

INTERCARD

AS 6000 SERIES

OPERATORS MANUAL

Nikki/manuals/as6000ma

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SECTION 1:

INTRODUCTION

MAINS POWER

This unit is directly powered from the mains with a back up battery to retain the memory. It uses very little power from the mains and it is recommended that it is left permanently connected to mains power.

The life of the backup battery is dependent on how long the terminal is disconnected from the mains. If permanently connected, the backup battery may last for up to 10 years. At the other extreme, if the unit is permanently disconnected from the mains, battery life may be little more than 2 years.

When the backup battery is exhausted internal memory contents will be lost and the terminal will require a chargeable service to visit to replace the battery and reprogram. It follows that the greater the proportion of time the unit is mains powered, the longer will be the interval before this work is necessary.

OVERVIEW:

AS6100 terminals are designed as a cashless accounting system using magnetically encoded cards.

There are 2 different types of system:

The AS 6100

The AS 6110

The **AS6100** uses a standard security reader. This reader checks the magnetic information encoded on the card against the information held in memory. Cards used with this system are designated CX cards.

The **AS6110** uses a high security reader. This reader checks the magnetic information encoded on the card against the information held in memory. It also checks the physical structure of the card. This system requires special cards, these are designated CC cards.

Both systems are modular with the size of memory supplied defining the number of accounts (users) available.

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The user will also be supplied with a Key operator card. (see section 3.4).

This card allows the operator to read off data and to reset accounts when required. There are 3 types of memory setups that can be used.

1. Value Setup
2. Ident Setup
3. Article Setup (CLA)

These are all different in operation and will be set on installation.

1. **The Value Setup** requires the end user to insert a value card into the terminal. This card has been preprogrammed with an amount of credits. When each transaction (copy pulse) is made, the card debits by a predetermined amount.
2. **The Ident Setup** requires the end user to insert an account card into the terminal. This card has been preprogrammed in one of two ways. With a fixed amount of credit which decrements when a transaction is made, or a card which increments when a transaction is made. This card has a number of lives. It uses a life on each insertion, regardless of how many copies are made. A memory location is held within the terminal corresponding to the account number. This can be read at a later date, for charge back purposes.
3. **The Article (CLA) Setup** can use either Value or Account cards. When the card is inserted into the Terminal the user is asked to input a 10 digit ISBN/ISSN number. This is done via the keyboard or from a Bar Code via a light pen. This number represents a Copyright number for a piece of work (usually books). If the number is current the Terminal is enabled and the transactions are debited from the card, as previously described. If the number is incorrect an Error message is displayed. A memory location is used by the terminal, however this location number corresponds to the ISBN/ISSN number. The Terminal can be read at a later date for charge back purposes.

These setups can be used in a variety of ways depending on your requirements.

SECTION 2:

SAFETY INSTRUCTIONS

- The terminals shall only be used for reading magnetic cards.
- Service work should only be carried out by persons authorized by EMOS.
- Program modifications should only be attempted as described in this operating manual.
- The terminal security may be impaired by any improper program modifications.
- Changes within terminal programming may be carried out with the Key Card (eg delete account statements):
Warning: Do not give the key card to any unauthorised person!
- Store the card in a safe place away from any strong magnetic fields to prevent damage or destruction.
- Please do not deposit any objects on the terminals.
- Please do not place any paper clips on the terminals, as these may fall through the ventilation slots and lead to short circuits.

SECTION 3:

CARD TYPES - USES

Below is a list and description of user cards available for the AS 6100 group of terminals.

CARD TYPES

Type 1

Designation

Value Card

Usage

Decrements when used

Preprogrammed with a value and decrements when used, ACCORDING TO TARIFF.

Type 10

Designation

Account Card

Usage

Decrements when used

Preprogrammed with a value and account number.

Decrements when used. DOES NOT VISIBLY DECREMENT TARIFF.

Also displays account number.

Type 15

Designation

Account Value Card

Usage

Decrements when used

Preprogrammed with a value and account number.

Decrements when used, ACCORDING TO TARIFF.

Type 29

Designation

Value Card Re-usable

Usage

Decrements when used ACCORDING TO TARIFF

Programmed with a value and decrements when used.

Can be revalued using special equipment.

Type 33

Designation

Account Card - unlimited

Usage

Increments when used

Increments when used.

However card has limited life of insertions into terminal.

DOES NOT VISIBLY INCREMENT TARIFF.

Type 52

Designation

Account Selection card

Usage

Increments when used

When inserted an Account number has to be input using the Keypad.

Card has limited life of insertions into terminal.

DOES NOT VISIBLY INCREMENT TARIFF.

CARD TYPES - KEY OPERATORS

There are 3 different Key Operators Cards available, each one giving a different level of access to the internal menu's.

Type 0

Unlimited access to internal menu's.

Usually only used by Technical Representatives.

Type 1

Allows access into Value menus.

Operator is able to read and delete value statistics.

Also allows operator to set date and time.

Type 2

Allows access into Value and Account (Ident) menus.

Operator is able to read and delete Value and Account (Ident) statistics.

Also allows operator to set Date and Time.

Your Service Technician will advise you which Key Card has been supplied with Terminal.

INSERTION OF CARDS

CARD SLOT

Enter a magnetic card into the Terminal card slot to generate an action.

this card may be either a User Card or a Key Card.

Push the card into the slot until the pull-in mechanism grips the card and draws it into the Terminal.

- If a user card is inserted, it remains in the Terminal until the action (eg: copy job) has been completed. Press END to return the card.
- If a Key Card is inserted, it is also drawn in, but returned immediately. Remove the card from the slot and start with the respective action.

The Terminal acknowledges incorrectly inserted cards and/or invalid cards by displaying:

"SYSTEM ERROR 214 "
"CARD INVALID "

and

"SYSTEM ERROR 214 "
"REMOVE CARD "

Apart from this Error Code other Error Codes may be displayed. See supplement E for a list of Error Codes.

SECTION 4:

TARIFFS AND COUNTER - AN EXPLANATION

When the Terminal is installed by the Service Technician, the customer stipulates the price required for each transaction. A typical example would be where the customer would charge 1 unit, decremented for an A4 copy and 2 units, decremented for an A3 copy. When using a Value Card (Type 1) the card is decremented as each copy is produced. However an Account System is a charge back system and will also record transactions so that costs can be charged back to the user at a later date.

The Terminal uses internal software counters for this purpose. They are designated Z counters and will be set up by the Service Technician at installation. There are a maximum of 8 internal counters built into the 6100 although normally only 2 are used.

Typically:

Z1 = A4

Z2 = A3

The Terminal provides three different types of transaction storage. These are:

1. **Value Storage** - stores all transaction made using Value cards.
2. **Ident Storage** - Stores all transactions made using numbered Account Cards. The Account number printed on each card represents a separate memory location.
3. **Article Storage** - Stores all transactions made using ISBN/ISSN numbers. these are for use by the CLA Copyright Licensing Authority.,

All of the above setups can be interrogated manually with a printer or with a Laptop computer. All transactions made in the Article Setup are collected by EMOS staff for analysis.

