



All-Electric MCI Models

Developed with New Flyer for
Powerful, Reliable Performance

MCI J4500e
MCI D45 CRTe LE

Electric that goes the distance.

At MCI, it's always about experience, reliability and know-how — especially when we forge new frontiers.

Our new all-electric models — the **MCI J4500e CHARGE** and **MCI D45 CRTe LE CHARGE** — will roll off the line in 2020 and 2021 respectively, with the advantage of a full 50 years of electric-propulsion road-tested experience from our partners at New Flyer, builders of the industry leading electric **Xcelsior CHARGE™** brand of low floor transit buses.

That's important because the **MCI CHARGE philosophy** goes beyond superior vehicle design and service, by also encompassing individual needs evaluation and infrastructure recommendations to provide a complete electric strategy for our customers. Ultimately, it's about helping you meet your electric coach service requirements, operating environment and performance goals. Our mission is to make sure that both the coach and infrastructure perform to your community requirements. Whatever your needs, MCI can offer valuable insight to an effective electric vehicle program in partnership with New Flyer's infrastructure expertise.

On the vehicle front, **MCI CHARGE performance** ratings are already setting benchmarks, reaching highway speeds up to 72 mph and reliability targets in initial

prototype test runs.

The MCI J4500e CHARGE and next-generation, all-accessible MCI D45 CRTe LE CHARGE are battery-electric highway coaches engineered for rugged reliability on all roadway surfaces, designed to torque up fast and power through even the steepest road grades.

Electrically driven components, along with MCI's smooth riding suspension, deliver an enticingly quiet, comfortable ride. Interior coach amenities, from seating options to digital conveniences, are sure to make an impression on traditional passengers and a new generation of eco-conscious riders determined to leave their cars in the garage.

MCI CHARGE vehicles are backed by MCI's sales, 24/7 service, parts and technical training infrastructure — the best in the public and private coach transportation industry. We've been the industry innovators for a long time, and we have the resources and commitment to address the types of issues that can accompany evolving technologies. You'll have full MCI CHARGE advice and



support behind you when you need us.

MCI has always been a leader in green transportation. Our early entries in CNG and diesel-electric MCI Commuter Coaches led the industry more than a decade ago. In the last two decades alone, New Flyer has expanded in three categories of zero-emissions buses — battery-electric, trolley electric and hydrogen fuel cell— along with the widest range of charging options, which makes us your best partner in battery-electric.

The MCI J4500e CHARGE

Performance features:

- A high-torque Siemens 3320 ft-lbs electric drive system designed to handle long distance applications and highway speeds
- Energy-dense nickel manganese cobalt (NMC) lithium ion batteries with high-power plug-in charging from empty to full in under 4 hours
- A range of over 200 miles at average road speeds and conditions. Regenerative braking captures kinetic energy to recharge the battery system, making for highly efficient driving in start-stop traffic conditions.



NEW FLYER OF AMERICA



Attractive Modern Styling

Both the J4500e *CHARGE* and D45 CRTe LE *CHARGE* deliver smart styling by BMW Group's Designworks, with an abundance of amenities including:

- Extensive seating and trim choices, parcel racks, and spacious interiors for enhanced passenger comfort
- Wi-Fi connectivity with power outlets at every seat for those who want to work, relax or play



Engineering MCI's Edge

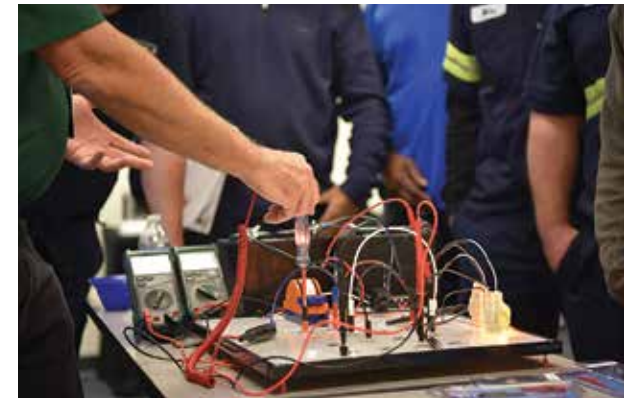
Innovation is ongoing at the VIC, New Flyer's and MCI's Vehicle Innovation Center in Alabama, and the J4500e, D45 CRTe and D45 CRTe LE will continue to benefit, offering product advances and options like the Bendix Fusion Advanced Driver Assistance System, which is moving the needle on the future of autonomous driving.



View our video documenting the MCI J4500e test-phases at mcicoach.com/charge-ahead.

At Your Service

MCI stands behind its battery-electric models with comprehensive support, including in-field expertise, 24/7 roadside assistance, ongoing technical training from the industry's only ASE-accredited MCI Academy training center, and parts support from NFI Parts, the industry's largest parts supplier.



Go Green.
Go Coach.
Go MCI Battery-Electric.

