



Vocational Model Guide

Version 1.20.26



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This document was updated on January 20, 2026. For the most up-to-date listing of products, specifications and ratings, please visit [allisontransmission.com](https://www.allisontransmission.com).

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Innovations that Move the World Forward

Since 1915, Allison Transmission has transformed innovation into action: delivering reliable, durable and highly productive solutions that help our customers work more efficiently and stay focused on what matters most.

Driven by dedicated team members, advanced facilities and an unwavering commitment to quality, durability, reliability and sustainability, we're moving ourselves and our industry forward—and *Improving the Way the World Works.*

Conventional Transmissions



1000 Series™
2000 Series™



3000 Series™



4000 Series™



6000 Series™



8000 Series™



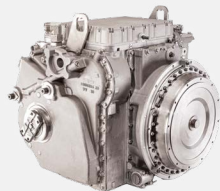
9000 Series™



FracTran®

Defense

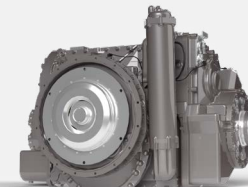
Tracked Solutions



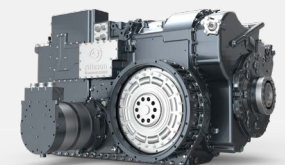
X200 Series™



3040 MX™



X1100 Series™



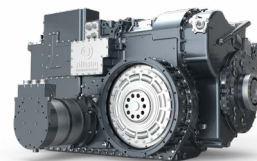
eGen Force™

Hybrid + Electric

Electrified Propulsion Solutions



eGen Flex®



eGen Force™

Features + Advantages

Allison Transmission is the world's largest manufacturer of commercial-duty automatic transmissions and also produces electric hybrid and fully electric propulsion systems. By designing and creating performance-driven products and features in applications ranging from transit to defense, we give customers worldwide the innovations they need when they need them.

Reliability

Proven over billions of miles, our dependable, fully automatic transmissions reduce downtime and help you get more work done.

Life Cycle Value

We build Allison Automatics to last. Once you factor in all life cycle costs, along with higher productivity, Allison-equipped vehicles cost less to operate in most applications.

Fully Automatic Advantage

Our patented Continuous Power Technology™ delivers smoother, seamless, full-power shifts and superior acceleration, startability and vehicle control.

Allison Torque Converter

Our torque converter multiplies peak engine torque and delivers more power to the wheels, improving performance, acceleration and operational flexibility.

Driver Benefits

By improving handling, maneuverability and ease of operation, Allison-equipped vehicles boost driver comfort, alertness and retention.

Performance + Productivity

Allison Automatics perform better. Manual or automated manual transmissions lose power and torque each time they shift, resulting in reduced productivity and less ground traveled.

Fuel Utilization

Allison fully automatic transmissions offer the best combination of fuel economy and productivity. To get the most benefit, our innovative FuelSense® 2.0 with DynActive® Shifting packages increase fuel economy for specific fleet and vehicle needs. Allison is also the preferred transmission for alternative fuel applications, such as natural gas.

Customer Support

From our headquarters in Indianapolis, Indiana, USA, to our manufacturing plants in Hungary and India, to approximately 1,600 Allison Authorized Distributors and Dealers around the globe, customers are never far from the products, training, service and support they demand.

Easy Maintenance

With extended periods between maintenance and a proven track record, an Allison automatic transmission keeps your fleet on the road while reducing total cost of ownership.

	Bus Series™	Emergency Vehicle Series™	Highway Series™	Motorhome Series™	Off Road Series™	Oil Field Series™	Pupil Transport/ Shuttle Series™	Regional Haul Series™	Rugged Duty Series™	Specialty Series™	Truck RV Series™
Torque Management	✓	✓	✓	✓			✓	✓	✓	✓	✓
High-Density Start/Stop Calibrations	✓		✓				✓				
Prognostics	✓	✓	✓	✓			✓	✓	✓	✓	✓
FuelSense® 2.0	✓		✓	✓			✓	✓	✓	✓	✓
xFE	Optional		Optional	Optional			Optional		Optional		
Oil Level Sensor	✓	✓	✓	✓			✓	✓	✓		
2nd Reverse		✓			✓	✓			✓	✓	
Deep Oil Pan/Sump		✓	✓	✓			✓		✓		
Additional Speeds			✓						✓		
PTO	✓	✓		✓	✓	✓		✓	✓	✓	✓
PTO Delete									Optional		
Park Pawl	✓	✓	✓	✓			✓		✓	✓	
Dual PTO	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Retarder	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Allison Product Specifications



Detailed Specs for Proven Reliability

Whatever the series or model, learning the most up-to-date specifications available for your Allison fully automatic transmission is key to selecting the propulsion solution that best meets your needs.

- Our 1000 and 2000 Series™ transmissions are appropriate for light- and medium-duty vehicles.
- The 3000 and 4000 Series™ transmissions are designed for medium- and heavy-duty vehicles.
- 6000, 8000 and 9000 Series™ transmissions are compatible with heavy-duty applications.

1000/4000 Series Specifications

Gear Ratios Torque Converter Multiplication Not Included

Model	Vocational Models											First	Second	Third	Fourth	Fifth	Sixth	Seventh	Reverse	2nd Reverse
	BUS	EVS	HS	MH	OFS	ORS	PTS	RHS	RDS	SP	TRV									
1000 ¹ /1350 ¹ /2100 ¹ /2200 ¹ /2300 ¹ /2350 ¹ /B 210 ¹ /B 220 ¹	✓	✓	✓	✓			✓		✓	✓		3.10:1	1.81:1	1.41:1	1.00:1	0.71:1	0.61:1	N/A	-4.49:1	N/A
2500 ¹ /2550 ¹ /2575		✓	✓	✓			✓		✓	✓		3.51:1	1.90:1	1.44:1	1.00:1	0.74:1	0.64:1	N/A	-5.09:1	N/A
3000 ¹ /3200 ¹ /B 295 ¹ /B 300 ¹ /B 400	✓		✓	✓			✓	✓		✓	✓	3.46:1	1.86:1	1.41:1	1.00:1	0.75:1	0.65:1	N/A	-5.03:1	N/A
B 3400 xFE TM /3414	✓								✓			3.49:1	2.03:1	1.47:1	1.00:1	0.69:1	0.59:1	N/A	-3.80:1	N/A
3500		✓			✓	✓				✓	✓	4.59:1	2.25:1	1.54:1	1.00:1	0.75:1	0.65:1	N/A	-5.00:1	N/A
3700											✓	6.93:1	4.18:1	2.24:1	1.69:1	1.20:1	0.90:1	0.78:1	-6.03:1	N/A
4000 ¹ /4200 ¹ /B 500	✓	✓	✓	✓			✓			✓	✓	3.51:1	1.91:1	1.43:1	1.00:1	0.74:1	0.64:1	N/A	-4.80:1	N/A
4430 ¹ /4500 ¹ /4600		✓	✓	✓	✓	✓				✓	✓	4.70:1	2.21:1	1.53:1	1.00:1	0.76:1	0.67:1	N/A	-5.55:1	N/A
4700 ¹ /4750 ¹ /4800 ¹ /4850 ¹ /4900		✓			✓	✓				✓	✓	7.63:1 ²	3.51:1	1.91:1	1.43:1	1.00:1	0.74:1	0.64:1	-4.80:1	-17.12:1 ³
4870 ¹ /4970		✓			✓					✓	✓	4.70:1	3.30:1	2.21:1	1.53:1	1.00:1	0.76:1	0.67:1	-5.55:1	-2.42:1

1 - Available with xFE 2 - Manually selected first gear 3 - SEM/LRTP or LRTP only is required

Standard Power Take-off Continuous Operation

Model	Vocational Models											Mounting Pad Positions Viewed from Rear	Drive Gear Rating		Drive
	BUS	EVS	HS	MH	OFS	ORS	PTS	RHS	RDS	SP	TRV		with One PTO	with Two PTOs	
													lb-ft (N·m)	lb-ft (N·m)	
Side/Side - 1000 ¹ /1350 ¹ /2100 ¹ /2200 ¹ /2300 ¹ /2500 ¹ /2550 ¹ /2700 ¹ /2750 ¹ /B 210 ¹ /B 220	✓ ¹	✓		✓ ¹					✓	✓ ¹		3 and 9 o'clock	250 (339)	200 ² (271) ²	Turbine
Side/Side - 3000 ¹ /3200 ¹ /3414 ¹ /3500 ¹ /B 300 ¹ /B 400 ¹ /B 3400 ¹ xFE ¹	✓	✓			✓	✓		✓	✓		✓	4 and 8 o'clock	485 (660)	685 ^{3,4} (930) ^{3,4}	Engine
Top/Side - 3500 ⁵		✓										1 and 8 o'clock	670 (910)	685 ^{3,4} (930) ^{3,4}	Engine
Top/Side - 3000 ¹ /3200 ¹ /3414 ¹ /3500 ⁵					✓	✓		✓	✓			1 and 8 o'clock	485 (660)	685 ^{3,4} (930) ^{3,4}	Engine
3700										✓		8 o'clock	485 (660)	N/A	Engine
4000 ¹ /4200 ¹ /4430 ¹ /4500 ¹ /4600 ¹ /4700 ¹ /4800 ¹ /4850 ¹ /4900 ¹ /4970 ¹ /B 500 ¹	✓	✓		✓	✓	✓			✓	✓	✓	1 and 8 o'clock	685 (930)	1175 ^{3,4} (1595) ^{3,4}	Engine

1 - PTO-delete option available 2 - Rating per PTO 3 - Total on the drive gear 4 - Minimum 600 rpm idle speed required when dual PTOs are used simultaneously 5 - Special order. Please contact Allison Representative for more information

Engine Speeds

Model	Vocational Models											Full Load Governed Speed Min-Max rpm	Idle Speed in Drive Min-Max rpm	Output Shaft Speed rpm
	BUS	EVS	HS	MH	OFS	ORS	PTS	RHS	RDS	SP	TRV			
	1000/1350/2100/2200/2350		✓	✓	✓			✓		✓	✓			
1700/1750/2700/2750		✓	✓	✓			✓		✓			2200-3800	500-820	5000
2300			✓				✓		✓			2200-5000 ¹	500-820	5000
2500/2550/2570/B 210/B 220	✓	✓	✓	✓			✓		✓	✓		2200-3800	500-820	4500
B 295	✓											1900-2800	500-800	3600 ²
3000/B 300/B 400/B 3400 xFE™	✓	✓	✓	✓		✓	✓		✓	✓	✓	1900-2800	500-800	3600 ²
3200						✓				✓	✓	1900-2800	500-800	3600 ²
3414								✓				1900-2800	500-800	3600 ²
3500		✓			✓	✓			✓	✓		1900-2800	500-800	3600 ²
3700										✓		1900-2800	500-800	N/A
4000/4200/B 500	✓	✓	✓	✓		✓			✓	✓	✓	1700-2300	500-800	N/A
4430					✓	✓				✓		1700-2300	500-800	N/A
4500		✓	✓		✓	✓			✓	✓		1700-2300	500-800	N/A
4600/4700/4750		✓			✓	✓				✓		1700-2300	500-800	N/A
4800/4850/4870		✓			✓	✓				✓		1700-2300	500-800	N/A
4900/4970		✓							✓	✓		1700-2300	500-800	N/A

1 - Engines with full-load governed speed greater than 3800 rpm require Application Engineering review 2 - Retarder equipped models only
3 - 2400 rpm for Military Combat vehicle applications

Torque Converter Specifications

Model	Vocational Models											Torque Converter	Nominal Stall Torque
	BUS	EVS	HS	MH	OFS	ORS	PTS	RHS	RDS	SP	TRV		
	1000 + 2000 Series™ Models	✓	✓	✓	✓			✓		✓	✓		
3000 Series™ Models												TC-211 ¹	1.19
												TC-221 ¹	1.73
												TC-222 ¹	1.58
												TC-411	2.71
												TC-413	2.44
												TC-415	2.35
												TC-417	2.20
4000 Series™ Models												TC-418 ¹	1.98
												TC-419	2.02
												TC-421 ²	1.77
												TC-521	2.42
												TC-531	2.34
												TC-541 ²	1.9
											TC-551	1.79	
												TC-561 ²	1.58
												TC-571 ²	1.62

1 - Available with low rate damper 2 - Available with high rate damper

Optional Retarder Provision Integral, Hydraulic Type

Model	Vocational Models											Level	Torque Capacity lb-ft (N·m)	Power Capacity hp (kw)
	BUS	EVS	HS	MH	OFS	ORS	PTS	RHS	RDS	SP	TRV			
	3000 Series™ Models ²	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	High
4000 Series™ Models ¹												Medium	1300 (1763)	500 (373)
												Low	1100 (1490)	400 (298)
												Very Low	811 (1100)	N/A
												Ultra Low	553 (750)	N/A
												High	2000 (2712)	600 (447)
											Medium	1600 (2170)	600 (447)	
											Low	1300 (1763)	500 (373)	

1 - High and low now available on all 4000 Series 7 speeds 2 - Excluding 3700 SP

1000/4000 Series Specifications

Physical Description

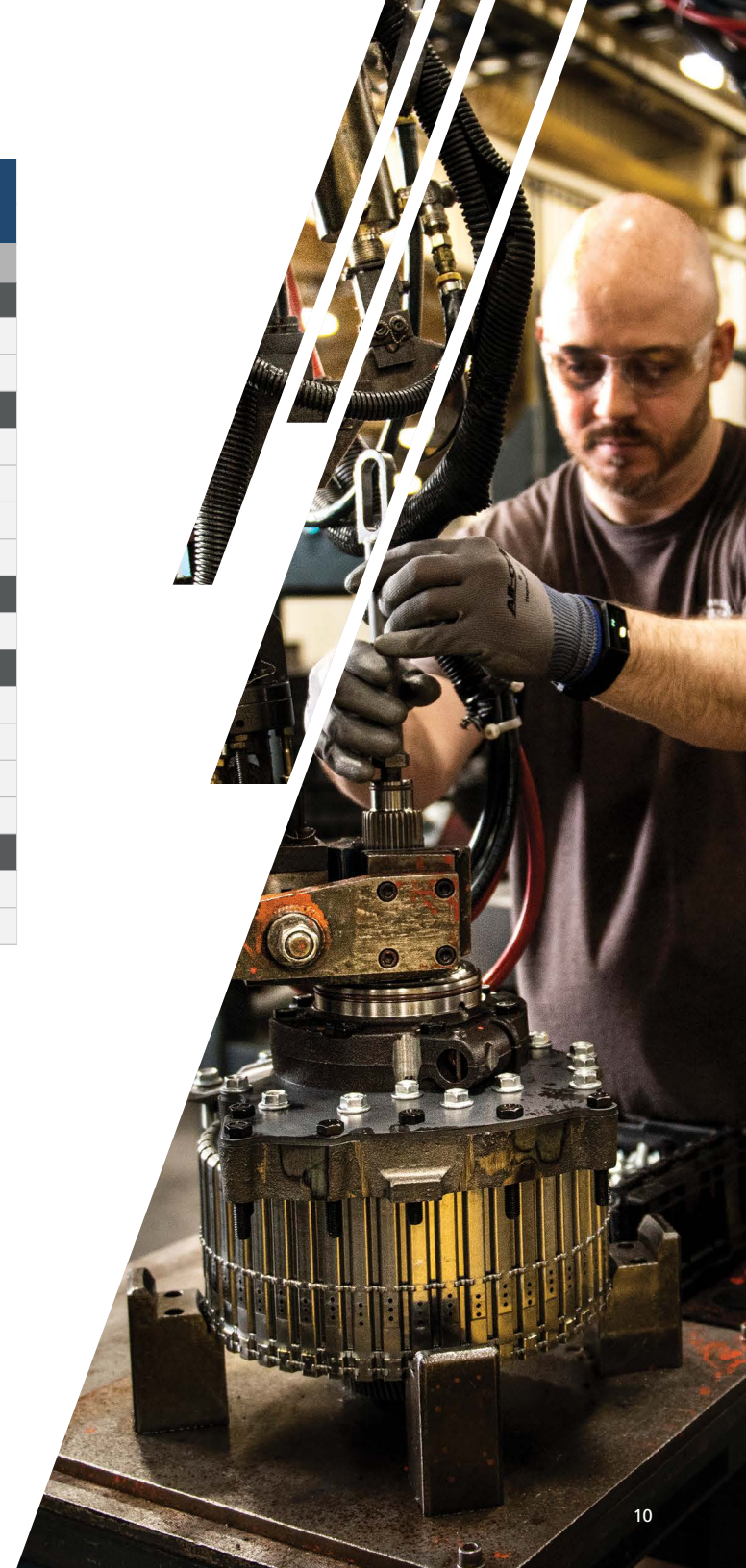
Model	Vocational Models											Length ¹ in (mm)	Depth ² w/ Deep Oil Pan/Sump in (mm)	Depth ² w/ Shallow Oil Pan/Sump in (mm)	Dry Weight lbs (kg)
	BUJ	EVS	HS	MH	OFS	ORS	PTS	RHS	RDS	SP	TRV				
1000/2000³/B 210/B 220															
SAE No. 3 Mounting	✓	✓	✓	✓			✓		✓	✓		28.02 (711.7)	11.22 (285.1)	10.71 (272.0)	323 (146.5)
SAE No. 2 Mounting	✓	✓	✓	✓			✓		✓	✓		28.40 (721.2)	11.22 (285.1)	10.71 (272.0)	323 (146.5)
3000⁴/3414/B 300/B 400/B 3400 xFE™															
Basic Model	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	28.30 (718.7)	12.90 (327.7)	11.13 (282.6)	535 (243)
With PTO only	✓	✓		✓	✓	✓		✓	✓	✓	✓	32.50 (825.4)	12.90 (327.7)	11.13 (282.6)	575 (261)
With Retarder only	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	28.29 (718.5)	12.90 (327.7)	11.13 (282.6)	615 (279)
With PTO & Retarder	✓	✓		✓	✓	✓		✓	✓	✓	✓	32.49 (825.2)	12.90 (327.7)	11.13 (282.6)	655 (297)
3700															
Basic Model										✓		51.58 (1310.3)	21.90 (555.0)	N/A	1170 (531)
4000⁵/4430⁶/4500/B 500															
Basic Model	✓	✓	✓	✓		✓			✓	✓	✓	30.54 (775.7)	14.75 (374.7)	13.29 (337.6)	831 (377)
With PTO only	✓	✓		✓		✓			✓	✓	✓	33.41 (848.7)	14.75 (374.7)	13.29 (337.6)	893 (405)
With Retarder only	✓	✓	✓	✓		✓			✓	✓	✓	30.54 (775.7)	14.75 (374.7)	13.29 (337.6)	906 (411)
With PTO & Retarder	✓	✓		✓	✓	✓			✓	✓	✓	33.42 (848.8)	14.75 (374.7)	13.29 (337.6)	968 (439)
4700/4750/4800/4850/4870/4850/4900/4950															
Basic Model		✓							✓	✓		40.61 (1031.5)	14.75 (374.7)	N/A	1087 (493)
With PTO only		✓							✓	✓		43.49 (1104.5)	14.75 (374.7)	N/A	1149 (521)
With Retarder only		✓							✓	✓		40.61 (1031.5)	14.75 (374.7)	N/A	1162 (527)
With PTO & Retarder		✓			✓				✓	✓		43.49 (1104.5)	14.75 (374.7)	N/A	1224 (555)

1 - Length measured from flywheel housing to end of output shaft 2 - Depth measured below transmission center line 3 - 2000 SP - only 2000 model available with shallow oil pan 4 - 3000 HS, RDS, PTS - Available with deep oil pan only
5 - 4000 HS, RDS, SP - Available with deep oil pan only 6 - 4430 is an SP model only - available with deep oil pan only

Oil System

Model	Vocational Models											Capacity ¹
	BUS	EVS	HS	MH	OFS	ORS	PTS	RHS	RDS	SP	TRV	quarts (liters)
1000²/2000²/B 210/B 220 (main circuit filter - spin-on canister)												
Standard Deep Oil Sump	✓	✓	✓	✓			✓		✓	✓		13.7 (13.0)
Shallow Oil Sump	✓	✓	✓	✓			✓		✓	✓		11.6 (11.0)
3000³/3414/B 295/B 300³/B 400³/B 3400 xFE^{TM3}												
Deep Oil Sump w/ PTO	✓	✓		✓	✓	✓		✓	✓	✓	✓	29.75 (28.1)
Deep Oil Sump w/o PTO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	29.0 (27.4)
Shallow Oil Sump w/ PTO	✓	✓		✓						✓	✓	26.75 (25.3)
Shallow Oil Sump w/o PTO	✓	✓		✓						✓	✓	26.0 (24.6)
3700³												
Deep Oil Sump w/ PTO										✓		39.0 (37.0)
4000³/4430^{3,4}/4500³/B 500³												
Deep Oil Sump w/ PTO	✓	✓		✓	✓	✓			✓	✓	✓	51.0 (48.0)
Deep Oil Sump w/o PTO	✓	✓	✓	✓	✓	✓			✓	✓	✓	48.0 (45.0)
Shallow Oil Sump w/ PTO		✓		✓						✓	✓	43.0 (41.0)
Shallow Oil Sump w/o PTO	✓	✓		✓						✓	✓	40.0 (38.0)
4700³/4750³/4800³/4850^{3,4}/4870³/4900³/4970³												
Deep Oil Sump w/ PTO		✓			✓				✓	✓		54.0 (51.0)
Deep Oil Sump w/o PTO		✓			✓				✓	✓		51.0 (48.0)

1 - Transmission only. Does not include cooler, hoses or fittings. 2 - 2000 SP - 2100 PTS, 2100 PTS xFE, and 2200 PTS offer shallow pan availability 3 - Main and lube circuit filter are integral; electronic oil sensors are standard 4 - 4430 is an SP model only - available only with deep oil pan



6000/9000 Series + FracTran® Specifications

Gear Ratios Torque Converter Multiplication Not Included

Model	Vocational Models				First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth	Reverse	2nd Reverse
	OFS	OFSD	ORS	SP										
6620	✓		✓	✓	4.00:1	2.68:1	2.01:1	1.35:1	1.00:1	0.67:1	N/A	N/A	-5.15:1	-3.46:1
6625			✓	✓	4.00:1	2.68:1	2.01:1	1.35:1	1.00:1	0.67:1	N/A	N/A	-5.15:1	-3.46:1
8610	✓		✓	✓	4.24:1	2.32:1	1.69:1	1.31:1	1.00:1	0.73:1	N/A	N/A	-5.75:1	N/A
9610			✓	✓	4.24:1	3.05:1	2.32:1	1.67:1	1.00:1	0.72:1	N/A	N/A	-5.75:1	-4.13:1
9832	✓	✓			3.75:1	2.69:1	2.20:1	1.77:1	1.58:1	1.27:1	1.00:1	0.72:1	N/A	N/A
FracTran® CR	✓				3.82:1	2.80:1	2.50:1	2.10:1	1.83:1	1.54:1	1.36:1	1.00:1	N/A	N/A
FracTran® DR	✓				4.87:1	3.57:1	2.78:1	2.41:1	2.04:1	1.77:1	1.36:1	1.00:1	N/A	N/A

Standard Power Take-off Continuous Operation

Model	Vocational Models				Mounting Pad Positions Viewed from Rear	Mounting Pad Positions Viewed from Rear	Drive Gear Rating w/ Intermittent PTO	Drive Gear Rating with Continuous PTO
	OFS	OFSD	ORS	SP			lb-ft (N·m)	lb-ft (N·m)
	6620	✓		✓			✓	5 o'clock
6625			✓	✓	5 o'clock	12 o'clock	500 (678)	313 (424)
8610	✓		✓	✓	5 o'clock	12 o'clock	1000 (1356)	750 (1017)
9610			✓	✓	5 o'clock	12 o'clock	1000 (1356)	750 (1017)
9832	✓	✓			5 o'clock	12 o'clock	1000 (156)	750 (1017)
FracTran®	✓				5 o'clock	10 o'clock	1000 (1356)	1000 (1356)

Engine Speeds

Model	Vocational Models				Full Load Governed Speed Min-Max	Idle Speed in Drive Min-Max	Output Shaft Speed
	OFS	OFSD	ORS	SP			
	rpm	rpm	rpm	rpm			
6620	✓		✓	✓	1900 - 2300	550	N/A
6625			✓	✓	1900 - 2300	550	N/A
8610	✓		✓	✓	1800 - 2300	550	N/A
9610			✓	✓	1800 - 2100	550	N/A
9832	✓	✓			1800 - 2100	550	N/A
FracTran®	✓				1800 - 2100	650	N/A

Optional Retarder Provision Integral, Hydraulic Type

Model	Vocational Models				Torque Capacity	Power Capacity
	OFS	OFSD	ORS	SP		
	lb-ft (N·m)	hp (kW)				
6620	✓		✓	✓	1500 (2034)	600 (447)
6625			✓	✓	1500 (2034)	600 (447)
8610	✓		✓	✓	3451 (4679)	1380 (1029)
9610			✓	✓	4152 (5630)	1660 (1238)
9832	✓	✓			N/A	N/A
FracTran®	✓				N/A	N/A

Physical Description

Model	Vocational Models				Length w/o Retarder ¹	Length w/ Retarder ¹	Depth (Basic Model)	Depth w/ Direct Mount Filters	Dry Weight
	OFS	OFSD	ORS	SP					
					in (mm)	in (mm)	in (mm)	in (mm)	lbs (kg)
6620	✓		✓	✓	43.1 (1095)	46.6 (1182)	34.1 (866)	38.7 (982)	2260 (1025)
6625			✓	✓	43.1 (1095)	46.6 (1182)	34.1 (866)	38.7 (982)	2260 (1025)
8610	✓		✓	✓	55.5 (1411)	55.5 (1411)	35.3 (896)	42 (1067)	3700 (1678)
9610			✓	✓	55.5 (1411)	55.5 (1411)	35.3 (896)	42 (1067)	3700 (1678)
9832	✓	✓			56.5 (1435)	N/A	35.3 (896)	42 (1067)	3720 (1687)
FracTran® (SAE 0)	✓				63.9 (1622)	N/A	44.5 (1131)	49.7 (1263)	6510 (2953)
FracTran® (SAE 00)	✓				65.4 (1662)	N/A	44.5 (1131)	49.7 (1263)	6543 (2968)

1 - Length measured from flywheel housing to end of output shaft

Oil System

Model	Vocational Models				Capacity ¹
	OFS	OFSD	ORS	SP	
					quarts (liters)
6620	✓		✓	✓	72 (68)
6625			✓	✓	72 (68)
8610	✓		✓	✓	84 (79)
9610			✓	✓	84 (79)
9832	✓	✓			84 (79)
FracTran®	✓				160 (151)

Recommended oil types for all models are TES-353/TES-439/TES-781 approved.

1 - Transmission only. Does not include cooler, hoses or fittings

Torque Converter Specifications

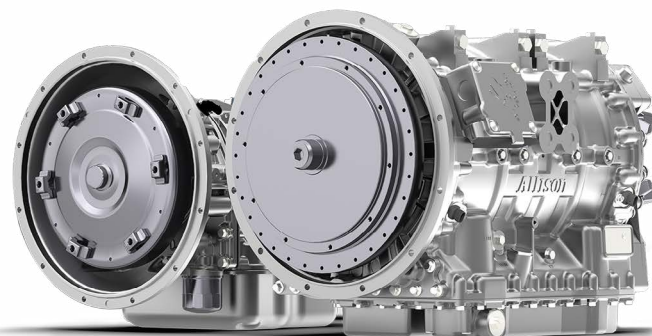
Model	Vocational Models				Torque Converter	Nominal Stall Torque Ratio
	OFS	OFSD	ORS	SP		
6620	✓		✓	✓	TC-580	2.89
					TC-680 (retarder)	2.17
					TC-680 (no retarder)	2.08
					TC-682	1.77
					TC-683	1.85
6625			✓	✓	TC-580	2.89
					TC-680 (retarder)	2.17
					TC-680 (no retarder)	2.08
					TC-682	1.77
					TC-683	1.85
8610	✓		✓	✓	TC-860	2.33
					TC-880	2.2
					TC-890	1.86
					TC-1060	1.86
					TC-1070	1.78
					TC-1078	1.84
9610			✓	✓	TC-1060	1.86
					TC-1070	1.78
					TC-1078	1.84
					TC-1080	1.61
					TC-1090	1.31
					TC-1060	1.86
9832	✓	✓			TC-1070	1.78
					TC-1078	1.84
					TC-1080	1.61
					TC-1090	1.31
					TC-1060	1.86
FracTran®	✓				TC-1260	1.86
					TC-1270	1.82

Bus Series™



Moving Cities Forward

Since 1947, Allison Transmission has been leading the charge in propulsion technology for transit. Today, we offer a range of innovative solutions to fleets around the globe.



