PAYTEC®

EAGLE CHANGEGIVER

User Guide

CONTENTS

The instructions in this guide are mainly valid when configuring systems with a Programmer P6000 (palmtop).
If you wish to configure the changegiver EAGLE with a PC, we recommend the use of *Paytec Configurator* (PC application compatible with Windows®). The cable connecting EAGLE to your PC is supplied on demand.

General warning

- Read this guide carefully before use.
  - This guide is valid for the model ***EAGLE – Changegiver.***
- Instructions about system configuring are mostly referred to Programmer P6000. In order to make configuring operations easier, we suggest you should use Paytec Configurator (compatible with Windows®XP/7).
- Before EAGLE is installed, check voltage compatibility with the Vending Machine. Read the nominal voltage rates on labels (tolerance ± 10%).
- EAGLE has been designed for internal electrical equipment for Vending Machines.
- Do not use in water or near liquids where it might become wet.
- Do not use near smoke or inflammable gases.
- Cut power before maintaining electrical and/or mechanical components.
- Dispose of the device in accordance with environmental laws (DO NOT burn).
- Always read labels.
- Do not tie the system main cables or cables belonging to Slave units.
- Periodically check whether cables are correctly plugged on their connectors.
- Do not use extension cables.
- Cut power before maintaining and/or cleaning the unit.
- Use a damp cloth to clean plastic elements.
- Keep the coin chute clean.

Components

CABLE CLAMP

HOUSING

SELECTOR

TUBE GROUP COVER

OPTICAL IRDA

LCD

KEYPAD

P6000 / PC

PAYOUT MECHANISM

WINGLET

HANDLE

TUBE GROUP

DATA LABEL

PAYTEC®

CE

EUR

EXE-MDB
24VAC 20W

EAGLE

01	0,01	inh
02	0,02	inh
03	0,05	
04	0,10	
05	0,20	
06	0,50	
07	1,00	
08	2,00	

Payment Technologies Srl - ITALY

www.paytec.it

COINS PROGRAMMED

SERIAL NUMBER
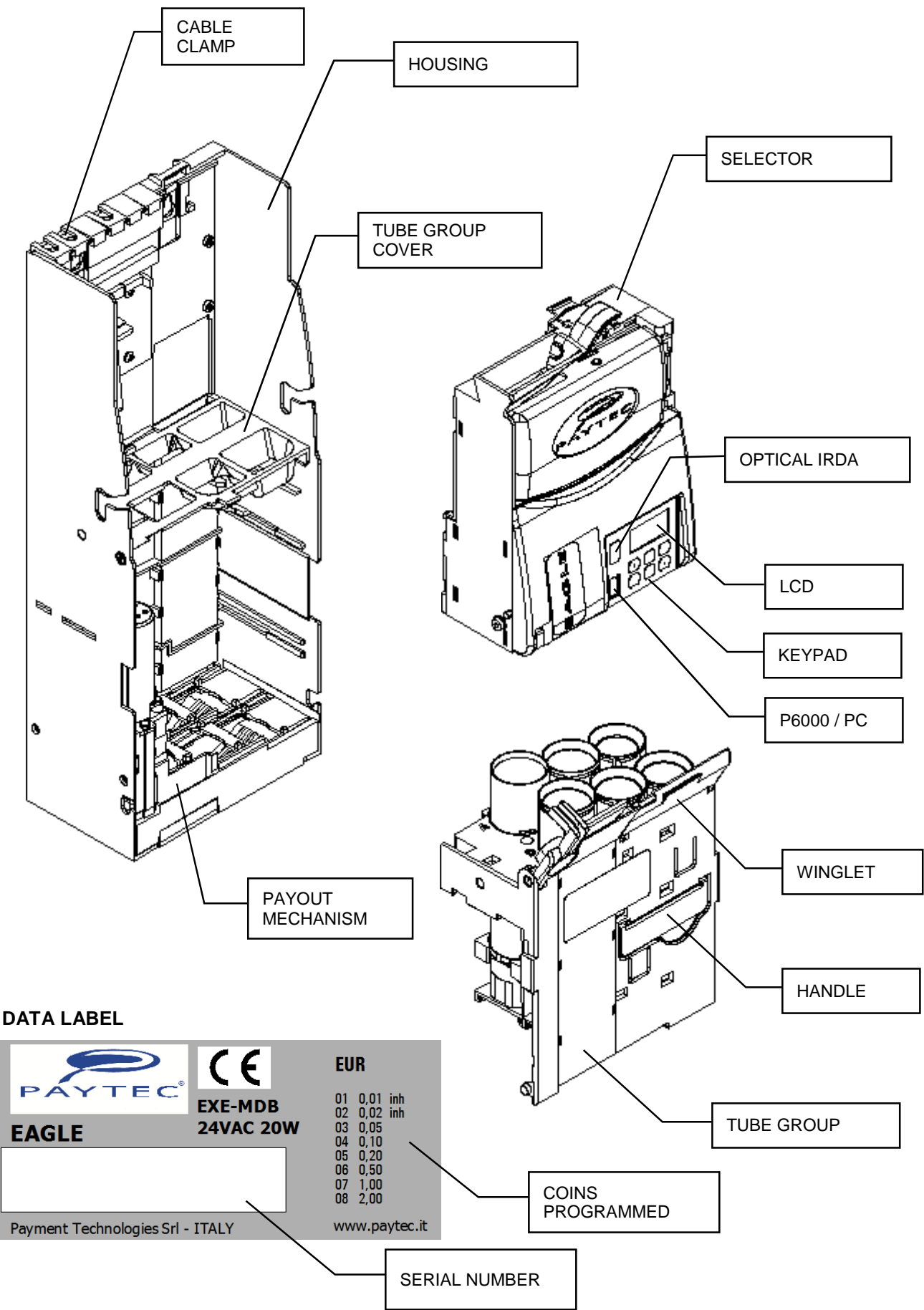
Installing EAGLE on a Vending Machine

1. Cut power.
2. Lift up the release latch and lower the winglet (Fig.1A).
3. Press the release lever (Fig.1B) and pull the selector forward.
4. The two mounting holes are clearly visible on the back plate (Fig.1C).
5. Remove the selector from its supports, if you need to use the third mounting hole (Fig.1D).
   Unplug the flat cable (Fig.1E) and remove the selector.

WARNING

Be careful when plugging/unplugging the selector connector. Keep the two side latches pressed when plugging/unplugging the connector (Fig.1D); avoid rotating the connector because it might be damaged.
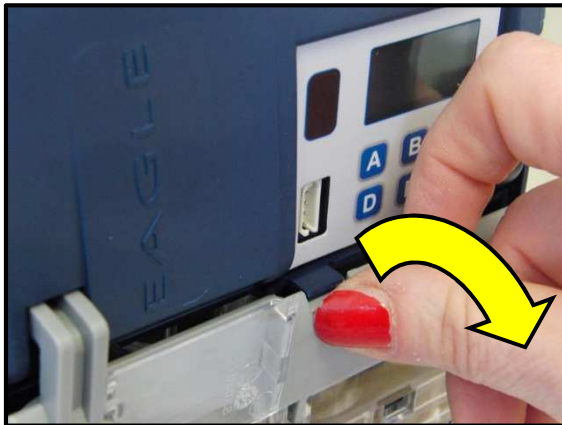
Fig.1A
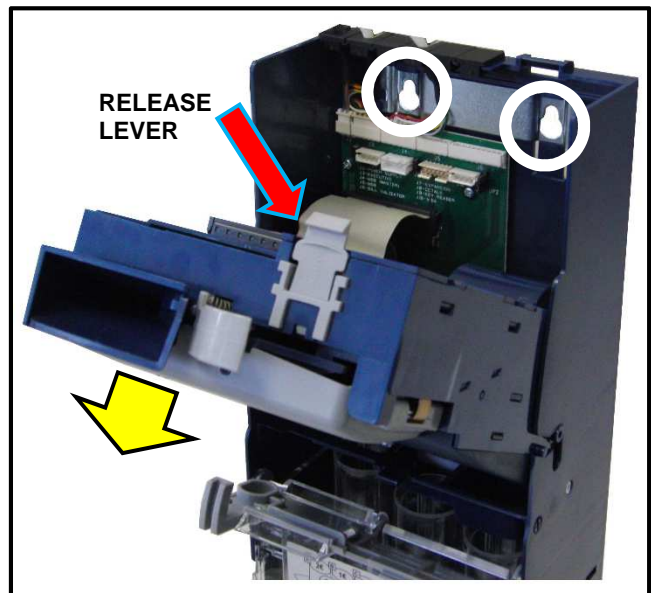
Fig.1B

Fig.1C
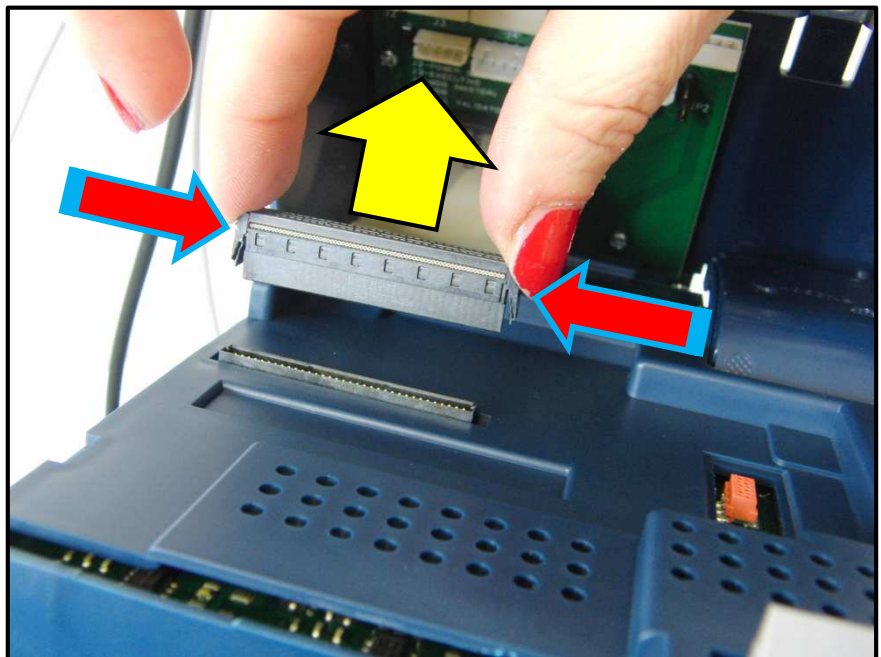
Fig.1D

Repositioning the selector

When repositioning the selector, please check the flat cable bends correctly (keep the flat cable pressed while rotating the selector.
While rotating the selector back to its position (Fig.1E), keep the flat cable pressed so that it bends correctly downwards (Fig.1F).
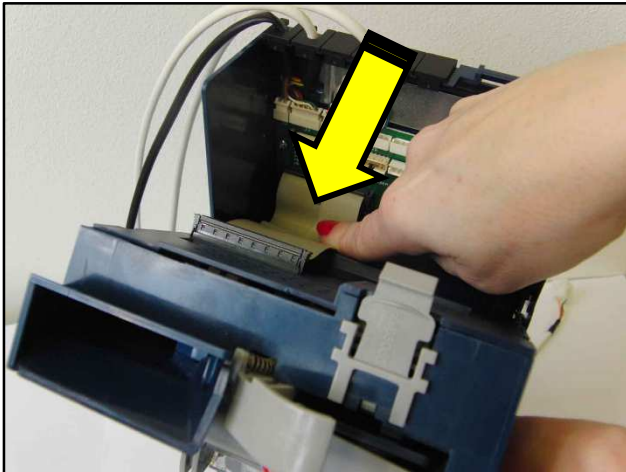
Fig.1E
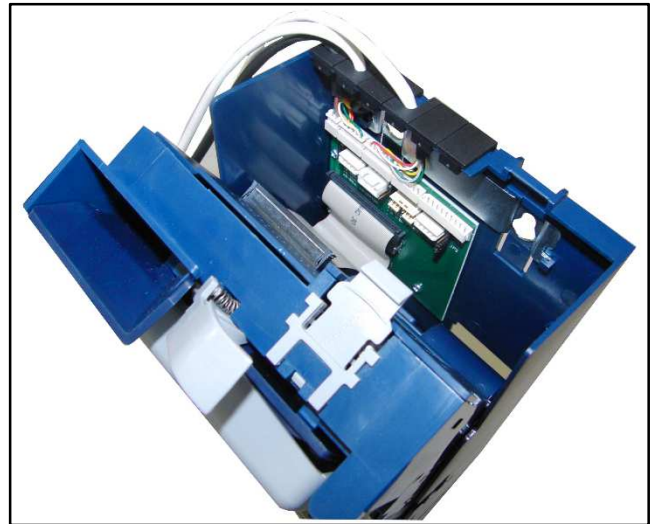
Fig.1F
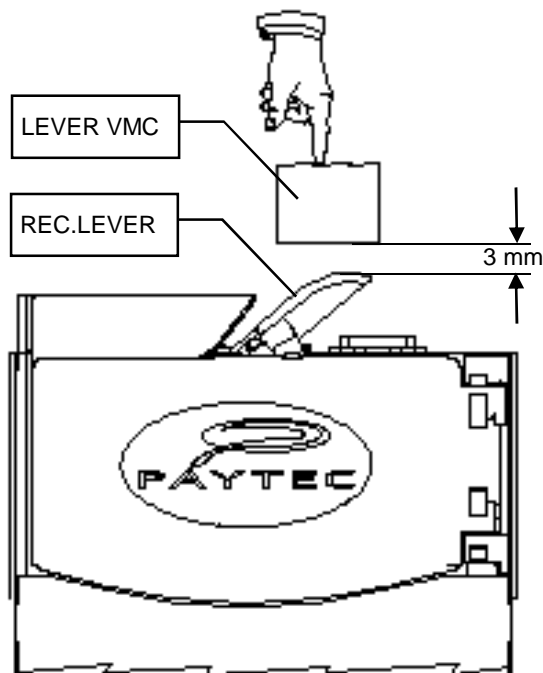
Fig.1G

Checking coin recovery lever and alignments

- The coin recovery lever must be unconstrained (2-3 mm. from the lever of the VMC - Fig.1G).
- Press the coin recovery lever/button on VMC and check the lever on EAGLE causes the validator door to open/close well.
- The entry coin chute must be perfectly aligned with the machine's; insert a few coins (system OFF) and check they fall in the recovery cup of the VMC.
- Check the payout channel of EAGLE is perfectly aligned with the payout recovery cup of the VMC.
- The VMC must be installed on a flat surface.

Starting the system

When EAGLE is started, the following messages are displayed on the selector LCD.

-,--,--	f/w revision;
Euro	Euro-configured system (the message is not displayed for no/Euro systems);
CAL	calibrating system…;
P6000	connecting with P6000…;
0,00	starting credit, system ready.
No link	This message is displayed when the serial link with VMC has been cut (e.g. the VMC is out of service).

The entire sequence of messages is displayed for 15 secs.
During the start-up phase both cashbox electromagnet and coin separator motor are activated.

F/w udpating messages

When giving power after firmware has been upgraded on EAGLE, the messages here below may be displayed.

dSPUP	Updating DSC …;
Ln - 50	updating counter DSC … (wait, please);
Ln - 00	
end	counter DSC updated (the system will be automatically restarted);
SUCC	
-CAL-	calibrating system… (wait till the message [ ] [ ] is displayed);
[ ] [ ]	calibrating system… (wait till credit 0.00 is displayed).

After the system has been started, you can fill tubes.

Prices can be set with tube keypad, palmtop P6000 or PC (s/w Paytec Configurator).

Customized parameters (change given, tubes, key codes, free vend options, bonus menu...) can be configured with a P6000 or a PC.

The present guide contains the configuring procedures with keypad or a P6000.

Filling tubes

EAGLE is configured with a max. level in tubes by default.
The max. level in each tube can be customized in *Fn09* with a P6000, or with keypad.
Do NOT exceed the max. level set by PAYMENT TECHNOLOGIES.

Tube filling procedure (EAGLE must be ON).

1. Press the Escrow lever and, while keeping it pressed, press **A** (Fig.2).
2. Release both Escrow lever and **A**: the message "**FILL**" is displayed.
3. Slowly insert the coins you are going to configure for each tube (see label on tube group).

   Label
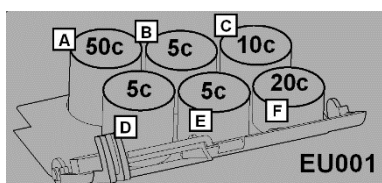
4. Coins are automatically routed to the right tubes.
5. Once the max. level has been reached, no more coins are accepted.
6. If you wish to exit "fill" mode, you can follow one of the following procedures:
   - press Escrow lever and press A;
   - wait 30 seconds;
   - switch EAGLE OFF.

Fig.2

Removing tube group

1. Lift up the release latch and lower the winglet (Fig.3A-3B).
2. Grasp the tube group as in Fig.4A.
3. Lift up the tube group (Fig.4B) so that tubes snap free of their ejectors.
4. Pull out the tube group (Fig.4C).
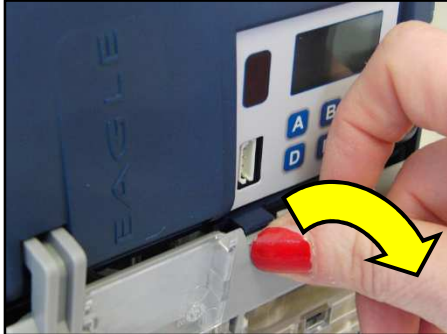
Fig.3A

Fig.3B
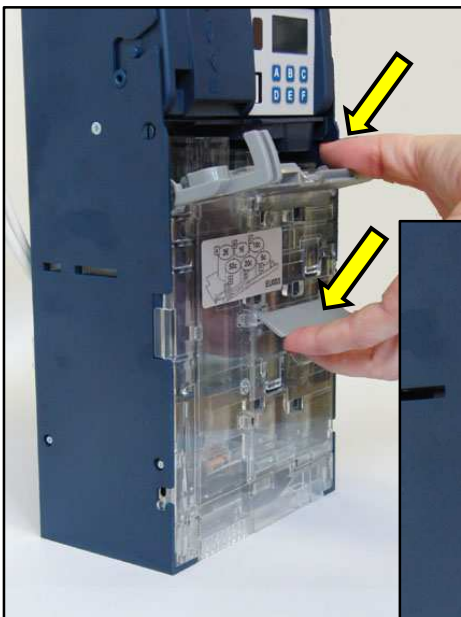
Fig.4A
RELEASE TUBE GROUP
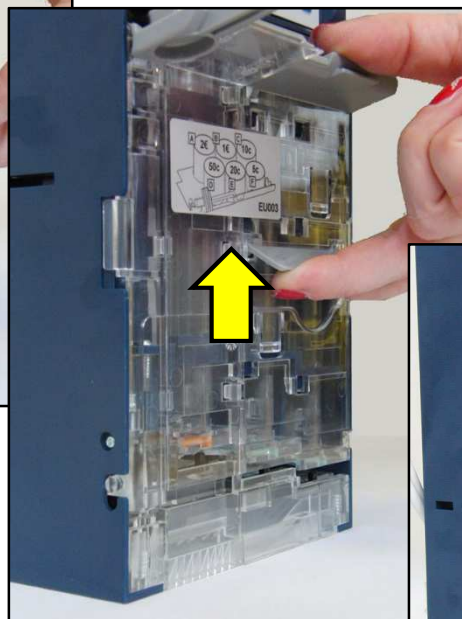
Fig.4B
LIFT UP TUBE GROUP
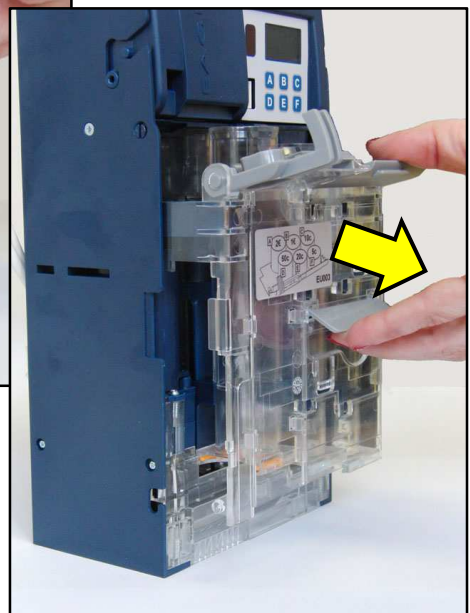
Fig.4C
EXTRACT TUBE GROUP

9

🟡 **WARNING**

BEFORE THE TUBE GROUP IS RE-INSERTED, PLEASE CHECK THE EXTRACTORS ARE PERFECTLY ALIGNED (Fig.5A).
WHEN THE TUBE GROUP IS RE-INSERTED, THE PULLERS' TEETH MUST FIT INTO THE EXTRACTORS LATERAL CARVINGS (Fig.6A-6B).
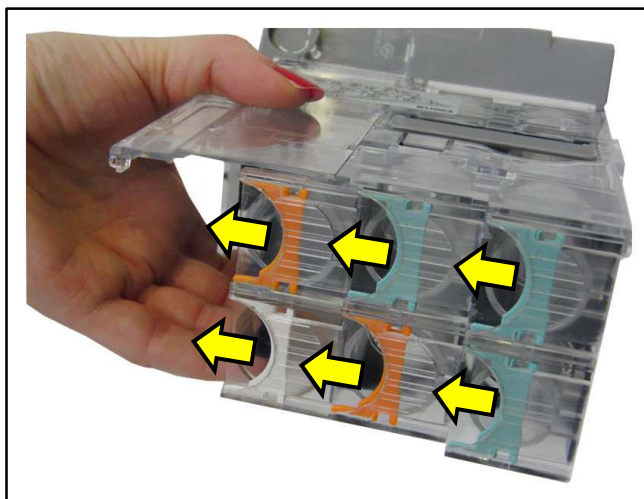
Fig.5A
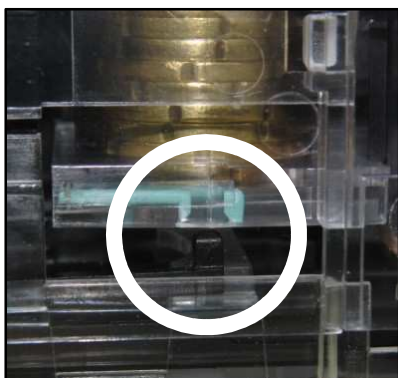
Fig.6A
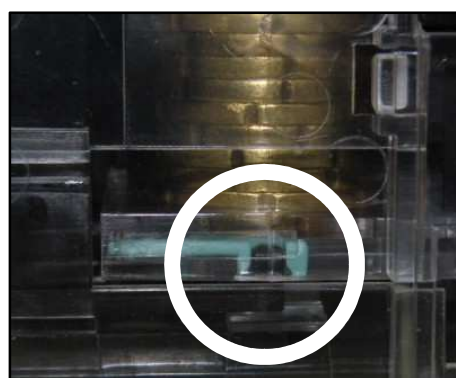
Fig.6B

The max. number of coins each tube can contain may vary according to the thickness of coins.

