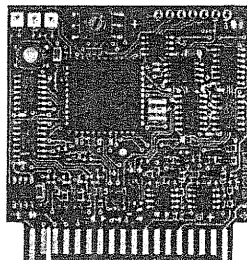


ACCESSORIES FOR MOTHERBOARD AS 1

The gate control AS 1 may be expanded by plugging-in various modules.

ASO 3

Module for the connection of a PW or of a SKS 8.2 kOhm (choise of STOP or STOP/OPEN)



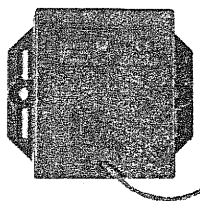
ASO 4

Module for automatic re-descent (only in conjunction with board ASO 3)



HF - receiving component

HF - receiving component for radio 433 MHz (functions OPEN/STOP/CLOSE) (only in conjunction with board ASO 3)

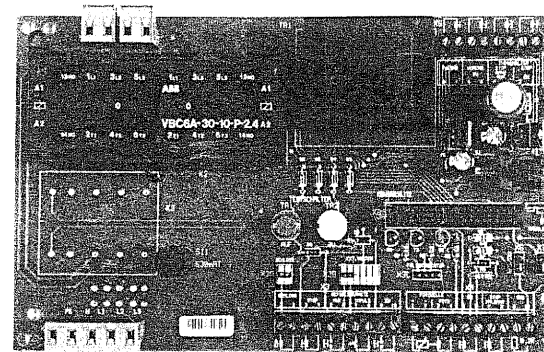


1-channel hand-held transmitter

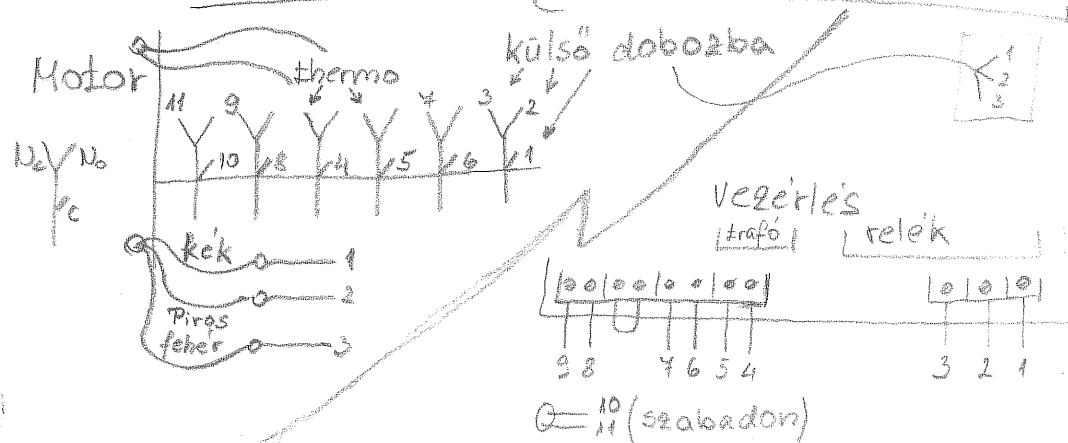
for radio 433 Mhz

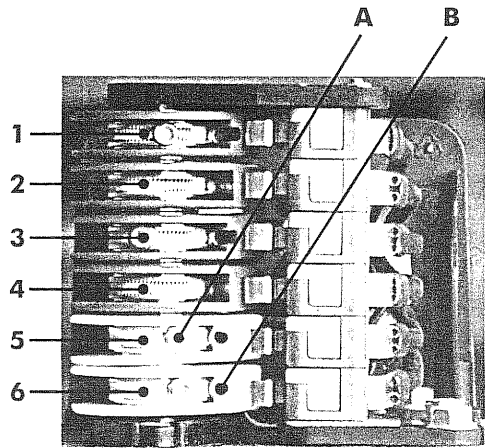


Commande de porte AS 1



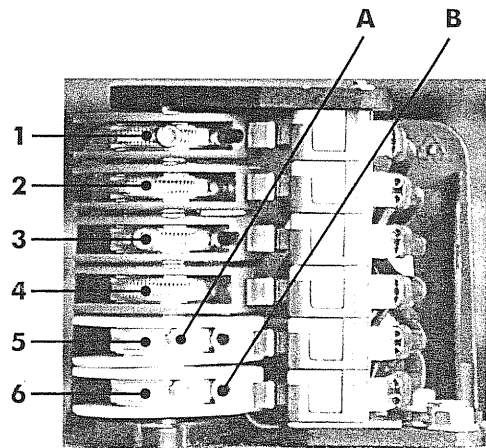
12X1 készerszíjgöteft kábel bekötése





- 1. Additional limit switch OPEN green
- 2. Limit switch OPEN green
- 3. Safety limit switch OPEN red
- 4. Safety limit switch CLOSED red
- 5. Limit switch CLOSED white
- 6. Additional limit switch CLOSED white

1. Drive the gate to wished CLOSED position.
2. Set the control cam **5** (white) the way that the limit switch is operated.
3. Tighten the fixing screw **A**.
4. Fine adjustment is done with the screw **B**.
5. Drive the gate to wished OPEN position.
6. Set the control cam **2** (green) the way that the limit switch is operated.
7. Tighten the fixing screw **A**.
8. Fine adjustment is done with the screw **B**.
9. The safety limit switches **3** and **4** (red) must be set the way that they react directly after passing the control limit switch.