Allison Transmission Bus Series™

Ratings

Model	Ratio	Park Pawl	Gross Input Power	Gross Input Torque	Net Turbine Torque	Gross Input Power	Gross Input Torque	Net Turbine Torque	Max GVW	Max GCW
			With Torque Management			Without Torque Management				
			hp (kW)	lb-ft (N·m)	lb-ft (N·m)	hp (kW)	lb-ft (N·m)	lb-ft (N·m)		
B 210 ¹	Close	No	270 (201)	600 (813)	850 (1152)	230 (172)	520 (705)	850 (1,152)	29,000 (13,150)	29,000 (13,150)
B 220 ¹	Close	Yes	270 (201)	600 (813)	850 (1152)	230 (172)	520 (705)	850 (1,152)	29,000 (13,150)	29,000 (13,150)
B 295	Close	No	230 (171)	620 (841)	1370 (1857)	230 (171)	620 (841)	1370 (1,857)	33,000 (14,968)	33,000 (14,968)
B 300	Close	No	280 (209)	735 (997)	1370 (1857)	280 (209)	735 (997)	1370 (1857)	38,000 (17,236)	38,000 (17,236)
B 400 - Transit	Close	No	300 (224)	925 (1254)	1370 (1857)	300 (224)	925 (1254)	1370 (1857)	45,000 (20,412)	45,000 (20,412)
B 400 - Tour Coach	Close	No	330 (246)	1000 (1356)	1600 (2170)	330 (246)	1000 (1356)	1600 (2170)	45,000 (20,412)	45,000 (20,412)
B 3400 xFE™	Close	No	300 (224)	925 (1254)	1370 (1857)	300 (224)	925 (1254)	1370 (1857)	45,000 (20,412)	45,000 (20,412)
B 500 - Transit	Close	No	420 (313)	1300 (1763)	2450 (3322)	420 (313)	1300 (1763)	2450 (3322)	-	-
B 500 - Intercity Coach	Close	No	550 (410)	1700 (2305)	2450 (3322)	550 (410)	1700 (2305)	2450 (3322)	-	-

1 - Available w/ xFE

Typical Vehicle Applications¹

Revenue-Generating/FTA Transit Bus Applications, Transit Bus, Intercity Bus (less than 53,000 lbs. GVW), Tour Coach, Shuttle Bus (over 33,000 lbs. GVW)



B 210
B 220
B 295



B 300
B 400
B 3400 xFE™



B 500

1 - Any vehicle that operates on-highway and does not need a PTO requires an Allison Highway Series™ transmission

Allison Transmission Bus Series™

B 210/B 220/B 295 Input + Output Functions

Input Functions		Default Enabled	Comm Avail?	Vocation Package Number							
				353	354	369	373	374	379	380	381
A	Secondary Mode Input	Yes	Yes	142	142	142	142	142	142	142	142
C1	PTO Drive Interface 1 Input	Yes	Yes	-	143	143	-	162	162	143	-
C2	PTO Drive Interface 2 Input	No	Yes	-	-	-	-	-	-	102	-
E	Auxiliary Function Range Inhibit - Single Input	No	Yes	101	101	101	101	101	101	101	101
H	Engine Brake Interface Input (Standard)	No	Yes	-	102	102	-	102	102	-	-
I	Engine Brake Interface Input (Special)	No	Yes	102	-	-	102	-	-	-	102
L	Automatic Neutral - Single Input	No	Yes	123	123	123	123	123	123	123	-
V	Reverse Enable Input	No	No	143	-	-	162	-	-	-	143
Y	Anti-Lock Brake System (ABS) Input	Yes	Yes	121	121	121	121	121	121	121	121
AA	Service Brake Status Input	Yes	Yes	162	162	162	-	-	-	162	162
AH	Accelerator Pedal Kickdown Input	Yes	Yes	122	-	-	122	-	-	-	122
AM	Reverse Inhibit w/ Preselect Request Interface Input	No	Yes	-	-	-	-	-	-	-	-
AR	Overdrive Disable Interface Input	Yes	Yes	161	161	161	161	161	161	161	161
AS	Neutral at Stop Input	No	Yes	-	-	-	143	143	143	-	-
BQ	Pump Mode Input (3rd Lockup)	No	No	-	-	-	-	-	-	-	-
BS	Grade Braking / Regeneration Input	No	No	-	-	-	-	-	-	-	-
CA	Auto Neutral - Brake-Based (BBAN) Input for PTO	No	Yes	-	-	122	-	-	122	-	-
CB1	Preselect Request 1 Input	Yes	Yes	-	122	-	-	122	-	122	-
CC	High N/v Ratio Input	No	Yes	-	-	-	-	-	-	-	-
CD	Automatic Neutral - Single Input w/ Selector Override	Yes	Yes	-	-	-	-	-	-	-	-
CN	Automatic Neutral - Dual Input w/ Auto Return-to-Range	No	Yes	-	-	-	-	-	-	-	123
CR	PTO Drive Interface - Synchronized PTO Input	No	Yes	-	-	-	-	-	-	-	-
CS	Run/Crank Input	Yes	No	-	-	-	-	-	-	-	-
Output Functions		Default Enabled	Comm Avail?	Vocation Package Number							
				353	354	369	373	374	379	380	381
A	Engine Brake Interface Output	No	Yes	104	104	104	104	104	104	-	104
B	Sump/Retarder Temperature Indicator	Yes	Yes	164	164	164	164	164	164	164	164
C	Range Indicator	Yes	No	145	145	145	145	145	145	145	145
D	Output Speed Indicator A	Yes	No	105	105	105	105	105	105	105	105
G1	PTO Drive Interface 1 Output	Yes	Yes	-	150	150	-	150	150	150	-
G2	PTO Drive Interface 2 Output	No	Yes	-	-	-	-	-	-	104	-
O	Transmission Service Indicator	Yes	Yes	113	113	113	113	113	113	113	113
S	Neutral Indicator for PTO & PTO Request (NIPTO)	Yes	No	-	-	-	-	-	-	-	-
X	Overdrive Disable Interface Output	Yes	No	-	-	-	-	-	-	-	-
AD	Range Inhibited indicator	Yes	Yes	124	124	124	124	124	124	124	124
AN	PTO Drive Interface - Synchronized PTO Output	Yes	No	-	-	-	-	-	-	-	-

Allison Transmission Bus Series™

B 300/B 400/B 3400 xFE/B 500 Input + Output Functions

Input Functions	Default Enabled	Comm Avail	Vocation Package Number																			
			Transit Bus + Intercity Coach												Transit Bus + Intercity Coach (Max. Economy Calibration)							
			139	211	212	215	217	223	226	234	236	263	268	129	130	148	159	210	235	247	262	
A	Secondary Mode Input	Yes	Yes	Mode	Mode	122	Mode	Mode	Mode	Mode	142	Mode	Mode	Mode	Mode	142	Mode	Mode	Mode	142	142	Mode
C1	PTO Drive Interface 1 Input	Yes	Yes	143	143	143	143	143	143	-	Mode	143	143	143	-	-	143	-	143	Mode	143	-
C2	PTO Drive Interface 2 Input	No	Yes	-	-	-	-	-	-	-	-	-	102	-	-	-	-	-	-	-	-	-
D	Shift Selector Transition Input	No	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
E	Auxiliary Function Range Inhibit - Single Input	No	Yes	101	101	101	101	-	101	101	101	101	101	101	101	101	101	101	-	101	101	101
F	Auxiliary Function Range Inhibit - Dual Input	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G	Auxiliary Hold Input	Yes	No	-	123	123	-	-	142	142	-	142	142	142	-	-	142	142	-	-	Mode	142
H	Engine Brake Interface Input (Standard)	No	Yes	102/157	102/157	102/157	102/157	102/157	102/157	102/157	102/157	102/157	102/157	-	-	102/157	102/157	102/157	102/157	-	102/157	102/157
I	Engine Brake Interface Input (Special)	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
J	Fire Truck Pump Mode Input	No	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K	Quick-to-Neutral Input	No	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
L	Automatic Neutral - Single Input	No	Yes	-	-	-	-	-	117	117	117	117	117	117	-	-	117	117	-	117	117	-
Q	Two Speed Axle Interface Input	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R	Manual Lockup Control Input	No	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
V	Reverse Enable Input	No	No	-	-	-	-	-	-	-	-	-	-	-	117	117	-	-	-	-	-	-
W	Direction Change Enable Input	No	Yes	-	-	-	-	-	122	122	-	122	122	122	-	143	-	143	142	143	-	143
Y	Anti-Lock Brake System (ABS) Input	Yes	Yes	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
Z	Retarder Interface Input	Yes	Yes	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161
AA	Service Brake Status Input	Yes	Yes	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162
AG	Automatic Neutral - Dual Input	Yes	No	117/142	-	-	-	-	-	-	-	-	-	-	-	-	-	-	101/117	-	-	-
AH	Accelerator Pedal Kickdown Input	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	122	122	122	122	122	122	122	122
AI	Aux Function Range Inhibit - Single Input (Specialty)	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AJ	Pump Mode Input (4th Lockup)	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AK	Automatic Neutral - Dual Input w/ Service Brake Status	Yes	No	-	-	-	-	101/117	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AL	Shift Selector Transition & Secondary Shift Schedule	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AM	Reverse Inhibit with Preselect Request Interface Input	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	123	-	-	-
AQ	Shift Selector Display Blanking Input	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AS	Neutral at Stop Input	No	Yes	-	-	-	123	123	123	123	-	-	123	123	123	123	123	123	102	123	123	123
AW	2nd Reverse Input	No	No	-	-	-	-	-	179	-	-	-	179	179	-	-	-	-	-	-	-	-
BD	Automatic 2-1 Preselect Input (4000 7-Speed Only)	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BS	Grade Braking / Regeneration Input	No	No	-	-	-	-	-	-	-	-	-	-	102	-	-	-	-	-	-	-	-
BY	Aux Box Transition Input	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BZ	Shift Selector Transition & Oil Field Pumping Input	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CA	Automatic Neutral - Brake-Based (BBAN) Input for PTO	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CB1	Preselect Request 1 Input	Yes	Yes	-	-	-	-	-	-	-	123	123	-	-	-	-	-	-	-	-	-	-
CB2	Preselect Request 2 Input	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CC	High N/v Ratio Input	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CD	Automatic Neutral - Single Input with Selector Override	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CE	Direct Hold Input	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CF	Automatic Neutral - Idle Start / Stop Input	Yes	No	-	117/142	117/142	117/142	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CH	Automatic Neutral - Single Input, Inverted	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CN	Automatic Neutral - Dual Input w/ Auto Return-to-Range	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	117
CV	Shift Selector - Multiple Transmission Control	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

B 300/B 400/B 3400 xFE/B 500 Input + Output Functions Continued

Output Functions	Default Enabled	Comm Avail	Vocation Package Number																				
			Transit Bus + Intercity Coach										Transit Bus + Intercity Coach (Max. Economy Calibration)										
			139	211	212	215	217	223	226	234	236	263	268	129	130	148	159	210	235	247	262		
A	Engine Brake Interface Output	No	Yes	104	104	104	104	104	104	104	104	104	104	-	-	104	104	104	104	-	104	104	104
B	Sump/Retarder Temperature Indicator	Yes	Yes	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164
C	Range Indicator (6th Gen default is always Neutral)	Yes	No	-	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	113	145	145	145
D	Output Speed Indicator A	Yes	No	105	105	105	105	105	105	105	105	105	105	105	105	130	130	105	105	105	105	105	105
G1	PTO Drive Interface 1 Output	Yes	Yes	130	130	130	130	130	130	-	130	130	130	130	-	-	130	-	130	130	130	-	-
G2	PTO Drive Interface 2 Output	No	Yes	-	-	-	-	-	-	-	-	-	-	104	-	-	-	-	-	-	-	-	-
I	Engine Overspeed Indicator	Yes	No	-	-	-	-	-	-	-	130	-	-	-	-	-	-	-	113	-	-	-	113
J	Two Speed Axle Interface Output	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
K	Lockup Indicator	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
N	Secondary Mode Indicator	Yes	Yes	-	113	113	113	-	113	113	113	113	113	113	113	-	-	-	130	-	113	-	130
O	Transmission Service Indicator	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Q	Retarder Interface Output	Yes	Yes	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	
S	Neutral Indicator for PTO and PTO Request (NIPTO)	Yes	No	145	-	-	-	113	-	-	-	-	-	-	-	-	-	-	-	145	-	-	-
AJ	Output Speed Indicator A, Inverted	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

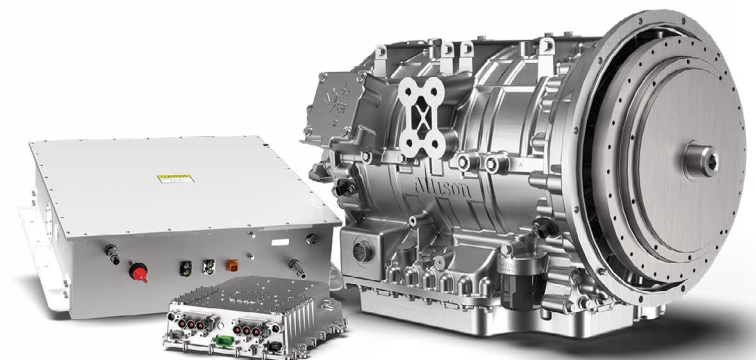
1- 6th Generation Controls and newer default is always Neutral/Park



eGen Flex[®]

Flexible Transit Solutions

Allison is passionate about moving propulsion technology forward and ensuring that the community benefits from modern, sustainable transportation options. From our proven conventional systems to our eGen Flex[®] electric hybrid for transit buses, we're determined to drive our cities into the future.



Allison Transmission Hybrid/eGen Flex®

Ratings

Model	Continuous	Rated Input Torque	Rated Input Speed	Dry Weight
	hp (kW)	lb-ft (N·m)	rpm	lbs (kg)
eGen Flex® 40 Drive Unit - Transit Bus	280 (209)	910 (1234)	2350	905.5 (410.7)
Rechargeable Energy Storage System (RESS)	-	-	-	1322 (600)
Dual Traction Inverter (DTI)	260 kw continuous 3-phase AC	-	-	49 (22)

*May Vary depending on fluid level

Features

	eGen Flex® 40	eGen Flex® 40 CertPlus	eGen Flex® 40 Max	eGen Flex® 40 Max CertPlus
Allison Drive Unit with disconnect clutch	✓	✓	✓	✓
Allison 26 kWh Lithium Titanate (LTO) Rechargeable Energy Storage System (RESS)	✓	✓	✓	✓
Allison Dual-Traction Inverter (DTI)	✓	✓	✓	✓
Allison 5th Generation Controls	✓	✓	✓	✓
Acceleration Rate Management	✓	✓	✓	✓
Hybrid Mode	✓	✓	✓	✓
Increased Accessory Power 2 (IAP2) - Accessory electrification capability	✓	✓	✓	✓
Engine Stop-Start	✓	✓	✓	✓
EV Mode	Not Available	Not Available	✓	✓
Pre-Charge Mode	Not Available	Not Available	✓	✓
Depot Mode	Not Available	Not Available	✓	✓
Up to 50 Minutes of Engine Off Time	Not Available	Not Available	✓	✓
Geofencing (to support Zero Emission Zones, Pre-Charge Mode, and Depot Mode)	Not Available	Not Available	✓	✓
California Air Resources Board (CARB) Certified	No	✓	No	✓

Typical Vehicle Applications

Hybrid Bus, Straight/Solo Bus, Articulated Bus, BRT, Shuttle Bus, Intercity Bus



eGen Flex® 40



Emergency Vehicle Series™



When Every Second Counts

Allison Automatics are designed to perform in the toughest, most demanding environments. With Allison, you can optimize your fire truck or emergency vehicle to fit the needs of your application. The result is a precise combination of power and efficiency that helps keep our cities safe.



Allison Transmission Emergency Vehicle Series™

Ratings

Model	Ratio	Park Pawl	Gross Input Power	Gross Input Torque	Net Turbine Torque	Gross Input Power	Gross Input Torque	Net Turbine Torque	Max GVW	Max GCW
			With Torque Management			Without Torque Management				
			hp (kW)	lb-ft (N·m)	lb-ft (N·m)	hp (kW)	lb-ft (N·m)	lb-ft (N·m)		
1000 EVS	Close	Yes	340 (254)	660 (895)	950 (1288)	300 (224)	575 (780)	850 (1152)	19,500 (8845)	26,001 (11,800)
1350 EVS	Close	Yes	340 (254)	660 (895)	950 (1288)	300 (224)	780 (575)	850 (1152)	19,500 (8845)	30,000 (13,600)
2100 EVS	Close	No	340 (254)	660 (895)	950 (1288)	300 (224)	575 (780)	850 (1152)	26,000 (11,800)	26,000 (11,800)
2200 EVS	Close	Yes	340 (254)	660 (895)	950 (1288)	300 (224)	575 (780)	850 (1152)	26,000 (11,800)	26,001 (11,800)
2350 EVS	Close	Yes	340 (254)	660 (895)	950 (1288)	300 (224)	575 (780)	850 (1152)	30,000 (13,600)	30,000 (13,600)
2500 EVS	Wide	No	340 (254)	660 (895)	950 (1288)	300 (224)	575 (780)	850 (1152)	33,000 (15,000)	33,000 (15,000)
2550 EVS	Wide	Yes	340 (254)	660 (895)	950 (1288)	300 (224)	575 (780)	850 (1152)	30,000 (13,600)	30,000 (13,600)
3000 EVS	Close	No	450 (336)	1250 (1695)	1700 (2350)	450 (336)	1250 (1695)	1700 (2350)	-	-
3500 EVS	Wide	No	330 (246)	1050 (1424) ²	1500 (2034)	330 (246)	985 (1335)	1500 (2034)	-	-
4000 EVS - Emergency Vehicle	Close	No	605 (451)	1850 (2508)	2600 (3525)	605 (451)	1850 (2508)	2600 (3525)	-	-
4000 EVS - ARFF	Close	No	605 (451)	1675 (2271)	2600 (3525)	605 (451)	1675 (2271)	2600 (3525)	-	-
4500 EVS	Wide	No	605 (451)	1850 (2508) ²	2600 (3525)	605 (451)	1770 (2400)	2600 (3525)	-	-
4700 EVS - ARFF	Deep	No	605 (451)	1850 (2508)	2800 (3795)	605 (451)	1850 (2508)	2800 (3795)	-	-
4800 EVS - ARFF	Deep	No	700 (522)	1950 (2644)	2800 (3795)	700 (522)	1950 (2644)	2800 (3795)	-	-
4850 EVS - ARFF	Deep	No	770 (574)	1950 (2644)	2800 (3795)	770 (574)	1950 (2644)	2800 (3795)	-	-
4900 EVS - ARFF	Deep	No	800 (597)	2360 (3200)	3025 (4101)	800 (597)	2360 (3200)	2800 (3796)	-	-
4970 EVS - ARFF	Deep	No	800 (597)	2360 (3200)	3025 (4001)	800 (597)	2360 (3200)	2550 (3457)	-	-

1 - Available in 2nd gear start 2 - Available in gears 2-6

Typical Vehicle Applications¹

Aerial Ladder Platform, Aircraft Rescue and Fire-Fighting Vehicle (ARFF), Ambulance, Fire Truck Pumper (With + Without Split-Shaft PTO), Hazardous Material Vehicle, Mobile Command Center, Support Vehicle



1000 EVS | 1350 EVS
2100 EVS | 2200 EVS
2350 EVS | 2500 EVS
2550 EVS



3000 EVS
3500 EVS



4000 EVS | 4500 EVS
4700 EVS | 4800 EVS
4850 EVS | 4900 EVS
4970 EVS

1 - Any vehicle equipped with emergency signaling (such as a siren, light bar, grill signal, porter light, etc.) that allows the vehicle to ignore general traffic laws in emergency situations requires an Allison Emergency Vehicle Series™ transmission.

Allison Transmission Emergency Vehicle Series™

1000/2000 Series Input + Output Functions

Input Functions		Default Enabled	Comm Avail	Vocation Package Number									
				354	360	364	367	368	374	376	380	381	388
A	Secondary Mode Input	Yes	Yes	142	142	142	142	142	142	142	142	142	-
C1	PTO Drive Interface 1 Input	Yes	Yes	143	143	143	143	143	162	101	143	-	-
C2	PTO Drive Interface 2 Input	No	Yes	-	-	-	-	-	-	-	102	-	-
E	Auxiliary Function Range Inhibit - Single Input	No	Yes	101	-	-	-	-	101	-	101	101	101
H	Engine Brake Interface Input (Standard)	No	Yes	102	102	-	102	-	102	102	-	-	-
I	Engine Brake Interface Input (Special)	No	Yes	-	-	-	-	-	-	-	-	102	-
L	Automatic Neutral - Single Input	No	Yes	123	-	-	-	-	123	-	123	-	-
V	Reverse Enable Input	No	No	-	-	-	-	-	-	-	-	143	-
Y	Anti-Lock Brake System (ABS) Input	Yes	Yes	121	121	121	121	121	121	121	121	121	-
AA	Service Break Status Input	Yes	Yes	162	162	162	-	-	162	162	162	162	-
AH	Accelerator Pedal Kickdown Input	Yes	Yes	-	-	-	-	-	-	-	-	122	-
AM	Reverse Inhibit w/ Preselect Request Interface Input	No	Yes	-	-	-	-	-	-	-	-	-	-
AR	Overdrive Disable Interface Input	Yes	Yes	161	161	161	161	161	161	161	161	161	-
AS	Neutral at Stop Input	No	Yes	-	-	-	-	-	143	143	-	-	-
BQ	Pump Mode Input (3rd Lockup)	No	No	-	122/123	122/123	122/123	122/123	-	122/123	-	-	122/102
BS	Grade Braking/Regeneration Input	No	No	-	-	-	-	-	-	-	-	-	-
CA	Auto Neutral - Brake-Based (BBAN) Input for PTO	No	Yes	-	-	-	-	-	-	-	-	-	-
CB1	Preselect Request 1 Input	Yes	Yes	122	-	-	-	-	122	-	122	-	-
CC	High N/v Ratio Input	No	Yes	-	-	101/102	-	101/102	-	-	-	-	-
CD	Automatic Neutral - Single Input w/ Selector Override	Yes	Yes	-	-	-	162	162	-	-	-	-	-
CN	Automatic Neutral - Dual Input w/ Auto Return-to-Range	No	Yes	-	-	-	-	-	-	-	-	123	-
CR	PTO Drive Interface - Synchronized PTO Input	No	Yes	-	-	-	-	-	-	-	-	-	-
CS	Run/Crank Input	Yes	No	-	-	-	-	-	-	-	-	-	123
Output Functions		Default Enabled	Comm Avail	Vocation Package Number									
				354	360	364	367	368	374	376	380	381	388
A	Engine Brake Interface Output	No	Yes	104	104	-	104	-	104	104	-	104	-
B	Sump/Retarder Temperature Indicator	Yes	Yes	164	164	164	164	164	164	164	164	164	164
C	Range Indicator	Yes	No	145	145	145	145	145	145	145	145	145	145
D	Output Speed Indicator A	Yes	No	105	105	105	105	105	105	105	105	105	105
G1	PTO Drive Interface 1 Output	Yes	Yes	150	150	150	150	150	150	150	150	-	-
G2	PTO Drive Interface 2 Output	No	Yes	-	-	-	-	-	-	-	104	-	-
O	Transmission Service Indicator	Yes	Yes	113	113	113	113	113	113	113	113	113	-
S	Neutral Indicator for PTO & PTO Request (NIPTO)	Yes	No	-	-	-	-	-	-	-	-	-	-
X	Overdrive Disable Interface Output	Yes	No	-	-	-	-	-	-	-	-	-	-
AD	Range Inhibited Indicator	Yes	Yes	124	124	124	124	124	124	124	124	124	124
AN	PTO Drive Interface - Synchronized PTO Output	Yes	No	-	-	-	-	-	-	-	-	-	-

Allison Transmission Emergency Vehicle Series™

3000/4000 Series Input + Output Functions

	Input Functions	Default Enabled	Comm Avail	Vocation Package Number									
				With Split-Shaft PTO					Emergency	No Split-Shaft PTO			
				135	197	198	246	271	170	227	265	274	
A	Secondary Mode Input	Yes	Yes	Mode	142	Mode	Mode	Mode	Mode	Mode	Mode	Mode	Mode
C1	PTO Drive Interface 1 Input	Yes	Yes	143	Mode	142	143	143	143	143	143	143	143
C2	PTO Drive Interface 2 Input	No	Yes	-	-	-	-	102	-	-	102	-	-
D	Shift Selector Transition Input	No	No	-	-	-	-	-	101	-	-	-	-
E	Auxiliary Function Range Inhibit - Single Input	No	Yes	101	-	-	-	-	-	-	-	-	-
F	Auxiliary Function Range Inhibit - Dual Input	Yes	No	-	-	-	101/142	-	-	101/142	101/142	101/142	101/142
G	Auxiliary Hold Input	Yes	No	142	-	-	-	-	-	-	-	-	-
H	Engine Brake Interface Input (Standard)	No	Yes	102/157	102/157	102/157	102/157	-	102/157	102/157	-	102/157	102/157
I	Engine Brake Interface Input (Special)	No	Yes	-	-	-	-	-	-	-	-	-	-
J	Fire Truck Pump Mode Input	No	No	122/123	122/123	122/123	122/123	122/123	-	-	-	-	-
K	Quick-to-Neutral Input	No	No	-	-	-	-	-	-	-	-	-	-
L	Automatic Neutral - Single Input	No	No	-	-	-	-	-	-	-	-	-	-
Q	Two Speed Axle Interface Input	Yes	Yes	-	-	-	-	-	-	-	-	-	-
R	Manual Lockup Control Input	No	No	-	-	-	-	-	-	-	-	-	-
V	Reverse Enable Input	No	No	-	-	-	-	-	-	-	-	-	-
W	Direction Change Enable Input	No	Yes	-	-	-	-	-	-	-	-	-	-
Y	Anti-Lock Brake System (ABS) Input	Yes	Yes	121	121	121	121	121	121	121	121	121	121
Z	Retarder Interface Input	Yes	Yes	161	161	161	161	161	161	161	161	161	161
AA	Service Brake Status Input	Yes	Yes	162	162	162	162	162	162	162	162	162	162
AG	Automatic Neutral - Dual Input	Yes	No	-	-	-	-	-	-	-	-	-	-
AH	Accelerator Pedal Kickdown Input	Yes	Yes	-	-	-	-	-	-	-	-	-	-
AI	Aux Function Range Inhibit - Single Input (Specialty)	No	Yes	-	-	-	-	-	-	-	-	-	-
AJ	Pump Mode Input (4th Lockup)	No	Yes	-	-	-	-	-	-	-	-	-	-
AK	Automatic Neutral - Dual Input w/ Service Brake Status	Yes	No	-	-	-	-	-	117/142	-	-	-	-
AL	Shift Selector Transition & Secondary Shift Schedule	Yes	No	-	-	-	-	-	-	-	-	-	-
AM	Reverse Inhibit with Preselect Request Interface Input	No	Yes	-	-	-	-	-	-	-	-	-	-
AQ	Shift Selector Display Blanking Input	Yes	No	-	-	-	-	-	-	-	-	-	123
AS	Neutral at Stop Input	No	Yes	-	-	-	-	-	123	-	-	-	-
AW	2nd Reverse Input	No	No	-	-	-	-	-	-	179	179	179	179
BD	Automatic 2-1 Preselect Input (4000 7-speed only)	Yes	No	-	-	-	-	-	-	-	-	-	-
BS	Grade Braking/Regeneration Input	No	No	-	-	-	-	-	-	-	-	-	-
BY	Aux Box Transition Input	Yes	Yes	-	-	-	-	-	-	-	-	-	-
BZ	Shift Selector Transition & Oil Field Pumping Input	Yes	No	-	-	-	-	-	-	-	-	-	-
CA	Automatic Neutral - Brake-Based (BBAN) Input for PTO	No	Yes	-	-	-	-	-	-	-	-	-	-
CB1	Preselect Request 1 Input	Yes	Yes	-	-	-	-	-	-	-	-	-	-
CB2	Preselect Request 2 Input	Yes	Yes	-	-	-	-	-	-	-	-	-	-
CC	High N/v Ratio Input	No	Yes	-	-	-	-	-	-	-	-	-	-
CD	Automatic Neutral - Single Input wth Selector Override	Yes	Yes	-	117	117	117	117	-	117	117	117	117
CE	Direct Hold Input	No	Yes	-	-	-	-	-	-	-	-	-	-
CF	Automatic Neutral - Idle Start/Stop Input	Yes	No	-	-	-	-	-	-	-	-	-	-
CH	Automatic Neutral - Single Input, Inverted	No	No	-	-	-	-	-	-	-	-	-	-
CN	Automatic Neutral - Dual Input w/ Auto Return-to-Range	No	Yes	-	-	-	-	-	-	-	-	-	-
CV	Shift Selector - Multiple Transmission Control	No	Yes	-	-	-	-	-	-	-	-	-	-

3000/4000 Series Input + Output Functions Continued

Output Functions	Default Enabled	Comm Avail	Vocation Package Number									
			With Split-Shaft PTO					Emergency	No Split-Shaft PTO			
			135	197	198	246	271	170	227	265	274	
A	Engine Brake Interface Output	No	Yes	104	104	104	104	-	104	104	-	104
B	Sump/Retarder Temperature Indicator	Yes	Yes	164	164	164	164	164	164	-	-	-
C	Range Indicator (6th Gen default is always Neutral)	Yes	No	145	145	145	145	145	113	-	-	-
D	Output Speed Indicator A	Yes	No	105	105	105	105	105	105	105	105	105
G1	PTO Drive Interface 1 Output	Yes	Yes	130	130	130	130	130	130	130	130	130
G2	PTO Drive Interface 2 Output	No	Yes	-	-	-	-	104	-	-	104	-
I	Engine Overspeed Indicator	Yes	No	-	-	-	-	-	-	-	-	-
J	Two Speed Axle Interface Output	Yes	Yes	-	-	-	-	-	-	-	-	-
K	Lockup Indicator	Yes	Yes	-	-	-	-	-	-	-	-	-
N	Secondary Mode Indicator	Yes	Yes	-	-	-	-	-	-	113	113	113
O	Transmission Service Indicator	Yes	Yes	-	-	-	-	-	-	164	164	164
Q	Retarder Interface Output	Yes	Yes	124	124	124	124	124	124	124	124	124
S	Neutral Indicator for PTO and PTO Request (NIPTO)	Yes	No	-	113	113	113	113	145	145	145	145
AJ	Output Speed Indicator A, Inverted	Yes	No	-	-	-	-	-	-	-	-	-

Emergency Calibrations

- Emergency Vehicle Series™ calibrated with unique shift inhibit tolerances to meet the special needs of emergency vehicles.
- Low-voltage detection set at two minutes for emergency calibrations.
- General truck calibrations will not permit shift into range after 10 seconds.
- Emergency calibrations will not permit a shift into range for engine rpms above 1260.
- General truck calibrations will not permit shift into range above 900 rpm.
- No shift inhibit detection of high output speed/high throttle position for emergency calibrations.
- General truck calibrations will not permit a shift into range when output speed is at or above 200 rpm and/or throttle position is beyond 40%.

