



Control 110 - 113

Control 116 - 119

Einbauanleitung

Installation Instructions

Notice de Montage

Montagehandleiding

Instrucciones de Montaje

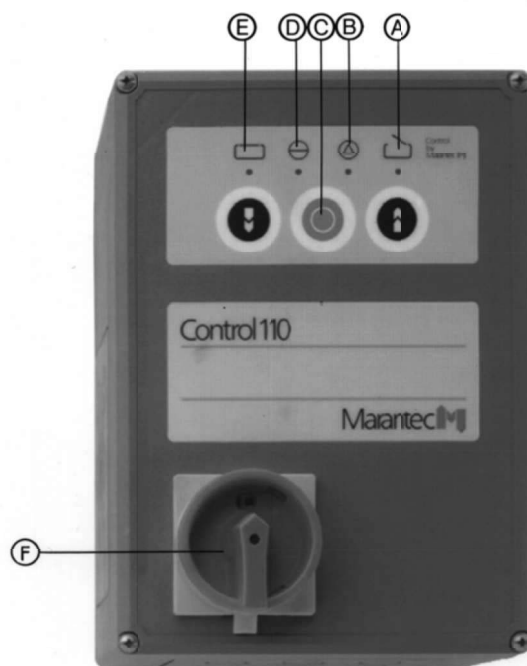
Istruzioni di montaggio

Monteringsanvisningar

