

LE CONTROLEUR DE CHOCS POUR CHARIOT ELEVATEUR et AUTRES ENGIN DE MANUTENTION Le SHOCKSWITCH ID ou RFID



Le contrôleur de chocs pour chariot élévateur se présente sous la forme d'un petit boîtier « Shockswitch » qui se monte sur n'importe quel engin de manutention. Il permet de savoir s'ils sont soumis à des accélérations anormales dangereuses pour les locaux, les engins et les personnes. (Chocs excessifs contre pylône, protection d'échelle de racks, autre chariot, etc...)

Si le véhicule subit une accélération supérieure à celle autorisée par le chef de quai (tests effectués au préalable en concertation avec les caristes pour le choix de la sensibilité), le contrôleur déclenche une alarme visuelle par un LED lumineux, une alarme sonore dont vous programmez la durée, et mémorise la date et l'heure du choc ainsi que le nom du responsable.

Ces informations sont ensuite extraites sur PC par un logiciel SHOCKMATE sous Windows

Ce contrôleur de chocs, offre également d'autres fonctions: Chaque cariste lorsqu'il monte sur son chariot doit pour le démarrer insérer une clé (Technologie clé Dallas) personnelle programmée par un logiciel qui permet de l'identifier, de lui interdire de démarrer un engin qu'il n'est pas autorisé à conduire, de connaître quels en étaient les derniers utilisateurs, d'éviter que les engins ne soient « abandonnés » hors de leur zone, etc...

Cela permet de connaître précisément le ou les responsables des chocs, d'analyser parmi les caristes ceux qui pourraient nécessiter une formation supplémentaire, d'interdire la conduite de certains engins s'ils ne sont pas habilités, de localiser dans l'entrepôt les endroits qui pourraient être améliorés, etc...

L'avantage de la clé électronique DALLAS par rapport à un système à digicode ou à bande magnétique réside dans le fait que la clé est très solide, peu onéreuse, facilement programmable, et dispose d'une grande capacité mémoire. Si un cariste perd sa clé, on lui en reprogramme immédiatement une autre et on annule l'ancienne clé dans le système.

Cette clé reconnue pour sa solidité est très souvent déjà présente dans certaines Sociétés. (Accès locaux, machines). Il est possible d'utiliser les clés Dallas déjà existantes pour utiliser le SHOCKSWITCH ID.

Déjà monté sur des milliers de chariots, l'utilisation de cet appareil a permis à de nombreuses Sociétés d'améliorer considérablement la sécurité en réduisant les risques d'accidents ainsi que les coûts de maintenance anormalement élevés sur les engins et les locaux.

Après quelques semaines d'utilisation, nos clients ont constaté une réduction des incidents d'au moins 80% et une réduction des chocs endommageant les chariots et bâtiments de 50% et plus. L'amortissement de l'investissement est atteint pendant la première année.

Le programme complet permet de:

- Réduire les coûts de maintenance.
- Améliorer les habitudes de conduite
- Réduire les dommages constatés sur les racks et les produits transportés.
- Accroître les normes de sécurité
- Localiser dans l'entrepôt les endroits à améliorer
- Créer un cadre de travail plus sûr et plus productif.
- Interdire de démarrer un engin à un cariste qui n'est pas autorisé à le conduire.

LA TECHNOLOGIE DU CAPTEUR

Le capteur réglable magnétique permet un déclenchement parfaitement adapté à vos besoins. Il a été conçu spécialement pour cette application.

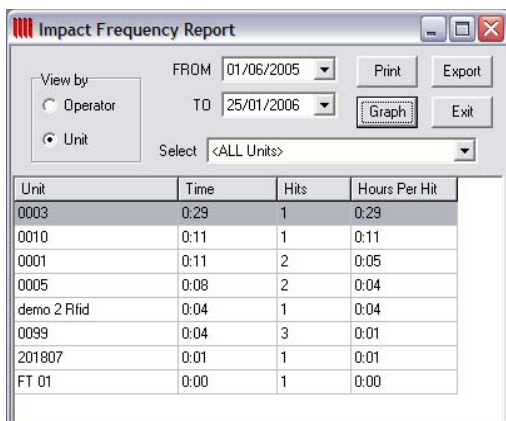


Les chocs peuvent être détectés à partir de tous les angles car ces capteurs permettent une lecture à 360°.

Ils ne sont pas affectés par les variations de tension électrique et ne nécessitent aucune maintenance. 2 capteurs sont disponibles:

- Capteur A: 0.5 à 3 G (Pour Rétractables, Frontaux, gros engins)
- Capteur B: 1 à 7 G (Pour Transpaletteuses électriques, petits engins)

On augmente ou on réduit la sensibilité simplement en tournant la molette du capteur à l'emplacement désiré.



