XP5plus is a ticket vending machine, Smart card validator, QR code reader, driver console, on-board computer for fleet control, passenger information, etc. In short, XP5plus is the main element of the Integral Management and Location System of **SIGLA** vehicles.

Very easy installation that provides all the funcionalities of:

- **SAE** (Operation Assistance System) together with the most complex operating.
  o Manages databases of several companies.
  o Allows the vehicle to be located with its GPS receiver.
  o Reports in real time all the parameters of the service: speed, last stop, occupation, alarms, etc.
  o Allowing effective DQC (Control of the Quality of Driving).
  o Allows data and voice communication between the control center and the vehicle.

- **SVV** (Validation and Sales System) in addition to the control center of:
  o Prints tickets, waybills and settlements.
  o Validated contact and non-contact cards (ISO 14443, NFC, etc)
  o Validate single and two dimensionals barcodes (PDF417, QR, etc)

- An **SIV** (Traveler Information System):
  o Handles internal and external signs.
  o Allow to connect monitors to play video, maps, etc via HDMI.

This machine, despite being small in size, incorporates a large screen and an industrial backlit keyboard to interact with the driver. It acts like central computer of the installation and manages all the elements embarked.

The machine software is remotely updated automatically when is necessary.

SVV features.

- **Sale of tickets** on buses by printing tickets with the custom format including graphic logos. It allows the selection of origins and destionations, as well as the selection of different types of discounts. It can also allow the sale of tickets with place in real time acting as a sales offices more (box offices), allowing full integration with the global sales system.

  The main advantage of this ticketing system is its **speed**, since the time of issuing a ticket is less tan one second taking into account the intervention of the driver himself.

- The system **stores the sales** and collection made by each driver so that each driver prints his closing sheet with the listing of what he has sold. This data is sent to the central system to check that the driver clearances are correct.

- **Integrated termal printer** features automatick cutter for 60 mm wide papers. The leght of the approximate roll is 50 meters, allowing more tan 800 tickets to be printed.

- **Passenger control and road map.** The driver can visualize the roadmap and occupation of the bus. In this way, the driver indicates the system the seats that are left to occupy at the momento in which passengers Access the buses, controlling at this time and some place sold is left unoccupied, can be put up for sale and arrives the time of departure.

- Consumption of **non-contact cards under ISO 14443 A/B rule**. The travelers provided with the same would access the bus presenting the cards in front of the reader without contact of the machine. In this way the would benefit from the bonus rates. It also displays on a screen the money and trips that are left on the bonus card.

  It has 2 sockets for SAM modules expandable to 4 in addition to the possibility of a reader of chip cards with contact.

- **Recharge of bus cards on the bus**. The vendor itseld can sell and recharge the bonuses on the contactless cards although it is not recommended for security and comercial speed. It is prefereable that these cards are recharged at trecharge points that the Company has, which can be automatic recharging points or Company offices.

- Allows integrated payment with the mobile phone through NFC technology. With the **NFC** system, users of the regular service delivery of travel tickets ''online'' if they haven't a card, or any other support of the entitty, is required to travel around the city. The mobile phone may actually be the transport card that passes Access to the buses. To carry out the journey, it will only be necessary to approach the telephone to the validating terminal at a distance of less tan 10 centimeters.

- It also incorporates a **2D optical reader capable of Reading BIDIs and QR**. This reader may be inside the computer or connected to a cable.

SAE functionalities

- Real-time sending/receiving of **messages** with the control center. They can be predefined or free messages. In this way, incidents, breakdowns, etc can be reported.

- Allows you to establish and receive **telephone calls** with the control center. The installation incorporates a microphone and a speaker so the driver can talk to the control center when necessary. To start the callo r answer it simply press a button on the machine's screen. You can configure other numbers that you can call if it will be necessary.

- The system works with a **GPS** receiver and a 2G/3G communications modem so the machine performs the location and **SAE** functions, sending its position to the central system every 30 seconds.

- **Driver control.** The system saves the moment in which the driver registers, starts the service or ends, as well as the moments of passage by stop being able to control if it performs the service with **punctuality**.

- **Time control of the working.** Shows the driver the theoretical time of stop by stop and its actual time of passage, indicating graphically if it isa head, delayed or in time, facilitating its work.

- You can monitor **alarms**, open doors or connect to the CANbus if it will be necessary.

- Collection of all data relating to the use of travelers and movements of buses for subsequent computer processing.

SIV functionalities

- **SIV** (Traveler Information System) manages all traveler information systems.

- In the **interior of the bus** we can connect LED signs, TFT screens or the public address system as it is capable of playing MP3 messages.

- On the **outside of the bus** we can directly connect the external electronic signs of any brand.

- In the **bus stations** we can give the information in real time of the waiting time of the bus.

- On travelers' **mobile devices** we can download apps that feed on the information in real time provided by this equipment on board the bus.

- On the **websites** of the transport Company or the transport authoirity, we can also display this information.

- The **user screen** can be **full-color** to display advertising videos as well as information regarding your payment médium (card).

- You can play **MP3** sounds or use TTS (Text To Speech) software to inform passengers of both institutional and advertising messages base don location, time of day or traveler's chracteristics. The audio visual system is installed in the CPU responsable for the validation of transport titles so that the information to the passenger can be totally personalized.