



Telematics

EP's next generation solution for fleet management 2.0

EP Equipment Online Training



AGENDA

01 EP Equipment

02 EP Telematics

03 User Benefits

04 Focus on Li-ion fork lift trucks

01

EP Equipment



EP EQUIPMENT COMPANY OVERVIEW



+20%

100.000
Units in 2019



Market leader for
electric pallet trucks



Li-Ion market leader



International Key
Account focus



Customer optimised
trucks



Compact
trucks

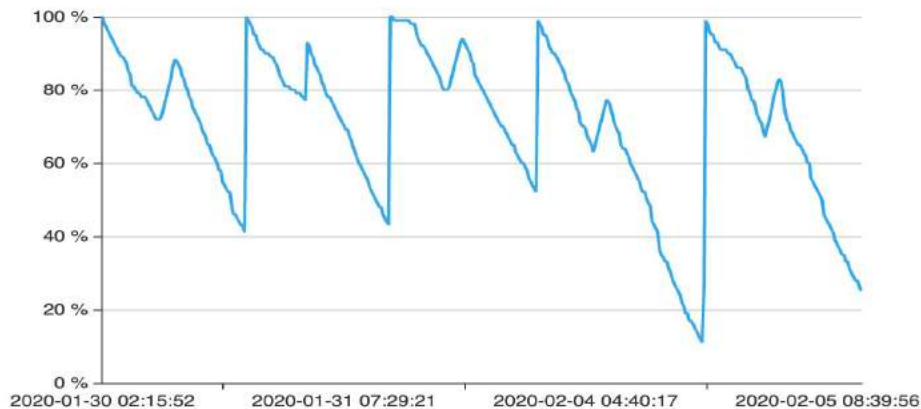
We believe in products that simply work

- Own design
 - Focus on li-ion
 - Simple after sales
 - Change the market
-
- The EP Telematics proves again this overall concept and thinking

Lithium ion truck sales



battery power



Telematics real time monitoring:

- Telematics equipment fitted under the battery cover
- Fast Charging
- Opportunity charging
- Ideally keep the battery between 35% and 65% (or 25% and 85%)



02

EP Telematics



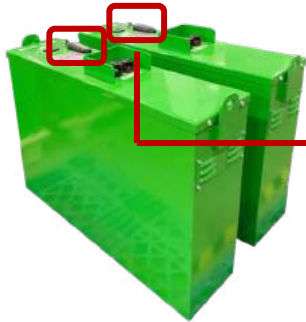


What is it?

Who uses it ?

What do I do with it?

What does it do for me?



How does the system technically work?

- Li-ion batteries & BMS
- Forklifts with Zapi **controller** (for now)
- CAN + power supply
- GPS
- **4G**
- Website
- PC, Tablet, Mobile
- APP

03

User Benefits





What value does telematics bring me?

- Fleet management
- Li-ion battery and truck analytics
- Proactive after-sales service

Lift your business to a new level with more profit
For end user AND for the dealer

Features



Asset Tracking



Uptime Boosting



Battery Monitoring



Predictive Maintenance



Remote Start Stop

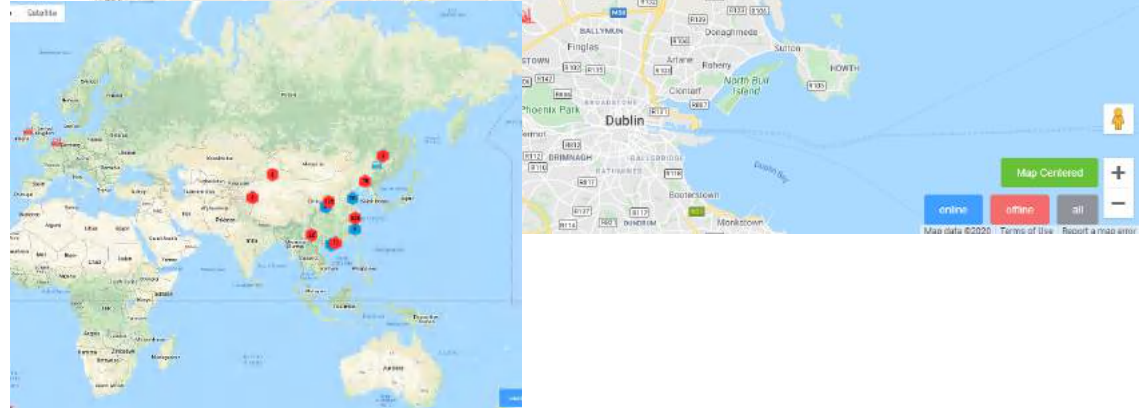
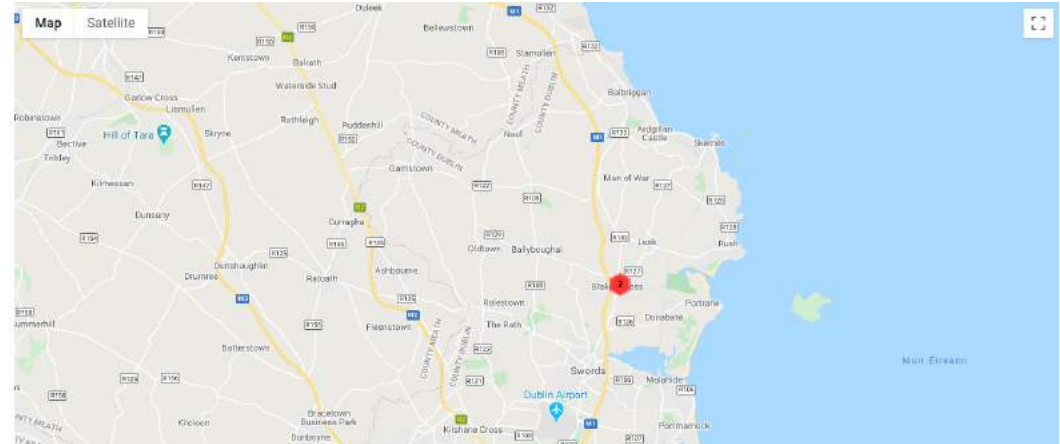
Asset tracking



