



MCI® J4500 and D45 CRT LE CHARGE

Zero-emission battery-electric coaches.



The J4500 CHARGE and the next-generation all-accessible D45 CRT LE CHARGE battery-electric highway coaches are designed to smoothly and instantaneously accelerate and power through even the steepest road grades.

With electrically driven components and MCI's smooth riding suspension, passengers will experience a quiet, comfortable ride.

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Models.

Two platforms to choose from to meet each customer's needs.

Both models share the same electric platform that is supported by New Flyer's 50 years of low and zero-emission propulsion experience and New Flyer Infrastructure Solutions™, a service dedicated to providing safe, sustainable, and reliable charging and mobility solutions.



J4500 CHARGE™

Brings all-electric capability to the industry's best-seller in the tour, charter and employee shuttle markets.



D45 CRT LE CHARGE™

Features a revolutionary patented low-entry (LE) vestibule with a seating area and ramp that significantly improves dwell times as well as the boarding and ride experience for passengers with mobility challenges.

The leader in green transportation.

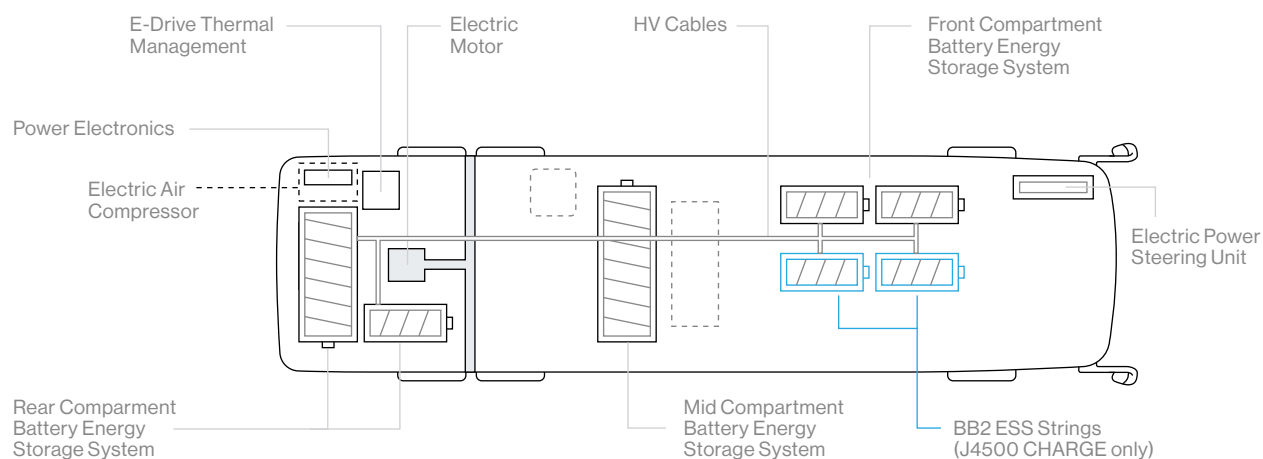
In the last two decades alone, New Flyer has expanded in three categories of zero-emission buses — battery-electric, trolley electric and hydrogen fuel cell-electric — along with the widest range of charging options.

As part of the NFI Group, MCI has leveraged this impressive history of electric-driven innovation, technology and expertise into our electric coach product line, which makes us your best partner in battery-electric propulsion.





How it works.


The J4500 CHARGE and D45 CRT LE CHARGE both use an electric motor powered by energy stored in rechargeable batteries.




Benefits

 A 3320 ft-lbs high-torque Siemens 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.

 J4500 CHARGE range: 230+ miles. D45 CRT LE CHARGE range: 170+ miles.

 Regenerative braking, capturing kinetic energy to recharge the battery system, making for highly efficient driving in start-stop traffic conditions.



Charging.

MCI coaches are interoperable with J1772 charging equipment that supports all heavy-duty electric vehicles. You can customize your Energy Storage Systems (ESS) and charging solutions so you can develop the right ESS and infrastructure solution for your needs.

