LEVEL 1 SERVICE GUIDE

And

TROUBLESHOOTING MANUAL

1. DESCRIPTION

Flowbird is providing the following Service Guide and Trouble Shooting Manual to assist our customers and subcontractors in maintaining their pay stations and systems.

Flowbird will provide Level II Service to the client's Level I technical support staff during Flowbird's published support hours.

Procedures for Contacting Flowbird

Email: us-support@flowbird.group
Online: us.support.flowbird.group (Guide Help Center + Chat Support)
Phone: (877) 620-2253

A support ticket number will be generated and can be referred to in correspondence and discussions to the issue.

In a situation where Level I Service is exhausted and is of an urgent nature you may contact Flowbird technical support for a Level 2 service request.

2. PREVENTIVE MAINTENANCE

Preventative maintenance is critical for the continued maintenance of the pay stations. The following checks should be carried out according to the frequency of use of the pay stations. Parkeon recommends a comprehensive preventative maintenance be completed at least every 6 months.

1. Check the working of the printer and escrow block

   P*rocedure*:
   - Remove the printer
   - Clean the thermal head with a cotton swab soaked in Isopropyl Alcohol
   - Check the ticket path in the printer (no paper residue left between the thermal head and the roller)
   - Check the position of the moving blade
   - Replace the printer into the machine
   - Make sure the connection cable is clipped in place properly
   - Visually inspect the connection cable

2. Check the card reader and extension cable (Optional)

   Procedure:
   - Clean the reading head using an Isopropyl impregnated cleaning card
   - Remove the card reader and visually inspect
   - Make sure the cable is clipped in place properly
   - Visually inspect the connection cable
   - Replace the reader into the machine

3. Check the coin detector operation

   Procedure:
   - Offer a test token or coin up to the coin entry slot.
   - Verify that the main board wakes-up by displaying the Min / Max tariff values.
   - Confirm coin selector wheel rotates correctly to allow coin entry.
   - Insert test token and confirm a test receipt gets printed.

4. Verify the coin blocking operation

   Procedure:
   - Check that the coin selector wheel rotates correctly to clear the coin entry path
   - Attempt to insert a non-metallic object and verify the coin entry path remains blocked.

5. Various controls

   Procedures:
   - Check the condition of all external buttons and controls
   - Check the condition of the bill acceptor entry: no flaws or foreign bodies which could block the bill path
   - Check the condition of the coin sensor: no flaws or foreign bodies which could block the coin path
   - Check the condition of the ticket mouth: no flaws or foreign bodies which could block the ticket path
   - Check the condition of the coin return bowl: no flaws or foreign bodies which could block the coin path
   - Check that the door is working correctly and that the seals are in good condition

6. Clean the coin selector

   Procedures:
   - Remove the coin selector from the machine
   - Clean the coin path using a lint free cloth soaked in a suitable anti-static foam cleaner
   - Verify the condition of the selector wheel and replace if necessary
   - Clean the photo-sensor with a soft cloth soaked in Isopropyl Alcohol
   - Replace the coin selector

7. Test battery voltages

   Procedure:
   - Check battery voltage after ticket issuance (ensure over 10.5V)
   - Check for any damage to the battery and replace as necessary.

8. Lubrication

   Procedure:
   - Lubricate locks and hinge mechanisms using a light machine oil if required.

   Check the operation of the machine

   Procedure:
   - Put the ticket stock in place
   - Request a Test Ticket
   - Test the coin selector by trying all coins accepted by the selector (If the coin value is greater than the maximum amount, wait for the software to reject the coin)
   - Check that the coin path accepts all coins
   - Try the card reader by inserting a card and verify the read operation
   - Reject the card
   - Enter the code 095 to ask for a ticket to be printed and check the power parameters

9. Check the operation of the bill note acceptor

   Procedure:
   - Insert a cleaning pad into the bill acceptor.
   - Open the bill acceptor door and clean the optics with a soft cloth soaked in Isopropyl Alcohol
   - Complete a test bill transaction to ensure the bill reader is working properly.

3. TROUBLESHOOTING MANUAL

Introduction

The troubleshooting procedures contained in this document give step-by-step instructions to help isolate and correct common Parkeon Pay Station issues. These procedures were written assuming that the user has a basic familiarity with the Parkeon pay stations. If you are not familiar with the pay station, we highly recommend that you participate in a formal Parkeon training class.

4. MAINTENANCE FUNCTION CODE LIST

- Access the maintenance menu by pressing the orange button on the back of the display inside of the maintenance compartment.

Number	Function
1	**Adjust date and time.**
11	**Select power supply.**
12	**Set machine number.**
14	**Program low ticket count alarm (green).**
31	**Adjust coin box level warnings.**
34	**Print versions ticket**
40	**Link test modem**
44	**Neo Phone Number (Second prompt)**
57	**Force exceptional CAP data transfer**
64	**Credit Card Phone Number (first prompt)**
80	**Initialize peripheral devices.**
90	**Initialize Pay & Display machine.**
94	**Initialize magnetic card reader.**
95	**Print battery voltage ticket.**
96	**Consult red fault LED.**
97	**Consult green warning LED.**
99	**Display available programming functions.**
100	**Bill Reader Report – BNA eprom version**
101	**Bill Stacker Levels**
103	**Program bill channels**
106	**Bill reader test with banknotes.**
111	**Position selector wheel for replacement *(Stelio &Strada).***
211	**PAPER CHANGE Function**
212	**Audit Ticket**
350	**PBS Mode**
353	**Send PBS local transactions**
354	**PBS Link test to e-ticket server**
356	**Request PBS configuration from server**
912	**Communication report**
990	**Print versions ticket and list of alarms**

5. PAY STATION FAULT IDENTIFICATION PROCEDURES

Introduction

The initial step to diagnose faults in the pay station is to determine the type of alarm or alert exhibited by the pay station or by myParkfolio.

