CHIP CARD

INSTRUCTION MANUAL

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An as type 0
Prepaid card (such as VIACARD)

TYPE 2: - All as type 0 - credit system card

The type 0 has no monetary value, and so is the easiest to use and needs fewer anti-fraud measures (the ones already incorporated in the card are more than adequate). The other types, taking the place of cash, need to be handled more carefully, and the customer can choose between several types of precaution. In order to function, the types 1 and 2 make use of a CHIP CARD key, which has to be specifically programmed as it is not present on the keyboard in the default presentation

FUNCTIONS FOR THE SECURITY OF THE CHIP-CARD

The security of the chip card is top priority especially as its memory corresponds to a sum of money already paid or agreed in credit.

The card cannot be copied the illegally, as it contains an internal security code, which if not known will permit no adjustment even by an expert. Nevertheless it may happen that a clerk could carry out a programming operation which is "the same" as yours and could charge or empty a card by accident. So, to limit the use of a card to an agreed number of outlets where it may be used, the cash register must have a card identification code which must also be programmed into the card.

This code, known as *POS CODE*, must be totally secret and programmed by the proprietor of the company. Not even the technical assistance may know it, to ensure user security.

The machine must therefore be programmed to contain the main POS CODE, but, so that other codes belonging to other companies may be used, it is possible to input 3 other secondary POS CODES which are nevertheless reserved to the management.

Further protection is provided by a **PASSWORD** which blocks access to all activities which can activate, charge, or create cards, and a **PIN** (personal identification number) which, depending on the level of protection, the machine will ask for. The advantage of the PIN is that this number is not stored in the memory of the machine, but only in the card, so that no-one can accidentally produce a code which is "the same"; also, the PIN acts directly on the writing system modifying the significance of data stored in it, which becomes incomprehensible.

Obviously, the more protection there is, the more complex is the card management, both in terms of programming and during sales, so it needs to be chosen on the basis of actual requirements. For example, using the card only for recognising customers and for promotions (TYPE 0) does not require any particular protection apart from the POS CODE, whereas a customer card (TYPE 1) for higher amounts may require the PIN at least when the value is attributed to the card.

NB. All types of protection, be it POS CODE or PASSWORD, can be the same on machines or groups of different machines; and the PIN, if it is not used by the customer who is making the purchase on the machine, can be the same on different cards.

WARNING : The manager of the shop should note down the security codes (and the password) at the moment they are entered, and should keep the numbers in a safe place. These numbers will have to be reprogrammed into the machine if it is replaced by a new one, for example if a maintenance operation requires a complete reset of the cash register.

PROGRAMMING THE MACHINE FOR USING THE CHIP-CARD

Before carrying out any cash register operation, including chip card tests, ensure that the machine has been prepared by the technician and that he has set up the machine with the code < 62 >.

Preparation for a TYPE, and dealing with points and discounts

The machine activates this function in Program Mode (PRO.) and at the closure of the transaction, enter:

Now the display will show:

TYPE 0 NO

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With the key < SELECT > it is possible to change NO into YES if the handling of that type of card is required. Once the choice has been confirmed using the key < CONFIRM >, the machine goes on to repeat the same request for TYPE 1 and TYPE 2; repeat the choice for each type. Then we pass to the next menu and the display will show the message:

R E P. REC. NO

With the key < **SELECT** > it is possible to change the NO into YES depending on whether the state of the paper needs to be printed and if it needs to be updated at the completion of each receipt.

Then, the display will show the message:

DISCOUNT NO

With the key < SELECT > it is possible to change the NO into YES depending on whether discounts should be automatically applied. Then, the display will show the message:

H.POINTS NO

With the key < **SELECT** > it is possible to change the NO into YES depending on whether the points need to be handled. If the answer is YES, the till will ask for the **VALUE** of the point, i.e. the value in cash corresponding to each point awarded. After confirming the value, the machine will ask the LIMIT corresponding to the lowest value of the transaction after which the machine will award prize points; confirm with the key
 CONFIRM.

Finally, the display will show the message:

TOT=CC NO

With the key < **SELECT** > it is possible to change the NO into YES depending on whether automatic handling of the conversion of the **CASH key** into the CARD sale key is required. If the answer is YES, every time a transaction with the chip-card inserted is concluded, pressing the TOTAL key, the amount will be deducted from the card and not from the cash.

