**THE**

# CASHFLOW®111
# ACCEPTOR

**USER GUIDE**

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## CashFlow® 111 acceptor User Guide

Part number **711463044 Rev G3**

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# CONTENTS

# SAFETY

## 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 recommended for use by personnel trained to carry out electrical installation.

## Maximum Operating Voltage

Do not apply more than the voltage specified on the unit, and within the following;

**Full Operating Voltage range:**

+12V DC nominal +3V, -2V.

**Supply Voltage Ripple:**

Within Vmin to Vmax up to 100Hz, <250mV pk - pk for Frequency>100Hz

**Current consumption:**

Quiescent current:          35mA Max

Max current:          800mA Max

## Dangerous Environments

Do not operate the unit in the presence of flammable gasses 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 standards for any country in which they are used.

## SAFETY

All electrical connections to the product must be rated according to the requirements for "Accessible SELV" circuits as defined in EN60335-1. The product is therefore suitable for use in a class 2 (non-earthed or non-grounded) appliance.

Overcurrent protection is not included in the product and should be provided as part of the host machine. The recommended fuse value at the rated supply of 12V is:          **1A Slow blow (to EN60127)**

Other protection methods may be used providing their overcurrent characteristics remain within the overall operating characteristics of the above fuse.

When used in applications where compliance to BS EN60950:1992  is necessary, the host machine power supply must additionally meet the requirements for SELV limited power supplies as defined in BS EN60950.  For these applications, the coin mechanism should be installed so that it is external to any fire enclosure.

# DOCUMENT GUIDE

This document is for field engineers using the CashFlow® 111 product produced by MEI.

As an aid to using this document a series of symbols are used in the text and have the following meanings:

+ This indicates that a useful tip or word of advice is shown here.

❑ Where this symbol is shown it indicates that a specific action is called for to ensure a successful installation or set-up of the product.

❖ A note regarding the function to be carried out will appear beside this symbol.

**How to recognise the product revision level**
The revision level of the CashFlow® 111 product can be confirmed from a label on the left side of the product. There are two levels of digits and bar-code markings on the label, and the fifth and sixth digits on the lower numbers indicate the product level.
For example; if the label read 1773Y422580 the revision level would be Y4.
Do not use the label on the right side of the product for reference of the revision level.



Revision Label

©, MEI., 2000
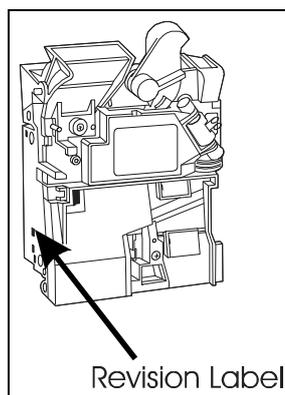
# PRODUCT IDENTIFICATION

MEI has manufactured coin mechanisms compatible with gaming and amusement machines for a number of years. Over this time the functionality of the range has been enhanced to match your needs and still maintain mechanical compatibility. The product detailed in this book is part of the CashFlow® series. Use the following pages to check you have the right product for your application.
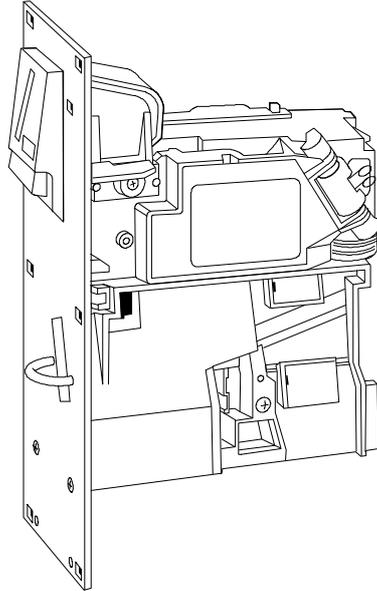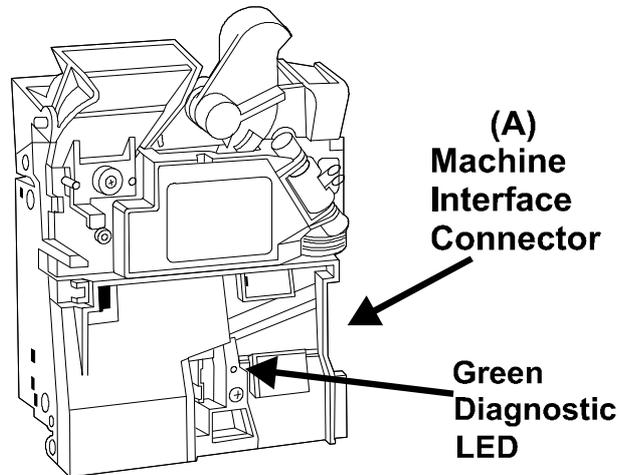
**CashFlow® 111
Side Entry**
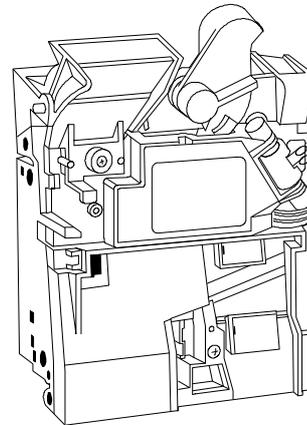
**CashFlow® 111
Top Entry**

