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2. Key to symbols



Danger of personal injury!

The safety instructions must be observed!



Risk of damage to property!

The safety instructions must be observed!



Information

Special information
OR reference to
other sources of information

3. General safety instructions

Warranty

The function and safety of the equipment is only guaranteed if the warning and safety instructions included in these installation instructions are adhered to. MFZ Antriebe GmbH + Co. KG is not liable for any personal injury or damage to property that occurs as a result of the warning and safety instructions being disregarded. MFZ does not accept any liability or warranty for damage due to the use of non-approved spare parts and accessories.

Proper use

The drives in the STA 1 range are designed exclusively for opening and closing weight-counterbalanced sectional doors.

Target group

Only qualified and trained specialists are permitted to install and service the drive. Qualified and trained professionals fulfil the following requirements:

- Have knowledge of the general and specific safety and accident prevention regulations,
- Have knowledge of the relevant regulations,
- Be trained in the use and care of appropriate safety equipment,
- Be capable of recognising the dangers associated with the installation work.

Only qualified and trained specialists are permitted to install and service the drive. Qualified and trained professionals fulfil the following requirements:

- Have knowledge of the general and specific safety and accident prevention regulations,
- Have knowledge of the relevant electrical regulations,
- Be trained in the use and care of appropriate safety equipment,
- Be capable of recognising the dangers associated with electricity.

Instructions for installation and connection

- Always ensure that the equipment has been disconnected from the power supply before carrying out any electrical work. During the work the electricity supply must remain disconnected.
- Local safety regulations must be observed.
- Mains cables must be laid separately from control cables.

4. Overview of sectional door drive:

EN

Regulations and bases for testing

For connecting, programming and servicing, the following regulations must be observed (the list is not exhaustive).

Construction product standards

- EN 13241-1 (Products without fire resistance or smoke control characteristics)
- EN 12445 (Safety in use of power operated doors - Test methods)
- EN 12453 (Safety in use of power operated doors - Requirements)
- EN 12635 (Industrial, commercial and garage doors and gates - Installation and use.)
- EN 12978 (Safety devices for power operated doors and gates - Requirements and test methods)

EMC

- EN 55014-1 (Radio disturbance, household appliances)
- EN 61000-3-2 EN 61000-3-2 (Disturbances in supply systems - harmonic currents)
- EN 61000-3-3 (Disturbances in supply systems - voltage fluctuations)
- EN 61000-6-2 (Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity for industrial environments)
- EN 61000-6-3 (Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments)

Machinery Directive

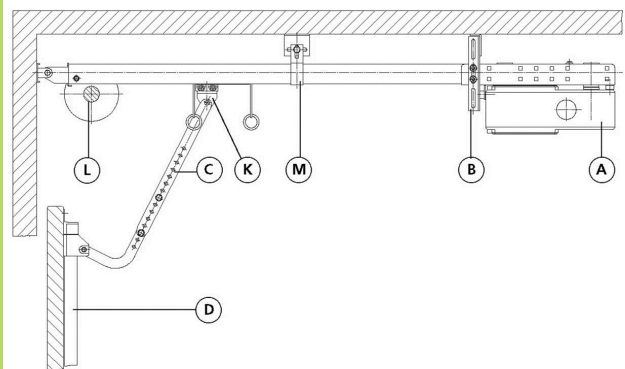
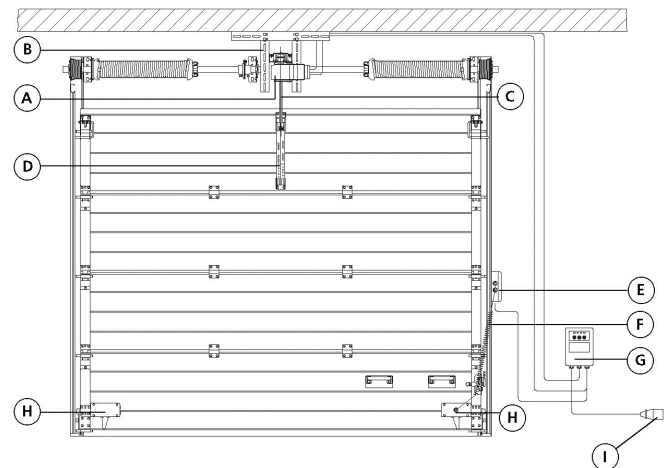
- EN 60204-1 (Safety of machinery, electrical equipment of machines, part 1: general requirements)
- EN 12100-1 (Safety of machinery. Basic concepts, general principles for design. Basic terminology, methodology)