Asset tracking

- Online
- Base station

Customers can get an own login to see their own trucks
Same online platform



Asset tracking



Asset tracking

- Real time GPS tracking
- Track play back

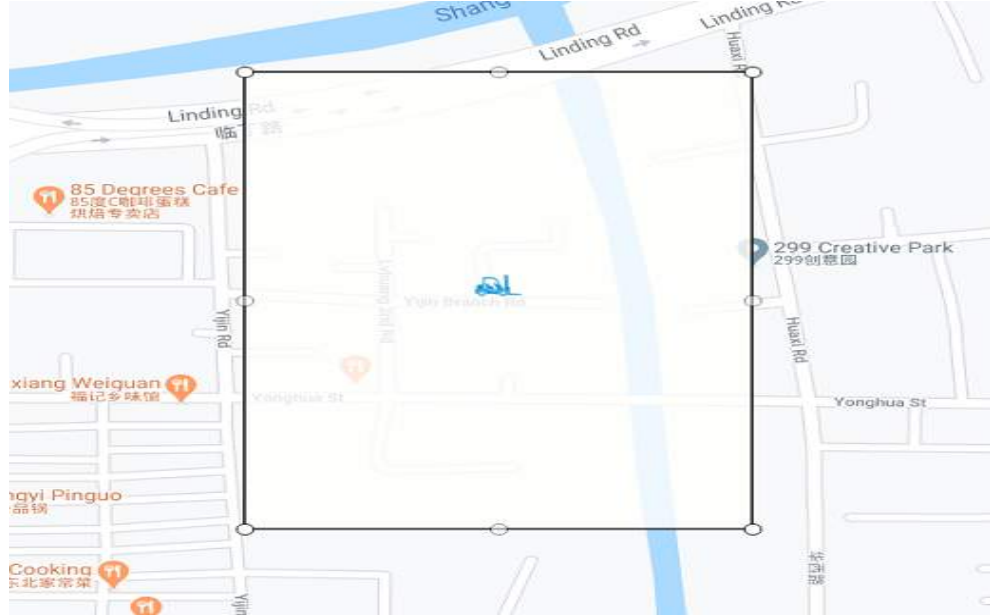


Asset tracking



Asset tracking

- Operation zoning

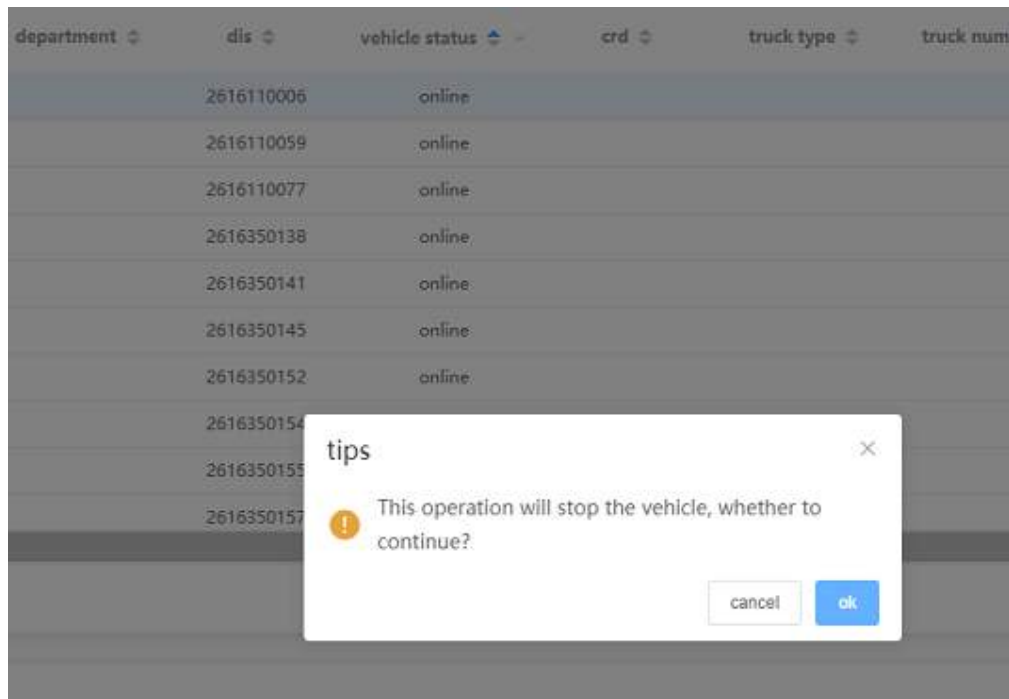


Remote start-stop

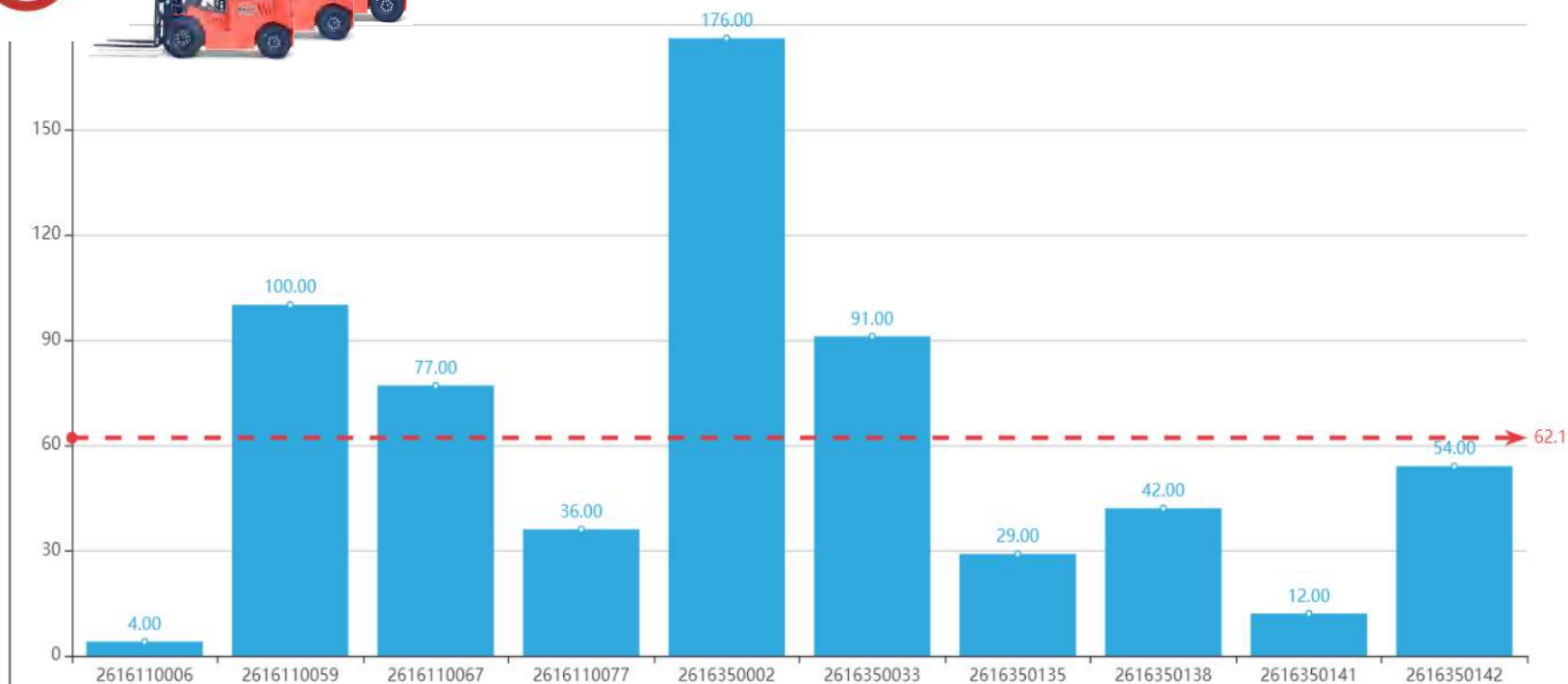


Remote start - stop

- Zoning
- Days rental
- Hours rental
- Reminder,
automatic expiration or
manual start-stop



Fleet management

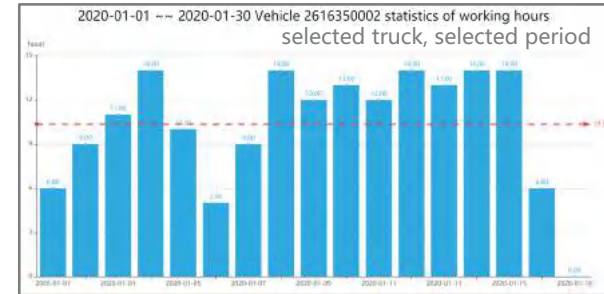
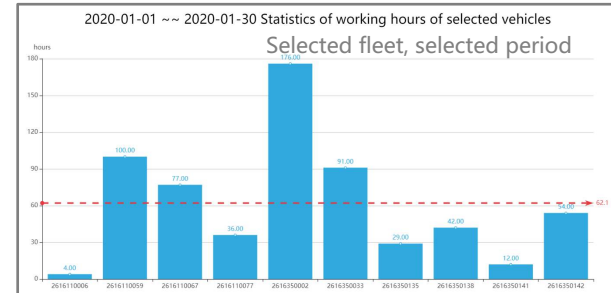


