

Trust Allison

A Global Leader In Bus Transmissions



City Bus Applications





The Most Complete Line Of Transmissions

From Beijing to Buenos Aires and New York to London, fleets, cities and passengers rely on Allison Automatics. That's because Allison provides the world's most complete line of automatic transmissions for buses. You'll find our transmissions in buses as small as 7 meters (23 feet) to as large as 27 meters (88 feet) and we offer innovative options such as hybrid propulsion solutions.

More
Than **200,000** 

Allison-Equipped City Buses In Operation Today





Over 20 Million Passengers
Transported Per Day

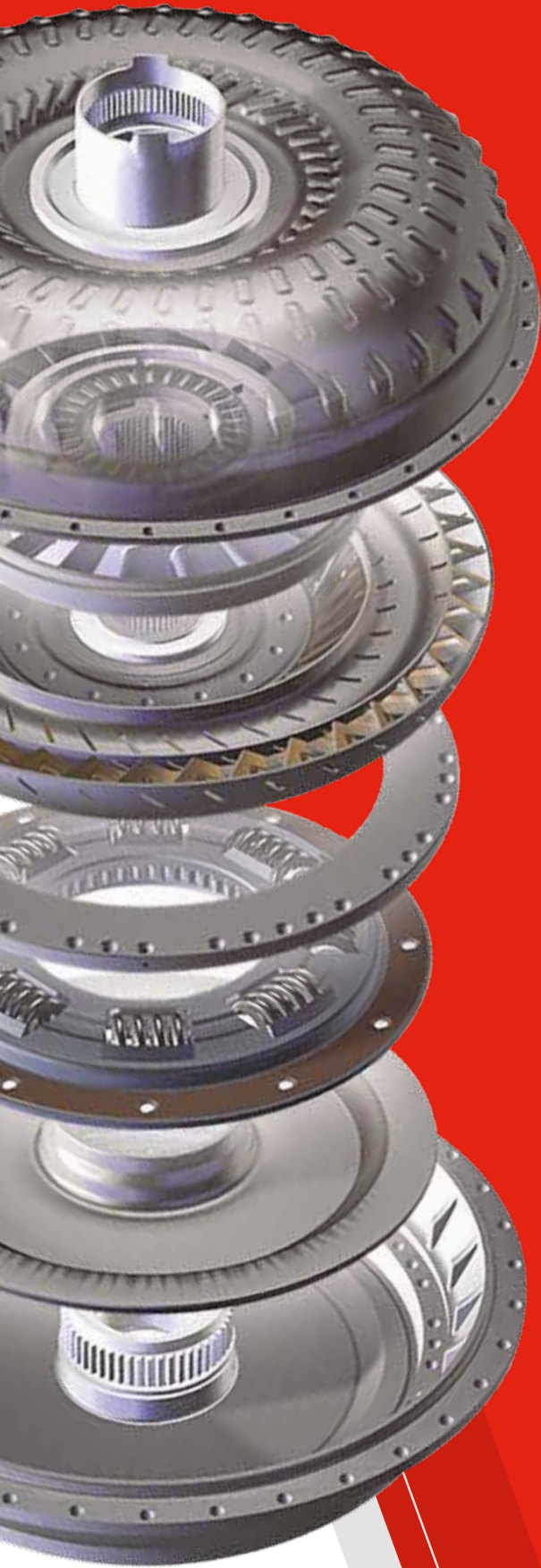
The Top Global Supplier
To OEMs

Allison supplies to more bus Original Equipment Manufacturers (OEMs) than our two largest automatic competitors. In fact, over 100 bus OEMs choose Allison fully automatic transmissions, which is why they're hard at work in major cities around the globe.

The world depends on Allison. Shouldn't you?

At Work In 21 Of The **World's Top 25 Cities**





The Power Of The Torque Converter

Allison's torque converter smoothly multiplies engine torque, delivering more power to the wheels. By multiplying the engine power, drivers get increased performance, faster acceleration and greater operational flexibility. An Allison fully automatic transmission increases power while a manual or automated manual transmission (AMT) loses power with every shift. An Allison Automatic eliminates power interrupts so you can accomplish more, even with a smaller engine.

Automatic Versus Manual And Automated Manual

While the manual clutch pedal is gone in an automated manual transmission (AMT), a mechanical clutch still facilitates the vehicle's launch. This mechanical clutch will wear and eventually burn out and need traditional maintenance and replacement, which means a vehicle spends more time being repaired and less time on the road.