The monitoring technician can then refer to the red alarm and green alert list in section **6.0** to prepare to rectify the pay station fault when on site.

If the alarm or alert were witnessed at the machine, the technician would need to identify the Red Alarm or Green Alert using the instructions in section **5.1** or **5.2** then refer to and follow the relevant troubleshooting procedure.

5.1 Red Alarm Identification Instructions (MAINTENANCE FUNCTION 96)

Symptoms

- There is a red status on myParkfolio
- A red LED is flashing at the pay station
- Notification of “machine out of order” on the pay station display

Diagnostics

The pay station is indicating that the machine is not functional and needs immediate attention.

1. Open the pay station’s maintenance door.
2. Visually check that all components and cables are connected properly.
3. Access the maintenance compartment and activate the maintenance menu by pressing the orange button on the back of the display.
4. Using the maintenance maintenance keypad overlay - enter MAINTENANCE FUNCTION **96.**
5. Using the maintenance keypad press V to view the failure.
6. Note the alarm and refer to the Alarm list in **SECTION 8** within this manual.
7. Press the C key to exit out of the on-site programming screen.

5.2 Green Alert Identification Instructions (MAINTENANCE FUNCTION 97)

Symptoms

- There is a green status on MyParkfolio
- The green LED is flashing on the pay station

Diagnostics

The pay station is indicating that the machine is functional, but needs attention.

1. Open the pay station's maintenance door.
2. Visually check that all components and cables are connected properly.
3. Access the maintenance compartment and activate the maintenance menu by pressing the orange button on the back of the display.
4. Using the maintenance maintenance keypad overlay - enter MAINTENANCE FUNCTION **97.**
5. Using the maintenance keypad press V to view the failure.
6. Note the alarm and refer to the Alarm list in **SECTION 7** within this manual.
7. Press the C key to exit out of the on-site programming screen.

5.3 System Alert Identification Instructions

Symptoms

- There is a System status (pink) on myParkfolio.

Possible Causes

- Pay station did not call into myParkfolio and is in communication error.
- Modem may not be functional.
- Communication network may be down.

Diagnostics

The pay station is indicating that it has lost communication with the myParkfolio server.

1. Open the pay station's maintenance door and perform an MAINTENANCE FUNCTION **40** to attempt a link test. If modem returns "link test ok", the connection to the server is complete.
2. If returned message is "link test nok" Perform an MAINTENANCE FUNCTION **80**. This will initialize the modem.
3. Perform an MAINTENANCE FUNCTION **40** to attempt a link test. If modem returns, "link test ok", the connection to the server is complete.
4. If returned message is "link test nok" perform an MAINTENANCE FUNCTION **44** to ensure that phone numbers are correct in the pay station. Change the EPSUM or phone number as necessary.
5. Perform an MAINTENANCE FUNCTION **40** to attempt a link test. If modem returns, "link test ok", the connection to the server is complete.
6. If returned message is "link test nok" then contact Parkeon Helpdesk

6. GREEN ALERT TROUBLESHOOTING PROCEDURES

Introduction

The following document outlines Level I procedures. Please refer to your Red Alarm and Green Alert to isolate the specific alert

6.1
Power supply fault (on-load battery voltage insufficient)
Power supply fault (no-load battery voltage insufficient)
Power supply fault (cell voltage insufficient)

Possible Causes

- Accumulator battery is not connected to its recharging source.
- Accumulator battery is too low.
- The power source to the accumulator is incorrect.

Diagnostics

The pay station is indicating that the accumulator battery is low and needs attention.

Normal operating range for the pay station is between 11.2V and 12.8V, charging voltage is between 12V and 13.8V.

If pay station was recently initialized, the ACU. NO LOAD reading was reset and 15 minutes are required for the pay station to complete a full diagnostic and print out an accurate power reading report.

1. Open the Strada pay station's maintenance door.
2. Visually check that all components and black power/solar cables are connected properly. Check accumulator battery for damage or excessive corrosion or rust on terminals.
3. Access the maintenance compartment and activate the maintenance menu by pressing the orange button on the back of the display.
4. Enter an MAINTENANCE FUNCTION **95.**
5. Using the maintenance keypad press option **2** to produce a printed power source report.
6. Review power report and ensure that the correct power source is (either ACU/SOLAR).
7. If report is incorrect, correct the power configuration using MAINTENANCE FUNCTION **11**
8. If Accumulator NO LOAD voltage is 0.00, measure the solar panel output by connecting voltmeter to two terminals on black connector. Normal out is between 19V and 24V D/C in direct sunlight.
9. If report indicates battery is below 11V, replace accumulator battery.

Cancellation of Green Alert

1. Using the maintenance maintenance keypad enter MAINTENANCE FUNCTION **97.**
2. Using the maintenance keypad press **V** "Resolved" to cancel green alarm.

6.2
Coin payment fault (coinbox limit reached)
Coin payment fault (coinbox upper limit reached)

Possible Cause

- Pay station needs collecting

Diagnostics

The pay station is indicating that the pay station is still taking coins and needs attention.