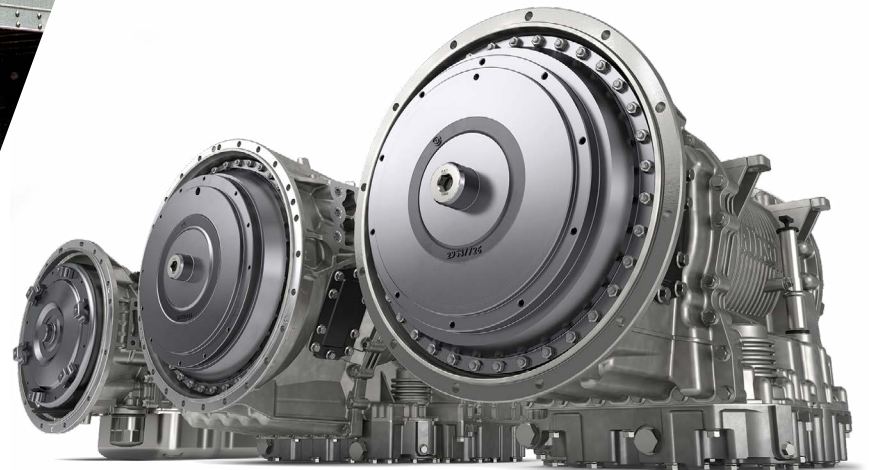


Highway Series™



From Regional Haul to the Final Mile

Allison transmissions are built for today's high stop-start duty-cycles. Whether transporting perishables around a city, running regional pickup and delivery routes or making the long haul, Allison positions you and your drivers to succeed.



Allison Transmission Highway Series™

Ratings

Model	Ratio	Park Pawl	Gross Input Power	Gross Input Torque	Net Turbine Torque	Gross Input Power	Gross Input Torque	Net Turbine Torque	Max GVW	Max GCW
			With Torque Management			Without Torque Management				
			hp (kW)	lb-ft (N·m)	lb-ft (N·m)	hp (kW)	lb-ft (N·m)	lb-ft (N·m)	lbs (kg)	lbs (kg)
1000 HS	Close	Yes	340 (254)	660 (895)	950 (1288)	300 (224)	575 (780)	850 (1152)	19,500 (8845)	26,001 (11,800)
1350 HS	Close	Yes	340 (254)	660 (895)	950 (1288)	300 (224)	575 (780)	850 (1152)	19,500 (8845)	30,000 (13,600)
2100 HS	Close	No	340 (254)	660 (895)	950 (1288)	300 (224)	575 (780)	850 (1152)	26,000 (11,800)	26,000 (11,800)
2200 HS	Close	Yes	340 (254)	660 (895)	950 (1288)	300 (224)	575 (780)	850 (1152)	26,000 (11,800)	26,001 (11,800)
2300 HS	Close	No	365 (272)	510 (691)	950 (1288)	-	-	-	33,000 (15,000)	33,000 (15,000)
2350 HS	Close	Yes	340 (254)	660 (895)	950 (1288)	300 (224)	575 (780)	850 (1152)	30,000 (13,600)	30,000 (13,600)
2500 HS	Wide	No	340 (254)	600 (895)	950 (1288)	300 (224)	575 (780)	850 (1152)	33,000 (15,000)	33,000 (15,000)
2550 HS	Wide	Yes	340 (254)	660 (895)	950 (1288)	300 (224)	575 (780)	850 (1152)	30,000 (13,600)	30,000 (13,600)
3000 HS	Close	No	370 (276)	1250 (1695) ²	1600 (2169)	370 (276)	1100 (1491)	1600 (2169)	80,000 (36,288)	80,000 (36,288)
4000 HS	Close	No	580 (433)	1850 (2508) ²	2600 (3525)	580 (433)	1770 (2400)	2600 (3525)	-	-
4500 HS	Wide	No	580 (433)	1850 (2508) ²	2600 (3525)	580 (433)	1650 (2237)	2600 (3525)	-	-

1 - Available in 2nd gear start 2 - Available in gears 3-6

Typical Vehicle Applications¹

Armored Car, Automobile Transporter, Beverage Delivery, Distribution, Dry Bulk, Equipment Hauler (no permit/escort), Flatbed, Food Distribution, General Freight, Line Haul, Livestock Hauler, Manufacturing, Moving/Storage, One-way Rental Truck, Recycling, Shorthaul/LTL, Stake Truck, Van, Walk-in Van



1000 HS | 1350 HS
2100 HS | 2200 HS
2300 HS | 2350 HS
2500 HS | 2550 HS



3000 HS



4000 HS
4500 HS

1 - Any vehicle that operates on-highway and does not need a PTO requires an Allison Highway Series™ transmission.

Allison Transmission Highway Series™

1000/2000 Series Input + Output Functions

Input Functions		Default Enabled	Comm Avail	Vocation Package Number						
				354	374	371	380	381	388	389
A	Secondary Mode Input	Yes	Yes	142	142	142	142	142	-	142
C1	PTO Drive Interface 1 Input	Yes	Yes	143	162	143	143	-	-	143
C2	PTO Drive Interface 2 Input	No	Yes	-	-	-	102	-	-	-
E	Auxiliary Function Range Inhibit - Single Input	No	Yes	101	101	101	101	101	101	101
H	Engine Brake Interface Input (Standard)	No	Yes	102	102	-	-	-	-	-
I	Engine Brake Interface Input (Special)	No	Yes	-	-	-	-	102	-	-
L	Automatic Neutral - Single Input	No	Yes	123	123	123	123	-	-	-
V	Reverse Enable Input	No	No	-	-	-	-	143	-	-
Y	Anti-Lock Brake System (ABS) Input	Yes	Yes	121	121	121	121	121	-	121
AA	Service Brake Status Input	Yes	Yes	162	-	162	162	162	-	162
AH	Accelerator Pedal Kickdown Input	Yes	Yes	-	-	-	-	122	-	-
AM	Reverse Inhibit w/ Preselect Request Interface Input	No	Yes	-	-	-	-	-	-	-
AR	Overdrive Disable Interface Input	Yes	Yes	161	161	161	161	161	-	161
AS	Neutral at Stop Input	No	Yes	-	143	-	-	-	-	-
BQ	Pump Mode Input (3rd Lockup)	No	No	-	-	-	-	-	122/102	-
BS	Grade Braking / Regeneration Input	No	No	-	-	102	-	-	-	102
CA	Auto Neutral - Brake-Based (BBAN) Input for PTO	No	Yes	-	-	-	-	-	-	-
CB1	Preselect Request 1 Input	Yes	Yes	122	122	-	122	-	-	-
CC	High N/v Ratio Input	No	Yes	-	-	-	-	-	-	-
CD	Automatic Neutral - Single Input w/ Selector Override	Yes	Yes	-	-	-	-	-	-	-
CN	Automatic Neutral - Dual Input w/ Auto Return-to-Range	No	Yes	-	-	-	-	123	-	-
CR	PTO Drive Interface - Synchronized PTO Input	No	Yes	-	-	-	-	-	-	-
CS	Run/Crank Input	Yes	No	-	-	-	-	-	123	123

Output Functions		Default Enabled	Comm Avail	Vocation Package Number						
				354	374	371	380	381	388	389
A	Engine Brake Interface Output	No	Yes	104	104	104	-	104	-	-
B	Sump/Retarder Temperature Indicator	Yes	Yes	164	164	164	164	164	164	164
C	Range Indicator	Yes	No	145	145	145	145	145	145	145
D	Output Speed Indicator A	Yes	No	105	105	105	105	105	105	105
G1	PTO Drive Interface 1 Output	Yes	Yes	150	150	150	150	-	-	150
G2	PTO Drive Interface 2 Output	No	Yes	-	-	-	104	-	-	-
O	Transmission Service Indicator	Yes	Yes	113	113	113	113	113	-	113
S	Neutral Indicator for PTO & PTO Request (NIPTO)	Yes	No	-	-	-	-	-	-	-
X	Overdrive Disable Interface Output	Yes	No	-	-	-	-	-	-	104
AD	Range Inhibited indicator	Yes	Yes	124	124	124	124	124	124	124
AN	PTO Drive Interface - Synchronized PTO Output	Yes	No	-	-	-	-	-	-	-

Allison Transmission Highway Series™

3000/4000 Series Input + Output Functions

	Input Functions	Default Enabled	Comm Avail	Vocation Package Number					
				On-Highway Vehicles					
				223	226	235	247	263	268
A	Secondary Mode Input	Yes	Yes	Mode	Mode	142	142	Mode	Mode
C1	PTO Drive Interface 1 Input	Yes	Yes	143	-	Mode	143	143	143
C2	PTO Drive Interface 2 Input	No	Yes	-	-	-	-	102	-
D	Shift Selector Transition Input	No	No	-	-	-	-	-	-
E	Auxiliary Function Range Inhibit - Single Input	No	Yes	101	101	101	101	101	101
F	Auxiliary Function Range Inhibit - Dual Input	Yes	No	-	-	-	-	-	-
G	Auxiliary Hold Input	Yes	No	142	142	-	Mode	142	142
H	Engine Brake Interface Input (Standard)	No	Yes	102/157	102/157	102/157	102/157	-	-
I	Engine Brake Interface Input (Special)	No	Yes	-	-	-	-	-	-
J	Fire Truck Pump Mode Input	No	No	-	-	-	-	-	-
K	Quick-to-Neutral Input	No	No	-	-	-	-	-	-
L	Automatic Neutral - Single Input	No	Yes	117	117	117	117	117	117
Q	Two Speed Axle Interface Input	Yes	Yes	-	-	-	-	-	-
R	Manual Lockup Control Input	No	No	-	-	-	-	-	-
V	Reverse Enable Input	No	No	-	-	-	-	-	-
W	Direction Change Enable Input	No	Yes	122	122	143	-	122	122
Y	Anti-Lock Brake System (ABS) Input	Yes	Yes	121	121	121	121	121	121
Z	Retarder Interface Input	Yes	Yes	161	161	161	161	161	161
AA	Service Brake Status Input	Yes	Yes	162	162	162	162	162	162
AG	Automatic Neutral - Dual Input	Yes	No	-	-	-	-	-	-
AH	Accelerator Pedal Kickdown Input	Yes	Yes	-	-	122	122	-	-
AI	Aux Function Range Inhibit - Single Input (Specialty)	No	Yes	-	-	-	-	-	-
AJ	Pump Mode Input (4th Lockup)	No	Yes	-	-	-	-	-	-
AK	Automatic Neutral - Dual Input w/ Service Brake Status	Yes	No	-	-	-	-	-	-
AL	Shift Selector Transition & Secondary Shift Schedule	Yes	No	-	-	-	-	-	-
AM	Reverse Inhibit with Preselect Request Interface Input	No	Yes	-	-	-	-	-	-
AQ	Shift Selector Display Blanking Input	Yes	No	-	-	-	-	-	-
AS	Neutral at Stop Input	No	Yes	123	123	123	123	123	123
AW	2nd Reverse Input	No	No	179	-	-	-	179	179
BD	Automatic 2-1 Preselect Input (4000 7-Speed Only)	Yes	No	-	-	-	-	-	-
BS	Grade Braking / Regeneration Input	No	No	-	-	-	-	-	102
BY	Aux Box Transition Input	Yes	Yes	-	-	-	-	-	-
BZ	Shift Selector Transition & Oil Field Pumping Input	Yes	No	-	-	-	-	-	-
CA	Automatic Neutral - Brake-Based (BBAN) Input for PTO	No	Yes	-	-	-	-	-	-
CB1	Preselect Request 1 Input	Yes	Yes	-	-	-	-	-	-
CB2	Preselect Request 2 Input	Yes	Yes	-	-	-	-	-	-
CC	High N/v Ratio Input	No	Yes	-	-	-	-	-	-
CD	Automatic Neutral - Single Input with Selector Override	Yes	Yes	-	-	-	-	-	-
CE	Direct Hold Input	No	Yes	-	-	-	-	-	-
CF	Automatic Neutral - Idle Start / Stop Input	Yes	No	-	-	-	-	-	-
CH	Automatic Neutral - Single Input, Inverted	No	Yes	-	-	-	-	-	-
CN	Automatic Neutral - Dual Input w/ Auto Return-to-Range	No	Yes	-	-	-	-	-	-
CV	Shift Selector - Multiple Transmission Control	No	Yes	-	-	-	-	-	-

3000/4000 Series Input + Output Functions Continued

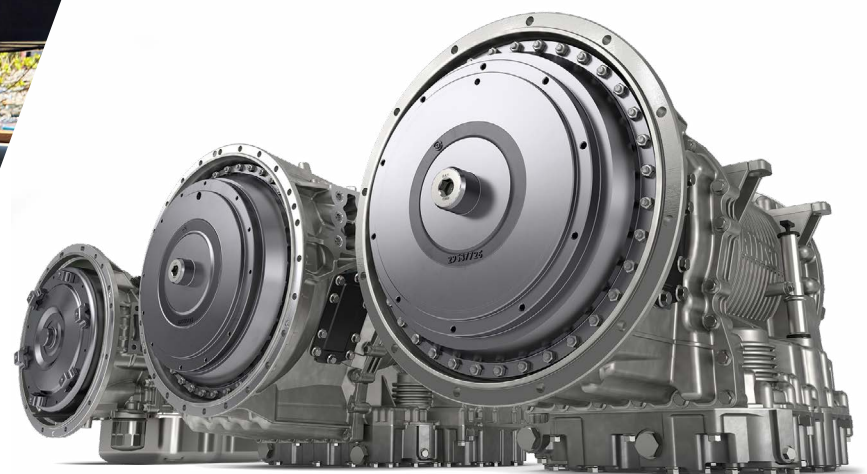
Output Functions	Default Enabled	Comm Avail	Vocation Package Number						
			On-Highway Vehicles						
			223	226	235	247	263	268	
A	Engine Brake Interface Output	No	Yes	104	104	104	104	-	-
B	Sump/Retarder Temperature Indicator	Yes	Yes	164	164	164	164	164	164
C	Range Indicator (6th Gen default is always Neutral)	Yes	No	145	145	145	145	145	145
D	Output Speed Indicator A	Yes	No	105	105	105	105	105	105
G1	PTO Drive Interface 1 Output	Yes	Yes	130	-	130	130	130	130
G2	PTO Drive Interface 2 Output	No	Yes	-	-	-	-	104	-
I	Engine Overspeed Indicator	Yes	No	-	130	-	-	-	-
J	Two Speed Axle Interface Output	Yes	Yes	-	-	-	-	-	-
K	Lockup Indicator	Yes	Yes	-	-	-	-	-	-
N	Secondary Mode Indicator	Yes	Yes	113	113	113	-	113	113
O	Transmission Service Indicator	Yes	Yes	-	-	-	-	-	-
Q	Retarder Interface Output	Yes	Yes	124	124	124	124	124	124
S	Neutral Indicator for PTO and PTO Request (NIPTO)	Yes	No	-	-	-	-	-	-
AJ	Output Speed Indicator A, Inverted	Yes	No	-	-	-	-	-	-



Motorhome Series™ + Truck RV Series™

Powering Your Next Adventure

For decades, Allison has provided RV and motorhome owners with proven reliability, durability and a smooth ride. Our propulsion solutions deliver more power and control to the wheels while optimizing engine power. Whatever your travel plans, there's an Allison to help you reach your destination.



Allison Transmission Motorhome Series™

Ratings

Model	Ratio	Park Pawl	Gross Input Power	Gross Input Torque	Net Turbine Torque	Gross Input Power	Gross Input Torque	Net Turbine Torque	Max GVW	Max GCW
			With Torque Management			Without Torque Management				
			hp (kW)	lb-ft (N·m)	lb-ft (N·m)	hp (kW)	lb-ft (N·m)	lb-ft (N·m)	lbs (kg)	lbs (kg)
1000 MH	Close	Yes	340 (254)	660 (895)	950 (1288)	300 (224)	575 (780)	850 (1,152)	22,000 (10,000)	26,001 (11,800)
1350 MH	Close	Yes	340 (254)	660 (895)	950 (1288)	300 (224)	575 (780)	850 (1,152)	22,000 (10,000)	30,000 (13,600)
2100 MH	Close	No	340 (254)	660 (895)	950 (1288)	300 (224)	575 (780)	850 (1,152)	26,000 (11,800)	30,000 (13,600)
2200 MH	Close	Yes	340 (254)	660 (895)	950 (1288)	300 (224)	575 (780)	850 (1,152)	26,000 (11,800)	26,001 (11,800)
2350 MH	Close	Yes	340 (254)	660 (895)	950 (1288)	300 (224)	575 (780)	850 (1,152)	30,000 (13,600)	30,000 (13,600)
2500 MH	Wide	No	340 (254)	660 (895)	950 (1288)	300 (224)	575 (780)	850 (1,152)	33,000 (15,000)	33,000 (15,000)
2550 MH	Wide	Yes	340 (254)	660 (895)	950 (1288)	300 (224)	575 (780)	850 (1,152)	30,000 (13,600)	30,000 (13,600)
3000 MH	Close	No	450 (336)	1250 (1695)	1700 (2305)	450 (336)	1250 (1695)	1700 (2305)	-	-
4000 MH	Close	No	650 (485)	1950 (2644)	2800 (3795)	650 (485)	1950 (2644)	2800 (3795)	-	-

1 - Available in 2nd gear start

Typical Vehicle Applications¹

Type A and Bus Conversion Motorhomes (Class 5-8), Type C Motorhomes (Class 4-5), Motorhomes, Entertainer Travel Coaches



1000 MH | 1350 MH
2100 MH | 2200 MH
2350 MH | 2500 MH
2550 MH



3000 MH



4000 MH

1 - Class 6-8 Type C Motorhomes require a Truck RV Series™ transmission.

Allison Transmission Motorhome Series™

1000/2000 Series Input + Output Functions

Input Functions		Default Enabled	Comm Avail	Vocation Package Number							
				354	369	371	374	379	380	381	388
A	Secondary Mode Input	Yes	Yes	142	142	142	142	142	142	142	-
C1	PTO Drive Interface 1 Input	Yes	Yes	143	143	143	162	162	143	-	-
C2	PTO Drive Interface 2 Input	No	Yes	-	-	-	-	-	102	-	-
E	Auxiliary Function Range Inhibit - Single Input	No	Yes	101	101	101	101	101	101	101	101
H	Engine Brake Interface Input (Standard)	No	Yes	102	102	-	102	102	-	-	-
I	Engine Brake Interface Input (Special)	No	Yes	-	-	-	-	-	-	102	-
L	Automatic Neutral - Single Input	No	Yes	123	123	123	123	123	123	-	-
V	Reverse Enable Input	No	No	-	-	-	-	-	-	143	-
Y	Anti-Lock Brake System (ABS) Input	Yes	Yes	121	121	121	121	121	121	121	-
AA	Service Brake Status Input	Yes	Yes	162	162	162	-	-	162	162	-
AH	Accelerator Pedal Kickdown Input	Yes	Yes	-	-	-	-	-	-	122	-
AM	Reverse Inhibit w/ Preselect Request Interface Input	No	Yes	-	-	-	-	-	-	-	-
AR	Overdrive Disable Interface Input	Yes	Yes	161	161	161	161	161	161	161	-
AS	Neutral at Stop Input	No	Yes	-	-	-	143	143	-	-	-
BQ	Pump Mode Input (3rd Lockup)	No	No	-	-	-	-	-	-	-	122/102
BS	Grade Braking / Regeneration Input	No	No	-	-	102	-	-	-	-	-
CA	Auto Neutral - Brake-Based (BBAN) Input for PTO	No	Yes	-	122	-	-	122	-	-	-
CB1	Preselect Request 1 Input	Yes	Yes	122	-	-	122	-	122	-	-
CC	High N/v Ratio Input	No	Yes	-	-	-	-	-	-	-	-
CD	Automatic Neutral - Single Input w/ Selector Override	Yes	Yes	-	-	-	-	-	-	-	-
CN	Automatic Neutral - Dual Input w/ Auto Return-to-Range	No	Yes	-	-	-	-	-	-	123	-
CR	PTO Drive Interface - Synchronized PTO Input	No	Yes	-	-	-	-	-	-	-	-
CS	Run/Crank Input	Yes	No	-	-	-	-	-	-	-	123
Output Functions		Default Enabled	Comm Avail	Vocation Package Number							
				354	369	371	374	379	380	381	388
A	Engine Brake Interface Output	No	Yes	104	104	104	104	104	-	104	-
B	Sump/Retarder Temperature Indicator	Yes	Yes	164	164	164	164	164	164	164	164
C	Range Indicator	Yes	No	145	145	145	145	145	145	145	145
D	Output Speed Indicator A	Yes	No	105	105	105	105	105	105	105	105
G1	PTO Drive Interface 1 Output	Yes	Yes	150	150	150	150	150	150	-	-
G2	PTO Drive Interface 2 Output	No	Yes	-	-	-	-	-	104	-	-
O	Transmission Service Indicator	Yes	Yes	113	113	113	113	113	113	113	-
S	Neutral Indicator for PTO & PTO Request (NIPTO)	Yes	No	-	-	-	-	-	-	-	-
X	Overdrive Disable Interface Output	Yes	No	-	-	-	-	-	-	-	-
AD	Range Inhibited indicator	Yes	Yes	124	124	124	124	124	124	124	124
AN	PTO Drive Interface - Synchronized PTO Output	Yes	No	-	-	-	-	-	-	-	-

Allison Transmission Motorhome Series™

3000/4000 Series Input + Output Functions

	Input Functions	Default Enabled	Comm Avail	Vocation Package Number			
				223	226	263	268
A	Secondary Mode Input	Yes	Yes	Mode	Mode	Mode	Mode
C1	PTO Drive Interface 1 Input	Yes	Yes	143	-	143	143
C2	PTO Drive Interface 2 Input	No	Yes	-	-	102	-
D	Shift Selector Transition Input	No	No	-	-	-	-
E	Auxiliary Function Range Inhibit - Single Input	No	Yes	101	101	101	101
F	Auxiliary Function Range Inhibit - Dual Input	Yes	No	-	-	-	-
G	Auxiliary Hold Input	Yes	No	142	142	142	142
H	Engine Brake Interface Input (Standard)	No	Yes	102/157	102/157	-	-
I	Engine Brake Interface Input (Special)	No	Yes	-	-	-	-
J	Fire Truck Pump Mode Input	No	No	-	-	-	-
K	Quick-to-Neutral Input	No	No	-	-	-	-
L	Automatic Neutral - Single Input	No	Yes	117	117	117	117
Q	Two Speed Axle Interface Input	Yes	Yes	-	-	-	-
R	Manual Lockup Control Input	No	No	-	-	-	-
V	Reverse Enable Input	No	No	-	-	-	-
W	Direction Change Enable Input	No	Yes	122	122	122	122
Y	Anti-Lock Brake System (ABS) Input	Yes	Yes	121	121	121	121
Z	Retarder Interface Input	Yes	Yes	161	161	161	161
AA	Service Brake Status Input	Yes	Yes	162	162	162	162
AG	Automatic Neutral - Dual Input	Yes	No	-	-	-	-
AH	Accelerator Pedal Kickdown Input	Yes	Yes	-	-	-	-
AI	Aux Function Range Inhibit - Single Input (Specialty)	No	Yes	-	-	-	-
AJ	Pump Mode Input (4th Lockup)	No	Yes	-	-	-	-
AK	Automatic Neutral - Dual Input w/ Service Brake Status	Yes	No	-	-	-	-
AL	Shift Selector Transition & Secondary Shift Schedule	Yes	No	-	-	-	-
AM	Reverse Inhibit with Preselect Request Interface Input	No	Yes	-	-	-	-
AQ	Shift Selector Display Blanking Input	Yes	No	-	-	-	-
AS	Neutral at Stop Input	No	Yes	123	123	123	123
AW	2nd Reverse Input	No	No	179	-	179	179
BD	Automatic 2-1 Preselect Input (4000 7-Speed Only)	Yes	No	-	-	-	-
BS	Grade Braking / Regeneration Input	No	No	-	-	-	102
BY	Aux Box Transition Input	Yes	Yes	-	-	-	-
BZ	Shift Selector Transition & Oil Field Pumping Input	Yes	No	-	-	-	-
CA	Automatic Neutral - Brake-Based (BBAN) Input for PTO	No	Yes	-	-	-	-
CB1	Preselect Request 1 Input	Yes	Yes	-	-	-	-
CB2	Preselect Request 2 Input	Yes	Yes	-	-	-	-
CC	High N/v Ratio Input	No	Yes	-	-	-	-
CD	Automatic Neutral - Single Input with Selector Override	Yes	Yes	-	-	-	-
CE	Direct Hold Input	No	Yes	-	-	-	-
CF	Automatic Neutral - Idle Start / Stop Input	Yes	No	-	-	-	-
CH	Automatic Neutral - Single Input, Inverted	No	Yes	-	-	-	-
CN	Automatic Neutral - Dual Input w/ Auto Return-to-Range	No	Yes	-	-	-	-
CV	Shift Selector - Multiple Transmission Control	No	Yes	-	-	-	-

