

Strada Rapide

Operation manual



145175





Original edition in French (ref. 145176) Translated into English in July 2005.

© Copyright 2005 Parkeon. All rights reserved.

Parkeon reserves all proprietary rights relating to the contents of this document. Parkeon reserves all rights over usage, reproduction, representation, marketing, translation, adaptation or modification, and generally all rights over present and future utilisation by any means, for any purpose and in any territory, throughout the period of protection. All use of the contents of this document requires the prior written permission of Parkeon. Parkeon reserves the right to change data, drawings and descriptions without prior notice. Certain characteristics may vary according to customer requirements and do not represent a commitment by Parkeon.

Parkeon UK Ltd.

Membrain House Ferndown Industrial Estate Wimborne, Dorset BH21 7PP - United Kingdom Phone +44 1202 850927 - Fax +44 1202 850903

Parkeon Inc.

40 Twosome Drive, Unit 7 Moorestown NJ 08057 - USA Phone +1 856 234 8000 - Fax +1 856 234 7178

Parkeon S.A.S.

Parc La Fayette, 6 rue Isaac Newton, 25075 Besançon Cedex 9 - France Phone +33 (0)3 81 54 56 00 - Fax +33 (0)3 81 54 49 96

Head office: Le Barjac, 1 boulevard Victor, 75015 Paris - France Phone +33 (0)1 58 09 81 10 - Fax +33 (0)1 58 09 81 26

Parkeon S.A.S au capital de 30.382.146 euros 444 719 272 R.C.S. Paris

Printed in France.



Contents

1.	Abo	ut this document	5
2.	Safe	ety	5
3.	Gen	eral	7
3. 3.	1 2	Dimensions and weight1 Detailed description1	9 10
4.	Pure	chasing a parking ticket1	2
5.	Tick	ets1	3
5. 5. 5. 5.	1 2 3 4	Standard parking ticket	3 3 3 4
6.	Coir	n collection	5
6. 6. 6.	1 2 3 4	Unlocking the collection trap door and replacing the cash box Issuing a collection ticket and a collection report Emptying and preparing a full cash box	5 7 7 9
7.	Оре	ning / closing the housing door2	20
7. 7. 7.	1 2 3	Opening / closing with a mechanical lock	20 21 22
8.	Rep	lenishing supplies2	23
8. 8.	1 2	Ticket roll	23 25
9.	Pro	gramming interface2	27
9. 9. 9.	1 2 3	Display module keypad description	27 28 29
10.	W	/arnings and failures3	2
10 10 10).1).2).3	Green warning LED Red failure LED Removable cash box failure codes	32 33 34
11.	C	leaning	5
11 11	l.1 l.2	Outer surfaces	35 36
12.	Т	roubleshooting	7





Strada Rapide - Operation manual



1. About this document...

This guide is intended for operating personnel.

It describes the procedure and provides advice for the correct and efficient performance of routine operations (collections, replenishment of supplies etc.).

2. Safety

Parkeon products are designed to minimise all risks to users and operators from electrical power supplies, high temperature, fires, mechanical injuries, radiation and chemicals. Parkeon products have CE mark. They comply with the following European directives: 93/68/EEC, 89/336/EEC (EMC) for all the versions and 73/23/EEC (LV) for the versions with mains or public lighting power supplies. Comply with the basic precautions below to ensure the safety of personnel and the environment. The list is not comprehensive and is only aimed at drawing your attention to the potential risks of poorly performed work and negligence:

A Electricity

- All product servicing operations require appropriate training. Only correctly trained personnel may work on the mains power supply. Cut off the mains during the servicing operations.
- Protect personnel from electrical shocks with the help of appropriate electrical and earth connections. Make sure that the electrical parts are installed in accordance with national standards. Make sure that the earth cable is in good condition. Ask for a signed certificate from the contractor.
- Never service products connected to the mains or the telephone network during stormy weather. Protect any exposed electrical cables from the rain.
- Always turn off the electricity before beginning some repairs, as instructed in this guide. Isolate the mains supply with the help of a circuit-breaker and cut off the low voltage with the On / Off button on the main board.



