

# PRODUCT MANUAL



## ABUS pendant control with control cable

HT 211, 611, 1011



### At a glance:

The pendant control: page 9

Installing and connecting: page 12

Operating a crane with two trolleys: page 17

Load display and tare: page 18

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AN 120028EN004  
2025-01-14

Original Operating Instructions

# ABUS

# PENDANT CONTROL: VARIOUS TYPES, SIZES, VERSIONS AND OPTIONS

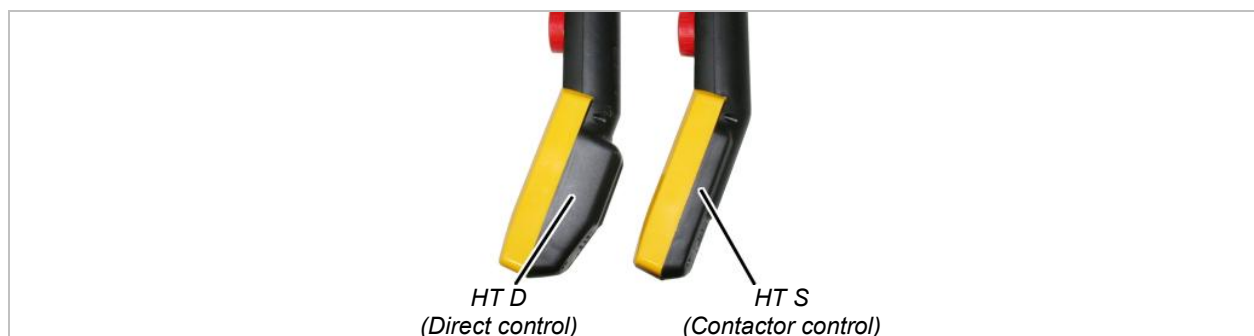
This product manual applies to ABUS pendant control of various types, sizes and versions. The work steps described and the technical data will vary according to the type, size and version of the pendant control. The areas of this product manual which do not apply to all ABUS pendant control, but are applicable only under certain conditions, are enclosed in a dashed box. At the start of the box, the types, sizes and versions to which the section is applicable are specified.

If a work step is described in a dashed box:

- ➔ At the start of the dashed box text, read the size or version to which this box applies.
  - ➔ Note page and turn to this first page.
  - ➔ Based on the images, determine which size or version applies to the crane in question.
  - ➔ Turn back to the page with the associated dashed box for the next work steps.
- 
- ➔ The size or version that applies to the crane in question can also be determined by consulting the scope of delivery or the planning documents.

## PENDANT CONTROL (TYPE)

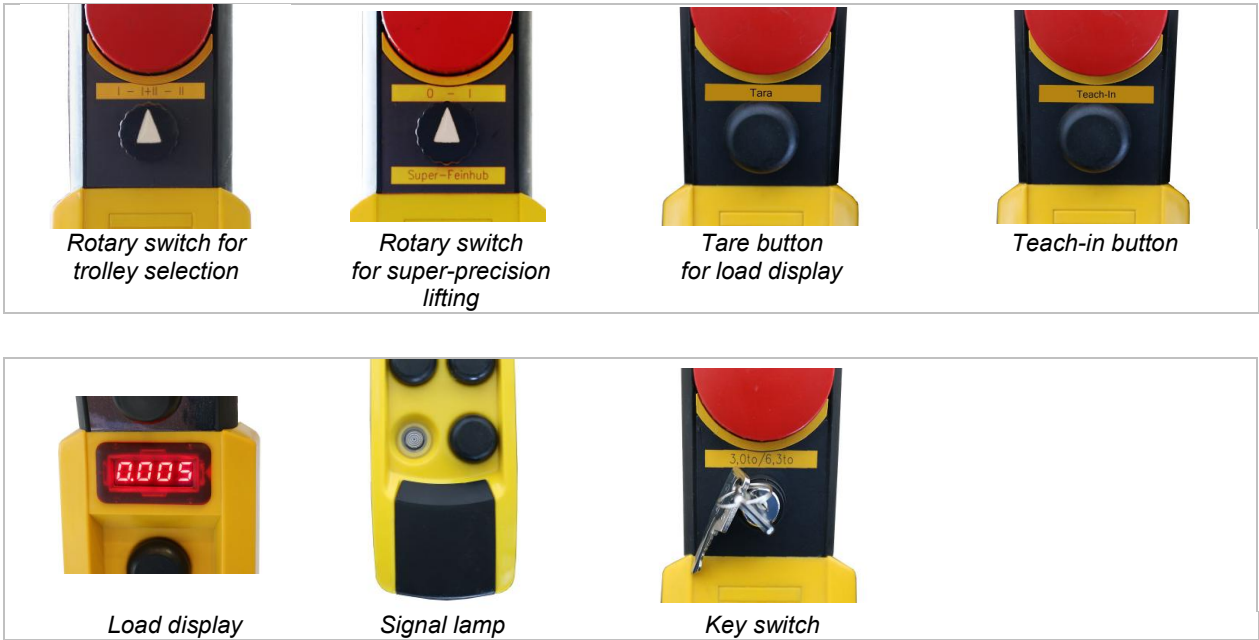
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PENDANT CONTROL (SIZE)



ADDITIONAL FUNCTIONS (VERSION)



## CRANE CONTROL (VERSION)

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Example images:



*ABUS electrics 3 with contactor control*



*ABUControl*

## POWER SUPPLY (VERSION)

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*ABUPowerline energy chain*



*Festoon cable system*

## CONNECTION (VERSION)

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*Control trolley for the mobile control on festoon cable system*



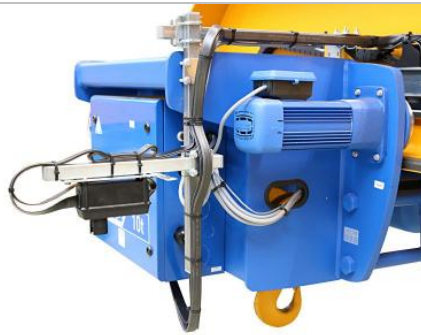
*Control trolley for the mobile control on energy chain*



*Stationary control on the jib crane (replacement control)*



*Control on chain hoist*



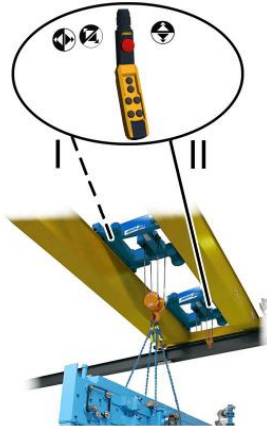
*Control on the trolley*

## TWO TROLLEYS ON ONE CRANE (OPTIONAL)

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*Trolley selection I I+II II  
(The trolleys can be operated in alternation, or together)*

*Trolley selection I II  
(The trolleys can be operated in alternation)*



*In alternation: as shown at the left.  
Joint operation: joint operation of both trolleys*



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# GENERAL INFORMATION

THIS SECTION APPLIES TO ANYONE WHO LIFTS LOADS USING THE CRANE, PERFORMS WORK ON THE CRANE, OR WORKS NEARBY.

## AT THE START

### USING THIS PRODUCT MANUAL

The following symbols are used in this product manual:



#### **DANGER TO PERSONS!**

This warning notice indicates hazards for persons.



#### **DANGER FROM ELECTRIC SHOCK!**

This warning notice indicates hazards for persons due to incorrect handling of the electrical system and electricity.



#### **DANGER FROM FALLING SUSPENDED LOAD!**

This warning notice describes hazardous situations that can lead to the suspended load falling.



#### **NOTICE OF POSSIBLE DAMAGE!**

This notice describes situations in which a component could be damaged.



This is an instruction regarding an action and prompts you to perform a work step.

- This is the result of an action and describes what happens on the device.
- This is a list.

#### **ONLY WITH...**

A section that appears in a box framed by a dashed line is only applicable for certain types, versions or options. The condition to which the section applies is specified at the beginning in the heading "Only with..."

## INSTRUCTIONS FOR THE PRODUCT MANUAL

Read the product manual through carefully before beginning work. Also be sure to observe additional product manuals for accessories and components.

Afterwards, keep the product manual available in the vicinity of the crane. It must be accessible to all who work with or on the crane.

In the case of reselling or hiring out, always provide the product manual together with the crane.

## PROPER USE

The ABUS pendant control is for controlling the ABUS cranes and solo chain hoists by means of a control cable.

- ABUS pendant control cannot be used on cranes from other manufacturers.
- Do not use the ABUS pendant control to operate other devices or machines.

## REGULATIONS

The installation has been built and tested according to European standards, rules and regulations applicable at the time of its manufacture. The conventions applied during design and construction are specified in the Declaration of Conformity or the Declaration of Incorporation. The conventions must also be observed for installation, operation, inspection and maintenance, as must the applicable occupational health and safety regulations.



### **DANGER TO PERSONS!**

Non-observance of the regulations can result in the death of persons or serious accidents.

To ensure that the work can be performed safely, thorough instruction in regard to this product manual and the regulations is necessary.