3000/4000 Series Input + Output Functions Continued

Output Functions	Default Enabled	Comm Avail	Vocation Package Number			
			223	226	263	268
A Engine Brake Interface Output	No	Yes	104	104	-	-
B Sump/Retarder Temperature Indicator	Yes	Yes	164	164	164	164
C Range Indicator (6th Gen default is always Neutral)	Yes	No	145	145	145	145
D Output Speed Indicator A	Yes	No	105	105	105	105
G1 PTO Drive Interface 1 Output	Yes	Yes	130	-	130	130
G2 PTO Drive Interface 2 Output	No	Yes	-	-	104	-
I Engine Overspeed Indicator	Yes	No	-	130	-	-
J Two Speed Axle Interface Output	Yes	Yes	-	-	-	-
K Lockup Indicator	Yes	Yes	-	-	-	-
N Secondary Mode Indicator	Yes	Yes	113	113	113	113
O Transmission Service Indicator	Yes	Yes	-	-	-	-
Q Retarder Interface Output	Yes	Yes	124	124	124	124
S Neutral Indicator for PTO and PTO Request (NIPTO)	Yes	No	-	-	-	-
AJ Output Speed Indicator A, Inverted	Yes	No	-	-	-	-



Allison Transmission Truck RV Series™

Ratings

Model	Ratio	Park Pawl	Gross Input Power	Gross Input Torque	Net Turbine Torque	Gross Input Power	Gross Input Torque	Net Turbine Torque	Max GVW	Max GCW
			With Torque Management			Without Torque Management				
			hp (kW)	lb-ft (N-m)	lb-ft (N-m)	hp (kW)	lb-ft (N-m)	lb-ft (N-m)	lbs (kg)	lbs (kg)
3000 TRV	Close	No	310 (231)	950 (1288)	1700 (2305)	310 (231)	950 (1288)	1700 (2305)	-	40,000 (18,144)
3200 TRV	Close	No	450 (336)	1250 (1695)	1700 (2305)	450 (336)	1200 (1627)	1700 (2305)	-	-
4000 TRV	Close	No	605 (451)	1850 (2508)	2800 (3795)	605 (451)	1850 (2508)	2800 (3795)	52,000 (23,587)	72,000 (32,659)

Typical Vehicle Applications

Truck-Based Recreational Vehicles, Class 6-8 Type C Motorhomes



3000 TRV
3200 TRV



4000 TRV



Allison Transmission Truck RV Series™

3000/4000 Series Input + Output Functions

	Input Functions	Default Enabled	Comm Avail	Vocation Package Number			
				223	226	263	268
A	Secondary Mode Input	Yes	Yes	Mode	Mode	Mode	Mode
C1	PTO Drive Interface 1 Input	Yes	Yes	143	-	143	143
C2	PTO Drive Interface 2 Input	No	Yes	-	-	102	-
D	Shift Selector Transition Input	No	No	-	-	-	-
E	Auxiliary Function Range Inhibit - Single Input	No	Yes	101	101	101	101
F	Auxiliary Function Range Inhibit - Dual Input	Yes	No	-	-	-	-
G	Auxiliary Hold Input	Yes	No	142	142	142	142
H	Engine Brake Interface Input (Standard)	No	Yes	102/157	102/157	-	-
I	Engine Brake Interface Input (Special)	No	Yes	-	-	-	-
J	Fire Truck Pump Mode Input	No	No	-	-	-	-
K	Quick-to-Neutral Input	No	No	-	-	-	-
L	Automatic Neutral - Single Input	No	Yes	117	117	117	117
Q	Two Speed Axle Interface Input	Yes	Yes	-	-	-	-
R	Manual Lockup Control Input	No	No	-	-	-	-
V	Reverse Enable Input	No	No	-	-	-	-
W	Direction Change Enable Input	No	Yes	122	122	122	122
Y	Anti-Lock Brake System (ABS) Input	Yes	Yes	121	121	121	121
Z	Retarder Interface Input	Yes	Yes	161	161	161	161
AA	Service Brake Status Input	Yes	Yes	162	162	162	162
AG	Automatic Neutral - Dual Input	Yes	No	-	-	-	-
AH	Accelerator Pedal Kickdown Input	Yes	Yes	-	-	-	-
AI	Aux Function Range Inhibit - Single Input (Specialty)	No	Yes	-	-	-	-
AJ	Pump Mode Input (4th Lockup)	No	Yes	-	-	-	-
AK	Automatic Neutral - Dual Input w/ Service Brake Status	Yes	No	-	-	-	-
AL	Shift Selector Transition & Secondary Shift Schedule	Yes	No	-	-	-	-
AM	Reverse Inhibit with Preselect Request Interface Input	No	Yes	-	-	-	-
AQ	Shift Selector Display Blanking Input	Yes	No	-	-	-	-
AS	Neutral at Stop Input	No	Yes	123	123	123	123
AW	2nd Reverse Input	No	No	179	-	179	179
BD	Automatic 2-1 Preselect Input (4000 7-Speed Only)	Yes	No	-	-	-	-
BS	Grade Braking / Regeneration Input	No	No	-	-	-	102
BY	Aux Box Transition Input	Yes	Yes	-	-	-	-
BZ	Shift Selector Transition & Oil Field Pumping Input	Yes	No	-	-	-	-
CA	Automatic Neutral - Brake-Based (BBAN) Input for PTO	No	Yes	-	-	-	-
CB1	Preselect Request 1 Input	Yes	Yes	-	-	-	-
CB2	Preselect Request 2 Input	Yes	Yes	-	-	-	-
CC	High N/v Ratio Input	No	Yes	-	-	-	-
CD	Automatic Neutral - Single Input with Selector Override	Yes	Yes	-	-	-	-
CE	Direct Hold Input	No	Yes	-	-	-	-
CF	Automatic Neutral - Idle Start / Stop Input	Yes	No	-	-	-	-
CH	Automatic Neutral - Single Input, Inverted	No	Yes	-	-	-	-
CN	Automatic Neutral - Dual Input w/ Auto Return-to-Range	No	Yes	-	-	-	-
CV	Shift Selectors - Multiple Transmission Control	No	Yes	-	-	-	-

	Output Functions	Default Enabled	Comm Avail	Vocation Package Number			
				223	226	263	268
A	Engine Brake Interface Output	No	Yes	104	104	-	-
B	Sump/Retarder Temperature Indicator	Yes	Yes	164	164	164	164
C	Range Indicator (6th Gen default is always Neutral)	Yes	No	145	145	145	145
D	Output Speed Indicator A	Yes	No	105	105	105	105
G1	PTO Drive Interface 1 Output	Yes	Yes	130	-	130	130
G2	PTO Drive Interface 2 Output	No	Yes	-	-	104	-
I	Engine Overspeed Indicator	Yes	No	-	130	-	-
J	Two Speed Axle Interface Output	Yes	Yes	-	-	-	-
K	Lockup Indicator	Yes	Yes	-	-	-	-
N	Secondary Mode Indicator	Yes	Yes	113	113	113	113
O	Transmission Service Indicator	Yes	Yes	-	-	-	-
Q	Retarder Interface Output	Yes	Yes	124	124	124	124
S	Neutral Indicator for PTO and PTO Request (NIPTO)	Yes	No	-	-	-	-
AJ	Output Speed Indicator A, Inverted	Yes	No	-	-	-	-

Oil Field Series™



Get Maximum Results in the Field

Allison Transmission is an industry leader in designing, engineering and manufacturing fully automatic transmissions for the energy sector. In oil and gas fields all over the world, our rugged and reliable transmissions make your operations more productive, even in the harshest conditions.



Allison Transmission Oil Field Series™

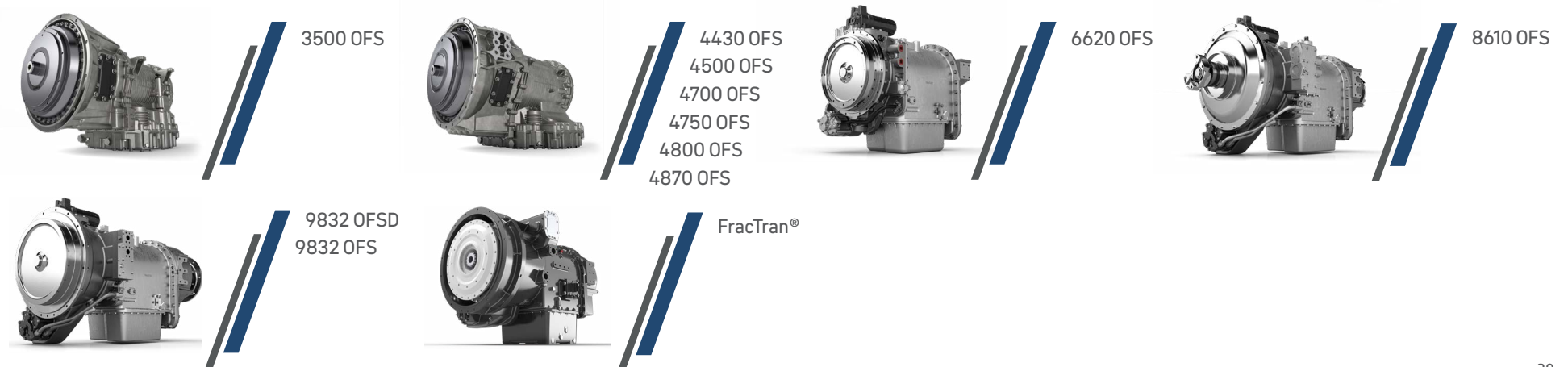
Ratings

Model	Ratio	Park Pawl	Gross Input Power	Gross Input Torque	Net Turbine Torque	Gross Input Power	Gross Input Torque	Net Turbine Torque	Max GVW	Max GCW
			With Torque Management			Without Torque Management				
			hp (kW)	lb-ft (N·m)	lb-ft (N·m)	hp (kW)	lb-ft (N·m)	lb-ft (N·m)	lbs (kg)	lbs (kg)
3500 OFS	Wide	No	330 (246)	985 (1335) ¹	1450 (1996)	330 (246)	860 (1166)	1450 (1966)	-	-
4430 OFS	Wide	No	425 (317)	1217 (1650)	2600 (3525)	425 (317)	1217 (1650)	2600 (3525)	-	-
4500 OFS	Wide	No	580 (433)	1650 (2237)	2600 (3525)	580 (433)	1650 (2237)	2600 (3525)	-	-
4700 OFS	Deep	No	605 (451)	1850 (2508)	2600 (3525)	605 (451)	1850 (2508)	2600 (3525)	-	-
4750 OFS	Deep	No	665 (496)	1950 (2644)	3000 (4067)	665 (496)	1950 (2644)	3000 (4067)	-	-
4800 OFS - Dual Mode	Deep	No	675 (503)	2250 (3050) ²	3000 (4067)	675 (503)	2213 (3000)	2800 (3796)	-	-
4800 OFS - Pumping	Deep	No	675 (503)	2250 (3050) ²	3000 (4067)	675 (503)	2213 (3000)	3000 (4067)	-	-
4870 OFS	Wide	No	675 (503)	2250 (3050) ²	2800 (3796)	675 (503)	2213 (3000)	2550 (3457)	-	-
6620 OFS - General	-	No	760 (567)	2500 (3390)	3790 (5139)	760 (567)	2500 (3390)	3790 (5139)	-	-
6620 OFS - Stationary Pump/Dual Mode	-	No	900 (671)	2750 (3729)	4000 (5423)	900 (671)	2750 (3729)	4000 (5423)	-	-
8610 OFS	-	No	1200 (895)	3600 (4881)	5966 (8089)	1200 (895)	3600 (4881)	5966 (8089)	-	-
9832 OFSD	-	No	1750 (1305)	5250 (7118)	7000 (9491)	1750 (1305)	5250 (7118)	7000 (9491)	-	-
9832 OFS	-	No	2600 (1939)	7750 (10,507)	8000 (10,847)	2600 (1939)	7750 (10,507)	8000 (10,847)	-	-
FracTran®	CR, DR	No	3300 (2461)	10,600 (14,372)	10,000 (13,558)	3300 (2461)	10,600 (14,372)	10,000 (13,558)	-	-

1 - Available in gears three through six 2 - Available in gears four through seven

Typical Vehicle Applications

Drilling, Cementing, Fracturing, Hoisting, Pumping



Allison Transmission Oil Field Series™

3000/4000 Series Input + Output Functions

Input Functions		Default Enabled	Comm Avail	Vocation Package Number													
				Skid-Mounted Pump			Dual Mode										
				192	209	270	193	243	248	251	258	259	260	261	276	277	278
A	Secondary Mode Input	Yes	Yes	*	*	-	-	-	-	-	-	-	-	-	-	-	-
C1	PTO Drive Interface 1 Input	Yes	Yes	-	-	-	-	143	102	-	-	143	102	-	-	-	-
C2	PTO Drive Interface 2 Input	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D	Shift Selector Transition Input	No	No	142	142	142	-	-	-	-	-	-	-	-	-	-	-
E	Auxiliary Function Range Inhibit - Single Input	No	Yes	101	101	101	101	101	101	101	101	101	101	101	101	101	101
F	Auxiliary Function Range Inhibit - Dual Input	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G	Auxiliary Hold Input	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-
H	Engine Brake Interface Input (Standard)	No	Yes	-	-	-	102/157	-	-	-	102/157	-	-	-	-	-	102/157
I	Engine Brake Interface Input (Special)	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-
J	Fire Truck Pump Mode Input	No	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K	Quick-to-Neutral Input	No	No	143	143	143	143	102	143	143	143	102	143	143	143	143	143
L	Automatic Neutral - Single Input	No	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Q	Two Speed Axle Interface Input	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R	Manual Lockup Control Input	No	No	161/179	161/179	161/179	123/179	123/179	123/179	123/179	123/179	123/179	123/179	123/179	123/179	123/179	123/179
V	Reverse Enable Input	No	No	122	122	-	122	122	122	122	-	-	-	-	122	-	-
W	Direction Change Enable Input	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Y	Anti-Lock Brake System (ABS) Input	Yes	Yes	-	-	-	121	121	121	121	121	121	121	121	121	121	121
Z	Retarder Interface Input	Yes	Yes	-	-	-	161	161	161	161	161	161	161	161	161	161	161
AA	Service Brake Status Input	Yes	Yes	-	-	-	162	162	162	162	162	162	162	162	162	162	162
AG	Automatic Neutral - Dual Input	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AH	Accelerator Pedal Kickdown Input	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AI	Aux Function Range Inhibit - Single Input (Specialty)	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AJ	Pump Mode Input (4th Lockup)	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AK	Automatic Neutral - Dual Input w/ Service Brake Status	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AL	Shift Selector Transition & Secondary Shift Schedule	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AM	Reverse Inhibit with Preselect Request Interface Input	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AQ	Shift Selector Display Blanking Input	Yes	No	102	-	102	-	-	-	102	-	-	-	102	-	-	-
AS	Neutral at Stop Input	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AW	2nd Reverse Input	No	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BD	Automatic 2-1 Preselect Input (4000 7-Speed Only)	Yes	No	Mode	-	-	Mode	Mode	Mode	Mode	-	-	-	-	Mode	-	Mode
BS	Grade Braking / Regeneration Input	No	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BY	Aux Box Transition Input	Yes	Yes	117	117	117	117	117	117	117	117	117	117	117	117	117	117
BZ	Shift Selector Transition & Oil Field Pumping Input	Yes	No	-	-	-	142	142	142	142	142	142	142	142	142	142	142
CA	Automatic Neutral - Brake-Based (BBAN) Input for PTO	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CB1	Preselect Request 1 Input	Yes	Yes	-	-	Mode	-	-	-	-	Mode	Mode	Mode	Mode	-	Mode	-
CB2	Preselect Request 2 Input	Yes	Yes	-	-	122	-	-	-	-	122	122	122	122	-	122	-
CC	High N/v Ratio Input	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CD	Automatic Neutral - Single Input with Selector Override	Yes	Yes	-	-	-	-	157	157	157	-	157	157	157	157	157	-
CE	Direct Hold Input	No	No	-	Mode	-	-	-	-	-	-	-	-	-	-	-	-
CF	Automatic Neutral - Idle Start / Stop Input	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CH	Automatic Neutral - Single Input, Inverted	No	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CN	Automatic Neutral - Dual Input w/ Auto Return-to-Range	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CV	Shift Selector - Multiple Transmission Control	No	Yes	-	-	-	-	-	-	-	-	-	-	-	102	102	122

* No primary mode. Calibration forces skid-mounted pump to secondary mode.

3000/4000 Series Input + Output Functions Continued

Output Functions	Default Enabled	Comm Avail	Vocation Package Number														
			Skid-Mounted Pump			Dual Mode											
			192	209	270	193	243	248	251	258	259	260	261	276	277	278	
A	Engine Brake Interface Output	No	Yes	-	-	-	104	-	-	-	104	-	-	-	-	-	104
B	Sump/Retarder Temperature Indicator	Yes	Yes	164	164	164	164	164	164	164	164	164	164	164	164	164	164
C	Range Indicator (6th Gen default is always Neutral)	Yes	No	145	145	145	145	145	145	145	145	145	145	145	145	145	145
D	Output Speed Indicator A	Yes	No	124	124	124	-	-	-	-	-	-	-	-	-	-	-
G1	PTO Drive Interface 1 Output	Yes	Yes	-	-	-	-	130	130	-	-	130	130	-	-	-	-
G2	PTO Drive Interface 2 Output	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-
I	Engine Overspeed Indicator	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-
J	Two Speed Axle Interface Output	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K	Lockup Indicator	Yes	Yes	105	105	105	105	105	105	105	105	105	105	105	105	105	105
N	Secondary Mode Indicator	Yes	Yes	113	113	113	113	113	113	113	113	113	113	113	113	113	113
O	Transmission Service Indicator	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Q	Retarder Interface Output	Yes	Yes	-	-	-	124	124	124	124	124	124	124	124	124	124	124
S	Neutral Indicator for PTO and PTO Request (NIPTO)	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AJ	Output Speed Indicator A, Inverted	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Allison Transmission Oil Field Series™

6000-9000 Series Input + Output Functions

Input Functions		SAE J1939 SPN ¹	Vocation Package Number						
			Mobile/Dual Mode			Stationary			
			401	402	403	411	412	421	930 ¹
A	Secondary Mode Input	1853 (TC1 Transmission Mode 2)	Mode	162	162	Mode	162	-	-
B	D-1 Selection	N/A	162	Mode	-	162	Mode	Mode	-
D	Shift Selector Transition Input	N/A	-	-	102	102	102	142	142
E	Auxiliary Function Range Inhibit - Single Input (Inverted)	1121 (EBC1 EBS Brake Switch)	161	161	161	161	161	101	-
G	Auxiliary Hold Input	3906 (Auxiliary I/O #83)	101	101	101	-	-	117	-
K	Quick-to-Neutral Input - Normally Closed	70 (CCVS1 Parking Brake Switch)	-	-	-	123	-	143	143
Q	Two Speed Axle Interface Input	69 (CCVS1 Two Speed Axle Switch)	-	-	-	-	-	-	-
R1	Manual Lockup Control Input (Lockup)		-	-	-	117	117	179	179
R2	Manual Lockup Control Input (Enable)	TC1 transmission TC Lockup Disable Request	-	-	-	-	-	-	161
Y	Anti-Lock Brake System (ABS) Input	563 (EBC1 Anti-Lock Braking (ABS) Active)	121	121	121	-	-	-	-
Z	Retarder Interface Input	571 (ERC1 Retarder Enable - Brake Assist Switch)	123	123	123	-	-	-	-
AM	Reverse Inhibit with Preselect Request Interface Input (Inverted)	4242 (Transmission Reverse Gear Shift Inhibit Request)	-	-	-	-	-	-	-
AQ	Shift Selector Display Blanking	N/A	157	157	-	-	-	-	-
AW	2nd Reverse Input	N/A	-	-	-	-	-	-	-
AX	Manual Mode - Normally Open	N/A	-	-	143	-	143	-	-
AZ	Lockup Disable Request	TC1 (Transmission Torque Converter Lockup Request)	122	122	122	122	122	161	-
BC	Shift Selector Transition and Manual Mode	N/A	143	143	-	-	-	-	-
BE	Engine Speed/Torque Control Input 1	N/A	142	142	142	142	142	-	-
CE	Direct Hold	N/A	102	102	-	-	-	-	-
CG	Engine Speed/Torque Control Input 2	N/A	117	117	117	-	-	-	-
CI	Quick-to-Neutral Input - Normally Open	N/A	-	-	-	-	123	-	-
CK1	Pressure Test Mode	3907 (Auxiliary I/O #84)	-	-	-	157	157	157	157
CK2	Pressure Test Mode (Low Flow)	3904 (Auxiliary I/O #81)	-	-	-	-	-	-	-
CO	Shift Schedule 2	4246 (TC1 Transmission Mode 5)	179	179	179	179	179	-	-
CQ	Manual Mode - Normally Closed	N/A	-	-	-	143	-	123	123
CT1	Output Brake Input 1	11752 (TC2 Transmission Output Shaft Brake Request)	-	-	-	-	-	-	162
CT2	Output Brake Input 2	11752 (TC2 Transmission Output Shaft Brake Request)	-	-	-	-	-	-	117
CU	Rapid Warmup Mode Input	4249 (TC1 Transmission Mode 8)	-	-	-	-	-	-	121

Output Functions		SAE J1939 SPN ¹	Vocation Package Number						
			Mobile/Dual Mode			Stationary			
			401	402	403	411	412	421	930 ¹
B	Sump/Retarder Temperature Indicator	5345 (TRF2 Transmission Overheat Indicator)	-	-	-	-	-	-	-
C	Range Indicator	See note	145	145	145	145	145	145	145
D	Output Speed Indicator A	N/A	-	-	124	124	-	124	124
E	Output Speed Indicator B	N/A	105	105	105	-	-	-	-
I	Engine Overspeed Indicator	N/A	-	-	-	-	-	-	-
J	Two Speed Axle Interface Output	N/A	-	-	-	-	-	-	-
K	Lockup Indicator	573 (ETC1 Transmission Torque Converter Lockup Engaged)	104	104	104	104	104	105	105
N	Secondary Mode Indicator	2537 (ETC7 Transmission Mode 2 Indicator)	150	150	150	150	150	113	113
Q	Retarder Interface Output	N/A	124	124	124	-	-	-	-
V	Manual Mode Indicator	N/A	130	130	130	130	130	130	130
W	Neutral to Range Brake	N/A	164	164	164	164	164	164	-
Z	Engine Speed/Torque Control Indicator	N/A	113	113	113	113	113	-	-
AD	Range Inhibit Indicator	1851 (ETC7 Transmission Shift Inhibit Indicator)	-	-	-	-	-	-	-
AL	Transmission Filter Restriction Indicator	3359 (TRF2 Transmission Oil Filter Restriction Switch)	-	-	-	105	105	104	104
AO	Shift Schedule 2 Indicator	4250 (ETC7 Transmission Mode 5 Indicator)	-	-	-	-	-	-	-

1 - J1939 messages are available for activation and deactivation, see CEC5 Datalink Communication Document

Allison Transmission Oil Field Series™

FracTran® Input + Output Functions

Input Functions		SAE J1939 SPN ¹	Vocation Package Number
			932
A	Secondary Mode Input	1853 (TC1 Transmission Mode 2)	-
B	D-1 Selection	NA	-
D	Shift Selector Transition Input	NA	V17
E	Auxiliary Function Range Inhibit - Single Input (Inverted)	1121 (EBC1 EBS Brake Switch)	-
G	Auxiliary Hold Input	3906 (Auxiliary I/O #83)	-
K	Quick-to-Neutral Input - Normally Closed	70 (CCVS1 Parking Brake Switch)	V36
Q	Two Speed Axle Interface Input	69 (CCVS1 Two Speed Axle Switch)	-
R1	Manual Lockup Control Input (Lockup)	NA	V22
R2	Manual Lockup Control Input (Enable)	TC1 Transmission TC Lockup Disable Request	V44
Y	Anti-Lock Brake System (ABS) Input	563 (EBC1 Anti-Lock Braking (ABS) Active)	-
Z	Retarder Interface Input	571 (ERC1 Retarder Enable - Brake Assist Switch)	-
AM	Reverse Inhibit with Preselect Request Interface Input (Inverted)	4242 (Transmission Reverse Gear Shift Inhibit Request)	-
AQ	Shift Selector Display Blanking	NA	-
AW	2nd Reverse Input	NA	-
AX	Manual Mode - Normally Open	NA	V24
AZ	Lockup Disable Request	TC1 (Transmission Torque Converter Lockup Request)	-
BC	Shift Selector Transition and Manual Mode	NA	-
BE	Engine Speed/Torque Control Input 1	NA	-
CE	Direct Hold	NA	-
CG	Engine Speed/Torque Control Input 2	NA	-
CI	Quick-to-Neutral Input - Normally Open	NA	-
CK1	Pressure Test Mode	3907 (Auxiliary I/O #84)	V35
CK2	Pressure Test Mode (Low Flow)	3904 (Auxiliary I/O #81)	-
CO	Shift Schedule 2	4246 (TC1 Transmission Mode 5)	-
CQ	Manual Mode - Normally Closed	NA	-
CT1	Output Brake Input 1	11752 (TC2 Transmission Output Shaft Brake Request)	V28
CT2	Output Brake Input 2	11752 (TC2 Transmission Output Shaft Brake Request)	V27
CU	Rapid Warmup Mode Input	4249 (TC1 Transmission Mode 8)	V40
Output Functions		SAE J1939 SPN ¹	Vocation Package Number
			932
B	Sump/Retarder Temperature Indicator	5345 (TRF2 Transmission Overheat Indicator)	-
C	Range Indicator	See note	V06
D	Output Speed Indicator A	NA	V20
E	Output Speed Indicator B	NA	-
I	Engine Overspeed Indicator	NA	-
J	Two Speed Axle Interface Output	NA	-
K	Lockup Indicator	573 (ETC1 Transmission Torque Converter Lockup Engaged)	V23
N	Secondary Mode Indicator	2537 (ETC7 Transmission Mode 2 Indicator)	-
Q	Retarder Interface Output	NA	-
V	Manual Mode Indicator	NA	V01
W	Neutral to Range Brake	NA	-
Z	Engine Speed/Torque Control Indicator	NA	-
AD	Range Inhibit Indicator	1851 (ETC7 Transmission Shift Inhibit Indicator)	-
AL	Transmission Filter Restriction Indicator	3359 (TRF2 Transmission Oil Filter Restriction Switch)	V11
AO	Shift Schedule 2 Indicator	4250 (ETC7 Transmission Mode 5 Indicator)	-

1 - J1939 messages are available for activation and deactivation, see CEC5 Datalink Communication Document

Off Road Series™

Productivity That Can Move Mountains

With more than 70 years of transporting coal, precious metals, aggregate and other applications around the world, Allison fully automatic transmissions have proven themselves in some of the most challenging conditions and steepest grades.



