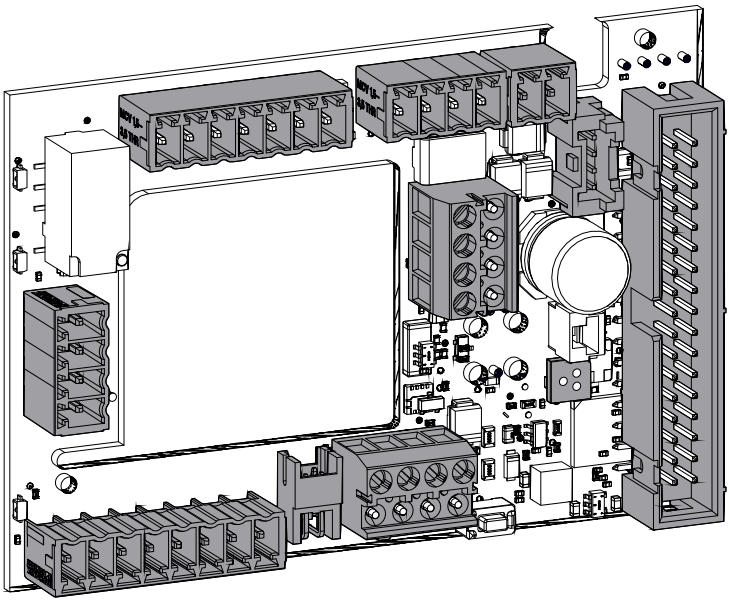
dormakaba

ED connection board CAN

Assembly Instruction



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1 Information about this document

1.1 Contents and purpose

This document describes the mounting and connection of the ED connection board CAN to an ED100/250 operator.

1.2 Target group

The product may only be mounted and commissioned by a qualified electrician.

1.3 Other applicable documents

- Mounting and commissioning ED 100/250
- Radar sensor M A01 mounting instructions

1.4 Abbreviations

Abbreviation	Definition
ED 100/250	Electromechanical swing door operators for the automatic opening and closing of swing doors.

1.5 Symbols used

1.5.1 Hazard category

NOTICE

Means a potentially harmful situation where the product or something in its environment could be damaged or result in malfunction.

2 Safety

⚠ WARNING

Danger due to failure of protective and safety equipment

The cable routing connects the installed components with each other. Unprotected cable routing can lead to tampering or malfunctions.

- Lay cables either flush-mounted or
- surface-mount the cables in the steel hose

NOTICE

Material damage due to electrostatic discharge

The component can be damaged by electrostatic discharge!

- Ground your body before touching the component.
- Use ESD safe tool.

3 Product description

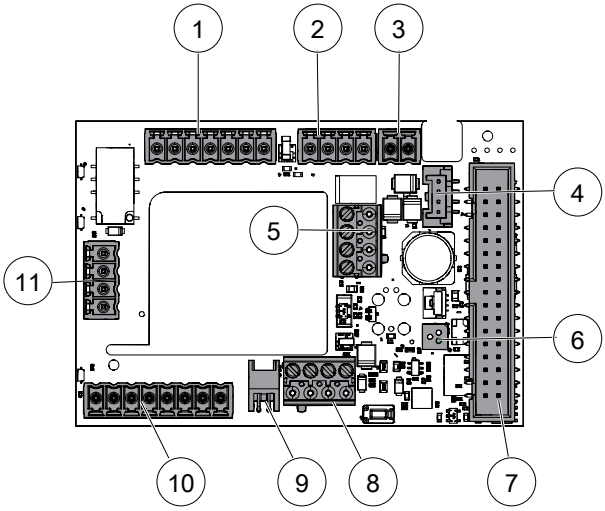
3.1 Product description

The ED connection board CAN is a board that is required to make an ED 100/250 CAN-capable. It replaces the standard plate in ED and is compatible from firmware V2.9.000 and up.