The following examples explain the operating sequence and what is displayed by the terminal.

OPERATING SEQUENCE WITH VALUE CARD (TYPE 1,28,29)

ACTION

DISPLAY

Terminal is switched on and ready for operation.
Time is displayed.

INSERT CARD
11:25

Enter Value Card

VALUE = 90

eg: Copy: 1st copy

VALUE = 89

eg: Copy: 2nd copy

VALUE = 88

Each copy is immediately deducted from the card value. The current remaining value is continuously displayed.

Terminate copy job

END
▼

VALUE = 80
REMOVE CARD

Value Card removed

INSERT CARD

OPERATING SEQUENCE WITH LIMITED ACCOUNT CARD (TYPE 10)

ACTION

DISPLAY

Terminal switched on and ready for operation.
Time is displayed.

INSERT CARD
11:30

Enter Limited Account Card

VALUE = 2000
ACCOUNT: 25

eg: Copy: 1st copy

VALUE = 1999
ACCOUNT: 25

eg: Copy: 2nd copy

VALUE = 1998
ACCOUNT: 25

Each copy is immediately deducted from the card value irrespective of the tariff. The current remaining value is continuously displayed.

Terminate copy job

END
▼

VALUE = 1998
REMOVE CARD

Account Card removed

INSERT CARD
11:31

OPERATING SEQUENCE WITH ACCOUNT VALUE CARD (TYPE 15)

ACTION

DISPLAY

Terminal switched on and ready for operation.
Time is displayed.

INSERT CARD
11:30

Enter Account Value Card

VALUE = 2000
ACCOUNT: 25

eg: Copy: 1st copy

VALUE = 1995
ACCOUNT: 25

eg: Copy: 2nd copy

VALUE = 1990
ACCOUNT: 25

Each copy is immediately deducted from the card value corresponding to the tariff setting in the terminal.
In this case Tariff 1 = 5
The current remaining value is continuously displayed.

Terminate copy job

END
▼

VALUE = 1990
REMOVE CARD

Account Card removed

INSERT CARD
11:31

4.3

OPERATING SEQUENCE WITH UNLIMITED ACCOUNT CARD (TYPE 33)

ACTION		DISPLAY
Terminal switched on and ready for operation. Time is displayed.		<hr/> INSERT CARD 11:40 <hr/>
Enter Account Card		<hr/> CARD RUNS 325 <hr/>
Number of card runs is displayed and decremented by 1		<hr/> CARD RUNS 324 <hr/>
After 2 secs the following is displayed		<hr/> NUMBER = 17 ACCOUNT: 50 <hr/>
eg: Copy: 1st copy		<hr/> NUMBER = 18 ACCOUNT: 50 <hr/>
eg: Copy: 2nd copy		<hr/> NUMBER = 19 ACCOUNT: 50 <hr/>
One point per copy is immediately added to the number.		
Terminate copy job	END	<hr/> NUMBER 19 REMOVE CARD <hr/>
Account Card removed	▼	<hr/> <hr/>

INSERT CARD
11:42

4.4

OPERATING SEQUENCE WITH ACCOUNT SELECTION CARD (TYPE 52)

Example 1: Display of number of copies **made on the card entered**

ACTION		DISPLAY
Terminal switched on and ready for operation. Time is displayed.		_____ INSERT CARD 12:15 _____
Enter Account Selection Card		_____ ENTER ACCOUNT # _____
Enter account number eg: 35	3 5	_____ ENTER ACCOUNT # 35 _____
Enable account number	ENTER *	_____ ENTER ACCOUNT 53
	▼ **	35 _____
eg: Copy: 1st copy		_____ NUMBER = 54 35 _____
eg: Copy: 2nd copy		_____ NUMBER = 55 35 _____
Terminate copy job	END	_____ NUMBER 55
	▼	REMOVE CARD _____
Account Card removed		_____ INSERT CARD 12:16 _____

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* NUMBER = number of copies that were made with this card

** #35 = account selected

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OPERATING SEQUENCE WITH ACCOUNT SELECTION CARD (TYPE 52)

Example 2: Display of number of copies made on the account selected

ACTION		DISPLAY
Terminal switched on and ready for operation. Time is displayed.		INSERT CARD 12:15
Enter Account Selection Card		ENTER ACCOUNT #
Enter account number eg: 35	3 5	ENTER ACCOUNT # 35
Enable account number	ENTER ▼	ENTER ACCOUNT 53 # 35
Press INFO to display the number of copies on the account selected.	INFO	NUMBER = 35 SUM: 48
eg: Copy: 1st copy		NUMBER = 54 SUM 49
Terminate copy job	END ▼	NUMBER 54 REMOVE CARD
Account Selection Card removed		INSERT CARD 12:16

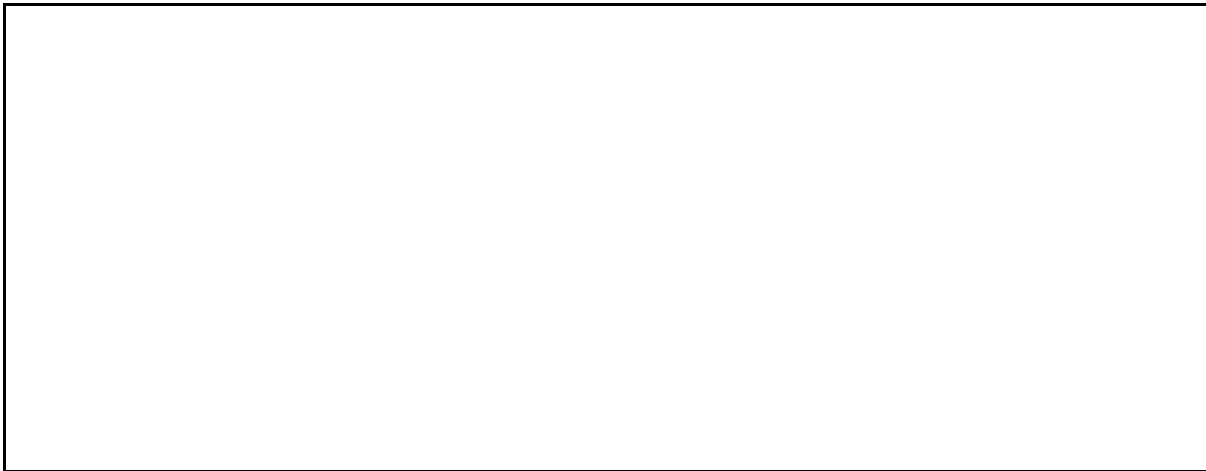


4.6

SECTION 5:

DEVICE AND KEY FUNCTION DESCRIPTION

DEVICE DESCRIPTION:



Display/operating elements
-AS6100/6110 Terminal

- 1 Display
- 2 Keyboard
- 3 Card slot

Display/operating element functions

NOTE:

The display and operating element functions are identical in the AS6100 and AS6110 terminals.

