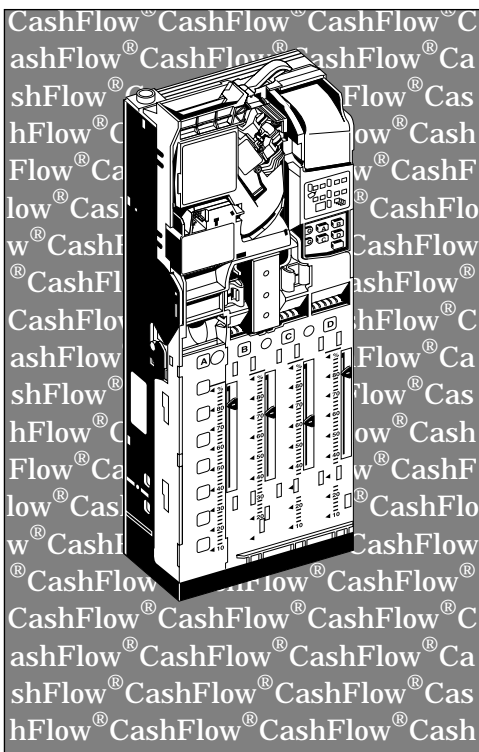


The
CASHFLOW 560
REFERENCE SERIES
CHANGE GIVER
POCKET GUIDE

**ROUTINE MAINTENANCE,
SAFETY, INSTALLATION &
TROUBLESHOOTING**



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CashFlow® 560 change giver Pocket Guide

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WARNING

Before cleaning, servicing, removing or replacing CashFlow® units, **ALWAYS SWITCH OFF** or **ISOLATE** the **ELECTRICITY SUPPLY** to the host machine.

CAUTION

This guide is for use only by personnel trained to carry out electrical installation.

Maximum Operating Voltage

Do not apply more than the voltage specified on the unit.

Dangerous Environments

Do not operate the unit in the presence of flammable gases or fumes, or after the entry of fluid into the machine.

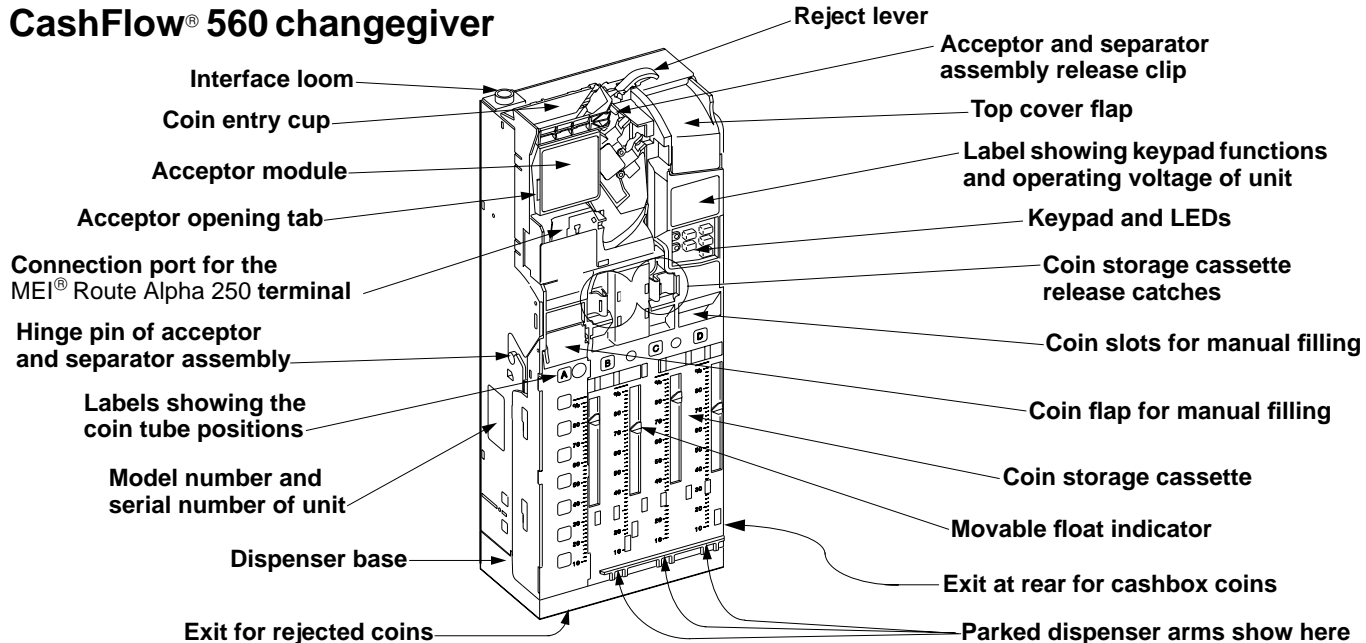
Disposal of Product

If necessary, always dispose of defective units according to local regulations.

Conformance to International Standards

When installed and operated according to the instructions provided for the particular unit, CashFlow® products meet the applicable international and national Safety and Electro Mechanical Conformance standards for any country in which they are used.

CashFlow® 560 changegiver

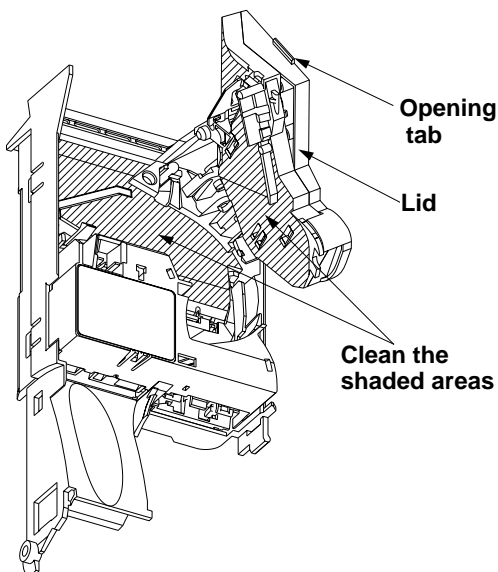


Routine Maintenance

WARNING

Switch off the power to the host machine *before* cleaning the unit

Clean the coin pathway (shown shaded in the figure) regularly with a soft cloth moistened with water. Take care that all the surfaces are dry before you close the lid of the unit, particularly if you have had to clean the unit after the entry of dirt or fluid.



