

Instructions for the door controller

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1. Specifications

Power: 24Vdc from power supply 220-230 Vac, 50 Hz.

Case: Plastic case 115x90x40 mm.

Connections: Power supply 24 Vdc via 2.1 mm connector

Connecting door cables using an RJ-45 connector

One controller is designed to connect two doors *

***When two controllers are connected in series, up to four doors can be connected. There is also the possibility of daisy chain connection up to 20 controllers simultaneously. This connection requires individual programming controllers with individual door locking logic. See below for the door locking logic.**

2. Description of the controller operation.

2.1 General description of work.

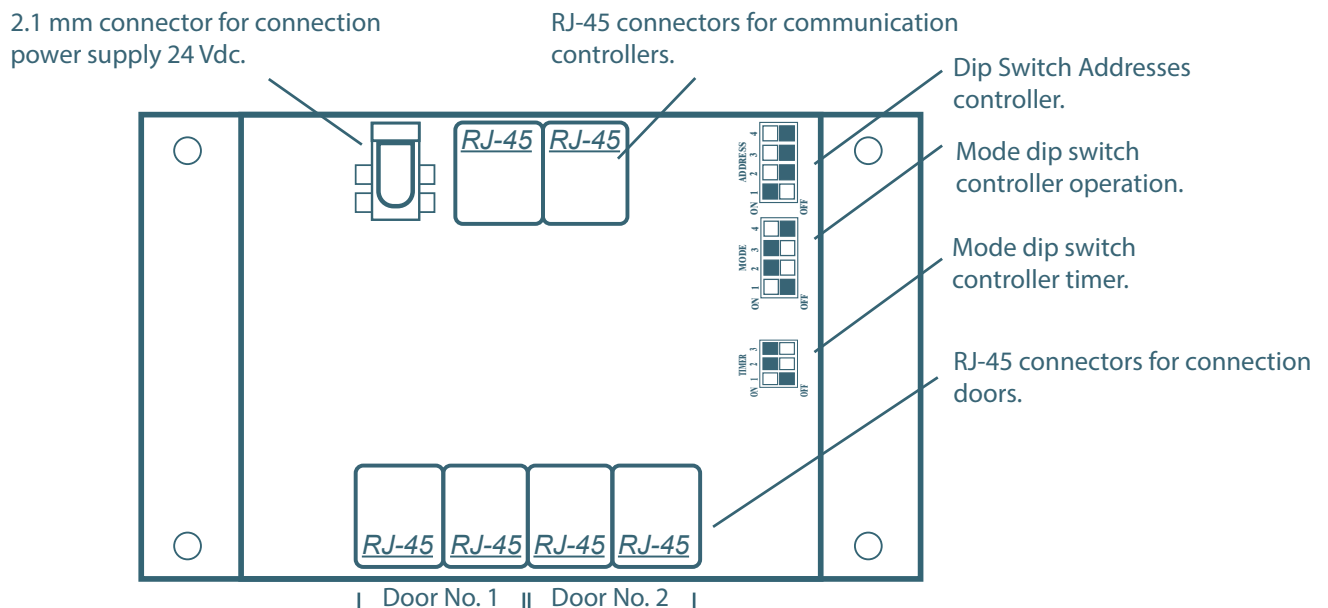


Fig 1. View of the printed circuit board.

The controller is designed to control door locking. Each controller separately capable of controlling the locking of two doors when the doors are in mode are normally unlocked.

This mode means that in the absence of voltage on the controller, the doors remain physically open, that is, they are not locked with an electric lock.

If a malfunction or emergency occurs (for example, a fire alarm) There is an emergency exit button on the traffic light membrane. Press the button once unlocks the doors and allows you to leave the premises without hindrance. Press again The emergency exit button returns the controller to normal operation.

Visual control of the door status is displayed on traffic lights installed according to both sides of each door. The traffic light is a membrane with red/green signal and emergency exit button. If the door is in the open position, then The traffic light is red. In the normally closed position of the door, the green signal is on traffic light.

The controller has a timer that will sound an alarm if the door is left open for too long. Signal response time is adjustable "Timer" dip switch. The Timer operating mode is described in detail in section 2.4 Installation door status notification timer.

In normal mode, the controller operates in Logica 1 mode (default). This means that when the bottom door opens, the other one is blocked by an electric lock. In this case, the red traffic light on the locked door will be on. All modes For controller operation, see section 5. Description of the door locking logic.