Display

16 alphanumeric characters in each of the two lines are displayed on the backlit LC display.

The terminal communicates with the user via the display.

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KEYBOARD

Numeric membrane keyboard contains 10 numeric and 8 function keys.

Press this key to transfer any remaining value left on a card to a new card. Note: **This function must be enabled by your Technical representative at install for feature to be valid.**

The following message is displayed: Transfer Remaining Value?

Pressing REST key transfers value into the memory. The user is then requested to 'Insert New Card'. On insertion the value in the memory is transferred onto the new card - see example 5.4.

Key: _____
P.I.N

Used for entering PIN (Personal Identification Number) on a valid card. (If optional or mandatory PIN has been set at install by your technical representative).

To set a PIN number on a new card: Insert the card, the display will prompt 'Enter PIN Number'. the user should then input a four digit number using the keypad and press the ENTER key. The display will again prompt 'Enter PIN number'. This is for verification purposes and if both numbers correspond the number will be encoded onto the user card. After encoding it will be necessary to input the PIN number on each insertion of the user card.

WARNING: If a card is encoded with a PIN number and the number is subsequently lost it will not be possible to use the card again. See example 5.6.

Key: _____
DEL

Used for deleting information or transactions from internal menus.

Key: _____
END

Pressing this key ends any activity, if pressed when a user card is in the Terminal the card is returned to the user. Also used to leave individual menus.

Key:

ENTER

Press ENTER key to confirm a value entered from the keyboard, ie: PIN or ISBN/ISSN numbers. Also used to scroll through individual menu parameters.

Operating sequence with Transfer of remaining value from one Value Card to the other.

Note:

This function can only be used if the Terminal has been programmed accordingly by the Service Technician.

ACTION

Terminal is switched on and ready for operation.
Time is displayed.

Enter Value Card

The display indicates that the remaining value is insufficient to make a high tariff copy. The remaining value can be transferred to another Value Card. If it is not possible to transfer the remaining value it remains on the old card.

Press REST, if the remaining value is to be transferred

The old card is devalued

DISPLAY

INSERT CARD
13:02

VALUE = 15
TRANSFER → REST

VALUE = 0
REMOVE CARD

INSERT NEW CARD
13:02 REST

Enter new Value Card

VALUE = 50

The remaining value (15) is added
to the card value (50)

VALUE = 65

Terminate Transfer
remaining value

END
▼

VALUE = 65
REMOVE CARD

Value Card removed

INSERT CARD
13:03

Operating sequence of Terminal use with PIN

(PIN = Personal Identification Number - serves to protect the card against unauthorized use by third persons).

A PIN can only be used if the Terminal has been programmed accordingly by the Service Technician.

Example 1: PIN input compulsory

ACTION

Terminal switched on and ready for operation. Tim is displayed

Initial card input

Enter max 4 digits for PIN. The digits entered are only displayed as asterisks (1 2 3 4)

Press ENTER

ENTER
▼

Repeat PIN input (1 2 3 4)

Press ENTER

ENTER
▼

DISPLAY

INSERT CARD
14:30

ENTER PIN CODE

ENTER PIN CODE

REPEAT PIN CODE

REPEAT PIN CODE

VALUE : 1950



5.6

The PIN is interrogated at every card input.

ENTER PIN CODE

If the PIN is not input correctly, the card is not accepted.

SYNTAX ERROR 425
INVALID PIN

The number of input attempts is limited according to the programming. If this number is exceeded, the Error Code to the right is displayed and the card is rejected.

SYNTAX ERROR 426
MAX PIN ATTEMPTS

The card is inoperable!

For **OPTIONAL PIN** the card is inserted and credit is displayed as normal.

If PIN is required press "PIN" key and the display will change to "ENTER PIN CODE" as at step two of the previous example. Follow through the rest of the steps of the example.

SECTION 6:

MENU FUNCTIONS

LIST OF INTERNAL MENUS

Group 100	Basic Terminal Setting
Group 200	Account Setups
Group 300	Management Functions
Group 400	Statistics Output (for printing)

Most of the above list will only be accessible with a Type 0 key operator card. these menus are covered in a separate Technical manual. With a Type 1 card the menus available are:

Menu 114	Time/Date Setup
Menu 411	Value Statistics

With a Type 2 card the menus available are:

Menu 114	Time/Date Setup
Menu 312	Block 1D account
Menu 313	Open 1D account
Menu 314	Del 1D account
Menu 315	Create 1D account
Menu 211	Value statistics
Menu 412	Ident statistics

ACCESS TO INTERNAL MENUS

Insert the key operator card with the key symbol to the front. The terminal will accept the card, read and eject it. Remove the card.

Fig 1.

Insert key operator card in direction shown

Display will now show the 1st menu level that can be accessed. This is dependant on the level of card supplied with the terminal (see previous page). Pressing the **INFO** key scrolls through the available menus. Pressing the **X** key scrolls backwards through available menus.

When the required menu has been accessed press the **ENTER** key. This will display the current setting of menu.

To change the setting of the menu ie: to change the date press **DELETE** and enter in the new value required.

To end any menu function press **END** key.

Pressing the **ENTER** key in any menu function will scroll through the menu settings.
Pressing the **INFO** key will display default limits

HOW TO SET MENUS:

Menu 114 used to set current date/time

Example 6.1.

1. Insert key operator card and remove.
2. Press **INFO** key to scroll to Menu 114.
When menu 114 is displayed press **ENTER** key. The current time setting will be displayed and a cursor will flash on the right of the display. Pressing the **DEL** key

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causes each character to the left of the cursor to be deleted.

6.1

3. Enter current Time by use of the numeric keys.
4. Press **ENTER** key. This defaults to the second level of the menu. The date setting will now be displayed and a cursor will flash on the right of the display. Pressing the **DEL** key causes each character to the left of the cursor to be deleted.
5. Enter current date by use of the Numeric keys.
6. Press **END** key twice.

Menu 312: Block ID Account

Example 6.2

1. Insert key-operator card and remove.
2. Press **INFO** key to scroll to Menu 312. When Menu 312 is displayed press **ENTER** key. The display will prompt **Block From** and a cursor will flash in the bottom left of the display.
3. Using the numeric keys input the account number required to block from.
4. Press **ENTER** key. Display will prompt **Block up to** and a cursor will flash in the bottom left of the display.
5. Using the numeric keys input the amount number required to block up to. **Note:** if only one account is to be blocked enter the same number at steps 3 and 5.
6. Press **END** key.
Accounts will now be blocked.

Note: It is important that accounts are first created in Menu 315 before they can be blocked.

Menu 313: Open ID account

Example 6.3

1. Insert key operator card and remove.
2. Press **INFO** key to scroll to Menu 313. When Menu 313 is displayed press **ENTER** key. The display will prompt **OPEN FROM** and a cursor will flash in the bottom left of the display.