Take care that no drops of water enter the unit during cleaning.

Never use solvents or abrasive creams to clean the unit. These will damage the surfaces. Ensure that the lid is fully closed after cleaning.

NOTE: If you switch the machine on when the lid of the acceptor unit is not fully closed, coins will be rejected, even if you then close the lid.

If this happens, **switch off the power to the machine for at least 15 seconds**, then close the lid again. Make sure the lid snaps shut.

Switch the power on. Check that coins are accepted.

Cleaning the Dispenser Arms

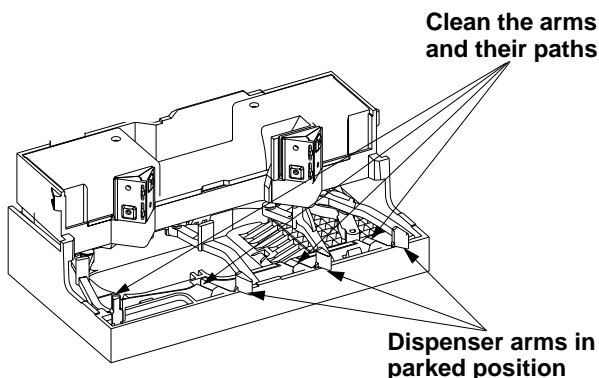
Switch off the power to the host machine *before* cleaning the unit

Squeeze together the two release catches of the coin storage cassette and lift out the cassette.

Clean the dispenser arms and their paths in the dispenser base with a soft cloth moistened with water.

Switch on power to the machine, press the yellow Mode button twice to park the dispenser arms, and replace the coin cassette.

Check that the two release catches snap shut.



You should only **remove** the dispenser and the dispenser arms for cleaning if there is a heavy build up of dirt or other matter in the dispenser.

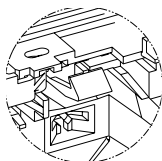
Always refer to the ***Product Maintenance Handbook*** before removing these parts.

Checking and Replacing a Fuse

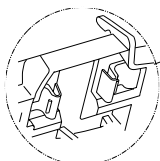
Switch off the power to the host machine *before* checking a fuse

Squeeze together the two release catches of the coin storage cassette and lift out the cassette.

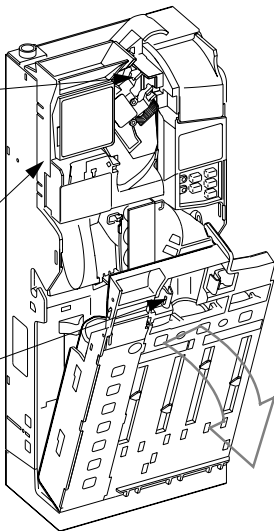
Acceptor release catch



Fuse box cover is located behind acceptor



Coin cassette release catches



Press down the blue release catch above the acceptor with a small screwdriver. Pull the top of the acceptor forward and downwards. Unplug the exposed ribbon cable and lift out the acceptor.

The fuses are under a cover in the left hand side of the unit.

Always replace a blown fuse with one of the same rating.

Replace the acceptor, reconnect the ribbon cable and press the acceptor into place.

Park the dispenser arms and replace the coin cassette.

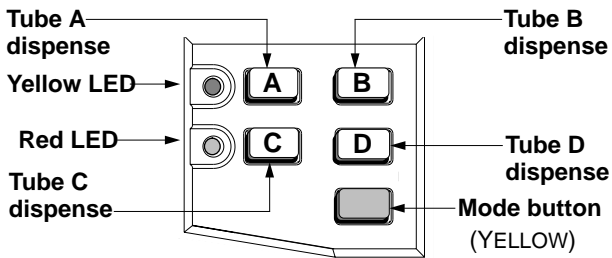
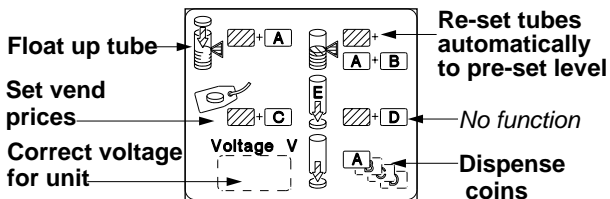
Make sure that the release catches of the acceptor and of the cassette snap shut firmly.

Switch on power to the machine. Check that the red LED comes on.

Using the Keypad

Use the keypad to park the dispenser arms, dispense coins, set prices, float the coin tubes up or down, and to re-set the tube counts to their pre-set levels.

The keypad label summarises keypad functions.



Function	Buttons
Dispense coins from tubes ▲	A , B , C or D ▲
Park the dispenser arms	[Hatched] + [Hatched]
Float up tubes automatically	[Hatched] + A
Float down tube automatically	[Hatched] + A + C
Reset tubes to pre-set levels★	[Hatched] + A + B ★
Set the vend prices ◆	[Hatched] + C ◆
Cancel the accumulated credit	[Hatched] + A + A

▲ Not applicable with BDV product.

★ If an audit FEM is fitted, **Mode+A+B** is *not* available to reset tubes to pre-set levels.

◆ Not applicable with MDB or Executive product.

Using the Keypad

Dispense Coins / Empty Tubes

 **A**,  **B**,  **C** or  **D**

Press a button once to dispense a coin from a corresponding tube. If you press and hold for more than three seconds, coins are dispensed automatically until only a sufficient minimum (the *safe count*) are left to operate the dispense mechanism. To empty a tube or a cassette, you may have to take out the last coins by hand.

Float-Up Tube Counts Automatically

 +  **A**

Press the buttons, then feed tube coins through the acceptor to refill the tubes to their pre-set float level. When float levels are reached, further coins are rejected. If automatic float is left by pressing **B**, tube counts re-set to pre-programmed float levels.