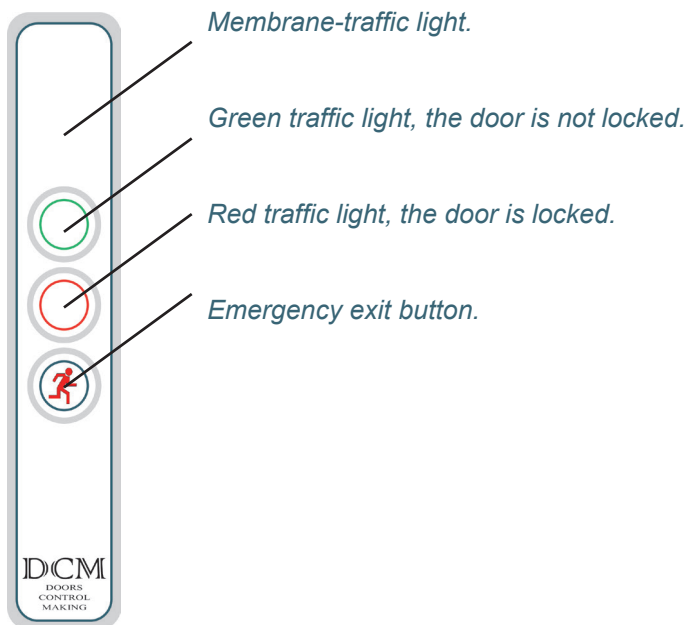


Figure 2. View of the traffic light membrane.

2.2 Setting controller addresses

To connect the controllers to each other, a cable with RJ-45 connectors is used. At the same time, for normal operation of the controllers it is necessary to specify using a dip switch which controller is "Master" and which is "Slave".



To indicate the "Slave" state to the controller, switch No. 1 is required Set the "ADDRESS" dip switch to the "ON" position.



For the controller, which will be the "Master", all switches Set the "ADDRESS" dip switch to the "OFF" position.

IMPORTANT! For the "MASTER" controller, the doors will be called Door No. 1 and Door No. 2. For the "SLAVE" controller, the doors will be called Door No. 3 and Door No. 4 in order from left to right.

2.3 Setting controller modes.

The controller has three operating modes and three blocking logics: two door mode, three door mode and four door mode combined with operating modes logic. The corresponding modes are selected by switching the switches to dip switch "MODE":

| Table of door opening modes | | | | | | | |
|-----------------------------|------------|-------|-------|-------|-------|----------------|--------------------|
| No | Dip switch | MODE1 | MODE2 | MODE3 | MODE4 | Doors quantity | Logics |
| 1 | | 0 | 0 | 0 | 0 | Two doors | Logica1 |
| 2 | | 1 | 0 | 0 | 0 | Three doors | Logica1 |
| 3 | | 1 | 0 | 0 | 1 | Three doors | Logica3 "Corridor" |
| 4 | | 0 | 1 | 0 | 0 | Four doors | Logica1 |
| 5 | | 0 | 1 | 0 | 1 | Four doors | Logica3 "Corridor" |
| 6 | | 0 | 1 | 1 | 0 | Four doors | Logica2 |

Table 1. Controller operating modes.

2.4 Setting the timer for turning on the door status notification.

The controller has four timer operating modes:

«No timer» mode

«30 sec» mode

«60 sec» mode

«90 sec» mode

Modes are selected by toggling switches on the TIMER dip switch.

| Timer dip switch mode table | | | |
|-----------------------------|-------|-------|---------------|
| MODE1 | MODE2 | MODE3 | Seconds |
| 0 | 0 | 0 | Without timer |
| 1 | 0 | 0 | 30 |
| 0 | 1 | 0 | 60 |
| 0 | 0 | 1 | 90 |

Each mode specifies the time after which the buzzer will sound. If one of the doors remains open for more than the specified time. The system will beep until the door is closed.

