



**KLIX & FLAVIA  
ERROR CODE HANDBOOK**

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Mars Drinks

**Klix & Flavia Error Code Handbook**

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## **KLIX & FLAVIA ERROR CODE HANDBOOK**

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## ERROR MESSAGES

Each detectable fault has a unique error code assigned to it: this is a three-digit number starting with a number of the machine it represents.

Eg.

2 = Klix 1200/1250

3 = Flavia 300/350/C400

4 = Klix 400/600

8 = Klix Outlook

9 = Klix 900/950

All codes have been colour coded so that as operators and customer service associates we can decide instantly if the Route man/operator can clear the reported machine fault or if we need to send an engineer. This can be done while we are on the telephone with the person reporting the fault, this decision process will save both time and money, and save any downtime of equipment leading to unhappy customers and loss of drink sales.

**CODE COLOURS: RED : ENGINEER VISIT REQUIRED**

**GREEN: ROUTE MAN/OPERATOR CAN CLEAR FAULT**

All codes in this handbook have the headings:

ERROR CODE	ERROR MESSAGE	CAUSE	ACTION
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By reading all of the **GREEN** descriptions relating to the fault code you will be able to talk the customer through clearing the machine fault.

## ERROR CODES FLAVIA

### PROGRAMMING AND CONFIGURATION S300

#### Operator Mode:

Press the Left (*Coffee*) button within 5 sec's of opening the main door and holding it pressed for 5 sec's. **or**

Pressing the Left (*Coffee*) button 4 times within 10 sec's of opening the main door



#### Engineering mode:

NB If this is a PAY brewer, it must be switched to FREE using the 'Cashbox Key' to enable access to this mode.

Open the main door of the machine and within 10 sec's, enter the password by pressing the Left...Middle...Middle...Left buttons. The L.C.D display will change to show the first of the 'Operator Mode' menus. Use the Middle button to scroll through the menus and the Left or Right buttons to edit settings.

The 'Engineering Mode' menus fall into two groups:

- **Configuration** – These allow the Brewer to be configured for a particular country and site. The value display line shows the current configuration settings; using the Left ('Edit +') and Right ('Edit -') buttons can change these. Any changes will be save when the 'Middle' button is pressed or when the Brewer Main door is closed.
- **Tests** – these allow the mechanics of the Brewer to be tested individually and should only be used by a trained engineer.

#### Add Water

When this message is flashing on the front of the machine then the Hot Tank is low on water.  
Unplumbed

If the machine is an unplumbed / jug filled, then the cold tank may be empty and require filling.  
If the cold tank is full there is a technical fault and an engineer is required.

Plumbed

If the machine is plumbed to the water mains, then the water supply may be switched off.

If the water is on, then the red "Plumbed / Unplumbed" switch may be in the wrong position. This is located at the back of the machine.

#### Water Heating

When this message is flashing on the front of the machine then the Hot Tank is heating the water.

If this message remains on the front for more than 15mins then there is a technical fault and an engineer is required.

#### Check Bin

When this message is flashing on the front of the machine then the internal bin requires emptying or re-positioning.

#### Call Operator

When this message is flashing on the front of the machine then open the machine door and read the internal display.

E.g. Message Reads "Mech Timeout". Or "Door Timeout" etc.

From the message on the inside of the machine refer to 'ERROR MESSAGE' displayed in this handbook.

## ERROR CODES FLAVIA

### PROGRAMMING AND CONFIGURATION S350



#### **Operator Mode**

NB If this is a PAY brewer, it must be switched to FREE using the 'Cashbox Key' to enable access to this mode.

Press the Top right hand button within 5 sec's of opening the main door and holding it pressed for 5 sec's. **or** Pressing the Top right hand button 4 times within 10 sec's of opening the main door

The L.C.D display will change to show the first of the 'Operator Mode' menus.

Use the bottom Left ('NEXT') button to scroll through the menus and the Top Left ('BACK') to return to a previous menu. or Right buttons to edit settings

#### **Engineering mode**

NB If this is a PAY brewer, it must be switched to FREE using the 'Cashbox Key' to enable access to this mode.

Open the main door of the machine and within 10 sec's, enter the password by pressing the Top Left...Bottom Left...Bottom Left... Top Left buttons.

The L.C.D display will change to show the first of the 'Engineering Mode' menus.

Use the bottom Left ('NEXT') button to scroll through the menus and the Top Left ('BACK') to return to a previous menu or Right buttons to edit settings.

The 'Engineering Mode' menus fall into two groups:

- **Configuration** – These allow the Brewer to be configured for a particular country and site. The value display line shows the current configuration settings; using the Top Right ('Edit+') and Bottom Right ('Edit-') buttons can change these. Any changes will be save when the 'Next' or 'Back' button are pressed or when the Brewer Main door is closed.
- **Tests** – these allow the mechanics of the Brewer to be tested individually and should only be used by a trained engineer.

## ERROR CODES FLAVIA

### PROGRAMMING AND CONFIGURATION CREATION 400



The Brewer has two modes of operation: '**Vend Mode**' (for drinks vending) and '**Menu Mode**' (for operator/engineer audit, setup and test). The Brewer always powers-up into Vend Mode; to enter Menu Mode, press the Bottom Left and Bottom Right buttons simultaneously for at least 1 second (the buttons will light-up for this period if this special key press has been recognised) and the LCD display will then change to show the default audit menu. To exit Menu Mode, press the Bottom Centre button ('Exit Menus').

#### Operator Mode

To access the 'Operator Mode' menus, enter the 'Operator Mode' password by one of two methods:

1. Enter Menu Mode (as described above) and, within 5 seconds, press the Top Right button and hold it pressed for 5 seconds, or
2. Enter Menu Mode and, within 10 seconds, press the Top Right button 4 times.

If the wrong password is entered, reset the process by simultaneously pressing the Menu Mode buttons (Bottom Left and Bottom Right) again for at least 1 second (there is no need to 'Exit Menus' first).

The Operator Mode menus allow the key operator to read the Brewer's audits, to reset its interim audits and to adjust its prices.

#### Engineering Mode

To access the 'Engineering Mode' menus:

- Enter Menu Mode (as described above) and, within 10 seconds, enter the 'Engineering Mode' password by pressing the Top Left...Middle Left...Middle Left...Top Left buttons.
- The LCD display will then change to show the first of the Engineering mode menus.
- If the wrong password is entered, reset the process by simultaneously pressing the Menu Mode buttons (Bottom Left and Bottom Right) again for at least 1 second (there is no need to 'Exit Menu' first).

The 'Engineering Mode' menus fall into one of two groups:

- **Configuration** - these allow the Brewer to be configured for a particular country and site. The 'value' display line shows the current configuration settings; these can be changed by using the Top Right ('Edit+') and Bottom Right ('Edit-') buttons. Any change to a setting will be stored when the 'Next' or 'Back' buttons are pressed or Menu Mode is exited or the power to the Brewer is cut.
- **Test** - these allow the mechanics of the Brewer to be tested individually and should only be used by a trained engineer.

## ERROR CODES FLAVIA

ERROR CODE	ERROR MESSAGE	CAUSE	ACTION
301	AUDITS ZEROED	All the stored audit data has been set to zero, this message should not normally appear.	Replace main control PCB and or coin mech.
303	WATER OVERFLOW	Continuity sensed between earth and hot tank overflow probe.	<p><b>Short term only:</b> Drain hot tank and allow to refill.</p> <p>Machine will need descaling.</p>
308	SELECT PAYMENT SYSTEM	Free/pay switch set to 'pay' when the payment system menu is set to 'None'	On a pay-vend brewer, select the appropriate payment system in the engineering mode menu. On a free-vend Flavia machine check for broken connections on the free/pay wiring harness
321	PACK INJECT TIMEOUT	Pack inject failed- bottom datum switch not made within 0.9 secs of starting handling mech motor	Clear any pack jams, open, close main door to reset the mech, a faulty motor or handling mech may also be the cause
328	PACK EJECT TIMEOUT	Pack eject failed- top datum switch not made within 0.9 secs of starting the handling mech motor	Clear any pack jams, open, close main door to reset the mech, a faulty motor or handling mech may also be the cause
345	EEPROM CORRUPT	EEPROM configuration/audit data faulty.	Check all settings, use 'FIX' option in engineering mode, if this fails replace main control PCB.
360	PACK DOOR TIMEOUT	Pack door opening cam has not left and and returned home within 5 seconds.	Opening and closing the main door may reset the fault. A faulty switch, a broken connection or a build up of ingredients may be the cause.

## ERROR CODES FLAVIA

ERROR CODE	ERROR MESSAGE	CAUSE	ACTION
<b>363</b>	<b>PACK DOOR OVERLOAD</b>	Pack door motor circuit has drawn more than 1 amp and has been shut down	Check the pack door motor wiring for short-circuits to earth/0v a faulty motor may also be the cause.
<b>373</b>	<b>PUMP OVERLOAD</b>	Pump motor circuit has drawn excessive current and has been shut down.	Check the pump motor shaft is running freely, check that the pressure switches are not activating, check the pump motor wiring for short circuits to earth.
<b>393</b>	<b>EEPROM WRITE FAILED</b>	An attempt to write to the EEPROM has failed-possibly due to an electrically noisy environment or the EEPROM device reaching the end of it's life.	Replace the main control PCB
<b>399</b>	<b>EEPROM FAULTY</b>	EEPROM device failure detected at power up.	Replace the main control PCB.
<b>N/a</b>	<b>COUNTERS ZEROED</b>	Should only appear if the Please Call Operator and event counters have been zeroed in the manage pco/event log menu.	This is a warning/feedback message rather than an error message. No action is required.
<b>N/a</b>	<b>DEFAULTS SET</b>	Should only appear if the EEPROM configuration settings have been set to the default values for the current region by the regional settings menu	This is a warning/feedback message rather than an error message. No action is required.

## ERROR CODES FLAVIA

ERROR CODE	ERROR MESSAGE	CAUSE	ACTION
<b>307</b>	<b>MEMBRANE UNPLUGGED</b>	The button membrane was not detected at power-up.	Check that the membrane is fully and correctly connected to the main control board. A faulty membrane may also be the cause.
<b>308</b>	<b>SELECT PAYMENT SYSTEM</b>	The 'Free Vend:' menu is set to 'Disabled' when the 'Payment System:' menu is set to 'None'	On a pay-vend brewer, select the appropriate Payment System in the Engineering Mode menus. On a free-vend brewer, set the Free Vend:' menu to 'Enabled'
<b>309</b>	<b>BUTTON STUCK DOWN</b>	One or more buttons appeared to be pressed at power-up. This will prevent the buttons from operating as normal.	Check for any button(s) that are stuck down or do not have free travel. A faulty membrane or main control board may also be the cause.
<b>321</b>	<b>PACK INJECT TIMEOUT</b>	PACK INJECT FAILED – BOTTOM DATUM SWITCH NOT MADE WITHIN 0.9 SECS OF STARTING THE HANDLING MECH MOTOR.	Clear any pack jam and then enter and exit Menu Mode to reset the mechanism. A faulty motor or handling mech switch may also be the cause.
<b>328</b>	<b>PACK EJECT TIMEOUT</b>	PACK EJECT FAILED – TOP DATUM SWITCH NOT MADE WITHIN 0.9 SECS OF STARTING THE HANDLING MECH MOTOR.	Clear any pack jam and then enter and exit Menu Mode to reset the mechanism. A faulty motor or handling mech switch may also be the cause.
<b>345</b>	<b>NVRAM CORRUPT</b>	THE CONFIGURATION DATA STORED IN NVRAM (NON-VOLATILE RAM) DOES NOT MATCH ITS CHECKSUM. DETECTED ONLY AT POWER-UP. POSSIBLY DUE TO (A) AN ELECTRICALLY NOISY ENVIRONMENT, (B) THE NVRAM DEVICE FAILING, (C) RE-PROGRAMMING WITH AN OLDER VERSION OF SOFTWARE (NOTE: ANY CORRUPTION OF THE AUDIT COUNTERS OR THE PCO/EVENT COUNTERS IS "FIXED" AUTOMATICALLY.)	Check the configuration settings; if they are garbage then use the 'Reset' option in the 'NVRAM State:' menu described below. If the settings appear uncorrupted then use the 'Fix' option in the 'NVRAM State:' menu. If this fails to clear the error then replace the main control board.