Confirming the choice and pressing < END > key twice exits this phase. Now the machine prints a summary slip.

Note: the TYPE, points and automatic discounts setting is a function which allows the deactivation or activation, even at different times of the different benefits for card-holders.

Programming the "PAYMENT WITH CHIP CARD" key.

In the case of the card of TYPE 0 the use of extra keys is not required, since inserting the card automatically sets off the recognition function and any discounts. For the TYPE 1 e 2, a specific payment key is required, as it is possible, with the card inserted and a high enough amount, to decide at the time of payment whether to withdraw partially, totally or otherwise the total credit of the card. It is also possible to close the transaction automatically as described in the last paragraph, or to memorise an automatic closure function (see the paragraph on preparing the CHIP-CARD) in the card

To program a key, choose a position on the keyboard and ask the technical assistance to activate it, which will happen anyway associating the function N° 62 to a key. Remember to change the label on the key for the **CARD label** which comes with the machine.

Note: To use the card, it will be necessary to use the FUNCTION key preceded by the number 4. To speed up access to this menu, it is possible to ask the technical assistance to program an extra key called "MENU CARD" which must be associated with the function N°148.

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Meaning and programming of security systems

As a general feature of these programs, please note that the numbers entered are never explicitly visualised and the symbols have the following meanings:

- **?** asks for a number as password or confirmation
- _____ (subscript dash) requires a secret number.
- (hyphen) number entered not visualised

During any one of the phases which will be described on the following pages, it is possible to interrupt the program with the key < C >.

CODE 900 This program allows the manager to enter a PASSWORD which will be requested by the

- machine every time an attempt is made to carry out one of the following operations: - Preparing a card
 - Annulling a card
 - Charging an amount
 - Statement of account (recent operations)

The password is not required during a transaction with CHIP CARD To insert the password, go into **PRO mode.** :

< 900 > < CONFIRM >

6 hyphens will appear on which must be entered a number consisting of Max 6 figures and confirm with < **CONFIRM** >. At this point **?????** appears and it will be necessary to enter the password and confirm again; if the entry is correct, the machine will show:

ACCEPTED

During any of the phases before accepting, it is possible to interrupt the program with the < C > key.

It is possible to modify the password, as long as the previous on is known; in fact, if there already was one, the machine will first show ?????? and the original must be entered. If the <**CONFIRM** > key is pressed twice when the hyphens come up, this corresponds to a void password, or else its cancellation.

CODE **901** This program permits the main **POS CODE** to be entered, i.e. the number which is written in all the cards prepared by that machine. Only cards containing that number will work in that machine; in fact at each transaction the number in the card will be compared with the one in the machine. This code must remain absolutely secret.

To enter the POS CODE type in PRO mode. :

< 901 > < CONFIRM >

Warning: If the PASSWORD has been programmed, it will be necessary to enter it when the six question marks appear.

The message will appear:

POS=_____

Over the HYPHENS it will be possible to enter a number consisting of Max 8 figures and confirm with < **CONFIRM** >. To guarantee security, we advise the use of the largest number of figures possible. At this point the message will appear:

CONF ????????

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and it will be necessary to enter again the POS CODE and reconfirm; if the entry is correct, the machine will go back to **PRO.**, otherwise it will ask for the code again.

It is possible to modify the POS CODE, but care is needed if cards have already been produced which might contain the old one and would thus become unusable.

CODE **902** This program allows 3 secondary **POS CODES POS** to be generated, i.e. three numbers which will be written into the machine. In this system cards can be accepted from other cash registers, for example a chain of shops can communicate a till code to all its managers and supply the cards accordingly.

To insert the secondary POS CODE enter while in PRO mode:

<902> (or 903 or 904) and the $\ <CONFIRM>$ key and proceed as for the main POS CODE.

Warning: If the PASSWORD has been programmed, it will be necessary to type it in when the six question marks come up.

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PREPARING A CHIP CARD

Before going any further, make sure that the programming sequence outlined above has been carried out correctly.

The microchip cards which come with the machine are numbered for security, but before giving them to the customers, it is necessary to program them using the preparation program.

