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|-----------------------------------------------------------------------------------|----------------------------------------------------|----------------------------|
|  | <b>Titel:</b><br><br><b>FUNCTIONAL DISCRIPTION</b> | Datum: 8-01-98             |
|                                                                                   |                                                    | Alleen voor intern gebruik |

## SYSTEM OVERVIEW

The Zaploc stand-alone is used for access control for small systems e.g. a single or a few doors. Unic cards are learned to the Zaploc with the programmer or a master card.

To do so, the Zaploc transmits a frequency of 153 Kc. This signal is received by card or programmer on a coil inside the card. This signal is used to power the card and to generate a clock signal for card data timing. The chip in the card influences the transmitted field by draining power from the coil in the card in a rhythm that is given by the unic cardnumber. The Zaploc sees this as a AM modulation on the transmitter coil. This AM modulated signal is demodulated and processed by the micro controller inside the Zaploc. After this processing we have a unic cardnumber that the Zaploc checks in a table. If the card is authorised then the Zaploc drives the solid state relay to open the door for a given time.

Also available is a communicative version that connects to a host system and only delivers the cardnumber to the host system, the host then decides whether to give access or not.

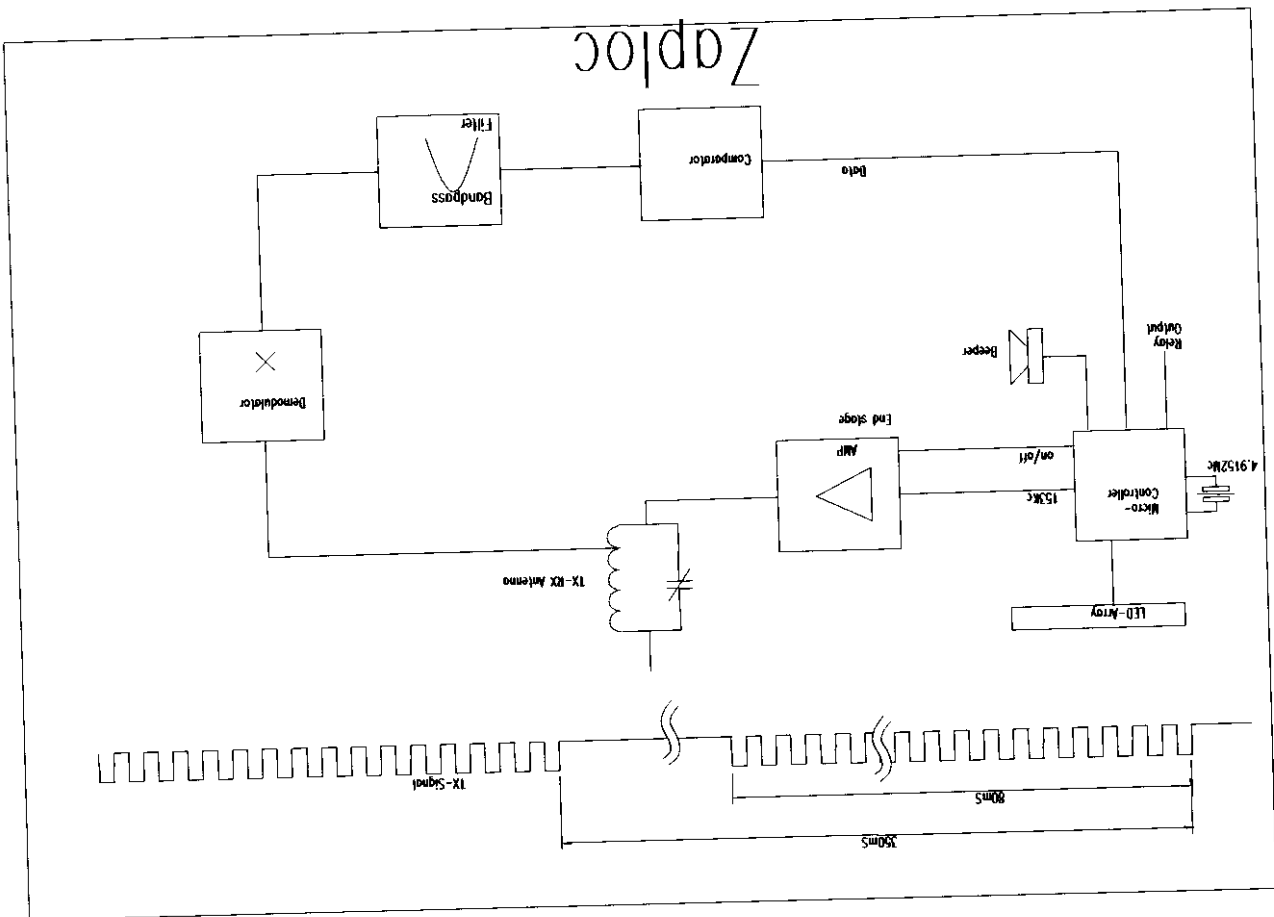
The Zaploc is powered with a 12 to 18 V DC power supply, not included with the delivery. The Zaploc can read ISO proximity cards, keytags and programmers.