10. After the operation test, control the fixing screw.
11. The additional limit switches **1** and **6** have change-over contact free of potential.



- 1. Interrupteur fin de course vert
additionnel OUVERT
- 2. Interrupteur fin de course vert
OUVERT
- 3. Interrupteur fin de course de rouge
sécurité OUVERT
- 4. Interrupteur fin de course de rouge
sécurité FERME
- 5. Interrupteur fin de course blanc
FERME
- 6. Interrupteur fin de course blanc
additionnel FERME

1. Activer le portail jusqu'à la position FERME souhaitée.
2. Ajuster la came de contacteur **5** (blanche) de tel que l'interrupteur fin de course est activé.
3. Serrer le boulon de fixation **A**.
4. La mise au point précise se fait avec le boulon **B**.
5. Conduire le portail à la position OUVERTE souhaitée.
6. Mettre la came de contracteur **2** (verte) de tel que l'interrupteur fin de course est activé.
7. Serrer le boulon de fixation **A**.
8. La mise au point précise se fait avec le boulon **B**.
9. Les interrupteurs fin de course de sécurité **3** et **4** (rouges) doivent être poser de tel qu'ils réagissent directement après que l'interrupteur fin de course de commande soit passé.
10. Après la marche d'essai, contrôler l'ajustement du boulon de fixation.
11. Les interrupteurs fin de course additionnels **1** et **6** ont des contacts inverseurs libres de potentiel.

The control AS 1 is conceived to operate doors.

In the basic model, it is made for the dead man operation.

By means of plug-in modules, it can be extended individually.