Manual and automated manual transmissions do not benefit from engine torque multiplication because engine torque must be controlled or limited to extend the life of the starting clutch, which limits vehicle performance.

Allison Automatics are unique because our patented torque converter experiences very little wear and our transmissions require only periodic fluid and filter changes to maintain peak performance. When maintenance is required, the Allison is easy to service, which gets your vehicle back on the road as soon as possible.

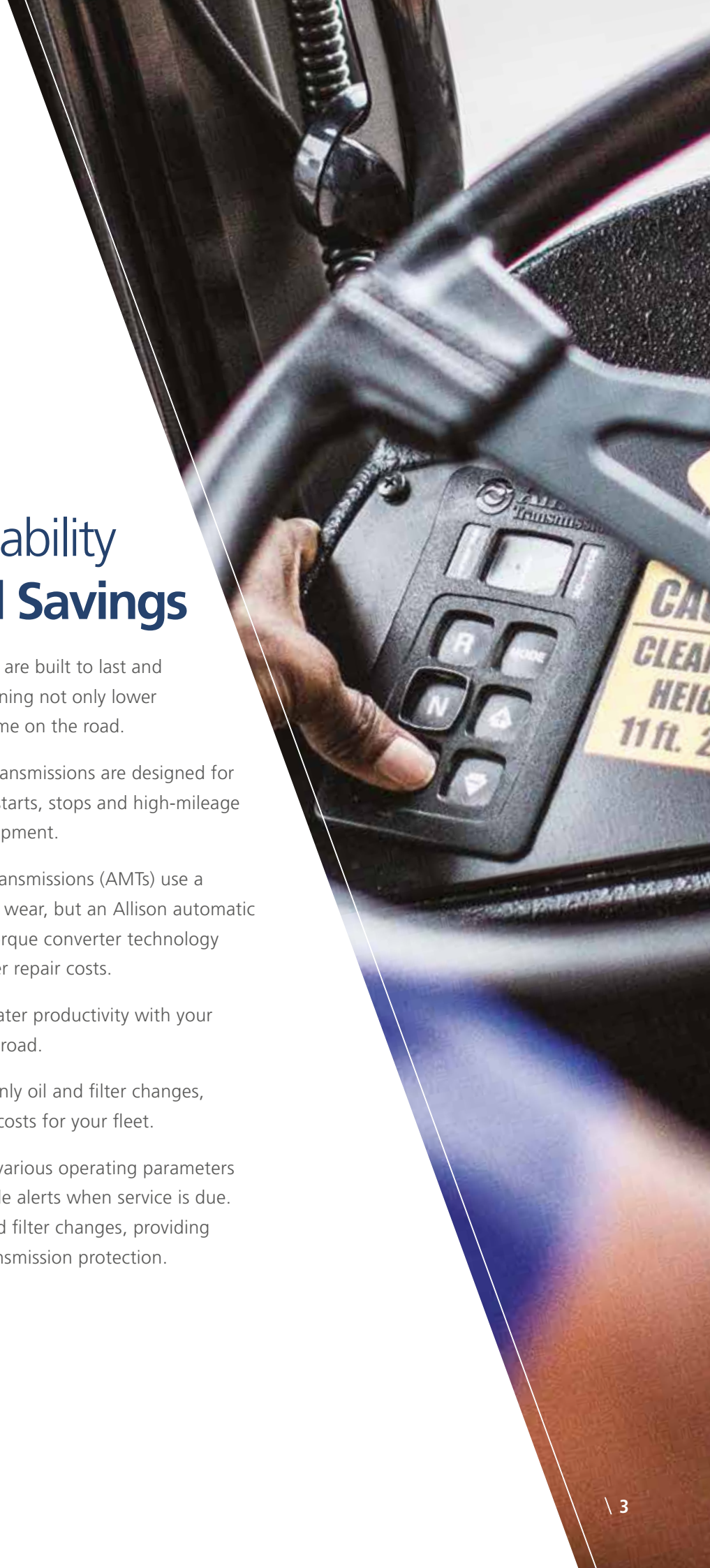




Rock-Solid Reliability For **Rock-Solid Savings**

Allison fully automatic transmissions are built to last and require a minimum of service—meaning not only lower maintenance costs, but also more time on the road.