## ERROR CODES FLAVIA

ERROR CODE	ERROR MESSAGE	CAUSE	ACTION
351	<b>VALVE DISCONNECTED</b>	ONE OF THE SOLENOID VALVES APPEARS TO BE DISCONNECTED.	CHECK THE VALVE WIRING FOR UNPLUGGED CONNECTORS OR BROKEN WIRES OR CRIMPS. A FAULTY VALVE MAY ALSO BE THE CAUSE.
353	<b>VALVE OVERLOAD</b>	ONE OF THE SOLENOID VALVE CIRCUITS HAS DRAWN TOO MUCH CURRENT AND HAS BEEN SHUT DOWN.	Check the valve wiring for short-circuits to Earth/OV. A faulty valve may also be the cause.
360	<b>PACK DOOR TIMEOUT</b>	THE PACK DOOR OPENING ROD HAS NOT LEFT AND THEN REACHED 'HOME' WITHIN 5 SECS.	Check that the pack door is properly located on its hinges. Check for a build up of ingredients in the door area. A faulty motor, a faulty switch or a broken connection may also be the cause.
363	<b>PACK DOOR OVERLOAD</b>	THE PACK DOOR MOTOR CIRCUIT HAS DRAWN TOO MUCH CURRENT (EVEN AFTER SEVERAL RETRIES) AND HAS BEEN SHUT DOWN	Check the pack door motor wiring for short-circuits to earth/OV. A faulty motor may also be the cause
371	<b>SYSTEM OVER-PRESSURE</b>	THE SYSTEM PRESSURE SWITCH HAS ACTIVATED (EVEN AFTER SEVERAL RETRIES) AND THE PUMPS HAVE BEEN SHUT DOWN.	Check for (and clean out) any scale in the injector, vent valve and jet valve. Check for pinched water pipes.
373	<b>PUMP OVERLOAD</b>	THE PUMP MOTOR CIRCUIT HAS DRAWN EXCESSIVE CURRENT AND HAS BEEN SHUT DOWN.	Check that the pump motor shaft is running freely. Check the pump motor wiring for short-circuits to earth/OV. A faulty motor may also be the cause.

## ERROR CODES FLAVIA

ERROR CODE	ERROR MESSAGE	CAUSE	ACTION
<b>383</b>	<b>24V POWER TRIPPED</b>	The Protected 24V power has drawn too much current and has been shut down. There is a problem with one of the devices or wires that connect to the Protected 24V power supply on the main control board. The software has tried resetting the electronic trip circuit but has given up as there is a persistent fault.	Check for obvious short circuits and failed devices. Unplug the looms on the main control board that carry 24V. Replace them one at a time, powering off/on in between, to try to isolate the source of the fault. If necessary, refine the search by unplugging the loom at each device rather than at the board.
<b>393</b>	<b>NVRAM WRITE FAILED</b>	An attempt to write to the NVRAM has failed – even after several retries. Possibly due to an electrically noisy environment or the NVRAM device failing.	Replace main control board.
<b>399</b>	<b>NVRAM FAULTY</b>	NVRAM device failure detected at power-up.	Replace main control board.
<b>300</b>	<b>PASSWORD RESET</b>	Should only appear if the Operator Mode password has been reset	This is a warning / feedback message rather than an error message. No action is required
<b>301</b>	<b>AUDITS ZEROED</b>	All the stored audit data has been set to zero, This message should not appear in normal use.	Replace main control board and/or coin mech
<b>302</b>	<b>COUNTERS ZEROED</b>	Should only appear if the PC0 and Event counters have been zeroed in the 'Manage PC0/Event Log:' menu.	This is a warning / feedback message rather than an error message. No action is required.
<b>305</b>	<b>DEFAULTS SET</b>	Should only appear if the NVRAM configuration settings have been set to the default values for the current region by the 'Regional Settings:' menu	This is a warning / feedback message rather than an error message. No action is required.

## ERROR CODES KLIX OUTLOOK

### The Simple Set Up & Audit System

There are two complementary set up and audit systems available on the K365. These are referred to as the "Simple Setup & Audit System", that is intended for day to day use by route men / key operators, and the "Operator Menu System" which is intended for technical set up and diagnostics. This section covers the Simple Setup and Audit Systems.



#### Simple Set Up System

The Simple Setup & Audit menu system is designed to allow non-technical key operators or route men, to easily configure and audit the machine. The system uses a combination of soft options, prompts and helps to guide the user through all the stages of changing settings and taking audits.

The aim is that largely untrained people will be able to:

- Change drink prices
- Change drink types
- Take product and machine audits
- Link stacks

To help the user, the system uses:

- Automatic prompts to perform certain actions, (e.g. to check and change the price stickers when a drink price is modified)
- A Help button (?) that, when pressed, shows context sensitive help messages about the screen they are looking at. For example, it may describe what a "Hot Long & Short" is and what the current volume settings are.
- Pop up prompts to suggest pressing help, if the user is taking a long time to perform certain actions
- Pop up warnings, if stacks are linked for example.
- Positive feedback informing them that their changes were successful and the effect it has had.
- The ability to abort or cancel any changes
- A dedicated Audit button (i) that always goes straight to the machine audit totals.
- Optional Step by step prompts to help the user through each stage of changing a drink with additional help available at each stage.
- Consistent look and feel

This manual does not detail each of the set up or help screens available since the interface is specifically designed to be used without the need for a reference manual.

## ERROR CODES KLIX OUTLOOK

### The Operator Menu System

This section covers the technical Operator Menu System.

The Operator Menu buttons are located in the top left-hand corner of the machine selection panel. The buttons have been blended into the background so they are unobtrusive but still visible without having to remove any labels or covers.

There are six operator buttons; left, right, up, down, cancel (shown as //) and enter (shown as <->), which navigate around the menu system.

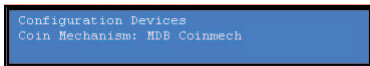


The operator menu is in the form of a tree structure that contains lists of menus and sub-menus. The top menu item is displayed on the LCD when the door is opened and the down button is pressed. The up, down, left and right buttons move from one menu entry to another. If an arrow button is pressed but it is not possible to move in that direction then an error beep is sounded.

When you enter a sub menu, for example, Configuration..., The name of this menu is shown on the top line and the first item in the sub menu is shown on the second line. If this sub menu contains subsequent sub menus then the name of this menu is added to the name of the menu already shown on the top line. So for example, if you had navigated to part of the menu tree structure that is shown below

```
Configuration...  
  Devices...  
    Coin Mechanism: [MDB Coinmech]
```

The display would show



To modify any of the menu settings you must first enter the Edit Mode. This is accomplished by pressing the Right button when the desired setting is displayed. If this setting can not be modified then an error beep is sounded. If the setting can be modified then a cursor appears under the first character of the setting. The character that the cursor is underneath can now be modified by using the up and down buttons to increase or decrease its value. The left and right buttons can be used to move from character to character where appropriate. When the desired value has been entered the Enter button should be pressed to confirm the value. If the value is within the allowable range then a two tone beep is sounded, the cursor disappears and Edit Mode is exited. If the value is out of range then an error beep is sounded. If Cancel is pressed instead of Enter then Edit Mode is aborted and the setting reverts to its original value.

## **ERROR CODES**

### **KLIX OUTLOOK**

The following notation is used in the menus;

**Command!**

Entries followed by an exclamation mark indicate a command. When these entries are selected and Enter is pressed then the command is executed. Whilst the command is executing a rotating bar is displayed in the bottom right hand corner of the LCD. When the command is complete the bar is removed and if successful a two tone beep is sounded. If the command does not complete successfully then a single error beep is sounded.

**Menu...**

Entries followed by three dots indicate a sub-menu to the right. When these entries are displayed and the Right button pressed then the sub-menu is entered.

**[list]**

This notation is used to indicate a list of options in Edit Mode. When entries with a list are selected the current option from the list is displayed. The different options can be selected using the up and down buttons.

### **Technician Mode**

Some menus and menu entries are restricted for use by technicians only. To gain access to these menus you must first enable Technician Mode. This can be done in two ways.

1. Insert a Tech KLIXKEY and press the Down button. You will automatically enter the menu system whether the door is open or closed.

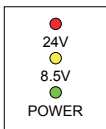
or

2. With the door open, press Cancel followed by Left within 2 seconds. You will be prompted for the Technician Password. Enter 0256 and press Enter.

## ERROR CODES KLIX OUTLOOK

### PSU INDICATORS AND FAULT FINDING

The PSU enclosure contains a circular window that allows you to see the indicator lights on the PSU control board. The lights are arranged in a vertical line showing the status of the two 24V outputs (Red LED), the 8.5V output (Amber LED) and the PSU itself (Green LED).



If the **POWER** indicator (**Green LED**) is OFF then possible causes are:

- PSU is not connected to mains power. (Check that the mains cable is plugged in and that the mains power is turned on).
- PSU fuse is defective. (Replace main PSU fuse on PSU control board with a new T3.15A fuse).
- Machine power cable fuse is defective. (Replace 13A fuse in mains plug).
- PSU itself is defective. (Replace PSU).

If the **8.5V** output indicator (**Amber LED**) is OFF then possible causes are:

- There is an overload or short circuit on 8.5V circuit somewhere in the machine or the control boards. (Remove cause of short circuit or overload. The 8.5V output will turn back on automatically when fault condition has been removed).
- PSU itself is defective (replace PSU).

If the **24V** output indicator (**Red LED**) is OFF then possible causes are:

- There is an overload or short circuit on 24V system. (Remove cause of short circuit or overload – see Error 102 above for possible causes and corrective actions. When the cause of the fault has been removed, the machine's mains power must be cycled, off then on, to reset the 24V output's electronic fuse).
- PSU itself is defective (replace PSU).

## ERROR CODES KLIX OUTLOOK

No	LEVEL	FAULT & POSSIBLE CAUSE	ACTION
1	System Reset (H)	<b>SW E01</b> Failed to find all the required software modules within the Flash / EPROM's. Some part is missing. GVMC Flash / EPROM damaged or not programmed correctly.	Download new software to Flash or replace Flash / EPROMs.
2	PCD (H)	<b>NVRAM DATA DAMAGED</b> Some or all of the NVRAM data is damaged, i.e. both the working copy and backup copy of the data are corrupt. See description of "Fix NVRAM!" menu command for more details. Possible causes are (1) working on the control system with the power turned on, (2) the battery on the GVMC is flat.	See "Fix NVRAM!" menu command in Section 7. Check battery and if it is flat then replace GVMC.
3	Log	<b>NVRAM WARNING</b> Part of the NVRAM data was corrupt, but was able to be repaired by using the backup copy.	None – the software has repaired the corrupted data.
4	System Reset (H)	<b>SW E04</b> Software – Failed to create message pipe. Internal operating system error. GVMC Flash / EPROM damaged or not programmed correctly.	Download new software to Flash or replace Flash / EPROMs.
5	System Reset (H)	<b>SW E05</b> Software – Failed to link to message pipe. Internal operating system error. GVMC Flash / EPROM damaged or not programmed correctly.	Download new software to Flash or replace Flash / EPROMs.
6	System Reset (H)	<b>SW E06</b> Software – Failed to link to data module. Internal operating system error. GVMC Flash / EPROM damaged or not programmed correctly.	Download new software to Flash or replace Flash / EPROMs.
7	System Reset (H)	<b>SW E07</b> Software – Failed to create data module. Internal operating system error. GVMC Flash / EPROM damaged or not programmed correctly.	Download new software to Flash or replace Flash / EPROMs.
8	System Reset (H)	<b>SW E08 Task:nn Path:nn</b> Software – Failed to send message from one task to another because receiving task's message pipe is full. This is normally caused by one of the software tasks becoming very busy for some reason. Possible causes are (1) an LCD hardware problem causing the software to constantly time out on every character and thereby run very slowly, (2) a problem with the Coinmech causing heavy traffic on the MDB interface, (3) a Klifixkey hardware problem causing the software to constantly try to read keys that are not there.	Check that intelligent peripherals (i.e. LCD display, coinmech, cashless system, Klifixkey) are working correctly. Replace suspect devices. Note down the Task and Path numbers and contact Four Square Software Control Department.
9	System Reset (H)	<b>SW E09</b> Software – Failed to read message from sending task. Internal operating system error. GVMC Flash / EPROM damaged or not programmed correctly.	Download new software to Flash or replace Flash / EPROMs.
10	Log	<b>SW E10</b> Software – Failed to re-credit appropriate payment system's cash pot. Unlikely to be caused by any external event, more likely to be caused by a software bug.	None – unless the site reports problems with credit, in which case contact Four Square Software Control Department.