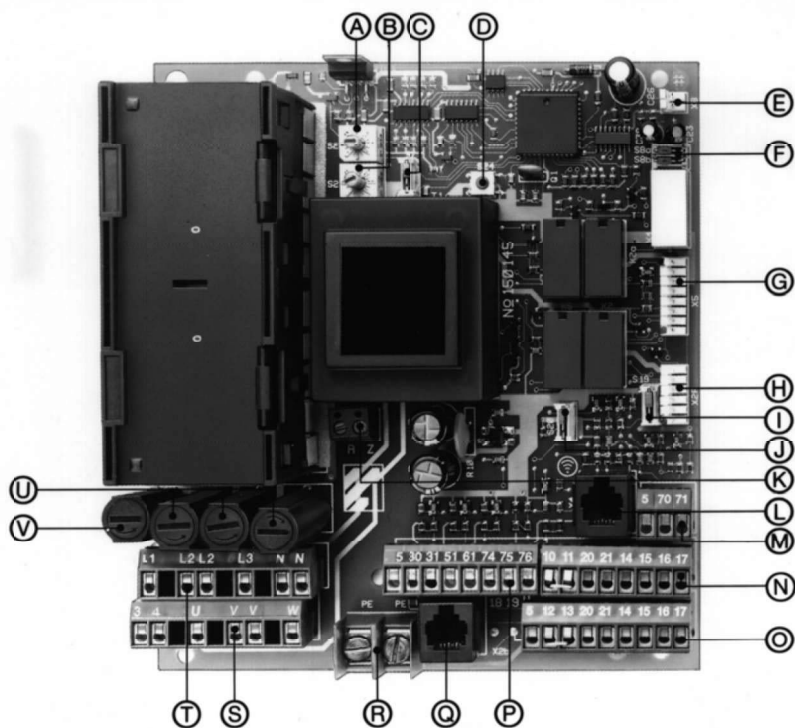
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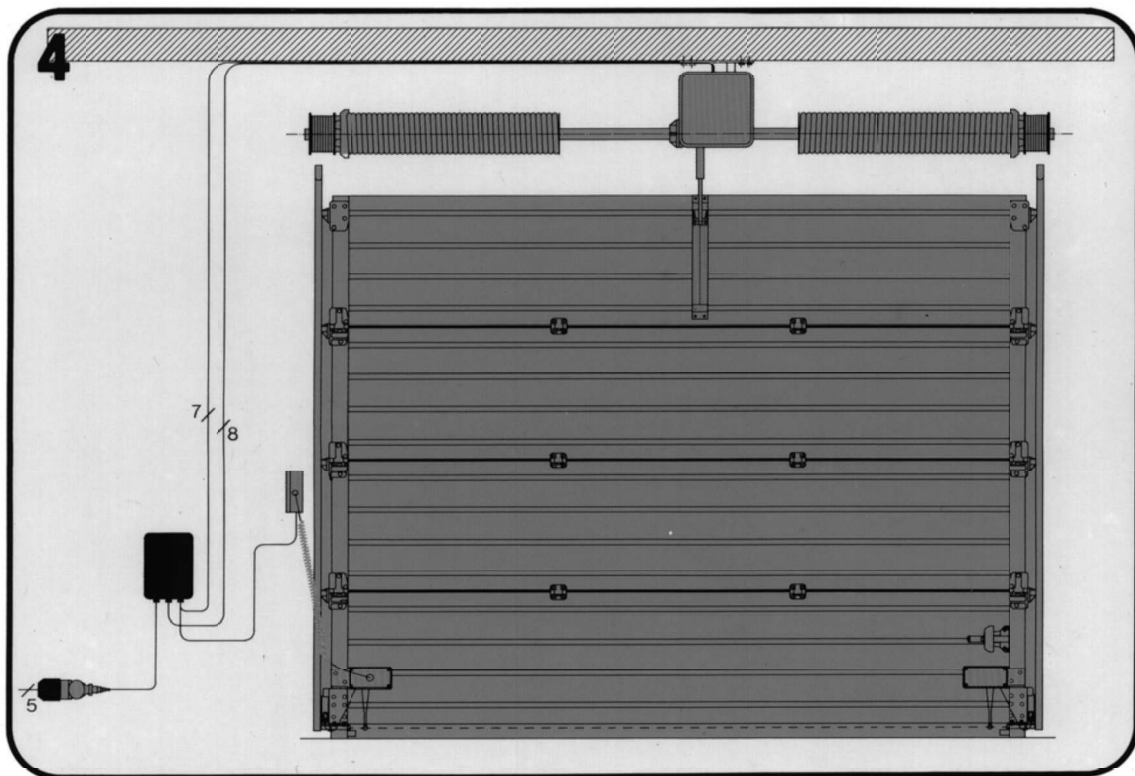
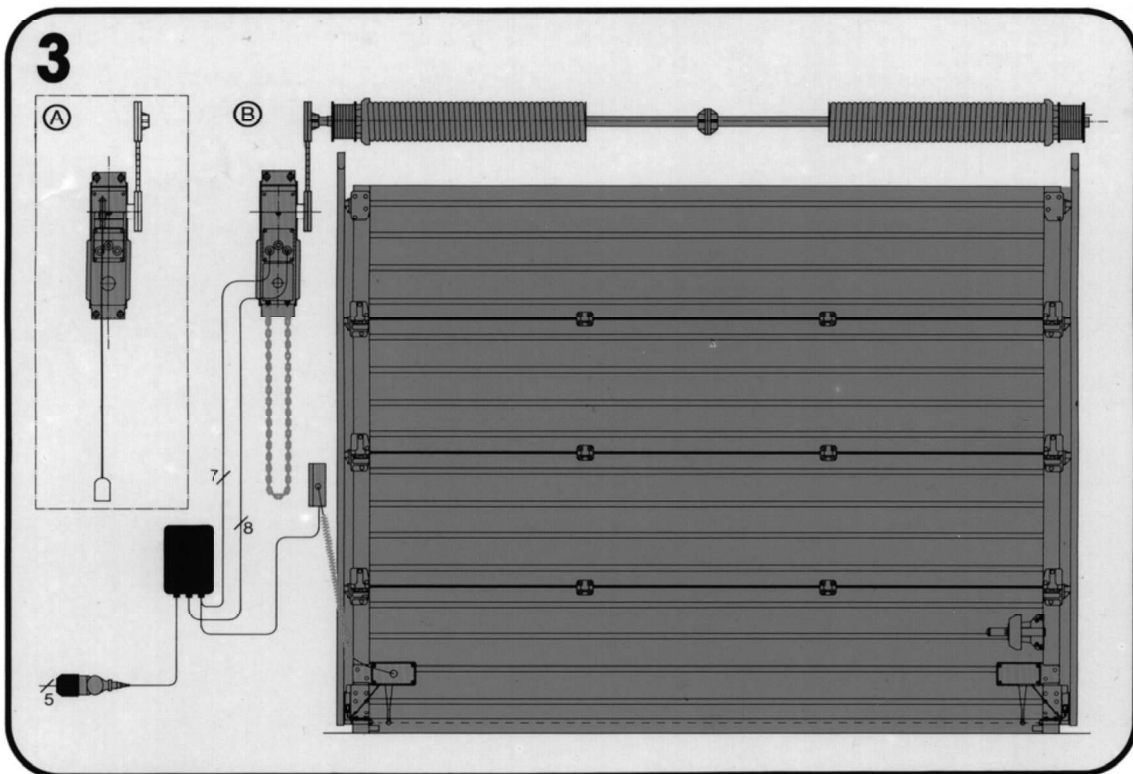
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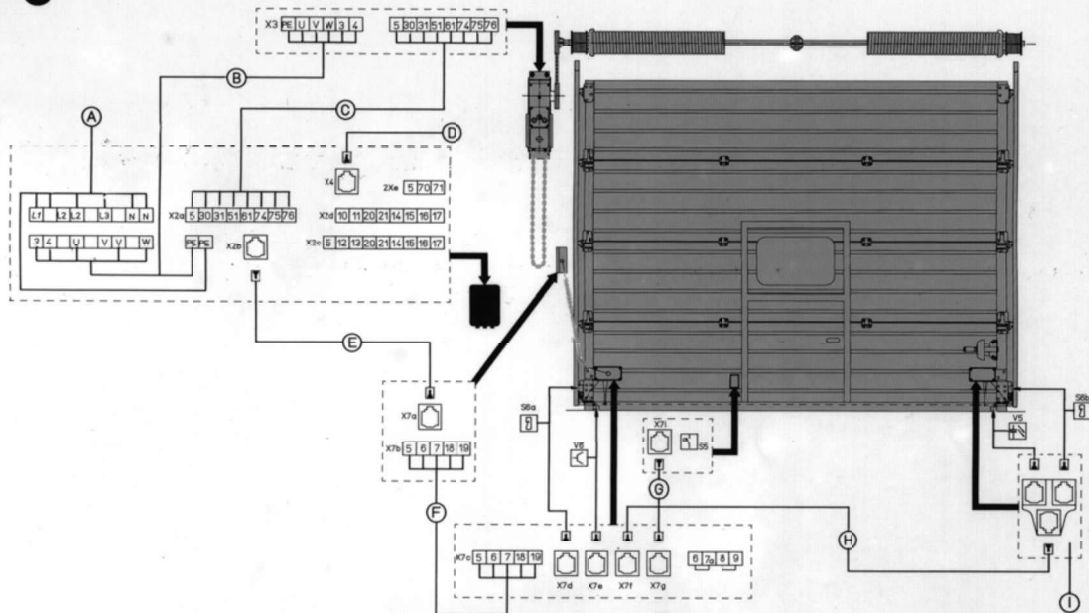