EURO coins: 5c   75 pcs.
             10c   65 pcs.
             20c   55 pcs.
             50c   50 pcs.
             1E   50 pcs.
             2E   50 pcs.

Go to p.85 for a complete list of the EURO tube groups available.
Consult Paytec price list for more info.

Connectors motherboard CIB1

Motherboard CIB1 is the PCB interface for connections of the output cables to the VMC or for connection to inner connectors.
The motherboard is fixed on the housing wall (Fig.7)

MOTHERBOARD CIB1
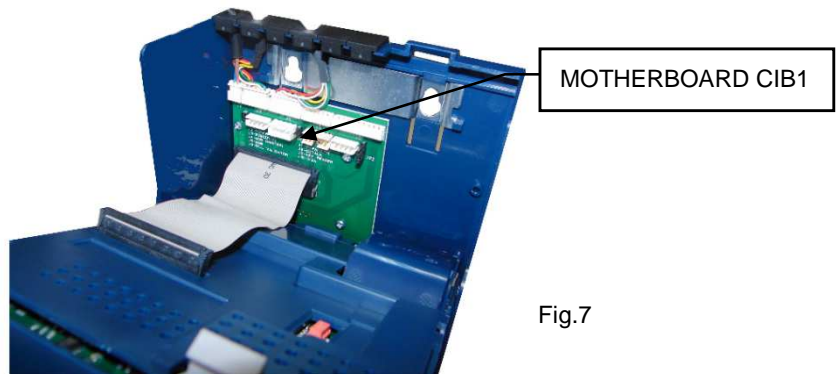
Fig.7

Connectors CIB1

Fig.7A

Connectors

J1 Flat cable motherboard MCB1 coin selector
J2 AC/DC Vin 24V nom.
J3 Serial EXE, BDV to VMC
J4 Serial peripheral MDB
J5 Serial MDB Slave to VMC
J6 Bill validator parallel
J7 nc
J8 nc
J9 Key reader Paytec
J10 External IrDA
J12 Flat cable motor motherboard CECB1
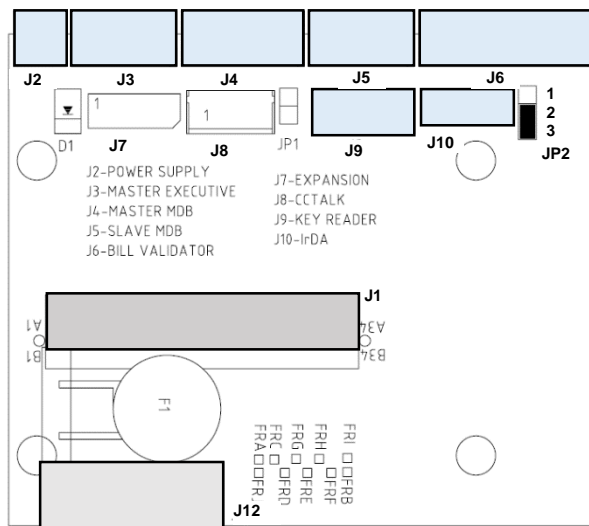
JP2 This jumper permits to switch the function of connector J6-pin7.

Position 3-2: signal INHIBIT on pin7.
Position 1-2: UVcc = 34V DC (nom .) on pin7.
UVcc depends on the power supplied by the VMC (e.g. by an input voltage of 24VAC on J6-pin7, you have a rectified and filtered voltage of about 34VDC (UVcc)).
Here below the diagram of the signals for connector J6 and jumper JP2.
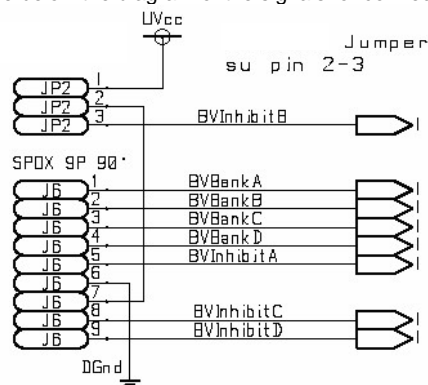
Programmer P6000

"P6000" is a palmtop designed to configure systems or for servicing functions. The tool must be plugged on the 4-pin connector present on the faceplate (Fig.8). Cut power before plugging/unplugging the P6000 flat cable.

P6000 keypad

↵   **ENTER**
- enter a function;
- confirm a setting;
- scroll down parameter list.

ESC   Exit a function

C   Cancel

▲   Scroll down function list

▼   Scroll up function list

1   **YES** or **1.**
      Press 1 for "Y" (YES)

0   **NO** or **0.**
      Press 0 for "N" (NO)

Fig.8

Entering function menu with P6000

Plug the P6000 on the dedicated connector (system OFF), give power and wait till the access password is required. You have 5 seconds to enter the password and press ↵ to confirm, otherwise connection is cut with P6000 (you have to switch the system OFF and ON again).

```
ENTER
PASSWORD: -----
```
Enter the password **within 5 secs.** and press ↵ to confirm.
If the password is not entered within 5 secs., connection is cut with the P6000 and a new connection is established with VMC.

```
* PAYTEC EAGLE *
* Vers.-.--.-- *
```
EAGLE firmware revision.
Press ↵ .

```
* PAYTEC EAGLE *
*SN 000000000000
```
Product serial number.
Press ↵ .

```
Language :
English
```
This message is displayed when the system is configured in two languages. When the system is configured in one language, the message is not displayed.
Press ↵ .

```
00 General
   Parameters
```
Press ↵ to enter Fn00.
Press ▲ (next) or ▼ (back) to scroll the function list.

The essential parameters for a correct functioning of a changegiver are present in Fn00, 01, 03, 04, 09.

Connectors and connectable devices

See Fig.7A on p.11.

J1 (6 pins - red)
SIB .... connector for SIB (accessory) – system software/configuration updating tool.

J6 (10 pins)
Key reader ……........... connector for key reader PAYTEC (accessory).

J7 (6 pins)
MDB Master .... connector for an external peripheral MDB (bill validator, cashless validator).

J8 (14 pins - flat cable)
Motor group …............. connector for motor group motherboard.

J10 (2 pins)
V in ……….................... connector for power IN (24V AC/DC nom.)

J12 (9 pins)
Bill validator................ connector for bill validator (select model in Fn00 with P6000 or click on bill validator on Paytec Configurator main window).
Bill validators are not powered by Eagle; a different power source must be supplied following the instructions by the manufacturer.

J14 (5 pins)
Serial EXE .... connector for serial Master unit.
- Protocol Executive.
- Protocol BDV001.

J15 (4 pins - red)
LCD .... connector for external LCD (optional).

J17 (5 pins)
Serial MDB .... connector for serial MDB Slave unit.

J18 (4 pins)
Optical IrDA .... connector for IrDA interface (protocol DDCMP EVA-DTS).
- External IrDA (optional – item code AL40.426).

J22 (14 pins)
Expansion …..……...... connector for an expansion board.

J3 (4 pins)
P6000 .... connector TTL for either of the following devices:
- palmtop P6000 (optional);
- PC via USB cable (accessory – item code AC.00100).

Installing an MDB Slave unit

EAGLE is equipped with an output cable for connection to an MDB Slave unit (either a bill validator or a cashless system). When the bill validator is equipped with a double connector, Slave units can be connected in parallel in compliance with Standard MDB (1.5A max.). Do not overload the system!
When giving power to the system, the MDB Slave unit is automatically recognized with its address.

Programming EAGLE with a P6000

The parameters in Fn00 must be configured, otherwise the MDB Slave unit won't be working correctly.
The system can be configured so that coins and bills are only accepted after inserting the key in the reader connected (no matter whether a peripheral MDB or a Paytec key reader).

```
Coins only with
key-card ?
```

N Coins are always accepted.
Y Coins are only accepted when a key/card has been inserted in the MDB cashless reader.
The same is valid when a Paytec key reader is connected (PIT or Mifare®).

```
Bills always
enabled ?
```

N Bills are only accepted after a key/card has been inserted in the cashless system.
Y Bills are always accepted.

⚠️ **WARNING**
Select "Y" when no cashless system has been connected, otherwise the system won't accept bills.

```
Bill Validator
ON in Ex-Ch ?
```

N Bills are only accepted when the system is NOT in Exact-Change.
Y Bills are also accepted when the system is in Exact-Change.

Functions P6000

00   General parameters
This function contains the main parameters: protocols, max. credit cash/on key, bill validator type, system date/time, machine number, currency (Euro / NCU), P6000 access password ...

01   Parameters change - USF
Enter the smallest credit unit (Euro = 001) and adjust changegiving parameters.

03   Coin values
This function enables operators to read/modify configuration for each coin channel, select coin destination (tube/cashbox), adjust inhibit parameters ...

04   Prices and discounts
Enter prices and discounts.

05   Bill values
Enter the value of the bills accepted by the bill validator connected.

06   Cashless parameters
Enter PINs for keys and other checking parameters on key.
Set parameters for keys auto-programming.

07   Time bands
The following timed functions are available : 4 timed ON/OFF, 2 time bands for discounts, 2 time bands for free vends, 1 time band for free credit.

08   Coins Programming
This function is used to configure coin channels.

09   Level in tubes
Adjust coin level in tubes: empty and maximum; number of coins in each tube.

10   Security
Secure mode can be activated here: PINs on keys are only programmed by inserting an Access Key (PINs can be no longer modified with Paytec Configurator / P6000 - unless the system is reset).

11   Fidelity
Clients can be fidelized by giving them credit/points for each purchase.

12   Audit (password required)
This function enables operators to activate/read extended Audit, activate Audit reset key, read how many readouts so far, modify Audit password and reset Audit.

13   Credit cash overpayment
You can decide whether residual cash credit must be displayed for 3 mins or not (when lower than the lowest price).

15   Miscellaneous options
This function contains an option preventing users to recharge keys with cash. Other options: Exact-Change signal OFF, price increase with cash, timeout cash OFF, free vends only with key, setup from keypad.

16   Set level in tubes
Servicing function to modify the number of coins in each tube.

17   Price Holding Setting
Associate selection number on VMC with price no. on EAGLE (select Price Holding mode in Fn00).
Prices are thus controlled by the payment system (not by VMC) – discounts can be given for each price.
Price Holding mode enables the application of Bonus Menu (see Fn29).

18   Cashless options
A fictitious credit can be created to give free vends (with Executive protocol) to those keys with no credit left. Other options are available to inhibit check on location code and enable unlimited credit on test key.

19   100 selections
100-price list (with 100 discounts); enter "Y" to control up to 100 prices in Executive Price Holding or BDV001.

20   Selection options
You can decide here to inhibit either free credit or free vends for one or more selections (1 to 100).

21   Cash test and max. change
This function enables users to adjust max. change in single vend and test acceptance for coins/bills (insert test key, first).

22   Free credit and free vends
Free credit options. Options about free vends and special discounts for *key1*.

23   Diagnostics
Special function to read/reset system errors, or read status optical sensors.

24   Customer Service
Function for technical staff. Option to activate rapid "Escrow".

26   Country Code
Enter international phone code (MDB protocol only).

27   Conversion keys
This is a special function permitting operators to modify key codes.

29   Parameters Bonus
Parameters for bonus menu and bonus recharge.

30 - 31 - 32 - 33 Black List
Fn 30 to 33 contain options to inhibit/re-activate keys, view key codes, reset Black List.

35   Token
This function contains options about mixed credit (coins+tokens); you can, for instance, inhibit change when a token has been inserted, prevent clients from recharging keys with tokens and coins or inhibit a mix of coins and tokens in tubes.

36   Discount & free vends Key98
This function contains options about special discounts and free vends with *key98*

37   Prices cashless MDB
This function contains parameters to set the price list for a peripheral cashless MDB (the list contains 100 prices).

38 - 39 Euro conversion/parameters
You can set parameters to switch a national currency into Euro

40   Product categories
Set codes of product categories (used to compose bonus menus).

Fn00 – General parameters

All the parameters in this function must be set (a parameter being omitted might cause a malfunctioning).

```
External IrDA
interface ?
```

N No external IrDA has been connected.
Y External IrDA connected.
Select "Y" even if a Paytec key reader with IrDA is connected.
When selecting "Y", the IrDA on EAGLE faceplate is inhibited.

```
Executive
Protocol ?
```

N Protocol inhibited (next).
Y Executive protocol enabled.

Y

```
Price Holding
mode ?
```

N Executive standard (prices are controlled by VMC).
Y Executive Price-Holding (prices are controlled by EAGLE).
Enter prices in Fn04, then match each price to a selection number in Fn17 (up to 100 prices - see Fn19). The equivalent Price Holding mode must be set on the VMC.

```
Send price to
VMC ?
```

Only valid in Price Holding mode.
N Standard.
Y The price is transmitted and displayed on the VMC whenever a selection button is pressed (even if no money has been inserted yet).

```
MDB-ICP
Protocol ?
```

N Protocol inhibited (next).
Y Protocol MDB Slave enabled (EAGLE works as a peripheral MDB unit).
Serial cable MDB is necessary.

```
Use Selection No.
for Audit ?
```

Set according to how vends are controlled by the VMC.
N Vends are memorized by price.
Y Vends are memorized by selection number.
Warning! In MDB protocol, the 1st selection number sent by the VMC is 0 (corresponding to no.1 in Audit list).

```
1st Selection
is number… ?    0
```

Set the 1st number corresponding to the number transmitted by the VMC (with MDB protocol).

```
BDV-Master
Protocol ?
```

N Protocol inhibited.
Y Protocol BDV001 Master enabled.

```
Charger
mode ?
```

N Charger mode inhibited.
Y Charger mode enabled: the changegiver is ready without serial line (no Link). You simply have to give power.
Coins are accepted following the configuration set.
When a key reader is connected, set coin acceptance parameters with/without key inserted.

```
MDB-RS232
mode ?
```

N RS232 mode inhibited.
Y RS232 mode enabled with MDB protocol.

In MDB-RS232 mode, EAGLE can be used as a payment system connected to serial port RS232 of a PC. RS232 mode requires protocol MDB (to be implemented on your PC).
MDB-RS232 enables "Bit Mode" to establish communication between Master (PC) and Slave unit (EAGLE). In order to make "MDB-RS232" easier to implement on a PC, the "Bit Mode" has been replaced by a 20 msecs. timeout (no more than 5ms in "idle" status must pass between a character and the next in the same frame).
When giving power (with MDB-RS232 activated), coins are inhibited until the activation command is transmitted from PC.
MDB-RS232 being a special operating mode, we recommend you to contact Payment Technologies for more info.

```
Machine code
        12345678
```

Enter machine identification number (1 to 9999999). This number appears both on printed reports and in DDCMP file.

```
Machine type
              1
```

Enter a number (1 to 99) identifying machine type. This number is not present on Audit printed reports but it appears on the list transmitted to the PC.

```
Currency
description   978
```

Enter "978" for Euro-configured systems (Euro keys accepted).
Once you have set "Currency description=978", this value cannot be modified (unless the system is reset, in that case "Currency description=1").
Euro systems = 978
Non-Euro systems = 001

```
Coins only with
key-card ?
```

Set this option when an MDB cashless reader or a Paytec key reader has been installed.
N Coins are always accepted (no need to insert a key).
   Select "N" when no key reader is connected.
Y Coins are only accepted after a key has been inserted.

```
Bill Validator
connected ?
```

Select "Y" when a bill validator parallel has been connected on J6 (9 pins).
Leave "N" if an MDB reader has been connected as an external unit.

N No bill validator parallel is connected.
Y A bill validator parallel is connected.
   Contact PAYMENT TECHNOLOGIES for the dedicated cable.
   All the parameters here below are referred to PARALLEL mode.
   Select validator model (see Fn05).

```
Coges LMB?
```

N Next.
Y Coges LMB connected.

```
Coges Eureka or
Edue F30 ?
```

N Next.
Y Coges Eureka connected.

```
Smiley NV4-5 or
Edue Primo V10 ?
```

N Next.
Y Smiley NV4 connected in parallel mode (this validator type enables users to inhibit single bills).

```
Binary mode ?
```

N Smiley with parallel outputs.
Y Smiley with binary outputs (no data-valid).

```
PAYTEC Parallel
CBV IVO/B2 ?
```

N Next.
Y PAYTEC bill validator in parallel mode (100 msecs.timed outputs).

```
CBV125
J01/A25/A2A ?
```

N Next.
Y CBV/125 in parallel mode (100 msecs. timed outputs).

```
PAYTEC Pulse
ICT-A7 JCM-DBV ?
```

N Next.
Y One of the following bill validators is connected in pulse mode:
- PAYTEC validator;
- JCM DBV301;
- ICT A7.

```
Enable single
bill ?
```

N All the bills are accepted.
Y Every bill channel can be dynamically enabled/inhibited (for compatible validators only). All those bills are inhibited whose value – added to the credit displayed – is higher than the max. credit programmed.

```
Enable all bills
high ?
```

N Signal "enable" low (0.4V/50mA max.)
Y Signal "enable" high (PVcc/50mA/Pull-Up 1K).

```
Enable single
bill high ?
```

N Signal "enable" low (0.4V/50mA max.)
Y Signal "enable" high (PVcc/50mA/Pull-Up 10K).

Possible configurations for bill validators

	PAYTEC Parallel	PAYTEC Pulse mode
Bills always enabled ?	N	N
Enable single bill ?	N	N
Enable all bills high ?	N	N
Enable single bill high ?	N	N

Notice: Payment Technologies is NOT responsible if a setting is different from the setting indicated.

After bill validator parameters have been set, enter Fn05 and enter bill values

```
┌─────────────────────────────┐
│ Maximum value               │
│ Escrow        ---,--         │
└─────────────────────────────┘
```

Set this parameter when a bill validator MDB with function *escrow* is connected as slave unit to the changegiver EAGLE.

Without key, bills are accepted till the level "maximum credit cash" is reached and are routed to the cashbox. After this level has been reached, bills are kept in *escrow* status when their value is not higher than the "Max. value Escrow" set here.

E.g. with EURO: by max.value *escrow* = 10.00, the validator will accept €5 and €10 bills but won't accept €20 bills.

When a bill is in *escrow* status, one the following conditions may occur:
a) when making a vend: if the bill is necessary to complete the payment, the bill is routed to the cashbox, otherwise it is given back;
b) when inserting a key: the bill is accepted and its value is loaded on the key. If the key is not enabled to be recharged, the bill is given back;
c) when pressing the lever *escrow* on the changegiver, the bill is given back.

The function *escrow* is inhibited in the following cases:
- the value set is "**0.00**" (zero);
- a key has already been inserted (the value of the bill is loaded on the key).

```
┌─────────────────────────────┐
│ Bills always                │
│ enabled ?                   │
└─────────────────────────────┘
```

Set this option when a bill validator is connected, even in MDB.
N Bills are only accepted after a key has been inserted.
Y Bills are always accepted (with/without key inserted).

```
┌─────────────────────────────┐
│ Bill Validator              │
│ ON in Ex-Ch ?               │
└─────────────────────────────┘
```

N Bills are only accepted when the tubes are full.
Y Bills are also accepted when the tubes are empty (no change is given, though).

```
┌─────────────────────────────┐
│ Decimal Point               │
│ Position LCD      0          │
└─────────────────────────────┘
```

Decimal point position on display.
0 = credit is displayed without decimals;
2 = credit is displayed with cents.
Euro-configured EAGLE = 2

```
┌─────────────────────────────┐
│ Maximum credit              │
│ Cashless:    10000          │
└─────────────────────────────┘
```

Maximum credit that can be loaded on a key.
A key is also accepted with a higher credit when the check on max. credit is not enabled (see Fn06).
Max. value = 65535 (€ 655.35).

```
┌─────────────────────────────┐
│ Maximum credit              │
│ cash:        10000          │
└─────────────────────────────┘
```

Maximum credit accepted for payment with coins and/or bills in multivend mode (→Fn01).
When the changegiver has been set in "single vend" mode, the max. credit on key accepted by a changegiver corresponds to the value of the max. price (→Fn04).
Max. value = 65535 (€ 655.35).

```
┌─────────────────────────────┐
│ Display                     │
│ OFF ?                       │
└─────────────────────────────┘
```

N LCD always ON with backlighting ON.
Y LCD ON but backlighting goes OFF after the time programmed.

```
┌─────────────────────────────┐
│ Display ON                  │
│ (10-250)secs.    0          │
└─────────────────────────────┘
```

Set the no. seconds after which the backlighting goes OFF.
During "setup" from keypad, the display is backlighted again.

```
Activate
Deposit ?          N
```

N Check inhibited on deposit value.
Y Deposit value is checked. When a key has been inserted with a deposit programmed, the credit will be displayed – with the deposit value decreased – only after charging the key with a higher value than the deposit value.

```
New Password:
              12345
```

Press ↵ to confirm the current password, or enter the new password and then press ↵ to confirm.
Max. value: 65535.

```
Date
dd/mm/yy    010914
```

Set date: day, month, year.

```
Time
hrs/min      1230
```

Set time: hours, minutes.

Fn01 – Parameters change and Unit Scaling Factor (USF)

```
Unit Scaling
Factor        001
```

This is the smallest credit unit transmitted to the VMC in Serial protocol.
Enter the value of the smallest coin accepted.
USF in EURO = 001
Max. value with Executive protocol = 255.

```
Change without
vend ?
```

N Standard (it is necessary to make a vend).
Once money has been inserted, it won't be given back; change is only given after a vend.
Y The money inserted is also given back without a vend (money changer), provided that such amount is equal to or lower than the max. change that can be given**.**
Press the opening lever to get money back.
NOTE: the system stops giving change when tubes reach the empty level.

```
Multivend ?
```

N Single vend.
Y Multivend.

Single vend   Change is automatically given after a vend (no max. value), until no more coins are left in tubes. The max. credit cash that can be inserted corresponds to the value of the max. price (see Fn04).
You can enter a value as max. change (see Fn21).

Multivend   Change is given when pressing the Escrow lever after one or more vends. Such operative mode enables customers to make more selections and get their change manually. The max. credit accepted is programmed in Fn00.
See Fn24 to adjust the speed of Escrow lever.

```
Delay change
after vend:       0
```

Standard = 0
This option is only valid in single vend.
Up to 30 secs. may pass before change is given after a vend. This option enables a cashless system MDB connected[1] to recharge a key (in that case, no change is given).

```
Maximum change
              1000
```

Max. value 65535 (€ 655.35).
Max. change after a multivend. For higher values, the difference is displayed for 3 mins., after which it is cleared and stored in the Audit as "overpay".

```
Custom Change
amount:        100
```

```
Custom Change
Tube 1: Coins 0
```

Custom change.
Both the amount of change and the number of coins to be paid out from each tube can be customized.
(0 = the change due after a vend is automatically calculated and given by the payment system EAGLE).