1. Perform a complete collection on pay station using the key and collection canister. If pay stations are online, wait to ensure that all data is transmitted to MyParkfolio and attempt a coin transaction.
2. If green alert still present, complete an MAINTENANCE FUNCTION **57** if possible and system is connected to MyParkfolio.

Cancellation of Green Alert

Pay station should automatically cancel green alert when a successful coin collection is completed.

6.3
Coin payment failure (selector fault)
Coin payment failure (selector: change return problem)
Coin payment failure (selector: collection problem)
Coin payment failure (selector: wheel blocked)
Coin payment failure (wheel not controlled)
Coin payment failure (coin jammed)
Coin payment failure (locking problem with former wheel)

Possible Cause

- Coin jammed in coin selector
- Main Board is loose from rack assembly
- Coin selector wheel broken
- Coin selector failure

Diagnostics

The pay station is indicating that the pay station is not taking coins and needs attention.

1. Visually check if there is a coin stuck in the coin entry slot and remove if present.
2. Open the Strada pay station's maintenance door and turn off pay station.
3. Check to see that the main board is seated properly by turning off the pay station with the silver toggle switch on the front of the main board and reseating the main board.
4. Check coin selector area and remove coin or foreign object if necessary.
5. Remove and open coin selector to check for stuck coins, dirt, debris or foreign object.
6. If coin selector wheel or coin selector wheel is damaged, change coin selector.
7. If coin selector appears in good condition, reconnect the coin selector, turn on pay station and complete an MAINTENANCE FUNCTION **111.**
8. If MAINTENANCE FUNCTION **111** does not spin the wheel and align itself properly, replace coin selector. Cycle the power by turning off pay station and then turn the pay station back on.
9. Attempt a coin transaction. If coin transaction does not work, replace coin selector.

Cancellation of Green Alert

1. Using the maintenance keypad enter MAINTENANCE FUNCTION **97.**
2. Using the maintenance keypad press option or **V** "Resolved" to cancel green alert.

6.4
Coin payment failure (no selector or voltage fault)

Possible Cause

- Coin jammed in coin selector
- No power to coin selector
- Main Board is loose from rack assembly
- Coin selector wheel broken
- Coin selector failure

Diagnostics

The pay station is indicating that it is not taking coins and needs attention.

1. Check to see that the main board is seated properly by turning off the pay station with the silver toggle switch on the front of the main board and reseating the main board.
2. Visually check if there is a coin stuck in the coin entry slot and remove if present.
3. Open the Strada pay station's maintenance door and conduct an Maintenance Function **95** to ensure that there is sufficient power to the pay station. (above 11 volts).
4. If still problematic turn off pay station, check coin selector area and remove coin or foreign object if necessary.
5. Remove and open coin selector to check for stuck coins, dirt, debris or foreign object.
6. If coin selector wheel or coin selector wheel is damaged, change coin selector.
7. If coin selector appears in good condition, reconnect the coin selector, turn on pay station and complete an MAINTENANCE FUNCTION **111.**
8. If MAINTENANCE FUNCTION **111** does not spin the wheel and align itself properly, replace coin selector. Cycle the power by turning off pay station and then turn the pay station back on.
9. Attempt a coin transaction. If coin transaction does not work, replace coin selector.

Cancellation of Green Alert

1. Using the maintenance keypad enter MAINTENANCE FUNCTION **97.**
2. Using the maintenance keypad press option or **V** "Resolved" to cancel green alert.

6.5
Coin payment failure (coin inlet:coin jammed)

Possible Cause

- Coin jammed in coin inlet/entry slot
- Coin jammed in coin selector
- Coin selector wheel broken
- Coin selector failure

Diagnostics

The pay station is indicating that the pay station is not taking coins and needs attention.

1. Visually check if there is a coin stuck in the coin entry slot and remove if present.
2. Open the pay station's maintenance door and turn off pay station.
3. Check coin selector area and remove coin or foreign object if necessary.
4. Remove and open coin selector to check for stuck coins, dirt, debris or foreign object.
5. If coin selector or coin selector wheel is damaged, change coin selector.
6. If coin selector appears in good condition, reconnect the coin selector, turn on pay station and complete an MAINTENANCE FUNCTION **113**
7. If MAINTENANCE FUNCTION **113** does not spin the wheel and align itself properly, replace coin selector.
8. Attempt a coin transaction. If coin transaction does not work, replace coin selector.

Cancellation of Green Alert

1. Using the maintenance keypad enter MAINTENANCE FUNCTION **97.**
2. Using the maintenance keypad press **V** "Resolved" to cancel green alert.

6.6
Coin payment failure (coinbox full)

Possible Cause

- Pay station needs collecting
- Pay station coin level set up needs adjustment

Diagnostics

1. Perform a complete collection on pay station using the key and collection canister. If pay stations are online, wait to ensure that all data is transmitted to MyParkfolio and attempt a coin transaction.
2. If green alert still present, complete an MAINTENANCE FUNCTION **57** if possible and system is connected to MyParkfolio.
3. Perform an MAINTENANCE FUNCTION **31** to check the coin levels established. Confirm green coin level is at appropriate level. Ensure that the red coin level is above the green coin level.

Cancellation of Green Alert

Pay station should automatically cancel green alert when a successful coin collection is completed.

