## Extension unit Box 485-4 <br> Art. No.: 460006

## Installation manual

## C $\epsilon$

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## 1. Introduction

Box 485-4 is a door control unit, used togehter with CT2000 keypad. The unit is delivered in a white plastc boxfor cabling included.

Box 485-4 is typically used if one CT2000 keypad is to control more than one output.

## Typical applications:

- Where CT2000 normal functions shall be combined with keypad's bell button.
- Silent attack combined with e.g. access to alarm on/off switch or door opening.
- Access to alarm to on/off switch, if extra safety required.


## 2. Electric connections

12V: +12 VDC
GND: 0 VDC (minus)
A: Connection to data bus via RS485, in-/output A, blue wire
B: Connection to data bus via RS485, in-/output B, orange wire
SAB: Tamper switch
SAB: Tamper switch
C: Relay output - common
NO: Relay output - normally open
NC: Relay output - normally closed

## 3. Programming

Box 485-4 is from the factory delivered with a standard programming. Further programming can be made through the PC Interface (PCI2000 or LogBox3).

### 3.1 Programming positions

## Position Programming

$100 \quad$ Address (ID number) of first slave (keypad)
101 Address (ID number) of second slave (keypad)
102 Address (ID number) of Box 485-4
103 Relay mask for relay 1
104 Relay mask for relay 2
105 Relay mask for relay 3
106 Relay mask for relay 4
107 Pre-activation time of slave relay 3 (master relay is relay 1)
108 Pre-activation time of slave relay 4 (master relay is relay 2)
109 Relay activation time for exit button, $1 / 4$ second
110 to 122 Allowed time zones for the first and second slave keypad, reserved for future development
123 Active mask, reserved for future development

### 3.2 Default programming

| Position | Value | Programming |
| :--- | :--- | :--- |
| 100 | 1 | Address (ID number) of first slave (keypad) |
| 101 | 1 | Address (ID number) of second slave (keypad) |
| 102 | 200 | Address (ID number) of Box 485-4 |
| 103 | incactive | Relay mask for relay 1 is group 0, 1,2 and 3 |
| 104 | inactive | Relay mask for relay 2 is group 4, 5, 6 and 7 |
| 105 | inactive | Relay mask for relay 3 is group 8,9, 10 and 11 |
| 106 | inactive | Relay mask for relay 4 is group 12 |
| 107 | 0 | Pre-activation time of slave relay 3 is 0 |
| 108 | 0 | Pre-activation time of slave relay 4 is 0 |
| 109 | 4 | Relay activation time for exit button, 1 second |
| 110 to 122 | 255 | Reserved for future development (must be value 255) |
| 123 | 127 | Reserved for future development (must be value 127) |

### 3.3 Address (ID number) for slave keypads (100 and 101)

Keypads (CT2000) connected to RS485 data bus are distinguished from each other by assigning them each an address (ID number). When a code is entered on one of the keypads in an installation, carrying an address (ID number), Box 485-4 reacts in accordance with its programming.

As default the programming positions 100 and 101 are set to 1 for both the first and second slave keypad.

### 3.4 Addess (ID number) for Box 485-4

Box 485-4, just like keypads, must carry an address (ID number), to enable division between different units on RS485 data bus.

Address in the programming position 102 is by default set to 200.

### 3.5 Relay mask for relays 1 - 4 (103 to 106)

These programming positions specify how the Box 485-4's relay outputs shall react to entering valid user codes on CT2000.

There are no values in these programming positions. Please use the Box 485 overview screen on Conlan eXPress software.

### 3.6 Pre-activation time for slave relay 3

Value in this programming position specifies how long relay output 3 shall stay active, if relay output 1 is active (master relay).

Value in position 107 is by default set to 0 , which equals to 0 seconds.

### 3.7 Pre-activation time for slave relay 4

Value in this programming position specifies how long relay output 4 shall stay active, if relay output 2 is active (master relay).

Value in position 108 is by default set to 0 , which equals to 0 seconds.

### 3.8 Relay activation time for exit button (109)

Value in this programming position specifies how long these of the Box 485-4's relay outputs, which are programmed to be active in this situation, shall react to an activation of the bell button on the first or second slave keypad. Programming time intervals are $1 / 4$ second, e.g. $4=1$ second and $16=4$ seconds.

Value in programming position 109 is by default set to 4 , which equals to 1 second.

### 3.9 Allowed time zones for slave keypads (110-122)

These programming positions are reserved for future development of the system and are not used at the moment.

They are by default set to 255 .

Note that programming positions 110 to 122
are reserved for future development.

### 3.10 Active mask

This programming position is reserved for future development of the system and is not used at the moment.

It is by default set to 127 .

Note that programming position 123 is reserved for future development. It must always be set to 127, otherwise the Box 485-4 does not work.

## 4. Installation example



## 5. Technical specifications

Supply voltage:
Voltage interval:
Ripple voltage:
Current consumption:
Relay outputs:
Tamper switch:
Operating temperatures:
Humidy:
Dimensions HxWxD:
+12 VDC
10 to 15 VDC
max. 500 mVpp
20 to 100 mA
4 pcs. NC/C/NO (max. 24V / 1A)
Mechanical contact ( 100 mA )
$0^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$
max. 85\% RF
$88,5 \times 65,5 \times 30 \mathrm{~mm}$

## 6. Programming with Conlan eXPress



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