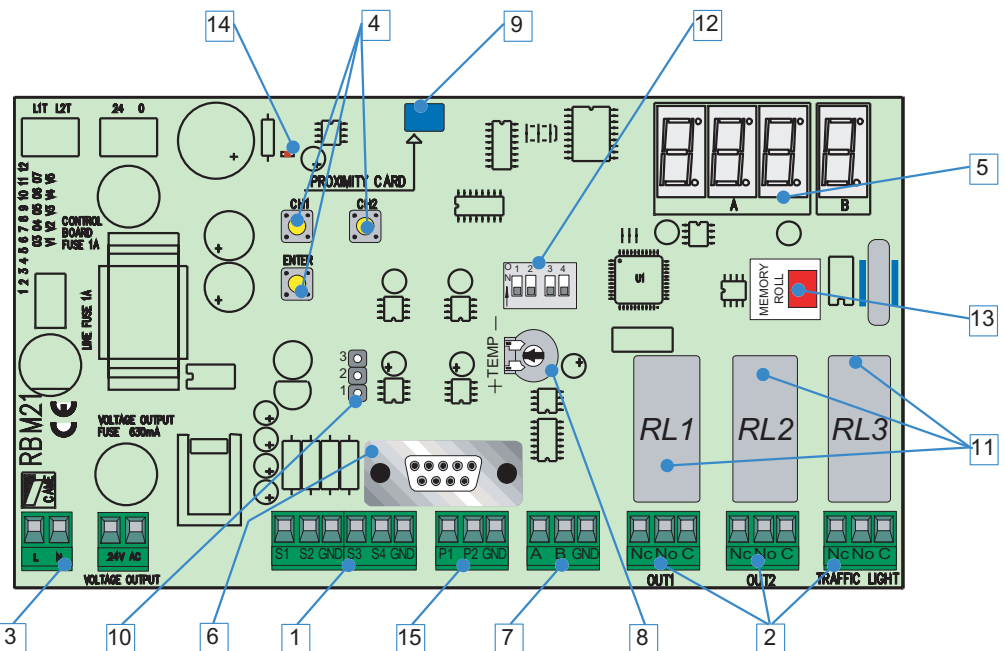
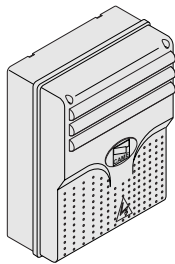


RBM 21

RBM21 is a control system for the simplified management of entries.

Offers the possibility of programming in **Stand Alone** (directly on the card) mode or **On Line** by connecting it to a personal computer and installing the dedicated **CAME software** (compatible with Windows 9x systems).

In the **Stand Alone** mode it is only possible to programme the basic functions of RBM21, such as the addition and the deletion of Cards for normal access. But in the **On Line** mode it is possible to also programme the system for *prepaid* (number of entries), *timed credit* (amount of time), *AntipassBack* (individual use of the Card) and *Timed AntipassBack* (entries authorised at timed intervals) types of access; this mode also allows activating a *traffic light system* by programming an entries count that can indicate when available credit runs out.



LEGEND

- 01 Sensory clamps
- 02 clamps Gone out relay
- 03 clamps feeding
- 04 keys planning
- 05 Display works
- 06 door RS 232 max 5mt.
- 07 door RS 485 max 1000 mt.
- 08 Trimmers regulation time activation gone out relay 2
- 09 sensor of Proximity on board
- 10 Strip selection sensor on board
- 11 relays (contact and exit you go out semaphore)
- 12 Dip Switch works
- 13 card Memory Roll
- 14 Leds feeding files
- 15 clamps magnetic Coils



CONTENTS

Technical Specifications	§ 1.0 - pg. 2
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Saving of Cards	§ 2.1 - pg. 5
Creation of 2 nd Master Card	§ 2.2 - pg. 6
Deletion of Cards	§ 2.3 - pg. 6
Changing the Password	§ 2.4 - pg. 7
TOTAL deletion of Cards	§ 2.5 - pg. 7
Using the Password to save Cards	§ 2.6 - pg. 8
Using the Password with the other procedures	§ 2.7 - pg. 8
Data saving	§ 2.8 - pg. 9
Data restoration	§ 2.9 - pg. 9
Management through coils and diversified unloading	§ 3.0 - pg. 10
Software Installation	§ 3.1 - pg. 11