3.2 Technical data

Supply voltage	24 V DC +/- 15 %
Power consumption	approx. 20 mA quiescent current
Temperature range	-15°C to +50°C
Rel. humidity	up to 93%, non-condensing
ED protection class	IP20
Dimensions	Length 88 mm width 60 mm height 26 mm

3.3 Structure of the ED connection board CAN



Position	Layout
1	Locking device
2	Fire protection
3	Emergency stop
4	RS232 interface connection socket
5	Radar sensors M A01 CAN connection cable connection terminals
6	RGB LED function display

Position	Layout
7	Ribbon cable connection socket
8	CAN connection cable EntriWorX connection terminals
9	CAN connection cable EntriWorX connection plug
10	Safety sensors
11	Signal inputs for night/bank, impulse outside and impulse inside

The operating conditions specified in the mounting and commissioning instructions for ED 100/250 operators apply to the ED connection board CAN.

3.4 LED display

The RGB LED function display on the ED connection board CAN is defined as a secondary function display. The RGB LED function display uses signal colors to show the current operating status or a fault.

To see the signal colors of the RGB LED function display, remove the ED 100/250 operators' cladding.

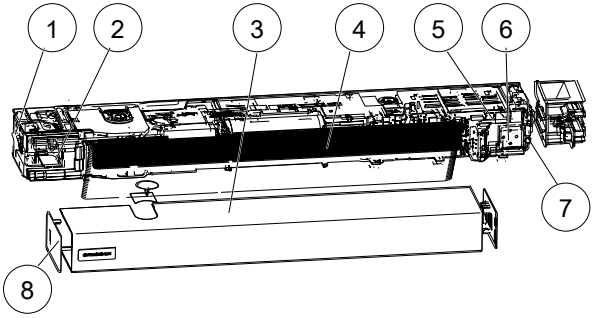
Signal no.	Color	Description	Meaning
1	permanently red	Self-test error display	Self-test error occurred or CAN device detection is faulty.
2	Flashing green	Identification display	The device identification is activated.
3	Flashing yellow	CAN device mapping	The device assignment is active after a CAN reset. Device assignment ends when the assignment is completed without errors or when an error occurs.
4	Flashing red	**Error display**	One or more errors are pending. Error number with the highest priority is indicated by the number of flashes.

See "Evaluate errors and rectify faults".

Signal no.	Color	Description	Meaning
5	Glowing white	TMS initialization	TMS bus initialization for sensor and ED connection board CAN running.
6	Green light:	Display operating status OK	The system is working without errors.

4 Mounting

4.1 Note the structure of the ED 100/250 drive



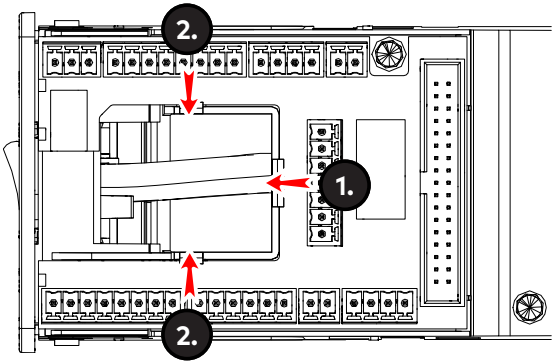
The graphic shows the ED operator for the left door leaf of a **2-leaf door** . Further information on the installation position and settings of the ED operators can be found in the mounting and commissioning instructions for the ED 100/250.

Position	Meaning
1	Power on
2	Standard ED connection board
3	Complete cladding
4	Ribbon cable
5	RJ45 socket (COM 1)
6	User interface with information display
7	Adapter for internal program switch
8	Side cover

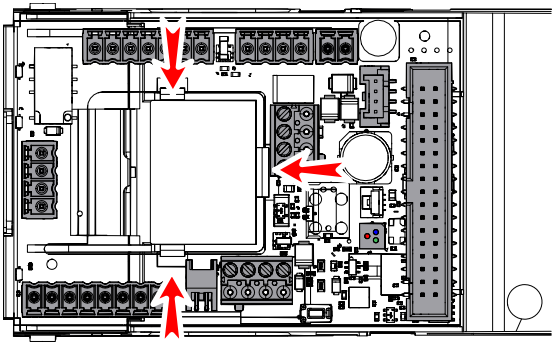
4.2 Mounting the ED connection board CAN

Note Structure of the ED connection board CAN [▶ 3.3].