6.7
Printer fault (paper limit reached)

Possible Causes

- Paper stock is running low and needs to be replaced.
- Original paper roll when previously replaced was set up improperly and a 211 was not performed
- Ticket stock levels are not set properly

Diagnostics:

If low or no paper on ticket roll

1. Take out spindle and existing paper roll.
2. Install new ticket roll onto spindle and install properly into pay station.
3. Confirm the paper has a clean edge and completely in the printer.
4. Access the maintenance compartment and activate the maintenance menu by pressing the orange button on the back of the display.
5. Perform maintenance function 211 and choose yes to print a test ticket for the new roll.
6. Ensure that a tests ticket is produced, is clear and legible.

If there is sufficient ticket stock in pay station

1. Access the maintenance compartment and activate the maintenance menu by pressing the orange button on the back of the display.
2.
3. Perform an MAINTENANCE FUNCTION **14** to establish or ensure low ticket counters (low ticket counts are traditionally between 99 and 200 tickets)
4. Perform a maintenance function 211 and choose NO to print a test ticket
5. Ensure that a tests ticket is produced, is clear and legible.

Cancellation of Green Alert

1. Access the maintenance compartment and activate the maintenance menu by pressing the orange button on the back of the display.
2. Perform a function 97 to check and see if the alert has cleared, if not press V to resolve.

6.8
Card payment fault

Possible Causes

- Card Reader not initialized.
- Card Reader defective.
- Loose Cables on Card Reader.

Diagnostics:

1. Turn Main Board power off. Reseat cables to Card Reader. Turn power on and test credit card reader. If problem not resolved continue to next step.
2. Access the maintenance compartment and activate the maintenance menu by pressing the orange button on the back of the display.
3. Complete an MAINTENANCE FUNCTION **94** to initialize the card reader.
4. Complete an MAINTENANCE FUNCTION **64**.
5. Confirm proper Epsum number and Port number and press "**V**" after each.
6. Press "**V**" for "YES" to "ep collection/ bk parameters".
7. Confirm collection "Success" and then "Bank On Line Maintenance OK".
8. Complete a final test with a credit card. If transaction completes, cancel green alert. If unsuccessful proceed to next step.
9. Replace card reader if still faulty with a new Card Reader. Note that possible defective card reader will need to be returned to Parkeon.

Cancellation of Green Alert

1. Access the maintenance compartment and activate the maintenance menu by pressing the orange button on the back of the display.
2. enter Maintenance function **97.**
3. Using the maintenance keypad press option **V** “Resolved” to cancel green alert

6.9
Card reader fault

Possible Causes

- Card Reader not initialized.
- Card Reader defective.
- Loose Cables on Card Reader.

Diagnostics:

1. Turn Main Board power off. Reseat cables to Card Reader. Turn power on and test credit card reader. If problem not resolved continue to next step.
2. Access the maintenance compartment and activate the maintenance menu by pressing the orange button on the back of the display.
3. Complete an MAINTENANCE FUNCTION **94** to initialize the card reader.
4. Complete an MAINTENANCE FUNCTION **64**.
5. Confirm proper Epsum number and Port number and press "**V**" after each.
6. Press "**V**" for "YES" to "ep collection/ bk parameters".
7. Confirm collection "Success" and then "Bank On Line Maintenance OK".
8. Complete a final test with a credit card. If transaction completes, cancel green alert. If unsuccessful, proceed to next step.
9. Replace card reader with properly flashed new Card Reader. Note that possible defective card reader may need to be re-flashed.

Cancellation of Green Alert

1. Using the maintenance keypad enter MAINTENANCE FUNCTION **97.**
2. Using the maintenance keypad press **V** “Resolved” to cancel green alert

6.10
Note payment fault (note stuck)
Note payment fault (internal problem)
Note payment fault (communication problem)
Note payment fault (configuration problem)
Note payment fault (initialization problem)
Note payment fault (cashbox incorrectly positioned)

Possible Causes

- Bill channel is jammed with a bill or foreign object
- Bill is jammed between the BNA and the bill cassette
- Dirty Bill Reading Assembly

Diagnostics

The pay station is indicating that the pay station is not taking bills and needs attention.

1. Visually check if there is a bill or foreign object stuck in the bill entry slot and remove if present.
2. Open the Strada pay station's maintenance door and turn off pay station.
3. Check bill acceptor area and remove bill or foreign object if necessary.
4. Turn on pay station
5. Access the maintenance compartment and activate the maintenance menu by pressing the orange button on the back of the display.
6. Complete an MAINTENANCE FUNCTION **80** to re-initialize the BNA.
7. Perform a function 106 to test the bill reader.
8. Close door and try inserting a bill into the BNA. The Bill reader should draw the bill in and indicate the denomination on the maintenance screen.
9. If the BNA is still not functioning complete a bill collection and replace stacker.
10. Try inserting a bill into the BNA. If the BNA is still not accepting bills, replace BNA and complete an MAINTENANCE FUNCTION **80**.
11. Attempt a bill transaction after appropriate components are replaced

Cancellation of Green Alert

Green alert automatically cancels with a complete collection of the bill cassette.

6.11
Note payment fault (cashbox full, micro-contact)
Note payment fault (cashbox full)
Note payment fault (cashbox limit reached)

Possible Causes

- Bill cassette is full and needs replacement
- Bill system thinks that it is full
- Bill cassette is damaged

Diagnostics

The pay station is indicating that the pay station is not taking bills and needs attention.