1.0

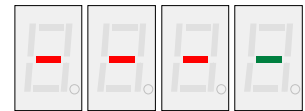
Technical Specifications

- Power supply: 230V ac
- Absorption: 230V = 50 mA
- Relay outputs: 3
- Traffic light output: 1
- RS 232 port for PC connection (5 m max distance)
- RS 485 port for PC connection (max. 1000 m distance, with PC40 interface)
- Extractable-connection terminal boards
- Number of Cards that can be saved: 500 proximity Cards and/or strip (magnetic) Cards
- Programming: with Master Card or Password in stand-alone mode; via software in on-line mode

1.1

Display messages

When powering the RBM21, if the memory is completely empty, all the central segments of the display will come on.



If there are memory allocations already assigned, a hyphen will appear on the left display screen. It also indicates the Stand-By position.

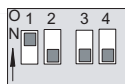


1.2

Dip-Switch functions

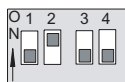
DIP 1 ON

Management of the semaphore through coil



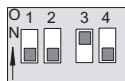
DIP 2 ON

diversified unloading



DIP 3 ON

relay 1 stepper function



DIP 3 OF

relay 1 monostable



DIP 4 No Function

1.3

On-Board sensor

It is a proximity sensor incorporated in the board.

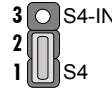
It emulates reader 4 and it saves Cards (only proximity cards) directly on the board in case the readers are far away.

Activate it (and deactivate it when saving is over) with the selection strip, see pg. 3.

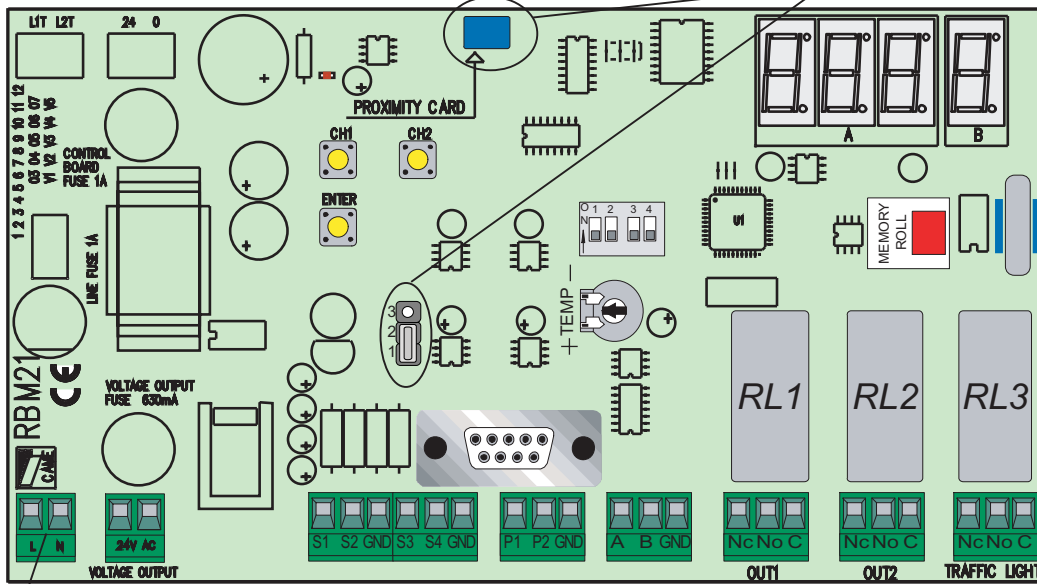
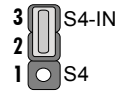
1.4 Connections

ON-BOARD SENSOR SELECTION

Jumpers
1 and 2
enable
reader 4
(default)