SAFETY NOTICES

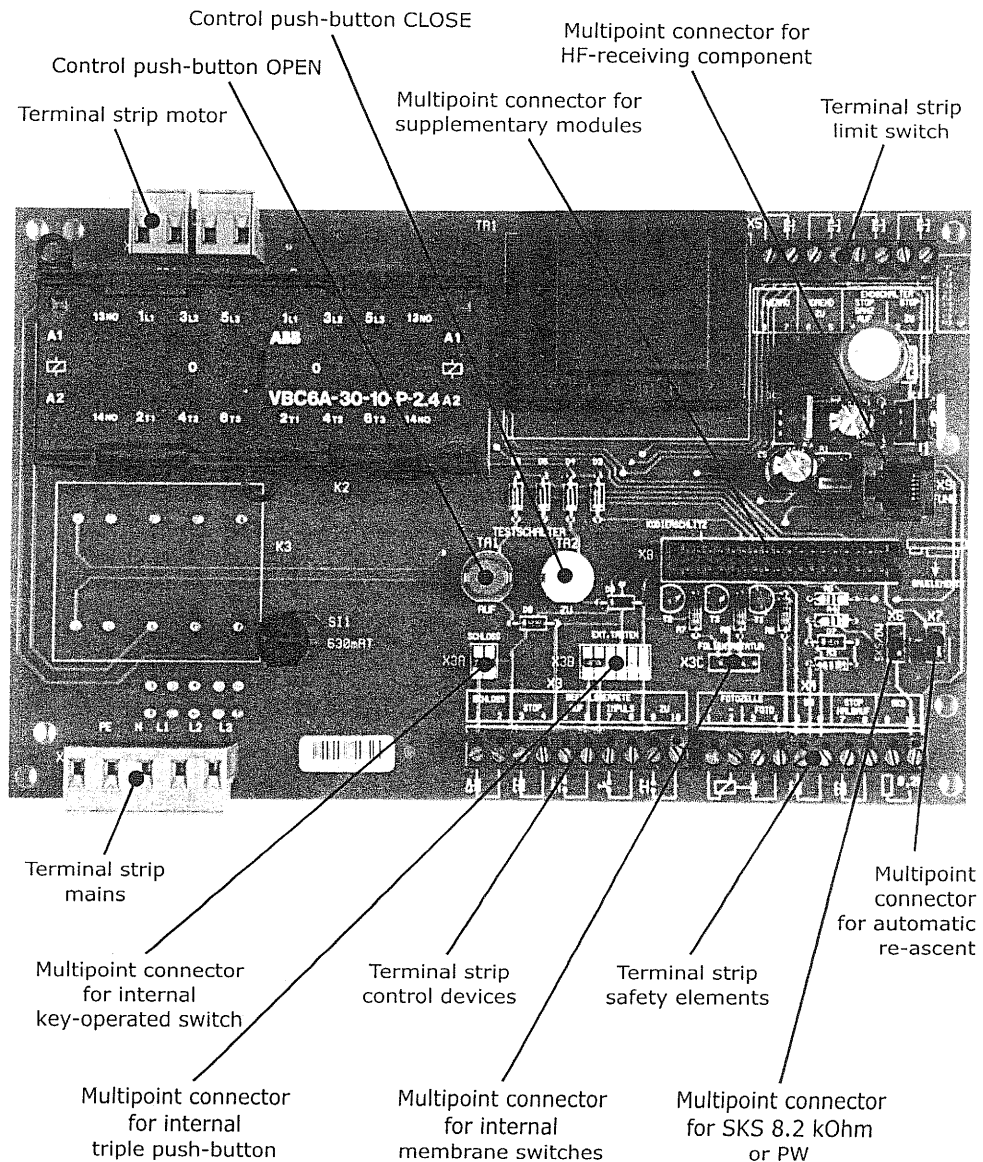
- Please note valid directions and regulations of start-up of power operated doors in your country.
- Only connect the control AS 1 if you are a skilled person for electric or if you are instructed in this control device.
- Note protecting prescriptions!
- The installation has to be switched on free of tension during electrical works
- Dead-man operation is only allowed if the installation can be seen from the control devices.

If you do not respect the safety notices, you are responsible of resulting personal and material damages.

