

Marathon Motor Coach

CASE STUDY | TRANSPORTATION

COBURG, OR

➔ Challenge

Create a luxurious living space for customers who expect uninterrupted, high-tech entertainment and environmental systems in a mobile vehicle with space limitations.

➔ Solution

Crestron DigitalMedia™ and Crestron control technology provide the perfect balance of reliability and entertainment while the customer is on the road and off the grid.



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— **David Dolby**
Marathon Coach

Luxury on Wheels

Oregon-based Marathon Coach standardizes fleet with Crestron technology

Marathon Coach, a leading luxury motor coach designer and integration firm, understands that luxury comes in all sizes and packages. Their mobile palaces are the best of the best, suitable for everyone from celebrities on tour to retired CEOs.

The work to deliver this level of excellence is exacting. The company, founded in 1983, typically completes less than 50 coaches per year, each selling for \$1.5 to \$2.5 million. Each is based on a primo Prevost chassis and shell, using only the finest components including Crestron DigitalMedia and Crestron control technology.

According to David Dolby, lead AV designer and Crestron programmer for Marathon Coach, there are four crucial challenges in designing electronic systems for a top-of-line motor home.

1. The limited space and weight constraints of a motor vehicle.
2. A requirement that Internet and satellite television must function while the coach is in motion.
3. The limitations of commercially-available GPS navigation systems, which are too small and too hard to use for a vehicle of this caliber.
4. The coach's power requirements – similar to that of a permanent structure, but with frequently changing power sources.



It's Dolby's job to deal with each of these challenges, creating integrated electronic systems that provide a safe, reliable and enjoyable experience despite the difficulties of being constantly on the road.

Coach Number 1196, Marathon's 407th Crestron-equipped coach

Recently Marathon Coach completed its 1,196th coach conversion, which Dolby says is a good illustration of how the company addresses each of these challenges.

Coach 1196 is a luxury conversion purchased by a successful business executive for personal leisure.

Space constraints. "This coach has all the amenities of a luxury condo compacted into a very small space," Dolby explains. Among those amenities are four heating and air conditioning zones, dimmable lights, motorized window shades, electronic door locks, and four motorized exterior awnings. The entertainment system includes four 1080P LCD TVs mounted on motorized lifts, plus multi-zone audio and video. Sources include dual HD satellite receivers with multiple set-top boxes, a Blu-ray player and a DVD/CD changer.

"Offering all of this functionality in a small space is a major challenge, one that's probably impossible without the use of a single Crestron system to control it all," Dolby explains. In addition, Crestron DigitalMedia technology carries all audio, video and control signals on lightweight, twisted-pair Cat5e cable

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— David Dolby
Marathon Coach

and handles all switching and AV distribution with minimal gear. "Using this technology, we can switch HD sources seamlessly and display them in multiple zones simultaneously."

The Crestron system can also monitor the gas and water tanks, vary fan speeds in each HVAC zone to help control temperature, monitor and control the power systems, and monitor and control external and internal cameras.

Users operate all electronic systems from any of four Crestron touch screens mounted in the main rooms and the cab of the coach or from their smart phones.



Mobility. Dolby says the Marathon technology team addressed the challenge of providing Internet service using a card-based access point that allows web communication from any mobile data service area – that is, virtually anywhere in North America today.

The mobile network connection provides an additional benefit: An interior camera installed in the Salon, together with a computer-based controller and video recorder, allows the owner to visually check in on his coach from any browser when he is away from the vehicle.

To provide television service, the technology team integrated an in-motion satellite TV antenna capable of tracking the satellites even while traveling at highway speeds.

GPS and safety features. Because Dolby and his team felt standard GPS systems were not good enough for a Marathon Coach, they put the maps and electronic system controls on a 10.5” Crestron touch screen mounted on the dash. “The driver can use the same touchscreen controls and maps as a standard GPS unit but with a display that is more than four times the size of the largest portable GPS screen available,” he explains.

The team also interfaced two sets of external cameras to this in-dash touch screen. One provides backup camera functionality and the other, triggered by use of the turn signals, gives the driver increased visibility of blind spots when changing lanes.





Power issues. An important challenge in a luxury vehicle like this is the ability to provide clean electric power to the AV and other electronic systems. To meet electricity requirements, users can plug the coach in to the standard electric grid or power it using its own generator. “We installed a fully self-contained power source with a 20 kilowatt generator and the latest in lithium ion battery storage technology,” Dolby explains. “We use the Crestron system to control the generator as well as monitor all major power management functions.”

More than 400 Crestron-equipped coaches

Dolby says Marathon Coach has been using Crestron technology since 2003, and today nearly all of the coaches they build include Crestron systems.

“We’ve standardized on Crestron for several reasons,” he says. “Technical solutions like DigitalMedia and Apple® and Android™ integration are superior to other solutions on the market and work seamlessly with the technologies we install in our motor coaches. Product reliability, product and programming, professional development coursework, and Crestron’s unmatched onsite, phone, and online support make them the ideal partner for success.”



Meet the Team

Integrator
Marathon Coach, Inc.
<http://www.marathoncoach.com/>