



SMART PARK INTELLIGENT PARKING SYSTEM

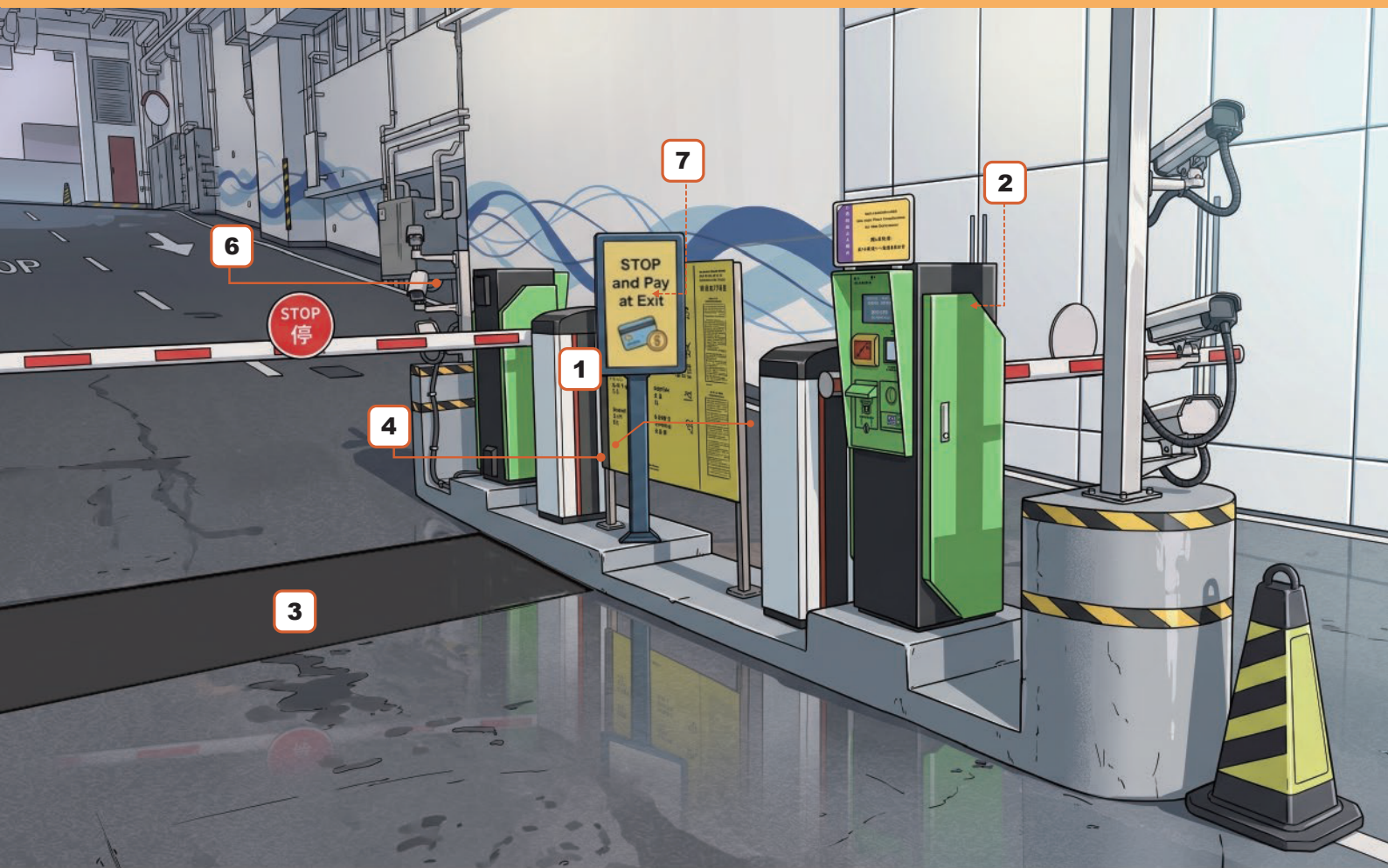
Parking entrance and exit control terminals in Hong Kong function as highly automated, contactless hubs that integrate advanced vehicle recognition and diverse digital payment technologies