Aechanical parts

- Always remove any metal jewellery (rings, bracelets and wristwatches) before servicing the electrical parts (power supply, battery, wiring) or beginning work on or close to moving parts.
- Keep your hands away from moving and sharp parts, door hinges and locks, wheels and blades.
- Take care to prevent injuries due to the open door or any other projecting or suspended parts.
- Use appropriate tools in good condition, for the purpose for which they have been designed.



Temperature

• Always wait for a few minutes after switching the parking terminal off before you start working close to hot areas of the intermittent heating devices.



Batteries

- Always take care to comply with the polarity of batteries and dry cell batteries.
- Never discard, burn or open the buffer batteries or dry cell batteries. Use appropriate disposal procedures as recommended by the competent health and safety authorities.



IMPORTANT:

Parkeon shall not be liable for any changes made to the parking terminal or for any inappropriate use other than as described in this document that may be made of the equipment.



3. General

This parking terminal belongs to the new generation of parking terminals from Parkeon.

This completely new machine is compatible with the parking management systems from Parkeon.

This parking terminal issues the motorist with a ticket depending on the selected payment method. It is functional, has efficient systems and is highly secure.



Full view



The (optional) TOP has two functions:

- Supporting the optional solar panel;
- Protecting the optional radio antenna.

The top can possibly be supplemented by an identification module (zone indicator).

The HOUSING protects the following components:

- Circuitry and software for saving all the management, tariff, maintenance and alarm data;
- Card reader;
- Power supply (mains, solar power or battery only);
- Printer;
- Selector;
- Thermal paper store;
- Liquid crystal display screen;
- Instruction panels and tariffs with revision notches;
- Confirm and Cancel buttons.

The **CASH BOX** contains all the coins since the last collection and offers high protection in terms of security.

The weight of the empty cash box is 3.2 kg and its capacity is 4.8 litres.

The cash box capacity varies depending on the size of the coins and is equivalent to about 2600 sample euro coins (approximately 25 kg).

The LOWER DOOR provides access to the anchoring and mains connection system.



3.1 Dimensions and weight



The weight of a complete parking terminal is about 90 kg. The terminal weighs 130 kg with all the optional features.



3.2 Detailed description







Inside view of the housing with the door open



4. Purchasing a parking ticket



- In order to save power, the parking terminal remains asleep and only the time and date are displayed till a coin or card is inserted.
- Refer to the tariff label to find out the current parking tariff.
- The user inserts a coin in the coin inlet. If the card payment option is available, a card may be inserted in the reader.
- The minimum and maximum tariffs are displayed on the screen.
- To select the desired parking time, the corresponding number of coins is inserted. Otherwise, the card debit buttons are to be used.
- The calculated parking time is displayed on the screen when the coins are accepted (any rejected coins fall into the coin bowl).
- The user then presses the green validation button.
- Printing starts and a parking ticket is issued.
- The red cancellation button is used to stop the transaction before validation. All the coins are returned immediately.



5. Tickets

5.1 Standard parking ticket

Parking tickets can be customised and contain the following information:

- Date;
- End of the parking period;
- Date of the end of the parking period;
- Price of the ticket.

A resident ticket additionally includes the letters "RES".

5.2 Test tickets

- A test ticket can be obtained by means of the programming keypad (button T). It confirms that the general operations have been performed correctly. It shows:
 - o The time and date;
 - o The word "TEST";
 - o The parking terminal number;
 - o The last 20 warning or failure messages where applicable.
- A test ticket can be obtained with the help of a test token. A test token is a dummy coin that is used to confirm that transaction operations have been performed correctly, in particular by checking the coin chute and the printer. When the operation is completed correctly, the minimum and maximum payment amounts are displayed on the screen, the terminal gives back the test token and prints a test ticket with the word "TOKEN".
- A test card may also be used to issue a test ticket. It is used to confirm that transaction operations have been performed correctly, in particular by checking the card reader and the printer.

5.3 Power supply voltage ticket

A power supply voltage ticket (accessible via programming function "**95**") is available with a printout of the no-load and on-load battery voltages (and mains voltages).



5.4 Statistics ticket

Programming function "**212**" accessible from the programming keypad is used to print a statistics ticket. The statistics ticket can be personalised and indicates the time and date of printing and the totals of the various types of payment. It does **not** modify the counters.