To prepare a new card, set the machine in REGISTRATION mode (REGIS.), i.e. at the end of a transaction, enter:

and enter the menu pressing

<1> <KEY> < 4 > < FUNCTION >

Press repeatedly the < SELECT > key until the menu NEW CARD. is reached (or else enter < 2 > < SELECT >) and confirm with < CONFIRM >. Warning: If the PASSWORD has been programmed, a PIN or both will be required when the question marks appear.

If the new card has not yet been inserted the message:

INSERT CARD

will appear

and it must be inserted into the right slot facing down and towards the operator. At this point the display will show a message:

TYPE 0

And it will be necessary to enter 0, 1, or 2, and < CONFIRM > depending on the TYPE of card that is to be prepared. In the case of the card TYPE 0, skip the instructions up to those concerning the recognition of customers; vice versa, if TYPE 1 or 2 is chosen, the level of protection must be chosen.

LEV. PROT.

It will be necessary to enter 0, 1, or 2, or < CONFIRM > depending on the level chosen having the following meanings:

Λ

protection level 0 = no additional protection other than for the POS CODE and any password already programmed.

protection level 1 = the **PIN** (max 4 numbers) which will deny, if not correctly entered, access to the card in the card charging phase with the amounts. In this case the payment by CHIP CARD will be carried out without the PIN being asked for.

protection level 2= the PIN (max 4 numbers) will be asked for which will deny, if not correctly entered, access to the card in the charging phase with the amounts or in the case of payment by CHIP CARD. The PIN will be required in order to annul the card.

To enter the PIN, follow the usual procedure, typing the number, and typing it again confirming when the ???? come up.

Customer recognition and automatic discount.

The appearance, in this phase, of the letter **d** on the display shows that a line of alphanumeric characters can be typed to describe and name a customer. This line can contain a maximum of 20 characters, but can also be omitted if the key < CONFIRM > is pressed. To program the alphanumeric characters, refer to the instruction manual of the machine. 9

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At this point the message : **T C** will appear and it will be possible to input the tax code or the VAT registration number of the customer and will be automatically printed on the receipt This too can be omitted (and will not appear on the receipt), but it must be entered correctly as the machine does a check. After pressing the < CONFIRM > key, the machine, via the message **DISCOUNT 0** asks for the amount of the discount. This discount will be applied on all sales carried out in a closed transaction when the Card is inserted. The discount will be applied also to sales not closed in payment mode with CHIP CARD. The discount will not be applied if it is programmed with a value.

At the next step, the display will show: **E X P I R Y NO** and, if in this phase, a change is made using the SELECT key: inputting YES, the machine will show an expiry date (the default is a year from the current date). This date can be freely altered and shows the last date the card can be used for purchasing; even though other functions (charging, cancelling, prize awards) are still possible.

Finally the display will show **AUTO.CLOSE. 0** and if an operational number is included, it will be possible to memorise the automatic close function on the card. This allows the user to associate a specific totalizer to a sale carried out with the card, e.g. if the function CREDIT is chosen, the cash register will close the transaction in credit. It is particularly useful to associate the function with MEAL TICKETS which can be handled through the sub-tenders so that it is possible to memorise the value of meal tickets accepted and categorised according to each agreement.

After confirming the preparation of the card, a slip summarising the way the card has been programmed will be produced as follows:

> -card number -card TYPE -protection level -customer name -tax code/VAT number

 automatic discount rate -automatic associated closure function --expiry date

and on the display will come up : CONF.?. After checking the data, it is sufficient to press the key:

< CONFIRM >

to program the card.

On the other hand, as in all previous cases, simply pressing the key < FINE > allows the process to be aborted and it is possible to exit the program.

RECHARGING THE CARD

This function does not apply to TYPE 0 cards, as it permits the recharging of debit cards (TYPE 1) or to settling the credit on a credit card (TYPE2).

To enter this mode, the machine must be in REGISTER (${\mbox{\bf REG.}}$) mode, i.e. when the transaction is closed, enter:

<1> < KEY >

and enter the menu pressing <4> <FUNZIONE>

The menu **CHARGE CARD** will appear. Confirm with <**CONFIRM** >. Warning: If the PASSWORD or PIN or both have been programmed, it will be necessary to enter them when the question marks appear.