1. Set the parameter "C1 -> Configuration of the COM1 interface (vertical plug)" to "1".
2. Switch off the ED operator on the active door leaf (power switch to "0").
3. Remove the cladding (3) from the active door leaf operator, see "Note the structure of the ED 100/250 drive [▶ 4.1]".
4. Pull the ribbon cable (4) out of the standard ED connection board (2), see "Note the structure of the ED 100/250 drive [▶ 4.1]".
5. Remove the plug from the board.
6. Press the locking elements inwards in the suggested order and remove the standard ED connection board (2), see "Note the structure of the ED 100/250 drive [▶ 4.1]".

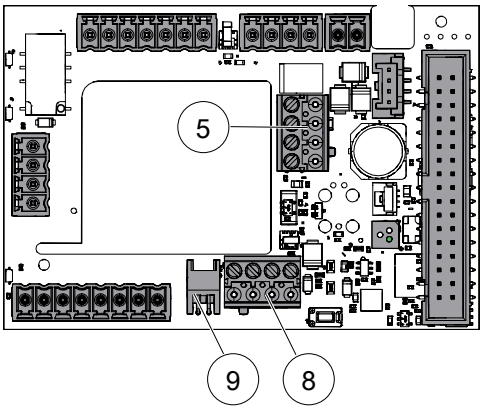


7. Insert the cable ends of the connection cables from the inside to the empty board slot.
8. Plug the ED connection board CAN over the locking elements.

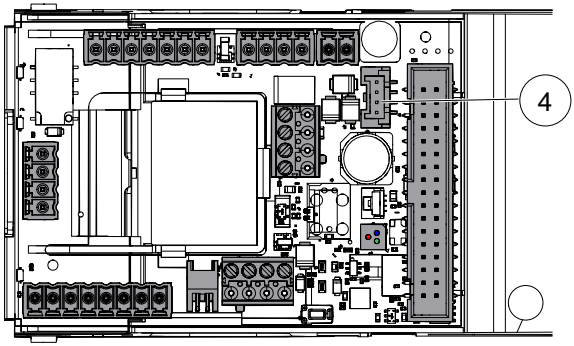


9. Plug in the plugs and connect the lines.
10. Pull the open cable end of each CAN connection cable out through the middle opening in the ED connection board CAN.

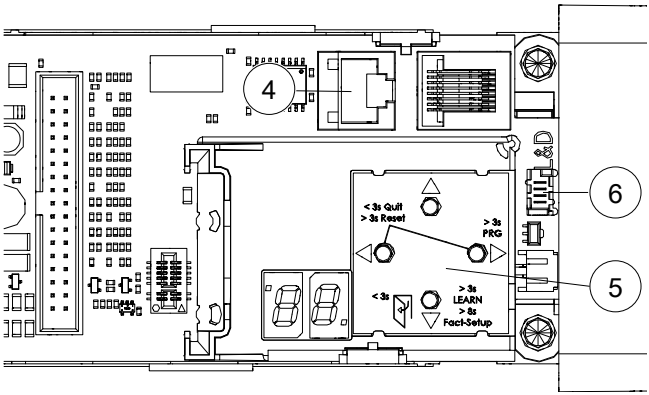
11. Connect the CAN connection cable to the connection terminals (5) for the radar sensor M A01, see also Radar sensor M A01 mounting instructions.
Connect the CAN connection cable to the connection terminal for EntriWorX (8), see also EntriWorX manual.
Connect the CAN connection cable to the connector plug for EntriWorX (9), see also EntriWorX manual.



12. Pull out the open cable ends of all other cables and connect them.
13. Connect all other cables according to the mounting and commissioning instructions for the ED 100/250.
14. Plug the ribbon cable back into the connection socket (7), see "".
15. Insert the serial connection cable into the connection socket (4).