## ERROR CODES KLIX OUTLOOK

No	LEVEL	FAULT & POSSIBLE CAUSE	ACTION
11	Log	<b>FAILED TO DEBIT PAYMENT SYSTEM</b> Software – Failed to debit cash from a payment system's cash pot that had previously been reported as being available. Possible attempt to fraud system by trying to remove Kliskey after the drink selection button is pressed but before the credit is removed from the key. This will not result in any free vends – it is more likely to cause the keys to be corrupted if the user persists in trying to beat the system.	None – unless the site reports problems with change giving, in which case contact Control Dept. at Four Square. Check for other signs of attempted fraud.
12	PCO (H)	<b>NVRAM RESET</b> NVRAM – Manual reset of NVRAM or system thought NVRAM was blank. In both cases, the NVRAM will have default data written to it – all prices will be set to 99.99, all audits will be set to zero and all configuration settings will be set to default values. If the NVRAM was not manually reset then other possible causes are (1) working on the control system with the power turned on, (2) the battery on the GVMC is flat.	If the reset was manual then take no action; if the reset was automatic then contact Control Dept. at Four Square. Check battery and if it is flat then replace GVMC. In all cases, reset prices, volumes, configuration and button selections.
13	PCO (H)	<b>COIN REJECT FAULT</b> This should never be reported on a K365 since there is no coin reject motor to cause a fault.	Check that the fitted software is actually K365 software.
14	System Reset (H)	<b>SW E14</b> Software – Failed to open device driver module. Internal operating system error. GVMC Flash / EPROM damaged or not programmed correctly.	Download new software to Flash or replace Flash / EPROMs.
15	Log	<b>SW E15</b> Software – Failed to update Kliskey Blacklist. Possibly blacklist is full.	Check Kliskey blacklist.
16	System Reset (H)	<b>SW E16</b> Software – Internal operating system failure. GVMC Flash / EPROM damaged or not programmed correctly.	Download new software to Flash or replace Flash / EPROMs.
17	System Reset (H)	<b>SW E17</b> Software – Failed to write to SPI device driver module. Internal operating system error. GVMC Flash / EPROM damaged or not programmed correctly.	Download new software to Flash or replace Flash / EPROMs.
18	System Reset (H)	<b>SW E18</b> Software – Failed to read SPI device driver module. Internal operating system error. GVMC Flash / EPROM damaged or not programmed correctly.	Download new software to Flash or replace Flash / EPROMs.
19	Device Reset	<b>KVC RESPONSE ERROR</b> The communication link between the GVMC and the KVC (via the 40-way ribbon cable) is not working properly. Possible causes are (1) there is a poor connection between the GVMC and the KVC, (2) the KVC has not been (re)programmed correctly, (3) there is a hardware failure on the KVC or the GVMC.	Check / replace ribbon cable between GVMC and KVC. If the KVC has just been re-programmed then check the programming cable and repeat the process. Check that the "heartbeat" LED (D47) on the KVC is flashing. Check / replace KVC or GVMC.
20	System Reset (H)	<b>SW E20 Tasknn Idnn</b> Software – Internal operating system error. GVMC Flash / EPROM damaged or not programmed correctly.	Download new software to Flash or replace Flash / EPROMs. Note down Task and Id numbers and contact Four Square Software Control Department

## ERROR CODES KLIX OUTLOOK

No	LEVEL	FAULT & POSSIBLE CAUSE	ACTION
21	N/A	<b>SW E21</b> Currently unused.	N/A.
22	PCO* (S)	<b>CHECK DRIP TRAY &amp; BUCKET</b> The inhibit line circuit is broken – usually because one or more of the waste water switches is not made. Possible causes are (1) the bucket is full of water, (2) the drip tray and/or bucket have not been replaced, (3) the drip tray and/or bucket are not seated correctly, (4) the waste water loom is not properly connected to the main machine loom at the rear right of the baseplate, (5) the waste water loom is not properly connected to the drip tray detect link-loom at the rear left of the baseplate cover, (6) there is a wiring fault between the waste water switches and the KVC, (7) one of the switches has failed.  N.B. this error is not logged in the PCO or Fault histories.	Empty the bucket if necessary. Replace the drip tray and/or waste bucket. Check that both are seated correctly. Check that the waste-water loom is properly connected to the main machine loom and to the drip tray detect link-loom. Check / replace the wiring between the waste water switches and the KVC (P16-cold water). Check / replace the waste water switches.
23	PCO (H)	<b>FAILED TO HOME CAROUSEL &lt;NN&gt;</b> Failed to stop the carousel accurately at the home position on stack NN, even after 7 attempts to do so. Possible causes are (1) there is excessive slack between the carousel motor gear and the plastic carousel drive gear, (2) there is excessive slack in the carousel motor gear box, (3) the motor gear is loose on its spindle, (4) the carousel home detector on the Baseplate Sensor PCB is faulty, worn or dirty (thereby "narrowing" the home signal), (5) the home slot in the plastic carousel drive gear is dirty (6) the carousel is loose on its drive gear.	Check if the carousel drive gearing is excessively slack; if so then loosen the motor and re-tighten it whilst pushing it hard against the plastic gear. Check / replace the motor. Check the operation of the Baseplate Sensor PCB using its red LED and LED D33 on the KVC. Check / clean / replace the plastic gear. Check that the carousel is firmly screwed to the plastic gear.
25	PCO (S)	<b>REMOVE DRUM, CLEAR JAMMED CUPS</b> The drum appears to have jammed. The KVC has not seen the drum reach the next home position within the allowed time. The KVC will try many times (currently 21 times) to get the drum to the right place; if it can't then it will back up the drum and try the move again. Possible causes are (1) there is a physical obstruction, e.g. a cup is caught in the drop tube, two dissimilar cups have dropped into the drum, the drum is catching on the baseplate cover,	Check for any physical obstructions. Check that the baseplate cover is seated correctly
25	PCO (S)	(2) there is excessive friction from the washer and nut holding the plastic drum-drive gear, (3) the drum motor gear is missing or loose on its spindle, (4) the motor gear is not engaged with the plastic drum-drive gear (5) the drum gray code PCB is faulty, worn or dirty, (6) the drum motor is faulty (e.g. wiring, windings, brushes, gear box, clutch), (7) there is a wiring fault between the drum gray code PCB and the KVC, (8) there is a wiring fault between the drum motor and the KVC.	Check that the drum is not running too slowly (e.g. excessive friction, clutch failure). Check that the drum gears are in position and are engaged. Check the operation of the drum system by using the Manual Control_Drum menus. Check that the drum home signal is working (use LED D32 on KVC). Check / replace the drum gray code PCB. Check / replace the motor. Check / replace the wiring between the drum gray code PCB and the KVC (P8-csel / drum sense). Check / replace the wiring between the motor and the KVC (P9-csel / drum motors).

## ERROR CODES KLIX OUTLOOK

No	LEVEL	FAULT & POSSIBLE CAUSE	ACTION
26	PCO (H)	<p><b>FAILED TO HOME DRUM</b> Failed to stop drum accurately at a home position. The KVC will try many times (currently 21 times) to get the drum to stay on the home position after a move finishes. Possible causes are (1) there is excessive slack in the drum gearing, e.g. between the motor gear and the drum-drive gear or between the drum-drive gear and the actual drum, (2) there is insufficient friction from the washer and nut holding the drum-drive gear, (3) the motor gear is loose on its spindle, (4) there is excessive slack in the drum motor gear box, (5) the home slot in the plastic drum drive gear is dirty, (6) the drum gray code PCB is faulty, worn or dirty (thereby "narrowing" the home signal).</p> <p>N.B. the drum will always retry once when homing at the Splitter and Nozzle positions because these have narrower home slots to increase positioning accuracy.</p>	Check if the drum drive gearing is excessively slack. Check / replace / tighten the washer and nut. Check / replace the motor. Check / clean / replace the plastic gear. Check that the drum home signal is working at all drum positions (use LED D32 on KVC). Check / replace the drum gray code PCB.
27	PCO or Log (S)	<p><b>CUP JAM – CHECK CUP STACK &lt;NN&gt;</b> The splitter actuator appears to have jammed. The KVC has not seen the splitter actuator gray code value change within the allowed time and has stopped the splitter actuator motor. Possible causes are (1) the stack of cups being split was damaged, telescoped or not sitting properly on the scrolls, (2) there is a physical obstruction between the scrolls, e.g. a hanging cup from the previous vend.</p>	Check the condition of the stack of cups at the splitters. Check for any physical obstructions. Check that the ring gear moves freely to both extremes of travel.
27	PCO or Log (S)	<p>(3) a scroll has jumped a tooth or has not been reassembled correctly, (4) the actuator motor gear is missing or loose on its spindle, (5) the actuator motor is faulty (e.g. wiring, windings, brushes, gear box), (6) there is a wiring fault between the Baseplate Sensor PCB and the KVC, (7) there is a wiring fault between the actuator motor and the KVC, (8) the actuator gray code detectors on the Baseplate Sensor PCB are faulty, worn or dirty.</p> <p>N.B. if the KVC successfully manages to move the splitter actuator back to its home position after such a jam then the level of this error is reduced from "PCO" to "Log" and vending will continue with this stack taken out of use.</p>	Check the operation of the splitter system – with and without a stack of cups – using the Manual Control. Splitter menus and LED's D34 (inner vane) and D35 (outer vane) on the KVC. Check / replace the motor. Check / replace the wiring between the Baseplate Sensor PCB and the KVC (P7-splitters). Check / replace the wiring between the actuator motor and the KVC (P7-splitters). Check / replace the Baseplate Sensor PCB.
28	PCO (H)	<p><b>FAILED TO HOME SPLITTER ACTUATOR</b> Failed to stop the splitter actuator accurately at its home position. The actuator has overrun and will prevent the carousel from rotating. Possible causes are (1) there is excessive slack between the actuator motor gear and the plastic actuator gear (2) there is excessive slack in the actuator motor gear box, (3) the splitter actuator is loose on its spindle, (4) there is an intermittent wiring fault between the Baseplate Sensor PCB and the KVC, (5) the actuator gray code detectors on the Baseplate Sensor PCB are faulty, worn or dirty (thereby giving intermittent false home positions),</p>	Check if the splitter actuator drive gearing is excessively slack; if so then loosen the motor and re-tighten it whilst pushing it hard against the plastic actuator gear. Check / replace the motor. Check / replace the wiring between the Baseplate Sensor PCB and the KVC (P7-splitters). Check the operation of the Baseplate Sensor PCB using its red LED, the Manual Control. Splitter menus and LED's D34 (inner vane) and D35 (outer vane) on the KVC.
29	PCO (H)	<p><b>SUGAR DISPENSE FAILED</b> An unexpected error K365 as there is no sugar dispenser</p>	Report to Four Square Software Control Department.
30	Log	<p><b>COLD DISPENSE FAILED</b> Not enough cold water flowed within the time allowed. An unexpected error on an Outlook as it is unable to control a chiller with a flow meter fitted.</p>	<p>Check water is turned on</p> <p>Report to Four Square Software Control Department.</p>