- Collection:
 - o The amount of the latest collections, regardless of the method of payment (coins, cards or cheques);
 - o The date and time of the latest collections and their reference number.
- Parking counters:
 - o The total amount of all the various methods of payment;
 - o The total number of tickets sold;
 - o The total numbers and amounts of the various transactions by user *(resident, etc.)*.
- Other counters (list not comprehensive):
 - o Card recharging;
 - o Fine payment;
 - o Refunds;
 - o Deposits;
 - o Free time.

Maintenance: date and time of operations with the parking terminal (*programming*, *failures etc.*).



6. Coin collection

Collections must be organised randomly:

- during a collection round;
- when a green warning LED is flashing (cash box almost full);
- when a red failure LED is flashing (cash box full).



NOTE:

In the event of malfunctioning:

- If the terminal offers the facility to use several payment methods, the collection malfunctioning LEDs are **green** and payment with coins is impossible, but payment by card is possible.
- If payment with coins is the only payment method, the malfunctioning LEDs are **red**.

6.1 Unlocking the collection trap door and replacing the cash box

• Briefly press the Cancel button and place the collection key on the key/lock interface (installed in the ticket bowl to the right).





- When the collection key is recognised by the electronic lock, the collection indicator becomes orange.
- Remove the collection key.
- Wait for the collection indicator to become green and open the collection trap door (the coin box flap is locked shut).





- The collection is designed to give the agent an idea of the weight of the cash box before it is extracted.
- Remove the full cash box.
- Put in the new cash box and close the collection trap door.
- The collection indicator is green. Once the door is locked, the indicator goes off.



IMPORTANT:

If the collection door is closed accidentally without the cash box, the display LED becomes red and the red collection indicator flashes. Proceed as follows to get the terminal to resume normal operation:

- Place and hold the collection key on the key/lock interface.
- The orange collection indicator will be on and steady. As soon as the indicator becomes green, open the door.
- Insert a cash box and complete a collection.
- The red LED of the display will go off and the terminal will be ready for transactions once again.



6.2 Issuing a collection ticket and a collection report

To complete the collection, the parking terminal will automatically print a collection ticket and a collection report.



NOTE:

These tickets provide the data required for analysing the use of the parking terminal.

The collection counters are incremented immediately after the collection.

6.3 Emptying and preparing a full cash box



IMPORTANT:

Users are strongly advised not to empty full cash boxes near the parking terminals. The coins should be collected in a secure area (e.g. a sorting centre).

To empty and prepare the cash box:

- Open the lock of the cash box with the engraved key.
- Take off the top.





• The cash box is designed to be emptied of its contents easily.



• Check that the top flap is closed.



• Set the once-only system of the top ("A").



• Reverse the removal procedure to put the top back in place, lock the cash box and remove the key.



6.4 Carrying and storing the cash box

Carrying the cash box

• Thanks to its ergonomic handle, the cash box can be carried easily.





Storage

Parkeon recommends storing the cash boxes **vertically**. However, horizontal storage is possible as well.

• If the boxes are stored horizontally, the handle protects the control pin from the risk of impacts with the back of the next cash box when they are stored against each other.



Strada Rapide - Operation manual



7. Opening / closing the housing door

7.1 Opening / closing with a mechanical lock



The mechanical lock is protected by a guard flap in order to reduce the risk of vandalism.

- Insert the door opening tool (1).
- Use the tool (2) as a lever to lift up the guard cover tab.
- Once the lock hole is cleared (3), insert the key (4) and unlock (approx. a quarter turn clockwise) and open the door.



7.2 Opening / closing with an electronic lock

The housing is protected by a lock guard cover in order to reduce the risk of vandalism.

- Insert the door opening tool (1).
- Use the tool (2) as a lever to lift up the guard cover tab.
- Once the hole locks are cleared (3), insert the square key (4).
- Insert the maintenance board in the card inlet (5).
- Enter the identification number and validate (6) (refer to section 9.2 "Use of the maintenance menu with the door closed").
- Once the code has been recognised, the maintenance menu is displayed. To release the electronic lock bolt, validate "LOCK & UNLOCK" in the maintenance menu.
- Remove the maintenance card from the reader.



- Unlock the door with the square key and open the door.
- Complete the operation.





NOTE:

In the event of an electronic failure, the door can be opened with a mechanical key.