Which provision applies in individual cases will greatly depend on the crane's use and the national regulations. Review and observe all applicable and current regulations, including the occupational health and safety regulations. Refer also to the Declaration of Conformity or Declaration of Incorporation.

## WARRANTY

- ABUS assumes no liability for damages that were caused by improper use, inadequately trained personnel, incorrect performance of work, nor for any changes, reconstruction or other modification of the crane or crane components which were not approved by ABUS.
- Any warranty claim becomes invalid if components were modified without consent, the crane or crane components were installed, used or serviced in any way other than that described in this product manual, or if parts other than original ABUS replacement parts were used.
- Safe operation of the crane or crane components is only guaranteed if original ABUS replacement parts are used.



## INSTRUCTIONS REGARDING SAFETY

Observe these instructions for safe handling of the crane. Special hazard notices are located in the corresponding sections in which the danger arises.

- If the pendant control is damaged, it could send the wrong commands to the crane. The crane could then lift or travel unchecked. As a result of this people can be killed or injured. Only use the pendant control if there are no visible signs of damage on it. Do not throw, drop or jolt the pendant control.
- The sheath of the control cable serves to protect the wiring while also acting as a strain reliever. Therefore do not simply wind up the control cable and glue the ends together to shorten it. This would eliminate any function as a strain reliever.
- If the crane operator stumbles or falls, the pendant control may be unintentionally activated. These unintended crane movements could result in the death or injury of persons. Only operate the crane from a safe position with secure footing.
- If the crane operator does not have an unobstructed view of the load, persons could be hit by the load and be killed or injured. Only operate the crane when the load, crane and operating range can all be seen. Otherwise, work together with a banksman.
- When changing location with the pendant control (particularly when turning around), the sensitivity for the travel direction of the crane and trolley changes. This could cause unintended operating commands to be sent in the wrong direction. These unintended crane movements could result in the death or injury of persons. When changing location, proceed with the utmost caution. Observe the operating direction signs on the crane and the pendant control!
- If the pendant control is not deactivated by the emergency stop button, unintended crane movements could result in death or injury of persons. Never leave the pendant control unsupervised without having pressed the emergency stop.

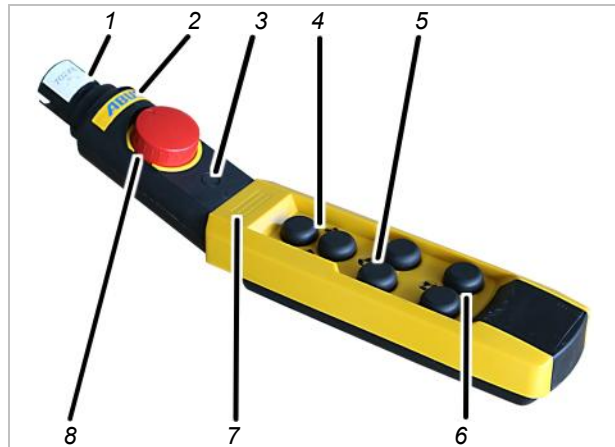
## THE PENDANT CONTROL

### DESCRIPTION OF THE DEVICE

The pendant control consists of:

- Pendant control
- Control cable

Pendant control:



- 1. Connection for the control cable
- 2: ABUS sign
- 3: Installation point for additional functions, e.g.: key switch
- 4: Buttons for lifting and lowering
- 5: Button for trolley travel
- 6: Button for crane travel
- Only for jib crane: instead of the button labels for crane travel there are button labels for slewing.
- 7: Installation location for load display
- 8: Emergency stop button

Control cable:



- 1: Bayonet connector
- 2: Control cable
- 3: Coding pin
- 4: Bayonet nut

## PERFORMANCE FEATURES

The pendant control:

- ABUS cranes can be cable-controlled using the ABUS ABUCommander pendant control.
- For this the pendant control is connected directly to the trolley or a mobile control by a control cable and hangs down to the level of the crane operator.
- ABUS pendant control can be used to operate all the normal crane functions (crane travel/slewing, trolley travel, lifting/lowering) and, depending on the crane equipment, many additional functions.
- Optionally, the pendant control can be fitted with additional buttons, a rotary or key switch, a signal lamp and a load display.
- The pendant control features an ergonomic design for a comfortable grip. The crane functions can be operated with one hand. The buttons are large-sized and have a long hook path for safe operation.
- The pendant control contains switch elements for switching the contactors in the control (version S) or switch elements, which switch the power to the hoist motor and travel motor (direct control). The housing of the pendant control for contactor control is therefore has an especially slim-lined design.
- The pendant control has a housing made of impact- and scratch-resistant plastic, which makes it stable and robust.
- The pendant control is designed such that it can be optimally operated, held and re-tightened.
- On a crane with radio remote control the pendant control can also act as a replacement control in the event of a failure.

The control cable:

- The control cable connects the mobile control or the trolley with the pendant control.
- The control cable directly ensures the strain relief. This means no separate strain relief is required.
- The pendant control can be quickly disconnected from the control cable for service purposes and in emergencies. The plug-in connection is fitted with a bayonet coupling or bayonet connector for this reason.

## TECHNICAL DATA

### HT 211 D, HT 611 D pendant controls:

Electrical connection		
Rated insulation voltage $U_i$ (group C)	500 V	
Rated operating current $I_e$ (at 400 V/50 Hz)	5 A	
Service life for mixed operation (75 % utilisation category AC3 and 25 % utilisation category AC4, switching rate 600 switches/hour; 40 % duty cycle)	at rated power 1.5 kW	1.5x10 <sup>6</sup> switches (number of switching procedures)
	at rated power 2.2 kW	0.6x10 <sup>6</sup> switches (number of switching procedures)
Mechanical service life	2.0x10 <sup>6</sup> switches	

### Ambient conditions for operation

Protection class	IP 65
Ambient temperature	-20 C to +70 C

### HT 211 S, HT 611 S, HT 1011 S pendant control:

Electrical connection	
Rated operating voltage	250 V
Rated operating current $I_e$ (at 250 V/50 Hz)	1 A
Service life: (utilisation category AC11, 230 V)	2.0x10 <sup>6</sup> S (number of switching operations)

### Ambient conditions for operation

Protection class	IP 65
Ambient temperature	-20 C to +70 C

### Control cable:

Electrical connection	
Operating voltage	500 V
Mains frequency	50/60 Hz
Current consumption	5 A

## DISPOSING OF THE PENDANT CONTROL

If the pendant control needs to be disposed of:

- ➔ Observe local regulations concerning disposal and recycling.
- ➔ Dispose of the individual parts sorted by material in an environmentally sound manner.
  - Dispose of electronic components as scrap electronic parts.
  - Dispose of cables and plug-in connections as scrap electronic parts.
  - The housing and plastic parts should be recycled with plastic waste.
  - Dispose of metal parts as scrap metal.



*This product or electrical device may not be disposed of at the end of its service life with regular domestic waste.*

# INSTALLING AND CONNECTING

THIS SECTION APPLIES TO ANYONE WHO WORKS ON THE CRANE PRIOR TO ITS USE

The end user of the crane is responsible for the proper qualifications of the commissioning personnel.



## DANGER TO PERSONS!

Persons can be injured if the crane is incorrectly put into operation.

If personnel other than that of the ABUS company are employed to perform the crane commissioning, it is the end user's responsibility to ensure that these persons are adequately qualified. Follow the procedures described here precisely.

Examples of qualified persons:

- Persons with comprehensive knowledge from specialist training in engineering and in the electrical systems of cranes.
- Persons with sufficient experience in the operation, installation and maintenance of cranes.
- Persons with comprehensive knowledge regarding the relevant technical rules, directives and safety regulations applicable in the respective country.
- Persons receiving regular training from ABUS.

ABUS assumes no liability for damage due to incorrectly performed commissioning work done by unqualified personnel.

ABUS recommends having the commissioning work performed by the ABUS assembly team.

## CONNECTING THE CONTROL CABLE AND PENDANT CONTROL

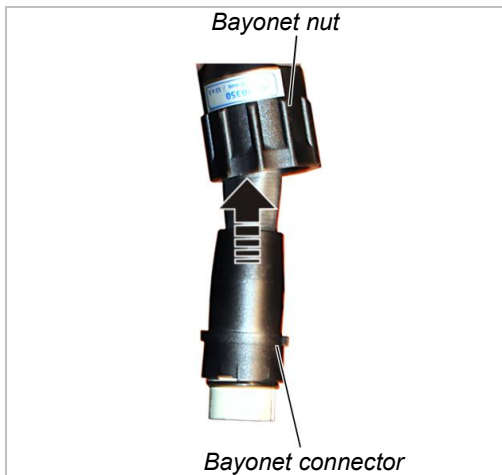
Depending on the conditions, the pendant control can be connected to the mobile control or the trolley (chain hoist or wire rope hoist) with the control cable. The following section shows the connection process to the mobile control. The connection process for the trolley does not differ significantly from this.

### CONNECT CONTROL CABLE ON THE MOBILE CONTROL



- ➔ Insert the bayonet connector for the control cable onto the socket on the control trolley. There is a notch to ensure the bayonet connector only fits in one position.
- ➔ Place the bayonet nut on and turn it.

