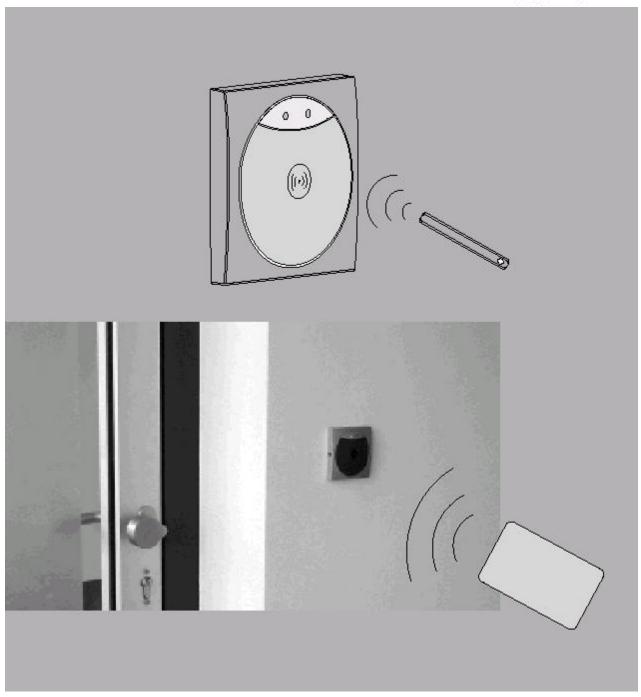
# **Mounting and Operating Instructions (Simple Programming)**

Art.No..: 732.29.125, published: 10/2003





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Art. No.	Model	Trans. Format	Art. No.	Model	Trans. Format
917.01.101	Int., 1 Relay	TI-RFid	917.21.101	Int., 1 Relay	Legic
917.01.104	Int., 4 Relays	TI-RFid	917.21.104	Int., 4 Relays	Legic



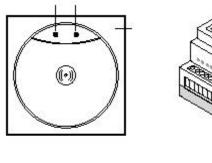
# Contents

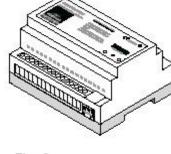
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# **Components Supplied**

- Reader unit (1)
- Control unit (2)
- Installation frame (3)
- These instructions





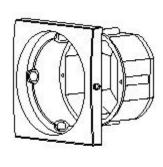


Fig. 1

Fig. 2

Fig. 3

### Area of Use

The wall terminal is part of the Dialock electronic locking systems. It is an access-control system for outdoor and indoor use and can be used for a variety of purposes such as:

- Opening and closing doors by triggering electric door openers, motor locks, automatic doors etc.
- Triggering electrical equipment (e.g. roller shutters, parking garage barriers, furniture locks, lighting, alarm and video-surveillance systems).

#### **Features**

- Fully compatible with the Dialock system
- Macro-programmable
- Simple and convenient configuration via infra-red interface
- Possible extension of function through special firmware
- Separate reader and control units
- All the operating modes of the Dialock system
- Technology of reader unit: LEGIC and TI-RFid



#### Installation instructions

## **Safety Note:**

Before beginning installation, ensure that the power supply is switched off. The installation work should be done by a qualified electrician only, as complex wiring is required. Unsuitable tools may cause damage to the wall terminal. Please note that the wall terminal is intended only for switching electrical equipment with max. 1 A constant current and 2 A short-time current. Incorrect or incomplete installation may cause permanent damage to the system.

### **Installation requirement**

For installation, first determine suitable positions and locations for the reader and control units. This must take into account the equipment being operated (e.g. door lock, barrier etc.). In addition, the recessed socket (fig. 4) for the reader unit and the cable must be installed as shown in the circuit diagram (fig. 5)

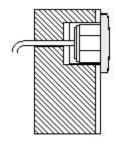


Fig. 4

#### Installation

The following operations are required:

- Installation of reader unit
- Installation of control unit
- Electrical installation

#### Installation of required cable work.

Before installing, always remember to switch the power off.

For the installation of the electrical connections, observe the following connection diagrams.