MCI J4500 CHARGE and D45 CRT LE CHARGE are interoperable with charging systems available from:

SIEMENS

ABB

-chargepoint+

helioX

Plug-In Charging

Plug-in chargers can be used for overnight, mid-day and for on-route charging.



The J4500 CHARGE has a range of up to 230+ miles (544 kWh)* on a single charge, but with on-route charging, range is unlimited.

*Range is dependent on duty cycle.

Coach	ESS(kWh)	Range	Charge Time
J4500	544	240	< 4 hrs
D45 CRT LE	389	170	< 3 hrs

Why MCI Connect™?

MCI Connect™ Mobile App Analytics can be retrieved
24/7 via laptop or mobile device.

MCI's new diagnostic telematics system comes standard on all electric coaches. It measures key performance metrics including distance and time on route, auxiliary systems and battery while operating in diverse environments. MCI Connect™ is a customizable performance dashboard that provides smart analytic reporting to expand insight and intelligence for managing your MCI CHARGE coaches.

Flexible

Easy to deploy, compatible with multiple vehicle platforms and requires minimal IT infrastructure.

Mobile App

Fleet information at your fingertips with the easy-to-use mobile application for iOS and Android.

Builds Strong Teams

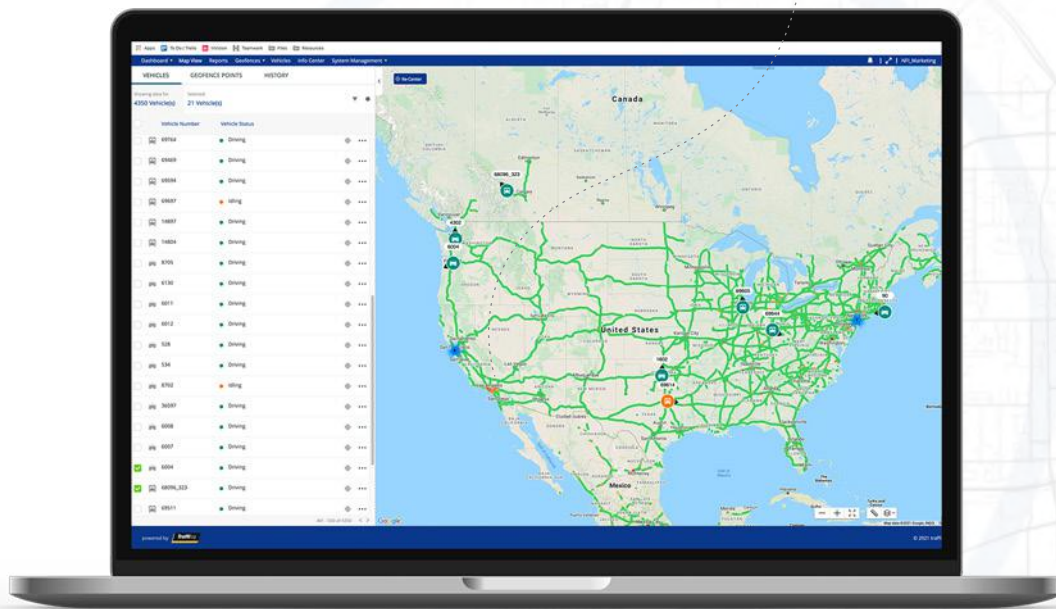
Improve your training strategies with insightful reports that show opportunities for improved driver performance.

Secure

Protected and monitored by state-of-the-art cyber security technology.

Always Up to Date

Each bus has the latest software versions with secure over-the-air updates.



Saves Energy

MCI Connect™ finds energy efficiencies by identifying smart routes.



Solves Problems

Our built-in on-board smart technology communicates real-time GPS and analytic data to ensure optimal coach performance and safety.



Saves Time

MCI Connect™ gives you smarter oversight of your whole operation, ultimately improving coach uptime.

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CONNECT 360™

Connect 360™, operated by MCI Connect™, is included on every new zero-emission CHARGE coach and tracks battery-electric bus performance using secure technology.

