

FACT SHEET

Cruise control



Cruise control

The cruise control helps the driver to keep a constant and fuel-saving speed. The system automatically regulates the speed to keep the set speed selected by the driver.

Activation and setting of speed is done by controls placed on the left side of the steering wheel. The cruise control activation is indicated in the driver information display.

The set speed can be reached in three different ways; with the accelerator, the steering wheel switch for increasing/ decreasing speed, or with the resume button.

The cruise control is deactivated as soon as the driver brakes to more than minus 2 km/h below set speed, presses the clutch pedal or pushes the cruise control on/off button.

FEATURES AND BENEFITS

- Cruise control (CRUISEC) helps the driver to keep a constant and fuel-saving speed.
- The I-Cruise (CRUIS-E) gives additional fuel saving functions and it is possible to adapt over- and underspeed via ECO-levels.
- I-See (CRUIS-E combined with I-Shift software package containing I-See) gives optimal speed control helping the driver both up- and downhill.
- Adaptive cruise control ACC (HWSS-AC) assists the driver by automatically maintaining a safe distance to the vehicles in front.
- Adaptive cruise control with emergency braking (HWSS-ACB) adds an automatically activated emergency brake force.

Sales variants

CRUISEC Basic cruise control with controls in steering wheel.

CRUIS-E Cruise control I-Cruise with controls in the steering wheel and I-Roll included. To also have the I-See function, I-Shift software package must be selected. For more information concerning I-See, see the I-Shift software package fact sheet.

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CRUISEC

CRUISEC is the standard Cruise control which helps the driver to keep a constant speed.

The cruise control activation is indicated together with information about the selected target speed in the driver information display.

CRUIS-E

CRUIS-E is I-Cruise, a cruise control with eco functions. Fuel can be saved by allowing speed variations with underspeed and overspeed when using cruise control.

There are three different ECO levels with 1, 2 or 3 stars, as well as a switched-off mode. The level with 3 stars allows the greatest speed variation and saves most fuel.

The default Eco level is Eco 2. A change of the selected ECO level is stored in the personal settings and therefore available at the next start of the truck.

CRUIS-E will give an "Eco" button in the steering wheel. I-Cruise helps the driver to keep a constant speed and includes fuel economy functions which save fuel, especially for long haul applications.

Foot braking as support without deactivating the cruise control in speeds down to minus 2 km/h from the set speed is available.

The cruise control activation is indicated in the driver information display together with information about the selected target speed and Eco level, indicated with stars.

It is possible to set a new temporary overspeed by pressing the ECO button with a short push. Setting of temporary overspeed gives driver the ability to select unique overspeed settings in the vehicle if he is not satisfied with the default setting. The value can be adjusted between 4 and 10 km/h, by use of the scroll wheel, and will be applied to ECO levels 1 to 3. The change applies until next key-off of the vehicle.

Guidelines for use:

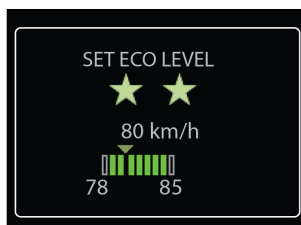
Level 1 in heavy traffic (underspeed -1 km/h, overspeed 4 km/h).

Level 2 in normal traffic (underspeed -2 km/h, overspeed 5 km/h).

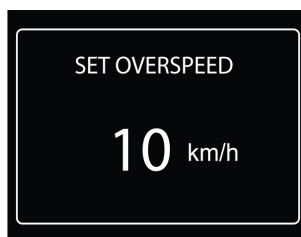
Level 3 in light traffic (underspeed -3 km/h, overspeed 6 km/h).



Buttons for CRUIS-E cruise control in the steering wheel. ECO-button to the right. Eco level will be set with the scroll wheel in the middle.



CRUIS-E Eco level 2 with cruise control set to 80 km/h, where the lowest speed will be 78 km/h and the highest speed 85 km/h. The grey pillars indicates the possible Eco cruise speed range given with Eco level 3.



Display for setting of overspeed.

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CRUIS-E fuel functions*

All fuel saving functions are available in I-Shift Economy mode, but will be disengaged when I-Shift Power mode is selected.

Cruise Control Brakes (CCB)

CCB uses auxiliary brakes to control the vehicle speed in a down-hill. It is the highest speed above set target speed that the vehicle normally can reach down-hill. CCB is possible to adjust by the driver.

SoftCruise

Soft cruise temporary reduces the cruise set speed uphill to save fuel. The speed reduction increases with higher eco level. Possible to turn on/off in workshop.

Extended I-Roll

Extended I-Roll gives I-Roll also when the current speed is just below the cruise set speed. This makes it possible to use I-Roll much longer times, saving more fuel. Possible to turn on/off in workshop.

Cruise acceleration limiter

The cruise acceleration limiter softens the acceleration up to target cruising speed when driving on cruise control. There will be less aggressive acceleration on higher Eco levels.

Hill management

Hill management limits the engine speed acceleration above engine speed around 1500 rpm, if not possible to upshift further in current uphill section. Inhibits running the engine on unnecessary high rpms.

Downshift speeds

The vehicle will down-shift at lower rpms when using a higher Eco level, utilising the wide engine torque band to save fuel.

Upshift speeds

The vehicle will, when using a higher Eco level, up-shift earlier during an acceleration, in order to stay more at low rpms and save fuel.

