

DRIVING TRANSMISSION TECHNOLOGY™



Ask for the Allison

TRUCK RV SERIES

Ask your dealer for a complete listing of vehicle models featuring Allison Truck RV Series transmissions, or contact your Authorized Allison Distributor. For the representative close to you, visit www.allisontransmission.com.

DRIVING TRANSMISSION TECHNOLOGY™



Information highway.

If you are thinking of the great American adventure, make sure you take an Allison Truck RV Series automatic transmission along for the drive. For more information, visit www.allisontransmission.com.



TRUCK RV SERIES



P.O. Box 894, Speed Code 462-470-PF3
Indianapolis, Indiana 46206-0894

Information or specifications subject to
change without notice or obligation.

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ISO/QS 9000 and ISO 14001 Certified

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Allison Truck RV Series fully automatic transmissions offer more power and more performance for more enjoyment on the open road. Specifically designed for truck recreational vehicles, these models provide smooth, full-power automatic shifts for faster acceleration and enough torque to handle steep grades with ease.



All the muscle you need. Allison's adaptive-shifting technology allows the transmission to monitor rpm, load and road conditions. It senses when to downshift to control speed on downhill grades and when to upshift to provide optimum acceleration for merging into highway traffic. So you can sit back, relax and enjoy the ride.

Life cycle value. When you factor in all life cycle costs — vehicle purchase price, insurance, fuel, tires, preventive maintenance, component repair and retail resale value — along with faster acceleration, smoother operation and easier handling — an Allison Automatic-equipped vehicle costs less per mile* than a comparable manual- or automated manual-equipped vehicle.

*Results may vary depending on your operating conditions. See your local Authorized Allison Dealer to find the potential gains for your particular application.

The real thing. Allison Automatics are truck-based transmissions designed to withstand the heavy-duty rigors of the road and engineered for efficient, effective, long-term, worry-free operation.

Low maintenance costs. Drivers simply can't mis-shift an Allison Automatic. The smooth, seamless shifts virtually eliminate driveline component shock. Since Allison Automatics don't have mechanically-applied clutches, you won't have routine clutch burnout and replacement — a major downtime concern with manual and automated manual transmissions. Routine oil and filter changes are the only regular preventive maintenance required with an Allison Automatic. Easily accessible integral and spin-on oil filters reduce labor costs and valuable downtime. TranSynd™ TES 295 transmission fluid greatly extends oil change intervals for most applications.

Safe driving intelligence. Allison Truck RV Series automatic transmissions provide customized performance at your fingertips. The transmission will automatically select gears based on engine rpm, throttle position, vehicle load and road speed. However, you can manually control the upshifts and downshifts when it is necessary for safe driving in mountains or other kinds of rough terrain. The transmission will not allow you to select a range that will over-speed the engine.

No power interrupts. On a vehicle with a manual or automated manual transmission, the power interrupts that occur during shift changes result in lower average wheel horsepower. With an Allison Automatic, there is no power interrupt during shift changes. The inertia energy built up by the engine is maintained and this equates to higher continuous wheel horsepower. By making full use of the engine's horsepower, an Allison Automatic may allow you to specify a smaller engine, saving you money in the long run.

Comprehensive coverage. All Allison Truck RV Series vocational models offer comprehensive coverage with 100% parts and labor. Coverage may vary by model and by application. Please contact your Authorized Allison Dealer for further details.

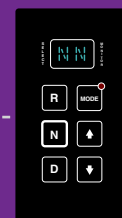
Keeping it safe. More vehicle control under all conditions, far less fatigue for drivers since they're not shifting hundreds of times a day and so much simpler operation than a manual or automated manual transmission means there simply aren't as many distractions for the driver of an Allison Automatic-equipped vehicle.

Torque converter. The heavy-duty Allison torque converter is at the heart of what makes an Allison Automatic the most effective, efficient and productive commercial transmission in the world. Increased shifting performance, faster acceleration, greater operating flexibility and minimal rollback are all advantages that can be attributed to it. Its cushion effect reduces shock and strain on the entire driveline — including engine, universal joints, driveshafts and rear axle — prolonging the operating life of the components.

Smart controls. Allison Truck RV Series automatic transmissions have brains in addition to brawn. Special electronic control packages provide precisely the performance features you need to roll on down open highways, city streets, country roads, even off-road excursions.

AUXILIARY FUNCTION RANGE INHIBIT

It's like an extra set of eyes to help avoid unwanted shifts out of Neutral. Integrates with virtually any vocational vehicle component.



SECONDARY SHIFT SCHEDULE

Select between two pre-programmed shift patterns — quickly and easily. Match shift characteristics to the driving conditions with the simple push of a button.