## CONNECT THE PENDANT CONTROL TO THE CONTROL CABLE



- Pull the bayonet nut back on to the control cable.



- Insert bayonet connector into bayonet coupling.  
→ Place the bayonet nut on and turn it.

## CONNECTING THE REPLACEMENT CONTROL CABLE

If contact 24 on the bush part is not assigned, provide this position with a coding pin. The coding pin prevents a control cable with a control pendant with direct control (HT-D) being connected inadvertently with a control cable with contactor control.

### ONLY WITH CONTACTOR CONTROL



- Remove coding pin with pliers.

### ONLY WITH DIRECT CONTROL

- Using pliers, break off the coding pin at the marked break point.
- The coding pin can no longer be removed. It prevents the control cable from being plugged into a crane with contactor control.

# OPERATION

THIS SECTION APPLIES TO ANYONE WHO LIFTS LOADS USING THE CRANE OR WORKS NEARBY

Be sure to read and observe the product manual of the entire crane! The instructions given here apply in addition to the other product manuals.

## INSTRUCTIONS REGARDING SAFETY

Observe these instructions for safe handling of the crane. Special hazard notices are located in the corresponding sections in which the danger arises.

**DANGER OF ELECTRIC SHOCK IF PENDANT CONTROL IS DAMAGED!**







Uncontrolled swinging of the pendant control can cause it to strike something and become damaged. This could expose voltage-conducting parts.

This poses the risk of electrical shocks, which could kill people.

Do not allow the pendant control to swing back and forth!

**DANGER TO PERSONS DUE TO SUSPENDED LOAD!**

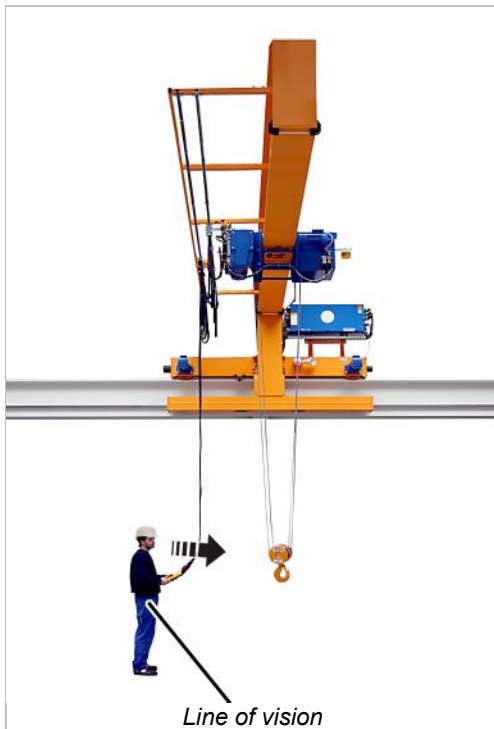




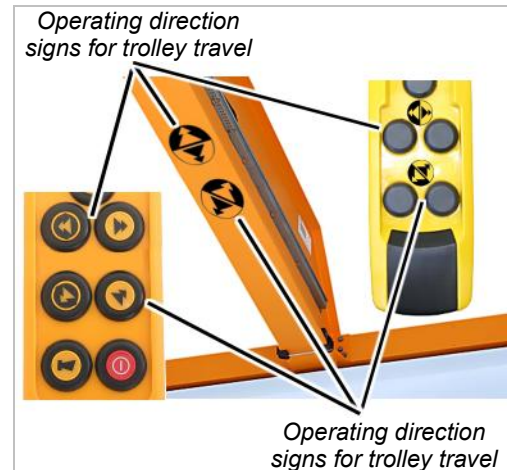
The suspended load can sway or fall down. As a result of this, persons in proximity to the load could be killed or injured.

Only operate the crane at a sufficient safety clearance from the load.

## OPERATING THE CRANE WITH THE PENDANT CONTROL



- ➔ Take the pendant control in your hand.
  - ➔ With the pendant control in hand, turn so that the crane is in your line of vision.
  - This is the optimum position for operating the crane.
- In this position, the directions of the operating direction signs (arrows) on the pendant control match the actual direction of travel of the crane and the trolley.



- ➔ Select your position so that the operating direction signs from the pendant control match the operating direction signs on the crane.
- Independent of their respective position, the colours of the operating direction signs (yellow and black arrows) always point the correct running direction of the crane and the trolley.
- ➔ Observe the operating direction signs.

## CHECKING BEFORE BEGINNING WORK AND SWITCHING ON

Check the following points before beginning work with the crane. If there is any damage or problems arise, do not work with the crane; inform coworkers and supervisors.

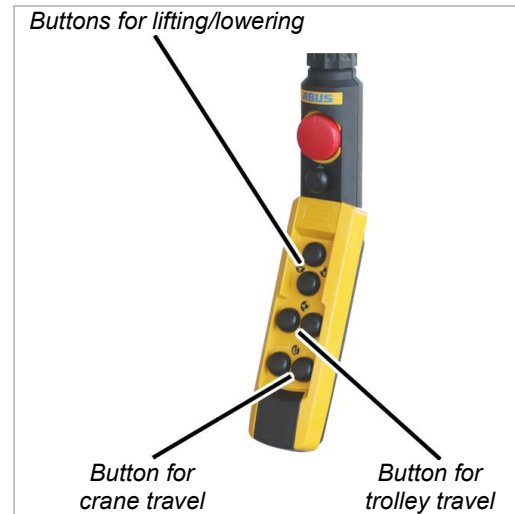
## UNLOCKING THE EMERGENCY STOP BUTTON



- ➔ Turn the emergency stop switch a quarter-turn clockwise.
- ➔ The crane is ready for use.

## LIFTING AND LOWERING, CRANE TRAVEL, TROLLEY TRAVEL

To accelerate and brake the crane, two-stage buttons are used on the pendant control for all crane axes.



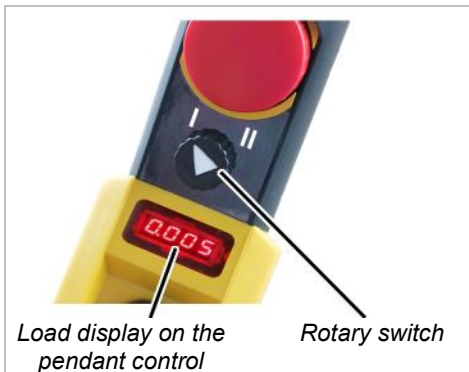
- ➔ See the product manual "Operation".



## OPERATING A CRANE WITH TWO TROLLEYS

### ONLY ON CRANES WITH TROLLEY SELECTION

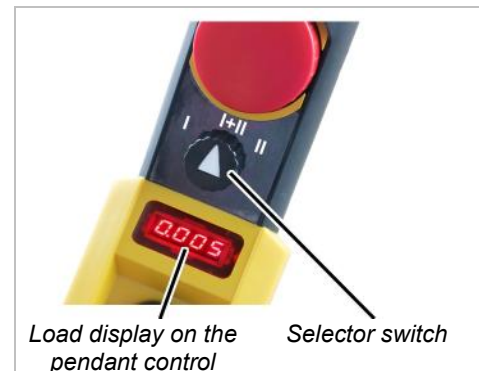
On a crane with trolley selection, it is possible to switch back and forth between trolley I and trolley II.



- ➔ Wait until the crane stops.
- ➔ Set the rotary switch to "I" to select trolley I, or to "II" to select trolley II.
  - With load display on the pendant control: The load of the selected trolley is indicated on the display.
  - Press the buttons for lifting, lowering and trolley travel to control the selected trolley.

### SWITCHING OVER TO JOINT OPERATION

On a crane with trolley selection and joint operation, it is also possible to switch back and forth between trolley I and trolley II in joint operation of both trolleys.



- ➔ Wait until the crane stops.
- ➔ Set the rotary switch to trolley I+II.
  - With load displays on the trolleys: The individual load of the trolleys is shown on the displays of the trolleys.
  - With load display on the crane: The display shows the total load.
- ➔ Press the buttons for lifting, lowering and trolley travel to operate trolley I and II at the same time.

## LOAD DISPLAY AND TARE

### ONLY FOR THE LOAD INDICATOR SYSTEM MIT TARE

This section is only applicable for a pendant control with a load display and tare function.

#### TARE

The load display of the crane can be reset to zero using the "Tare" function. This enables a differential measurement, e.g. in order not to include the weight of a load lifting attachment (such as a crosshead).



- ➔ Press and hold the tare button for approx. one second.
- ➔ The display of the suspended load is set to zero.

To reset the tare:

- ➔ Press the "Tare" button again.
  - The load display shows the original value again.

## SWITCHING SUPER-PRECISION LIFTING ON AND OFF

### ONLY WITH SUPER-PRECISION LIFTING

This section only applies to wire rope hoists with the option of super-precision lifting.

#### SWITCHING SUPER-PRECISION LIFTING ON AND OFF

- ➔ Wait until the crane stops.
- ➔ Switch super-precision lifting on or off with the rotary switch.
  - Wait about 2 seconds until the super-precision lifting function has switched on or off.