Main feature consists of :

- Entry & Exit access control station
- Payment gateway Vehicle Barrier access
- Control gate Reporting system Centralized
- Software Management System
- Richful Application Programming Interface feature (API)
- Parking Guidance

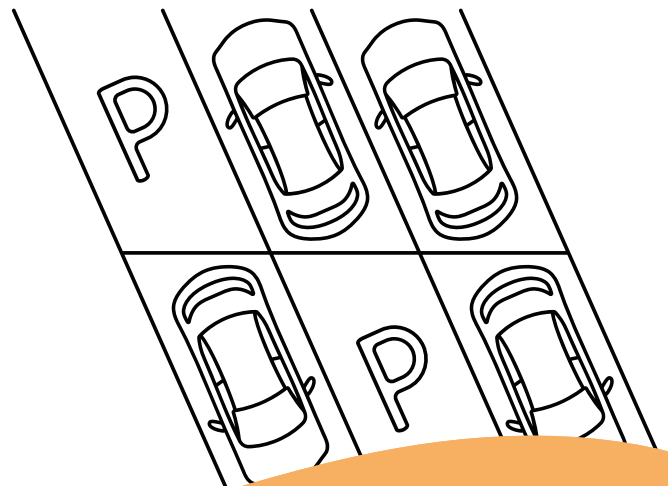
Payment:





Basic System Configuration:

1. Barrier Gate
2. Entry & Exit Control Terminal (Octopus , Proximity, Mifare, HID, card , QR code)
3. Loop Detector
4. Safety Sensor
5. Car Park Management System & Cashier Terminal
6. License Plate Recognition System
7. LED Display Stand



Equipment List:



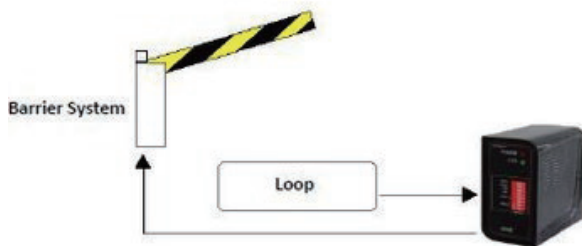
Entry/Exit Control Terminal SP-EN-04 / SP-EX-04

- Welded Steel Cabinet
- Dimension : 290L X 179W X 1380H (mm)
 - 7" LCD Display
 - Intercom with call button
 - Smart Card / QR Code Reader
 - Intercom Camera
 - Welded Steel Cabinet
- Side swing access panel with lock (both sides)
 - Octopus Reader
 - Receipt Printer



Vehicle Barrier: Entry & Exit

- 312 x 415 x 1070 mm
- Power supply : 230/110V 50/60Hz + ground Single Phase
- Adjustable opening time
- IP55
- MCBF: 10 million cycle
- EU Standard



Vehicle Loop Detector: Nortech PD130



Safety sensor : Sick Photocell

Software Management System SP-MS-04

- Management System for Single Carpark solution

Software Management System SP-CM-04

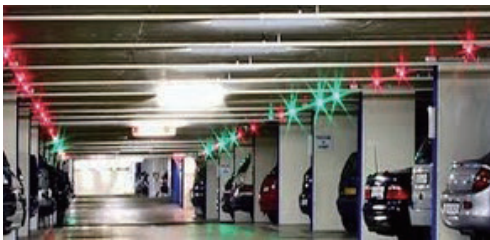
- Eng/Chi Win11Pro License Desktop Workstation
- 24"(23.x", wide) iPS LED Panel w/VGA+HDMI
- Multipurpose Octopus Processors(MOPs)
- Laser printer
- Receipt printer
- IP Master Intercom