Ratings and Specifications

RATINGS							
MODEL	RATIO	MAX INPUT POWER ¹ hp (kW)	MAX INPUT TORQUE ¹ lb-ft (N • m)	MAX INPUT TORQUE w/SEM, OR TORQUE LIMITING ^{1,2} lb-ft (N • m)	MAX TURBINE TORQUE ³ lb-ft (N • m)	MAX GVW lbs (kg)	MAX GCW lbs (kg)
3000 TRV	Close Ratio	310 (231)	950 (1288)	n/a	1700 (2305)	—	40,000 (18,144)
3200 TRV	Close Ratio	425 (316)	1200 (1627)	1250 (1695)	1700 (2305)	—	—
4000 TRV	Close Ratio	600 (447)	1850 (2508)	n/a	2800 (3795)	52,000 (23,587)	72,000 (32,659)

1 Gross ratings as defined by ISO 1585 or SAE J1995. 2 SEM = engine controls with Shift Energy Management. 3 Turbine torque limit based on ISCAAN standard deductions.

GEAR RATIOS - TORQUE CONVERTER MULTIPLICATION NOT INCLUDED							
MODEL	FIRST	SECOND	THIRD	FOURTH	FIFTH	SIXTH	REVERSE
3000 TRV	3.49:1	1.86:1	1.41:1	1.00:1	0.75:1	0.65:1	-5.03:1
3200 TRV	3.49:1	1.86:1	1.41:1	1.00:1	0.75:1	0.65:1	-5.03:1
4000 TRV	3.51:1	1.91:1	1.43:1	1.00:1	0.74:1	0.64:1	-4.80:1

OPTIONAL RETARDER PROVISION - INTEGRAL, HYDRAULIC TYPE		
BASE MODEL	TORQUE CAPACITY lb-ft (N • m)	POWER CAPACITY hp (kW)
3000		
- High	1600 (2170)	600 (447)
- Medium	1300 (1760)	500 (373)
- Low	1100 (1490)	400 (298)
4000		
- High	2000 (2710)	600 (447)
- Medium	1600 (2170)	600 (447)
- Low	1300 (1760)	500 (373)

TORQUE CONVERTER SPECIFICATIONS		
BASE MODEL	TORQUE CONVERTER	NOMINAL STALL TORQUE
3000		
	TC-411	2.71
	TC-413	2.44
	TC-415	2.35
	TC-417	2.20
	TC-418	1.98
	TC-419	2.02
	TC-421	1.77
4000		
	TC-521	2.42
	TC-531	2.34
	TC-541	1.90
	TC-551	1.79
	TC-561	1.58

ENGINE SPEEDS			
MODEL	FULL LOAD GOVERNED SPEED	IDLE SPEED IN DRIVE	OUTPUT SHAFT SPEED
	Min-Max (rpm)	Min-Max (rpm)	rpm
3000/3200	2000-2800	500-800	3600 ¹
4000	1700-2300	500-800	—

1 Retarder-equipped models only.

OPTIONAL POWER TAKEOFF PROVISION - CONTINUOUS OPERATION				
BASE MODEL	MOUNTING PAD POSITIONS VIEWED FROM REAR	DRIVE GEAR RATING WITH ONE PTO lb-ft (N • m)	DRIVE GEAR RATING WITH TWO PTOS lb-ft (N • m)	DRIVE
3000 ¹	4 and 8 o'clock	485 (660)	685 ² (930) ²	Engine
4000 ¹	1 and 8 o'clock	685 (930)	1175 ² (1595) ²	Engine

1 PTO-delete option available. 2 Total on the drive gear.

PHYSICAL DESCRIPTION				
BASE MODEL	LENGTH ¹ in (mm)	DEPTH ² w/DEEP OIL PAN/SUMP in (mm)	DEPTH ² w/SHALLOW OIL PAN/SUMP in (mm)	DRY WEIGHT lbs (kg)
3000				
- Basic model	28.29 (718.6)	12.90 (327.8)	11.14 (283.1)	535 (243)
- With PTO only	32.49 (825.4)	12.90 (327.8)	11.14 (283.1)	575 (261)
- With retarder only	28.29 (718.6)	12.90 (327.8)	11.14 (283.1)	615 (279)
- With PTO & retarder	32.49 (825.4)	12.90 (327.8)	11.14 (283.1)	655 (298)
4000				
- Basic model	30.54 (775.8)	14.75 (374.7)	13.17 (334.6)	831 (377)
- With PTO only	33.42 (848.8)	14.75 (374.7)	13.17 (334.6)	893 (405)
- With retarder only	30.54 (775.8)	14.75 (374.7)	13.17 (334.6)	906 (411)
- With PTO & retarder	33.42 (848.8)	14.75 (374.7)	13.17 (334.6)	968 (439)

1 Length measured from flywheel housing to end of output shaft. 2 Depth measured below transmission centerline.

OIL SYSTEM				
BASE MODEL	CAPACITY ¹ quarts (liters)	MAIN CIRCUIT FILTER	LUBE CIRCUIT FILTER	ELECTRONIC OIL LEVEL SENSOR (OLS)
3000		Integral	Integral	Standard
- Deep Oil Sump w/o PTO	29 ² (27.4) ²			
- Shallow Oil Sump w/o PTO	26 ² (24.6) ²			
4000		Integral	Integral	Standard
- Deep Oil Sump and PTO	51 ² (48) ²			
- Deep Oil Sump w/o PTO	48 ² (45) ²			

Recommended oil types for all models are TranSynd™/ TES 295 approved.

1 Transmission only. Does not include coolers, hoses or fittings. 2 Amount of oil necessary to fill a dry transmission.

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