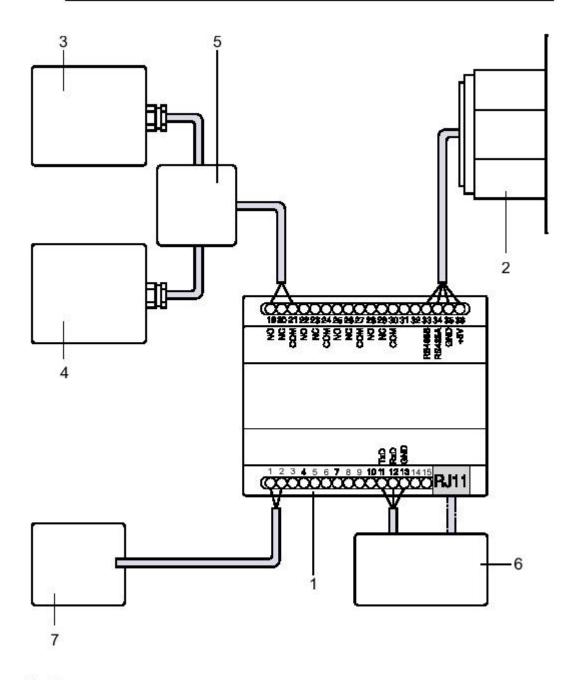


Fig. 5

- 1. Control unit
- 2. Reader unit
- 3. Equipment being switched (door, barrier)
- 4. Power supply for equipment being switched
- 5. Distributor
- 6. External CPU (e.g. PC) (optional)
- 7. Power supply for control and reader units Model No.: DTS120250U/AC6-AMP-SZ Art.No.: 917.93.005



Example: electrical connection of an electrical strike

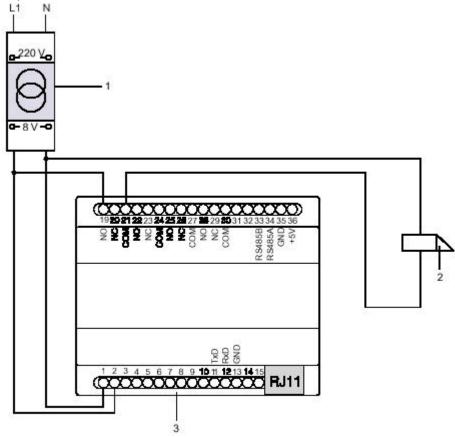


Fig. 6

1. Power supply Model No.: DTS120250U/AC6-AMP-SZ

Art.No.: 917.93.005

2. Electrical strike

3. Control unit



The connection between the reader and the control units can be made using a standard 4-conductor cable. We recommend using a standard electrical cable J-Y (St) Y 2 x 2 x 0.8 with a maximum distance of 100 meters.

When installing several wall readers, ensure that the distance between the reader units is at least 25 cm (fig. 7). If the distance is too small, the HF fields may overlap. This may cause the transponder media to not be reliably detected.

## Reader unit

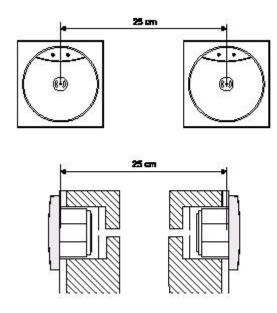


fig. 7

A +5V B GND C RS485A D RS485B

Table 1



# **Control Unit**

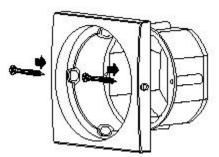
1 2	Power supply	Model No.: DTS120250U/AC6-AMP-S2 Art.No.: 917.93.005
<u>2</u> 3	GND	
	Input signal 1	
<del>4</del> 5	GND	
6	Input signal 2	
6 7	GND	
8	Input signal 3	
9	GND	9
10	Input signal 4	
11	TxD	Serial interface RS 232
12	RxD	
13	GND	
14	ISP	FLASH Program mode
15	GND	<b>3</b>
16-18	RJ 11 socket	Can be used in place of connection
		11, 12, 13 Connection:
		2: TxD
	123456	3: RxD
		4: not connected
		5: GND
19	NO (open)	Relay 1
20	NC (closed)	202
	COM	
<u>21</u> 22	NO	Relay 2
23	NC	
	COM	
24 25	NO	Relay 3
26	NC	###### <b>3</b> .ch
27	COM	
28	NO	Relay 4
29	NC	
30	COM	
31	TTL1	Digital output 1 (open collector)
31 32	TTL2	Digital output 2 (open collector)
33	D: RS485B	Serial interface to reader unit
34	C: RS485A	and Voltage supply for reader unit
35	B: GND	and renage supply for redder drift
36	A:+5V	
30	ALTOV	