Enter the number of coins to be paid out from each tube. When the change value is higher than the predefined value, EAGLE automatically gives the exceeding change.

```
No. selections
Exact-Change ?  0
```

Standard: option inhibited.
Y Indicate the number of vends made in "Exact-Change" (which have to be paid with cash), for which the starting date of Exact-Change is not indicated in the Audit file. When more vends are made (and the Exact-Change condition is still ON), time/date when Exact-Change condition started is stored in the Audit.
When the Exact-Change condition is over, the counter is reset.

Example: enter "3" and the date/time Exact Change ON will be only registered in the Audit from the 4th vend made in Exact Change.

Here is the record:
EA1*OBK_ON*yymmdd*hhmm   time when event in Exact Change started
EA1*OBK_OFF*yymmdd*hhmm   time when event in Exact Change terminated

! If you wish to limit the max. change in single vend, adjust the following option in Fn21

```
Max. change in
single vend ?
```

N Standard. Change is given with the coins available in the tubes.
Y Change is given up to the max. value programmed in Fn00.

---

[1] Here is meant a cashless system MDB by a different manufacturer, connected with changegiver EAGLE.

Exact-Change (no change available)

The alarm signal "no change available" (signal called "Exact-Change") is automatically controlled by the system, following the type and the number of coins in a tube.

As a rule, The Exact-Change status is OFF if the system can give a change (within a min. and max. value) with the number of coins in the tubes.

For minimum change, the coins with the lowest value in the tubes are used.
For maximum change, the coins used are calculated as follows, depending on vending mode selected.

Multivend: Maximum change is considered the value "maximum change" set.
When the value set in "maximum change" is 0 (zero), the system automatically adopts the following value:
maximum change = max. credit cash accepted + max. coin value accepted.

Single vend: Maximum change is considered the value "maximum change" set.
When the value set in "maximum change" is 0 (zero), or it is not possible to set "Max. change in single vend" (Fn21), the system adopts the following value:
maximum change = highest selection price + max. coin value accepted.

Example
Maximum change value: 5.00
Value of coins in tubes   12 x 0.05 = 0.60   lowest coin value = 0,05
                                  0 x 0.10 = 0.00
                                  0 x 0.20 = 0.00
                                 10 x 0.50 = 5.00
                                             5.60

The Exact-Change status is not enabled because with the coins in the tubes it is possible to pay out a change between 0.05 and 5.00.

Fn03 – Coin parameters

Parameters can be read in *Fn03* for each coin (up to 30 coin channels).
Some parameters can also be modified.
Select a channel, then press ↵ to scroll down the list of parameters.
Press **ESC** to exit a function.

Adjust coin parameters with the utmost care; an incorrect setting might prejudice coin discrimination level.

```
Select
coin No.        1
```

Enter the number of a coin channel, then press ↵ to confirm.

```
Coin No.        1
Euro ?
```

N The tube selected contains other coins than Euro.
Y The tube selected contains Euro coins.
 Euro coins are accepted by "currency description = 978" in Fn00.

```
1^ Coin
   value:
```

Coin value (**65500 max.**)
Enter coin value, then press ↵ to confirm.
This value must be equal to the USF in Fn01 (or a multiple of it).

```
List coin
options 1 ?
```

N The 1st coin parameter is displayed.
Y Scroll down the list of coin options.

```
Coin No.        1
inhibited ?
```

N The coin is accepted.
Y The coin is NOT accepted (channel inhibited).

```
Coin No.        1
Coin Protected  Y
```

DO NOT MODIFY THIS PARAMETER
This channel is protected against writing (only-read parameters).
Such channel can be inhibited but not modified.

```
Moneta n.       1
Black Coin ?
```

N The coin is always accepted.
Y Black Coin channel (the coin is NOT accepted).
 Standard setting : "N"

```
Coin No.        1
Tube 1 ?
  Coin No.        1
  Tube 2 ?
    Coin No.        1
    Tube … ?
      Coin No.        1
      Tube 6 ?
```

Coin destination
N The coin **does not** fall in tube 1.
Y The coin falls in tube 1 (tube A).

Do the same for each of the six tubes.

→ If you leave **N** for all the tubes, the coins fall in the cashbox.
→ When the destination tube is full, the coin falls in the cashbox.
→ A coin can be routed to different tubes (check compatibility in diameter).

```
Coin No.        1
Exact-Change ?
```

N The coin is ONLY accepted IF tubes are full (Exact-Change OFF).
Y The coin is ALWAYS accepted (even when tubes are empty).

- **Select "Y" for coins that are supposed to fall in tubes.**
- **Select "Y" for low-value coins, which can be used to pay a vend in Exact-Change.**

```
Coin No.        1
with Cashless ?
```

This option is valid when a key reader is connected.
N The coin is accepted with/without key inserted, following the parameters previously set.
Y The coin is ONLY accepted IF a key has been inserted in the reader (Exact-Change condition is ignored).
When the max. credit on key has been reached, coins are not accepted when trying to recharge the key with more credit.

```
Coin No.        1
token ?
```

N Standard setting.
Y The "coin" is accepted as a token (you can configure the system so that keys cannot be recharged with tokens – see Fn35).
With protocol MDB, the system communicates a VMC that the coin accepted is a token (the value is not given, though). The VMC will then manage the token to confirm a vend.

Here starts the list of coin parameters.
DO NOT MODIFY DEFAULT COIN PARAMETERS.

```
Coin No.        1
Diameter:    ----
```

Coin "diameter".
DO NOT MODIFY.

```
Coin No.        1
D-Diameter:  ----
```

Tolerance on coin "diameter".
DO NOT MODIFY.

```
Coin No.        1
Thick.Ind.:  ----
```

Coin "thickness".
DO NOT MODIFY.

```
Coin No.        1
D-Thick.Ind.:----
```

Tolerance on coin "thickness".
DO NOT MODIFY.

```
Coin No.        1
DLX:         ----
```

Parameter "DLX".
The measure is taken by "Enable DLXX = Y".
DO NOT MODIFY.

```
Coin No.        1
D-DLX:       ----
```

Tolerance on parameter "DLX".
DO NOT MODIFY.

```
Coin No.        1
AlloyPhase-: ----
```

Parameter "Alloy Negative".
DO NOT MODIFY.

```
Coin No.        1
D-AlloyPhase-:---
```

Tolerance on parameter "Alloy Negative".
DO NOT MODIFY.

```
Coin No.        1
AlloyPhase+: ----
```
Parameter "Alloy Positive".
DO NOT MODIFY.

```
Coin No.        1
D-AlloyPhase+: --
```
Tolerance on parameter "Alloy Positive".
DO NOT MODIFY.

```
Coin No.        1
Enable DLXX:
```
DO NOT MODIFY.
Y   **Standard.** Parameters "DLXX" are enabled.
N   Parameters "DLXX" are NOT enabled.

```
Coin No.        1
DL70:        ---
```
Parameter "DL70"
The measure is taken by "Enable DLXX = Y"
DO NOT MODIFY.

```
Coin No.        1
D-DL70:      ---
```
Tolerance on parameter "DL70"
DO NOT MODIFY.

```
Coin No.        1
DL10:        ---
```
Parameter "DL10".
The measure is taken by "Enable DLXX = Y".
Do NOT MODIFY.

```
Coin No.        1
D-DL10:      ---
```
Tolerance on parameter "DL10".
DO NOT MODIFY.

```
Coin No.        1
Parameter F  ---
```
Parameter "F".
DO NOT MODIFY.

```
Coin No.        1
D-Parameter F: --
```
Tolerance on parameter "F".
DO NOT MODIFY.

Delta on coin parameters

"DELTAS" are tolerance values on coin parameters. The coin acceptance value window is represented by the nominal value + the delta value programmed.
When programing a new coin channel, the delta value is automatically calculated for each coin parameter measured.
Delta values in the new coin channels programmed can be modified to adjust coin discrimination level.
Delta values in the coin channels configured by default CANNOT be modified.
Example : when the parameter "AlloyPhase+" of a coin is 150 with a delta of 10, that coin is recognized with a value between 140 and 160.

In the case of a poor acceptance, try programming the coins rejected in a free channel and compare their nominal values to default ones.
When a new channel is added, tolerance on coin parameters is increased.

Fn04 – Prices and discounts

Two price lists are available
List 10 prices   standard ……………………………….….. 4 discounts for each price.
List 100 prices   enable list 100 prices in Fn19 …….…...… 1 discount for each price.

Price list for a peripheral cashless MDB.
Starting from f/w rev.1.16, an extra price list "cashless" is available, which can be used for vends paid via a peripheral cashless MDB connected to a changegiver. Such price list can be programmed in Fn37 (see dedicated paragraph).

Protocol Executive Standard – List 10/100 prices

With protocol Executive, prices are programmed on the VMC.
Prices must be programmed if you wish to get sales data (Audit) for each selection price; a sale is memorized when its price has been set in Fn04; if a price is not included in the price list in Fn04, the vend price is added anyway to the total

Discounts are only given when they are associated to a selection (a discount is given to all vends with the same price). Discounts are only given to vends with *key/card* but a Paytec key reader must be connected (accessory).
For vends with cash, two time bands can be enabled in Fn07.
Discounts are given differently according to the key/card in use:
- key 1   a discount for each price;
- key 98   four discounts for each price. Discount options are found in Fn36 (*discounts every "x" days,enable discounts, check discounts, no. discounts*).
              Fn36 is only enabled when "key98" has been selected in Fn06.

```
Price Number
              1
```
Enter a price line, then press ↵ to confirm.

```
1^ Price
   value    1,00
```
Enter price 1, then press ↵ to confirm.

```
1^ Pr./Disc.   1
   value     0,00
```
Enter discount for price 1, then press ↵ to confirm.
Keys 1 can only be given discount 1. Other discounts can only be given to keys 98.

```
1^ Pr./Disc.   2
  1^ Pr./Disc.   3
    1^ Pr./Disc.   4
       value     0
```
Do the same for all discounts
NOTICE: when a List 100 prices has been selected in Fn19, one discount is only available for each price.

We suggest you should use Price Holding mode for a better management of discounts.
Each price can be associated with a discount. More selections can have the same price but different discounts.

Executive Price Holding - List 10 prices

Prices are controlled by the changegiver EAGLE. In this case, each price (with its discount) is associated with a selection number.
You can have different selection numbers with the same price but different discounts.
Settings are indicated in table 1.

Table 1

Fn00	" **Executive Protocol ?** "	**Y**	Executive protocol enabled.
	" **Price Holding mode ?** "	**Y**	Price Holding mode enabled.
	" **Send price to VMC ?** "	**Y/N**	(See below)*
Fn01	" **Unit Scaling Factor** "	**001**	Enter 1 (up to 64 selections available).
Fn04	" **1^ Price value: - - - - -** "		Enter up to 10 prices (match each price to a selection).
	" **1^ Pr./Disc. 1 value: - - - - -** "		Enter up to 4 discounts for each price (depending on the key type in use).
Fn17	" **Selection number** **(1 – 64) 1** "		Enter selection no. on the VMC (64 selections max.)
	" **1^ Selection** ** price line no. - -** "		Enter the price number (1 to 10) you wish to associate with a selection number.

*   **Send price to VMC** – Enter "Y" to display prices when a pressing a selection button but no money has been inserted yet. Prices can be thus checked on display before a purchase is made.

Executive Price Holding - List 100 prices

Up to 100 prices (extended memory). This option is useful for those VMCs with a high number of selections.
All 100 prices are set in Fn04 (price number = selection number) and you don't have to set parameters in Fn17.
In this case one discount is only given for each price.
Settings are indicated in table 2.

Table 2

Fn00 - Fn01	See table 1		Set as indicated in table 1
Fn19	" **100 selections ?** "	**Y**	List 100 prices enabled.
	" **Reset prices and discounts?** "	**Y**	The current List 10 prices is reset.
	" **Confirm reset ?** "	**Y**	Reset is confirmed.
Fn04	" **1^ Price value: - - - - -** "		Enter up to 100 prices.
	" **1^ Pr./Disc. 1 value:** "		Enter a discount for each price.

Audit is extended to 100 prices.

Fn05 – Bill values

Enter bill values when a parallel bill validator has been connected.
When a bill validator MDB has been connected, you don't have to enter bill values (bills are controlled via protocol MDB).

```
1^ Bill
   Value    5,00
```
Enter the 1st bill values accepted (e.g. €5.00) and press↵ to confirm.

```
2^ Bill
   Value   10,00
```
Enter the 2nd bill values accepted (e.g. €10.00) and press↵ to confirm.

```
3^ Bill
   Value   20,00
```
Enter the 3rd bill values accepted (e.g. €10.00) and press↵ to confirm.

Some bill validators can work in "pulse" mode (the number of pulses transmitted to the output is proportional to the USF programmed).
In this case, when setting bill no.1 its value must be the same as the USF programmed (read user guide of the bill validator).

For Paytec bill validator in pulse mode the USF is € 5.00.

Bill validator models and logic level INH are set in Fn00.
Consult the bill validator user guide (on some models, you can modify configuration depending on the operating mode selected).

Key reader

The change giver EAGLE can be connected with either of the following key readers Paytec (on demand).
- CAIMAN   for PIT keys
- CAIMAN Mifare®   for Mifare® keys/cards

The key reader must be plugged on the inner connector J9 (see p.11).

The options about credit (*free credit, free vends, bonus menu*) are valid both for PIT keys and for Mifare® keys/cards. The functions described for the use of keys/cards are only valid for Paytec key readers (other cashless readers MDB can be connected as peripheral units MDB).

Function list

Fn 06 ……. Key format, key codes, auto-programming keys (PIT keys only).

Fn 22 ……. Parameters about *free credit.*

Parameters about *free vends* and special discounts for keys type1 (daily/monthly *free vends* and special discounts).

Fn 36 …… Parameters about *free vends* and special discounts for keys type98 (daily/monthly/periodical *free vends* and special discounts).

Fn 18 …… Parameters about fictitious credit (to give *free credit* with protocol Executive).

Fn 20 …… Options to inhibit *free credit* and *free vends* for each selection number.

Auto-programming keys

EAGLE makes it possible to format Paytec "auto-programming" keys with the key reader connected. This function is only available for PIT keys.
"Caiman" Programmers (tabletop units designed to format keys manually – special options about discounts) are available on demand.

Credit on keys

Credit can be loaded on keys (either with bills or coins) up to the max. value programmed in Fn00.
Max. credit chargeable : 65535 units (€ 655.35).
Each key is formatted with a PIN and two more security codes (operator code and location code); the same codes must be programmed on EAGLE (Fn06), otherwise keys are not accepted.

Key format

Keys can be configured in two different formats: key1 or key98.
Select key format in Fn06. When the key format selected is different from the format of keys circulating in a location, keys are not accepted (the error message *CAR 10* is displayed).
Here below are details about the two key formats.

	Key 1	Key 98
Credit	One credit memory. Free credit is either added to or deducted from credit on the key.	Two credit memories. Cash credit and free credit are stored in two separate memories. Cash credit is only used when no more free credit is left.
Date	Either day or month is written on keys, depending on the free credit selected (daily or monthly free credit).	Date is always written in full (dd/mm/yy), that enables operators to optimize the use of periodical bonuses.
Free credit	Daily / monthly / up to 4 levels. All the systems in a location must contain the same configuration.	Daily/monthly/periodical/up to 4 levels. The systems in a location can be differently configured.
Free vends	Daily / monthly / up to 4 levels.	Daily/monthly/periodical/up to 4 levels.
Special discounts	Daily / monthly.	Daily/monthly/periodical/up to 4 levels.
Currency	Type 1, Euro 1.	Type 98, Euro 98.

Currency format

Keys can be formatted either with NCU or Euro credit.
Euro-configured systems (currency description = 978 - Fn 00): credit on *noEuro* keys is automatically converted in Euro when inserting the key in the reader (conversion following the change rate in Fn38).

LEDs (on key reader faceplate)

LEDs on Paytec key reader faceplete.

OFF	Reader OFF.
Flashing green every 5 secs.	Reader ON ... ready for use.
Green ON	Key inserted and accepted (you can pull out the key).
Red ON	Writing … (don't pull out the key).
Yellow ON	- Key error. - System ON with sensor dulled.
Flashing yellow + Err 2	Extended Audit full.

Fn06 – KEY parameters

The parameters here below are valid when a Paytec key reader is connected.

Cashless system **connected ? Y**	Select "Y" when a Paytec key reader is connected. **Y** Paytec key reader connected.

Key-Card 98 ?	**Select key format.** **Once the key format has been selected, ALL the keys and payment systems in a location must have the same format.** **N** Key type 1. **Y** Key type 98. Key type 98 is the format to be preferred because cash and free credit are stored in 2 separate areas. With key98 free credit can be increased/overwritten leaving the cash credit untouched (also see Fn27 - Conversion keys).

Operator code **0**	The same operator code must be set on EAGLE and on keys (0 to 65500).

Location code **0**	The same location code must be set on EAGLE and on keys (0 to 32000).

Write new **keys ?**	**N** Keys are not automatically formatted. **Y** Paytec AUTO-PROGRAMMING keys are automatically formatted when first inserted in the reader. Keys are formatted as key1 or key98 with operator code/location code/PIN programmed here. After the key has been inserted, wait a few seconds while the formatting procedure is running (LED red ON – don't pull out the key). If the key is pulled out before the formatting procedure is completed and the LED red is OFF, the key is invalidated ad must be replaced.

Y

Credit on **key 0,00**	Enter the credit amount you wish to recharge when formatting keys. 0 = no credit

Write user code ?	**N** Skip option. **Y** Select user code. The key formatting procedure is over when the last user code has been reached.

Y

First User **(1-32000) 0**	Enter the first user code.

Last User **(1-32000) 0**	Enter the last user code.

```
┌─────────────────────┐
│ PIN 1               │
│              ─────  │
│                     │
└─────────────────────┘
```

PIN 1 (Personal Identification Number).
If you wish to modify PIN 1, enter the current PIN (***** is displayed on the P3000) and press ↵ to confirm; then enter the new PIN1 and press ↵ again to confirm.

```
┌─────────────────────┐
│ PIN 2               │
│              ─────  │
│                     │
└─────────────────────┘
```

PIN 2 (the same instructions are valid as for PIN1).
PIN 1 + PIN 2 give a 10-digit password for max. security.
If you prefer a 5-digit password, instead, leave PIN 2 on 00000 (the system will recognize keys with PIN1 only).

If you wish to make PINs harder to decrypt, read the paragraph about Security (Fn10) in the present guide.
For more info, please contact Paytec After Sales&Customer Service.

```
┌─────────────────────┐
│ Single vend with    │
│ Cashless ?          │
│                     │
└─────────────────────┘
```

N **Multivend**. More purchases can be made after the key has been inserted. Credit on the key is reduced after each purchase.
Y **Single vend**. The key must be pulled out after each purchase (wait till the green LED is ON).
   If the key is not pulled out after a purchase, no more purchases can be made.

```
┌─────────────────────┐
│ Check max. credit   │
│ on key-card ?       │
│                     │
└─────────────────────┘
```

N Max. credit is NOT checked on keys (keys are accepted when containing a credit up to 65535).
Y Max. credit IS checked on keys. Keys are not accepted when recharged with a credit 50% higher than the max. credit programmed in *Fn00* (coins are still accepted but credit in not loaded on keys).

```
┌─────────────────────┐
│ Check last          │
│ digit ?             │
│                     │
└─────────────────────┘
```

EURO systems : **select** "**N**"

N Keys are accepted by any credit amount on them.
Y Keys are only accepted when containing a credit which is a multiple of 5.
   Warning: if this option has been set on "Y", prices and discounts must be a multiple of 5, too (otherwise keys are no longer accepted after the first purchase).

```
┌─────────────────────┐
│ Credit              │
│ survey ?            │
│                     │
└─────────────────────┘
```

Read next paragraph.

Fn06 – Credit survey

This function is present on all the models Paytec connected with a key reader and permits operators to read total credit on the keys circulating in a location (credit is read on every key inserted in the reader while the function is activated).

How to activate credit survey: first select "Y" in the option "credit survey", then enter a survey code **(the code must be the same for all the systems in the location/s you wish to survey)**.
When credit survey has been activated, each key is automatically updated with the new credit survey code when first inserted in the reader: credit on the key is memorized and added to the Audit totals (in a special section).
As a matter of fact, the total amount of credit stored depends on the number of keys that have been inserted in the reader while the "credit survey" option is ON – the amount might be only a partial value.

When credit has been surveyed on all keys, you can either modify the survey code and repeat the operation, or inhibit the option ("N").

```
Credit
survey ?
```

N Option skipped.
Y Credit survey activated.
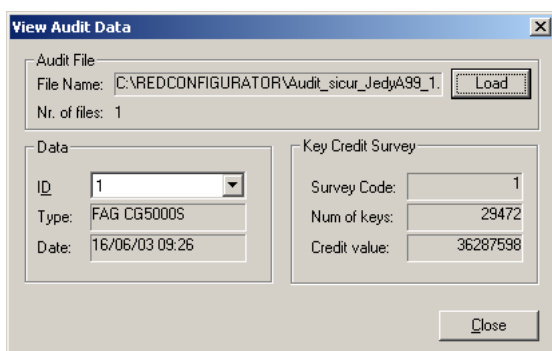
```
Survey code:
        123
```

Enter survey code (1-255). All the keys will be updated with this code when inserted in the reader. Credit on every key is memorized and added to the total credit associated with that survey code

.

Survey code updating procedures:
- update configuration with "Paytec Configurator" ("Audit" window);
- insert a special ServiceKey configured with "Caiman Programmer";
- automatic updating after each Audit readout (see option).

The credit amount surveyed is stored in the Audit memory under the label EA2 and data are divided as follows : EA2*093 Credit on Keys *Number of keys inserted*code*credit surveyed.

Data string is present in the Audit file generated by DDCMP. When opening the file with "**DDCMP Data Transfer**", data are displayed in the window "**Key Credit Survey**" :
Survey Code = code identifying credit survey;
Num of keys = no. keys inserted;
Credit value = amount of credit surveyed on the system containing the Audit file.

If you sum up all credit amounts surveyed in a location with the same survey code, you'll get the total credit amount of the keys circulating in that location.

```
Auto-increment
code ?
```

N The survey code has to be modified manually **(recommended)**.
Y The system automatically moves to the next code after each Audit readout (provided that there's been a selection after last readout).

Fn07 – Time bands

The following timed functions can be enabled on EAGLE:
- 4 timed ON/OFF;
- 2 time bands for discounts;
- 2 time bands for free vends;
- 1 time band for free credit.

You can set the time when each time band is started/stopped each day.
Leave "0" (zero) if you don't wish to enable timed functions.

```
First user OFF
(0-32000)      0
```

A group of user codes can be enabled anyway even if time bands are OFF. This means such keys will be always accepted and enabled for a purchase.
Enter the first user code (higher than zero).
Enter "0" (zero) if you don't wish to enable any user code.

```
Last user OFF
(0-32000)      0
```

Enter the last key code (32000 max.)

```
Power ON       1
hrs/min        0
```

First ON (hour/minutes).
0 = timed ON inhibited.

```
Power OFF      1
hrs/min        0
```

First OFF (hour/minutes).
0 = timed OFF inhibited.