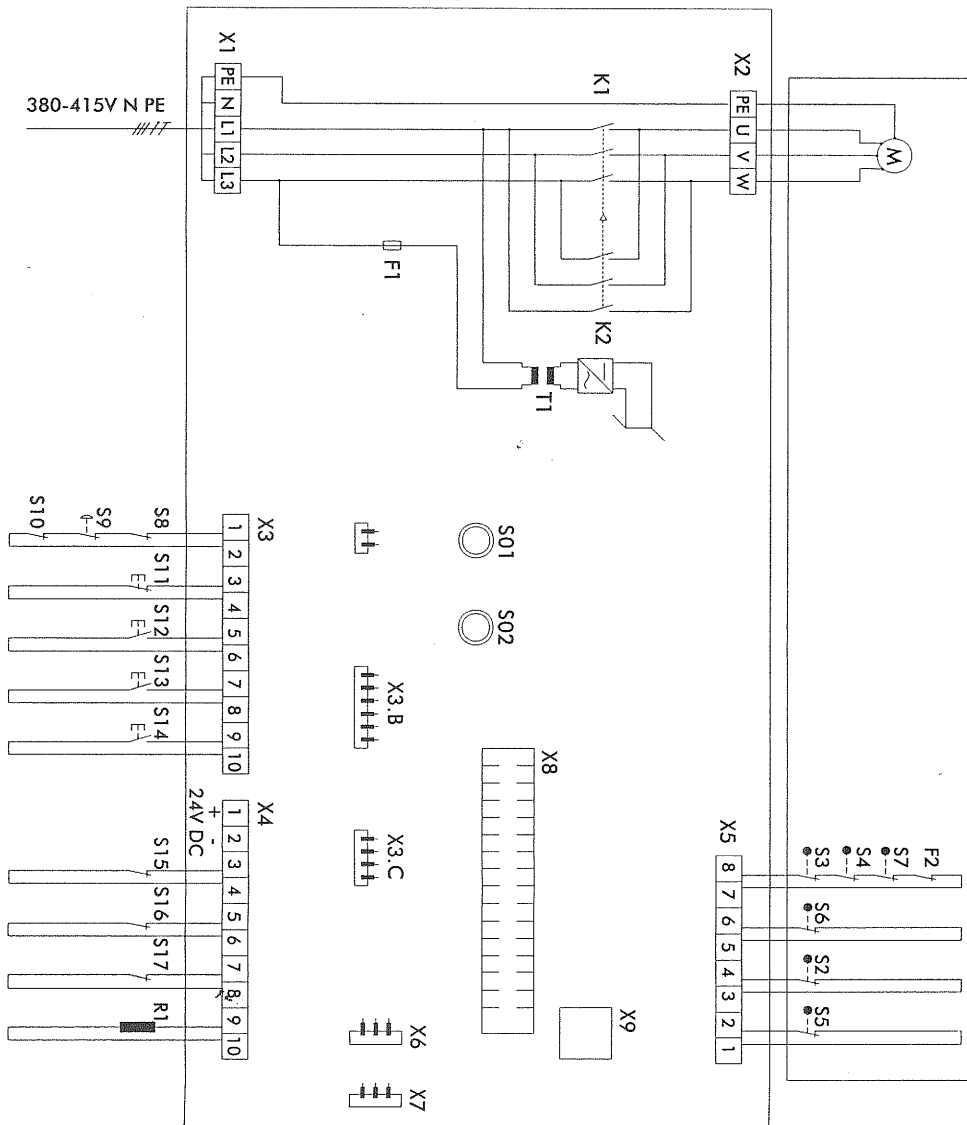
CURRENT SUPPLY

- In case of fixed connection, an all-pole main switch has to be foreseen.
- In case of rotary current, only use triple block safety cut-out (10 A).
- Please note that supply voltage corresponds with the data on type plate.
- Please note that a clockwise rotatory field should be at the power outlet