3. Controller connection diagram (for two doors).

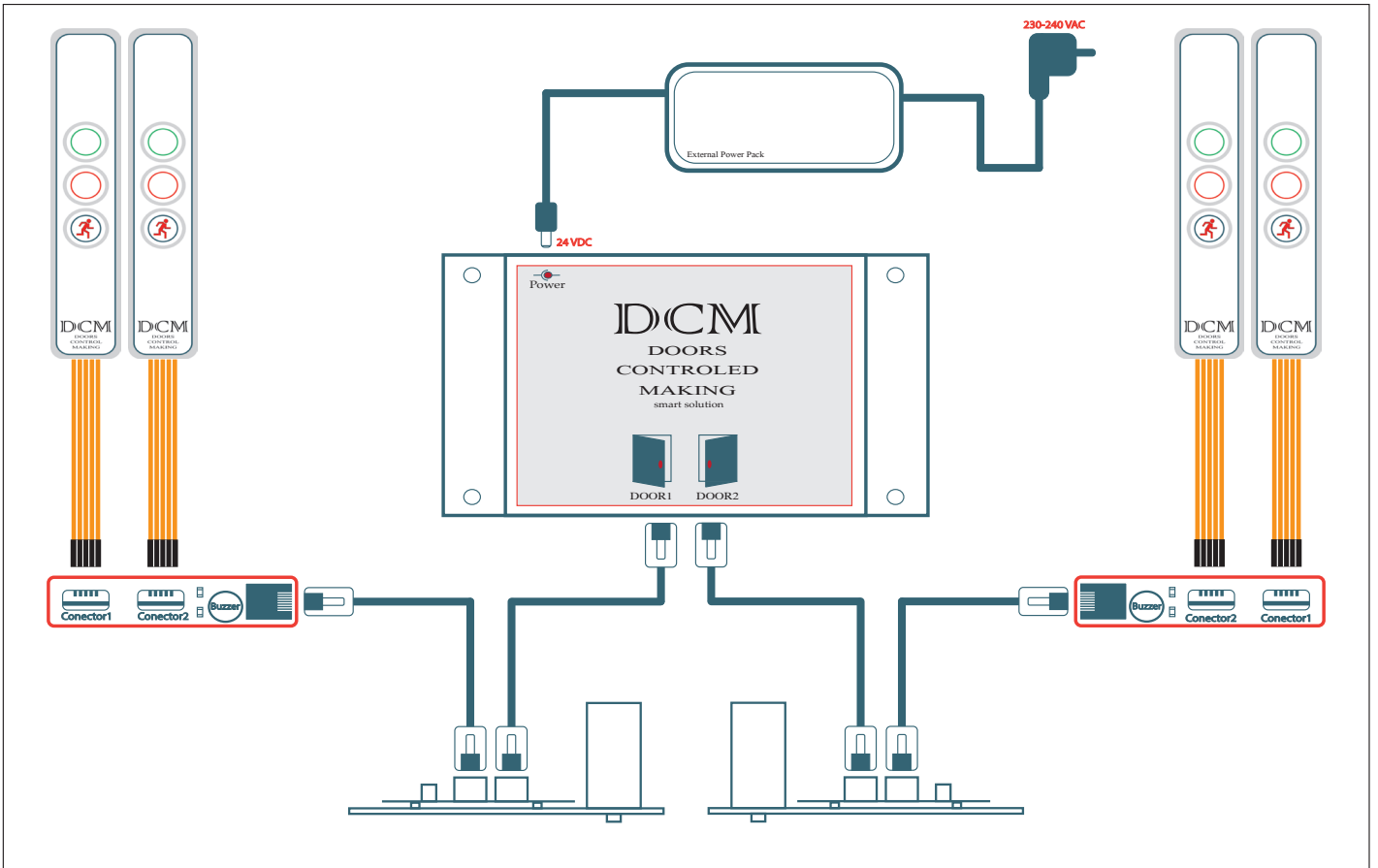


Figure 3. Connecting a controller for two doors

4. Turning on the controller for three or four doors.