- Our commercial-duty automatic transmissions are designed for durability to handle the frequent starts, stops and high-mileage demands that buses place on equipment.
- Manual and automated manual transmissions (AMTs) use a mechanical clutch that is prone to wear, but an Allison automatic transmission uses our patented torque converter technology for unmatched reliability and lower repair costs.
- More reliability translates into greater productivity with your buses spending more time on the road.
- Normal maintenance consists of only oil and filter changes, which means lower maintenance costs for your fleet.
- Our prognostics system monitors various operating parameters to determine and provide in-vehicle alerts when service is due. This eliminates unnecessary oil and filter changes, providing cost savings while maximizing transmission protection.



FUELSENSE[®]

FuelSense[®] Features

To get the most out of every drop of fuel, Allison 5th Generation Electronic Controls offer an enhanced array of smart controls designed to increase fuel economy for the specific needs of any application.

EcoCal—Provides lower shift points to get into lock up as soon as possible, providing necessary performance without shift cycling.

Dynamic Shift Sensing—Automatically selects between lower/higher speed shift schedules based on the vehicle's actual payload and the grade on which it is operating. This optimizes fuel economy while maintaining superior performance.

Acceleration Rate Management—Mitigates aggressive driving by controlling engine torque based on the vehicle's grade and load.

Neutral At Stop—Automatically eliminates the load on the engine when the vehicle is at a full stop to save fuel and reduce overall vehicle emissions.

More Fuel Efficient With xFE

With xFE, Allison has taken fuel economy to the next level. xFE is another in a string of innovative, fuel-saving ideas from Allison, a leader in bus transmission technology. New gear ratios allow the torque converter to lock up at lower speeds, improving fuel economy by up to seven percent in xFE-equipped vehicles.* This seven percent improvement in fuel economy is in addition to the already greater efficiency created by Allison's FuelSense[®], a unique package of software and electronic controls that supports an advanced array of features. The combination of these packages provides a substantial fuel economy advantage.

**Up To 7% Fuel Economy Improvement
In xFE-equipped Vehicles**

xFE — Earlier Lock Up + Lower Engine Speeds = Extra Fuel Economy

*Results depend on duty-cycle. xFE provides maximum fuel savings in high start-stop duty-cycles with low average speeds. Contact your Allison representative to ensure xFE is the best choice for your specific need.



Proven Dependable And Efficient Hybrid Systems

The Allison Hybrid H 40/50 EP™ systems feature a two-mode split parallel architecture—a pure mechanical path and a pure electric path—to achieve the highest energy efficiency. The technology operates automatically as a series or parallel hybrid, improving fuel consumption by up to 25 percent over a typical bus. Additionally, its regenerative braking capability can significantly extend the brake change interval by as much as 350 percent.

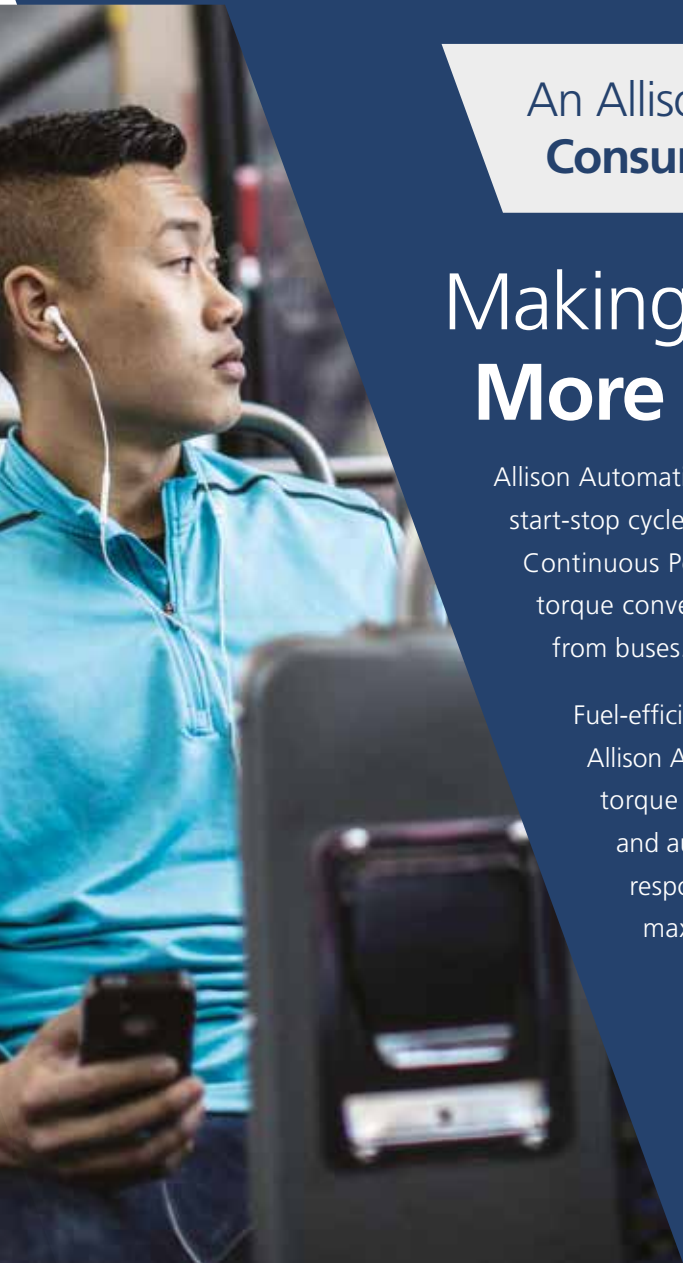
The Allison Hybrid H 40/50 EP systems may also be equipped with a customized electric distribution platform that provides power from the hybrid system to accessory components such as electric air conditioning, electric air compressors and electric power steering systems, offering further fuel economy improvements.