Table 2

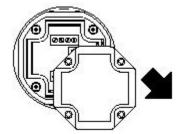


# Mounting the reader unit

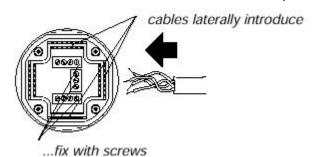
- Screw the frame of the reader unit into the desired recessed socket



- Remove the rear cover



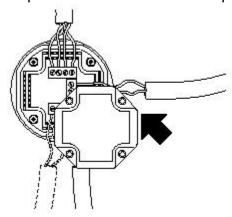
- Connect wires as shown in connection plan in table 1 page 7



Push cable into cable comb

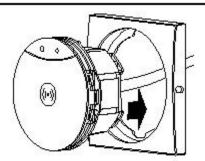


- Replace cover and screw into place

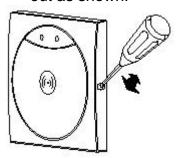


- Place the reader unit in the frame and allow it to click into position





- To disassemble, push a screwdriver into the slot and pry the unit out as shown.



# **Mounting the control unit**

The control unit may be damaged by use of unsuitable tools.

- The distance between the control and reader units may be up to 100 meters.
- Mount the control unit on a standard rail (top-hat rail) in accordance with DIN EN 50022.



- Connect the wires as stated in table 2 page 8
- If necessary, connect a recovery diode (100V) on the equipment being switched (door opener). The connection should be between common (on the load side) and ground.



### Start-up

The wall terminal is supplied in the "simple programming mode" of operation. Only this mode is described in these instructions. Other operating modes are possible only after consultation with the Dialock sales office.

Ensure that unauthorized persons do not misuse the user keys. Keep the programming ADD and DELETE keys in a safe place, as these are used for authorizing user keys.

At first start-up, the programming ADD (green) and DELETE (red) keys must be assigned as follows:

This operation is only possible directly after applying the supply power to the control unit.

- 1. Keep the green programming ADD key and red DELETE key readily accessible.
- 2. If power is already being supplied to the control unit, switch the power off.
- 3. Switch on the power supply. The green LED display flashes for a few seconds.
- Hold the green programming ADD key in front of the reader unit while the green LED is flashing. The red LED flashes for a moment to indicate success of learning process.
- 5. Hold the red programming DELETE key in front of the reader unit while the red LED is flashing. The red LED lights up.

If an error occurs during assignment:

-Disconnect the power supply and then re-connect it.

Re-assign programming ADD and DELETE keys.

If the error persists, contact the Dialock sales office.



## **Operating Instructions**

### Assignment of access rights to user keys

- 1. Present the green programming ADD key in front of the operating panel.
- 2. The green LED display flashes.
- 3. Present the user key to be learned in front of the operating panel within 5 seconds. The green LED lights up to indicate that the locking right for the user key has been assigned.
- 4. Remove the user key.
- 5. Present the next user key to be learned in front of the operating panel within 5 seconds. If no further user keys are held in this position, the electronics switch off automatically.
- 6. If the red LED display lights up, an error has occurred. Repeat the assignment process.

## Withdrawing access rights of a single user key

- 1. Present the red programming DELETE key in front of the operating panel. The red LED indicator flashes.
- 2. Present the user key to be cancelled in front of the operating panel.
- 3. The red LED indicator flashes briefly. The user key's access rights have been withdrawn.

