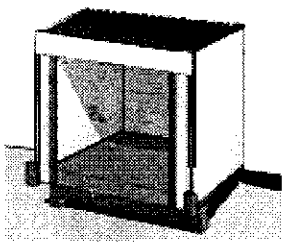
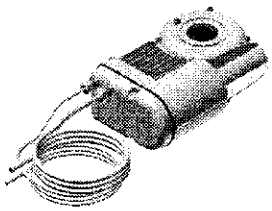
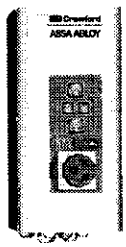
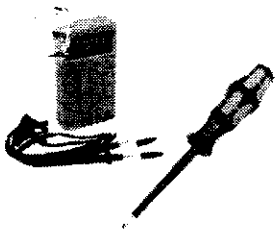
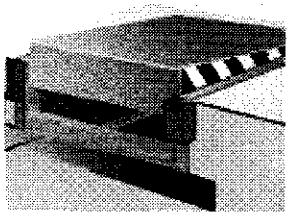
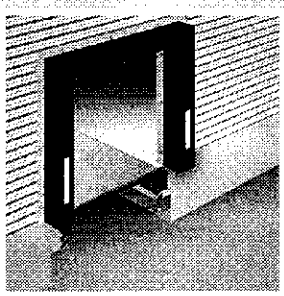
Art.no:
K048107 rev. -

Approved

CDM 9 - ECS 950 DOCKING

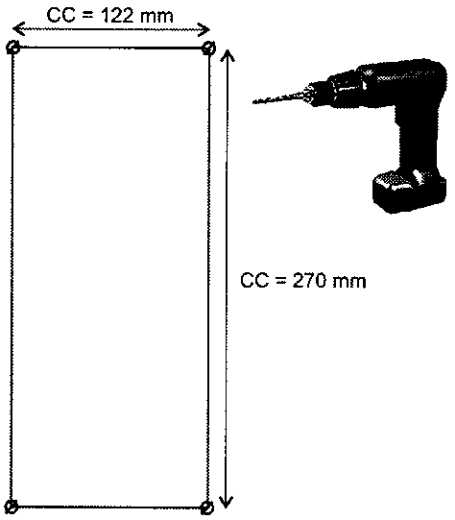
(GB) Installation & Starting

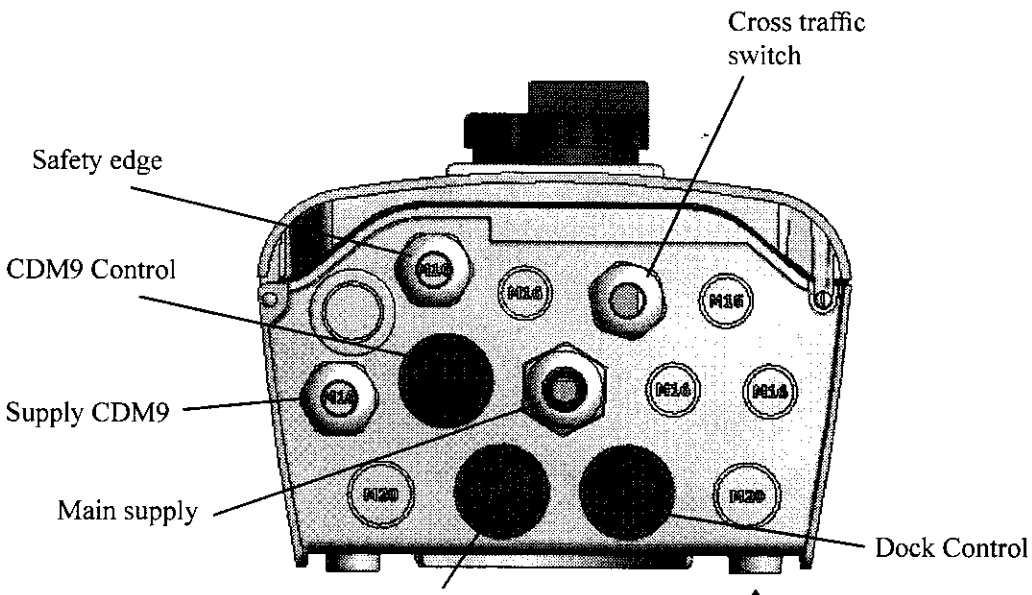
Crawford

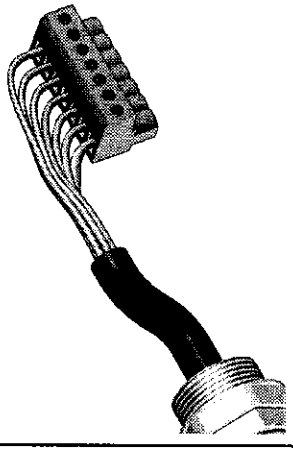
ASSA ABLOY

IP55


CC = 122 mm
CC = 270 mm

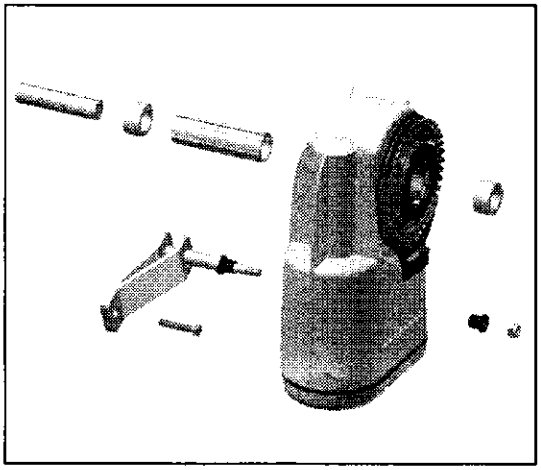

Crawford


Cross traffic switch
Safety edge
CDM9 Control
Supply CDM9
Main supply
Dock supply
Dock Control