3. Using the numeric keys input the Account number required to open from.

6.2

4. Press **ENTER** key. Display will prompt **OPEN UP TO** and a cursor will flash in the bottom left of the display.
5. Using the numeric keys input the account number that the accounts are required to be opened to.

Note: The accounts must first be created in Menu 315 before it is possible to enter the same number at step 3 and 5. Accounts will now be opened.

6. Press **END** key.

Menu 314: Delete ID account

Example 6.4

1. Insert key operator card and remove.
2. Press **INFO** key to scroll to Menu 314.
When Menu 314 is displayed press **ENTER** key. The display will prompt **DELETE FROM** and a cursor will flash in the bottom left of the display.
3. Using the numeric keys input the account number you wish to delete from.
4. Press **ENTER** key. Display will prompt **DELETE UP TO** and a cursor will flash in the bottom left of the display.
5. Using the numeric keys input the Account number required to delete to.
Note: If only one account is to be deleted enter the same number at steps 3 and 5. It is important that accounts are first created in Menu 315 before they can be deleted.
6. Press **END** key.

Menu 315: Create ID Account

Example 6.5

1. Insert key-operator card and remove
2. Press **INFO** key to scroll to Menu 315

When Menu 315 is displayed press **ENTER** key. The display will prompt **CREATE FROM** and a cursor will flash in the bottom left of the display.

3. Using the numeric keys input the Account number you wish to create from.
4. Press **ENTER** key. Display will prompt **CREATE UP TO** and a cursor will flash in the bottom left of the display.
5. Using the numeric keys input the Account number required to create to.

Note: If only one account is to be created enter the same number at steps 3 and 5.

6. Press **END** key.

MENUS 411 AND 412

These Menus are designed to read the information (transactions) that have been stored in the internal memory (2 counters). These counters can be interrogated either with a printer or manually. (For Printer operation see following section.)

Menu 411: Value Statistics - Manual

Example A

1. Insert key operators card and remove
2. Press **INFO** key to scroll to Menu 411
When Menu 411 is displayed press **ENTER** key. the display will prompt **PRINTER (0=NO 1=YES)** press **0** key.

Display shows **VALUE STATISTICS SUM = nn**

('nn' represents total number of copies made with value cards (type 1 and 29)).

3. Press **INFO** key.

Display shows **VALUE STATISTICS Z1 : nn**

('NN represents total number of low tariff copies made with value cards).

4. Press **INFO** key

Display shows **VALUE STATISTICS Z2 : nn**

('nn' represents total number of high tariff copies made with value cards).

Note: If no high tariff set Z2 will show - 200 readings.

5. Press **INFO** key

6. Press **ENTER** key

Display shows **ACCOUNT-VAL STATISTICS SUM = 'nn'**

('nn' represents total number of copies made. Made with Account value cards (Type 10 and 15)).

7. Press **INFO** key

Display shows **ACCOUNT-VAL STATISTICS Z1 : 'nn'**

('nn' represents the total number of low tariff copies made with Account value cards)

8. Press **INFO** key.

Display shows **ACCOUNT-VAL STATISTICS Z2 - 'nn'**

('NN' represents the total number of high tariff copies made with Account value cards.)

9. Press **INFO** key

Display will show next counter.
Repeat until 28 counter displayed.

10. Press **ENTER** key.

Display prompts **DELETE DATA (0=NO 1=YES)**

If a **0** is pressed the display will show **DATA STORED**

If a **1** is pressed the display will prompt **ARE YOU SURE? (0=NO 1=YES)**

If a **1** is pressed the display will show **DATA DELETED**

If a **0** is pressed the display will revert to start of Menu 411.

11. Press **END** key.

Warning: If the Data is deleted inadvertently it will not be possible to retrieve under **any** circumstances.

Menu 412: Ident Statistics

Example B

(for printer operation see following section)

1. Insert key operators card and remove.

2. Press **INFO** key to scroll to Menu 412

When Menu 412 is displayed press **ENTER** key.

The display will prompt **PRINTER (0=NO 1=YES)**

Press **0** key.

Display shows **0001 SUM=nn**

(0001 = Account number 1, nn represents the total number of copies made on Account number 1.)

3. Press **INFO** key

Display shows **0001 Z1:nn**

(0001 represents Account number 1. nn represents total number of low tariff copies made to Account number 1.)

4. Press **INFO** key

Display shows **0001 Z2:nn**

(0001 Represents Account no 1. nn represents total number of high tariff copies made to account number 2.)

5. Press **INFO** key

Display show **0001 STATUS : C**

Ignore this reading as this is for Technical Staff to interpret.

6. Press **ENTER** key

Repeat steps 3, 4, and 5.

All Accounts will be scrolled through in numeric order. To reverse through the Accounts press **X** key.

After all accounts have been displayed the Terminal will prompt **DELETE DATA (0=NO 1=YES)**

If a **0** is pressed the display will show **DATA STORED**.

If a **1** is pressed the display will prompt **ARE YOU SURE? (0=NO 1=YES)**

If a **1** is pressed the display will show **PLEASE WAIT** and after a short period will show **DATA DELETED**

If a **0** is pressed the display will show **DATA STORED**.

7. Press **END** key twice.

Warning: If the Data is deleted inadvertently it will not be possible to retrieve under **any** circumstances.

SECTION 7:

PRINTING STATISTICS

USING A PRINTER WITH MENU 411:

1. Connect the Printer as shown below. Your Technical Representative will set the Printer Parameters for you.

2. Insert key operator card and remove
3. Press **INFO** key to scroll to Menu 411

When Menu 411 is displayed press **ENTER** key. The display will prompt **PRINTER (0=NO 1=YES)**

Press **1** key

After entering **1** the printout is immediately started. At the end of the printout the following message is displayed. **DELETE DATA (0=NO 1=YES)**

If this is confirmed by pressing **1** key the counter readings are reset to 0.

If option **0** is entered the display responds **DATA STORED**

4. Press **END** key twice.

Explanation of printout using Menu 411

Printout:

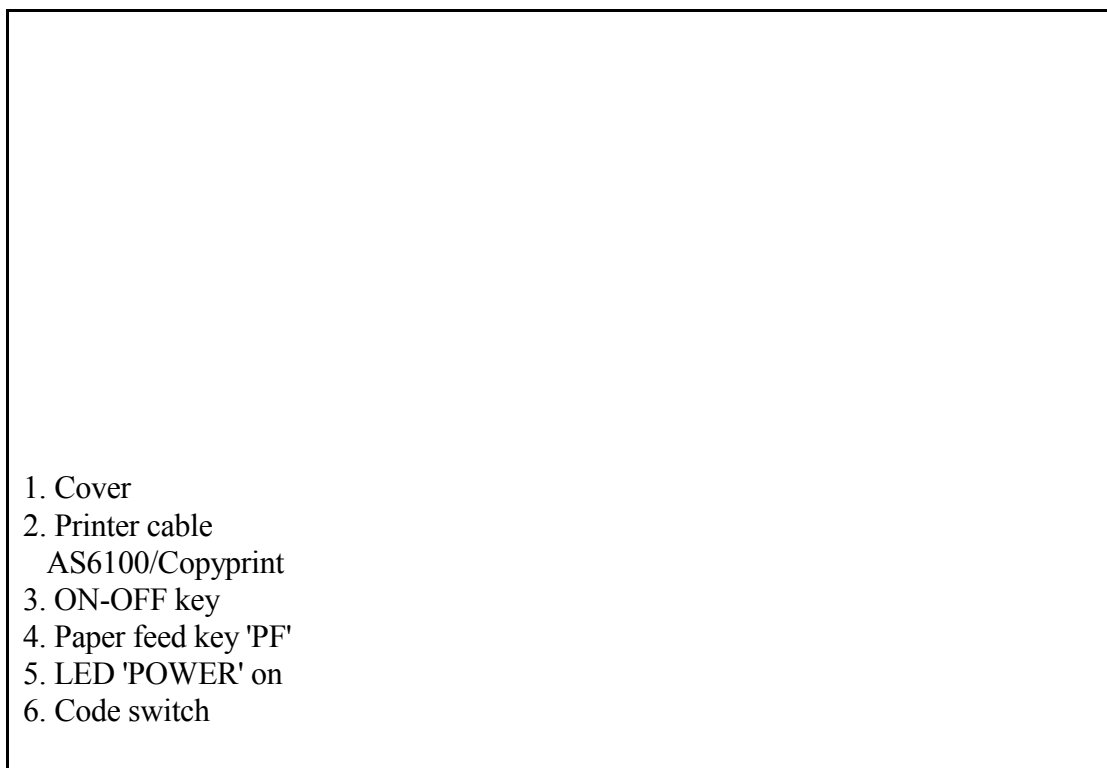
System number	1.0.0.1	
Terminal number	0	
Software Ident	601-057-abcd-1-L05.D	
date	08:43 22.01	
VALUE STATISTIC	291	272
	1	3
	0	0
	0	0
	567	
ACCOUNT VAL STAT	11	1
	1	3
	0	0
	0	0
	12	
Data stored		

1. Gives relevant information about system number Terminal number, software level date/time and last printout time.
2. Lists all transactions made using value cards Type 1 and Type 29
3. Lists all transaction made using Account Value cards Type 15.
4. Information on whether Data stored or deleted from memory.

7.1

Using a printer with Menu 412:

1. Connect the Printer as shown below. Your Technical Representative will set the Printer parameters for you.



2. Insert key operators card and remove.
3. Press **INFO** key to scroll to Menu.

When Menu 411 is displayed press **ENTER** key. The display will prompt **PRINTER (0=NO 1=YES)**

Press **1** key

After entering **1** the printout is immediately started. At the end of the printout the following message is displayed: **DELETE DATA (0=NO 1=YES)**

If this is confirmed by pressing **1** key the counter readings are reset to 0.

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If option **0** is entered the display responds **DATA STORED**

4. Press **END** key twice

7.2

Explanation of Printout using 412:

Printout:

ALLDATA IDENT STATISTICS			
System number		1.0.0.1	
Terminal number		0	
Software Ident		601-057-2020-1-L05.D	
Date		08.43 22.01	
		A	B
000010		3	10
	D	13	
000014		9	16
		25	
000015		10	8
	C	18	
099999		5	6
		1	
117438		8	8
		16	
307965		7	0
990874		2	2
		4	
TOTAL		36	42
		78	
Data saved			

1. Gives relevant information about System number, Terminal number, Software level, Date/Time and last printout time.

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2. Lists all transactions made with Account cards in numerical order.

7.3

3. Represents status codes of accounts. **C** represents Account blocked.
4. **A** represents low tariff copies
B represents high tariff copies
D is the sum of low and high tariff copies
5. Information on whether Data Stored or Deleted from memory.

SECTION 8:

ERROR CODES

As already mentioned in Chapter 3 - Terminal description - the terminal program communicates with the user via the displays. The user is either prompted to take certain steps, or the "program" shows him how to set the parameters.

Apart from "normal" operating functions, the program also controls all of the terminal functions. If an error occurs as a result of incorrect operation, wear and tear or as a result of errors in programming, the program analyses the cause and shows the error in coded form (in digits) on display.

With the list of error codes, and the explanation given, it is easy to make a quick decision on the measures that have to be taken to cure the error.

Certain errors, however, cannot be cured by the user. In such cases it is necessary to contact the Service Technician.

SUBDIVISION OF ERRORS INTO ERROR GROUPS

Possible errors have been subdivided into the following Error classes.

FATAL ERROR:

This error cannot be corrected directly, eg faulty component. Please call for service.

SYSTEM ERROR:

These errors result from terminal, hardware or configuration problems. It depends on the respective error whether the problem can be solved by the operator, or repair is necessary.

SYNTAX ERROR:

These errors arise from operation errors (eg input errors). They do not result from any terminal problem.

NODISP ERROR:

This error can not be related to any one specific error-group. They are accumulated in statistics, however, not displayed when they occur.

When it occurs, an audible signal is emitted.

The error code number gives a rough indication at which terminal component a certain problem has occurred.

Error Number:

0	-	99	Controller
100	-	199	Interface
200	-	299	Cards or card reader on entry
300	-	399	Operating elements/entry error
400	-	499	Logics (eg configuration)
500	-	599	Account and account setups/statistics
600	-	699	Card or card reader on card return
700	-	799	Parameter error

- 0 SYSTEM :** Card data CRC ERROR
- Cause: The CRC via card data is faulty, eg was destroyed by terminal interference during power-failure/power-on.
Reaction: Card is written as CX-card with N1 = 4095.
Action: To avoid interference.
- 7 SYSTEM:** Power-failure while card was being processed.
- Cause: Card procession was interrupted by power-failure.
Reaction: According to card status:
READ: card return.
ERASE CYCLE: card is written with N1=4094.
PROCESSING: card intake and restart of function according to card type (only if terminal is not programmed as cardless system).
Verification: card is written with N1=4093.
WRITE: card is written with N1=4093.
Action: None.
- 8 RESET:** Stack Overflow
- Cause: The permissible stack limit was not reached or was exceeded. Program crash as a result of EMV of software error.
Reaction: Program stops. Endless loop reset via watchdog.
Action: None.
- 50 SYSTEM:** CTS no transmittal release within timeout.
- Cause: In a data transmission via a serial interface, the terminal is not released for transmission, eg the level at CTS is low. Cable is faulty or incorrectly connected. Printer is not ready.
Reaction: Audible error signal and repeated attempt to edit data. No abnormal termination of data transmission.
Action: The receiver must be switched to ready-to-receive mode. Check printer cable and connections (plug connections).
Check printer (switch on, switch to standby mode).

80 FATAL: CRC EPROM (constants EPROM) is wrong.

Cause: Hardware problem, manipulation.
Reaction: System standstill.
Action: Exchange constants EPROM.