MOTHERBOARD AS 1



CIRCUIT DIAGRAM AS 1



LEGEND OF CIRCUIT DIAGRAM AS 1

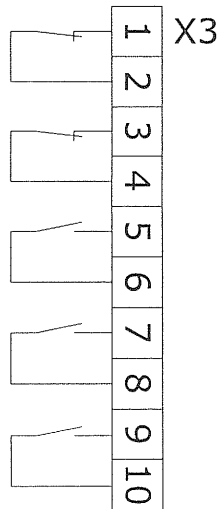
- F1 Safety fuse 100 mA
 - F2 Thermal protector motor
 - K1 Contactor CLOSE
 - K2 Contactor OPEN
 - M1 Motor
 - R1 Closing edge safety device 8.2 kOhm
 - S01 Control push-button OPEN
 - S02 Control push-button CLOSE
 - S1 Supplementary switch OPEN
 - S2 Limit switch OPEN (break contact)
 - S3 Safety limit switch OPEN (break contact)
 - S4 Safety limit switch CLOSE (break contact)
 - S5 Limit switch CLOSE (break contact)
 - S6 Supplementary switch CLOSE
 - S7 Safety switch emergency manual operation (break contact)
 - S8 Slack rope switch (break contact)
 - S9 Emergency shutdown (break contact)
 - S10 Slip-through-door contact (break contact)
 - S11 Push-button STOP (break contact)
 - S12 Push-button OPEN (make contact)
 - S13 Push-button OPEN (make contact)
 - S14 Push-button CLOSE (make contact)
 - S15 Passage light-barrier (break contact)
 - S16 Pressure wave switch (break contact)
 - S17 Limit switch HALF OPEN (break contact)
 - T1 Transformer
-
- X1 Terminal strip mains connection
 - X2 Terminal strip motor
 - X3 Terminal strip control switches
 - X3.A Multipoint connector for internal key-operated switch
 - X3.B Multipoint connector for internal triple push-button
 - X3.C Multipoint connector for internal membrane switches
 - X4 Terminal strip safety elements
 - X5 Terminal strip limit switches
 - X6 Multipoint connector for SKS 8.2 kOhm or PW
 - X7 Multipoint connector for automatic re-ascent
 - X8 Multipoint connector for supplementary modules
 - X9 Multipoint connector for HF-receiving component

All break contacts have to be bridged if they are not assigned.

DETAILED CIRCUIT DIAGRAM

Terminal rails, commanding devices and safety elements

Emergency shutdown
Slack rope switch
Slip-through door contact



Push-button STOP

Push-button OPEN

Push-button OPEN

Push-button CLOSE

24V DC for external switchgear

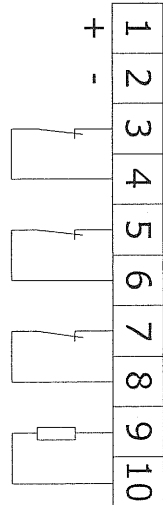
+ 1 X4

Passage light-barrier
(works in downwards direction)

Pressure wave switch

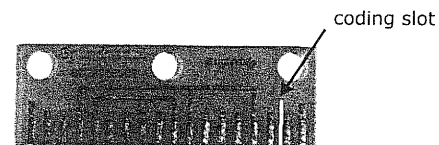
Limit switch HALF OPEN

Closing edge safety device 8.2 kOhm



AUTOMATIC HOLDING OF OPEN POSITION

For the function automatic holding of OPEN position, board **ASO 1** is plugged into the multipoint connector **X8** for supplementary modules. (Turn board around when mounting coding slot on the left).



TROUBLE SHOOTING

PROBLEM	POSSIBLE CAUSE	RECTIFICATION
Drive does not work	No operating voltage	Check whether supply voltage correspond to type plate
	Thermal fuse has triggered	Allow motor to cool down
	Safety limit switch has been actuated	Check setting of limit switches Check phase-sequence of drive
Drive buzzes	Control fuse defective	Check external devices for short circuits Check control fuse 100mA
	External safety device has responded	Carry out continuity check on external devices which are connected from terminal X6.7/8
	2 phase operation	Check mains voltage
Drive does not run downwards while on automatic hold (for gates with closing edge safety device)	Gate too sluggish	Check gate
	Closing edge safety device defective	Check closing edge safety device
	Passage light-barrier defective	Check passage light-barrier