An Allison Hybrid System **Improves Fuel Consumption Up To 25% Over A Typical Bus**

Making Natural Gas More Efficient

Allison Automatics are perfectly suited to natural gas engines in the heavy start-stop cycle of city and transit buses. The inherent benefits of Allison's Continuous Power Technology™, featuring full-power shifts and a patented torque converter, realize the best performance and most efficient use of fuel from buses.

Fuel-efficient natural gas engines are more responsive when joined to an Allison Automatic. Allison's torque converter technology multiplies engine torque to significantly improve startability and launch. Compared to manual and automated manual transmissions, Allison Automatics enable more responsive acceleration, higher productivity and greater efficiency which maximizes the benefits of a natural gas engine.



A Fully Automatic Transmission **That Meets Your Needs, Big And Small**



Allison Automatics Outperform Other Automatics, Automated Manual Transmissions (AMTs) And Manuals

	Allison	Other Automatics	AMTs	Manuals
Total focus on commercial-duty automatic transmissions and hybrid propulsion solutions	✓			
Broadest range of automatic transmissions for buses	✓			
Installed by more bus OEMs around the world	✓			
Best combination of reliability, fuel efficiency, performance and value	✓			
Oil level, prognostics and diagnostics viewing via shift selector is available	✓			
Better reliability/fewer repairs because there is no mechanical clutch to wear out	✓	✓		
Improved passenger comfort due to a smoother ride	✓	✓		
Virtually no rollback increases safety	✓	✓		
Reduced shock and strain on driveline because of the torque converter's cushioning effect	✓	✓		
Better driver concentration since gear shifting is automatic	✓	✓	✓	
Greater pool of available drivers because no manual shifting is required	✓	✓	✓	
Less driver training needed	✓	✓	✓	

Industry Leadership Through A History Of Innovation

1st

Automatic Transmission **In A City Bus**

Six-Speed Automatic With Helical Gears

Integral Transmission **Output Retarder**

Display Of Oil Level, Prognostics And
Diagnostics **On The Shift Selector**

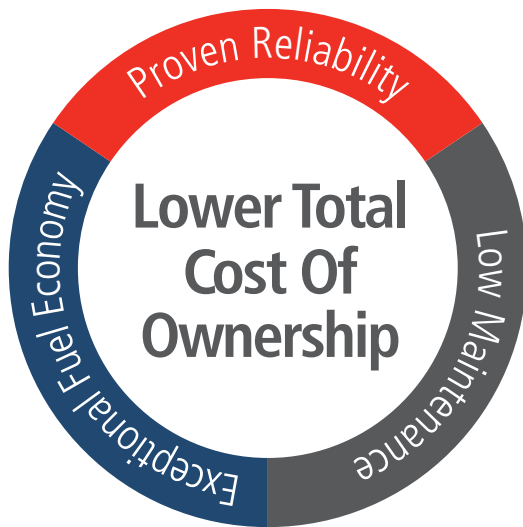
Two-Mode Split Parallel Hybrid For Buses