… do the same up to the 4th timed ON/OFF.

```
Start discount 1
hrs/min        0
```

1st ON timed discounts. During this interval, discounts are given to all vends (both with key and cash).

```
End discount   1
hrs/min        0
```

1st OFF timed discounts.

```
Start FreeVend 1
hrs/min        0
```

1st ON timed free vends.
Free vends are only given when a fictitious credit has been programmed in Fn18.
All vends are free during this interval (the fictitious credit amount is displayed).

→Fn 18:
```
Fictit. credit
value:      5,00
```

```
End FreeVend   1
hrs/min        0
```

1st OFF timed free vend.

```
Start Free Cred
hrs/min        0
```

Free credit ON (enter free credit value in Fn22). Free credit is only loaded on keys within this interval (all the options about free credit are valid).

→Fn 22:
```
Free Credit
value:      0,50
```

```
End Free Cred
hrs/min        0
```

Free credit OFF.

Fn08 – Coins programming

Up to **30 coin channels** can be programmed on EAGLE. Free channels can be configured while the coin channels configured by default are protected against writing.

Programming coin channels with a palmtop P6000
Enter Fn08, set the parameters required, then insert the coins you wish to configure.
Enter Fn03 and configure parameters of coin channels: coin destination (cashbox or tube), options about coin acceptance (Exact-Change, …..) discrimination tolerance (Delta).

Programming coin channels with a PC
Coins can be programmed with s/w application "Paytec Configurator" rev. 6.00 or later (compatible with Windows® XP/7). Coins must always be inserted in the system even if they are programmed with a PC application.
It is necessary to use a USB cable (accessory).

When selecting a coin channel programmed by default, the message "Error Coin Protected" is displayed (select another coin channel !).

Programming coins with P6000

```
Programming
Coin          15
```

Enter the number of the channel you wish to configure and press ↵ .
When the message "Error Coin Protected" is displayed, try with another channel.
EUR models: channels 1 to 8 are protected by default.

```
Progr. coin    15
n. passages    10
```

No. coins that have to be inserted when programming that coin type.
Enter a number (4 to 99), then press ↵ to confirm.
No. passages recommended = 10

```
Progr. coin      15
increase delta    4
```

Enter the "Delta" increase calculated by the software (0 to 15), then press ↵ to confirm.
It is preferable to start with low values (3, 4), then make adjustments depending on coin acceptance tests.

After coin channels have been configured, delta values can be modified in Fn03.

```
Progr. coin      15
Black Coin?
```

Options to program fake coins/tokens that won't be accepted.
A coin/token recognized as a Black Coin will be ejected as a fake.
N Valid coin/token.
Y Coin/token type Black Coin.
Contact Paytec Customer Service for more info about Black Coin channel.

```
Programming    15
in progress   0/10
```

Insert coins slowly one by one. Coins should fall into the recovery channel.
The menu of the P6000 goes back to the opening line of Fn08 after the last coin has been inserted

LCD `1-10`

Notice: *the number of coins that have been inserted so far and the overall number of coins that must be inserted is displayed on EAGLE LCD.*

After all coins have been inserted, you need to adjust their parameters in Fn03.

Fn09 – Level in tubes

Tube group cover

Fig.9

Example
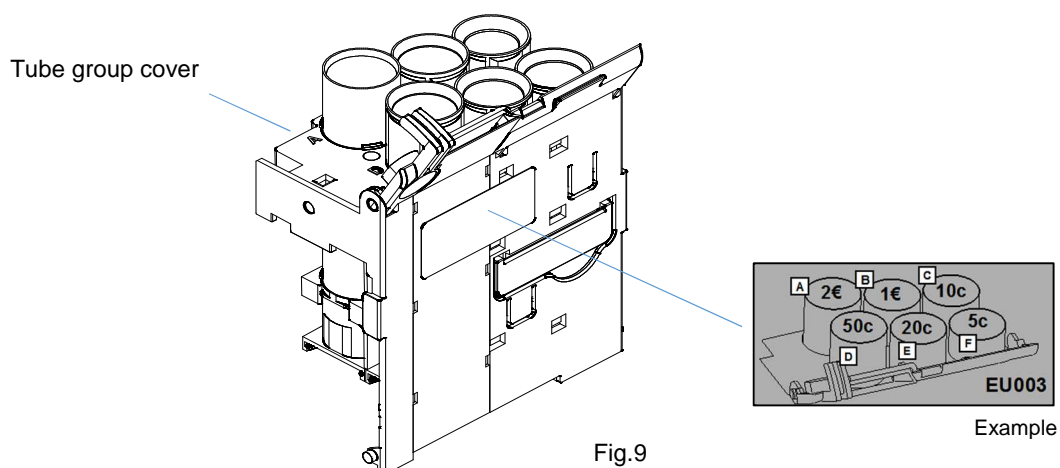
The parameters here below permit to set the max. level and empty level of coins in each tube.
The max. level depends on the thickness of the coin (do not exceed the default parameters by Paytec).
When replacing a tube group, you need to adjust coin destination (see Fn03) and the level of coins in each tube.

```
Select
tube No.        1
```

Select a tube: 1=A 2=B 3=C 4=D 5=E 6=F
The position of tubes is written on the label (Fig.9).
Tubes are identified with letters A-B-C-D-E-F.

```
Tube No.        1
No. coins       0
```

No. coins in the tube selected (only-read parameter).
If you don't have a P6000, you can read this value on the LCD (just click the coin eject button quickly).

```
Tube No.        1
empty coins    10
```

Empty level.
When this number has been reached, the tube is considered to be empty (the system will no longer pay out that coin type).
Enter a value and press ↵ .
Value recommended = 10
Do not enter a lower value than the one set by Paytec.

```
Tube No.        1
max. coins     50
```

Max. number of coins in a tube.
Do NOT enter a higher value than the one set by Paytec.
A tube is full when it contains the max. number of coins programmed here.
When this level has been reached, all the coins inserted fall in the cashbox.
As soon as the level lowers, coins fall into the tube again.
Enter a value for each tube (enter value, then press ↵ per confirm).

Fn10 – Security

This function has been introduced to make PINs on keys harder to decrypt: PINs are not even known to the servicing staff (they can only be programmed with an Access Key).

After this function has been enabled, insert an Access Key: PINs on the system are automatically updated with the PINs on the key.
PINs must be updated now on all user keys circulating in a location (updating with a "Caiman Programmer" after an Access Key has been inserted).

After Fn10 has been activated, the system PIN can only be read/modified with an Access Key or a P6000 (you need to know the PIN, though).

This function can be activated either to modify the PIN of an already operating system, or to protect new systems with PINs harder to decrypt.

```
Security ?
```

N **Standard**. PINs are checked as usual (Access Keys are not accepted).
Y The system is ready to accept an Access Key (the system PINs will be updated to the ones transmitted by the key).
Attention: PINs on user keys are not converted by the system (PINs must be programmed with CAIMAN Programmer at the operator's headquarters).

Once Fn10 has been activated, it cannot be inhibited.
If you need to inhibit Fn10, reset the whole system (PINs are also reset).

Fn11 – Fidelity

You can win customers' loyalty by giving them points or credit after each vend, which are accumulated and later redeemed when an fixed amount has been reached.

Fidelity options are linked with prices. When the changegiver has been configured with 100 prices (see Fn19), Fidelity options will be also valid for 100 prices.

The validity period for Fidelity points starts from the last vend paid in full with points. When you don't have enough Fidelity points/credit to pay for a vend in full, the standard credit on the key is only reduced (the validity period for Fidelity credit/points is not prolonged starting from that vend).
You can decide whether to give Fidelity points/credit (different options are set in the programming menu).
When you decide to give a credit, enter the credit value accumulated for each of the ten prices; when you give points, enter the number of points corresponding to each of the ten prices (as a matter of fact, that is the price in points), then enter the number of points accumulated for each price.

Fidelity with credit
Customers are given a Fidelity credit for each purchase, which is added to the Fidelity credit already on the key. When the price of the product selected is lower than/equal to the total Fidelity credit on the key, a free vend can be made (the price of the purchase is deducted from the Fidelity credit).
The Fidelity credit has a validity deadline, after which the amount on the key is deleted.

Fidelity with points.
Customers are given a number of points for each purchase, which are added to the total Fidelity points on the key. When the price of the product selected (in points) is higher than "0" and lower than/equal to the total Fidelity points on the key, the customer can make a free vend (the price of the product is deducted from the points on the key). Fidelity points have a validity deadline, after which the amount on the key is deleted.

FIDELITY options

Fidelity **unused ?**	**Y** Fidelity OFF. **N** Fidelity ON.
Fidelity with **credit ?**	**Y** Clients are given Fidelity credit after each vend. **N** Fidelity with credit OFF.
Fidelity days **(0-255)**	Enter Fidelity credit validity period after the last vend paid with Fidelity credit. (0 = Fidelity credit is always valid).
1^ Fidelity **credit: -,--**	Enter Fidelity credit given for each price and added to the total Fidelity credit on the key.
Fidelity with **points ?**	**Y** Clients are given Fidelity points after each vend. **N** Fidelity with points OFF.
Fidelity days **(0-255)**	Enter Fidelity points validity period after the last vend paid with Fidelity points. (0 = Fidelity points are always valid).
Number Fidelity	Enter no. price/Fidelity.

```
1^ Fidel/Price
   points:
```
Enter the value of Fidelity points required for each price.

```
1^ Fidelity
   points:
```
Enter the number of Fidelity points loaded on the key for each price.

ABOUT FIDELITY CREDIT/POINTS

Fidelity with credit

When inserting the key…
1. When the validity period for Fidelity credit has expired since last vend with Fidelity credit, the amount of Fidelity credit remaining on the key is reset.
2. Fidelity credit on the key is displayed for 2 seconds in "Fxx,xx" format. After that, standard credit is displayed.
3. Executive protocol : when Fidelity credit on the key is higher than "0" (zero), the amount is transmitted to the VMC and displayed for 2 secs. After that, standard credit is displayed.

When making a purchase…
When the price of the product selected is lower than/equal to the total Fidelity credit on the key...
1. Fidelity credit on the key is reduced by the price of the product selected.
2. The current date is stored on the key as the date when Fidelity credit was last redeemed.

When the price of the product selected is higher than the total Fidelity credit on the key...
1. The purchase is paid with the standard credit on the key.
2. Fidelity credit on the key is increased by the Fidelity credit associated with the selection made.

Fidelity with points

When inserting the key…
1. When the validity period for Fidelity points has expired since last vend with Fidelity points, the amount of Fidelity points remaining on the key is reset.
2. The total Fidelity points on the key is displayed for 2 secs. in "Fxxxx" format. After that, standard credit is displayed.
3. Executive protocol: when the total Fidelity points on the key is higher than "0" (zero), the amount is transmitted to the VMC and displayed for 2 seconds. After that, standard credit is displayed.

When making a purchase…
When the number of points required for the product selected is higher than "0" (zero) but lower than/equal to the total Fidelity points on the key...
1. The total Fidelity points on the key is reduced by the number of points required for the product selected.
2. The current date is stored on the key as the date when Fidelity points were last redeemed.

When the number of points required for the product selected is higher than the total Fidelity points on the key...
1. The vent is paid with the standard credit on the key.
2. The total Fidelity points on the key is increased by the number of points given for the product selected.

About Audit

Audit data (no. sales and payments with cash/key) are automatically memorized in *EVA-DTS protocol*.
You can select either standard Audit or extended Audit; extended Audit being a heavy file, we recommend you should read data with a Palmtop via IrDA (EVA-DTS mode).
Contact Payment Technologies for more info on extended Audit.

Data processing tools

Paytec AuditControl
This is a Windows application designed to display Audit data from PAYTEC systems (EVA-DTS format) and saved as .txt file (the application also enables data printout).
Paytec AuditControl can be downloaded free from www.paytec.it.

Paytec AuditView
AuditView is a PC software (Windows® platforms) created to process data from extended Audit in systems by Payment Technologies.
Data are downloaded from extended Audit with an AuditKey, a Palmtop or a PC and then transferred to a PC where they are stocked in a database for later processing.
Notice: all the systems from which data are downloaded must be updated with a recent sw. release and AuditView must have been implemented (dates expressed in seconds).
A *demo* version is available on www.paytec.it. If you wish to install the entire application, you need an activation code (contact Payment Technologies for it).

Data readout tools

Palmtop via IrDA
IrDA optical port is on the selector faceplate (see p.4). When a Paytec key reader has been connected (e.g. CAIMAN) it is possible to use the IrDA port on board the reader (see Fn00).
An external IrDA interface is also available (optional), which can be installed within the VMC in a point that can be easily reached with a palmtop IrDA.
Always use palmtops compatible with protocol DDCMP EVA-DTS (contact Payment technologies for more info).
Data transmission is compliant with Standard EVA-DTS protocol DDCMP.
In order to complete data readout successfully, keep the sensors of your palmtop facing the IrDA port (at a distance of 10-20 cms). Read User Guide for more information on how to use your palmtop.

Audit Service Key
If you wish to use a ServiceKey, you need a PAYTEC key reader connected to your EAGLE.
Both the ServiceKey and your EAGLE must have been programmed with the same password *(Caiman Programmer)*.
AuditServiceKey is a product by Payment Technologies (item code AG50.030N).

Audit Card Mifare®
It is necessary to connect a Paytec key reader Mifare® (optional).
Both Audit Card Mifare® and your EAGLE must have been programmed with the same password *(Caiman Programmer)*. Audit card Mifare® is a product by Payment Technologies (item code AU000008180).

PC
Audit readout is only possible on a PC equipped with "Paytec Configurator" (available on www.paytec.it).
Connection between EAGLE and a PC is possible with cable AC.00100 (available on demand).

Fn12 – Audit parameters

You can reset here the whole Audit of a system or read information about Audit readouts (password required).

```
Reset audit
password    -----
```

```
New Password
            -----
```

Password by default: 00000.
How to modify password : enter 00000 and press ↵ then enter the new password and press ↵ again to confirm (the new password is now valid).

```
Price list
EVA-DTS 6.0 ?
```

Adjust storage Identifiers Audit LA1_, as required by standard EVA-DTS.
N Standard Paytec: LA1_0 = Cash; LA1_1 = Card.
Y **Standard EVA-DTS 6.0**: LA1_0 = full price; LA1_1-LA1_4 = 5 lists with reduced prices.

Warning: should you need to edit price list type, remember to reset Audit before.
In the AUDIT file, "MA5*0*AUDIT FILE REVISION 0102" identifies Audit lists LA1 in no/EVA-DTS mode, while "MA5*0*AUDIT FILE REVISION 0002" identifies Audit lists LA1 in EVA-DTS 6.0 mode.

```
Enable Service
reset key ?
```

N Audit reset is not allowed with a Service Key.
Y Audit can be reset with a Service Key (all data are reset both LR and IN). Service Key can be used when a Paytec PIT key reader is connected (optional).

```
Send extended
audit ?
```

N Standard Audit.
Y Extended Audit.
Data from extended Audit can be processed with "Audit View" (PC application).

```
Test Ext. audit
full ?
```

N When the memory is full, old data are overwritten.
Y When the memory is full, EAGLE is inhibited (LED flashing yellow).

```
Ext. Audit elem.
    ---- of ----
```

No. operations that have been stored in extended Audit.

```
No. readouts:
             1
```

No. readout completed.

```
Confirm
reset ?
```

N Audit reset aborted.
Y Audit reset confirmed: data are cancelled and counters are reset since initialization.

Fn13 – Credit cash overpayment

```
Cash overpayment
displayed 3m' ?
```

Set time-out for residual credit on display

N Residual credit is only displayed for three minutes when it is higher than the lowest price.
Y Residual credit is always displayed for three minutes.

After credit has been displayed for three minutes, it is cleared and stored as "overpay".

Enter **"Y"** in the option "Timeout cash Off" (Fn15) if you wish to desactivate three minutes' timeout.

Fn15 – Miscellaneous options

```
┌─────────────────────┐
│ Inhibit reload      │
│ Cashless ?          │
└─────────────────────┘
```

Set this option when a key reader is connected.

N You can insert a key and then coins/bills to recharge the key (standard). Coins/bills can be accepted with/without key inserted following the parameters set in Fn00.

Y Keys cannot be recharged with cash (coins/bills are not accepted when a key has been inserted – and viceversa).

```
        Y

        ┌─────────────────────┐
        │ Reset cash with     │
        │ reload Inh ?        │
        └─────────────────────┘
```

N Cash credit is available until the timeout is over.
Y Cash credit is cancelled and stored as "overpay".

```
┌─────────────────────┐
│ Exact-Change        │
│ Signal OFF ?        │
└─────────────────────┘
```

N "Exact-Change" signal is transmitted to the VMC (standard).
Y "Exact-Change" signal is not transmitted to the VMC (no message is displayed that the system won't give change).

```
┌─────────────────────┐
│ Timeout cash        │
│ OFF ?               │
└─────────────────────┘
```

N Residual credit is displayed for three minutes, then it is cancelled and stored in Audit as "overpay".
Y Residual credit is displayed without any time limit (no timeout).

```
┌─────────────────────┐
│ Free Vend only      │
│ with key ?          │
└─────────────────────┘
```

N Free vends are always given during their time band ON (standard).
Y Free vends are only given after a key has been inserted.

```
┌─────────────────────┐
│ 1st Selection is    │
│ number 0 ?          │
└─────────────────────┘
```

Only valid with protocol BDV001.

N The 1st selection is no.1 (standard).
Y Valid for some BDV systems offering 100 selections (selection 0 = price 1; selection 100 = price 99).

```
┌─────────────────────┐
│ Price increase      │
│ with cash ?         │
└─────────────────────┘
```

N **Standard**. Option inhibited.
Y The price is increased when paying with cash.

```
        ┌─────────────────────┐
        │ Price increase      │
        │ value       0,00    │
        └─────────────────────┘
```

Enter price increase value for payments with cash (the same for all prices).

```
┌─────────────────────┐
│ Inhibit manual      │
│ ejection ?          │
└─────────────────────┘
```

N Coins can be ejected manually (standard).
Y Tube keypad inhibited.

```
┌─────────────────────┐
│ Inhibit Set-Up      │
│ Menu ?              │
└─────────────────────┘
```

N Standard. Setup from keypad enabled (lever + B).
Y Setup from keypad inhibited.

```
┌─────────────────────┐
│ Inhibit display     │
│ level in tubes ?    │
└─────────────────────┘
```

N **Standard**. The number of coins in the tube is displayed while coins are being ejected manually.
Y The number of coins in the tubes is not displayed.

Fn16 – Set level in tubes

The number of coins in each tube can be modified/reset in this function.
The number displayed must be the actual number of coin in the tubes.
WARNING. An incorrect setting might cause the system to payout fewer coins than due or might cause the tubes being overfilled.

```
Select
tube No.        1
```

Select a tube (No.1 = tube A; No.2 = tube B ...), then press ↵ to confirm. The number of coins in the tube is displayed. Enter the correct number and press ↵ to continue.

Fn17 – Price-Holding setting

PRICE HOLDING - LIST 10 PRICES

This function must be configured together with Fn04 to associate prices/selection numbers when EAGLE is working in Executive Price Holding mode with a 10-price list.
See Fn00 and Fn04 for more info on Price Holding mode.
You don't have to configure Fn17 when a list 100 prices has been selected in Fn19; in this case, prices and selection numbers are linked as follows: selection no.1-price no.1, selection no.2-price no.2,… selection no.100-price no.100).

```
Selection
Number (1-64)   1
```

Enter the selection number (1 to 64) you wish to link with a price number (e.g. selection no.1).

```
1^ Selection
Price line 5
```

Enter the price number you wish to link with a selection number (e.g. price no.5).

… do the same for all the associations selection/price you wish to make…

Fn18 – Cashless options

```
Fictitious credit
enabled ?
```

Only valid with Executive protocol and with key.
As a rule, Executive protocol doesn't allow customers to make a purchase when no credit is left on their keys/cards.
Select "Y" if you wish to enable fictitious credit and give free vends to all keys (even those keys with no credit left on them).
Fictitious credit being not a real credit, it is not present in the Audit file.
N Fictitious credit inhibited.
Y Fictitious credit enabled: enter a value *equal to/higher* than the highest price – check compatibility with USF.

```
Fictit. credit
value:          0
```

Enter a value equal to the highest price.
When a key is inserted with no credit left, the changegiver sends the VMC a fictitious credit value to enable a free vend.

```
Location code
untesting ?
```

The same PIN/operator code must have been set on the key and on VMC.
N Standard check on location code : keys are only accepted if their location code is the same as the one in Fn06.
Y Location code is not checked: all keys are accepted. In this case three alternative location codes are suggested.

Y

```
1^ Location
alternative     0
```

```
2^ Location
alternative     0
```

- When the three alternative location codes are on "0", all keys are accepted (location code is not verified);
- When one or more alternative location code(s) has/have been programmed, keys are accepted whose location code correspond to one of these or to the one in Fn06 (as a matter of fact, keys are accepted by 4 different location codes).

```
3^ Location
alternative     0
```

```
Test Key
unlimited ?
```

This option is referred to Service Keys for test vends.
N Credit on a *test key* is reduced whenever a test vend is made. Credit is only loaded on *test keys* with *CAIMAN Programmer* (no cash allowed).
Y Credit on a *test key* is never reduced (numberless vends can be made).

Test vends are stored in the following Audit records:
VA201, VA202, VA203, VA204

Fn19 – 100 Selections

Extended memory - up to 100 prices.
This option is useful for systems with a high number of selections where vends must be registered for each selection. All 100 prices are set in Fn04 (price number = selection number). In that case one discount is given for each price.
The Audit file is also extended to 100 prices.

```
100 Selections?
```

N List 100 prices inhibited.
Y List 100 prices enabled.
Select 'Y' if you wish to use a list with 100 prices.

```
Reset prices
and discounts?
```

N The current price list is not reset.
Y **Recommended.**
When passing to a list with 100 prices, it is preferable to reset all the prices before setting new values.

```
Confirm
Reset ?
```

Y Prices are actually reset.
Go to Fn04 and enter new prices / discounts.

A list with 100 prices is compatible both with Executive Standard and Price Holding mode.
In Price Holding mode each price number is automatically linked with the same selection number (selection no.1-price no.1, selection no.2-price no.2,… selection no.100-price no.100).

Fn20 – Selection options

This option (for keys 98 only) has been created to inhibit free vends and free credit for specific selections.
Select Price Holding mode when the VMC is working in Executive protocol.

```
Selection number
(1-100)         1
```

Enter the number of the selection that won't be given bonuses (this selection will be only available at full price).

```
1^ Selection no
Free Cred/Vend ?
```

N Both free vends and free credit are given to this selection.
Y **Neither** free vends **nor** free credit are available for this selection.