The backup mechanical key is a security key and users are strongly advised to store it in a secure place accessible to authorised personnel only.

To mechanically unlock the electronic lock:

- Insert the door opening tool (1).
- Use the tool (2) as a lever to lift up the guard cover tab.
- Once the hole locks are cleared (3), insert the square key and the mechanical key (4).
- Release the bolt with the mechanical key (5) (approximately a quarter-turn in the anticlockwise direction) and open the door with the square key.



7.3 Closing the housing door

- Go to menu "LOCK & UNLOCK" (programming function 116) in the maintenance menu.
- The terminal will display a door closing standby message.
- Close and lock the door with the square key.



8. Replenishing supplies



IMPORTANT:

For complete reliability, use the parts and supplies recommended by Parkeon **only**.

8.1 Ticket roll

To change the ticket roll, the terminal **must** be in service.

- Open the housing door.
- Remove any paper remaining in the printer.
- Lift the paper guard and take the paper roll and reel core out of the terminal.
- Check if the new roll is flat and position the paper reel core.
- Place the new roll and paper reel core in the terminal.
- Check if the roll is turning freely in the rack support and close the paper guard.
- Insert the paper in the printer guide.
- Carefully feed the paper home into the printer.
- Press T on the keypad (refer to "Programming interface" for the use of the keypad).

TICKET CHANGED? YES: TICK NO: RETURN

- If the new ticket roll is full, press V or the green Validate button (the ticket counter will be reset).
- If the new ticket roll is not full, press **C** or the red Cancel button.
- The printer will issue a test ticket.
- Close the housing door and lock it.
- With a test token, check that the terminal is operating correctly.





Ticket stock



Checking if the ticket roll is flat



8.2 Batteries

Self-test

Every hour, the parking terminal automatically checks the battery charge level.

Changing the batteries:

- Switch off the power to the terminal.
- Disconnect the used battery and install a new one.



- Switch on the power to the terminal.
- Print a test ticket.



Precautions

- In order to prevent electrical malfunctioning, use **only** the batteries recommended by Parkeon.
- Never wait for the battery to reach the minimum level before recharging it.
- Recharge any stored batteries once in every six months.
- Batteries of terminals in operation should be changed after every two years.
- Make sure that the cable paths are as instructed.



Battery position



WORKSHOP CHARGING:

To charge the battery, use an automatic self-regulating charger with a constant output voltage located between 13.75 and 13.85 volts (charger available in the Supplies price list).

An unregulated battery charger may overheat the electrolyte and make the battery explode.



Charger recommended by Parkeon for 6 batteries maximum



DISPOSAL:

Do not burn, open or destroy the batteries.

Dispose of used batteries in accordance with applicable regulations.



9. Programming interface

The maintenance software provides access to the various functions of the terminal. The software is accessible in two different ways:

- With the door open, press F on the display module keypad;
- With the door closed, use a maintenance card (the menu displayed is a smaller version of the maintenance menu).

In both cases, the maintenance menu is displayed.

9.1 Display module keypad description





9.2 Use of the maintenance menu with the door closed

A smaller version of the maintenance menu is accessible via the maintenance card (refer to the Tree Structure section of the Strada Rapide maintenance manual for the functions available with the door closed).

If you want to use all the functions available, you will need to open the door of the machine. The full menu will be displayed.



Note: If the machine has a numerical or alphanumeric keypad on the front, all the functions are available with the door closed or open, after a maintenance card is inserted.





9.3 Basic programming functions

- Press F on the keypad to access the maintenance menu or enter the "door open" option code.
- Select the programming function number from the list below, for example "1" (time setting).
- Validate with "V".

At the end of an on-site programming function, after you Validate with "V" (or Cancel with "C"), the parking terminal will ask:

or

CONFIRM?
YES: 1 NO: 2





IMPORTANT:

Do not try to use other maintenance function numbers without the consent of the technical service.

Function 1 - Setting the date and time

Enter the current date, say 9.57 a.m. on Friday September 22nd 2000.

- The day flashes enter "22" then " \Rightarrow ".
- The month flashes enter "09" then " \Rightarrow ".
- The year flashes enter "00" then " \Rightarrow ".
- The time flashes..... enter "**09**" then " \Rightarrow ".
- The minutes flash enter "57" then "V".