Re-set the Tube Counts

 +  **A** +  **B** ★

Press the buttons to force tube counts to re-set to pre-set float levels. If there are not enough tube coins to meet the pre-set levels, coin counts remain incorrect until recalibration takes place. ★ *If an audit FEM is fitted, reset via **Mode+A+B** is **not** available.*

Automatic Float Down to Pre-set Levels

 +  **A** +  **C**

If the unit is programmed for this function, press the buttons to dispense coins until tube counts reach their pre-set float levels. If the numbers of coins already in the tubes are equal to or below the float levels, no coins are dispensed.

Set the Vend Prices

 +  **C** ◆

Press the buttons. Insert coins equal to the lowest price. Make a selection. A 45-second time-out starts after each coin. *More selections at the same price can be made without inserting extra coins.*

Add coins for the next highest price, and make a selection. Continue until all prices are set. Press **C** to cancel credit and to exit price teach.

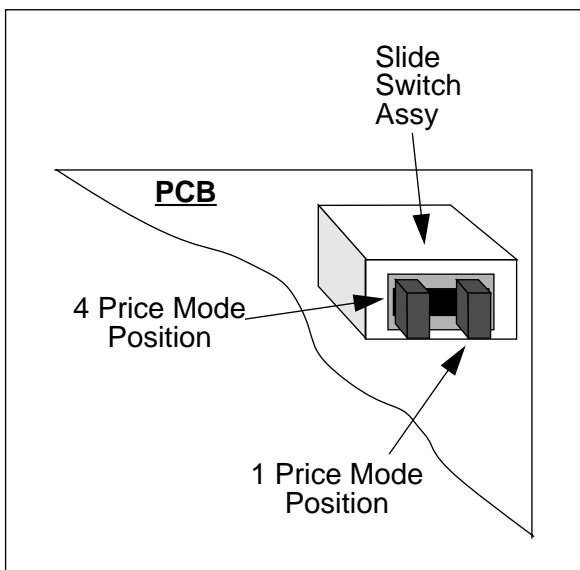
◆ Not applicable with MDB or Executive product.

4 PRICE/1 PRICE MODE SWITCH

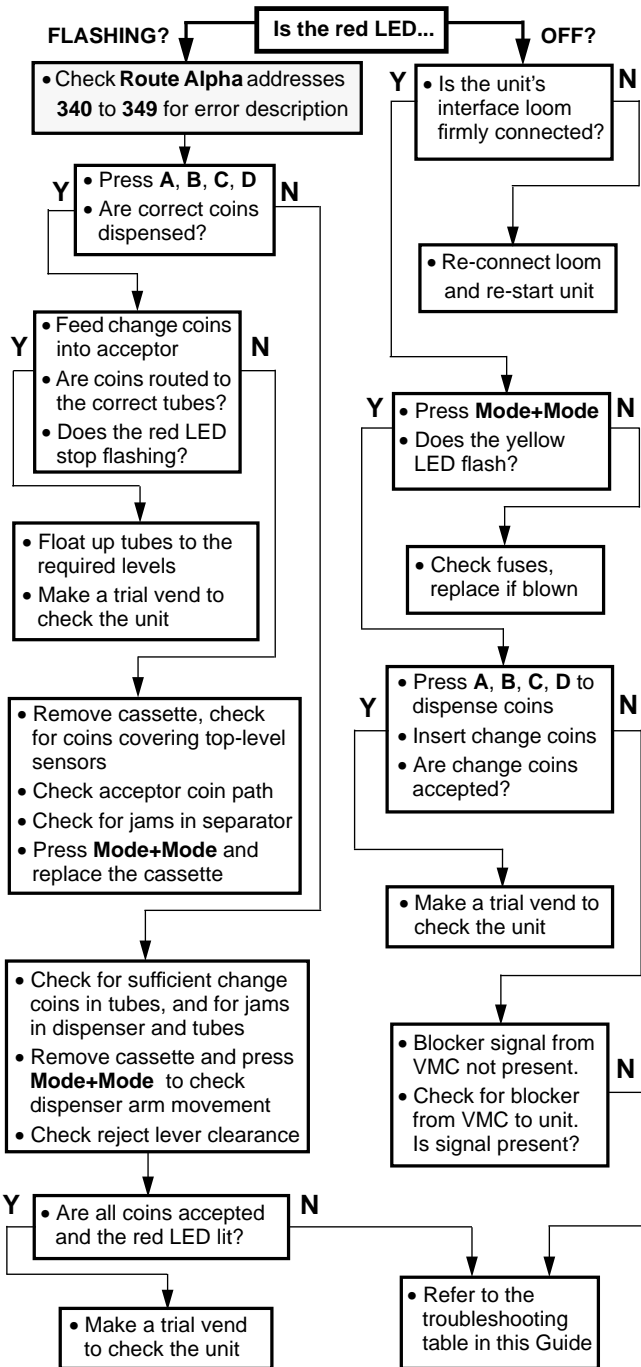
(Multi-Interface MDB Product only)

The multi-Interface product offers a mode switch which, in electro-mechanical operation, allows a 4 price product fitted with a T4 loom to be used in place of a 1 price product fitted with a T3 loom.

The mode switch is located behind the top flap of the keypad cover and is of the slide type. If the switch is to the left the product will be in 4 price mode and if it is to the right the product will be in the 1 price mode.