Impact Frequency Report

View by: Operator Unit

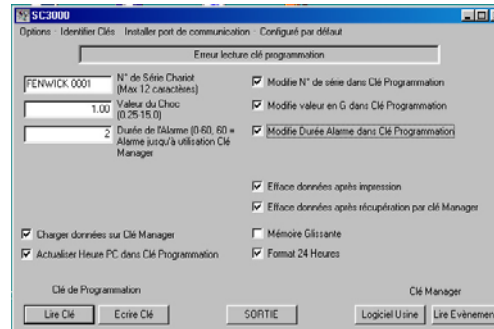
FROM: 01/06/2005 TO: 25/01/2006

Select: <ALL Units>

Unit	Time	Hits	Hours Per Hit
0003	0:29	1	0:29
0010	0:11	1	0:11
0001	0:11	2	0:05
0005	0:08	2	0:04
demo 2 Rfid	0:04	1	0:04
0099	0:04	3	0:01
201807	0:01	1	0:01
FT 01	0:00	1	0:00



LA RECUPERATION DES DONNEES



La récupération des données se réalise à l'aide d'une clé Dallas, d'une borne radio (RFID) ou d'un petit boîtier de prélèvement Dataranger. Celui-ci est inséré dans votre boîtier de lecture de clé relié à votre P.C. Le logiciel, très simple d'utilisation, permet de lire la date et l'heure des 400 derniers chocs et/ou utilisateurs. Ce même logiciel permet de programmer chaque clé personnelle nécessaire à chaque cariste pour démarrer son chariot.

Enfin, vous pouvez consulter des statistiques sur la fréquence des chocs par cariste, par engin, par période, faire un ratio par rapport au taux d'utilisation du chariot, etc...

AUTRES MODELES



Boîtier SC1060 avec capteur de choc déporté

- Le SC1060: Basé sur le même principe, ce modèle plus simple déclenche juste une alarme sonore intégrée qui continuera à sonner jusqu'à ce qu'un responsable vienne stopper la sonnerie avec une clé RESET. Cela permet de connaître en temps réel les chocs qui viennent d'avoir lieu.

Un contact sec est également disponible pour déclencher autre chose au choix (vitesse escargot, gyrophare, etc...)

Plus économique et très facile d'utilisation, il est idéal pour les clients qui ne veulent pas utiliser d'ordinateur et qui préfèrent un modèle tout mécanique.

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Shockswitch RFID

SHOCKSWITCH®

Increase employee safety while decreasing facility/product damage with Shockswitch RFID—A wireless way to comply with OSHA regulations.



Using state-of-the-art wireless technology, Shockswitch RFID is a real-time link between a lift truck in the plant and a PC in the office. Shockswitch RFID can transform how a company collects data to augment OSHA compliance regarding forklift operation while also monitoring damage to equipment and facility.

The Shockswitch RFID is part of the total Shockswitch program designed to aid managers in:

- Reducing forklift maintenance costs
- Improving driving habits
- Reducing rack and product damage
- Complying with OSHA standards
- Providing ongoing driver training
- Creating a safer, more productive work environment

Shockswitch RFID Features

- **Wireless data collection:** Automatically reports over 15 unique event types to a computer running the ShockMate 2 software
- **Control Vehicle Access:** PC driven databases record authorized operators by forklift
- **Monitor Driver Training:** ShockMate 2 software tracks need for operator retraining
- **Log Impacts:** Record impacts by date, time, driver ID
- **Alarm Duration:** Program unit to sound alarm on impact
- **Maintenance Timer:** Schedule audible alert for planned maintenance checks
- **Halt on Impact/Halt Delay:** Program for halt after impact option. User determines delay.

Shockswitch RFID Operation

Wireless Data Stream Helps Manage Fleet

The RFID transmits event data via a radio link between the forklift and a PC running the ShockMate RF Server software. Users can monitor an unlimited number of lift

trucks with the Server software collecting data for distribution to the ShockMate 2 database. The RFID can be programmed to instantly send event data as it is generated or to delay sending until a specific number of events have accumulated. Certain "hot" events, such as impacts, are always instantly transmitted to alert for possible safety issues.

Control Forklift Access & Identify Operator

The RFID integrates with a forklift's ignition system to identify and limit access to designated operators. The RFID requires a prospective driver to "log on" using an iButton Operators Key that fits a simple key reader on the unit. The iButton is a critical component in the interface between the Shockswitch unit and the ShockMate 2 software. Once properly coded, the RFID will not allow the forklift to be operated without an authorized iButton key.