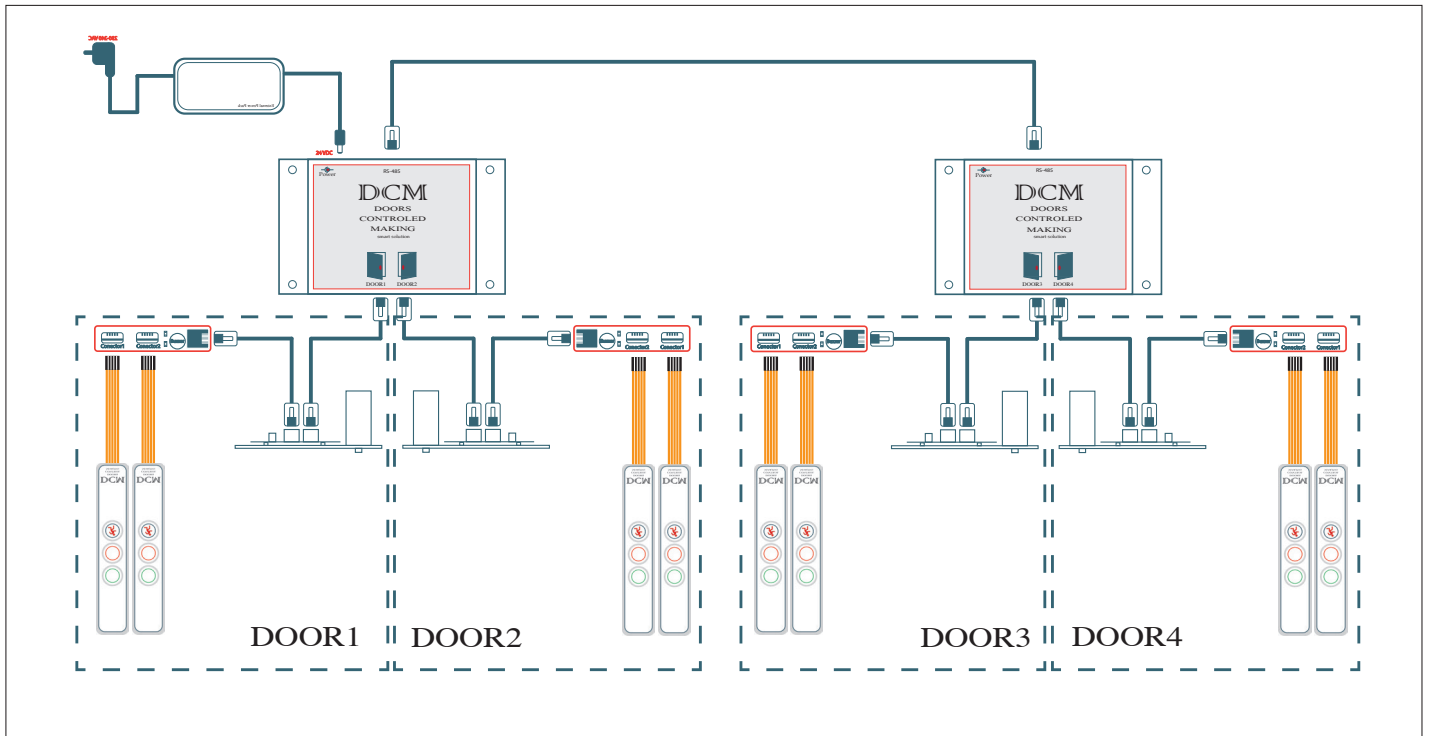
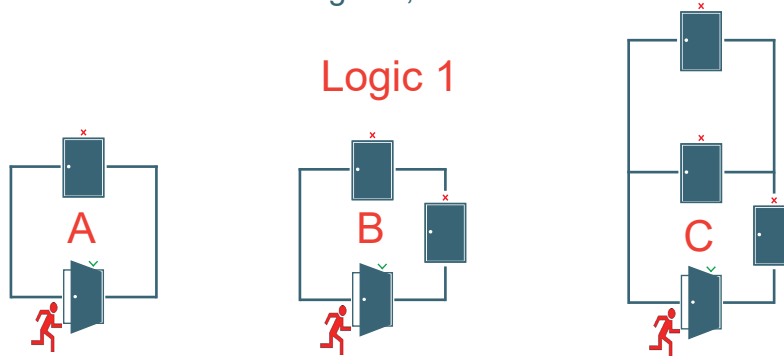


Figure 4. Connecting a controller for four doors

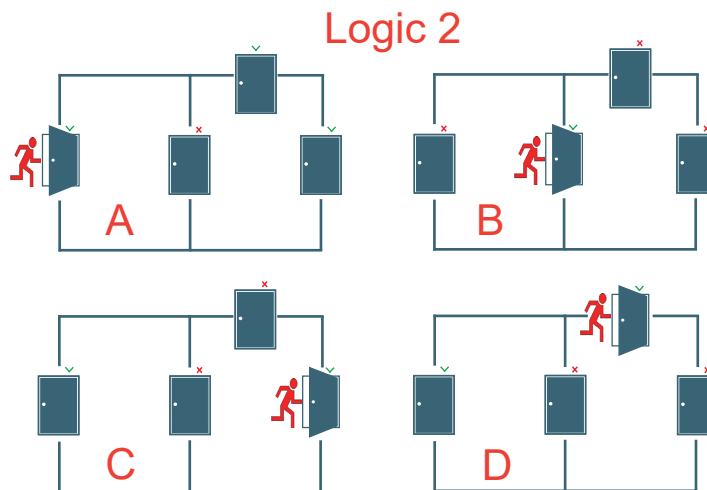
5. Description of the logic of door locking.