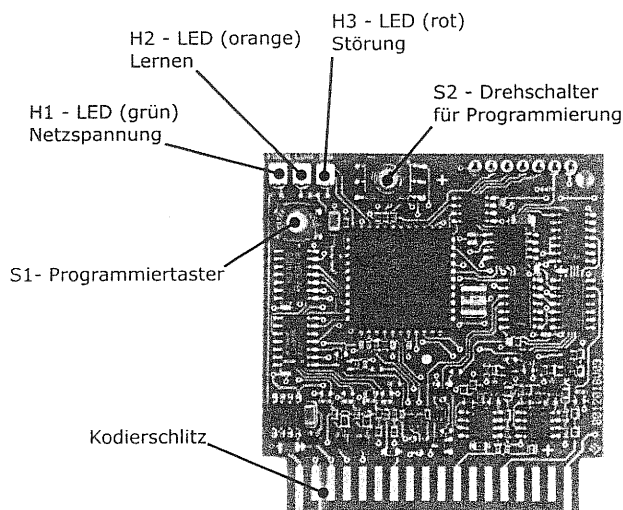
INSTRUCTIONS

for power operated windows, doors and gates, ZH 1/494 issue April 1989

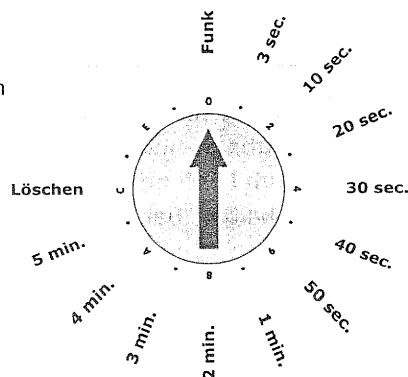
Please take note of the above instructions before connection!

Some important extracts are detailed below:

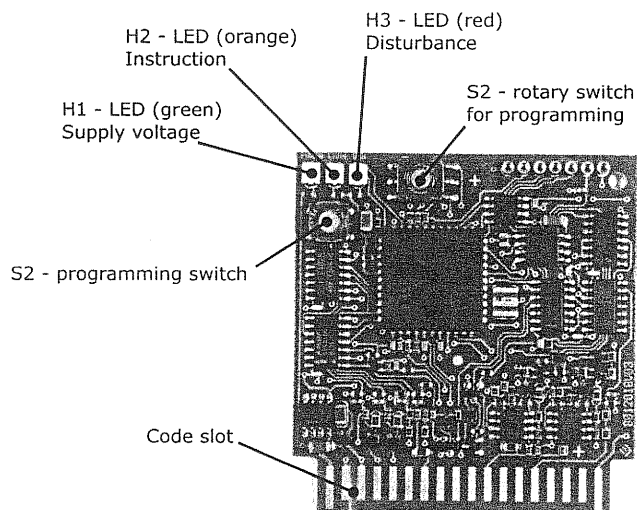
- 4.7.2 Remote controlled doors and gates have to be equipped with at least one well visible and easily accessible emergency cutoff device in proximity to the wings with which the movement of the wings may be brought to a standstill in case of danger.
- 4.12.1 Electrically operated windows, doors and gates have to be equipped with one main switch or plug by means of which all poles may be cut off. It is advisable to equip each window, each door and each gate with its own main switch.
- 4.12.2 It must be possible to safeguard the main switch against erroneous and unauthorized switching-on.
- 4.12.3 It is possible to dispense with the main switch if the electric drive is connected by means of plug-in devices in so far as according to generally accepted engineering rules these plug-in devices may be used for switching operations.
- 5.2. Before any maintenance work is carried out, the driving mechanism of windows, doors and gates must be switched off and secured against erroneous and unauthorized switching-on. The trial run remains an exception to this (performance check).
This entails that the driving mechanism is switched on by means of the main switch required in paragraph 4.12.1
- 5.3. Maintenance of power operated windows, doors and gates may only be carried out by a person duly charged with the task by the manufacturer and familiar with the respective maintenance work.



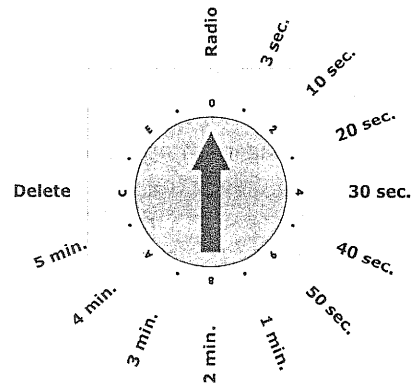
- Den Drehschalter S2 auf gewünschte Zeit stellen (siehe Abbildung) und Programmierertaster S1 betätigen, bis LED H2 (orange) leuchtet.
- Löschen = Programmierertaster S1 betätigen