If the new card has not been inserted, the following message will appear:

INSERT. CARD

It should be inserted into the slot, with the chip face-down and nearest to the operator. At this point the display will show the current value of the card which may be positive or negative depending on the TYPE of card. If you wish to go ahead, press the key < **CONFIRM** > and on the display will appear:

AMOUNT?

Press < CONFIRM > again and enter the amount and accept it in cash or by cheque pressing the appropriate key.

If the card is of TYPE 1, it is possible to close the account so that the customer gets his money back. To do this, simply press the <**REPORT**> key before entering the number. This is the only occasion in which it is possible to reduce the value of the card without issuing a fiscal receipt.

When the card has been charged, the machine will issue a slip detailing the operation as follows:

- cash or cheques paid in -card number -customer name -number of operations carried out on the card -previous value -amount charged onto card -current value (statement)

-details of previous charging operations

AWARDING PRIZES

This function allows the points amassed on the card to be used up. To enter this mode, go into REGISTRATION (**REG.**) mode, i.e. with no transaction in operation: <1> < **KEY** >

and enter the menu pressing <4> < FUNZIONE> Press the <SELECT > key repeatedly until the POINTS menu is reached (or else enter < 3> < SELECT >) and confirm with <CONFIRM >.

Warning: If a PASSWORD, a PIN or both have been entered, type them in when the question marks come up.

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If the new card has not yet been entered, the following message will come up:

INSERT. CARD

and it should be inserted into the slot, with the chip face-down and nearest to the operator. At this point the display will show the total number of points accumulated on the card. If a prize is to be awarded, press the *<***CONFIRM** > key and on the display will appear:

POINTS ?

Enter the value in terms of points of the prize and confirm with < **CONFIRM** >. Also in this case it is possible to give points back to the customer entering the amount entered by the <**STOCK** > key.

This is, practically speaking, a way of restoring points counted by mistake or a way of freely awarding points at the time of an individual purchase

The machine will issue a slip summarising the operation set out as follows:

-card number

-customer name

- points left

USING THE CARD FOR SALES

Having a properly programmed cash register, means it is possible to share out chip cards to one's own customers. Depending on how the card has been programmed, the machine will handle the sale. The card may be inserted at any time during the sale and will be consulted at the various stages of the operation:

1. At the moment of insertion. The display will look like this:

0	if card is of the 0 TYPE
Amount in favour	if the card is TYPE 1 (to be debited, amount remaining
Amount Credit	if the card is TYPE 2 (credit, credited to the customer

If protection level 2 has been activated, the PIN will be asked for.

At this point, the customer will be identified for the sale in question or for the next one if the card is inserted when a sale is not taking place, then, if they have been programmed, the VAT number or tax code of the customer will appear on the slip.

At the conclusion of the transaction effected with any means of payment. In this case, as well as the customer identification, the cash register will automatically prepare a SUB-TOTAL for the transaction if this facility has been programmed.

If the amount of the SUB-TOTAL is higher than the limit set and is enough to merit prize points, these will be calculated automatically and written onto the card. This only happens if the point management function is activated.

In addition, the sales details which will be used for the statement of account will also be transferred onto the card.

Please note that if the card is removed before the payment key is pressed (e.g. CASH/TOTAL) the discount will not be given.

At the end of the sale using CHIP-CARD for payment. In this case both the above apply, but depending on the type of card used, it will either be debited or credit will be given.

In this phase of the operation, the new totals will be entered on the card and the new value will be calculated.

The total will come up on the display the next time the card is used.

In each, if the REPORT AT FOOT OF RECEIPT function has been activated, the following data will be printed at the bottom of the slip.

- the card number

- the customer name (if programmed)
- the current value of the card (if TYPE 1 or 2)
- points acquired for this sale (on left)
- total points on card (on right).

Note: it is always possible to accept or not a type of card using the programming menu.

If the fast closure function has been programmed into the card, the machine automatically carries out this process and so behaves as if the key for this operation had been pressed.

The $\langle CARD \rangle$ key activated on the keyboard to allow payment using the CHIP CARD may be useful, if pressed at the end of the sale, to see the total on the card without having to take it out and insert it once again.

