Automatic folding door record 16 FTA

Manual E

agtatec ltd
Allmendstrasse 24
CH-8320 Fehraltorf
Telefon +41 1 / 954 91 91
Telefax +41 1 / 954 92 00

record

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1 Table of contents

2 Generals, symbols

This manual is intended for qualified, authorised installers of the record 16 FTA automatic folding door.

The manual describes the correct installation and commissioning procedure.

The product is subject to technical modification. There can therefore be differences between the product and the manual.

Product designation: ***Automatic folding door***

Product name: ***record 16 FTA***

Symbols

Various symbols are used in this manual for simplification:

Note Especially useful details concerning installation

Caution Special details indispensable for satisfactory operation of the system

Danger Details for the prevention of damage to persons and material

3 Safety instructions

The record 16 FTA folding door drive has been constructed in accordance with the latest state of the art and the recognised technical safety regulations, including limiting of forces and speeds. Nevertheless, danger can arise for the user if not used as intended.

Installation, maintenance and repairs to the record 16 FTA must only be performed by qualified and authorised personnel (technicians).

Use for the intended purpose

The record 16 FTA folding door drive is designed exclusively for normal service with automatic sliding doors in dry areas and must be installed within or on the inside of buildings.

Any other application or use beyond this purpose is not considered use for the intended purpose. The manufacturer bears no liability for any resulting damage; the operator alone shall bear the responsibility.

Use for the intended purpose also includes observation of the operating conditions specified by the manufacturer, in addition to regular care, maintenance and repair.

Unauthorised modifications to the automatic door exclude all liability of the manufacturer for resulting damage.

General safety and accident prevention regulations

In principle, no safety devices (sensors) must be dismantled or placed out of service.

No persons or objects must be present in the opening area/path of the folding door, in order to avoid crushing and cutting.

The installation is ***not*** intended to be disconnected from the mains at night!

4 Technical data & operating conditions

Clear passage widths A

Clear passage width	A = 800 - 2000 mm
Clear passage height (recommended maximum height)	G =2500 mm

Door weights

Maximum 4 x 37.5 kg	max. 150 kg

Door movements

Door opening speed (maximum)	70 cm/sec
Door closing speed (maximum)	50 cm/sec
Door speed after meeting obstruction	ca. 8 cm/sec
Static driving force of door leaf	max. 150 N
Time delay	0 - 20 sec

* Max. speed is limited by mass (weight) of door (statutory regulation)

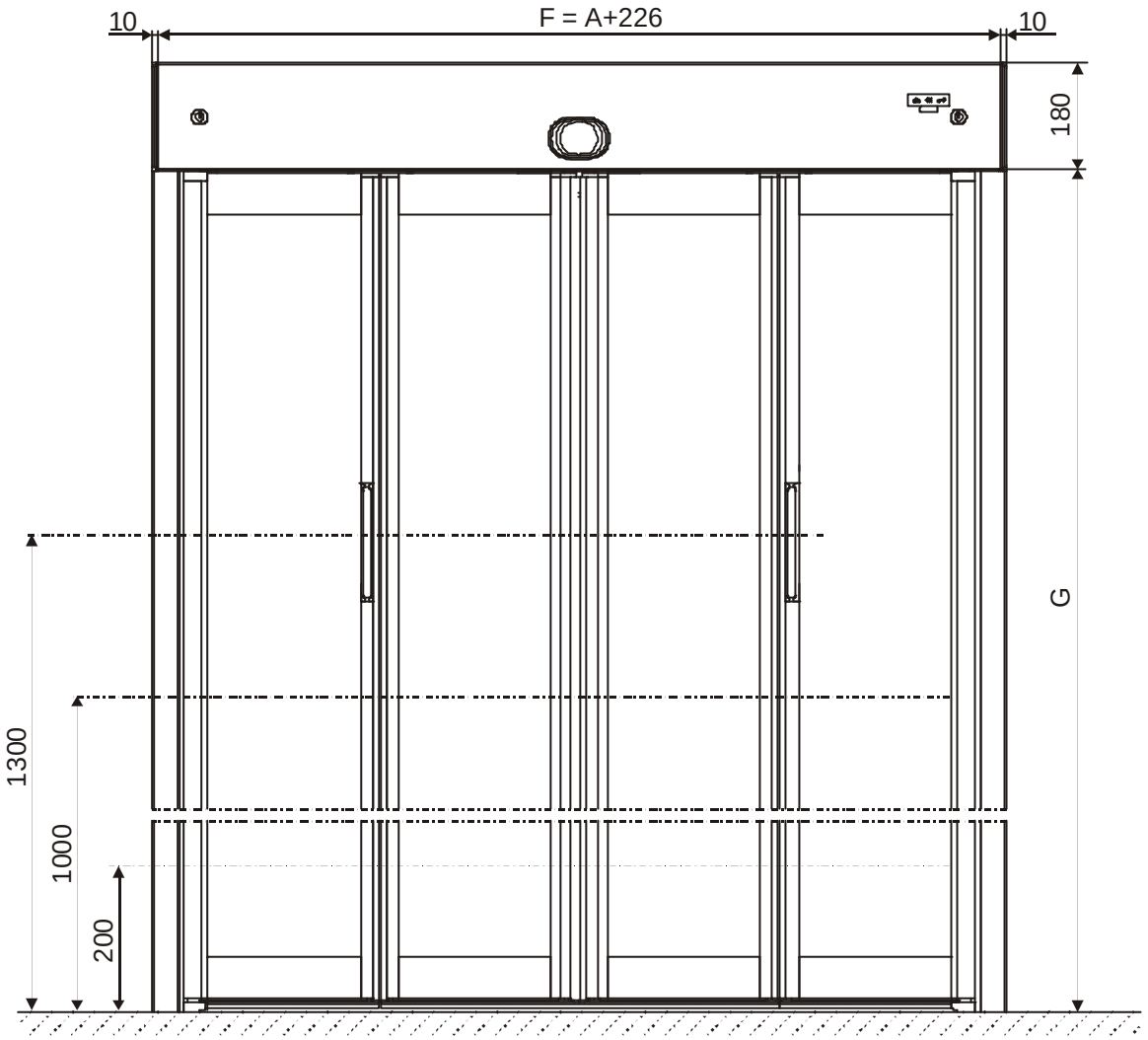
Electrical power supply

Mains voltage (NET 16 / 230 V)	230V / 50/60 Hz
Power consumption	100 W
Standby power consumption	14 W

Environmental conditions

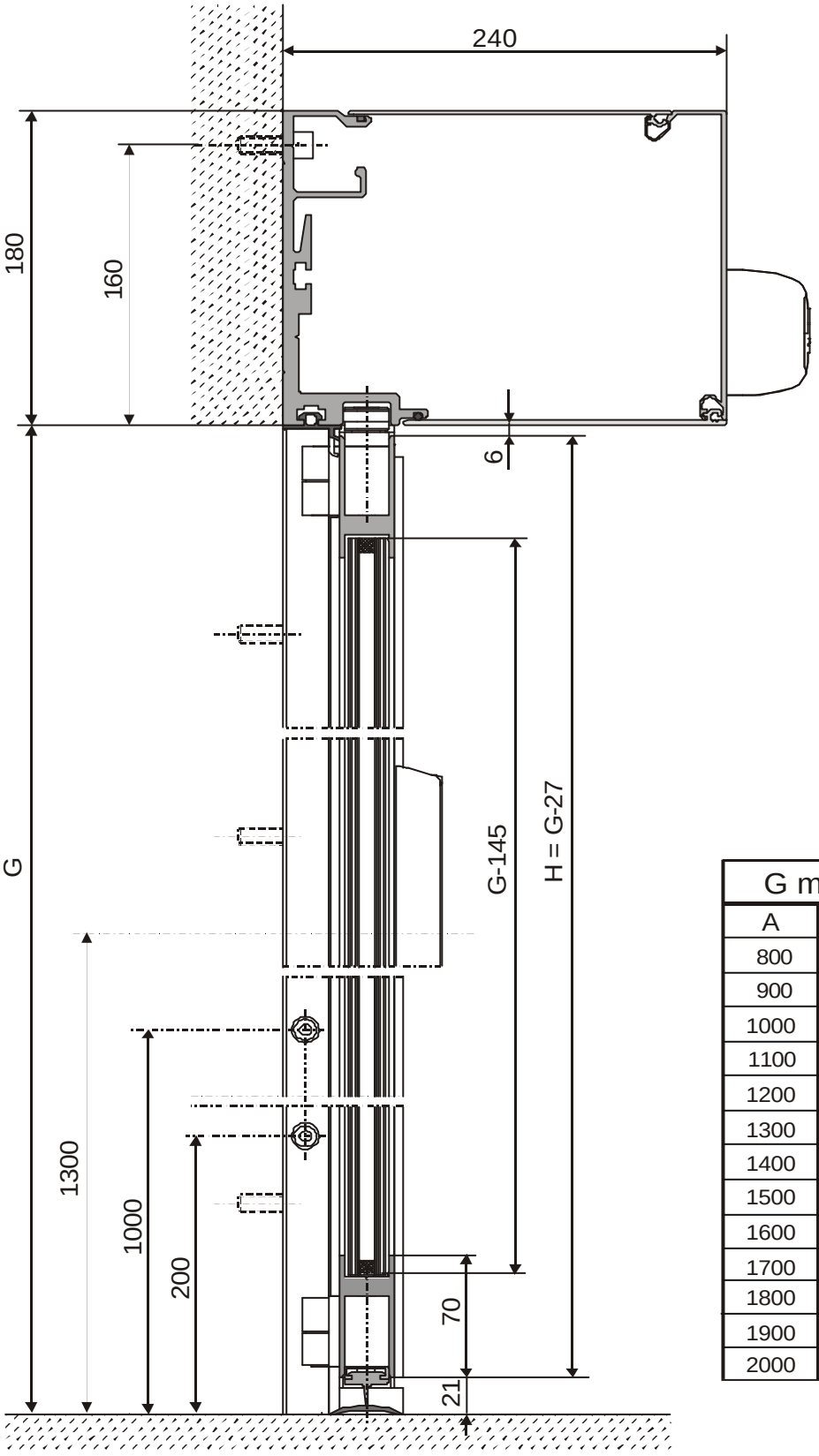
Temperature range	-15° to + 50°C
Humidity range	up to 85% rel. humidity, non-thawing

5 Elevation / drawing of header



Elevation / drawing of header

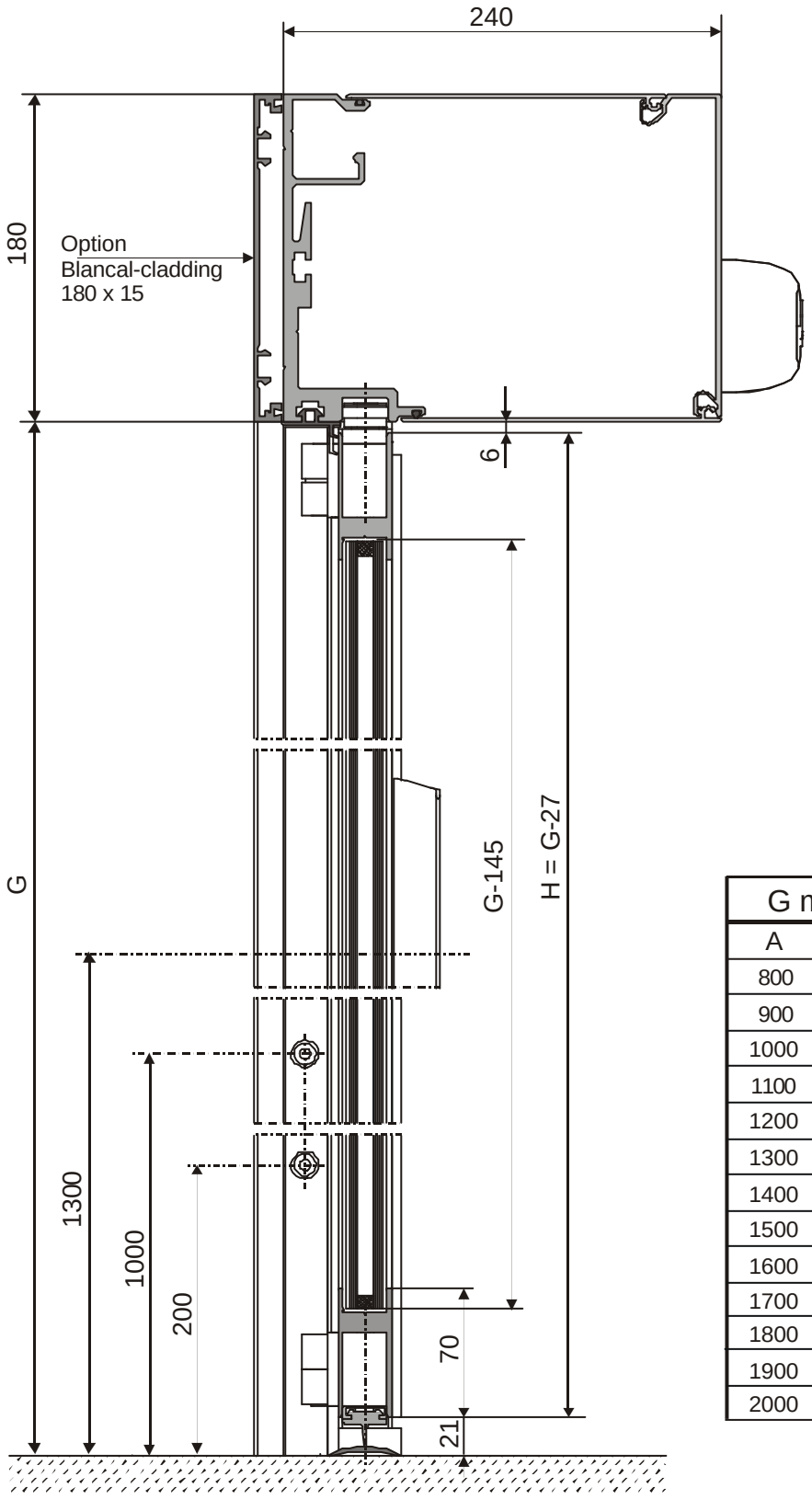
FTA 107 vertical section – lintel mounting



G max. = 2500		
A	B	F
800	1010	1026
900	1120	1126
1000	1230	1226
1100	1340	1326
1200	1450	1426
1300	1560	1526
1400	1670	1626
1500	1780	1726
1600	1890	1826
1700	2000	1926
1800	2110	2026
1900	2220	2126
2000	2330	2226

Elevation / drawing of header

FTA 107 vertical section – header mounting

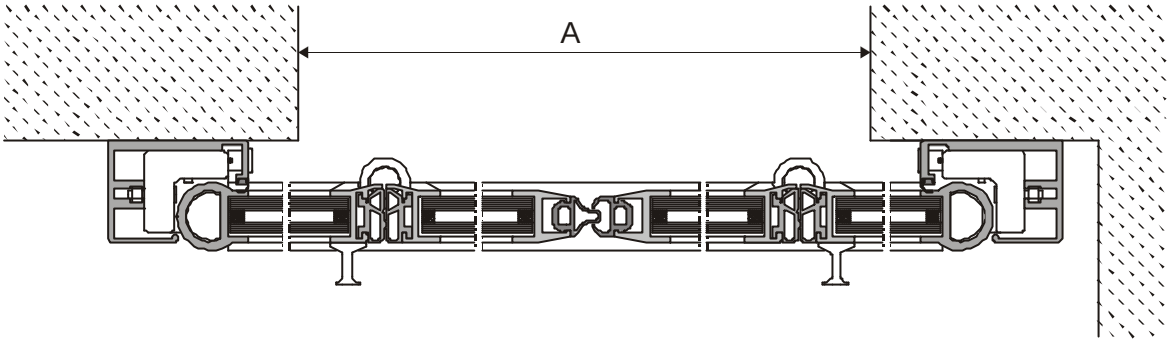


G max. = 2500		
A	B	F
800	1010	1026
900	1120	1126
1000	1230	1226
1100	1340	1326
1200	1450	1426
1300	1560	1526
1400	1670	1626
1500	1780	1726
1600	1890	1826
1700	2000	1926
1800	2110	2026
1900	2220	2126
2000	2330	2226

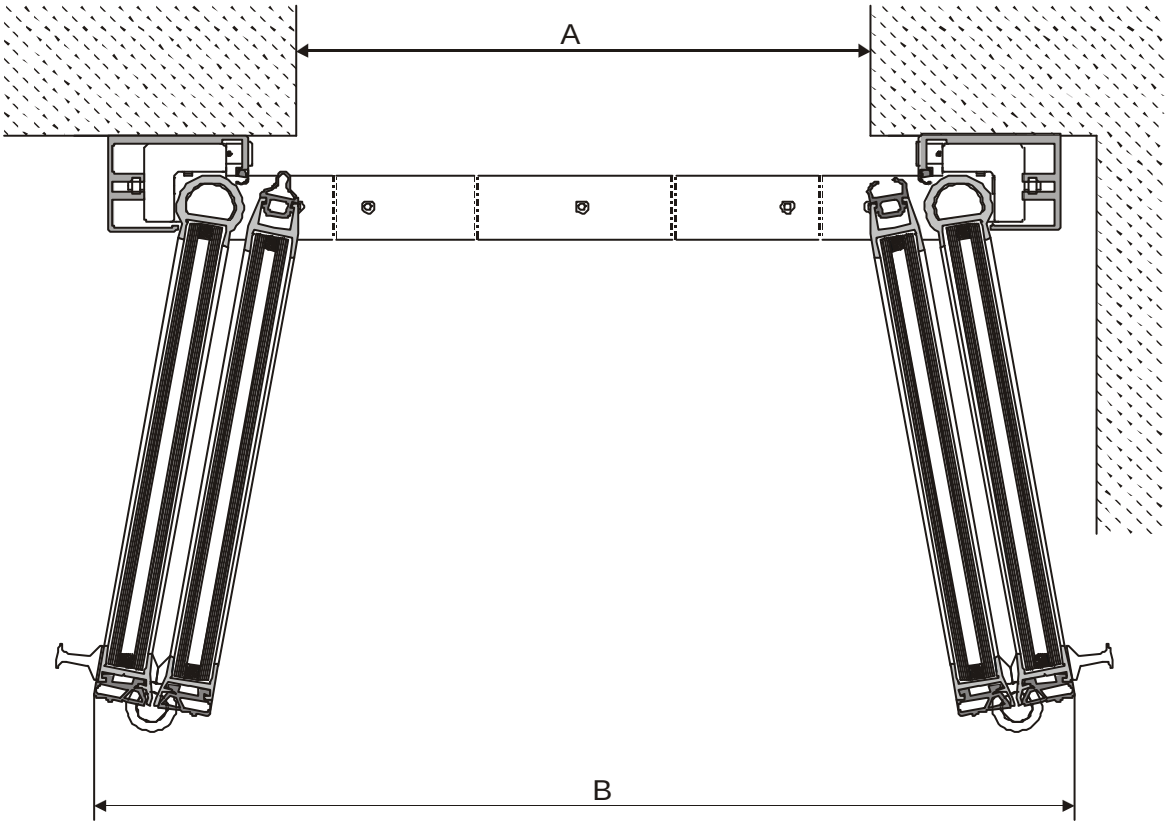
6 Positions of door leaves

FTA 107 horizontal section – lintel mounting

door leaves closed



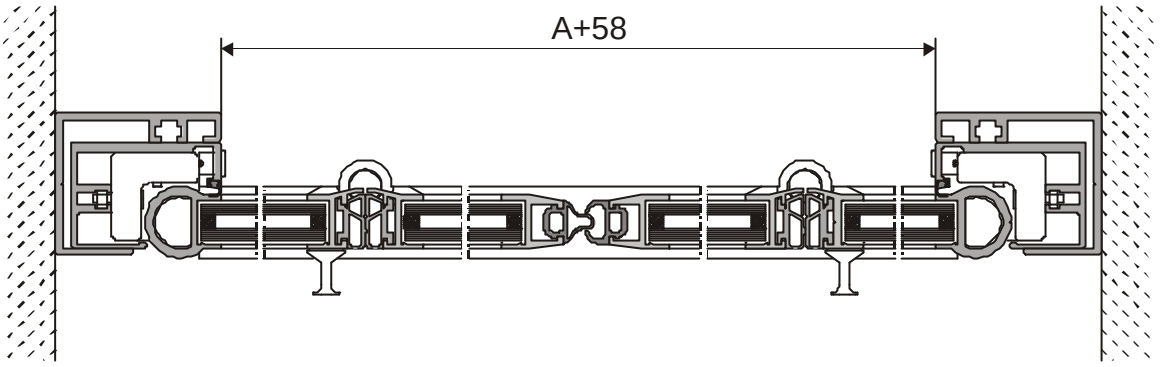
Door leaves opened



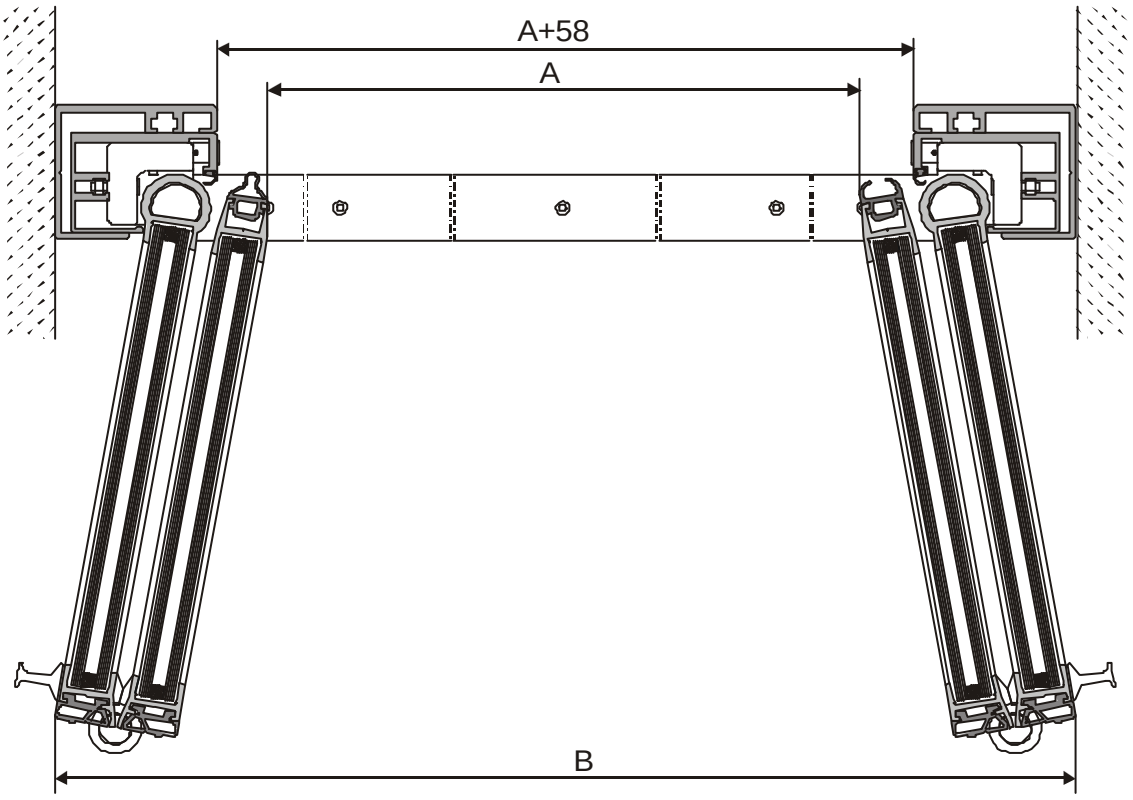
Positions of door leaves

FTA 107 horizontal section – header mounting

door leaves closed



Door leaves opened



7 Installation instructions

The following procedure is recommended for installation of the record 16 FTA. The installation comprises:

7.1. Preliminary work

7.2. Alternatives for installation of operator and lateral supports

7.3. Installation of door leaves

7.4. Installation of control unit, options and casing

7.1 Preliminary work

1. Measurement of existing building dimensions
   passage width A
   passage height G
2. Check of floor level (highest point = starting position for lower edge of lateral support)
3. Clarify possible deficiencies with principal
4. Adjust jig from operator header and secure firmly in position

7.2 Alternatives for installation of operator and lateral supports

Version 1: Individual positioning of lateral supports

For **lintel mounting,** proceed **from Step 2**

1. For **header mounting,** first attach the two lateral equalizing profiles. In this one must take care that the distance from the beginning of the notch for the operator support up to the upper edge of the finished floor is equal to G mm.
2. Mark passage centre (A : 2)
3. Mark position of lateral supports:
   (Header length F - 168mm) : 2 : transfer this dimension to left and right from passage centre. This position marks the start of the left and right lateral supports. Formula for overlength operators:
   (F - overlength (mm) - 168mm) : 2
4. Transfer upper fixing holes o both laterals supports
5. Fix left-hand lateral support at top
6. Place jig in operator mounts of both lateral supports
7. Fit right-hand lateral support
8. Insert jig in floor bearings
9. Fix lateral supports at bottom and centre. **They must be aligned 100% vertically.**
10. Screw header to mounts of lateral supports

11. Fix header on to structure. Cover mechanical parts before drilling and then clean thoroughly.

Supplementary work on header mounting

12. Shorten the casing delivered with excess length of 20 mm to the required length.
13. If it is included in the scope of delivery, **shorten** the optional cladding on the side of the **operator** to the required length and clip it in.

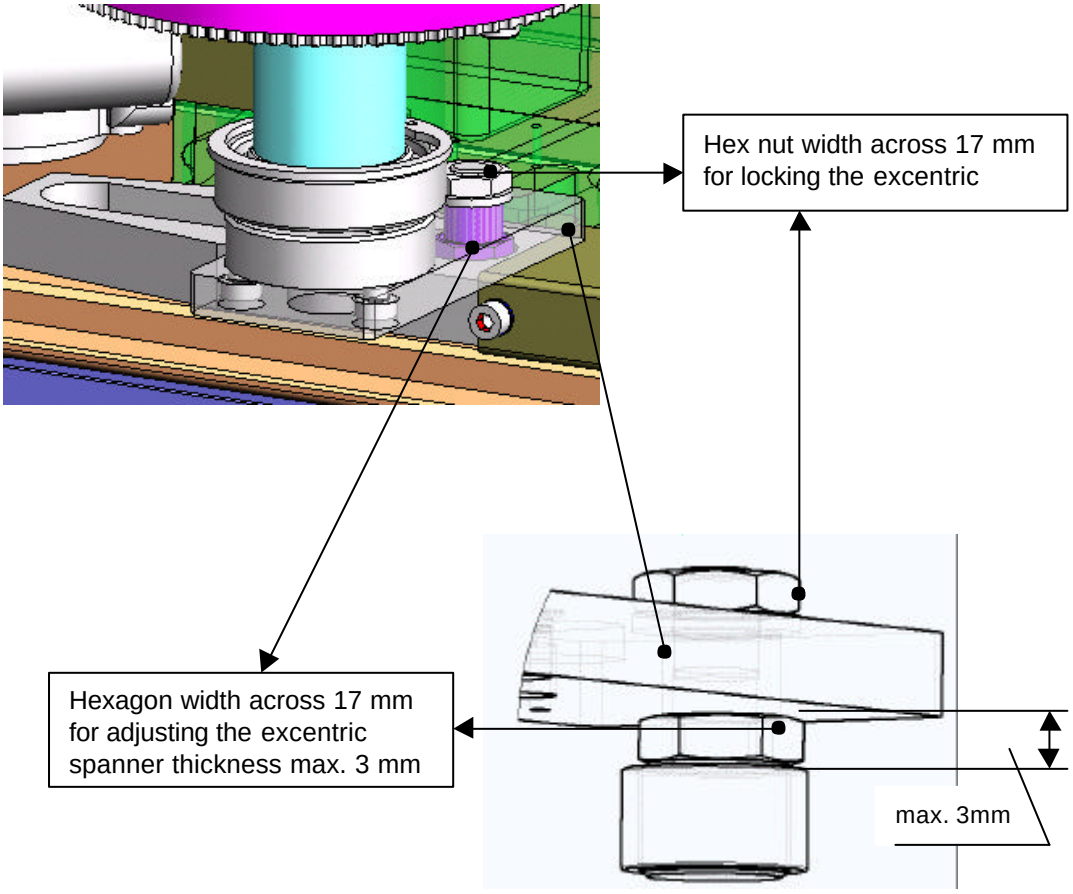
Version 2: Pre-assemble operator and lateral supports and mark and fasten on site (only possible with lintel mounting)

1. Mark passage centre (A : 2)
2. Mark position of lateral supports:
   (Header length F - 168mm) : 2 : transfer this dimension to left and right from passage centre. This position marks the start of the left and right lateral supports. Formula for overlength operators:
   (F - overlength (mm) - 168mm) : 2
3. Transfer upper fixing holes of both lateral supports
4. Fix left-hand lateral support at top
5. Fit right-hand lateral support
6. Insert jig in floor bearings
7. Fix lateral supports at bottom and centre. **They must be aligned 100% vertically.**
8. Fix header on to structure. Cover mechanical parts before drilling and then clean thoroughly.

7.3 Installation of door leaves

1. Clean floor bearings and remove the grease from them
2. Remove guide roller from the two door leaves in the centre
3. Insert door leaves into floor guides and bolt onto swivel arm.
   Observe designations left (L) and right (R)!
4. Fix semicircular rail to floor
5. Refit guide rollers of centre door leaves
6. Re-adjust door leaf height by setting the bearing bolt on the swivel arm. (tighten locknut)
7. Spray rubber parts with silicone spray

8. Adjusting the door leaves:
   If the door leaves do not close correctly at the closing edge, this can be corrected by adjusting an excentric at each pair of leaves according to the sketch below.
   Adjustment of the door leaves must be carried out with the doors closed.



7.4 Installation of control unit, options and casing

1. Connect BDE and actuating devices according to data sheet and schematic diagram
2. Install optional extras
3. Commissioning of door according to chapter 8
4. Fitting of casing:
   - clip casing together in correct sequence
   - place casing on operator

8 Commissioning & final work

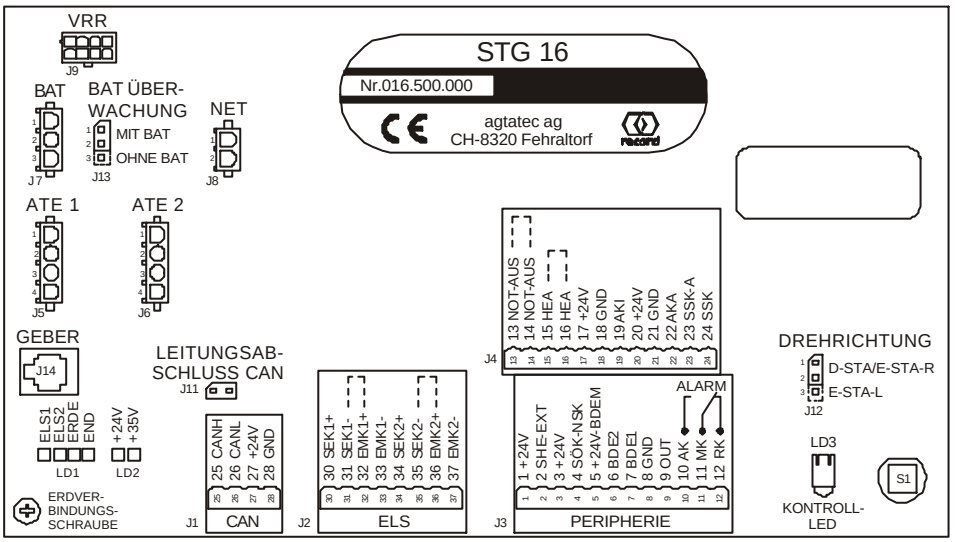
8.1 Preparation

Read safety instructions (page 4) and observe!

1. Interrupt power supply with main switch or power plug
2. Leave door leaves open approx. 1m
3. Check wiring according to general schematic diagram AS.E.107.001

8.2 Checking settings

1. Position jumpers for the required function
2. Check external jumpers for auxiliary units not connected, such as EMERGENCY STOP, HEA, ELS 1, ELS2



8.3 Switching on power supply and calibration run

1. Switch on power supply
2. Check the configuration:
   - if function “folding door <1500” (for A<= 1500mm) or “folding door >1500mm” (for A>= 1500mm) on programming level 5 is selected
3. A calibration run is performed automatically when switching on the supply voltage for the first time or following a hardware reset (see status messages) the door is braking for test during calibration the weight of door leaves
4. The door parameters are determined during the first 3 – 4 opening cycles

Commissioning

The door must not be obstructed in any way during the calibration run

In the event of uncontrolled door motion, interrupt the power supply immediately and disconnect battery

8.4 Checking LED's on the STG

Check LED's 1 – 7 according to the table on page 14

8.5 Checking BDE functions and actuating devices

BDE position ⇦⇨

1. Door must open and remain open
2. Check movement characteristics
3. Door cannot be moved by hand when open
4. Manual operation is obtained by pressing ⇦⇨ again and the door can be moved freely

BDE position ⊓—○

1. Door must close
2. Check movement characteristics
3. Check locking if present (see page 18 for status message for wrong behaviour)
4. Pressing + initiates an SSK opening
5. SSK must release (if present)
6. AKI and AKA must not operate

BDE position ⛔

1. AKI and SSK must operate
2. AKA must not be triggered when door is closed

BDE position ❄

1. AKI, AKA and SSK must operate
2. Check reduced opening width
3. Press ⇦⇨ : door opens to reduced width

Commissioning

8.6 Programming door speeds and hold-open times

These functions are described on page 16

8.7 Configuration of specific customer settings

The possibilities are described in application information 16.802

All modifications must be entered on the configuration sheet (situated in the drive)

8.8 Checking safety

1. BDE position ☼
2. Open door (e.g. with AKI)
3. Cover a photocell (ELS) while closing. Door must re-open
4. The same check must be performed if a 2nd ELS or another safety device is present

8.9 Check automatic reverse

1. Obstruct door while closing ➔ door must reverse. When the door next closes it moves at creep speed past the obstruction point
2. Obstruct the door while opening ➔ door stops for hold-open time and closes. When the door next opens it moves at creep speed past the obstruction point.

8.10 Check BAT functions

1. Status 13 must be indicated on the BDE-E when removing the battery connection J7. If not indicated, jumper J13 is not at position 1 – 2 (see page 11)

8.11 Handing over to customer

1. Commissioning has been correctly performed according to this list
2. The system should be handed over to the customer

3. The functions and safety instructions must be explained with the aid of the operating instructions.
4. The customer should be given a copy of the operating instructions

9 Operating instructions

9.1 Controls on STG 16

General:

The STG 16 operates with active HIGH level, i.e. a +24 V level must be applied to activate a function. Safety inputs are activated during interruptions. The signal ground (0 V) is connected to protective earth. This connection can be removed for test purposes with the earthing screw at bottom left.

Jumpers:

J11:	(left)	For CAN line termination (see AN1)
J12:	(right)	Direction of rotation: jumper at position 1-2 for ***D-STA*** or ***E-STA-R, 16 FTA, 16 FBO*** (factory setting) jumper at position 2-3 for ***E-STA-L***
J13:	(top)	Battery monitoring: jumper at position 1-2 for systems ***with*** battery (factory setting) jumper at position 2-3 for systems ***without*** battery

LED's (left to right):

LED 1:	(red)	Photocell 1: lights when obstruction present
LED 2:	(red)	Photocell 2: lights when obstruction present
LED 3:	(red)	Ground: must light when earthing screw removed (bottom left). Otherwise an earth connection is present
LED 4:	(red)	
LED 5:	(green)	+24V: lights when mains or battery voltage present
		Caution: in the event of a power failure processor reset only takes place 1 sec. after this LED extinguishes
LED 6:	(green)	+35 V: off for power failure
LED 7:	(red)	Large control LED right for push-button operation

Key:

This multifunction key has several functions. The selection of function is made with the aid of the neighbouring control LED according to the following table:

Release key while:	**Function:**
1st light pulse on LED 7	AKI
2nd light pulse on LED 7	Learn ELS
3rd light pulse on LED 7	Learn door parameters
4th light pulse on LED 7	Configuration mode on
5th light pulse on LED 7	BAT emergency reaction if no mains present
6th light pulse on LED 7	Factory setting for redundancy module
8th light pulse on LED 7	Factory setting of programming and configurations
Press key approx. 13 seconds	Hardware reset (new control start)

Operating instructions

9.2 Functions of electronic BDE-E

General:

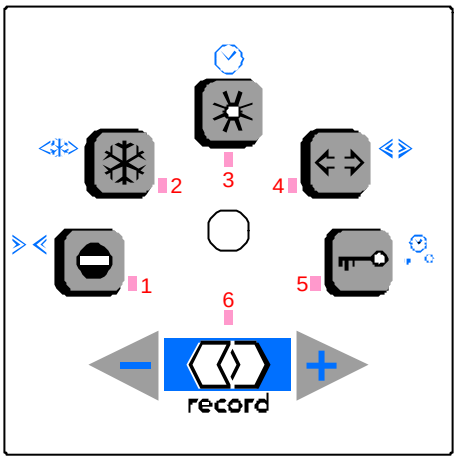
The electronic control unit BDE-E is a convenient input and output unit. It contains several virtual control levels. The normal level (1st level) contains the standard modes of operation.

All LED's light in sequence during the first few seconds after switching on the power supply (run light) and the last operating mode is then displayed.

1st level (operating modes)

Key functions:

- One-way operation
- Winter mode
- Automatic mode
- Continuously open
- Locked
- Programming
- Programming increment down
- Programming increment up



A LED indication is assigned to every key, with the exception of the two keys − and +. The record LED is off in this level.

If the + key is pressed again in the „locked" status, an SSK opening takes place

If the ⇐⇒ key is pressed again in the „continuously open" status, manual operation takes place

If the record key is pressed for approx. 5 sec's. the control is restarted. The programmed data remain stored.

2nd level (control lock)

Entry to this level with key sequence: record + 🔑
The record LED lights. The BDE is blocked.

Exit from this level with key sequence: record − 🔑
This releases operation again.

Operating instructions

3rd level (programming level)

Entry to this level with key sequence: 

The  LED flashes slowly

Selection of following menus by key operation

The value is displayed while the key remains pressed

The ***value display*** takes place proportionately in max. 40 increments

Divided in 5 LED's from left to right, with each LED divided into 8 increments. The range from 0% to 100% is thereby covered.

Example: 75% winter opening

LED's		fully lit (corresponding to 3 times 8 increments)
LED		has an on/off ratio of 6/2 (corresponding to 6 increments)
LED		remains off. Therefore total 30 increments, i.e. 75%.

Menu functions:

	Function	Range	Step width	Factory setting
	Closing speed	3 - 50 cm/s	1,25 cm/s	40 cm/s
	Winter opening width *	20 cm - 100%	approx. 1 cm steps	62,5%
	Door hold-open time	0 - 20 s	0,5 s	1 s
	Door hold-open time SSK	0 - 20 s	0,5 s	10 s
	Opening speed	3 - 70 cm/s	1,75 cm/s	50 cm/s

* on „continuously open" the door follows the ONLINE winter opening width

Setting:

Following menu selection (the LED of the menu selected lights) the value can be changed by pressing the  or  keys several times

The current value is continuously displayed while this key is pressed

At the highest range limit the setting returns to the lowest value and vice-versa

The value is reset to the factory setting by pressing the  and  keys simultaneously

Exit from this level is made by pressing the  key briefly or if no operation is made for 3 minutes

Operating instructions

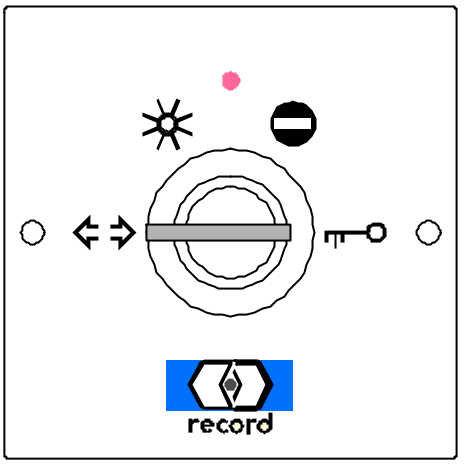
9.3 Functions of mechanical BDE-M

General:

The mechanical control unit BDE-M is a simple input unit with a keyswitch. The key can be withdrawn at any position. Winter operation is possible if required.

Modes of operation:

- One-way operation (or winter)
- Automatic mode
- Continuously open
- Locked



Operating indication

The LED lights when mains or battery voltage is present

Reset key

This hidden key is operated with a paper clip approx. 25 mm long. A small hole is provided for this purpose at the centre of the record logo.
If this key is pressed for approx. 5 seconds, the control unit starts completely new. The programmed data remain stored.

10 Status and fault signals

Status level (display only)

In the event of irregularity change is made automatically from the operating mode level to the status level. Change is then made approx. every 5 seconds between status and operating mode level. No status display is given in the remaining levels. Characteristic of the status level are 2 or more rapidly flashing LED's of total 6 LED's. This permits a maximum of 58 different status numbers to be output. A status with „W" is a warning, which is not followed by switching of the fault output relay. The status is deleted in various ways according to the detailed description (resetting).

LED's on BDE-E:

1 ⊗ 32	2 ⊗ 16	3 ⊗ 8	4 ⊗ 4	5 ⊗ 2	6 ⊗ 1	LED no status	Remarks
⛔	❄	✳	⇦⇨	⊶	record		
				x	x	03	AKI sensor active longer than 60 s
			x			04W	Manual operation
			x		x	05	AKA sensor active longer than 60 s
			x	x		06	Unlocking error
		x			x	09	Battery fuse blown
		x		x		10	Locking error; door not closed
		x	x			12	Battery defective (voltage too low)
		x	x	x		14	Locking n/o contact defective
	x		x			20	Door leaf interception error - only CO48
	x	x		x		26	Overload at FEM outputs
	x	x	x		x	29	TOS is not locked in the "locking" mode
	x	x	x	x		30	TOS is locked in the "automatic" mode
	x	x	x	x	x	31	EMERGENCY STOP button operated
x					x	33	Error ELS 1
x				x		34	Error ELS 2
x			x		x	37	Wrong motor current
x			x	x		38	Excess temperature motor 1
x			x	x	x	39	Overload on +24 V supply
x		x				40	Excess temperature motor 2
x		x			x	41	Motor 1 - thermal sensor defective
x		x		x		42	Motor 2 - thermal sensor defective
x		x		x	x	43	Incremental generator defective
x		x	x			44W	Motor current time product high
x		x	x		x	45	Motor current time product too high
x		x	x	x		46	Control unit defective
x		x	x	x	x	47	Ext. safety active longer than 60 s
x	x					48	NSK or SÖK active

Status and fault signals

Status level (continued)

LED' on BDE-E:

1 ⊗ 32	2 ⊗ 16	3 ⊗ 8	4 ⊗ 4	5 ⊗ 2	6 ⊗ 1	LED no status	Remarks
⛔	❄	✳	⇦⇨	⊶	record		
x	x				x	49	Alarm CO48 Ventouse
x	x			x		50	Control unit CPU2 is faulty
x	x		x	x		54W	Calibration run
x	x		x	x	x	55	Power failure
x	x	x		x		58	FEM connection interrupted
x	x	x		x	x	59	ELS sensor active longer than 60 s
x	x	x	x			60	Parameter memory defective (EEPROM)
x	x	x	x		x	61	SSK - sensor active longer than 60 s
x	x	x	x	x		62	BDE has no priority

Detail description of status indications

General:

A status can usually be deleted by pressing the record key for 5 s (= reset). This produces a new start in the control unit.
If, however, the cause of the fault has not been eliminated, the status message will appear again if the fault occurs again.

The causes of faults are listed with decreasing probability in the following list. The fault may be suspected with the least probability in the STG at the end of the faults.

Status 03: AKI sensor active longer than 60 s
Automatic resetting, provided in order, or by service fitter

Status 04: Manual control

Status 05: AKA sensor active longer than 60 s
Automatic resetting, provided in order, or by service fitter

Status 06: Unlocking fault
Possibly lock jammed
Reset by service fitter

Status and fault signals

Status 09: Battery fuse blown
Jumper J13 possibly missing if no battery present
Fuse possibly defective or cable interrupted
Reset by service fitter

Status 10: Locking fault
Possibly obstruction in door
Automatic resetting provided door is closed and locking possible

Status 12: Battery defective (voltage too low)
Battery exchanged by service fitter
Automatic resetting

Status 14: Locking n/o contact defective
VAK contact possibly wrongly adjusted or interrupted
Reset by service fitter

Status 20 Door leaf interception error
Buffers (end stops) are possibly adjusted the wrong way
Possible wire break at the magnet
Reset by pressing the program key “record” for 5 sec.

Status 26 Overload at FEM outputs
Reset by service fitter
Remove overload and generate reset with STG key

Status 29 TOS is not locked in the “locked” mode
Automatic reset if ok or service fitter

Status 30 TOS is locked in the “automatic” mode
Automatic reset if ok or service fitter

Status 31: EMERGENCY STOP operated
Reset by resetting EMERGENCY STOP key

Status 33: Fault ELS 1 during ELS learning cycle
Door possibly too wide or ELS sensor dirty
ELS cable or ELS head possibly defective
Reset by cleaning or service fitter

Status 34: Fault ELS 2
see status 33

Status 37: Defective motor current
STG or ATE defective
Reset by service fitter

Status 38: Excess temperature motor 1
Manual control effective
Door leaves possibly too heavy or there is too much friction
Reset by motor cooling or by service fitter

Status and fault signals

Status 39: Overload on +24 V supply
Possibly too many external units connected
Reset by service fitter

Status 40: Excess temperature motor 2
see status 38

Status 41: Motor 1 - thermal sensor defective
Motor possibly not connected
Sensor in motor possibly defective or cable broken in sensor lead
Reset by service fitter

Status 42: Motor 2 - thermal sensor defective
see status 41

Status 43 Incremental generator defective
Generator cable possibly not connected or cable broken in lead
Motor possibly blocked
Reset by service fitter

Status 44: Motor current time product high
Possibly too much traffic or door leaves too heavy
Minimum hold-open time extended to approx. 4 s
Automatic resetting by cooling

Status 45: Motor current time product too high
Possibly too much traffic with door leaves too heavy
Hold-open time extended to approx. 20 s
Automatic resetting by cooling

Status 46: Control unit defective
Includes the following individual faults:
EPROM, RAM, Watchdog, Imax, ImaxT, difference on SHE-EXT
Reset by service fitter

Status 47: External safety sensor active longer than 60 s
Automatic resetting, if in order, or by service fitter

Status 48: Emergency fail close contact or emergency opening contact active (interrupted)
Automatic resetting if contact recloses

Status 49 Alarm CO48 Ventouse
Interruption sandow switch or interruption at the switch
Close Ventouse, tighten sandow or adjust switch
Reset is carried out automatically

Status 50 Control unit CPU2 is faulty
Reset by service fitter

Status and fault signals

Status 54: Calibration run
Wait until door is closed
Automatic resetting after completion of 3 openings

Status 55: Power failure
Battery operation if battery present
Automatic resetting when power restored

Status 58 FEM connection interrupted
The connection did exist but is now interrupted
Check the cable, FEM may also be faulty

Status 59: ELS sensor active longer than 60 s
Automatic resetting, if in order, or by service fitter

Status 60: Parameter memory defective (EEPROM)
Change control unit
Reset by service fitter

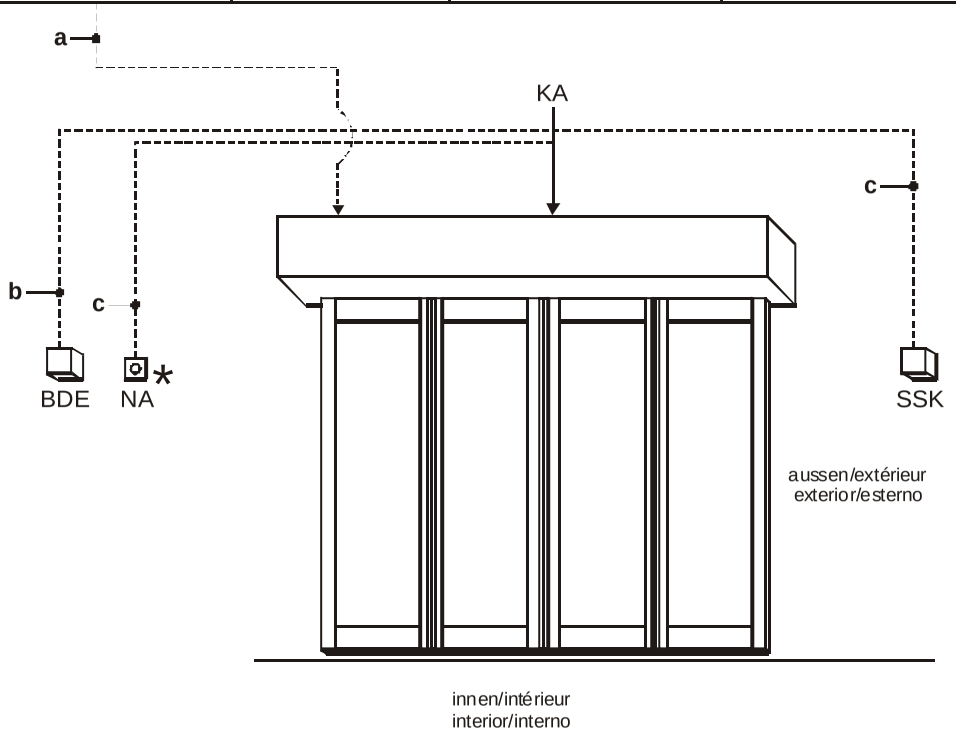
Status 61: SSK sensor active longer than 60 s
Automatic resetting, if in order, or by service fitter

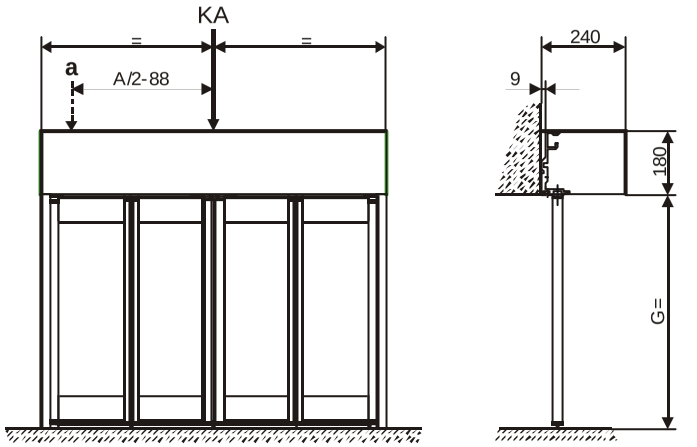
Status 62: BDE has no priority, since higher-level signal present (e.g. time switch)
Automatic resetting by releasing BDE key

11 Abbreviations

A	A	Width of passage
	AKA	Actuating contact „outside“
	AKI	Actuating contact „inside“
	AMP	Lamp
	APA	actuating switch for pharmacies
	APD	Pushbutton for pharmacies
	APR	locking bar for pharmacies
	APS	safety device for pharmacies
	AS	Connection or general schematic diagram
	ATE	Drive unit
	ATM	Drive module
B	BAT	Battery-pack
	BDE	Control unit
	BDE-E	Control unit electronic
	BDE-M	Control unit mechanical
	BDE-R	Control unit redundant
	BS	BDE with lock
C	CAN-H	Serial interface
	CAN-L	Serial interface
	CO48	special standard in France
	CPU	microprocessor
D	D-STA	Double sliding door drive
	DUO	heavy door operator
E	EEPROM	parameter storage
	ELS	Light barrier
	EMK	Receiver head
	EPROM	program storage
	ES	Electrical connection diagram
	E-STA	Single sliding door drive
	E-STA-L	Single sliding door drive left
	E-STA-R	Single sliding door drive right
F	F	Length of header
	FEM	Extended functions module
	FIRST	redundant operator
G	G	Height of passage
	GTR	Gearbox
H	HEA	Manual unlocking „from outside“
	HEI	Manual unlocking „from inside“
	HES	Manual unlocking switch
K	KA	Cable exit
L	LED	Light-emitting diode
	LS	Wiring diagram
M	MOT	Motor
	MP	General installation plan
N	NET	Power supply
	NSK	Emergency fail close contact
O	OUT	Output
	OVA	Optical lock indicator
R	RAD-A	Radar „outside“
	RAD-I	Radar „inside“
	RED	Redundant module
S	SAA	interlock control “exit actuation blocked”
	SAG	Control unit
	S-AUS	Interlock control
	SEA	Interlock control “entrance actuation blocked”
	SEK	Transmitter head
	SHE	Safety element, external
	SÖK	Emergency opening contact
	SPS	Stored program control SPC
	SSA	Slidebar operator
	SSK	Key-operated contact
	STA	Sliding door drive
	STD	Socket
	STG	Control unit
	STM	Control module
	STP	Control p.c.b.
	SUR-A	Time switch contact “exit mode”
	SUR-V	Time switch contact “locking mode”
T	THS	Thermostatic switch
	TOS	Break-Out system
	TOZ	Door hold-open time
	TOWA	Two-way traffic
	TSA	Telescopic sliding door operator
	TÜV	Industrial inspectorate
U	UMR	Guide pulley
	µP	Microprocessor
V	VAK	Lock indicating contact
	VAL	Locking alarm
	VL	Wiring list
	VRR	Locking device
Z	ZLP	Supplementary printed circuit board

Netz 230V ±10% 50 / 60Hz Sicherung max. 16A Anschlusswert ~200VA	Réseau 230V ±10% 50 / 60Hz Fusible max. 16A Puissance ~200VA	Electric mains 230V ±10% 50 / 60 cycles Fuse max. 16A Power rating ~200VA	Rete 230V ±10% 50 / 60 cicli Disp. di protezione max. 16A Potenza allacciata ~200VA





Nicht zutreffendes streichen! Positions non utilisées a biffer!
Cancel unnecessary items! Cancellare ciò che non interessa!

a	3x1,5mm²	230V~ (L + N + PE)
b	2x2x0,25mm² (max. 80m)	24V= (paarweise verdrillt / torsadés par paires / twisted pair cable / controciuti a due a due)
c	2x0,5mm²	

SSK Schlüsselschwenkkontakt / contact pivotant à clé / key operated contact / contatto a chiave girevole

BDE Bedienungseinheit / unité de commande / control unit / selettore di funzione

NA Notaus-Taster / interrupteur de secours / emergency stop button / interruttore per arresto d'emergenza

KA Kabelaustritt / départ du câblage / cable outlet / uscita a cavo

Wichtiger Hinweis!
Die Anlage soll während der Nacht NIE durch einen Generalschalter vom Netz getrennt werden.

Avis important!
Ne pas débracher le système du réseau pendant la nuit.

Important notice!
The installation is not intended to be disconnected from the mains at night.

Attenzione!
Durante la notte l'automatismo non deve essere disinserito dalla rete di tensione.

* Lieferung bauseits gemäss behördlicher Vorschrift
A fournier par ailleurs selon spécification officielle
To be furnished by others according to official regulation
Fornitura eff. da voi secondo disposizioni ufficiali

Auftrags-/Commande-/
Order-/Commissione Nr/No: _____

Baustelle _____
Chantier
Site _____
Cantiere

Leitungsschema
Schéma de câblage
Cable layout
Schema dei fili

FTA 107
FTA 108-BO

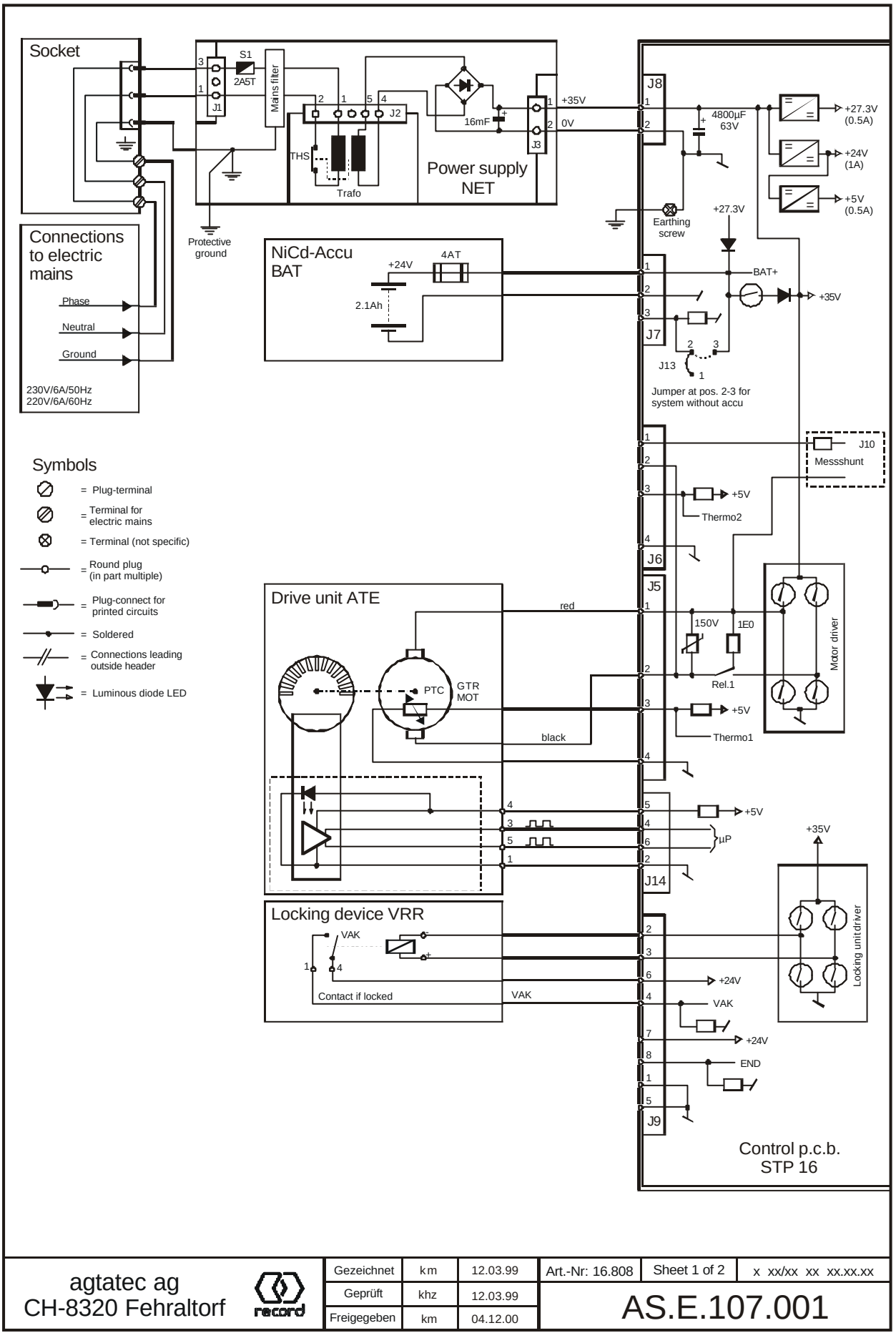
Massstab		Name	Datum
%	Erstellt	km	24.08.00
	Freigegeben	km	14.02.01

Aenderung: X xx/xx xx xx.xx.xx

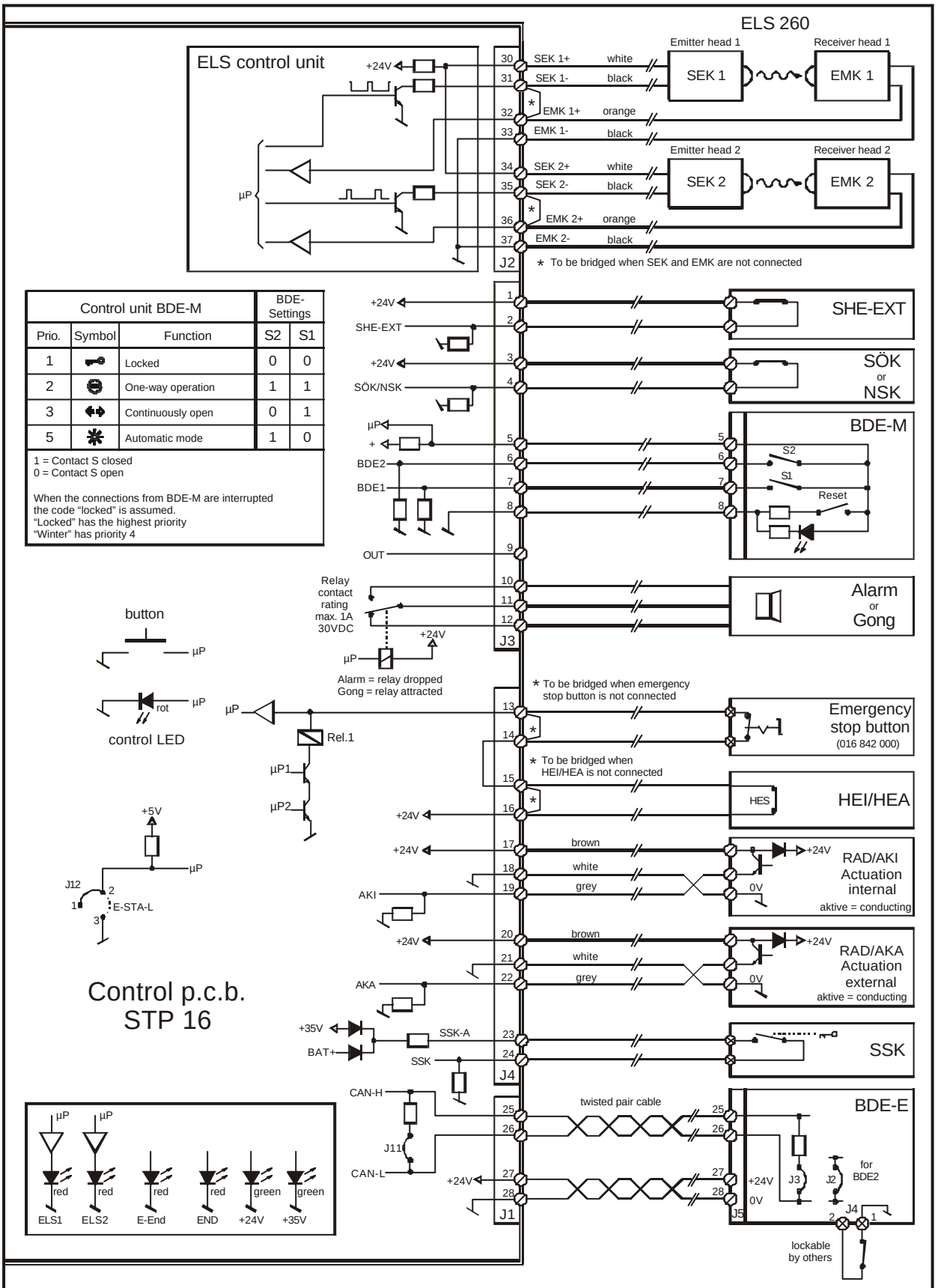
agtatec ag
CH-8320 Fehraltorf

LS.107001

Manual record 16 FTA 06/2002 Rev. A



agtatec ag CH-8320 Fehraltorf	Gezeichnet	km	12.03.99	Art.-Nr: 16.808	Sheet 1 of 2	x xx/xx xx xx.xx.xx
	Geprüft	khz	12.03.99	AS.E.107.001		
	Freigegeben	km	04.12.00			



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	Geprüft	khz	03.03.99	AS.E.107.001		
	Freigegeben	km	04.12.00			

Poland

record drzwi automatczene SP.zo.o.
Nowa 23 Street
Stara Iwiczna
PL-05-500 Piaseczno
Telefon +48 22 737 71 09
Telefax +48 22 737 70 08

Spain

record puertas automáticas S.A.
C/Camino de Hormigueras
Nave 6
E-28031 Madrid
Telefon +34 91 380 75 50
Telefax +34 91 777 32 29

Österreich

record Türautomation
Helmut Heinz Bunzl Ges.m.b.H.
Zwingenstraße
A-2380 Perchtoldsdorf
Telefon +43 1 / 865 88 75
Telefax +43 1 / 865 88 75 14

France

record portes automatiques SA
ZAC-6, rue de l'Orme Saint Germain
F-91165 Champlan Cedex
Téléphone +33 1 / 69 79 31 10
Téléfax +33 1 / 69 79 31 29

Deutschland

record Türautomation GmbH
Dieselstraße 7
D-42389 Wuppertal
Telefon +49 202 / 60 90 10
Telefax +49 202 / 60 90 111

Denmark

record BMT A/S
Hovedstensvej 33

DK-2650 Hvidovre
Telefon +45 36 78 23 00
Telefax +45 36 77 16 28

Hungary

record ajtó kft
Leshegy ut 8

H-2310 Szigetszentmiklós
Telefon +36 24 51 53 90
Telefax +36 24 51 53 92

Great Britain

record automatic doors (UK) limited
Unit 4 D, Albany Park Industrial Estate
Frimley Road, Camberley
GB-Surrey GU 15 2 PL
Telephone +44 1276 692 999
Telefax +44 1276 692 747

Niederlande

Automatische deuren record B.V.
Cardanuslaan 30
NL-6865 HK Doorwerth
Telefon +31 26 / 33 99 777
Telefax +31 26 / 33 99 770

Schweiz (Hauptsitz)

record Türautomation AG
Allmendstraße 24
CH-8320 Fehraltorf
Telefon +41 1 / 954 91 91
Telefax +41 1 / 954 92 00