81 SYSTEM: EEPROM could not be read.

Cause: Internal data transmission is disturbed.
At attempt to address EEPROM, no acknowledgement is transmitted.
Reaction: The complete system is disturbed. The normal terminal functions, as well as correct working at the terminal can no longer be guaranteed.
Action: Switch power off and on again. If error occurs again, then it is due to a hardware error on the data bus. Check whether there was a short circuit on the interface-board. Otherwise send in the main board for repair.

82 SYSTEM: System clock could not be read.

Cause: The system clock does not respond.
(No acknowledgement.)
Reaction: The complete system is disrupted. Normal terminal functions, as well as correct working at the terminal can no longer be guaranteed.
Action: Switch power off and on again.
If the error occurs again, then it is due to a hardware problem on the internal bus. Check whether there was a short circuit on the interface-board. Otherwise send in the main board for repair.

89 SYNTAX: Parameter in EEPROM does not coincide with RAM.

Cause: The permanent comparison between parameters in EEPROM with the mirrored parameters in RAM led to a discrepancy.
Reaction: The system automatically copies the faulty parameter from EEPROM into RAM. If this error occurs three times in a row, the system then stops. The normal terminal functions can no longer be executed.
Action: No immediate action. Problem with RAM or the constants EPROM. Error can only be eliminated by sending in terminal.

90 FATAL:	Internal Bus Error.
Cause:	Read after Read or Read after Write is faulty, eg repeated reading or verification of previously written data leads to two different results.
Reaction:	If the error occurs three times in sequence, then that results in a fatal error, eg the system stops. The normal terminal functions can no longer be executed.
Action:	No immediate action. Error can only be eliminated by sending in terminal.
91 NODISP:	Internal Bus Error.
Cause:	see Error 90.
Reaction:	Counts the number of Error 90 occurrences. Only for statistical purposes.
Action:	None
92 FATAL:	Internal Bus Error
Cause:	Status bit does not come within the default time.
Reaction:	If the error occurs three times in sequence, this means a fatal error, eg the system stops. The normal terminal functions can no longer be executed.
Action:	Verify whether there is a short-circuit on the interface board. Error can only be eliminated by sending in terminal.
93 NODISP:	Internal Bus Error.
Cause:	see Error 92
Reaction:	Counts the number of Error 92 occurrences. Only for statistics.
Action:	None.
94 FATAL:	Comparison error of SW-HW functionality
Cause:	The software used does not comply with the terminal parameters. (manipulation or hardware error).
Reaction:	System stops.
Action:	No immediate action. Problem can only be eliminated by sending in terminal.

- 95 FATAL:** EEPROM is not initialized.
- Cause: The terminal has not been initialized or has been wrongly initialized.
Reaction: System stops.
Action: No immediate action.
Problem can only be eliminated by sending in terminal.
- 96 FATAL:** EEprom is not initialized.
- Cause: The terminal has not been initialized or has been wrongly initialized.
Reaction: System stops.
Action: Use new (correct) EPROM.
- 143 SYSTEM:** Invalid FORMAT identified.
- Cause: The Interface identifies a format that exceeds the maximum format specified by the interface variant.
Example:
Interface variant 42 allows 2 formats. On format line 3 a copier pulse is identified → Error 143.
- Reaction: The copy is not booked
The copy cycle is interrupted.
- Action: The parameter setup of the interface variant must coincide with the copier signals at the interface. Check interface connections, whether the copier signals are connected to the right IF inputs.
- 144 SYSTEM:** Interface active before release.
- Cause: The interface identifies an active copy signal from the interfaces:
- | | | | |
|--------------------|-----|-----|-----|
| Interface variant: | 2x | 3x | 4x |
| Certified inputs; | IN2 | N2 | IN2 |
| | IN3 | IN2 | IN3 |
| | | | IN4 |
| | | | IN5 |
- Reaction: The interface is not released. The card is returned.
Action: The parameterization of the interface variant must coincide with the copy signals at the interface.

201 SYSTEM: motor speed beyond 10% tolerance

Cause: During optical devaluation of a card, the motor speed is tested. If this lies beyond the 10% tolerance range, Error Code 201 is displayed.

Reaction: The card is not optically devalued, as the devaluation point would probably be incorrectly positioned.
The card is returned and the user is requested via the display to enter a new card.

Action: Reinsert card. If the error occurs again, readjust motor speed with Menu 753.

Information: Error Code 201 can only occur with cards that are optically devalued!!

211 SYSTEM: Calibration of ACD (A-D Conversion) Error.

Cause: Calibration process or structure reading was not terminated successfully. the calibration process is successfully terminated if the structural value was read within certain tolerance limits. A structure reading is successful if it is terminated before the next hole occurs.

Reaction: Card return.

Action: Repeat card input, poss. verify card reader or execute Menu 754.

212 SYSTEM: Magn. Read Error.

Cause: CC4 reading: after successful synchronization the following info bytes were not completely read during the max. reading time.
CX reading: after successfully synchronization no block was read with correct CRC during the max. reading time.

Reaction: Card return.
During CC4 verification: repeated write attempt (if no sequence Error 210 or 210 occurs).

Action: Repeat card entry, if necessary check reader.

- 213 SYSTEM:** Max insertion time exceeded.
- Cause: During max insertion time (5 s) and as long as the card is still under POS 1 (card was not drawn in), the magnetic synchronization could not be read.
- Reaction: Card return
- Action: Card must be correctly led to transport wheel.
-
- 214 SYSTEM:** Magn. Synchronization Error.
- Cause: Card was drawn incorrectly, without reading the magn, synchronization.
- Reaction: Card return
- Action: Repeat card entry, if necessary check drive.
-
- 216 SYSTEM:** Erase Cycle Error.
- Cause: The erase cycle could not be correctly written on the card, as the card was not in the correct position in the card reader. During the erase cycle no correct erase cycle information could be read by premature removal of card from the Reader or transport problems in the Card Reader.
- Reaction: Card return.
- Action: If no manipulation is evident, check drive.
-
- 217 NODISP:** Card withdrawn before synchronization.
- Cause: Card left POS 1 before the POS-time (0.4s) expired, without the magn. synchronization being read. (Premature removal of card?)
- Reaction: Card return.
- Action: None, as manipulation was probably attempted.
-
- 218 SYSTEM:** Hole error during reading (CC4)
- Cause: CC4 reading: CRC Error via magnetic information read in.
CX reading: after successful synchronization within the maximum reading time, only 1 block with correct CRC was read (2 are required).
- Reaction: Card return.
- Action: Repeat card entry, if necessary, check drive.

221 SYSTEM: Magn CRC Error.

Cause: CC4 reading: CRC Error via magnetic information read in.
CX reading: after successful synchronization within the maximum reading time, only 1 block with correct CRC was read (2 are required).

Reaction: Card return

Action: Repeat card entry, if necessary, check drive.

223 SYSTEM: Structure Error.

Cause: The structural values read on card entry (actual values) do not coincide with the desired values saved in the magn. information.

Reaction: Card return.

Action: Repeat card entry, if necessary check drive. Manipulation by duplication?

