
LANE DEPARTURE WARNING SYSTEM

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GENERAL INFORMATION

Overview

Description

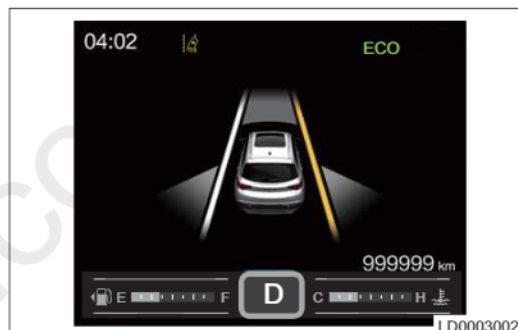
Lane Departure Warning (LDW) is a system that helps drivers to reduce traffic accidents caused by lane departure and improve driving safety by giving an alarm.

When the lane departure system is turned on, the camera will collect identification line of driving lane continuously, and obtain position parameters of vehicle in current lane through image processing. When the vehicle is detected to deviate from the lane, the sensor will collect data and driver operating state in time, and then the controller will send out an alarm message to remind the driver instantly. However, if the driver turns on turn signal light (vehicle is deviated from the lane intentionally) and changes the lane in normal operation, the lane departure system will not make any prompt.

- The system instantly sends instrument alarm signal (audible, visual), and there are two types of reminder mode.
- Solid white line, long white line, solid yellow line and long yellow line can be detected. When one-side lane line is missing or undetectable, another lane line is automatically virtualized, and the virtual line deviates from the warning line (the default lane width is 3.75 m).



LD0002002



LD0003002

System Composition



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Chery TIGGO 8 model uses an integrated LDW to collect lane line information from left and right panoramic cameras. Add some LDW software to the panoramic controller. On the instrument, alarm (sound and image) occurs due to unconscious (without turning on turn signal light) lane departure.

Operation Conditions

1. The lane departure system activates when the following conditions are met:
 1. The lane departure system switch is turned on (to memorize the user's previous switch operation);
 2. Vehicle speed is more than 65 km/h.
2. The lane departure system does not work under the following conditions:
 1. Turn off the lane departure system switch in audio setting interface.
 2. Vehicle speed is less than 60 km/h.

3. The LDW system switch is in vehicle setting interface of audio head unit, and the customer can temporarily turn off LDW system.



Precautions

1. Pay close attention to your surroundings and driving carefully even though the vehicle is equipped with a lane departure system
2. Throughout the process, you are responsible for controlling the vehicle and monitoring the management system, and intervening when necessary.
3. If the sensor is disturbed, the system may not work.
4. Sensors may be interfered by temporary construction lines on roads and so on, resulting in false and incorrect alarms.
5. In cold and severe weather conditions, the system may not work. Rain, snow, fog, or strong contrast lighting can affect the sensor.
6. If the sensor cannot track the road lines on ground, the system will not work.
7. The system may not work in road construction area.
8. The system may not work on sharp turns or narrow roads.
9. If the suspension kit of your vehicle is not approved by us, the system may not work properly.
10. Keep left and right cameras free of obstructions such as bird droppings, insects and ice.
11. The system may not work while driving on cement roads and other non-standard roads.
12. In the event that there is only one side lane line or lane line is broken, the system may not work.
13. The system will work only when the vehicle speed is 65 km/h or more, and stop working when the vehicle speed is below 60 km/h.

Instrument Alarm Logic

Instrument Alarm Logic

The image and audible alarms of lane departure system function are performed by the instrument. The specific image and audible alarm logic is as follows:

No.	Whether Lane Line is Detected		Whether Vehicle Rolls on Line		Turn Signal Light Switch Condition		Instrument Audible Alarm	Instrument Display
	Right	Left	Right	Left	Right turn	Left turn		
1	Yes	Yes	Yes	None	No	\	Equipped	 Right lane line flashes, icon flashes in yellow, and frequency matches lane line
2	Yes	Yes	No	Yes	\	No	Equipped	 Left lane line flashes, icon flashes in yellow, and frequency matches lane line
3	Yes	Yes	Yes	No	Yes	\	None	
4	Yes	Yes	No	Yes	\	Yes	None	

Malfunction Diagnosis

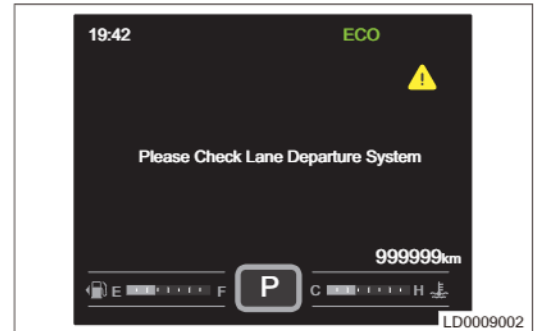
Malfunction Display

When ENGINE START STOP switch is in ON mode, the indicator light is always displayed in green when lane departure system is normal after self-test.

If a fault is found during self-test, the indicator light is displayed in yellow and the alarm text message prompt will display "Please Check Lane Departure System".

The lane departure system still performs self-test after the system is turned off. If a fault is found during self-test, only the indicator light is displayed in yellow. This indicator light will flash when the lane departure system function is available.

If the light remains on, it indicates that the system is faulty. For safety, please contact the Chery Service Station for inspection.



Trouble Diagnosis

After the vehicle is powered on for self-test, the lane departure system performs real-time self-test. The display and alarm methods are as follows:

Status	Instrument Display	Audible Alarm	Note
Self-test is normal	Green icon	None	Always be green when system is normal after self-test
Self-test is faulty	Yellow icon	None	Text prompt display: Please Check Lane Departure System. 
System configuration OFF (Soft switch on DVD)	None	None	Self-check is also required after the system is turned off. If the self-test fails, a system failure is sent and a yellow icon is displayed.
Node failure	Yellow icon	None	No text prompt display, distinguished from self-test fault alarm strategy. 

Please refer to Panoramic Image System for diagnosis and maintenance.



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