

ADDRESSEES	: ABC Customer Care and Parts Source Owners and operators of coaches listed under "Application"
VEHICLE MODEL	: CX45 vehicles equipped with EPA2016 engine
MANUAL SECTION	: 11.04 Control systems – Vehicle safety systems
BULLETIN TYPE	: Product improvement
DATE	: March 06 th , 2018
SUBJECT	: To retrofit with Adaptive Cruise Control (ACC)
TERMS & CONDITIONS	: This document does not entitle to any reimbursement

APPLICATION:

This product improvement bulletin is applicable to CX45 vehicles equipped with EPA2016 engine.

Model	VIN
CX45 Detroit Diesel	49119, 49159 →
CX45 Cummins	49190 →

DESCRIPTION:

Van Hool has released Adaptive Cruise Control (ACC) as an option for above mentioned vehicles.

WHAT IS ADAPTIVE CRUISE CONTROL?



WARNING!

ACC is not designed to drive the vehicle independently. For that reason, ACC does not relieve the driver from his/her responsibility to safely operate the vehicle at any time. Driver training should be given so they can adapt his/her driving behavior, driving capabilities, while using ACC to meet legal requirements and the overall traffic and road conditions. Even with an active system, the driver is responsible to follow road speed limitations, ensure a safe following distance, comply to driving time regulations and obey passing restrictions. ACC should be used on major highways and not on secondary roads or in traffic jams or in any other unsafe conditions.

ACC does not detect stationary objects/vehicles/people and does not reacts to vehicles coming from the opposite direction.

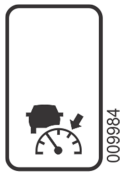
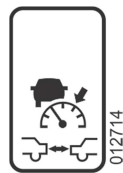
ACC is a **cruise control** system with enhanced **functionality**. It ensures that the vehicle speed is adjusted to the speed of the forward vehicle. It assists with the following distance between both vehicles. When the distance to the forward vehicle drops below the set value, ACC will reduce engine power and – if necessary – activate the braking system.

With ACC, you have to set the desired speed with cruise control and you can change the following distance by the "Set following distance" dashboard switch.

NOTE: Adaptive cruise control only works if the cruise control is switched on.

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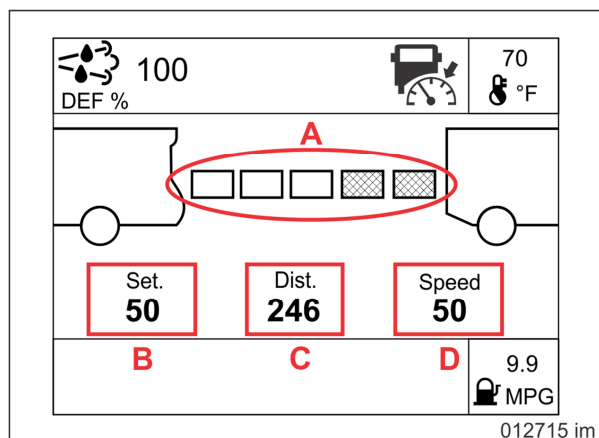
NEW DASHBOARD SWITCHES

Switch	Function
	To switch adaptive cruise control off, and on again while driving (momentary switch)
	To set following distance

HOW TO SWITCH ON ADAPTIVE CRUISE CONTROL?

NOTE: If vehicle speed drops below the cruise control off speed (25 mph for Cummins; 22 mph for Detroit Diesel) while driving, the system is automatically switched off. A short acoustic signal will inform you of this.

Switch on cruise control. Adaptive cruise control is automatically switched on. On the dashboard display appears the screen of adaptive cruise control.



Adaptive cruise control screen on dashboard display

- A Set following distance
- B Set cruising speed
- C Following distance
- D Speed of forward vehicle

HOW TO SET FOLLOWING DISTANCE?

You can choose between five following distances:

- **Longest following distance:** three empty blocks and two shaded blocks
- **Long following distance:** two empty blocks and two shaded blocks
- **Short following distance:** one empty block and two shaded blocks
- **Shorter following distance:** two shaded blocks. This following distance is shorter than the legally allowed minimum distance.
- **Shortest following distance:** one shaded block. This following distance is shorter than the legally allowed minimum distance.

NOTE: The following distance is speed-related and increases as vehicle speed increases.

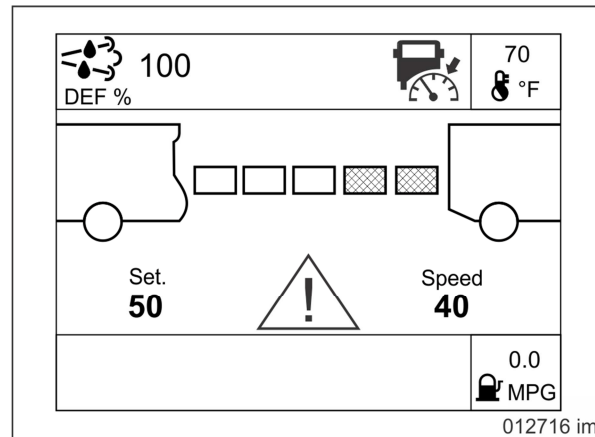
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With the adaptive cruise control switched on, press:

- the upper part of the "To set following distance" dashboard switch to make the following distance larger.
- the lower part of the "To set following distance" dashboard switch to make the following distance shorter.

