless interface

A large industrial equipment manufacturer integrated Eaton’s wireless controls into their skid steer machine.

On his first test of the skid steer machine, an operator who had never used a wireless control found that the OMNEX controls provided such a seamless interface that he could immediately operate the machine with high-level accuracy and control.

“The machine had such a great natural feel via the OMNEX controls, that there was no learning curve at all in using the controls.”

— Skid Steer Operator
Home of OMNEX Trusted Wireless

Our comprehensive family of OMNEX Trusted Wireless™ products features OMNEX proprietary FHSS (Frequency Hopping Spread Spectrum) technology, proven performance on high value machines under heavy interference and in noisy, high-voltage environments. That kind of reliability has earned our FHSS technology the title: Trusted Wireless. OMNEX Trusted Wireless remote control radios are the most reliable, cost-effective and trusted wireless control solutions available today.

OMNEX benefits

- OMNEX Trusted Wireless FHSS radio control technology
- Thoughtful design with a focus on the human interface to reduce operator fatigue
- Customized to perfectly fit your application
- Rugged, weatherproof enclosures
- Vibration, temperature and humidity tolerant electronics
- Sophisticated control algorithms to guarantee fail-safe operation
- Machine-to-machine and man-to-machine applications
- Configurable I/O for digital and/or proportional control

Markets served

OMNEX mobile control products are used extensively in mining, construction, agriculture, locomotive and marine markets.

Construction Agriculture Locomotive

Mining Marine
Mobile machine control
product portfolio

Transmitters

Eaton’s OMNEX robust, easy-to-use one-way and two-way remote control transmitters are designed to perform on a large variety of mobile industrial machines. OMNEX industrially-hardened Trusted Wireless FHSS radio technology and impact-resistant packaging are your assurance of dependable operation and precise control.

**TD3200 Remote Control with Color LCD Display**
- State-of-the-art ergonomic design: lightweight
- Customizable multi-function controller with extensive controls capability
- Superior 2-way communication
- Graphical display provides direct feedback from the machine
- 3.5" transflective color LCD display
- 20-hour battery life
- Waist belt, 4 point and shoulder harness options

**T110 Hand held 10/20-Function Radio Remote Control Transmitter**
- Compact 10-button remote with up to 20 functions
- Button functions for momentary, non-latched and latched control
- Configuration modes to control power up and shut down
- Easily recharges with optional dock
- Powered by 4 AA alkaline batteries
- Rated to 160 hours of continuous use

**T150 Portable 14-Function Radio Remote Control**
- 15 configurable functions:
  - Momentary or latched switches
  - Potentiometer
  - Hall effect trigger
  - E-Stop
- Optional tether cable models are available
- Powered by 4 AA alkaline batteries
- Rated to 160 hours of continuous use

**T151 Portable 14-Function Radio Remote Control Transmitter**
- 14 configurable functions:
  - Momentary or latched switches
  - Potentiometer
  - E-Stop
- Optional belt clip or magnetic base
- Powered by 4 AA alkaline batteries
- Rated to 160 hours of continuous use

**T300 Portable 31-Function Radio Remote Control Transmitter**
- 31 function compact and lightweight transmitter
  - Up to 16 proportional functions using a combination of paddle and/or joystick controls
  - Up to 3 proportional functions using potentiometers
  - Up to 15 discrete functions using a combination of toggle or push button switches
- E-Stop function
- Powered by 4 C alkaline batteries
- Optional tether cable models available
OMNEX factory-configurable receivers are designed to work with OMNEX transmitters to provide complete mobile control solutions that stand up under the most demanding industrial conditions. Receivers directly connect to machine hydraulic valves and/or CANbus for complete control. OMNEX industrially-hardened Trusted Wireless FHSS radio technology and impact-resistant packaging are your assurance of dependable operation and precise control.