Troubleshooting the CashFlow® Unit



Troubleshooting the CashFlow® Unit

Problem	Causes	Actions
No coins accepted	<p>Blocked accept gate opto's, or build up of dirt in the unit</p> <p>Power loom not inserted correctly</p>	<p>Switch off power to machine, check if the opto's are blocked, and clean the unit. Refer to the <i>Product Maintenance Handbook</i>'s cleaning section before cleaning the opto's.</p> <p>Switch off power to the machine, and check the loom.</p>
Poor coin acceptance	<p>Change giver unit is not level</p> <p>Modules are not mounted and aligned correctly</p> <p>Build-up of dirt in the acceptor</p>	<p>Check and re-level the unit if necessary.</p> <p>Check that the coin entry and exit chutes of the machine are aligned with the coin entry cup on the unit and the cashbox on the machine.</p> <p>Adjust the modules until they are aligned accurately.</p> <p>Switch off power to machine, check and clean acceptor.</p>
Coins are accepted but no credit is given	<p>Power loom is not inserted correctly</p> <p>Coin jam in the separator module (<i>post gate strobes are covered</i>)</p> <p>Accept gate strobes mechanism blocked or dirty</p>	<p>Switch off power to the machine, and check the loom.</p> <p>Switch off power to the machine, and check the separator for jams.</p> <p>Refer to the <i>Product Maintenance Handbook</i> before attempting to clean the strobes or the opto's.</p>

Problem	Causes	Actions
<p>Unit rejects one type of coin or token</p> <p><u>N.B.</u> With MDB applications the coin mechanism is controlled by the vending machine controller.</p>	<p>Coin or token is inhibited</p> <p>Coin or token is damaged or worn</p> <p>A tube has reached pre-set float level, further coins are rejected because the unit is in <i>float mode</i></p>	<p>Check the coin/token is in the coin set, and has been enabled. Use the Route Alpha 250 terminal to enable the coin</p> <p>Discard the worn or damaged coin/token.</p> <p>Press A to leave <i>float mode</i> and to clear any credit.</p> <p>Check the tube levels, then make a vend to check that the correct change is dispensed.</p>
<p>Coins are not routing correctly</p>	<p>The level of coins in a tube is covering a top-level sensor</p> <p>The top-level sensor loom or the separator loom is not connected correctly</p> <p>Wrong acceptor or separator is fitted</p> <p>A tube is disabled</p>	<p>Check tube counts. If they are above the pre-set float levels and automatic tube inventory is set, press Mode+A+C to float-down the coins in the tubes.</p> <p>Switch off the power, remove the cassette and release the acceptor. Check that the top-level sensor and separator looms are fitted correctly. Replace the acceptor and cassette. Switch on power to the unit, insert coins and check routing.</p> <p>Check that the acceptor and separator are the correct versions. Refer to your authorised MEI distributor.</p> <p>Use the Route Alpha 250 terminal to enable the tube.</p>

Problem	Causes	Actions
<p>High-value coins are rejected and exact change light is ON</p>	<p>Too few coins in the change tubes, leaving the low-level sensors uncovered</p> <p>Unit is in <i>No overpay</i> mode. N.B. Does not apply to MDB applications</p>	<p>Re-float the coin tubes through the acceptor until the low-level sensor mirrors are covered.</p> <p>Check Route Alpha 250 address 242.</p>
<p>Incorrect change is dispensed</p>	<p>Insufficient change coins are available</p> <p>Incorrect coin values are set. Incorrect prices are set for required selections. N.B. Price control is held in the vending machine in MDB applications, and are <u>normally</u> held in the vending machine in Executive and BDV applications.</p>	<p>If required, float up through acceptor with correct change coins.</p> <p>Check coin values and prices, reset if necessary using the Route Alpha 250 terminal. Press A, B, C and D to check if change coins are dispensed.</p> <p>Check that coins are being routed to the tubes correctly.</p>

Problem	Causes	Actions
No coins are dispensed	<p>Levels of coins in the tubes are below the safe count</p> <p>Dispenser loom not connected, or loose</p> <p>Faulty dispenser module</p>	<p>Check that change coins are available in the tubes. If necessary, float up the tubes with the correct change coins.</p> <p>Switch off power to the machine and check that the dispenser loom is fitted correctly. Refer to the <i>Product Maintenance Handbook</i>.</p> <p>Check that the dispenser module is operating correctly. Refer to <i>Maintenance Handbook's</i> module replacement section before you attempt to service or to replace the dispenser.</p>
Red LED is ON, except when a vend is made	Normal operation	No action
Red LED is ON but coins are not accepted	<p>Coin jam in the changer mechanism</p> <p>Lid of the acceptor is open</p> <p>Not enough reject lever clearance</p>	<p>Check for jams in the acceptor and in the tubes. Clear the jams.</p> <p>Press Mode+Mode to park the dispenser arms before replacing the cassette, then dispense a coin from each tube to check operation.</p> <p>Switch off the power to the machine. Open and close the lid of the acceptor, wait at least 15 seconds, then switch on again.</p> <p>Check clearance is between 2 - 3mm, and adjust if necessary.</p>

Problem	Causes	Actions
Red LED stays OFF	<p>No power to the unit, or voltage not correct</p> <p>No power to the unit - loose loom or blown fuse</p>	<p>Check that the power supply to the change giver is at the voltage shown in the window on the keypad label.</p> <p>Test the power supply by pressing the Mode button.</p> <p>If the yellow LED flashes, the power is ON.</p> <p>If yellow LED stays off, switch off power to the machine, and check all power looms and fuses.</p> <p>Replace any blown fuses.</p> <p>Restart the machine and check that the red LED is on.</p>

Problem	Causes	Actions
<p>Red LED is <i>FLASHING</i></p>	<p>Fault with the change giver unit</p> <p>A coin has covered the top-level sensor mirrors</p> <p>A coin is jammed in the dispenser module</p> <p>Fault with the audit module</p> <p>Coin cassette is unclipped</p>	<p>Check Route Alpha 250 addresses 340 - 349. Press A, B, C & D to check if coins are dispensed. If the red LED is still flashing, switch off the power to the machine, wait at least 15 seconds and switch on again. Check that coins are dispensed.</p> <p>Remove the coin cassette and check the tops of the coin tubes.</p> <p>Switch off the power to the machine, remove the cassette and check the dispenser for jams.</p> <p>Clear any blockages and check for damaged coins.</p> <p>Check the Route Alpha 250 audit addresses.</p> <p>Return the unit to your MEI distributor for repair if necessary.</p> <p>Press coin cassette into place firmly, ensure clips snap shut.</p>