# Electrical Interfaces

The electrical connections and interfaces to each variant of CashFlow® 111 are identical, and are found in the same locations.



**(A)**
**Machine**
**Interface**
**Connector**

**Green**
**Diagnostic**
**LED**

**Machine Interface** - This provides power to the validator and carries the coin inhibit signals from the machine and coin outputs to the machine.

# INSTALLATION

Installing or removing the CashFlow® product from your machine can be done by following these simple instructions.

> + When installing the CashFlow® 111 side entry product it will be fitted to an MEI Front Plate and the following instructions will always apply.
> + The mounting channel for the CashFlow® 111 top entry product is supplied by the machine manufacturer, and therefore some variations may exist from machine to machine, however in principle these instructions still apply.

## CF111 Front Entry Installation
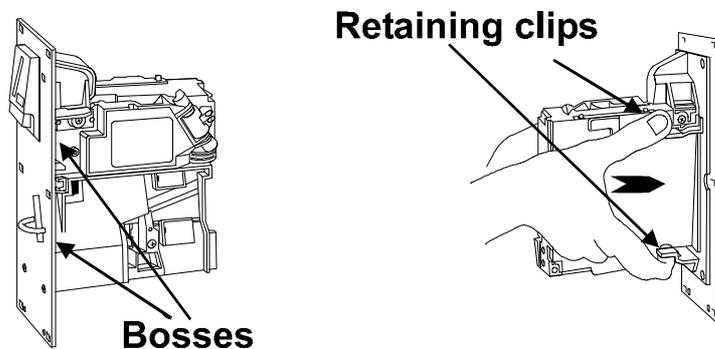


❑ Having ensured that the front plate has a firm location onto the front of the machine, insert the side of the validator onto the two round bosses at the rear of the front plate and push firmly together until the two retaining clips are fully engaged.

# CF 111 Top Entry Installation

**Reject Lever**

**Mounting
Points**
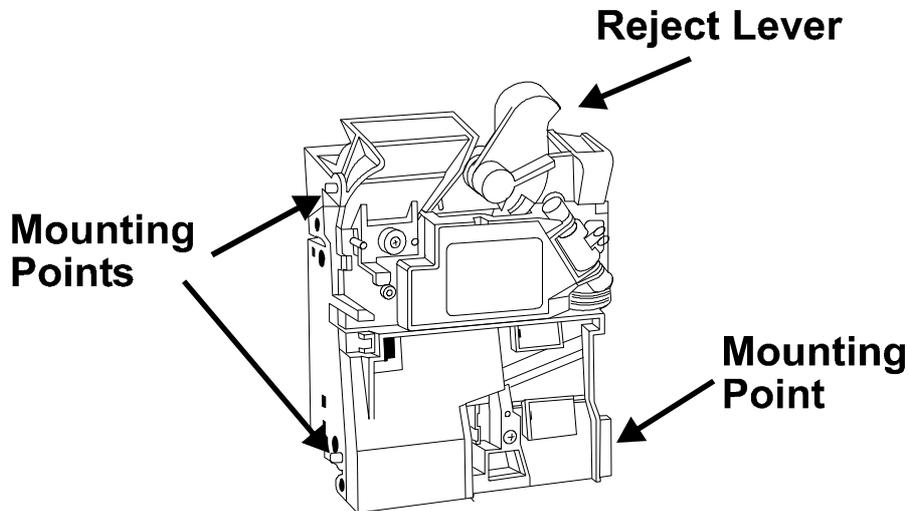
**Mounting
Point**

+ When mounted into a short channel the product must be fully assembled and ready for use, with only the machine interface loom to be connected.