1. If the number of bills is within normal range, perform a bill collection.
2. If the number of bills is outside of normal range, perform a bill collection.
3. Check bill cassette for damage.
4. If green LED persists, Access the maintenance compartment and activate the maintenance menu by pressing the orange button on the back of the display.
5. Complete an MAINTENANCE FUNCTION **80** to re-initialize the BNA and perform another full bill collection with a reset bill cassette.
6. If green LED persists, open the collection drawer and then turn off pay station, remove bill cassette and BNA.
7. Locate collection micro-switch and confirm it is not compromised. Insert BNA and bill cassette. Close collection drawer completely and keep in place. Turn on pay station and ensure that the drawer locks into place.

Cancellation of Green Alert

Green alert automatically cancels with a complete collection of the bill cassette.

6.12
Printer failure (paper feed fault)
Printer failure (paper cutting fault)
Printer failure (feed sensor fault)
Printer failure (cutting sensor fault)

Possible Causes

- Ticket paper roll empty.
- Ticket paper not installed properly in printer or rack.
- Ticket paper or foreign object jammed in printer channel.
- Ticket paper defective.
- Printer Sensor defective.

Diagnostics:

1. Check that the ticket roll was installed properly and that printer channel is clear of foreign objects.
2. Confirm that the paper has a clean edge and completely in the printer.
3. Confirm that timing markings are present, visible and that there is no moisture or water on the tickets. Replace a ticket roll if necessary.
4. If no ticket on the roll, replace Ticket Paper roll. Inspect roll for any damage or poor alignment.
5. Insert roll onto rack. Insure proper seating.
6. Insert a clean edge of the paper into the printer. Insure proper seating.
7. Access the maintenance compartment and activate the maintenance menu by pressing the orange button on the back of the display.
8. With unit power on, do an MAINTENANCE FUNCTION **97** and press "**V**" for ticket change, resolve and clear red alarm.
9. Press "**T**" on maintenance maintenance keypad (F1 on Stelio units), then press "V" for "YES" to ticket change.
10. While test ticket is printing, assure smooth movement of ticket roll and printer.
11. Inspect ticket for proper printing and length.
12. If still problematic, replace printer and re-insert paper.

Cancellation of Green Alert

1. Using the maintenance keypad enter MAINTENANCE FUNCTION **97.**
2. Using the maintenance keypad press **V** “Resolved” to cancel green alert.

6.13
MCB FAILURE

Possible Causes

- E-lock power cables is not connected, loose or damaged.
- The relay board is defective.
- The E-lock is not initialized or defective.

Diagnostics:

1. Access the maintenance compartment and activate the maintenance menu by pressing the orange button on the back of the display.
2. Perform an **MAINTENANCE FUNCTION 80**
    a. If MCB initializes **OK** Green alarm should clear.
    b. If MCB initializes **NOK** continue with next step.
3. Visually inspect the Elock power cable and cable ends to verify it is in good condition. (If cable is in bad condition replace cable and continue)
4. Perform an **MAINTENANCE FUNCTION 80**
    a. If MCB initializes **OK** Green alarm should clear.
    b. If MCB initializes **NOK** continue with next step.
5. Verify the cable is attached to the relay board behind the printer (If cable is lose or not connected reconnect cable and continue
6. Perform an **MAINTENANCE FUNCTION 80**
    a. If MCB initializes **OK** Green alarm should clear.
    b. If MCB initializes **NOK** continue with the resolutions.

Possible Resolution:

1. Disconnect Elock power cable from 1 of the 4 power ports on the relay board behind printer.
2. Reconnect the Elock power cable to one of the other 4 power ports on the relay board.
3. Perform an **MAINTENANCE FUNCTION 80**
    If MCB initializes **OK** Green alarm should clear.
    If MCB initializes **NOK** replace relay board.
4. After the relay board is replaced Perform an **MAINTENANCE FUNCTION 80**
    If MCB initializes **OK** Green alarm should clear.
    If MCB initializes **NOK** Elock may need to be replaced
    CONTACT PARKEON TECHNICAL SUPPORT

Cancellation of Green Alert

Once the power cable, relay board or Elock is replaced with a good component and the **MAINTENANCE FUNCTION 80** is **OK** the GREEN alarm will clear.

7. RED ALARMS TROUBLESHOOTING PROCEDURES

Introduction

The following document outlines Level I procedures. Please refer to your Red Alarm and Green Alert list in **Section 6.0** to isolate the specific alarm once completing the MAINTENANCE FUNCTION **96**.

Refer to the Section identified in the Red Alarm and Green Alerts list to find the specific troubleshooting procedure.

7.1
Power supply failure (on-load battery voltage insufficient)
Power supply failure (no-load battery voltage insufficient)
Power supply failure (cell voltage insufficient)

Possible Causes

- Accumulator battery is not connected to its recharging source.
- Accumulator battery is too low.
- The power supply configuration is incorrect.

Diagnostics

The pay station is indicating that the accumulator battery is too low for the pay station to function and needs immediate attention.

Normal operating range for the pay station is between 11.2V and 12.8V, charging voltage is traditionally between 12V and 13.8V.

If pay station was recently initialized, the ACU. NO LOAD reading was reset and 15 minutes are required for the pay station to complete a full diagnostic and print out an accurate power reading report

1. Open the pay station's maintenance door.
2. Visually check that battery and solar charging cables are connected properly. Check accumulator battery for damage or excessive corrosion or rust on terminals.
3. Using the maintenance keypad enter MAINTENANCE FUNCTION **95.**
4. Using the maintenance keypad press option **2** to print a power supply measurement report.
5. Review power report and ensure that the power source is correct (either ACU/SOLAR or MAINS).
6. If report is incorrect, correct the power configuration using MAINTENANCE FUNCTION **11**
7. If report indicates Accumulator NO LOAD voltage is 0.00, measure the solar panel output by connecting voltmeter to two terminals on black connector. Normal out is between 10V when cloudy and 24V D/C in direct sunlight.
8. If report indicates battery is below 11V, replace the accumulator battery.