READING THE CARD AND THE STATMENT OF ACCOUNT

This function prints the state of the card and the information it contains. If it is a debit card (TYPE 1) or a credit card (TYPE2), the last 48 sales or recharging operations may be seen.

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To enter this function, the, machine must be in REGISTRATION (**REG**) mode, i.e. when no transaction is taking place. Enter:

<4> < FUNCTION>

Press the key < SELECT > repeatedly in order to reach the P R I N T menu (or enter < 5 > < SELECT >) and start printing using < CONFIRM >. If the card has not yet been inserted, the following message will appear:

INSERT. CARD

and the card should be inserted with the chip facing down nearest to the operator. Warning: If a PASSWORD, a PIN or both have been programmed ,they will need to be entered when the question marks appear. At this point the display will show the current value of the card and the machine will issue a slip summarising the following:

card number
card TYPE
card protection level
customer name
Tax code /VAT number

automatic discount amount
automatic closure function
expiry
full report of all sales, even without payment by chip card, as long as the sale was carried out with the card inserted (this amount is only usable for statistical purposes)
prize points on the card

- full report of the value pertaining to the card - current value (total)

Two lines will be printed for each movement containing the following:

- number of times the counter has been inserted up to now date and time of operation

- operator code

- slip number corresponding to the movement and amount using chip card (

to the right)

-amount charged onto the card (to the left) Two columns will be printed: CREDIT on the right (charged onto the card) and on the left DEBIT corresponding to sales carried out using the card.

ANNULLING THE CARD

This function means that cards withdrawn from customers can be used again and assigned to other customers. Extreme caution must be exercised as all data including the total of the previous customer will be lost. After cancelling the card, the preparation process described above will have to be carried out again. To empty a card, enter REGISTRATION (**REG**) mode, i.e. when no sale is taking place, press: <1> < KEY>

and enter the menu pressing <4> <FUNZIONE>

Press the <SELECT > key repeatedly until you reach the menu or print using < CONFIRM >.

Press the < SELECT > key repeatedly until you reach the menu **CANC. CARD** (or alternatively enter < 4> < SELECT >) and < CONFIRM >.

If the card has not yet been inserted, the following message will appear:

INSERT. CARD

It should be inserted into the slot with the card facing down and nearest to the operator.

Warning: if a PASSWORD, PIN or both have been programmed, it will be necessary to type them in when the question marks come up.

At this point the display will show the current value of the card and will ask another confirmation, when the < **CONFIRM** >, **key** is pressed, the card will be annulled and the a slip with the following information will be printed:

card number
card type
protection level
customer name
tax code /VAT no.
automatic discount amount
automatic quick close
expiry
current value (statement of account)
total prize points

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ERROR MESSAGES CONCERNING CHIP CARD

The cash register indicates errors either on the display or by a prolonged audible signal. These messages are cancelled using the < C > key. As well as the errors indicated in the instruction manual, the ones relating to the chip card are as follows:

E R R . 4 9 Shows that during the identification process, it is seen to be **invalid**. This may happen for the following reasons:

The card is

 not properly inserted from a different retailer

- om a different ret
- Not charged
- with a POS CODE not authorised for that machine
- there is an electronic defect in the reader or the card In general this is an error which occurs when reading the CHIP-CARD. To exit press
- < C >, rectify the problem and try again.

E R R. 5 0 Shows an error while trying to change the value of the card, and this value has not been recorded properly. This may happen in the following cases:

- The PIN code is wrong
- The card type is wrong
- an attempt has been made to use a TYPE 0 card for a CHIP CARD payment.

- The $\ensuremath{TYPE}\xspace1$ card (debit card) does not have sufficient funds for the transaction.

- Electronic defect in the reader or the card

- In general this is an error which occurs when reading the CHIP-CARD. To exit, press
- < C >, rectify the problem and try again.

When using the card, $\mathbf{E} \mathbf{R} \mathbf{R} \cdot \mathbf{0} \mathbf{7}$ may appear; .Its general meaning is **Function not allowed.** This also happens if an attempt is made to out into operation the functions of the CHIP CARD without having programmed the machine properly.