

## Case Study

### Fischer Panda UK Powers World's First All-Electric Newsgathering Vehicle

When the BBC approached Megahertz to develop a sustainable solution built on a Nissan e-NV200 electric van, the Mastervolt equipment was the perfect choice



#### Benefits of the vehicle

- Fully electric, zero emissions.
- Single charging connector for traction and auxiliary batteries.
- Self-contained implementation for full warranty/support of vehicle manufacturer.
- 200 km range.
- Autonomy 8 hours.
- Transfer charge from traction to auxiliary batteries.
- Technology applicable to alternative electric vehicles.
- User-selectable split charging.
- Lightweight design to meet reduced payload available on all-electric vehicles.

With the UK raising its ambition on climate change by targeting net zero emissions by 2050 and the London Ultra Low Emission Zone (ULEZ) expanding, now is the time for broadcasters to go electric. Businesses running vehicles for newsgathering, sending and receiving media, streaming, surveillance, CCTV or with any other on-board requirements are looking for an environmentally-friendly solution that enables them to meet their responsibilities and avoid higher charges, but also offers the necessary functionality.

The BBC is among today's broadcasters recognising that it is becoming increasingly untenable to take particulate-emitting, diesel-powered broadcast trucks into city centres. With the transition to environmental sustainability underway, the BBC approached global systems integrator **Megahertz Ltd** to develop an all-electric news vehicle to operate in an urban environment. The brief for the power system was 'lightweight, reliable and flexible', so Megahertz selected **Mastervolt** equipment and Mastervolt's UK distributor **Fischer Panda UK** as the perfect partner for collaboration on the system design and installation.

"We chose Mastervolt equipment to provide power for the technical side of the vehicle, due to their intelligent monitoring system and lightweight lithium batteries; their equipment has proven reliability and never let us down."

Steve Burgess, CTO at Megahertz



**Fischer Panda UK**

*Power  
wherever  
you are*™

Providing complete system solutions for the marine, vehicle and defence sectors.

Fischer Panda generators and systems; HRO, Village Marine and Sea Recovery watermakers; Dometic air-conditioning; Mastervolt power electronics; CZone digital switching

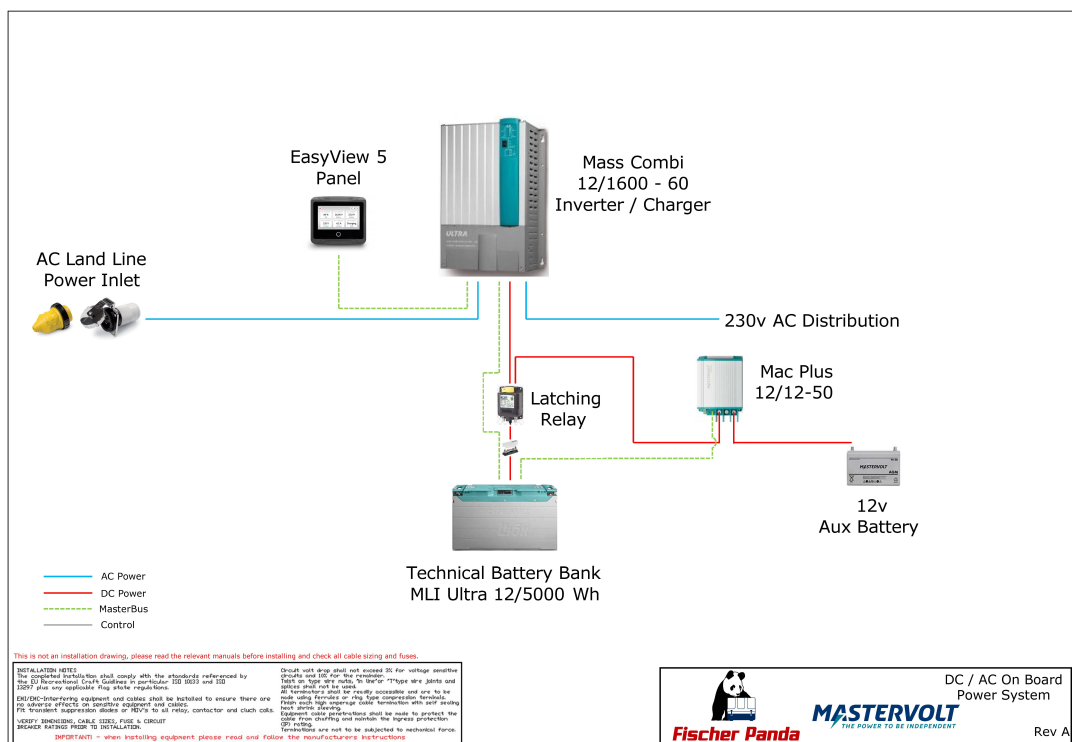
# Case Study

## Fischer Panda UK Powers World's First All-Electric Newsgathering Vehicle

Fischer Panda UK, a leading complete system supplier for the vehicle industry, fulfilled the mission through the CombiMaster to supply the required onboard AC power required. Efficient battery charging if the vehicle is able to be connected to a land line was also offered by adding the new Euro 5/6 Mac Plus DC-DC charger. Additionally, the system can also utilise power from the main vehicle drive battery system into the auxiliary battery powering the onboard system, if extended broadcast time is required. All the main items are linked together on the MasterBus communication platform, so all information is relayed back to a simple, intuitive colour touchscreen control panel for easy monitoring.

Built on a Nissan e-NV200 electric van, the vehicle underwent a successful 6-month trial with BBC News, based in London, aiding the broadcaster to achieve its sustainability goals. The new solution in the EV space is a leading example for broadcasters as they seek answers to upcoming applications in the face of legislation and challenges ahead.

### System drawing



### System components

- **1 x CombiMaster 12/2000-60**  
A powerful 3 step+ battery charger that guarantees maximum battery life and can simultaneously charge two battery banks, combined with a sinus wave inverter with high peak power.
- **1 x EasyView 5**  
Controlling and monitoring a Mastervolt system is easy with this colour touchscreen and multi-language menu. Its handy functionality and compact size, makes the EasyView system monitor ideal for vehicles.
- **1 x MLI Ultra 12/5500**  
Lithium Ion batteries bring two benefits on top of Lithium-iron phosphate cells: a sturdy, waterproof housing and the best Battery Management System (BMS). The BMS ensures optimal use of each individual cell, even during fast charge and discharge, and has integrated battery monitoring to always have the best information on your battery status. The 5500 model is a heavy duty power-house.
- **1 x Mac Plus 12/12-50**  
The Mac Plus DC-DC charger monitors the service battery and compensates the voltage loss.
- **1 x safety relay**  
The installation of an external safety relay is necessary and ensures the safety of your battery system.
- **1 x Class T fuse & fuse holder**



Power wherever you are™

Providing complete system solutions for the marine, vehicle and defence sectors. Fischer Panda generators and systems; HRO, Village Marine and Sea Recovery watermakers; Dometic air-conditioning; Mastervolt power electronics; CZone digital switching