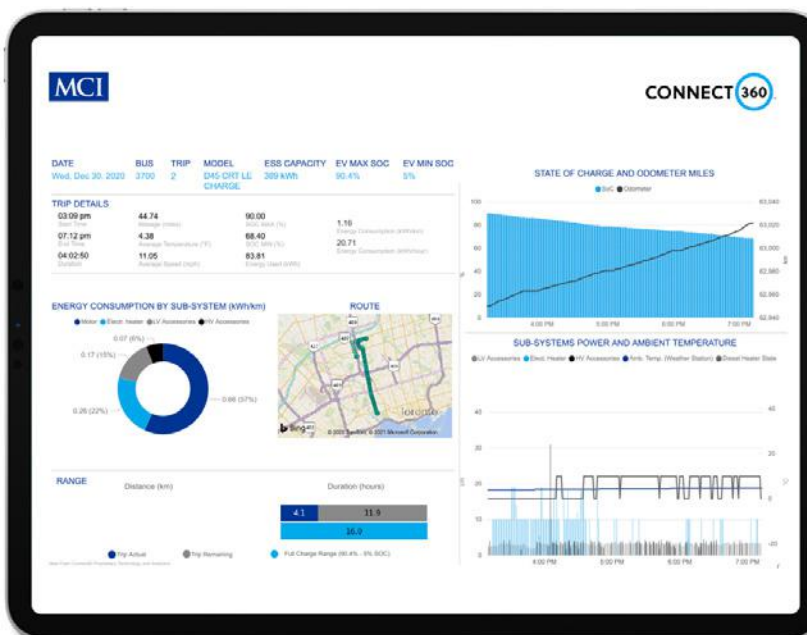
Connect 360™ is a customizable performance dashboard that provides smart analytic reporting to expand insight and intelligence for managing your CHARGE coaches' battery-electric buses.

It provides an easy-to-read visual report for battery-electric bus and operator performance, allowing you to better understand this new technology to maximize efficiency, reliability and sustainability, and seamlessly transition to a high-performing zero-emission fleet.

Key analytics.

Real-time performance statistics are displayed in easy-to-read graphs and measurements. This helps you optimize your zero-emission coach fleet – from coach drivers and passengers, to maintenance and scheduling teams.

- ✓ Battery state-of-charge
- ✓ GPS location and average speeds
- ✓ HVAC energy consumption per mile
- ✓ Regenerative braking
- ✓ Range achieved and remaining
- ✓ Energy consumption (kWh/mile)



Regenerative
braking



Range estimation
values



HVAC
consumption/mile

Benefits.



Additional range capability with improved driver performance.