Allison Transmission Off Road Series™

Ratings

Model	Ratio	Park Pawl	Gross Input Power	Gross Input Torque	Net Turbine Torque	Gross Input Power	Gross Input Torque	Net Turbine Torque	Max GVW	Max GCW
			With Torque Management			Without Torque Management				
			hp (kW)	lb-ft (N·m)	lb-ft (N·m)	hp (kW)	lb-ft (N·m)	lb-ft (N·m)		
3000 ORS - Articulated/Rigid Rear Dump	Close	No	250 (186)	664 (900)	1575 (2135)	250 (186)	664 (900)	1575 (2135)	98,100 (44,500)	-
3200 ORS - Articulated/Rigid Rear Dump	Close	No	300 (224)	811 (1100)	1575 (2135)	300 (224)	811 (1100)	1575 (2135)	98,100 (44,500)	-
3500 ORS - Articulated/Rigid Rear Dump	Wide	No	330 (246)	811 (1100)	1420 (1925)	330 (246)	811 (1100)	1420 (1925)	98,100 (44,500)	-
4000 ORS - Articulated Dump	Close	No	480 (358)	1625 (2203)	2450 (3322)	480 (358)	1625 (2203)	2450 (3322)	151,017 (68,500)	-
4000 ORS - Rigid Rear Dump	Close	No	480 (358)	1550 (2102)	2450 (3322)	480 (358)	1550 (2102)	2450 (3322)	125,663 (57,000)	-
4200 ORS - Articulated Dump	Close	No	480 (358)	1700 (2305)	2450 (3322)	480 (358)	1700 (2305)	2450 (3322)	178,574 (81,000)	-
4430 ORS - Articulated/Rigid Rear Dump	Wide	No	380 (283)	1235 (1675)	2450 (3322)	380 (283)	1235 (1675)	2450 (3322)	151,017 (68,500)	-
4500 ORS - Articulated Dump	Wide	No	480 (358)	1625 (2203) ¹	2450 (3322)	480 (358)	1550 (2102)	2450 (3322)	151,017 (68,500)	-
4500 ORS - Rigid Rear Dump	Wide	No	-	-	-	480 (358)	1550 (2102)	2450 (3322)	151,017 (68,500)	-
4600 ORS - Articulated/Rigid Rear Dump	Wide	No	480 (358)	1700 (2305) ¹	2450 (3322)	480 (358)	1550 (2102)	2450 (3322)	178,574 (81,000)	-
4700 ORS - Articulated Dump	Deep	No	-	-	-	500 (373)	1700 (2305)	2450 (3322)	178,574 (81,000)	-
4700 ORS - Mining/Off-Highway	Deep	No	-	-	-	580 (433)	1770 (2400)	2600 (3525)	138,000 (62,596)	-
4800 ORS - Mining/Off-Highway	Deep	No	605 (451)	1850 (2508) ²	2600 (3525)	605 (451)	1850 (2508) ²	2600 (3525)	138,000 (62,596)	-
4800 ORS - Articulated Dump/Rigid Rear Dump	Deep	No	-	-	-	605 (451)	1850 (2508)	2600 (3525)	211,664 (96,000)	-
6620 ORS - Hauling Applications	-	No	760 (567)	2500 (3390)	3790 (5139)	760 (567)	2500 (3390)	3790 (5139)	-	-
6625 ORS - Hauling Applications	-	No	760 (567)	2500 (3390)	3790 (5139)	760 (567)	2500 (3390)	3790 (5139)	-	-
8610 ORS - Hauling Applications	-	No	1050 (783)	3600 (4881)	5650 (7660)	1050 (783)	3600 (4881)	5650 (7660)	-	-
9610 ORS - Hauling Applications	-	No	1350 (1007)	4000 (5423)	6000 (8135)	1350 (1007)	4000 (5423)	6000 (8135)	-	-

1 - Available in gears three through six 2 - Available in gears four through seven

Typical Vehicle Applications¹

Articulated Dump, Rigid Dump, Rigid Rear Dump



3000 ORS
3200 ORS
3500 ORS



4000 ORS | 4200 ORS
4430 ORS | 4500 ORS
4600 ORS | 4700 ORS
4800 ORS



6620 ORS
6625 ORS



8610 ORS



9610 ORS

1 - Contact your Allison representative for other applications.

Allison Transmission Off Road Series™

3000/4000 Series Input + Output Functions

	Input Functions	Default Enabled	Comm Avail	Vocation Package Number													
				Euro Refuse Truck	Premium Off-Highway												
					127	175	190	191	195	196	235	241	244	245	264	269	280
A	Secondary Mode Input	Yes	Yes	Mode	122	Mode	Mode	Mode	Mode	142	142	Mode	Mode	Mode	Mode	122	142
C1	PTO Drive Interface 1 Input	Yes	Yes	143	143	143	143	143	143	Mode	143	143	143	143	143	143	143
C2	PTO Drive Interface 2 Input	No	Yes	-	-	-	-	-	-	-	-	-	-	102	-	-	-
D	Shift Selector Transition Input	No	No	-	-	-	-	-	-	-	-	-	-	-	-	-	157
E	Auxiliary Function Range Inhibit - Single Input	No	Yes	101	-	101	101	-	101	101	-	-	-	101	101	-	101
F	Auxiliary Function Range Inhibit - Dual Input	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G	Auxiliary Hold Input	Yes	No	-	117	142	142	117	142	-	-	117	117	142	142	117	-
H	Engine Brake Interface Input (Standard)	No	Yes	-	102/157	102/157	102/157	102/157	102/157	102/157	102/157	102/157	102/157	-	102/157	102/157	102
I	Engine Brake Interface Input (Special)	No	Yes	102/157	-	-	-	-	-	-	-	-	-	-	-	-	-
J	Fire Truck Pump Mode Input	No	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K	Quick-to-Neutral Input	No	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-
L	Automatic Neutral - Single Input	No	Yes	117	-	117	117	-	117	117	-	122	-	117	-	-	-
Q	Two Speed Axle Interface Input	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R	Manual Lockup Control Input	No	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-
V	Reverse Enable Input	No	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-
W	Direction Change Enable Input	No	Yes	-	-	-	-	-	-	143	-	-	-	-	-	-	-
Y	Anti-Lock Brake System (ABS) Input	Yes	Yes	121	121	121	121	121	121	121	121	121	121	121	121	121	121
Z	Retarder Interface Input	Yes	Yes	161	161	161	161	161	161	161	161	161	161	161	161	161	161
AA	Service Brake Status Input	Yes	Yes	162	162	162	162	162	162	162	162	162	162	162	162	162	162
AG	Automatic Neutral - Dual Input	Yes	No	-	101/142	-	-	101/142	-	-	-	-	-	-	-	101/142	-
AH	Accelerator Pedal Kickdown Input	Yes	Yes	122	-	-	-	-	-	122	-	-	-	-	-	-	-
AI	Aux Function Range Inhibit - Single Input (Specialty)	No	Yes	-	-	-	-	-	-	-	101	-	-	-	-	-	-
AJ	Pump Mode Input (4th Lockup)	No	Yes	-	-	-	-	-	-	-	-	-	-	-	122/123	-	-
AK	Automatic Neutral - Dual Input w/ Service Brake Status	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AL	Shift Selector Transition & Secondary Shift Schedule	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AM	Reverse Inhibit with Preselect Request Interface Input	No	Yes	123	123	-	123	123	-	-	-	123	123	123	-	179	179
AQ	Shift Selector Display Blanking Input	Yes	No	-	-	-	-	-	-	-	123	-	-	-	-	-	-
AS	Neutral at Stop Input	No	Yes	-	-	-	-	-	-	123	-	-	-	-	-	123	-
AW	2nd Reverse Input	No	No	-	-	-	-	-	-	-	179	179	179	-	-	-	-
BD	Automatic 2-1 Preselect Input (4000 7-Speed Only)	Yes	No	-	-	-	-	-	-	-	Mode	-	-	-	-	-	Mode
BS	Grade Braking / Regeneration Input	No	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BY	Aux Box Transition Input	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BZ	Shift Selector Transition & Oil Field Pumping Input	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CA	Automatic Neutral - Brake-Based (BBAN) Input for PTO	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CB1	Preselect Request 1 Input	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CB2	Preselect Request 2 Input	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CC	High N/v Ratio Input	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CD	Automatic Neutral - Single Input with Selector Override	Yes	Yes	-	-	-	-	-	-	-	117	-	122	-	117	-	-
CE	Direct Hold Input	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	122
CF	Automatic Neutral - Idle Start / Stop Input	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CH	Automatic Neutral - Single Input, Inverted	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CN	Automatic Neutral - Dual Input w/ Auto Return-to-Range	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CV	Shift Selector - Multiple Transmission Control	No	Yes	-	-	-	122	-	-	-	-	-	-	-	-	-	123

3000/4000 Series Input + Output Functions Continued

Input Functions	Default Enabled	Comm Avail	Vocation Package Number														
			Euro Refuse Truck	Premium Off-Highway													
			127	175	190	191	195	196	235	241	244	245	264	269	280	282	
A Engine Brake Interface Output	No	Yes	104	104	104	104	104	104	104	104	104	104	104	-	104	104	104
B Sump/Retarder Temperature Indicator	Yes	No	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164
C Range Indicator (6th Gen default is always Neutral)	Yes	No	113	-	113	113	-	-	145	145	-	-	113	145	-	145	
D Output Speed Indicator A	Yes	No	105	105	105	105	105	105	105	105	105	105	105	105	-	105	105
G1 PTO Drive Interface 1 Output	Yes	Yes	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
G2 PTO Drive Interface 2 Output	No	Yes	-	-	-	-	-	-	-	-	-	-	-	104	-	-	-
I Engine Overspeed Indicator	Yes	No	-	-	145	-	-	145	-	-	-	-	-	-	-	-	-
J Two Speed Axle Interface Output	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K Lockup Indicator	Yes	Yes	-	-	-	-	-	113	-	-	-	-	-	-	105	-	-
N Secondary Mode Indicator	Yes	Yes	-	113	-	-	113	-	113	113	113	113	-	-	-	113	113
O Transmission Service Indicator	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Q Retarder Interface Output	Yes	Yes	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124
S Neutral Indicator for PTO and PTO Request (NIPTO)	Yes	No	145	145	-	145	145	-	-	-	145	145	145	-	145	-	-
AJ Output Speed Indicator A, Inverted	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Allison Transmission Off Road Series™

6000-9000 Series Input + Output Functions

Input Functions		SAE J1939 SPN¹	Vocation Package Number				
			Rear Dump				Bottom Dump
			101	102	103	922	201
A	Secondary Mode Input	1853 (TC1 Transmission Mode 2)	Mode	162	162	162	Mode
B	D-1 Selection	NA	162	Mode	-	Mode	162
D	Shift Selector Transition Input	NA	-	-	-	-	-
E	Auxiliary Function Range Inhibit - Single Input (Inverted)	1121 (EBC1 EBS Brake Switch)	161	161	161	161	161
G	Auxiliary Hold Input	3906 (Auxiliary I/O #83)	101	101	Mode	101	101
K	Quick-to-Neutral Input - Normally Closed	70 (CCVS1 Parking Brake Switch)	-	-	-	-	-
Q	Two Speed Axle Interface Input	69 (CCVS1 Two Speed Axle Switch)	-	-	-	-	-
R1	Manual Lockup Control Input (Lockup)		-	-	-	-	-
R2	Manual Lockup Control Input (Enable)	TC1 transmission TC Lockup Disable Request	-	-	-	-	-
Y	Anti-Lock Brake System (ABS) Input	563 (EBC1 Anti-Lock Braking (ABS) Active)	-	-	-	-	121
Z	Retarder Interface Input	571 (ERC1 Retarder Enable - Brake Assist Switch)	123	123	123	123	123
AM	Reverse Inhibit with Preselect Request Interface Input (Inverted)	4242 (Transmission Reverse Gear Shift Inhibit Request)	121	121	121	121	-
AQ	Shift Selector Display Blanking	NA	-	-	-	-	-
AW	2nd Reverse Input	NA	157	157	157	157	157
AX	Manual Mode - Normally Open	NA	143	143	143	143	143
AZ	Lockup Disable Request	TC1 (Transmission Torque Converter Lockup Request)	122	122	122	122	122
BC	Shift Selector Transition and Manual Mode	NA	-	-	-	-	-
BE	Engine Speed/Torque Control Input 1	NA	142	142	142	142	142
CE	Direct Hold	NA	102	102	102	102	102
CG	Engine Speed/Torque Control Input 2	NA	117	117	117	117	117
CI	Quick-to-Neutral Input - Normally Open	NA	-	-	-	-	-
CK1	Pressure Test Mode	3907 (Auxiliary I/O #84)	-	-	-	-	-
CK2	Pressure Test Mode (Low Flow)	3904 (Auxiliary I/O #81)	-	-	-	-	-
CO	Shift Schedule 2	4246 (TC1 Transmission Mode 5)	179	179	179	179	179
CQ	Manual Mode - Normally Closed	NA	-	-	-	-	-
CT1	Output Brake Input 1	11752 (TC2 Transmission Output Shaft Brake Request)	-	-	-	-	-
CT2	Output Brake Input 2	11752 (TC2 Transmission Output Shaft Brake Request)	-	-	-	-	-
CU	Rapid Warmup Mode Input	4249 (TC1 Transmission Mode 8)	-	-	-	-	-
Output Functions		SAE J1939 SPN¹	Vocation Package Number				
			Rear Dump				Bottom Dump
			101	102	103	922	201
B	Sump/Retarder Temperature Indicator	5345 (TRF2 Transmission Overheat Indicator)	-	-	-	-	-
C	Range Indicator	See note	145	145	145	145	145
D	Output Speed Indicator A	NA	-	-	-	113	-
E	Output Speed Indicator B	NA	-	-	-	105	-
I	Engine Overspeed Indicator	NA	130	130	130	130	130
J	Two Speed Axle Interface Output	NA	-	-	-	-	-
K	Lockup Indicator	573 (ETC1 Transmission Torque Converter Lockup Engaged)	104	104	104	104	104
N	Secondary Mode Indicator	2537 (ETC7 Transmission Mode 2 Indicator)	150	150	150	150	150
Q	Retarder Interface Output	NA	124	124	124	124	124
V	Manual Mode Indicator	NA	-	-	-	-	-
W	Neutral to Range Brake	NA	164	164	164	164	164
Z	Engine Speed/Torque Control Indicator	NA	113	113	113	-	113
AD	Range Inhibit Indicator	1851 (ETC7 Transmission Shift Inhibit Indicator)	-	-	-	-	-
AL	Transmission Filter Restriction Indicator	3359 (TRF2 Transmission Oil Filter Restriction Switch)	105	105	105	-	105
AO	Shift Schedule 2 Indicator	4250 (ETC7 Transmission Mode 5 Indicator)	-	-	-	-	-

1- J1939 messages are available for activation and deactivation, see CEC5 Datalink Communication Document

Pupil Transport/Shuttle Series™

When Your Cargo Is Precious

The choice is easy—trust an Allison to reliably get kids to and from school. Thanks to our superior reliability and durability, a growing number of school systems around the world rely on us.



Allison Transmission Pupil Transport/Shuttle Series™

Ratings

Model	Ratio	Park Pawl	Gross Input Power	Gross Input Torque	Net Turbine Torque	Gross Input Power	Gross Input Torque	Net Turbine Torque	Max GVW	Max GCW
			With Torque Management			Without Torque Management				
			hp (kW)	lb-ft (N·m)	lb-ft (N·m)	hp (kW)	lb-ft (N·m)	lb-ft (N·m)	lbs (kg)	lbs (kg)
1000 PTS - School Bus	Close	Yes	300 (224)	660 (895)	950 (1288)	300 (224)	550 (746)	850 (1152)	19,500 (8845)	26,001 (11,800)
1000 PTS - Shuttle Bus	Close	Yes	300 (224)	660 (895)	950 (1288)	300 (224)	550 (746)	850 (1152)	19,500 (8845)	26,001 (11,800)
1350 PTS - School Bus	Close	Yes	300 (224)	660 (895)	950 (1288)	300 (224)	550 (746)	850 (1152)	19,500 (8845)	30,000 (13,600)
1350 PTS - Shuttle Bus	Close	Yes	300 (224)	660 (895)	950 (1288)	300 (224)	550 (746)	850 (1152)	19,500 (8845)	30,000 (13,600)
2100 PTS - School Bus	Close	No	300 (224)	660 (895)	950 (1288)	300 (224)	550 (746)	850 (1152)	26,000 (11,800)	26,000 (11,800)
2100 PTS - Shuttle Bus	Close	No	300 (224)	660 (895)	950 (1288)	300 (224)	550 (746)	850 (1152)	26,000 (11,800)	26,000 (11,800)
2200 PTS - School Bus	Close	Yes	300 (224)	660 (895)	950 (1288)	300 (224)	550 (746)	850 (1152)	26,000 (11,800)	26,001 (11,800)
2200 PTS - Shuttle Bus	Close	Yes	300 (224)	660 (895)	950 (1288)	300 (224)	550 (746)	850 (1152)	26,000 (11,800)	26,001 (11,800)
2300 PTS ^{1,2}	Close	No	365 (272)	510 (691)	950 (1288)	-	-	-	33,000 (15,000)	33,000 (15,000)
2350 PTS ¹	Close	Yes	300 (224)	660 (895)	950 (1288)	300 (224)	550 (746)	850 (1152)	30,000 (13,600)	30,000 (13,600)
2500 PTS ¹	Wide	No	300 (224)	660 (895)	950 (1288)	300 (224)	550 (746)	850 (1152)	33,000 (15,000)	33,000 (15,000)
2550 PTS ¹	Wide	Yes	300 (224)	660 (895)	950 (1288)	300 (224)	550 (746)	850 (1152)	30,000 (13,600)	30,000 (13,600)
2575 PTS ¹	Wide	Yes	300 (224)	660 (895)	950 (1288)	300 (224)	550 (746)	850 (1152)	33,000 (15,000)	33,000 (15,000)
3000 PTS - School Bus	Close	No	300 (224)	950 (1288)	1470 (1995)	300 (224)	950 (1288)	1470 (1995)	-	-
3000 PTS - Shuttle Bus	Close	No	300 (224)	950 (1288)	1470 (1995)	300 (224)	950 (1288)	1470 (1995)	33,000 (15,500)	33,000 (15,500)

1 - Available for School Bus applications only 2 - Only available with gasoline-powered engine applications 3 - Available in second gear start

Typical Vehicle Applications

Class 5-8 School Bus

School Use – School Bus, Non-School Use – Church Bus, Private Academy Bus, Prison Bus, Work Bus

Class 5-7 Shuttle Bus (up to 33,000 lbs. GVW)¹

Airfield Bus, Airport Shuttle, Casino Bus, Dedicated Handicap Shuttle, Hotel Shuttle, Rental Car Shuttle, Retirement Community Shuttle, Scenic Tour Bus



1000 PTS | 1350 PTS
2100 PTS | 2200 PTS
2300 PTS | 2350 PTS
2500 PTS | 2550 PTS
2575 PTS



3000 PTS

1 - Buses requiring PTO must use Bus Series™ models. All shuttle applications greater than 33,000 lbs. GVW require B 300 or B 400 transmissions. Revenue-generating/FTA transit bus applications are excluded from Pupil Transport/Shuttle Series™ usage.

Allison Transmission Pupil Transport/Shuttle Series™

1000/2000 Series Input + Output Functions

Input Functions		Default Enabled	Comm Avail	Vocation Package Number									
				353	354	369	371	373	374	379	380	381	388
A	Secondary Mode Input	Yes	Yes	142	142	142	142	142	142	142	142	142	-
C1	PTO Drive Interface 1 Input	Yes	Yes	-	143	143	143	-	162	162	143	-	-
C2	PTO Drive Interface 2 Input	No	Yes	-	-	-	-	-	-	-	102	-	-
E	Auxiliary Function Range Inhibit - Single Input	No	Yes	101	101	101	101	101	101	101	101	101	101
H	Engine Brake Interface Input (Standard)	No	Yes	-	102	102	-	-	102	102	-	-	-
I	Engine Brake Interface Input (Special)	No	Yes	102	-	-	-	102	-	-	-	102	-
L	Automatic Neutral - Single Input	No	Yes	123	123	123	123	123	123	123	123	-	-
V	Reverse Enable Input	No	No	143	-	-	-	162	-	-	-	143	-
Y	Anti-Lock Brake System (ABS) Input	Yes	Yes	121	121	121	121	121	121	121	121	121	-
AA	Service Brake Status Input	Yes	Yes	162	162	162	162	-	-	-	162	162	-
AH	Accelerator Pedal Kickdown Input	Yes	Yes	122	-	-	-	122	-	-	-	122	-
AM	Reverse Inhibit w/ Preselect Request Interface Input	No	Yes	-	-	-	-	-	-	-	-	-	-
AR	Overdrive Disable Interface Input	Yes	Yes	161	161	161	161	161	161	161	161	161	-
AS	Neutral at Stop Input	No	Yes	-	-	-	-	143	143	143	-	-	-
BQ	Pump Mode Input (3rd Lockup)	No	No	-	-	-	-	-	-	-	-	-	122/102
BS	Grade Braking / Regeneration Input	No	No	-	-	-	102	-	-	-	-	-	-
CA	Auto Neutral - Brake-Based (BBAN) Input for PTO	No	Yes	-	-	122	-	-	-	122	-	-	-
CB1	Preselect Request 1 Input	Yes	Yes	-	122	-	-	-	122	-	122	-	-
CC	High N/v Ratio Input	No	Yes	-	-	-	-	-	-	-	-	-	-
CD	Automatic Neutral - Single Input w/ Selector Override	Yes	Yes	-	-	-	-	-	-	-	-	-	-
CN	Automatic Neutral - Dual Input w/ Auto Return-to-Range	No	Yes	-	-	-	-	-	-	-	-	123	-
CR	PTO Drive Interface - Synchronized PTO Input	No	Yes	-	-	-	-	-	-	-	-	-	-
CS	Run/Crank Input	Yes	No	-	-	-	-	-	-	-	-	-	123
Output Functions		Default Enabled	Comm Avail	Vocation Package Number									
				353	354	369	371	373	374	379	380	381	388
A	Engine Brake Interface Output	No	Yes	104	104	104	104	104	104	104	-	104	-
B	Sump/Retarder Temperature Indicator	Yes	Yes	164	164	164	164	164	164	164	164	164	164
C	Range Indicator	Yes	No	145	145	145	145	145	145	145	145	145	145
D	Output Speed Indicator A	Yes	No	105	105	105	105	105	105	105	105	105	105
G1	PTO Drive Interface 1 Output	Yes	Yes	-	150	150	150	-	150	150	150	-	-
G2	PTO Drive Interface 2 Output	No	Yes	-	-	-	-	-	-	-	104	-	-
O	Transmission Service Indicator	Yes	Yes	113	113	113	113	113	113	113	113	113	-
S	Neutral Indicator for PTO & PTO Request (NIPTO)	Yes	No	-	-	-	-	-	-	-	-	-	-
X	Overdrive Disable Interface Output	Yes	No	-	-	-	-	-	-	-	-	-	-
AD	Range Inhibited indicator	Yes	Yes	124	124	124	124	124	124	124	124	124	124
AN	PTO Drive Interface - Synchronized PTO Output	Yes	No	-	-	-	-	-	-	-	-	-	-

Allison Transmission Pupil Transport/Shuttle Series™

3000/4000 Series Input + Output Functions

Input Functions		Default Enabled	Comm Avail	Vocation Package Number																		
				School & Shuttle Bus										School & Shuttle Bus (Max Economy Calibration)								
				139	211	212	215	217	223	226	234	236	263	268	129	130	148	159	210	235	247	262
A	Secondary Mode Input	Yes	Yes	Mode	Mode	122	Mode	Mode	Mode	Mode	142	Mode	Mode	Mode	Mode	142	Mode	Mode	Mode	142	142	Mode
C1	PTO Drive Interface 1 Input	Yes	Yes	143	143	143	143	143	143	-	Mode	143	143	143	-	-	143	-	143	Mode	143	-
C2	PTO Drive Interface 2 Input	No	Yes	-	-	-	-	-	-	-	-	-	102	-	-	-	-	-	-	-	-	-
D	Shift Selector Transition Input	No	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
E	Auxiliary Function Range Inhibit - Single Input	No	Yes	101	101	101	101	-	101	101	101	101	101	101	101	101	101	101	-	101	101	101
F	Auxiliary Function Range Inhibit - Dual Input	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G	Auxiliary Hold Input	Yes	No	-	123	123	-	-	142	142	-	142	142	142	-	-	142	142	-	-	Mode	142
H	Engine Brake Interface Input (Standard)	No	Yes	102/157	102/157	102/157	102/157	102/157	102/157	102/157	102/157	102/157	-	-	102/157	102/157	102/157	102/157	-	102/157	102/157	102/157
I	Engine Brake Interface Input (Special)	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
J	Fire Truck Pump Mode Input	No	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K	Quick-to-Neutral Input	No	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
L	Automatic Neutral - Single Input	No	Yes	-	-	-	-	-	117	117	117	117	117	117	-	-	117	117	-	117	117	-
Q	Two Speed Axle Interface Input	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R	Manual Lockup Control Input	No	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
V	Reverse Enable Input	No	No	-	-	-	-	-	-	-	-	-	-	-	117	117	-	-	-	-	-	-
W	Direction Change Enable Input	No	Yes	-	-	-	-	-	122	122	-	122	122	122	-	143	-	143	142	143	-	143
Y	Anti-Lock Brake System (ABS) Input	Yes	Yes	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
Z	Retarder Interface Input	Yes	Yes	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161
AA	Service Brake Status Input	Yes	Yes	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162
AG	Automatic Neutral - Dual Input	Yes	No	117/142	-	-	-	-	-	-	-	-	-	-	-	-	-	-	101/117	-	-	-
AH	Accelerator Pedal Kickdown Input	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	122	122	122	122	122	122	122	122
AI	Aux Function Range Inhibit - Single Input (Specialty)	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AJ	Pump Mode Input (4th Lockup)	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AK	Automatic Neutral - Dual Input w/ Service Brake Status	Yes	No	-	-	-	-	101/117	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AL	Shift Selector Transition & Secondary Shift Schedule	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AM	Reverse Inhibit with Preselect Request Interface Input	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	123	-	-	-
AQ	Shift Selector Display Blanking Input	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AS	Neutral at Stop Input	No	Yes	-	-	-	123	123	123	123	-	-	123	123	123	123	123	123	102	123	123	123
AW	2nd Reverse Input	No	No	-	-	-	-	-	179	-	-	-	179	179	-	-	-	-	-	-	-	-
BD	Automatic 2-1 Preselect Input (4000 7-Speed Only)	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BS	Grade Braking / Regeneration Input	No	No	-	-	-	-	-	-	-	-	-	-	102	-	-	-	-	-	-	-	-
BY	Aux Box Transition Input	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BZ	Shift Selector Transition & Oil Field Pumping Input	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CA	Automatic Neutral - Brake-Based (BBAN) Input for PTO	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CB1	Preselect Request 1 Input	Yes	Yes	-	-	-	-	-	-	-	123	123	-	-	-	-	-	-	-	-	-	-
CB2	Preselect Request 2 Input	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CC	High N/v Ratio Input	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CD	Automatic Neutral - Single Input with Selector Override	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CE	Direct Hold Input	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CF	Automatic Neutral - Idle Stop-Start Input	Yes	No	-	117/142	117/142	117/142	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

3000/4000 Series Input + Output Functions Continued

Output Functions	Default Enabled	Comm Avail	Vocation Package Number																			
			School & Shuttle Bus											School & Shuttle Bus (Max Economy Calibration)								
			139	211	212	215	217	223	226	234	236	263	268	129	130	148	159	210	235	247	262	
CH	Automatic Neutral - Single Input, Inverted	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
CN	Automatic Neutral - Dual Input w/ Auto Return-to-Range	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	117	
CV Shift Selector	Shift Selector - Multiple Transmission Control	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
A	Engine Brake Interface Output	No	Yes	104	104	104	104	104	104	104	104	104	-	-	104	104	104	104	-	104	104	104
B	Sump/Retarder Temperature Indicator	Yes	Yes	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164
C	Range Indicator (6th Gen default is always Neutral)	Yes	No	-	145	145	145	145	145	145	145	145	145	145	145	145	145	113	145	145	145	
D	Output Speed Indicator A	Yes	No	105	105	105	105	105	105	105	105	105	105	105	130	130	105	105	105	105	105	105
G1	PTO Drive Interface 1 Output	Yes	Yes	130	130	130	130	130	130	-	130	130	130	130	-	-	130	-	130	130	130	-
G2	PTO Drive Interface 2 Output	No	Yes	-	-	-	-	-	-	-	-	-	104	-	-	-	-	-	-	-	-	-
I	Engine Overspeed Indicator	Yes	No	-	-	-	-	-	-	130	-	-	-	-	-	-	-	113	-	-	-	113
J	Two Speed Axle Interface Output	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K	Lockup Indicator	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N	Secondary Mode Indicator	Yes	Yes	-	113	113	113	-	113	113	113	113	113	113	-	-	-	130	-	113	-	130
O	Transmission Service Indicator	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Q	Retarder Interface Output	Yes	Yes	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124
S	Neutral Indicator for PTO and PTO Request (NIPTO)	Yes	No	145	-	-	-	113	-	-	-	-	-	-	-	-	-	-	145	-	-	-
AJ	Output Speed Indicator A, Inverted	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Regional Haul Series™



Deliver With Confidence

No matter what you're hauling, every stop is important. When your customers are depending on you to be there on time every time, choose Allison and the 3414 Regional Haul Series™ fully automatic transmission. Built on years of reliable performance and customer-inspired innovation, the 3414 RHS lets you deliver with confidence.