Fn21 – Cash test and max. change

This option can be used to fix a maximum for the change the system will pay out in a single vend.

```
Max. change in
single vend ?
```

N **Skip option (standard)**
      Change is given as far as coins are present in the tubes (no max. change is set).
Y Change is given up to the max. value set in Fn00.

Testing function for bill validator.

```
Coins and bills
test ?
```

N Test inhibited.
Y First insert a *test vend key*, then the coins/bills you wish to test. If the coins/bills are accepted, their value is displayed for three seconds.

Fn22 – Free credit

Connection required with a Paytec key reader.
A predefined free credit amount can be automatically loaded on the key on the first vend of the day/period.
Options about free credit may be differently set according to the key you are using.
· Free credit either overwrites the current credit or it is added to the credit already on the key.
· Free credit is either given on the first vend of the day or when the key is first inserted in the reader.
· Up to 4 different free credit amounts (each associated with a different user code).

Warning
We recommend you should enable free credit with key98 only.
· Key98 are compatible with periodical free credit (free credit every "X" days).
· Free credit and cash credit are written in two separate memories (free credit is left untouched when cash credit is reset).
Avoid free credit with key1.
Free credit can be inhibited in *Fn20* (read paragraph) for one or more selections.

```
┌─────────────────────┐
│ Free Credit         │
│ enabled ?           │
└─────────────────────┘
```
N Free credit inhibited.
Y Free credit enabled (set free credit parameters).

```
    ┌─────────────────────┐
    │ Free Credit         │
    │ value:      0,00    │
    └─────────────────────┘
```
Enter free credit value **(**€ 655.35 max.).

```
    ┌─────────────────────┐
    │ Restricted          │
    │ Free Credit ?       │
    └─────────────────────┘
```
N *Free credit* is given to every key.
Y *Free credit* is only given to enabled keys (keys are enabled to free credit with *Caiman Programmer*).

```
    ┌─────────────────────┐
    │ Free Credit         │
    │ monthly ?           │
    └─────────────────────┘
              │
              Y
```
N *Free credit* daily: free credit is given once a day, on the first vend with key.
Y *Free credit* monthly: free credit is given once a month, on the first vend in the current month.
Notice: with keys1, all the systems must be configured with the same operating mode.

```
        ┌─────────────────────┐
        │ Fractionated        │
        │ Free Credit ?       │
        └─────────────────────┘
```
N Option inhibited.
Y *Free credit* is given with proportional value to the days left to the end of the month (1/31st of the whole credit is given for each day left to the end of the month).
This special option has been created to load only a portion of credit on the keys that are given to the customers in the running month. Such a portion is proportional to the number of days to the end of the month.

```
    ┌─────────────────────┐
    │ Free Credit         │
    │ every (days):    1  │
    └─────────────────────┘
```
Option valid with key98 (see Fn06).
Set how often you wish to give free credit (once every **1** to **254** days).

Examples: 1 = free credit is given daily …
          2 = free credit is given every two days …
          10 = free credit is given every ten days…

```
┌─────────────────────┐
│ Substitute          │
│ Free Credit ?       │
│                     │
└─────────────────────┘
```

N Free credit is added to the current credit on the key.
Y Free credit overwrites the current credit on the key.
Warning: by selecting "Y" with key1, the whole credit is overwritten (both free credit and credit the customer may have charged with cash). This option is recommended with "key98".

About free credit with "key98".
-   New free credit either overwrites old free credit or it is added (cash credit is left untouched).
-   Free credit is used before cash credit.
-   When a key is inserted in a system where no free credit has been programmed, cash credit is only displayed.

```
┌─────────────────────┐
│ Immediate           │
│ Free Credit ?       │
│                     │
└─────────────────────┘
```

N Free credit is loaded on the key on the first vend of the day/month.
Y Free credit is loaded on the key the first time of the day/month the key is inserted in the reader (it is not necessary to make a vend).

```
┌─────────────────────┐
│ 4 Levels            │
│ Free Credit ?       │
│                     │
└─────────────────────┘
        │
        Y
        │
        │
      ┌─────────────────────┐
      │ Level 1:    from    │
      │ user No.       0     │
      └─────────────────────┘
```

N **Standard**. The same free credit amount is given to every key.
Y 4-level free credit. You can configure up to 4 *user groups* and give them different free credits (you need to know the key user codes, though); customers will be given different free credits according to the user code group they belong to.

Enter the 1st user code of the 1st level (**1** to **32767**), then press ↵ to confirm.

```
┌─────────────────────┐
│ Level 1:      to    │
│ user No.       0     │
└─────────────────────┘
```

Enter the last user code of the 1st level (**1** to **32767**), then press ↵ to confirm.

```
┌─────────────────────┐
│ Free Credit         │
│ level 1:  0,00      │
└─────────────────────┘
```

Enter the amount of free credit belonging to the 1st level.
(€ 655.35 max.).

…. do the same for the 3 levels remaining…

Fn22 – Free vends with key1

Up to 15 free vends are available for key1 (counter loaded on each key).
Free vends can be given to any purchase during the day; when a key has reached the max. number of free vends available, further vends are paid at their usual price.

```
Free Credit
enabled ?       N
```

N Leave "N".
Free credit and free vends cannot be enabled together on key1.

```
Immediate Spec.
Discs.&FreeVends?
```

N Free vends counter is loaded on the key when the first vend of the day/month is made with (it is necessary to make a vend).
Y Free vends counter is loaded on the key when the key is first inserted in the reader during the day/month (it is NOT necessary to make a vend).

```
Free Vends
enabled ?       Y
```

Y Free vends enabled.
Select "Y" and then set parameters for free vends.

```
4 Levels
Free Vends?    N
```

N **Standard**. The same number of free vends is given to every key.

```
Free Vends
number:         0
```

Enter the number of free vends given daily **(15 max.)**
Each key is given free vends, no matter the product selected.
Enter Fn20 if you wish to inhibit free vend for some selections.

```
4 Levels
Free Vends?    Y
```

Y 4-level free vends. You can configure up to 4 *user code* groups (with a different amount of daily free vends for each). You need to know the user key codes, for this option.

```
Level 1:   from
user No.        0
```

Enter the 1st user code of the 1st level (**1** to **32767**), then press ↵ to confirm.

```
Level 1:     to
user No.        0
```

Enter the last user code of the 1st level (**1** to **32767**), then press ↵ to confirm.

```
No. Free Vends
level 1         0
```

Enter the number of free vends belonging to the 1st level.

```
Restricted
discounts ?
```

N All keys are given free vends.
Y **Enabled** keys ONLY are given free vends. *Keys* are enabled to free vends with *CAIMAN Programmer.*

Fn22 – Special discounts with key1

NOTICE
Up to 15 daily discounts are available for key1.
Up to 250 discounts are available for key98 (recommended key type).
See Fn36 for special discounts with key98.

"Special discounts" are actually the same discounts in Fn04 but given daily in a limited number for each key.
This paragraph contains information about special discounts for key1.

```
Free Credit
enabled ?      N
```

Select **N**, otherwise special discounts are inhibited.

```
Immediate Spec.
Discs&FreeVends?
```

N Special discounts counter is loaded on the key when the first vend of the day/month is made with (it is necessary to make a vend).
Y Special discounts counter is loaded on the key when the key is first inserted in the reader during the day/month (it is NOT necessary to make a vend).

```
Free Vends
enabled ?      N
```

Select **N** to give special discounts only.

Notice
Select "Y" if you decide to give both free vends and special discounts (you can give 3 free vends and 3 special discounts max.).

```
Special discounts
enabled ?      Y
```

Y Special discounts enabled.
Select "Y" and then set parameters for special discounts.

```
No. Special
Discounts:     0
```

Enter how many discounts are given daily **(15 max.)**

```
Restricted
Discounts ?
```

N Special discounts are given to every key.
Y Special discounts are only given to enabled keys.

Keys can be enabled to discounts during the formatting procedure (see options s/w "PC Programmer").

As a rule, every discount is linked with a price. If you need to link discounts with specific products that might have the same price, the system must be working in Executive Price Holding mode.
In that case, discounts are linked with price number (not with price values).

Fn26 – Country Code

Only for protocol MDB

```
Country code
(MDB)          --
```

Enter international phone code.

Fn27 – Conversion keys

"Conversion keys" is a special function permitting operators to re-encode Paytec keys from the key reader connected.
Keys/cards Mifare® only permit operators to modify their format.

Modifiable parameters
▪ Key/card format: key1/card1 to key98/card98
▪ Operator code
▪ Location code
▪ User code
▪ Pin 1
▪ Pin 2

Whenever a key is inserted, the parameters in Fn06 are first checked. If a parameter is not correct, the same parameter in Fn27 is also checked. When the two parameters are the same, the key is converted (the Led is steady RED during conversion). Once the conversion sequence has been successfully completed, the Led is GREEN and the key is ready for use.

Should an error occur during conversion, the Led is YELLOW and an error code is displayed (see table containing error codes in user guide).

Parameters in Fn27

```
Convert
Keys ?
```

Y Key codes can be modified.

```
Convert Type 1
in Type 98 ?
```

Y Key format can be modified.

```
Old operator
Code        -----
```

Enter old operator code.

```
Old location
Code        -----
```

Enter old location code.

```
Modify user
code?          Y
```

Y User code can be modified.

```
New user
code from    -----
```

Keys are given new user codes starting from the code written here (each key is given an incremental code).

```
Old PIN 1
             -----
```

Enter old **PIN 1**.

```
Old PIN 2
             -----
```

Enter old **PIN 2**.

```
Password
counters     -----
```

This password permits operators to display and reset conversion counters. The data here below can be reset manually (e.g. enter "0").

```
Converted
Keys         -----
```

No. keys that have been converted (65,535 max.)

```
Total credit
             ------
```

Total credit on the keys converted.

```
Total Free
credit       ------
```

Total free credit on the keys converted.

```
New Password
counters     -----
```

Enter new password, if you wish.

Fn29 – Parameters Bonus

BONUSES ARE ONLY AVAILABLE FOR KEYS98.
For the systems Caiman MIFARE® bonuses are equally available for keys/cards Paytec 98.

General info about bonuses
- Bonuses are only available with keys type98/Euro98.
- Bonuses can be given as an extra cash credit or a free credit.
- Product categories must be the same for all the systems in the same location.
- A bonus menu is given after a purchase has been paid for; that means the key must have enough credit for a purchase. Bonuses have a daily validity and are not cumulative.
- For MDB systems: the key must be pulled out and reinserted to display the credit updated with the bonus loaded.
- AUDIT identifiers: MA5*2 for "bonus menu"; MA5*1 for "bonus recharge"; MA5*3 for "bonus calendar".

Bonus recharge key
This is an extra amount loaded on the key when a user recharges his/her key with a credit equal to/higher than a threshold (both the bonus and the threshold value can be set in this function).
The amount of the bonus can be a fixed value or a percentage of the recharged value.

Bonus menu
This is an extra amount loaded on the key when buying a number of products from a menu.
Up to 5 different menus and the bonus value can be programmed here.
Each menu is made of 5 product categories (product categories are set in Fn40).
For each bonus there is a time band ON/OFF.
- When programming "0" as start time for bonus and "2359" as end time, the bonus will be valid all day.

Bonus Calendar
This is an extra amount loaded on the key when buying products during a pre-defined interval (calendar).
Up to 5 different calendar bonuses and their values can be programmed here.
Each bonus calendar requires the following parameters being set:
- enter the product category codes associated with the bonus (5 max.), among the ones listed in Fn40;
- select bonus type (either extra credit or free credit);
- amount of bonus;
- validity interval (dd/mm when starting/stopping giving bonus);
- weekly (for each day of the week) or daily;
- time bands (start/stop) for each day of the week or daily.
Clients get a bonus calendar if they buy one of the products belonging to the product categories programmed.
To get a free vend from bonus calendar, set the bonus with an amount equal to/higher than the price of the product to be given as free vend.
When the amount of bonus calendar is higher than the price of the product associated with the bonus, the difference will not be loaded on the key.
- If you set "101" as starting date for the bonus and "3112" as stop date, the bonus will be valid all year.
- It is possible to set a limited interval across two years (e.g. if you set "2312" as starting date and "801" as stop date, the bonus will be valid from 23 December of the current year to 8 January of the next year).

```
Bonus recharge
enabled ?
```

N The menu jumps to "bonus menu".
Y Bonus recharge enabled.

```
Bonus recharge
threshold      0,00
```

Enter the min. amount of a recharge (when recharging a key with a lower amount, the "bonus recharge" is not given).

```
Bonus recharge
in % ?
```

N The menu jumps to "bonus recharge value".
Y To set bonus value as a portion of the value recharged.

Y

```
Bonus recharge
percentage     005
```

Bonus as a portion of the recharged value.
Enter % on recharged value to calculate bonus.
The amount of Bonus is calculated by the system whenever a key is recharged.
Max. value = 100%

N

```
Bonus recharge
value          0,05
```

Bonus as an extra credit in current money.
Enter the amount of bonus recharge.

```
Bonus recharge
in free-credit?
```

N The **bonus** recharge is added to the current credit on the key.
Y The **bonus** recharge is added to free credit on the key.

```
Bonus menu
enabled ?
```

N Exit the function.
Y Bonus menu enabled.

```
Bonus menu
number           1
```

Enter the menu no. you wish to compile.
Up to 5 menus are available (each menu contains 5 product categories).
See example below.

```
1^ product
category        01
```

Product categories can be set in Fn40.
Enter the number of the 1st product category you wish to link to the menu you are compiling (e.g. "01")

```
2^ product
category        03
```

Enter the number of the 2nd product category you wish to link to the menu you are compiling (e.g. "03").

```
3^ product
category        05
```

Enter the number of the 3rd product category you wish to link to the menu you are compiling (e.g. "05").

```
4^ product
category        09
```

Enter the number of the 4th product category you wish to link to the menu you are compiling (e.g. "09").

```
5^ product
category      10
```

Enter the number of the 5th product category you wish to link to the menu you are compiling (e.g. "10").

As specified in the example here above, each menu can contain up to five product categories.
If you wish to compile a menu with a lower number of product categories, just leave "0" (zero) in the boxes you don't wish to include.

Other parameters for bonus menu no.1 …

```
1^ bonus menu
in free-credit ?
```

N The **bonus** menu is added to the current credit on the key.
Y The **bonus** menu is added to the free credit on the key.

```
1^ bonus menu
value       0,30
```

Enter the value of bonus for menu 1.

```
1^ bonus menu
start hour  16,30
```

Set time band when bonus menu will be given.
Set time when the system starts giving bonus menu no.1.
Enter "0" if you wish bonus menu to be valid all day.

```
1^ bonus menu
stop hour    8,30
```

Set time when the system stops giving bonus menu no.1.
Enter "0" if you wish bonus menu to be valid all day.

```
Calendar bonus
enabled ?
```

N Exit Fn29
Y Bonus calendar enabled.

```
Calendar bonus
number        1
```

Enter the number of bonus calendar you wish to compile.
Up to 5 bonuses available.

```
1^ product
category      01
```

Enter the product category associated with bonus no.1 *(e.g. "01").*

```
2^ product
category      03
```

Enter another product category associated with bonus no.1 *(e.g. "03")* or enter zero if you don't wish to associate another category

```
3^ product
category      05
```

Enter another product category associated with bonus no.1 *(e.g. "05")* or enter zero if you don't wish to associate another category

```
4^ product
category      09
```

Enter another product category associated with bonus no.1 *(e.g. "09")* or enter zero if you don't wish to associate another category

```
5^ product
category      10
```

Enter another product category associated with bonus no.1 *(e.g. "10")* or enter zero if you don't wish to associate another category

As indicated in the example here above, each bonus calendar can contain up to 5 product category codes.

```
1^ calend.bonus
in free-credit?
```

N The **bonus** is added to the credit on key
Y The **bonus** is added to the free credit on key (free credit in a separate area).

```
1^ calend.bonus
value      1,00
```

Enter the amount of bonus calendar no.1.

```
1^ calend.bonus
start ddmm   112
```

Set day/month when the system starts giving bonus calendar no.1.
(e.g. "112" means "1st December").

```
1^ calend.bonus
stop ddmm   1112
```

Set day/month when the system stops giving bonus calendar no.1.
(e.g. "1112" means "11th December").

```
1^ calend.bonus
weekly ?
```

N To set a daily **bonus calendar**.
Y To set a weekly **bonus calendar** with a time band for every day of the week.

N

```
1^ calend.bonus
start hour   ----
```

Set hour/minutes when the systems starts giving bonus no.1.
If you set *start "0"/stop "2359"*, the bonus is valid all day.

Y

```
1^ calend.bonus
stop hour    ----
```

Set hour/minutes when the systems stops giving bonus no.1.

```
1^ bonus start
Sunday       ----
```

Bonus "weekly". Set hour/minutes when the system starts giving bonus no.1 on Sunday.
If you set *start "0"/stop "2359"*, the bonus is valid all day.

```
1^ bonus stop
Sunday       ----
```

If you set *start "0"/stop "2359"*, the bonus is valid all day.

```
1^ bonus start
Monday       ----
```

Do the same for every day of the week.

```
1^ bonus stop
Saturday     ----
```

Fn30-33 Black List

ServiceKeys and keys that have gone lost can be inhibited here to prevent unauthorized use. Enter the user code in the **Black List** and the key will no longer be accepted.

All the keys circulating in a location must be programmed with different user codes (and all systems must contain a Black List). The Black List can contain up to 500 codes.

The user code must be a number between 1 and 32767.

Fn30 – Enter code in *Black List*

```
Disable user
code:          0
```

Enter the key code that must be inhibited, then press ↵ to confirm.
Enter all the codes you wish to inhibit.

When a code has already been written in the Black List, the message " **User code … already disabled**" is displayed.
When the Black List is full, the message "**Black List full**" is displayed: no more codes can be written.
Reset the Black List in *Fn33* when compiling the Black List for the first time (the starting memory must be empty).

Fn31 – Delete code from *Black List*

```
User code:
               0
```

Enter the code of the key you wish to re-enable, then press ↵ to confirm.
When a code is not present in the Black List, the message "**User Code … not found** " is displayed.
If the Black List is empty, the message "**Black List empty"** is displayed.

Fn32 – View code in *Black List*

```
Black List max.
elements:    500
```

Only-read value: max. number of codes a Black List can contain.

```
Search user
code:          0
```

If you wish to **read the whole Black List** from the beginning, press ↵ and then ▲ to scroll down the list (next).
Press ▼ to scroll up the list (back).
If you are **searching** a single code, enter the key code and press ↵; if the code is present in the list, the system will start reading from that code.
If the Black List is empty, the message "**Black List empty**" is displayed.

Fn33 – Reset *Black List*

```
Confirm
reset ?
```

Enter **Y,** then press ↵ if you wish to reset the Black List.

Fn35 – Token

You can either prevent the system from giving change for payment with tokens, or you can accept both coins and tokens.
If you wish to give change for payments with tokens, a token channel must be programmed (a token channel is recognized through a special option in Fn03).
This option prevents the system from being misused as a money changer.

How to create a token channel (Fn03)

```
Coin No.        --
token ?          Y
```

After the token has been programmed in one of the 30 channels, select the channel no. in Fn03 and set **Y** in the option "Token" (press ↵ to confirm).

Parameters to customize token channel

```
No change
with token ?
```

N The system delays giving change (see option "block change").
Y Residual credit is cancelled and no change given.
With "Y" the next parameter "Block change with token" is skipped.
The credit cancelled is stored in Audit as "overpay".

N

```
Block change
with token ?
```

N The system always gives change (even when a vend has been paid with tokens).
Y Change is not given for payment with tokens; residual credit is either cleared or displayed for three minutes.

```
Inhibit Mix
Coins/Tokens ?
```

N Both coins and tokens are accepted.
Y Either coins or tokens are accepted. If a coin is inserted first, no tokens are accepted (the opposite is also true).
The starting condition is restored after a purchase (credit = 0).

```
Inhibit reload
with token ?
```

N Keys can be recharged with tokens.
Y This option prevents users from recharging keys with tokens
Tokens are not accepted to recharge a key; tokens/coins are not accepted after a key has been inserted and viceversa.
Keys can be recharged with cash only (no tokens mixed with coins).
Go to Fn15 to inhibit key recharge with cash.

Fn36 – Discounts and free vends with key98

Special discounts

The term "special discounts" is referred to a number of discounts programmed on the key and given daily, monthly or every "x" days. The number of discounts can be added to the current value on the key or overwritten. Up to 250 discounts can be programmed on a key.

Customers are given a discount if they make a purchase at a reduced price before discount counters are planned to be reset. Discounts are always linked with a price (up to 4 discounts for each price); the discount counter is decreased after each vend, whether a discount is given or not.

Free vends

The term "free vends" is referred to the vends for which customers do not have to pay, and which are given daily, monthly or every "x" days. The number of free vends can be added to the current value on the key or overwritten. Up to 250 free vends can be programmed on a key.

Free vends can be linked to any selection during the day; when no more free vends are available on a key, vends are made at their usual price.

Special discounts and free vends can be programmed together on a key; discounts are only given when no more free vends are available.

Special discounts and/or free vends with key98

```
┌──────────────────────┐
│ Monthly FreeVend&    │
│ Discounts ?          │
└──────────────────────┘
  N
```

Special discounts and/or free vends are loaded on the key on the first vend of the period/month programmed.

N Discounts are given daily or every "x" days.
Y Discounts are given once a month.

```
┌──────────────────────┐
│ FreeVends&Disc.      │
│ every (days):  1     │
└──────────────────────┘
```

Enter how often special you wish to give discounts and/or free vends (once every **1** to **254** days). After discounts and/or free vends have been given, the counter is recharged.

```
┌──────────────────────┐
│ Add spec. discs.     │
│ & FreeVends ?        │
└──────────────────────┘
```

Special discounts and/or free vends can overwrite the current value on the key or be added to it.
N Special discounts/free vends overwrite the current value on key.
Y Special discounts/free vends are added to the current value on key.

```
┌──────────────────────┐
│ Immediate Spec.      │
│ Discs.& FreeVend?    │
└──────────────────────┘
```

You can decide to load special discounts and/or free vends when simply inserting the key in the reader, or after a vend has been made.
N Special discounts and/or free vends are loaded on a key on the first purchase of the day/month by that key (it is necessary to make a vend).
Y Special discounts and/or free vends are loaded when customers first insert their key in the reader during the day/month (it is not necessary to buy a product).

```
┌──────────────────────┐
│ Free Vends           │
│ enabled ?            │
└──────────────────────┘
```

N Free vends inhibited.
Y Free vends enabled.

```
┌──────────────────────┐
│ Restricted           │
│ Free Vends ?         │
└──────────────────────┘
```

N Free vends are given to every key.
Y Free vends are only given to enabled keys (keys are enabled to receive free vends with *CAIMAN Programmer*).

```
┌─────────────────────┐
│ Free Vends          │
│ displayed secs.     │
└─────────────────────┘
```

Enter how many seconds the number of free vends on the key will be displayed on LCD (accessory).