Fleet management



Uptime boosting

- Fleet analysis & truck analysis
- Accumulated operation data over desired time
- Statistical analysis of working hours
- Statistical an analysis of vehicle operation time
- Allocate the fleet to the right location
- Data can be locally exported to excel for further analysis



Truck management



Uptime boosting

- Individual truck use
- Real time, online available
- Statistical analysis of working hours over time

Many trucks are not used as intensively as we think

vehicle:65501042118779 online cycle data show



Driver management



Card Reader

- Optional
- Driver identification
- Driver + truck analysis



Ordinary card = 1 card, 1 truck, 1 truck can connect to unlimited amount of cards, cards cannot be re-programmed

Master card = 1 card, all trucks

Management card = Activate or deactivate the system, activate an ordinary card on the truck

Cards cannot be re-programmed

Card number is added online, then driver data can be filled out by the fleet manager online.

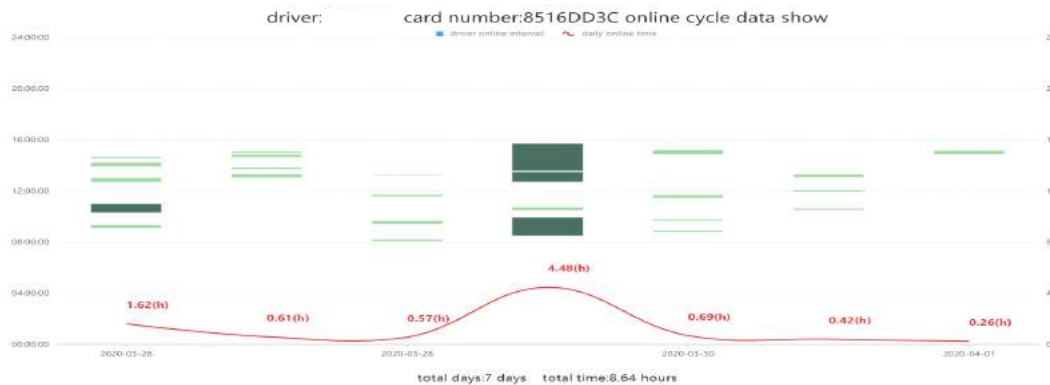
Note: For countries with data restrictions, the card number and driver data should be locally stored at the employer so in the cloud we then have no driver ID information, only general non personalised data.

Driver management



Driver Management

- Usage data



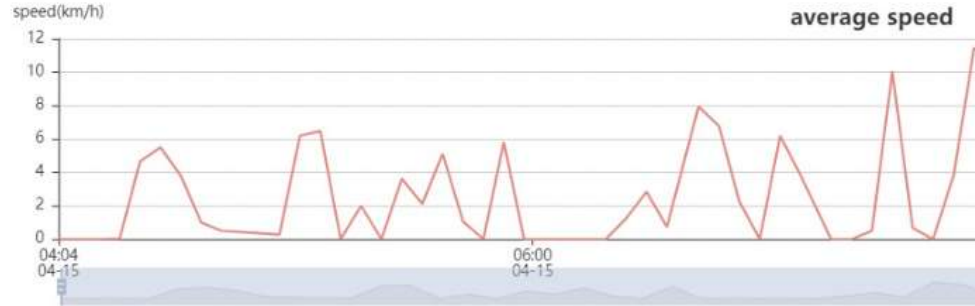
company	name	sex	employee number	card number	dis	driver status	phone number
	OPERATOR1	male	0	1C12DD3C	67698041006548	offline	
		male	0	6814DD3C	65501042170366	offline	
		male	987654321	8516DD3C	1917154001	offline	66
		male	0	B8F6DC3C	2617322010	offline	
		male	0	D1C8DD3C	2710250147	offline	
	OPERATOR2	male	0	D774DD3C	67698041006548	offline	

Driver management



Perormance data

- Total visibility into technical truck data
- Current and omnidirectional data
- Speed + Lifting



Battery management



Uptime boosting

- Voltage
- SOC charge and discharging current

Here we do something unique

With li-ion we change the way we look at batteries

Change the way we look at battery size

Change the way to look at when to charge, where to charge

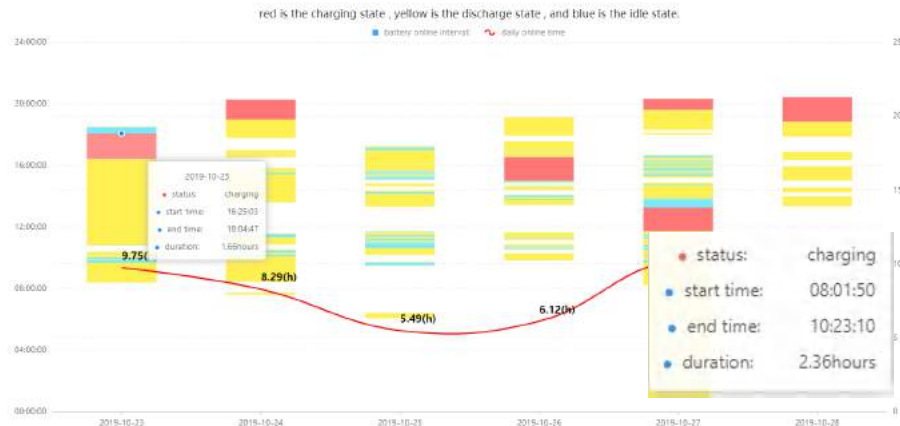
Change in the optimum truck and battery configuration