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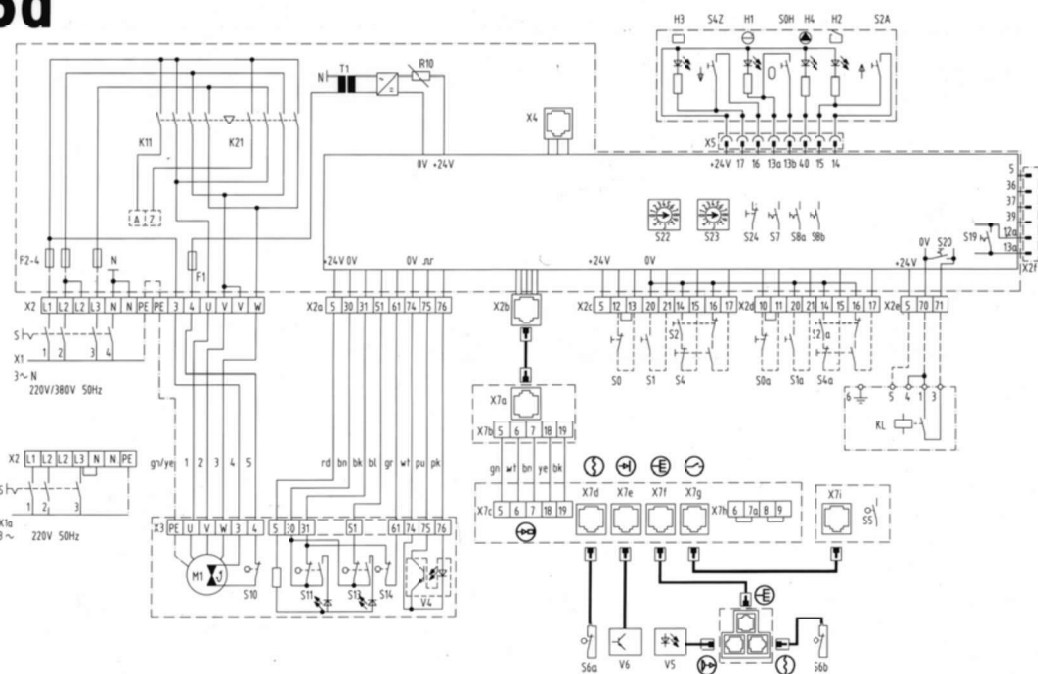