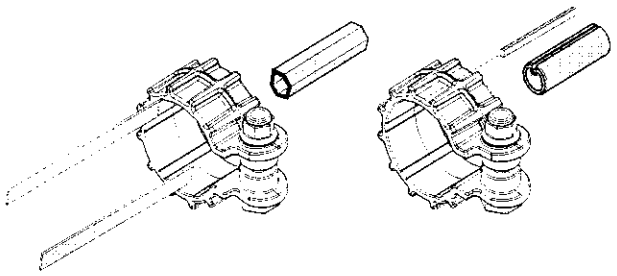


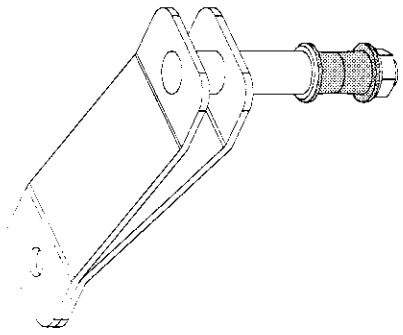
WARNING! Important safety instructions!
Follow all instructions since incorrect installation can lead to severe injury.
- Check that the temperature range marked on the operator is suitable for the location.
- Check that the door is moving smooth and correct before assembling the operator.
- Check that the door are in good mechanical condition and correct balanced.
- After installation, ensure that the mechanism is properly adjusted and that the protection system and any manual release function correctly.
- Ensure that entrapment between the driven part and the surrounding fixed parts due to the opening movement of the driven part is avoided.
- External pushbutton units are to be located within direct sight of the door but away from moving parts. Unless it is key operated, it is to be installed at a minimum height of 1,5 m and not accessible to the public.

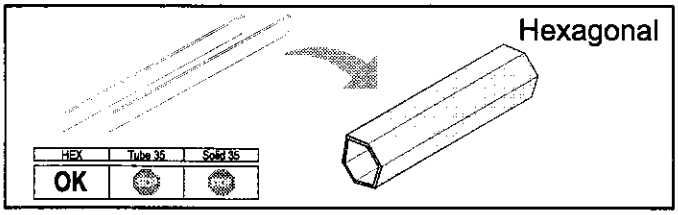
Assembling the drive unit

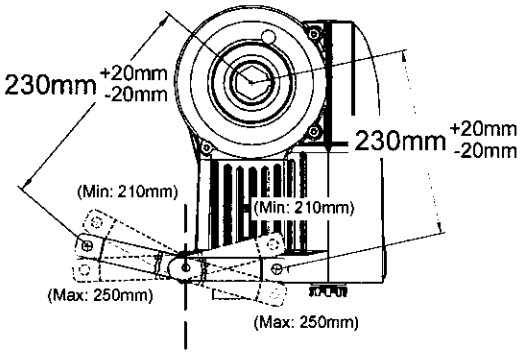


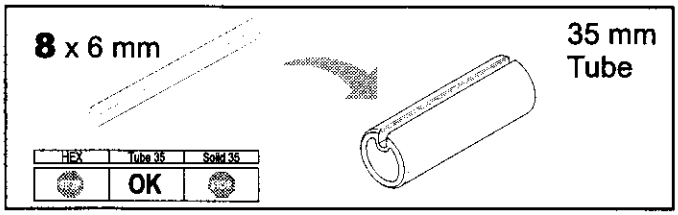
Fit the first stop ring onto the pivot, put the adapter onto the pivot.
Push on the drive unit. Fit the second stop ring.
Mount the torque bar onto the mech. unit, then mount the rubber damper between torque bar and the consol.
Adjust the drive unit position and tighten all screws.

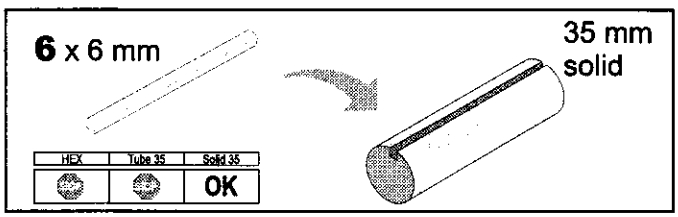




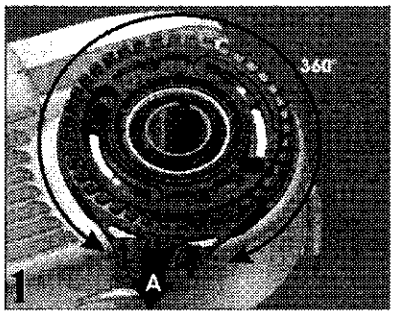


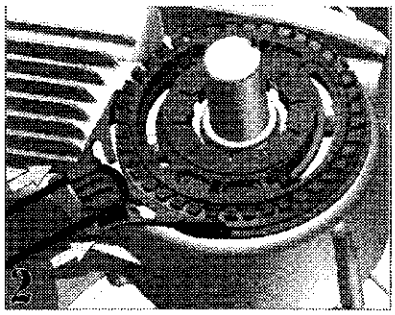


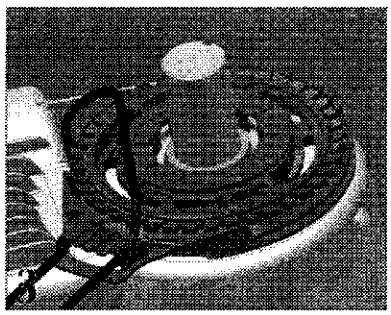


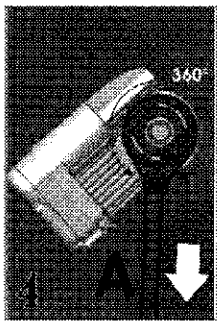


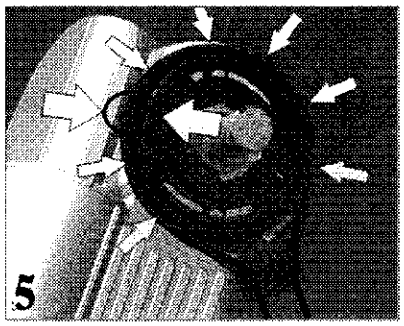
Disengaging (NOTE! Engaged operator!)

