

VOLVO I-SHIFT

Volvo Trucks. Driving Success.®



INTELLIGENCE

THE NEW STANDARD IN FUEL ECONOMY, SAFETY AND DRIVER COMFORT.





I-Shift: Better for you, your truck and your bottom line.

Volvo I-Shift is a 12-speed, two-pedal, lightweight automated manual transmission (AMT) that delivers an exceptional level of productivity by simultaneously maximizing driver comfort, safety, payload capacity and fuel efficiency.

I-Shift is designed to integrate seamlessly with Volvo engines. It represents the fourth generation of proven Volvo AMT technology that requires minimum service and virtually no maintenance. I-Shift is ideal for applications such as line haul, heavy haul, construction, distribution, pickup and delivery. Available in six feature packages, I-Shift can be customized to fit the demanding needs of owner-operators and fleets of all sizes.

Volvo I-Shift has become the new transmission standard in terms of fuel economy, safety and ease of operation. It helps fleets attract and keep good drivers, and makes good drivers even better. All to drive success for your business.

A transmission with intelligence.

The I-Shift transmission management system employs a next-generation microprocessor to deliver “intelligent” features that improve driveability, safety and fuel efficiency.

For example, I-Shift knows the efficiency map for each Volvo engine. By continuously monitoring the changing grade, vehicle speed, acceleration, torque demand, weight, rolling and air resistance, the I-Shift can instantly predict and select the most efficient utilization of the engine. In other words, it knows when and where a shift would be beneficial.

Operational advantages to enhance your productivity.

Lower Operating Costs

I-Shift lets every driver shift like a fuel efficiency expert, reducing your fuel costs. Smooth shifting puts less stress on the driveline and the tires, and can extend the useful life of the driveline and minimize maintenance. I-Shift is also light in weight, increasing your payload opportunity.

Easy Operation

No driver intervention is needed, because you can trust I-Shift to always select the right gear. This level of ease helps with driver retention, and reduces the time it takes for a driver to make a profit on the road.

Increased Safety

Easier operation means less wear and tear on drivers. I-Shift reduces fatigue and improves concentration, allowing drivers to give their full attention to maneuvering the vehicle.

Easy to Upgrade

I-Shift’s high torque rating allows for unlimited engine power and torque upgradeability, since all engine ratings share the same hardware within each engine size. This makes it easy to adapt to changing route performance requirements, and to tailor a used vehicle to a second owner.

Innovations to benefit your over-the-road performance.

Volvo I-Shift was designed with fuel economy as its top priority. Here are the key technological innovations that enable I-Shift to increase your efficiency and reduce your fuel costs:

Better Utilization of the Engine

I-Shift’s advanced microprocessor intelligence increases the time the engine runs in the “sweet spot,” which leads to increased miles per gallon.

Eco-Roll®

I-Shift’s unique Eco-Roll feature utilizes kinetic energy—the truck’s motion—to make the vehicle more efficient on any type of non-flat terrain, saving up to 2% in fuel when utilized.

Eco-Roll allows the transmission to disengage the engine in certain situations, such as moderate hills. The vehicle will roll out longer, delaying the need to return power to the engine, saving fuel.

Forced Lubrication

I-Shift’s lube oil pump sends lubricant through drilled passageways to deliver it precisely where it’s needed. A filter

removes any contamination. The result is longer life and better performance.

Direct Drive Model Available

In I-Shift transmissions offering Direct Drive, the output shaft is tied directly to the input shaft in top gear, preventing power loss due to friction between mating gears. This can save as much as 1.5% in fuel—and up to 3–4 horsepower—versus overdrive transmissions.

Performance Bonus Integration

When integrated with Volvo's Performance Bonus option, I-Shift can teach drivers to change their behavior by rewarding them for saving fuel. Here, the Kick-Down mode and/or the Performance mode (described below)—which drivers prefer—can be made available only when the driver is rewarded for fuel-efficient driving.

Shift easily between Economy and Performance modes.

With the Premium family of I-Shift feature packages (below), the driver can select between Economy and Performance operating modes.

- In the Economy mode, the transmission will select shift points and command engine parameters, maximizing fuel economy.
- In the Performance mode, the transmission selects shift points and engine parameters, maximizing gradeability. There are four programmable settings to match the way you operate.

Kick-Down

The I-Shift Kick-Down pedal included in certain feature packages is programmed to maximize acceleration. There are three customer-programmable K-D settings.

Engine Brake Performance Mode

The I-Shift provides an Engine Brake Performance mode that, when activated, selects a gear that maximizes retardation. The feature is operated by a multifunction stalk-switch that controls engine brake, brake cruise and engine brake activation speed during coasting.