# MAINTENANCE

THIS SECTION APPLIES TO ANYONE WHO MAINTAINS, REPAIRS OR MODIFIES THE CRANE.

The end user of the crane is responsible for the selection and proper qualifications of the maintenance personnel.



## **DANGER TO PERSONS!**

Persons can be injured if the crane is incorrectly serviced.

If personnel other than that of the ABUS company are employed to perform maintenance on the crane, it is the end user's responsibility to ensure that these persons are adequately qualified. Follow the procedures described here precisely.

Examples of qualified persons:

- Persons with comprehensive knowledge from specialist training in engineering and in the electrical systems of cranes.
- Persons with sufficient experience in the operation, installation and maintenance of cranes.
- Persons with comprehensive knowledge regarding the relevant technical rules, directives and safety regulations applicable in the respective country.
- Persons receiving regular training from ABUS.

ABUS assumes no liability for damage due to incorrectly performed maintenance work done by unqualified personnel.

ABUS recommends having the maintenance work performed by ABUS Service.

Use only original ABUS replacement parts. Otherwise, all warranty claims will be rendered invalid.

## **INSTRUCTIONS REGARDING SAFETY WHEN PERFORMING MAINTENANCE WORK**

Observe the following safety instructions when doing any maintenance work on the crane with ABURemote:

- Switch off the mains switch. Secure the switch to ensure it cannot be turned back on accidentally.
- Unplug the mains disconnecter plug from the socket on the crane panel. Secure the socket with a padlock to ensure it is not plugged back in accidentally.
- Use suitable lifting platforms and fall protection equipment.
- Adequately cordon off the operating range around the lifting platform.
- Switch off any other cranes using the same crane track or cranes working above or below the crane undergoing maintenance. Secure the switches to ensure they cannot be turned back on accidentally. Otherwise, other cranes could overturn the hoisting platform or crash into the crane undergoing maintenance.
- Notify personnel in the area that maintenance work will be performed.
- Only trained electricians should work on the crane electrical system!
- Even after the emergency stop button has been pressed, life-threatening high voltages are still present in the panels.

## OPENING AND CLOSING THE HOUSING



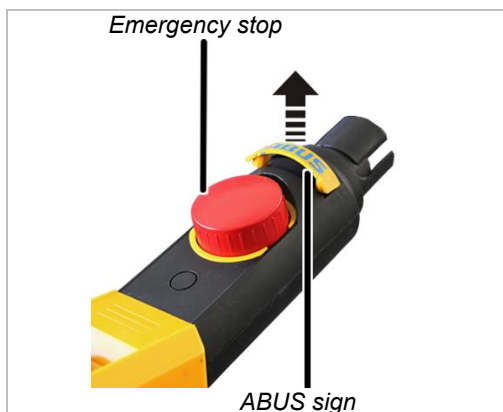
### DANGER FROM ELECTRIC SHOCK!

The housing contains some parts with live voltage which could lead to electric shock. As a result of this people can be killed or injured.

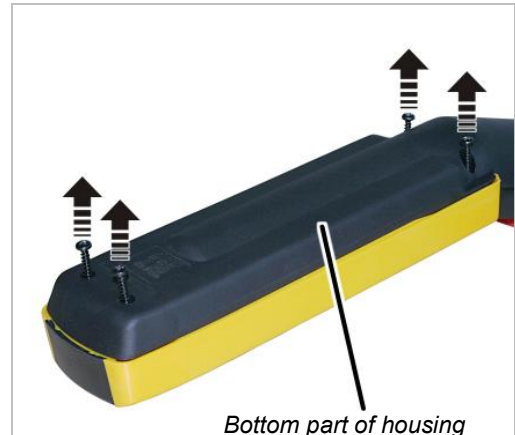
Before opening the pendant control, completely switch off the pendant control or the entire crane.

- ➔ Place the bayonet nut on and turn it.
- ➔ Disconnect the pendant control from the control cable.

### OPEN HOUSING

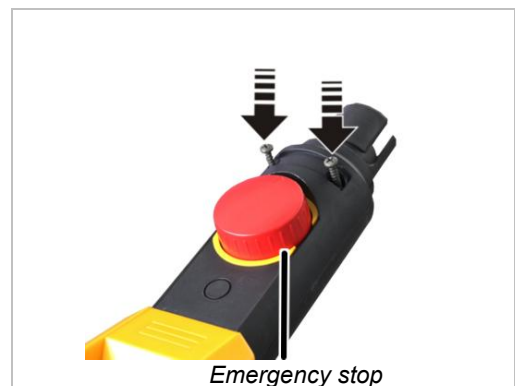


- ➔ Pry out the ABUS sign from the emergency stop housing.
- ➔ Remove exposed self-tapping screws (2x) below the ABUS sign.

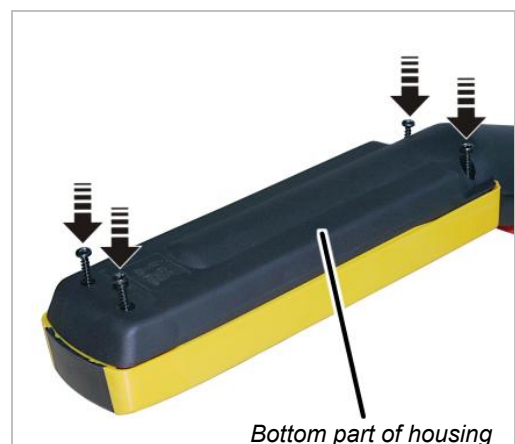


- ➔ Remove self-tapping screws (4x) for bottom part of housing.
- ➔ Separate the top and bottom part of housing from each other.

### CLOSING THE HOUSING



- ➔ Screw on the emergency stop housing with self-tapping screws 3x25 mm (2x) to 0.8 Nm.

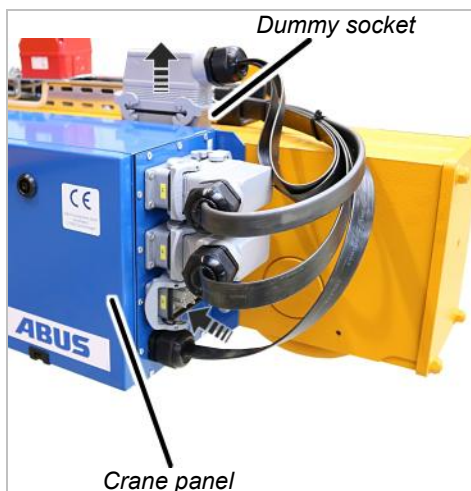


- ➔ Tighten the bottom part of housing with self-tapping screws 3.5x25 mm (4x) to 0.8 Nm.
- ➔ Fit the ABUS sign above the emergency stop in the emergency stop housing.

## USING REPLACEMENT CONTROL

### ONLY WITH PENDANT CONTROL AS REPLACEMENT CONTROL

If the crane is fitted with a pendant control as a replacement control, the pendant control can be used when the radio transmitter is not available.

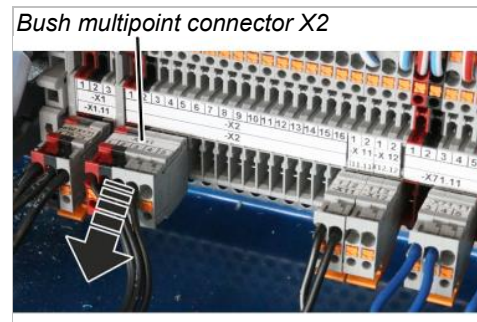


- ➔ Unplug the connection cable for the receiver from the crane control.
- ➔ Unplug the connection cable for the mobile control from the dummy socket and plug into the crane control.
- ➔ Plug the connection cable for the receiver into the dummy socket.
- ➔ Move the pendant control with control cable to the operating range.
- ➔ Plug the control cable of the pendant control into the mobile control.

### ONLY WITH ABUCONTROL

When the crane is operated with a pendant control as a replacement control, continuous motion control is active irrespective of the KranOS setting.

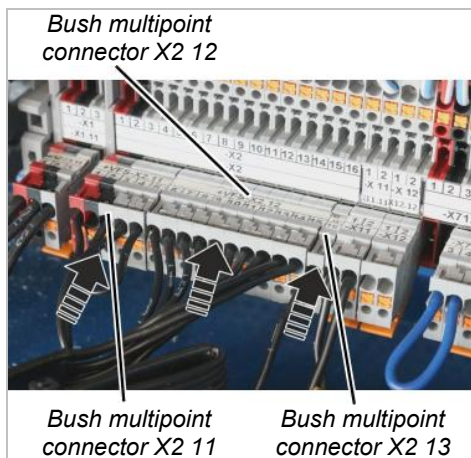
### DETACHING THE COUPLING FROM THE RECEIVER



- ➔ Open the crane panel.
- ➔ Find bush multipoint connector X2.
- ➔ Detach bush multipoint connector.

## INSERTING COUPLER PLUG FROM PENDANT CONTROL

The bush multipoint connectors from the pendant control have already been guided into the crane panel and laid ready there.



