

correct and rapid use thanks to LED lighting and markings

## encouraging correct use of a Speedgate

A Speedgate opens and closes rapidly. This is possible because sensors continuously check whether the Speedgate can move safely. If not, it stops. Rapid movement through the Speedgate requires users to stop in the correct place and wait until the Speedgate has fully opened. This means that the use of a Speedgate must be intuitive.

## research TU Delft

In partnership with TU Delft, HTC parking & security has carried out research into the use of Speedgates. This included using eye-tracking cameras to monitor where motorists look. The research findings, including a focus on the driving direction, a limited sensitivity to colour at the edge of the field of vision and the need for orientation points for driving are taken account of in the intuitive lighting and road markings.

## LED lighting

HTC has developed LED lighting for the Speedgate:

- that alerts users to where they should look at: in the centre in front of the vehicle.
- that takes account of visually-handicapped people.
- that helps to avoid disruptions and promotes traffic flow
- that improves the visual appearance of the Speedgate.

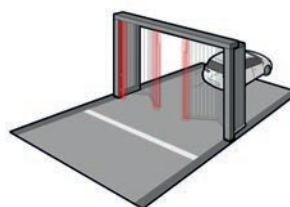
## supporting traffic light

In situations involving one-way traffic, the LED lighting can be used independently. If the Speedgate is used for both entry and exit, the driving direction must be indicated and traffic lights are required.

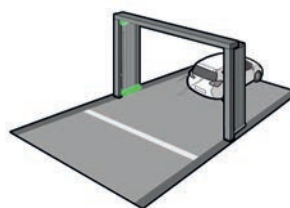
## LIGHTING CYCLE



1 The Speedgate senses a vehicle and/or receives a signal to open. The red vertical LEDs light to inform the user.



2 The red vertical LEDs flash as the panels open, to make it clear that the driver must wait.



3 Once the panels are open and it is safe to drive through, the red vertical LEDs will turn off and the green horizontal LEDs will light.



4 Once the driver has passed the Speedgate, the red vertical LEDs will start to flash again and the gate will close. It is now no longer possible to drive through.



5 Once the Speedgate has closed, all LED lighting will turn off.

## correct markings promote correct use

Drivers are accustomed to driving with the help of visual aids. Lines, stop lines, striped sections and other markings help drivers to respond correctly to the situation. In addition, profiled markings can ensure a greater level of attention. In short, correct markings promote correct use.

## positive experience

Every entrance is different. Making use of correct markings around a Speedgate helps drivers to stop in the correct place and to drive straight through the Speedgate. This leads to a positive experience for drivers and less disruption to the entry process.

## markings around a Speedgate

The driver must know where to stop and how to drive correctly through the Speedgate. In addition, it must be clear which area should always be kept clear to ensure that the Speedgate can move safely. To this end, the following markings may be provided:

### 1 clear stop lines

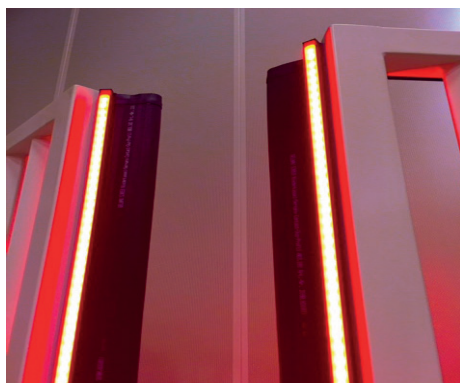
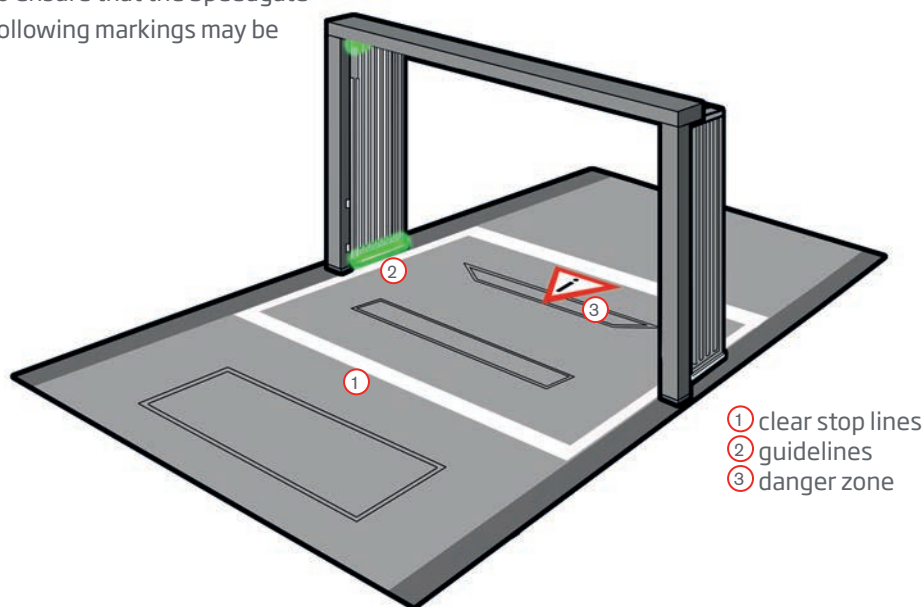
The use of stop lines promotes correct positioning of the vehicle, particularly when multiple detection loops are present in the road surface.

### 2 guidelines

Das Anbringen von Leitlinien zwischen den Paneelen vereinfacht das richtige Durchfahren für den Fahrer und erhöht das Vertrauen.

### 3 danger zone

The danger zone may be indicated with a special symbol.



for more information, please visit [www.htc-ps.com](http://www.htc-ps.com)

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