Idle Driving Mode

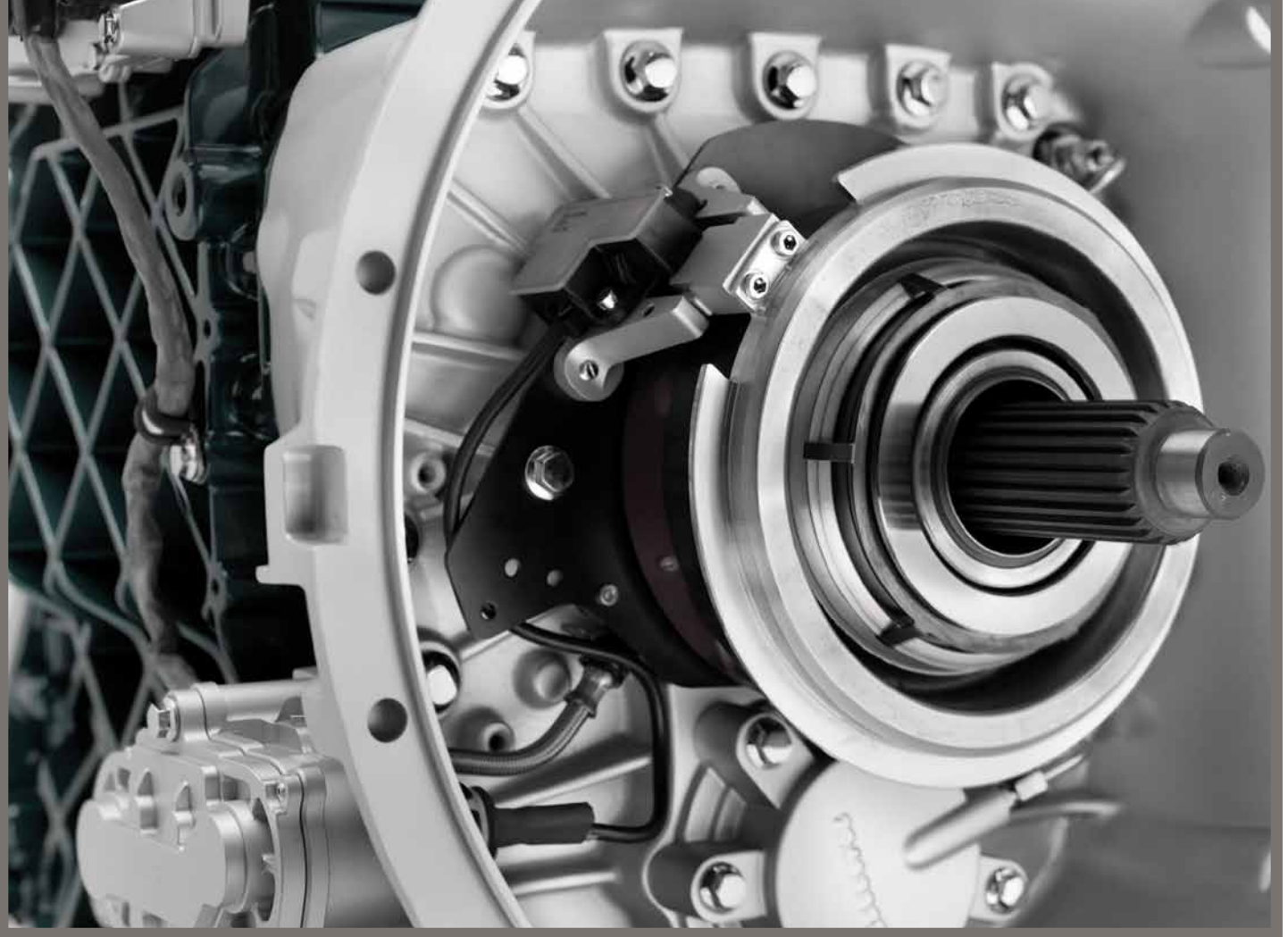
This is a valuable “cruise control” enhancement for driving slowly (in congested areas, for example). Idle Driving allows the engine to operate at idle without cycling the clutch or using the accelerator pedal, for best fuel economy. The driver adjusts the speed by selecting the gear that best suits the pace of the traffic. This is especially useful when backing a trailer. The idle governor adjusts the torque to maintain idle speed (and constant vehicle speed) even though the engine load may vary.

Up to Four Reverse Gears

The I-Shift comes standard with two available reverse gears for normal backing operations. In case high-speed reversing is wanted, two more high-speed reverse gears can be activated (in the VHD model).

I-Shift reduces fatigue and improves concentration, allowing drivers to give their full attention to maneuvering the vehicle.





Advanced software packages for the way you drive.

I-Shift can be custom-tailored to your needs by selecting one of four available software packages:

Basic Family

- Fuel Economy
- “Basic” shifter—no manual shift buttons on the gearshift knob, no “E/P” Economy/Performance button

Premium Family

- Performance
- Comprehensive
- Gentle-Shift

Includes a button on the Premium gear lever that lets the driver select between Economy and Performance

operating modes. Also includes shift buttons on the handle for manual up-and-down shifting.

Solutions that drive success for your business.

The I-Shift transmission is backed by a warranty of up to five years or 750,000 miles (whichever comes first) on parts and labor. Troubleshooting is done with Volvo’s diagnostic tools, VCADS and Guided Diagnostics, included in Premium Tech Tool. Fault codes can also be accessed through Volvo’s sophisticated built-in Driver Display, and through Volvo Link.

With I-Shift, Volvo has set a new, higher standard for features, safety, driver comfort and fuel economy. Your Volvo dealer can tell you more about how I-Shift can help drive your success.

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