## ERROR CODES KLIX OUTLOOK

No	LEVEL	FAULT & POSSIBLE CAUSE	ACTION
31	PC0* (S)	<p><b>TANK NOT FULL - CHECK WATER IS ON</b></p> <p>The hot tank has not filled within the allowed time and the KVC has disabled the hot tank inlet valves. At power-up or after the door is closed, the KVC will allow up to 10 minutes for the tank to fill (as signalled by the high-level microswitch). Once the tank is full, this timeout is reduced to 30 seconds. Possible causes are (1) the mains water is turned off, (2) the mains water pressure is too low, (3) the tank level float is stuck, (4) the high level microswitch is faulty, (5) there is a wiring fault between the inlet valves and the KVC, (6) the inlet valves are faulty, (7) the hot tank has been drained from full whilst the machine was powered up (i.e. when the timeout was only 30 seconds).</p> <p>N.B. after this error has occurred, the KVC will re-enable the inlet valves when either the door is next closed or the tank somehow appears full, e.g. if the microswitch starts working again.</p>	<p>Check that the mains water is turned on. Check that the mains water pressure is sufficient.</p> <p>Check if the tank has overflowed and if so then check that the tank level float is free to move. Check / replace the tank high-level microswitch. Check / replace the wiring between the inlet valves and the KVC (P16-cold water). Check / replace the inlet valves.</p>
32	Display	<p><b>SPLITTER JAM, CHECK STACK &lt;NN&gt;</b></p> <p>The splitter actuator is not home when pressing the "Rotate Carousel" button or selecting one of the Manual Control...Carousel menu commands. The attempt to rotate the carousel has been rejected to prevent the carousel from jamming against the splitter actuator. Possible causes are (1) the splitter actuator is jammed against the ring gear or a cup tube quadrant, (2) the Protected 24V I/P power is not present, which means that the actuator gray code position read from the Baseplate Sensor PCB is invalid (and is assumed to be "not home" for safety reasons), (3) there was an over-current trip on the Protected 24V O/P supply when the splitter actuator was last moving, (4) refer to error 27 for other possible causes.</p>	<p>Check for and clear any obstructions from the scrolls and the actuator.</p> <p>Check that the splitter actuator operates correctly and returns to its home position by using the Manual Control...Splitter menu. Check that the Protected 24V I/P power is present (from either the Manual Control...24V Power menu or LED D44 on the KVC). Check if the error was preceded by errors 57 and/or 91. Refer to error 27 for other remedial actions.</p>
33	System Reset (H)	<p><b>SW E33</b></p> <p>Software - Failed to link to NVRAM semaphore. Internal operating system error. GVMC Flash / EPROM damaged or not programmed correctly.</p>	<p>Download new software to Flash or replace Flash / EPROMs.</p>
34	Display	<p><b>CAROUSEL NOT HOME</b></p> <p>The carousel is not home when attempting to split a cup from the Manual Control menus. The attempt to split the cup has been rejected to prevent the splitter actuator from jamming against the carousel. Possible causes are (1) the carousel is simply not at a home position, (2) the Protected 24V I/P power is not present, which means that the home detect signal from the Baseplate Sensor PCB is invalid (and is assumed to be "not home" for safety reasons), (3) the carousel home detector on the Baseplate Sensor PCB is faulty, worn or dirty, (4) there is a wiring fault between the Baseplate Sensor PCB and the KVC.</p>	<p>Use the "Home Carousel" menu command to home the carousel before trying to split the cup. Check that the Protected 24V I/P power is present (from either the Manual Control...24V Power menu or LED D44 on the KVC). Check the operation of the Baseplate Sensor PCB using its red LED and LED D33 on the KVC. Check / replace the wiring between the Baseplate Sensor PCB and the KVC (P8-csel / drum sense).</p>
35	System Reset (H)	<p><b>SW E35</b></p> <p>Software - Failed to link to LCD semaphore. Internal operating system error. GVMC Flash / EPROM damaged or not programmed correctly.</p>	<p>Download new software to Flash or replace Flash / EPROMs.</p>
36	N/A	<p><b>SW E36</b></p> <p>Currently unused.</p>	N/A.

## ERROR CODES KLIX OUTLOOK

No	LEVEL	FAULT & POSSIBLE CAUSE	ACTION
37	PCO* (H)	<b>WATER NOT HEATING</b> The hot water tank did not appear to heat up within the time allowed. The KVC has detected that the under-temperature signal from the thermostat has been active continuously for 30 minutes. Possible causes are (1) the hot tank heater element has failed, (2) the heater element is excessively scaled up, (3) the thermostat has failed or is incorrectly wired-up, (4) the low-level microswitch has failed open-circuit, (5) there is a wiring fault between the transformer box and the o/t stat / thermostat / heater element / low-level microswitch assembly, (6) there is a wiring fault within the PSU box, (7) the hot tank temperature probe has failed, (8) the wire from the under-temperature output on the thermostat is shorted to the tank.	Check if the tank is cold, warm or hot to determine the likely failure mode. Check / de-scale the tank and heater element. Check / replace the low-level microswitch. Check / repair / replace thermostat, temperature probe or heater element. Check / replace the high-voltage wiring to all the devices on the tank lid. Check / replace the low-voltage wiring between the thermostat and the KVC (P12-hot tank).
38	Log	<b>CUP NOT REMOVED</b> A cup or other object appears to have been left in the drum for more than 30 minutes when the drum is at front of machine. Possible causes are (1) there actually is something in the drum, (2) something has blocked up one of the cup detector "light" channels on either side of the cup delivery moulding, (3) the cup detect PCB is faulty or dirty, (4) there is a wiring fault between the cup detect PCB and the KVC.	Check / remove cup or other object from drum. Check / clean the cup delivery moulding "light" channels.
			Check / clean / replace the cup detect PCB. Check / replace the wiring from the cup detect PCB to the KVC (P5-door).
39	PCO	<b>DEFECTIVE COINMECH SENSOR</b> Defective coin sensor on an MDB coinmech.	Replace coinmech.
40	Display	<b>NO KLIXKEY</b> Failed to update a Klifixkey® from a menu command because a Klifixkey® was not inserted. Possible causes are (1) the Klifixkey® is missing, (2) the Klifixkey® is not properly inserted, (3) the keyceptacle is not properly connected to the line driver PCB, (4) the Klifixkey® line driver PCB is not properly connected to the GVMC, (5) the keyceptacle is faulty, (6) the Klifixkey® line driver PCB is faulty.	Check that a Klifixkey® is present and properly inserted.
			Check that the keyceptacle and Klifixkey® line driver PCB are properly connected. Check / replace the keyceptacle. Check / replace the Klifixkey® line driver PCB.
41	PCO (S)	<b>COINBOX FULL</b> The coin box appears to be full. The KVC has detected that coins have reached the top of the coin box. If the coin box is not actually full then other possible causes are (1) there is a metal object trapped between the coin box probe and the coin box, (2) the wire to the coin box probe is shorted to metalwork on the door.  N.B. when fault-finding, bear in mind that this error is only generated when the door closes or a coin is inserted.	Empty the coin box. Check that there is nothing trapped between the coin box probe and the coin box. Check that the wire to the coin box probe is not shorted to any metalwork on the door.
42	System Reset (H)	<b>SW E42</b> Software – Internal operating system failure. GVMC Flash / EPROM damaged or not programmed correctly.	Download new software to Flash or replace Flash / EPROMs.
43	System Reset (H)	<b>SW E43</b> Software – Failed to write to MDB device driver module. Internal operating system error. GVMC Flash / EPROM damaged or not programmed correctly.	Download new software to Flash or replace Flash / EPROMs.

## ERROR CODES KLIX OUTLOOK

No	LEVEL	FAULT & POSSIBLE CAUSE	ACTION
44	System Reset (H)	<b>SW E44</b> Software – Failed to read MDB device driver module. Internal operating system error. GVMC Flash / EPROM damaged or not programmed correctly.	Download new software to Flash or replace Flash / EPROMs.
45	System Reset (H)	<b>SW E45</b> A fault has been detected in the MDB interface between the GVMC and the MDB payment system (e.g. Cashflow® coinmech).	Check / replace MDB loom, MDB payment system or GVMC.
46	System Reset (H)	<b>SW E46</b> Software – Internal operating system failure. GVMC Flash / EPROM damaged or not programmed correctly.	Download new software to Flash or replace Flash / EPROMs.
47	System Reset (H)	<b>SW E47</b> Software – Internal operating system failure. GVMC Flash / EPROM damaged or not programmed correctly.	Download new software to Flash or replace Flash / EPROMs.
48	System Reset (H)	<b>DEVICE RESET HAVING NO EFFECT</b> Device reset level errors are persistent and are not clearing the device fault.	Find the cause of the original device reset level error in the fault history and look up the suggested remedial action for that error elsewhere in this table.
49	PCO (S)	<b>CAROUSEL JAMMED - CHECK STACK &lt;NN&gt;</b> The carousel appears to have jammed or stalled. The KVC has not seen the carousel gray code position value change within the allowed time and has stopped the carousel motor. Possible causes are (1) there is a physical obstruction, e.g. a cup is caught in the drop tube, some object is trapped between the baseplate and the carousel, a stack of cups is protruding from the carousel support bars, (2) there is a wiring fault between the Baseplate Sensor PCB and the KVC, (3) there is a wiring fault between the carousel motor and the KVC, (4) the carousel motor gear is missing or loose on its spindle, (5) the carousel motor gear is not engaged with the plastic carousel drive gear, (6) the carousel motor is faulty (e.g. wiring, windings, gear box), (7) the carousel gray code position detectors on the Baseplate Sensor PCB are faulty, worn or dirty.	Check for any physical obstructions.  Check the operation of the carousel system by using the <b>Manual Control...Carousel</b> menus. Check / replace the wiring between the Baseplate Sensor PCB and the KVC (P8-csel / drum sense). Check / replace the wiring between the motor and the KVC (P9-csel / drum motors). Check that the two carousel gears are in position and are engaged. Check / replace the motor. Check / replace the Baseplate Sensor PCB.
50	PCO* (H)	<b>GVMC/KVC SOFTWARE INCOMPATIBLE</b> The software versions of the GVMC Flash / EPROMs and KVC H8 microprocessor are not compatible. Possible causes are (1) the GVMC has just been replaced with a new one, (2) the KVC has just been replaced with a new one, (3) the GVMC Flash / EPROMs have just been upgraded, (4) the KVC has just been re-programmed.	Check the software compatibility tables in Section 7.1 and decide whether to change the GVMC Flash / EPROMs, change the KVC or re-program the KVC.
51	Display	<b>WRONG KEY</b> There is a problem with the Setup Datakey® currently inserted. Possible causes are (1) an attempt was made to create or copy a Setup key that is not a 4K Datakey®, (2) an attempt was made to copy a Setup key that either is not formatted as Setup key or is not a K365-format Setup key.	Check that the key is a 4K Datakey®. If copying a Setup key then check that the key was created on a K365.

## ERROR CODES KLIX OUTLOOK

No	LEVEL	FAULT & POSSIBLE CAUSE	ACTION
52	Display	<p><b>PRINTER AUDIT FAILED</b></p> <p>The audit print out to the printer has failed. Possible causes are (1) the printer is not properly connected to the printer loom, (2) the printer loom is not properly connected to the GVMC, (3) the printer is too busy to accept the data being sent to it, (4) the printer is faulty, (5) the printer loom is faulty.</p>	Check all printer cable connections. Check / replace printer cable. Check / replace printer.
57	PCO (H)	<p><b>24V O/P POWER TRIPPED</b></p> <p>The Protected 24V O/P power is drawing too much current and has been shut down by the KVC. There is a problem with one of the devices or wires that connect to the Protected 24V O/P power supply on the KVC. The KVC has tried resetting the electronic trip circuit but has given up as there is a persistent fault. Possible causes are (1) a wire has shorted to the baseplate, cabinet or chiller/carbo, (2) a motor has failed short-circuit.</p>	Check for obvious short circuits and failed devices. Unplug the looms on the KVC that carry 24V O/P (P9-carousel / drum motors, P7-splitters, P16-cold water, P12-hot tank). Replace them one at a time, powering off/on in between, to try to isolate the source of the fault. Refine the search by unplugging the loom at each device rather than at the KVC.
58	PCO (S)	<p><b>REPLACE DRUM AND CLOSE DOOR</b></p> <p>The drum has not been detected – either after the door was closed or before or after a vend. The KVC detects the drum using the cup detect PCB whenever the drum reaches the splitter position. Possible causes are (1) the drum has not been replaced, (2) the drum has dropped into the drip tray, (3) the door was not fully closed, thereby misaligning the cup detect PCB and the drum skirt, (4) the cup detect PCB is faulty, (5) there is a wiring fault between the cup detect PCB and the KVC.</p> <p>N.B. this error is not logged in the PCO or the fault histories.</p>	<p>If the drum was missing then simply replace it and close the door. Check that the drum is properly clipped in place.</p> <p>Check / replace cup detect opto PCB. Check / replace the wiring from the cup detect PCB to the KVC (P5-door).</p>
59	PCO (H)	<p><b>24V I/P POWER TRIPPED</b></p> <p>The Protected 24V I/P power is drawing too much current and has been shut down by the KVC. There is a problem with one of the devices or wires that connect to the Protected 24V I/P power supply on the KVC. The KVC has tried resetting the electronic trip circuit but has given up as there is a persistent fault. Possible causes are (1) a wire has shorted to the baseplate, cabinet or front panel, (2) a sensor board has failed short-circuit (e.g. gray code, cup detect, baseplate sensor, front panel), (3) water has spilled onto a sensor board.</p>	Check for obvious short circuits and water spillage. Unplug the looms on the KVC that carry 24V I/P (P7-splitters, P8-csel / drum sense, P5-door, P2-front panel). Replace one at a time, powering off/on in between, to try to isolate the source of the fault. Refine the search by unplugging the loom at each device rather than at the KVC.
60	PCO (H)	<p><b>NO PAYMENT SYSTEM CONFIGURED</b></p> <p>The machine is set to pay vend when one or more of the selections has a non-zero price configured and no payment system has been configured.</p>	Set machine to free vend or set all prices to zero or configure a payment system.