224 SYSTEM: MMA Error (Magnetic-Mechanic Assignment).

Cause: The MMA values stored in the card information do not coincide with the card values read on card entry.

Reaction: Card return.

Action: Repeat card entry, if necessary check drive. Manipulation?

353 SYSTEM: Account number has too many positions.

Cause: The account number read in of the Account Card entered has more positions than parameterized for the IDENT setup in Menu 221.

Reaction: The prompt to enter a valid account number is displayed.

Action: Enter a valid account number or set the number of positions in the IDENT setup to the number required → Menu 221.

345 SYSTEM: No valid ISSN number

Cause: A valid ISSN number is expected corresponding to the original selection. The number entered (via barcode pen or keyboard) is no valid ISSN number and not PSEUDO Number 1 (PERIODICALS)

Reaction: Repeated prompt to enter a valid ISSN number.

Action: Enter valid ISSN number.

355 SYNTAX: No valid ISBN number.

Cause: A valid ISBN number is expected according to the original selection. The number entered (via barcode pen or keyboard) is no valid ISBN number and not PSEUDO Number 2 (BOOKS).

Reaction: Repeated prompt to enter a valid ISBN number.

Action: Enter valid ISBN number.

356 SYNTAX: No valid CODE number.

Cause: A valid CODE number is expected according to the original selection. The number entered (via barcode pen or keyboard) is no valid CODE number. (PERIODICALS/BOOK/OTHER).

Reaction: Repeated prompt to enter a valid CODE number.

Action: Enter valid CODE number.

401 SYSTEM: Key Card not valid.

Cause: The card entered is no Key Card with group right = 0 (Prep card).

Reaction: The card is rejected.

Action: Enter correct prep card.

402 NODISP: Zero Value Card

Cause: The card entered has value 0 and the set tariff is not equal to zero.

Reaction: The card is rejected.

Action: Enter card with value 0.

403 NODISP: Card with card run counter = 0. (type 33)

Cause: The card entered has a card run counter = 0.

Reaction: The card is rejected.

Action: Enter card with card run counter 0.

- 418 SYSTEM:** Hole error when reading a CX-card.
- Cause: A CX-card without holes was identified.
Reaction: Card return.
Action: Enter 2-hole-card. Parameter O.E.= set 0 (-M112).
- 422 SYSTEM:** N1 Card \diamond N1 terminal
- Cause: N1 card is not identical with N1 terminal
Reaction: Card output.
Action: Insert correct card. Check system number.
- 425 SYNTAX** Incorrect PIN input.
- Cause: PIN on the card is not identical with PIN input. Or when defining PIN:
repeated PIN input does not coincide with first PIN input.
Reaction: The card is returned.
When defining PIN: no PIN is saved.
Action: Repeat card input and enter correct PIN.
- 426 SYSTEM:** No more PIN attempts.
- Cause: The number of incorrect PIN inputs allowed (PIN ERROR; Menu 112)
has been exceeded.
Reaction: The card is rejected.
Action: generate card data determination in analysis program.
- 427 NODISP:** PIN-input interrupted.
- Cause: The Pin-input was interrupted by END or Timeout.
Reaction: The card is rejected. The error counter is not incremented.
Action: Repeat card input and enter correct PIN.
- 432 SYSTEM:** N4 Card \diamond N4 terminal
- Cause: N4 on card is not identical with 255 and is not identical with N4 in
terminal.

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Reaction: Card return.
Action: Insert correct card.
Check system number in terminal.

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433 SYSTEM: N2/N3 Card N2/N3 Terminal

Cause: N2 of the card is not identical with 255 and is not identical with N2 in terminal, or N3 of the card is not identical with 255 and not identical with N3 in the terminal.

Reaction: Card return.

Action: Insert correct card.
Check system number in terminal.

435 SYSTEM: N5 Card N5 Terminal

Cause: N5 on card is not identical with 65535 and not identical with N5 in terminal
(only applies to key Cards).

Reaction: Card return

Action: Insert correct card.

436 SYSTEM: Card is not type 20- reference card.

Cause: An invalid card has been entered to carry out adjustment and measurements in menu 752 (measure/adjust motor) and 753 (adjust MMZ).

Reaction: Card output.

Action: Enter type 20 reference card.

437 SYSTEM: Card type not valid.

Cause: The card type read cannot be processed in this terminal.
eg: Input of User Cards in cardless mode.

Reaction: Card return.

Action: Insert correct card or allow card type. (menu 331).

448 SYSTEM: Card destroyed as a result of power failure during erase cycle.

Cause: Power failure occurred during erase cycle process. This results in card intake and inscription of the card with N1 = 4094.

Reaction: Card return.

Action: Insert correct card.

Card info can be determined by analysis device.

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- 449 SYSTEM:** Card destroyed by Reset.
- Cause: After Power-On, CRC was faulty via the card data. This results in card intake and the card inscription with N1 = 4095.
- Reaction: Card return.
- Action: Insert correct card.
Card info can be determined by the analysis device.
- 451 SYSTEM:** CX Card not allowed.
- Cause: In this terminal the CX cards are not allowed or this card type is not allowed as CX card.
- Reaction: Card return.
- Action: Insert correct card.
- 452 SYSTEM:** CC4 card not allowed.
- Cause: In this terminal the CC4 cards are not allowed or this card type is not allowed as CC4 card. In this it is a CX card reader. It is not possible to process CC4 cards.
- Reaction: Card return.
- Action: Insert correct card.
- 453 SYSTEM:** IDENT Setup blocked
- Cause: An account Card was inserted, although the IDENT Setup can not be accessed. (Parameter IDENT ACCOUNTS = 0 in Menu 223).
- Reaction: The Account card is rejected.
- Action: Do not use any Account Cards or change the IDENT setup. (Parameter IDENT ACCOUNTS = 1 in Menu 223).
- 454 SYSTEM:** Account number has too many positions.
- Cause: The account number of the Account Card entered has more positions than the number of positions parameterized for the IDENT SETUP (ACCOUNT_ID)
- Reaction: Card return.
- Action: Adapt the number of positions in the IDENT-setup tot eh Account Card

requirements.

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- 455 SYSTEM:** Invalid account number.
- Cause: The account number of the Account Card entered has an account number for which no access is authorized.
- Reaction: Card return.
- Action: Set account number and authorize.
-
- 459 SYSTEM:** Card destroyed by power failure during writing.
- Cause: During the write process, a power failure occurred. This generates a card intake and the inscription of the card with N1 = 4093.
- Reaction: Card return.
- Action: Insert correct card.
Card information can be determined by the analysis device.
-
- 501 SYNTAX:** Account Management CRC Error.
- Cause: One or more account counters is/are destroyed.
- Reaction: Attempts are made to restore all accounts in all fields.
- Action: Wait.
-
- 504 SYNTAX:** No valid account number.
- Cause: The appropriate account has not been found and to install new accounts is not allowed. (Menu 223)
- Reaction: With account selection: the account is not created. The account number is re-entered.
With account cards: card return.
- Action: Enter valid account number or card.
-
- 505 SYNTAX:** CRC faulty on an account.
- Cause: One (or more) bit(s) in the account has (have) been destroyed.
- Reaction: Account is not processed.
With account selection: prompt to enter a new account number.
With Account Cards: card return.
- Action: Delete account or format setup, then re-define.