Quality Is The Best Component With Allison Genuine Parts™

Allison Genuine Parts™ are built to original factory specifications and are identical to the original parts. On the rare occasion that you have to replace an Allison Automatic part, it's guaranteed to fit correctly, wear the way it should and won't damage other associated transmission parts. Using non-Allison parts can lead to additional down time, unnecessary costs and premature breakdowns. Don't take a chance. Order Allison Genuine Parts. They'll protect both your Allison transmission and your reputation.







The Best Route **To Lower Cost Of Ownership**

A fully automatic transmission from Allison, a trusted brand around the world, is the best way to keep your fleet on the road while reducing total cost of ownership. With extended periods between maintenance and a proven track record of reliability, Allison puts you in control of your fleet and of your budget. Additionally, you can experience an increase in fuel economy thanks to FuelSense® and our new xFE technology. Finally, Allison Automatics with Continuous Power Technology™ not only reduce vehicle wear and tear, but provide a safer, smoother and more comfortable rider and driver experience. From the route to the bottom line, Allison puts you in control.

The Allison Promise

Provide the most reliable and valued propulsion solutions in the world to enable our customers to work more efficiently.

Quality

Customer Focus

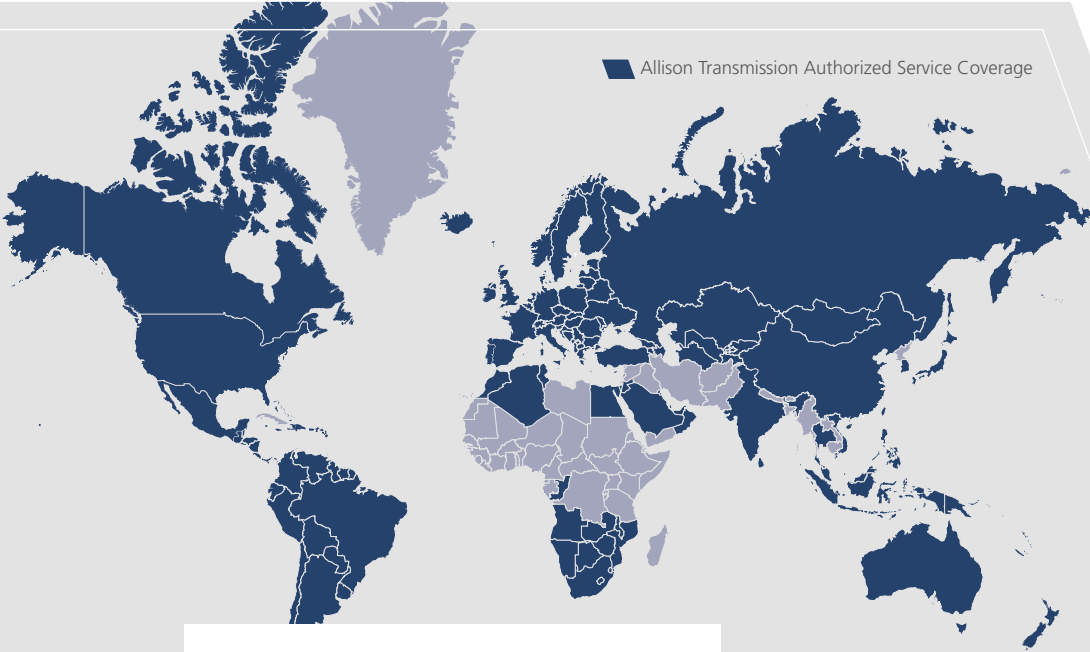
Integrity

Innovation

Teamwork







■ Allison Transmission Authorized Service Coverage

A World Of Support

From our headquarters in Indianapolis, Indiana, USA, to our manufacturing plants in Hungary and India, to approximately 1,400 Allison Authorized Distributors and Dealers around the globe, you are never far from the products, training, service and support you demand.

Our support starts from the moment an Allison transmission is specified. We work with you to ensure that the model and ratings fit your engine to create a tailored package of powerful performance and reliable efficiency. When you need parts or service, you can count on global access to factory-trained specialists and Allison Genuine Parts™.

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allisontransmission.com

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