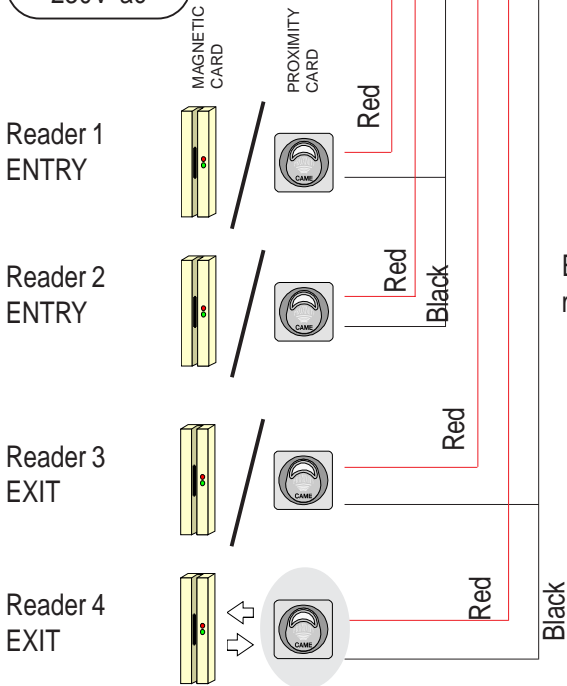
Jumpers
2 and 3
enable
On-Board
sensor



Adjustment
Timing
Relay 2 (RL2)
from 1 to 5 min.

ENGLISH

Power supply
230V ac

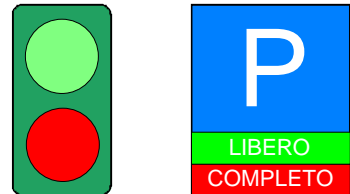


Output Contact Relay 1
(RL1) max. 10A - 230V

Output Contact Relay 2
(RL2) max. 10A - 230V

Entry contacts
magnetic Coil

Output Contact Relay 3 (RL3)
TRAFFIC LIGHT
max. 5A - 230V





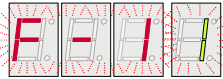


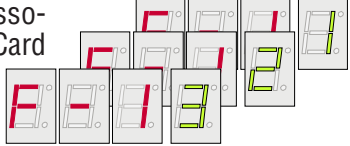






Can only be activated in
On-Line mode


THE FOLLOWING PAGES ILLUSTRATE ALL THE OPERATIONS THAT CAN BE CARRIED OUT IN **STAND-ALONE** MODE WITH **PROXIMITY SENSORS**; THE SAME INSTRUCTIONS CAN BE FOLLOWED FOR **STRIP READERS** WITH THE WARNING THAT, WHERE IT IS INSTRUCTED TO "FEED", "POSITION", "SWIPE" OR "SLIDE", IT IS NECESSARY TO **SWIPE** OR **SLIDE** THE CARD ACROSS THE READER. FOR INSTRUCTIONS IN **ON-LINE** MODE, PLEASE CONSULT THE **CAME SOFTWARE**.


2.0 Saving the 1st Card (Master Card)

Rbm21 always assigns the **first Card saved the role of Master Card**, with which it is possible to carry out all subsequent operations described here. It is therefore necessary to keep it safe because, along with the Memory Roll card, it is essential in order to make any Card programme changes or resets.

	SEQUENCE OF THE OPERATIONS  ¹	INDICATIONS ON THE DISPLAY SCREEN
A	Press ENTER 	Display F - 1 
B	Press ENTER again 	F - 1 1 flashes 
C	To change the relay to be controlled, click CH1 once or twice , otherwise move on to the next operation   ²	Change the relay associated to the Master Card 
D	Bring the Master Card close to the sensor for 2 seconds 	The Stand By symbol appears to indicate that the Master Card is being saved  ³ 

 ¹ In this sequence, as in all subsequent sequences, if more than 10 seconds lapse between one operation and the next, Rbm21 returns to the Stand By position and it is necessary to recommence the procedure from the start.










 ² Rbm21 assigns relay 1 as default; the number 3 indicates the activation of both relays, not the traffic light relay.

 ³ The saving of the Card is also always signaled by the flashing of the green and red LED indicators on the front panel of the sensor.

2.1 Saving of Cards ¹

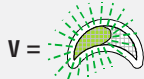



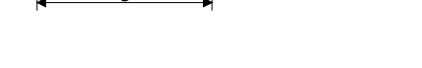
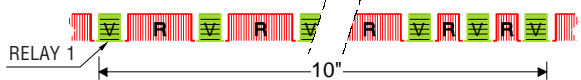

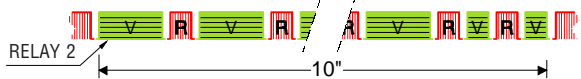

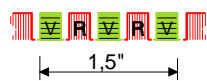
Once the Master Card has been saved,

all the other Cards can be saved **with the On-Board sensor** (see par. 1.3, page 2) ...