## ERROR CODES KLIX OUTLOOK

No	LEVEL	FAULT & POSSIBLE CAUSE	ACTION
61	Log	<b>KVC WATCHDOG RESET</b> The KVC's internal "watchdog" has reset the KVC. The machine has fully recovered, so this message is just a warning. Possible causes are (1) an electrostatic discharge onto the cabinet or control box caused the KVC to lock up, (2) the KVC has not been (re)programmed correctly.	If the error is a one-off and the KVC is fully operational then take no action.
			If the KVC has just been re-programmed then check the programming cable and repeat the process. Check if there are many of these errors. Check if the error is accompanied by errors 19 and 48. Check that the "heartbeat" LED (D47) on the KVC is flashing. Check / replace the KVC.
62	Log	<b>KVC REPROGRAMMED</b> The KVC's microprocessor has been re-programmed in the machine. The Flash ROM on the KVC's microprocessor can be re-programmed from a PC over a serial cable into connector P17. The machine has fully recovered - this message just provides notification that the programming has successfully finished.	None.
63	PCO* (H)	<b>KVC UNAVAILABLE</b> The KVC is unavailable for vending. Possible causes are (1) the KVC is currently being re-programmed, (2) the KVC has not been (re)programmed correctly, (3) there is a poor connection between the GVMC and the KVC, (4) there is a hardware failure on the KVC or the GVMC.  N.B. If the KVC is being programmed then this PCO error will clear itself when the programming finishes successfully.	If the KVC is currently being re-programmed in the machine then take no action - just wait for it to finish. Check if the error is accompanied by errors 19 and 48. Check that the "heartbeat" LED (D47) on the KVC is flashing. Check / replace the cable between the KVC and the GVMC. Check / replace KVC or GVMC.
64	PCO (H)	<b>DRUM GRAY CODE NOT ENGAGED</b> The drum gray code PCB appears not to be physically engaged with the plastic drum-drive gear. The KVC detects this error from the state of the three gray code opto's on this PCB. Possible causes are (1) the plastic drum-drive gear has not been replaced, (2) the nut on the drum-drive spigot is loose, causing the gear to drop, (3) the drum gray code PCB is not in its correct position, (4) one or more of the wires from the PCB has shorted to the baseplate.	Check that the drum-drive gear is both fitted and fully engaged with the gray code PCB. Check that the nut on the drum-drive spigot is tight. Check that the drum gray code PCB is properly fitted. Check that the drum home signal is not permanently active (use LED D32 on KVC). Check / replace the wiring between the drum gray code PCB and the KVC (P8-csel / drum sense).
65	PCO (H)	<b>DRUM GRAY CODE NOT POWERED</b> The drum gray code PCB appears not to be powered. The KVC detects this error from the state of the three gray code opto's on this PCB. Possible causes are (1) the connector to the gray code PCB is not plugged in or is loose, (2) the connector to the KVC is not plugged in or is loose, (3) the gray code PCB is faulty, worn or dirty, (4) the connector housing on the gray code PCB has slid down the pins, (5) there is a break in the Protected 24V I/P wire that feeds the gray code PCB.	Check that the drum gray code PCB is properly connected. Check that the connector on the KVC (P8-csel / drum sense) is properly connected. Check that the drum home signal is working (use LED D32 on KVC). Check / replace the drum gray code PCB. Check / replace the wiring between the drum gray code PCB and the KVC (P8-csel / drum sense).
66	PCO (H)	<b>DRUM MOTOR NOT POWERED</b> Currently unused.	N/A.

## ERROR CODES KLIX OUTLOOK

No	LEVEL	FAULT & POSSIBLE CAUSE	ACTION
67	PCO (H)	<b>DRUM MOTOR OVERLOADED</b> Currently unused.	N/A.
68	PCO (H)	<b>DRUM DRIVER CHIP FAILED</b> Currently unused.	N/A.
69	PCO (H)	<b>CAROUSEL GRAY CODE NOT ENGAGED</b> An unexpected error on a K365 as there is no way to detect this error on a 16-stack carousel. The KVC thinks that it is running in a K900.	Turn the machine off then on. Report to Four Square Software Control Department.
70	PCO (H)	<b>CAROUSEL GRAY CODE NOT POWERED</b> An unexpected error on a K365 as there is no way to detect this error on a 16-stack carousel. The KVC thinks that it is running in a K900.	Turn the machine off then on. Report to Four Square Software Control Department.
71	PCO (H)	<b>CAROUSEL GRAY CODE NOT VALID</b> An unexpected error on a K365 as there is no way to detect this error on a 16-stack carousel. The KVC thinks that it is running in a K900.	Turn the machine off then on. Report to Four Square Software Control Department.
72	PCO (H)	<b>CAROUSEL MOTOR NOT POWERED</b> Currently unused.	N/A.
73	PCO (H)	<b>SPLITTER MOTOR NOT POWERED</b> Currently unused.	N/A.
74	PCO (H)	<b>SPLITTER MOTOR OVERLOADED</b> Currently unused.	N/A.
75	Log	<b>VEND FAILED TO COMPLETE</b> A vend was initiated but did not finish due to an error that was not of a high enough level to send the machine PCO. The consumer interface would have been reset back to "ready" and if the error occurred before a cup was split then any money would have been refunded. This error records that a vend failed; it is usually accompanied in the fault log by the root cause error.	Check the fault log for an entry around the time of this error so as to understand the root cause of the failed vend. Look up the suggested remedial action for that error elsewhere in this table.
76	N/A	<b>SW E76</b> Currently unused.	N/A.
77	PCO (H)	<b>SPLITTER DRIVER CHIP FAILED</b> Currently unused.	N/A.
78	PCO (H)	<b>ANCILLARY MOTOR NOT POWERED</b> Currently unused.	N/A.
79	PCO (H)	<b>ANCILLARY MOTOR OVERLOADED</b> Currently unused.	N/A.
80	PCO (H)	<b>ANCILLARY MOTOR JAMMED</b> Currently unused.	N/A.
81	PCO (H)	<b>FAILED TO HOME ANCILLARY MOTOR</b> Currently unused.	N/A.
82	PCO (H)	<b>HOT DISPENSE VALVE NOT POWERED</b> Currently unused.	N/A.
83	Log	<b>CHILLER NOT POWERED</b> Currently unused.	N/A.

## ERROR CODES KLIX OUTLOOK

No	LEVEL	FAULT & POSSIBLE CAUSE	ACTION
84	Log	<p><b>CHILLER / CARBO NOT CONNECTED</b></p> <p>Note: if a carbo is fitted then this error relates to the still-water dispensing part of the carbo.</p> <p>There is an electrical connection failure between the chiller/carbo and the KVC. The KVC has detected that the chiller did not signal a request for water during a cold still-water dispense. Possible causes are (1) the external chiller/carbo loom is not properly connected to the main machine loom, (2) the internal chiller/carbo loom is not properly connected to the chiller/carbo, (3) the main machine loom is not properly connected to the KVC.</p> <p>N.B. if this error occurs when vending then all drinks that use cold still-water will be taken out of stock.</p>	<p>Check that the chiller/carbo loom is properly connected to both the chiller/carbo and the main machine loom; check for signs of water corrosion on these connectors. Check that the main machine loom is properly connected to the KVC (P16-cold water). If any of these looms are faulty or damaged then replace them. Check that the cold still-water flush switch is fully operational (i.e. as well as water being pumped, the inlet valves turn on and LED D43 on the KVC lights up).</p>
85	PCO (H)	<p><b>MAX COLD FLUSH TIME EXCEEDED</b></p> <p>The chiller/carbo has been flushing (and/or filling the soda-can in the case of the carbo) for too long and has been shut down as a safety precaution. If the cold water request signal from the chiller/carbo is active for more than 60 seconds then the KVC aborts the request by turning off the Protected 24V O/P supply. Possible causes are (1) a deliberate chiller/carbo flush took longer than 60 seconds, (2) the chiller/carbo flush switch has stuck in the "on" position, (3) the cold water request signal wire to the KVC is shorted to the cabinet or the chiller/carbo case, (4) there is a hardware failure on the carbo's control board which has caused the cold water request to be active permanently, (5) there is a hardware failure on the KVC which has caused the chiller/carbo to be turned on permanently.</p> <p>N.B. after this error occurs, the Protected 24V O/P supply will remain off until either the door is opened and closed or the supply is turned back on in the <b>Manual Control_24V Power</b> menu.</p>	<p>If actually flushing the chiller/carbo then simply close and re-open the door and continue with the flush (tip: if performing a long flush then briefly release the flush switch at least once a minute). Check that the chiller/carbo flush switch is not stuck in the "on" position.</p> <p>Check that the cold request signal to the KVC is not permanently active (use LED D43 on the KVC); check / replace wiring between chiller and KVC (P16-cold water).</p>
86	PCO (H)	<p><b>HOT INLET VALVE NOT POWERED</b></p> <p>Currently unused.</p>	N/A.
87	Log	<p><b>COLD INLET VALVE NOT POWERED</b></p> <p>Currently unused.</p>	N/A.
88	PCO (H)	<p><b>MASTER INLET VALVE NOT POWERED</b></p> <p>Currently unused.</p>	N/A.
89	PCO (H)	<p><b>PSU 24V I/P NOT PRESENT</b></p> <p>The KVC has detected that the 24V I/P power supply from the PSU board is not present. Possible causes are (1) there is a wiring fault between the PSU and the KVC, (2) the PSU board is faulty, (3) the KVC board is faulty.</p> <p>N.B. if the PSU ever shuts down its two 24V power outputs due to a current overload (see Section <b>Error! Reference source not found.</b>) then both the 24V I/P and the 24V O/P supplies will disappear together and error 102 will be reported instead.</p>	<p>Check the state of LED D40 on the KVC. Check the state of the red LED on the PSU board. Check / replace the wiring between the PSU (CON2) and the KVC (P4-psu). Check / replace the PSU board (N.B. follow the safety instructions given in Section <b>Error! Reference source not found.</b>). Check / replace the KVC.</p>