The ShockMate 2 software aids in complying with OSHA regulations concerning driver certification. Upon setup, the software requests information such as forklift type and ID number. Driver statistics including names and certifications will also be collected. A supervisor uses the Managers Key to relay an operators list to each RFID-equipped forklift. RFID will then allow only drivers with authorized keys to operate each lift. The software also tracks the expiration dates of certifications.

Assign Abnormal Lift Impacts To Operator

The RFID is equipped with an adjustable impact sensor. When an impact exceeds the sensor's threshold, the time, date, and driver ID are recorded. This data is stored for downloading to a computer for analysis. The RFID can be programmed by the user to react to an impact in various ways.



- Record the time, date, and driver ID
- Sound the forklift horn for a specific period of time (1 to 59 seconds)
- Latch the forklift horn on continuously and require a manual reset.
- Disable the forklift.

Shockswitch RFID In A PC Environment



A manager using ShockMate 2 software can customize RFID operating parameters to enhance the safety and productivity of the forklift fleet. Upon impacts beyond the desired threshold, alarms can be set to sound for up to 59 seconds or continuously until reset by a

black Supervisor's Key. For added safety, shutdowns after impact can be delayed by up to 255 seconds to allow the equipment to be moved out of harm's way.



Planned maintenance alert schedules from 50 hours to 999 hours can be programmed into the unit with the red Setting Key. Resetting of the timer is accomplished with the blue Maintenance Key. The blue Maintenance Key is also used as a lockout/tagout device. ShockMate 2 also calculates efficiency and utilization of both operators and equipment.

Operator	Time	Activity	Percent
Stubb, Mike	1:57	1:08	98
Rodriguez, Carlos	28:05	26:13	93
Simons, Clyde	3:00	2:23	79
Lynch, Sam	1:32	0:47	51
Kaniche, Gustavo	9:28	5:27	57
Bennett, Maurice	12:02	6:49	56
Chambers, Brian	13:28	8:42	64
Mingo, Steve	7:10	5:07	71
Keener, Rob	9:31	8:48	92

Your Shockswitch RFID Reseller:

Shockswitch RFID Specifications

Operating Temperature:	-20C to +60C -4F to +140F
Operating Humidity:	0-100% Non-condensing
Operating Shock:	10G (nondestructive) 100G (destructive)
Case Size:	4.33 in. X 4.33 in. X 2.8 in.
Case Material:	Polystyrene
Case Rating:	NEMA 4X
Weight:	2.5 lbs.
Power source:	10 – 60 VDC
Impact Detection:	User adjustable threshold sensor
Impact Detection Range:	.3G to 7G
Data Storage Capacity:	400 events (Operator log on/off) (Impact time/date)
Data Retrieval:	RF link or with Yellow Manager's Key
Relay Output:	Open Contact fused @ 5amps Closed Contact fused @ 10 amps
Output Alarm:	Piezoelectric 98db.
RF Tx frequency:	902 – 928 MHz, unlicensed ISM band
Radio Type:	Frequency Hopping Spread Spectrum
Frequency Control:	Direct FM
Data Rate:	9600 bps
Tx Power Output:	100 mW nominal
Tx Range:	Indoor: 600 ft to 1500 ft Outdoor: 1500 ft to 2500 ft
FCC ID:	OUR9XTREAM

ShockMate 2 Software Requirements

Operating system:	Win 98, Win NT, Win 2000, Win XP
Memory:	8 Mb hard drive, 16 Mb RAM

About Shockwatch

Shockwatch, a division of Media Recovery, develops, manufactures and markets a broad range of impact, tilt and temperature monitoring and damage prevention products. Shockwatch products, known for high quality, excellent reliability and leading technology, are distributed worldwide by an internal sales force and a network of strategic partners and resellers. Founded in 1974, the company is headquartered in Dallas, Texas and is privately owned.

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Shockswitch ID

SHOCKSWITCH®

Increase employee safety while decreasing facility/product damage with Shockswitch ID—A PC-driven way to comply with OSHA regulations



The Shockswitch ID is a valuable resource for any company that wants to augment OSHA compliance regarding forklift operation and at the same time decrease damage to their equipment and facility.

