



**OPERATING INSTRUCTIONS
MONTRAC COMPONENTS**

Control set for lift

BA-100092

starting from serial number 427690

English edition 09/2009

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1. Important information

1.1. Introduction

These instructions describe the load limits, the installation and the maintenance of the control set for Lift.

These operating instructions apply only to the applications with a control set, which are described below. For customer-specific elevator versions, the operating instructions are applicable only to a limited extent.

1.2. Declaration of installation

Pursuant to EC Machinery Directive 98/37/EC, Appendix II B.
Pursuant to EC Machinery Directive 2006/42/EC, Appendix II B.

Manufacturer:
Montech AG, Gewerbestrasse 12 CH-4552 Derendingen
Tel. +41 32 681 55 00, Fax +41 32 682 19 77

1.2.1. Funktion

The control set for lift is a lift component designed for installation in Montrac systems. The control set can be used to control the position of the lift trac using different travel requests. The control set does not include a control logic. (The latter should be implemented by the customer.)

1.2.2. Mounting instructions

The mounting instructions in compliance with EC Machinery Directive 2006/42/EG, Appendix VI, are available in the Instruction Manual.

1.2.3. Guidelines fulfilled by the control set for lift

The individual components of the control set for lift are not subject to the regulations of the Machine Directive.

However, we would like to point out that the Montrac System must not be put into operation until it has been determined that the Montrac system in which the control set for lift has been installed conforms to the stipulations of EC Machine Directive 98/37/EG and 2006/42EG.

1.2.4. Scope of validity of the operating instructions

We are continually adapting our products based on the latest technological developments and on experience gained in practice. The operating instructions are likewise updated to reflect product changes.

Operating instructions have an article number, e.g. BA-100092.
 The article number and edition number are displayed on the title page.

Validity

Full name	Short name	Reference number
Control set for lift	-	58562

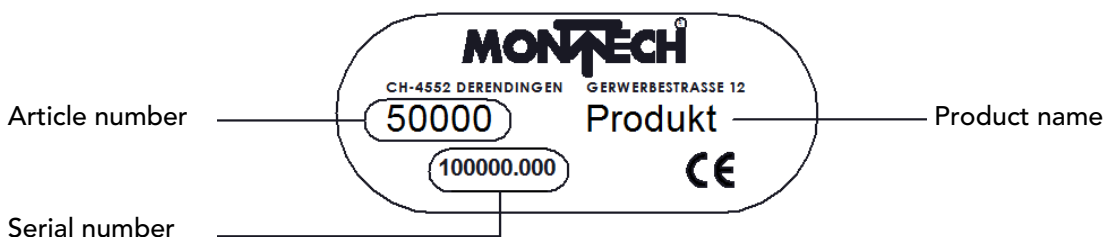
1.2.5. Additional information

These operating instructions are intended to ensure that the control set for lift is used properly and safely. Should information be lacking for your specific application, please contact the manufacturer.

Special technical documentation according to 2006/42/EG, Appendix VII, Part B, can be provided at any time and digitally communicated.

To order operating instructions, it is important to specify the serial number. This document can be accessed on our website at www.montech.com.

Rating plate description



Montech AG
 Management



U. D. Wagner



Y. Dicke

2. Technical data

The Control set for lift (Ref. Nr. 58562) consists of 3 components:

- Servo positioning controller 9300 type EVS9322-EP (Art. No. 520316)
- Brake unit 9350 type EMB9351-E (Art. No. 520317)
- Mains filter type EZN3A1500H003 (Art. No. 520318)

2.1. Servo positioning controller 9300 type EVS9322-EP (Art. No. 520316)

Mains voltage		3 x 380..480 V / 50 Hz / 60 Hz
Mains current with mains filter	[A]	2.5
Auxiliary voltage supply		24 VDC (-0% + 15%); 5A
Protective class		IP 20
Installation type		Vertical (switch cabinet)
Weight	[kg]	3.5

2.2. Brake unit 9350 type EMB9352-E (Art. No. 520317)

Supply voltage	[VDC]	270...775
Peak current for 60s	[ADC]	42
Max. continuous current	[ADC]	25
Protective class		IP 20
Installation type		Vertical (switch cabinet)
Weight	[kg]	2.2