Problem	Causes	Actions
Red LED stays OFF and all coins are rejected	No stock available for vending No blocker signal from the machine No polling by VNC - MDB only Faulty transformer	Restock machine if necessary. Check for a full waste bucket. Check if machine is paused halfway through a vend cycle. Complete the cycle if necessary. Check the transformer. If faulty, refer to your MEI distributor.
Red LED <i>permanently</i> OFF. No other problems.	Faulty LED or keypad module	Check the keypad module. If it is faulty, refer to your authorised MEI distributor.
Red LED is <i>flashing</i> and no coins are accepted	Check Route Alpha addresses 340 to 349 for a description of the error The lid of the acceptor is not closed firmly The acceptor loom is not connected The coin path in the acceptor is dirty	Use the table of Route Alpha 250 error addresses in this manual Switch off power to the machine and open and close the lid of the unit. Make sure the lid snaps shut firmly. Wait at least 15 seconds and switch the power on again. Check the acceptor loom and reconnect it if necessary. Switch off power to the machine and clean the acceptor.
Yellow LED is OFF	Normal operation	No action

Problem	Causes	Actions
Yellow LED flashes when coins are accepted	Normal operation	No action
Yellow LED remains OFF when Mode button is pressed	No power supply to the vending machine	Switch off power to the machine , check all looms and check all fuses. Replace blown fuses, following the instructions in this manual.
Yellow LED is flashing	The change giver is in <i>shifted mode</i> because the Mode button has been pressed	The keypad is available to change the functions of the unit. (<i>To exit from shifted mode, press Mode or wait for 45 seconds</i>)
Yellow LED is OFF permanently. No other problems.	Faulty LED or faulty keypad module	Check the keypad module. If faulty, refer to your MEI distributor.
Problems in handling coins persist after all solutions have been tried	Faulty unit, or faulty modules	Contact your MEI distributor. <i>To help diagnosis, note the symptoms, and the model and serial number of the unit for reference.</i> These numbers are on a label on the side of the unit.

Troubleshooting the Unit with the MEI® Route Alpha Terminal

Address	Parameter	Range	Meaning and Actions	Notes
340	Full tube sensor errors on tube position A, B, C or D	0 - 255	<p>Range value = the sum of the codes, where: 1 / 2 / 4 / 8 = tube A / B / C / D</p> <p>128 = post gate strobe error. Values are additive - for example, a value of 6 means faults on tubes B & C.</p> <p>Switch off power to the machine. Check the tops of the tubes for coins covering the sensors. Check and clear any jams in the acceptor.</p> <p>Close the lid of the acceptor firmly, power up and insert a coin to test the unit.</p>	READ ONLY
341	Disabled tube at position A, B, C or D	0 - 31	<p>Range value = the sum of the codes, where: 1 / 2 / 4 / 8 = tube A / B / C / D</p> <p>If necessary, use the Route Alpha 250 terminal to enable the tube.</p>	READ ONLY

Address	Parameter	Range	Meaning and Actions	Notes
342	EEPROM errors - i <p style="text-align: center;">CAUTION</p> <p>Switch off the power to the change giver for <i>at least 2</i> minutes before inserting or removing the audit FEM. Failure to do this can cause corruption of the FEM and <u>loss of audit data</u>.</p>	0 - 15	Range value = the sum of the codes, where: 1 = page 0 EEPROM error <i>Fatal error. Contact your MEI distributor.</i> 2 = page 1 EEPROM error <i>Fatal error. Contact your MEI distributor.</i> 4 = audit FEM corrupt <i>Fatal error. Contact your MEI distributor.</i> 8 = audit FEM removed Switch off power to the machine. <i>Check that audit FEM is inserted firmly in the board.</i> <i>Contact your MEI distributor if the error persists.</i>	<i>READ ONLY</i>

Address	Parameter	Range	Meaning and Actions	Notes
343	EEPROM errors - ii	0 - 15	<p>Range value = the sum of the codes, where:</p> <p>1 = incorrect configuration version <i>Contact your MEI distributor.</i></p> <p>2 = audit FEM not initialised</p> <p><i>Initialise FEM, if fitted.</i> <i>Refer to the Product Maintenance Handbook before attempting to initialise the FEM.</i> <i>Contact your MEI distributor if the error persists.</i></p> <p>4 = not used</p> <p>8 = internal EEPROM write error <i>Contact your MEI distributor.</i></p>	READ ONLY

Address	Parameter	Range	Meaning and Actions	Notes
344	Operational errors - i	0 - 15	<p>Range value = the sum of the codes, where:</p> <p>1 = <i>not used</i></p> <p>2 = acceptor initialisation error</p> <p>Switch off power to the machine. Open the lid of the acceptor then close it again firmly. Wait for 15 seconds, then power up the unit.</p> <p><i>Contact your MEI distributor if the error persists</i></p> <p>4 = HI² hardware error</p> <p>Set Route Alpha address 349 to 1.</p> <p><i>Contact your MEI distributor if the error persists.</i></p> <p>8 = HI² transmission error</p> <p>Set Route Alpha address 349 to 1.</p> <p><i>Contact your MEI distributor if the error persists.</i></p>	READ ONLY

Address	Parameter	Range	Meaning and Actions	Notes
345	Operational errors - ii	0 - 15	<p>Range value = the sum of the codes, where:</p> <p>1 = cassette removed, or top level sensors covered Switch off power to the machine. Remove coin cassette, check for coins covering the top level sensors. Check acceptor coin path, check for jams in separator. Close lid of acceptor firmly. Power up. Press Mode+Mode to park the dispenser arms. Replace the cassette, ensuring the retaining clips snap shut.</p> <p>2 = protocol A (interface controller) transmission error Check the serial interface loom.</p> <p>4 = protocol A (interface controller) transmission error Check the serial interface loom.</p> <p>8 = cashbox full</p>	READ ONLY

