

In late August Nancy and I had a chance to get a good look at the new 2013 MCI J4500 and test drive the first one off the regular production line. We were both impressed, as probably should be expected from a coach that has outsold other models for several years. We were also impressed with the number of improvements for 2013 that ranged from obvious design and system enhancements to less noticeable items that improve durability or made maintaining the coach easier.

### Enter the Renaissance®

The story behind the J4500 is interesting and dates back to the introduction of the new Renaissance in 1997. MCI introduced their new 45-foot 102DL3 in 1992 and the companion 40-foot 102D3 in 1994. They effectively moved MCI's traditional product line up to the 45-foot length and the new Series 60 engine. Although there had been a huge number of design and system improvements over the years, the "D" models represented the latest version of the durable and reliable MCI product line that dates back to the introduction of the MC-1 in 1958. Then, as now, the MCI "D" product line continues to use a modern version of platform integral construction that was originally developed by Harry Zoltok in MCI's early years.

While the "D" models did very well with reliability and durability, there were MCI operators who were interested in a coach that looked less like a scheduled route bus and more appropriate for high class charters and tours. Instead of updating an existing model, the MCI engineers started from a clean slate and spent three years developing an entirely new model for the high class charter and tour market. Since the new coach was not only technologically advanced but also had an attractive new appearance, MCI called it their Renaissance® model.

I had the opportunity of visiting with the engineers while this new model was still being developed in Winnipeg. I was fascinated by the fact that they decided to use high quality web frame construction instead of platform integral because it was more appropriate for charter and tour coaches. The styling was very attractive and the technology impressive. Noteworthy was the spiral staircase that gave the coach entrance a very distinctive appearance.

Regular production of the Renaissance started in September of 1997. Since it was the next MCI model following the "D," it soon became known as the 102EL3. The model number changed to E4500 in 2000. While the "E" model never challenged the "D" models in sales, it did give MCI a new image by offering a modern, high-tech and attractive tour coach for MCI operators who wanted that kind of vehicle in their fleet.

In retrospect, the obvious request by coach owners should have been expected.

# A Look At and Test Driving the New 2013 J4500



MCI's J4500 for 2013 represents a combination of the old and the new. Since 2004, the J4500 has been the most popular coach model on the market. These changes for 2013 give the coach a more modern appearance as well as several operating, safety and durability improvements.

They began asking for another model that would offer the styling and attractiveness of the "E" with the reliability and durability of the "D." Or, as one operator put it, "An 'E' model with fewer bells and whistles and more bread and butter." To their credit, the MCI engineers were up to the challenge and the J4500 was born.

### Introducing the J4500

We need to pause for a moment to talk about model numbers. Following the "E" model, MCI introduced their 35-foot "F" model. Next came a special model geared to scheduled route service appropriately named the "G" since the major buyer was Greyhound. The letter "H" was skipped because it was already in use by another Canadian coachbuilder. Likewise, the letter "I" was set aside because it could easily be mistaken for the number one. Hence, this new model emerged as the J4500.

The J4500 made its debut at the UMA show in Atlantic City in February of 2001. To say that it was a hit would be an understatement. It simply was the right product for the market. While the top-of-the line E4500 offered disk brakes and a steerable tag axle, the new J4500 initially offered drum brakes and a fixed tag axle (although the steerable tag axle later became optional). The J4500 inherited the spiral staircase from the E4500 as well as its attractive styling.

It is noteworthy that the first company to take delivery of new J4500 coaches was Peter Pan Bus Lines – very obviously known for being heavily involved in scheduled service. I was in Springfield, Massachusetts for a Bus Bash when Peter Pan took delivery of these first J4500 coaches and, like everyone else, was very impressed.



## Moving Up to Number One

Sales of the J4500 went up slowly but steadily. Operators were obviously watching to see if MCI had indeed mated the attractiveness of the "E" model with the durability of the "D" model. As Peter Pan reordered J4500 coaches and other operators jumped on the bandwagon, it became obvious that MCI had a winner on their hands. By 2002, the J4500 surpassed the E4500 in sales. In 2004, the J4500 became the most popular intercity coach on the market – even surpassing the traditional "D" model – a position it has retained ever since.

Holding down the number one slot in sales for more than eight years is a remarkable achievement. Over this period the J4500 received several improvements, enhancements and options. Much of this elevated the J4500 out of the "bread and butter" category and up to a higher level as operators began using the J4500 in a wide range of services from scheduled routes to charters to luxury tours.