Options

0   The number of free vends is not displayed (standard).

1-99   The number of free vends is displayed for the number of seconds programmed.

The free vends counter is updated on the key on the programmed date when the key is inserted, even if no vend has been made yet.

```
┌─────────────────────┐
│ 4 levels            │
│ Free Vends ?        │
└─────────────────────┘
      Y        N
```

N The same number of free vends is given to all keys.
Y 4-level free vends.
   Up to 4 user code groups can be programmed (with a different number of daily free vends for each).
   You need to know the user key codes, though.

```
┌─────────────────────┐
│ Free Vends          │
│ number:    0-250    │
└─────────────────────┘
```

Enter the number of free vends given daily (250 max.)
Each key will be given the same number of free vends (no matter the product selected).

```
┌─────────────────────┐
│ Level 1:    from    │
│ user No.            │
└─────────────────────┘
```

Enter the 1st user code of the 1st level (**1** to **32767**), then press ↵ to confirm.

```
┌─────────────────────┐
│ Level 1:     to     │
│ user No.            │
└─────────────────────┘
```

Enter the last user code of the 1st level (**1** to **32767**), then press ↵ to confirm.

```
┌─────────────────────┐
│ Lev.1 FreeVends     │
│ number              │
└─────────────────────┘
```

Enter the number of free vends belonging to the 1st level.

```
┌─────────────────────┐
│ Discount 1          │
│ enabled ?           │
└─────────────────────┘
```

Discounts can be programmed in Fn04. When no discount has been enabled, discount 1 is automatically given
N Discount inhibited.
Y Discount enabled.
Any discount can be enabled on *key98* with *CAIMAN Programmer*. When no discounts have been enabled on a key, discounts are given anyway if the option "restricted discount" is inhibited.

```
┌─────────────────────┐
│ Restricted          │
│ discount 1 ?        │
└─────────────────────┘
```

N Discount 1 is given to every key.
Y Discount 1 is only given to keys enabled to discounts.

```
┌─────────────────────┐
│ Discount 1          │
│ Number (0-250)  0   │
└─────────────────────┘
```

Enter no. discounts (250 max.)
…. do the same for all 4 discount levels…

```
┌─────────────────────┐
│ Restricted          │
│ discount ?          │
└─────────────────────┘
```

This option enables a check on discounts.
N Discount is given to every key.
Y Discount is only given to keys enabled to discount.

Fn37 – Prices cashless MDB

Function implemented starting from f/w rev.1.16.
Download the Audit file before updating the system with f/w rev.1.16 (or later).
The list contains 100 prices which are used when payments are made with a peripheral Slave cashless MDB, connected on the serial Master interface of the changegiver EAGLE.

The list with 100 prices must have been enabled, otherwise the system will keep on working with the standard mode and use the price list in Fn04.
Fn37 must be only used with a changegiver in Executive protocol or Executive Price Holding (recommended).

The price list for cashless MDB can be differently used following the type of Executive protocol.

In Executive Price Holding mode, the price list for payments made with a cashless MDB unit is exactly the same as the one programmed in Fn37.
When making a purchase with a card (or key) inserted in the reader of the peripheral unit MDB, the selection number required by the VMC is linked to the same price number in the price list Fn37 (the price paid is the price belonging to the price number programmed).

In the standard Executive mode, the same selection prices programmed on the VMC must be also programmed in the list present in Fn04.
When making a purchase with a card (or key) inserted in the reader of the peripheral unit MDB, the selection number required by the VMC is compared to the list of prices in Fn04; the corresponding price "number" is also used in Fn37 (the value of the price paid is the one belonging to the price number programmed).

Programming prices for cashless MDB

```
Price list
cashless MDB ?
```
N The price list is NOT enabled.
Y The price list is enabled.
Press ↵ to confirm the setting.

```
Price number
          ---
```
Price number (1 to 100)
Enter the price number, then press ↵ to confirm.

```
---^ Price
value:      -,--
```
Price value selected
Enter the price value, then press ↵ to confirm.

Do the same for all the prices necessary to compose the list.

The "Audit" list contains the following identifiers for the vends made via a cashless MDB:
DB2*0*0*0*0   amount sold with cashless MDB since initialization
                number vends with cashless MDB since initialization
                amount sold with cashless MDB since last readout
                number vends with cashless MDB since last readout
DB3*0*0   amount debited to cashless MDB since initialization
                amount debited to cashless MDB since last readout
LA1*7*……   amount and number of vends for each price list Cashless MDB

Fn40 – Product category

This function can only be used with keys98 and enables operators to link product categories with a selection price.
Considering that it is necessary to recognize product type for each selection number, it is preferable to set Price Holding mode for systems in EXE protocol.
For each price you are required to enter product category (up to 16 product categories).
Once product categories have been generated, it is possible to compose up to 5 bonus menus in Fn29.
Every menu is composed of five different product categories selected among the 16 categories available.

Remember that product categories must be associated to specific products:
e.g.

Coffee	Product category 1
Sandwiches	Product category 2
Water	Product category 3
Soft drinks	Product category 4

…... do the same for each product you want to give a product category code, so that you can later compose bonus menus.

When more VMCs contain the same products in a location, the same product categories must be programmed on VMCs.
A bonus menu is given when a menu is complete. A menu is considered complete when a product has been sold for each category. When more products are sold belonging to the same category, one product is only considered.

Example (list with 100 prices)

```
┌─────────────────────────┐
│ Price number            │
│                    1     │
│                          │
└─────────────────────────┘
```

Enter the 1st price number you wish to link with a product category (e.g."1").
The product with price no.1 will be associated with the product category here below (it is therefore important to enable Price Holding mode with protocol Executive).
Press ↵ to confirm and scroll parameters

```
┌─────────────────────────┐
│ 1^ Price                │
│ Product cat.    1        │
│                          │
└─────────────────────────┘
```

Enter product category for price no. 1 (e.g. "1").

```
┌─────────────────────────┐
│ Price Number            │
│                    2     │
│                          │
└─────────────────────────┘
```

Enter the 2nd price number ….

```
┌─────────────────────────┐
│ 2^ Price                │
│ Product cat.    4        │
│                          │
└─────────────────────────┘
```

Enter product category for price no. 2 (e.g. "4").

… do the same for the other prices...
Leave "0" (zero) if you don't wish to link a price with any product categories.

(When using a list with 10 prices, the option "Price Number" is not displayed in Fn40. You can scroll the price list.).
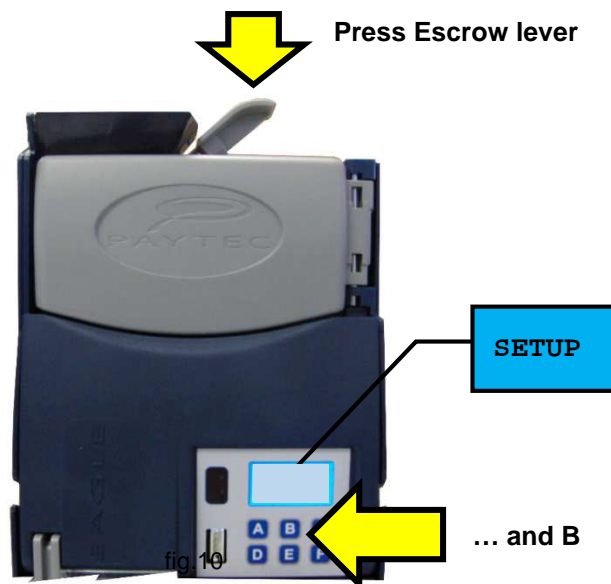
```
┌─────────────────────────┐
│ Price Number            │
│                   100    │
│                          │
└─────────────────────────┘
```

SETUP with keypad

A menu for rapid SETUP is available with EAGLE keypad and displayed on LCD, permitting operators to set the parameters here below.
How to access SETUP menu: press Escrow lever and keep it pressed while pressing **B**. When the message "SETUP" is displayed, release the lever (Fig.10).

Press Escrow lever

SETUP

fig 10

… and B

Keypad
E Scroll functions.
F Read/edit parameters in a function.
C Scroll down a list.
A Scroll up a list.
D Exit a function.
Press **B** (reduce) or **E** (increase) to modify the value of a parameter.

Function list

TubeL	Read no. coins in each tube. Press **C** to scroll the list of the six tubes and read the number of coins actually in the tubes. Coins are counted only when they are manually inserted in the coin validator.
Tube	Set max. level coins in each tube. TA = tube A, TB = tube B, …. Press **F** to enter, **C** to scroll the tube list, **B**/**E** to modify settings. Press **C** to confirm and go to the next tube.
Price	Set list with 10 prices. Press **F** to enter, **C** to scroll down prices, **B**/**E** to modify prices, **F** to confirm.
Dest	Set coin destination. Coins are indicated by their channel number (Ch1, Ch2, Ch3 ….). It is necessary to know the channel number of a coin before proceeding.
ErClr	Clear errors (press **F** to clear errors).
Fill	Press **F** to enter function. When the message "FILL" is displayed, insert coins in the coin validator slot. The tube filling procedure is described on page 8. The same function can be activated by pressing Escrow LEVER + A

READING CREDIT IN TUBES
Press Escrow lever and D together to read the total credit in the tubes (the value is displayed on LCD).

SETUP menu from keypad
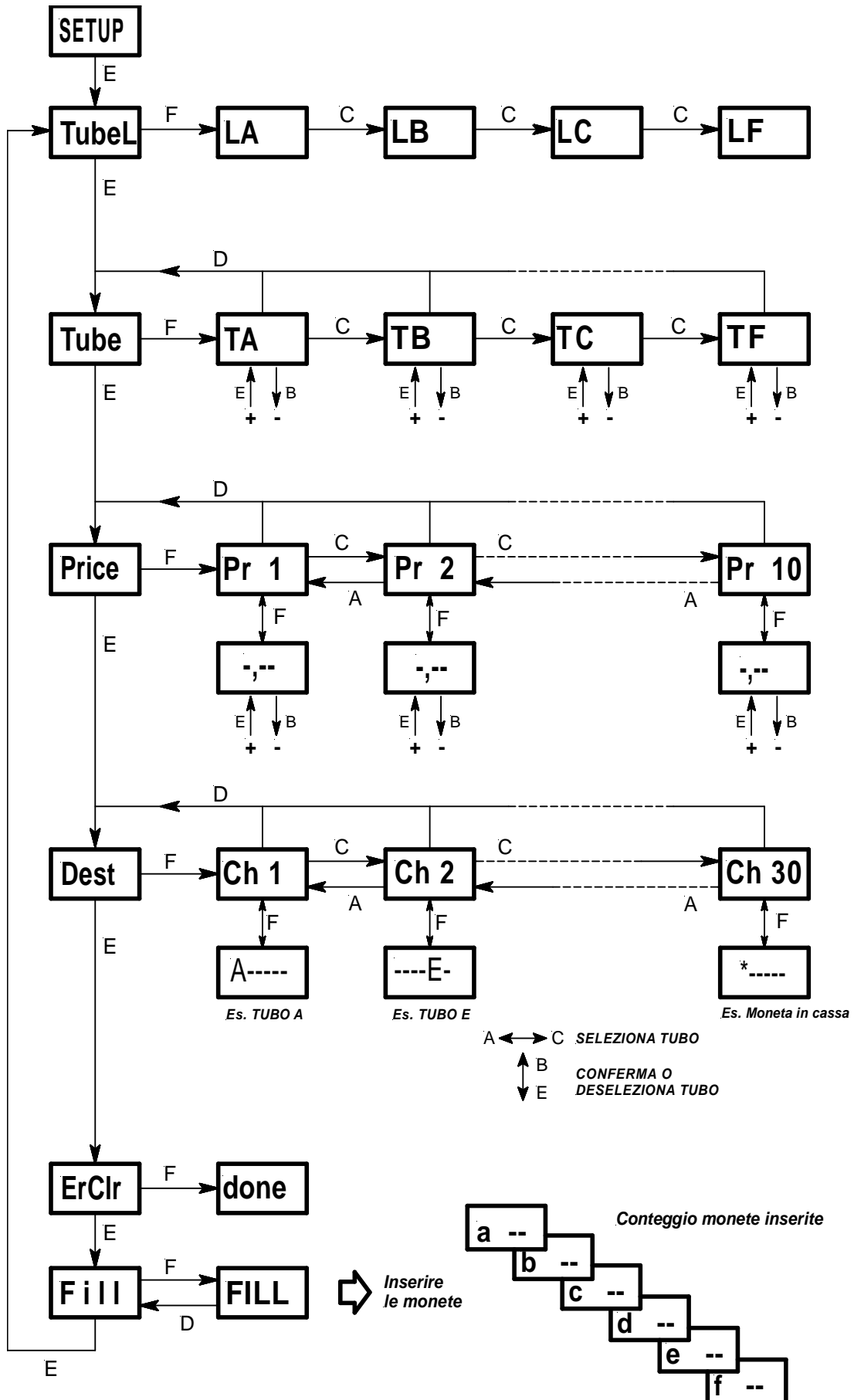
Fig.11

Edit machine code from keypad

Starting from f/w revision 1.11.00 you can read and/or edit the machine code from keypad on changegiver.

At the same time press ESCROW LEVER + C,

The following message is displayed: **CODE**

Press **F**; the first half of the machine code is displayed.

The machine code (see Fn00) is made of 8 digits: **xxxxyyyy.**
The code is divided into 2 halves:
1st half: **Hxxxx**
2nd half: **Lyyyy**

The two halves of the code are alternatively displayed whenever pressing **F**

Press **E** more than once to increase the code or **B** to decrease it.
Keep **E** or **B** pressed to accelerate increase/decrease.

Press **F** to confirm the code set.

Press **D** to go back to the message **CODE** without saving the code set.

How to exit the procedure: press ESCROW LEVER + C, wait 30 seconds in idle state or switch the device OFF.

Functions SLIDES - MOVE

Should pullers get stuck, this function is used to reposition them by activating the three ejection motors in manual mode.
The operations must be made with the *changegiver* ON (it is not necessary to activate serial protocol, though).

Press Escrow lever …

Function SLIDES: an attempt is made to automatically reposition the pullers blocked (the puller must be blocked in a position where the nail on the motor shaft can rotate and fit the carving on the puller again).

Function MOVE: an attempt is made to manually reposition pullers (with short rotations of the motor shaft).

…and F

Fig.12

Using function SLIDES

Press **F** while keeping the Escrow lever pressed.
The message *"Slides"* is displayed (release the lever).
Press **F** again to activate the function: a sequence of six letters (**P** or **M**) is displayed representing the six pullers (ABCDEF).
P = puller in its correct position.
M = puller out of position.

`PPPPPP`	Every puller is in its correct position.
`PPPPPM`	Puller **F** is out of position. Press **F** to reposition the puller (the message "Slide ON" is displayed).
`Sl.ON`	Message "Slide ON". Press **D** to exit the function or switch the changegiver OFF. If the puller does not return to its correct position, you must perform a manual procedure (function MOVE).

Using function MOVE

Remove the tube group to see the pullers' position and restore their position manually.
Press **B** to switch to **MOVE**, when the message "Slides" is displayed.
Press **F** to activate function **MStart**, which permits to rotate pullers' motors.

Slides	BUTTON B ⟩	MOVE	BUTTON F ⟩	MStart

As soon as the message **MStart** is displayed, you can press ABCDEF to rotate with short steps the pivot moving the pullers.

Press A and D to rotate upper pullers and ejectors for tubes A and D.
Press B and E to rotate intermediate pullers and ejectors for tubes B and E.
Press C and F to rotate lower pullers and ejectors for tubes C and F.

Every motor rotates a puller couple AD, BE, CF.
Example: each time **A** is pressed on the keypad, the motor causes puller A to rotate forward; press **D** if you wish puller A to rotate back (after puller A has rotated backward, puller D starts rotating forward).
Fig.13 shows which buttons cause the puller couples to rotate.
How to exit function MOVE: switch the changegiver OFF, or press again Escrow lever + F.

Fig.13

Repositioning puller/ejector F in the case of a motor being stuck.

The image here below (fig.14) shows puller **F** "from below": the puller is positioned completely forward but the motor shaft nail is not in its correct position (see detail).

PULLER **F**

Fig.14
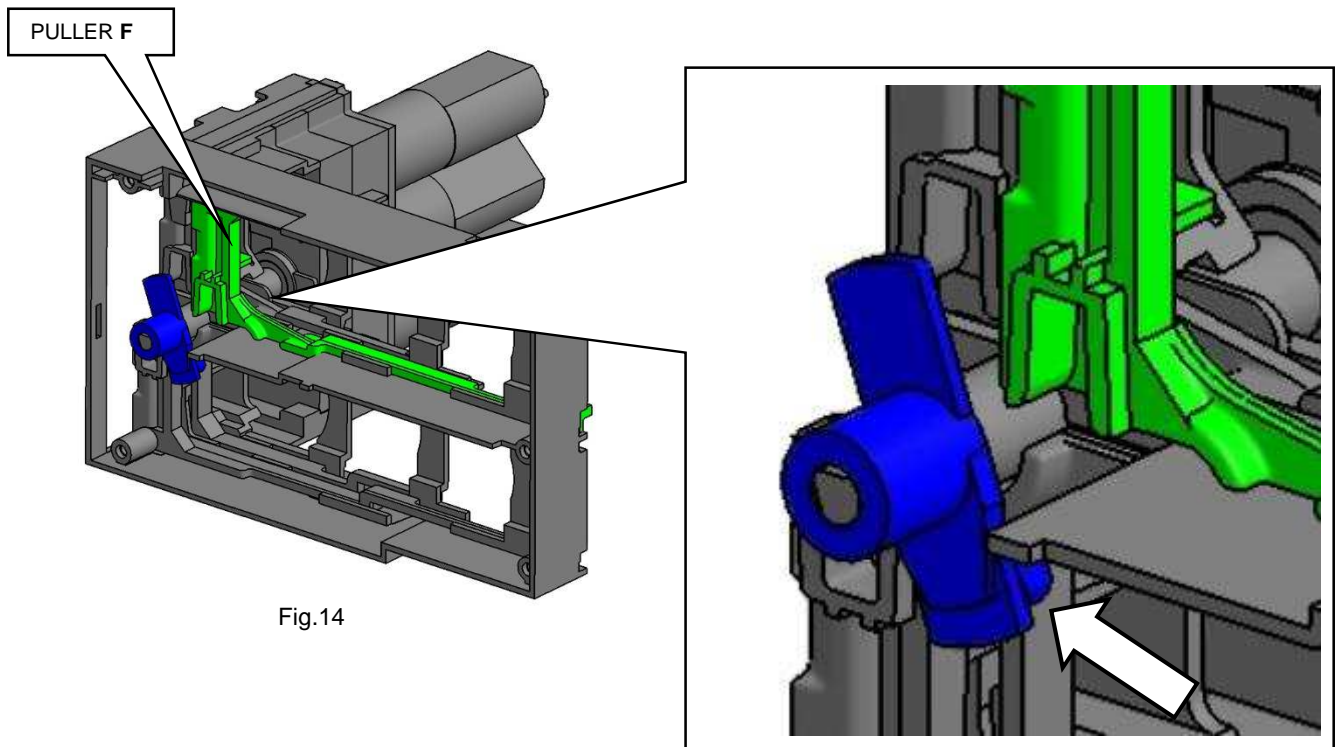
The motor shaft must rotate till its nail fits into the carving on the puller F and on till the puller is dragged to the starting position. Press C more than once to cause the motor shaft to rotate in the correct direction Keep on pressing C (short rotations of the motor shaft) till the puller reaches its correct position (Fig.16).

Fig.15

Fig.16

Detail of the motor shaft mail correctly fitting in the carving of PULLER **F**
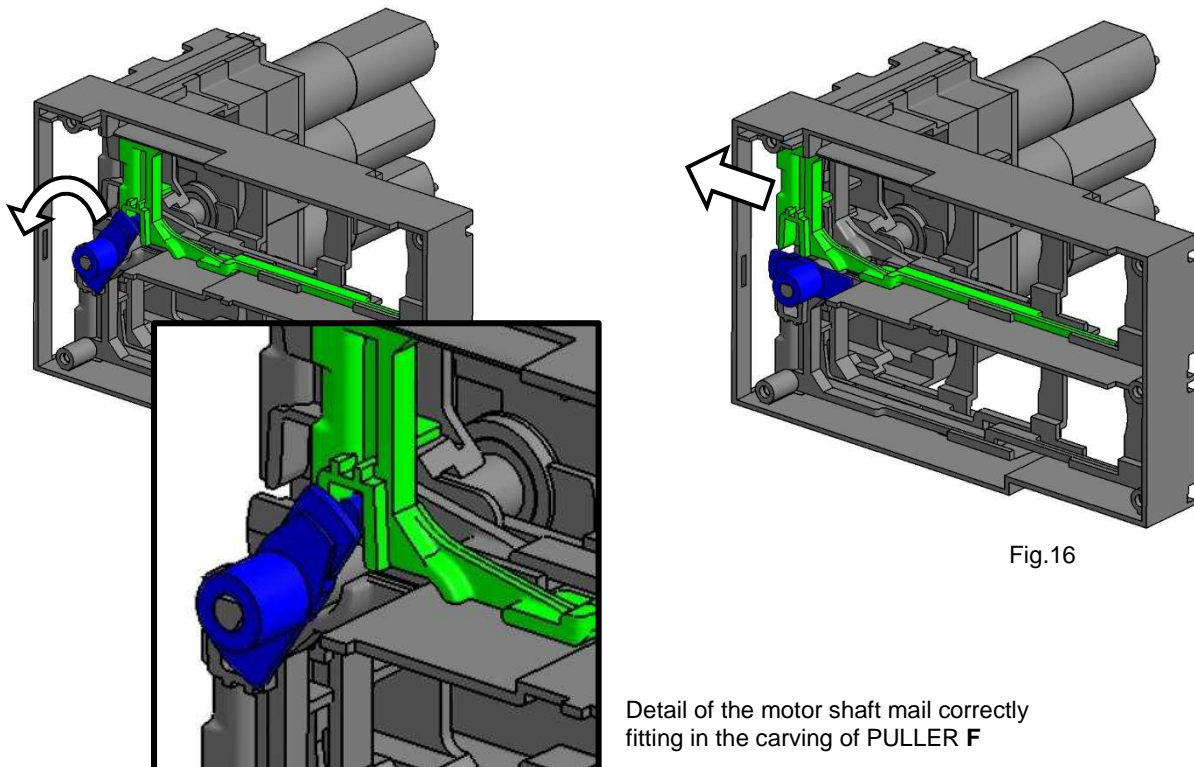
Maintenance

Cleaning coin validator

Coin chutes must be frequently cleaned to keep the system efficient and prevent dust or grease from building up (dust might slow the coin run).
Be sure the changegiver is OFF before cleaning the selector.
Use a soft, damp cloth with water. Do NOT use solvents or aggressive detergents (degreasing fluids for PCB, oils, benzene or trichloroethylene) that might damage plastic components.
Also avoid the use of ethyl or isopropyl alcohol.