Low voltage

- EN 60335-1 (Household and similar electrical appliances - Safety)
- EN 60335-2-103 (Particular requirements for drives for gates, doors and windows)

German professional association regulations

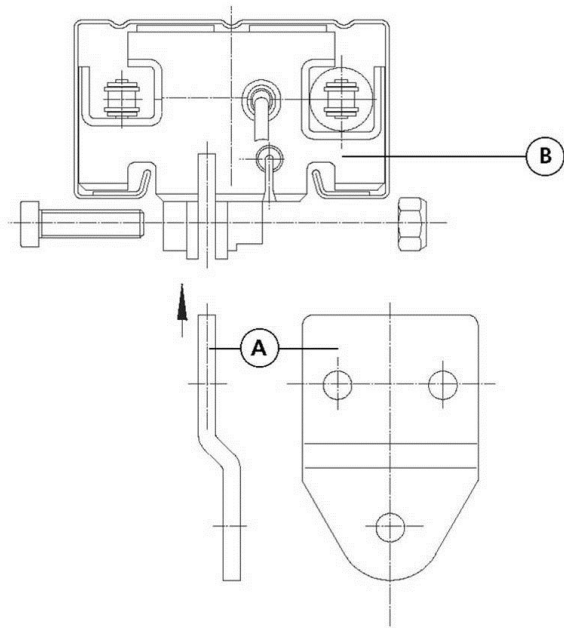
- BGR 232 (Directive for power-driven windows, doors and gates)



- A. Drive unit
- B. Ceiling-mounted support for drive unit
- C. Door link
- D. Door console
- E. Door frame distribution box *
- F. Coiled cable *
- G. Door control
- H. Door leaf distribution box *
- I. CEE plug
- K. Carriage with quick release
- L. Spring shaft
- M. Ceiling-mounted support for guide rail

*if available, only if closing edge safety device or door leaf connection unit fitted

5. Install connector piece

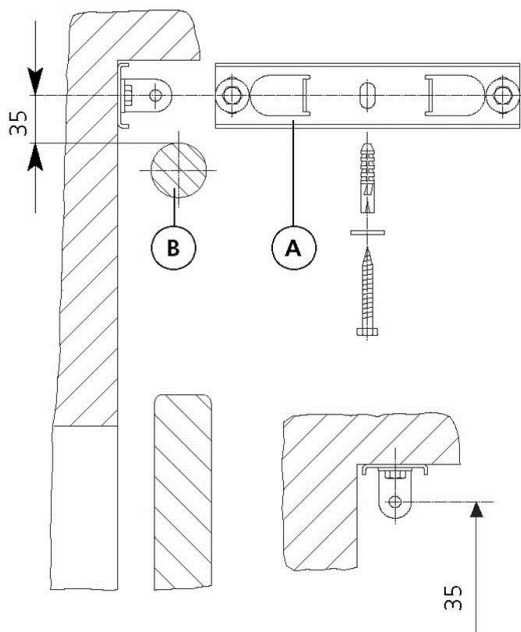


Insert the connector piece (A) into carriage (B) and securely clamp it in place with two M8x30 cylinder head screws and two M8 lock nuts.

6. Install guide rail

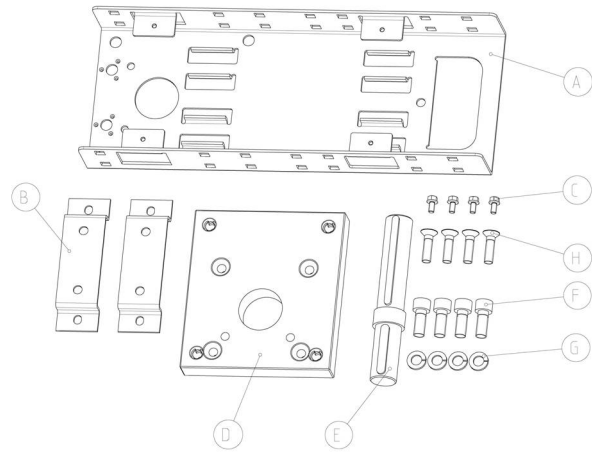
6.1 Install lintel joining plate

Fix the lintel joining plate (A) to the lintel or to the ceiling using 3 wood screws $\text{\O}8 \times 60$, wall plugs and washers. Distance from top edge of spring shaft (B) to wall plug holes 35 mm.