There is standard door locking logic for a maximum of four doors. From five doors and above it is programmed individually, according to customer requirements. For This is done using the MODE dip switch. The position of the switches was indicated in Table1 Controller operating modes.

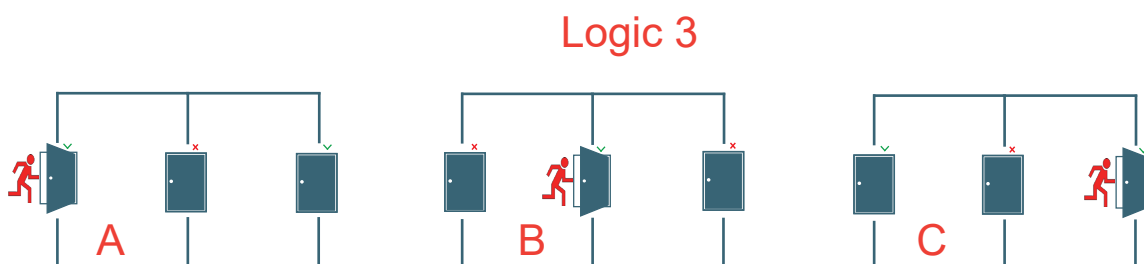
LOGICA1. In this logic mode, if one door opens, then the other doors are blocked. This is true for connecting two, three and four doors.



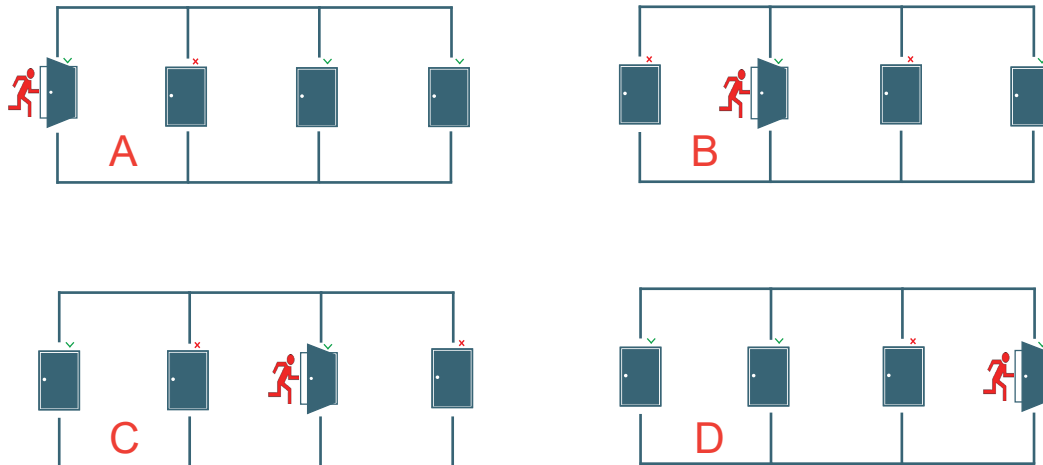
LOGICA2. This mode is valid only for the four-door connection mode. It is called 3+1, when there are three doors in one room and the fourth door is located in the adjacent room.



LOGICA3. This mode is called Logic "Corridor". This regime is valid for connecting three or four doors. The peculiarity of this mode is that Do two adjacent doors influence each other? For door number 2 adjacent are the first and third doors. Therefore they will block when the second door is opened, as in diagram B. However, in diagrams A and C it is possible to enter both the first and third at the same time doors, while the second one will remain blocked.



The same door locking conditions apply when four doors are connected.
the previous and subsequent doors will be blocked when one of the doors is opened.



6. Safety precautions and specific instructions.

When installing and connecting door lock controllers, you must comply with safety precautions when working with electricity. To avoid mistakes and incorrect commissioning, installation of access control systems must be carried out by trained specialists. It is not allowed to disassemble the 220/24 Volt power supply, and also strictly It is forbidden to open the controller case without disconnecting from the 220 volt network.

7. Manufacturer contacts.

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