Cleaning tube upper sensors

The optical sensors on the bottom of the coin validator (see fig.17) must be periodically cleaned.
Always use a soft damp cloth; blow away dust from the sensors with compressed air.

Fig.17

Fn23 – Diagnostics

```
Service
mode ?
```

N Standard setting.
Y Advanced diagnostics. Error messages are displayed on LCD (see message list – Table 2).

```
Auto reposition
coin router ?
```

Automatic repositioning of the swinging coin router.
N Coin router is repositioned whenever switching the system OFF/ON (standard)
Y Coin router is repositioned whenever a coin is inserted. The coin router might be repositioned when pressing the Escrow lever.

```
Test
Separator ?
```

N Separator is not tested.
Y Press ↵ to test separator. The separation mechanism will be activated with a rapid movement.

```
Ignore errors
separation ?
```

N Base diagnostics (standard).
Y The separator is not inhibited even if an error has occurred in coin separation.

```
Validator
error:
```

Only-read message.
N No errors have been detected.
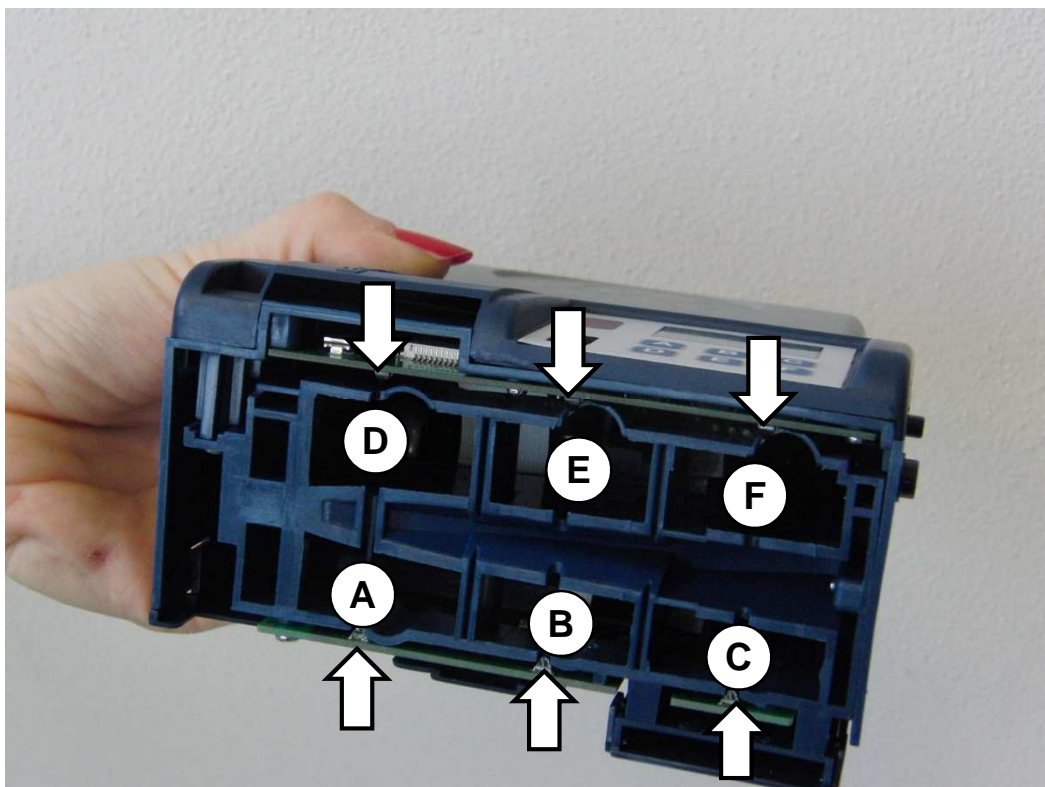**Y** The cashbox sensor might be damaged. If the error is repeated, the system stops accepting coins (contact Paytec Customer Service).

```
Separator
error:
```

Only-read message
N No errors have been detected.
Y The separator sensors might be damaged (coins fall in the cashbox). The message **"S"** is displayed on the separator LCD.
Contact Paytec Customer Service.

```
Full sensors
error:
```

Only-read message.
N No errors have been detected.
Y The sensors "full" might be damaged (situated on the end of the separation channels above the coin router). Coins are all routed to the cashbox. The message **"F"** is displayed on the selector LCD.
Contact Paytec Customer Service.

```
Tube 1
error
```

Only-read message. Press ↵ to scroll the list of the six tubes.
N No errors have been detected.
Y A coin has fallen in the wrong tube (that tube is inhibited).
The message "**F**" is displayed on the selector LCD in the position of the tube inhibited (contact Paytec Customer Service).

```
Ejector 1
error:
```

Only-read message. Press ↵ to scroll the list of the six ejectors.
N No errors have been detected.
Y The coin ejector is not in its correct position. The message **"E"** is displayed on the selector LCD in the position of the ejector. Check the puller and try repositioning it (see "Function MOVE"). Switch the system OFF and ON again. If the error is repeated, contact Paytec Customer Service.

.

```
┌─────────────────────────┐
│                         │
│  Reset errors?          │
│                         │
│                         │
└─────────────────────────┘
```

N The errors memorized are not cleared.
Y All the errors memorized are cleared.
   Clear the coin jam (if any). If the error is repeated, contact Paytec Customer Service.

```
┌─────────────────────────┐
│                         │
│  Status sensor          │
│  F4 4,--   F5 0,--      │
│                         │
└─────────────────────────┘
```

Only-read message.
The analogue values are displayed for the optical sensors:
   F4 is cashbox sensor 1   standard value in standby: >4.5V.
   F5 is cashbox sensor 2   standard value in standby: <0.2V.
While this message is displayed, a test can be performed to switch level for sensor F4.
Press A, B or C to activate the door of cashbox 1 and switch the level of sensor F4 from level 4,--V to level 0,--V.
Press D, E or F to activate the door of cashbox 2. The status of sensor F5 must remain at level 0,--V.
In the case of abnormal values, contact Paytec Customer Service.

```
┌─────────────────────────┐
│                         │
│  Status separator       │
│  S1 0,--    S2 0,--     │
│                         │
└─────────────────────────┘
```

Only-read message.
The analogue values are displayed for the separator sensors:
   S1 is separator sensor 1   standard value in standby: <0.2V.
   S2 is separator sensor 2   standard value in standby: <0.2V.
While this message is displayed, the separator mechanism can be tested.
Press A, B or C to move the mechanism towards tubes ABC.
Press D, E or F to move the mechanism towards tubes DEF.
When the test is over, press ↵ (P6000) to reset the separator position.
In the case of abnormal values, contact Paytec Customer Service.

```
┌─────────────────────────┐
│                         │
│  Full tubes             │
│  AD 0  BE 0   CF 0      │
│                         │
└─────────────────────────┘
```

Only-read message.
The digital values are displayed for the sensors detecting coins falling in the tubes. The sensors are referred to the 2 tubes on the same line (Fig.17).
AD   sensors controlling coins falling in tubes A and D.
BE   sensors controlling coins falling in tubes B and E.
CF   sensors controlling coins falling in tubes C and F.
While this message is displayed and a sensor is darkened (e.g. by a coin), its logic level switches from 0 to 1.

```
┌─────────────────────────┐
│                         │
│  Motors                 │
│  AD 1  BE 1   CF 1      │
│                         │
└─────────────────────────┘
```

Only-read message.
The digital values are displayed for the sensors of the ejector motors.
In standby position, the logic level is 1.
The sensors are referred to the 2 ejectors moved by the same motor shaft nail (Fig.13).

```
┌─────────────────────────┐
│                         │
│  Ejectors               │
│  A 1     B 1    C 1     │
│                         │
└─────────────────────────┘
```

Only-read message.
The digital values are displayed for the sensors controlling the position of each ejector for tubes A, B, C.
1 = standard value in standby position (sensors darkened).
0 = ejector is not in its correct position.

```
┌─────────────────────────┐
│                         │
│  Ejectors               │
│  D 1     E 1    F 1     │
│                         │
└─────────────────────────┘
```

Only-read message.
The digital values are displayed for the sensors controlling the position of each ejector for tubes D, E, F.
1 = standard value in standby position (sensors darkened).
0 = ejector is not in its correct position.

```
┌─────────────────────────┐
│ Test Ejectors:          │
│                    N    │
└─────────────────────────┘
        │
        Y
```

Advanced servicing function (for authorized staff only).
N Ejectors are not tested (next).
Y The six ejectors are automatically tested. Press ↵ (P6000) to start the test. Single ejectors will be automatically activated in a sequence.

```
┌─────────────────────────┐
│ Testing…                │
│                         │
│                         │
└─────────────────────────┘
```

…. ejectors are being tested…

```
┌─────────────────────────┐
│ M1 M2 M3   ABCDEF       │
│ -  -  -    ------       │
│                         │
└─────────────────────────┘
```

After ejectors have been tested, the result is displayed for each ejector:
"**-**" = OK
"E" = an error has been detected.
M1 motor ejectors A-D.
M2 motor ejectors B-E.
M3 motor ejectors C-F.
ABCDEF   pullers for each tube.
Should an error be detected, you should test that ejector (see next parameter).
While this message is displayed each ejector can be tested manually. Press a button (EAGLE keypad) to make the corresponding puller move completely forward, then press the same button the bring the puller back to its correct position. The logic levels of ejector sensors are displayed on P6000, depending on the position of their pullers.

```
┌─────────────────────────┐
│ Motor F         OK      │
│ Ejectors  111110        │
│                         │
└─────────────────────────┘
```

Testing ejector '**F**' (simulating a coin being ejected).
When pressing F, the puller moves to "coin eject" position: the logic level switches from 1 to 0 ….

```
┌─────────────────────────┐
│ Motor F         OK      │
│ Ejectors  111111        │
│                         │
└─────────────────────────┘
```

…. when pressing '**F**' again (or another button) the puller moves to its standby position: the logic level switches from 0 to 1…

Should problems arise when testing the ejectors, please contact Paytec Customer Service.

Press ↵ on P6000 to exit testing function.
After you have left the menu 'test ejectors', the coin separator is automatically reset.

```
┌─────────────────────────┐
│ Diameter                │
│ Coefficient     **      │
│                         │
└─────────────────────────┘
```

Only-read parameter (for staff of Payment Technologies only).

```
┌─────────────────────────┐
│ Thickness               │
│ Coefficient     **      │
│                         │
└─────────────────────────┘
```

Only-read parameter (for staff of Payment Technologies only).

```
┌─────────────────────────┐
│ Alloy                   │
│ Coefficient     **      │
│                         │
└─────────────────────────┘
```

Only-read parameter (for staff of Payment Technologies only).

Diagnostic messages on LCD

Should an error be detected while separating/ejecting a coin, the error is visible in the error list in Fn23 but also displayed on the selector LCD. Please, check whether there is a coin jam, reset the error and restart your EAGLE. If the error is repeated, please contact Payment Technologies.

`U`	Coin unexpected. When such error is detected, the system stops accepting coins until the error is cleared.
`S`	Separator failure or coin routed in the wrong tube. The coins that cannot be recognized are routed to the cashbox until the error is cleared.
`F`	Tube sensor error (coins are all routed to the cashbox until the error is cleared).
`-F--F-`	Tube entry sensor error or coin routed in the wrong tube (the example refers to tubes B and E). The error - indicated with letter 'F' - is displayed for the tubes sharing the same optical sensors. The coins are all routed to the cashbox until the error is cleared.
`-E----`	Ejector sensor error (letter 'E' is displayed on the position where the error was detected). The example refers to an error for ejector B.
`-G----`	Both ejector and tube sensor errors (error displayed on the same position).

Resetting errors

A system error can be reset following one of the procedures here below:
1) P6000 ……………….. Enter Fn23 and set '**Reset errors = Y**';
2) Button A ..…………... Keep 'A' pressed (on tube keypad) and switch the changegiver ON; release 'A' when the ejector starts moving;
3) SETUP keypad ……. Enter menu '**SETUP**' and execute the command '**ErClr**'.

Service mode – coin diagnostics

When a coin is not recognized with 'Service mode' enabled in Fn23, the message INH** is displayed on EAGLE LCD followed by a number.
Table 2 contains a list of error messages.

INH --	Error	Possible solutions
INH 1	Unidentified	Check EAGLE configuration
INH 2	EAGLE in Exact-Change condition	Fn03: check the option "Coin no.** Exact-Change = Y/N"
INH 3	The coin rejected is Euro because EAGLE is configured in NCU	Fn03: check the option "Coin Euro? Y" Select "N" to accept coins
INH 4	The coin rejected is nonEuro because EAGLE is configured in Euro (=978)	Fn03: check the option "Coin Euro? N" Select "Y" to accept coins
INH 5	No key has been inserted (but option "Coin No.** with Cashless = Y")	Fn03: check the option "Coin No.** with Cashless? N". Select "Y" to accept coins
INH 6	Key inserted but cannot be recharged	Pull out the key and then reinsert it
INH 11	Key inserted whose credit is higher than the max. credit	Fn00: check "Maximum credit cashless=___; modify the value
INH 12	Current credit is higher than max. price programmed	Fn04: check "Price max *****"
INH 13	Current credit is higher than max. price programmed	Fn00: check "Maximum credit with cash=.*****; modify the value
INH 14	Key cannot be recharged	Fn15: check "Inhibit reload Cashless? Y". Select "N" to accept
INH 15	Coins are only accepted when a key has been inserted	Fn00: check option "Coins only with Key? N". Select "Y" to accept
INH 16	TestServiceKey inserted	Fn21: check option "Coins and bills test?"
INH 17	General ServiceKey inserted (key with blocs, …)	Insert a compatible user key
INH 18	EAGLE in free vend mode	Fn07: check time bands for free vends
INH 19	Current credit is higher than 65535	Limit credit

Table 2

System diagnostics

When a problem is not solved with the solutions suggested, contact Paytec.
Table 3 contains a list of messages for system errors.

	Error	Solution
SEr 1	Error cashbox sensor	Switch OFF and ON again
SEr 2	Error Offset thickness	Switch OFF and ON again
SEr 4	Error Offset alloy	Switch OFF and ON again
SEr 16	Error Offset diameter	Switch OFF and ON again
SEr 30	Error Coin-JAM	Clear Coin jam, then switch OFF and ON again
SEr 32	Error Offset parameter F	Switch OFF and ON again
SEr 64	Consecutive errors for cashbox sensor	Switch OFF and ON again
Err 2	Extended Audit full	Check settings in Fn12 and download Audit
Err 6	Price Holding mode without selection prices	Enter Fn17
Err 8	Configuration transfer aborted	Repeat transfer or enter P6000 mode
Err 9	Euro conversion aborted	Repeat conversion

Table 3

Key reader diagnostics

Should a configuration error be detected with a Paytec® key reader plugged, an error message is displayed among the ones in table 4.

	Error
CAr 1	A key has NOT been accepted because… 1) Credit on key > 65535 2) "Check last digit =Y" but the last digit of credit is neither 0 nor 5 (see Fn06) 3) "Check max credit on Key-Card = Y" but credit on key is 1.5 times > max. credit (see Fn06) 4) Access/Master Key inserted in a system which is not in safe mode (or invalid PWD) 5) oldPIN1 or oldPIN2 on Access/Master key are different from system PINs
CAr 2	Invalid operator code
CAr 3	Invalid location code
CAr 4	Invalid Euro Conversion key / system already converted
CAr 5	Invalid PIN
CAr 6	A key has NOT been accepted because… 1) VMC inhibited. 2) No serial link with VMC. 3) "Inhibit reload Cashless =Y" (an attempt has been made to load key with cash). 4) "Test Vend" key inserted with cash credit. 5) "Enable ServiceResetKey = N" (but an "Audit reset" key has been inserted).
CAr 7	A key has not been accepted because its code has been written in the Black List (see Fn30, Fn32)
CAr 8	Invalid Data/Configuration key
CAr 9	Error while reading/updating key
CAr10	The key inserted is different from the key type configured in the system (see Fn06)
CAr11	Key invalidated (anti-copying). Invalid credit value
CAr12	Key/card MIFARE® no MAD or no application PAYTEC
CAr14	Euro key inserted in NCU-configured system

Table 4

LED signals on key reader

Key reader status/errors are indicated by LED signals on Paytec® key reader faceplate (see table 5).
When a problem is not solved with the solution suggested, contact Paytec.

LED	Solution
OFF	Reader OFF
GREEN FLASHING	Reader ON, ready for use
GREEN ON	Key inserted and accepted (it can be pulled out now)
RED ON	Writing… (don't pull out the key)
YELLOW ON	▪ The key has not been recognized ▪ Sensor darkened when giving power
YELLOW FLASHING	Extended Audit full

Table 5

Messages on system status

The messages in table 6 are displayed on the changegiver LCD to indicate a temporary system status.

Message	Description
PC	PC RS232 mode
P6000	Connecting with P6000…
InH	System inhibited, or inhibited by VMC
Audit	Transmitting Audit …
Conf	Transmitting/receiving configuration…
CLEAR	Resetting Audit …
FREE	TestKey inserted
OFF	Timed OFF
Euro	Starting message when EAGLE is configured in Euro
MM-NN	Message displayed while programming coins: *MM* = no. coins inserted so far *NN* = total no. coins required
FILL	Filling tubes ... (from setup menu)
CAL	Calibrating coin validator ...(wait, please)
-CAL-	Calibrating coin validator after update...(wait, please).
CFGCh	Coin parameters have been modified
SETUP	Access to SETUP menu from tube keypad
TubeL	Setup menu: read level in tube
Tube	Setup menu: adjust max. level in tubes
Price	Setup menu: enter prices
Dest	Setup menu: coin destination
ErClr	Setup menu: reset errors
Fill	Setup menu: filling tubes
[] []	Calibrating…
dSPUP	Updating DSC ... (wait, please)
Ln	Updating counter DSC (wait, please)
noLink	Serial link with VMC interrupted (e.g. cable accidentally unplugged)
nodSP	Communication error with DSC (switch OFF and ON again)

Table 6

Fn24 – Technical support

This function contains parameters reserved to the technical staff of Paytec.
Before you modify standard settings, please contact Paytec Customer Service.

```
┌─────────────────────┐
│ Use rapid           │
│ Escrow ?            │
└─────────────────────┘
```

N Standard setting.
Y Rapid escrow.

Example
In some Vending Machines, the Escrow lever is activated by an automatic device (see motor or electromagnets). The lever might be activated for a short time (e.g. when controlled by an electromagnet); in this case the activation of the lever will be useless to give change manually or eject coins.
Select '**Y**' to increase lever speed.

```
┌─────────────────────┐
│ Discrimination      │
│ extended ?          │
└─────────────────────┘
```

N Standard setting.
     Coins are accepted following the configuration stored (see Fn03 "Delta parameters").
Y Coins are accepted with broader deltas. 'Deltas' are not modified in Fn03 but they are dynamically controlled when inserting coins.

```
┌─────────────────────┐
│ Reset acceptance    │
│ counters ?          │
└─────────────────────┘
```

N Standard setting.
Y Reset coin acceptance counters (contact Paytec before you decide to select this option).

Paytec Configurator

PC application

PaytecConfigurator_6.0 is a PC application Windows® to create, transfer or read configuration files belonging to Paytec payment systems via serial connection with a PC (Fig.18).
The application also enables operators to program coins with a PC in free channels.
Minimum requirements: Windows® XP, serial USB.
For connection with a PC, use Paytec USB cable AC.00100 (optional).
Paytec Configurator can be downloaded free from the website www.paytec.it.
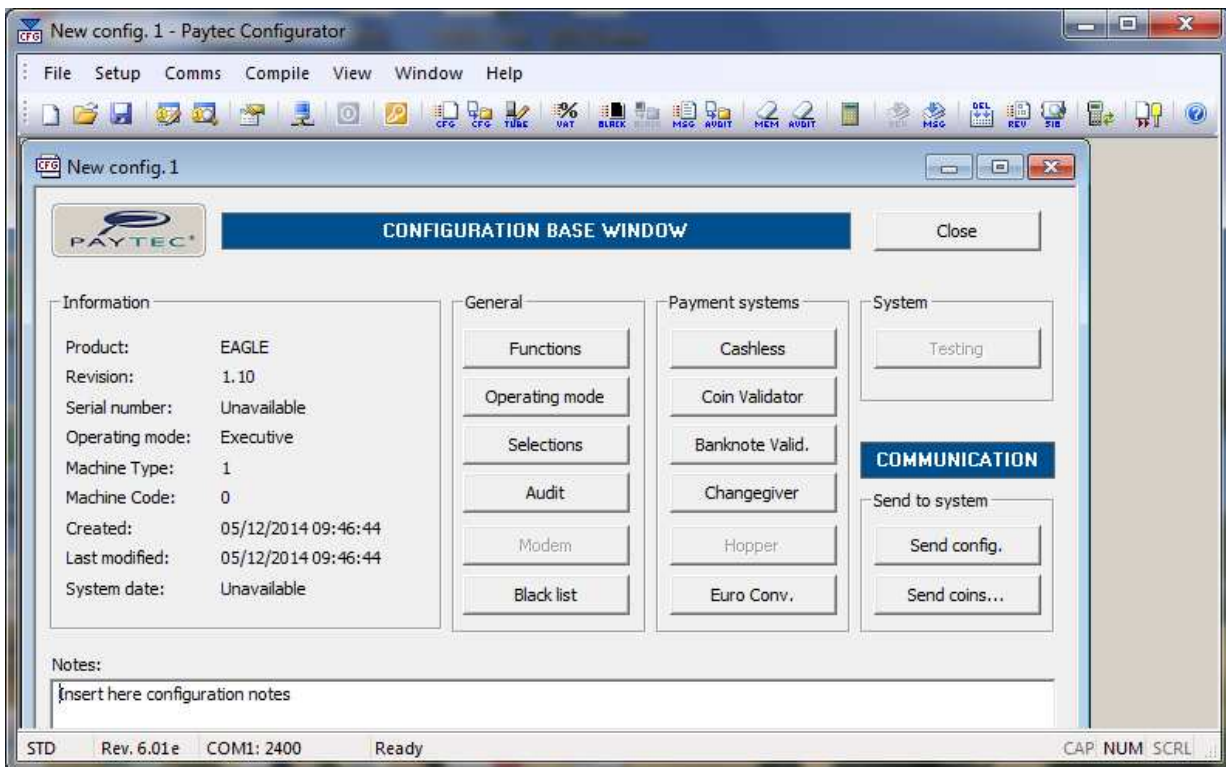Read Paytec Configurator user guide before use (guide downloadable free from www.paytec.it).

Fig.18

If you have a P6000 (programming palmtop), you can connect Eagle and the PC in P6000 emulator mode. All the functions are controlled with PC keyboard and displayed on PC screen (see Fig.19).