Optional items



Parking Guidance System



EV Charger



Long Range Reader



Self-service kiosk



Digital Space board

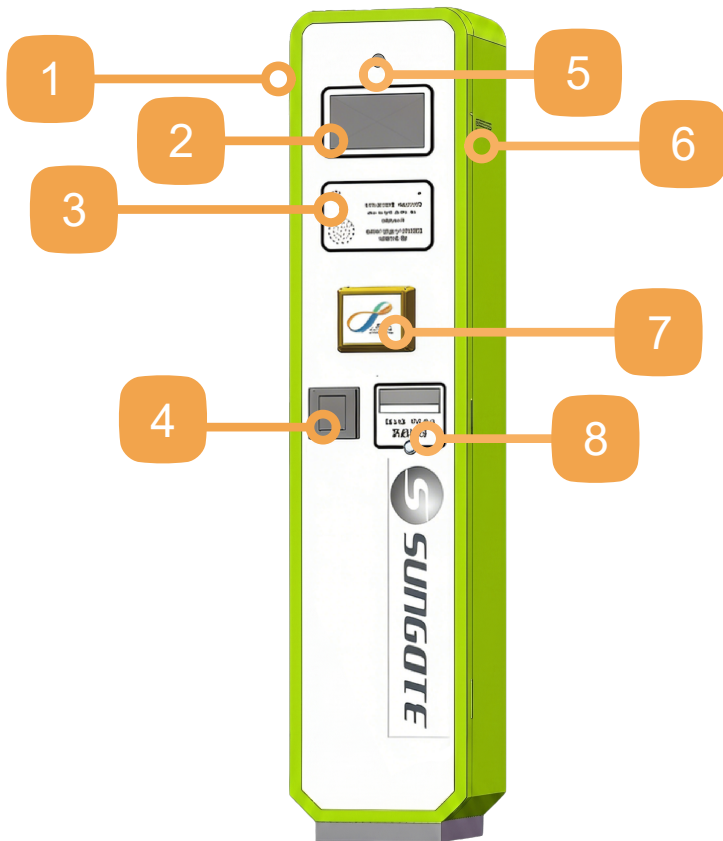


Other accessories



Vehicle Height Sensor

Entry & Exit Control Terminal : SP-EN-04 / SP-EX-04



Standard Configuration

1.Welded Steel Cabinet

-Dimension : 290L X 179W X 1380H (mm)

2. 7" LCD Display

3. Intercom with call button

4. Smart Card /QR Code Reader

5. Intercom Camera

6. Welded Steel Cabinet

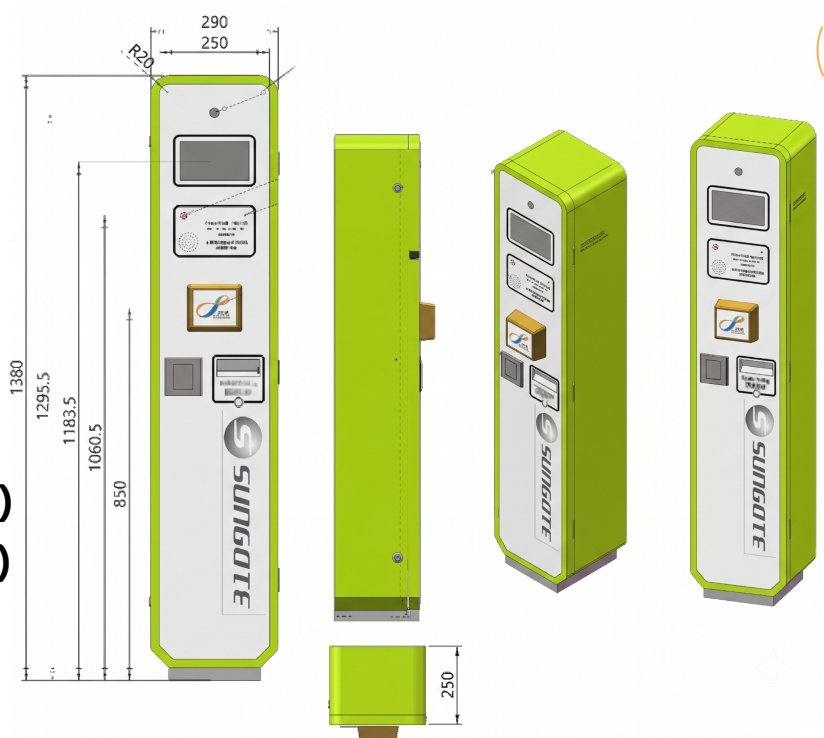
Side swing access panel with lock (both sides)