Standard safety features included Electronic Stability Control, SmartWave tire pressure monitoring and digital wheel end sensing. Like the "E" model, the J4500 later became available with an optional steerable tag axle. A multifunctional steering wheel incorpo-

rated some controls to improve safety by eliminating the need for the driver to reach for a switch. Included in the steering wheel was the new "yo" light controls to acknowledge passing vehicles. More recently, the J4500 was improved with a wide ride suspension supported by Koni frequency selective dampening shock absorbers. This resulted in impressive handling and suspension.

## J4500 2013 Improvements

This recent round of improvements is impressive from a few different standpoints. One is that both customers and MCI staff were given an opportunity to provide suggestions. A simple question like "What would you like to see improved?" elicited several different answers from as many different coach operators.

A second point is that MCI staff and outside experts tested these improvements before they were approved. Systems and components went through a sophisticated temperature test that ranged from freezing arctic temperatures to the heat of Death Valley. They also used a device they called their "grav-elometer" that literally flung stones to test the durability of headlights as well as paint adhesion on bumpers and coach panels.

In addition, there was a test of corrosion resistance. With a stainless steel frame structure on MCI coaches, they have had an enviable reputation for decades of being corrosion free where it counted. Some operators suggested that eliminating corrosion on other components was a priority. This led to interesting improvements, some of which are important but virtually hidden.

In addition to all of the above, the 2013 J4500 improvement program required that

Peter Pan Bus Lines was the first company to take delivery of the new J4500 after it was introduced in 2001. They will also be the first company to take delivery of the new 2013 J4500. This shows that versatile J4500 is at home with either scheduled route service or higher quality tours and charters. ROBERT REDDEN, REDDEN ARCHIVES.



This photo compares the traditional J4500 on the left with the new 2013 J4500 on the right. Obvious differences include the new headlight and turn signal arrangement. Note the change in marker lights above the windshield. Also obvious is the new extrusion at the roofline that gives the new J4500 a taller appearance.





the resulting new design "Must have presence and curb appeal." There was also an overall review to ensure that safety and reliability were considered and either maintained or enhanced when updating this industry's top selling coach. BMW Group Designworks USA helped with the new design.

There were several major areas with improvements that included exterior lighting, bumpers, body and multiplex system. Other improvements were less obvious and a few were almost hidden. For example, the tag axle unload valves were upgraded and the main power rotary disconnect switch was improved. The HVAC system went to brushless motors while the compressor belt roller in the engine compartment was improved to reduce vibration. Continuing with the brushless alternator improvement, a brushless alternator is used on the electrical system while the evaporator and condenser motors are now brushless to provide an expected 10 years of maintenance free operation.

Coolant pipes in the engine compartment are now stainless steel to prevent corrosion. What is probably the most hidden improvement on the 2013 J4500 is a headlight assembly bracket that is now stainless steel to prevent corrosion and improve serviceability in this area.

#### Exterior Improvements

There have been several exterior improvements to the J4500 for 2013 that enhance its appearance. Approaching from the front, the first thing that will catch your eye is the line of small LED lights between the headlights and the windshield that serve as both day-

This close-up view shows the new lights at the front of the coach. That string of LED lights between the headlights and the windshield serves as both daytime running lights and turn signals.



Brent Maitland from MCI shows the new J4500 at a special presentation in Louisville. This photo does a good job of showing the new lights. Note the new headlights and turn signal lights at the front, the corner light immediately behind the front tire and the new marker lights above the windshield. MCI.

time running lights (DRL) and turn signals. In addition to making the front of the coach more attractive, they obviously improve safety by being very obvious as turn signals.

The headlights have also been improved and are now LED instead of halogen. The low beam light is 25 percent brighter than the previous halogen light and the high beam is 10 percent brighter. Both have coated

polycarbonate lenses to resist damage. Maintenance has been simplified because the lights can now be serviced from outside the coach. Your service people will also appreciate the new stainless steel brackets that reduce corrosion problems in this area.

The marker and clearance lights above the windshield have also been improved. They are located higher on the coach for

Here we look inside the new J4500 energy absorbing bumper. The energy absorbing channels will compress when pushed at low speeds and then will bounce back to their original shape.



Several of the improvements on the new J4500 are somewhat hidden. For example, coolant pipes in the engine compartment are now stainless steel to prevent corrosion and increase durability.





Although the new J4500 will still fit through a 12-foot door, it gives an impression of being taller because of this extrusion above the windows. It blends in with the coach style lines at both the front and the rear.