*SoftCruise and Extended I-Roll are possible to turn on/off in Aftermarket. No reprogramming between cruise control variants is possible on the aftermarket due to different steering wheel variants.



I-See

CRUIS-E is a pre-requisite to get I-See function. For more information concerning I-See, see the I-Shift software package fact sheet.

CRUIS-E functionality with I-See

I-See is turned on and off via the ECO button in the steering wheel. Eco Off turns off I-See. The Eco levels (Off-1-2-3) that result in different speed behaviors and settings are available as well as for CRUIS-E, but with different underspeed settings.

Guidelines for use with I-See:

Level 1 in heavy traffic (underspeed -3 km/h, overspeed 5 km/h).

Level 2 in normal traffic (underspeed -5 km/h, overspeed 5 km/h).

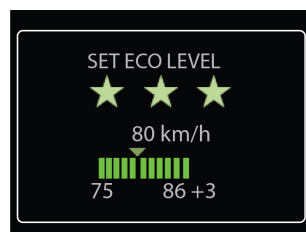
Level 3 in light traffic (underspeed -10 km/h, overspeed 5 km/h).

Using I-See, the driver interface is identical to that of CRUIS-E plus:

- “IS” shown in the cluster when hill-data is available so I-See is active.
- The speed information given in the cluster includes also the effect of “Schwung” which temporarily increases the speed above CCB.

Additional fuel-saving functions with I-See, compared to CRUIS-E:

- **Schwung:** A higher speed than CCB is temporary allowed (max +3 km/h and max 30 sec) at the end of a down-hill. The temporary overspeed will be added in the display.
- **PreSpeed:** Temporary increases the vehicle speed in front of a coming up-hill to minimise unnecessary down-shifts.
- **CrestSpeed:** The lowest normal vehicle speed, just in front of and at the top of the hill to save fuel.

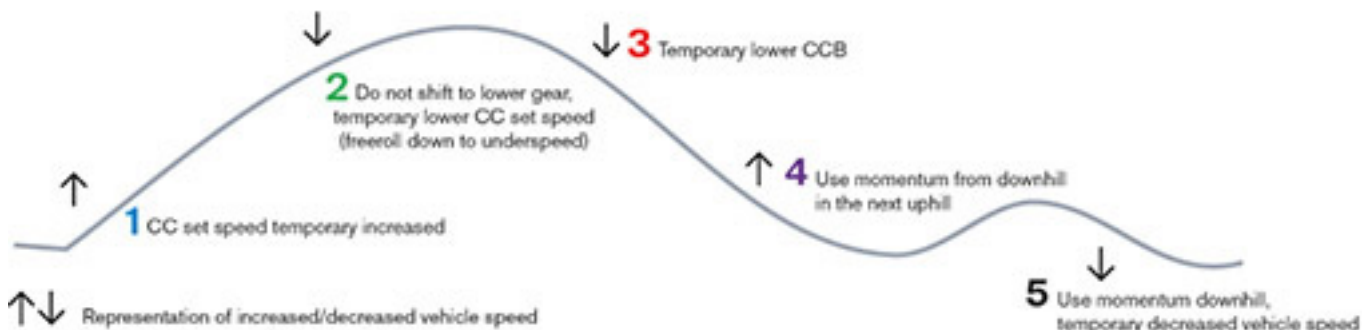


Eco level 3 with cruise control set target speed to 80 km/h, where the lowest speed will be 75 km/h and the highest speed CCB 86 km/h + temporary Schwung 3 km/h.

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I-See topography map example



Speed offset values relative to CC set speed *						
		CRUIS-E without I-See		CRUIS-E and I-See		
	Cruise Control Brakes (CCB)	SoftCruise	Extended I-Roll	Schwung	PreSpeed	CrestSpeed
Vehicle position in I-See topography map above	3			4	1	2
Offset		Offset for underspeed		Offset for overspeed		
ECO OFF	2 km/h	0 km/h	0 km/h	0 km/h	0 km/h	0 km/h
ECO 1	5 km/h	0 km/h	-1 km/h	1 km/h	5 km/h	-3 km/h
ECO 2	5 km/h	-1 km/h	-2 km/h	2 km/h	5 km/h	-5 km/h
ECO 3	5 km/h	-2 km/h	-3 km/h	3 km/h	5 km/h	-10 km/h
N/A	2-10 km/h	-2 km/h	-3 km/h	0 km/h	0 km/h	0 km/h

* All functions – except Schwung – is relative to the Cruise Control Set speed.

Offset for underspeed

Offset for overspeed

For customers with specific demands, there will be aftermarket kits available in order to change CCB speed levels and fine-tune the speed settings of Eco level 3. Accessible in aftermarket and will be shown in the accessories catalogue.

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Adaptive Cruise Control (ACC) ACC (variant HWSS-AC) is a radar based cruise control system helping the driver to maintain a safe distance to the vehicles ahead.

It is activated/deactivated with the ACC-button in the steering wheel and the driver can adjust the distance to vehicles ahead.

ACC is optimized for usage together with both CRUISEC, CRUIS-E and I-See. Set speed and ECO-level functions remains unchanged when ACC is added.

If a vehicle ahead is detected, the ACC functions overrule the I-See functions in order to keep the safe distance combining the fuel saving functions with increased safety and comfort.

ACC with emergency braking (HWSS-ACB) adds an automatically activated emergency brake.

See factsheet on ACC/Headway support system for more information.



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