Allison Transmission Regional Haul Series™

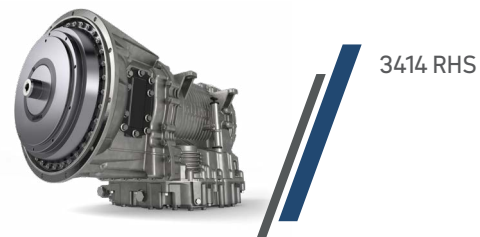
Ratings

Model	Ratio	Park Pawl	Gross Input Power	Gross Input Torque	Net Turbine Torque	Gross Input Power	Gross Input Torque	Net Turbine Torque	Max GVW	Max GCW
			With Torque Management			Without Torque Management				
			hp (kW)	lb-ft (N·m)	lb-ft (N·m)	hp (kW)	lb-ft (N·m)	lb-ft (N·m)	lbs (kg)	lbs (kg)
3414 RHS	Close	No	410 (306)	1450 (1966) ¹	1700 (2305)	306 (410)	1100 (1491)	1700 (2305)	-	82,000 (37,194)

1 - Available in gears 5-6

Typical Vehicle Applications

Beverage Delivery, Distribution, Dry Bulk, Food Distribution, General Freight, Regional Haul



Allison Transmission Regional Haul Series™

3414 RHS Input + Output Functions

Input Functions		Default Enabled	Comm Avail?	Vocation Package Number					
				223	226	235	247	263	268
A	Secondary Mode Input	Yes	Yes	Mode	Mode	142	142	Mode	Mode
C1	PTO Drive Interface 1 Input	Yes	Yes	143	-	Mode	143	143	143
C2	PTO Drive Interface 2 Input	No	Yes	-	-	-	-	102	-
D	Shift Selector Transition Input	No	Yes	-	-	-	-	-	-
E	Auxiliary Function Range Inhibit - Single Input	No	Yes	101	101	101	101	101	101
F	Auxiliary Function Range Inhibit - Dual Input	Yes	No	-	-	-	-	-	-
G	Auxiliary Hold Input	Yes	No	142	142	-	Mode	142	142
H	Engine Brake Interface Input (Standard)	No	Yes	102/157	102/157	102/157	102/157	-	-
I	Engine Brake Interface Input (Special)	No	Yes	-	-	-	-	-	-
J	Fire Truck Pump Mode Input	No	Yes	-	-	-	-	-	-
K	Quick-to-Neutral Input	No	No	-	-	-	-	-	-
L	Automatic Neutral - Single Input	No	Yes	117	117	117	117	117	117
Q	Two Speed Axle Interface Input	Yes	Yes	-	-	-	-	-	-
R	Manual Lockup Control Input	No	No	-	-	-	-	-	-
V	Reverse Enable Input	No	No	-	-	-	-	-	-
W	Direction Change Enable Input	No	Yes	122	122	143	-	122	122
Y	Anti-Lock Brake System (ABS) Input	Yes	Yes	121	121	121	121	121	121
Z	Retarder Interface Input	Yes	Yes	161	161	161	161	161	161
AA	Service Brake Status Input	Yes	Yes	162	162	162	162	162	162
AG	Automatic Neutral - Dual Input	Yes	Yes	-	-	-	-	-	-
AH	Accelerator Pedal Kickdown Input	Yes	Yes	-	-	122	122	-	-
AI	Aux Function Range Inhibit - Single Input (Specialty)	No	Yes	-	-	-	-	-	-
AJ	Pump Mode Input	No	Yes	-	-	-	-	-	-

3414 RHS Input + Output Functions Continued

Input Functions (continued)		Default Enabled	Comm Avail	Vocation Package Number					
				223	226	235	247	263	268
AK	Automatic Neutral - Dual Input w/ Service Brake Status	Yes	Yes	-	-	-	-	-	-
AL	Shift Selector Transition & Secondary Shift Schedule	Yes	No	-	-	-	-	-	-
AM	Reverse Inhibit with Preselect Request Interface Input	No	Yes	-	-	-	-	-	-
AQ	Shift Selector Display Blanking Input	Yes	No	-	-	-	-	-	-
AS	Neutral at Stop Input	No	Yes	123	123	123	123	123	123
AW	2nd Reverse Input	No	No	179	-	-	-	179	179
BD	Automatic 2-1 Preselect Input (4000 7-Speed Only)	Yes	No	-	-	-	-	-	-
BS	Grade Braking / Regeneration Input	No	No	-	-	-	-	-	102
BY	Aux Box Transition Input	Yes	Yes	-	-	-	-	-	-
BZ	Shift Selector Transition & Oil Field Pumping Input	Yes	No	-	-	-	-	-	-
CA	Automatic Neutral - Brake-Based (BBAN) Input for PTO	No	Yes	-	-	-	-	-	-
CB1	Preselect Request 1 Input	Yes	Yes	-	-	-	-	-	-
CB2	Preselect Request 2 Input	Yes	Yes	-	-	-	-	-	-
CC	High N/v Ratio Input	No	Yes	-	-	-	-	-	-
CD	Automatic Neutral - Single Input with Selector Override	Yes	Yes	-	-	-	-	-	-
CE	Direct Hold Input	No	Yes	-	-	-	-	-	-
CF	Automatic Neutral - Idle Start / Stop Input	Yes	No	-	-	-	-	-	-
CH	Automatic Neutral - Single Input, Inverted	No	Yes	-	-	-	-	-	-
CN	Automatic Neutral - Dual Input w/ Auto Return-to-Range	No	Yes	-	-	-	-	-	-
CV	Shift Selector - Multiple Transmission Control	No	Yes	-	-	-	-	-	-

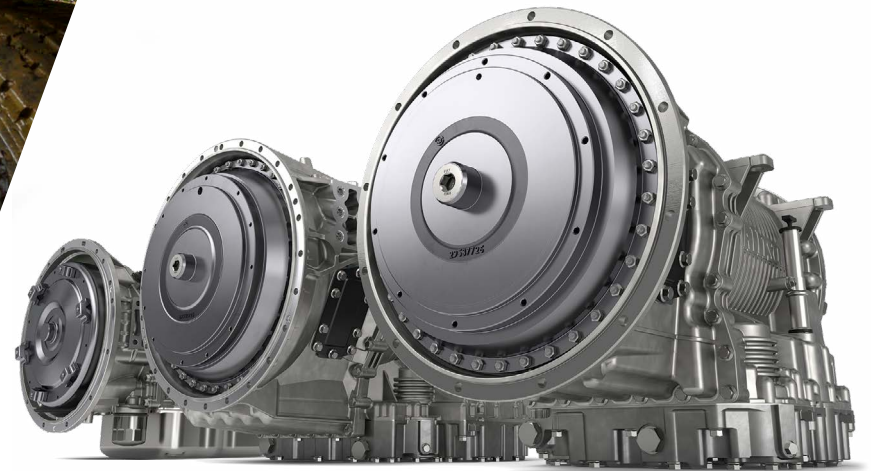
Output Functions		Default Enabled	Comm Avail	Vocation Package Number					
				223	226	235	247	263	268
A	Engine Brake Interface Output	No	Yes	104	104	104	104	-	-
B	Sump/Retarder Temperature Indicator	Yes	Yes	164	164	164	164	164	164
C	Range Indicator (6th Gen default is always Neutral)	Yes	No	145	145	145	145	145	145
D	Output Speed Indicator A	Yes	No	105	105	105	105	105	105
G1	PTO Drive Interface 1 Output	Yes	Yes	130	-	130	130	130	130
G2	PTO Drive Interface 2 Output	No	Yes	-	-	-	-	104	-
I	Engine Overspeed Indicator	Yes	No	-	130	-	-	-	-
J	Two Speed Axle Interface Output	Yes	Yes	-	-	-	-	-	-
K	Lockup Indicator	Yes	Yes	-	-	-	-	-	-
N	Secondary Mode Indicator	Yes	Yes	113	113	113	-	113	113
O	Transmission Service Indicator	Yes	Yes	-	-	-	-	-	-
Q	Retarder Interface Output	Yes	Yes	124	124	124	124	124	124
S	Neutral Indicator for PTO and PTO Request (NIPTO)	Yes	No	-	-	-	-	-	-
AJ	Output Speed Indicator A, Inverted	Yes	No	-	-	-	-	-	-



Rugged Duty Series™

Built to Work

Allison Transmission's Rugged Duty Series™ fully automatic transmissions are built to deliver uncompromising performance in the toughest conditions. With maximum durability, superior torque delivery and seamless shifting, they help operators get more done. Designed for reliable performance and precise control in any environment, this series keeps fleets moving: day after day and job after job.



Allison Transmission Rugged Duty Series™

1000/2000 Series

Model	Ratio	Park Pawl	Gross Input Power	Gross Input Torque	Net Turbine Torque	Gross Input Power	Gross Input Torque	Net Turbine Torque	Max GVW	Max GCW
			With Torque Management			Without Torque Management				
			hp (kW)	lb-ft (N·m)	lb-ft (N·m)	hp (kW)	lb-ft (N·m)	lb-ft (N·m)	lbs (kg)	lbs (kg)
1000 RDS	Close	Yes	340 (254)	660 (895)	950 (1288)	300 (224)	575 (780)	850 (1152)	19,500 (8845)	26,001 (11,800)
1350 RDS	Close	Yes	340 (254)	660 (895)	950 (1288)	300 (224)	575 (780)	850 (1152)	19,500 (8845)	30,000 (13,600)
2100 RDS	Close	No	340 (254)	660 (895)	950 (1288)	300 (224)	575 (780)	850 (1152)	26,000 (11,800)	26,000 (11,800)
2200 RDS	Close	Yes	340 (254)	660 (895)	950 (1288)	300 (224)	575 (780)	850 (1152)	26,000 (11,800)	26,001 (11,800)
2300 RDS	Close	No	365 (272)	510 (691)	950 (1288)	-	-	-	33,000 (15,000)	33,000 (15,000)
2350 RDS	Close	Yes	340 (254)	660 (895)	950 (1288)	300 (224)	575 (780)	850 (1152)	30,000 (13,600)	30,000 (13,600)
2500 RDS - On-/Off-Highway	Wide	No	340 (254)	660 (895)	950 (1288)	300 (224)	575 (780)	850 (1152)	33,000 (15,000)	33,000 (15,000)
2500 RDS - Refuse	Wide	No	300 (224)	600 (813)	950 (1288)	300 (224)	550 (746)	850 (1152)	24,200 (11,000)	24,000 (11,000)
2550 RDS	Wide	Yes	340 (254)	660 (895)	950 (1288)	300 (224)	575 (780)	850 (1152)	30,000 (13,600)	30,000 (13,600)

1 - Available in 2nd gear start 2 - Only available for gasoline-powered engine applications 3 - Requires Allison Transmission engine-transmission combination approval. Only available in gears three through six. 4 - Check with your OEM to ensure offerings 5 - Available in gears two through six. 6 - Only available in gears four through seven 7 - Only available in gears three through six.



Allison Transmission Rugged Duty Series™

3000/4000 Series

Model	Ratio	Park Pawl	Gross Input Power	Gross Input Torque	Net Turbine Torque	Gross Input Power	Gross Input Torque	Net Turbine Torque	Max GVW	Max GCW
			With Torque Management			Without Torque Management				
			hp (kW)	lb-ft (N·m)	lb-ft (N·m)	hp (kW)	lb-ft (N·m)	lb-ft (N·m)	lbs (kg)	lbs (kg)
3000 RDS - On-/Off-Highway	Close	No	370 (276)	1250 (1695) ²	1600 (2169)	370 (276)	1100 (1491)	1600 (2169)	80,000 (36,288)	80,000 (36,288)
3000 RDS - Concrete Mixer	Close	No	370 (276)	1250 (1695) ²	1600 (2169)	370 (276)	1100 (1491)	1600 (2169)	62,000 (28,123)	-
3000 RDS - Volumetric Mixer	Close	No	370 (276)	1250 (1695)	1600 (2169)	370 (276)	1100 (1491)	1600 (2169)	80,000 (36,288)	80,000 (36,288)
3000 RDS - Refuse	Close	No	370 (276)	1250 (1695) ²	1600 (2169)	370 (276)	110 (1491)	1600 (2169)	62,000 (28,123)	-
3000 RDS - Specialty PTO	Close	No	370 (276)	1250 (1695)	1700 (2305)	370 (276)	1250 (1695)	1700 (2305)	-	-
3000 RDS - HET	Close	No	370 (276)	1250 (1695)	1700 (2305)	370 (276)	1250 (1695)	1700 (2305)	-	-
3500 RDS - On-/Off-Highway	Wide	No	330 (246)	1050 (1424) ⁴	1450 (1966)	330 (246)	860 (1166)	1420 (1925)	80,000 (36,288)	80,000 (36,288)
3500 RDS - Concrete Mixer/Refuse	Wide	No	330 (246)	860 (1166)	1420 (1925)	330 (246)	860 (1166)	1420 (1925)	60,000 (27,216)	-
3500 RDS - Volumetric Mixer	Wide	No	330 (246)	1050 (1424)	1450 (1966)	330 (246)	860 (1166)	1420 (1925)	80,000 (36,288)	80,000 (36,288)
3500 RDS - Specialty PTO	Wide	No	330 (246)	1050 (1424) ⁴	1450 (1966)	330 (246)	950 (1288)	1450 (1966)	-	-
3500 RDS - HET	Wide	No	330 (246)	1050 (1424) ⁴	1450 (1966)	330 (246)	985 (1335)	1450 (1966)	-	-
4000 RDS - On-/Off-Highway	Close	No	580 (433)	1850 (2508) ²	2600 (3525)	580 (433)	1770 (2400)	2600 (3525)	-	-
4000 RDS - Refuse	Close	No	500 (373)	1550 (2102)	2450 (3322)	500 (373)	1550 (2102)	2450 (3322)	-	-
4000 RDS - Specialty PTO	Close	No	580 (433)	1770 (2400)	2600 (3523)	580 (433)	1770 (2400)	2600 (3525)	-	-
4000 RDS - HET	Close	No	605 (451)	1850 (2808)	2600 (3523)	605 (451)	1850 (2508)	2600 (3525)	-	-
4500 RDS - On-/Off-Highway	Wide	No	580 (433)	1850 (2808) ²	2450 (3322)	580 (433)	1650 (2237)	2450 (3322)	-	-
4500 RDS - Refuse	Wide	No	500 (373)	1550 (2102)	2450 (3322)	500 (373)	1550 (2102)	2450 (3322)	-	-
4500 RDS - Specialty PTO	Wide	No	580 (433)	1770 (2400)	2600 (3525)	580 (433)	1650 (2237)	2600 (3525)	-	-
4500 RDS - HET	Wide	No	605 (451)	1850 (2508)	2600 (3525)	605 (451)	1650 (2237)	2600 (3525)	-	-
4700 RDS - On-/Off-Highway	Deep	No	580 (433)	1850 (2508) ³	2600 (3525)	580 (433)	1770 (2400)	2600 (3525)	-	-
4700 RDS - Refuse	Deep	No	500 (373)	1550 (2102)	2450 (3322)	500 (373)	1550 (2102)	2450 (3322)	-	-
4700 RDS - HET	Deep	No	605 (451)	1850 (2508)	2600 (3525)	605 (451)	1850 (2508)	2600 (3525)	-	-
4900 RDS - On-/Off-Highway	Deep	No	650 (485)	2250 (3052) ³	2800 (3796)	650 (485)	2213 (3000)	2800 (3796)	-	-
4900 RDS - HET	Deep	No	800 (597)	2360 (3200)	3025 (4101)	800 (597)	2360 (3200)	2800 (3796)	-	-
4970 RDS - On-/Off-Highway	Deep	No	650 (485)	2250 (3051) ³	2800 (3796)	650 (485)	2213 (3000)	2550 (3457)	-	-
4970 RDS - HET	Deep	No	800 (597)	2360 (3200)	3025 (4101)	800 (597)	2360 (3200)	2550 (3457)	-	-

1 - Available in 2nd gear start 2 - Available in gears 3-6 3 - Available in gears 4-7 4 - Available in gears 2-6

Typical Vehicle Applications

Airport Support, Baggage Transport Vehicle, Concrete Mixer, Concrete Pumper, Dump Truck, Equipment Hauler, Farm/Agriculture, Refuse Front Loader (Landfill + No Landfill), Heavy Equipment Transport (HET), Liquid Waste Hauler, Materials Hauler, Municipal Services Maintenance Vehicle, Packing Recycling Truck, Public Utility Vehicle, Rear Loader (Landfill + No Landfill), Roll On/Roll Off (Landfill + No Landfill), Sewer/Septic Vacuum (Landfill + No Landfill), Refuse Side Loader (Landfill + No Landfill), Special Snow Removal Vehicle, Transfer/Relocation Vehicle, Volumetric Mixer, Wood Chip Hauler, Wrecker, Yard Tractor/Spotter



1000 RDS | 1350 RDS
2100 RDS | 2200 RDS
2300 RDS | 2350 RDS
2500 RDS | 2550 RDS



3000 RDS
3500 RDS



4000 RDS
4500 RDS
4700 RDS
4900 RDS
4970 RDS



Allison Transmission Rugged Duty Series™

1000/2000 Series Input + Output Functions

Input Functions		Default Enabled	Comm Avail	Vocation Package Number									
				353	354	369	371	373	374	379	380	381	388
A	Secondary Mode Input	Yes	Yes	142	142	142	142	142	142	142	142	142	-
C1	PTO Drive Interface 1 Input	Yes	Yes	-	143	143	143	-	162	162	143	-	-
C2	PTO Drive Interface 2 Input	No	Yes	-	-	-	-	-	-	-	102	-	-
E	Auxiliary Function Range Inhibit - Single Input	No	Yes	101	101	101	101	101	101	101	101	101	101
H	Engine Brake Interface Input (Standard)	No	Yes	-	102	102	-	-	102	102	-	-	-
I	Engine Brake Interface Input (Special)	No	Yes	102	-	-	-	102	-	-	-	102	-
L	Automatic Neutral - Single Input	No	Yes	123	123	123	123	123	123	123	123	-	-
V	Reverse Enable Input	No	No	143	-	-	-	162	-	-	-	143	-
Y	Anti-Lock Brake System (ABS) Input	Yes	Yes	121	121	121	121	121	121	121	121	121	-
AA	Service Brake Status Input	Yes	Yes	162	162	162	162	-	-	-	162	162	-
AH	Accelerator Pedal Kickdown Input	Yes	Yes	122	-	-	-	122	-	-	-	122	-
AM	Reverse Inhibit w/ Preselect Request Interface Input	No	Yes	-	-	-	-	-	-	-	-	-	-
AR	Overdrive Disable Interface Input	Yes	Yes	161	161	161	161	161	161	161	161	161	-
AS	Neutral at Stop Input	No	Yes	-	-	-	-	143	143	143	-	-	-
BQ	Pump Mode Input (3rd Lockup)	No	No	-	-	-	-	-	-	-	-	-	122/102
BS	Grade Braking / Regeneration Input	No	No	-	-	-	102	-	-	-	-	-	-
CA	Auto Neutral - Brake-Based (BBAN) Input for PTO	No	Yes	-	-	122	-	-	-	122	-	-	-
CB1	Preselect Request 1 Input	Yes	Yes	-	122	-	-	-	122	-	122	-	-
CC	High N/v Ratio Input	No	Yes	-	-	-	-	-	-	-	-	-	-
CD	Automatic Neutral - Single Input w/ Selector Override	Yes	Yes	-	-	-	-	-	-	-	-	-	-
CN	Automatic Neutral - Dual Input w/ Auto Return-to-Range	No	Yes	-	-	-	-	-	-	-	-	123	-
CR	PTO Drive Interface - Synchronized PTO Input	No	Yes	-	-	-	-	-	-	-	-	-	-
CS	Run/Crank Input	Yes	No	-	-	-	-	-	-	-	-	-	123
Output Functions		Default Enabled	Comm Avail	Vocation Package Number									
				353	354	369	371	373	374	379	380	381	388
A	Engine Brake Interface Output	No	Yes	104	104	104	104	104	104	104	-	104	-
B	Sump/Retarder Temperature Indicator	Yes	Yes	164	164	164	164	164	164	164	164	164	164
C	Range Indicator	Yes	No	145	145	145	145	145	145	145	145	145	145
D	Output Speed Indicator A	Yes	No	105	105	105	105	105	105	105	105	105	105
G1	PTO Drive Interface 1 Output	Yes	Yes	-	150	150	150	-	150	150	150	-	-
G2	PTO Drive Interface 2 Output	No	Yes	-	-	-	-	-	-	-	104	-	-
O	Transmission Service Indicator	Yes	Yes	113	113	113	113	113	113	113	113	113	-
S	Neutral Indicator for PTO & PTO Request (NIPTO)	Yes	No	-	-	-	-	-	-	-	-	-	-
X	Overdrive Disable Interface Output	Yes	No	-	-	-	-	-	-	-	-	-	-
AD	Range Inhibited indicator	Yes	Yes	124	124	124	124	124	124	124	124	124	124
AN	PTO Drive Interface - Synchronized PTO Output	Yes	No	-	-	-	-	-	-	-	-	-	-

Allison Transmission Rugged Duty Series™

3000/4000 Series Input + Output Functions

Input Functions	Default Enabled	Comm Avail	Vocation Package Number													
			On-/Off-Highway									Construction			Street Sweeper	
			223	263	224	235	236	242	247	268	146	175	280	167	169	
A	Secondary Mode Input	Yes	Yes	Mode	Mode	Mode	142	Mode	142	142	Mode	Mode	122	122	142	Mode
C1	PTO Drive Interface 1 Input	Yes	Yes	143	143	143	Mode	143	Mode	143	143	143	143	143	Mode	142
C2	PTO Drive Interface 2 Input	No	Yes	-	102	-	-	-	-	-	-	-	-	-	-	-
D	Shift Selector Transition Input	No	No	-	-	-	-	-	-	-	-	-	-	-	-	-
E	Auxiliary Function Range Inhibit - Single Input	No	Yes	101	101	101	101	101	-	101	101	101	-	-	-	-
F	Auxiliary Function Range Inhibit - Dual Input	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-
G	Auxiliary Hold Input	Yes	No	142	142	142	-	142	-	Mode	142	-	117	117	-	-
H	Engine Brake Interface Input (Standard)	No	Yes	102/157	-	102/157	102/157	102/157	-	102/157	-	102/157	102/157	102/157	102/157	102/157
I	Engine Brake Interface Input (Special)	No	Yes	-	-	-	-	-	102/157	-	-	-	-	-	-	-
J	Fire Truck Pump Mode Input	No	No	-	-	-	-	-	-	-	-	-	-	-	-	-
K	Quick-to-Neutral Input	No	No	-	-	-	-	-	-	-	-	-	-	-	-	-
L	Automatic Neutral - Single Input	No	Yes	117	117	-	117	117	-	117	117	-	-	-	117	117
Q	Two Speed Axle Interface Input	Yes	Yes	-	-	-	-	-	-	-	-	142	-	-	101	101
R	Manual Lockup Control Input	No	No	-	-	-	-	-	-	-	-	-	-	-	-	-
V	Reverse Enable Input	No	No	-	-	-	-	-	-	-	-	-	-	-	143	-
W	Direction Change Enable Input	No	Yes	122	122	122	143	122	101	-	122	-	-	-	-	122
Y	Anti-Lock Brake System (ABS) Input	Yes	Yes	121	121	121	121	121	121	121	121	121	121	121	121	121
Z	Retarder Interface Input	Yes	Yes	161	161	161	161	161	161	161	161	161	161	161	161	161
AA	Service Brake Status Input	Yes	Yes	162	162	162	162	162	162	162	162	162	162	162	162	162
AG	Automatic Neutral - Dual Input	Yes	No	-	-	-	-	-	-	-	-	-	101/142	101/142	-	-
AH	Accelerator Pedal Kickdown Input	Yes	Yes	-	-	-	122	-	122	122	-	122	-	-	-	-
AI	Aux Function Range Inhibit - Single Input (Specialty)	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-
AJ	Pump Mode Input (4th Lockup)	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-
AK	Automatic Neutral - Dual Input w/ Service Brake Status	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-
AL	Shift Selector Transition & Secondary Shift Schedule	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-
AM	Reverse Inhibit with Preselect Request Interface Input	No	Yes	-	-	-	-	-	-	-	-	-	123	179	-	-
AQ	Shift Selector Display Blanking Input	Yes	No	-	-	-	-	-	-	-	-	123	-	-	-	-
AS	Neutral at Stop Input	No	Yes	123	123	123	123	-	-	123	123	-	-	123	-	-
AW	2nd Reverse Input	No	No	179	179	179	-	-	-	-	179	-	-	-	-	-
BD	Automatic 2-1 Preselect Input (4000 7-Speed Only)	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-
BS	Grade Braking / Regeneration Input	No	No	-	-	-	-	-	-	-	102	-	-	-	-	-
BY	Aux Box Transition Input	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-
BZ	Shift Selector Transition & Oil Field Pumping Input	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-
CA	Automatic Neutral - Brake-Based (BBAN) Input for PTO	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-
CB1	Preselect Request 1 Input	Yes	Yes	-	-	-	-	123	-	-	-	-	-	-	-	-
CB2	Preselect Request 2 Input	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-
CC	High N/v Ratio Input	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-
CD	Automatic Neutral - Single Input with Selector Override	Yes	Yes	-	-	117	-	-	-	-	-	-	-	-	-	-
CE	Direct Hold Input	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-
CF	Automatic Neutral - Idle Start / Stop Input	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-
CH	Automatic Neutral - Single Input, Inverted	No	Yes	-	-	-	-	-	117	-	-	-	-	-	-	-
CN	Automatic Neutral - Dual Input w/ Auto Return-to-Range	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-
CV	Shift Selector - Multiple Transmission Control	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-

3000/4000 Series Input + Output Functions Continued

Vocation Package Number																			
	Premium Utility w/ Split-Shaft PTO						Premium Utility w/ Soft-Start for Split-Shaft PTO						Basic Refuse		Refuse w/ Auto Neutral			Refuse w/ Auto Neutral & Service Brake	
	149	150	172	216	266	279	219	220	221	222	267	272	180	225	142	145	183	168	170
A	142	Mode	142	Mode	142	Mode	142	Mode	142	Mode	142	142	Mode	Mode	Mode	122	-	-	M
C1	Mode	-	Mode	143	Mode	-	Mode	-	Mode	143	Mode	Mode	143	143	143	143	143	143	143
C2	-	-	-	-	102	-	-	-	-	-	102	-	-	-	-	-	-	-	-
D	-	-	101	-	157	-	-	-	101	-	157	101	101	-	101	101	-	-	101
E	101	101	-	101	101	101	101	101	-	101	101	-	122	101	-	-	-	-	-
F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G	-	-	-	-	-	-	-	-	-	-	-	-	142	142	-	-	-	-	-
H	102/157	102/157	102/157	102/157	-	102/157	102/157	102/157	102/157	102/157	-	102/157	102/157	102/157	102/157	102/157	102/157	102/157	102/157
I	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
J	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
L	-	-	-	-	-	-	-	-	-	-	-	-	117	-	-	-	-	-	-
Q	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
V	-	-	117	-	117	-	-	-	117	-	117	117	-	-	-	-	-	-	-
W	117	117	-	117	179	117	117	117	-	117	179	-	-	-	-	-	-	-	-
Y	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
Z	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161	161
AA	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162
AG	-	-	-	-	-	-	-	-	-	-	-	-	-	-	117/142	117/142	117/142	-	-
AH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AJ	122/123	122/123	122/123	123/122	122/123	122/143	-	-	-	-	-	-	-	-	-	-	-	-	-
AK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	117/142	117/142
AL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	101	101	-
AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	123	-	-	-
AQ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AS	143	143	143	-	143	123	143	143	143	-	143	143	123	123	123	-	123	123	123
AW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BY	-	-	-	-	-	-	123	123	123	123	123	123	-	-	-	-	-	-	-
BZ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CB1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CB2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CE	-	-	-	-	-	-	122	122	122	122	122	122	-	-	-	-	-	-	-
CF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CV	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Allison Transmission Rugged Duty Series™

3000/4000 Series Input + Output Functions Continued

Output Functions	Default Enabled	Comm Avail	Vocation Package Number														
			On-/Off-Highway									Construction			Street Sweeper		
			223	263	224	235	236	242	247	268	146	175	280	167	169		
A	Engine Brake Interface Output	No	Yes	104	-	104	104	104	104	104	104	-	104	104	104	104	104
B	Sump/Retarder Temperature Indicator	Yes	Yes	164	164	164	164	164	164	164	164	164	164	164	164	164	164
C	Range Indicator (6th Gen default is always Neutral)	Yes	No	145	145	145	145	145	113	145	145	-	-	-	113	113	
D	Output Speed Indicator A	Yes	No	105	105	105	105	105	-	105	105	105	105	105	105	105	
G1	PTO Drive Interface 1 Output	Yes	Yes	130	130	130	130	130	130	130	130	130	130	130	130	130	
G2	PTO Drive Interface 2 Output	No	Yes	-	104	-	-	-	-	-	-	-	-	-	-	-	
I	Engine Overspeed Indicator	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-	
J	Two Speed Axle Interface Output	Yes	Yes	-	-	-	-	-	-	-	-	-	145	-	-	145	145
K	Lockup Indicator	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	
N	Secondary Mode Indicator	Yes	Yes	113	113	113	113	113	-	-	113	-	113	113	-	-	
O	Transmission Service Indicator	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	
Q	Retarder Interface Output	Yes	Yes	124	124	124	124	124	124	124	124	124	124	124	124	124	
S	Neutral Indicator for PTO and PTO Request (NIPTO)	Yes	No	-	-	-	-	-	145	-	-	-	145	145	-	-	
AJ	Output Speed Indicator A, Inverted	Yes	No	-	-	-	-	-	105	-	-	-	-	-	-	-	

	Vocation Package Number																		
	Premium Utility w/ Split-Shaft PTO						Premium Utility w/ Soft-Start for Split-Shaft PTO						Basic Refuse		Refuse w/ Auto Neutral			Refuse w/ Auto Neutral & Service Brake	
	149	150	172	216	266	279	219	220	221	222	267	272	180	225	142	145	183	168	170
A	104	104	104	104	-	104	104	104	104	104	-	104	104	104	104	104	104	104	104
B	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164
C	145	145	145	145	145	145	145	145	145	145	145	145	113	-	-	-	-	-	113
D	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105
G1	130	-	130	130	130	-	130	-	130	130	130	130	130	130	130	130	130	130	130
G2	-	-	-	-	104	-	-	-	-	104	-	-	-	-	-	-	-	-	-
I	-	130	-	-	-	130	-	130	-	-	-	-	-	-	-	-	-	-	-
J	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K	-	-	-	-	-	-	-	-	-	-	-	113	-	-	-	-	-	-	-
N	-	-	-	-	-	-	-	-	-	-	-	-	113	-	-	113	113	-	-
O	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Q	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124	124
S	-	-	-	-	-	-	-	-	-	-	-	-	145	145	145	145	145	145	145
AJ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Specialty Series™



Built for the Tough Jobs

Your vehicles are specially designed to work hard in the toughest conditions imaginable on long roads, back roads and no roads at all. Nothing takes your performance to a whole new level like an Allison Specialty Series™ fully automatic transmission.



