

# Operating Instruction

# System PM 100

RBE 100

Discount unit

Version 1.00

# **DESIGNA**

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### **Design:**

The discounting unit is installed in a polystyrole housing with an anodized aluminum front panel. The required mains supply of 5V (stabilized) is secured by an external mains supply circuit.

The plug power supply must feature a cable at the output with a 3.5mm clinch plug at its end. This clinch plug features +5V at its inner terminal and 0V at its exterior terminal. This type of plug supply part is frequently used for pocket calculators and similar devices and therefore is available all over the world for various input voltages and connection standards.

### **Brief description of the discounting process:**

Selection of the discounting level is done with push buttons 1-3, the selected discount level is indicated by a green signal lamp.

The ticket is inserted entirely into the appliance with the magnetic stripe facing upwards. A red signal lamp and short signal sound will indicate whether the ticket has been correctly inserted or not.

In case an incorrect discount level was selected or no such selection was made, correction may now be effected.

Coding is applied to the magnetic stripe while the ticket is withdrawn as steadily as possible from the automat. The selected discount level and signal indicators are deleted shortly before the ticket leaves the automat.

### **Prerequisites for operation of the discounting unit:**

The appliances reading the discount tickets (exit terminals, cash registers, ...) must be furnished with a specifically adapted Multicon.

The appliance's USI-software must be adapted to meet the requirements.

### The principle of discount granting

Short term renting of parking facilities usually is settled on the basis of duration of parking time. The process of parking may be structured into three phases:

Commencement of parking period - Issuance of a parking ticket

Upon entering the car park, the user is issued a ticket on which the arrival time has been magnetically coded.

Termination of parking time - Payment depending upon duration of parking time.

The user pays at an automatic or manual cash register dependent upon the elapsed parking time. This parking time is calculated on the basis of the entry time coded on the ticket.

Exit - Control upon leaving the car park.

The user passed an exit terminal when leaving the car park. The scanned ticket information is compared with the current time. If the scanned time is smaller or equal to the current time plus a specified grace period, the user may exit the facility. In case the user has exceeded the time provided, he is requested to make an additional payment at a cash register.

A number of car park operators grant their clients a discount if they visit a facility (e.g. department store) annexed to the car park.

Other parkers must pay the full price.

The visit to such a facility is made between time-points 1 and 2. This must be imprinted on the ticket as additional information which is exploited at time-point 2 with a price discount and at the latest at time-point 3 for free parking.

The additional marking may also be utilized to allow clients access to other parking zones. A self-service furniture store for instance may grant customers, who have purchased furniture access to pick-up points, while other parkers or minor customers have no such access.

A number of functions are needed in the parking processing installation's individual automats:

- code ticket                      entry, cashier
- read ticket                      exit, cashier
- mark ticket                      discount unit
- read discount mark            exit, cashier, entry (access control)

The functions "read ticket" and "code ticket" are standard procedures in car park technology and will function without any alterations in the system featuring discounts. The functions "mark tickets" and "read discount mark" are new.

### **Coding of additional information on the ticket.**

The objective of coding additional information is to leave the ticket data record unread and unaltered on the ticket and solely to add discount marks on the ticket. In earlier applications, holes were punched into the paper ticket for this purpose. Today, however, this method is no longer topical nor is it secure against counterfeiting, as these holes may also be punched into the ticket with a sharp object. The additional information must be coded on to the ticket without the user being aware of it. In summarizing, the process must meet the following requirements:

- ticket data set is not altered
- ticket data set cannot be read
- invisible marking

On the currently generally used paper tickets, these characteristics can be achieved by an additional magnet track.

### **Coding procedure**

These ticket originally are non-magnetized.