At the rear of the coach we can see how the extrusion at the top comes down the back into two "shoulder blades." Lights are higher and the rear cap is now cleaner and more useful for advertising and branding.

increased safety and have been simplified for low maintenance.

Particularly noteworthy are the energy absorbing bumpers at both the front and rear of the coach. They are built with energy absorbing channels that compress when pushed and will bounce back. They are more durable, and also more resistant to stone chips. Behind the front bumper, in the spare tire compartment, is a roller. It eases the work of getting the spare tire in or out of the coach.

If you move around and look at the side of the coach, your first impression will be that the new J4500 is taller. It only looks taller but will still get through a 12-foot door. The reason for the illusion of height is a new extrusion above the windows that is nicely blended into the style lines at front and rear.

A couple of other items will be visible on the side of the coach. There is an updated LED low speed cornering light immediately behind the front tire that lights when cornering and can come in handy for passen-

ger loading or maneuvering in tight quarters at night. Its counterpart at the rear, above and between the two rear wheels, is an optional LED docking light.

Another noteworthy improvement on the side of the new J4500 is LED lighting in the luggage bays. The rotary main battery switch in the battery compartment has been simplified and made more reliable. If you poke your head under the coach by the rear wheels, you will see the "wide ride" suspension, which is not new for 2013 but a major feature of the coach.

Moving around to the rear of the coach, you will find new styling and a new rear cap. Those extrusions from the roof swing down into ridges on both sides of the new rear cap that the MCI people call "shoulder blades." Taillights are mounted higher for greater safety. These LED tail and brake lights are four-inch rounds, are set into an attractive bezel and continue to be easily replaceable.

The new rear cap no longer has vents, which gives you a good-sized area for your

advertising or branding. As in the front, the rear bumper has channels that absorb energy and bounce back. A couple minor changes at the rear give the new J4500 an improved departure angle for roadway clearance.

### Interior Improvements

Moving into the coach, we can see several improvements for the driver. Immediately noticeable is the driver's seat with three-point seat belts and the cockpit area with two more inches of leg room. MCI claims that this is the industry's highest driver seating position; thus providing excellent safety and visibility. The multi-function steering wheel includes some popular controls, including a "yo" light control to signal passing vehicles, so you do not have to reach for the dash.

The dash layout uses backlit switches. Note that it is easier to service because it has less wiring with today's modern technology. Included in the dash instruments are a wide range of safety features including SmartWave tire pressure monitoring and an enhanced automated pre-trip walk-around test check.

Instead of the old sideways left hand panel, the J4500 has this new left hand panel that faces the driver to make operations both easier and safer.



The new J4500 cockpit is a pleasure with two extra inches of space, the wrap-around dash panel and controls on the steering wheel.







A quick look into the electrical compartment beneath the driver's window shows the simplicity of the new ACTIA multiplex system.



A welcome improvement is the new roller at the front of the spare tire compartment that makes moving the spare tire much easier.

Two particular improvements were noteworthy. The left hand panel, that for years was located below the driver's window, and required a driver to turn left to use, is now angled towards the driver and requires less head and eye movement away from the road to deal with. Also welcome is the new vent above the driver's head that is tied in with the air distribution system in the parcel rack.

Passengers will find that the impressive spiral entryway remains but is now optionally available with attractive wood grain trim. Wood grain finishing is also available on the enclosed parcel racks that include continuous handrails to assist passengers when moving through the coach.

Windows are laminated safety glass with a dual latch emergency release mechanism. 110-volt outlets are available and a 12-volt

power supply is now provided in the parcel rack for easier Wi-Fi installation. Optionally available is an integrated side view camera in the side rearview mirrors for safety.

### Multiplex

A major step forward on the J4500 for 2013 is the new ACTIA Multiplex System. While no one wants to learn a new system, it is a fact of life that multiplex electrical systems are currently in a technology explosion. By the time you install one system, another one becomes available that is better, simpler and easier to work on.

MCI selected the ACTIA Multiplex Electrical System for several reasons. It is the new state-of-the-art with a dual core processor, and is simpler with fewer modules and less wiring. It has proven to be rugged and reliable in military applications that are typ-

ically more critical than bus applications. It is noteworthy that more than five billion modules are currently in service in buses, trucks, mining and military applications.

This ACTIA system is also being used on the MCI "D" model coaches. It features a touch screen LCD device that will access the diagnostic features from one location.