## ERROR CODES KLIX OUTLOOK

No	LEVEL	FAULT & POSSIBLE CAUSE	ACTION
90	PC0 (H)	<p><b>PSU 24V O/P NOT PRESENT</b></p> <p>The KVC has detected that the 24V O/P power supply from the PSU board is not present. Possible causes are (1) there is a wiring fault between the PSU and the KVC, (2) the PSU board is faulty, (3) the KVC board is faulty.</p> <p>N.B. if the PSU ever shuts down its 24V power outputs due to a current overload (see Section <b>Error! Reference source not found.</b>) then both the 24V O/P and the 24V I/P supplies will disappear together and error 102 will be reported instead.</p>	<p>Check the state of LED D39 on the KVC. Check the state of the red LED on the PSU board. Check / replace the wiring between the PSU (CON2) and the KVC (P4-psu). Check / replace the PSU board (N.B. follow the safety instructions given in Section <b>Error! Reference source not found.</b>). Check / replace the KVC.</p>
91	Log	<p><b>24V O/P POWER WARNING</b></p> <p>The Protected 24V O/P power was drawing too much current and had been temporarily shut down by the KVC. There was a problem with one of the devices or wires that connect to the Protected 24V O/P power supply on the KVC. The KVC has succeeded in resetting the electronic trip circuit and the fault appears to have gone away. For possible causes, refer to error 57 above.</p>	<p>To determine the severity of the fault, check how many of these errors have occurred and how frequently they have occurred; also check if this error is accompanied by error 57. For remedial actions, refer to error 57 above.</p>
92	Log	<p><b>24V I/P POWER WARNING</b></p> <p>The Protected 24V I/P power was drawing too much current and had been temporarily shut down by the KVC. There was a problem with one of the devices or wires that connect to the Protected 24V I/P power supply on the KVC. The KVC has succeeded in resetting the electronic trip circuit and the fault appears to have gone away. For possible causes, refer to error 59 above.</p>	<p>To determine the severity of the fault, check how many of these errors have occurred and how frequently they have occurred; also check if this error is accompanied by error 59. For remedial actions, refer to error 59 above.</p>
93	PC0 (H)	<p><b>CAROUSEL DRIVER CHIP FAILED</b></p> <p>Currently unused.</p>	N/A.
94	PC0 (H)	<p><b>ANCILLARY DRIVER CHIP FAILED</b></p> <p>Currently unused.</p>	N/A.
95	Log	<p><b>CARBO NOT POWERED</b></p> <p>Currently unused.</p>	N/A.
97	Display	<p><b>NO 24V POWER</b></p> <p>There was no 24V power present when attempting an action that requires one or both of the Protected 24V I/P and Protected 24V O/P power supplies, e.g. splitting cups, moving the drum, moving the carousel, dispensing hot/cold/soda water. Possible causes are (1) the Protected 24V I/P and/or the Protected 24V O/P has either tripped-out or is in the process of tripping/retrying, (2) the Protected 24V I/P and/or the Protected 24V O/P has been turned off by a menu command, (3) the PSU 24V I/P and/or the PSU 24V O/P is not present. Any accidental loss of power will have been (or will soon be) notified by one or more of errors 57, 59, 89, 90 and 102.</p>	<p>If the reason for the loss of power is not known then check the PC0 and fault histories to find the error(s) that caused the loss of power (i.e. one or more of errors 57, 59, 89, 90 and 102). For remedial actions, refer to the appropriate error elsewhere in this table.</p>

## ERROR CODES KLIX OUTLOOK

No	LEVEL	FAULT & POSSIBLE CAUSE	ACTION
98	Log or System Reset (H)	<b>MDB DIED</b> The MDB link had been working and communicating with an MDB coinmech or cashless device but the link has since been broken. Possible causes are (1) the MDB coinmech or cashless system has been unplugged, (2) there is a wiring fault between the GVMC and the MDB device, (3) the MDB device has failed, (4) the GVMC has failed.	If the MDB link has failed unexpectedly then check / replace the wiring between the GVMC and the MDB payment system. Check / replace the MDB payment system. Check / replace the GVMC.
99	N/A	<b>SW E99</b> Currently unused.	N/A
100	Display	<b>SMS FAILED</b> If a Comtech or other GSM/GPRS modem is attached, the machine can be configured to send SMS alerts. The machine will attempt to send an SMS up to 5 times. If there is no success then this error is displayed if the door is open.	Check the antenna. In Configuration... Modem... check the Signal Strength. Re-site antenna or replace faulty SIM card.
101	Display	<b>EMAIL FAILED</b> If a Comtech or other GSM/GPRS modem is attached the machine can be configured to send email alerts and audits. The machine will attempt to send an email up to 5 times. If there is no success then this error is displayed if the door is open.	Check the antenna. In Configuration... Modem... check the Signal Strength. Re-site antenna or replace faulty SIM card.
102	PCO (S)	<b>PSU 24V TRIP - TURN MACHINE OFF-ON</b> The KVC has detected that both the 24V I/P and the 24V O/P power supplies from the PSU board are not present. This almost certainly means that the PSU has shut down its 24V power outputs due to a current overload (see Section <b>Error! Reference source not found.</b> ) Devices attached to the GVMC are the most likely cause of the overload, e.g. coinmech, cashless, printer, EVA-DTS, modem. (The overload is very unlikely to be caused by a device controlled by the KVC because the KVC's trip circuits are deliberately more sensitive than those on the PSU board and errors 57 and 59 would have been reported instead.) If the problem is a straightforward overload then LEDs D39 and D40 on the KVC will be off (or very dim) and the red LED on the PSU will also be off (or very dim). Possible causes are (1) there is a short-circuit wiring fault between the GVMC and one of its devices, (2) there is a short-circuit fault within one of the devices attached to the GVMC, (3) the PSU board is faulty, (4) the KVC is faulty, (5) there is a multiple wiring fault (either open-circuit or short circuit) between the PSU and the KVC, (6) there is a wiring fault between the KVC and the GVMC. N.B. if only one of the two 24V supplies disappears then errors 89 or 90 will be reported instead.	Check the state of LEDs D39 and D40 on the KVC. Check the state of the red LED on the PSU board. Turn the machine off and then on - if the error persists then turn off the machine and, one by one, disconnect all coinmechs, cashless systems, printers, EVA-DTS, modems etc. from the GVMC, powering-up the machine in-between to try to isolate the source of the fault. If this is not successful then disconnect the PSU-KVC loom at the PSU, power up the machine and check the red LED on the PSU - if it lights up then the fault is in the KVC or the PSU-KVC wiring or the KVC-GVMC wiring; if the red LED remains off then check / replace the PSU board (N.B. follow the safety instructions given in Section <b>Error! Reference source not found.</b> ).
103	PCO (H)	<b>CAROUSEL HOME NOT SEEN &lt;NN&gt;</b> Failed to detect the carousel home signal on stack "NN", either when trying to stop the carousel accurately on that stack or when checking that stack during an autotatum. Possible causes are (1) the carousel home detector on the Baseplate Sensor PCB is faulty, worn or dirty, (2) the home slot in the plastic carousel drive gear is blocked, (3) there is a wiring fault between the Baseplate Sensor PCB and the KVC.	Check the operation of the Baseplate Sensor PCB using its red LED and LED D33 on the KVC. Check / clean / replace the plastic carousel drive gear. Check / replace wiring between the Baseplate Sensor PCB and the KVC (P8-csel / drum sense).

## ERROR CODES KLIX OUTLOOK

No	LEVEL	FAULT & POSSIBLE CAUSE	ACTION
104	PCO (H)	<b>DRUM GRAY CODE SEQUENCE ERROR</b> The drum gray code position has changed, but not to a value that the KVC was expecting. Possible causes are (1) the drum gray code PCB is faulty, worn or dirty, (2) there is a wiring fault between the drum gray code PCB and the KVC.	Check / replace the drum gray code PCB. Check / replace the wiring between the drum gray code PCB and the KVC (P8-csel / drum sense).
105	PCO (H)	<b>SPLITTER ACTUATOR GRAY CODE ERROR</b> Splitter actuator gray code position sequence fault – the gray code position has changed, but not to a value that the KVC was expecting. Possible causes are (1) the actuator gray code detectors on the Baseplate Sensor PCB are faulty, worn or dirty, (2) there is a wiring fault between the Baseplate Sensor PCB and the KVC, (3) a replacement actuator motor is wired incorrectly, causing the actuator to be driven in the wrong direction.	Check the operation of the actuator system using the <b>Manual Control_Splitter</b> menus and LED's D34 (inner vane) and D35 (outer vane) on the KVC. Check / replace the wiring between the Baseplate Sensor PCB and the KVC (P7-splitters). Check the wiring on the motor. Check / replace the wiring between the motor and the KVC (P7-splitters). Check / replace the Baseplate Sensor PCB.
106	Log	<b>VEND FAILED, SOLD OUT STACK &lt;NN&gt;</b> A vend failed just prior to splitting a cup because the stack of cups appeared to be empty. The consumer interface would have been reset back to "ready" and any money would have been refunded. This is an unusual error because the stock level of each stack is checked during the carousel's autodatum and after every cup is split. Possible causes are (1) the ring gear for this stack was in the "split" position (rather than in the more usual "dropped" position) and only one cup was left in the stack – the cup-in-stack detector saw the cup's lid during the autodatum but when the stack dropped during priming, the cup and lid dropped clear of the detector, (2) when vending with the door open, the cups were removed from this stack sometime between the end of the autodatum and the start of the vend, (3) the cup-in-stack detector system is faulty or dirty and intermittently fails to sense that the stack is sold-out, (4) the opto's in the cup-in-stack detector system are misaligned and intermittently fail to sense that the stack is sold-out  N.B. this error will be accompanied by error 75 (and is intended to explain error 75 in more detail).	If the cause is not obviously (1) or (2) as described on the left then check the operation of the cup-in-stack detector using the <b>Manual Control_Splitter</b> menus and the green LED on the Baseplate Sensor PCB. Check that the opto transmitter loom on the sold-out support bracket is located correctly and is clean. Check that the sold-out support bracket is not loose or bent. Check that the opto transmitter loom is properly connected to the Baseplate Sensor PCB. Check / replace the wiring between the Baseplate Sensor PCB and the KVC (P7-splitters).
107	Log	<b>SW E107 Task:nn Id:nn</b> Internal operating system fault.	Note down Task and ID numbers and call Four Square Software Control Department.
108	N/A	<b>SW E108</b> Currently unused.	N/A
109	Log	<b>GVMC REPROGRAM ALL FLASH REQUEST</b> A request was made to reprogram all of the GVMC Flash.	None
110	Log	<b>CORE FLASH REPROGRAM REQUEST</b> A request was made to reprogram the core operating system modules of the GVMC.	None
111	Log	<b>APP FLASH REPROGRAM REQUEST</b> A request was made to reprogram the K365 application software in the GVMC.	None

## ERROR CODES KLIX OUTLOOK



No	LEVEL	FAULT & POSSIBLE CAUSE	ACTION
112	Log	<p><b>NVRAM CONFIG DRA LOADING</b>            A request was made to load the NVRAM configuration utility from a PC. This is used during manufacture to control the machine-specific and country-specific default settings.</p>	None
113	Log	<p><b>UNKNOWN DRA LOADING &lt;NN&gt;</b>            A request was made to load an unknown program onto the GVMC from a PC.</p>	Note the number in brackets and call Four Square Software Control Department.

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## ERROR CODES KLIX 1200/1250

### Klix 1200/1250 MK 5 Software version 4.13

1. Open door and slide out large paper decorative panel (located below coin entry chute) to reveal programming arrows.
 



2. Confirm that free/pay entry to mode. switch is turned to free (unlocked) to allow
3. Press down arrow ▼ 5 times to Button Selections:...
4. Press Right arrow ► to enter **Button Selections:...**  
**Button 1...**
5. Scroll down to first selection to be linked (indicated by Green L.E.D on active selection)
6. Press ► Right arrow to enter selection set up.
7. Scroll down ▼ once to **Stacks:...**
8. Press ► Right arrow, cursor will appear under stack letter, press ► cursor will move into empty space  
eg. A\_-----
9. Scroll ▲ or ▼ to select stack to be linked eg. AB----- or ABC-----  
View of selection panel as viewed from front of machine.

1 A	5 B	9 C	13 D
2 E	6 F	10 G	14 H
3 I	7 J	11 K	15 L
4 M	8 N	12 O	16 P

When all stacks to be linked have been programmed press  the enter button, a high pitched double bleep will be heard, this indicates that the programming has been successful, should a single dull sounding bleep be heard the programming has not been accepted. If the programming has been unsuccessful repeat steps 1-9 checking your actions.

10. All stacks that have been linked eg. **Button selection 1** ABC----- the programming must  
be repeated on all stacks chosen **Button selection 5** ABC-----  
**Button selection 9** ABC-----
11. Close machine door, task complete.

## ERROR CODES

### KLIX 1200/1250

1. Open machine door.
2. Pull out phone number label (top R/H corner of control panel) to Reveal programming arrows.



3. Press selection to be linked (stack will rotate to front)
4. Press selection button to be linked.
5. Press the same selection button 3 times to scroll down to **Stacks...**
6. As indicated Rock Free/Pay switch located at top R/H corner of door (from the inside) the small Green selection tick will illuminate.
7. Press other selections you would like to be linked, selection tick will "flash".  
Rock Free/Pay switch to lock linked stacks into memory, a high pitched double bleep will be heard, this indicates that the programming has been successful, should a single dull sounding bleep be heard the programming has not been accepted. If the programming has been unsuccessful repeat steps 1-7 checking your actions.
8. Close machine door, task complete.