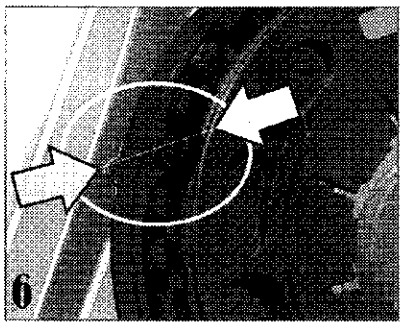


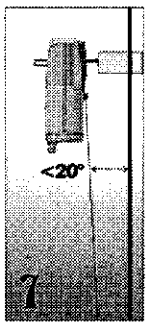


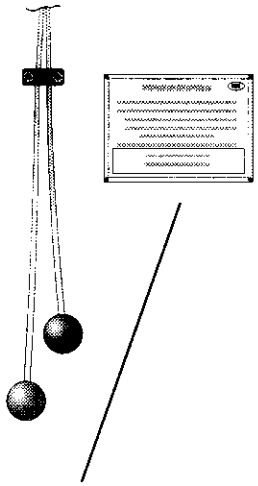












Mount permanently the disengaging label adjacent to the disengaging knobs.

Technical specifications:

Operator (containing an Mechanical Door- and an Control unit) adapted for the balanced Overhead Sectional Door up to 400 kg.
The mechanical door unit is intended to be installed at a height of at least 2.5 m above the floor or other access level.

Mechanical Door unit

Capacity:	Max. door weight 400 kg
Endurance:	70.000 - 300.000 door cycles depending on door weight and temperature.
Operating factor:	ED = 30 % (ED 15% when +51°to +55°C)
Supply voltage:	230V AC, single phase, 50/60Hz, 2A
Dimensions:	340 x 230 x 140 mm (height x width x depth)
Weight:	13.5 kg
Classification:	IP 55 (Excluding the CEE-plug which is IP44)

Control unit

Temp. range:	-20°C to +55°C Normal opening speed down to -8°C, in the temperature interval between -8°C to -20°C the opening speed is reduced approximately the first cycle in order to prolong the operator's lifetime.
Atmospheric humidity:	0-80 % relative, not condensing.
Installation area:	Inside location according to the operator's specified temperature range.
Dimensions:	380 x 180 x 150 mm (height x width x depth)
Weight:	2.4 kg
Classification:	IP55

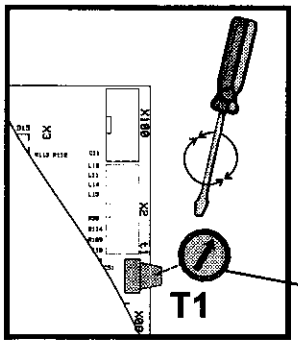
Hydraulic motor

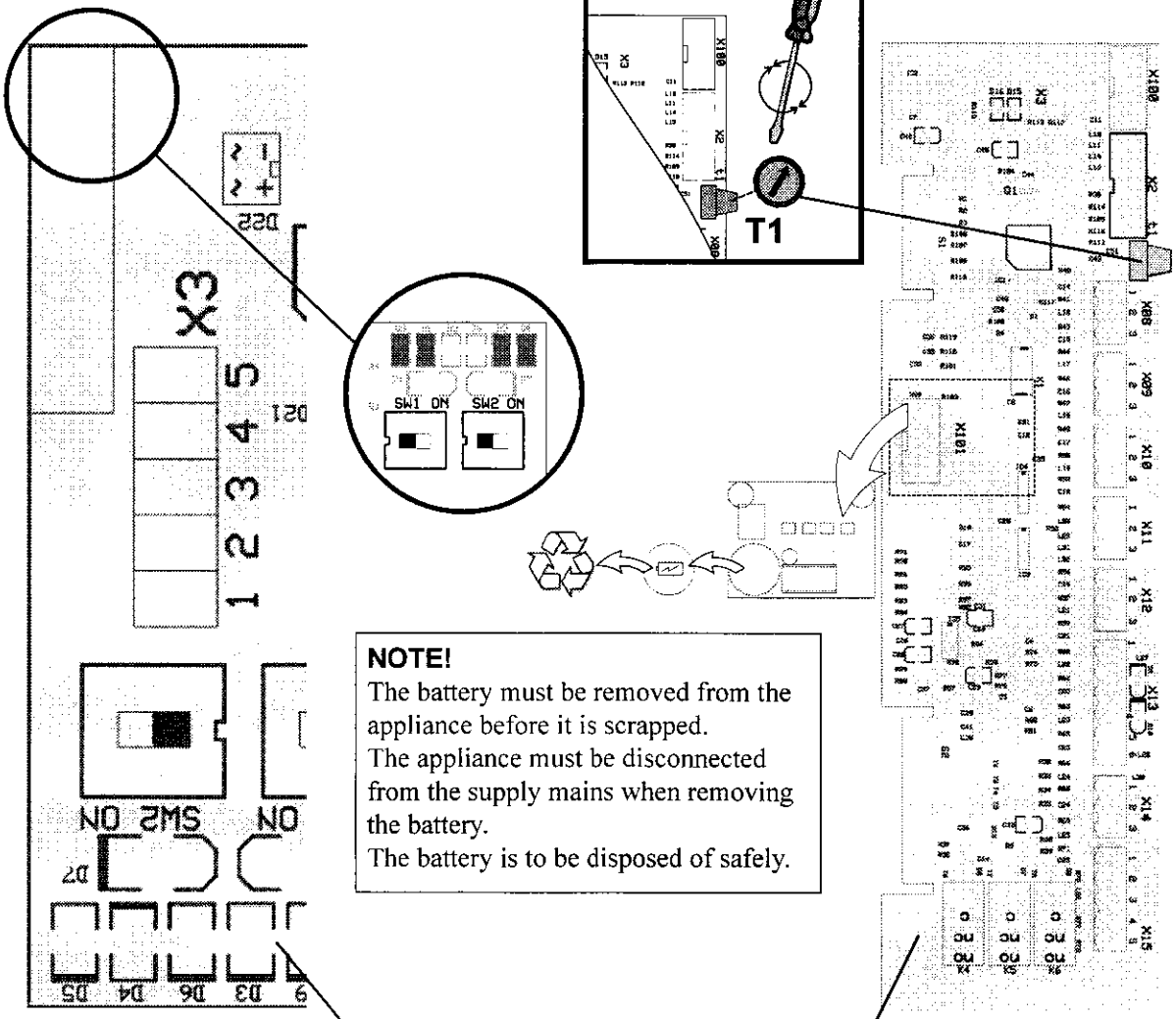
Supply voltage:	230V 3~, 0.75kW 4.2A / 1.5kW 7.4A 400V 3N~, 0.75kW 2.4A / 1.5kW 4.2A
Operating factor:	ED = 10 %

Max current and voltage for relay output X22 and X25:

Operating voltage:	230VAC (+10%, -15%) 50/60 Hz,
Max. Current:	2 A
Operating factor ED:	50%

Max output from 24VDC = 100mA.