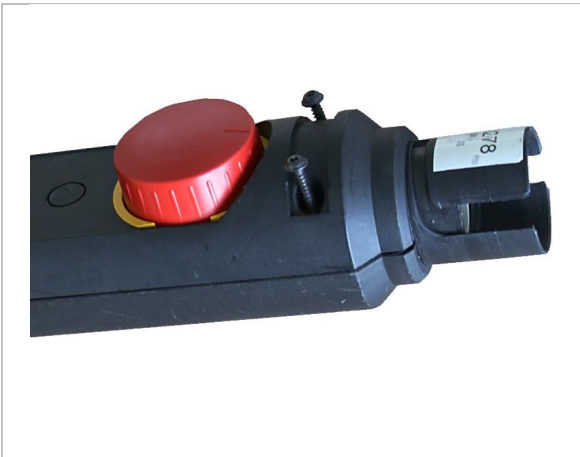
Insert bush multipoint connector from pendant control.

- Bush multipoint connector X2.11 (terminal 1 to 5)
- Bush multipoint connector X2.12 (terminal 6 to 15)
- Bush multipoint connector X2.13 (terminal 16 to 27. Depending on the crane equipment, only individual terminals may be available and not all those described here)
- Bush multipoint connector X2.14 (terminal 28 to 38. Depending on the crane equipment, only individual terminals may be available and not all those described here, or the bush multipoint connector may be entirely omitted)

## AVAILABLE ACCESSORIES

Replacement set	Item designation	Item number
Shortening/ extending the control cable	Shortening the control cable	308859
	Connection element for connecting control cables	102282
Installing additional strain relief	Complete set of strain relief fasteners (only for chain hoists)	109795
	3 mm strain relief cable	572
Installing rotary switch/turn key	Switch block rotary switch 0-1-2/2 changeover contact	102271
	Switch block rotary switch 1-0-2/2 changeover contact	102272
	Switch block turn key 1-0-2/2 changeover contact	102273
	Switch block button 1 stage/2 changeover contact	102274
Fitting additional buttons	4 digit display unit	102279
Installing the load display	Key switch engages in zero position. Key removable to the left, 1 NOC, 1 NCC	102276
	Key for key switch, no. 311	26486
	Key switch engages in zero position 2 stage locking. Key removable to the left and right 1 NOC, 1 NCC	102277
	Key for key switch, no. 320	26487
	Key switch engages in zero position, key removable to the left, 1 NOC, 1 NCC	102278
	Key for key operated button no. 311	26486
	Complete 110 V-230 V signal lamp for ABUS-HT	102280
	Complete 48 V signal lamp for ABUS-HT	102281

OVERVIEW OF TIGHTENING TORQUES

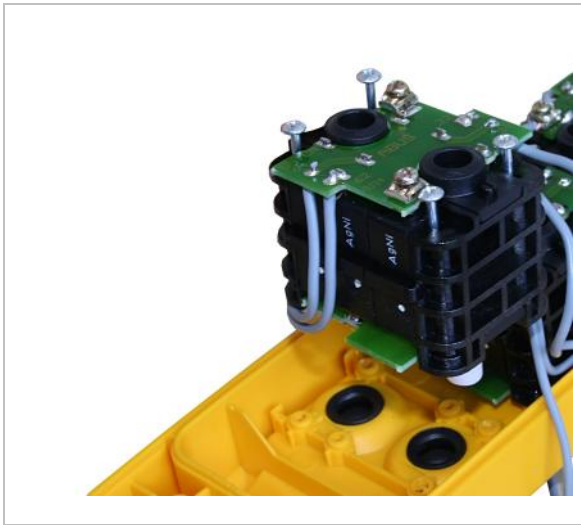


Type	Type, size and length	Number	Tightening torque
HT D (direct control)	Self-tapping screws 3x25 mm	2x	0.8 Nm
HT S (contactor control)	Self-tapping screws 3x25 mm	2x	0.8 Nm



Type	Type, size and length	Number	Tightening torque
HT D (direct control)	Self-tapping screws 3.5x25 mm	4x	0.8 Nm
HT S (contactor control)	Self-tapping screws 3.5x25 mm	4x	0.8 Nm





Type	Type, size and length	Number	Tightening torque
HT D (direct control)	Self-tapping screws 2.5x41.7 mm	4x per switch block	0.4 Nm
HT S (contactor control)	Self-tapping screws 2.5x28 mm	2x per button/rotary switch	0.2 Nm



Type	Type, size and length	Number	Tightening torque
HT D (direct control)	Self-tapping screws 3x15 mm	2x	0.55 Nm
HT S (contactor control)	Self-tapping screws 3x15 mm	2x	0.55 Nm



Type	Type, size and length	Number	Tightening torque
HT D (direct control)	Clamping screws	2x	0.9 Nm
HT S (contactor control)	Clamping screws	2x	0.9 Nm



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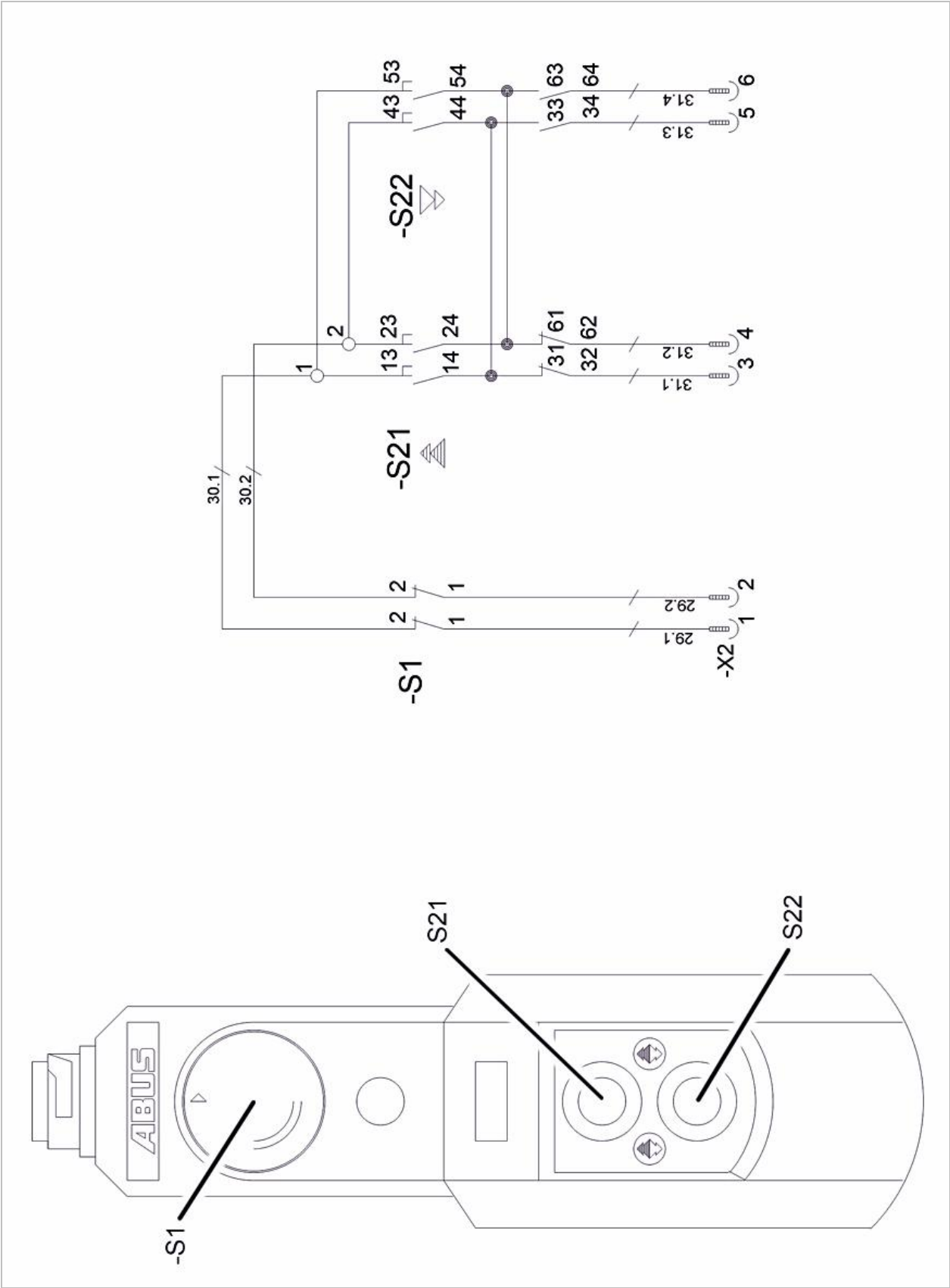
## WIRING DIAGRAMS