**R260 Programmable 20-Function CAN Controller**
- Designed with the latest in mobile control network technology
- Robust, license-free, wireless I/O module and valve driver
- 2-way wireless communication
- 20 I/O combinations
- CAN-Bus Network Integration
- IEC 61131-3 compliant PLC programmability

**R160 19-Function Remote Control Receiver**
- 19 I/O combinations
- E-Stop output for safe emergency shutdown to outputs and external circuits
- Powered from a 12 VDC or a 24 VDC system
- Capable of operating 4 proportional outputs and up to 19 digital outputs

**R170 CanBus Receiver**
- Designed for direct connection to CANbus
- E-Stop relay function for safe emergency shutdown to outputs and external circuits
- Compatible with SAE J1939 protocol
- Customizable to work with other CANbus protocols
- RS232 port for configuration, diagnostics, firmware upgrades and data logging capabilities
- With 2x CAN, receiver can act as a CAN bridge

**Expansion modules**

OMNEX flexible expansion modules are designed to augment OMNEX remote control solutions with extra digital and/or proportional I/O. Developed to interface with any OMNEX Deutsch enclosure receiver, the expansion modules offer complete system control and minimal system wiring.

**D260 I/O Expander**
- Provides additional I/O expansive to Wireless receivers
- Up to extra 20 digital I/O for on/off controls
- Up to extra 4 proportional outputs for current or PWM valves
- 2 CAN bus communication ports for J1939 or CANOpen

**D160 19-Function Expansion Module Radio Remote Control**
- Can add extra I/O to any OMNEX FHSS Deutsch enclosure remote control system
- Provides up to 19 additional digital ON/OFF outputs
- Fully customizable to operate momentary, latched, toggled and interlocked functions

**D180 14-Proportional Function Expansion Module Radio Remote Control**
- Can add extra I/O to any OMNEX FHSS Deutsch enclosure remote control system
- Provides up to 14 additional proportional outputs
- Fully customizable to provide Current Controlled, Voltage or PWM output signals
Since the early 1990s, concrete boom pump manufacturers had been searching for a solution that eliminates the risk of operator electrocution in the case of a boom coming in contact with live power lines. One such supplier approached OMNEX with a request to develop a radio control system that could fully operate a concrete boom pump, physically separating operators from booms. At the time, wireless control was a leap ahead, and many individuals had reliability concerns about wireless technology. The OMNEX strategy for countering this perception was to overbuild the product with military-grade switches, industrially hardened plastics, and never-fail, FHSS radios. The result is a wireless control solution considered to be an essential component in the reliable and safe operation of concrete boom pumps across North America.

Wireless mobile control applications for tough environments

Eaton’s OMNEX mobile control products are trusted by top on-road, off-road and material handling equipment vendors.

- Concrete Pumps
- Transit Mixers
- Truck Mounted Cranes
- Bulldozers
- Vacuum Trucks
- Side Augers
- Boom Lifts
- Rotary Drills

Award-Winning Product

The TD3200 Remote Control won the Most Innovative Product award at the 2014 World of Concrete show.
OMNEX remote control solutions from Eaton are designed and manufactured in-house, support multiple protocols, feature industrially hardened I/O and packaging and can be tailored to meet your OEM needs. Contact us to learn why major OEM firms rely on OMNEX solutions to increase safety and efficiency.

**Manufacturing**
OMNEX products are manufactured for rugged reliability over the long term. To achieve this, all aspects of development from concept to final assembly and test are tightly controlled and monitored within a ISO9001 quality system. Controlled processes include surface-mount assembly of printed circuit board components, cable and joystick manufacturing, ergonomic packaging customization and final systems tests. Product flexibility, batch size adjustment, quick turnaround of prototypes and custom designs all benefit from OMNEX’s comprehensive manufacturing abilities.

**Technical support**
From proof-of-concept trials to production start-ups and maintenance windows, critical circumstances arise at any time. We offer global technical support to ensure your deployment of our technology is successful and timely.

**Research**
From feasibility studies, engineering site surveys and concept system design to fully integrated commissioning and maintenance. Our project engineers collaborate with you to create effective designs and empower you to remotely manage your operations.

**Technical training**
We keep our customers up-to-date with the latest wireless innovations on-line or in person. We share our experience and knowledge-base through on-line modules or tailored training programs to meet your requirements.

**Quality products**
Our products comply with country specific regulatory requirements, industry certifications and standards. From the onset of development, layout and bench testing, OMNEX test engineers work with R&D and Manufacturing to ensure long term component and product robustness.