	SEQUENCE OF THE OPERATIONS	INDICATIONS ON THE DISPLAY SCREEN
A	Bring the Master Card close to the on-board sensor twice 	after the position of the Master Card (001), the first available position flashes 
B	To change the relay to be controlled, click CH1 once or twice, otherwise move on to the next operation 	Change the relay associated to the available position   
C	Bring the Card to be saved close to the sensor for approximately 3 seconds 	When the Card is saved S t o appears...  ... and then the next available position flashes 

At this point you may continue to save Cards (repeating the previous two operations) or allow 10 seconds to lapse so that Rbm21 returns to the Stand By position

... or **directly on TSP00**, without physical access to the board (a faster procedure to add Cards, but it does not allow the possibility of associating both relays to Cards).

	SEQUENCE OF THE OPERATIONS	V =  FLESHES SEQUENCE OF SENSOR LED R = 
A	Swipe the Master Card in front of the sensor twice within 3 seconds 	1 st exposure  2 nd exposure  for 10" it then flashes less frequently while waiting for the relay change or for the saving of the Card 
B	To change the relay from 1 to 2 and vice versa, bring the Master Card close to the sensor a third time or move on to the next operation 	Relay 2 is recognizable by the greater duration of the single green flash 
C	Expose the Card to be saved for approximately 3 seconds 	Three green flashes confirm the Card has been saved 

At this point you may continue saving other Cards (by repeating the previous 2 operations) or allow 10 seconds to lapse until Rbm21 returns to the Stand By position (steady red LED indicator light)

 ¹ There is no On-Board sensor for **magnetic cards** and so it is necessary to carry out the first procedure **only and with** at least one LT001 sensor connected and close to the Rbm21 board (a configuration that is also necessary for all the other procedures).

2.2 Creation of 2nd Master Card

By using a card that has already been saved, a second Master Card can be created.
(N.B. RBM21 accepts only two Master Cards)

	SEQUENCE OF THE OPERATIONS	INDICATIONS ON THE DISPLAY SCREEN
A	Swipe the Master Card 	
B	Press ENTER 	Display F - 1
C	Press CH1 	Display F - 2
D	Press ENTER 	F - 2 flashes
E	Swipe the Card that will be saved as the 2 nd Master 	Once saving is over, the display screen displays F - 2 M steadily

2.3 Deletion of Cards

It is possible to delete one or more Cards at any time.

	SEQUENCE OF THE OPERATIONS	INDICATIONS ON THE DISPLAY SCREEN
A	Swipe one of the Master Cards 	
B	Press ENTER 	Display F - 1
C	Press CH1 3 times 	Display F - 4
D	Press ENTER 	The first memory location appears ⁵
E	Press CH1 or CH2 to select the location to be eliminated 001-> 002-> 003-> ... 001-> 500-> 499-> ...	The location to be eliminated appears: number 5, for example ⁶
F	Press ENTER 	Once the location is eliminated, the entire display screen flashes ⁷


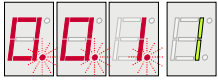








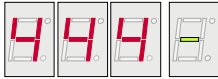


⁵ Be careful not to **delete the main Master Card** (position 001, always marked by 3 flashing points)

⁶ If the letter **C** flashes, it means that in that location there are no Cards saved.

⁷ Proceed with another Card to be eliminated or allow 10 seconds to lapse in order to begin a new procedure.

2.4 Changing the Password

Rbm21 comes with a Password that allows operating without the aid of the Master Card. The default Password is **1 2 3**, and it can be changed to any number between 1 and 500 in the following manner:




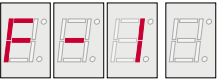



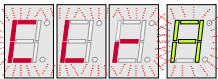



	SEQUENCE OF THE OPERATIONS	INDICATIONS ON THE DISPLAY SCREEN
A	Swipe the Master Card 	
B	Press ENTER 	Display F - 1 
C	Press CH1 5 times 5x 	Display F - 6 
D	Press ENTER 	The current Password appears (the default password in the example) 
E	Press CH1 or CH2 to select a new Password  001-> 002-> 003-> ...  001-> 500-> 499-> ...	A new Password appears, for example 4 4 4 
F	Press ENTER 	The Stand By symbol appears to indicate that the new Password is being saved 


Record the new Password here so it will not be forgotten

--	--	--

2.5 TOTAL deletion of Cards










This procedure resets **the memory of Rbm21**; all the Master Cards are deleted as well.