|                  |                                |                      |
|------------------|--------------------------------|----------------------|
| Status: tijd     | Opgesteld door : D.J Hogendorf | Doc.nr.: 020 Rev.: 1 |
| Houders:<br>-R&D | Omschrijving : Zaploc          | Proj.nr.: 94304012   |

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|-----------------------|--------------------------------|----------------------|
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| Houders: R&D -Archief | Omschrijving: Zaploc           | Proj.nr.: 94304012   |
| Nummer                | 69010000                       | Bladnr.: 2 van 2     |

The micro controller switches the amplifier on and off. The amplifier connects to the TX-RX antenna (a coil capacitor combination resonated at 153 Kc). The card is fed by this field and AM modulates the transmitter field. This modulation is visible on the TX-RX antenna. The signal goes to the demodulator, a band pass filter and a comparator and is then fed to the Micro controller. The micro controller decodes the signal and produces a card number. This number is checked to a tabel in EEPROM. If it matches the solid state relay is driven to open the door.

The Xtal frequency of 4.9152 Mc is divided to 153 Kc. and send to the amplifier.



## HOW THE SYSTEM WORKS

|  |                                                                 |
|--|-----------------------------------------------------------------|
|  | <p>Functional Description</p> <p>Alleen voor intern gebruik</p> |
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Federal Communications Commission  
Chief, Billings & Collections Branch  
Washington, DC 20554  
USA  
Fax #: 00-1-202-418-2843

FEDERAL COMMUNICATIONS COMMISSION  
APPLICATION # 17-1521

Harderwijk, April 21, 1998

APR 30 1998

  
**DIALOC**  
ID TECHNOLOGY

Galvanistraat 24  
Postbus 311  
3840 AH Harderwijk  
The Netherlands  
Telephone +31 (341) 42 09 40  
Fax +31 (341) 42 50 33

dear Sir,

**COLUMBIA, MD**

Today we mailed by Federal Express (tracking# 400-8312 0601) to the following address:

Federal Communications Commission  
EQUIPMENT APPROVAL SERVICES  
P.O. box 358315  
Pittsburgh, PA 15251-5315  
USA

the following documents:

3 forms 731, covering applications of:

- 1) KX2Zaploc002
- 2) KX2LX002
- 3) KX2SX002

1 form 159 with remittance data covering payment of fees USD 895,-- x 3 = USD 2685,--

3 KEMA reports ( 62624-KRQ/EMC 98-4246, - 4247, - 4248) with measurements.

3 sets of technical documentation including: schematics, lay-outs, component list, operation description, photo's, block diagrams, drawings, part-lists, and other relevant information.

1 copy of this letter.

Today, April 21 1998, we remitted payment of USD 2685,-- to:

Federal Communications Commission  
c/o Mellon Bank  
Three Mellon Bank Center  
525 William Penn Way  
27th floor, Room 153-2713  
Pittsburgh, PA 15259-0001  
Attention Wholesale Lockbox Shift Supervisor

AGA  
Account #: 043000261  
FCC Account #: 9116106

I hope this application is complete and we kindly request to submit approval a.s.a.p. for which we thank you in advance. Should you have further questions, do not hesitate to contact the contact persons mentioned in the 731 forms.

Best regards,

Bert Appeldoorn, manager R&D

Rabobank Harderwijk 35 42 98 623  
K.v.K. Harderwijk 080.20453

Voor zover niet anders overeengekomen gelden  
voor onze aanbiedingen en transacties  
de algemene voorwaarden gedeponeerd  
bij de Kamer van Koophandel in Harderwijk.