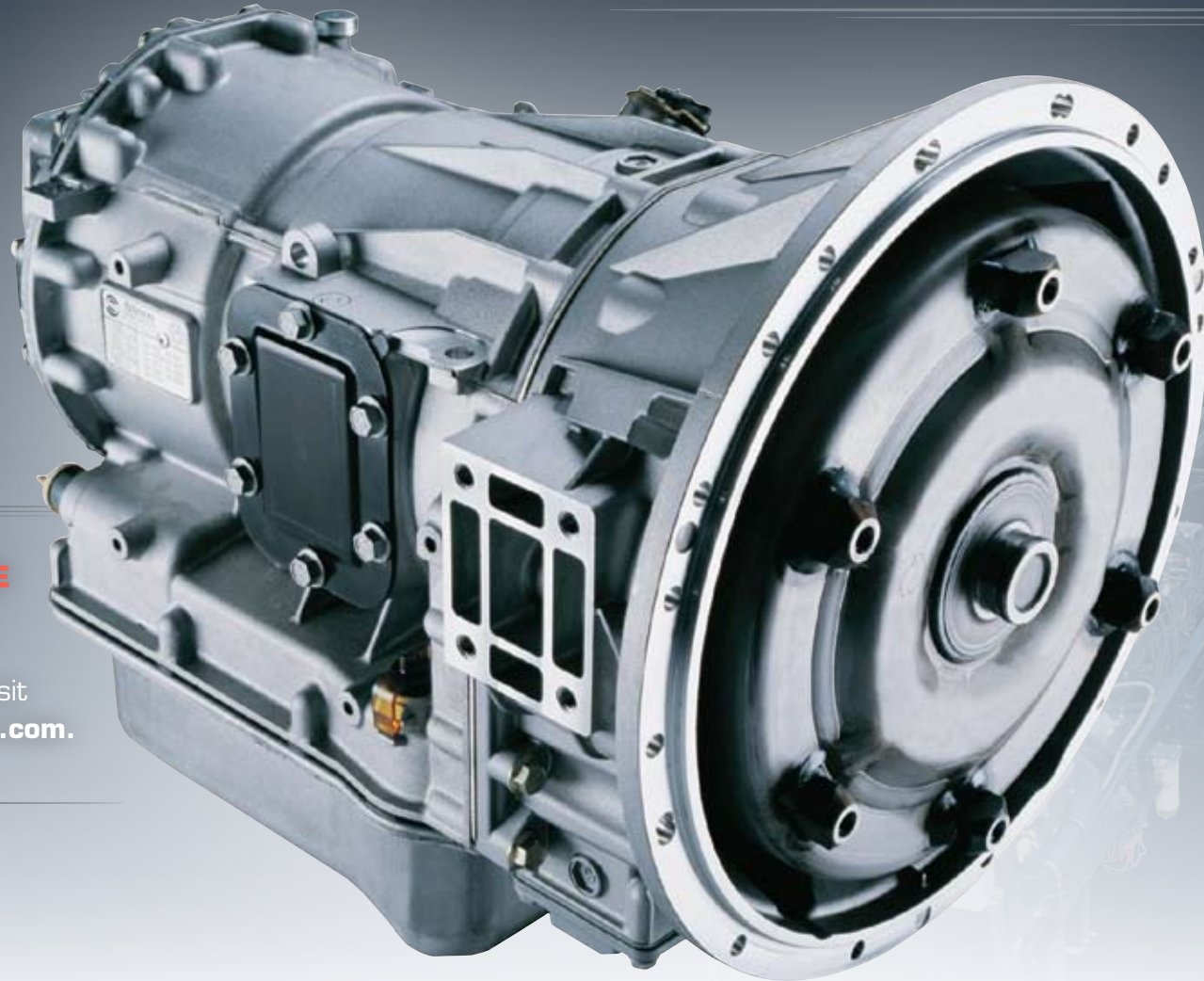


SHIFT ENERGY MANAGEMENT

Making the best transmission perform even better



FIND OUT MORE

Contact your Allison Representative. For the representative near you, visit www.allisontransmission.com.

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Information or specifications subject to
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DRIVING TRANSMISSION TECHNOLOGY™



SHIFT ENERGY MANAGEMENT

Allison's Shift Energy Management (SEM) provides better engine/transmission integration to optimize the entire driveline system. The result is faster, smoother, more consistent shift quality, increased powertrain durability, improved performance and an overall more efficient vehicle operation leading to greater fuel economy.

HOW SEM WORKS

During shift operation, SEM begins when the transmission control module (TCM) electronically requests the engine's electronic control unit (ECU) to momentarily reduce engine torque. The engine's ECU acknowledges the command and cuts torque as requested. As the shift is completed, the TCM requests the ECU to ramp engine torque back to the desired level. This process is completed quickly and seamlessly.

WHAT IT DOES

By maintaining a nearly constant torque output from the transmission during range upshifts, a SEM range upshift produces less stress on driveline components. And, it reduces the amount of clutch energy during shifts, resulting in less heat and more efficient operation. This not only improves transmission durability and overall performance, it contributes to the entire vehicle's fuel economy.

ADDED BENEFITS

SEM also provides better acceleration and helps carry loads more efficiently because of the higher torque engines that can be used with SEM equipped Allison automatic transmissions. In applications where SEM allows for the use of higher torque engines than otherwise permitted, specifying a bigger engine doesn't mean specifying a bigger transmission too. This allows vehicle weight to be reduced without sacrificing performance and durability.

DOWN THE ROAD

As medium- and heavy-duty powertrains become even more integrated and subject to increased emissions and regulatory measures and to increasing fuel efficiency demands, Allison's SEM will continue to be a valuable asset in providing even more transmission and engine cooperative capabilities.



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