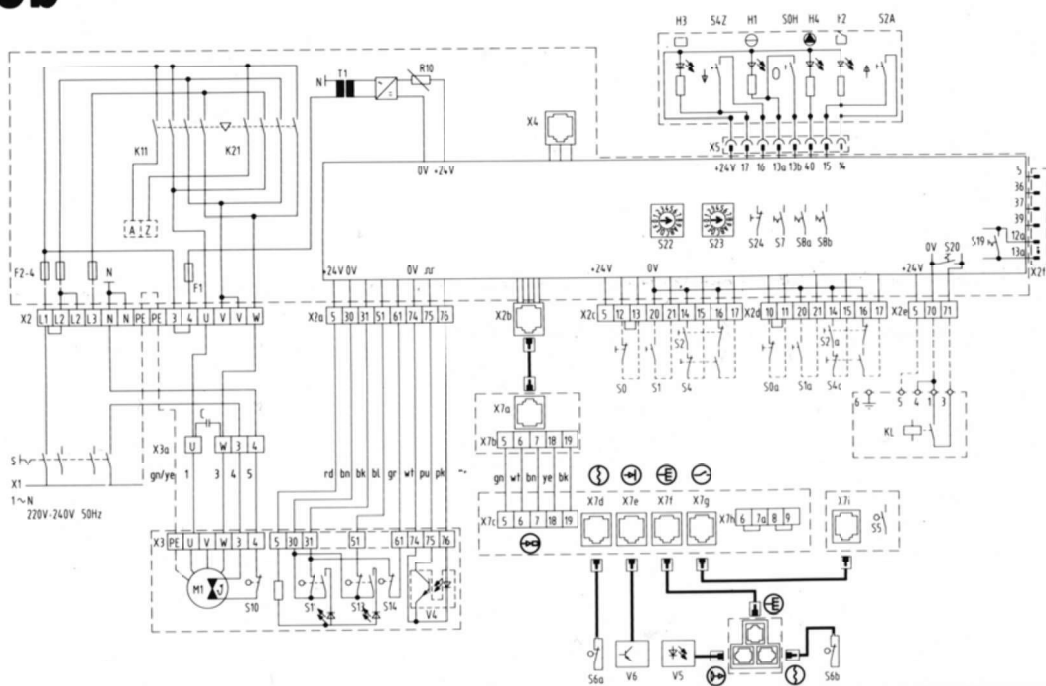
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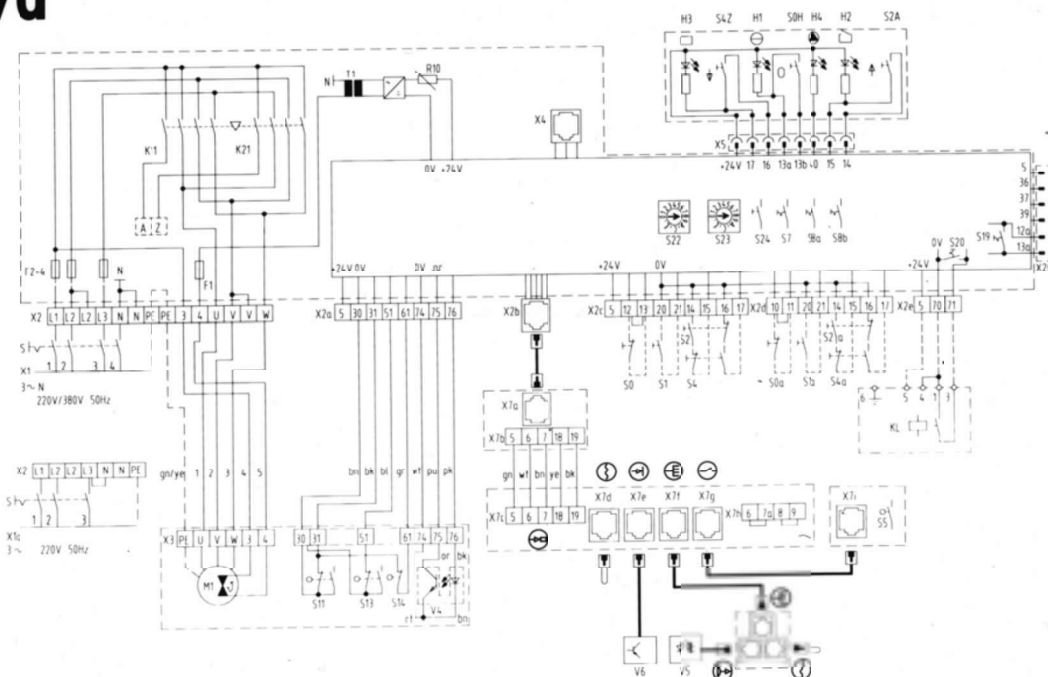
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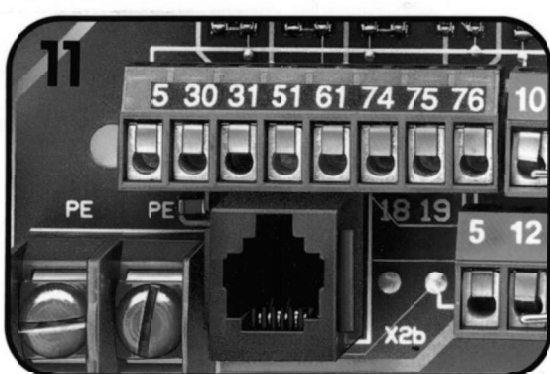
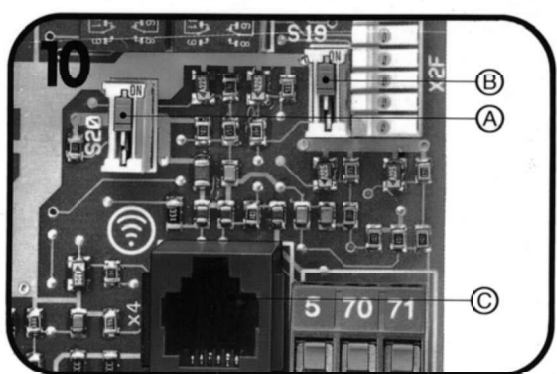
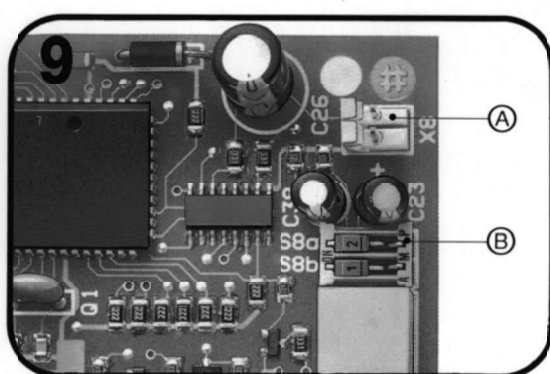
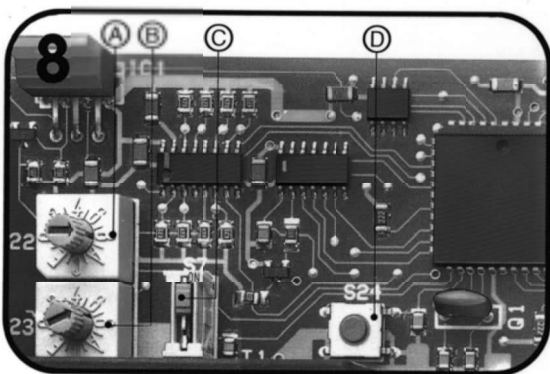
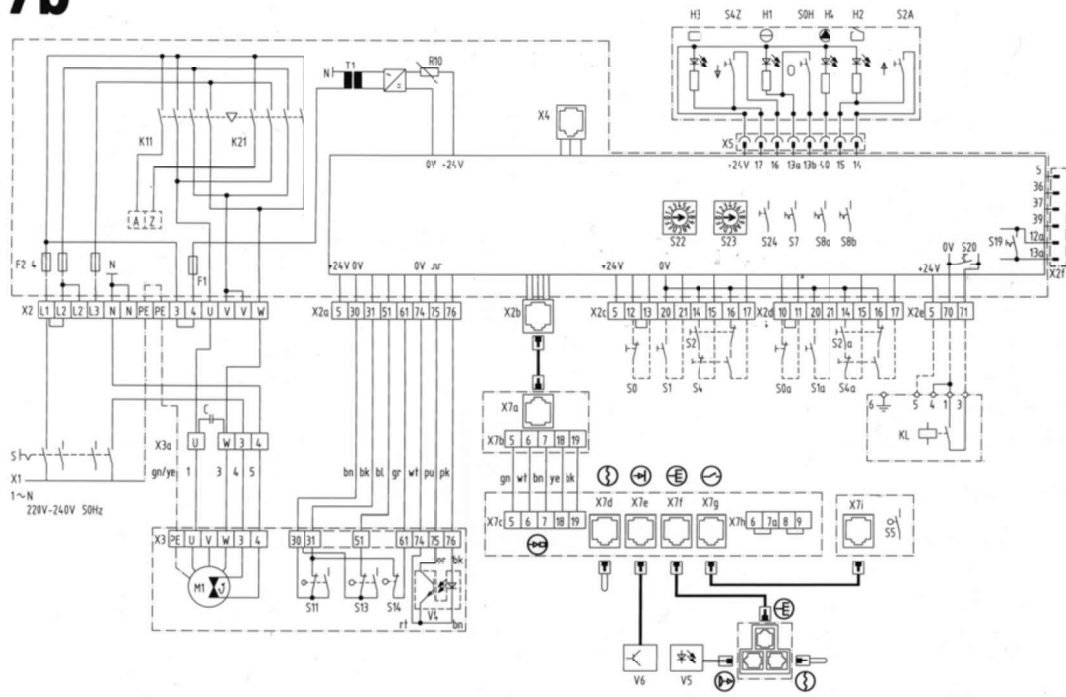
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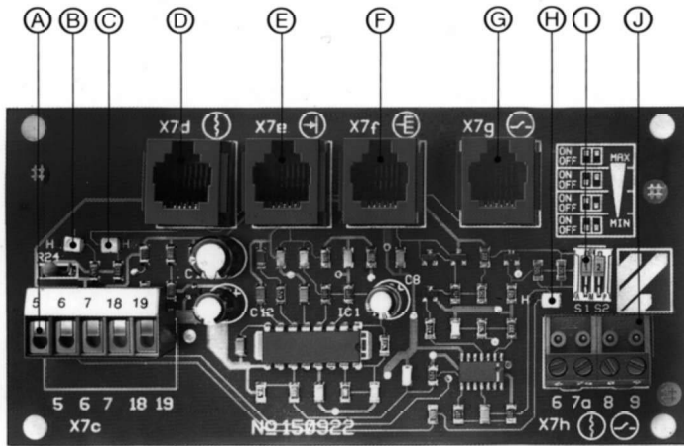
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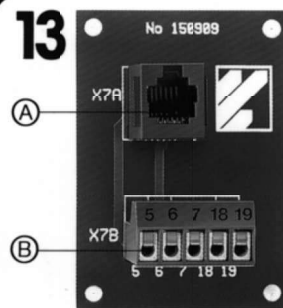