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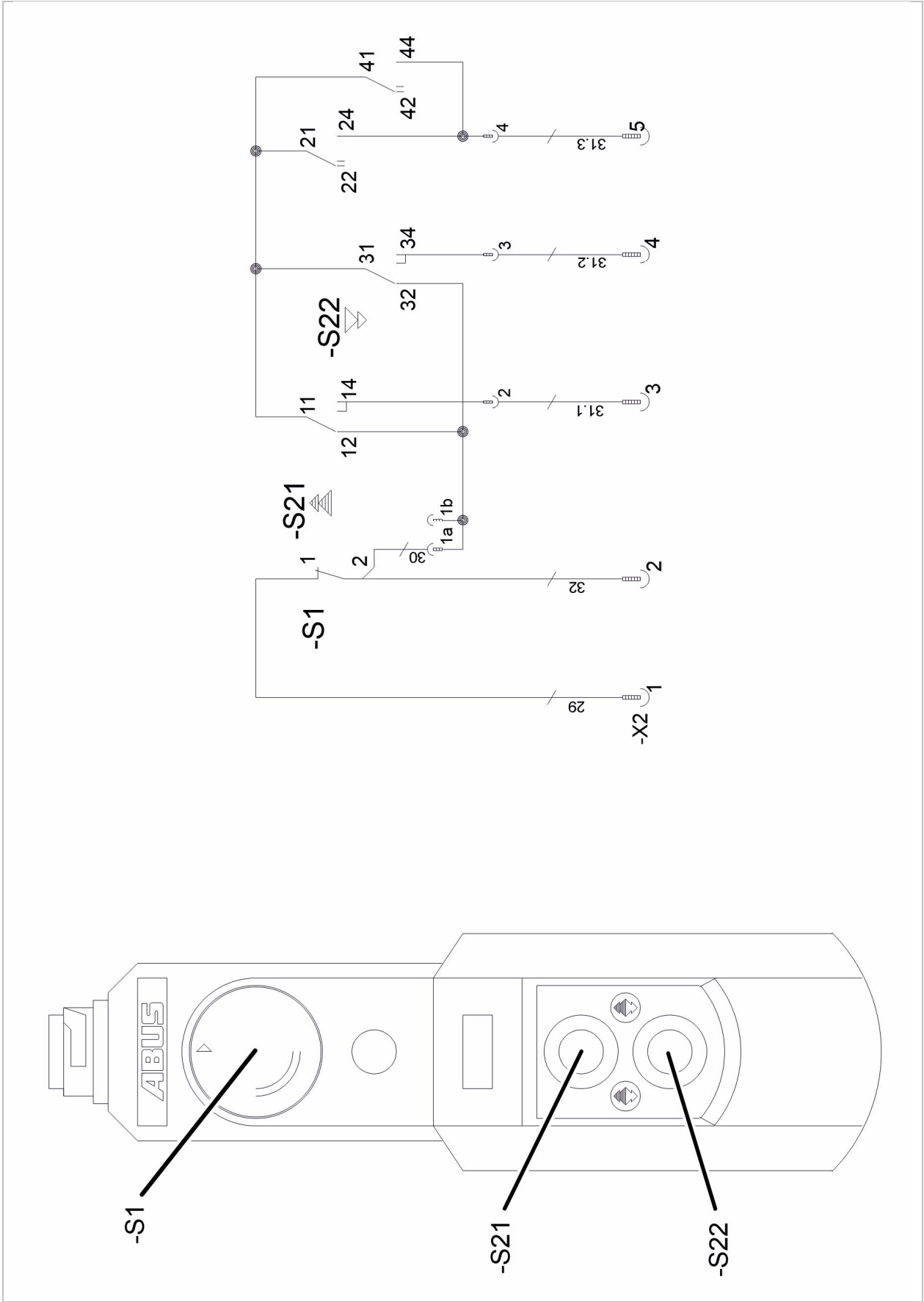
Special wiring diagrams can be obtained from ABUS Service. See "ABUS Service", page 35.

Abbreviation	Designation
-A1	Supply PCB, direct control PCB
-H32	Overload
-S1	Emergency stop button
-S11	Horn
-S12	Trolley
-S13	Tandem control system
-S21	Lift button
-S22	Lower button
-S31	Emergency limit switch
-S32	Tare
-S41	Trolley travel toward right button
-S42	Trolley travel toward left button
-S61	Forward crane travel button
-S62	Reverse crane travel button
-S85	Crane lamp
-X2	Plug-in connection for pendant control
-X21	Plug-in connection for hoist motor

HT211 DIRECT CONTROL (N200) – WIRING DIAGRAM



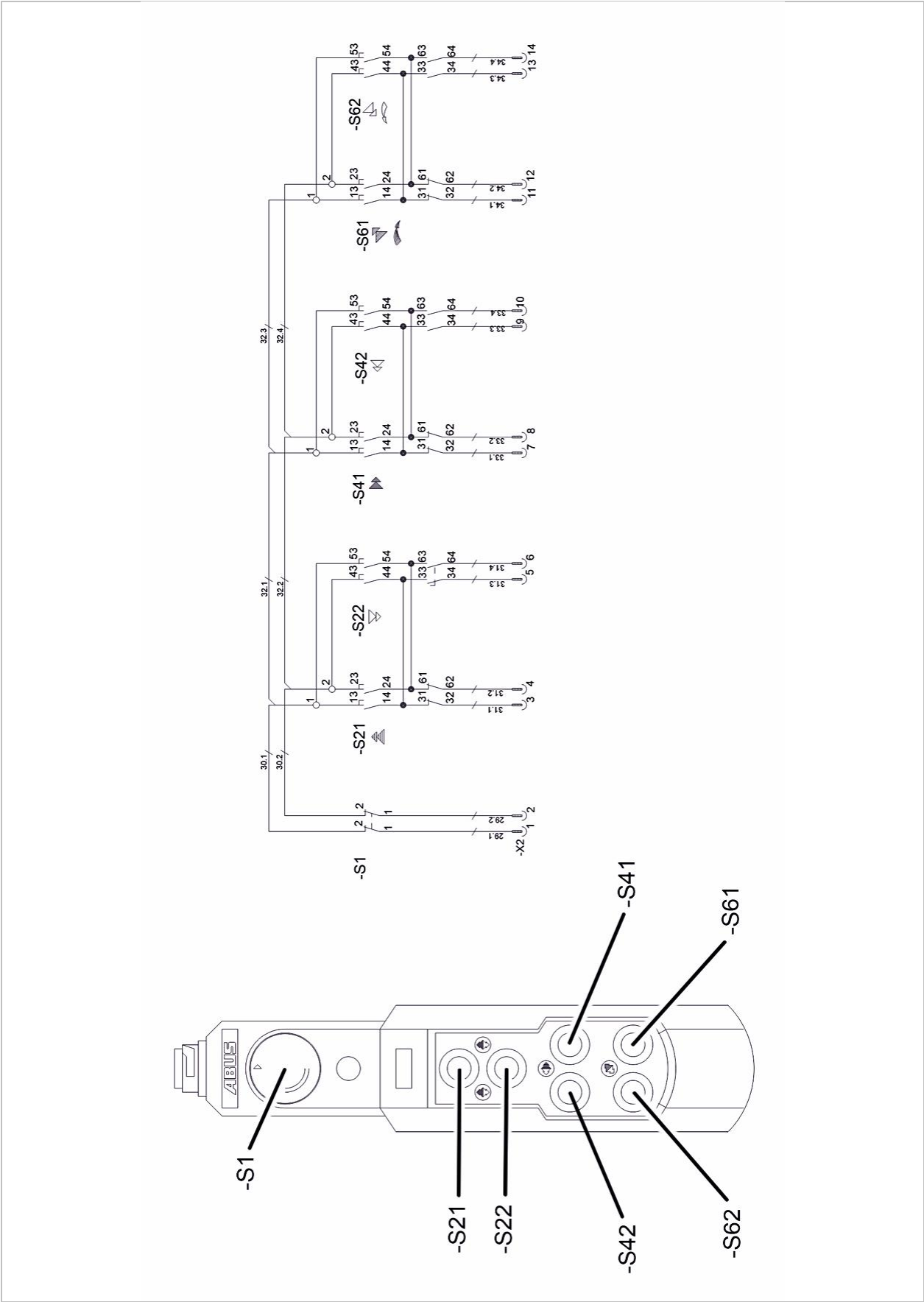
HT211 ELECTRONIC CONTROL (N200) – WIRING DIAGRAM