- Insert board plate ASO 3 in plug-in rail X8 (code slot left)
- Insert **Jumper J1** of plug-in rail X6
PIN 1 and 2 = SKS 8.2 kOhm
PIN 2 and 3 = Dynamic pressure switch
- With the **Jumper J2** of the terminal rail X7, the function STOP or STOP/UP can be chosen by reaction of SKS 8.2 kOhm or of dynamic pressure switch.
- ▼ **SKS 8.2 kOhm**
Connect the leads of SKS light barrier evaluation to the binders 9 and 10 of the terminal rail X4.
- ▼ **Druckwellenschalter ohne Testung**
Connect the leads of the dynamic pressure switch to the binders 5 and 6 of the terminal rail X4. The binders 5 and 6 must be bridged to terminal rail X5.
- ▼ **Druckwellenschalter mit Testung**
Connect the leads of the dynamic pressure switch to the binders 5 and 6 of the terminal rail X4.
A prelimit switch must be connected to the binders 5 and 6 of the terminal rail X5 which reacts some centimetres before reaching the final position CLOSED. The door must touch down the floor so that the dynamic pressure switch gives an impulse to the control. If the impulse does not follow, the red LED is on and the next descent occurs in dead-man operation.
To delete the disturbance indicator, the control has to be switched off. In case of MFZ drives, the CLOSED prelimit switch (S6) is over the leads 10 and 11 of the control cable.



- Set the rotary switch S2 at wished position (see drawing) and operate programming button S1 till the LED H2 (orange) is on.
- Delete = operate programming button S1



- Pousser la platine ASO 3 dans le rail à insérer X8 (rainure de codage gauche)
- Insérer **Jumper J1** du rail à insérer X6
PIN 1 et 2 = SKS 8.2 kOhm
PIN 2 et 3 = interrupteur des ondes de choc
- Avec le **Jumper J2** du rail à bornes X7, on peut choisir la fonction STOP ou STOP/HAUT par la réaction du SKS 8.2 kOhm ou de l'interrupteur des ondes de choc.

▶ **SKS 8.2 kOhm**

Branchez les conducteurs de l'évaluation de la barrière photoélectrique aux bornes 9 et 10 du rail à bornes X4.

▶ **Interrupteur des ondes de choc sans test**

Branchez les conducteurs de l'interrupteur des ondes de choc aux bornes 5 et 6 du rail à bornes X4. Les bornes 5 et 6 doivent avoir un pont au rail à bornes X5.

▶ **Interrupteur des ondes de choc avec test**

Branchez les conducteurs de l'interrupteur des ondes de choc aux bornes 5 et 6 du rail à bornes X4.
Un interrupteur fin de course préliminaire doit être branché aux bornes 5 et 6 du rail à bornes X5 qui réagit quelques centimètres avant d'atteindre la position finale FERME. Le portail doit se poser sur le sol pour que l'interrupteur des ondes de choc puisse transmettre un impulse vers la commande. Si l'impulse ne se produit pas, la LED rouge s'allume et la descente prochaine se fait en opération homme mort.

Pour éteindre l'indication de perturbation, la commande est à mettre hors de tension. Dans le cas de commandes MFZ, l'interrupteur de fin de course FERME (S6) est sur les conducteurs 10 et 11 du câble de commande.