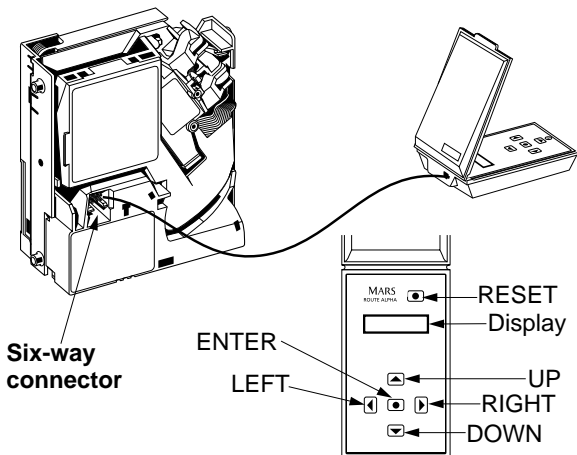
Address	Parameter	Range	Meaning and Actions	Notes
346	BDV errors (i) options	0 - 15	1 = audit timed out 2 = vmc timed out 4 = cpc timed out	BDV only
347	BDV errors (ii) options	0 - 15	1 = audit incompatible 2 = vmc incompatible 4 = cpc incompatible	BDV only
349	Reset error flags	0 - 1	0 = do not reset error flags 1 = reset error flags	

Setting a Unit's Functions with a MEI® Route Alpha 250 Terminal

Each piece of data which determines the unit's functions is stored in a separate address. Use the terminal to read an address and to check or set the unit's functions.

Setting Functions

Insert the plug on the **Route Alpha 250** terminal into the six-way connector in the acceptor unit.



Switch on power to the acceptor, as the **Route Alpha 250** terminal takes its power through the unit. A half-size zero is displayed when the terminal powers up, followed by the software version number and then the first address number with a **dot**, or a **dot and dash (1. or 1.-)**

Functions can be changed only if a dash shows after the address number.

Press UP or DOWN slowly to display addresses one after the other. Hold down a key to display addresses at an increasing speed. Press a key twice quickly to jump large blocks of addresses.

To set a function, press ENTER to display the current value in the selected address, then change the value by pressing UP or DOWN.

Press ENTER again to display the address. Press RESET to store the new value.

NOTE: If an error occurs, four half-size zeros appear. Press RESET to clear this display and to return to the current address.

Troubleshooting the MEI® Route Alpha 250 Terminal

Problem	Causes	Actions
Terminal displays an error message (half-size zero) at power-up	Communications error.	Press RESET . If problem persists, troubleshoot terminal.
Terminal displays an error message when changing between address mode and data mode	Communications error between terminal and product. Terminal does not recognise product. No signal or no power from product.	Repeat the last operation. Test terminal with new cable and with another product. Check for bent pins in all connectors.
Terminal powers up but the addresses cannot be accessed	The product is not compatible with the terminal. Corrupt HI ² component.	Different terminal is needed, or different software is needed. Contact your authorised MEI distributor.
Terminal does not power up	Bad connections or faulty cable. No power - (<i>note that the Route Alpha 250 terminal is powered through the acceptor</i>)	Check all connections. Test terminal with substitute cable and product. Replace lead if necessary. Power up the acceptor unit and troubleshoot if necessary.
Terminal powers up but one of the keys does not work	Faulty key - no keyclick is audible.	Use the terminal's self-test option. If key is faulty, send terminal for repair.
Non-standard characters are printed on the display	Faulty Route Alpha 250 terminal. Damaged display board.	Send terminal for repair to your authorised MEI distributor.

Address Settings for Use with the MEI® Route Alpha 250 Terminal

Address	Parameter	Range	Meaning	Notes
21 - 32	Coin types 1 - 12	0 - 2	0 = coin 1 = value token 2 = vend token	
200	Maximum credit	0-65,535	Maximum credit allowed	Not MDB
201 - 204	Prices 1, 2, 3 & 4	0-65,535	Values of prices 1, 2, 3 & 4	Not MDB
205 - 225	Prices 5 to 25	0-65,535	Values of prices 5 to 25. <i>Only when audit fitted</i>	Not BDV/MDB
226	Single vend or multi-vend	0 - 1	0 = single vend 1 = multi-vend	Not BDV/MDB
227	Escrow return inhibit	0 - 1	0 = escrow return allowed 1 = escrow return inhibited	Not MDB

Address	Parameter	Range	Meaning	Notes
228	Reset mode (electromechanical installation only)	0 - 4	<p>0 = blocker reset 1 = delayed blocker reset (30mS) 2 = delayed blocker reset (200mS) 3 = blocker hold reset 4 = reset after escrow accept signal</p>	Electro-mechanical only
229	Inhibit coin : coins 1 to 4	0 - 15	<p>Address value = the sum of the codes where: Code 0 = no coins inhibited Code 1 = inhibit coin 1 Code 4 = inhibit coin 3 Code 2 = inhibit coin 2 Code 8 = inhibit coin 4 To inhibit more than one coin at the same time, add their codes together. For example, codes 1 + 8 = 9. If you choose 9 for this address range value, coins 1 and 4 will be inhibited.</p>	

Address	Parameter	Range	Meaning	Notes
230	Inhibit coin : coins 5 to 8	0 - 15	Address value = the sum of the codes where: Code 0 = no coins inhibited Code 1 / 2 / 4 / 8 = inhibit coin 5 / 6 / 7 / 8	
231	Inhibit coin : coins 9 to 12	0 - 15	Address value = the sum of the codes where: Code 0 = no coins inhibited Code 1 / 2 / 4 / 8 = inhibit coin 9 / 10 / 11 / 12	
232	Inhibit exact change group Inhibit coins 1 - 4	0 - 15	Code 1 / 2 / 4 / 8 = inhibit change coin 1 / 2 / 3 / 4	Not MDB
233	Inhibit coins 5 - 8	0 - 15	Code 1 / 2 / 4 / 8 = inhibit change coin 5 / 6 / 7 / 8	Not MDB
234	Inhibit coins 9 - 12	0 - 15	Code 1 / 2 / 4 / 8 = inhibit change coin 9 / 10 / 11 / 12	Not MDB
235	Change delay	0 - 255	Delay in steps of 1.0 sec., where 255 = infinite delay	Not MDB

Address	Parameter	Range	Meaning	Notes
236	Exact change equation - i	0 - 15	Value = sum of codes where 1/2/4/8 = tubes A/B/C/D	Not MDB
237	Exact change equation - ii	0 - 15	Value = sum of codes where 1/2/4/8 = tubes A/B/C/D	Not MDB
238	Price hold	0 - 1	0 = do not hold price 1 = hold price	Not MDB
239	Price display	0 - 1	0 = do not display price 1 = display price	Not MDB
240	Coin scaling factor	1 - 250	<i>Used with Protocol A and MDB only</i>	Not BDV
241	Decimal point position	0 - 3	0 / 1 / 2 / 3 = move point position 0,1, 2 or 3 spaces	
242	Overpayment inhibit	0 - 1	0 = overpayment allowed 1 = overpayment inhibited	Not MDB
243	Clear overpayment inhibit	0 - 1	0 = clear down allowed 1 = clear down inhibited	Not MDB
244	Keypad inhibit	0 - 1	0 = keypad enabled 1 = keypad disabled	Not MDB
245	Price teach inhibit	0 - 1	0 = price teach allowed 1 = price teach inhibited	Not MDB

Address	Parameter	Range	Meaning	Notes
246	Fast sense	0 - 1	0 = normal 1 = fast (<i>Electromechanical unit only</i>)	Not BDV/ MDB
247	Float down (auto tube inventory)	0 - 1	0 = float-down disabled 1 = float-down enabled	
251 - 254	Float level for tube A, B, C or D	0 - 255	Set the number of coins to be floated to in tube A, B, C or D	Refer to table
261 - 264	FULL count for tube A, B, C or D	0 - 255	Set number of coins in tube that activates the full sensor	Refer to table
271 - 274	LOW count for tube A, B, C or D	0 - 255	Set number of coins in tube that activate the low sensor	Refer to table
281 - 284	SAFE count for tube A, B, C or D	0 - 255	Minimum number of coins that must be left in a tube (<i>this number is multiplied by two in the changer</i>)	Refer to table
291	1st coin type in tube A	0 - 12	0 = <i>no coin</i> , 1 = coin 1, 2 = coin 2, 3 = coin 3...	
292	1st coin type in tube B	0 - 12	0 = <i>no coin</i> , 1 = coin 1, 2 = coin 2, 3 = coin 3...	
293	1st coin type in tube C	0 - 12	0 = <i>no coin</i> , 1 = coin 1, 2 = coin 2, 3 = coin 3...	

Address	Parameter	Range	Meaning	Notes
294	1st coin type in tube D	0 - 12	0 = <i>no coin</i> , 1 = coin 1, 2 = coin 2, 3 = coin 3...	
301	2nd coin type in tube A	0 -12	0 = <i>no coin</i> , 1 = coin 1, 2 = coin 2, 3 = coin 3...	
302	2nd coin type in tube B	0 - 12	0 = <i>no coin</i> , 1 = coin 1, 2 = coin 2, 3 = coin 3...	
303	2nd coin type in tube C	0 - 12	0 = <i>no coin</i> , 1 = coin 1, 2 = coin 2, 3 = coin 3...	
304	2nd coin type in tube D	0 - 12	0 = <i>no coin</i> , 1 = coin 1, 2 = coin 2, 3 = coin 3...	
310	Value of coins in tubes	0 - 65,535	Value of coins in ALL tubes	READ ONLY
311 - 314	Coin count for tube A, B, C or D	0 - 255	Current number of coins in tube A, B, C or D	READ ONLY
321 - 332	Value of coins 1 - 12	0 - 65,535	Value of an individual coin	

Address	Parameter	Range	Meaning	Notes
340 - 349	Refer to the table of Route Alpha 250 terminal error codes and addresses in this manual			
360	Audit module - VMC I/D	0 - 65,535	Vending machine identification code	Audit only Not BDV/MDB
361	Audit - print-out language	0 - 4	0 = English 1 = French 2 = German 3 = Dutch 4 = Spanish	Audit only Not BDV/MDB
362	Audit - print-out type	0 - 2	0 = Basic Report 1 = Basic+Interim 2 = Basic+Interim+Free Vend	Audit only Not BDV/MDB
363	Audit - print-out lines limit	0 - 25	Limits print-out details to first few specified price lines	Audit only Not BDV/MDB
364	Audit - installation day	1 - 31	Day date of installation into machine	Audit only Not BDV/MDB
365	Audit - installation month	1 - 12	Month of installation into machine	Audit only Not BDV/MDB

Address	Parameter	Range	Meaning	Notes
366	Audit - installation year	0 - 99	Year of installation into machine	Audit only Not BDV/MDB
380	Discount award options	0 - 9999	Amount added to credit when the vended value exceeds the discount trigger	BDV only
381	Discount trigger options	0 - 9999	If the vended value exceeds this value then the award will be added to the system credit	BDV only
382	Link Master ID	0 - 9999	ID code of link master node	BDV only
383	Exact change offset (Used in conjunction with addresses 271-274)	0 - 15	Additional setting allows a more advanced warning to be given of the exact change requirement	BDV only
384	Max coin credit	0-65,535	Maximum coin credit that can be accepted by the change giver	BDV only

Address	Parameter	Range	Meaning	Notes
385	Audit unit is BDV	0 - 1	0 = audit unit is not BDV type 1 = audit unit is BDV type	BDV only
386	VMC unit is BDV	0 - 1	0 = VMC unit is not BDV 1 = VMC is BDV	BDV only
387	CPC unit is BDV	0 - 1	0 = CPC is not BDV 1 = CPC unit is BDV	BDV only
389	Audit unit fitted	0 - 1	0 = audit unit not fitted 1 = audit unit fitted	BDV only
390	VMC unit fitted	0 - 1	0 = VMC unit not fitted 1 = VMC unit fitted	BDV only
391	CPC unit fitted	0 - 1	0 = CPC unit not fitted 1 = CPC unit fitted	BDV only
392	BDV exact change equation	0 - 1	0 = normal operation 1 = use BDV exact change equation	BDV only