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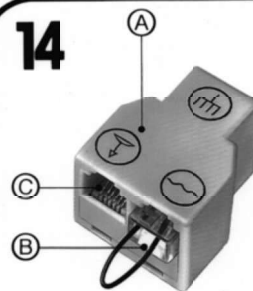
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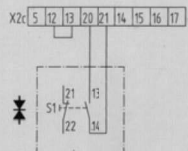
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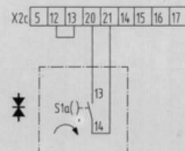
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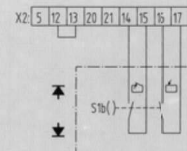
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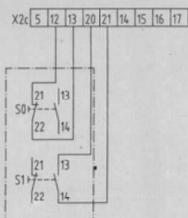
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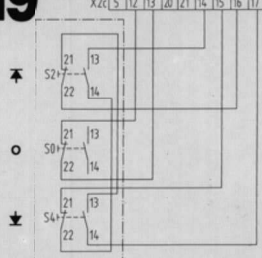
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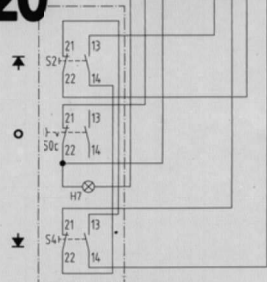