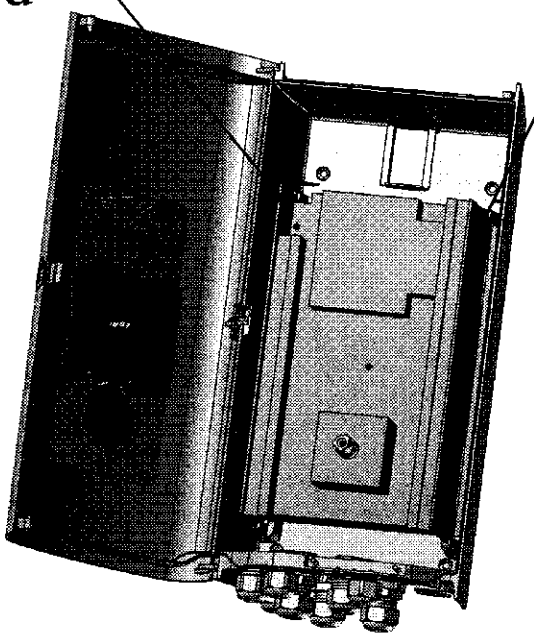




NOTE!
The battery must be removed from the appliance before it is scrapped.
The appliance must be disconnected from the supply mains when removing the battery.
The battery is to be disposed of safely.

Door board

Leveller board



Installing & starting to use the 950 DOCKING

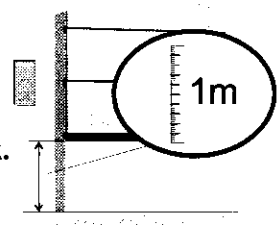
Assemble the controls and mechanical unit, as instructed, and connect according to the enclosed connection diagram.

NB: - Ensure that the floor is clean and free from cables etc.
- Before starting up the door, check that the buffers have been positioned correctly and that they are properly fixed with the door correctly in balance. Incorrect balancing may lead to unsafe operation and may shorten the life of the product.
- Installation can only be carried out using the set of buttons in the control box, not an external push button box or radio control. If Electrical Door Lock System, put a jumper in the stop circuit during the installation. For doors with small drums and without safety features, there may be a risk of the wire unwinding. Check therefore that the wire is located correctly on the drum.

The power SHALL be switched off-on before an installation!

NOTE that the buttons Open and CLOSE has a double function; (Stop button is missing)
Open door - Push the OPEN button.
To **stop a opening** door - Push the OPEN button once again. 
To **close** the door - Push the CLOSE button.
To **stop a closing** door - Push the CLOSE button once again. 

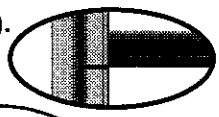
1. **Disengage the door, place it in a position 1.5m above the floor and engage it.**
   Switch on the power.



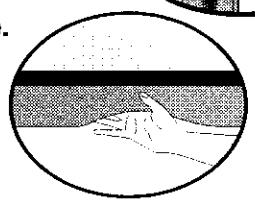
2. **Mark out a "1m position" above the floor on the door track.**

3. **SW1 ON.**

4. **Hold-to-run downwards** (Open or Close-button) **until the rubber sealing edge is in position with the 1m mark.** (Adjust with the Open/Close button**s**).
   The door is now stopped at the mark.



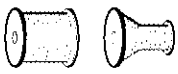
5. **Squeeze the rubber sealing hard with your hand, then release.**
   The LEDs D4 and D5 switch off shortly.



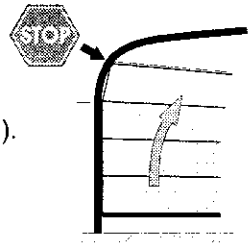
VL-drum: 

6a. Push Close.
The door moves slowly by impulse operation down to the floor reverses to a fully open position.

SW1 OFF (After 2 sec. the door is operatable).

SL, LL & HL-drum: 

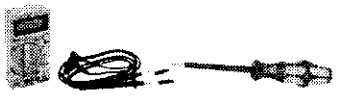
6b. Push Close.
The door moves slowly by impulse operation down to the floor and reverses.
When the top section of the door is in the middle of the rail bend (where the cable reaches the straight drum part), push Open (door stops).
Push Open.
The door now moves by impulse operation to a fully open position. 



SW1 OFF (After 2 sec. the door is operatable).

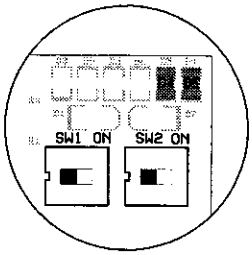
NB! **If the installation fails** between step 1 - 6, **adjust the torque (force).** *See page 8.*

The installation is now complete. *Please, see also "Check that" -points at page 7.*



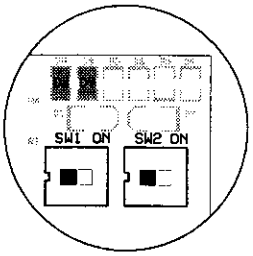
Check that:

- ☞ The door reverses to the fully open position when the safety edge and any eventual safety photocell are actuated.
- ☞ Check that the door reverses on instantaneous overload trip (on closure).
- ☞ Check that the door stops on instantaneous overload trip (on opening).
- ☞ Check that all control devices are operational.
- ☞ Check that the two yellow LED's, D4 & D5 (Door board), goes off for two-three seconds when the door reaches the floor. If the off-period is to short, less than 0,5 second, you have to check the safety device equipment.