The complete Shockswitch program is designed to aid managers in:

- Reducing forklift maintenance costs
- Improving driving habits
- Reducing rack and product damage
- Complying with OSHA standards
- Providing ongoing driver training
- Creating a safer, more productive work environment

Shockswitch ID Features

- **Control Vehicle Access:** PC driven databases record authorized operators by forklift
- **Monitor Driver Training:** ShockMate software tracks need for operator retraining
- **Log Impacts:** Record impacts by date, time, driver ID
- **Alarm Duration:** Program unit to sound alarm upon impact
- **Inactivity Logoff:** Program forklift to shut down after a user-specified period of inactivity
- **Maintenance Timer:** Schedule audible alert for planned maintenance checks
- **Lockout/Tagout:** Shockswitch ID can be used to lock out a truck needing repair
- **Halt on Impact/Halt Delay:** Program for halt after impact option. User determines delay.

Shockswitch ID Operation

Control Forklift Access & Identify Operator

The Shockswitch ID integrates with a forklift's ignition system to identify and limit access to trained operators.

The Shockswitch ID requires a prospective driver to "log on" using an iButton green Operator's Key that fits a simple key reader on the unit. The iButton serves as a critical component in the interface between the Shockswitch unit and the monitoring software - ShockMate. Once properly coded, the Shockswitch ID will not allow the forklift to be operated without an authorized iButton key.

iButtons are a proven technology in a wide variety of industries. The use of iButtons as a means to identify forklift operators versus an operator code system is preferred due to the security it provides to both operator and company.

Designate Specific Drivers To Operate A Forklift

The exclusive ShockMate software aids in complying with OSHA regulations concerning forklift driver training and certification. Upon setup using an IBM-compatible PC, the software will ask for information, such as forklift type and ID number. Driver information including names and certifications will also be collected. Based on this data, a supervisor will use the Managers Key to relay an operators list to each Shockswitch ID-equipped forklift. The unit will allow only drivers with authorized keys to operate each truck. The software also alerts the expiration dates of certifications.

Assign Abnormal Lift Impacts To Operator

The Shockswitch ID is equipped with an adjustable impact sensor. When an impact exceeding the sensor's threshold is sustained, the time,



date, and driver ID are recorded. This information is stored in memory for later downloading to a computer for analysis.

The Shockswitch ID can be programmed to react to an impact in various ways.

- Record only the time, date, and driver ID
- Sound the forklift horn after impact for a specific period of time (1 to 59 seconds)
- Latch the forklift horn on continuously after impact until a supervisor resets it.
- Disable the forklift.

Shockswitch In A PC Environment

With the red Settings Key a manager using ShockMate software can enter lift truck operating parameters to create a safe operation program for the fleet. Alarms can be set to sound for up to 59 seconds or continuously until reset. Shutdowns after impact can be delayed by up to 255 seconds to allow the equipment to be moved out of harm's way.



Planned maintenance alert schedules from 50 hours to 999 hours can be programmed into the unit with the red Setting Key. In addition the blue Maintenance Key is used as a lockout/tagout device.



Information recorded by a single Shockswitch ID is downloaded with the yellow Managers Key. This key retrieves the data and stores it for upload to a computer running ShockMate software. The Key is placed in a reader and the ShockMate software prints out the data on a computer's printer.



The Shockwatch DataRanger is an optional data collection device used in lieu of the Manager's Key. It downloads information from up to 50 lift trucks if the Shockswitch mem-

ories are full--more trucks if not--and uses static memory to protect data in the event of power loss.

Your Shockswitch Reseller:

Shockswitch Specifications

Operating Temperature:	-20C to +60C -4F to +140F
Operating Humidity:	0-100% Non-condensing
Operating Shock:	10G (nondestructive) 100G (destructive)
Case Size:	4.33 in. X 4.33 in. X 2.8 in.
Case Material:	Polystyrene
Case Rating:	NEMA 4X
Weight:	2.5 lbs.
Power source:	10 – 60 VDC
Impact Detection:	User adjustable threshold sensor
Impact Detection Range:	.3G to 7G
Data Storage Capacity:	400 events (Operator log on/off) (Impact time/date)
Data Retrieval:	With Yellow Manager's Key
Relay Output:	Open Contact fused @ 5amps Closed Contact fused @ 10 amps
Output Alarm:	Piezoelectric 98db.

ShockMate Software Requirements

Operating system:	Win 95, Win 98, Win NT, Win 2000, Win ME, Win XP
Memory:	6 Mb hard drive, 8 Mb RAM

DataRanger Specifications

Memory:	522K Flash
Battery:	9V alkaline or U9VL lithium 18 - 24 month life (U9VL)
Enclosure:	ABS, 4.2 x 2.4 x .9 inches,
Weight:	5 ounces

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