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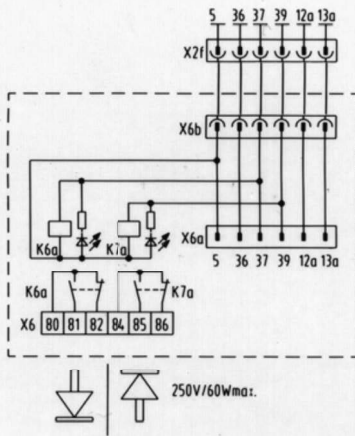
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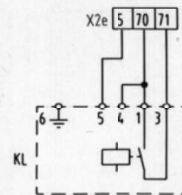
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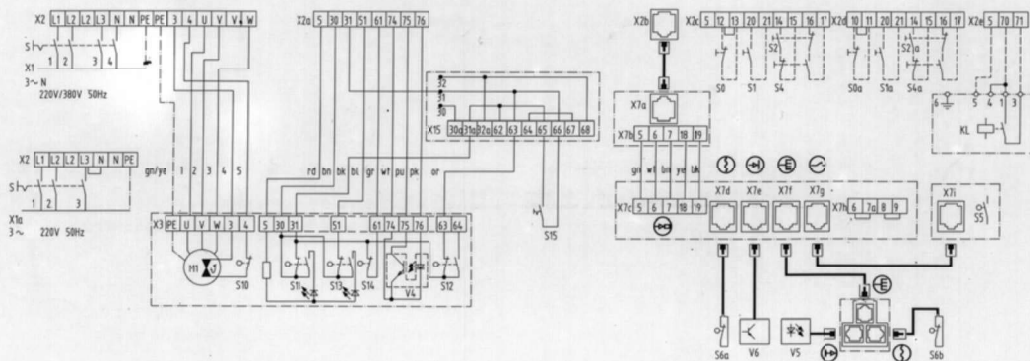
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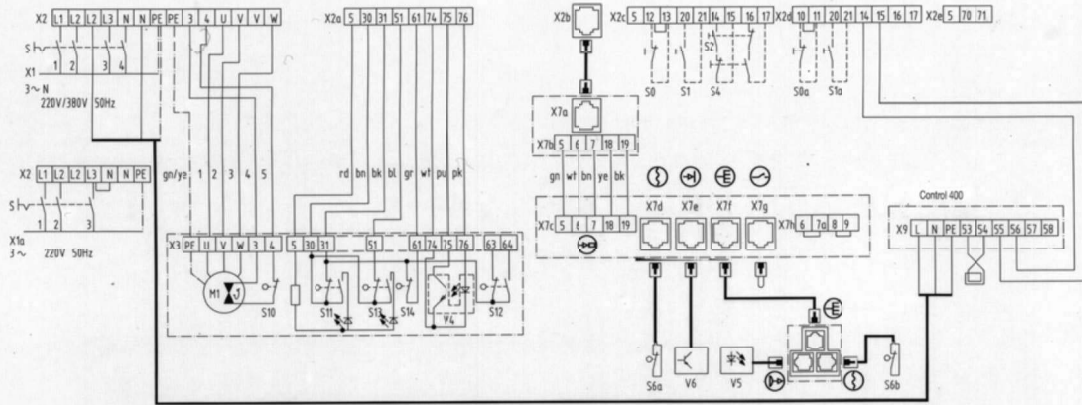
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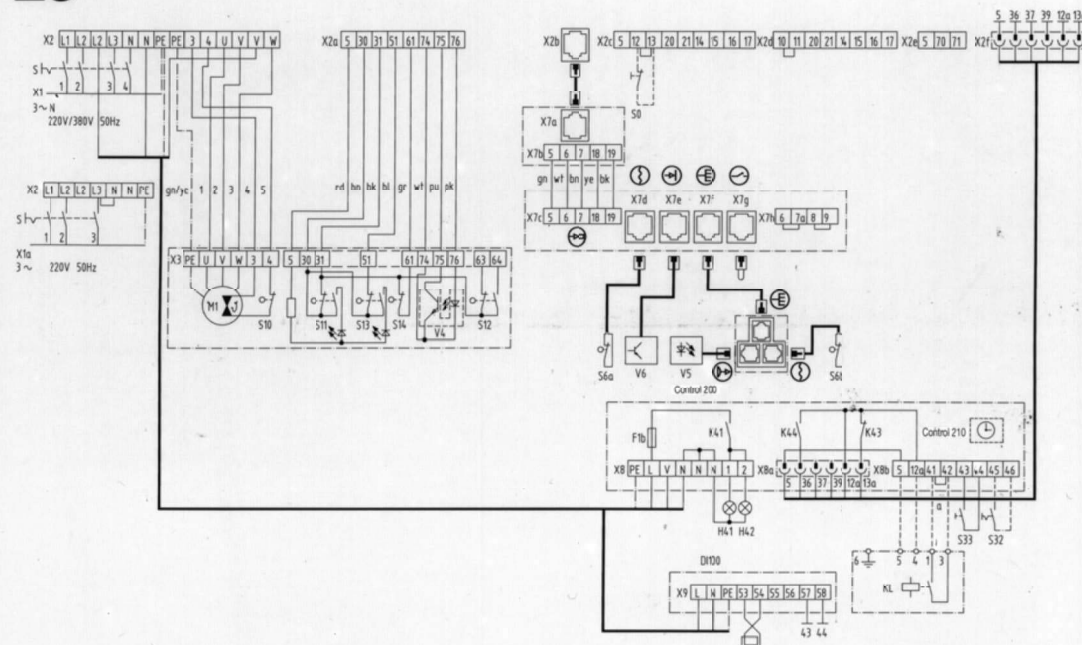
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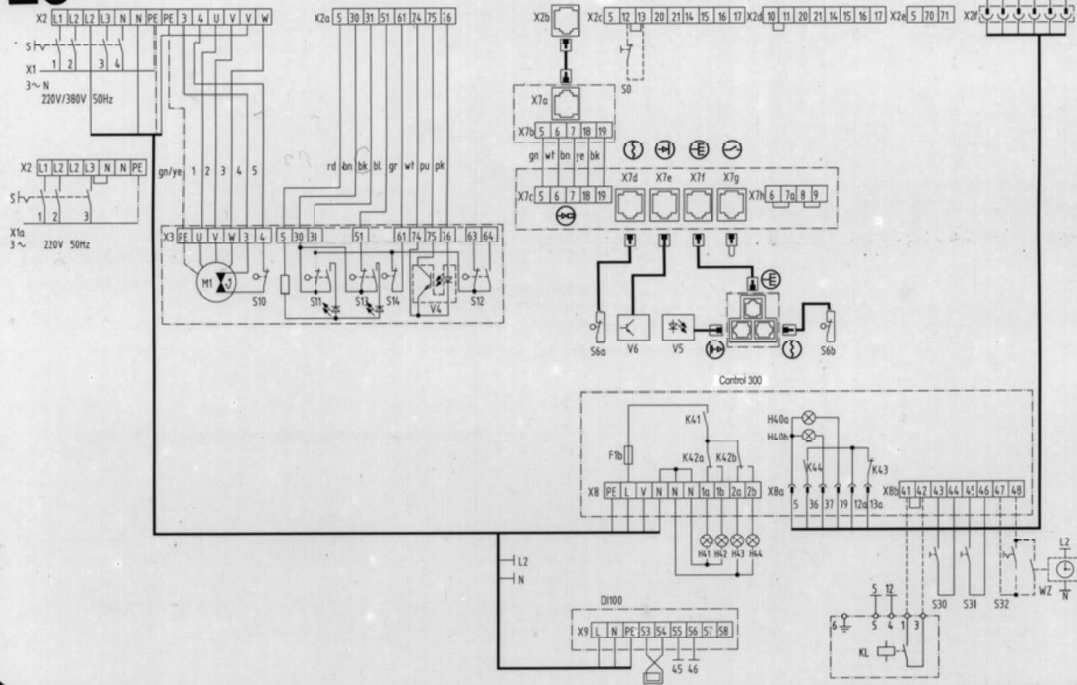
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26