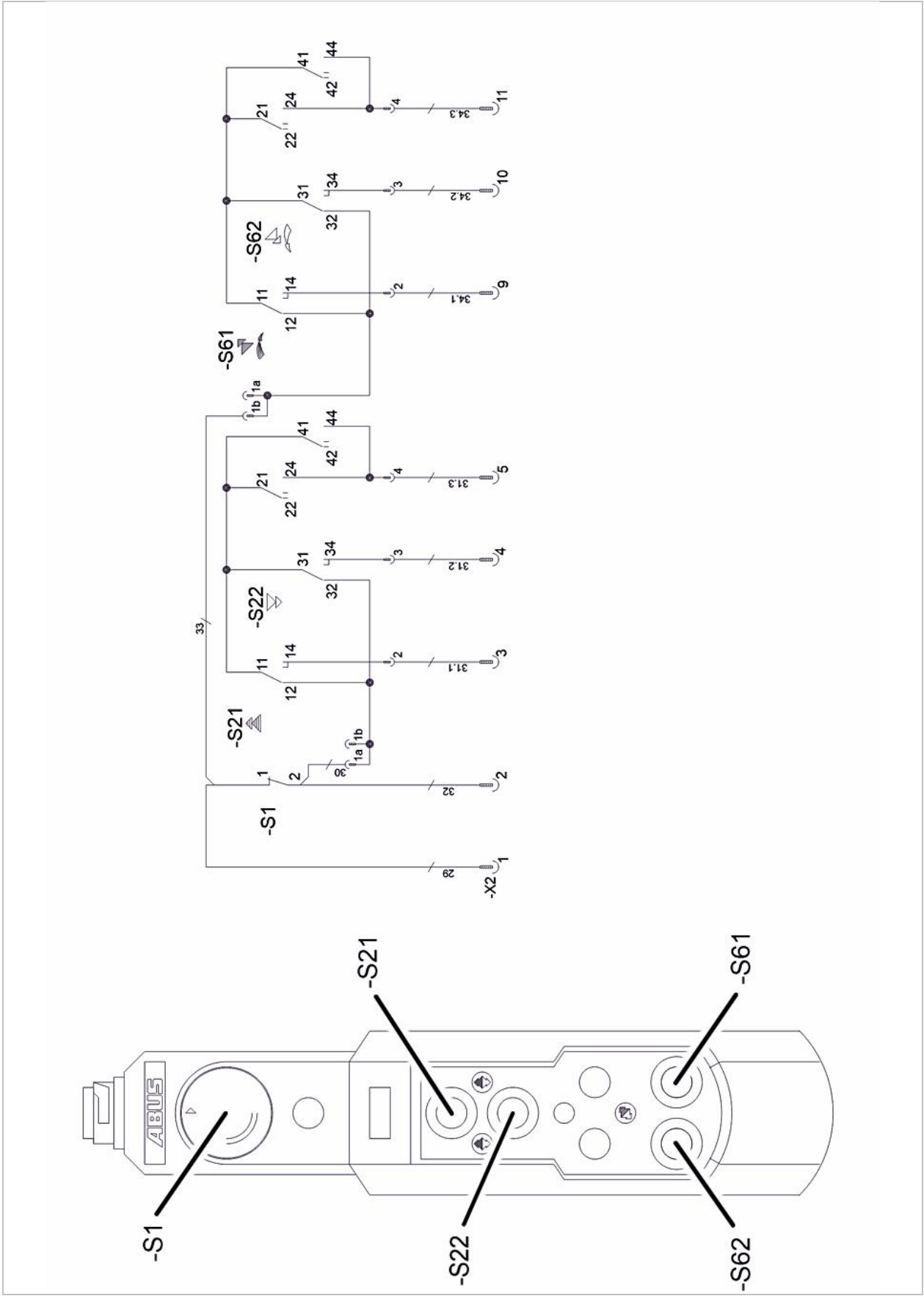




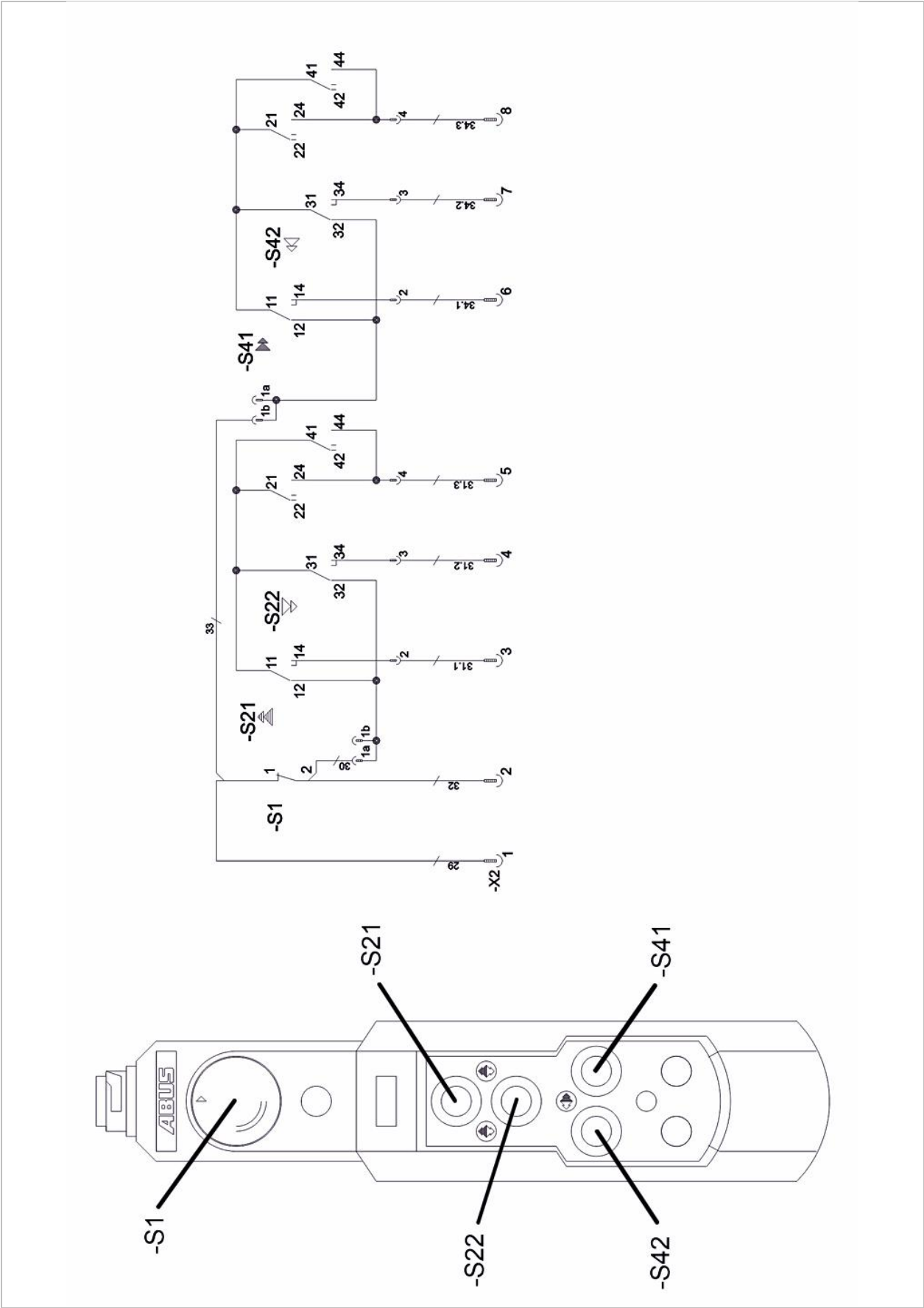
HT611 DIRECT CONTROL (N222K/S) – WIRING DIAGRAM