❑ The mounting points indicated must be firmly seated into the channel and a gap of between 2-3 mm left between the reject lever and the reject arm from the machine. This small gap will ensure that the validator lid is able to fully close when the reject button on the machine has been pressed and released.

# PRODUCT FEATURES

The CashFlow® 111 product has the flexibility to change certain settings such as varying the coin-set that it handles, or new routing for some of the coins/tokens.

These changes can be carried out using the rotary data switch and the configuration switch which are fitted to the CashFlow® 111 product. The following pages show how, with the use of these switches, coins/tokens can be inhibited or enabled, either a new individual token or a group of tokens selected and the machine output mode changed.
In addition to these two switches there is a green diagnostic LED which signifies if any changes you make have been successfully actioned or not.

**Green Diagnostic LED**

**Rotary data switch**    **Configuration switches**
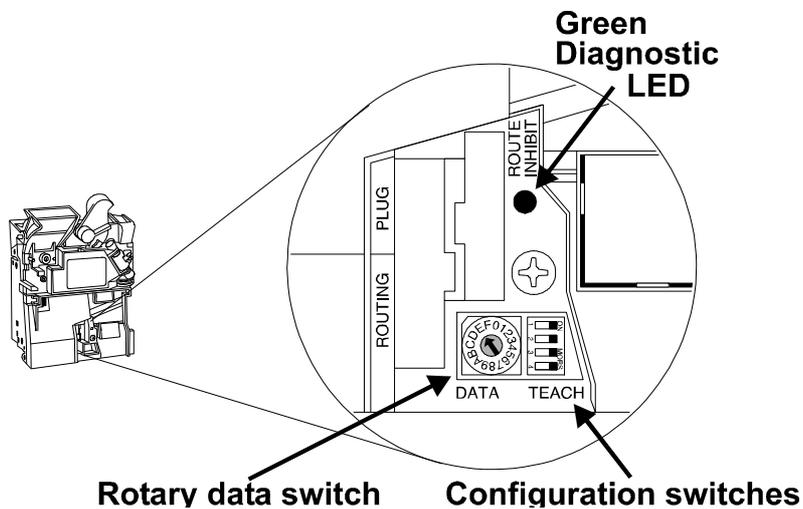
# Coin/Token Acceptance

When the product is successfully mounted you will need to confirm that it is set up correctly to accept good coins/tokens and direct them to where you want them to go.

**First things first**
❑ Press and release the reject button on the machine. Confirm that the lid on the front of the validator closes fully when the reject button is released. If it does not close fully the validator cannot function properly.

❑ Test that power is on by checking that the green LED on the front of the validator is illuminated, it will flash off once when the reject lever is pressed.

**Testing for Acceptance**
❑ Insert into the machine a selection of all the coins/tokens shown on the validator label. Acceptance of each one will be indicated by the LED flashing off once, and if the coin/token is outside of the programmed window it will flash off twice. If the LED flashes three time this indicates that the coin/token has been rejected by the validator 4th sensor. Should the LED flash off four times this indicates either a hardware or software inhibit is being applied.

❑ If further help is required then consult the Operators Handbook for the product or contact either your distributor or local MEI office.

# CONFIGURATION

## Configuration Settings

The 4 way teach switches can be set up as shown below to configure the product.

| Switch 1 | Switch 2 | Switch 3 | Switch 4 | Mode Selected | Rotary Switch position/s required |
|---|---|---|---|---|---|
| OFF | X | X | X | Alarm Dis-abled | X |
| ON | X | X | X | Alarm Enabled | X |
| X | OFF | OFF | ON | Machine Interface Type | C - F |
| X | OFF | ON | OFF | Inhibit Coin/Token Teach | C - F |
| X | ON | OFF | OFF | Enable Coin/Token Teach | 0 - F |
| X | OFF | ON | ON | Token Group Select, Channel 0 | 0 - D |
| X | | | | Self Teach a Token to Channel 0 | E - F |
| X | ON | ON | OFF | Token Group Select, Channel 1 | 0 - D |
| X | | | | Self Teach a Token to Channel 1 | E - F |
| X | ON | OFF | ON | Discriminator Node ID Select | 0 - 6 |
| X | | | | Fraud Defence Teach, Channel 0 | E - F |
| X | ON | ON | ON | Normal Operation | X |
| X | OFF | OFF | OFF | Normal Operation | X |

## Diagnostic LED

❑ The LED will illuminate to indicate that the product is powered up, and in addition will give various sequences of flashes to confirm the acceptance or rejection status of coins/tokens.

+ **Flash Sequence**:
+ Constantly ON    Validator Power On
   1 Flash      Coin accepted / Reject lever pressed
   2 Flashes    Coin not recognised and rejected
   3 Flashes    Coin rejected by validator 4th sensor.
   4 Flashes    Coin recognised but not accepted due to inhibit setting

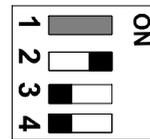# Using the Rotary Data Switch and Configuration Switches

## Rotary Data Switch

The rotary data switch is used in conjunction with the configuration switches. By pointing the arrow in the middle of the switch, using a fine screwdriver, data can be entered into the product. In Normal Operation mode the position of the arrow is not critical to correct operation.
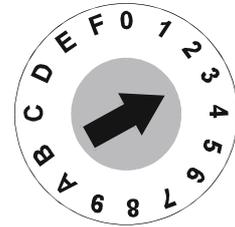
## Configuration Teach Switches

These switches can be set to a series of positions which enable the product configuration to be changed.

When teach modes are to be entered first **SWITCH POWER OFF** to the unit, or an un-intended action could be set.

The example given here, with both the rotary data switch and the configuration switch settings, is to enable channel 3 in the coin set.

> + Wherever in the examples that follow the switch is shown as hatched grey (usually switch 1) it indicates that it does not matter if the switch is in the ON or OFF position. Switch 1 only features in the settings for Alarm Enable when it must be in the ON position. When it is in the OFF position the Alarm function is NOT active.

❑ After making any changes the configuration switches 2, 3, and 4 **MUST** always return to either of the Normal Operation positions shown here, before the changes are implememted.
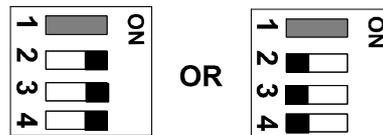
## To Turn ON Or Turn OFF The Alarm

If switch one is set to OFF the alarm feature will be dis-abled. If set to ON the alarm will be re-activated. Power to the validator can remain ON while the alarm feature is being set, thus the LED will continue to be lit at all times.
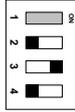
**Set for Alarm OFF**

**Set for Alarm ON**

©, MEI., 2000
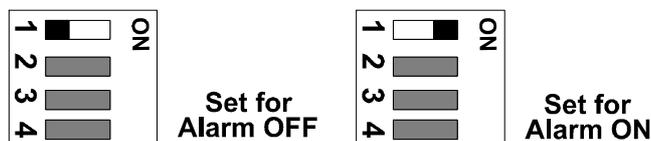
# Product Configuration - Inhibiting coins or tokens

**Example:- To inhibit channel 2 (the 5p coin) on your validator follow these simple steps.**

**Channel Inhibit**

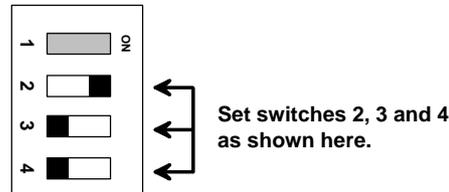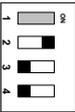Set switches 2, 3 and 4 as shown here.
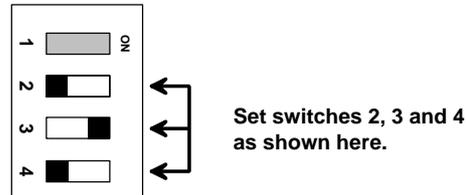
1.  Switch Validator Power OFF.

2.  Set 4 Way Switches to Inhibit Teach.

3.  Set Rotary Switch Dial to the appropriate channel. (Channel No.2 for the 5p In this instance).

4.  Switch Validator Power ON (LED will flash).
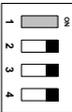
5.  Set switches 2, 3 & 4 to ON. (LED will stop flashing and stay on). The Rotary Switch settings can be left unchanged.

6.  *END*  The chosen coin is now inhibited and the product is ready for normal operation. For each additional channel to be inhibited repeat process from 1 above.

# Product Configuration - Enabling coins or tokens

**Example:- To enable channel 2 (the 5p coin in this instance) on your validator follow these simple steps.**

**Channel Enable**

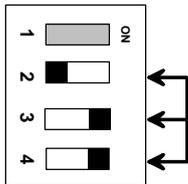Set switches 2, 3 and 4 as shown here.

1.     Switch Validator Power OFF.

2.     Set 4 Way switches to Enable Teach.

3.     Set Rotary Switch Dial to the appropriate channel. (Channel No.2 for the 5p In this instance)

4.     Switch Validator Power ON (LED will flash).
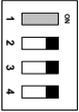
5.     Set switches 2, 3 & 4 to ON.
(LED will stop flashing and stay on).
The Rotary Switch settings can be left unchanged.

6.   E N D   The chosen coin is now enabled and the product is ready for normal operation. For each additional channel to be enabled repeat process from 1 above.

# Product Configuration
# Self teaching a new token, channel 0

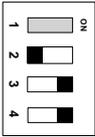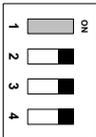**Example:- To Teach a Token (with standard window limits) into channel 0 follow these simple steps.**
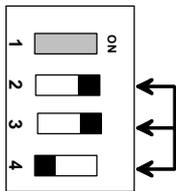
**Channel Enable**

**LED Flash Codes for Tokens:**

2 flashes = No activity detected (for last 30 seconds)

3 flashes = Insufficient Tokens  (10 min.)

5 flashes = Token thickness outside allowable limits

6 flashes = Token diameter outside allowable limits

7 or 8 flashes = Token material outside allowable limits

**Set switches 2, 3 and 4 as shown here.**

1. Switch Validator Power OFF.

2. Set 4 Way switches to Token Teach.

3. Set Rotary Switch Dial to position F (standard window limits).
(Position E will teach narrow token window limits)

4. Switch Validator Power ON (LED will Flash).

+5. Drop between 10 and 20 Tokens.

6. Return switches to Normal Operation. (LED should stop flashing and stay on to indicate a successful change). If the LED continues to flash this indicates a failure to teach the token. If needed repeat the process from step 1.

7. *END*    Token successfully taught & programmed into Channel 0.

# Product Configuration - teaching a new token, channel 1

**Example:- To Teach a Token (with standard window limits) into channel 1 follow these simple steps.**
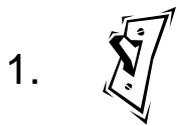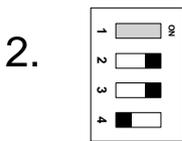
**Channel Enable**

**Set switches 2, 3 and 4 as shown here.**

**LED Flash Codes for Tokens:**
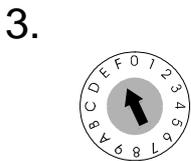
2 flashes = No activity detected (for last 30 seconds)

3 flashes = Insufficient Tokens (10 min.)

5 flashes = Token thickness outside allowable limits

6 flashes = Token diameter outside allowable limits

7 or 8 flashes = Token material outside allowable limits

1. Switch Validator Power OFF.

2. Set 4 Way switches to Token Teach.

3. Set Rotary Switch Dial to position F (standard window limits).
(Position E will teach narrow token windows)
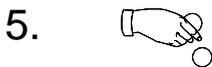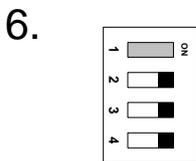
4. Switch Validator Power ON (LED will Flash).

5. Drop between 10 and 20 Tokens.

6. Return switches to Normal Operation. (LED should stop flashing and stay on to indicate a successful change). If the LED continues to flash this indicates a failure to teach the token. If needed repeat the process from step 1.

7. $END$ Token successfully taught & programmed into Channel 1.

# Product Configuration -
# Selecting a pre-programmed token group to be used in channel 0

**14 token groups are already programmed into the product. This feature allows a defined token group to be accepted.**

❖ **NOTE:** Each token group selected is automatically copied to channel 0. Refer to the Appendix at the end of the book for further details of token groupings.
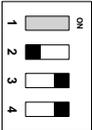
**Example:- To select Token Group 7 on your validator follow these simple steps.**

1. Switch Validator Power OFF.

2. Set 4 Way Switches to Select Token Group channel 0.

3. Set Rotary Switch Dial to the appropriate Channel. (Token group 7 in this example).

4. Switch Validator Power ON (LED will flash).

5. *END* Return Switches to Normal Operation (LED stops flashing and stays on to indicate successful change. Token Group 7 successfully selected and programmed into Channel 0.

# Product Configuration -
# Selecting a pre-programmed token group to be used in channel 1

14 token groups are already programmed into the product. This feature allows a defined token group to be accepted.

❖ **NOTE:** Each token group selected is automatically copied to channel 1. Refer to the Appendix at the end of the book for further details of token groupings.

Example:- To select Token Group 7 on your validator follow these simple steps.
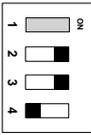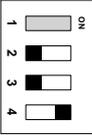
1.   Switch Validator Power OFF.

2.   Set 4 Way Switches to Select Token Group.

3.   Setting Rotary Switch Dial to position 7 selects MHG token group

4.   Switch Validator Power ON (LED will flash).

5. $END$   Return Switches to Normal Operation
(LED stops flashing and stays on to indicate successful change. Token Group 7 successfully selected and programmed into Channel 1.

# Product Configuration - Changing the machine output mode

**To change the coin output interface to Fixed Binary Coded Output (BCO) use these simple steps. For BCO mode set the rotary data switch to position C , to D for Fixed Parallel mode and F for Automatic mode.**

❖ NOTE: The product will normally be supplied in Automatic mode. This will automatically configure to most machines through the Mode Select feature. Some gaming machines have pre-BACTA standard Binary code software and in this case the coin mechanism should be set to fixed Parallel mode.

**Example:- To set mode to Binary Coded Output**

1. Switch Validator Power OFF.

2. Set 4 Way switches to Output Mode Teach.

3. Set Rotary Switch Dial to appropriate position. (Position C in this example).

4. Switch Validator Power ON (LED will Flash).
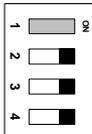
5. Set switches 2, 3 & 4 to ON. (LED will stop flashing and stay on).
Leave the Rotary Switch settings as they are.

6. *END* Product is now ready for use with the chosen machine interface.

# Product Configuration - Fraud Defence Teach

**This feature allows for a fraudulent coin to be taught to channel 0 of the validator so that it can recognize it as a slug and can then reject it.**
This feature requires 3 steps:

**Enable Fraud Defence**

Set switches 2, 3 and 4 as shown here.
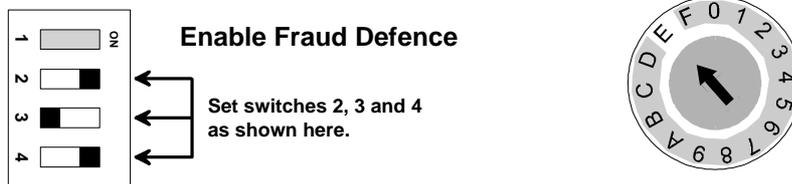
❖ 1. Teach the fraudulent coin/token as you would a token into channel    0, as shown on page 13.

❖ 2. Set 4 way teach switches as shown in the example below to identify  the channel as a slug.

❖ 3. Enable channel 0, as shown on page 12.

.1. Switch validator power OFF

2. Set 4 way teach switches to enable fraud defence

3. Set rotary data switch to position E

4. Switch validator power ON (LED will flash)
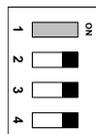
5. LED stops flashing and stays on to indicate successful change

6. *END* Fraud successfully taught into channel 0. Taught fraud coin will now be rejected by the validator the next time it is seen.

# MAINTENANCE

+ The practical maintenance that can be carried out is limited to cleaning the areas of the validator that the coins travel through, and the replacement of the coin entry liner if it becomes worn. All other servicing is carried out through your distributor.

The cleaning should be carried out on a regular basis of at least once a month, but, if you have to visit the validator outside of that routine, it is worth while doing it then as well.

The shaded areas shown below, plus the back of the reject cover, are those to be cared for.

The coin entry liner is accessed by unscrewing the coin entry moulding at the top of the validator. The coin entry liner can then be eased off with the aid of a fine screwdriver, and a replacement slid into place.

❑ Cleaning and maintenance must only be carried out by suitably trained personnel.

❑ Cleaning must only be carried out after power has been removed from the product.

❑ Never use a cleaner containing solvents, scrapers or abrasive materials.

❑ Never apply water or cleansers directly onto the product. Always apply them to a clean cloth first, and not too liberally, so that the cloth used is only moist.



**Coin entry moulding screw**

**Coin entry liner**

**Areas to clean**
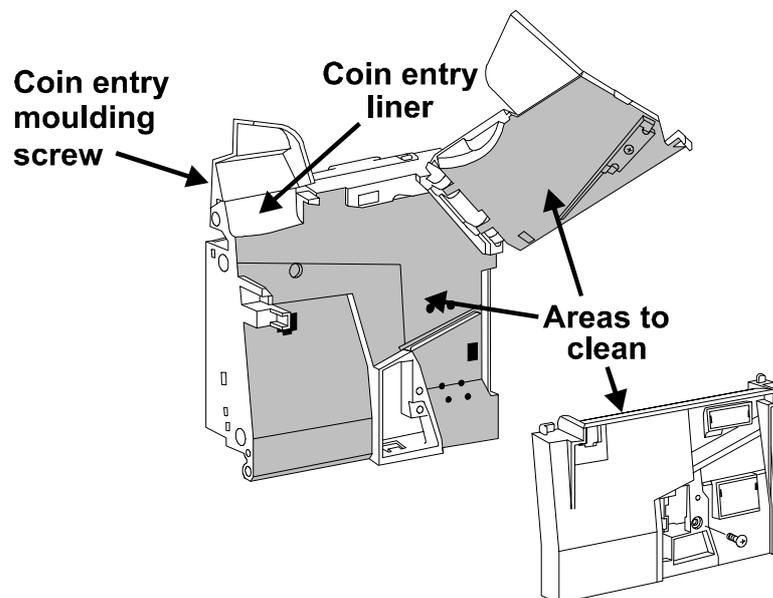
# PRODUCT SUPPORT

In addition to the MEI offices around the world an international network of Distributors and Approved Service Centres can offer you technical support and other services as well.

These services include repairs, re-programming of your CashFlow® products with new coinsets, replacing damaged modules, and the supply of a range of spare parts.

In the U.K. these can be obtained from the following:

# WWW.MEIGROUP.COM

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# APPENDIX

## Token Group Selection Table

| Token Grouping Compatibility | | | | | | | |
|---|---|---|---|---|---|---|---|
| **ME Product Token Groups** | **ME Product Token Group LINK Settings** | | | | **Token Type or Operator** | **CashFlow® 126 / 129 Position Revision 'Y'** | **CashFlow® 126 / 129 Position Revision 'G'** |
| | **A** | **B** | **C** | **E** | | | |
| 1 | | 3 | 3 | 3 | Rank Leisure | 1 | 1 |
| 2 | 3 | | | | BFS | 2 | 2 |
| 3 | 3 | 3 | 3 | | Ralin & Thomas | 3 | 3 |
| 4 | 3 | 3 | | 3 | LMS | 4 | 4 |
| 5 | 3 | 3 | | | Brent Leisure | 5 | Not Used |
| 6 | 3 | | 3 | | Stretton Leisure | 6 | 5 |
| 7 | | 3 | 3 | | MHG | 7 | 6 |
| 8 | 3 | | | 3 | Paymaster | 8 | 7 |
| 9 | | 3 | | 3 | Claremont | 9 | Not Used |
| 10 | | 3 | | | Oversized Token | A | 8 |
| 11 | 3 | 3 | 3 | 3 | Default (Brass-Wide) | B | 9 |
| 12 | | | 3 | | Brass & N-Plate Brass | C | A |
| 13 | | | | | N-P Brass & Oversized | D | B |
| 14 | 3 | | 3 | 3 | N-Plate Steel | E | C |
| 15 | | | 3 | 3 | N-Plate Steel | F | D |
| 16 | | | | 3 | Reserved | 0 | 0 |

# Helping you deliver

YOUR MEI REPRESENTATIVE