#### Withdrawing access rights of all user keys

If a user key is lost and should no longer retain its access rights, the access rights of all user keys must be withdrawn. After this, all the keys that remain and are to have access rights must be reauthorized again.

- 1. Present the red programming DELETE key in front of the operating panel. The red LED indicator flashes.
- 2. Present the green programming ADD key in front of the operating panel. The red LED indicator flashes briefly.
- 3. Re-assign access rights to all the remaining user keys.



### Operation

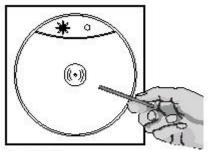
- 1. Present an authorized user key in front of the operating panel.
- 2. The green LED display lights up. The red LED display goes off.
- 3. The equipment being switched (e.g. door opener) is unlocked.

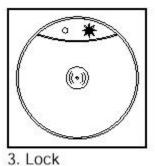
If the LEDs do not switch from red to green:

⇒ Present the user key closer to the reader.

If the LEDs still do not switch from red to green:

⇒ The user key has no right of access





- 1. Open
- 2. Stays open for 3 sec.

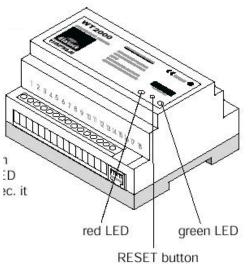
#### Reset

## General:

The RESET button is located on the control unit beneath the housing cover between the two indicator LEDs. Using a pointed instrument, the button can be pressed through the top of the housing.

## Sequence:

Both LEDs go off when the button is pressed. After 1 second the red LED begins to flash. After another 3 seconds it lights up red continuously.



**Total reset (long RESET):** 



If the RESET button is pressed for longer than 4 sec. A total RESET takes place. This resets all the configuration data (basic settings) and cancels all data (including user data).

Release the RESET button when the red LED has stopped flashing.

## Single RESET (short RESET):

If the RESET button is pressed for longer than 1 sec. But less than 4 sec. a single RESET takes place. This resets only the project code.

Release the RESET button while the red LED is flashing.

#### **Processor RESET:**

If the RESET button is pressed for less than 1 sec. a processor RESET takes place. This is the equivalent of switching the supply voltage off and on again. No data is cancelled or reset.

Release the RESET button before the red LED flashes.

#### **FAQs**

I have lost a user key and wish to cancel it. How do I do this?

If one user key gets lost and you wish to cancel its access rights, you must cancel all the user keys at the reader unit. Following this, the access rights of all remaining user keys have to be re-assigned. See under: "Withdrawing access rights of all user keys".

I have lost a programming key and wish to cancel it. How do I do this?

Programming ADD and DELETE keys are taught only once at the first start up. There is only one of each. Programming ADD and DELETE keys can be cancelled by resetting the wall terminal. See "RESET".



#### **Technical data**

Voltage supply: DC voltage 9-17 V

Continuous current

consumption < 150 mA
Peak current consumption 200-300 mA

depending on number of relays

Number of relays 1 or 4 as required

Contact rating of delays DC voltage max. 60 V AC voltage max. 125 V

Switching current

Max. 2 A (short period)
Continuous current max. 1 A

Switching power max. 30 W / max. 60VA

Data retention on power cut 10 years

Protective system Reader unit IP 65 Control unit IP 20

Temperature operating range Reader unit -20 °C...+70 °C

Control unit -20 °C...+70 °C

Relative humidity 0-95 %

(non-condensing)

Cable length (scanner – control unit)

Max. 100m

Control unit 2.5 mm<sub>2</sub>

Recommended cable J-Y (St) 2 x 2 x 0.8

Max. conductor cross section

(screw terminals) Scanner unit 1.0 mm<sub>2</sub>

Mounting of control unit Top-hat rail to DIN EN 500 022



Notes:

This device complies with Part 15 of the FCC Rules and with RSS-210 of Industry Canada.

Operation is subject to the following two conditions:

- (1) this device my not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications made to this equipment not expressly approved by HAFELE America Co. or SPHINX Electronics GmbH & Co KG may void the FCC authorization to operate this equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.