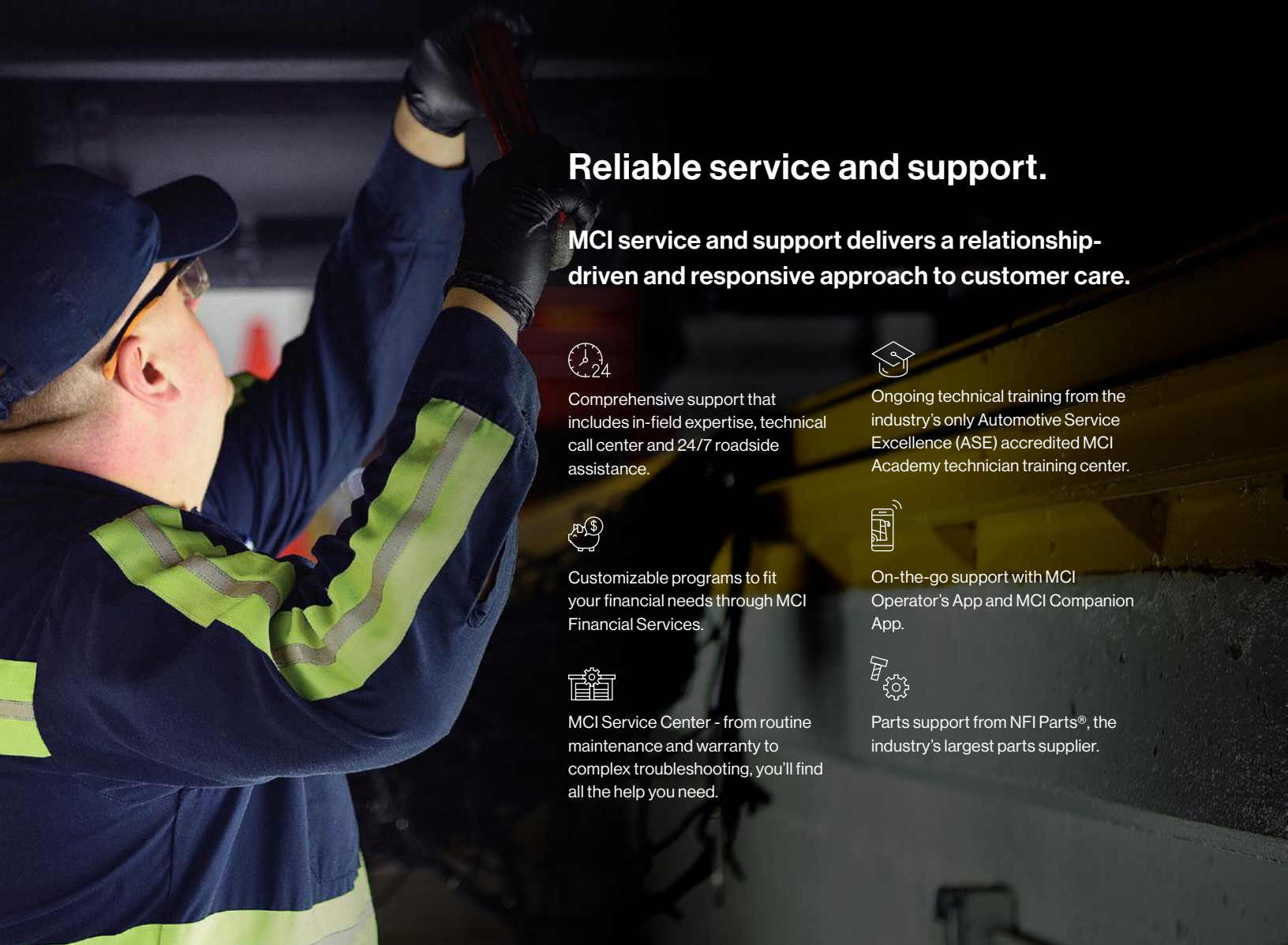
Decision-making information to **optimize charging strategies**.



Intelligence on how to **preserve battery energy** throughout the day.



Reduced operating cost and maximum fleet utilization.



Reliable service and support.

MCI service and support delivers a relationship-driven and responsive approach to customer care.



Comprehensive support that includes in-field expertise, technical call center and 24/7 roadside assistance.



Ongoing technical training from the industry's only Automotive Service Excellence (ASE) accredited MCI Academy technician training center.



Customizable programs to fit your financial needs through MCI Financial Services.



On-the-go support with MCI Operator's App and MCI Companion App.



MCI Service Center - from routine maintenance and warranty to complex troubleshooting, you'll find all the help you need.



Parts support from NFI Parts®, the industry's largest parts supplier.

NEW FLYER[®] / INFRASTRUCTURE SOLUTIONS[™]

New Flyer Infrastructure Solutions[™] is a service dedicated to providing safe, reliable, smart and sustainable charging and mobility solutions. Learn what Infrastructure Solutions can do for you at newflyer.com/infrastructuresolutions

What our Infrastructure Solutions team provides.



Supports mobility projects from start to finish.



Provides infrastructure planning and development.



Focuses on energy management optimization.



Provides cohesive transition of coach fleets to zero-emission electric technology.