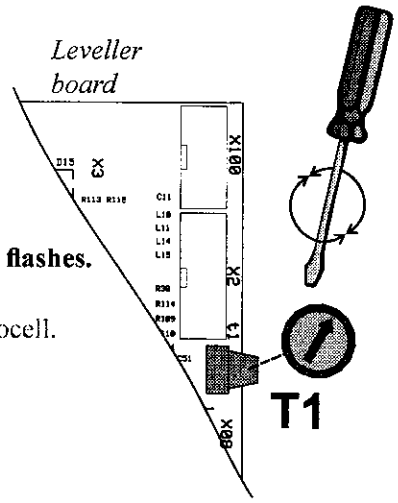
NOTE:

1. The two LED's, D8 and D9 on the Door board, indicates the stop circuit. If both are lit the stop circuit is ok.
2. The programmed installation **is not** lost when the power is cut.
3. After a power failure the door can be operated either hold-to-run down, or impulse operation up.
   To regain impulse operation down the door first has to be run to a fully open position.
4. If anything is wrong, consult the trouble shooting guide.



Activating of Automatic Closure 950 DOCKING

1. To **activate** the function for **automatic closure:**
   Turn T1 **clockwise** wit a small screwdriver until a figure (5 - 30) shows on the display. Fine adjust T1 until wished time setting for a start is set, before closing movement.
   A lit dot in the lower right corner of the display indicates that the automatic closure function is activated.
   When the time counting down for the automatic closure, the dot flashes.
   For T2, pre-flashing, see Service tool manual, d02.
   Automatic closing only from fully open door, not after passing photocell.



TIME settings for automatic closing

2. *The time for "automatic closing" will be adjusted as following:*
   Potentiometer T1: Adjustable time are between 5 and 30 min.

   NB: After five closing attempts without door movement
   (e.g. activated SBD) or if the door has reversed **on** the safety edge **five** times in a **row**
   (**NOTE! Only** on the safety edge), the automatic closing function temporary gets deactivated.
   The function is activated again when the door has been started down from the control unit.

3. If another down command is given during the countdown for automatic closing, the door will close immediately.
   If up, stop, additional safety, safety edge or the safety photocell are activated during the closing time countdown, the countdown will start from the beginning again.

4. Operate the door to the fully open position and check that it starts the closing action after the set time.
   NB! The time can be changed at any time by changing T1.

Deactivating

5. To deactivate the "automatic closure" function:
   Turn T1 **clockwise reverse** with a small screwdriver until figure 0 shows on the display.
   The function is now deactivated.

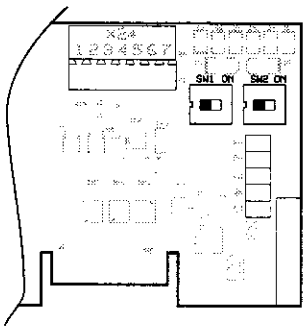
How to adjust the torque (force) on the CDM9 950 DOCKING

NOTE! Do not install with bigger torque (force) than the Door needs.

A) If the installation fails during normal installation, do as follows:

NOTE! The torque always starts the first time from the original factory setting, which is step 9 of 15.

a.1 **Switch of the power. SW1** and **SW2** in **OFF**.



a.2 **Disengage the door, place it in a position 1.5m above the floor and reconnect it.** Switch on the power. **SW2** in **ON.**
The display shows the current saved torque-step.

a.3 Push the OPEN button once, for a stronger operator.
Push the CLOSE button once, for a weaker operator.
NOTE! Every push on the OPEN or CLOSE button, makes the operator stronger or weaker.

a.4 The torque is now adjusted. Push in and hold both the OPEN- and CLOSE buttons at the same time in 3 seconds.
Switch **OFF** the torque setting switch **SW2**, and continue with the *Normal installation* **from step 3.** (See page: 6)
NOTE! Do not cut the power again!

a.5 If the torque is still too weak, follow steps **a.2 – a.4 again.**

B) After installation. (Not possible on Hold-to-run function)

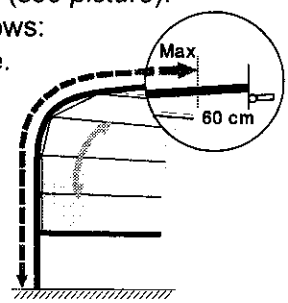
If you need to adjust the torque (force) after installation, do as follows:

b.1 Switch **ON** the torque setting switch **SW2**. *(SW1 OFF).*

b.2 Push the OPEN button once, for a stronger operator.
Push the CLOSE button once, for a weaker operator.
NOTE! Every push on the OPEN or CLOSE button, makes the operator stronger or weaker.

b.3 The torque is now adjusted. Push in and hold both the OPEN- and CLOSE buttons at the same time in 3 seconds.

b.4 To evaluate the adjusted torque, operate the door within illustrated area (*see picture*).
Is the torque correct, go to step b5. Is the torque **not** correct, do as follows:
Push in and hold both the OPEN- and CLOSE buttons at the same time.
Adjust the torque further on, acc. to step b.2 - b.7.



REMARK:
NOTE! To reset to step 9 (factory set): (SW2 ON).
- Put SW1 in position ON, then back to OFF again.

b.5 Run the door by impulse operation to a fully open position.

b.6 Run the door by impulse operation down. The door will now reverse against the floor and run up and stop with low speed against the buffers.
Check: Push the CLOSE button. The door shall **not** move downwards.
NOTE! If the door goes down, repeat step b2-b6.

b.7 Switch the torque setting switch **SW2** to the **OFF**-position.

The door is now ready for operation.

Installing & starting to use the Hold to run-function, "Mode 1"

The UP and DOWN buttons function: "Mode 1" = **Impulse UP** and **Hold to run DOWN**

Assemble the controls and mechanical unit, as instructed, and connect according to the enclosed connection diagram.

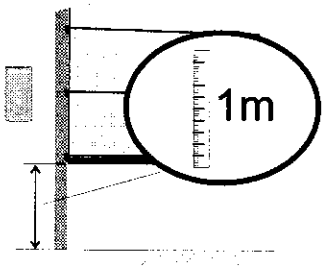
NB: - Ensure that the floor is clean and free from cables etc.
- Before starting up the door, check that the **buffers have been positioned correctly** and that they are properly fixed with the door correctly in balance. Incorrect balancing may lead to unsafe operation and may shorten the life of the product.
- Installation can only be carried out using the set of buttons in the control box, **not** an external push button box or radio control. If Electrical Door Lock System, put a jumper on X24:4-5 during the installation. For doors with small drums and without safety features, there may be a risk of the wire unwinding. Check therefore that the wire is located correctly on the drum.

The power SHALL be switched off-on before an installation!