## ERROR CODES KLIX 1200/1250

ERROR CODE	ERROR MESSAGE	CAUSE	ACTION
201	SYSTEM RESET	Software – GVMC EPROM damaged	Replace EPROM/GVMC
202	PLEASE CALL OPERATOR	Electrical / Static corruption damage of memory	Note down audit and configuration data then reset NVRAM (Contact Four Square)
203	SYSTEM RESET	Software – GVMC EPROM damaged	Replace EPROM/GVMC
204	SYSTEM RESET	Software – GVMC EPROM damaged	Replace EPROM/GVMC
205	SYSTEM RESET	Software – GVMC EPROM damaged	Replace EPROM/GVMC
206	SYSTEM RESET	Software – GVMC EPROM damaged	Replace EPROM/GVMC
207	SYSTEM RESET	Software – GVMC EPROM damaged	Replace EPROM/GVMC
208	SYSTEM RESET	Software – GVMC EPROM damaged	Replace EPROM/GVMC
209	SYSTEM RESET	Software – GVMC EPROM damaged	Replace EPROM/GVMC
210	LOG	Software Problem	None, unless problems reported with credit, then contact Four Square
211	LOG	Software or possible attempt to fraud system by removing Klixkey before the credit is removed from the key.	None, unless problems reported with change, then contact Four Square
212	SYSTEM RESET	Manual reset of NVRAM or system thought NVRAM was blank, all data set to default, all prices set to 99.99	If manual reset no action to be taken, if automatic reset, reprogram machine, prices, button selections and configuration.

## ERROR CODES KLIX 1200/1250

ERROR CODE	ERROR MESSAGE	CAUSE	ACTION
213	PLEASE CALL OPERATOR	Coin reject motor failure or jammed/failed microswitch.	Check cam motor and microswitch.
214	SYSTEM RESET	Software – GVMC EPROM damaged	Replace EPROM/GVMC
215	LOG	Software – GVMC EPROM damaged.	Check Klixkey Blacklist
216	SYSTEM RESET	Software – GVMC EPROM damaged	Replace EPROM/GVMC
217	SYSTEM RESET	Software, KVC or ribbon cable	Replace GVMC, KVC or ribbon cable between GVMC and KVC
218	SYSTEM RESET	Software, KVC or ribbon cable	Replace GVMC, KVC or ribbon cable between GVMC and KVC
219	SYSTEM RESET	KVC or ribbon cable	Replace ribbon cable or between KVC / GVMC or the KVC
220	SYSTEM RESET	Software – GVMC EPROM damaged	Replace EPROM/GVMC
221	LOG	Failed / dirty Keyceptical or non Klixkey inserted.	Check/replace keyceptical if Klixkey is not working
222	PLEASE CALL OPERATOR	DRIP TRAY OR WASTE BUCKET SWITCHES NOT MADE.	CHECK/REPLACE DRIP TRAY OR WASTE BUCKET
223	PLEASE CALL OPERATOR	Carousel edge detect pcb faulty or worn carousel gearing.	Check/replace edge detect pcb, check carousel gearing is not slack or loose.
224	PLEASE CALL OPERATOR	Carousel Gray code pcb faulty or carousel jammed.	Check/remove any carousel jam, check/replace Gray code pcb
225	PLEASE CALL OPERATOR	Drum not present, drum jam, drum not in position, drum Gray code pcb faulty.	Check drum position, check drum Gray code operation in manual control.

## ERROR CODES KLIX 1200/1250

ERROR CODE	ERROR MESSAGE	CAUSE	ACTION
226	PLEASE CALL OPERATOR	Drum Gray code faulty or damaged outer ring gear on top of drum.	Check/replace drum or drum Gray code pcb.
227	PLEASE CALL OPERATOR OR LOG	Splitter jammed, Splitter motor or splitter microswitch fault	Check for obstructions, test splitters in manual control.
228	PLEASE CALL OPERATOR OR LOG	Splitter jammed, Splitter motor or splitter microswitch fault	Check for obstructions, test splitters in manual control.
229	PLEASE CALL OPERATOR	Sugar motor or microswitch failure	Check motor and microswitch.
230	PLEASE CALL OPERATOR	<b>NO MAINS WATER PRESSURE, or</b> failed flow meter.	<b>CHECK WATER PRESSURE,</b> check/replace flow meter.
231	PLEASE CALL OPERATOR	No mains water pressure, failed tank level microswitch, hot tank drained with power on.	Switch machine ON/OFF check water supply, inlet valve, float switch.
232	PLEASE CALL OPERATOR	Electrical short circuit on KVC outputs.	Switch machine ON/OFF check when fault occurs, check appropriate looms.
233	SYSTEM RESET	Software – GVMC EPROM damaged	Replace EPROM/GVMC
234	LOG	Snack vendor not turned on, interface cable not connected	Check snack vendor and interface cable.
235	LOG	Snack vendor not turned on, interface cable not connected	Check snack vendor and interface cable.
237	PLEASE CALL OPERATOR	Tank heater element failed	REPLACE HEATER ELEMENT
238	PLEASE CALL OPERATOR	Cup or other object left in drum or cup detect sensor dirty or failed.	Check/remove cup or object from drum, test cup sensor.

## ERROR CODES KLIX 1200/1250

ERROR CODE	ERROR MESSAGE	CAUSE	ACTION
<b>239</b>	<b>PLEASE CALL OPERATOR</b>	MS1400 fault	Replace MS1400 coin mech.
<b>240</b>	<b>LOG</b>	Attempt made to manually format a Klixkey but Klixkey not inserted.	Insert Klixkey and turn.
<b>241</b>	<b>PLEASE CALL OPERATOR</b>	<b>CASHBOX OVERFLOWING</b>	<b>EMPTY CASHBOX</b>
<b>242</b>	<b>SYSTEM RESET</b>	Fault in MDB interface between GVMC and Cahflow	Check/replace MDB loom, Cashflow coinmech or GVMC
<b>243</b>	<b>SYSTEM RESET</b>	Fault in MDB interface between GVMC and Cahflow	Check/replace MDB loom, Cashflow coinmech or GVMC
<b>244</b>	<b>SYSTEM RESET</b>	Fault in MDB interface between GVMC and Cashflow	Check/replace MDB loom, Cashflow coinmech or GVMC
<b>245</b>	<b>SYSTEM RESET</b>	Fault in MDB interface between GVMC and Cahflow	Check/replace MDB loom, Cashflow coinmech or GVMC
<b>246</b>	<b>SYSTEM RESET</b>	Fault in MDB interface between GVMC and Cahflow	Check/replace MDB loom, Cashflow coinmech or GVMC
<b>247</b>	<b>LOG</b>	Fault in MDB interface between GVMC and Cahflow	Check/replace MDB loom, Cashflow coinmech or GVMC
<b>248</b>	<b>SYSTEM RESET</b>	Device reset, not clearing device fault.	NO ACTION REQUIRED.
<b>249</b>	<b>PLEASE CALL OPERATOR</b>	Carousel jammed or drive gear broken.	Check for jam or problem with Carousel drive gear.
<b>250</b>	<b>PLEASE CALL OPERATOR</b>	The software versions of the GVMC, EPROM'S and KVC are not compatible.	Check with Four Square and obtain up to date and compatible EPROMS.
<b>251</b>	<b>LOG</b>	Attempt made to use a non 4K Datakey to create a set up key, attempt made to copy a non-set up Klixkey.	USE A 4K KLIX DATAKEY

## ERROR CODES KLIX 900/950

ERROR CODE	ERROR MESSAGE	CAUSE	ACTION
<b>91</b>	<b>SYSTEM RESET</b>	Software - failed to find all the required software within the EPROM. Damaged EPROM/GVMC	Replace EPROM / GVMC
<b>92</b>	<b>PLEASE CALL OPERATOR</b>	NVRAM (memory) data damaged or corrupt or flat GVMC battery	Fix NVRAM in Tech mode, check battery is not flat.
<b>93</b>	<b>LOG</b>	NVRAM - Part of the data was corrupt	None - the software has repaired the corrupted data
<b>96</b>	<b>SYSTEM RESET</b>	Software - internal operating system error, not programmed correctly	Replace EPROM OR GVMC
<b>97</b>	<b>SYSTEM RESET</b>	Software - internal operating system error, not programmed correctly	Replace EPROM OR GVMC
<b>98</b>	<b>SYSTEM RESET</b>	Software failed, busy communications between LCD, Coin mech, cashless system, Klixkey.	Check all peripherals stated are working correctly. Replace EPROM/GVMC
<b>99</b>	<b>SYSTEM RESET</b>	Software failed to read message from operating system. EPROM/GVMC not programmed correctly.	Replace EPROM / GVMC
<b>910</b>	<b>LOG</b>	Software - Credit fault	None - unless site reports credit problems, in which case contact Four Square.
<b>911</b>	<b>LOG</b>	Software failed to debit cash from a payment system.	None - unless site reports problems with change giving in which case contact Four Square.

## ERROR CODES KLIX 900/950

ERROR CODE	ERROR MESSAGE	CAUSE	ACTION
912	PLEASE CALL OPERATOR	Software thinks NVRAM (memory) is blank, all data settings will return to default, all prices will go to £99.99	If system was automatic, contact Four Square. All settings will need to be reset to sites own configuration, prices etc.
913	PLEASE CALL OPERATOR	Should never be seen unless wrong software fitted	Check software is correct for machine
914	SYSTEM RESET	Software failed, operating system error	Replace EPROM / GVMC
915	LOG	Software failed to update Klixkey blacklist	Check Klixkey blacklist
917	SYSTEM RESET	Software - internal operating system error, GVMC not programmed correctly	Replace EPROM OR GVMC
918	SYSTEM RESET	Software - internal operating system error, GVMC not programmed correctly	Replace EPROM OR GVMC
919	DEVICE RESET	Communication link between GVMC & KVC circuit boards not working.	Check all looms and connections between boards, check the KVC "heartbeat" is flashing Replace KVC / GVMC
920	SYSTEM RESET	Software - internal operating system error, GVMC not programmed correctly	Replace EPROM OR GVMC
922	PLEASE CALL OPERATOR	Inhibit line broken, waste switches not made	Check drip tray, bucket are in place correctly, or their switches are working
923	PLEASE CALL OPERATOR	Failed to stop carousel at home position	Check carousel drive, motor, spindle and gear ring are meshed with no slack. Adjust or replace worn components

## ERROR CODES KLIX 900/950

ERROR CODE	ERROR MESSAGE	CAUSE	ACTION
924	PLEASE CALL OPERATOR	Carousel Gray code sequence fault. Board position moved, dirty, or faulty	Check Gray code board sequence in manual control, clean or replace board.
925	PLEASE CALL OPERATOR	Drum jammed, cups jammed, worn components	Check first for physical obstructions, check drum gears, motor condition, replace if needed.
926	PLEASE CALL OPERATOR	Failed to stop drum at home position	Check drum drive gearing is not slack (REPLACE MOTOR) Check drum home signal is working.
927	PLEASE CALL OPERATOR or LOG	Splitters jammed, Damaged or telescoped cups, faulty splitters	Check cup stacks for damaged telescoped cups, check splitters in manual control, adjust replace if required
928	PLEASE CALL OPERATOR	Failed to stop splitters at their home position, Loose splitter motor cam or faulty microswitch	Check splitter operation in manual control, replace if required. Replace splitters in pairs only
929	PLEASE CALL OPERATOR	Sugar module error	Check that sugar module is "not fitted" in configuration mode
930	LOG	Cold water dispense failed (IMI chillers only)	Check water is turned on, Low water pressure, Check configuration correct chiller configured, faulty inlet valve or wiring
931	PLEASE CALL OPERATOR	Hot tank failed to fill	Check water is turned on, water pressure is good, check hot tank float and microswitches.
932	DISPLAY	Splitters not home, may have jammed on a stack of cups	Check and clear any obstructions from splitters and cup tubes, Use manual control to test.

