



Basic Information # 007:

Control Gantries

Around 300 control gantries are used to cover the German motorway network. They are equipped with technology designed to determine whether vehicles required to pay toll are correctly logged on to the system. This process takes place without interrupting traffic flow.

Automatic Control Gantries

Automatic control gantries span the entire roadway. As the vehicle passes through, it is checked to determine whether it is required to pay a toll and whether the toll has been paid. Each vehicle approaching the control gantry is registered by a detection and tracking unit. This unit immediately detects the lane in which the vehicle is travelling to ensure accurate classification. Once the vehicle has been detected, a three-dimensional vehicle scanner is used to determine whether the gross vehicle weight is 12 tons or more. Using a scanned image of the vehicle, the evaluation system determines whether the vehicle is required to pay a road toll. If not, the data is immediately deleted.

The control gantry uses infrared direct short-range communications (DSRC) to determine whether the vehicle is taking part in the automatic system with an On-Board Unit (OBU) and whether the On-Board Unit has been correctly activated. If a truck required to pay a toll is not transmitting an infrared signal and there is no record of a manual log-on, it is assumed that the vehicle is in violation of the toll regulations. To check this, the licence plate number of each vehicle is photographed by an infrared camera. This information is then compared with the logged-on licence plate numbers in the Toll Collect control centre (the licence number has to be entered when manually logging-on). This process takes only a few seconds. If the vehicle has been manually logged-on as required, the data is immediately deleted. If there is evidence of a toll violation, the data is stored and forwarded to the Federal Office for Goods Transport (BAG), which then initiates summary proceedings against the vehicle owner.

Stationary Enforcement Teams

At around half of the control gantries, vehicles that are suspected of violating the road toll regulations can be stopped immediately after they pass the gantry by officers from the German Federal Office for Goods Transport (BAG). In addition to the infrared sensors, these control gantries are equipped with transmitters and receivers enabling communication with BAG enforcement officers stationed at a parking area or motorway exit located just beyond the control gantry. The officers are authorised to immediately check for toll violations and collect toll charges and/or fines.