6.2 Fix drive to guide rail

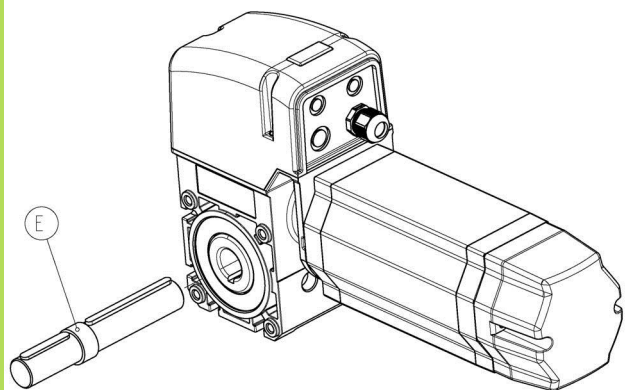
Use the set which is indicated for attaching the drive:



- 1x STAI1 support plate (A)
- 2x connector clamp for support plate (B)
- 4x fixing screw (C)
- 1x STAI1 intermediate flange (D)
- 1x STAI1 pin (E)
- 4x cylinder head screw M10x25 (F)
- 4x spring washers DIN127– A10 (G)
- 4x countersunk screw M8x35 (H)

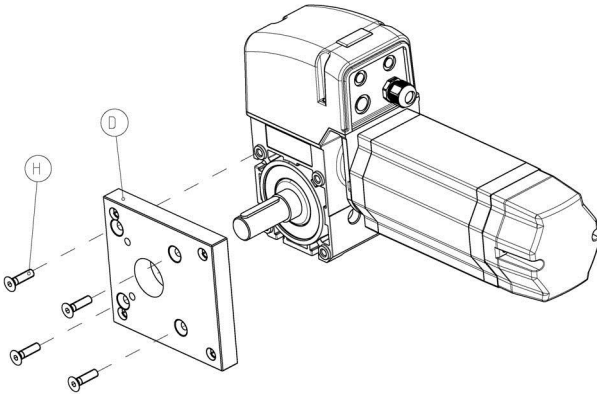
6.2.1

Insert the pin supplied (E) into the sleeve shaft of the drive. Ensure the correct seating of the feather key.

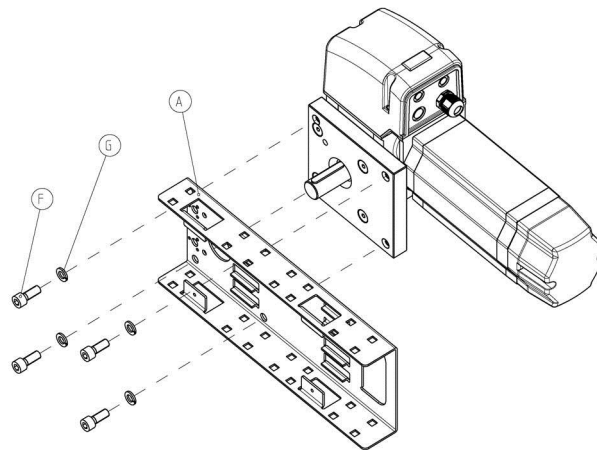


6.2.2

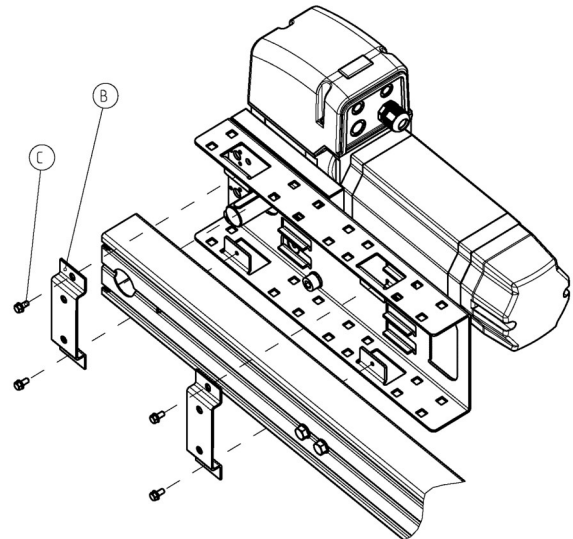
STAI1 Attach the intermediate flange (D) to the drive using countersunk screws (H).