Change in the design the optimum fleet

Even different design of the warehouse



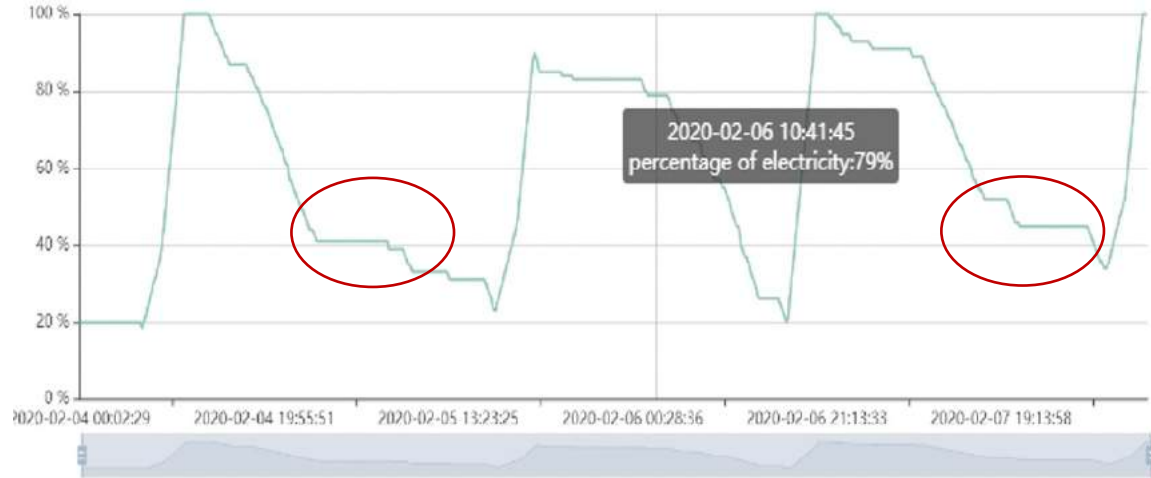
battery:65860042004029 working status data show





Uptime boosting

- Find out the truck behavior during the day
- When can be charged
- Optimise battery capacity, smaller size can do
- Optimise use of li-ion battery
- Longest battery life time