1. **Connect the installation device, X24:6 and 7.**

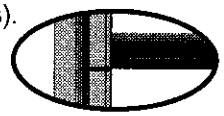
2. **Disengage the door, place it in a position 1.5m above the floor and engage it.** Switch on the power.

3. **Mark out a "1m position" above the floor on the door track.**



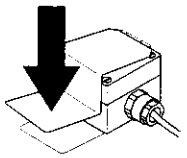
4. **SW1 ON.**

5. **Hold-to-run downwards** (Open- or Close button) **until the rubber sealing edge is in position with the 1m mark.** (Adjust with the Open/Close buttons). *The door is now stopped at the mark.*



6a. **Actuate the installation device** with a short pressure.

6b. **Place the installation device on the highest point of the floor below the door leaf.** (The *lower* sensing level of the device shall be activated by the door).

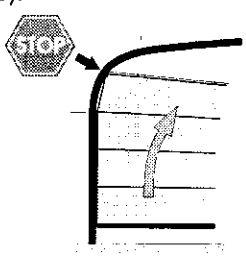


VL-drum: 

7a. **Push Close.**
The door moves slowly by impulse operation down, reverses against the lover level of the device and opens to a fully open position.

SL, LL & HL-drum: 

7b. **Push Close.** *The door moves slowly by impulse operation down to the floor and reverses.*
When the top section of the door is in the middle of the rail bend (where the cable reaches the straight drum part), **push Open** (the door stops).
Push Open. *The door now moves by impulse operation to a fully open position.*



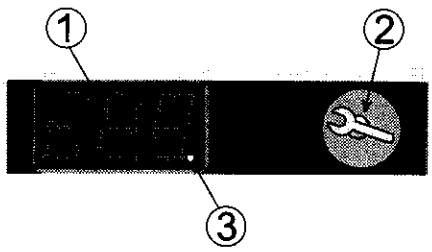
NB! If the installation fails between points 1-7, adjust the torque (force). *See page 8.*

8. **SW1 OFF.** (After 2 sec. the door is operable).
Note: Remove and disconnect the installation device.

The installation is now complete. *Please, see also "Check that" -points at page 7.*

Service indicating and counter

1. The display that visuals a counter for door cycles and error codes can only be used active together with the service tool.

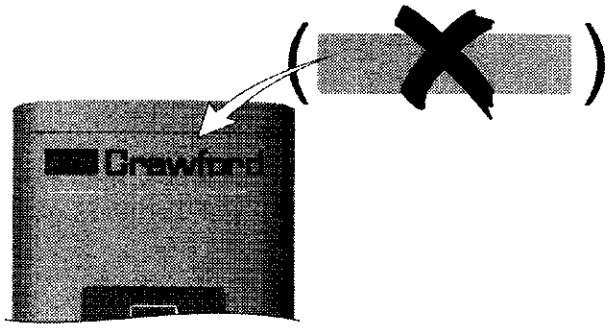


2. The Service indicating lamp lit up when the pre-set door/ leveller cycles or time is reached.

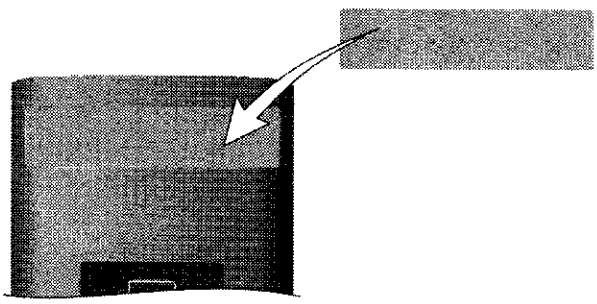
3. A lit dot in the lower right corner of the display indicates that the automatic closure is activated.

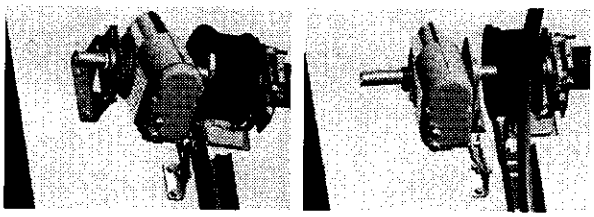
When the time counting down for the automatic closure, the dot flashes.