## ERROR CODES KLIX 900/950

ERROR CODE	ERROR MESSAGE	CAUSE	ACTION
<b>933</b>	<b>SYSTEM RESET</b>	Software fault - internal operating system error. EPROM/GVMC not programmed correctly	Replace EPROM / GVMC
<b>934</b>	<b>DISPLAY</b>	The carousel is not at home when attempting to split a cup from the manual control menu	Home carousel before attempting further actions, to protect the splitters the splitters will not operate if the carousel is not in the home position.
<b>935</b>	<b>SYSTEM RESET</b>	Software - Internal operating system error	Replace EPROM / GVMC
<b>937</b>	<b>PLEASE CALL OPERATOR</b>	Hot water tank failed to heat up in the required time. Heater element failed, thermostat failed, heater element scaled up.	Test/Replace Heater element. Test/Replace Thermostat. Descale hot tank. Test tank microswitches and wiring
<b>941</b>	<b>COIN BOX FULL</b>	Coin box is full of money	Empty coin box.
<b>942</b>	<b>PLEASE CALL OPERATOR</b>	Hot tank failed to fill	Check water is turned on, water pressure is good, check hot tank float and microswitches.
<b>943</b>	<b>DISPLAY</b>	Splitters not home, may have jammed on a stack of cups	Check and clear any obstructions from splitters and cup tubes, use manual control to test
<b>944</b>	<b>SYSTEM RESET</b>	Software fault - internal operating system error. EPROM/GVMC not programmed correctly	Replace EPROM / GVMC
<b>945</b>	<b>DISPLAY</b>	The carousel is not at home when attempting to split a cup from the manual control menu	Home carousel before attempting further actions, to protect the splitters the splitters will not operate if the carousel is not in the home position.

## ERROR CODES KLIX 900/950

ERROR CODE	ERROR MESSAGE	CAUSE	ACTION
946	SYSTEM RESET	Software - Internal operating system error	Replace EPROM / GVMC
947	SYSTEM RESET	Software - Internal operating system error	Replace EPROM / GVMC
948	SYSTEM RESET	Software - Internal operating system error	Replace EPROM / GVMC
949	PLEASE CALL OPERATOR	Carousel appears to have jammed, possible obstruction or Gray code fault.	Check/clear any obstructions, check Gray code operation in manual control, replace if required.
950	PLEASE CALL OPERATOR	Software on Eprom, GVMC and KVC circuit boards are not compatible.	Check software compatibility in technical manual, change if required.
951	DISPLAY	Problem with inserted Datakey	Check correct setup key is being used (4K)
952	DISPLAY	The audit print out of the printer has failed, printer not connected, printer memory busy.	Check all printer connections, check/replace printer cable or printer
953	DISPLAY	Unexpected error on Klix 900 as no Carbo unit available	Confirm "Carbo" unit configuration is set to "None"
954	DISPLAY	Unexpected error on Klix 900 as no Carbo unit available	Confirm "Carbo" unit configuration is set to "None"
955	DISPLAY	Unexpected error on Klix 900 as no Carbo unit available	Confirm "Carbo" unit configuration is set to "None"
957	PLEASE CALL OPERATOR	The protected 24v 0/P power drawing too much power, persistent fault unable to auto reset.	Check for short circuits and failed devices.
958	PLEASE CALL OPERATOR	Drum not detected, drum may not be secured, drum detect pcb worn or dirty.	Replace/secure drum, clean/replace cup detect pcb or wiring.

## ERROR CODES KLIX 900/950

ERROR CODE	ERROR MESSAGE	CAUSE	ACTION
<b>960</b>	<b>PLEASE CALL OPERATOR</b>	Machine set to pay vend when one or more selections has a value but no payment system configured.	Set machine to free vend or configure a payment system.
<b>961</b>	<b>LOG</b>	Machine "Watchdog" has reset the KVC, the machine has fully recovered, so this is a warning message.	If machine is working ok, take no action, check heartbeat, check heartbeat. If there are errors on machine, replace the KVC.
<b>962</b>	<b>LOG</b>	Machine microprocessor has reprogrammed the KVC, the machine has fully recovered so this is a notification.	If machine is working ok, take no action, check heartbeat, check heartbeat. If there are errors on machine, replace the KVC.
<b>963</b>	<b>PLEASE CALL OPERATOR</b>	The KVC is unavailable for vending, KVC being programmed or not programmed correctly.	If the KVC is being reprogrammed by the machine take no action. If errors 919, 948 check heartbeat, check replace KVC.
<b>964</b>	<b>PLEASE CALL OPERATOR</b>	Drum Gray cade pcb is not engaged with the drum drive gear, drum not replaced correctly, drum Gray code pcb not in position.	Check drum is fitted correctly and nut is secure, check Gray code pcb is fitted correctly.
<b>969</b>	<b>PLEASE CALL OPERATOR</b>	Drum Gray cade pcb is not engaged with the drum drive gear, drum not replaced correctly, drum Gray code pcb not in position.	Check drum is fitted correctly and nut is secure, check Gray code pcb is fitted correctly.

## ERROR CODES KLIX 900/950

ERROR CODE	ERROR MESSAGE	CAUSE	ACTION
970	PLEASE CALL OPERATOR	Carousel Gray code pcb is not powered, connections on Gray code pcb or KVC loose.	Check Carousel Gray code pcb is correctly fitted and connected, check KVC connections.
971	PLEASE CALL OPERATOR	Carousel Gray code is detecting a value that is not valid, faulty Gray code pcb or wiring	Check / replace Carousel Gray code pcb or wiring.
984	LOG	Electrical failure between chiller and KVC	Check all chiller and KVC connections, check chiller flush switch is operational.
985	PLEASE CALL OPERATOR	Chiller has been flushing for too long and has shut down.	If flushing chiller, close and open door to reset (release flush switch at least once a minute) check flush switch is not stuck, check chiller wiring.
989	PLEASE CALL OPERATOR	KVC has detected 24v I/P from power supply is not present.	Check fuse F5 (1A) check power supply is working, check power supply to KVC and wiring, check 39v transformer.
990	PLEASE CALL OPERATOR	KVC has detected 24v O/P from power supply is not present.	Check fuse F5 (1A) check power supply is working, check power supply to KVC and wiring, check 39v transformer.
991	LOG	The protected 24v O/P was drawing too much current and has temporarily shut down, there was a problem with a device connected to the 24v O/P supply.	The KVC has reset the system and the fault appears to have gone away, if the machine is operational no action is required.
992	LOG	The protected 24v I/P was drawing too much current and has temporarily shut down, there was a problem with a device connected to the 24v I/P supply.	The KVC has reset the system and the fault appears to have gone away, if the machine is operational no action is required.
997	DISPLAY	There was no 24v power present when attempting a menu command, protected 24v I/P or O/P tripped or turned off	Check Fault Log for cause of power loss and remedial action.

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## ERROR CODES KLIX 450/650

ERROR CODE	ERROR MESSAGE	CAUSE	ACTION
41	SYSTEM RESET	Software-GVMC EPROM damaged	Replace EPROM/GVMC
42	PLEASE CALL OPERATOR	<b>ELECTRICAL STATIC CORRUPTION OR DAMAGE</b>	Note down relevant audit data and configuration details. Reset NVRAM (memory reset) Contact Four Square for details on how to do this.
43	LOG	AS ABOVE	None - software has repaired the corrupted data.
44	SYSTEM RESET	Software - GVMC/ EPROM damaged	Replace EPROM/GVMC
45	SYSTEM RESET	Software - GVMC/ EPROM damaged	Replace EPROM/GVMC
46	SYSTEM RESET	Software - GVMC/ EPROM damaged	Replace EPROM/GVMC
47	SYSTEM RESET	Software - GVMC/ EPROM damaged	Replace EPROM/GVMC
48	SYSTEM RESET	Software has slowed down too much	Check devices eg. Klixkey and coinmech
49	SYSTEM RESET	Software has slowed down too much	Check devices eg. Klixkey and coinmech
410	LOG	Software problem	None, unless site reports problems with credit-in which case contact Four Square
411	LOG	Software or possible attempt to fraud system by trying to remove Klixkey before credit is removed from the key	None, unless site reports problems with credit-in which case contact Four Square

## ERROR CODES KLIX 450/650

ERROR CODE	ERROR MESSAGE	CAUSE	ACTION
412	LOG	Software thinks NVRAM (memory) is blank, all data settings will return to default, all prices will go to £99.99	If system was automatic, contact Four Square. All settings will need to be reset to sites own configuration, prices etc.
413	PLEASE CALL OPERATOR	Coin reset motor failure, motor jam or failed microswitch.	Check coin microswitch cam, motor and the microswitch.
415	LOG	Software-GVMC, EPROM damaged	Check Klixkey blacklist
420	SYSTEM RESET	Software-GVMC, EPROM damaged	Replace GVMC/EPROM.
421	LOG	Failed/dirty Klixkey keycepticle or non Klixkey inserted into keycepticle (eg.Car key)	Check/replace Klixkey keycepticle if Klixkey is not working at all.
422	PLEASE CALL OPERATOR	Inhibit line not made	Check Drip tray and Water is turned on,
423	PLEASE CALL OPERATOR	Machine has tried to move transfer arm but the carousel is not in home position	Check carousel STROBE microswitch and Carousel motor brake
424	PLEASE CALL OPERATOR	Carousel Geneva position switches fault	Check replace Geneva switches (use Manual control to test)
425	PLEASE CALL OPERATOR	Transfer arm cam did not make a full turn, it may be jammed or have a faulty microswitch	Check for obstructions, check operations of cam and microswitch (use Manual control to test)
426	PLEASE CALL OPERATOR	Transfer arm cam fault, or faulty loom	Check/replace control cam
428	PLEASE CALL OPERATOR or LOG	An attempt was made to move a motor when the machine door was open	Use TECH MODE to reset and test Carousel and Splitters

## ERROR CODES KLIX 450/650

ERROR CODE	ERROR MESSAGE	CAUSE	ACTION
430	PLEASE CALL OPERATOR	As Cold water is a timed output, there is no way of detecting this Error fault currently.	Check message again
431	PLEASE CALL OPERATOR	As Hot water is a timed output, there is no way of detecting this fault currently.	Check message again
433	SYSTEM RESET	Software - GVMC, EPROM damaged	Replace GVMC/EPROM
437	PLEASE CALL OPERATOR	Hot tank failed to heat, water problem, scale problem or element/thermostat fault.	Check water is turned on, test element and thermostat.
438	PLEASE CALL OPERATOR	Cup or object left in transfer arm, cup opto's dirty or faulty	Check, remove cup/object from transfer arm. Clean or replace cup opto's.
440	LOG	Attempt made to manually format a Klixkey, but Klixkey not inserted.	Insert Klixkey, try again
441	PLEASE CALL OPERATOR	<b>Coinbox overflowing</b>	<b>Empty coinbox</b>
442	SYSTEM RESET	Fault in coinmech interface between GVMC and coinmech	Check replace coinmech loom, coinmech or GVMC
443	SYSTEM RESET	Fault in coinmech interface between GVMC and coinmech	Check replace coinmech loom, coinmech or GVMC
444	SYSTEM RESET	Fault in coinmech interface between GVMC and coinmech	Check replace coinmech loom, coinmech or GVMC
445	SYSTEM RESET	Fault in coinmech interface between GVMC and coinmech	Check replace coinmech loom, coinmech or GVMC
446	SYSTEM RESET	<b>Fault in coinmech interface between GVMC and coinmech</b>	Check replace coinmech loom, coinmech or GVMC

## ERROR CODES KLIX 450/650

<b>ERROR CODE</b>	<b>ERROR MESSAGE</b>	<b>CAUSE</b>	<b>ACTION</b>
<b>447</b>	<b>LOG</b>	Fault in coinmech interface between GVMC and coinmech	Check replace coinmech loom, coinmech or GVMC
<b>448</b>	<b>SYSTEM RESET</b>	Device reset not clearing device fault	No Action
<b>449</b>	<b>PLEASE CALL OPERATOR</b>	Carousel jammed or Carousel gearing broken	Check for cause of jam or problem with carousel drive gear
<b>451</b>	<b>LOG</b>	Attempt to use a non-4k Datakey to create set up key, Attempt to copy a non-set up key.	Use a 4K Datakey
<b>452</b>	<b>LOG</b>	Printer not connected or failed.	Check connections.

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