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WARNING!! READ DATA BEFORE DELETING OR FORMATTING!

8.13

507 SYNTAX: Account setup full.

Cause: The maximum number of accounts has been reached.

Reaction: Account is not created.

With account selection: prompt to enter a new account number. With Account Cards: card return.

Action: Select already existing accounts.

Delete account or format setup, then re-define.

WARNING!! READ OUT DATA BEFORE DELETING OR FORMATTING!!

508 SYNTAX: Tariff counter beyond the authorized setup.

Cause: The counter selected does not exist.

A format was either assigned to a non-existing counter (menu 2x2), or an insufficient number of counters were reserved when the account setup was defined (menu 2x1).

Reaction: Booking is not processed.

Action: Select correct parameter setup (menu 2x1,2x2).

509 SYNTAX: Value setup CRC Error.

Cause: One or more counters in the value setup has (have) been destroyed.

Reaction: Booking is not processed

Action: Execute menu 792 (Delete system RAM).

WARNING!! THE COUNTERS OF STATISTICS 410, 411, 422 ARE RESET TO "0". SAVE DATA BEFOREHAND.

510 SYNTAX: Account is blocked

Cause: The status "blocked" was assigned to the account in menu 312.

Reaction: Account is not processed

With account selection: repeated prompt to enter account number.

With Account Card: card return.

Action: Select valid account. Use valid Account Card. Open account (menu 313).

- 512 RESET:** Power failure during copying cycle.
- Cause: A valid format was recognized. Power failure takes place before the copy can be booked. The copy was not booked for security reasons.
- Reaction: Copy is not booked. Endless loop forces reset via watchdog.
- Action: Check mains connection.
-
- 599 SYSTEM:** CRC via Service counter is not correct.
- Cause: The CRC via a service counter is incorrect.
- Reaction: Service counter is not processed any more.
- Action: Call up service statistics and then delete counters. If the TOTAL COUNTER is also affected, the error can only be overcome by deleting the system RAM (menu 792).
-
- WARNING!** THE STATISTIC COUNTER 422 IS THEN SET TO "0". CARRY OUT DATA BACKUP BEFOREHAND.
-
- 601 NODISP:** Reference hole for devaluation cycle not found.
- Cause: In order to position the devaluation sign on the card in the correct place, it must be possible to determine the reference hole. In this case, it could not be identified.
- Reaction: The card is not optically devalued, as the devaluation point would probably be incorrectly positioned.
The card is returned and the user is requested via the display to re-enter the card.
-
- 611 NODISP:** Calibration and/or ADU-error.
- Cause: Calibration process or structure measurement is not successfully terminated. The calibration process is successfully terminated if a structure value between certain tolerance limits is measured. A structure measurement is successful if it is terminated before the next hole appears.
- Reaction: Sequential error 623.
- Action: If necessary, verify card reader or execute out menu 754.

- 612 NODISP:** Magn. Read error. (Test read)
- Cause: CC4-reading: after successful synchronisation within the max. read time the following information bytes were not completely read.
- Reaction: Repeated write attempt (if no sequential error 623 or 619 occurs).
- Action: Possibly check drive.
-
- 613 NODISP:** Max. intake time exceeded. (Test read).
- Cause: During the max intake time (5 s) and as long as the card is still under Pos 1, the magnetic synchronisation could not be read.
- Reaction: Repeated write attempt (if no sequential error 623 or 619 occurs).
- Action: Possible check drive.
-
- 614 NODISP:** Magn synchronisation error. (Test read)
- Cause: Card left Post 1 after termination of the Pos - throughput time, without magn. synchronisation being read.
- Reaction: Repeated write attempt (if no sequential error 623 or 619 occurs).
- Action: Possible check drive.
-
- 615 NODISP:** Write-start-error (only CC4-writing)
- Cause: No start hole identified within the max start-hole time.
- Reaction: Repeated write attempt
(if not sequential error 619 occurs).
- Action: Possible check drive (manipulation?).
-
- 617 NODISP:** Card withdrawn before synchronisation.
- Cause: Card left Pos.1 before the Pos-throughput time elapsed, without reading the magnetic synchronisation. (Card prematurely removed?).
- Reaction: No further write attempt.
- Action: None (manipulation).

618 NODISP: Hole error on reading. (CC4 test read)

Cause: Not all 9 holes were identified.
Reaction: Sequential error 623.
Action: Possibly check drive.

619 SYSTEM: Three-fold test read error.

Cause: Card could not be correctly written or verified three times in a row.
Reaction: CX-card: forced description (withdraw card prematurely, if necessary)
CC4-Card: Card return.
Action: Possibly verify card reader (manipulation?).

620 NODISP: CC4-Card output error.

Cause: The magn. information could not be correctly read in reverse order after CC4-verification. Complete deletion is not possible before synchronisation.
Reaction: None. Card can still be read.
Action: None. (manipulation?)

621 NODISP: Magn CRC-Error

Cause: CC4-Reading: CRC-Error via magn. information read.
Reaction: Repeated write attempt (if no sequential error 623 or 619 occurs).
Action: Possibly check drive.

623 SYSTEM: Structure error in CC4-verification.

Cause: The comparison between scheduled and actual values in structure measurement is not the same. Comparison with the following values:
Scheduled values: structure measured during card input.
Actual values : structure measured during verification process.
Reaction: Card return, eg: no additional write attempt more (even if verification error occurred before).
Action: Check card reader, if manipulation is evident.

624 NODISP: MMZ-Error.

Cause: The MMZ values stored in the card information do not coincide with the values measure during verification.

Reaction: Repeated write attempt (if no sequential error 623 or 619 occurs).

Action: Possibly check drive.

629 NODISP: Verification error.

Cause: CC4-verification: the card verified is either no CC4-card or the CRC of the written magn. information does not coincide with the CRC of the magnetic information read.

CX-verification: within the max. CX-verification time could not correctly read the written blocks again in reverse order.

Reaction: During CC4-verification: repeated write attempt (if no sequential error 623 or 619 occurs).

During CX-verification: repeated write attempt (if no sequential error 619 occurs).

Action: Check card reader if no manipulation is evident.

701 SYNTAX: Parameter lies beyond the limit values.

Cause: Attempts were made to assign a value to the parameter beyond the parameter value setup.

Reaction: Parameter is not adopted. The old value remains.

Action: Displaying the value setup of the parameter by pressing INFO. Enter the parameter within these limits.

702 SYNTAX: Parameter not found.

Cause: The system tried to address a Parameter that was not found in the table stored.

The error cannot be generated by an incorrect entry.

Reaction: No access to the parameter.

Action: An internal system error occurred. The constant Eprom (TXT_xx) is possibly defective.

Check the complete system.