IMPORTANT:

The terminal will automatically display the **day** of the week, Friday in this case.



Function 12 - Setting the terminal number and town identifier

Enter the parking terminal number - e.g. **25340002**. The number is on the statistics ticket and is the same as the number on the plate on the housing, if there is such a plate. It is the reference in the **Park***folio* system and for other administrative purposes.



- Key "**V**".
- The last four figures flashenter "2" then " \Rightarrow ".
- The first four figures flash.....enter "2534" then "V".

Function 14 - Setting the ticket stock level

This function makes the green warning LED go on when the ticket stock drops to a certain level.

When you change the ticket roll, press T and validate the ticket roll change by pressing key V. The counter is reset to 9999.

After that, the terminal will count down every printed ticket. At the end of the roll, there is:

- a double black dot meaning that 500 tickets are remaining, which sets the counter to 499;
- a triple black dot meaning that 200 tickets are remaining, which sets the counter to 199.

That means that for an alarm over 499, e.g. 600, you must calculate as follows: (9999 - 4500 (roll with 4500 tickets)) + 600 = **6099**

That means that for a roll with 4500 tickets and a 600-ticket alarm, the limit must be set to 6099.



Enter "6099" then "V".

For an alarm below 500, enter the desired value. E.g. for 180 tickets, enter "**0180**", and "**V**".

Function 26 - Copy of collection ticket

This function is used to print a copy of the collection ticket to facilitate administrative and financial tracking of the parking terminal.



Function 53 - Periodic statement

This function is used to print a weekly or monthly accounting statement. Enter the number of the month or the day of the week (*Monday being 1*).

The other basic functions are as follows:

Function 95 - Printing the power supply voltages (see section "Tickets")

Function 96 - Reading (and clearing) the red failure LED indication (see section on Warnings and Failures)

Function 97 - Reading (and clearing) the green warning LED indication (see section on Warnings and Failures)



Functions 96 and 97 do not offer the possibility to cancel failures or warnings from the removable cash box.



10. Warnings and failures

10.1 Green warning LED

A flashing green LED is an early warning signal which **does not** put the parking terminal out of service. It only indicates that work is required, e.g. when the ticket stock is almost empty or when the battery charge is low.

Displaying and clearing warnings

You can read the "**DIAGNOSTIC**" code of warnings and failures in hexadecimal numbers without opening the housing door - keep the red Cancel **pressed in** and then press the green Validate button as many times as there are codes.

Code	Warning message	Problem	Solution
4203	ON-LOAD BATTERY FAULT	The battery voltage is low during use.	Change the battery.
4204	NO-LOAD BATTERY FAULT	The battery voltage is low when idle.	Change the battery.
4206	NUMBER OF TICKETS BELOW	The number of tickets in the stock has dropped below the limit set by function 14.	Change the ticket roll or modify the ticket limit.
4100	COIN BOX COIN FAULT	The number of coins in the coin box is greater than the set limit.	Collect the coins.
4209	PAPER JAM FAULT	Printer or ticket bowl jammed (option).	Remove the paper from the ticket circuit. Refer to the "Troubleshooting" section.

An alternative solution is to open the housing door and select function F.

After the operation, use function DIAGNOSTICS to clear the warning message.



10.2 Red failure LED

A flashing red LED means that the terminal is out of service. Please contact the technical department and provide the following information:

- Failure code number;
- Failure message as per list below;
- If possible, a test ticket.

Code	Failure message	Problem	Solution
420A	DETECTION PAPER JAM	Printer or ticket bowl jammed (option).	Remove the paper from the ticket circuit.
4000	ON-LOAD BATTERY MEASUREMENT	The buffer battery voltage is too low when idle.	Change the battery.
4001	NO-LOAD BATTERY MEASUREMENT	The buffer battery voltage is too low when idle.	Change the battery.
4101	COIN BOX COIN FAULT	The coin box cannot accept any more coins.	Collect the coins.
4103	NO END OF COLLECTION	Collection door not properly closed.	Check if the doors are closed correctly.
4200	PRINTER FAILURE, FEED	Printer blocked or failed.	Check printer operation.
4201	PRINTER FAILURE, CUTTING	Printer blocked or failed.	Check printer operation.
4202	PRINTER FAILURE, FEED SENSOR	Printer blocked or failed.	Check printer operation.
4203	PRINTER FAILURE, CUTTING SENSOR	Printer blocked or failed.	Check printer operation.
4204	NO PAPER PRINTER	No more tickets.	Change the ticket roll.
4205	PRINTER FAILURE, DIALOGUE WITH MAIN BOARD	Printer blocked or failed.	Check printer operation.
7000	DOOR OPEN TICKET FORBIDDEN	The housing door is open.	Check if the housing door is closed correctly.
7001	COIN JAM DETECTED	Coin or object jammed in selector.	If no return, open the housing door to clear the coin tube.