Allison Transmission Specialty Series™

Ratings

Model	Ratio	Park Pawl	Gross Input Power	Gross Input Torque	Net Turbine Torque	Gross Input Power	Gross Input Torque	Net Turbine Torque	Max GVW	Max GCW
			With Torque Management			Without Torque Management				
			hp (kW)	lb-ft (N·m)	lb-ft (N·m)	hp (kW)	lb-ft (N·m)	lb-ft (N·m)	lbs (kg)	lbs (kg)
1000 SP	Close	Yes	340 (254)	660 (895)	950 (1288)	300 (224)	575 (780)	850 (1152)	22,000 (10,000)	26,001 (11,800)
1350 SP	Close	Yes	340 (254)	660 (895)	950 (1288)	300 (224)	575 (780)	850 (1152)	22,000 (10,000)	30,000 (13,600)
2100 SP	Close	No	340 (254)	700 (950)	950 (1288)	300 (224)	575 (780)	850 (1152)	26,500 (12,000)	26,500 (12,000)
2200 SP	Close	Yes	340 (254)	700 (950)	950 (1288)	300 (224)	575 (780)	850 (1152)	26,000 (11,800)	26,001 (11,800)
2350 SP	Close	Yes	340 (254)	700 (950)	950 (1288)	300 (224)	575 (780)	850 (1152)	30,000 (13,600)	30,000 (13,600)
2500 SP	Wide	No	340 (254)	700 (950)	950 (1288)	300 (224)	575 (780)	850 (1152)	33,000 (15,000)	33,000 (15,000)
2550 SP	Wide	Yes	340 (254)	700 (950)	950 (1288)	300 (224)	575 (780)	850 (1152)	30,000 (13,600)	30,000 (13,600)
3000 SP - Specialty/Military	Close	No	350 (261)	1050 (1424)	1700 (2305)	350 (261)	1050 (1424)	1700 (2305)	-	-
3200 SP - Specialty/Military	Close	No	450 (336)	1250 (1695)	1700 (2305)	450 (336)	1250 (1695)	1700 (2305)	-	-
3500 SP - Specialty/Military	Wide	No	330 (246)	1050 (1424) ²	1500 (2034)	330 (246)	1335 (985)	1500 (2034)	-	-
3700 SP - Specialty/Military	Close	No	330 (246)	875 (1186)	1450 (1996)	330 (246)	875 (1186)	1450 (1996)	-	-
4000 SP - Specialty/Military	Close	No	650 (485)	1950 (2644)	2800 (3795)	650 (485)	1950 (2644)	2800 (3795)	-	-
4430 SP - Specialty/Military	Wide	No	380 (283)	1180 (1600)	2600 (3525)	380 (283)	1180 (1600)	2600 (3525)	-	-
4500 SP - Specialty/Military	Wide	No	605 (451)	1850 (2508) ³	2600 (3525)	605 (451)	1770 (2400)	2600 (3525)	-	-
4700 SP - Specialty/Military	Deep	No	605 (451)	1850 (2508)	3000 (4067)	605 (451)	1850 (2508)	3000 (4067)	-	-
4800 SP - Specialty/Military	Deep	No	800 (597)	1950 (2644)	3000 (4067)	800 (597)	1950 (2644)	3000 (4067)	-	-
4900 SP - Specialty/Military	Deep	No	800 (597)	2360 (3200)	3025 (4101)	800 (597)	2360 (3200)	3025 (4101)	-	-
4970 SP - Specialty/Military	Wide	No	800 (597)	2360 (3200)	3025 (4101)	800 (597)	2360 (3200)	2550 (3457)	-	-
6620 SP - General	-	No	760 (567)	2500 (3390)	3790 (5139)	760 (567)	2500 (3390)	3790 (5139)	-	-
6620 SP - Agricultural Tractor	-	No	700 (522)	2000 (2712)	3340 (4528)	700 (522)	2000 (2712)	3340 (4528)	-	-
6620 SP - ARFF ¹	-	No	1025 (764)	3300 (4474)	5200 (7050)	1025 (764)	3300 (4474)	5200 (7050)	-	-
6625 SP - General	-	No	760 (567)	2500 (3390)	3790 (5139)	760 (567)	2500 (3390)	3790 (5139)	-	-
6625 SP - Agricultural Tractor	-	No	700 (522)	2000 (2712)	3340 (4528)	700 (522)	2000 (2712)	3340 (4528)	-	-
6625 SP - ARFF ¹	-	No	1025 (764)	3300 (4474)	5200 (7050)	1025 (764)	3300 (4474)	5200 (7050)	-	-
8610 SP - General	-	No	1050 (783)	3600 (4881)	5650 (7660)	1050 (783)	3600 (4881)	5650 (7660)	-	-
8610 SP - Agricultural Tractor	-	No	850 (634)	3200 (4339)	5300 (7186)	850 (634)	3200 (4339)	5300 (7186)	-	-
9610 SP	-	No	1350 (1007)	4000 (5423)	6000 (8135)	1350 (1007)	4000 (5423)	6000 (8135)	-	-

1 - Aircraft Rescue + Fire Fighting (ARFF) vehicle 2 - Available in 2nd gear start 3 - Available in gears 2-6

Typical Vehicle Applications

Military, Crane Carrier, Equipment Hauler (with Escort or Permit), Molten Metal/Slag Hauler, Power Plant Generator Hauler, Heavy Equipment Hauler



1000 SP | 1350 SP
2100 SP | 2200 SP
2350 SP | 2500 SP
2550 SP



3000 SP
3200 SP
3500 SP
3700 SP



4000 SP | 4430 SP
4500 SP | 4700 SP
4800 SP | 4900 SP
4970 SP



6620 SP
6625 SP



8610 SP



9610 SP



Allison Transmission Specialty Series™

1000/2000 Series Input + Output Functions

Input Functions		Default Enabled	Comm Avail	Vocation Package Number													
				352	354	360	362	365	369	372	374	376	377	379	380	381	388
A	Secondary Mode Input	Yes	Yes	142	142	142	142	142	142	142	142	142	142	142	142	142	-
C1	PTO Drive Interface 1 Input	Yes	Yes	143	143	143	143	143	143	162	162	101	162	162	143	-	-
C2	PTO Drive Interface 2 Input	No	Yes	-	-	-	-	-	-	-	-	-	-	-	102	-	-
E	Auxiliary Function Range Inhibit - Single Input	No	Yes	101	101	-	-	101	101	101	101	-	-	101	101	101	101
H	Engine Brake Interface Input (Standard)	No	Yes	-	102	102	-	-	102	-	102	102	-	102	-	-	-
I	Engine Brake Interface Input (Special)	No	Yes	102	-	-	102	-	-	102	-	-	102	-	-	102	-
L	Automatic Neutral - Single Input	No	Yes	123	123	-	-	123	123	123	123	-	-	123	123	-	-
V	Reverse Enable Input	No	No	-	-	-	-	-	-	-	-	-	-	-	-	143	-
Y	Anti-Lock Brake System (ABS) Input	Yes	Yes	121	121	121	121	121	121	121	121	121	121	121	121	121	-
AA	Service Brake Status Input	Yes	Yes	162	162	162	162	162	162	-	-	162	-	-	162	162	-
AH	Accelerator Pedal Kickdown Input	Yes	Yes	122	-	-	122	-	-	122	-	-	122	-	-	122	-
AM	Reverse Inhibit w/ Preselect Request Interface Input	No	Yes	-	-	-	123	-	-	-	-	-	123	-	-	-	-
AR	Overdrive Disable Interface Input	Yes	Yes	161	161	161	161	161	161	161	161	161	161	161	161	161	-
AS	Neutral at Stop Input	No	Yes	-	-	-	-	-	-	143	143	143	143	143	-	-	-
BQ	Pump Mode Input (3rd Lockup)	No	No	-	-	122/123	-	-	-	-	-	122/123	-	-	-	-	122/102
BS	Grade Braking / Regeneration Input	No	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CA	Auto Neutral - Brake-Based (BBAN) Input for PTO	No	Yes	-	-	-	101	-	122	-	-	-	101	122	-	-	-
CB1	Preselect Request 1 Input	Yes	Yes	-	122	-	-	-	-	-	122	-	-	-	122	-	-
CC	High N/v Ratio Input	No	Yes	-	-	-	-	102/122	-	-	-	-	-	-	-	-	-
CD	Automatic Neutral - Single Input w/ Selector Override	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CN	Automatic Neutral - Dual Input w/ Auto Return-to-Range	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	123	-
CR	PTO Drive Interface - Synchronized PTO Input	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CS	Run/Crank Input	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-	123

Output Functions		Default Enabled	Comm Avail	Vocation Package Number													
				352	354	360	362	365	369	372	374	376	377	379	380	381	388
A	Engine Brake Interface Output	No	Yes	104	104	104	104	-	104	104	104	104	104	104	-	104	-
B	Sump/Retarder Temperature Indicator	Yes	Yes	164	164	164	164	164	164	164	164	164	164	164	164	164	164
C	Range Indicator	Yes	No	145	145	145	-	145	145	145	145	145	-	145	145	145	145
D	Output Speed Indicator A	Yes	No	105	105	105	105	105	105	105	105	105	105	105	105	105	105
G1	PTO Drive Interface 1 Output	Yes	Yes	150	150	150	150	150	150	150	150	150	150	150	150	150	-
G2	PTO Drive Interface 2 Output	No	Yes	-	-	-	-	-	-	-	-	-	-	-	104	-	-
O	Transmission Service Indicator	Yes	Yes	113	113	113	113	113	113	113	113	113	113	113	113	113	-
S	Neutral Indicator for PTO & PTO Request (NIPTO)	Yes	No	-	-	-	145	-	-	-	-	-	145	-	-	-	-
X	Overdrive Disable Interface Output	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AD	Range Inhibited Indicator	Yes	Yes	124	124	124	124	124	124	124	124	124	124	124	124	124	124
AN	PTO Drive Interface - Synchronized PTO Output	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Allison Transmission Specialty Series™

3000/4000 Series Input + Output Functions

Input Functions	Default Enabled	Comm Avail	Vocation Package Number																						
			Specialty Vehicles								Specialty Vehicles & Dock Spotter		Specialty Vehicles							Premium Utility w/ Soft-Start for Split-Shaft PTO					
			153	166	182	204	205	213	281	237	275	238	239	240	241	249	250	273	219	220	221	222	267	272	
A	Secondary Mode Input	Yes	Yes	Mode	Mode	142	Mode	Mode	142	142	Mode	Mode	142	142	142	142	142	142	Mode	142	Mode	142	Mode	142	142
C1	PTO Drive Interface 1 Input	Yes	Yes	143	143	Mode	143	143	117	143	143	-	-	143	143	117	117	143	Mode	-	Mode	143	Mode	Mode	
C2	PTO Drive Interface 2 Input	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
D	Shift Selector Transition Input	No	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	101	-	157	101
E	Auxiliary Function Range Inhibit - Single Input	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	101	101	-	101	101	-
F	Auxiliary Function Range Inhibit - Dual Input	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
G	Auxiliary Hold Input	Yes	No	-	-	-	-	-	-	-	142	142	-	-	-	-	-	-	-	-	-	-	-	-	-
H	Engine Brake Interface Input (Standard)	No	Yes	102/157	102/157	102/157	-	-	102/157	-	102/157	102/157	102/157	102/157	102/157	102/157	102/157	102/157	102/157	102/157	102/157	102/157	102/157	102/157	
I	Engine Brake Interface Input (Special)	No	Yes	-	-	-	102/157	102/157	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
J	Fire Truck Pump Mode Input	No	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K	Quick-to-Neutral Input	No	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
L	Automatic Neutral - Single Input	No	Yes	-	-	-	-	-	-	-	-	-	117	-	117	-	161	-	-	-	-	-	-	-	-
Q	Two Speed Axle Interface Input	Yes	Yes	-	142	-	-	-	-	-	-	-	-	-	-	-	-	-	142	-	-	-	-	-	-
R	Manual Lockup Control Input	No	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
V	Reverse Enable Input	No	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	117	-	117	117
W	Direction Change Enable Input	No	Yes	-	-	-	142	142	-	-	122	122	-	-	-	-	-	-	-	117	117	-	117	179	-
Y	Anti-Lock Brake System (ABS) Input	Yes	Yes	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
Z	Retarder Interface Input	Yes	Yes	-	161	161	161	161	161	161	161	161	161	161	161	161	-	-	161	161	161	161	161	161	161
AA	Service Brake Status Input	Yes	Yes	-	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162	162
AG	Automatic Neutral - Dual Input	Yes	No	-	-	-	122	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AH	Accelerator Pedal Kickdown Input	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AI	Aux Function Range Inhibit - Single Input (Specialty)	No	Yes	142	101	101	-	-	101	101	101	101	101	101	101	101	101	101	-	-	-	-	-	-	-
AJ	Pump Mode Input (4th Lockup)	No	Yes	-	-	122/143	-	-	122/143	-	-	-	-	-	-	-	122/143	122/143	-	-	-	-	-	-	-
AK	Automatic Neutral - Dual Input w/ Service Brake Status	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AL	Shift Selector Transition & Secondary Shift Schedule	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AM	Reverse Inhibit with Preselect Request Interface Input	No	Yes	-	-	-	123	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AQ	Shift Selector Display Blanking Input	Yes	No	123	123	123	-	-	123	123	123	-	123	123	123	123	123	123	-	-	-	-	-	-	-
AS	Neutral at Stop Input	No	Yes	-	-	-	-	123	-	102	-	-	-	-	-	-	-	-	-	143	143	143	-	143	143
AW	2nd Reverse Input	No	No	-	-	-	-	-	-	179	-	-	179	179	179	179	179	179	-	-	-	-	-	-	-
BD	Automatic 2-1 Preselect Input (4000 7-Speed Only)	Yes	No	-	-	-	-	-	Mode	Mode	-	-	Mode	Mode	Mode	Mode	Mode	Mode	-	-	-	-	-	-	-
BS	Grade Braking / Regeneration Input	No	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BY	Aux Box Transition Input	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	123	123	123	123	123	123	123
BZ	Shift Selector Transition & Oil Field Pumping Input	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CA	Automatic Neutral - Brake-Based (BBAN) Input for PTO	No	Yes	-	-	-	101	101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CB1	Preselect Request 1 Input	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CB2	Preselect Request 2 Input	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CC	High N/v Ratio Input	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CD	Automatic Neutral - Single Input with Selector Override	Yes	Yes	-	-	-	-	-	-	117	-	-	-	117	-	117	-	161	-	-	-	-	-	-	-
CE	Direct Hold Input	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	122	122	122	122	122	122
CF	Automatic Neutral - Idle Start / Stop Input	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

3000/4000 Series Input + Output Functions Continued

Input Functions	Default Enabled	Comm Avail	Vocation Package Number																						
			Specialty Vehicles								Specialty Vehicles & Dock Spotter	Specialty Vehicles							Premium Utility w/ Soft-Start for Split-Shaft PTO						
			153	166	182	204	205	213	281	237	275	238	239	240	241	249	250	273	219	220	221	222	267	272	
CH Automatic Neutral - Single Input, Inverted	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CN Automatic Neutral - Dual Input w/ Auto Return-to-Range	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CV Shift Selector - Multiple Transmission Control	No	Yes	-	-	-	-	-	-	-	-	123	-	-	-	-	-	-	-	-	-	-	-	-	-	
A Engine Brake Interface Output	No	Yes	104	104	104	104	104	104	-	104	104	104	104	104	104	104	104	104	104	104	104	104	-	104	
B Sump/Retarder Temperature Indicator	Yes	Yes	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164	
C Range Indicator (6th Gen default is always Neutral)	Yes	No	145	-	145	113	113	145	145	145	145	145	145	145	145	145	-	145	145	145	145	145	145		
D Output Speed Indicator A	Yes	No	-	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105		
G1 PTO Drive Interface 1 Output	Yes	Yes	130	130	130	130	130	130	130	130	130	-	-	130	130	130	130	130	130	-	130	130	130		
G2 PTO Drive Interface 2 Output	No	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	104		
I Engine Overspeed Indicator	Yes	No	-	-	-	-	-	-	-	-	-	130	130	-	-	-	-	-	-	130	-	-	-		
J Two Speed Axle Interface Output	Yes	Yes	-	145	-	-	-	-	-	-	-	-	-	-	-	-	-	145	-	-	-	-	-		
K Lockup Indicator	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	113		
N Secondary Mode Indicator	Yes	Yes	113	113	-	-	-	-	113	-	-	113	113	113	113	113	113	-	-	-	-	-	-		
O Transmission Service Indicator	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Q Retarder Interface Output	Yes	Yes	-	124	124	124	124	124	124	124	124	124	124	124	-	-	124	124	124	124	124	124	124		
S Neutral Indicator for PTO and PTO Request (NIPTO)	Yes	No	-	-	-	145	145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
AJ Output Speed Indicator A, Inverted	Yes	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		



Allison Transmission Specialty Series™

6000/9000 Series Input + Output Functions

	Input Functions	SAE J1939 SPN ¹	Vocation Package Number						
			On-/Off-Highway		Coal/Auger/Trencher	Crash Truck			Crane
			301	302	501	701	702	703	801
A	Secondary Mode Input	1853 (TC1 Transmission Mode 2)	Mode	162	Mode	Mode	162	162	Mode
B	D-1 Selection	N/A	162	Mode	162	162	Mode	Mode	162
D	Shift Selector Transition Input	N/A	-	-	-	-	-	-	102
E	Auxiliary Function Range Inhibit - Single Input (Inverted)	1121 (EBC1 EBS Brake Switch)	161	161	161	161	161	161	161
G	Auxiliary Hold Input	3906 (Auxiliary I/O #83)	101	101	-	101	101	101	101
K	Quick-to-Neutral Input - Normally Closed	70 (CCVS1 Parking Brake Switch)	-	-	-	-	-	-	-
L	Automatic Neutral - Single Input	70 (CCVS1 Parking Brake Switch)	-	-	-	102	-	-	-
Q	Two Speed Axle Interface Input	69 (CCVS1 Two Speed Axle Switch)	142	142	-	-	-	-	142
R1	Manual Lockup Control Input (Lockup)		-	-	-	-	-	-	-
R2	Manual Lockup Control Input (Enable)	TC1 transmission TC Lockup Disable Request	-	-	-	-	-	-	-
Y	Anti-Lock Brake System (ABS) Input	563 (EBC1 Anti-Lock Braking (ABS) Active)	-	-	-	121	121	121	121
Z	Retarder Interface Input	571 (ERC1 Retarder Enable - Brake Assist Switch)	123	123	-	123	123	123	123
AM	Reverse Inhibit with Preselect Request Interface Input (Inverted)	4242 (Transmission Reverse Gear Shift Inhibit Request)	121	121	-	-	-	-	-
AQ	Shift Selector Display Blanking	N/A	-	-	-	157	-	-	-
AW	2nd Reverse Input	N/A	157	157	157	-	-	-	157
AX	Manual Mode - Normally Open	N/A	143	143	143	143	143	143	143
AZ	Lockup Disable Request	TC1 (Transmission Torque Converter Lockup Request)	122	122	122	122	122	122	122
BC	Shift Selector Transition and Manual Mode	N/A	-	-	-	-	-	-	-
BE	Engine Speed/Torque Control Input 1	N/A	-	-	142	142	142	142	-
CE	Direct Hold	N/A	102	102	102	-	-	-	-
CG	Engine Speed/Torque Control Input 2	N/A	117	117	117	117	117	117	117
CI	Quick-to-Neutral Input - Normally Open	N/A	-	-	123	-	-	-	-
CK1	Pressure Test Mode	3907 (Auxiliary I/O #84)	-	-	-	-	-	-	-
CK2	Pressure Test Mode (Low Flow)	3904 (Auxiliary I/O #81)	-	-	-	-	-	-	-
C0	Shift Schedule 2	4246 (TC1 Transmission Mode 5)	179	179	179	179	179	179	179
CQ	Manual Mode - Normally Closed	N/A	-	-	-	-	-	-	-
CT1	Output Brake Input 1	11752 (TC2 Transmission Output Shaft Brake Request)	-	-	-	-	-	-	-
CT2	Output Brake Input 2	11752 (TC2 Transmission Output Shaft Brake Request)	-	-	-	-	-	-	-
CU	Rapid Warmup Mode Input	4249 (TC1 Transmission Mode 8)	-	-	-	-	-	-	-

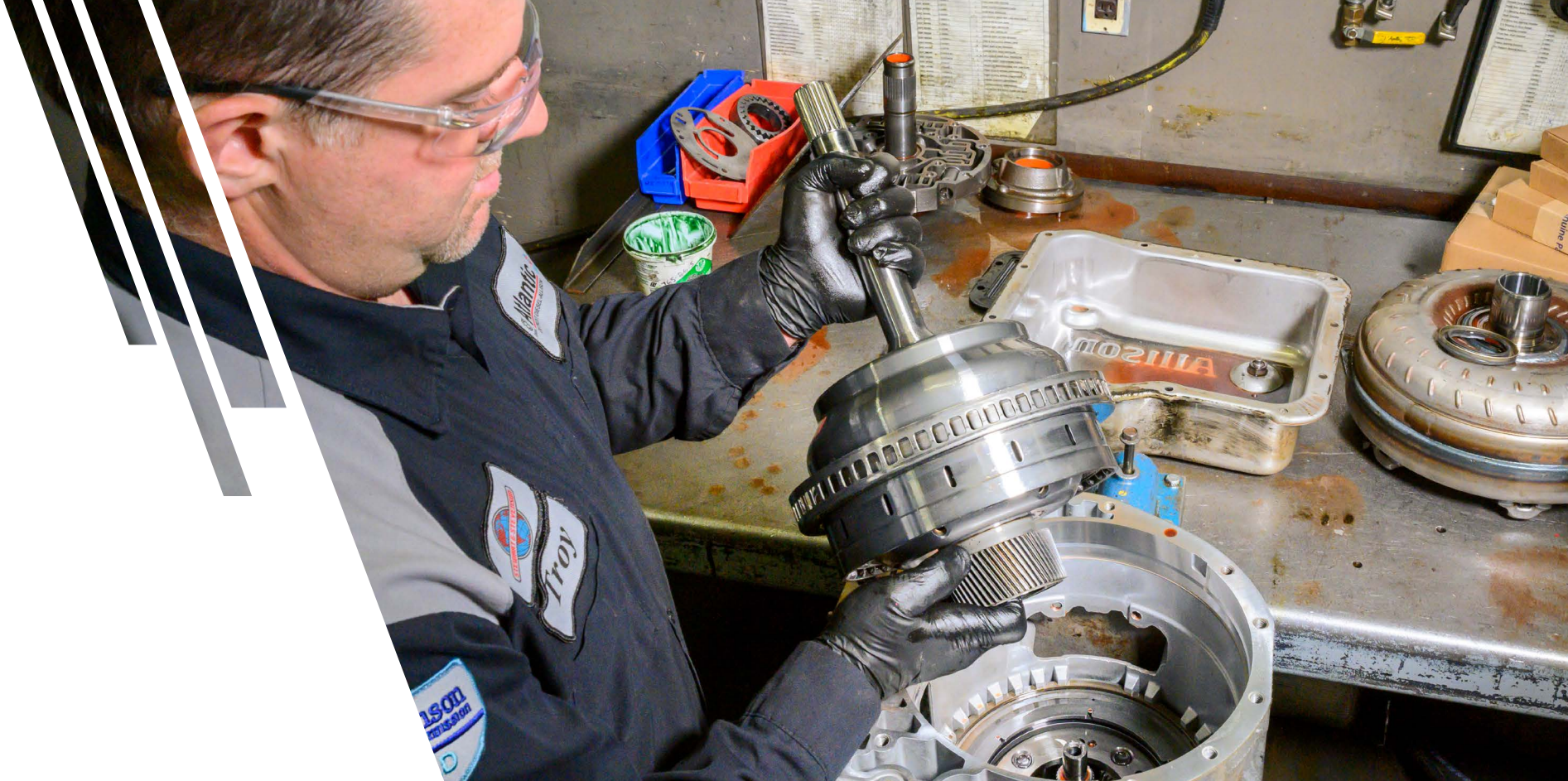
	Output Functions	SAE J1939 SPN ¹	Vocation Package Number						
			On-/Off-Highway		Coal/Auger/Trencher	Crash Truck			Crane
			301	302	501	701	702	703	801
B	Sump/Retarder Temperature Indicator	5345 (TRF2 Transmission Overheat Indicator)	-	-	-	-	-	-	-
C	Range Indicator	See note	145	145	145	145	145	145	145
D	Output Speed Indicator A	N/A	113	113	-	-	-	-	113
E	Output Speed Indicator B	N/A	-	-	-	-	-	-	-
I	Engine Overspeed Indicator	N/A	130	130	-	-	-	130	130
J	Two Speed Axle Interface Output	N/A	105	105	-	-	-	-	105
K	Lockup Indicator	573 (ETC1 Transmission Torque Converter Lockup Engaged)	104	104	104	104	104	104	104
N	Secondary Mode Indicator	2537 (ETC7 Transmission Mode 2 Indicator)	150	150	150	150	150	150	150
Q	Retarder Interface Output	N/A	124	124	-	124	124	124	124
V	Manual Mode Indicator	N/A	-	-	130	130	130	-	-
W	Neutral to Range Brake	N/A	164	164	164	164	164	164	164
Z	Engine Speed/Torque Control Indicator	N/A	-	-	113	113	113	113	-
AD	Range Inhibit Indicator	1851 (ETC7 Transmission Shift Inhibit Indicator)	-	-	-	-	-	-	-
AL	Transmission Filter Restriction Indicator	3359 (TRF2 Transmission Oil Filter Restriction Switch)	-	-	105	105	105	105	-
A0	Shift Schedule 2 Indicator	4250 (ETC7 Transmission Mode 5 Indicator)	-	-	-	-	-	-	-

1 - J1939 messages are available for activation and deactivation, see CEC5 Datalink Communication Document

Aftermarket Solutions

Keep Your Allison Products Performing at Their Best

Allison has a network of approximately 1,600 Authorized Dealer and Distributor locations and 3,600 certified technicians worldwide that provide sales and service support for Allison products.