7. Octopus Reader

8. Receipt printer

Key Functions

1. **Automatic Activation**
2. **User Authentication**
3. **Barrier Control**
4. **Data Management & Recording**
5. **Information Display**
6. **Voice Prompts & Intercom**
7. **Payment Processing (Exit Terminals)**
8. **Parking Redemption (Exit Terminals)**
9. **Receipt Printing (Exit Terminals)**





DESCRIPTION

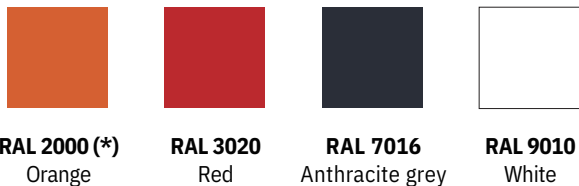
1. Removable doors* made of extruded aluminium. Extruded panels* (standard colour: anthracite grey RAL7016) with full-height LED band (optional).
2. Removable top cover* using injection-moulding aluminium alloy, locking using a key lock.
3. Base* in injection-moulding aluminium alloy.
4. Aluminium round arm (diameter: 83.5 mm), with grooving for smooth incorporation with various options, lacquered in white with red reflective strips. Includes an end cap.
5. The arm shaft is mounted on two permanently-lubricated bearings. The axle exit on the body allows for easy reversal of the arm position (on the left or right side of the housing).
6. Internal mechanical parts treated to enable corrosion resistance.
7. Balancing of the arm is achieved with springs.
8. Electromechanical group including:
 - Brushless DC motor.
 - Secondary transmission through a connecting rod - crank system, ensuring perfect mechanical locking in both extreme positions.
 - Automatic re-lifting of the arm in case of a power cut (optional).
9. Manual release lever in the event of a power cut.
10. Configurable electronic control logic that supports various control options and/or additional accessories.
 - Ethernet and USB-C ports
 - Adjustable information contacts:
 - Showing barrier position status (open or closed)
 - Showing the status of the presence sensors
 - Enabling master-slave control for 2 opposite barriers (one barrier's movement is controlled by the other barrier)
11. Base compatible with the relevant range of Automatic Systems barriers.

The **AS1** lift barrier is a universal barrier, its high performance and high level of operational safety allowing it to cover a wide range of applications: traffic management, parking areas, industrial sites and toll roads.

The AS1 range offers exceptional durability and reliability thanks to its corrosion-resistant aluminium base, light yet robust design, and IP55 protection against dust and water.

The AS1 barrier is flexible and can be customised to meet various requirements. Up to seven metres in length, with built-in LED lighting options, and a choice of standard or custom (RAL) colours, it can adapt to all applications and integrates perfectly with your environment while enhancing safety.