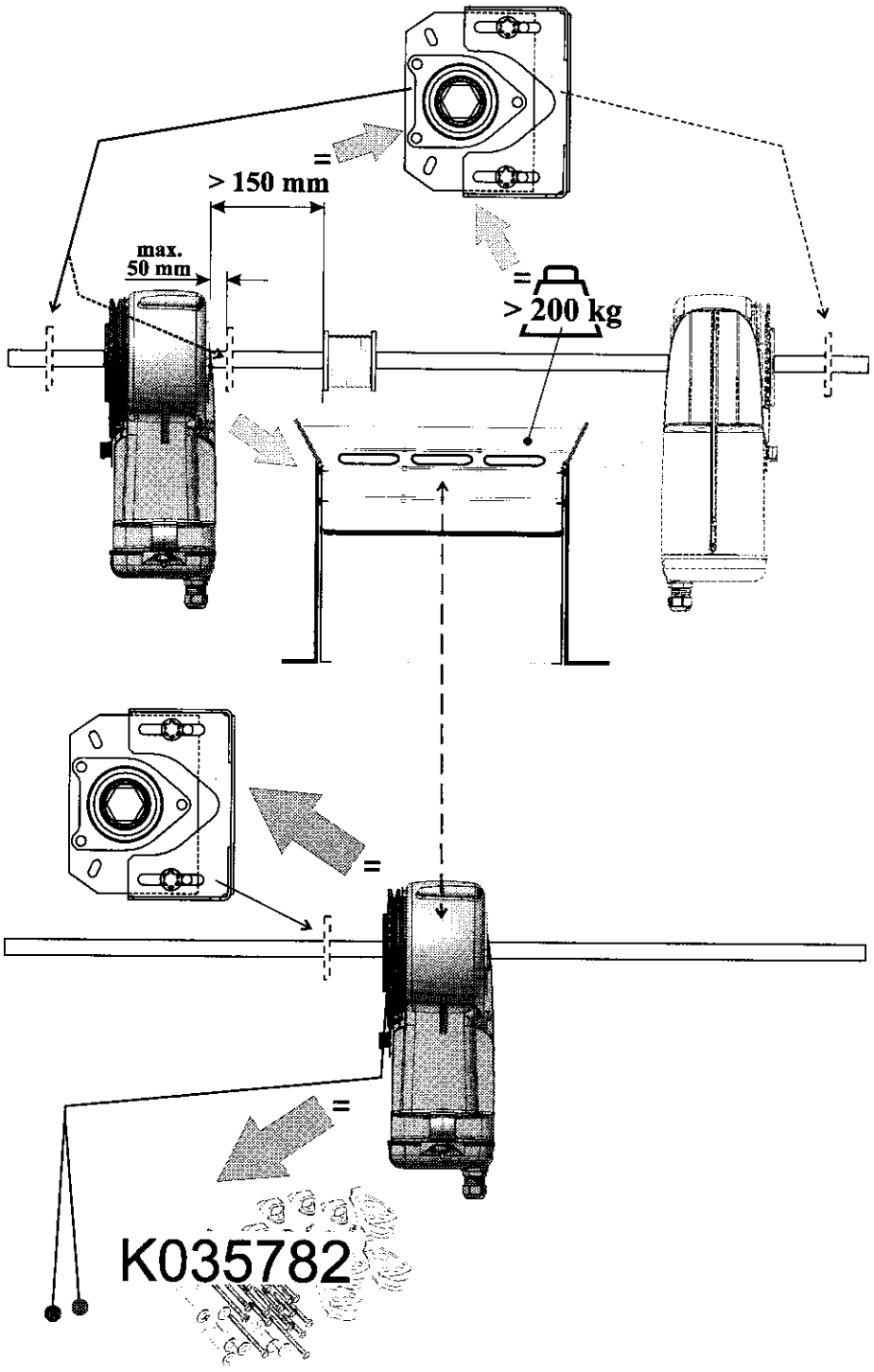
Crawford

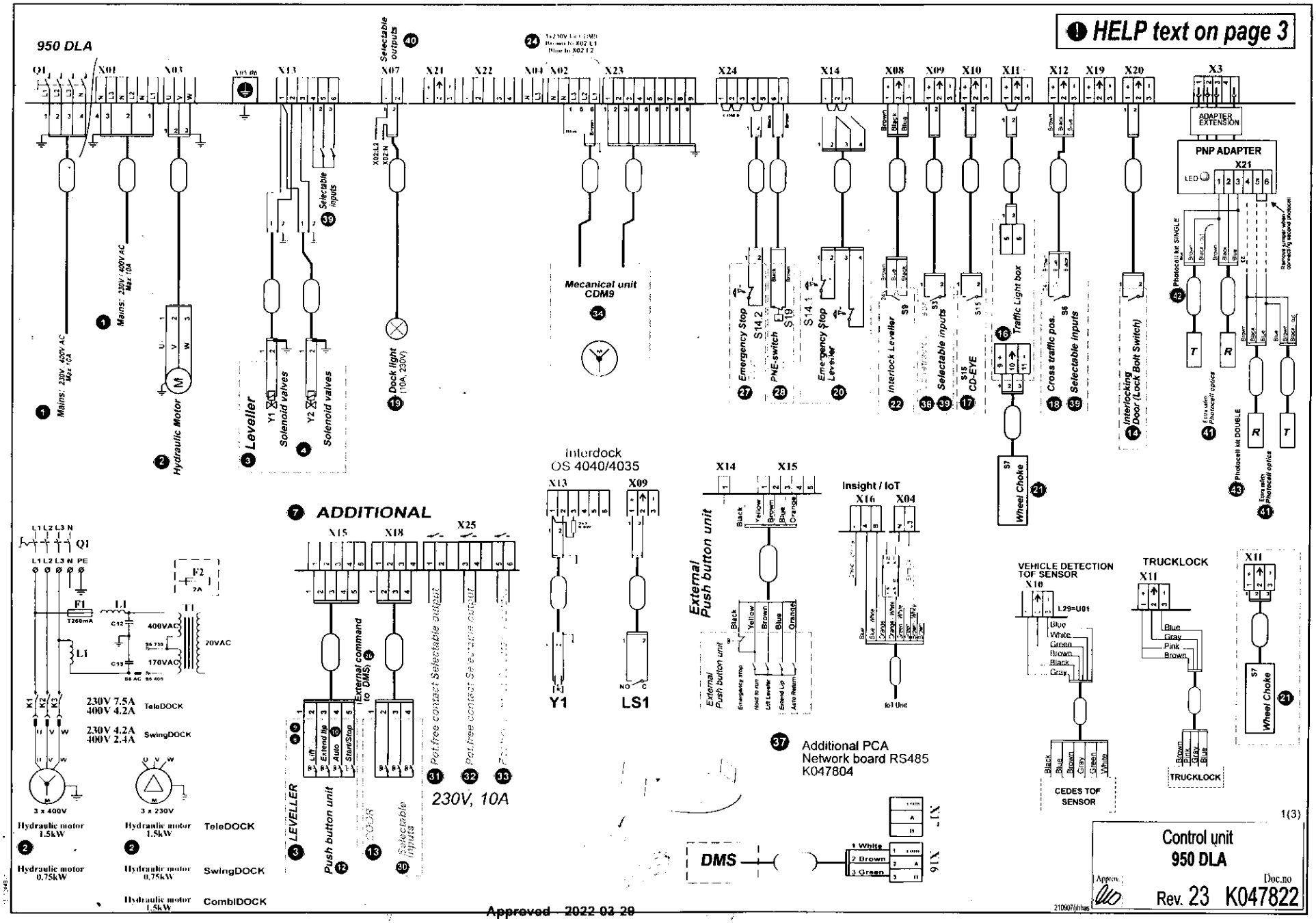


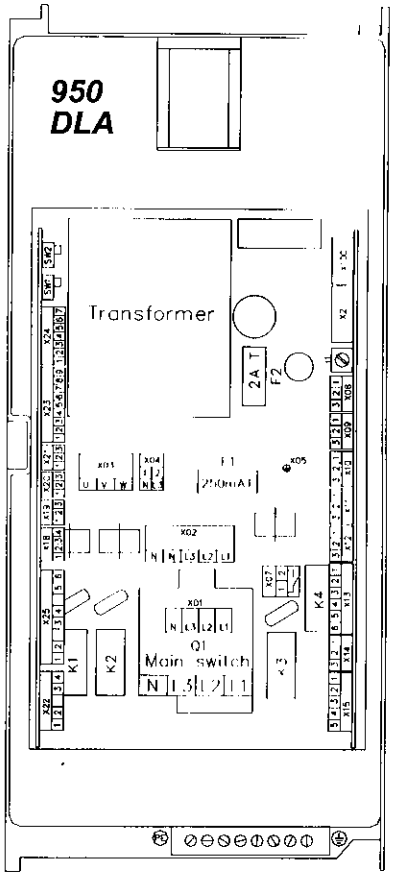
NB (Non Branded)



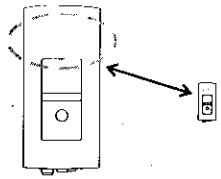


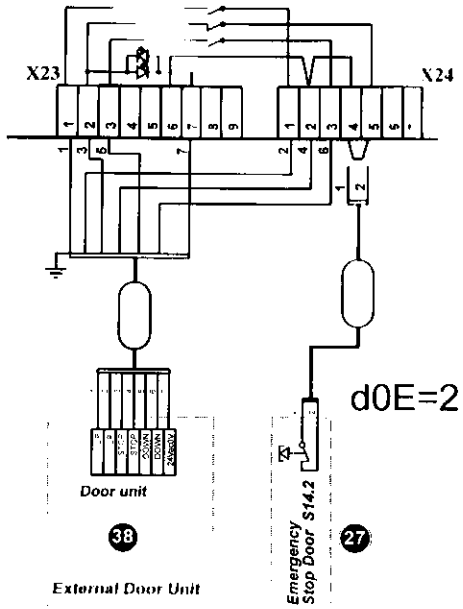

> 150 mm
max.
50 mm
> 200 kg
K035782

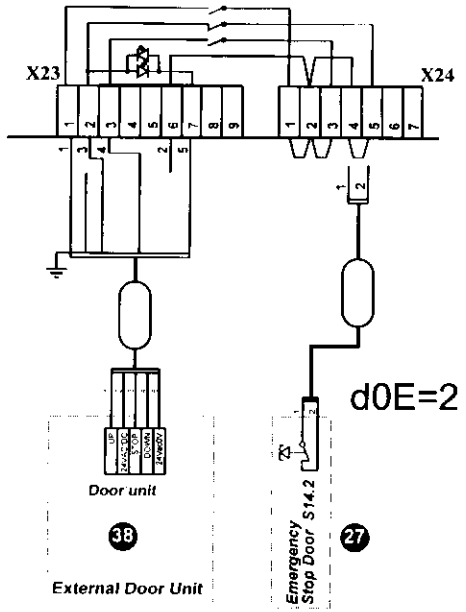

950 DLA
HELP text on page 3
Mains: 230V 400V AC Max 10A
Hydraulic Motor
Leveller
Solenoid valves
Selectable inputs
Selectable outputs
Dock light (10A, 230V)
Mecanical unit CDM9
Emergency Stop
PNE-switch
Emergency Stop Leveller
Interlock Leveller
Selectable inputs
CD-EYE
Traffic Light box
Wheel Choke
Cross traffic pos.
Interlocking Door (Lock Bolt Switch)
ADAPTER EXTENSION
PNP ADAPTER
Photocell kit SINGLE
Photocell kit DOUBLE
Interdock OS 4040/4035
ADDITIONAL
LEVELLER
Push button unit
Selectable inputs
Pot free contact Selectable output
230V, 10A
External Push button unit
Insight / IoT
IoT Unit
Additional PCA Network board RS485 K047804
DMS
VEHICLE DETECTION TOF SENSOR
CEDES TOF SENSOR
TRUCKLOCK
230V 7.5A 400V 4.2A TeleDOCK
230V 4.2A 400V 2.4A SwingDOCK
Hydraulic motor 1.5kW
Hydraulic motor 0.75kW
Hydraulic motor 1.5kW CombiDOCK
Control unit 950 DLA
Doc.no K047822
Rev. 23
Approved 2022 03 29



Menu	Default	
d01		
d02	10	
d07	20000	
d08	365	
d0b	9	
d0d	1	
d0I	1	
d0E	0	
L06	8000	
L07	365	
L08	255	
L09	U00	
L10	U00	
L11	U01	
L12	4,4/5,6	
L13	U01	
L14	5	
L15	11	
L16	5/9	
L17	0	
L18	10	
L19	30	
L23	U00	
L24	U01	
L25	U04	
L26	U05	
L27	U04	
L28	U02	
L29	U00	
L30	U03	
L31	U05	
S02	U00	







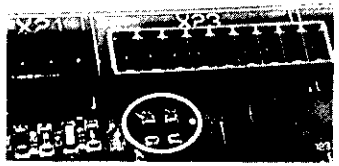
Door Control unit GfA TS...

			950 Docking
GfA X5:1	(wire no. 1)	>>>	950D X23:2
GfA X5:2	(wire no. 2)	>>>	950D X23:6
GfA X5:3	(wire no. 3)	>>>	950D X23:1
GfA X5:4	(wire no. 4)	>>>	950D X23:3
Neutral line			
GfA 24V GND	(wire no. 5)	>>>	950D X23:7

Door Control unit HÖRMANN A/B 445 & 460

			950 Docking
H X3:2	(wire no. 1)	>>>	950D X23:1
H X3:3	(wire no. 2)	>>>	950D X23:3
H X3:5	(wire no. 3)	>>>	950D X23:2
HX3:6	(wire no. 4)	>>>	950D X24:1
			950D X24:2
			950D X24:3

Carefully remove R2 and R3 for HÖRMANN & MCC.



Door Control unit ECS 430P

			950 Docking
430P X1:8	(wire no. 1)	>>>	950D X23:1
430P X1:9	(wire no. 2)	>>>	950D X24:1
430P X1:10	(wire no. 3)	>>>	950D X23:2
430P X1:11	(wire no. 4)	>>>	950D X24:2
430P X1:12	(wire no. 5)	>>>	950D X23:3
430P X1:13	(wire no. 6)	>>>	950D X24:3
430P X1:07	(wire no. 7)	>>>	950D X23:7

Control unit
950 DLA

Approv.

Doc.no
Rev. 22 K047822

210907/phas

Approved 2022-03-29