	SEQUENCE OF THE OPERATIONS	INDICATIONS ON THE DISPLAY SCREEN
A	Swipe one of the Master Cards 	
B	Press ENTER 	Display F - 1 
C	Press CH1 4 times 4x 	Display F - 5 
D	Press ENTER and keep it pressed for approximately 10 seconds 	C L r A appears and flashes; after 10 seconds the wording stops flashing 
E	Release ENTER 	An empty board symbol is displayed  

 ¹¹ In order to be able to operate again with Rbm21 it is necessary to start from "Card Saving" in § 2.0.

2.6 Using the Password to save Cards






Substitute operation A "swipe the Master Card twice" ... with this sequence

	SEQUENCE OF THE OPERATIONS	INDICATIONS ON THE DISPLAY SCREEN
Substitute operation A	Press ENTER 	
	Press CH1 or CH2 to view the Password  001-> 002-> 003-> ...  001-> 500-> 499-> ...	The Password appears 
	Press ENTER 	Display F - 1 
	Press CH1 2 times 2x 	Display F - 3 

... and continue with the other operations illustrated in the
2.1 "Card Saving" procedure in page 5

2.7 Using the Password with the other procedures

Substitute operation A "swipe the Master Card" ... with this sequence

	SEQUENCE OF THE OPERATIONS	INDICATIONS ON THE DISPLAY SCREEN
Substitute operation A	Press ENTER 	
	Press CH1 or CH2 to view the Password  001-> 002-> 003-> ...  001-> 500-> 499-> ...	The Password appears 

... and continue with the other operations illustrated in procedures

2.2 "Creation of 2nd Master Card" in page 6,

2.3 "Card Deletion" in page 6,

2.4 "Change Password" in page 7

2.5 "TOTAL Card Deletion" in page 7

2.8 "Saving data" in page 9

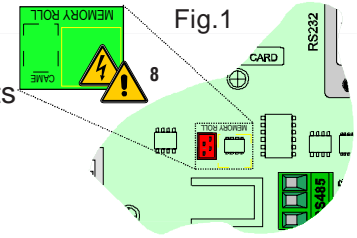
2.9 "Reset data" in page 9















2.8 Data saving


This procedure allows **saving the data** stored in RBM21 by transferring it to the MEMORY ROLL card.

In this procedure as well as the next one, insert the Memory Roll in its slot (see Fig.1).




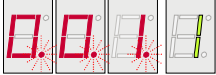









 Each time the Memory Roll is connected or disconnected it is necessary to turn off the Rbm21's power supply.


	SEQUENCE OF THE OPERATIONS	INDICATIONS ON THE DISPLAY SCREEN
A	Swipe one of the Master Cards 	
B	Press ENTER 	Display F - 1 
C	Press CH1 6 times 	Display F - 7 
D	Press ENTER 	Display F - 7 U 
E	Release ENTER 	The Stand By symbol appears after a few seconds  

 ⁹ The waiting time depends on the amount of data up- or downloaded; Rbm21 goes into Stand By mode when the procedure is over. Disconnect the power supply, remove the Memory Roll and store it in a safe place.

2.9 Data restoration ¹⁰

This procedure **restores the data** saved by downloading it from the MEMORY ROLL card.







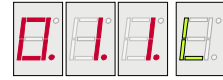









	SEQUENCE OF THE OPERATIONS	INDICATIONS ON THE DISPLAY SCREEN
A	Swipe one of the Master Cards 	
B	Press ENTER 	Display F - 1 
C	Press CH1 7 times 	Display F - 8 
D	Press ENTER 	Display F - 8 d 
E	Release ENTER 	The Stand By symbol appears after a few seconds  

 ¹⁰ In case the Rbm21 board is replaced or the Master Card is deleted, to restore the data it is necessary to physically have the same Master Card saved on the Memory Roll (or the 2nd Master Card, in case the main one has been lost), and to **preliminarily carry out procedure § 2.0.**