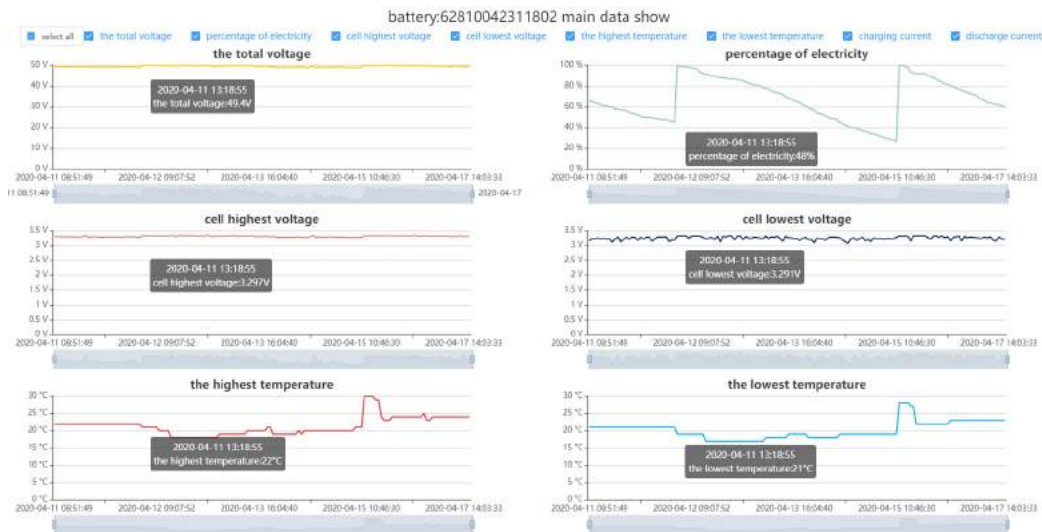


Maintenance



Remote battery diagnose

- State of charge and discharge
- Voltage
- Temperature



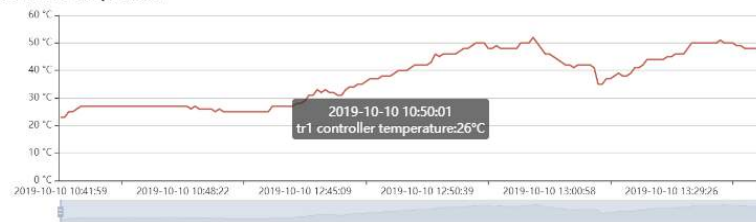


Remote truck diagnose

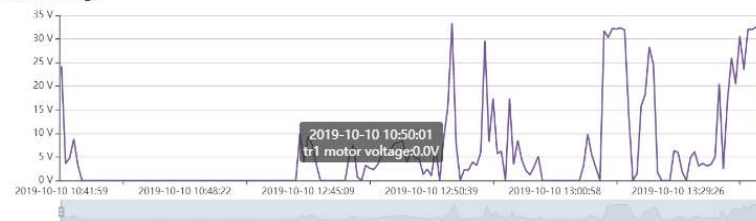
- Truck data: We have all the truck data from the controller
- Temperature data of motors, controller and battery