E N G L I S H

Control 110 base control for sectional doors, 380 V 3-phase current
 Control 111 base control for sectional doors, lockable, 380 V 3-phase current
 Control 112 base control for sectional doors, for two opening heights, 380 V 3-phase current
 Control 113 base control for sectional doors, for two opening heights, lockable, 380 V 3-phase current
 Control 116 base control for sectional doors, 220 - 240 V AC
 Control 117 base control for sectional doors, lockable, 220 - 240 V AC
 Control 118 base control for sectional doors, for two opening heights, 220 - 240 V AC
 control 119 base control for sectional doors, lockable, 220 - 240 V AC

With the base controls Control 110-113 and Control 116-119, sectional doors can be opened or closed by impulse operation or directional control with self-hold. The self-hold function for the OPEN or CLOSE operational directions is adjustable via a programming switch. For the CLOSE operating direction with self-hold function, a closing edge safety device with optosensor is required. Integrated in the base control is an RPM monitoring device which can be adjusted in 16 stages via two rotary switches.

The following command units or supplementary controls can be connected to the plug-in connecting terminals provided:

Button IMPULSE, STOP
 Button OPEN, STOP, CLOSE
 Key switch IMPULSE
 Key switch OPEN, CLOSE
 Electronic aerial with learnable safety coding
 Wicket door contact, cable slack device, cable safety device
 Photocell for added safety in the garage entry/exit area
 Control 200, 210 automatic timed return
 Control 300 traffic light control
 Control 400 digital induction loop

1. Overview of Control 110 control unit
 - A „OPEN“ button and end of travel OPEN LED
 - B Optosensor and remote control LED
 - C „STOP“ button
 - D Control voltage LED
 - E „CLOSE“ button and end of travel CLOSE LED
 - F Main switch
2.
 - A Rotary switch power limit „OPEN“
 - B Rotary switch power limit „CLOSE“
 - C Switch S7
 - D Remote control coding button
 - E Plug connection X8 for 3 min. light
 - F Switches S8a, S8b
 - G Plug connection for membrane key
 - H Plug connection X2f for Control 200, Control 300 and potential-free limit switch contacts
 - I Switch S19
 - J Switch S20
 - K Connecting terminals A, Z
 - L Plug socket for electronic aerial
 - M Connecting terminal X2e for photocell 24 V
 - N Connecting terminal X2d for supplementary OPEN, CLOSE, STOP, IMPULSE buttons
 - O Connecting terminal X2c for OPEN, CLOSE, STOP, IMPULSE buttons
 - P Connecting terminal X2a for limit switches S11, S13, S14 and RPM detector
 - Q Plug socket for optosensor
 - R Protective conductor connection
 - S Connecting terminal block X2 for motor connection
 - T Connecting terminal block X2 for mains voltage
 - U Mains fuse F2-F4, 6.3 A max.
 - V Control fuse F1, 80 mA max.
3. Overview of on-site wiring work (by others):
 - A Operator type Dynamic 112 with quick release
 - B Operator type Dynamic 111 with emergency hand chain
4. Overview of on-site wiring work (by others):
 - Operator type Dynamic 201

5. Overview of connecting unit
 - A Mains connection 220 V - 240 V / 380 V - 415 V
 - B Motor connection 220 V - 240 V / 380 V - 415 V
 - C Limit switch connection 24 V DC
 - D Electronic aerial (if installed)
 - E Connection of coiled cable for optosensor, cable slack device and wicket door contact
 - F 5-pole coiled cable
 - G Connection of wicket door contact (if installed)
 - H Distributor housing connecting cable
 - I Distributor housing

6. Control 110
 - a. Control 110 wiring diagram with Dynamic 111,112 and 115 operator

F1	Fuse 80 mA
F2-F4	Main fuses 6.3 A
H1	„Control voltage“ LED
H2	„End of travel OPEN“ LED
H3	„End of travel CLOSE“ LED
H4	„Self-monitoring, remote control“ LED
K11,K21	Inversion relay „OPEN, CLOSE“
KL	Photocell *
M1	Motor with thermal protection
R10	PTC short-circuit protection
S	Main switch
SO	„STOP“ button *
S0a	Control 110, STOP button Control 112, STOP button Control 111, STOP switch, lockable Control 113, STOP switch, lockable
SOH	„STOP“ button
S1,S1a	„Operate or pull switch“ button *
S2,S2a	„OPEN“ buttons *
S2A	„OPEN“ button
S4,S4a	„CLOSE“ buttons *
S4Z	„CLOSE“ button
S6a,S6b	Limit switches, cable slack device or spring safety device *
S7	OPEN self-hold ON/OFF
S8a	CLOSE self-hold ON/OFF
S8b	CLOSE self-hold ON/OFF
S10	„Emergency hand chain“ limit switch
S11	„OPEN“ limit switch
S13	„CLOSE“ limit switch
S14	Limit switch „50 mm short reverse OFF“
S19	Programming switch, Control 200 / Control 300
S20	Photocell programming switch
S22	Power limit OPEN rotary switch
S23	Power limit CLOSE rotary switch
S24	Remote control coding button
T1	Transformer
V4	RPM detector
V5	Transmitter optosensor
V6	Receiver optosensor
X1	Power cable 3 - 220 V - 240 V / 380 V - 415 V; 50 Hz
X1a	Power cable 3 - 220 V - 240 V; 50 Hz
X2	Plug-in connecting terminal for mains cable and operator
X2a	Plug-in connecting terminal, limit switches and RPM detector
X2b	Plug socket, optosensor circuit board
X2c	Plug-in connecting terminal „command units (buttons)“
X2d	Plug-in connecting terminal „command units (buttons)“
X2e	Plug-in connecting terminal for photocell (Special)
X2f	Plug connection Control 200 and Control 300
X3	Plug-in connecting terminal „operator“
X4	Plug socket for electronic aerial
X5	Plug connection „keyboard circuit board“
X7a	Plug socket for optosensor circuit board
X7b	Plug-in connecting terminal for coiled cable
X7c	Plug-in connecting terminal for optosensor coiled cable
X7d	Plug socket for cable slack device (with Dynamic 201 bridged)
X7e	Plug socket for receiver optosensor

- X7f Plug socket for transmitter optosensor
X7g Plug socket for wicket door contact *
X7h Connecting terminal for static current circuit
X7i Plug socket for wicket door contact *
* if installed

Factory-bridged terminals and programming switches

Description	Terminal block	Bridged terminals	Programming switches
1st STOP button S0	X2c	12 - 13	-
2nd STOP button SOa	X2d	10 - 11	-
Special photocell	KL	-	S20
Control 2000 autom.timed return	X2f	-	S19
Control 300 traffic light control	X2f	-	S19
Wicket door contact *	X7g	Short-circuit plug	

Before connecting any of the above additional devices, remove bridge, short circuit plug or set programming switch at OFF position.

Motor, limit switches and optosensors to be wired on site (by others).

Important:

Observe local safety regulations!

Control voltage 24 V DC

bk - black

bl - blue

bn - brown

gn/ye - green/yellow

gr - grey

pk - pink

pu - purple

rd - red

wt - white

ye - yellow

b. Control 116

Wiring diagram of Control 116 with Dynamic 113, 114 and 116 drive unit as under point 6a.

7. Control 110

a. Wiring diagram of Control 110 with Dynamic 201 operator as under point 6a.

b. Wiring diagram of Control 116 with Dynamic 201 operator as under point 6a.

8. A Rotary switch, power limit OPEN. Turn clockwise to increase pulling power.

Most sensitive setting at position „O“

Least sensitive setting at position „F“ (16-stage adjustment).

B Rotary switch, power limit CLOSE. Turn clockwise to increase thrust power.