Cancellation of RED Alarm

1. Using the maintenance keypad enter MAINTENANCE FUNCTION **96.**
2. Using the maintenance keypad press **V** "Resolved" to cancel red alarm.

7.2
Terminal not in service/deferred entry into service

Possible Causes

- Pay station is set up so that it becomes operational at a later date. (Pay station will have a red LED flashing and not be operational if the working date is in the future)
- Pay station date was set up incorrectly.

Diagnostics:

1. Perform an MAINTENANCE FUNCTION **1** and confirm date and time are accurate. If incorrect, change time and date.
2. Perform an MAINTENANCE FUNCTION **10** and confirm "in working date" and time are set up correctly. If the pay station must be active immediately, input today's date and time.
3. If red alarm still present, complete an MAINTENANCE FUNCTION **57** if possible and system is connected to MyParkfolio.
4. If pay station still problematic complete an MAINTENANCE FUNCTION **90**.

Cancellation of Red Alarm

Red alarm should cancel automatically when the in working date is set to an earlier time than the pay station date.

7.3
Main Board Failure (RAM Problem)

Possible Causes

- Main board faulty.
- Main board RAM Memory is corrupted
- DataPack corrupted (Strada only)
- DataPack faulty (Strada only)

Diagnostics

1. Confirm that all cables are connected to main board.
2. Confirm DataPack is in place properly and no pins are bent on main board (Strada only)
3. Complete an MAINTENANCE FUNCTION **57** if possible and system is connected to MyParkfolio.
4. Complete an MAINTENANCE FUNCTION **80** and proceed in establishing connections between the peripherals and the main board.
5. Complete an MAINTENANCE FUNCTION **98** to erase and re-initialize RAM. If successful, attempt a transaction. If transaction unsuccessful, proceed to next step.
6. Replace DataPack (Strada only)**.**
7. Complete an MAINTENANCE FUNCTION **90** to clear ram and set up pay station.
8. If still problematic, replace main board and complete an MAINTENANCE FUNCTION **90**.

Cancellation of Red Alarm

1. Using the maintenance keypad enter MAINTENANCE FUNCTION **96**.
2. Using the maintenance keypad press V “Resolved” to cancel red alarm.

7.4
Main board fault failure

Possible Causes

- Main board faulty.
- Lithium battery on DataPack (Strada) is below 3V
- Pay station has lost it set up information

Diagnostics

1. Confirm that main board and/or tariff chip are not physically broken or compromised.
2. Ensure that all cables are connected to main board.
3. Complete an MAINTENANCE FUNCTION **57** if possible and system is connected to MyParkfolio.
4. Complete an MAINTENANCE FUNCTION **80** and proceed in establishing connections between the peripherals and the main board. If successful, cancel red alarm and attempt a transaction. If unsuccessful, proceed to next step.
5. Complete an MAINTENANCE FUNCTION **90** to re-set up pay station. If successful, attempt a transaction.
6. If still problematic, replace main board and complete an MAINTENANCE FUNCTION **90**.

Cancellation of Red Alarm

1. Using the maintenance keypad enter MAINTENANCE FUNCTION **96**.
2. Using the maintenance keypad press V “Resolved” to cancel red alarm.

7.5
DataPack card fault failure/fault

Possible Causes

- Main board faulty.
- DataPack corrupted and needs to be reformatted
- DataPack faulty
- Lithium battery in DataPack is below 3V.

Diagnostics

1. Confirm that all cables are connected to main board.
2. Confirm DataPack is in place properly and no pins are bent on main board (Strada only)
3. Check voltage on DataPack battery with a voltage meter to confirm it is above 3V. If below 3V, replace battery.
4. Complete an MAINTENANCE FUNCTION **57** if possible and system is connected to MyParkfolio.
5. Complete an MAINTENANCE FUNCTION **80** and proceed in establishing connections between the peripherals and the main board.
6. Complete an MAINTENANCE FUNCTION **90** to re-set up pay station. If successful, attempt a transaction.
7. If still problematic replace DataPack (Strada only) and complete an MAINTENANCE FUNCTION **90.**
8. If still problematic, replace main board and complete an MAINTENANCE FUNCTION **90.**

Cancellation of Red Alarm

1. Using the maintenance keypad enter MAINTENANCE FUNCTION **96**.
2. Using the maintenance keypad press V “Resolved” to cancel red alarm.

7.6
Printer failure (paper feed fault)
Printer failure (paper cutting fault)
Printer failure (feed sensor fault)
Printer failure (cutting sensor fault)
Printer failure (jam detection)

Possible Causes

- Ticket paper roll empty.
- Ticket paper not installed properly in printer or rack.
- Ticket paper or foreign object jammed in printer channel.
- Ticket paper defective.
- Printer Sensor defective.
- Printer requires cleaning.

Diagnostics:

1. Check that the ticket roll was installed properly and that printer channel is clear of foreign objects.
2. Confirm that the paper has a clean edge and completely in the printer.
3. Confirm that timing markings are present, visible and that there is no moisture or water on the tickets. Replace a ticket roll if necessary.
4. If no ticket on the roll, replace Ticket Paper roll. Inspect roll for any damage or poor alignment.
5. Insert roll onto rack. Insure proper seating.
6. Insert a clean edge of the paper into the printer. Insure proper seating.
7. With unit power on, complete an MAINTENANCE FUNCTION **96** and press "**V**" for ticket change, resolve and clear red alarm.
8. Press "**T**" on maintenance maintenance keypad (F1 on Stelio units), then press "V" for "YES" to ticket change.
9. While test ticket is printing, assure smooth movement of ticket roll and printer.
10. Inspect ticket for proper printing and length.
11. If still problematic, replace printer and re-insert paper.