vehicle:1917154001

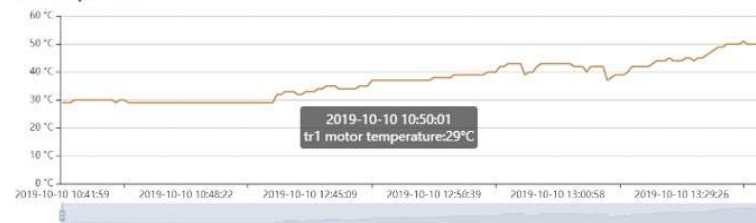
tr1 controller temperature



tr1 motor voltage



tr1 motor temperature



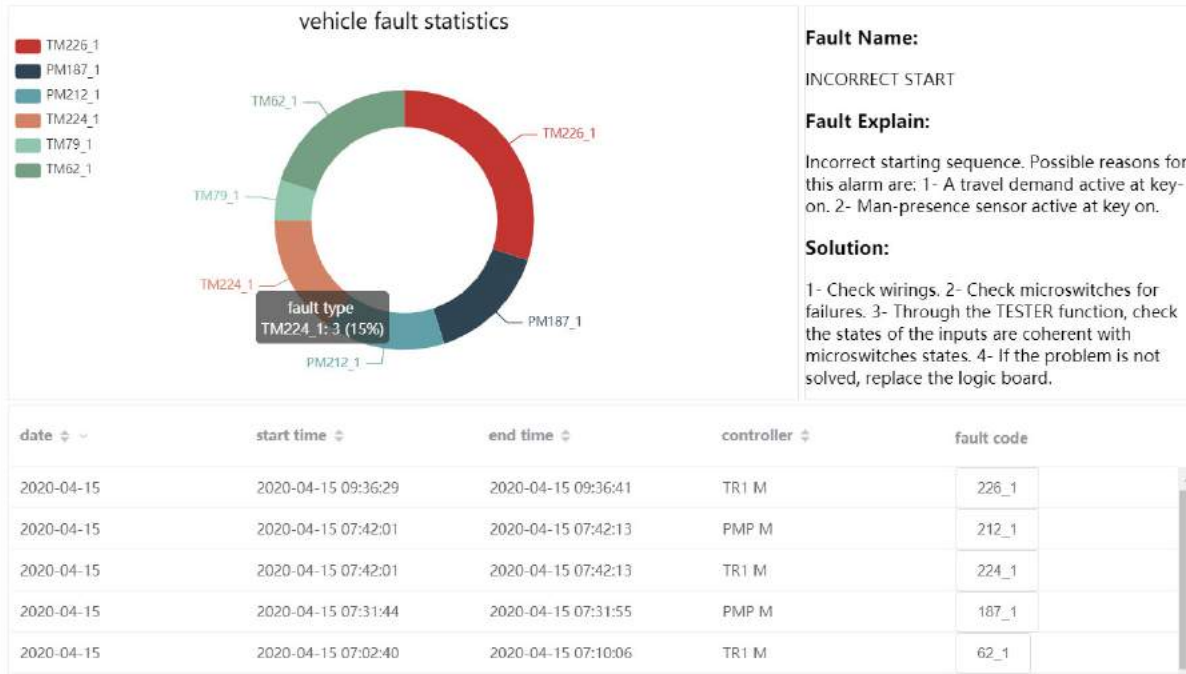
Maintenance



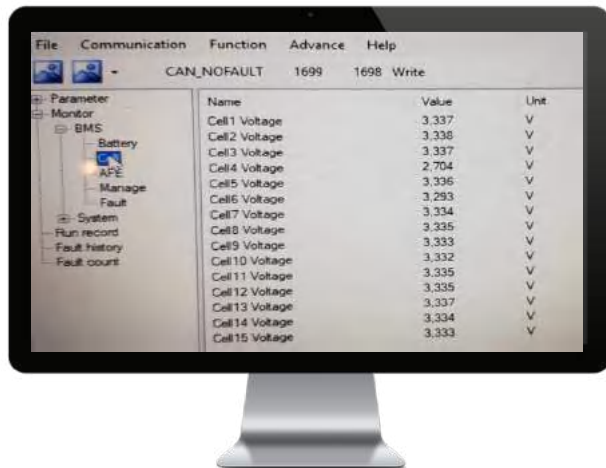
Remote diagnose

- Error code
- Explanation
- Solution

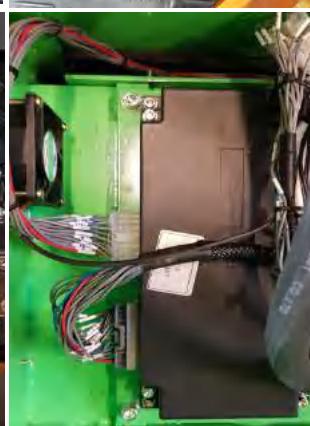
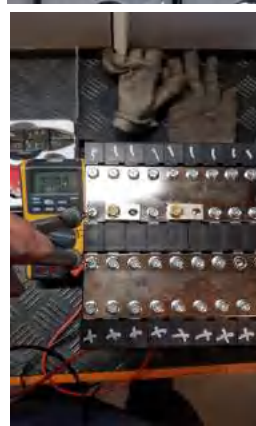
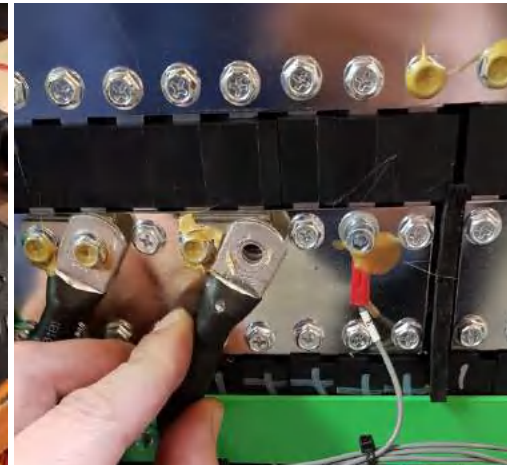
vehicle: 2619180010 fault information display



Maintenance



We can fix it



05

Focus on li-ion fork lift trucks



- Our system is now focussed on our max range li-ion trucks
- Use the system to optimise the use and boost the sale of li-ion batteries
- If you have wishes to the EP system, feel free to provide input
- If you have wishes beyond the scope of the EP system, benefit from the great 3rd party systems on the market

3rd party fleet management systems



Ideal for mixed fleets

- 3rd party suppliers can connect to every truck
- More easy to mix different brands of fork lifts