Most sensitive setting at position „O“

Least sensitive setting at position „F“ (16-stage adjustment)

Important!

When both OPEN and CLOSE rotary switches are set at „F“, the power limit is without function.

C Self hold OPEN switch




S7		
ON		OPEN with self-hold
OFF		OPEN without self-hold

D Factory coding of the receiver (only with electronic aerial)



Operate hand transmitter to start up drive, LED H4 flashes quickly. Recoding may only be carried out by a specialist.

9. A Plug connection 3 min. light

B Dual switch self hold CLOSE

S8a	S8b		
ON	ON		with self-hold with optosensor
ON	OFF		without self-hold without optosensor
OFF	OFF		without self-hold with optosensor

10.A Programming of Special photocell

S20		
ON		without Special photocell
OFF		with Special photocell

B Programming of Control 200, Control 300










S19		
ON		Control 200 or Control 300 not installed
OFF		Connection of Control 200 or Control 300 (figs. 25 & 26)

C Plug socket X4 electronic aerial or diagnostic device

11.Plug socket X2b for optosensor, cable slack device and wicket door contact

12.Optosensor circuit board

- A X7c Plug-in connecting terminal for optosensor coiled cable
- B Green LED H1a control voltage
- C Yellow LED H6 static current circuit closed
(does not light up on actuation of cable slack device or wicket door contact)
- D X7d plug socket for 1st cable slack device
- E X7e plug socket for receiver optosensor
- F X7f plug socket for connecting cable to distributor housing
- G X7g plug socket for wicket door contact
- H Red LED H5 optosensor function indicator (only lights up when door closing)
For adjustment purposes, terminal 18 of the optosensor can be switched to continuous operation by disconnecting the cable X7c. (If functioning correctly, LED H5 glows constantly)
- I Dual switch for setting/adjusting the sensitivity

ON		
OFF		
ON		
OFF		
ON		
OFF		
ON		
OFF		
- J X7h terminal block static current circuit (if installed)

13.Connecting circuit board optosensor coiled cable

- A X7a plug socket to control unit
- B X7b Plug socket for coiled cable to optosensor circuit board

14.Distributor optosensor and 2. cable slack device

- A Plug connection to optosensor circuit board
- B Plug connecton for cable slack device with short circuit plug (this is removed, if cable slack device is installed)
- C Plug connection to transmitter optosensor

15.Connecting example „IMPULSE or PULL SWITCH“ button

16.Connecting example „IMPULSE“ key switch

17.Connecting example „OPEN“ and „CLOSE“ key switches

18.Connecting example „STOP“ and „IMPULSE“ buttons

19.Connecting example „OPEN“, „STOP“ and „CLOSE“ buttons

20. Connecting example „OPEN, STOP, CLOSE lockable“ buttons

21.Connections for potential-free limit switch contacts requiring supplementary relay circuit board, flat cable item no.: 562 332

- K6a Contact between 80 and 81 closed or contact between 80 and 82 opened, when door not closed.
- K7a Contact between 84 and 85 closed or contact between 84 and 86 opened, when door at its OPEN end of travel position.
- X2f Plug connection „Control 100 control unit“
- X6 Connecting terminal block „relay circuit board“
- X6a, X6b Plug connections „relay circuit board“

22. Connections for photocell as safety device.
 Special 603 photocell: item no. 564 576
 When the light path is interrupted, contact 1-3 is opened.
 Programming switch S20 at OFF.
 KL Photocell
23. Connections for Control 112, door half open and wicket door contact *
 S12 Limit switch „HALF OPEN“
 S15 Change-over switch „OPEN/HALF OPEN“
 X15 Supplementary terminal block „HALF OPEN“, in „Control 112“ control unit housing
24. Control 400
 Wiring of Control 110 control unit with Control 400 induction loop detector, item no.: 564 022
 „OPEN“ impulse given by induction loop
 X9 Terminal block „Control 400 induction loop detector“
25. Control 200
 Wiring of Control 110 control unit with Control 200 automatic timed return (item no.: 564 007), Control 400 induction loop detector, pull switch and photocell Special. „OPEN“ impulse given by induction loop and pull switch.
 „CLOSE“ by Control 200 automatic timed return.
 Programming switch S19 in Control 110 control unit at „OFF“
 Control 210 Automatic week timer ON/OFF (if installed)
 F1b Fuse 4 A max.
 H41, H42 Traffic lights (entry/exit)
 K41 „Flashing“ relay
 K43 „STOP“ relay
 K44 „IMPULSE“ relay
 S32 Automatic ON/OFF (if installed)
 S33 „IMPULSE“ button with automatic timed return
 X8, X8b Connecting terminal block „Control 200“
 X8a Plug connection „Control 200“
 X9 Terminal block „Control 400 induction loop detector“
 a Before connecting photocell, remove bridge a
26. Control 300
 Wiring for Control 110 control unit with Control 300 traffic light controls, Control 300 induction loop detector, pull switch and photocell KL. Impulse given via induction loop and pull switch.
 Traffic regulated via Control 300 traffic light control system, item no.: 564 020
 Programming switch S19 in Control 110 control unit at „OFF“.
 F1b Fuse 4 A max
 H40a LED limit switch „open“
 H40b LED limit switch „not closed“
 H41 Traffic light „exit red“
 H42 Traffic light „exit green“
 H43 Traffic light „entry red“
 H44 Traffic light „entry green“
 K41 Traffic light relay
 K42a Traffic light „exit“ relay
 K42b Traffic light „entry“ relay
 K43 „Stop“ relay
 K44 „Impulse“ relay
 S30 Button „impulse exit“
 S31 Button „impulse entry“
 S32 Automatic „ON/OFF“
 WZ Week timer (if installed)
 X8, X8b „Control 300“ terminal block
 X8a „Control 300“ plug connection
 X9 Terminal block „Control 400 induction loop detector“
- Optosensor check
 Remove the transmitter or receiver from the door bottom edge seal. Open and close the door.
 The next door closing cycle must take place without self-hold.