HT611 ELECTRONIC CONTROL (N202K/S) – WIRING DIAGRAM

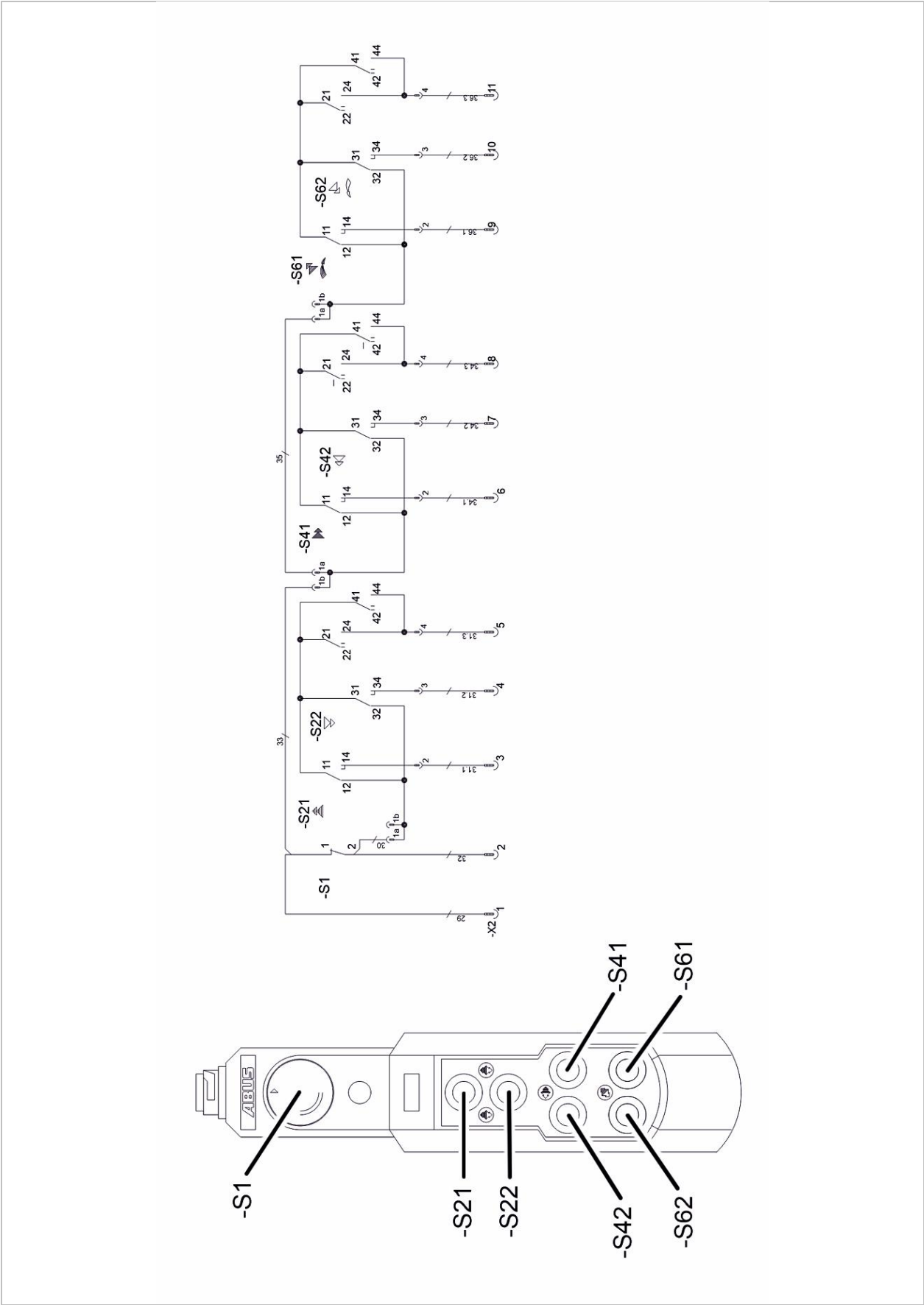


HT611 ELECTRONIC CONTROL (N220) – WIRING DIAGRAM

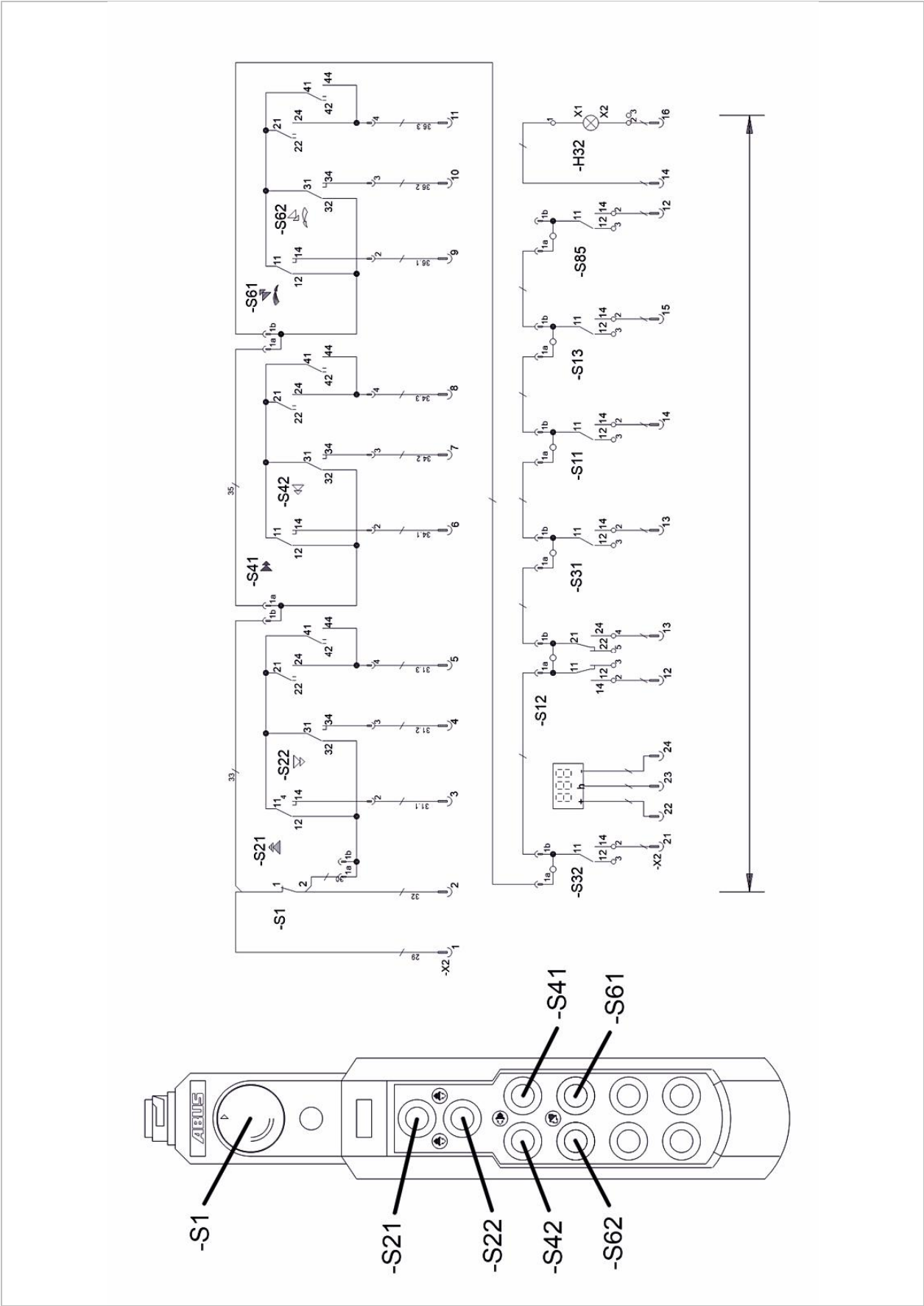




HT611 ELECTRONIC CONTROL (N222K/S) – WIRING DIAGRAM



HT1011 ELECTRONIC CONTROL (N222K/S) – WIRING DIAGRAM



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## ABUS SERVICE

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### **ONLY IN GERMANY**

- ➔ If available, have the product number, serial number and customer number handy.
- ➔ Call the ABUS Service Centre:
  - Phone: +49-2261-37-237
- ➔ If calling outside the usual business hours, leave a message on the answering machine.
  - ABUS Service will return your call promptly.
- ➔ If necessary, send a description of the problem by fax or e-mail:
  - Fax: +49-2261-37-265
  - E-mail: [service@abus-kransysteme.de](mailto:service@abus-kransysteme.de)

### **ONLY OUTSIDE GERMANY**

- ➔ Call the local ABUS branch or crane service partner.

Your local ABUS branch or crane service partner will provide details of contact data, contacts and availability.

DECLARATION OF INCORPORATION

This declaration is applicable as a Declaration of Incorporation as described in Machine Directive Annex II 1B in the event that ABUS pendant control is installed or retrofitted in a crane. Starting operation of the crane is then prohibited until it has been ascertained that the crane installation into which the ABUS pendant control has been installed meets all requirements of the EU directive versions applicable at the time of issuance. If ABUS pendant control is delivered together with a complete crane installation, the Declaration of Conformity for the crane installation applies. This Declaration of Incorporation is thereby made irrelevant.

Manufacturer	ABUS Kransysteme GmbH Sonnenweg 1 51647 Gummersbach, Germany	
Product	ABUS pendant control in series design	
Year of construction	From 2012	
Order number	See title page	
Person responsible for putting together the special technical documentation	Daniel Isenbeck Head of Technology and Development ABUS Kransysteme GmbH Sonnenweg 1 51647 Gummersbach, Germany	
We hereby declare than the product specified above complies with all requirements in the EU directives listed here in the version applicable at the time of issuance.	2006/42/EC 2014/35/EU 2014/30/EU	Machinery Low-voltage Electromagnetic compatibility
In particular, the harmonised standards and national standards, directives and specifications and any other applicable standards have been applied.	EN 13849-1 EN 13557 EN 60204-32 EN 61000-6-4 EN 61000-6-2 EN 60529 EN 300220-2 EN 301489-3	Safety of machinery Cranes – Controls and control stations Electrical equipment of machines, hoisting equipment Electromagnetic compatibility; Emission standard for industrial environments Electromagnetic compatibility; Immunity for industrial environments Degrees of protection provided by enclosures (IP code) Electromagnetic compatibility and Radio spectrum Matters (ERM) – Electromagnetic compatibility and Radio spectrum Matters (ERM) – Electromagnetic Compatibility (EMC) standard for radio equipment and services

Technical documentation is available in full.

The corresponding operating manuals are available in the national language of the user.

With our department for “Technical Documentation”, we have committed ourselves to submitting the specific documentation for the incomplete machine in response to a reasoned request by the market surveillance authorities.

Gummersbach Germany, 14 January 2025

Head of the Electronics Development department

Willi Dick



Signature of the authorised person

The content of this declaration complies with EN ISO 17050.

ABUS Kransysteme GmbH supports a quality management system in accordance with DIN EN ISO 9001.



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AN 120028EN004  
2025-01-14

The ABUS logo is displayed in a bold, white, sans-serif font against a solid blue background. The letters are thick and closely spaced, with a modern, industrial feel. The blue background is part of a larger graphic element that curves upwards from the bottom right corner of the page.