- The customer has full overview of his whole fleet
- Own interface and direct control
- More reporting features
- More truck features (access, daily checks, impact sensors, indoor tracking, ...)
- For larger accounts, need to break them away from being tied in with their existing supplier. Contact:
(Fleet IQ is worldwide active)

Simon Manasseh
Head of Country

Phone: 01480 259 101

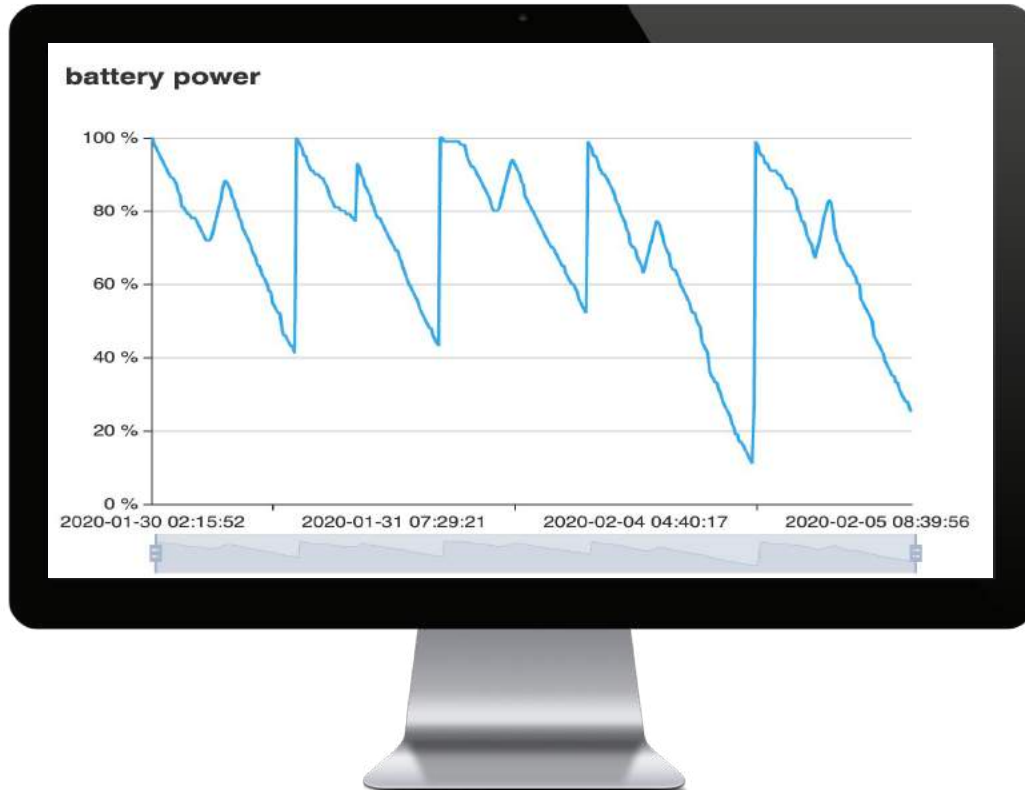
Mobile: 07808 243 771

Email: simon@cliquk.com

COLLECTIVE
INTELLIGENCE
GROUP

*For the driver
For use on any vehicle
Developed by the customer*

EP Li-ion fork lift trucks



EP Li-ion fork lift trucks



- Order your demo and stock trucks now with the Telematics system
- Use the battery analysis to show the customers the benefits of li-ion
- Increase awareness and interest for the EP Equipment thinking

For more information see our sales training sessions on li-ion technology and on the individual trucks. PDF available on request.
For after sales support we offer tools and training.