DISTANCE WARNING:

If the forward vehicle brakes harder than the adaptive cruise control is able to, and an intervention of the driver is required to maintain the following distance, you will be warned by a continuous acoustic signal and a message on the dashboard display.



FORWARD COLLISION WARNING:

NOTE: "Forward collision warning" also works when the cruise control system is not switched on.

Vehicles equipped with ACC also have "Forward collision warning". This system warns you if you have to intervene in order to avoid an accident. You hear an interrupted acoustic signal and the message below appears on the dashboard display.



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HOW TO SWITCH OFF ADAPTIVE CRUISE CONTROL?

Adaptive cruise control is switched off when:

- the cruise control is switched off;
- the lower part of the "To switch on adaptive cruise control" dashboard switch is pressed momentarily.

NOTE: Adaptive cruise control can also be switched off by itself if the radar sensor is obstructed, e.g. by heavy rain, mist, mud or ice.

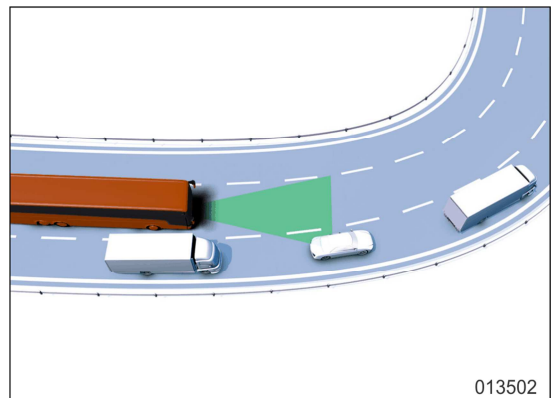
SPECIAL TRAFFIC SITUATIONS

As the radar is unable to assess each traffic situation 100% correctly, it is possible that wrong/unforeseen warnings are given. The frequency of these wrong/unforeseen warnings is determined by driving style, road characteristics and traffic intensity. Roads with less objects at the side or less traffic may cause the system to react in a more sensitive way.

Situation 1: Cornering, entering and exiting bends

The ability of ACC to detect vehicles on bends is limited. While cornering, entering or exiting the bends, the system may interpret traffic ahead in a wrong way. ACC may unexpectedly issue warnings or brake your vehicle. ACC may also accelerate the vehicle unexpectedly.

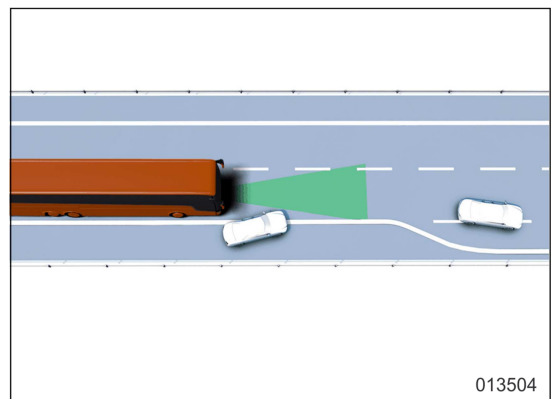
Driver must exert extra caution while cornering the vehicle on bends.



Situation 2: Different lanes and stationary vehicles

ACC can experience difficulties at exits, particularly when other vehicles are driving on the hard shoulder or are pulling out. ACC may unexpectedly issue warnings or brake your vehicle.

Drivers must take extra care at exits and take full control of the vehicle to avoid unexpected braking.

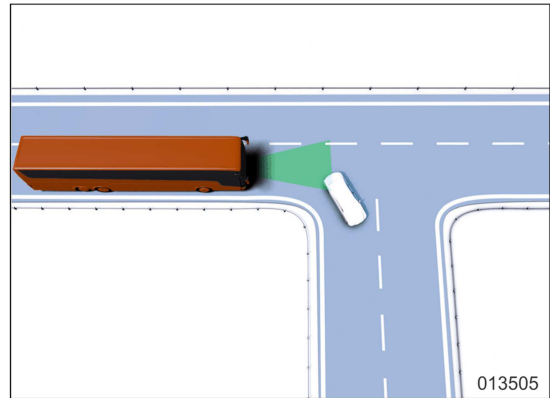


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Situation 3: Turning-off vehicles

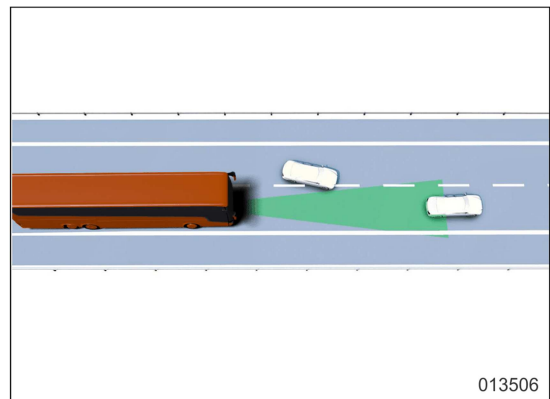
On junctions or intersections, ACC may unexpectedly issue warnings on vehicles that are turning-off in front of your vehicle. It may as well apply brakes in a manner which is different to driver's expectations.