2.3. Mains filter type EZN3A1500H003 (Art. No. 520318)

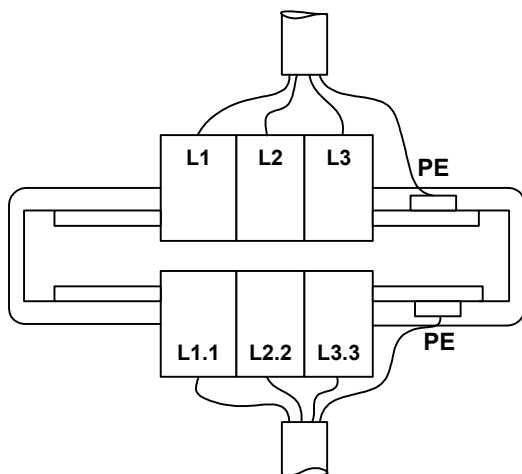
Rated voltage	[VDC]	500
Peak current for 60s	[ADC]	42
Max. continuous current	[ADC]	25
Protective class		IP 10
Installation type		Vertical (switch cabinet)
Weight	[kg]	1.15
Environment: Temperature	[°C]	10 – 50
Rel. humidity		Humidity class F without condensation (with rel. humidity of 85%)
Level of air purity		Normal workshop atmosphere

For detailed specifications please refer to the operating instructions of the Lenz company:

- Servo positioning controller 9300 (type EVS9322-EP)
- Brake unit 9350 (type EMB9351-E)
- Mains filter (type EZN3A1500H003)

2.4. Connecting the mains filter

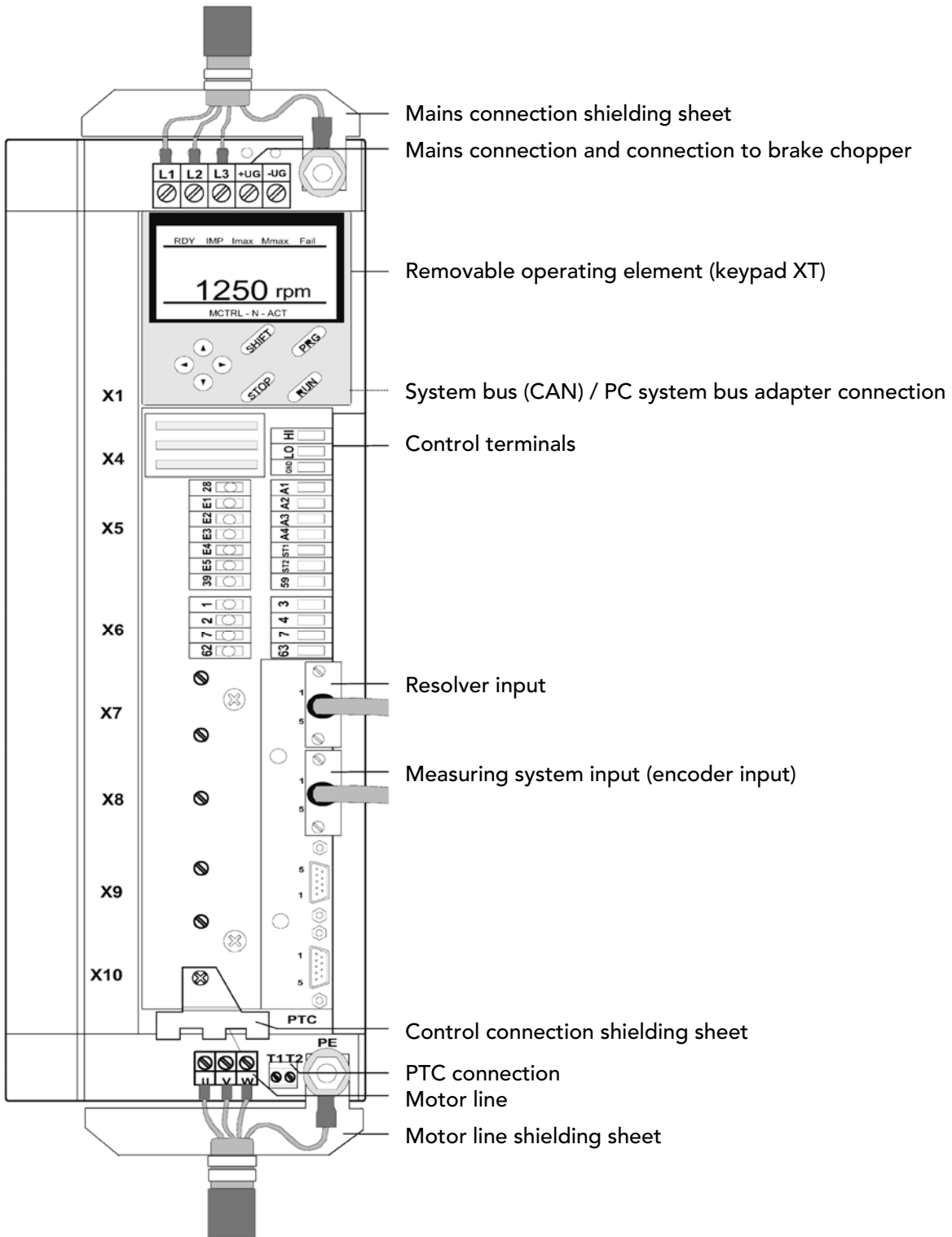
Cable to mains connection 3 x 400 V 50 Hz