Investment



Asset Tracking



Uptime Boosting



Battery Monitoring



Predictive Maintenance



Remote Start Stop

- System: Eur 599
- RFID Reader: Eur 170

End user price. For stock trucks same price
For Europe now including 5 years 4G data and online access







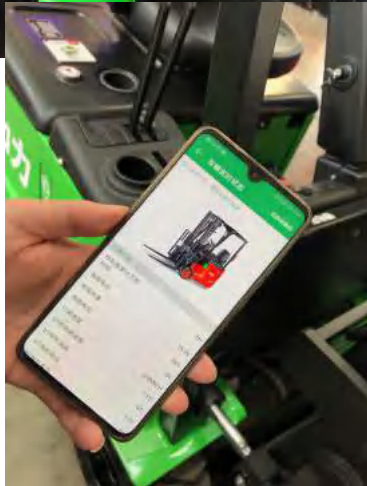
APP

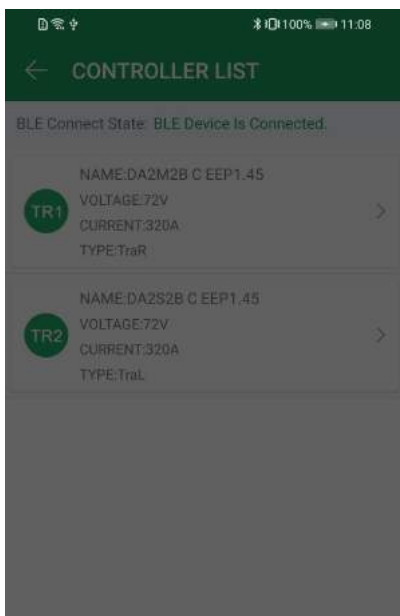


APP



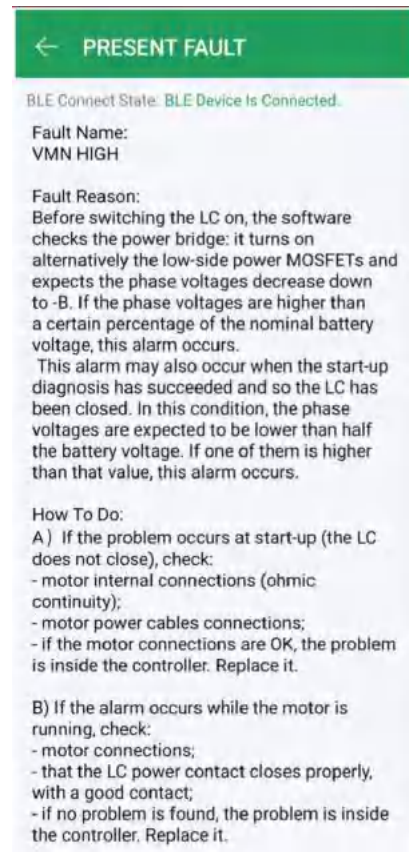
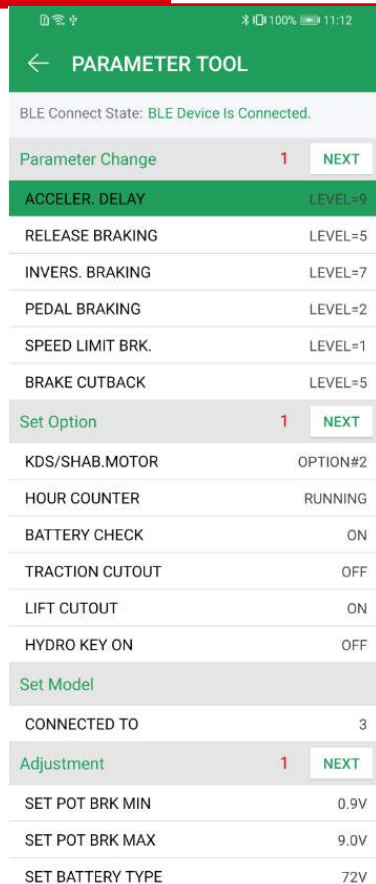
- Replace Zapi handheld or PC Cable
- First test units in Europe from 07.2020





Please Select What You Want To Do With th...

1. Parameter Tool
2. Tester
3. Program VACC
4. Present Fault



Next Training



Topic:

JX Series

The New Generation Order Picker

Friday 1st May 2020

10AM Central European Time

