



The ShockWatch® EquipManager™ is a wireless monitoring system that ensures HSE compliance, controls access, detects impacts, and monitors equipment operation. Combining powerful functionality with a fully customisable and intuitive user interface,

EquipManager provides the information you need to reduce costs associated with maintenance, repair, and damage to your facility, equipment, and products.

Ensure HSE compliance with EquipManager's "safety checklist" for all authorised operators. Improve your operating efficiencies with automatic alerts regarding operator training and maintenance needs. Locate your equipment with the enhanced tracking capabilities. With its extensive array of sensor inputs and state-of-the-art wireless networking capabilities, EquipManager is a powerful tool to help you improve your workplace safety and reduce damage-related costs.

Benefits:

- ° Ensures HSE compliance with the pre-shift safety checklist
- ° Increases safety in operations by tracking operator training schedules and operator certification
- ° Reduces costs associated with damage and worker injury
- ° Reduces operator, facility, equipment, and product damage due to impacts
- ° Provides real-time impact detection for timely repairs to facility, racks, and products
- ° Increases operator accountability, improves driving behavior, and reduces worker injury
- ° Allows only certified users to operate specific equipment
- ° Provides accurate and timely usage data, minimising downtime through optimal maintenance scheduling and fleet rotation
- ° Improves equipment utilisation through more efficient planning
- ° Saves time in locating equipment

The audio/visual display is used for a variety of functions, including: completing the safety checklist, accessing the EquipManager menu, setting up inputs, and sending/receiving text messages.

The iButton reader is also included on the display.

EquipManager

Product Code EM-BU30
Series EquipManager

Typical Applications

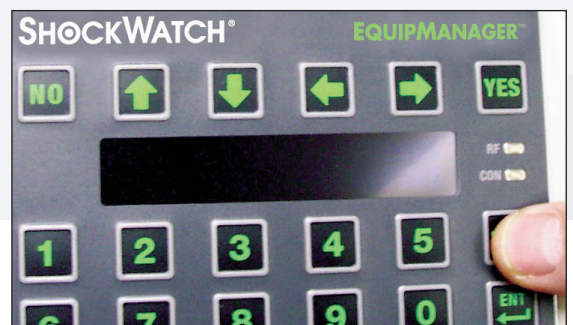
- ° Electric forklifts
- ° Rough terrain forklifts
- ° Electric pallet forklifts
- ° Walkie/rider forklifts
- ° Order picker forklifts
- ° Turret forklifts
- ° Construction equipment
- ° Double reach forklifts
- ° Internal combustion forklifts
- ° Narrow aisle (reach) forklifts
- ° Other counter balance forklifts

Instrument Operating Conditions

Operating Temp:
-20°C to +60°C
Operating Humidity:
0-100% non-condensing
Operating Shock:
10G (nondestructive)/100G (destructive)
Impact Detection Range:
User-adjustable threshold 0.3G to 7G

Specifications

Case Material: Main Unit: Polystyrene
Control Head: Polycarbonate
Case Rating: IP56
Case Size: 109.98 x 109.98 x 71.12 mm
Output Alarm: Piezoelectric 98dB
Power Source: 10 to 60VDC
Relay Output: Normally open contact fused @ 5amps
Normally closed contact fused @ 10amps
Control Head: 172.72 x 88.9 x 69.85 mm
Data Storage Capacity: 1,000 authorised operators
1,300 events (operator log-on/off) (impact time/date)
Data Retrieval: RF data transmission



Audio/visual display



iButtons

Features:

- ° Fully configurable 40-item pre-shift safety checklist through audio/visual display - with ability to designate questions as critical or noncritical
- ° Real-time dual-threshold impact detection and recording through patented, user-adjustable sensor
- ° Vehicle access control via multiple user-defined interfaces (iButtons, barcode, proximity cards, and user-defined pin numbers)
- ° Multi-parameter monitoring through customisable inputs, such as fluid pressure, speed, temperature, lift count, travel time, key-on time, and reverse count (8 digital inputs and 2 analog inputs)
- ° Equipment location services
- ° Customisable events and event processing for more than 60 standard events
- ° Notification of impact sensor detachment
- ° Lock-out/tag-out capability/inactivity log-off
- ° Usage monitoring (time, cycles, repetitions, etc.)
- ° Multiple wireless data transmission options (802.11b/g and 900MHz)
- ° Support for WEP, WPA, and LEAP security modes
- ° User-definable maintenance alert
- ° Full user menu with two-way text messaging
- ° Remote updating and configuration of device settings, firmware, and iButton key configuration
- ° Flexible mounting locations and orientations
- ° UL rating — Type E, EE, G, GS, LP, LPS, D, and DS

Software:

The management software for EquipManager gives you easy access to the vital information you need to develop quick, efficient plans for reducing costs and improving safety. Easily control every aspect of the system's configuration: what to monitor, who can access the information, and when and how to receive the data. And once the system is configured, the powerful reporting and graphing options allow you to compile the data for analysis so that you can make changes to your operations where needed, as well as build on procedures that are clearly working well.

The software for EquipManager utilises the widely accepted MySQL database, but is fully compatible with most other databases. Alerts and notifications can be easily programmed to wirelessly notify users via e-mail, text messaging, and phone.

Additional software features include:

- ° Multi-user Internet access to application
- ° Automatic data archiving and retrieval
- ° Customisable reporting and charting capabilities
- ° Management software operation in local workstation, LAN, and WAN, with export capabilities
- ° User-configurable events and event processing for customisation beyond the standard 60+ events
- ° Ability to remotely update unit settings and firmware
- ° Database access to JDB SQL client and many others

Green iButtons are used for access control, ensuring that only properly trained and certified operators use equipment.

Other iButtons are used for initial programming and configuration of the EquipManager

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Radio Specifications

802.11 Wi-Fi:
IEEE 802.11b/g Direct Sequence Compliance Protocol
FCC Part 15 Class B, ETS 300.339
Compliance Bandwidth: 2.4 to 2.5GHz
Receiver Sensitivity: -81dB

900MHz:

Power Output: 1 mW-1Watt (0 - 30 dBm)
RF Data Rate: 115.2Kbps
Interface Data Rate: up to 230.4Kbps
Receiver Sensitivity: -110dBm (@ 9,600bps)
Spread Spectrum Type: FHSS (Frequency Hopping Spread Spectrum)
Channel Capacity: 10 hop sequences share 50 frequencies
Encryption: 256-bit AES
Frequency Band: 902-928MHz
Certifications:
United States (FCC): OUR-9XTEND
Canada (IC): 4214A-9XTEND
Australia: Approved (XTH9)
Class 1 Division 2: Approved

Inputs

8 Digital: max voltage 64VDC
Modes: change of state, counter, timer, interrupt
High-Transition Voltage <= 7VDC
Low-Transition Voltage >= 2VDC
Minimum Hysteresis: 0.8V

2 Analog: max voltage 64VDC
Modes: high/low levels, change of state, counter, timer
Full scale approximately 64VDC
10-bit resolution

Control Head Display

2 x 20 transmissive, green LED, black/white LCD
5 x 8 character format