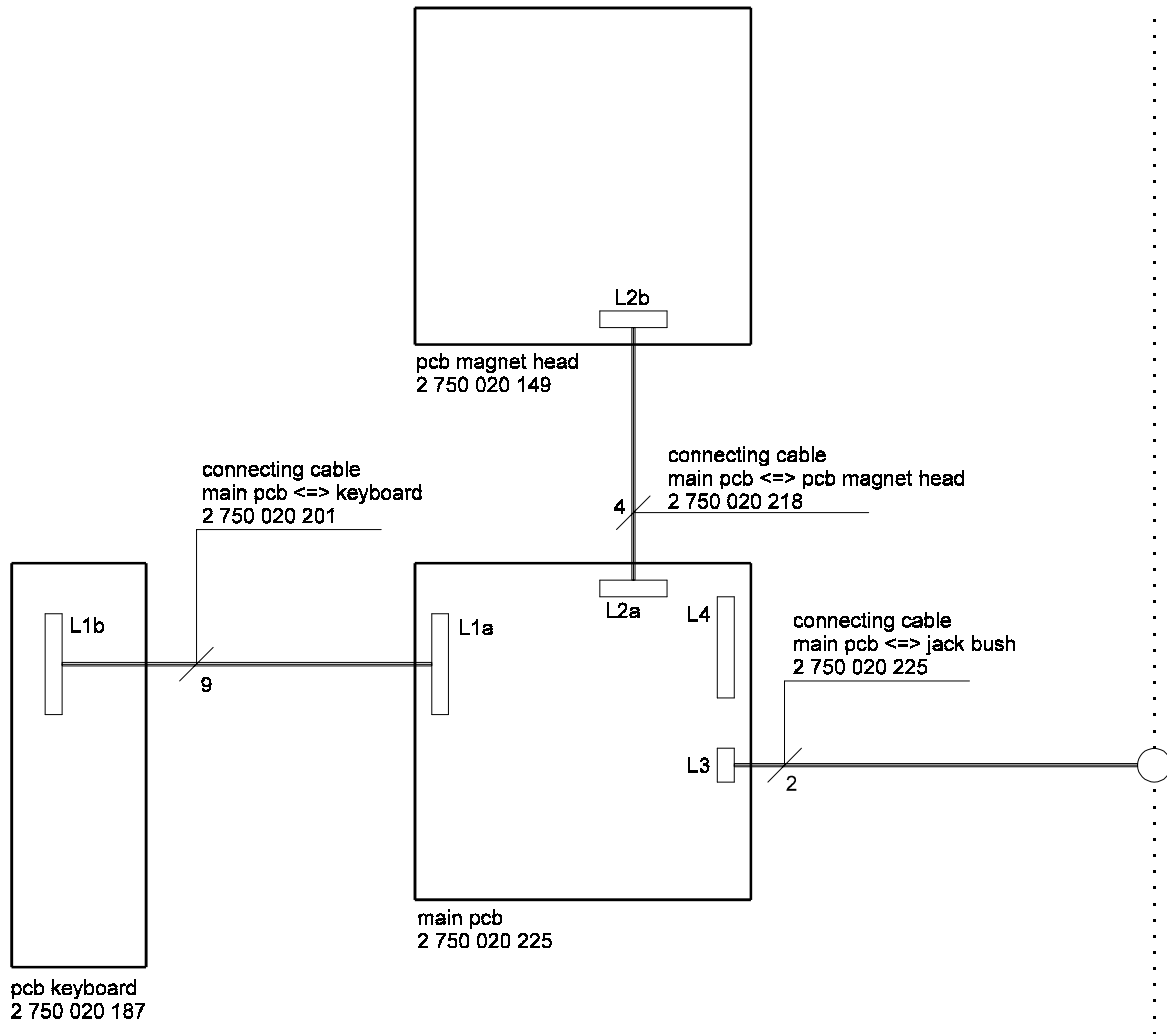
The additional magnetic track remains unmagnetized at ticket issuance at the point of entry etc. The ticket's data track is applied as usual.

Specific markings are applied on the additional track during discounting in the RBE 100 automat. The data track is unaffected by this process. Data control is informed about the desired discount level through the keyboard or an interface.

The ticket is conducted past a write head and one or several sensors for position identification. Control then decides where the discount markings are applied to the track.

For payment procedures, the ticket's data is read in customary fashion. The discount markings are decoded by an additional scanning head with its own channel and hard/software. The discount level is identified through the type of marking.

Wiring diagram RBE100



Wiring diagram amplifier