Fig.19

When programming coins with PaytecConfigurator_6.0, a guided procedure is available to select a channel free and set coin/token values.
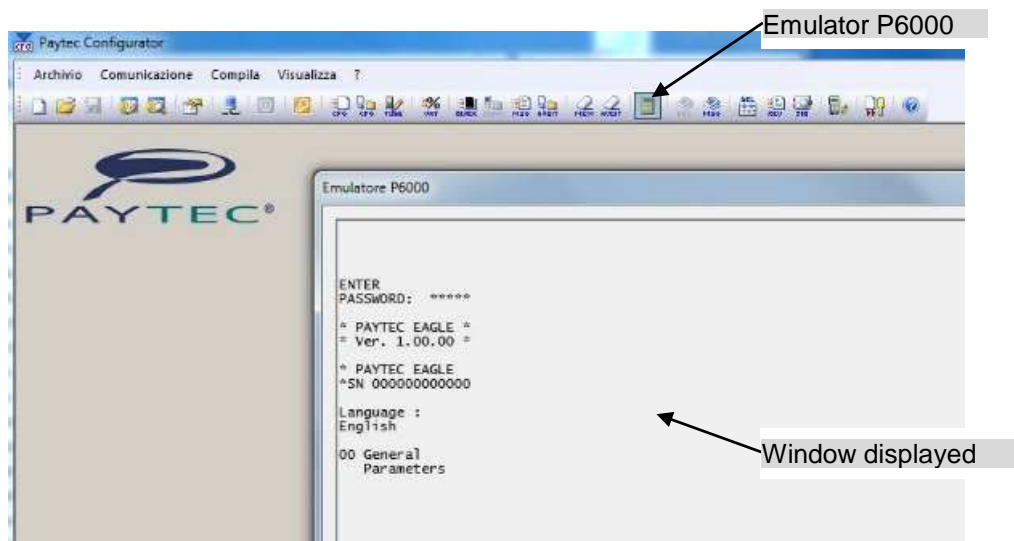Fig.20 gives an example of a coin programming template.
More info on Paytec Configurator user guide.

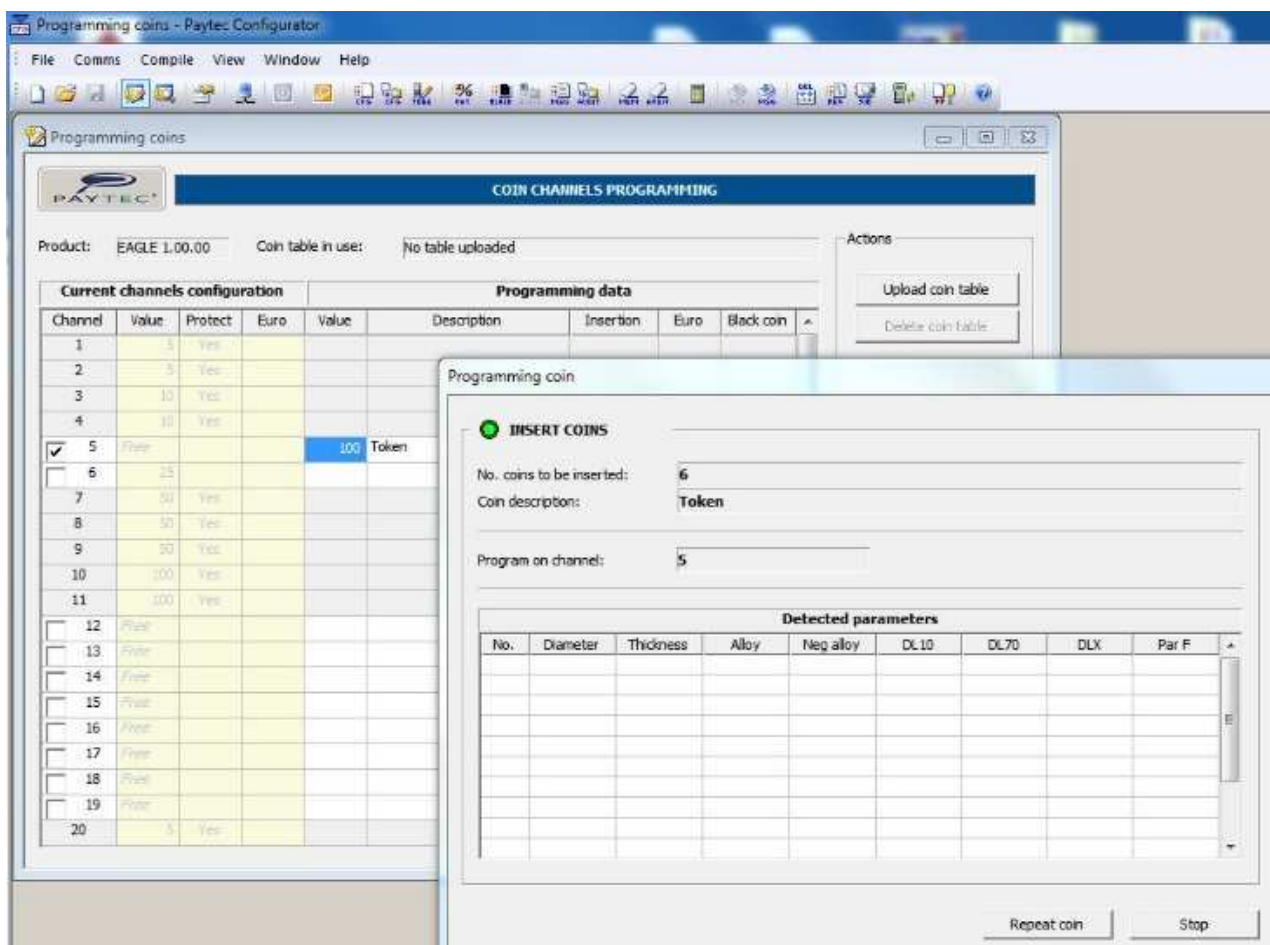
Fig.20

Updating firmware

SIB (Fig.21) is a PAYTEC tool enabling operators to update Paytec payment systems with the latest firmware revision.
The SIB tool must be updated with f/w rev 5.10 (or later). Contact Paytec for more info.
The SIB tool is plugged via the red connector (Fig.7, pag.11) with *flat* cable 6pins supplied with SIB.
Be careful the cable is plugged with correct polarity.
Cut power before the SIB unit is either connected or disconnected.

Fig.21

Firmware updating procedure:
1) download the latest f/w revision from www.paytec.it;
2) transfer firmware revision file from the PC to the SIB via Paytec Configurator (see Fig.22);
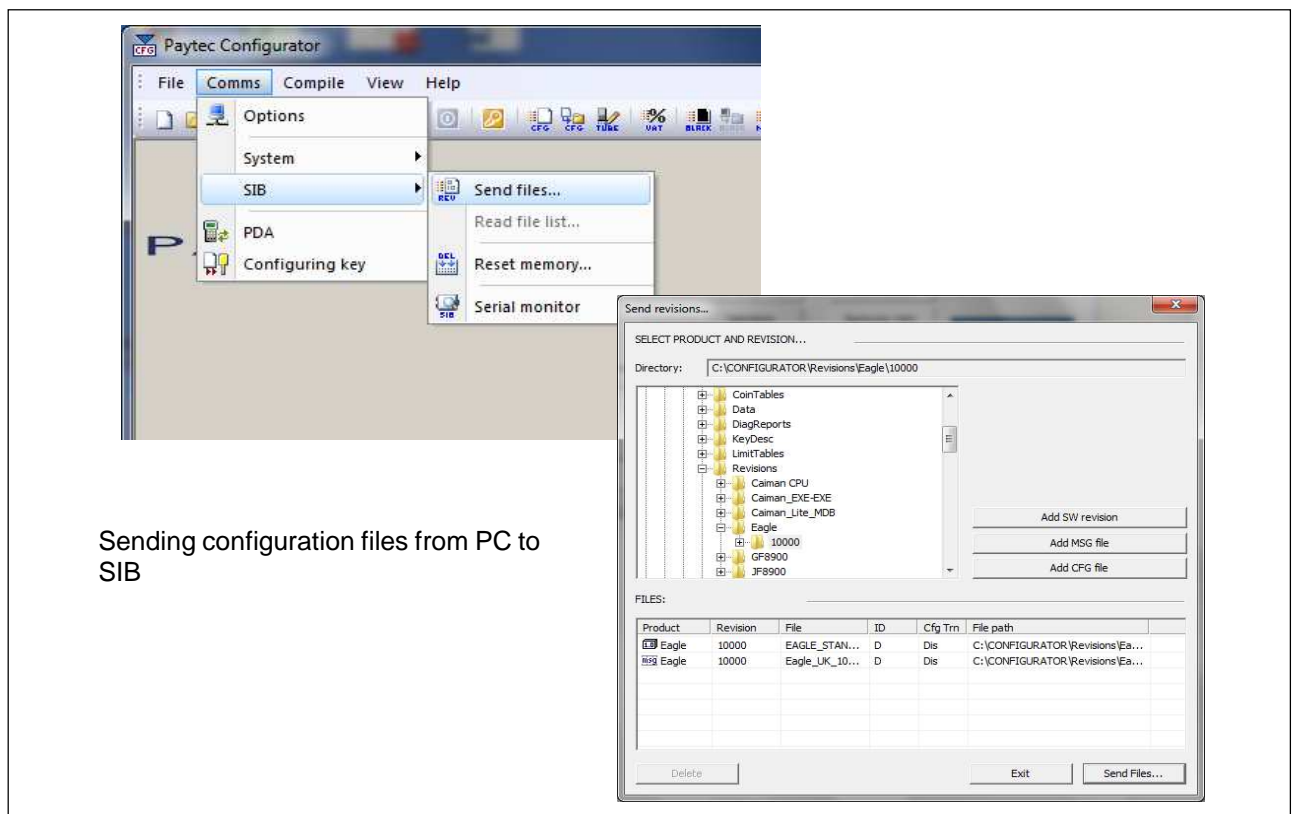3) transfer firmware revision from SIB to EAGLE.
Read SIB user guide.

Sending configuration files from PC to SIB

Fig.22

Fn38 – Euro parameters

DON'T edit parameters in this function for *Euro-configured system*s (currency description=978 in Fn00)!
In NCU-configured systems (in countries that are planned to join the Euro area in the future), you can enter the change rate that will be adopted when the system will be converted.

The EAGLE models distributed in the countries belonging to the Euro zone are already configured in Euro and they will only accept Euro keys/coins. When a nonEuro key is inserted in a Euro-configured system, credit on that key will be converted following the change rates in Fn38 (key type is also converted to "Euro key").

```
Euro conversion
rate:      ------
```

Enter absolute value (cents included) without decimal point.

```
Number decimals
change (0-6)   -
```

Enter the number of decimals on the absolute value.
Example: change rate: 1936.27
▼
Euro conversion rate=193627 and No. decimals change=2.

```
Number decimals
N.C.U.(0-4)    -
```

Decimal point position on the currency in use before Euro conversion.

```
Unit Scaling
Factor EURO:   001
```

Unit Scaling Factor after Euro conversion.
Default USF for EURO = 001.
Check compatibility between VMC and USF.

```
Conversion date
dd/mm/yy
```

Start conversion on a specified date.
Enter day / month / year.
The system will be automatically converted in Euro at midnight of the specified date.
Leave "0" (zero) if you wish to inhibit this function.

```
End N.C.U.
dd/mm/yy
```

Validity deadline for national currency (NCU, nonEuro).
The system will stop accepting money in national currencies from midnight of the specified date.
From that date, EAGLE will start accepting Euro coins only.

Leave "0" (zero) if you don't wish to enable this option.
In this case, when Euro conversion is started NCU coins are routed to the cashbox and their value in converted in Euro (following the change rate programmed).
To inhibit NCU coins, you need to manually set parameter "Inhibited? Y" in Fn03 (with "P6000" or "Paytec Configurator").

```
Mix coins
in tubes ?
```

N Standard
Tubes are automatically emptied when the system is converted in Euro.
Replace tubes (if necessary) for Euro coins. Select "N" if you wish to start giving change with Euro coins only.

Y MIX
Tubes are NOT emptied when the system is converted; the Euro coins routed to the tubes fall on the NCU coins still there. Change is calculated in Euro currency and rounded off to the third decimal till no more NCU coins are left in the tubes.

Whether you select "Y" or "N", NCU coins inserted after conversion always fall in the cashbox (Euro coins only fall in tubes).
The option "Mix coins in tubes" is inhibited after the system has been converted in Euro.

```
Tube No.         1
max. coins       0
```

The max. number of Euro coins in each tube can be adjusted here. This option is useful when you are going to replace a tube or when a tube is already compatible with a Euro coin type.

```
Enter new values
in Euro?
```

N All the credit values programmed in the system (prices included) will be converted in Euro, following the predefined change rates.
Y Operators can enter a new list of parameters in Euro, which will replace the current list when starting Euro conversion.
   Proceed with the following parameters:

```
Maximum Cashless
credit:      0,00
```

```
Maximum cash
credit:      0,00
```

```
Maximum change
Euro:        0,00
```

```
Price increase
value:       0,00
```

```
Fictit. credit
value:       0,00
```

```
Free Credit
value:       0,00
```

```
Free Credit
Level 1:     0,00
```
Set the 4 levels…

```
Enter price Euro
list (1-10):    1
```

Only with list 10 prices.

```
1^ Price Euro
   value:   0,00
```

```
1^ Pr/Disc.    1
   value:   0,00
```

```
Enter price Euro
list (1-10):    2
```

… do the same until price 10 is reached.

Fn39 – Euro conversion

This function enables operators to manually switch to Euro the parameters previously set in Fn38.
Conversion is not available when the system is already working in Euro (see Fn00 - currency description = 978).
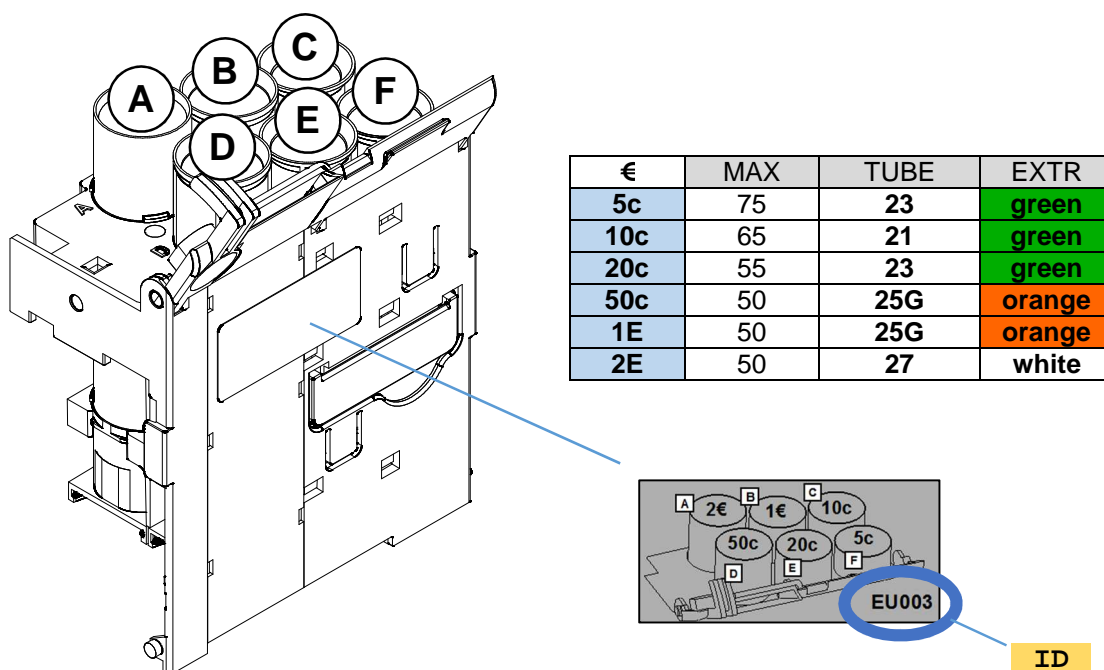
```
Start Euro
conversion ?
```

This message is only displayed when a system has not been configured in Euro.
Select "**Y**" to start Euro conversion.

If conversion is tried in Euro-configured systems, the system "Euro conversion already existing" is displayed.

.

EURO tube group

Here below is a list of predefined Euro tube groups (with reference to the code written on label).
The list of codes is purely indicative, please contact Payment Technologies for other requests.

€	MAX	TUBE	EXTR
5c	75	**23**	**green**
10c	65	**21**	**green**
20c	55	**23**	**green**
50c	50	**25G**	**orange**
1E	50	**25G**	**orange**
2E	50	**27**	**white**

ID

ID	A	B	C	D	E	F
EU001	50	5	10	5	5	20
EUA01	50	5	10	5	20	20
EUB01	50	5	10	20	20	20
EUC01	50	20	10	20	20	20
EU002	50	5	10	20	5	10
EUA02	50	5	10	5	5	10
EU003	2E	1E	10	50	20	5
EUA03	2E	1E	10	50	20	20
EU004	2E	1E	50	2E	1E	50
EU005	2E	1E	50	50	1E	20
EU006	50	5	10	1E	20	10
EUA06	50	20	10	50	20	10
EU008	50	5	10	50	5	20
EUA08	50	5	10	50	5	5
EUB08	50	5	10	50	20	20
EU020	50	1E	10	50	1E	20
EUA20	50	1E	10	50	1E	5
EU030	50	5	5	5	5	20
EUA30	50	5	5	5	20	20
EU031	2E	20	1E	50	10	1E
EUA31	2E	20	1E	50	10	50
EU032	2E	1E	10	50	5	50
EU033	2E	20	1E	2E	10	50

Table 7

Specifications

Changegiver model	EAGLE
Serial protocols Master	Executive BDV001 MDB
Serial protocol Slave	MDB
Power requirements	24V AC Executive 24V DC BDV001 34V DC MDB
Rating	24V AC $\pm$10%
Wattage	20W
Absorption	0.5A nom. / 1.2A max.
Temperature	0° - 50° C
Optical IrDA	●
Connector for PAYTEC key reader	●
Connector for parallel bill validator	●
Connector for peripheral unit MDB	●
No. coin channels	30
Coin programming procedure	●
Coin discrimination tolerance adjustable	●
No. tubes	6
Tube group removable	●
No. prices	100 max.
No. discounts (list 10 prices)	4 for each price
No. discounts (list 100 prices)	1 for each price
Display LCD	●
Free vends / special discounts / free credit	●
Audit (protocol EVA-DTS)	●
Data readout with PC / palmtop IrDA	●
Compatibility with AuditServiceKey	●
System configuring with palmtop P6000(○)	●
No. languages	2
Rapid SetUp from tube keypad	●
Rapid fillup tubes from keypad	●
Configuring system with PC / palmtop (IrDA)	● / ●
Firmware upgrade with SIB	●
Diagnostics on LCD / P6000	● / ●
Dimensions (L x H x P)	140 x 378 x 80 mm
Weight	1.7 Kg

● standard
○ optional

Dimensions

CENTR IMBOCCO
MONETE

45

37

USCITA CASSA

46   77   6

7

80

6,2

78

AREA USCITA RESTO

68,4

28   28

17   39

42

35,5

112,8

R2,7

356

378

80

139,5
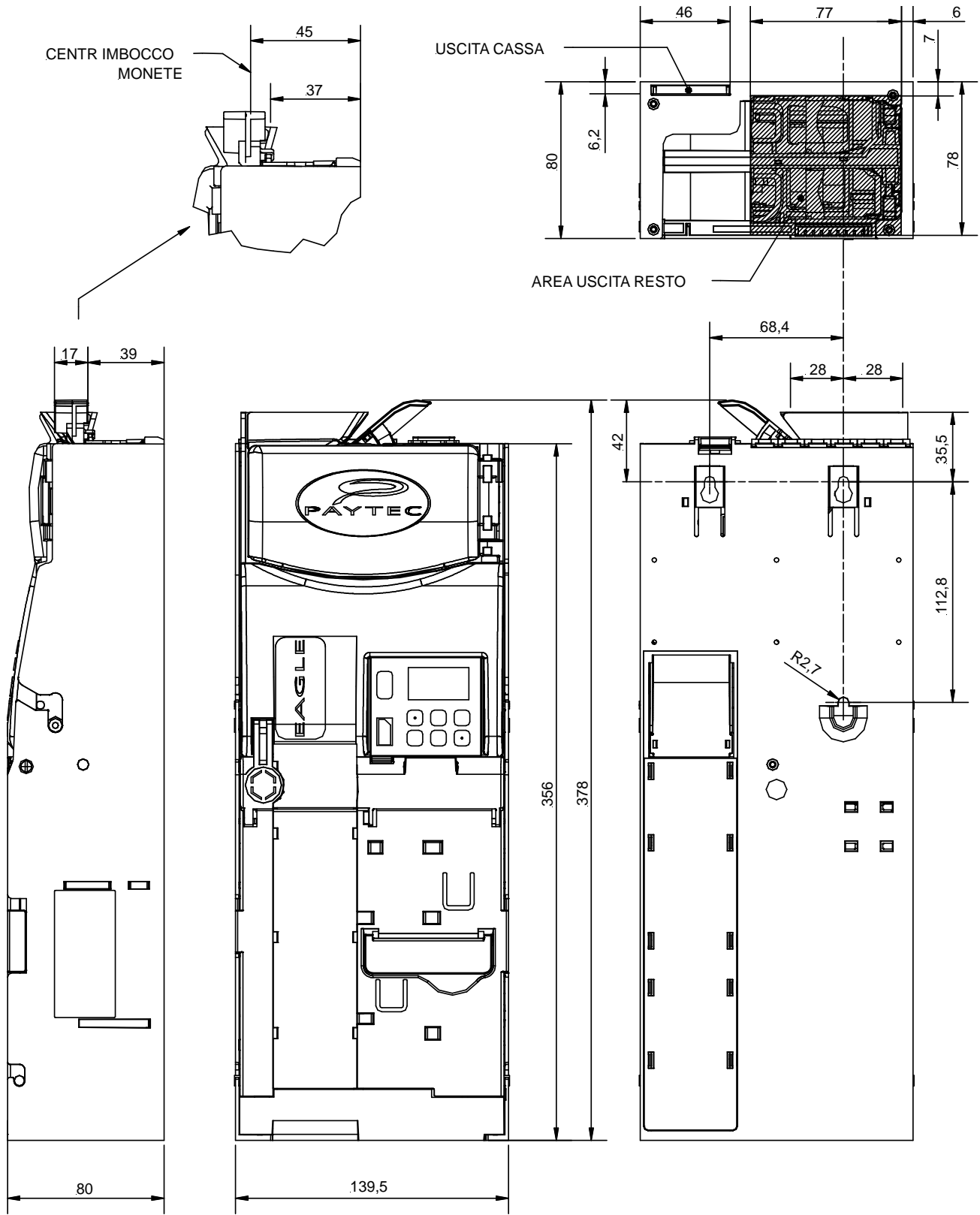
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