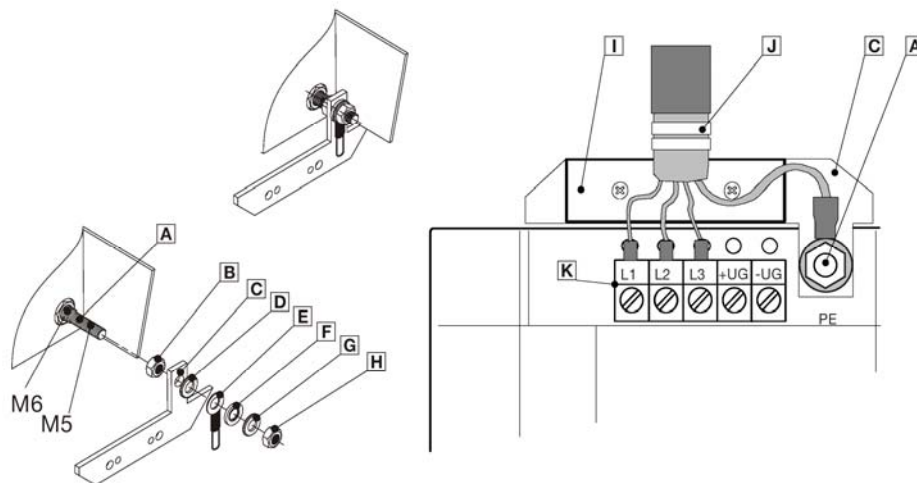
Cable to servo positioning controller

Cable to:	Cable color / No.	Terminal / fitting
Mains connection	1	L1
	2	L2
	3	L3
	yellow/green	PE
Servo positioning controller	1	L1.1
	2	L2.2
	3	L3.3
	yellow/green	PE

2.5. Connecting servo positioning controller EVS9322-EP

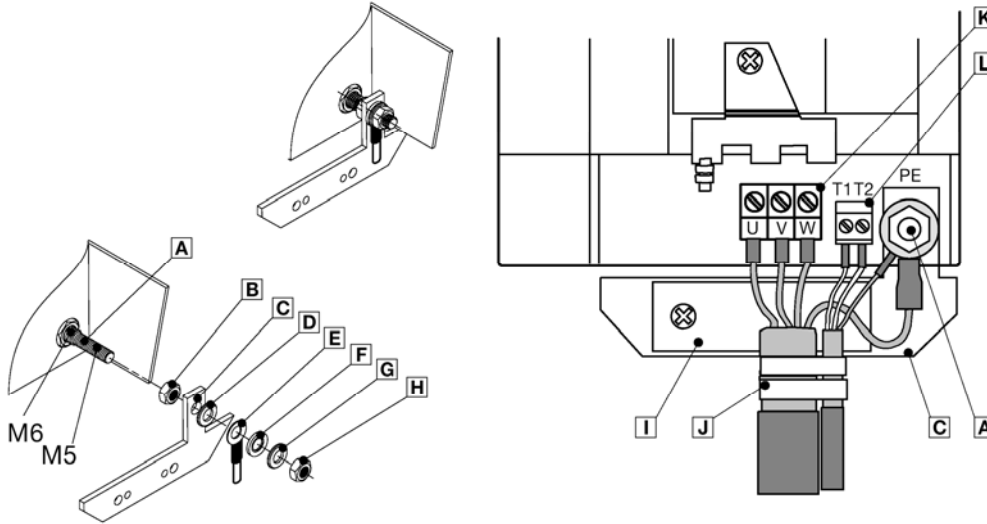


Mains connection



A	PE threaded pin
B	Screw on M5 nut and hand-tighten
C	Push on mounting bracket for shielding sheet
D	Mount serrated lock washer
E	Mount PE line with ring cable lug
F	Mount washer
G	Mount spring washer
H	Screw on M5 nut and tighten to 3.4 Nm
I	Screw shielding sheet to mounting bracket with two M4 screws and clamp shielding with clip (bracket)
J	The cable shielding is only for compliance with applicable standards (e. g. VDE 0160, EN50178, EN61800-3)
K	Connect mains line from mains filter to screw terminals L1, L2, L3. Connect feed line for brake chopper +UG, -UG.