Address	Parameter	Range	Meaning	Notes
393	Audit initialisation required	0 - 1	0 = initialisation not required 1 = initialisation required	
421-432	MDB changer coin types 1 - 12	0 - 2	0 = coin 1 = value token 2 = vend token	

Coin, Tube and Designator Options

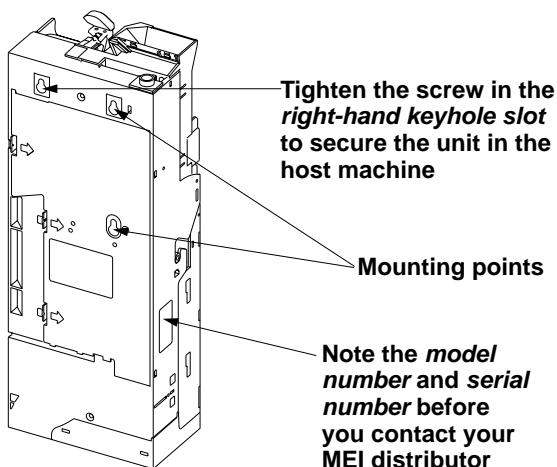
Country code & coin set	Tube types	Designators	Position	FULL tube count Addresses 261 - 264	LOW tube count Addresses 271 - 274	SAFE tube count Addresses 281 - 284
UNITED KINGDOM (GB)						
1 penny	5	F - VIOLET	A/B/C	95	12	2
2 pence	3	D - GREEN	B/D	75	9	2
2 pence	3	D - GREEN	C	75	10	2
5 pence	6.5	D - GREEN	A/C	84	11	2
10 pence	3.5	D - GREEN	A/C/D	76	10	2
10 pence	3.5	D - GREEN	B	76	9	2

Country code & coin set	Tube types	Designators	Position	FULL tube count Addresses 261 - 264	LOW tube count Addresses 271 - 274	SAFE tube count Addresses 281 - 284
20 pence	4	E - BLUE	A/B/C	81	10	4
20 pence	4	E - BLUE	D	81	9	4
50 pence	2.3	E - BLUE	B/C/D	73	10	4
£1	4	B - ORANGE	A/B/D	38	6	2
£1	4	B - ORANGE	C	38	7	2

Installing, Starting and Testing a CashFlow® Unit

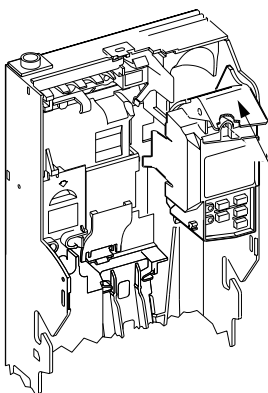
Before installation...

1. Check that the unit's specifications are correct for the host machine.
2. Ensure that the unit's modules are assembled securely.
3. Check that the connector on the unit's loom matches the one on the host machine.
4. Confirm that the voltage of the power supply **to the change giver** is the same as that shown in the keypad window of the change giver.



Fit the change giver onto the locating screws in the machine

1. Ensure that the unit is level on its three keyhole mounting slots.
2. Check that the right-hand mounting screw is at the top of the keyhole slot, and that the unit is **level**.
3. Press down the top cover flap and tighten the right-hand mounting screw to secure the unit in place in the machine.



Push open the top cover flap to get access to the fixing screw and to tighten it

Connect the looms and secure them in their correct positions

1. Check that the looms cannot be trapped by the unit or by the door of the machine.
2. Check that the unit's lid opens fully when the reject button is pressed, and that the lever has 2mm - 3mm of clearance from the reject mechanism of the machine. Adjust the clearance if necessary.
3. **Ensure that the unit's coin entry cup is aligned with the machine's coin entry chute, and that the coin exit chutes are lined up.**
4. With the power off, insert ten of the largest and smallest coins to check the coin routing to the coin return cup.

Switch on the power to the unit

1. Check that the red LED comes on.
2. Set the vend prices with the keypad or with the **Route Alpha 250** terminal.

NOTE: The keypad is suitable if the installation has an electromechanical or Executive interface. If the installation has an electronic serial interface such as MDB, where prices are normally held in the vending machine, it is not appropriate.

Float the coin tubes

Floating the tubes through the acceptor

1. Press **Mode + A**, and insert change coins. When the tubes reach the pre-set maximum float level, further coins are routed to the cashbox.

Use the coin entry slots to replace any coin that falls inadvertently through a tube, so that it is not counted twice by the acceptor.

2. Press **A** to return to normal operation.

Floating the tubes by hand

NOTE: Do not attempt to float up the tubes by hand if the unit has an audit module fitted. Float the tubes through the acceptor.

1. Insert a full coin cassette, or remove the unit's cassette and fill the tubes to the float levels.

If the cassette is difficult to remove, release it and tilt it forward. Push in the coin filling flap, and fill tube **A** through the gap. Fill tubes **B**, **C** and **D** through the coin entry slots.

2. Press **Mode + Mode**, replace the cassette, then press **Mode + A + B**.

3. Insert samples of non-change coins to check that they route to the cashbox.

4. Press **A**, **B**, **C** and **D** in turn to check that coins are dispensed.

5. Press **Mode + A** and refloat the tubes through the acceptor.

When the pre-set float level is reached, further coins are routed to the cashbox.

6. Press **A** to return the unit to normal operation.

The unit is now ready for use

MEI Product Manuals

Full technical details of this product are included in the **CashFlow® 560 changegiver *Product Maintenance Handbook***, a copy of which is available, with other handbooks related to the product, from your MEI Approved Distributor, or your regional **MEI** sales office.

MEI Product Training

Product training courses are available for **CashFlow®** and other MEI products.

The courses cover the technical features and the maintenance of the product, and give you hands-on experience in servicing **CashFlow®** products quickly and efficiently.

Contact your regional **MEI** Sales Office for more information.

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