

MIDI/SUPRA

INSTRUCTION HANDBOOK FOR CONTROLLER

Code **GM.2.001050.EN**

Version **J**

Date **15.03.2023**



**COMPLIANCE
EN81 20-50**

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J	Updated pages 14.26	15/03/23
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MOD.	DESIGNATION	DATE





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The points that are important under the safety viewpoint and danger warnings are indicated with these symbols:



Danger general



Important warnings



Risk of personal injury (e.g. sharp edges, protruding parts)



Risk of damage to mechanical parts (e.g. incorrect installation)



Live parts

Congratulations on choosing a **WITTUR** product!

Before starting the installation of this product, read the information contained in this document.

Before installation work begins, it is in your own interests to clarify what structural and spatial conditions are available for installation work, so that you can see which installation procedures should/must be carried out. Therefore it is recommended that all circumstances be taken into consideration, and to mentally plan the installation sequence before any rash or badly planned work is carried out. Check the goods or parts for correct and full delivery upon receipt.

You will find important warnings on how to assemble and maintain your **WITTUR** product in good operating conditions and to get the maximum of your investment.



You will also find important information concerning the product care and maintenance which are an important factor to ensure safety at all times.

WITTUR has long been involved in research aimed at reducing noise level and in design that takes into due consideration the product quality and the conservation of environment.

This document is an integral part of the supply and must be available in the lift power room at all times.

All products are provided with identification type label and in case with certification marks in accordance with the current rules.

In case of need concerning the product, the identification data on the label must be always communicated to us. We hope you will get full satisfaction from this **WITTUR** product. Yours faithfully.

 WARNINGS

- WITTUR will not be held liable for any damage caused by tampering of the packing material by thirds.
- Before starting assembly, check that the product received corresponds to the order and to the packing list and that no damage has occurred in transit.
- Within its policy of continual research, WITTUR reserves to make changes to its products without notice. The figures, descriptions and data contained in this manual are intended as purely indicative and not binding.
- To ensure the safety of the product, avoid any alteration or tampering.
- WITTUR liability will be limited to the original components only.
- WITTUR product is intended for use in the lift sector only, therefore WITTUR liability shall be limited to such use.
- This product is intended for professional use. Any improper use, including for hobby or DIY, is prohibited.
- In order to prevent any injury to persons and damage to property, the handling, installation, adjustment and maintenance must be carried out by suitably trained personnel, using appropriate clothing and equipment.
- Any masonry work connected with the correct installation of the product must be executed in a workman-like manner according to the applicable laws.
- The connection of the electric/electronic units to the local power supply must be executed in a workmanlike manner according to the applicable laws.
- All metal parts supporting the electric/electronic units must be connected to an earth system in a workman-like manner according to the applicable laws.
- Before connecting the product to the power supply check that the product's requirement corresponds with the power supply available.
- Before starting any work on the electric/electronic components disconnect power from the system.
- WITTUR shall have no responsibility on the execution of masonry works or the connection of electric/electronic components to the power supply.
- WITTUR shall not be liable for damages/injury to property/persons caused by improper use of the emergency opening devices.

**SUGGESTIONS**

- Keep the material in the original packing, protected from bad weather and direct exposure to sun during the storage period in order to avoid the accumulation of water/condensation inside the packing material.
- Never dispose of packing material in the environment.
- Once dismantled, the product should be conveniently disposed as provided for by the local laws; never dispose of in the environment.
- Whenever possible, re-cycling is preferable to disposal in dump sites.
- Before re-cycling check the nature of the various materials and re-cycle in the appropriate way.

**INSTALLATION TOOLS**

Following tools are needed:

- "T"-handled hexagon keys 4 mm, 5 mm and 6 mm
- Screw drivers (flat and crossheaded)

The drive unit is preadjusted at the factory. No other mechanical and electrical adjustments other mentioned in this instruction are required at site!

 DELIVERY

Complete preassembled drive unit. Only to be stored in the original package (plastic wrap). The components must not be unpacked until the installation begins.

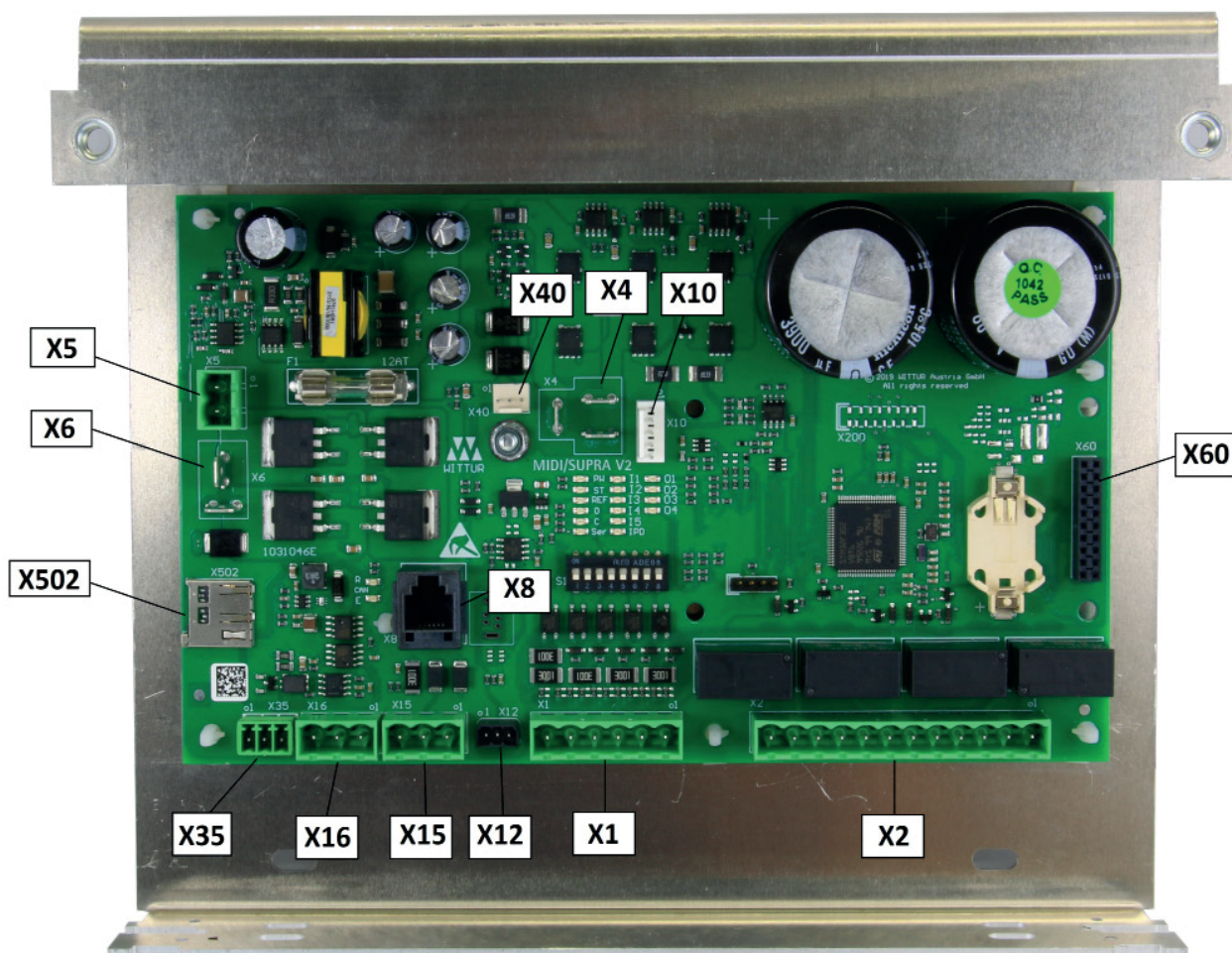
1. GENERAL INFORMATION PRIOR TO INSTALLATION

1.1 DESCRIPTION AND FUNCTION

MIDI/SUPRA V2 car door operators are used for mid and high duty elevators. The Drive can move panel masses up complete door package weight to:

- MIDI up to 300 Kg
- SUPRA up to 700 Kg

2. ELECTRONIC ASSEMBLY LAYOUT



Plug description:

- | | |
|--|---|
| X1 - Inputs | X12 - Reference switch |
| X2 - Outputs | X15 - Photo Cell (Curtain of light) Receiver |
| X4 - Motor | X16 - Photo Cell (Curtain of light) Transmitter |
| X5 - Battery supply (optional) | X40 - Test drive buttons |
| X6 - Transformer secondary winding | X60 - Extension plug |
| X8 - RS485 interface for WPT (Wittur Programming Tool) | X502 - SD - Card Slot |
| X10 - Encoder | X35 - Can Bus |

2.1 INSULATION TEST

 **Caution:** Before carrying out tests on system's insulation, connector X5 must be disconnected.

3. COMMISSIONING

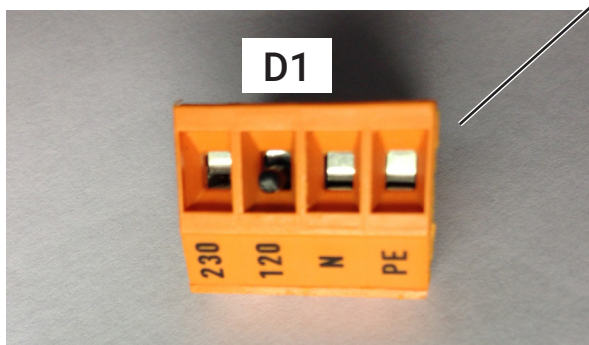
-  The door operators supplied directly from the factory are pre-adjusted: it is not necessary to carry out the door CO (Clear Opening) learning.
The MIDI/SUPRA drive at first installation or after switch-off /switch-on will use the first two complete closing / opening cycles to optimize door CO: STATE LED off → CO optimized.

3.1 POWER SUPPLY

- The MIDI/SUPRA V2-drive is provided with a transformer for two different voltage ranges and can be supplied with 127VAC or 230VAC.
- Select the recommended fuse for the nominal voltage range, see table:

Nominal Supply Voltage Range:	127VAC	230VAC
Automatic fuse slow (in control panel)	6A	4A
Minimum cable required	1,5 mm ²	1 mm ²

- Line in supply is connected to a terminal plug.



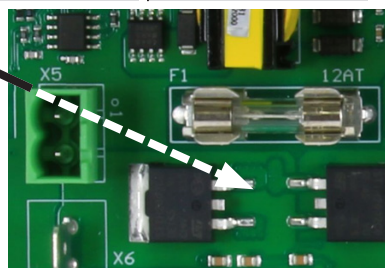
PE =	Connect ground wire
N =	Connect neutral wire
120 =	Connect 127 VAC phase wire
230 =	Connect 230 VAC phase wire
Remove the plastic block before connecting the terminal 120	

3.1.1 Emergency supply

Battery voltage	24VDC-4Ah
Min. cable sq. measure	1,5 mm ²

- The battery's supply takes place through the X5 connector.

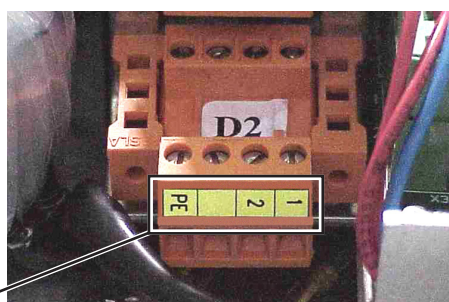
Pay attention: the battery has to be connected only in case of absence of the supply indicated on point 3.1.



3.2 SAFETY CIRCUIT

- The door contacts are prewired to a terminal plug D2.
- Safety contact ratings: Min. 5Vdc - Max. 250Vac 2A

PE =	Connect ground wire
1 & 2 =	Connect safety circuit wires



3.2.1 Emergency procedure in automatic mode (specialized technical staff not present):

If mains power is removed, to ensure correct operation of the emergency procedure in automatic mode via the control panel supplied by the buffer battery, it is necessary to supply the MIDI/SUPRA V2 drive with power from a battery (24 Vdc 4 Ah) via connector X5 : the battery power must be supplied immediately after mains power is removed (the MIDI/SUPRA V2 drive must not be switched off).

Door opening will be automatic (without the help of the lift controller), if relay K3 is used to activate input I1 (OPENING), or the lift controller will have to manage input I1 (OPENING) to activate door opening: Fig.1 recommended wiring diagram.

NOTE :

1. Input I1 is activated via contact K3 by a micro-switch installed inside the shaft. The micro-switch is activated by the arrival of the car to the floor where it was installed and the MIDI/SUPRA V2 card will control input I1 via contact K3, only when powered by a battery.
2. If power is removed while the car is in line with the floor and the closing limit switch of the MIDI/SUPRA V2 card is not activated, it will be possible to open the door manually at that floor, as the MIDI/SUPRA V2 card will leave the motor unpowered.

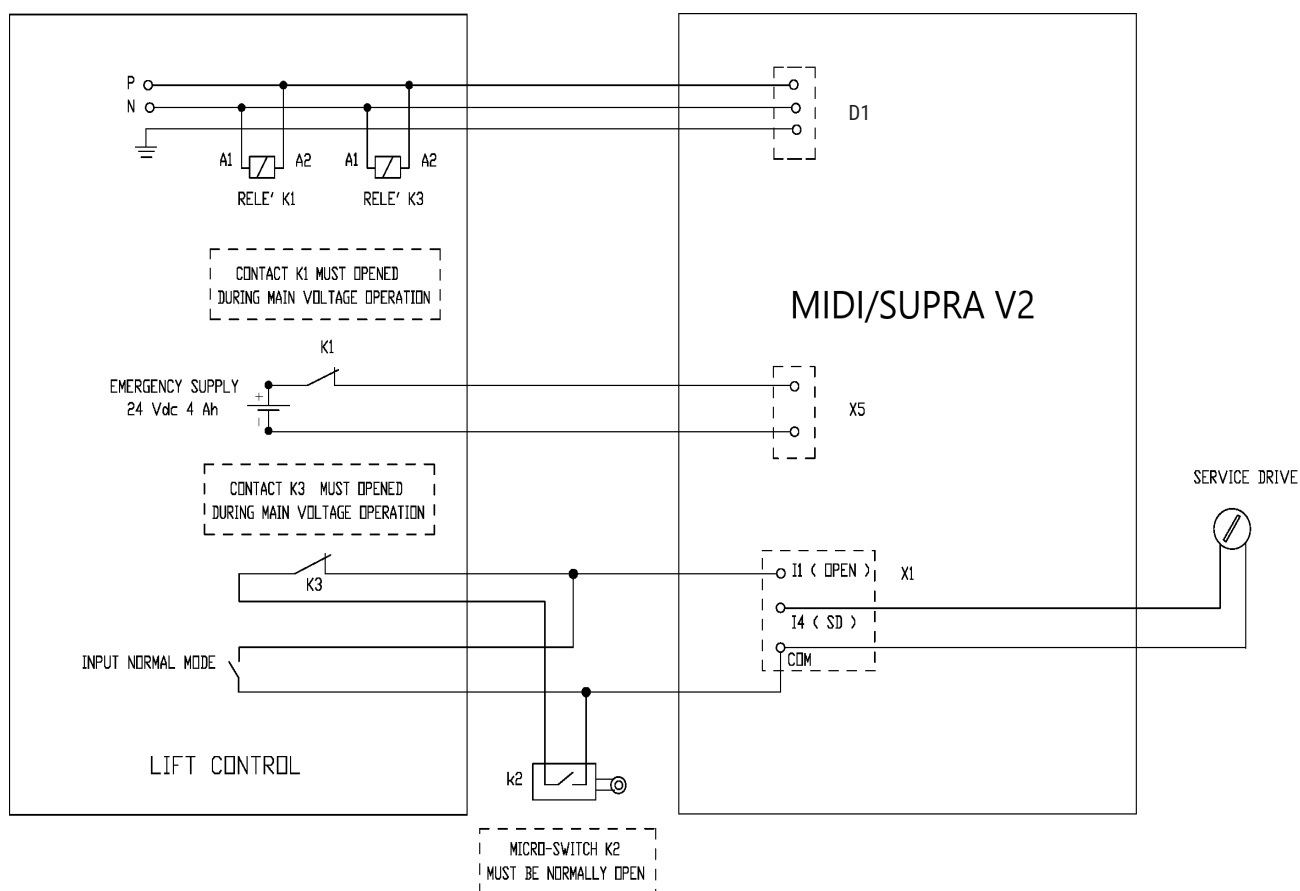


Fig. 1

3.2.2 Emergency procedure in manual mode (specialized technical staff present):

1. If mains power is removed, to ensure correct operation of the emergency procedure in manual mode, we recommend supplying the MIDI/SUPRA V2 drive with battery power (24 Vdc 4 Ah) via connector X5 : the battery power must be supplied immediately after mains power is removed (the MIDI/SUPRA V2 drive must not be switched off). This way it will be possible to align the elevator cabin with the desired floor by means of a manual operation: the doors can only be opened manually: Fig.2 recommended wiring diagram.

NOTE :

If the operator is equipped with retractable cam with car door locking, to ensure correct operation of the emergency procedure in manual mode, we recommend the possibility of removing battery power (e.g. via a manual or time-operated switch) when the cabin has been aligned with the desired floor manually: it will then be possible to open the doors manually without any problem.

If the MIDI/SUPRA V2 card is not supplied with power from a battery (24 Vdc 4 Ah) via connector X5, the following situation will occur:

1. If there is an automatic operator with off-floor locking, the car can be manually aligned only to the nearest floor, as the floor lock will be opened by the retractable cams which will be extended to their maximum length due to the removal of power: the doors can only be opened manually.
2. If you have an automatic operator without off-floor locking, it will be possible to align the car with the desired floor using a manual procedure: the doors can only be opened manually. This is possible because the automatic operators without off-floor locking are fitted with a standard mechanic/magnetic device which allows the retractable cams to remain closed.

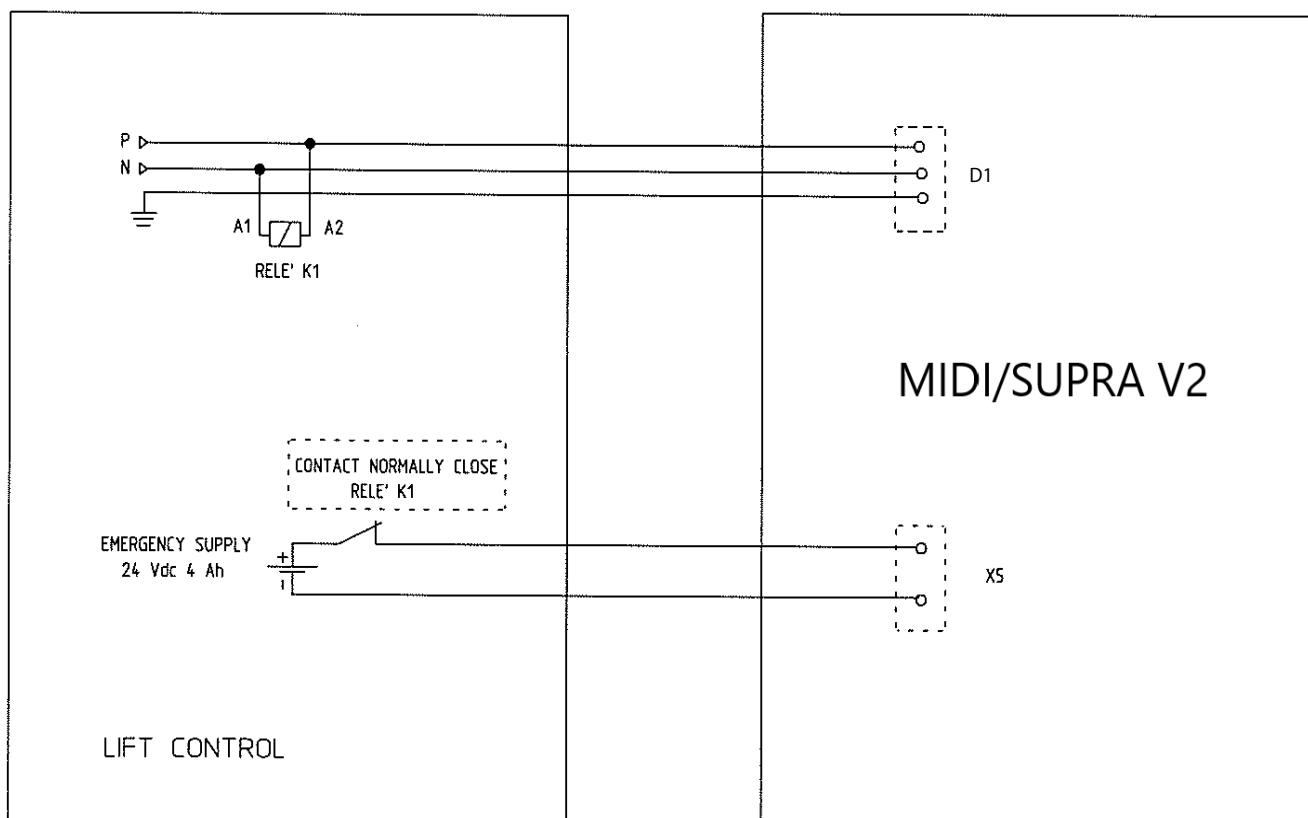


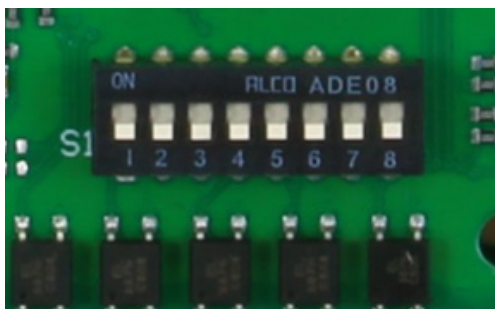
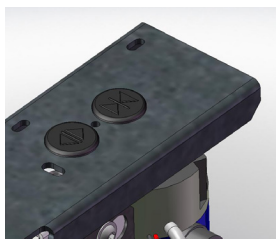
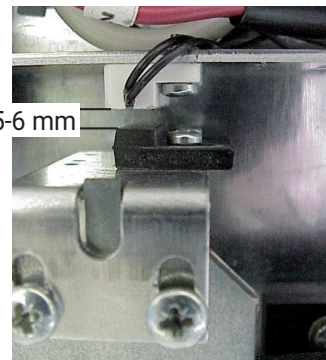
Fig. 2

4. EXCHANGE OF ELECTRONIC BOX

4.1 PREPARATION FOR LEARNING OF DOOR PARAMETERS

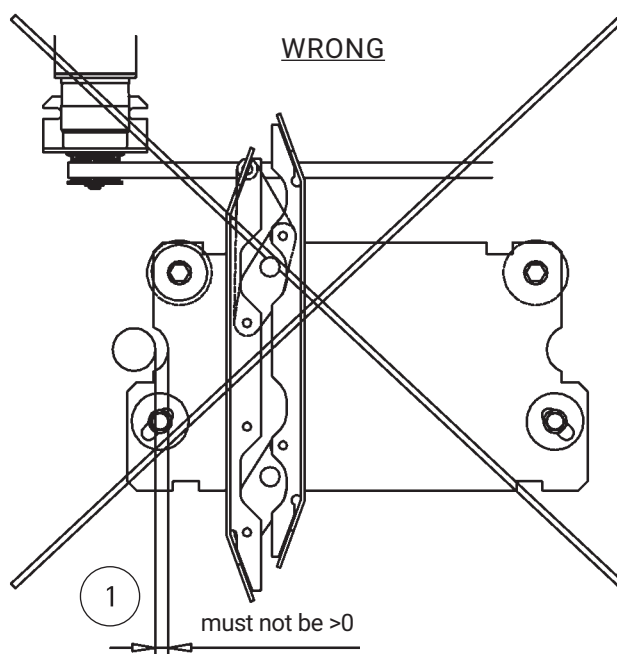
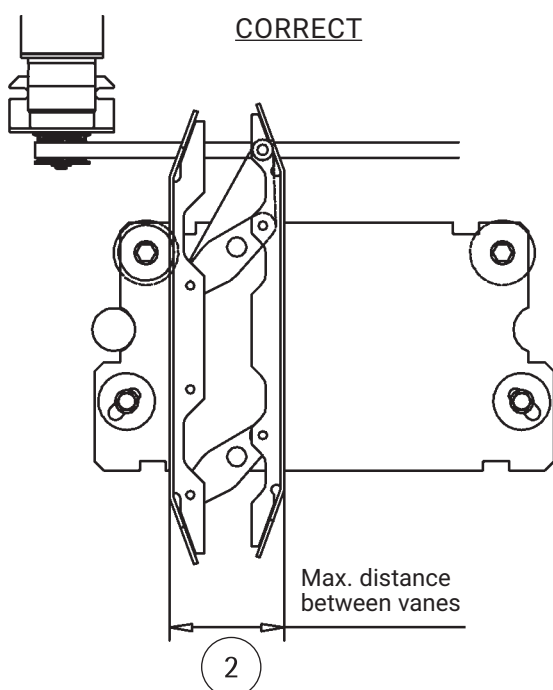
 Carry out only in event of replacement.

- 1 In case of need adjust the reference switch so, that switch and magnet are opposite one each other when the door panels are closed (clearance between switch and magnet should be 5-6 mm).
2. DIP switch setting has to be copied from the replaced board, see chapter 7: "DIP-Switches".
3. Service Drive has to be activated. For activating service mode switch on DIP S1/1 or press both Servicedrive buttons for one sec Motor will vibrate one time.



-  4 Set the panels of the car door in closing position (1) and ensure that the cams are rigorously open (2). Therefore open the door panels by hand and push them manually to closed position. The hanger plate (truck) must touch the close end buffer. See picture below (1).

Strut-Coupler System



5 Learning of coupler width and door width

1. Switch power on, move door out of refswitch area (REF LED has to be off)
2. Move the door by hand in close direction until door is fully closed.(REF LED is on)
3. Press both test drive buttons for at least 1 seconds until the motor starts vibrating 1 time.
4. Press both test drive buttons for at least 6 seconds until the motor starts vibrating 4 time.
5. Release one of the testdrive button (keep pressing one of them) door starts automatic learning.
6. Hold the button till the door finished learning cycles (at least two door openings)
7. Release the test drive button after the the vibration of the motor signaled end of learning.
8. *Press both service drive Buttons to release the service mode*

6 Learning of door width only

1. Switch power on.
2. Press both test drive buttons for at least 1 seconds until the motor starts vibrating 1 time.
3. Press both test drive buttons for at least 6 seconds until the motor starts vibrating 3 time.
4. Release one of the testdrive button (keep pressing one of them) door starts automatic learning. Attention the door is moving as long as one of the service drive buttons is pressed. in case of any mechanical malfunction, release the button and the door stops.
A short stop of the door movement will not lead to canceling the automatic learning procedure.
5. Hold the button till the door finished learning cycles (at least two door openings)
6. Release the test drive button after the the vibration of the motor signaled end of learning.
7. *Press both service drive Buttons to release the service mode*

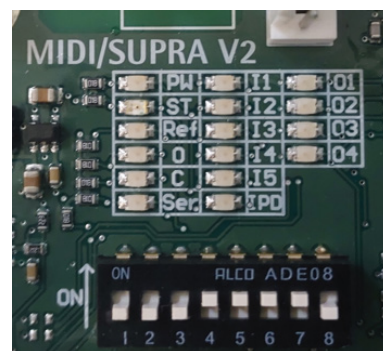
7 Learning door width and coupler width without reference sensor.



1. Switch on S1/1 and turn on power
2. Move door in close end position
3. Repeat steps from 4-8 from 5. Learning of coupler width and door width

4.2 DRIVING THE DOORS WITH THE ELEVATOR CONTROLLER

- Connect the signals from the elevator controller to connector X1 and X2 of the door operator.
- Refer to the project delivery documents for the wiring diagram between the elevator controller and door operator (see also connection diagram in chapter 10 -> MIDI or chapter 11 -> SUPRA).
- Check if "Ser"(Service) LED is off. Leave the service mode by switching off S1/1 or by pressing both service drive buttons for one seconds.



4.3 DRIVING THE DOORS BY THE SERVICE DRIVE BUTTONS

- For activating service mode switch on DIP S1/1 or press both Servicedrive buttons for one sec Motor will vibrate one time.
- Move door by service drive buttons.
- If the door is not at the reference switch (near by close end, door panels closed) in power up and CLOSE is active (connected with COMMON) it will move at low speed as long as the reference switch (in close end) is found.
- After finding the reference switch or the mechanical close end the door drive will start with the next OPEN command in direction open with normal speed drive until the mechanical end is found.
- Then the door will drive with normal speed in both directions.
- Check that the safety devices (photo cells, light barrier or close force limiter) reopen the door (see DIP-switch description).
- According to the DIP Switch adjustment (S1/2) the door is reopend by the elevator control or automatically by the door itself (see chapter 9.2).

5. ADJUSTMENTS ALWAYS TO BE DONE

5.1 CLOSING FORCE ADJUSTMENT

- The close force adjustment is done automatically. Drive the doors at least 30 open close cycles. After 30 cycle close force can be measured.

5.2 ADJUSTMENT OF THE SPEED

- The drive electronic offers to select one out of four different speed levels (for handicap elevators or other purpose).



- Look at DIP-SWITCH description (chapter 8).

5.3 ADJUSTMENT OF THE SPEED

- The DIP-SWITCHES S1/5 and S1/6 must be set to OFF.

6. DESCRIPTION OF LED'S

6.1 LED'S INPUTS

Name	LED illuminated if
I1	Input 1 is active (connected to COM)
I2	Input 2 is active (connected to COM)
I3	Input 3 is active (connected to COM)
I4	Input 4 is active (connected to COM)
I5	Input 5 is active (connected to COM)
IPD	Input passenger protection device (photo cell or curtain of light)

6.2 LED'S OUTPUTS

Name	LED illuminated if
O1	Output 1 is active (connected to COM)
O2	Output 2 is active (connected to COM)
O3	Output 3 is active (connected to COM)
O4	Output 4 is active (connected to COM)

6.3 OTHER LED'S

Name	LED illuminated if
POWER	Power Supply is OK
WDOG	if microcontroller doesn't work
STATE	on: door is not learned/ referenced off: door is learned/referenced blinking: error codes 1x flashing: Motor/Encoder fault 3x flashing: internal fault 4x flashing: abnormal operation 5x flashing: fault during learning
REFSW	Door is in Reference Switch area
C	a close command is applied (Bus communication, Parallel IO's or service drive buttons)
O	an open command is applied (Bus communication, Parallel IO's or service drive buttons)
Ser	on: door drive is in service drive mode off: door drive is in normal operation flashing: door is in auto mass detection mode

6.4 CAN LED'S

LED	Description
R	CAN RUN LED according CIA 303-3
E	CAN Error LED according CIA 303-3

During auto Baudrate dedection mode both LED'S „R“ and „E“ are flashing alternatly.

7. ELECTRICAL INTERFACE

7.1 INPUTS

The inputs are activated if they are connected to COM

Terminal	Symbol	Name of the terminal	Explanation
COM	COM	COMMON	Common line for I 1...I 5
I1		OPEN	This command will drive the door in open direction until the open position is reached. Depending on the setting of DIP switch S1/8 the door is kept open by motor torque also without command.
I2 *		CLOSE	This command will drive the door in close direction until close position is reached and coupler is operated. Depending on the setting of DIP switch S1/8 the door is kept closed by motor torque also without command
I3	NDG	NUDGING	Nudging input, puts the door to slow speed drive in close direction. Smoke sensitive devices like photo cell or light barrier (input IPD) and close force reopen will be ignored.
I4	SD	INSPECTION	By setting this input the test drive buttons are activated. The command inputs at X1 are inactivated. Same function as DIP switch S1/1.
I5	RSH	HIGH SPEED	By setting this input a higher speed can be selected (same function as DIP switch S1/6). This input is effective only when DIP switch S1/6 is switched OFF.

7.2 PASSENGER PROTECTION DEVICE INPUT AND SUPPLY

The input is activated if it is connected to GND.

Terminal	Name of the terminal	Explanation
+24V	+24V	+24V DC supply for photo cell or curtain of light (max. 150mA)
IPD	PHOTO CELL	Input for Photo Cell or curtain of light, light barrier or other passenger protection device
GND	GND	Ground for supply of photo cell or curtain of light (light barrier)
N.C.	Not Connected	Can be used as terminal for light barrier (no internal connection)

7.3 OUTPUTS

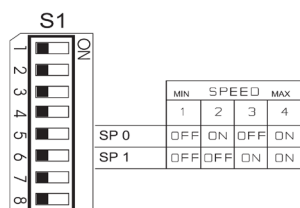
The outputs are relais where the 3 contact pins are wired to the terminals. (01 to 04 = common, NC = normally closed, NO = normally opened) see chapter 10 Wiring diagram MIDI/SUPRA V2

Terminal	Symbol	Name of the terminal	Explanation
01		OPEN END	The open end output indicates the fully open position of door panels
02		CLOSE END	The close end output indicates the fully closed position of door panels
03	REV	REOPEN	The reopen output is switched in case the IPD input is active.
04	POS	Position	The position output can be used for special signals for the operating with the lift controller. Standard function is called Position out and means a signal adjustable right before the door panel is closed.

8. DIP SWITCHES

	ON	OFF
S1/1	Service activated	Normal operation
S1/2 ***	Automatic reopen/reclose on obstruction or IPD (Reopen O3 is switched as long as reopen is in progress))	No automatic reopen/reclose (only Reopen O3 is switched)
S1/3*	Electric shoe operation, command input always I1 (swing door model)(*)	Normal operation (command inputs active)
S1/4	Rear door (only used with CAN communication) For CAN usage: Rear door selected For discrete IO usage: Reduced motor torque	Front door (only used with CAN communication) For CAN usage: Front door selected For discrete IO usage: Maximal motor torque
S1/5	Speed adjustment, see figure below	
S1/6		
S1/7 **	Open force limitation active	No open force limitation
S1/8 *	Automatic end keeping in close/open end	Hold open/closed only on active open/close command

Speed Setting:



* For the compliance to EN81-20 (part. 5.3.15.1) the switch S1/8 must be OFF

** For the compliance to EN81-20 (part. 5.3.6.2.2.1 only glas doors) the switch S1/7 must be ON

*** In case of automatic reopen/reclose, O3 is set if an obstacle is detected and switch off after reopen. In case of no automatic reopen/reclose, O3 switch on when an obstacle is detected, and switch off when the obstacle is removed or a reclose/reopen command is applied from the liftcontroller.

To be compliant with ASME 17.1 / CSA B44 it is mandatory to switch off S1/2

9. TROUBLE SHOOTING

There is a fault if the STATE LED is blinking. The number of flashes (below indicated by a number in brackets) gives a hint about the type of error. See chapter 5.3. The fault codes can be read by WPT.

9.1 THE DOOR DOES NOT MOVE

9.1.1 THE DOOR DOES NOT MOVE AT ALL

- Check that the power is on. The POWER LED „PW“ must light up if D1 is connected and the circuit breaker in the elevator control panel is on.
- Check that the motor and encoder wires are connected correctly (plug X4 and X10) and the motor is not overheated.
- Check that the control panel is sending an open or close command (I1-I2/X1, LED I1, I2). According the given command, the LED Open „O“ / Close „C“ should be on and the LED service drive mode „SER“ should be off. In case „SER“ is on, please leave the service drive mode.
- Check if there is too high friction if door is moved manually. If the STATE LED flashes read the faults by using WPT.
- Check if the open force limitation is deactivated (S1/7 off).

9.1.2 THE DOOR DOES NOT OPEN

- Check that the OPEN command LED I1 lits up, when an open command is present (I1/X1 connected to COM).
- Check that the CLOSE command LED I2 does not light up
- Check that the car and landing door locks are not jammed.
- Check, when the open force limitation is active (S1/7 ON), that the friction is not too high.
- Check according the given command also the LED Open „O“ and Close „C“

9.1.3 THE DOOR DOES NOT CLOSE

Check that the CLOSE command LED I2 lits up when the input I2/X1 is switched on COM.
The close force may be too low (or friction too high). !

9.1.4 THE DOOR PARTLY OPENS OR CLOSES

Check that the open and close signal times (LEDs I1, I2) from the elevator controller are long enough. The door moves only as long as command is set.

9.2 THE DOOR DOES NOT REOPEN/RECLOSE

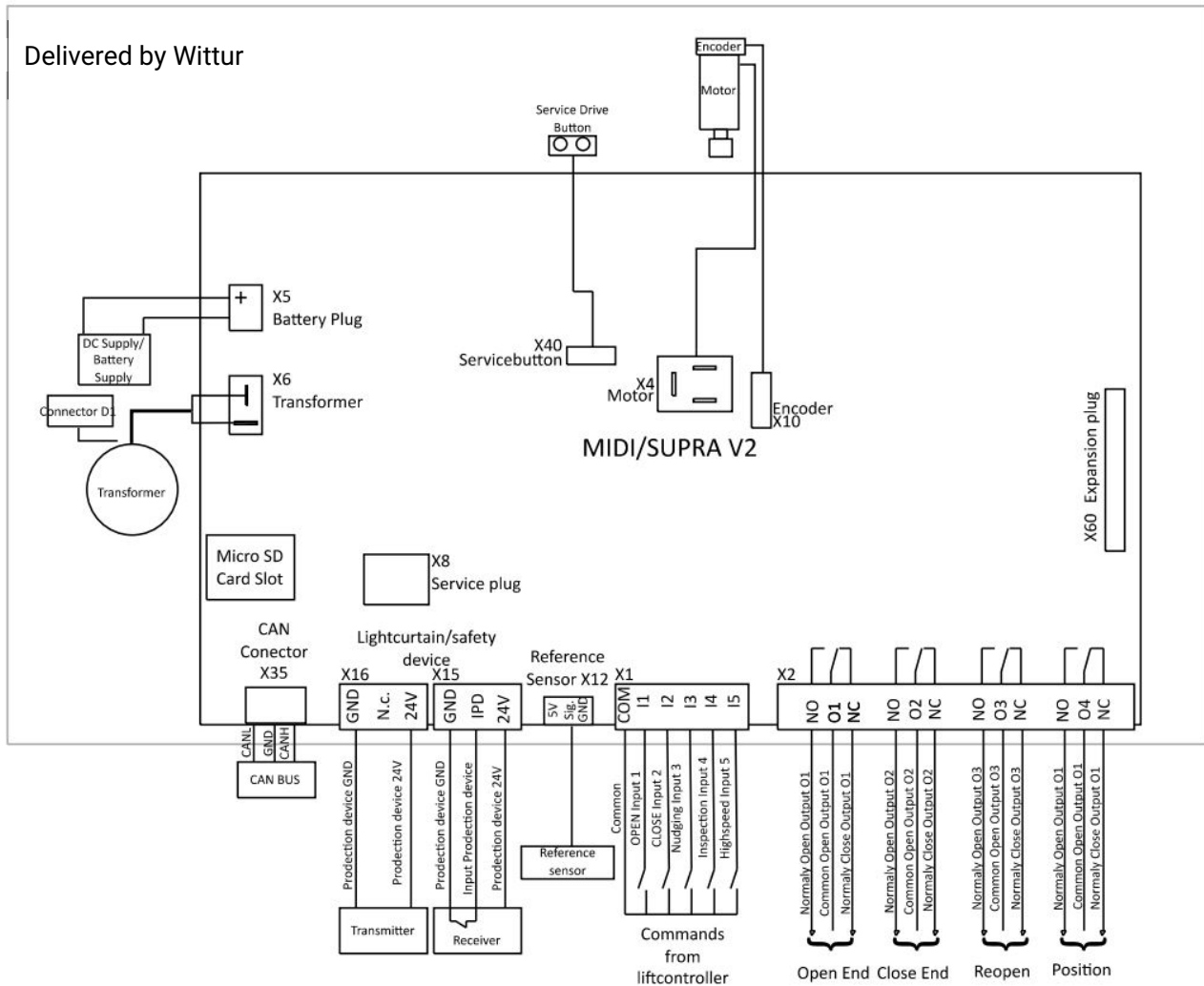
- If no automatic reopen/reclose is selected (DIP Switch S1/2 is OFF), :
- For reopen/reclose the elevator controller must remove the close/open command and activate the open/close command.
- To reopen/reclosing the door the elevator controller must receive either a reopen/reclose request signal from the door electronics (REOPEN output O3) or from an independently wired safety device (e.g. photocell or Curtain of light ...).
- If automatic reopen/reclose is selected (DIP Switch S1/2 is ON):
An automatical reopen/reclose process is caused by the input IPD or by the close/open force limiter.



Check the following reopen devices:

- Photocell or curtain of light (not defect or dirty).
- Close force limiter (friction is not too high).

10. WIRING DIAGRAM MIDI V2 AND SUPRA V2



Plug description:

- X1 - Inputs
- X2 - Outputs
- X4 - Motor
- X5 - Battery supply (option)
- X6 - Transformer secondary winding
- X8 - RS485 interface for WPT (Wittur Programming Tool)
- X502 - SD Card Slot for updating

- X10 - Encoder
- X12 - Reference Switch
- X15 - Photo Cell receiver
- X16 - Photo cell transmitter
- X40 - Test drive Buttons
- X60 - Extension plug
- X35 - Can Bus

11. WITTUR PROGRAMMING TOOL INTERFACE SOFTWARE DESCRIPTION

11.1 INTRODUCTION



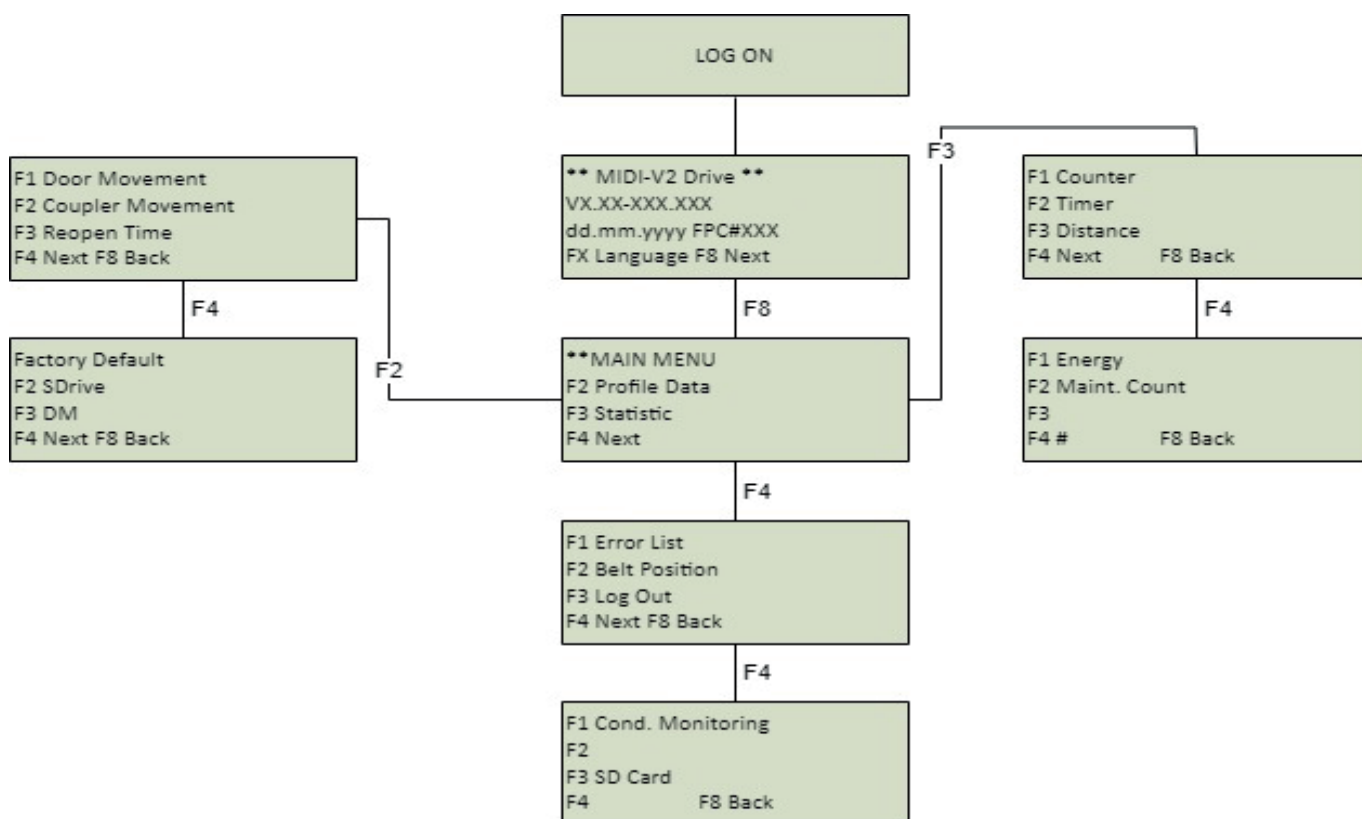
The MIDI+ / SUPRA-electronic is equipped with a serial communication interface RS 485 to watch/modify data stored in the electronic. Some data (for example the speed values) are stored in a memory which is independent from power supply, this memory is called EEPROM. For use of the WITTUR Programming Tool (WPT) see Operating instructions D276Mxx.

Languages available: F1: GB

11.2 CONNECTING THE WITTUR PROGRAMMINGTOOL TO THE SUPRA ELECTRONIC

The WITTUR Programming Tool can be connected directly to the MIDI+ / SUPRA board at the plug X8, there are no further adjustments necessary. Switch off the WPT before connecting it to door drive.

11.3 MENU STRUCTURE OF PROGRAMMING TOOL





11.4 DOOR ADJUSTMENT WITH THE WITTUR PROGRAMMING TOOL (WPT)

11.4.1 Login of the WITTUR Programming Tool

Press the 'ON'-button longer than 2 seconds until you can see the log-in Display.

The screen after power on login shows: motor type, language, door drive software revision and date. The user language of WPT can be changed by pressing the function buttons F1..F6 on the WPT.

- Languages available:

'F1' GB English
'F2' DE German
'F3' IT Italian
'F4' FR French
'F5' ES Spanish
'F6' TR Turkish

```
** MIDI-V2 Drive**  
VX.XX -WIT.YYY  
dd.mm.yyyy, FPC#XXX  
FX Language F8 Next
```

VX.XX..... Software version (for example 1.0A)
WIT.... Firmware Version (Wittur)
YYY....Firmware Subversion (for example Std for standard)
dd.mm.yyyy.... Date of software version
FPC#XXX..... FPC program version (for example FPC#018)

After pressing 'F8' the initial menu screen appears

```
** MAIN MENU  
F2 Profile Data  
F3 Statistic  
F4 Next
```

Press 'F2' or 'F3' to select one of the menu items or use 'F4' to view additional screens

```
F1 Error List  
F2 Belt Position  
F3 Log Out  
F4 F8 Back
```

```
F1 Cond. Monitoring  
F2  
F3 SD card  
F4 F8 Back
```

'F8' jumps back to the last screen, or F4 next to enter the next screen.

11.4.2 'F2': Profile Data

```
F1 Door Movement
F2 Coupler Movement
F3 Reopen Time
F4 Next      F8 Back
```

This menu allows you to call up 2 further menus: 'F1' Door Movement und 'F2' Coupler Movement. 'F4' to enter next screen.

```
F1 Factory Default
F2 SD
F3 DM
F4 Next      F8 Back
```

This menu allows you to call up 2 further menus: 'F1' Factory Reset 'F2' SD and 'F3' DM.

11.4.2.1 'F3': Reopen Time

Reopen Time is the waiting period after the reopen in open end, before the door closes again. By pressing 'F3' the parameter Reopen Time can be watched and changed.

```
Reopen Time:
  000.0s

Enter Ch.  F8 Back
```

To enter a new value press the number keys, after that press 'ENTER'. This value is taken over in a buffer and carried out.

```
Reopen Time:
  001.5s

Enter Ch.  F8 Back
```

By leaving this menu with 'F8' you will be asked if the entered value shall be stored permanently to the memory.

```
Use changed Value?

YES/NO      F8 Back
```



By pressing the keys 'YES' / 'NO' the value can be used / rejected.

11.4.2.1 'F4': Next (Profile Data)

```
F1 Reset to Default
F2 SD
F3 DM
F4          F8 Back
```

The door parameter are resetted to its initial value by pressing the button 'F1'.

11.4.2.1 'F1': Reset to default

```
Reset to Default?

YES/NO      F8 Back
```



By pressing the 'YES' button all the adjusted parameters are cleared and overwritten by default values.

11.4.2.1 'F2': SD

```
Butt on?

YES/NO      F8 Back
```

By pressing YES you enter the service mode, next screen wil show following:

```
Learn?

YES/NO      F8 Back
```

By pressing YES, Learning is tarted, to finish the learning, press one of the service drive buttons during till the door finished learning.

11.4.2.1 'F3': DM

```
DM:
  0000.0 kg

          F8 Back
```

This screen shows the actual moving mass.

11.4.3 'F1': Door Movement

```
F1 Open Speed
F2 Close Speed
F3 Nudging Speed
F4 Next      F8 Back
```

This menu allows you to watch/modify values described in the following chapters by pressing the corresponding function key. See chapter 11.4.2.1 how to enter values. All these variables are stored in the EEPROM. Speed values for speed adjustment 1-3 (see chapter 7) are calculated from values of speed setting 4 by multiplying with fix constants (see chapter 12).

11.4.3.1 'F1 Open speed' - Open speed.

Top speed for open movement; speed setting 4.

11.4.3.2 'F2 Close speed' - Close speed

Top speed for close movement; speed setting 4.

11.4.3.3 'F3 Nudging speed' - Close speed for nudging

Top speed for close movement with nudging command speed setting 4.

11.4.4 'F4': Next (Door Movement)

```
F1 Brake Parameter
F2 Position Out
F3 Acceleration
F4          F8 Back
```

This menu allows you to watch/modify values described in the following chapters by pressing the corresponding function key.

11.4.4.1 'Brake Parameter'

This parameter influences the delay and creep to the open / close end. The possible adjustment range is '0'..'9', the earliest brake is reached with parameter '0' and the latest delay is reached with parameter '9'.

11.4.4.2 'Position Out' Relay output

By entering this parameter the Position output O4 can be adjusted to switch at any door position. Standard adjustment is 0 (deactivated).

11.4.4.3 'Acceleration'

By adjusting this parameter the acceleration of the door can be changed. The adjustment is done in m/sec².

11.4.4.1 'F2': Coupler Movement

```
F1 Coupler Speed
F2 Coupler Width
F3 Acceleration
F4           F8 Back
```

This menu allows you to watch/modify values described in the following chapters by pressing the corresponding function key.

11.4.4.2 'F1 Coupler Speed'

Adjustment of the maximum speed in the coupler area. It is the same for open and close.

11.4.4.3 'F2 Coupler Width'

The parameter coupler width shows the distance which the belt is moving in close end without moving the door panels.

11.4.5 'F3': Statistic

```
F1 Counter
F2 Timer
F3 Distance
F4           F8 Back
```

This menu allows you to watch values described in the following chapters by pressing the corresponding function key.

11.4.5.1 'F1 Counter'

This counter shows the number of the driven door cycles.

11.4.5.2 'F2 Timer'

This counter shows the power-on time of the door electronic.

11.4.5.3 'F3 Distance'

This counter measures the absolute movement of the drive belt in meter, but not the coupler movement (= distance the rollers have moved).

11.4.6 'F4': Next (Statistic)

```
F1 Energy
F2
F3
F4           F8 Back
```

This menu allows you to watch values described in the following chapters by pressing the corresponding function key.

11.4.6.1 'F1 Energy'

This counter counts the electric energy feed to the drive in KWh.

11.4.7 'F4': Next (Main Menu)

F1 Error List
F2 Belt Position
F3 Log Out
F4 F8 Back

This menu allows you to watch values described in the following chapters by pressing the corresponding function key.

11.4.7.1 'F1 Error List'

Errors are coded with numbers or letters. Failures displayed first are occurred last. The Error List can be delete with the key 'F5' .

Possible Faults are:

- ,EE': EEprom writing or reading fault
- ,OC': Over current
- ,RS': Faulty reference switch
- ,IE': Internal software fault
- ,AP': Fault by position counter, door width > 3,5m
- ,TS': Faulty temperature sensor
- ,NE': Encoder not connected
- ,ME': Fault by motor or encoder
- ,SS': Standstill fault, door is blocked
- ,TH': Temperature of the electronic or motor too high
- 'FE': Is set during manual change of coupler movementparameter.
- ,ES': Fault by encoder, signals out of limits
- 'BE': Electrical error during rotor angle detection, no current is flowing (motor not connected)
- 'BM': Mechanical error during rotor angle detection (door is stalled, or rotation direction is wrong -> press learn button)
- 'PS': Parameter set error

11.4.7.2 'F2 Belt Position'

Actual position of the belt, positive- door panels open (then it is the door panel position), negative - coupler area

11.4.7.3 'F3 Log Out'

By pressing F3 the communication between door drive and WPT is stopped and the WITTUR Programming Tool switches off.



12. FIRMWARE UPDATE VIA SD-CARD

12.1 PREPARING SD CARD

Use an empty micro SD Card. Copy the update file to the micro SD. It is important that the first 3 characters of the file name is named „upd“, the file will be provided by Wittur in correct condition, no need to rename. If the file is renamed and the first 3 characters are not „upd“ the update will not work.

12.2 PUT THE SD CARD TO THE DOOR ELECTRONIC

Disconnect door from Power, wait till all LED's are off. When all LED's are off put in the micro SD Card in the Micro SD Card slot. Switch on Dip switch S1/1, update does only work when DIP-S1/1 is on.

12.3 EXECUTE UPDATE

After executing steps described in chapter 12.1 and 12.2, apply power to the door electronic. After short time Power LED should start flashing for around 10 seconds, update is done when Power LED stops flashing (state on).

If the update does not work the the CAN Error LED start flashing. During the update do not disconnect the board from power.

After Update is done, SD card can be removed. If SD Card stays at the door electronic, update will be not done again.

13. FPC PROGRAM UPDATE VIA SD-CARD

13.1 PREPARING SD CARD

Use an empty micro SD Card. Copy the update file to the micro SD. It is important that the file name is „SET_PROG.txt“, the file will be provided by Wittur in correct condition, no need to rename. if the file is renamed, update will not work.

13.2 PUT THE SD CARD TO THE DOOR ELECTRONIC

Disconnect door from Power, wait till all LED's are off. When all LED's are off put in the micro SD Card in the Micro SD Card slot. Switch on Dip switch S1/1, update does only work when DIP-S1/1 is on.

13.3 EXECUTE UPDATE

After executing steps described in chapter 13.1 and 13.2, apply power to the door electronic. After short time Motor will vibrate for two times, update is done after vibrating.

After Update is done, SD card can be removed. If SD Card stays at the door electronic, update will be not done again.

14. DEFAULT ADJUSTMENT SPEEDS

14.1 DEFAULT ADJUSTMENT SPEED FOR MIDI V2

Speed adjust. (acc. EN81)	Max. mass [kg]	Open speed [m/s]	Close speed [m/s]	Nudging speed [m/s]	Acceleration [m/s ²]
1	300	0,300	0,183	0,115	0,773
2	250	0,400	0,224	0,141	1,159
3	200	0,500	0,283	0,179	1,71
4	150	0,600	0,365	0,231	2,281

14.2 DEFAULT ADJUSTMENT SPEED FOR SUPRA V2

Speed adjust. (acc. EN81)	Max. mass [kg]	Open speed [m/s]	Close speed [m/s]	Nudging speed [m/s]	Acceleration [m/s ²]
1	600	0,300	0,182	0,115	0,773
2	400	0,500	0,224	0,141	1,159
3	250	0,700	0,283	0,179	1,855
4	150	0,900	0,365	0,231	3,091



In order to prevent failures or incorrect operation and to maintain the system in good conditions, the technical efficiency of the system should periodically be checked, to ensure compliance with the applicable laws. The technical efficiency depends on various factors such as:

- Work load
- Years of operation
- Door weight
- Climatic and environmental conditions
- Cleanness of environment
- Correct maintenance
- Etc.

And it can affect:

- Clearance/interference between the doors, and between the doors and posts according to the applicable laws
- Clearance of coupling device
- Status/conditions of fixing and coupling elements
- Conditions of parts affected by wear
- Efficiency of the lock and relevant contacts
- Any other parts that may be affected by the type of application.

For these reasons it is not possible to establish a general part replacement programme beforehand.



All screws used for the assembly of our product are screwed by means of a tightening torque as shown on following table:

Screw	Max torque (Nm)	Min torque (Nm)
M3	1,1	0,9
M4	2,6	2,1
M5	5,1	4,1
M6	9	7
M8	21	17
M10	42	34
M12	71,4	57,1

In case of need please refer to above table.



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