

Annex FP91-PassengerInformationSystem

Requirements for passenger information (in vehicle) system

Ver 1.0.

1. The main objectives of passenger information system:
 - 1.1. provision of automated passenger information about the movement of vehicle en-route in text and graphics, indicating:
 - 1.1.1. route number;
 - 1.1.2. route direction;
 - 1.1.3. following and next stops;
 - 1.1.4. en-route movement (location);
 - 1.1.5. interchange possibilities;
 - 1.1.6. estimated arrival at the terminal;
 - 1.1.7. in addition, as extra service – other useful information about the public transport operator and its services,
 - 1.2. provision of automated audial passenger information about movement of vehicle en-route via onboard loudspeaker:
 - 1.2.1. following and the next stop (destination);
 - 1.2.2. alarms and other information (“door closed”, “use of face masks...”);
 - 1.2.3. announcements in several languages.
 - 1.3. provision of automated audial passenger information about movement of vehicle en-route:
 - 1.3.1. after the door opening at the stop, the announcement on the vehicle type, route number, as well as the route direction is played via outside loudspeakers;
 - 1.3.2. loudspeakers are located at the door-side, humidity resistant;
 - 1.3.3. loudspeakers’ turn on/off option and function for volume level adjustment available to the driver of vehicle.
 - 1.4. extra service – automated backup of vehicle movement information for the use in mobile smart device,
 - 1.5. extra service – automated backup of vehicle movement information at the stop.
2. Annexed – Algorithm template for the display of the information (pdf file).
3. Ability to send the video signal to LCD panels with 2 separated information areas via the onboard information displays:
 - 3.1. LCD panels installed in each section of the vehicle (2 displays in 3-doors vehicle, 3 displays in 4-doors vehicle);
 - 3.2. minimal size of each informative area 17”;
 - 3.3. minimal resolution 1920x1080.
4. Information displayed in the left-sided onboard display must include:
 - 4.1. actual time, date;
 - 4.2. route number and the name of direction;
 - 4.3. route representation with the name of the following and the next stops that are automatically switched due to the vehicle location on the route, as well as in cases when the vehicle passes the stop without stopping;
 - 4.4. interchange possibilities/connections to other routes at the relevant stop.
5. Information displayed in the right-sided onboard display must include:
 - 5.1. actual information/novelties (automated information or free text message sent from the central content management system);

- 5.2. weather forecast;
 - 5.3. business information, city news, social advertisement and commercial information;
 - 5.4. algorithmic displaying of the instantaneous images of the onboard video surveillance system;
 - 5.5. displaying of emergency announcements in particular vehicle of particular route(-s) or in all vehicles.
6. If the supply includes the installation of the onboard displays, the following must be applied:
 - 6.1. protection against vandalism;
 - 6.2. resistance to scratches;
 - 6.3. resistance to humidity;
 - 6.4. location must meet the requirements of the EU regulations and standards related to the passenger transport.
 7. If the supply includes the installation of the onboard loudspeakers, the following must be applied:
 - 7.1. number of loudspeakers enough for clear audibility of announcements at any moment of vehicle exploitation;
 - 7.2. location and power enough for ensuring uniform level of the volume for both sitting and standing passengers;
 - 7.3. good low-frequency playing;
 - 7.4. maximal volume strength discrepancy in the vehicle does not exceed 3 dB (A);
 - 7.5. changeable and measurable level of playing up to 90 dB (A);
 - 7.6. audio announcements, using the microphone of the vehicle driver.
 8. Passenger information outside the vehicle via outside LED information panels and loudspeakers, considering the following requirements:
 - 8.1. LED panel at the front of the vehicle displays the information on the route number and route direction;
 - 8.2. LED rear panel displays the information on the route number;
 - 8.3. LED side panels (installed in each section of the vehicle between passenger doors) displays the information on the route number and route direction;
 - 8.4. LED side panel for hearing-impaired persons (installed at 1st passenger doors) displays the information on the route number;
 - 8.5. display of the front and side panels include two lines at 110mm height, at least, and 3-digit route number at 70mm height, as well as special graphic pictograms;
 - 8.6. display of routes and stops without limitation of amount (number);
 - 8.7. applied display coloring – orange LED diodes.

Annex – Algorithm template for the display of the information (pdf file).