Data cannot be downloaded when failures 4000, 4001 or 4002 occur.

Displaying and clearing failures

This procedure is identical as with the green warning LED above. Use function **DIAGNOSTICS**.



10.3 Removable cash box failure codes

In the event of any malfunctioning of the removable cash box:

- If the terminal offers the facility to use several payment methods, the collection malfunctioning LEDs are **green** and payment with coins is impossible, but payment by card remains possible.
- If payment with coins is the only payment method, the malfunctioning LEDs are **red**.

Code	Failure message	Problem	Solution
9001	COMM. FAULT MCB	Communication problem between MB and cash box	Contact the technical department
9003	MCB. LOCK FAULT	The cash box activator cannot be locked	Contact the technical department
9004	MCB. UNLOCK FAULT	The cash box activator cannot be unlocked	Contact the technical department
			Complete the collection
9005	MCB TM FAULT	The cash box cannot be detected when the door is closed.	This fault is cancelled automatically when a collection is completed correctly (cash box present and door closed)
9006	MCB SENSOR FAULT	Cash box sensors faulty	Contact the technical department
9007	MCB SENSOR FAULT	The door is not closed	Contact the technical department
9008	MCB PROG. FAULT	The cash box has not been programmed correctly	Contact the technical department
9009	MCB FAULT FAULT	The cash box sensors have changed status away from a collection, leading to a suspected fraud attempt	Contact the technical department
900A	MCB COLLECTION NOT COMPLETED FAULT	The main board power supply has been cut off during a collection phase.	Contact the technical department



11. Cleaning

11.1 Outer surfaces

The coating of the outer surface is designed to withstand graffiti, stickers, scratches and blows. Clean the outside with a soap solution. If required, use an appropriate solvent with all due precautions. Before using a powerful cleaning agent, always do a small test in a concealed location.

"Decap"ront", which features in the Supplies list, is the recommended cleaning agent for graffiti on the outer surfaces, with the exception of the areas below:





NEVER USE:

- metal brushes or steel wool, which can damage the surface coating;
- high pressure water jets, which can damage the seals or flood the housing;
- solvents on the screen or front panel.



11.2 Inside of the housing

- Always switch the parking terminal off before cleaning the inside of the housing.
- Use a dry cloth only.
- Protect the rubber gasket on the door with talc (or equivalent) in order to keep it in place when the door is opened in cold weather.



IMPORTANT:

NEVER USE a vacuum cleaner. This could damage the components.



12. Troubleshooting

Always switch the terminal off with the On / Off switch on the main board.

Symptom	Problem	Solution
Electrical failure.	The parking terminal does not operate if the buffer battery voltage is low. Refer to the "Tickets" section for obtaining voltage measurements.	 Change the buffer battery if the voltage < 10 volts. Large number of ticket transactions in a very short time. Solar panel covered, damaged or disconnected. Check the panel for dirt, especially in the autumn and early spring. Dust, leaves and other objects can cover the panel. Faulty buffer battery which does not retain a sufficient charge. Contact the technical service to determine the reason for insufficient charging.
Ticket jam.	The printer motor is working but does not issue tickets. The starting edge of the ticket is jammed in the printer or bowl.	 Open the housing door and inspect. The jam is generally visible. Pull the paper up to remove it from the printer. Reload and check if the printer is operating correctly as stated in the "Replenishing supplies - Ticket roll" section.
The red collection indicator is flashing	Collection not possible	Check the key/lock interface. Try with another collection key. If that does not succeed. Contact the technical department for repairs.



Note

 •••••
 •••••
 •••••



Note



Note

 ••
 ••
 ••