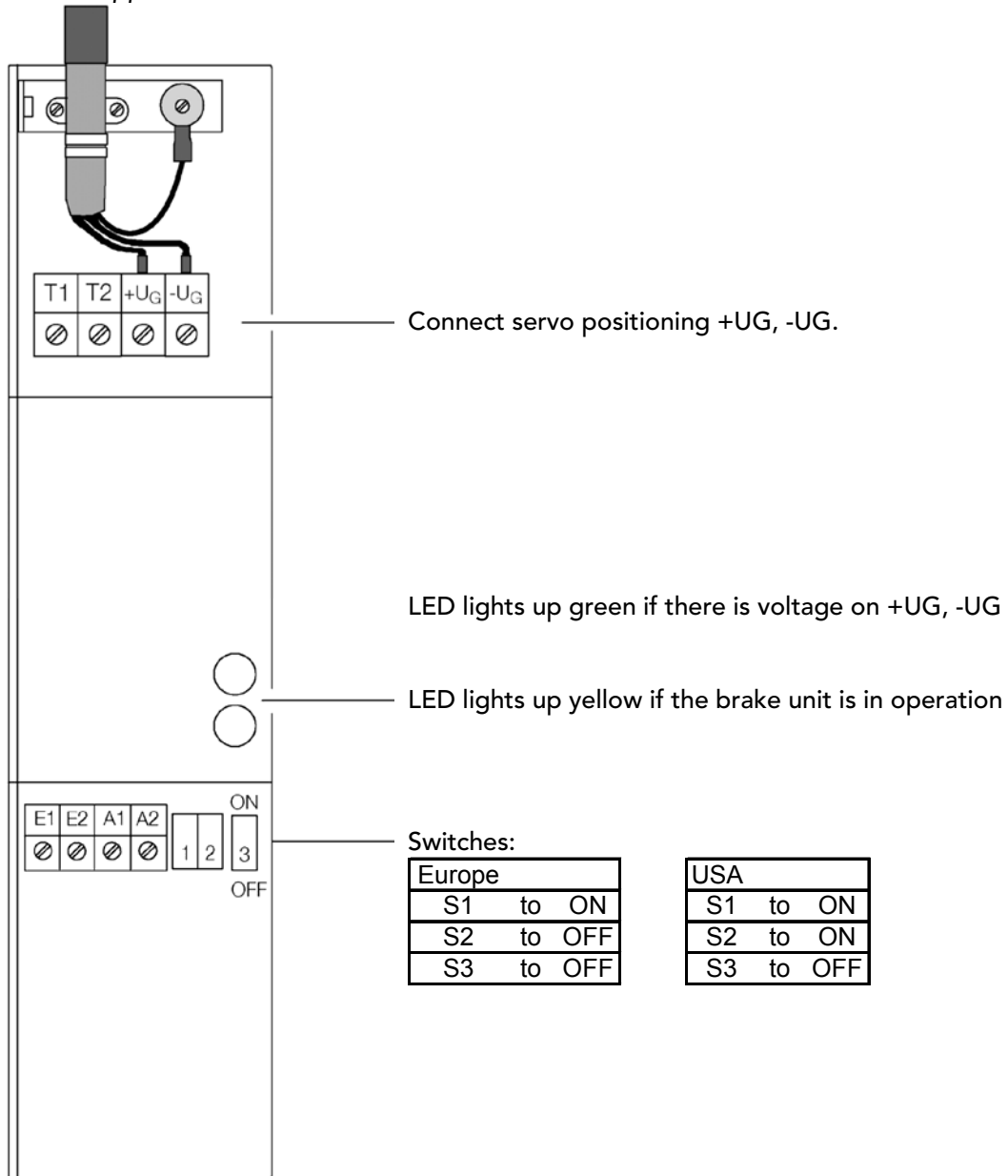
Motor connection



A	PE threaded pin
B	Screw on M5 nut and hand-tighten
C	Push on mounting bracket for shielding sheet
D	Mount serrated lock washer
E	Mount PE line with ring cable lug
F	Mount washer
G	Mount toothed washer
H	Screw on M5 nut and tighten to 3.4 Nm
I	Screw on shielding sheet to mounting bracket with two M4 screws
J	Clamp shielding of the motor line and shielding of the line for motor temperature monitoring with clip. The motor shielding is only for compliance with applicable standards (e. g. VDE 0160, EN50178, EN61800-3).
K	Connect motor line to screw terminals U, V, W. Make sure the polarity is correct. Observe maximum motor line length.
L	Connect line for motor temperature monitoring to screw terminals T1, T2.