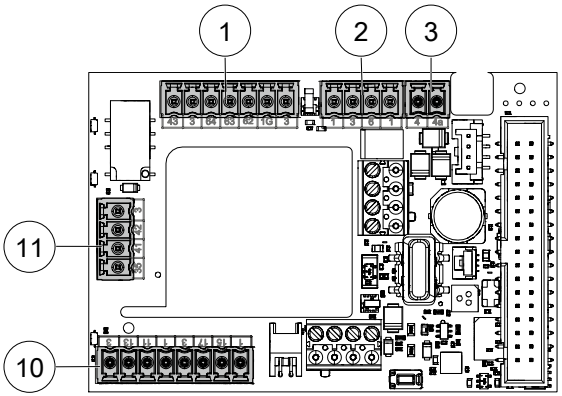
16. **NOTICE! Guide/stow all cables inside the operator in the cable ducts or secure with a cable holder to prevent collisions with moving parts!**
17. Plug the RJ45 plug of the serial connection cable into the socket (5) next to the user interface (6), see "Note the structure of the ED 100/250 drive [▶ 4.1]".



⇨ The ED connection board CAN is connected for commissioning.

18. For 2-leaf units, attach the adapter (6) for internal program switch.
19. Connect the external program switch to the adapter.

5 Connection



	Number	Assignment
1	43	Locking feedback
	3	GND
	64	NC
	63	NO
	62	COM
	1G	+ 24 V switched depending on the smoke detector
	3	GND
2	1	+ 24 V
	3	GND
	6	Fire protection upgrade card 18k or RM ED
	1	
3	4	Shutdown drive function
	4a	GND
10	1	+ 24 V
	15	Signal input safety sensor hinge side
	17	Test output
	3	GND
	1	+ 24 V
	11	Signal input safety sensor opposite side to the hinge
	13	Test output
	3	GND
11	35	Signal input night/bank
	41	Signal input impulse outside
	42	Signal input pulse inside
	3	GND

6 Commissioning

Requirements

The following parameters must be set at the ED user interface:

- The parameter "C1 -> Configuration of the COM1 (vertical plug) interface" is set to "1".

If the board has previously been used elsewhere, a CAN reset is also required to "delete" the old CAN participants from the memory (error no. 3).

1. Switch on the ED operator on the active door leaf (power switch to "1").
2. If necessary, trigger the "Cr -> CAN reset" parameter and set the value to "1".
   ⇨ After approx. 30 secs the LED color changes from white to green.

7 Troubleshooting

7.1 Error display

The error number is indicated by the **number of flashes** . The message with the highest priority is displayed.

The LED function display on the ED connection board-CAN indicates the following error.

Error no. 1

Name	TMS communication error
Description	The communication between ED control unit and ED connection board CAN is interrupted.
Fix	Check the C1 parameter setting on the ED control unit, check the connection cable between the ED control unit and the ED connection board CAN. If necessary, actuate Power on on the ED operator.

Error no. 2

Name	CAN initialization error
Description	An error occurred when assigning the address for the radar sensor via the CAN protocol because the expected responses were not received. This affects the bus communication with the radar sensor.
Fix	Check CAN connection cable and bus termination, i.e. the DIP switch must be set to **ON**/"terminating resistor for CAN active" at position 4. Then operate Power-On on the ED operator and then perform a CAN reset.

Error no. 3

Name	Unknown CAN bus participant error
Description	Unknown CAN devices were detected during device assignment or the maximum defined number of participants was exceeded. This affects the bus communication with the radar sensor.

Fix	Check connected devices for correctness and, if necessary, remove them from the bus. Execute CAN reset.

Error no. 4

Name	Device assignment error
Description	Device positions appear twice in the device assignment. This affects the bus communication with the radar sensor.
Fix	Check the setting of the DIP switches on the radar sensors. Execute CAN reset.

Error no. 5

Name	Missing device error
Description	A trained device (radar sensor) is no longer available after switching on the system. This affects the bus communication with the radar sensor.
Fix	Check CAN connection cables and devices. Actuate Power on on the ED operator.

Error no. 6

Name	CAN communication error
Description	The communication between the radar sensor and the ED connection board CAN is interrupted.
Fix	Check the CAN connection cable. If necessary, actuate Power on on the ED operator.

Error no. 7

Name	Radar sensor error
Description	A device (radar sensor) sends an emergency message due to an internal error. This affects the bus communication with the radar sensor.
Fix	Actuate Power on on the ED operator.

8 Disassembly and disposal

Disassembly is carried out in reverse order of the manual.

The product must not be disposed of in domestic waste. Dispose of the product in an environmentally friendly manner at the collection points set up for this purpose. Refer to the statutory regulations for your country.

Notes

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