MCI

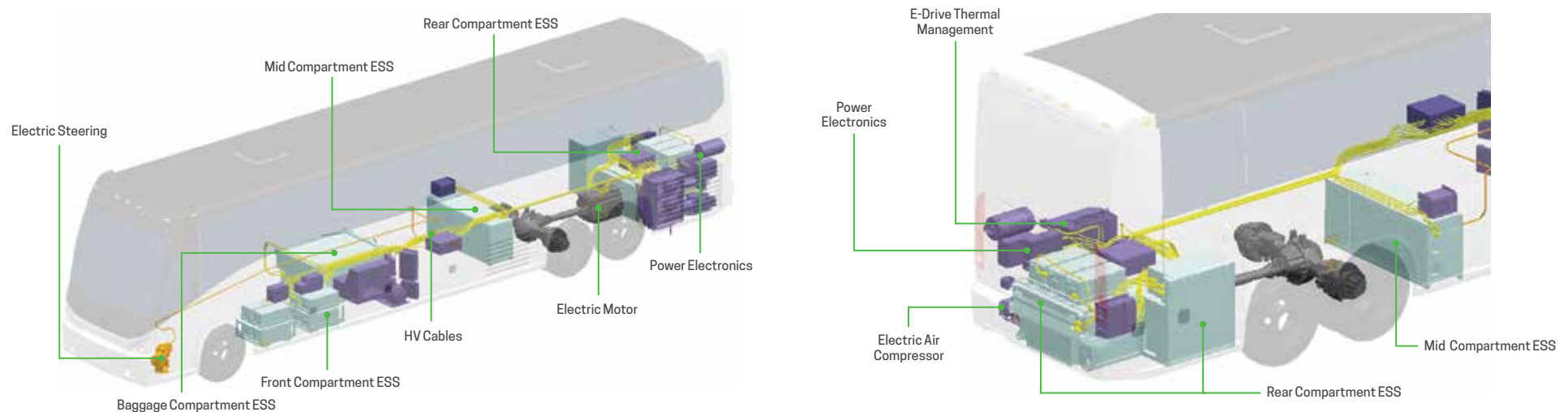
MCI J4500e



The J4500e is the newest version of the industry's longtime best-selling tour and charter coach, known for its spiral entryway and industry-leading legroom.

J4500e Power Systems

Strategically placed batteries and drive system help give MCI's signature luxury coach a solid driving range.



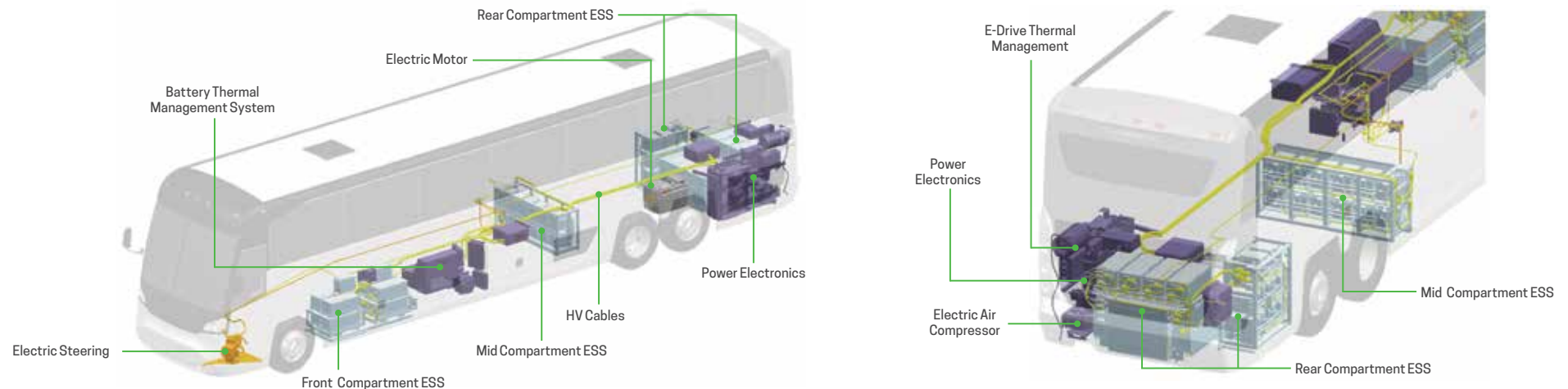
MCI D45 CRTe LE



Newly redesigned to offer unparalleled accessibility to those using mobility aids or traveling with bicycles, the D45 CRTe LE features a mid-coach Low-Entry vestibule with seating that allows faster boarding for all.

D45 CRTe LE power systems

A front bank of batteries complements a drive system that's ready to move people and perceptions about how clean public transportation can be.



