

FONIX®
T E L E M A T I C S

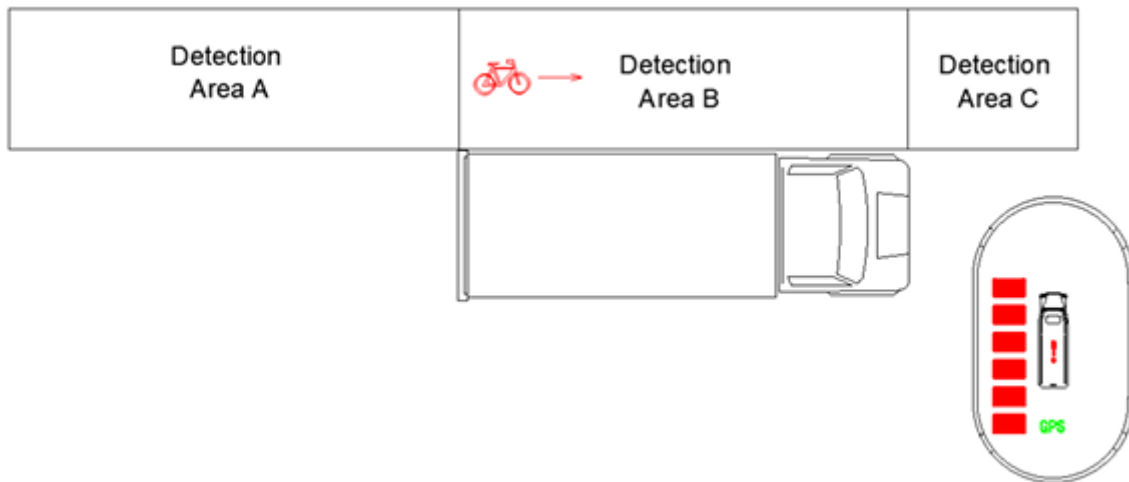
Progressive Safe System

Low and High Level Alerting Guide

Low level warning

BSIS -

When a VRU enters the detection area B or C, or stays in detection area B or C, the display will provide a **LOW-LEVEL VISUAL** warning signal as per the image below. There will be no audio alerting at this stage.



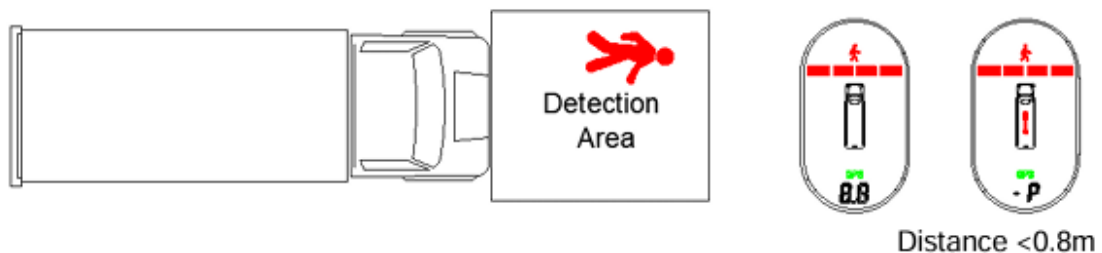
MOIS –

When the vehicle isn't moving –

When pedestrians or bicycles (VRUs) appear in the detection area (see image below), the display will show how far the VRU is from the front of the vehicle.

- When the distance between VRUs and the front of the vehicle is less than 2m, the display will show a **LOW-LEVEL VISUAL** .
- When the distance between VRUs and the front of the vehicle is less than 0.8m, the display will show a **LOW-LEVEL VISUAL** and the "-P", and " ! " will blink.