Service Tools + Information

Allison Transmission is dedicated to providing the highest quality service and care for our customers and partners around the world. Whether you're seeking detailed technical publications, diagnostic tools or training, we are here to assist you every step of the way.



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Service Resources	Repair + Maintenance Information
Allison HUB™	Repair + Maintenance Information System
Allison DOC®	Allison Product Identification
Publications	Maintenance, Troubleshooting + Service Repair Maintenance
Training	Diagnostics
FAQs + Service Tips	Updating, Replacing, and Calibrating Electronic Control
	Electronic History Maintenance

Your Fleet of Information

Allison HUB™ provides a centralized location for access to Allison technical information. Access to Allison HUB is available to everyone. Likewise, Allison HUB provides approximately 1,600 Allison Authorized Distributors and Dealers worldwide with additional resources that support the service of Allison transmissions.

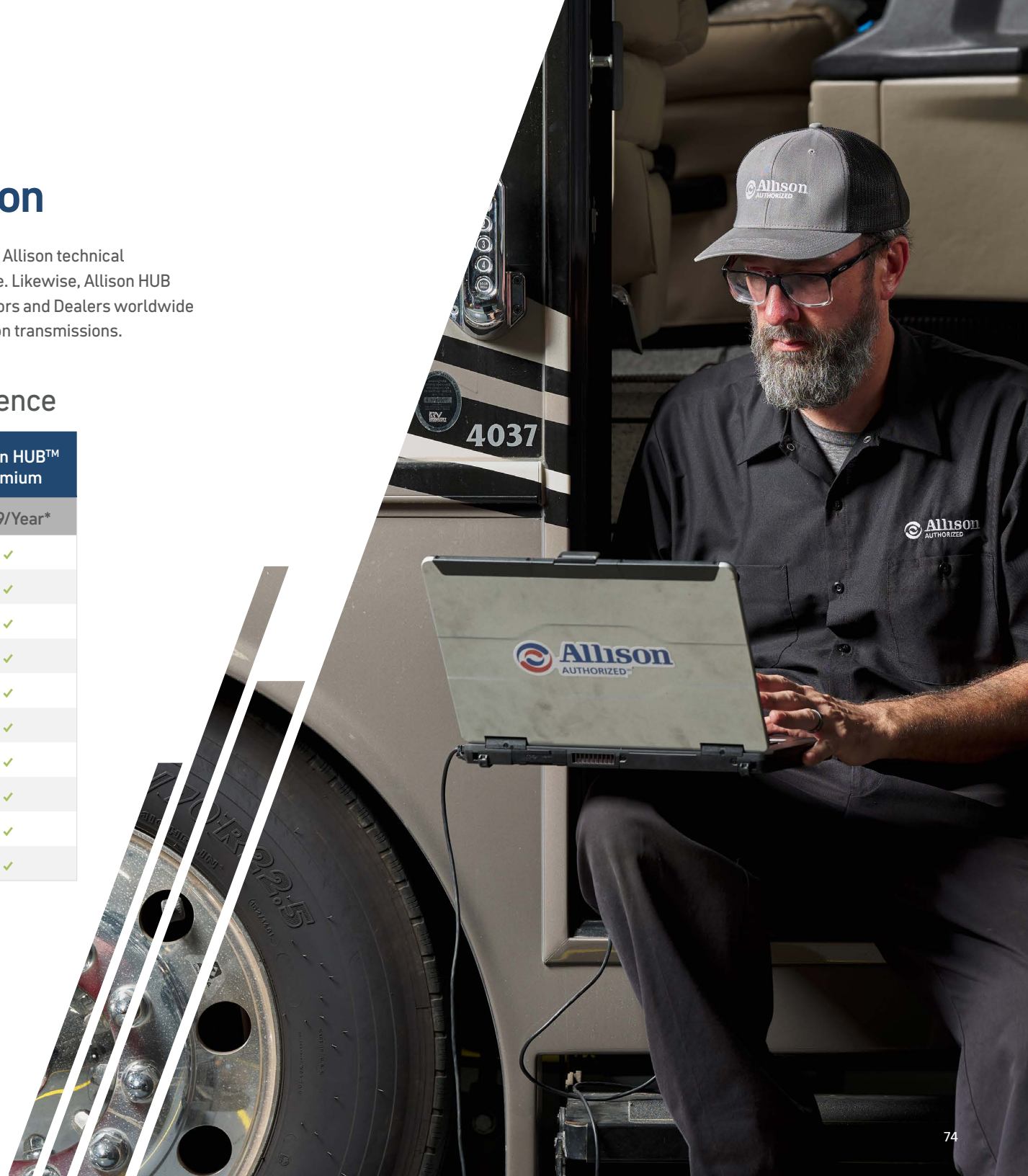
The Allison HUB™ Premium Difference

Service Resources	Basic User	Allison HUB™ Premium
Pricing	Free	\$429/Year*
Operator's Manuals	✓	✓
Service Tips	✓	✓
Warranty Booklets	✓	✓
Warranty Status Check	✓	✓
Web-Based Service Training	✓	✓
Allison ePubs		✓
Introduction Sheets		✓
Parts Catalog		✓
Service Information Letters		✓
Unit History		✓

*For additional information on Allison HUB™ Premium plans and pricing, please visit allisontransmission.com/allisonhub.



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Rapid Diagnosis for Reliable Performance

Allison DOC® Subscription Service is a Windows-based diagnostic tool that allows users to diagnose, troubleshoot, service and re-program Allison electronically controlled commercial propulsion solutions and transmission control systems.

Features

TRANSHEALTH Monitoring

Diagnostics

Prognostics

FuelSense® 2.0 Trimming



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The Allison Genuine Parts™ Difference

No one makes Allison parts like Allison Transmission. Choosing Allison Genuine Parts™ means investing in the quality, dependability and expertise Allison Transmission is known for across the globe.

One Stop Shop

There's only one place to go when you need Allison Genuine Parts™—an Allison Authorized Distributor or Dealer. Our distributors and dealers are factory-trained specialists who exclusively distribute only Allison Genuine Parts.

Categories	Allison Genuine Parts™	Non-Genuine Parts
Allison Genuine Packaging	✓	✗
Backed by an Allison Factory Warranty	✓	✗
Built to Original Factory Specifications	✓	✗
Can Only Be Purchased from Allison Authorized Distributors and Dealers	✓	✗
Replacement Parts are Identical to Original Parts	✓	✗
Supported By the Allison Authorized Service Network	✓	✗



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ReTran[®]

Total Confidence

Allison Transmission guarantees that every part and every process associated with an Allison ReTran[®] is 100% authentic. Only Allison ReTrans undergo our proprietary dynamometer testing to ensure they precisely meet the original factory specs, and only we have access to Allison factory specifications, processes and knowledge. At every stage, each Allison ReTran is inspected for quality of the remanufacturing process, then measured against stringent wear-limit specs.



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The Allison ReTran[®] Difference

Categories	Allison ReTran [®]	Non Genuine
100% Exclusively Genuine Parts	Yes	No
100% Dynamometer Tested Against Allison Original Specs	Yes	No
Inspected for Quality at Each Stage of Remanufacturing	Yes	?
Measured Against Stringent Allison Wear-Limit Specs	Yes	No
Thoroughly Leak Tested	Yes	?
New Genuine Allison Torque Converter on all 1000 Series and	Yes	No
2-Year Warranty service coverage includes:		
Towing ¹	Yes	No
Removal and Replacement Labor ¹	Yes	No
Tested and Residual Fluid ² Is TES 668* Certified	Yes	No
Access to Network of Approximately 1,600 Authorized	Yes	No

1 - If installed by Allison Authorized Distributed and Dealers

2 - Residual fluid remains in the transmission after acceptance testing

Additional 2-Year Extended Coverage (EC) Warranty available



Terms and Conditions for

Allison Transmission Coverage

Transmission Coverage Definitions and Requirements

Standard Limited Warranty

All Allison automatic transmissions carry a Standard Limited Warranty based upon Vocational Model Series and vocations.¹ Standard Limited Warranty includes 100% parts and labor for the designated coverage period. Mileage limitations for specific Vocational Model Series and/or vocations may apply.

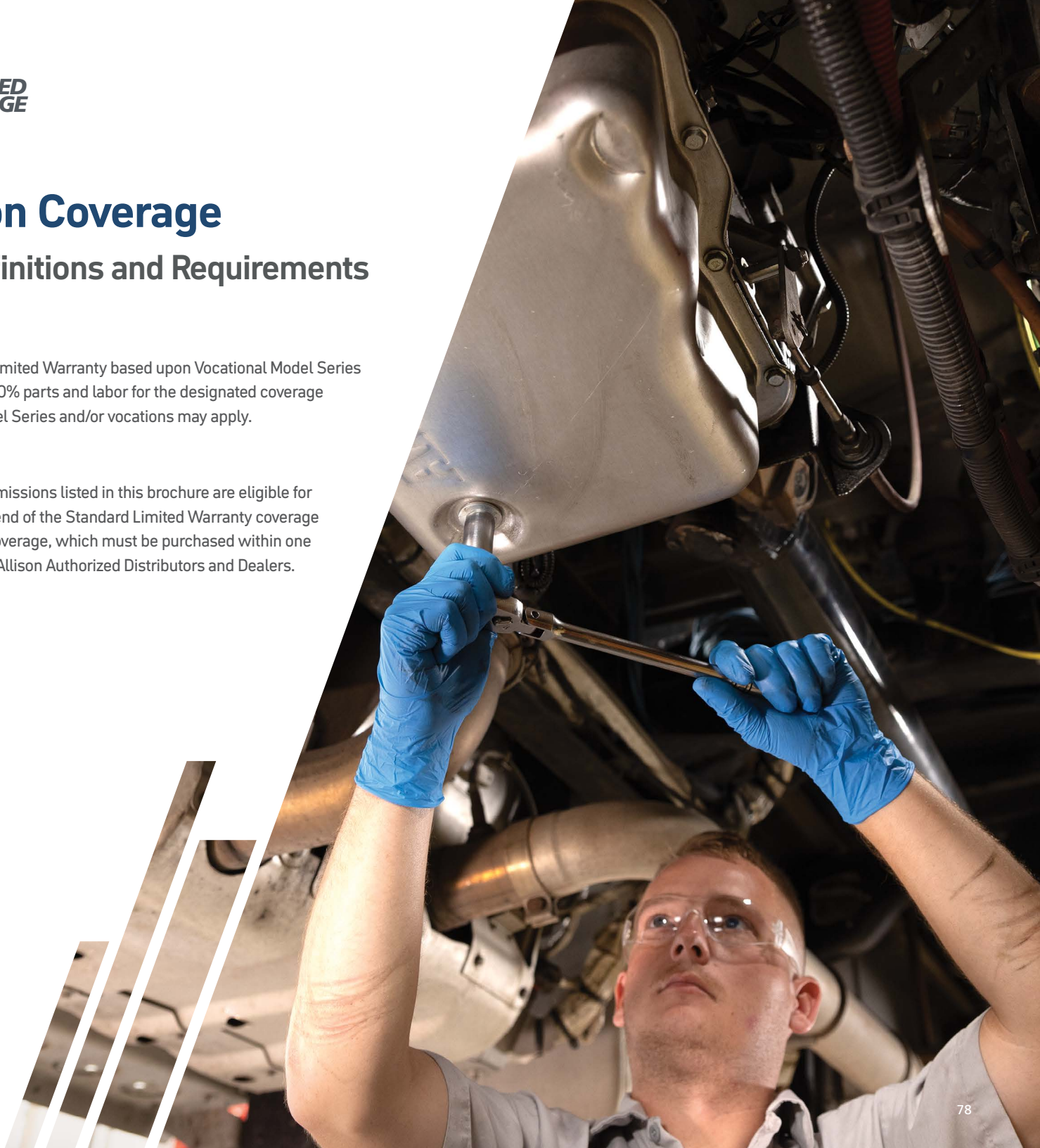
Extended Coverage

In addition to Standard Limited Warranty, Allison transmissions listed in this brochure are eligible for Extended Coverage. Extended Coverage begins at the end of the Standard Limited Warranty coverage period and increases the coverage period. Extended Coverage, which must be purchased within one year of the delivery of the vehicle, is available through Allison Authorized Distributors and Dealers.

1 - See Warranty Parchment for exact coverage details.



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The FuelSense® 2.0 Advantage

Allison's FuelSense® 2.0 delivers upgraded features that provide vehicles with a precise balance of fuel economy and performance.

FuelSense 2.0's flagship feature, DynActive® Shifting, finds the ideal balance of fuel economy and performance for your vehicle's duty-cycle by using an algorithm to choose the optimal shift point. Acceleration Rate Management automatically controls engine torque to prevent aggressive driving practices, while the Neutral at Stop feature (available in Standard and Premium versions) trims fuel consumption and emissions by eliminating the load on the engine when the vehicle is stopped.



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Fluid + Filter Change Recommendations

Use of the proper fluid and filters is the simplest thing that an owner can do to ensure the ongoing performance and reliability of Allison automatic transmissions. Allison Transmission has designed extensive specification and testing programs to verify the quality of fluids. As a result, the specific fluid and filter change interval recommendations on the pages that follow closely match today's operating environments.

Local conditions, severity of operation or duty-cycle may require more or less frequent fluid change intervals than those recommended on the following charts. Allison Transmission recommends fluid analysis as the primary method for determining fluid change intervals for vehicles not equipped with prognostic software. In the absence of a fluid analysis program, the fluid change intervals recommended on the following pages should be used.

Learn more about fluid or filter change intervals, locate models not listed in this brochure and obtain a complete list of approved fluids at allisontransmission.com (or call the Allison Technical Assistance Center at 1-800-252-5283).



[Learn More](#)



1000/2000 Series Fluid + Filter Change Interval Recommendations

		Duty Cycle	Prognostics Turned Off or Not Calibrated in TCM		Prognostics Turned On	
			Allison TES 295*/668* Approved Fluid(s)	Allison TES 389* Approved Fluid	Allison TES 295*/668* Approved Fluid(s)	Allison TES 389* Approved Fluid
Fluid		General*	150,000 Miles (240,000 km) or 4000 Hours or 48 Months	50,000 Miles (80,000 km) or 2000 Hours or 24 Months	When indicated by controller or 48 Months, whichever occurs first	When indicated by controller or 24 months, which occurs first (MY2010)
		Severe**	75,000 Miles (120,000 km) or 3000 Hours or 36 months	12,000 Miles (20,000 km) or 500 Hours or 6 Months		
Filters	Spin-On Control Main Filter	General*	50,000 Miles (80,000 km) or 2000 hours or 24 months	50,000 Miles (80,000 km) or 2000 Hours or 24 Months	When indicated by controller or 48 Months, whichever occurs first	When indicated by controller or 24 months, which occurs first (MY2010)
		Severe**	50,000 Miles (80,000 km) or 2000 hours or 24 months	12,000 Miles (20,000 km) or 500 Hours or 6 Months		
	Internal Filter	All	Overhaul	Overhaul	Overhaul	Overhaul

* General Vocation: All vocations not classified as Severe ** Severe Vocation: On-/Off-Highway, Refuse, City Transit, Shuttle Transit

3000/4000 Series Fluid + Filter Change Interval Recommendations

		Duty Cycle	Prognostics Turned Off or Not Calibrated in TCM		Prognostics Turned On	
			Allison TES 295*/668* Approved Fluid(s)	Allison TES 389* Approved Fluid	Allison TES 295*/668* Approved Fluid(s)	Allison TES 389* Approved Fluid
Fluid		General*	300,000 Miles (480,000 km) or 6000 Hours or 48 Months	25,000 Miles (40,000 km) or 1000 Hours or 12 Months	When indicated by controller or 60 Months, whichever occurs first	When indicated by controller or 24 months, which occurs first (MY2010)
		Severe**	150,000 Miles (240,000 km) or 6000 Hours or 36 months	12,000 Miles (20,000 km) or 500 Hours or 6 Months		
Filters	Spin-On Control Main Filter	General*	75,000 Miles (120,000 km) or 3000 hours or 36 months	25,000 Miles (40,000 km) or 1000 Hours or 12 Months	When indicated by controller or 60 Months, whichever occurs first	When indicated by controller or 24 months, which occurs first (MY2010)
		Severe**	75,000 Miles (120,000 km) or 3000 hours or 36 months	12,000 Miles (20,000 km) or 500 Hours or 6 Months		
	Internal Filter	All	Overhaul	Overhaul	Overhaul	Overhaul
	Lube/Auxiliary Filter	General*	75,000 Miles (120,000 km) or 3000 hours or 36 months	25,000 Miles (40,000 km) or 1000 Hours or 12 Months	When indicated by controller or 60 Months, whichever occurs first	When indicated by controller or 24 months, which occurs first (MY2010)
Severe**		75,000 Miles (120,000 km) or 3000 hours or 36 months	12,000 Miles (20,000 km) or 500 Hours or 6 Months			

* General Vocation: All vocations not classified as Severe ** Severe Vocation: On-/Off-Highway, Refuse, City Transit, Shuttle Transit

6000/9000 Series Fluid + Filter Change Interval Recommendations

	Allison TES 353* Approved Fluid	Allison TES 439* Approved Fluid	Allison TES 781* Approved Fluid*
Fluid	Up to 4000 Hours or 48 Months	Up to 1200 Hours or 48 Months	2500 Hours or 48 months
Filters	When fluid is changed or 600 Hours	When fluid is changed or 600 Hours	When fluid is changed or 600 Hours

*Stationary/fracking applications only

Input + Output Functions

The control system provides functional management of transmission and vehicle operations tailored to the expected duty of the vehicle. This is done using Input and Output (I/O) Functions.

- Input Functions send vehicle data to the Transmission Control Module (TCM) or Vehicle Control Module (VCM) indicating the operating state of other vehicle systems.
- Output Functions send data out of the TCM or VCM for use in controlling the operation of other vehicle systems or components.

The combination of Input Functions and Output Functions that are used in a specific vehicle normally relate very closely with the expected use of the vehicle. The desired Inputs and Outputs must be selected when the vehicle builder defines the system calibration (SID). To learn more, visit allisontransmission.com/allisonhub.

Input + Output Definitions

2nd Reverse Input: Provides for operation in the alternate deep reverse gear ratio.

3rd Lock up Pump Mode: Provides integrated 3rd range to optimize split-shift PTO operation and protect powertrain/split-shaft/pump components.

4th Lock up Pump Mode: Provides integrated 4th range to optimize split-shift PTO operation and protect powertrain/split-shaft/pump components.

Anti-Lock Brake System (ABS) Input: Signals the TCM when an ABS event has occurred, to disable the lock up clutch, modify the downshift schedule and disable the retarder (if equipped).

Automatic 201 Preselect Input: Allows an automatic 2-1 shift in a 7-speed transmission if conditions are conducive to successfully completing the shift.

Automatic Neutral: Ensures that the vehicle goes to and stays in Neutral under predetermined conditions (i.e., parking brake applied), regardless of the driver's position inside or outside of the vehicle, reducing the risk of unwanted vehicle movement.

Automatic Neutral – Dual Input: Ensures that the vehicle goes to and stays in Neutral under predetermined conditions. When input is deactivated, vehicle will return to range automatically.

Automatic Neutral - Idle Start/Stop Input: Transmission commanded to neutral when engine shuts off. When engine restarts, transmission re-engages range.

Automatic Neutral - Single Input with Selector Override: Commands the transmission to neutral when input activates. Shift selector can override neutral command (e.g., used in EVS, SP and PTS vehicles).

Aux Box Transition Input: For oil field or other on-/off-highway dual-mode operation. Momentarily locks the transmission output to assist in transfer case transition.

Auxiliary Function Range Inhibit – Dual Input: Monitors two redundant inputs for a vehicle component to prevent unwanted shifts out of neutral.

Auxiliary Function Range Inhibit – Single Input: Prevents range attainment (Drive or Reverse) under undesirable conditions.

Auxiliary Hold: Holds the vehicle in a current range (or lower) for precise speed control and smooth, consistent operation.

Differential Clutch Interface Input: Provides for operator on/off control of the differential locking clutch in the transmission transfer case. (This function is used only with 3700 models.)

Direct Hold Input: Facilitates operator selection of a specified Direct Hold range in converter mode directly from Neutral.

Direction Change Enable: Protects people and equipment from unwanted shifts that result in a change to the vehicle direction.

Engine Brake Interface Output: Lessens wear and tear on service brakes, increasing brake life by using elevated downshift points where engine brakes are most effective.

Engine Overspeed Indicator Output: Turns on dash light or buzzer to alert the operator when engine reaches an overspeed condition.

Input + Output Definitions Continued

Grade Braking/Regeneration Input: Permits the operator to use a dash-mounted switch to select whether transmission downshifts are commanded according to the normal schedule or at higher downshift speeds.

High N/V Ratio Input: Adjust transmission operating parameters to compensate for the gear ratio change and other factors associated with shifting between High, Neutral or Low positions of a transfer case.

Lock up Indicator Output: Turns on dash indicator when transmission lockup clutch is engaged. May be used to indicate when maximum engine braking is available.

Manual Lock up Enable: Used to manually control operation of the transmission lock up clutch.

Neutral at Stop: Reduces or eliminates the load on the engine while the vehicle is stopped, reducing fuel usage and emissions.

Neutral Indicator for PTO and PTO Request (NIPTO): Indicates neutral status for PTO operation.

Output Speed Indicator: Informs vehicle operators when a set speed is exceeded or when other operations can be performed, making it easier to concentrate on driving.

Overdrive Disable Input: Provides the capability, through the enabling of this function, to prevent the transmission from upshifting into overdrive.

Preselect Request Input: Signals the TCM to preselect a selectable forward drive range whenever the function is requested.

PTO Drive Interface: Protects equipment by ensuring that all operating conditions (engine speed, range, throttle position, output speed, etc.) are met before engaging the PTO and while the PTO is in operation. Provides a mechanism to disable the modulated main pressure feature in the transmission.

Quick to Neutral: Shifts the transmission to Neutral when a signal to the TCM designates that drive to auxiliary equipment must be interrupted.

Range Indicator: Used with auxiliary vehicle systems to permit operation only in specified transmission range(s).

Retarder Interface: Provides for operator on/off control of the retarder, incorporates indication for elevated retarder temperature and illuminates brake lights during retarder operation.

Reverse Enable Input: Prevents inadvertent shifts into reverse.

Reverse Inhibit with Preselect Request Interface: Limits transmission operation to Preselect Ranges and inhibits Reverse when personnel ride at rear of vehicle (e.g., refuse vehicles).

Secondary Mode: Allows operator to select appropriate operating mode or specialty shift schedule for controlled operation.

Selector Display Blanking Input: Used to meet blackout requirements.

Service Brake Status Input: Indicates to the TCM whether vehicle braking is being provided by vehicle brakes, so transmission controls can be adapted accordingly.

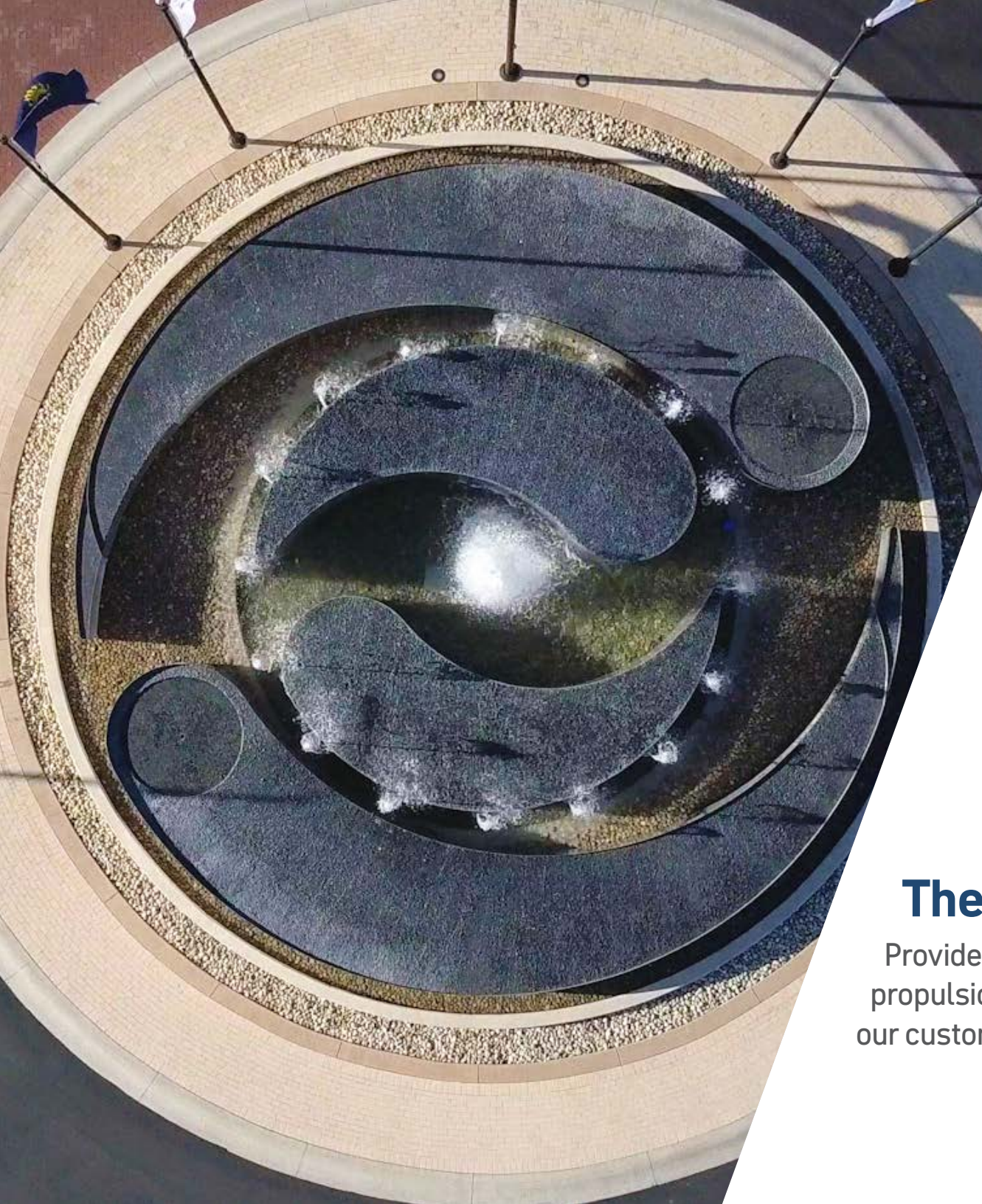
Shift Selector Transition and Oil Field Pumping Input: For oil field dual-mode vehicles driven on-road in primary mode, use secondary mode for stationary oil field operations, such as pumping, swabbing or winching.

Shift Selector Transition Input: Selects which shift selector is active when two shift selectors are used.

Sump/Retarder Temperature Indicator: Turns on dash indicator or alarm when transmission temperature has exceeded specified limits.

Transmission Service Indicator: Provides an indication that transmission service is required.

Two-Speed Axle Interface: Provides input signal to TCM indicating low/high ratio axle selection.



The Allison Promise

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



Whatever leaves this shop over my name must be of the finest work possible.”

- James A. Allison



It's been more than 110 years since James A. Allison founded our business—but the same dedication to quality, reliability and durability that drove our company to support the U.S. Military during both World Wars and invent the world's first heavy-duty automatic transmission still inspires us. As we continue to advance propulsion systems, vehicle software, alternative fuels and other technologies, our powerful, efficient and innovative solutions are always progressing to meet the demands of a changing world.

A World of Support

From our headquarters in Indianapolis, Indiana, USA, to our manufacturing plants in Hungary and India, to approximately 1,600 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 factory-trained specialists and Allison Genuine Parts™.

Note: Features and specifications listed in this document are subject to change without notice. Although every attempt has been made to ensure the accuracy of information contained within, Allison Transmission makes no representation about the completeness, correctness or accuracy and assumes no responsibility for any errors or omissions. Features and functionality may vary depending on selected options.

This document was updated on January 20, 2026. For the most up-to-date listing of products, specifications and ratings, please visit [allisontransmission.com](https://www.allisontransmission.com).

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