Driver must pay full attention hence on vehicles that turn-off on junctions and intersections.



Situation 4: Other vehicles change lanes


ACC may detect vehicles (truck, car, motorcycle) pulling into your lane a bit later. The distance to the vehicle entering in front of your lane may than be too short. In this situation the driver should make use of the service brake to maintain the required safe distance to the vehicle pulling in the front.

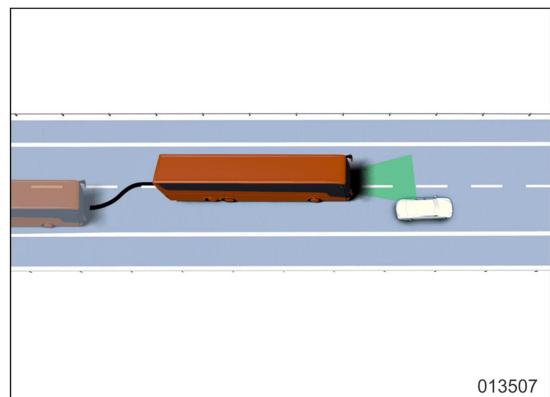


Situation 5: Overtaking

While overtaking, ACC may issue unexpected warnings or slow down the vehicle if the driver:

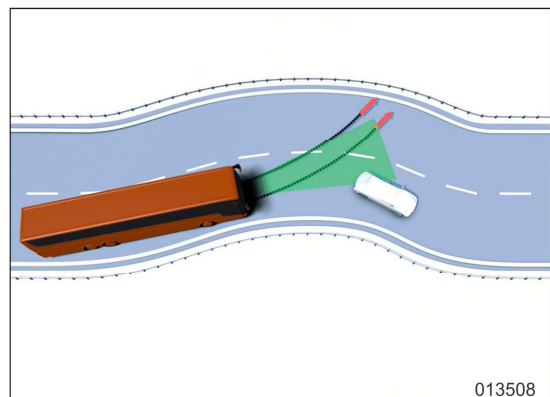
- is driving too close to the vehicle in front and...
- is in the same lane as the vehicle in front.

Therefore driver should complete the lane change maneuver without reducing the safety distance to the front vehicle. 



Situation 6: Curved vehicles

On winding stretches of road, ACC may not detect which lane the vehicle in front is driving in. ACC hence may unexpectedly issue warnings or slow down your vehicle. ACC may also accelerate the vehicle unexpectedly if a vehicle in front is not detected by the distance sensor properly. Driver must pay extra attention on winding stretches and take full control of the vehicle by applying the service brakes.



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WHAT DO YOU HAVE TO DO WHEN YOU WANT TO PURCHASE ACC ON YOUR VEHICLE?

Contact ABC Companies, installation must be done by ABC Companies.

WHAT WILL ABC COMPANIES DO?

ABC Companies will quote you the price to retrofit your vehicle with ACC.

ABC Companies will perform the retrofit according to the step-by-step instructions indicated in Van Hool work procedure WP934 which is available on the customer portal under the heading "Work procedures for dealers and service points".

HELP DESK:

If there are any questions, please call ABC Customer Care & Parts Source toll-free for guidance on 1-877-427-7278. Listen for the prompts for warranty and select that option.

DISCLAIMER:

The procedures contained herein are not exclusive. Van Hool cannot possibly know, evaluate, or advise the transportation industry of all conceivable ways in which a procedure may be undertaken or of the possible consequences of each such procedure. Other procedures may be as good, or better, depending upon the particular circumstances involved. Each carrier who uses the procedures herein must first satisfy itself thoroughly that neither the safety of its employees or agents, nor the safety or usefulness of any products, will be jeopardized by any procedure selected.

INFORMATION HANDLING:

Important additions and modifications regarding technical information not yet included in the manual will be communicated through Service Bulletins.

VAN HOOL CUSTOMER PORTAL:

Consult the customer portal regularly for the latest service documentation. In addition to the maintenance manual, you will also find the operating manual and the spare parts catalogue of your vehicle on the customer portal. The customer portal is accessible through www.vanhool.be under the "service" menu item, and only with a code (password) from Van Hool. If you do not have a password yet, request it by using the link on the Van Hool website.