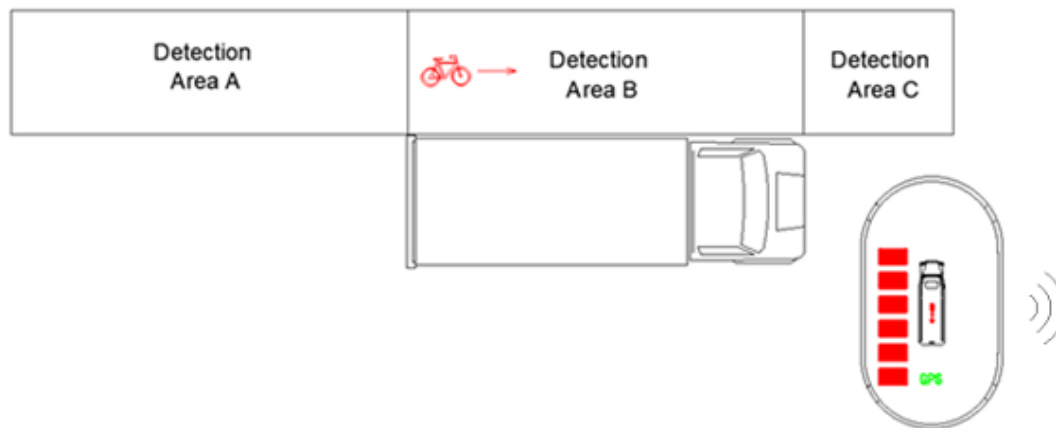
There will be no audio alerting at this stage.



High level warning

BSIS –

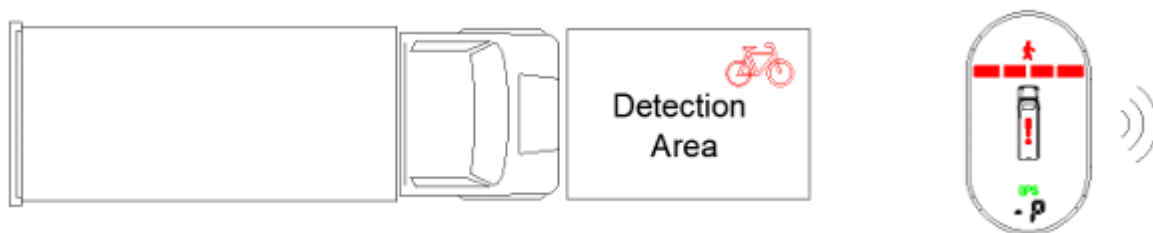
When a VRU enters into the detection area B or C, or stays in detection area B or C, the display will provide **LOW-LEVEL VISUAL** as per the image below. If the driver turns on the left indicator, or the system detects the vehicle is turning left, then the display will provide **HIGH LEVEL COLLISION WARNING** and "!" will blink, and **BUZZER WILL BEEP TWICE**.



MOIS –

When the vehicle moves off from a static position –

When VRUs are in the detection area (see image below), and TTC < 2 seconds there will be a **HIGH LEVEL COLLISION WARNING** and "!" will blink, and **BUZZER WILL BEEP TWICE**.



TfL Specific Guidelines



The TfL guidelines clearly outlines that the PSS (Progressive Safety System) must have low and high level alerting in order to gain the DVS permit.

The system is required to refrain from emitting audible alarms towards the front or side while the vehicle is stationary. In such situations, the driver should only receive visual signals within the cab. Additionally, the side system (BSIS - 151) must avoid audible alarms when both the vehicle and Vulnerable Road User (VRU) are traveling along the same trajectory (also considered non-dangerous).

According to the TfL BSIS document, "When a vehicle and a VRU are traveling in the same direction on a parallel path to each other, they can continue to do so for an infinite time without collision, even if they are in close proximity. This situation does not constitute an imminent collision." Regulation 151 on page 4 (sections 0.3 - 0.5) specifies that the system should only emit audible alarms when the vehicle itself turns toward the VRU (below 18mph).

Similarly, the front system (MOIS - 159) should only emit audible alarms when moving towards the VRU (below 3mph). If the system meets the low/high level criteria, alerts the driver in the event of camera or system failures, is installed according to TfL guidelines, and possesses the required documentation, the vehicle is essentially compliant with London 2024 standards.