3.0 Management parking lot

Car-park managed through in/out coils with full traffic light
(with Dip No. 1 on)

ENGLISH

	OPERATIONS SEQUENCE	INDICATIONS ON THE DISPLAY
A	Press ENTER twice x2 	Display F - 1 
B	Press ENTER 	Display L 
C	Press CH1 and CH2 to set system capacity  	The number of places we want to set appears 
D	Press ENTER 	
E	Press CH2 	Display F - 2 
F	Press ENTER 	Display 0 
G	Press CH1 and CH2 to set the number of occupied places  	
H	Press ENTER 	

If P1 is activated (contact-coil-etc.) the count is increased and the OUT 1 relay switches
If P2 is activated (contact-coil-etc.) The count is decreased and the OUT 2 relay switches
Once the system's capacity is reached, the Parking relay triggers and contact P1 is prevented, while contact to using P2 always remains enabled.

3.1 Software Installation

For **operation in On Line mode** (via PC) only, it is necessary to install the software (floppy disk or Cd-Rom) included in the Rbm21 package; once installed, read the “Guide to Rbm21 on-line programming” available with the software (in .pdf file) to programme the system.

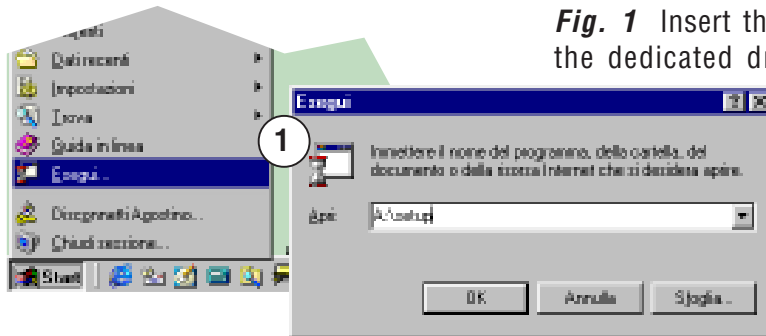


Fig. 2 A window that will update some system files will appear. If you are using floppy disks, you will be asked to insert the following disks: insert them and confirm with **OK**.

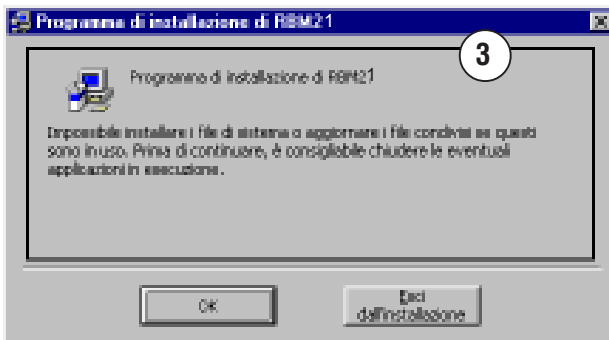
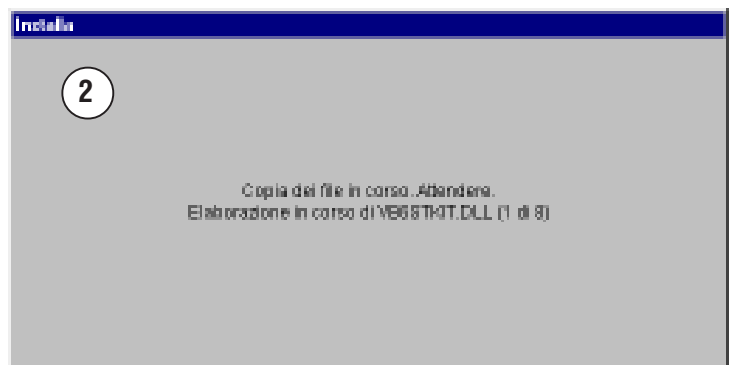


Fig. 3 Close all the programmes that are open and click on **OK** to proceed.

Fig. 4 By carrying on to the next window you can choose where to instal the program by clicking on "**Change Directory**", or click on the icon for the default installation (C:\PROGRAMS\RBM21).



An “installation completed” window will appear at the end of the procedure to confirm the end of the operation: click on **OK** and restart the computer to apply the new settings.

Rev. 0.1 - 02/2004 Bellotto Flavio

Prima stesura



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