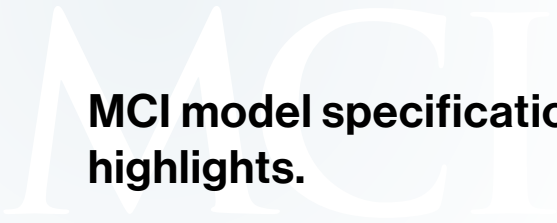
High tech safety systems.

- ✓ Patented Digital Wheel End Sensing (DWES) systems that help measure wheel end temperatures that monitor individual wheel ends for potential issues.
- ✓ Optional next-generation 360° Camera that provides a bird's-eye view around the entire coach to significantly aid vision while maneuvering at low speeds.
- ✓ Collision mitigation technology including stationary object detection and lane departure warnings.

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MCI model specification highlights.

	J4500 CHARGE		D45 CRT LE CHARGE	
Body				
Length	45.58’	13.80 m	45.83’	13.72 m
Width	102.0 ”	2.59 m	102.00”	2.59 m
Roof Height	140.75”	3.58 m	138.60”	3.51 m
Tire Size	315/80 R22.5		315/80 R22.5	
Approach Angle	9.5°		8.2°	
Breakover Angle	8.8°		8.6°	
Construction	Semi-Monocoque low-corrosion stainless steel frame		Semi-Monocoque low-corrosion stainless steel frame	
Body Material	Fiberglass composite		Fiberglass composite	
Propulsion System				
Motor	Siemens		Siemens	
Rated Power	260 kW		260 kW	
Maximum Torque	3320 ft-lbs		3320 ft-lbs	
Transmission/Gearbox	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	
Battery Capacity	544 kWh		389 kWh	
Usable SoC	85+%		85+%	
Battery Recycling Available	Yes		Yes	
Charging Plug-In				
Charge Rate (kW)	150+		150+	
Charge Time (5% to 95%)	< 4 hrs		< 3 hrs	
Plug / Adapter / Interface	CCS 1		CCS 1	
Number of Charge Ports	1		1	
Location(s) of Charge Ports	Rear curbside		Rear curbside	
EVSE Type (AC or DC)	DC		DC	
EVSE Supply Voltage	150 - 850 VDC		150 - 850 VDC	
EVSE Maximum Charge Current	200 A		200 A	
EVSE Mounting Type	Wall/cabinet		Wall/cabinet	
EVSE IP Rating	IP 54		IP 54	
EVSE Smart Charging Capabilities	Available		Available	
EVSE Manufacturers Certified for Use	All SAE J1772-compliant manufacturers		All SAE J1772-compliant manufacturers	
EVSE Buy America Compliant Manufacturer	No		Yes	



MCI model specification highlights.

Performance

Nominal Range (estimated low to heavy usage)

Top Speed

Meets or exceeds APTA gradeability requirement

Weight

Curb Weight (estimated)

Gross Vehicle Weight Rating

Gross Axle Weight Rating – Front

Gross Axle Weight Rating – Rear

Passenger Capacity

Warranty

Vehicle

J4500 CHARGE

163 - 233 miles 262 - 375 km

72 mph 116 kph

10% Grade:
15 mph 24 kph

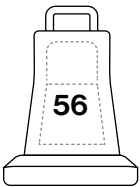
2.5% Grade:
40mph 64 kph

~45,000 lbs 20,500 kg

54,000 lbs 24,494 kg

17,000 lbs 7,711 kg

Drive: 24,000 lbs 10,886 kg
Tag: 16,500 lbs 7,484 kg



24-month limited warranty including
12-year structural warranty, unlimited
mileage

D45 CRT LE CHARGE

117 - 167 miles 188 - 269 km

72 mph 116 kph

10% Grade:
15 mph 24 kph

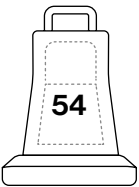
2.5% Grade:
40mph 64 kph

42,000 lbs 19,000 kg

54,000 lbs 24,494 kg

17,000 lbs 7,711 kg

Drive: 24,000 lbs 10,886 kg
Tag: 16,500 lbs 7,484 kg



24-month limited warranty including
12-year structural warranty, unlimited
mileage

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MCIcoach.com/electric