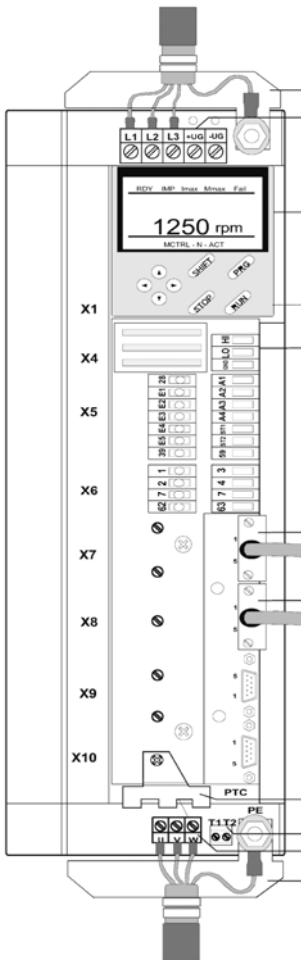
2.6. Connecting brake chopper EMB9352-E

Brake chopper connection



– These settings are extremely important; otherwise, the brake chopper could be damaged!

2.7. Connecting supply voltage for servo positioning controller and relays



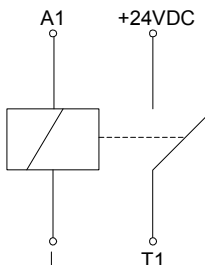
Control terminals:

- 59: +24 VDC
- 39: 0VDC
- 28: 1 = controller enable from external control, 0 = rest error / program reset
- E1 / E2 / E3: digital position selection from external control
- E4: proximity switch (reference switch)
- E5: travel order start (flank 0-1) from external control
- A1: ready and enabled = brake is released (information for external control)
- A2: reference known
- A3: ready (no errors)
- A4: Lift is in position

Terminal:

- T1 (brown cable) +24 VDC from relay
- T2 (white cable) 0VDC

Relays for brake



A1 terminal on servo positioning controller
 T1 terminal on servo positioning controller

2.8. Actuation of the servo positioning controller

Digital actuation

Target	Position code register	Speed code register	Accel. / Del. code register	Digital selection E1,E2,E3	Program set
Reference	C1225	C1241 / C1242	C1251	0,0,0	1
Position 1	C1301/1	C1302/1	C1303/1	1,0,0	2
Position 2	C1301/2	C1302/2	C1303/2	0,1,0	3
Position 3	C1301/3	C1302/3	C1303/3	1,1,0	4
Position 4	C1301/4	C1302/4	C1303/4	0,0,1	5
Position 5	C1301/5	C1302/5	C1303/5	1,0,1	6
Position 6	C1301/6	C1302/6	C1303/6	0,1,1	7
Position 7	C1301/7	C1302/7	C1303/7	1,1,1	8

CAN actuation

Target	Position code register	Speed code register	Accel. / Del. code register	CAN IN2.W2 selection	InTarget CAN-OUT2.W1	Program set
Reference	C1225	C1241/C1242	C1251	0	B.02 (REFOK)	1
Position 1	C1301/1	C1302/1	C1303/1	1	B.09	2
Position 2	C1301/2	C1302/2	C1303/2	2	B.10	3
Position 3	C1301/3	C1302/3	C1303/3	3	B.11	4
Position 4	C1301/4	C1302/4	C1303/4	4	B.12	5
Position 5	C1301/5	C1302/5	C1303/5	5	B.13	6
Position 6	C1301/6	C1302/6	C1303/6	6	B.14	7
Position 7	C1301/7	C1302/7	C1303/7	7	B.15	8

Other CAN assignments

CAN-IN2.W1		CAN-OUT2.W1	
B.00	POS-PRG-START	B.00	DCTRL-TRIP
B.01	POS-PRG-STOP	B.01	READY & RFR
B.02	POS-PS-CANCEL	B.02	POS-REF-OK
B.03	POS-PRG-RESET	B.03	DCTRL-RDY
B.04	POS-MANUAL	B.04	POS-IN-TARGET
B.05	POS-MANUAL-NEG	B.05	DIGIN4 (lime)
B.06	POS-MANUAL-POS	B.06	DCTRL-CINH
B.07	POS-MANUAL-REF	B.07	DCTRL-NACT=0
B.08	POS-PARM_RD	B.08	DCTRL-FAIL-QSP
B.09	POS-WAITSTATE	B.09...B15	IN-TARGET individual positions