MCI Model Specification Highlights*

| | J4500e CHARGE* | D45 CRTe LE CHARGE* | D45 CRTe CHARGE* |
|------------------------------|--|--|--|
| BODY | | | |
| Length | 45.58 ft. - 13.80 m | 45.00 ft. - 13.72 m | 45.00 ft. - 13.72 m |
| Width | 102.00 in - 2.59 m | 102.00 in - 2.59 m | 102.00 in - 2.59 m |
| Roof Height | 140.75 in - 3.58 m | 138.00 in - 3.51 m | 138.00 in - 3.51 m |
| Tire Size | 315/80 R22.5 | 315/80 R22.5 | 315/80 R22.5 |
| Approach Angle | 9.5 | 7.4 | 7.4 |
| Breakover Angle | 8.8 | 8.2 | 8.2 |
| Construction | Semi-Monocoque low-corrosion stainless steel frame | Semi-Monocoque low-corrosion stainless steel frame | Semi-Monocoque low-corrosion stainless steel frame |
| Body Material | Fiberglass composite | Fiberglass composite | Fiberglass composite |
| PROPULSION SYSTEM | | | |
| Motor | Siemens | Siemens | Siemens |
| Rated power | 260 kW | 260 kW | 260 kW |
| Maximum Torque | 3320 ft-lbs | 3320 ft-lbs | 3320 ft-lbs |
| Transmission/Gearbox | 4.7 gear ratio direct drive | 4.7 gear ratio direct drive | 4.7 gear ratio direct drive |
| ENERGY STORAGE SYSTEM | | | |
| Battery Type | 63 Ah NMC lithium ion Ultra-High Energy cell by XALT | 63 Ah NMC lithium ion Ultra-High Energy cell by XALT | In Development |
| Battery Capacity | Up to 544 kWh (estimated) | 389 kWh | Up to 544 kWh (estimated) |
| Usable SoC | 85+% | 85+% | 85+% |
| Battery Recycling Available | Yes | Yes | Yes |
| Battery Leasing Available | In Development | In Development | In Development |
| CHARGING - PLUG-IN | | | |
| Charge Rate (kW) | 150+ | 150+ | 150+ |
| Charge time (5% to 95%) | < 4 hr | < 3 hr | < 4 hr |
| Plug/Adapter/Interface | CCS 1 | CCS 1 | CCS 1 |
| Number of Charge Ports | 1 | 1 | 1 |

| | J4500e CHARGE* | D45 CRTe LE CHARGE* | D45 CRTe CHARGE* |
|--|--|--|--|
| CHARGING - PLUG-IN (CONTINUED) | | | |
| Location(s) of charge ports | Rear curbside | Rear curbside | Rear curbside |
| EVSE Type (AC or DC) | DC | DC | DC |
| EVSE Supply Voltage | 150 - 850 VDC | 150 - 850 VDC | In development |
| EVSE Maximum Charge Current | 200 A | 200 A | In development |
| EVSE Mounting Type | Wall/cabinet | Wall/cabinet | In development |
| EVSE IP Rating | IP 54 | IP 54 | In development |
| EVSE Smart Charging Capabilities | Available | Available | Available |
| EVSE Manufacturers Certified for use | ABB. In development with other J1772-compliant providers | ABB. In development with other J1772-compliant providers | In development |
| EVSE Buy America Compliant Manufacturer | In development | In development | In development |
| PERFORMANCE | | | |
| Nominal Range (miles) | From 230+ miles (370 km) estimated with low HVAC usage to 165 miles (266 km) estimated for heavy usage | 120 miles (195 km) to >170 miles (275 km) (estimated) | 165 miles (266 km) to >230 miles (370 km) (estimated) |
| Top Speed | 72 mph/116 kph | 72 mph/116 kph | 72 mph/116 kph |
| Meets or exceeds APTA gradeability requirement | 15 mph / 24 kph @ 10% grade 40 mph / 64 kph @ 2.5% grade | 15 mph / 24 kph @ 10% grade 40 mph / 64 kph @ 2.5% grade | 15 mph / 24 kph @ 10% grade 40 mph / 64 kph @ 2.5% grade |
| WEIGHT | | | |
| Curb weight (lbs) | ~45,000 lbs - 20,500 kg (estimated) | 42,000 lbs - 19,000 kg (estimated) | ~45,000 lbs - 20,500 kg (estimated) |
| Gross Vehicle Weight Rating | 54,000 lbs - 24,494 kg | 54,000 lbs - 24,494 kg | 54,000 lbs - 24,494 kg |
| Gross Axle Weight Rating - Front | 17,000 lbs - 7,711 kg | 17,000 lbs - 7,711 kg | 17,000 lbs - 7,711 kg |
| Gross Axle Weight Rating - Rear | Drive: 24,000 lbs - 10,886 kg Tag: 16,500 lbs - 7,484 kg | Drive: 24,000 lbs - 10,886 kg Tag: 16,500 lbs - 7,484 kg | Drive: 24,000 lbs - 10,886 kg Tag: 16,500 lbs - 7,484 kg |
| PASSENGER CAPACITY | | | |
| Seats | 56 | 54 | 56 |
| WARRANTY | | | |
| Vehicle | 30-month limited warranty, unlimited mileage | 24-month limited warranty including 12-year structural warranty, unlimited mileage | 24-month limited warranty including 12-year structural warranty, unlimited mileage |
| Batteries | Currently being finalized | Currently being finalized | Currently being finalized |
| DEVELOPMENT TIMELINE | | | |
| Prototype Built | 2017-2018 | 2018-2019 | TBD |
| Testing and Demonstration | 2018-2019 | 2020 | TBD |
| Commercially Available | 2020 | 2021 | 2021 |

*As planned December 2019. Specifications are subject to change without notice.



mcicoach.com



View all MCI videos

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