### Test Driving the new 2013 J4500

While there was a hand-built prototype of the new 2013 J4500, I was given the opportunity of test-driving the first production 2013 J4500 to come off the line at Winnipeg. I should note that while the Cummins 425 horsepower ISX engine is standard, you have the option to spec the Detroit Diesel DD13 410 horsepower engine. The Allison B500 transmission is standard, but you can also get the ZF AS Tronic transmission. MCI says that you can get some impressive fuel economy with the right combination of engine, transmission and axle ratio but we did not do enough driving to test that.

I can tell you that I was impressed by the appearance improvements on the coach, particularly the attractive row of running/turn signal lights above the headlights and the new "tall" appearance of the side. While I admit that it may not be the first choice of every bus operator, I also liked the wood grain steps and trim in the spiral entranceway, the wood grain flooring through the coach and the wood grain treatment on the parcel rack doors.

Settling into the driver's seat was easy and I immediately noticed the extra two inches of space – an appropriate concession for those of us senior drivers who carry a little extra weight around our belt line. I liked the panel and particularly the wide range of safety technology. The SmartWave Tire Pressure Monitoring System is standard equipment. I have the same system on my personal coach and would not want to be without it. Another feature

Your editor had the opportunity to test drive the first production 2013 J4500. The wide ride suspension on the J4500 made the ride very stable and the dash was easy to work with. Noteworthy features were the extra two inches of space and the overhead air vent for the driver.







A much-appreciated feature on the new J4500 is this air vent located above the driver's seat that provides welcome air flow while driving.

that impressed me is the new digital wheel end shutdown programming that lets you know about an overheated hub or wheel and will shut you down if you fail to take action.

Two particular items deserve special mention. Those of us who have been driving buses for a long time will tell about the older models that had left side panels with toggle switches. I would put plastic switch extenders on some of the toggles so I could find the headlights and marker light switches by feel and not have to take my eyes off the road, particularly at night. In more recent years the light switchers were moved into better locations and the left side panel improved. With the new J4500, that left side panel now faces the driver from the left front corner of the coach in a style that the engineers might call "ergonomically enhanced."



Noteworthy improvements at the back include the new rear light arrangement and stainless steel coolant pipes in the engine compartment. Both the Cummins and the Detroit Diesel engine are available.

There is even room for a coffee cup up in the corner.

The other item that really caught my attention was the new vent above the driver's seat tied into the air system in the parcel rack. Unless you drive buses a lot, you do not appreciate the fact that the front end of a bus, with our huge windshields, is literally a hot house because of sunshine. It was absolutely delightful to have this ventilation coming down from above to cool off the driver and driver's area.

Since I had previously driven J4500 coaches with the new wide ride suspension, I knew what to expect. The engineers will tell you that the wider the suspension, the more stable the ride. As we moved from 96-inch wide coaches to 102-inch wide coaches, the improved ride was obvious. Now mov-

ing up to the Wide Ride J4500 is another obvious improvement.

The J4500 simply hugged the road. Handling was very stable and solid with the coach virtually anticipating your direction. There was no wandering and the ride was impressively smooth. Just the kind of thing you want to make your passengers happy.

For those of you who might ask, I did check the heat on the dash switches. On some older buses with backlit dash switches, the dash gets hot after a while. This is probably more annoying than important. I purposely checked the backlit switches on the J4500 and discovered that they remained cool to the touch.

I owe it to the new J4500 to mention maneuverability. The crew with me keep-

This photo shows the interior of the test drive coach with its wood floor and woodgrain finish on the enclosed parcel racks.



Seats on the test drive coach had individual cup holders as well as 110-volt outlets located towards the bottom of the seats in front.



ing me out of trouble elected to stop for an early lunch and directed me into a parking lot adjacent to a restaurant. After lunch we quickly discovered that we were effectively in a cul de sac and it was impossible to drive out. The only way out was the way we came in. This required a “Y” movement with a backup in a restaurant parking lot. The J4500 knew what was expected of it and did a great job of getting us out of that tight situation as I fed a little power from the driver’s seat. It is nice to have a coach that makes the driver look good.

Since no two people look at the same things while taking a test drive, you might want to ask the MCI people to let you take a new 2013 J4500 around the block. My understanding is that plans were to have some pilot and demo models available for just this purpose.

In closing, I note that Peter Pan was first in line with an order when the J4500 was originally introduced in 2001. They have once again displayed their confidence in MCI and their coaches by purchasing the first of the 2013 J4500 production coaches. This suggests that the J4500 can be many things to many operators. It can still be that durable and reliable bread and butter coach for scheduled service while also providing attractive styling and appearance for higher quality charters and tours. □

1/6V Open

1/6V Open

1/2 Open