Cancellation of Red Alarm

1. Using the maintenance keypad enter MAINTENANCE FUNCTION **96.**
2. Using the maintenance keypad press **V** “Resolved” to cancel red alarm.

7.7
Printer Failure (no paper)

Possible Causes

- Ticket Paper roll empty.
- Ticket Paper not installed properly in printer or rack.
- Ticket Paper defective.
- Printer Sensor defective.

Diagnostics:

1. Check that the ticket roll was installed properly.
2. Confirm that the paper has a clean edge and completely in the printer.
3. Confirm that timing markings are present, visible and that there is no moisture or water on the tickets. Replace a ticket roll if necessary.
4. If no ticket on the roll, replace Ticket Paper roll. Inspect roll for any damage or poor alignment.
5. Insert roll onto rack. Insure proper seating.
6. Insert a clean edge of the paper into the printer. Insure proper seating.
7. With unit power on, do a MAINTENANCE FUNCTION **96** and press "**V**" for ticket change, resolve and clear red alarm.
8. Press "**T**" on maintenance maintenance keypad (F1 on Stelio units), then press "V" for "YES" to ticket change.
9. While test ticket is printing, assure smooth movement of ticket roll and printer.
10. Inspect ticket for proper printing and length.
11. If still problematic, replace printer and re-insert paper.

Cancellation of Red Alarm

1. Using the maintenance keypad enter MAINTENANCE FUNCTION **96.**
2. Using the maintenance keypad press **V** “Resolved” to cancel red alarm.

7.8
Main board failure (printer communication fault)

Possible Causes

- Main board faulty.
- Printer faulty.
- Pay station has lost it set up information.
- Lithium battery low on main board (Stelio)

Diagnostics

1. Confirm that main board and/or tariff chip are not physically broken or compromised.
2. Ensure that all cables are connected to main board.
3. Complete an MAINTENANCE FUNCTION **57** if possible and system is connected to MyParkfolio.
4. Complete an MAINTENANCE FUNCTION **80** and proceed in establishing connections between the peripherals and the main board. If successful, cancel red alarm and attempt a transaction. If unsuccessful, proceed to next step.
5. Complete an MAINTENANCE FUNCTION **90** to re-set up pay station. If successful, attempt a transaction.
6. If still problematic, replace main board and complete an MAINTENANCE FUNCTION **90**.
7. If still problematic, replace printer and complete an MAINTENANCE FUNCTION **80**.

Cancellation of Red Alarm

1. Using the maintenance keypad enter MAINTENANCE FUNCTION **96**.
2. Using the maintenance keypad press V “Resolved” to cancel red alarm.

7.9
Display failure

Possible Causes

- Main board does not recognize display.
- Display defective

Diagnostics:

1. Visually check display on outside of pay station to see if cracked or broken. Turn off pay station and replace display if necessary.
1. Attempt a transaction and check to see if display lights up. Attempt to make a transaction.
2. Open pay station and attempt to perform an MAINTENANCE FUNCTION. If possible, complete an MAINTENANCE FUNCTION **80**. Attempt to make a transaction.
3. If possible, attempt an MAINTENANCE FUNCTION **113** to check all maintenance keypad and display components. If either a maintenance keypad or graphic components are not functioning replace display.

Cancellation of Red Alarm

1. Using the maintenance keypad enter MAINTENANCE FUNCTION **96.**
2. Using the maintenance keypad press **V** “Resolved” to cancel red alarm.

8. RED ALARMS AND GREEN ALERTS LIST

STATUS CODE	INDICATOR	EVENT DESCRIPTION
12544	Green Led	Unauthorized maintenance access fault
16387	Green Led	Power supply fault (on-load battery voltage insufficient)
16388	Green Led	Power supply fault (no-load battery voltage insufficient)
16389	Green Led	Power supply fault (cell voltage insufficient)
16640	Green Led	Coin payment fault (coinbox limit reached)
16645	Green Led	Coin payment fault (selector channels inconsistent)
16648	Green Led	Coin payment fault (coinbox upper limit reached)
16649	Green Led	Coin payment fault (selector fault)
16650	Green Led	Coin payment failure (selector: change return problem)
16651	Green Led	Coin payment failure (selector: collection problem)
16652	Green Led	Coin payment failure (no selector or voltage fault)
16653	Green Led	Coin payment failure (selector: calibration not performed)
16654	Green Led	Coin payment failure (selector: calibration problem)
16655	Green Led	Coin payment failure (selector: wheel blocked)
16658	Green Led	Coin payment failure (selector: EEPROM reading problem)
16659	Green Led	Coin payment failure (selector: EPROM writing problem)
16661	Green Led	Coin payment failure (selector: wheel not controlled)
16663	Green Led	Coin payment failure (selector: coin jammed)
16664	Green Led	Coin payment failure (selector: locking problem with former wheel)
16902	Green Led	Printer fault (paper limit reached)
16905	Green Led	Printer fault (jam detection)
17152	Green Led	Card payment fault
18176	Green Led	Note payment fault (power supply cut off)
18177	Green Led	Note payment fault (internal problem)
18178	Green Led	Note payment fault (communication problem)
18179	Green Led	Note payment fault (configuration problem)
18180	Green Led	Note payment fault (initialization problem)
18181	Green Led	Note payment fault (cashbox full, micro-contact)
18182	Green Led	Note payment fault (cashbox full)
18183	Green Led	Note payment fault (cashbox limit reached)
18185	Green Led	Note payment fault (cashbox incorrectly positioned)
18186	Green Led	Note payment fault (inlet flap stuck)
18187	Green Led	Note payment fault (note stuck)
18188	Green Led	Banknote reader engine problem
18189	Green Led	Banknote reader sensor problem
18192	Green Led	Cashbox removed fault
18944	Green Led	Card payment fault
18947	Green Led	Card payment fault (collection not performed)
18948	Green Led	Card reader fault
18949	Green Led	Card payment fault not activated