Für SA 030

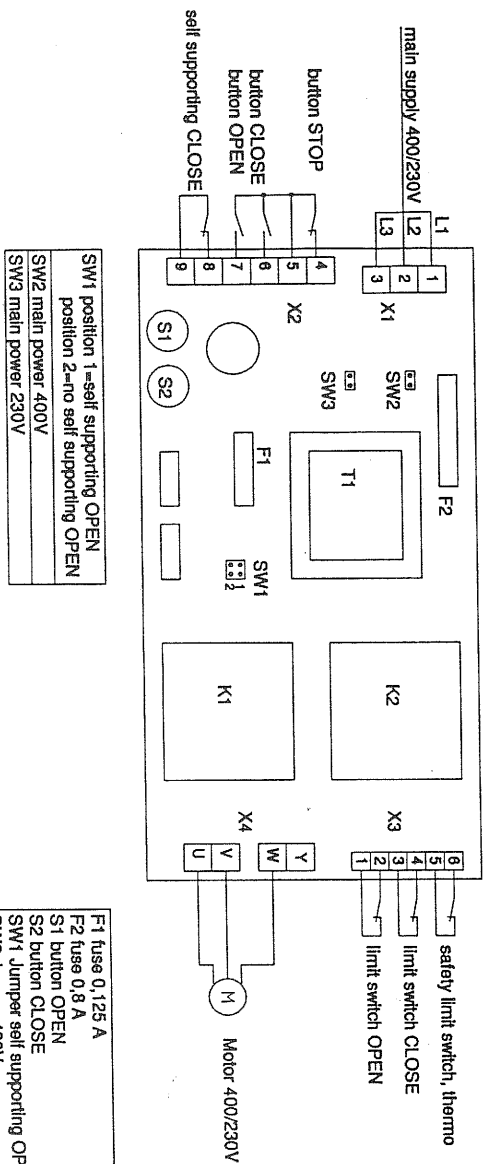
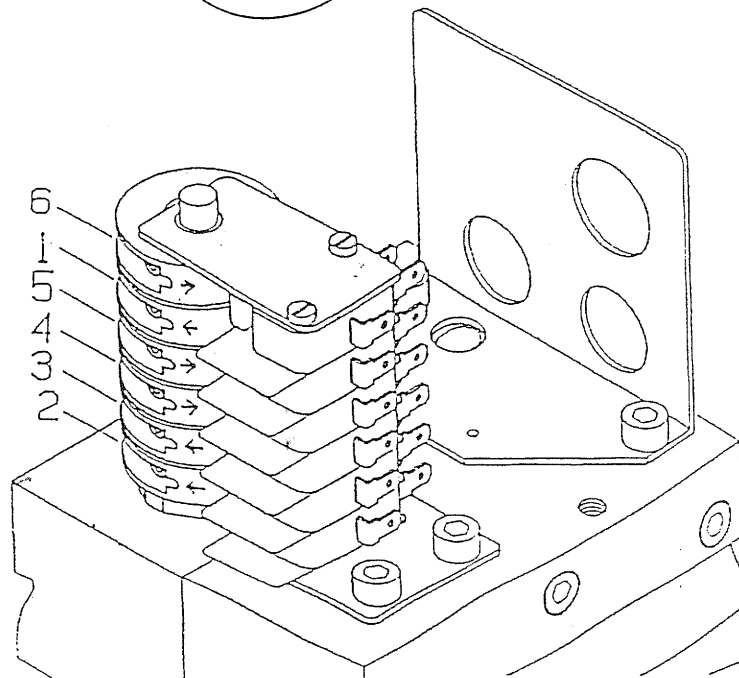
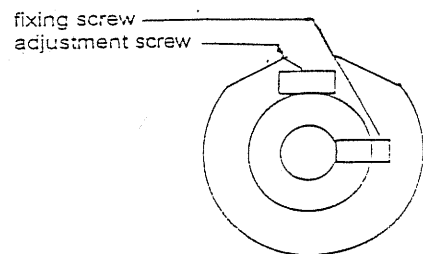
Adjusting the switches

- 1 Move the door in the wanted position
- 2 Turn the control switch knob in arrow direction up to the limit switch
- 3 Fasten fixing screw
- 4 Turn the knob further with the adjustment screw till the switching point
- 5 Adjust emergency limit switch (should switch directly after control switch)
- 6 Check fixing screws after testing

Switch functions

control switch	up	green	2
control switch	down	white	5
emergency switch	up	green	3
emergency switch	down	white	4
additional switch	up	green	1
additional switch	down	white	6

adjust with hexagon socket screw key  2,5 mm



- F1 fuse 0,125 A
- F2 fuse 0,8 A
- S1 button OPEN
- S2 button CLOSE
- SW1 Jumper self supporting OPEN
- SW2 Jumper 400V
- SW3 Jumper 230V
- K1 Relais OPEN
- K2 Relais CLOSE
- T1 Thermo

- SW1 position 1= self supporting OPEN
- position 2=no self supporting OPEN
- SW2 main power 400V
- SW3 main power 230V

Platine 400/230V

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 Datum:

Blatt: von
 gezeichnet:
 Datum: