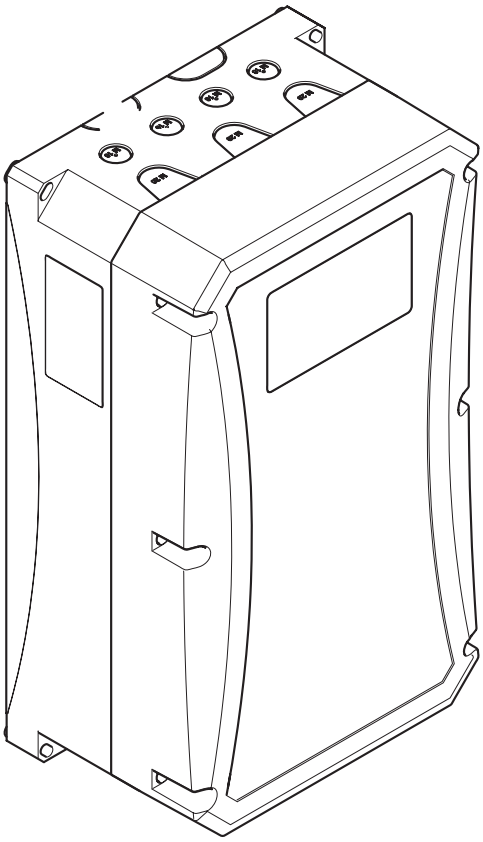
SOMMER

TÜV NORD CERT GmbH
Baumuster geprüft
Freiwillige Zertifizierung



GIGAcontrol A

EN Translation of the Original Installation and Operating Manual

Download the current manual:

HomeLink® compatible

Table of contents

General information

Symbols

CAUTION SYMBOL:
Important safety instructions!
Caution - to ensure the safety of personnel, it is important to observe all instructions. Save these instructions!

IMPORTANT INFORMATION SYMBOL:
Information, useful advice!

1 (1) Refers to a respective picture in the introduction or main text.

Safety instructions

General

- This installation and operating manual must be read, understood and complied with by persons who install, use or perform maintenance on the control unit.
- Installation, connection and initial commissioning of the control unit may only be carried out by a trained electrician.
- The system manufacturer is responsible for the complete system. The system manufacturer must ensure that all applicable standards, directives and regulations applicable at the installation site are observed. In addition to other items, the system manufacturer must test and maintain the maximum approved closing forces in accordance with EN 12445 (Safety in use of power operated doors, test methods) and EN 12453 (Safety in use of power operated doors, requirements). The system manufacturer is responsible for preparation of technical documentation for the complete system, and the documentation must accompany the system.
- All electrical wires must be fitted tightly and secured against shifting.
- The manufacturer accepts no liability for damage or malfunctions resulting from a failure to observe the installation and operating manual.
- Before initial operation, ensure that the mains connection matches the specifications on the type plate. If this is not the case, the control unit must not be operated.
- In the case of a three-phase current connection, make sure that the direction of rotation is clockwise.
- Installations with a fixed mains connection require an all-phase mains circuit breaker with appropriate fuse protection.
- Keep the installation instructions within reach.
- Always ensure that the accident prevention regulations and current standards in each country are observed and complied with.
- Take heed of and comply with the "ASR A1.7 Technical Regulations for Workplaces" of the committee for workplaces (ASTA). (Applicable for the operator in Germany, observe and comply with the applicable regulations in other countries).
- Before working on the control unit, always disconnect the power plug or disconnect the mains voltage at a main switch (lock to prevent reactivation).
- Regularly check power cables and wires for insulation defects or cracks. If a wiring fault is found, switch off the power immediately and repair the faulty cable or wire.
- Before switching on the voltage supply for the first time, make sure that the plug-in terminals are in their correct positions, otherwise the control unit may malfunction or be damaged.
- Observe the requirements of the local power supplier.
- Only use permissible mounting materials appropriate for the supporting surface.
- Only use original spare parts from the manufacturer.

Storage

- The control unit must be stored in an enclosed, dry area at a room temperature of -25° to +65 °C at a maximum relative humidity of 90 % (non-condensing).

Operation

- When using the automatic close function, ensure compliance with EN12453 and install safety devices (e.g. a photocell).
- After installation and initial operation, all users must be instructed in the function and operation of the system. All users must be informed of the hazards and risks inherent in the system.
- Open and close the door only if there are no persons, animals or objects within its area of movement.
- Continuously monitor the door while it is in motion and keep all persons away from it until the door is completely opened or closed.
- Do not drive through the door until it has fully opened.
- The control unit must be adjusted to ensure safe operation in conformity with the standards.

Radio remote control

- The remote control may only be used for equipment and / or systems where interference in the transmitter or radio receiver does not pose a risk to humans, animals or objects, or where the risk is covered by other safety devices.
- The radio remote control may only be used if the movement of the door can be seen and if no people or objects are within the range of movement.
- Keep the handheld transmitter in a safe place to prevent unintended operation e.g., by children or animals.
- The user of the radio system is not protected against interference due to other telecommunications equipment or devices (e.g.: radio-controlled systems that are licensed to operate in the same frequency range). If substantial interference occurs, please contact the local telecommunications office which has radio interference measuring equipment (radio location).
- Do not operate handheld transmitters near locations or installations that are sensitive to radio interference (e.g.: airports, hospitals).

General information

Type plate

- The type plate is attached to the control unit housing.
- The type plate shows the exact type designation and the date of manufacture (month / year) of the control unit.

Intended use

CAUTION! RISK OF DEATH!
Remove all cords or straps necessary to operate the door by hand.

- The GIGAcontrol A control unit is intended exclusively for opening and closing industrial doors, such as sectional, roller, folding, fast membrane and roll-up grille doors. Any other use does not constitute intended use. The manufacturer accepts no liability for damage resulting from use other than the intended use. The user bears the sole responsibility for any risk involved. It also voids the warranty.
- Only command devices and sensors in perfect technical condition may be connected, and they must be used for the intended purpose, with an awareness of the hazards involved and in accordance with the instructions in the installation and operating manual.
- Only motors equipped with a thermal contact (thermal circuit breaker) may be connected to the control unit.
- Doors automated with an operator must comply with all valid standards and directives: e.g. EN 13241, EN12604 and EN12605.
- The door must be stable and resistant to warping, i.e. it must not bend or twist during opening or closing.
- Only use the control unit in dry, non-explosive areas.
- The control unit conforms to the requirements of protection class IP54 (optionally IP65). The control unit must not be operated in areas with a corrosive atmosphere (e.g. salty air).

Versions

The GIGAcontrol A control unit is available in the following types:

- GIGAcontrol A R1
  with one relay up to 1.1 kW (only suitable for operation with a SOMMER frequency converter)
- GIGAcontrol A R3
  with three relays up to 1.1 kW (universal control unit, reversing mechanism with 2nd shut-off path. Also suitable for operation with a SOMMER frequency converter and capacitor motors)
- GIGAcontrol A C3
  With mechanically locked reversing contactor and mains relay up to 2.2 kW (universal control unit, reversing mechanism with 2nd shut-off path. Also suitable for operation with a SOMMER frequency converter)

All control unit types can be (optionally) fitted with

- a radio receiver
- a traffic light module (two way traffic control)
- an induction loop module (2 loops) with direction recognition.

The following optional control unit types are available:

- Triplex sensing device with conventional buttons
- Key switch
- Emergency STOP switch
- Main switch

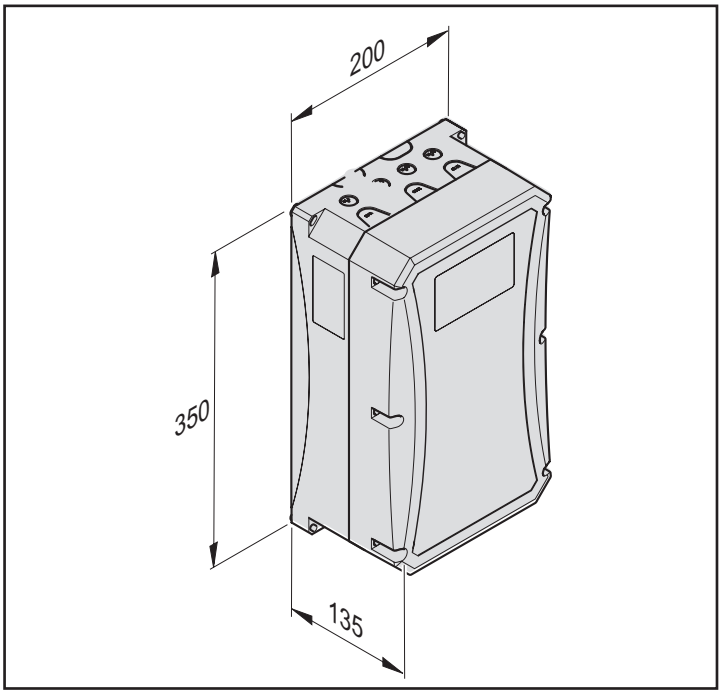
Scope of delivery

The actual scope of supply may vary depending on the control unit version.

Dimensions of housing (W x H x D)

Approx. 200 x 350 x 135 mm

GIGAcontrol A



Simplified Declaration of Conformity for radio systems

SOMMER Antriebs- und Funktechnik GmbH hereby declares that the radio system (GIGAcontrol A) complies with Directive 2014/53/EU. The full text of the EU Declaration of Conformity for the radio system can be found at:

http://som4.me/konform-funk

GIGAcontrol A R1, R3 control unit (Relay)

Dimensions	350 x 200 x 135 mm (H x W x D)
Operating voltage*	1 ~ 230 V AC (+/-10 %) 50/60 Hz 3 ~ 230 V AC (+/-10 %) 50/60 Hz 3 ~ 400 V AC (+/-10 %) 50/60 Hz
Mains feed fuse	3 x 10 A T (internal)
Control voltage	24 V DC max. load 250 mA* 12 V DC max. load 100 mA* 5 V DC only for internal expansion modules *(including all additional modules)
Control voltage fuse	125 mA T
Temperature range	–25 ºC to +65 ºC
Connection cross-section	1.5 mm^2
Switching capacity	1.5 kW / 2 kVA max.
IP code	IP54 / optionally IP65

*Depending on operator

GIGAcontrol A C3 control unit (Contactor)

Dimensions	350 x 200 x 135 mm (H x W x D)
Operating voltage*	1 ~ 230 V AC (+/-10 %) 50/60 Hz 3 ~ 230 V AC (+/-10 %) 50/60 Hz 3 ~ 400 V AC (+/-10 %) 50/60 Hz
Mains feed fuse	3 x 10 A T (to be provided on-site)
Control voltage	24 V DC max. load 250 mA* 12 V DC max. load 100 mA* 5 V DC only for internal expansion modules *(including all additional modules)
Control voltage fuse	125 mA T
Temperature range	–25 ºC to +65 ºC
Connection cross-section	1.5 mm^2
Switching capacity	2.2 kW / 3 kVA max.
IP code	IP54 / optionally IP65

*Depending on operator

Declaration of Conformity

for the installation of an incomplete machine
in accordance with the in accordance with the Machinery Directive 2006/42/EC, Annex II, Section 1 A

SOMMER Antriebs- und Funktechnik GmbH
Hans - Böckler - Straße 27
73230 Kirchheim unter Teck
Germany

hereby declares that the industrial gate control unit

GIGAcontrol A

has been developed, designed and manufactured in conformity with the

- Machinery Directive 2006/42/EC
- Low Voltage Directive 2014/35/EU
- Electromagnetic Compatibility Directive 2014/30/EU
- RoHS Directive 2011/65/EU

The following standards were applied:

• EN ISO 13849-1:2016-06, PL "C" Cat. 2	Safety of machines - safety-related parts of controls - Part 1: General design guidelines
• EN 60335-1:2016-06, where applicable	Safety of electrical appliances
• EN 61000-6-3:2011-09	Electromagnetic compatibility (EMC) - interference
• EN 61000-6-2:2019-11	Electromagnetic compatibility (EMC) - interference resistance

The special technical documentation was prepared in accordance with Annex VII Part B and will be submitted to regulators electronically on request.

The incomplete machine is intended solely for installation in a door system to form a complete machine as defined by the Machinery Directive 2006/42/EC. The gate system may only be put into operation after it has been established that the complete system complies with the EC Directives listed above.

The undersigned is responsible for compilation of the technical documents.

Kirchheim, 8 October 2020

i.V.

Jochen Lude
Responsible for documents

CE

Installation preparations

Safety instructions

CAUTION!
Important instructions for safe installation. Observe all installation instructions – improper installation can lead to serious injuries!

CAUTION! RISK OF DEATH!
Remove all cords or straps necessary to operate the door by hand.

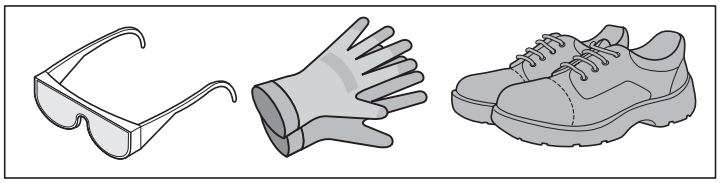
CAUTION!
Important instructions for safe installation. Observe all installation instructions – improper installation can lead to serious injuries!

CAUTION!
Control or regulating units (buttons) in a fixed position must be mounted within sight of the door. However, they must not be mounted close to moving parts and must be at least 1.5 m above the ground.

CAUTION!
After installation, it is imperative that you check that the operator has been correctly adjusted and that it reverses at the specified measuring points.

- Use only suitable tools.
- The power cord that has been provided must not be shortened or extended.
- Before initial operation, ensure that the mains connection matches the specifications on the type plate. If this is not the case, the control unit must not be operated.
- The contacts of all devices to be connected externally must be safely isolated from the mains voltage supply in accordance with IEC 60364-4-41.
- Wiring for external devices must be installed in accordance with IEC 60364-4-41.
- Live parts of the control unit must not be connected to earth or to live parts or protective earthing conductors of other electrical circuits.
- The control unit should be mounted on a low-vibration surface (e.g., a brick wall) to eliminate vibrations which could have a negative effect on it over time.
- The operator may only be installed, connected and taken into operation by technical specialists.
- Only move the door if there are no people, animals or objects within its range of movement.
- Keep disabled persons and animals away from the door.
- Wear safety glasses when drilling the fastening holes.
- When drilling, cover all openings to prevent the ingress of dirt.
- Before opening the housing, make sure that drilling chips or any other material cannot fall into the housing.
- All electrical wires must be fitted tightly and secured against shifting.
- Before installing the control unit, inspect it for transport damage and any other damage.
  ⇒ Never install a damaged control unit! Serious injuries may result!
- Keep the system disconnected from the power supply when installing the control unit.
- Electronic components may be damaged by electrostatic discharge when touched.
  ⇒ Do not touch the electronic components of the control unit (boards etc.)!
- Close off unused cable inserts with suitable material to maintain protection class IP54 and / or IP65!

Personal protective equipment

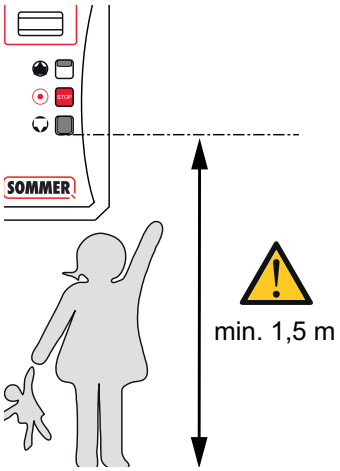


- Safety glasses (for drilling).
- Work gloves
- Safety shoes

Information on installation

CAUTION!
Before working on the control unit, always disconnect the power plug or disconnect the mains voltage at a main switch (lock to prevent reactivation).

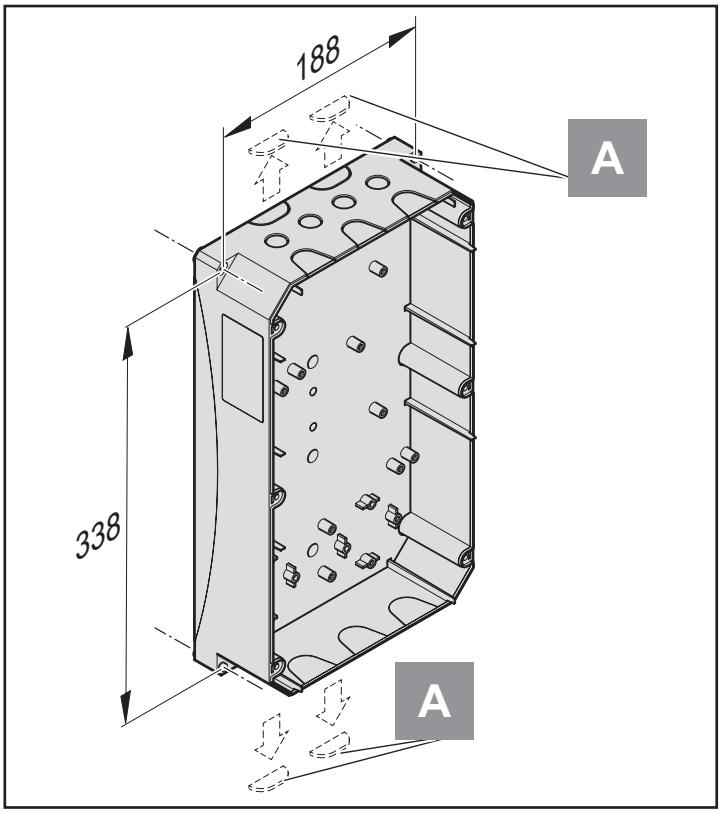
CAUTION!



- For indoor use (see data regarding temperature and IP protection class).
- The supporting surface must be flat and low-vibration.
- Mount the control unit housing vertically.

Installation preparations

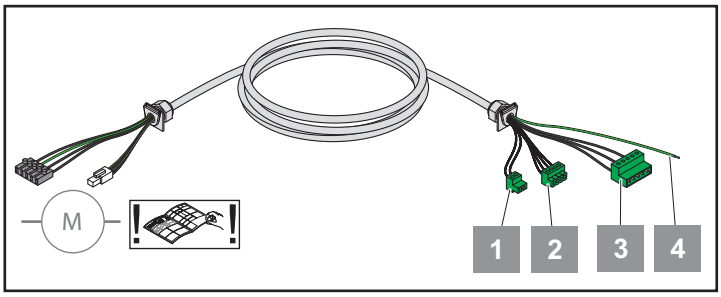
NOTE:
The dimensions specified here are the dimensions for drilling the fastening holes.
Housing dimensions: See the "Dimensions" section.



NOTE:
The cable feedthroughs (A) can be easily opened without damaging the housing! This allows cables to be routed behind the control unit housing and fed in from below!

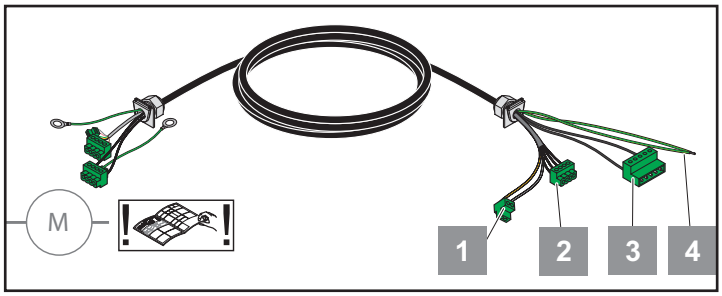
- Only use permissible mounting materials appropriate for the supporting surface.
- Attach housing to the supporting surface correctly.
- Use suitable tools.

Standard connection cable for GIGA operators:



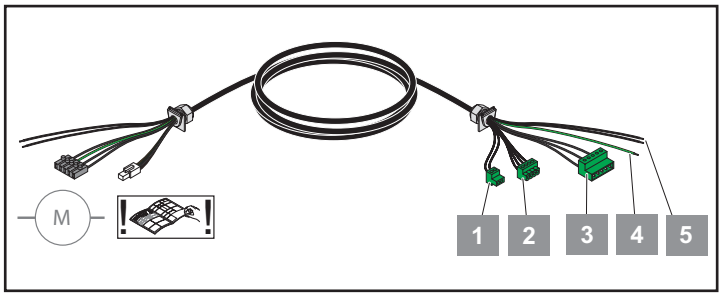
1. Safety chain "Door stop 1" (2-pole terminal)
2. Encoder "RS485" (+/-/A/B; absolute value encoder; 4-pole terminal)
3. Motor (1~ 230 V / 3 ~ 230 V / 3 ~ 400 V; 5-pole terminal)
4. Protective earth (PE)

Connection cable for GIGA operators with frequency converter:



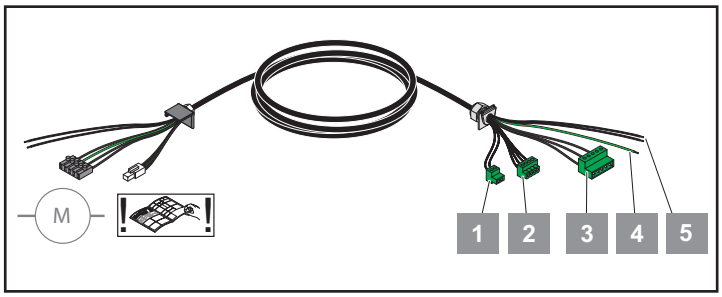
1. Safety chain "Door stop 1" (2-pole terminal)
2. Encoder "RS485" (+/-/A/B; absolute value encoder; 4-pole terminal)
3. Motor (1~ 230 V; 5-pole terminal)
4. Protective earth (PE)

Connection cable for GIGAspeed operators without frequency converter:



1. Safety chain "Door stop 1" (2-pole terminal)
2. Encoder "RS485" (+/-/A/B; absolute value encoder; 4-pole terminal)
3. Motor (3 ~ 230 V / 3 ~ 400 V; 5-pole terminal)
4. Protective earth (PE)
5. Brake (rectifier)

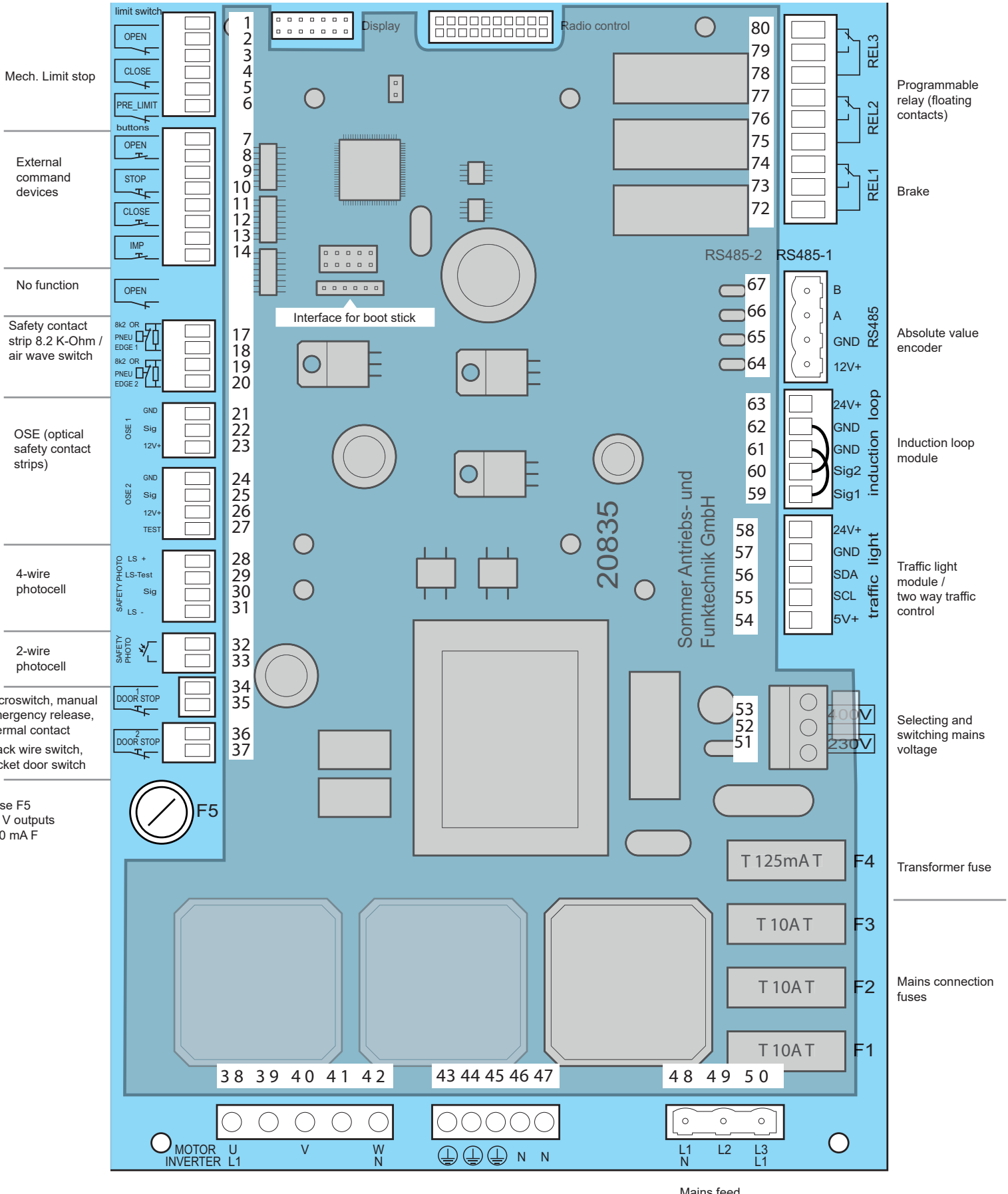
Connection cable for GIGAroll and GIGAspeed from 1.5 kW:



1. Safety chain "Door stop 1" (2-pole terminal)
2. Encoder "RS485" (+/-/A/B; absolute value encoder; 4-pole terminal)
3. Motor (3 ~ 230 V / 3 ~ 400 V; 5-pole terminal)
4. Protective earth (PE)
5. Brake (rectifier)

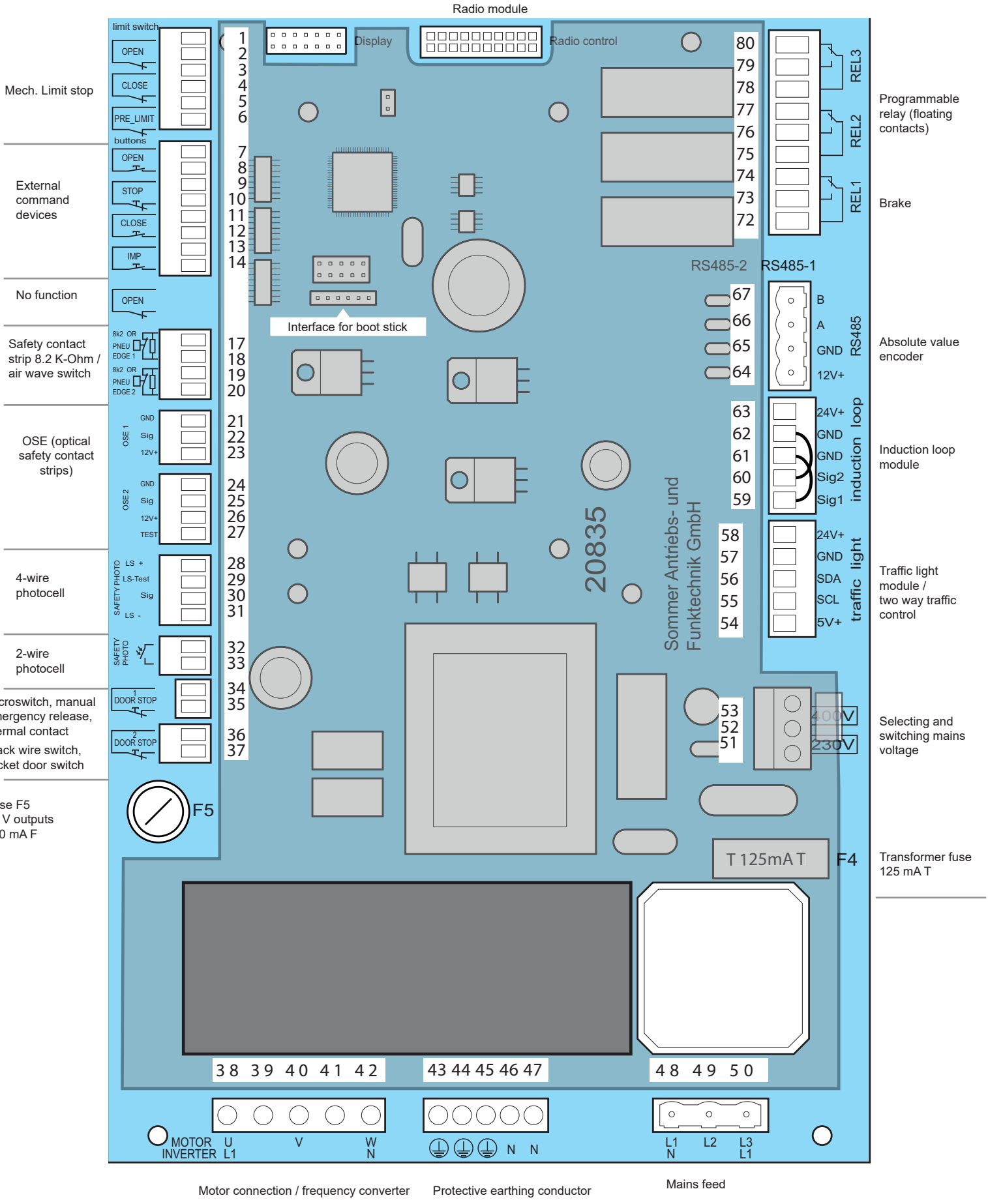
Electrical connection

GIGAcontrol A R1, R3 (relay) control unit



Electrical connection

GIGAcontrol A C3 control unit (contactor)



Electrical connection

Electrical installation

CAUTION!
Electrical work must be performed by qualified electricians only!

CAUTION!
Observe the requirements of the local power supplier.

CAUTION!
The mains cable may only be replaced by the manufacturer, customer service or other qualified electrician!

Mains connection

NOTE:
The connection depends on the mains and the operator with which the control unit will be used!

The control unit is suitable for the following mains voltages: 1~230 V, 3~230 V or 3~400 V!

NOTE:
Caution! Check the jumper on the board before switching mains voltage. An incorrectly positioned jumper may destroy the control unit!

The control unit must be protected from short-circuit and overload by a nominal fuse value of max. 10 A per phase.

- A 3-pole automatic circuit breaker must be used with three-phase mains.
- A 1-pole automatic circuit breaker must be used with AC power supplies.

The control unit must have an all-phase mains circuit breaker conforming to EN12453!

This can be:

- a plug connection (max. 1.5 m cable length)

or

- a main switch.

NOTE:
The mains circuit breaker must be easily accessible at a height of between 0.6 m and 1.7 m!

The following fuses are required depending on the as-delivered condition:

Control unit without mains plug:
Main switch, automatic circuit breaker on mains side, all poles (max. 10 A).

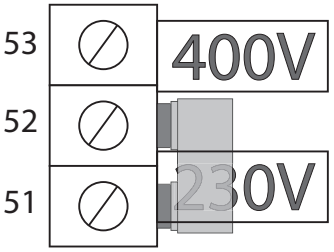
Control unit with 5-pole CEE plug (16 A):
16 A socket (fuse-protected with 3-pole three-phase automatic circuit breaker 3 x 10 A).

Control unit with 3-pole CEE plug:
16 A socket (fuse-protected with 1-pole automatic circuit breaker 1 x 10 A).

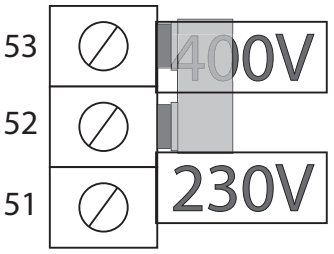
Selecting and switching mains voltage

CAUTION!
When setting the control unit for frequency converter operation, the mains voltage must not be set to 400 V.

NOTE:
It is essential to ensure that the jumper on the board conforms to the actual voltage used. Otherwise the board may be destroyed!



For 1 ~ 230 V and 3 ~ 230 V



For 3 ~ 400 V

Electrical connection

Mains feed

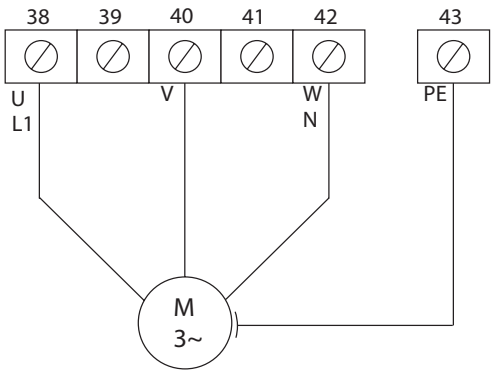
NOTE:
If ground fault interrupters are integrated into the building installation, the control unit must not be connected unless the ground fault interrupters are class B devices (all-current-sensitive ground fault interrupters). If other ground fault interrupters are used, circuits may be interrupted incorrectly or not at all!

3-phase operation

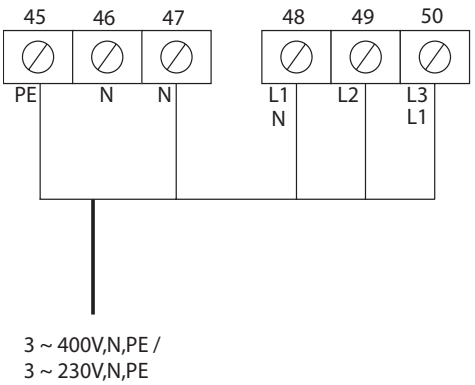
3 ~ 400 V / Y

3 ~ 230 V / Δ

Motor connection



Mains connection



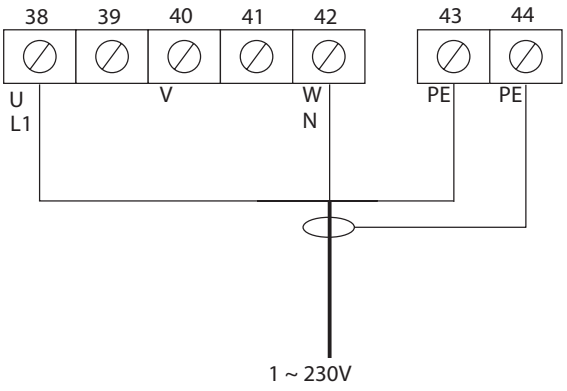
Operation with frequency converter

1 ~ 230 V / Δ

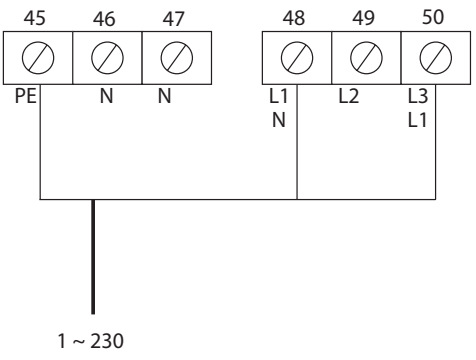
NOTE:
If a frequency converter is used, the entry "Frequency converter" must be set under menu item "MOTOR CONTROLLER" (2533) in the Service menu! see ("Service (2500)" on page 40)

NOTE:
Use only the cable provided!

Frequency converter connection



Mains connection



Electrical connection

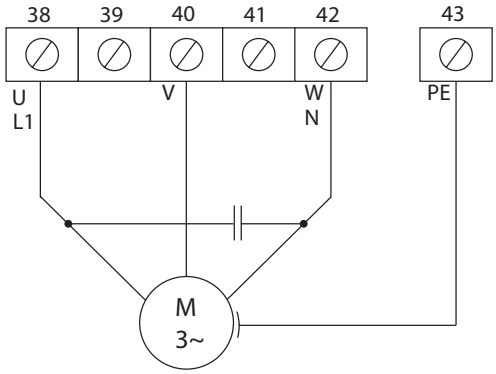
Operation with Steinmetz circuit (capacitor)

1 ~ 230 V / Δ

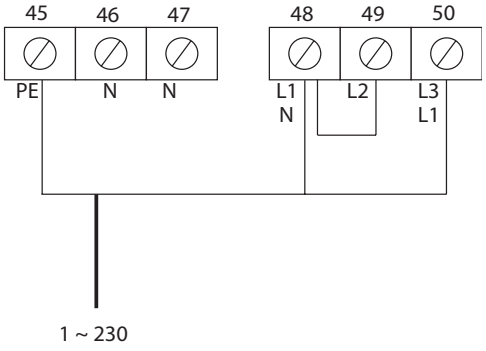
NOTE:
If a motor with a capacitor is used, the F1 fuse must be removed!

Motors with capacitors can only be controlled with version R3!

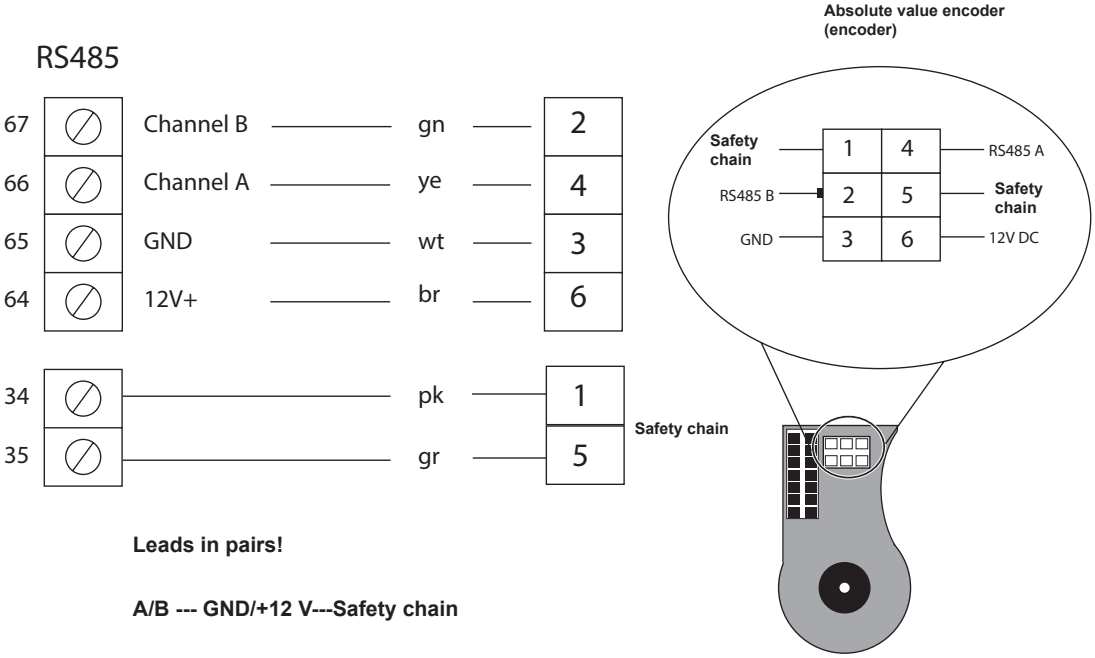
Motor connection



Mains connection



Absolute value encoder



Leads in pairs!

A/B --- GND/+12 V---Safety chain

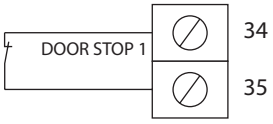
Electrical connection

Safety chain

Manual emergency release, thermal contact and slack wire switch

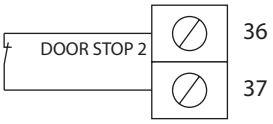
NOTE:
If one of the devices connected to DOOR STOP 1 has triggered, the following error message appears on the display: Security Chain. See the "Error messages" section.

DOOR STOP 1 = Manual microswitch emergency release and thermal contact (connection with pink + grey motor cable).

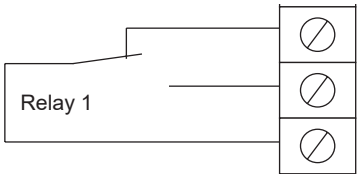


NOTE:
If one of the devices connected to DOOR STOP 2 has triggered, the following error message appears on the display: Safety chain 2. See the "Error messages" section.

Door STOP 2 = Slack wire switch (connection with spiral cable / door socket) and wicket door contact.



Brake via relay 1

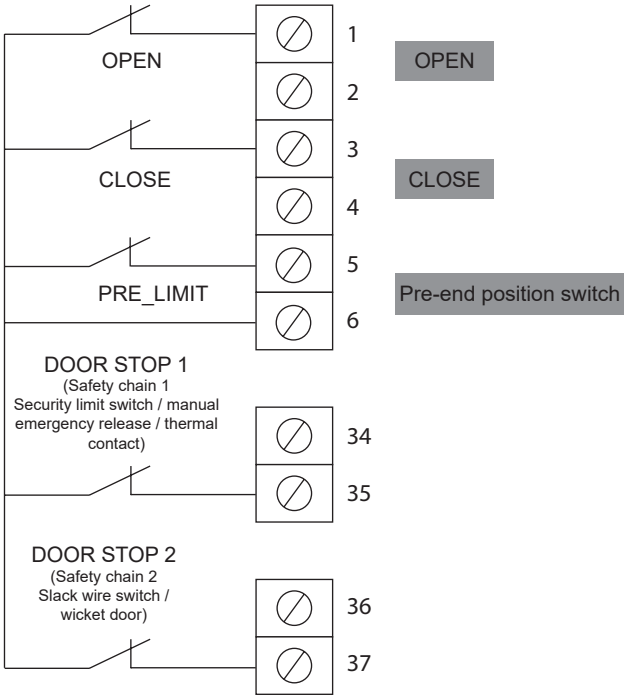


Mechanical limit switches

CAUTION!
Incorrect adjustment work could lead to injuries!
All settings must be carried out according to the current installation instructions for the GIGAcontrol A!

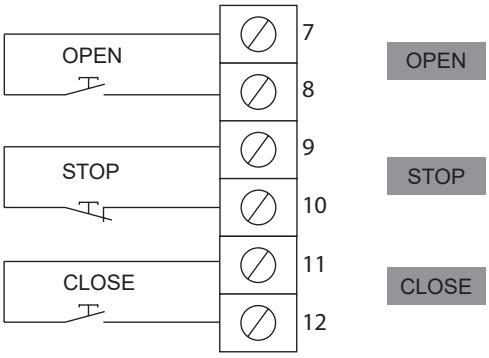
CAUTION!
If no pre-end position switch can be connected, terminals 5 + 6 must be jumpered so that the safety device works properly.

NOTE:
Mechanical limit switches must be activated in the Service menu; see "Service (2500)" on page 40.



External command devices

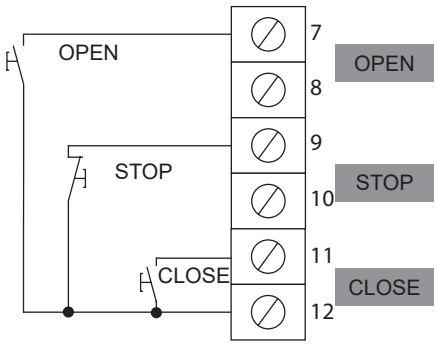
Multiple button with 6 wires



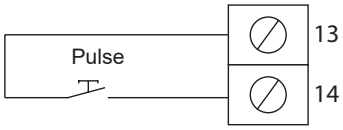
Electrical connection

Multiple button with 4 wires

Also available from SOMMER.



Pulse button



NOTE:
If the traffic light module (two way traffic control) is used, the external buttons have the following effect:

"OPEN" button (terminals 7 + 8): Request for the traffic light signal "Green external."

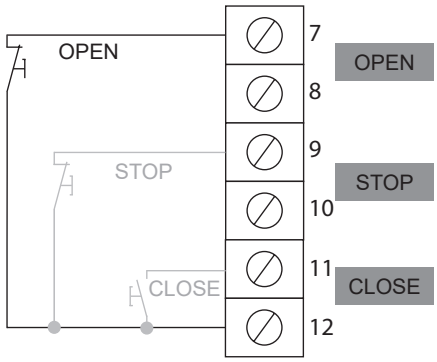
Pulse button (terminals 13+14): Request for the traffic light signal "Green internal."

NOTE:
"TWO WAY TRAFFIC" can only be selected if the traffic light module is connected. If the connection to the traffic light module is severed, the control unit automatically switches to pulse mode.

Contact for alarm signal

NOTE:
If the function "Alarm input" is activated, a normally closed (NC) contact must be connected at terminals 7+8.

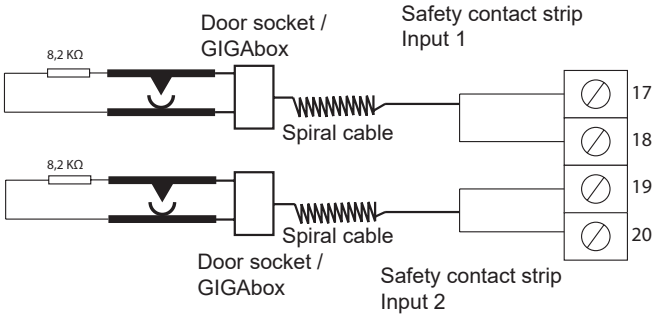
NOTE:
If one of the devices connected to OPEN has triggered, the following error message appears on the display: "ALARM INPUT" and the position defined in menu "Service (2500)" on page 40 under "ALARM INPUT" (2568) is approached and held until the contact is closed again and the power supply has been interrupted.



Safety edge

Safety contact strip - 8.2 kOhm

Programming from menu item 1240 et seq.; 1260 et seq.

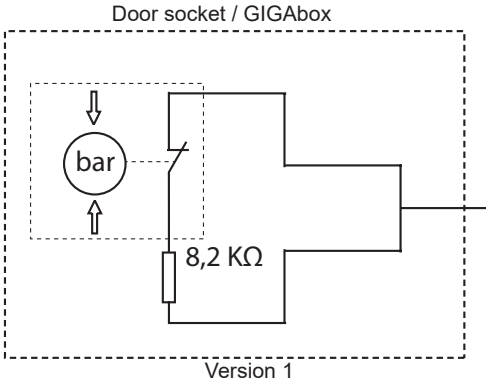


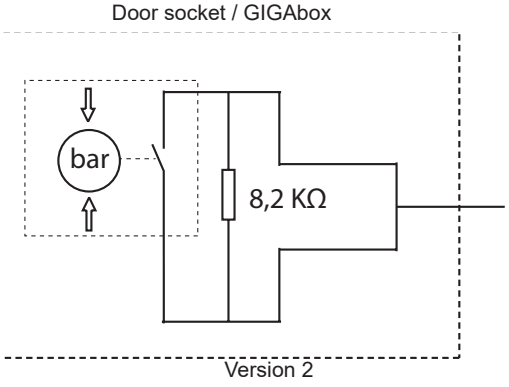
Air wave switch

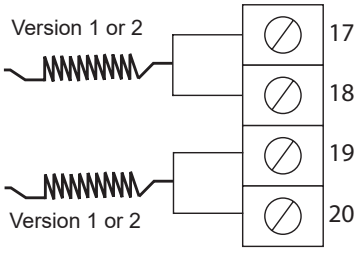
Programming from menu item 1240 et seq.; 1260 et seq.

NOTE:
The air wave switch is available in two different versions. Both versions can be connected to connections 17 + 18 and 19 + 20. A combination of both versions is possible!

To test the air wave switch, it must be triggered in door DOWN end position.



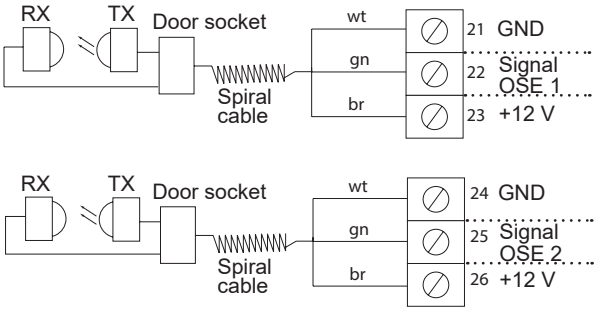




Electrical connection

Optical safety contact strip (OSE), light curtain or leading photocell

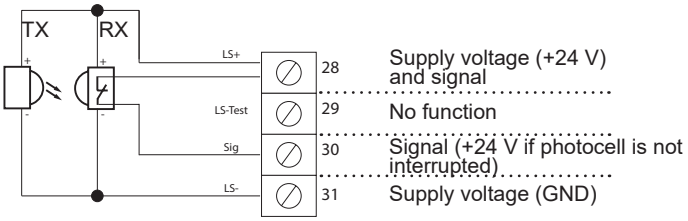
Programming from menu item 1200 et seq.; 1220 et seq.



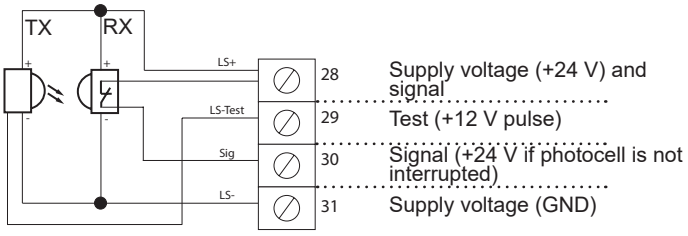
4-wire photocell without testing

Programming from menu item 1111 et seq.

CAUTION!
The maximum mounting height for photocells is 20 cm!



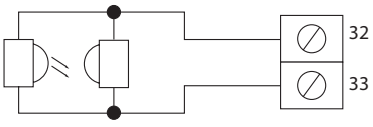
4-wire photocell with testing (retraction safety)



2-wire photocell or frame photocell (only the SOMMER product)

Programming from menu item 1115 et seq.

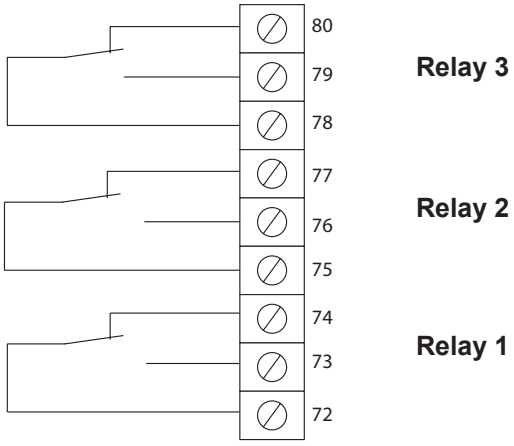
CAUTION!
The maximum mounting height for photocells is 20 cm!



Programmable relays

Programming from menu item 1600 et seq.

NOTE:
Relay 1 is available only if it is not being used to control the brake (factory setting: brake active).



NOTE:

Allowable contact load:

max. 8 A 250 V AC 30 V DC
max. 3 A 250 V AC cos ϕ = 0.4
max. 2000 VA / 300 W

The relays can be programmed as required for the following functions:

- Not active (every relay)
- Message when end positions reached (Pos.: top / bottom / both + permanent / pulse) (every relay)
- Active during movement up / down / both + permanent / blink + 1 - 5 s lead time (every relay)
- Switch brake (relay 1 only)
- Switch electric lock (every relay)

  ⇒ For further information, see the parameter settings
- Radio commands (relay 3 only)

Initial operation

* These are display examples. They are intended to help explain the individual areas of the display and its function.

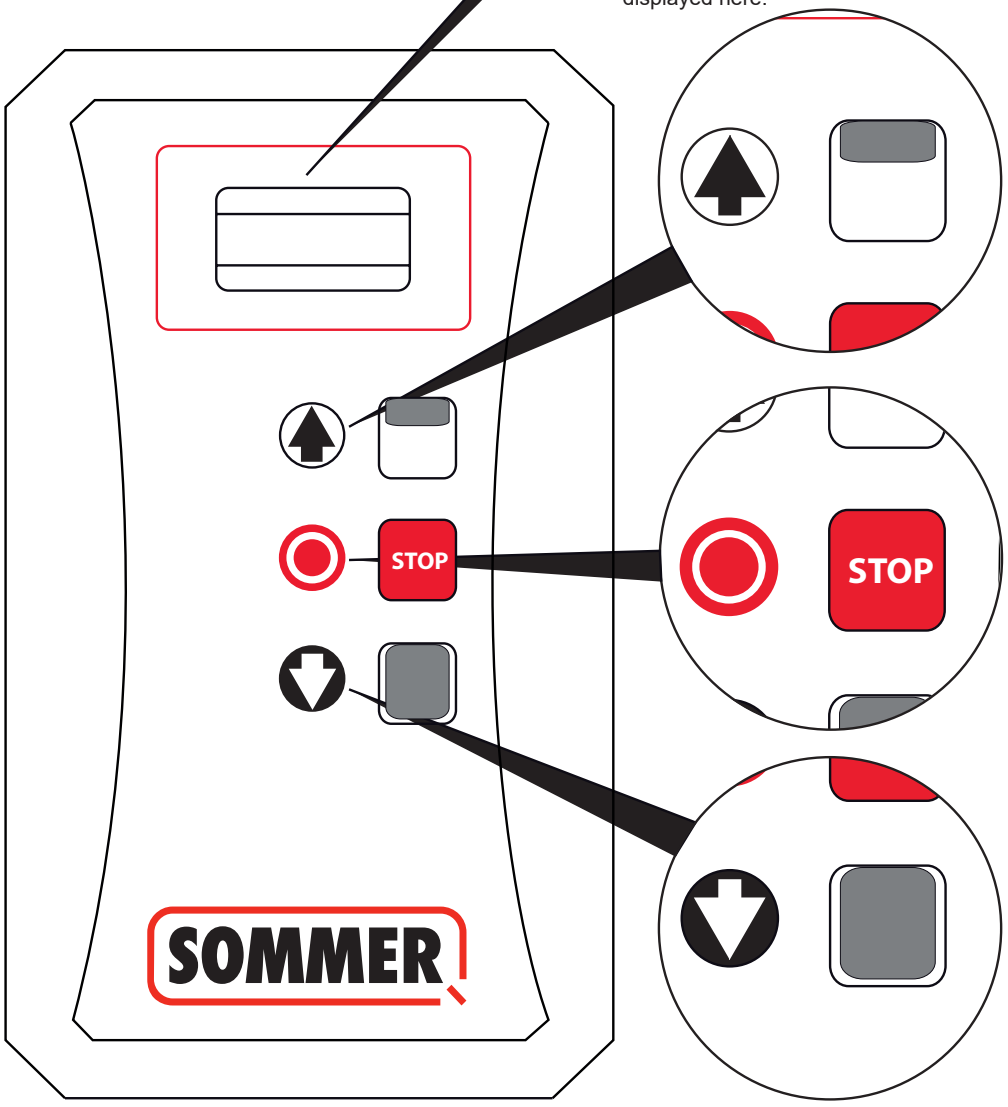
Depending on context, the upper line shows the possibility to scroll back in the menu, change a value or parameter upwards using the ⇧ key or select an option

The middle line contains information (such as the date, mode of operation, etc.) and instructions (e.g. confirm end position, abort current procedure, etc.)

Here, the current position in the menu is shown. This display serves as an orientation aid. By means of a comparison with the instructions, you can quickly find out where you are in the menu at the moment

Here, the position of the door is shown in increments. If there is a plus sign (+) after the number, this means that the door is in the pre-end position switch area.

Depending on the context, the possibility to scroll forward in the menu, change a value or parameter downwards using the ⇩ key, or selecting an option is displayed here.



- Door UP
- Door STOP while the door is moving DOWN
- "Back" in main menu
- "Change parameters / values" in submenus

- STOP door
- Select from parameters in the menu and confirm values / settings

- Door DOWN
- Door STOP while the door is moving UP
- "Forward" in main menu
- "Change parameters / values" in submenus

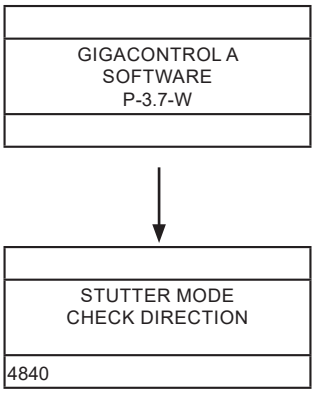
Initial operation

Starting initial operation

NOTE:
The door must be moved manually to approximately the centre position before starting initial operation so that a detection of the motor direction is possible.

NOTE:
If the error message "Security Chain" appears during activation, check whether the manual emergency release is enabled.

1. Switch on control unit

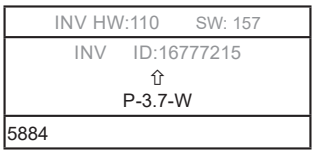


NOTE:
After a few seconds, the display of the software version disappears and the system switches automatically to the display of the currently set mode of operation.

NOTE:
During initial operation, the set mode of operation is displayed.

Enter password (0110)

1. Press STOP button for approx. 5 seconds.
   ⇒ The display becomes blank.
2. Then also press ⇧ or ⇩ for 4 seconds.
   ⇒ ⇧ The following appears:

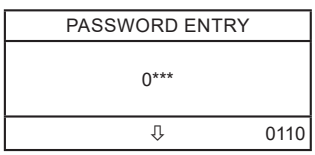


3. Release all buttons.

NOTE:
The factory-set main password for the main menu is 0000 s. Page 19.

Alternatively, the quick start menu can be accessed with the password 9001; see Page 20.

For security reasons, the passwords must always be changed by a trained person (menu: "Service -> Passwords no. 2570")



⇒ The prompt to enter the password appears on the display.
⇒ The active position flashes.

4. Select the applicable digit with ⇧ or ⇩ and confirm with "STOP".
   ⇒ The next position is automatically selected.

Main menu

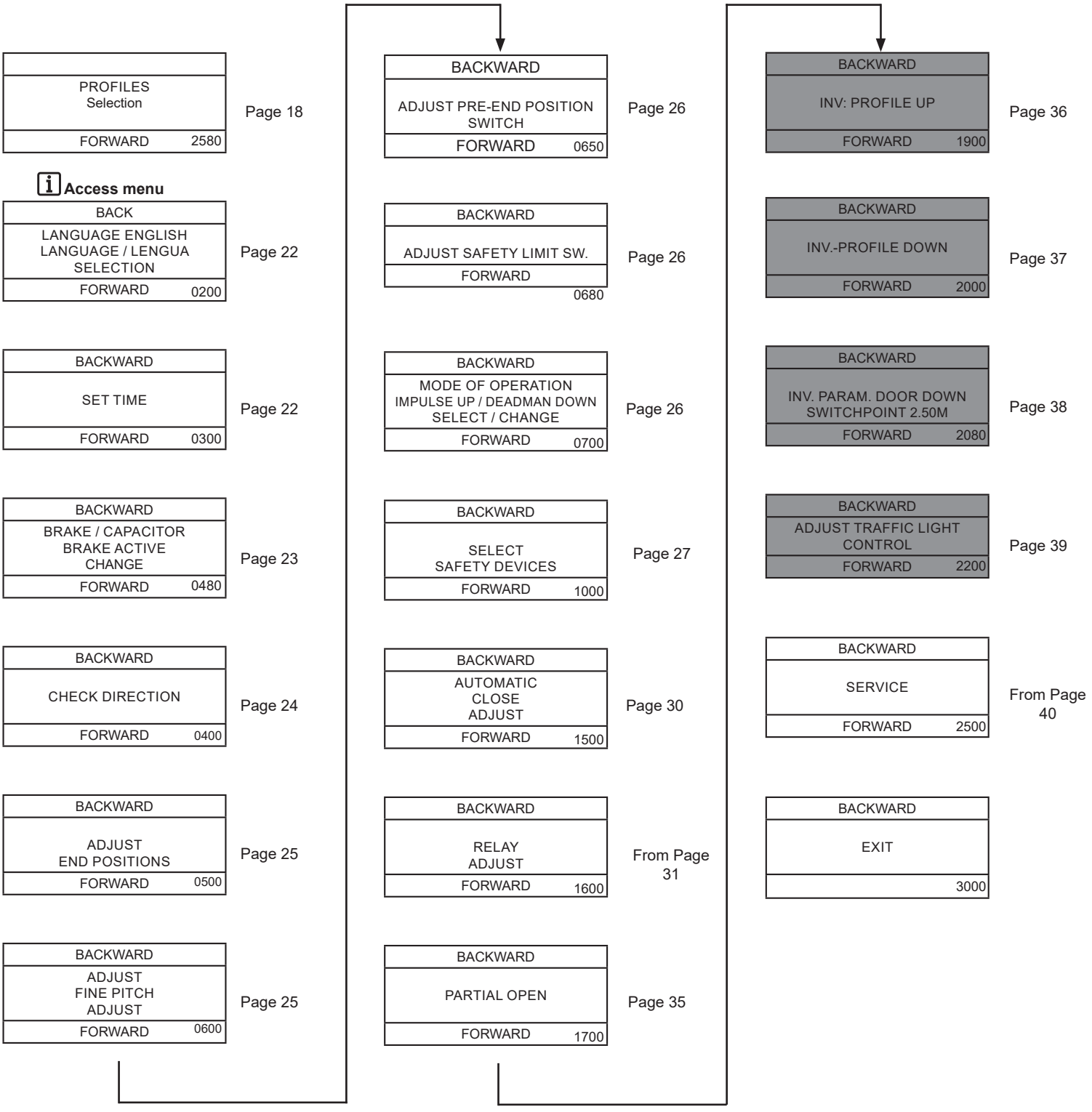
(From software version 3.0)

NOTE:
For a clearer display, this overview shows level 1 of the menu. The pages listed next to the menu items contain precise information on the submenus and the setting options

NOTE:
The door must be moved manually to approximately the centre position before starting initial operation so that a detection of the motor direction is possible.

NOTE:
If the error message "Security Chain" appears during activation, check whether the manual emergency release is enabled.

NOTE:
The menu structure is dynamic. Menus of unused components are hidden (e.g., functions that are not available when mechanical limit stops, frequency converters, and traffic light modules are used).



Quick start menu

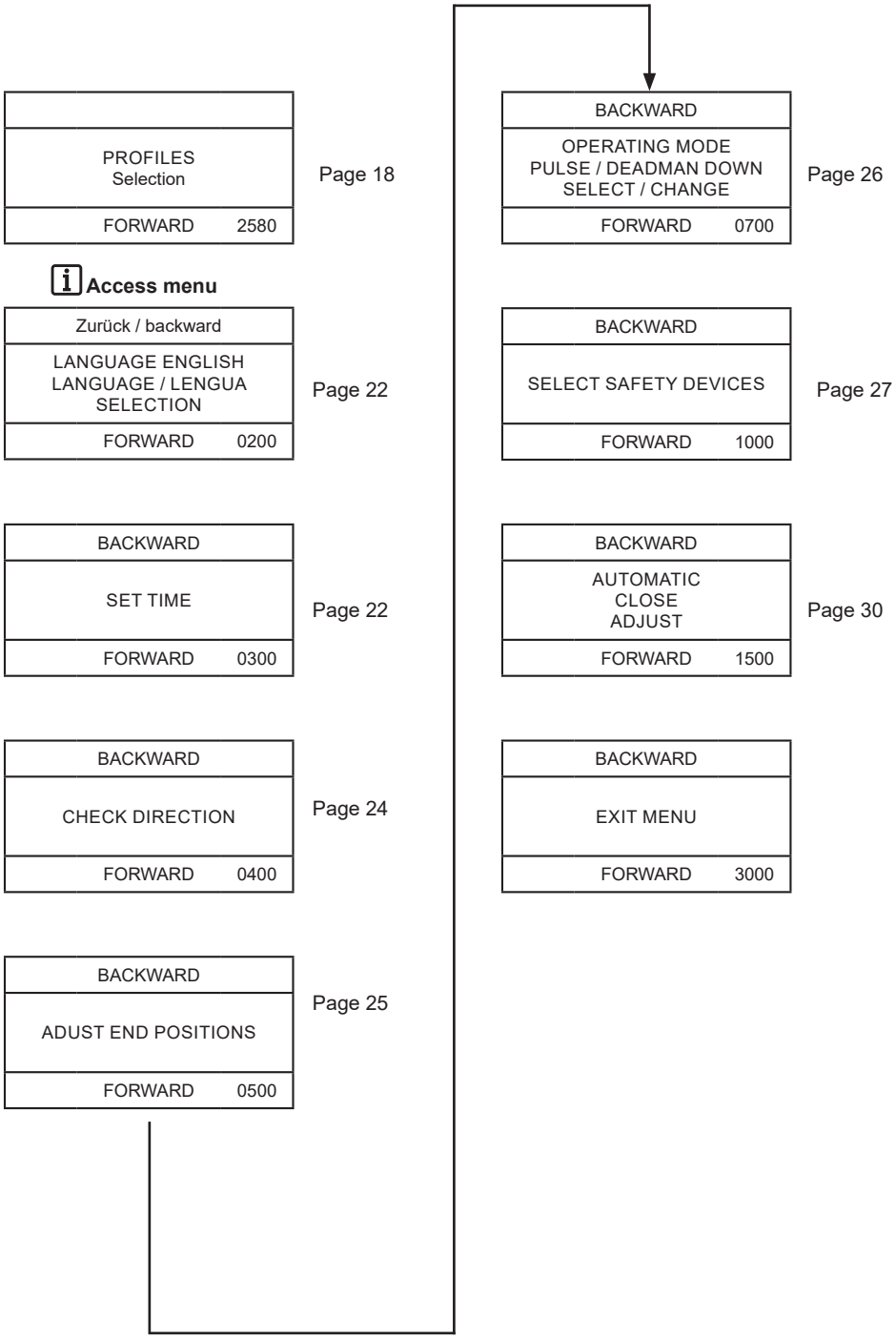
(From software version 3.0)

This simplified menu allows quick initial operation of the control unit. It contains only the menu items listed below. For further information on the individual menu items, please see the page references!

NOTE:
For a clearer display, this overview shows level 1 of the menu. The pages listed next to the menu items contain precise information on the submenus and the setting options.

NOTE:
The door must be moved manually to approximately the centre position before starting initial operation so that a detection of the motor direction is possible.

NOTE:
If the error message "Security Chain" appears during activation, check whether the manual emergency release is enabled.



Main menu with mechanical limit stops

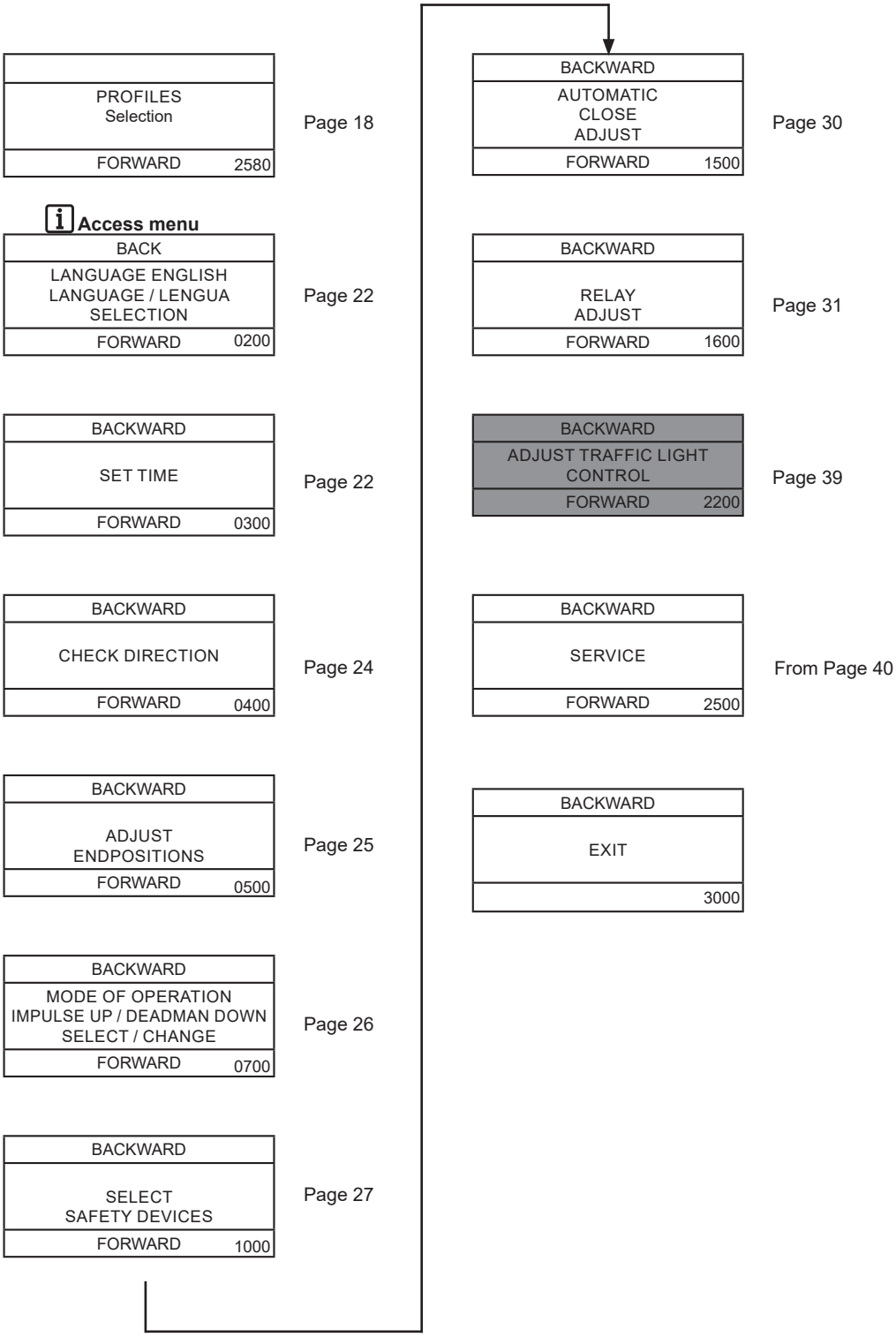
(From software version 3.0)

NOTE:
For a clearer display, this overview shows level 1 of the menu. The pages listed next to the menu items contain precise information on the submenus and the setting options.

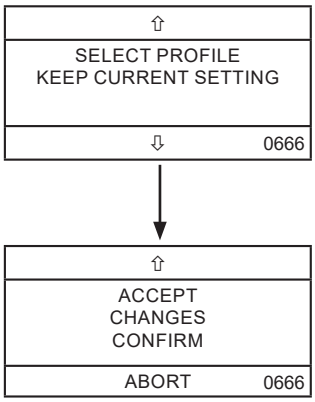
NOTE:
The door must be moved manually to approximately the centre position before starting initial operation so that a detection of the motor direction is possible.

NOTE:
If the error message "Security Chain" appears during activation, check whether the manual emergency release is enabled.

NOTE:
The menu structure is dynamic. Menus of unused components are hidden (e.g., functions that are not available when mechanical limit stops, frequency converters, and traffic light modules are used).



Select profile (2580)

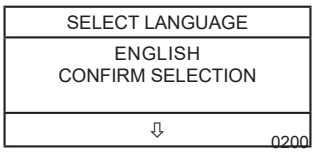


Select / change the values using ⇧⇩

Confirm with STOP button

NOTE:
Customer profiles are presettings for safety devices and modes of operation set at the factory; see "Pre-set profiles" on page 48.

Select language (0200)

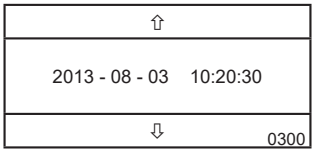


Select the language using ⇧⇩

Confirm with STOP button

Set date and time (300)

NOTE:
The date and time are retained for a maximum of 10 days in the event of a power failure and are correctly displayed when the voltage supply is restored.



Select the digits using ⇧⇩

Confirm with STOP button

NOTE:
YYYY-MM-DD HH:MM:SS

The active number flashes!

Switch brake / start-capacitor via relay 1 (0480)

NOTE:
In the following cases, relay 1 is not required for the brake function:

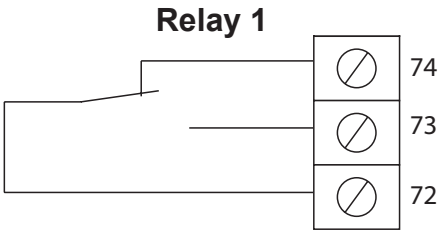
- If no brake is present

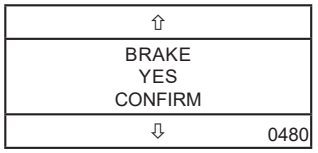
- If the brake is switched beyond the neutral point

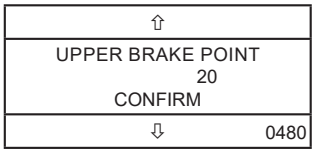
- If the control unit is operated with the frequency converter

If one of these points applies, "INACTIVE" should be selected in the first window.

NOTE:
Relay 1 is available only if it is not being used to control the brake or the start capacitor (factory setting: brake active).

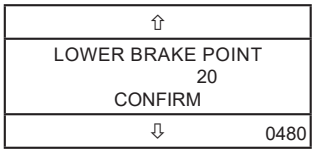






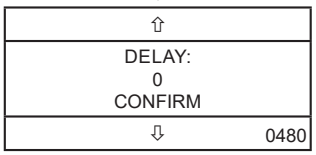
Setting range:
0 to 500 inc.

NOTE:
The value set here is the difference from the upper end position (Figure A).



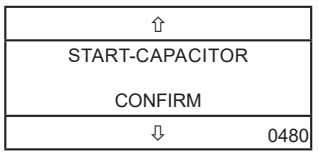
Setting range:
0 to 500 inc.

NOTE:
The value set here is the difference from the lower end position (Figure A).

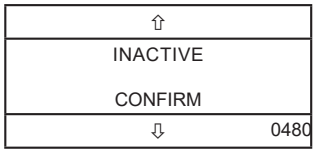


Setting range:
0 to 500 ms.

NOTE:
The value set here is the difference between the motor startup and release of the brake (Figure B).



NOTE:
If the function "Start-capacitor" is activated, relay 1 switches briefly with every start command.



NOTE:
If "Inactive" is selected, relay 1 can be actuated via menu item 1620.

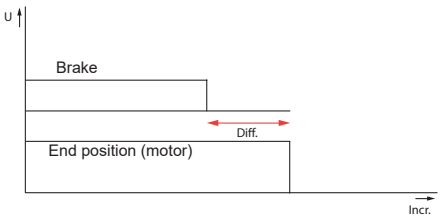


Figure A

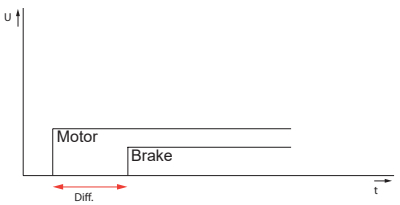


Figure B

Initial operation

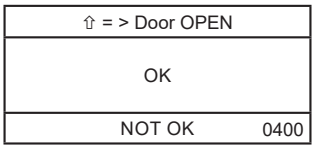
Check direction (0400)

NOTE:
The motor direction must be checked during initial commissioning to allow the OPEN / CLOSE buttons to be correctly assigned.

This step is an important part of initial commissioning. All following steps are based on this.

If mechanical limit switches are used, they must be enabled in menu item 2550 before checking the motor direction.

This requires the door to be in an approximately central position between the end positions to allow sufficient travel distance for checking the motor direction. If this menu item is selected, the door can only be moved with the ⇧ button in the housing cover. The ⇧ button must be pressed and held pressed until the movement is automatically limited by the control unit (approx. 1 sec.). If the direction of movement of the door is in the OPEN direction, this must be confirmed with the STOP button. If the direction of movement of the door is in the CLOSE direction, the ⇩ button for incorrect motor direction must be pressed. The control unit again offers the option of moving the door in the OPEN direction with the ⇧ button and changed door direction. Confirm with the STOP button.



If direction of movement was OK: Confirm with STOP button

If the direction of movement was NOT OK: ⇩ Press

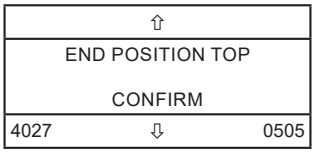
Adjust endpositions (0500)

(via mechanical limit switches)

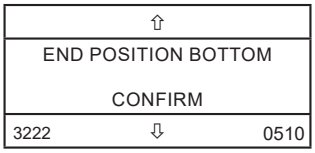
NOTE:
Mechanical limit switches must be enabled in the Service menu (menu item 2500).

NOTE:
The settings of the limit switches can now only be confirmed on the control unit if the mechanical limit switches for the respective end position have tripped.

NOTE:
Control unit automatically moves to "END POSITION BOTTOM."



1. Move to positions using ⇧⇩
2. Adjust the mechanical limit switch and security limit switch at the top
3. Confirm with STOP button



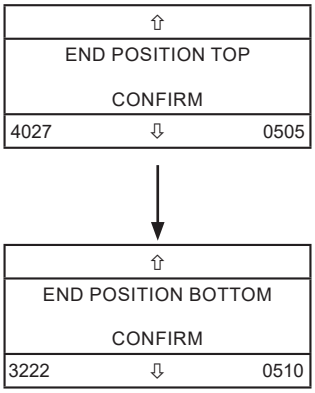
1. Move to positions using ⇧⇩
2. Adjust the mechanical limit switch and security limit switch at the bottom
3. Confirm with STOP button

Adjust end positions (0500)

(via encoder)

NOTE:
The end positions can also be corrected later using the fine pitch (menu item 600).

NOTE:
Control unit automatically moves to "END POSITION BOTTOM."



Move to the desired position using ⇧⇩

Confirm with STOP button

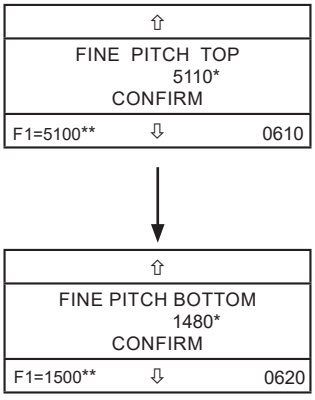
Adjust fine pitch of end positions (0600)

(via encoder)

NOTE:
After initial operation of the system, the end positions can be more finely adjusted using this item.

NOTE:
A maximum of only 50 increments can be finely adjusted in both directions.

NOTE:
The door does not move during adjustment of the fine pitch of the end positions!



Change values using ⇧⇩

Confirm with STOP button

* New position

** Current position

Overrun correction

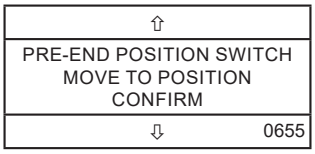
The control unit is equipped with automatic position correction. If the door run-on time changes, e.g. as a result of temperature fluctuations, changes in the spring tension of sectional doors or binding as a result of mechanical damage, the control unit automatically corrects the stopping distance to the defined position value.

The first correction takes place in the first 2 to 3 complete door cycles after setting the end positions.

NOTE:
The end position is intentionally not reached during the first movement after setting the end positions!

Adjust pre end position switch (0650)

CAUTION!
DIN EN 12453 allows the closing edge to be blanked in an area max. 50 mm above the ground or switching from "Stop Emergency Reverse" to "Stop only". It is essential to comply with the requirements of this standard.
The optical safety contact strips are blanked in this area, while the 8.2 KΩ safety contact strips are switched to "Stop only". The test is enabled for the safety contact strips with air wave switches. After crossing the pre-end position switch, the control unit expects a signal from the air wave switch within a specified time window. This requires the door with the safety contact strip to be in contact with the ground.



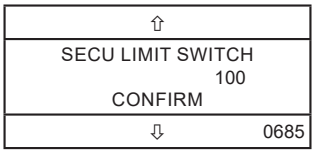
Move to the position using ⇧⇩

Confirm with STOP button

Adjust security limit switch (0680)

NOTE:
The security limit switches are a redundant safety device for the standard limit and end position switches. If the standard limit and end position switches are crossed, the system is stopped by the security limit switches.

NOTE:
If the security limit switches have tripped, the door stops. The system must be moved back to the normal limit and end position switch area in stutter mode. The error is then automatically corrected.



Move to the position using ⇧⇩

Confirm with STOP button

Setting range:

50 to 300 increments

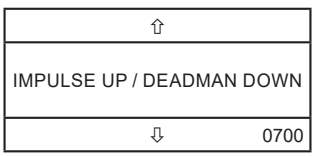
Select mode of operation (0700)

CAUTION!
The safety contact strips and photocells are not active in dead man mode.
Danger of serious injury!
Always ensure that there are no persons, animals or objects in the area of movement of the door.

NOTE:
- **This menu item is used for selection of dead man or pulse mode. If dead man mode is selected, all other menu items are skipped because they are only relevant for pulse mode (with the exception of "Inv. Parametrisation").**
- **In dead man mode, the buttons must be pressed as long as the door is to move.**

Selection using ⇧⇩

Confirm with STOP button



Selection options:

- Impulse UP / Deadman DOWN
- Deadman UP / DOWN
- Impulse UP / DOWN
- Two way traffic

NOTE:
If "Deadman" is selected as the mode of operation, the system will jump directly to the last menu item, "(3000)".

Select safety device (1000)

CAUTION!
The maximum mounting height for photocells is 20 cm.

BACKWARD	4 - WIRE - PHOTOCELL	4 - WIRE - PHOTOCELL
4 - WIRE - PHOTOCELL DISABLED	UNTESTED PHOTO RELAY CONFIRM	UNTESTED PHOTO RELAY DOWN FULL REVERSE CONFIRM
FORWARD 1100	SELECTION 1111	⇩ 1111

Selection using ⇩⇧

Confirm with STOP button

Selection options:

- Disabled back
- Photocell untested
- Photocell tested

Selection options:

- Disabled back
- DOWN full reverse
- DOWN part. reverse
- UP part. reverse
- DOWN STOP
- UP / STOP / retraction safety

- DOWN full reverse (disabled)
- DOWN part. reverse (disabled)

NOTE:
This procedure is identical for untested and tested photocells.

⇧
TEACH IN ABORT
1601 1125

Move to upper end position using ⇧

TEACH IN ABORT
1601 ⇩ 1130

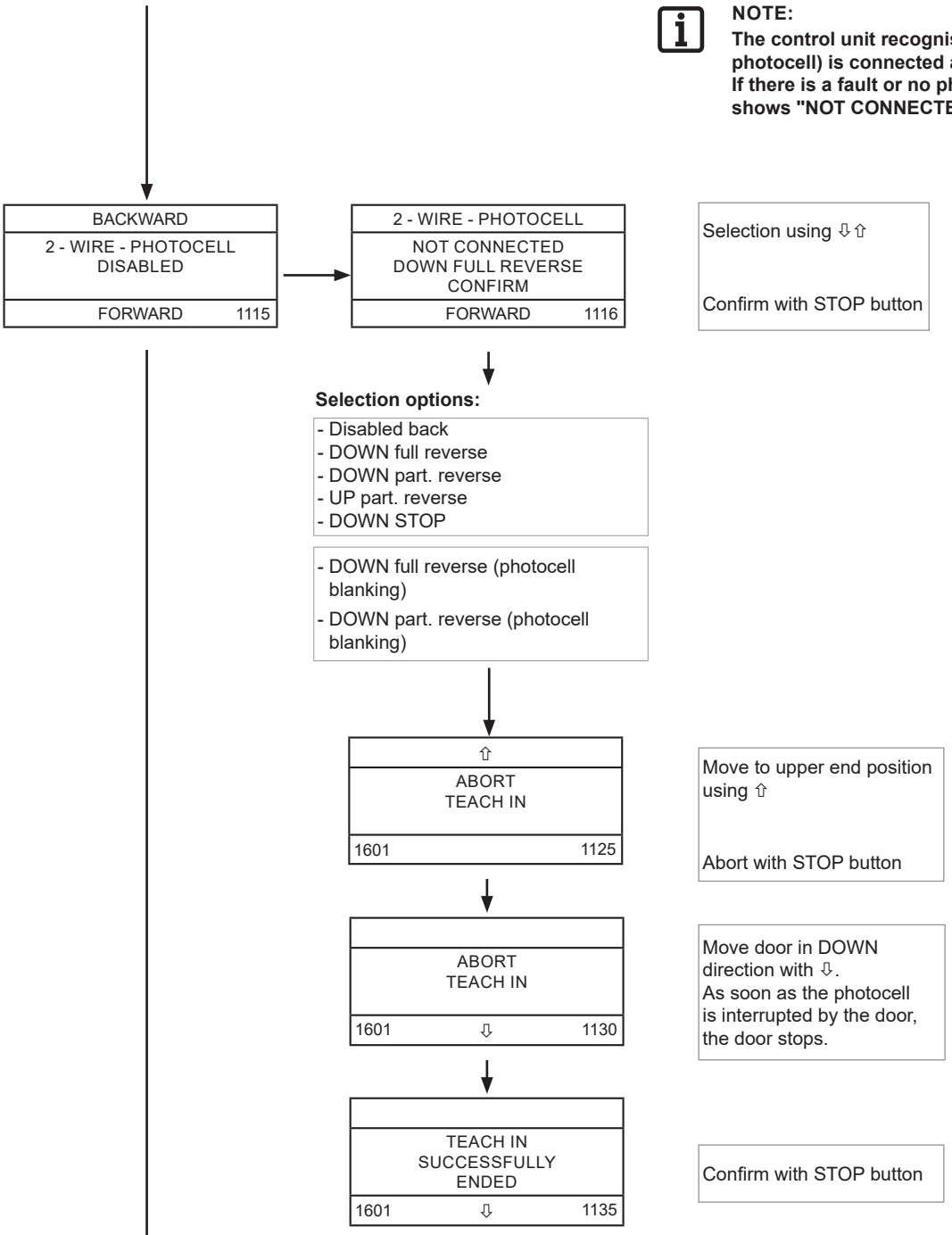
Move door in DOWN direction with ⇩.
As soon as the photocell is interrupted by the door, the door stops.

TEACH IN SUCCESSFULLY ENDED
1601 ⇩ 1135

Confirm with STOP button

Initial operation

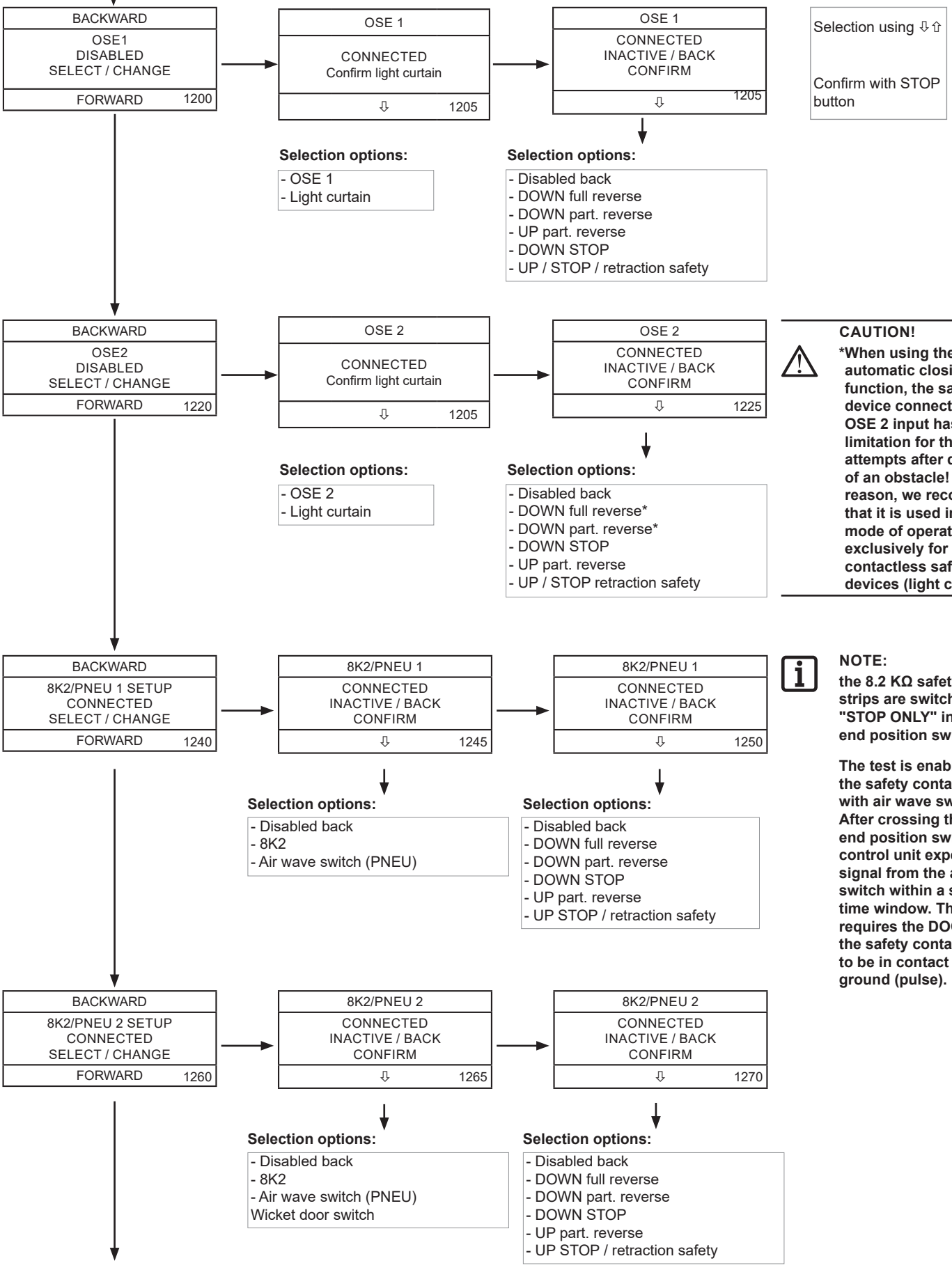
NOTE:
The control unit recognises whether a 2-wire photocell (frame photocell) is connected and displays "CONNECTED."
If there is a fault or no photocell is connected, the display shows "NOT CONNECTED."



Initial operation

NOTE:
The optical safety contact strips are blanked in the pre-end position switch area.

NOTE:
The control unit recognises at the respective inputs whether optical 8.2 KΩ safety contact strips or an air wave switch are connected and displays "CONNECTED".



CAUTION!

***When using the automatic closing function, the safety device connected at the OSE 2 input has no limitation for the closing attempts after detection of an obstacle! For this reason, we recommend that it is used in this mode of operation exclusively for approved, contactless safety devices (light curtains)!**

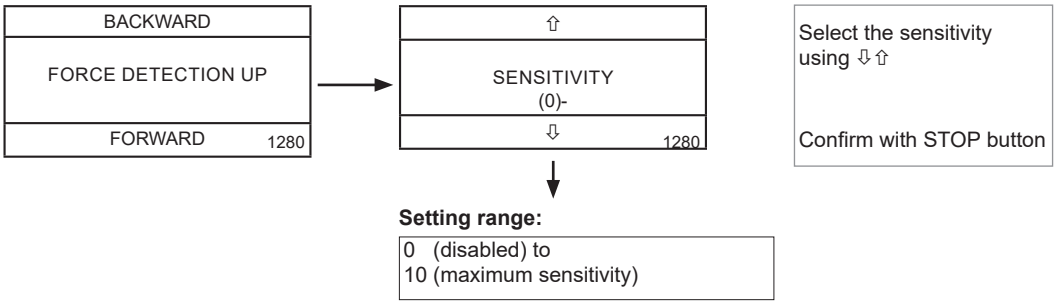
NOTE:

the 8.2 KΩ safety contact strips are switched to "STOP ONLY" in the pre-end position switch area.

The test is enabled for the safety contact strips with air wave switches. After crossing the pre-end position switch, the control unit expects a signal from the air wave switch within a specified time window. This requires the DOOR with the safety contact strip to be in contact with the ground (pulse).

CAUTION!
The obstacle recognition (force detection) is effective only in the UP direction of travel and must be adapted to the respective door!
No obstacle detection is effective in the door DOWN direction!

CAUTION!
After the activation of obstacle recognition(force detection), at least one complete teach-in run must be performed without interruption in the UP and DOWN directions in goto operation!
Only when this has been done is the obstacle detection active and effective!



Setting range:

0 (disabled) to
10 (maximum sensitivity)

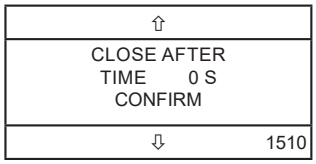
Automatic close (1500)

NOTE:
This function is possible only if a photocell is used and it is active for the door CLOSE direction of movement (menu item 1100 or 1115).

Change the value / selection using ⇧⇩

Confirm with STOP button

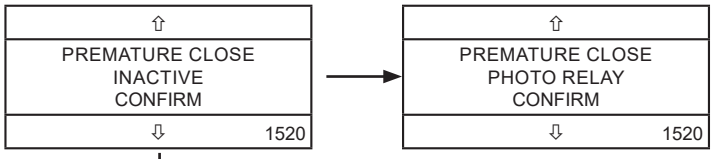
NOTE:
When using a light curtain, no additional photocell is required.



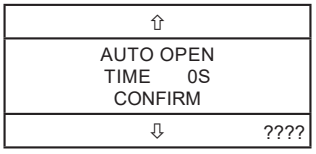
Setting range:

5 to 999 seconds

NOTE:
The setting 0 s means that automatic closing after time is disabled.



NOTE:
The effect of this function is that the door closes again immediately after an interruption of the photocell (without the hold open time running out).
This function is disabled by default.



NOTE:
The setting 0 s means that automatic opening after a set time is disabled.

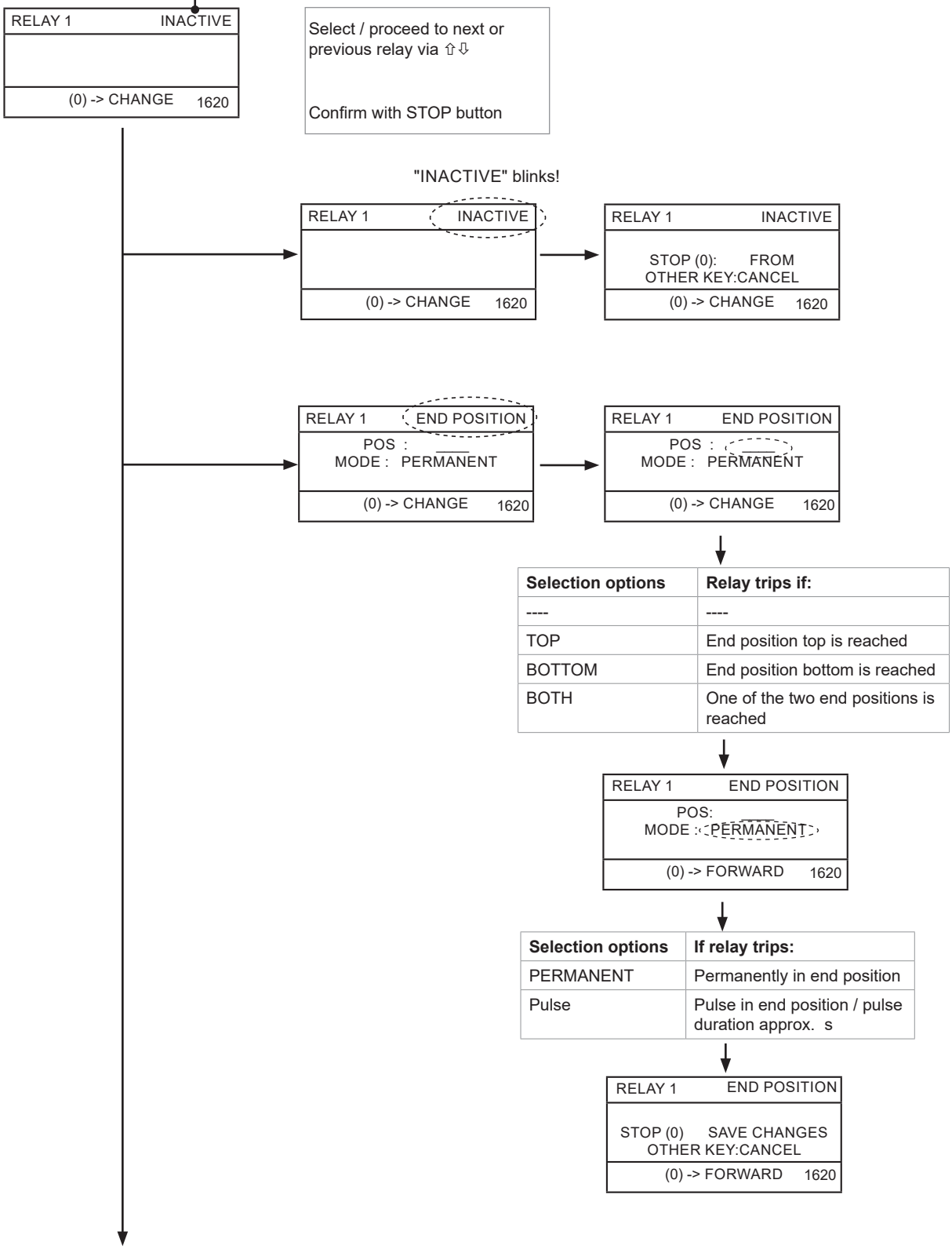
Relay Setup (1600)

Selection options:

- Inactive
- End position
- Movement
- El. lock
- Maintenance

NOTE:
Function field:

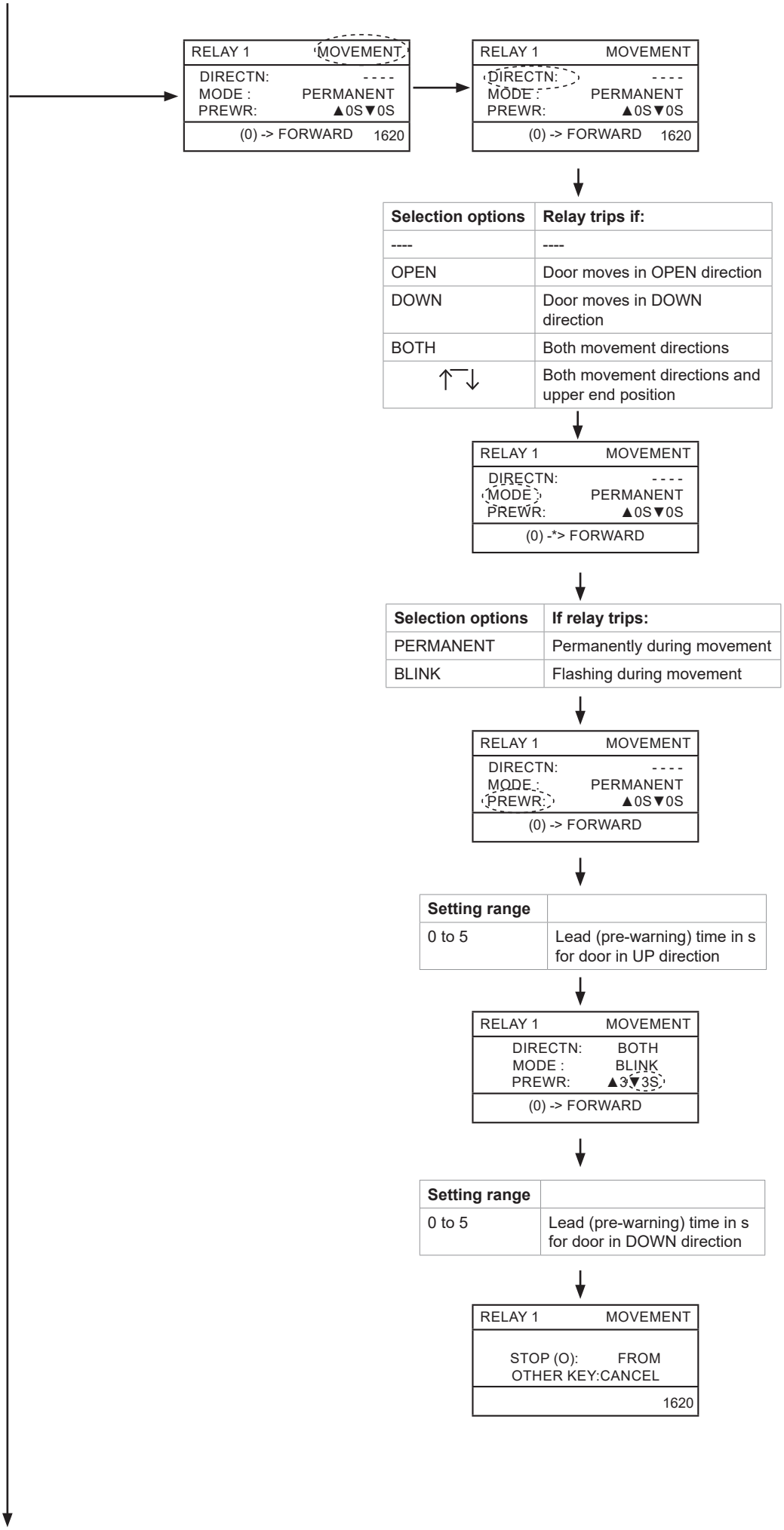
NOTE:
Relay 1 is available only if it is not being used to control the brake or the start capacitor (factory setting: brake active), see "Switch brake / start-capacitor via relay 1 (0480)".



Selection options	Relay trips if:
----	----
TOP	End position top is reached
BOTTOM	End position bottom is reached
BOTH	One of the two end positions is reached

Selection options	If relay trips:
PERMANENT	Permanently in end position
Pulse	Pulse in end position / pulse duration approx. s

Initial operation



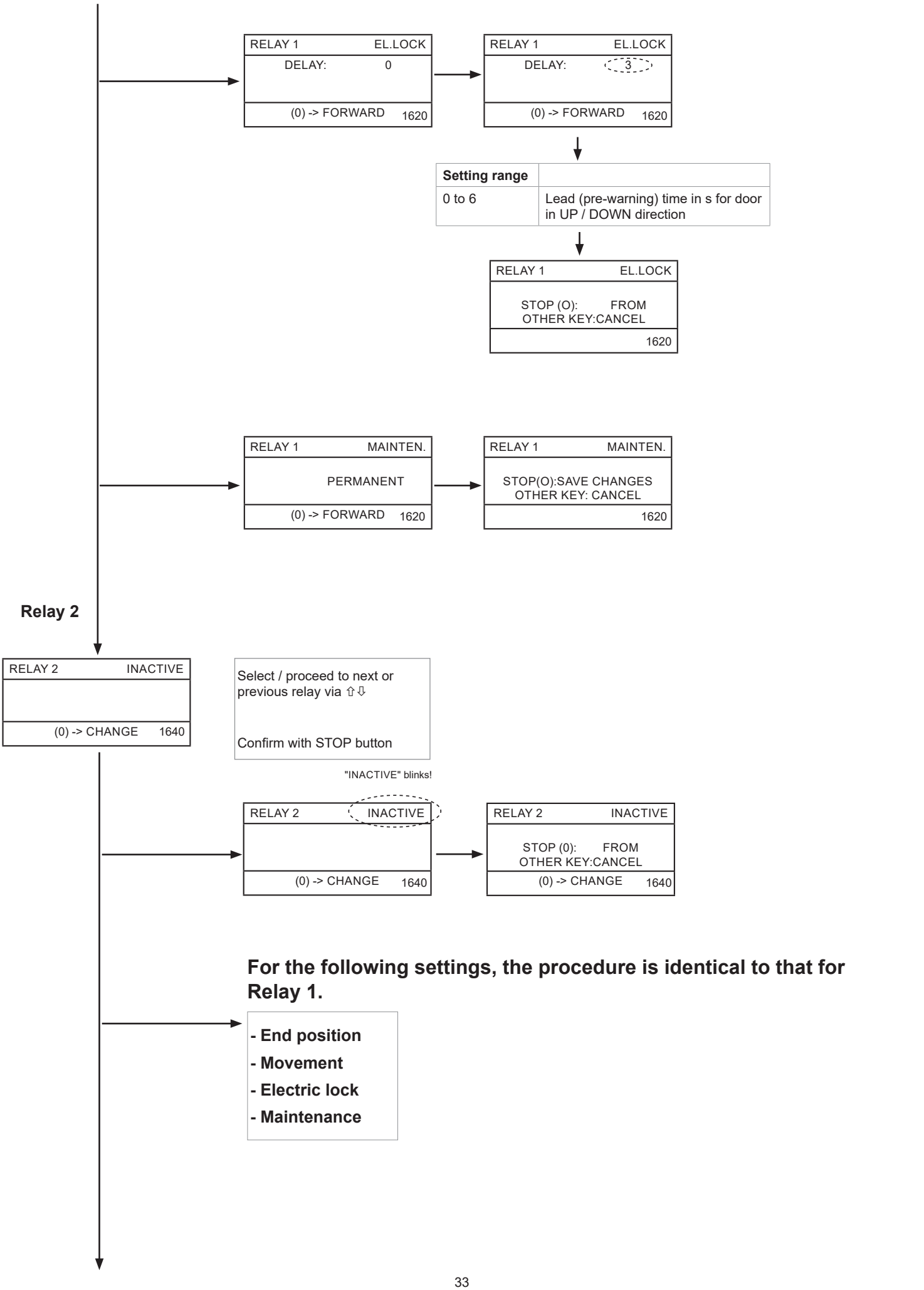
Selection options	Relay trips if:
----	----
OPEN	Door moves in OPEN direction
DOWN	Door moves in DOWN direction
BOTH	Both movement directions
↑↓	Both movement directions and upper end position

Selection options	If relay trips:
PERMANENT	Permanently during movement
BLINK	Flashing during movement

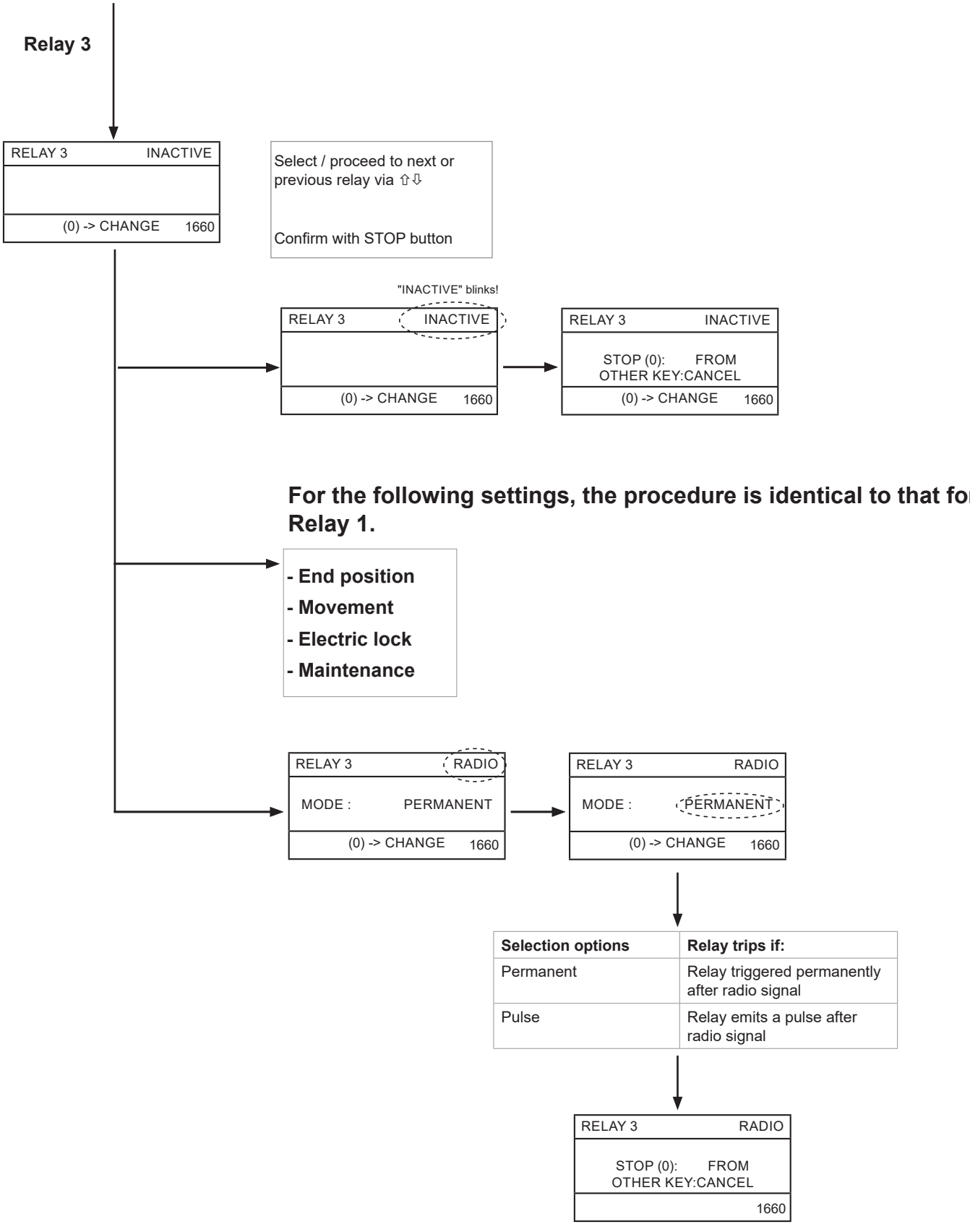
Setting range	
0 to 5	Lead (pre-warning) time in s for door in UP direction

Setting range	
0 to 5	Lead (pre-warning) time in s for door in DOWN direction

Initial operation



Relay 3



Selection options	Relay trips if:
Permanent	Relay triggered permanently after radio signal
Pulse	Relay emits a pulse after radio signal

Partial open (1700)

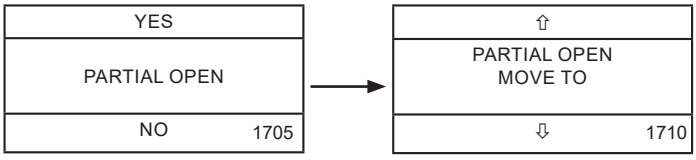
NOTE:
Partial opening does not function in "TWO WAY TRAFFIC" mode of operation!

NOTE:
The behaviour of an external command device (terminals 7 + 8 "OPEN") or a handheld transmitter can be defined under the menu item "Service (2500)" - "MODE EXT. KEY UP (2565)."

NOTE:
If the partial opening function is used, the control unit behaves as follows:

Press button once = partial open

Press button twice = door opens completely



Move to the desired partial opening height via ⇧⇩

Confirm with STOP button

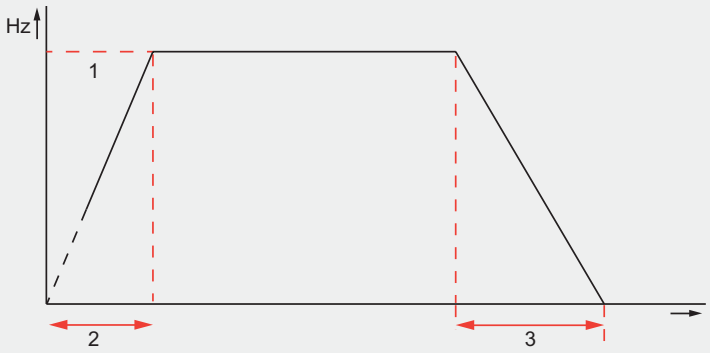
Selection options:

- Disabled back
- Enabled

NOTE:
The menu items shown on the following pages on a grey background (frequency converter (inverter) and traffic light settings) are only available if a frequency converter or traffic light module is connected! Otherwise, these menu items are not available!

Inverter profile UP (1900)

1. Max. speed (Hz)
2. Startslope (ms)
3. Stopslope (inc.)



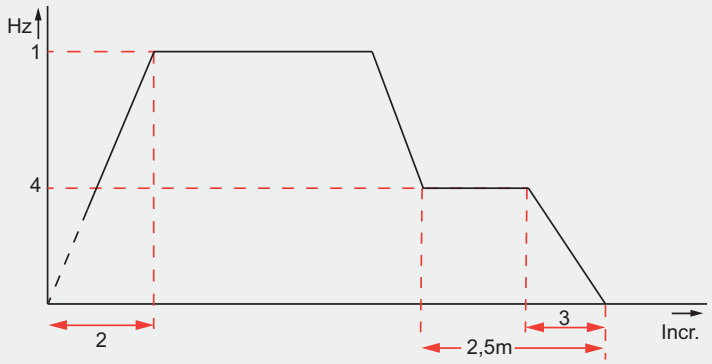
⇧ MAX VELOCITY UP 80 HZ CONFIRM ⇩ 1910	Select the frequency for the desired speed via ⇧⇩ Confirm with STOP button	**Setting range:** 20 Hz to 120 Hz
⇧ STARTSLOPE UP 700 MS CONFIRM ⇩ 1920	Select the desired time via ⇧⇩ Confirm with STOP button	**Setting range:** 600 ms to 2000 ms
⇧ STOPSLOPE UP POS: 400 INCR. CONFIRM ⇩ 1950	Select the desired position via ⇧⇩ Confirm with STOP button	**Setting range:** 0 incr. to 1500 incr.
⇧ SENDING PARAMETERS PARAMETER 3/14 ⇩ 2095		

NOTE:
The steepness of the slopes changes with the speed adjustment.

NOTE:
This value is the difference to the end position at which the stopslope begins.

Inverter profile DOWN (2000)

1. Max. speed (Hz)
2. Startslope (ms)
3. Stopslope (inc.)
4. Medium gear (Hz)



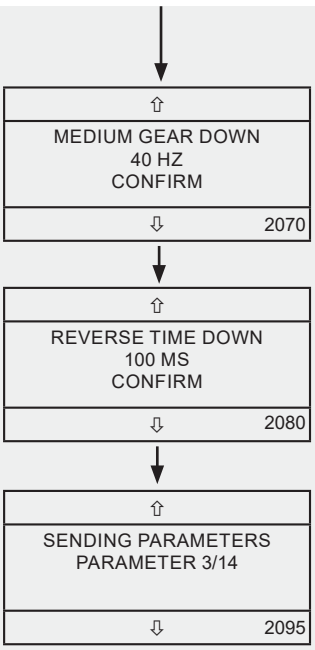
⇧ MAX VELOCITY DOWN 50 HZ CONFIRM ⇩ 2010	Select the frequency for the desired speed via ⇧⇩ Confirm with STOP button	**Setting range:** 20 Hz to 120 Hz

⇧ STARTSLOPE DOWN 700 MS CONFIRM ⇩ 2020	Select the desired time via ⇧⇩ Confirm with STOP button	**Setting range:** 600 ms to 2000 ms

NOTE:
The steepness of the slopes changes with the speed adjustment.

⇧ STOPSLOPE DOWN POS: 400 INCR. CONFIRM ⇩ 2050	Select the desired position via ⇧⇩ Confirm with STOP button	**Setting range:** 0 incr. to 1500 incr.

NOTE:
This value is the difference to the end position at which the stopslope begins.



Select the frequency for the desired speed via ⇧⇩

Confirm with STOP button

Setting range:

Limited by slow gear and max. speed

NOTE:

This value is the frequency for the desired speed from which the door is stopped at the end position from 2.5 m in the door DOWN direction in order to comply with the closing forces.

Select the desired time via ⇧⇩

Confirm with STOP button

Setting range:

20 ms to 1000 ms

CAUTION!

Any change in the reverse time of the main closing edge influences compliance with the closing forces.

Inverter parameter door DOWN switchpoint 2.5 m (2080)

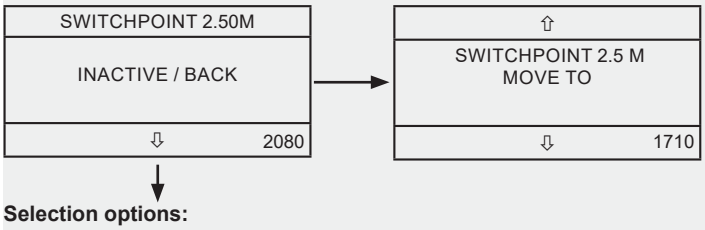
(medium gear)

CAUTION!

It is essential to ensure that the set speed is reduced from the switchpoint to such an extent that the required closing forces are observed!

NOTE:

Movement to the switchpoint takes place during the adjustment in deadman mode and slow gear!



Enable / move to the desired position using ⇧⇩

Confirm with STOP button

Selection options:

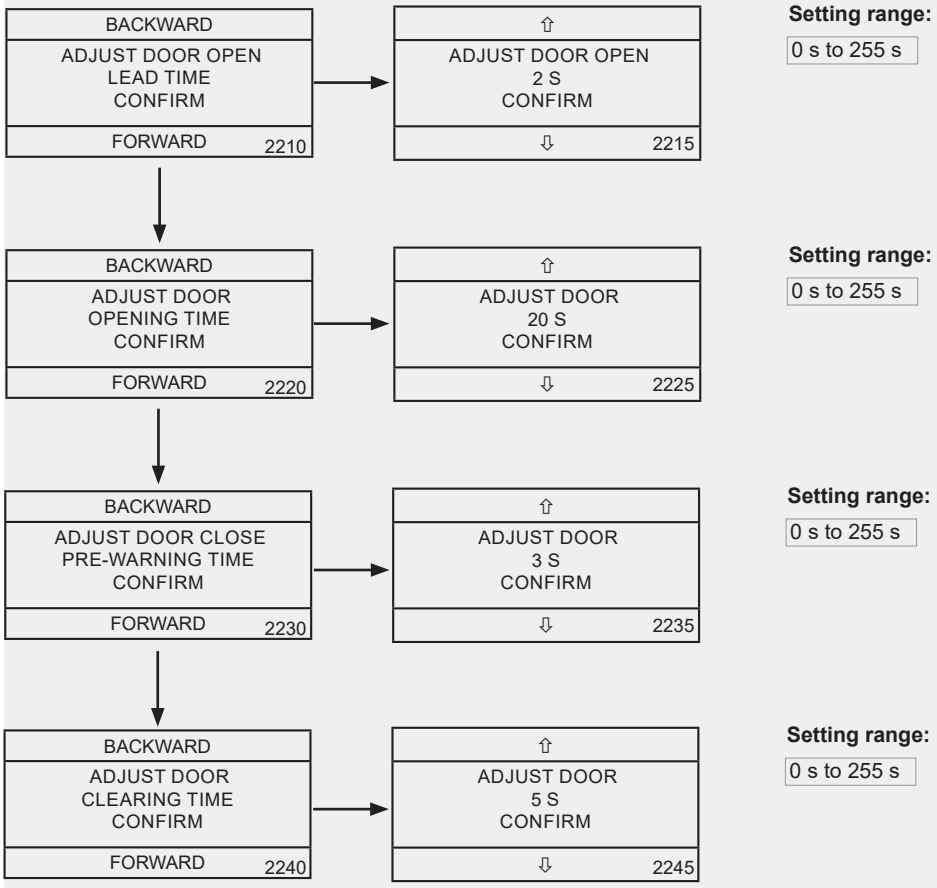
- Disabled back
- Enabled

Adjust traffic light control (2200)

NOTE:
The individual times can be selected separately!

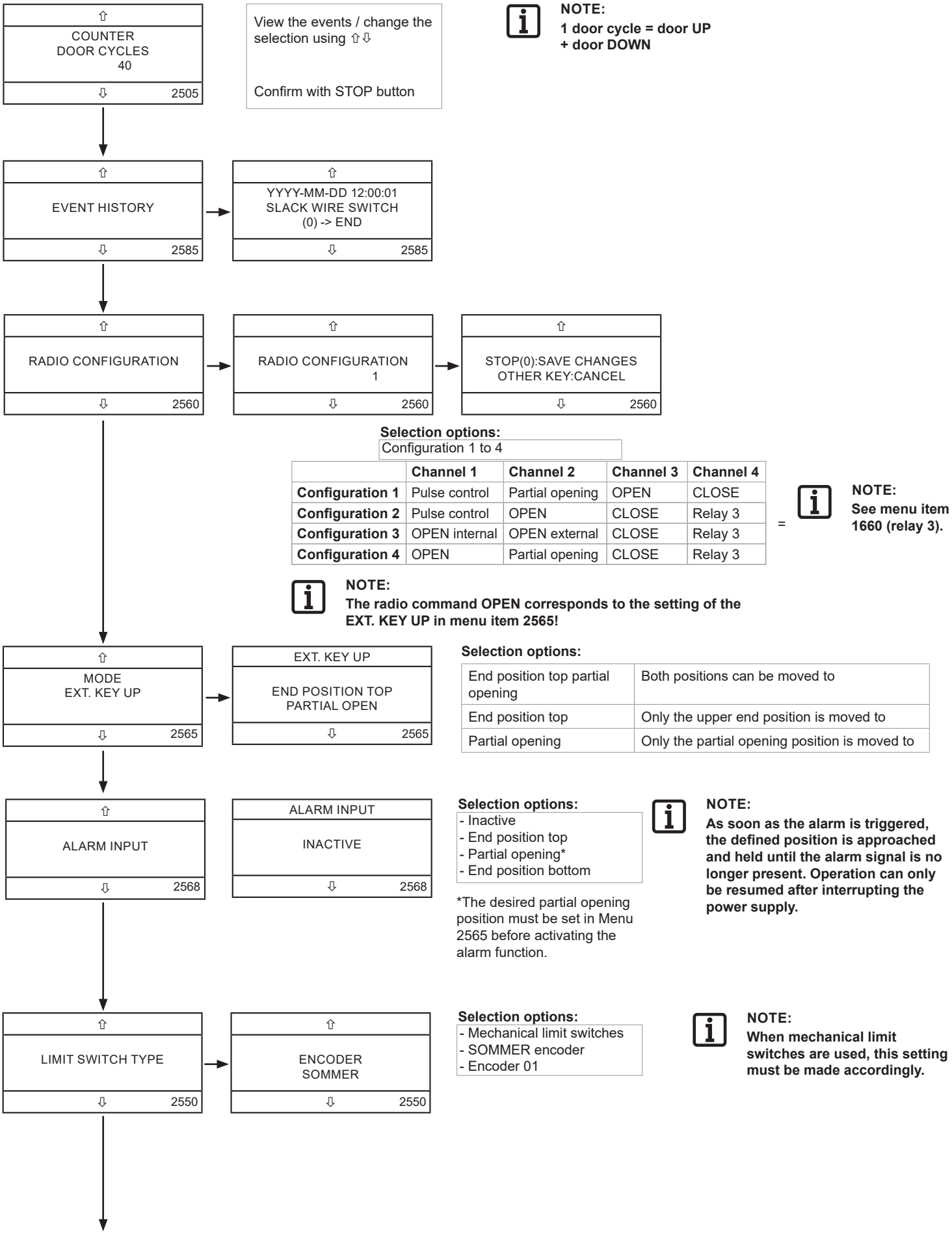
Select the desired time
via ⇧⇩

Confirm with STOP button



Adjustable times	Meaning
Door OPEN lead time	Lead time before the door starts in door UP direction
Hold open time	Time after which the door closes automatically
Door CLOSE lead time	Lead time before the door starts in door DOWN direction
Clearing time	Time for clearing the roadway before the traffic lights switch

Service (2500)

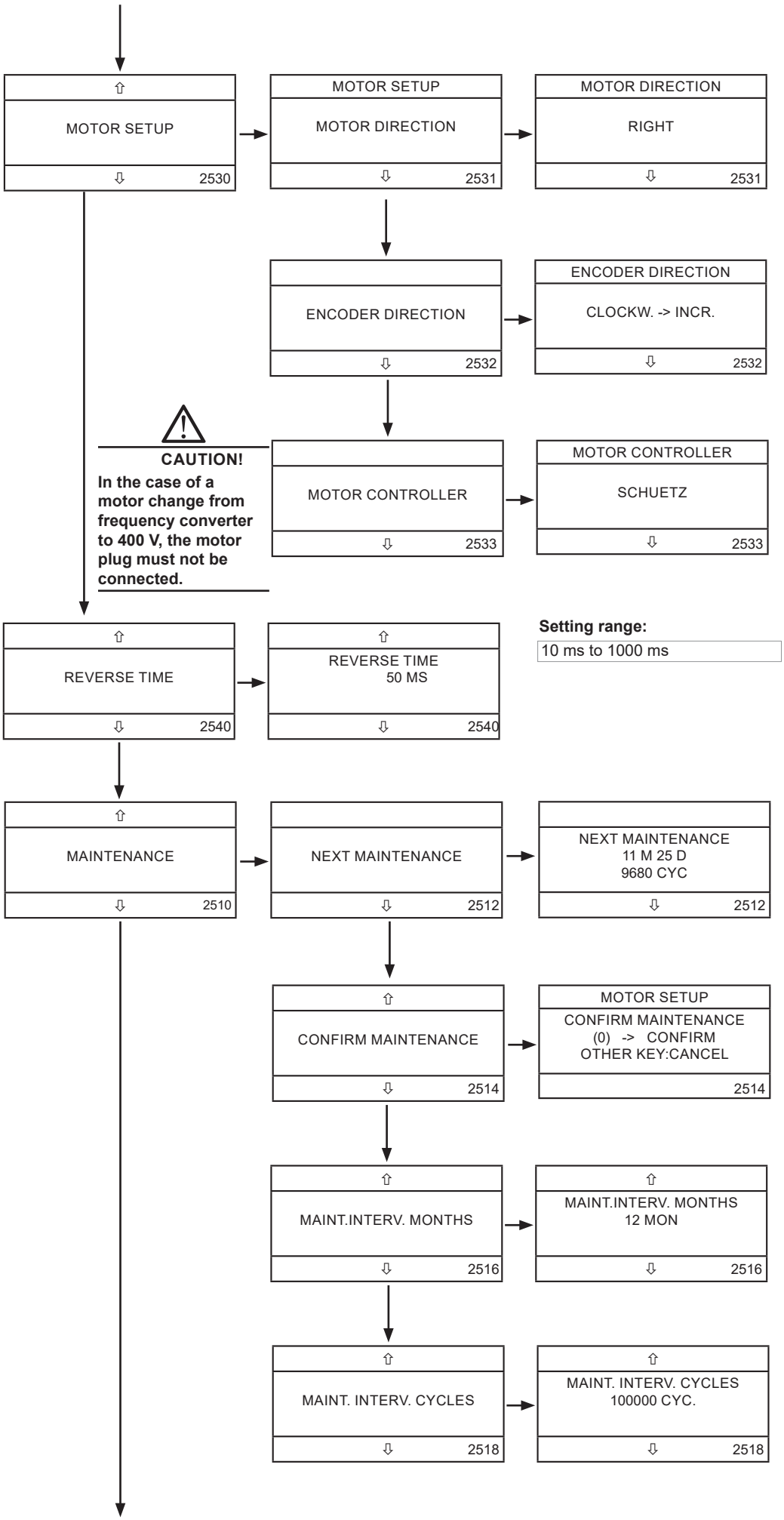


	Channel 1	Channel 2	Channel 3	Channel 4
Configuration 1	Pulse control	Partial opening	OPEN	CLOSE
Configuration 2	Pulse control	OPEN	CLOSE	Relay 3
Configuration 3	OPEN internal	OPEN external	CLOSE	Relay 3
Configuration 4	OPEN	Partial opening	CLOSE	Relay 3

=

End position top partial opening	Both positions can be moved to
End position top	Only the upper end position is moved to
Partial opening	Only the partial opening position is moved to

Initial operation



View the events / change the selection using ⇧⇩

Confirm / select with the STOP button

Abbreviation	Meaning
Clockw.	Clockwise
Incr.	Increasing
Decr.	Decreasing

Selection options:

- Contactor
- Frequency converter

NOTE:
When using an operator with frequency converter, this menu item is not displayed.

NOTE:
Display next maintenance

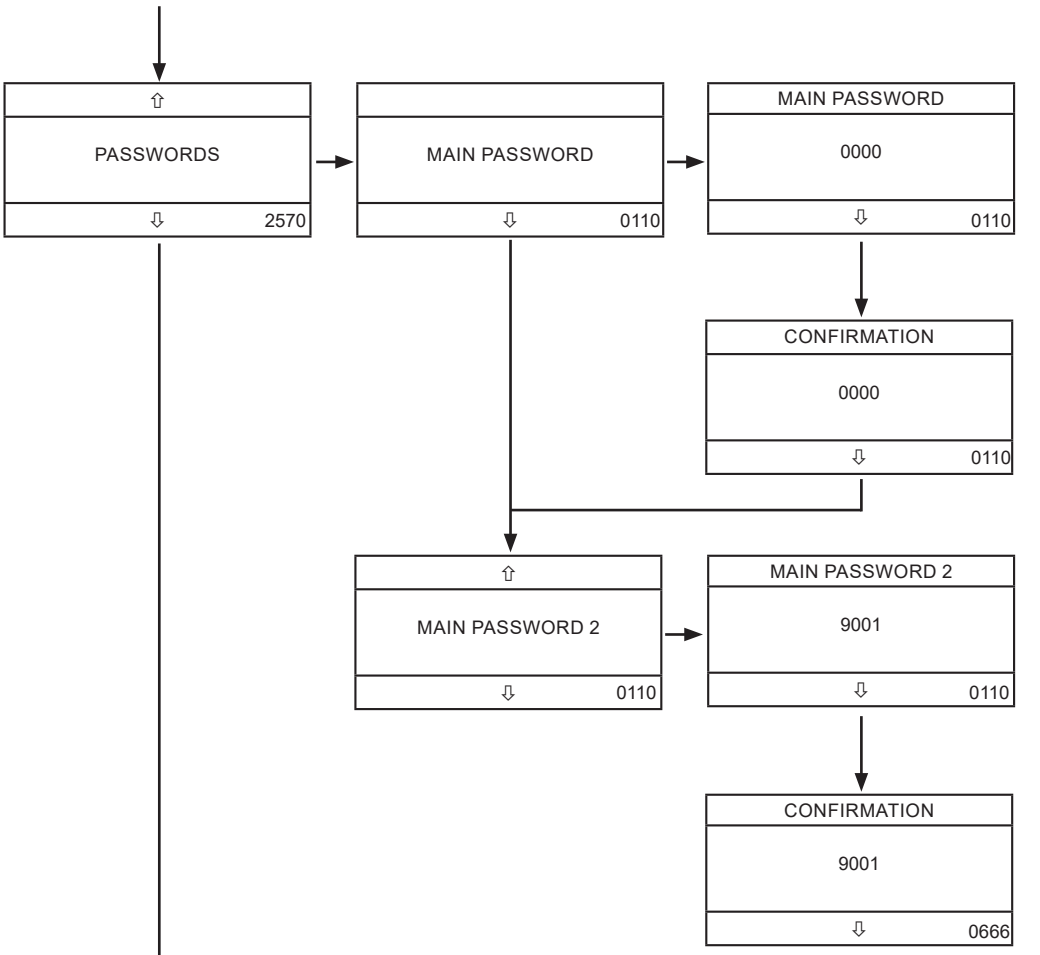
M = months
D = days
CYC = cycles

On completion of maintenance, confirm with STOP button

Setting range:
3 months to 24 months

Setting range:
1000 cycles to 100000 cycles

Initial operation

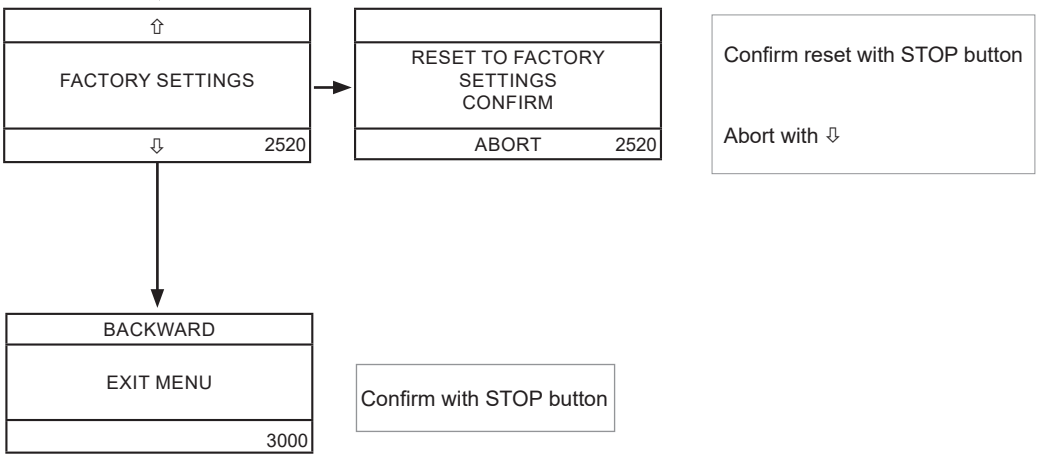


Select the respective digit with ⇧⇩ and confirm with "STOP."

⇒ The active position flashes.

⇒ The next position is automatically selected.

NOTE:
The passwords must be entered a second time for confirmation.



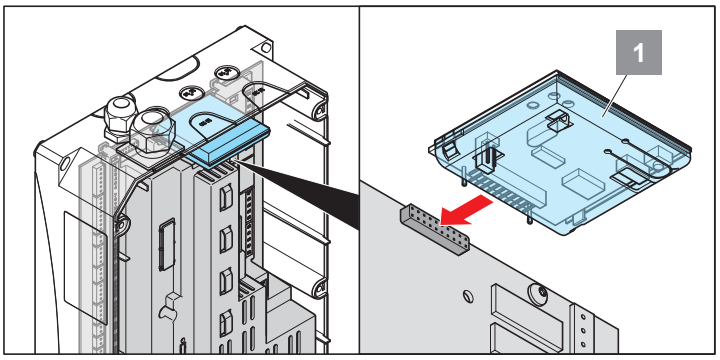
Confirm reset with STOP button

Abort with ⇩

Confirm with STOP button

Radio (optional)

Programming from menu item 2560 et seq.



NOTE!
See separate instructions for the radio receiver!

The pluggable radio receiver offers 4 radio channels. The function of the individual channels is defined via selection of the radio configuration (1-4).

Functions of the radio channels

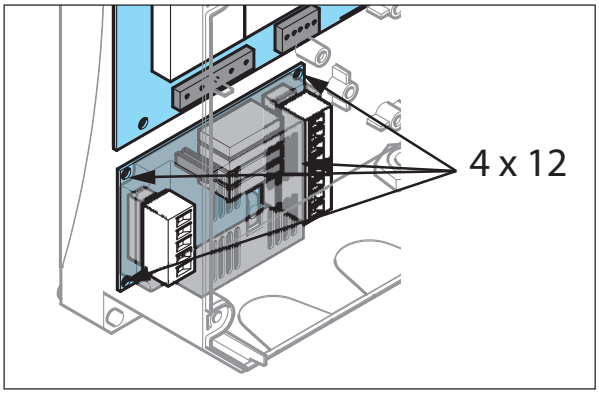
	Channel 1	Channel 2	Channel 3	Channel 4
Configuration 1	Pulse control	Partial opening	OPEN	CLOSE
Configuration 2	Pulse control	OPEN	CLOSE	Relay 3
Configuration 3	OPEN internal	OPEN external	CLOSE	Relay 3
Configuration 4	OPEN	Partial opening	CLOSE	Relay 3

Traffic light module / two way traffic control (optional)

Programming from menu item 2200 et seq.

Mechanical installation

CAUTION
Before working on the control unit, always disconnect the power plug or disconnect the mains voltage at a main switch (lock to prevent reactivation).



1. Open the control unit housing
2. Install traffic light module in the control unit housing with the four 12 mm bolts

Electrical installation

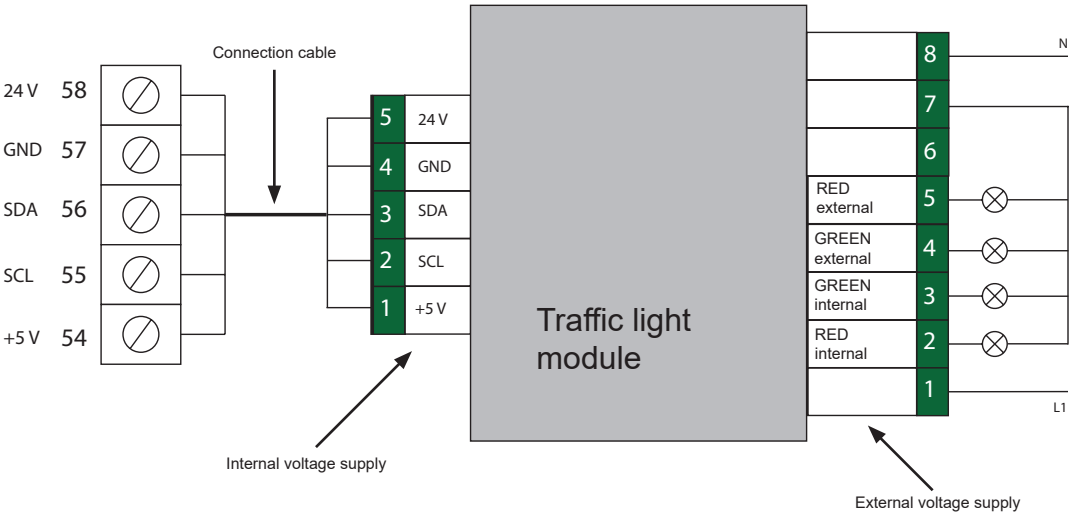
NOTE:
The traffic lights require an external power source!

NOTE:
The output contacts of the traffic light module are floating!

NOTE:
If the traffic light module (two way traffic control) is used, the button assignment for the door UP command is as follows:

"UP" button on the control unit and Pulse button (terminals 13 + 14): Request for the traffic light signal "Green internal."

"UP" button external (terminals 7+8): Request for the traffic light signal "Green external."



NOTE:

Allowable contact load:

max. 3 A 250 V / AC / cos ϕ = 1
AC : 250 V, 3 A
DC : 24 V, 2 A

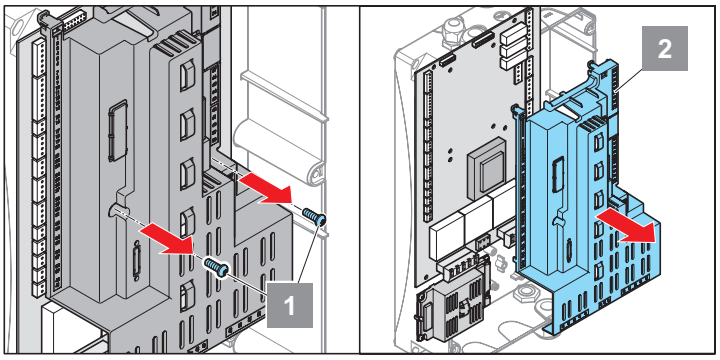
Induction loop module (optional)

Technical data:

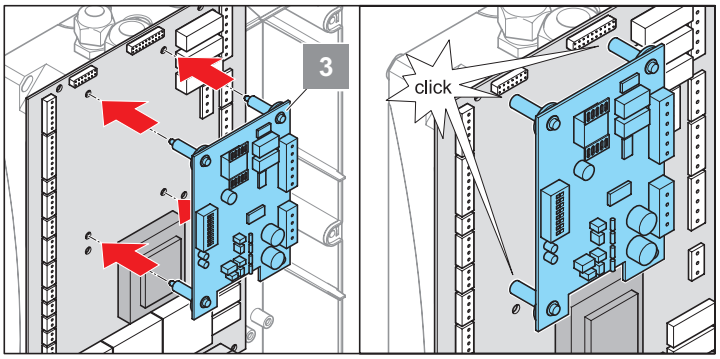
Power consumption	1 VA
Response time	200 ms
Loop inductance	100 – 1000 µH
Loop frequency range	20 to 120 KHz

CAUTION!
Before working on the control unit, always disconnect the power plug or disconnect the mains voltage at a main switch (lock to prevent reactivation).

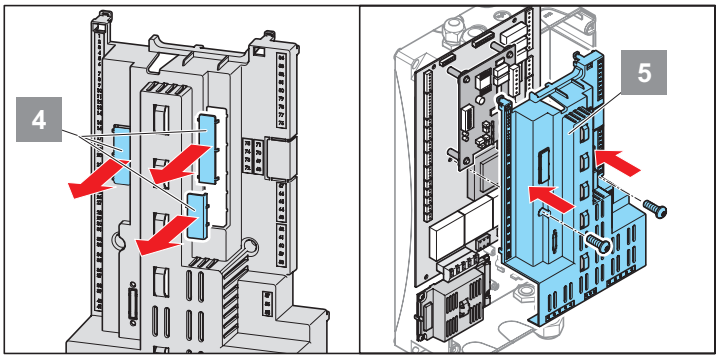
Retrofit:



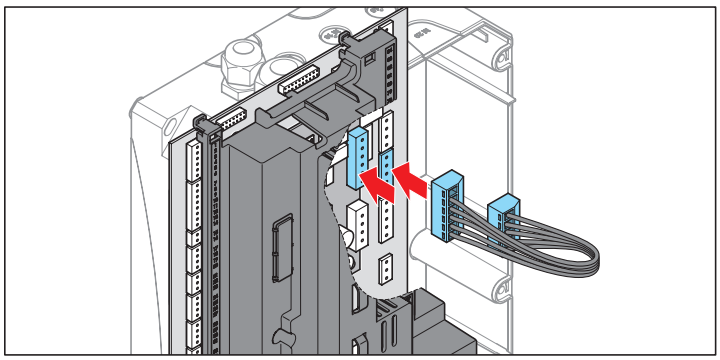
1. Unscrew bolts
2. Remove cover



3. Fit induction loop module
   ⇒ Spacers lock



4. Break out openings for terminal area from cover
5. Replace the cover

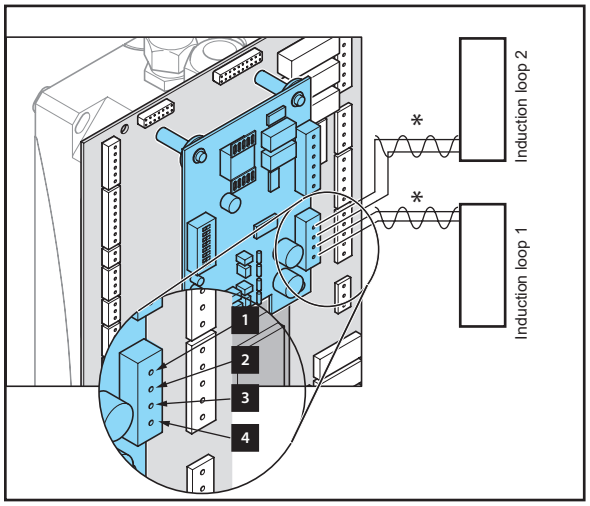


6. Connect the control unit and the induction loop module with the connection cable
   ⇒ Plug-in terminal (top terminal strip) on the induction loop module
   ⇒ Plug-in terminals: 59 – 63 on the control unit

CAUTION!
No electrical isolation between loop and operating voltage!

NOTE:
Do not install these cables in the same duct as high-voltage cables!

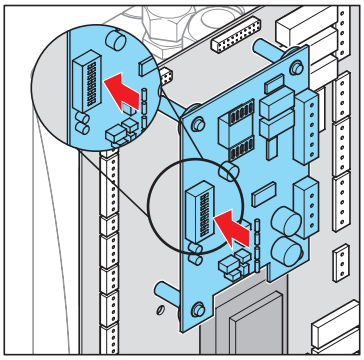
Connecting induction loops:



7. Connect induction loops
   ⇒ Terminals 1 + 2 = induction loop 2
   ⇒ Terminals 3 + 4 = induction loop 1

*Twist wires (20 x / metre line length)

DIP switches 1 + 2 (frequency adjustment for loop 1)



Switch 1	Switch 2	Frequency
OFF	OFF	Standard frequency f
ON	OFF	f - 10 %
OFF	ON	f - 15 %
ON	ON	f - 20 %

Switches 1+2 can be used to change the loop frequency for loop 1 in 4 steps. This prevents the loops from interfering with each other.

When the frequency switch is actuated, loop 1 must be recalibrated with the OFF / OFF position.

DIP switches 3, 4, 5, 6 (sensitivity)

Loop 1

Switch 3	Switch 4	Sensitivity
OFF	ON	Low (1)
ON	OFF	Medium (2)
ON	ON	High (3)
OFF	OFF	Loop disabled

Loop 2

Switch 5	Switch 6	Sensitivity
OFF	ON	Low (1)
ON	OFF	Medium (2)
ON	ON	High (3)
OFF	OFF	Loop disabled

NOTE:
Recommended setting: medium

DIP switch 7 (direction detection)

Switch	Effect
OFF	Goto operation – the assignment states of the loops are output independently over the channels
ON	Direction detection enabled The signal is sent depending on the assignment sequence

Special features:

If loop 1 is actuated before loop 2, the signal output for loop 2 is blocked until both loops are free again.

If loop 2 is actuated before loop 1, the signal output for loop 1 is blocked until both loops are free again.

DIP switch 8 (sensitivity increase)

Switch	Effect
OFF	Normal sensitivity
ON	Loop sensitivity is increased. This mode of operation allows high vehicles (lorries) to be correctly recognised over their entire length

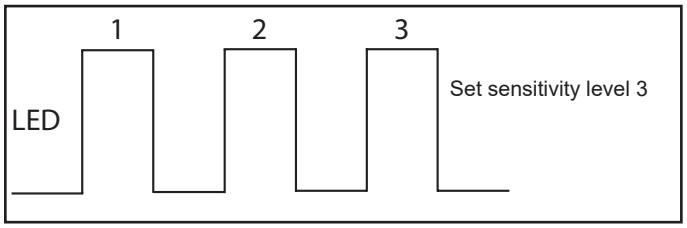
Testing sensitivity

The recommended sensitivity can be displayed using the LED display

NOTE:
After the second step, one of the LEDs starts flashing. The frequency of the flashing must be counted. The sensitivity is set manually based on the calculated value.

1. Drive a high vehicle, e.g. a lorry, over the induction loop
   ⇒ The induction loop module evaluates the values generated by the vehicle
2. Set DIP switches 3+4 and 5+6 to the "OFF" position
   ⇒ The recommended sensitivity setting is displayed by the flash frequency of the LED

E.g.:



Measuring the loop frequency

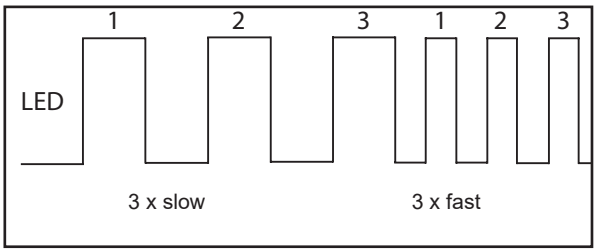
The recommended sensitivity can be displayed using the LED display

NOTE:
When the DIP switches (sensitivity switches) have been switched from OFF position to ON position, the LED belonging to the loop flashes.

The following items are important for measuring the loop frequency:

1. How often the LED flashes.
2. The frequency of flashing.

The loop frequency can be calculated based on the measured values.



Loop frequency = 33 KHz

Pre-set profiles

NOTE:
Profiles can be activated via menu item 2580; see "Select profile (2580)" on page 22.

	Standard 8K2	Standard OSE	Standard light curtain	8k2 + warning light	OSE + warning light	Light curtain + warning light + autom. closing	PNEU + warning light obstacle detection during UP	Standard 400 V GIGAspeed motors	Mech. Limit stop	Roll-up grille
Profile	1a	2a	3a	4a	5a	6a	7a	8a	9a	10a
Brake										
Upper brake point	20	20	20	20	20	20	20	20	20	20
Lower brake point	20	20	20	20	20	20	20	20	20	20
Start delay	0	0	0	0	0	0	0	0	0	0
Safety limit switch	100	100	100	100	100	100	100	**150**	100	100
Operating mode	Pulse UP / DOWN	Pulse UP / DOWN	Pulse UP / DOWN	Pulse UP / DOWN	Pulse UP / DOWN	Pulse UP / DOWN	Pulse UP / DOWN	Pulse UP / DOWN	Pulse UP / DOWN	Pulse UP / DOWN
Safety devices										
4-wire photocell	untested DOWN full rev.	untested DOWN full rev.	untested DOWN full rev.	untested DOWN full rev.	untested DOWN full rev.	untested DOWN full rev.	untested DOWN full rev.	untested DOWN full rev.	untested DOWN full rev.	tested retr. safety
2-wire photocell	---	---	---	---	---	---	---	---	---	**DOWN full rev.**
OSE 1	---	**DOWN full rev.**	---	---	**DOWN full rev.**	---	---	---	---	**DOWN full rev.**
OSE 2	---	---	**LC DOWN full rev.**	---	---	**LC DOWN full rev.**	---	---	---	**Retr. safety**
Safety contact strip 1	**8k2 DOWN full rev.**	---	---	**8k2 DOWN full rev.**	---	---	**PNEU DOWN full rev.**	**8k2 DOWN full rev.**	**8k2 DOWN full rev.**	---
Safety contact strip 2	---	---	---	---	---	---	---	---	---	---
Force detection UP	0	0	0	0	0	0	5	0	0	0
Automatic close	---	---	---	---	---	15s	---	15s	---	---
Premature close photocell	---	---	---	---	---	---	---	---	---	---
Relay										
Relay 1	Brake	Brake	Brake	Brake	Brake	Brake	Brake	Brake	Brake	Brake
Relay 2	End pos. CLOSE_ permanent	End pos. CLOSE_ permanent	End pos. CLOSE_ permanent	Both_directions_flash	Both_directions_flash	Both_directions_flash	End pos. CLOSE_ permanent	Both_directions_flash	End pos. CLOSE_ permanent	Both_directions_flash
Relay 3	End pos. UP_ permanent	End pos. UP_ permanent	End pos. UP_ permanent	End pos. UP_ permanent	End pos. UP_ permanent	End pos. UP_ permanent	End pos. UP_ permanent	End pos. UP_ permanent	End pos. UP_ permanent	End pos. UP_permanent
Traffic light control										
Door UP lead time	---	---	---	---	---	---	---	---	---	---
Hold open time	---	---	---	---	---	---	---	---	---	---
Door CLOSE lead time	---	---	---	---	---	---	---	---	---	---
Clearing time	---	---	---	---	---	---	---	---	---	---
Service interval										
Time	12 months	12 months	12 months	12 months	12 months	---	12 months	---	12 months	12 months
Cycles	20,000	20,000	20,000	20,000	20,000	---	20,000	---	20,000	20,000
Limit switch type	electr.	electr.	electr.	electr.	electr.	electr.	electr.	electr.	**mechanical**	electr.
Radio configuration	1	1	1	1	1	1	1	1	1	1
Emergency reverse time	50ms	50ms	50ms	50ms	50ms	50ms	50ms	**750ms**	50ms	50ms

Factory settings:

Language:		German
Date / time		Unchanged
Brake		Active
Upper brake point		20
Lower brake point		20
Brake delay		0
End positions		Position retained
Pre-end position switch		Position retained
Safety limit switch		100 increments
Operating mode		Impulse UP / Deadman DOWN
Safety devices	Safety input tested / untested	Deactivated
	2-wire photocell	Deactivated
	OSE 1	Deactivated
	OSE 2	Deactivated
	Safety contact strip 1	Deactivated
	Safety contact strip 2	Deactivated
Automatic close		0 sec. (disabled)
Relay 1		Brake
Relay 2		Inactive
Relay 3		Inactive
Partial opening		Pos. deleted
Inverter profile UP	Max. speed	50 Hz
	Startslope (ms)	600 ms
	Stopslope (inc.)	400 inc.
Inverter profile DOWN	Max. speed	50 Hz
	Startslope (ms)	600 ms
	Stopslope (inc.)	400 inc.
	Medium gear	40 Hz
	Emergency reverse time	50 ms
Switchpoint 2.5 m		Pos. deleted
Traffic light control	Door UP lead time	3 sec.
	Hold open time	20 sec.
	Door DOWN lead time	3 sec.
	Clearing time	5 sec.
Door cycles		Unchanged
Event history		Unchanged
Motor setup	Motor direction	Unchanged
	Encoder direction	Unchanged
	Motor controller	Unchanged
Service interval	Time	12 months
	Cycles	10,000 cycles
Emergency reverse time		100 ms
Limit / end position switch type		Unchanged
Password		0000

NOTE:
These factory settings are applicable for standard control units only. There may be differences with personalised control units.
See Factory settings (Menu 2520) Page 42.

Error messages and event displays

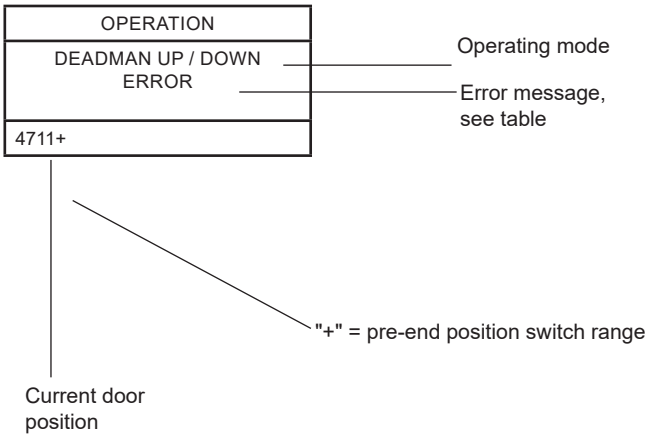
Error messages

The control unit is self-monitoring and partially self-healing. This means that it detects errors (including errors in connected devices) and shows them on the LCD display.

Depending on the severity of the error, the display is automatically reset after correction of the error or must be manually reset as directed.

All errors and events that affect the safety of the system are logged with date and time. They can be viewed in the Service menu under "Event history."

NOTE:
Self-healing means that the control unit automatically resets the error display as soon as the error has been corrected.



* Error classes:

F = fatal error
S = serious error
D = defect
E = safety event

** Event is logged in the service menu (parameter menu)

	Error message	Error class*	Log**	Self-healing
1	SECURITY CHAIN Emergency release active or motor overheated	S	Yes	Yes
2	SAFETY CHAIN 2 Wicket door switch activated or wicket door opened	S	Yes	Yes
3	INVERTER STANDBY Frequency converter switched off or communication faulty	S	Yes	No
4	CHECK ENCODER Absolute value encoder or connection cable defective	F	Yes	Yes
5	THERMO SWITCH Frequency converter overheated	S	Yes	Yes
6	SW.RAIL 1 TRIGGERED Safety device at terminals 17-18 was triggered	E / D	No	Yes
7	SW.RAIL 2 TRIGGERED Safety device at terminals 19-20 was triggered	E / D	No	Yes
8	OSE 1 TRIGGERED Safety device at terminals 21-23 was triggered	E / D	No	Yes
9	OSE 2 TRIGGERED Safety device at terminals 24-27 was triggered	E / D	No	Yes
10	4-WIRE PHOTOCELL TRIGGERED Safety device at terminals 28-31 was triggered	E / D	No	Yes
11	2-WIRE PHOTOCELL TRIGGERED Safety device at terminals 32-33 was triggered	E / D	No	Yes
12	CONFIG. ERROR System error, control unit defective	F	Yes	No
13	SECU LIMIT SWITCH End position crossed	S	Yes	Yes
14	RUNTIME ERROR The programmed runtime was exceeded (mechanical limit stops)	F	No	Yes
15	WRONG DIRECTION Operator running in the wrong direction. (Phases have been reversed)	S	Yes	Yes
16	BLOCKED Movement not possible. (Further messages on the display)	S	Yes	Yes
17	CHECK MOTOR CHECK ENCODER Despite the start command of the control unit, the encoder values are not changed	F	Yes	No
18	FUSE 24 V Replace fuse F5 (40 mA F)	D	No	Yes

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