STANDARD RAL COLOURS

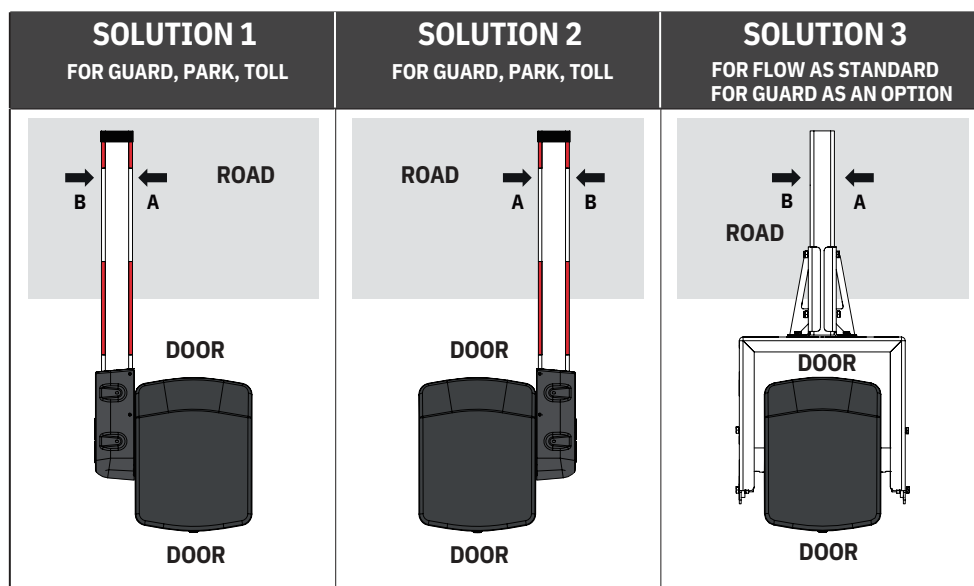


(*) Standard color.

All other colors must be specified when ordering.

Note: These RAL references are available free of charge.

*Outershell is made entirely of aluminium, ensuring optimal corrosion resistance in accordance with the requirements of the Qualicoat label.



STANDARD TECHNICAL FEATURES

Power supply	Single-phase 230/110 V 50/60 Hz with ground. ¹			
Consumption	Maximum 500 W (Nominal 60 W)			
Type of arm	Round in aluminium, tube Ø83.5 with grooving.			
Ambient operating temperature	Between -20 and +60°C. (with no heating option)* *Up to -45°C (with heating option)			
Ambient relative humidity	max 95%, without condensation			
	AS1 Park	AS1 Guard	AS1 Flow	AS1 Toll
Clear opening (L) ⁴	From 2 to 4 m	From 2 to 7 m	From 2 to 7 m	From 2 to 4 m
Minimum opening/closing time	Adjustable between 1.2 and 4 seconds, according to 2 distinct profiles : • Standard ² • Fast ³			Adjustable from 0.7 seconds: • Fast ³
Motor	20 Nm brushless geared motor	60 Nm brushless geared motor		
Weight (without arm)	+/- 62 kg	+/- 65 kg		
MCBF (Mean cycles between failures)	10,000,000 cycles, if servicing recommendations are followed			
Protection index	IP55			
Noise level	<70db(A) ⁵			
	Compliant with European standards			

¹ Do not connect to an isolated ground network or to an industrial distribution network with high impedance ground.

² Standard speed - Impact force complies with EN 12453 standards.

³ Fast speed - The installer must ensure that the installation complies with the standard, such as by using the 'dead man' switch.

⁴ For passages over 5 metres, a standard tip support has been added to the end of the arm for added stability.

⁵ Measured 1 metre from the machine's surface and at a height of 1.60 meters above the ground, in accordance with ISO 3744. No ear protection needed.

Car Park Management System : SP-MS-04

Main Function

- System management
- Parameter configuration
- Equipment configuration and administration
- Season parker and contract management
- Data media management
- Revenue collation and management
- System time control and synchronization
- Tariff programming
- System and facility monitoring and control
- Alarm management
- Revenue control and counting
- Occupancy control
- Data base management
- Reports and statistics
- Data backup and export



Cashier Terminal : SP-CM-04



Standard Configuration

- Eng/Chi Win11Pro License Desktop Workstation
- 24"(23.x", wide) iPS LED Panel w/VGA+HDMI
- Multipurpose Octopus Processor (MOP)
- (210L x 109W x 45H bottom/ 63H top in mm)
- Laser printer for reporting
- Receipt printer
- IP Master Intercom