STATUS CODE	INDICATOR	EVENT DESCRIPTION
18950	Green Led	Card payment fault: memory full
18951	Green Led	Card payment fault (exchange rate problem)
19713	Green Led	Security fault (attack detected)
19969	Green Led	Coin payment failure (coin inlet: coin jammed)
19970	Green Led	Maintenance maintenance keypad failure
19971	Green Led	User maintenance keypad failure
20224	Green Led	Electronic lock transfer failure
20481	Green Led	Card payment fault (bank card file full) Payment forbidden
20487	Green Led	Card payment fault (collection request)
20488	Green Led	Banking maintenance KO
20489	Green Led	Card payment fault (bank card application invalid)
20515	Green Led	Pinpad Out of Order
20737	Green Led	Modem fault (absent)
21504	Green Led	Pre-fines payment is unavailable
22018	Green Led	PayBySpace ETickets stored in P&D
22274	Green Led	Coin payment failure (coinbox full)
22275	Green Led	Coin payment failure (collection problem)
22276	Green Led	Printer failure (paper feed fault)
22277	Green Led	Printer failure (paper cutting fault)
22278	Green Led	Printer failure (feed sensor fault)
22279	Green Led	Printer failure (cutting sensor fault)
22280	Green Led	Printer failure (no paper)
22281	Green Led	Main board failure (printer communication fault)
22282	Green Led	Printer failure (jam detection)
22283	Green Led	Coin payment failure (Collection detection fault)
22284	Green Led	Coin payment failure (Paper clip protection detection)
22528	Green Led	Green LED : file of fines full
28679	Green Led	Power supply fault (no mains)
32768	Green Led	Mobile phone payment fault (transaction file full)
36864	Green Led	MCB failure
36865	Green Led	MCB failure: communication problem
36866	Green Led	MCB fault: key not present
36867	Green Led	MCB fault: bolt locking problem
36868	Green Led	MCB fault: bolt unlocking problem
36869	Green Led	MCB fault: coinbox problem
36870	Green Led	MCB fault: sensor problem
36871	Green Led	MCB fault: door problem
36872	Green Led	MCB fault: programming problem
36873	Green Led	MCB fault: attempted fraud / break-in
36874	Green Led	MCB fault: collection not completed

STATUS CODE	INDICATOR	EVENT DESCRIPTION
3001	Red Led	Door open failure (opening time too long)
16384	Red Led	Power supply failure (on-load battery voltage insufficient)
16385	Red Led	Power supply failure (no-load battery voltage insufficient)
16386	Red Led	Power supply failure (cell voltage insufficient)
16390	Red Led	Clock circuit failure
16401	Red Led	Terminal not in service / deferred entry into service
16402	Red Led	Main board failure (RAM problem)
16405	Red Led	Payment failure (no payment method available)
16412	Red Led	Main board fault failure
16413	Red Led	DataPack card fault failure/fault
16641	Red Led	Coin payment failure (coinbox full)
16643	Red Led	Coin payment failure (collection problem)
16644	Red Led	Coin payment failure (selector channels inconsistent)
16896	Red Led	Printer failure (paper feed fault)
16897	Red Led	Printer failure (paper cutting fault)
16898	Red Led	Printer failure (feed sensor fault)
16899	Red Led	Printer failure (cutting sensor fault)
16900	Red Led	Printer failure (no paper)
16901	Red Led	Main board failure (printer communication fault)
16906	Red Led	Printer failure (jam detection)
16909	Red Led	Coin payment failure (Collection detection fault)
17664	Red Led	Display failure
18184	Red Led	Note payment failure (collection incorrectly finished)
18432	Red Led	Current loop card failure (communication problem)
19456	Red Led	Lock failure (sensor fault)
19712	Red Led	Security failure (attack detected)
19968	Red Led	Maintenance keypad failure
21248	Red Led	User maintenance keypad failure/fault (software upgrade problem)
21249	Red Led	Display failure/fault (software upgrade problem)
21250	Red Led	Event controller failure/fault (software upgrade problem)
22016	Red Led	PayBySpace configuration fault
22017	Red Led	Local PayBySpace database is full
22272	Red Led	Local ETickets database is full
22273	Red Led	Ultimate configuration fault
24576	Red Led	Configuration failure (tariff not integrated)
28672	Red Led	Door open detection failure
28673	Red Led	Coin payment failure (Paper clip protection detection)
1010	System	Communication state : Unknown
1011	System	Communication state : Normal
1012	System	Communication state : Possible communication problem
1013	System	Communication state : Communication problem detected by server
1014	System	Configuration problem : This horodator is not set correctly into tariff view