6.2.3

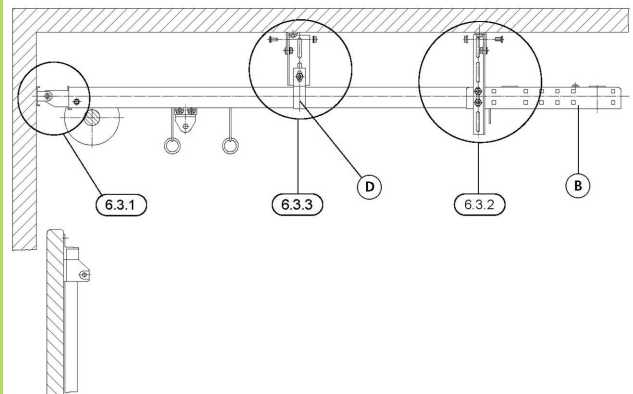
Attach the STAI1 support plate (A) to the intermediate flange using cylinder head screws (F) and spring washers (G).


6.2.4

Attach the STAI1 support plate (A) to the rail supplied with the aid of connector clamp (B) and the corresponding screws (C).

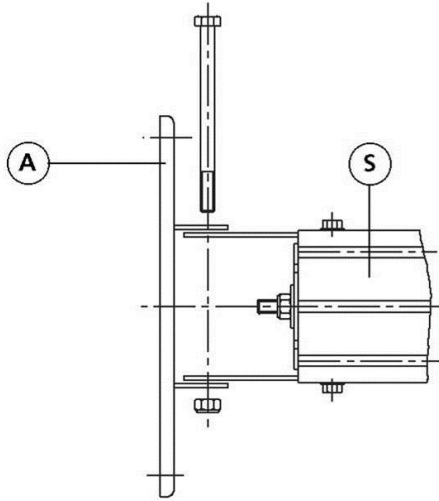

6.3 Install guide rail

- D Suspension cramps
- B Support plate



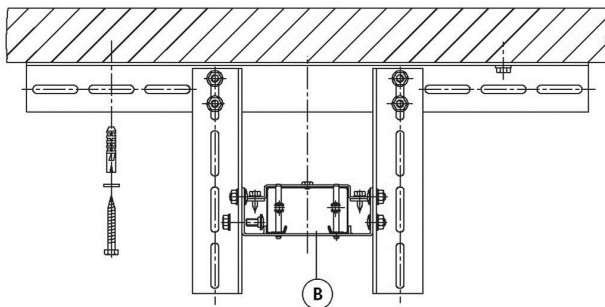
6.3.1

Connect the guide rail (S) to the lintel joining plate (A). Use M8x110 hexagon head screw and M8 lock nut.



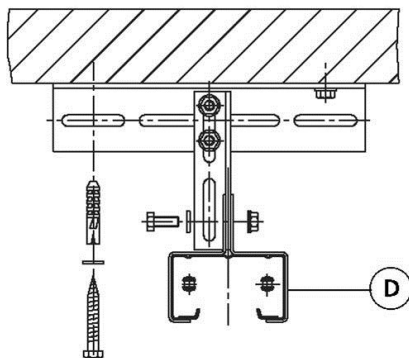
6.3.2 (optional)

Fix support plate (B) to the ceiling with the designated drive unit suspension set (set 1 - 4). (See Figs. 6.4 - 6.7)



6.3.3 (optional)

Anchor the centre of the guide rail to the ceiling with two suspension cramps (D) and the rail suspension set (set 1 - 4) designated for the lintel height. (See Figs. 6.8 - 6.11)

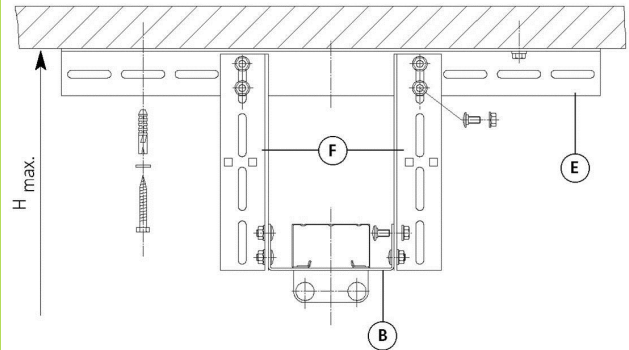


6.4 Drive unit suspension set 1,

Art. no. 1700002511

Lintel height $H_{max.} = 580mm$

- (B) Support plate (drive unit)
- (E) Support bracket 622mm long
- (F) Support bracket 250mm long

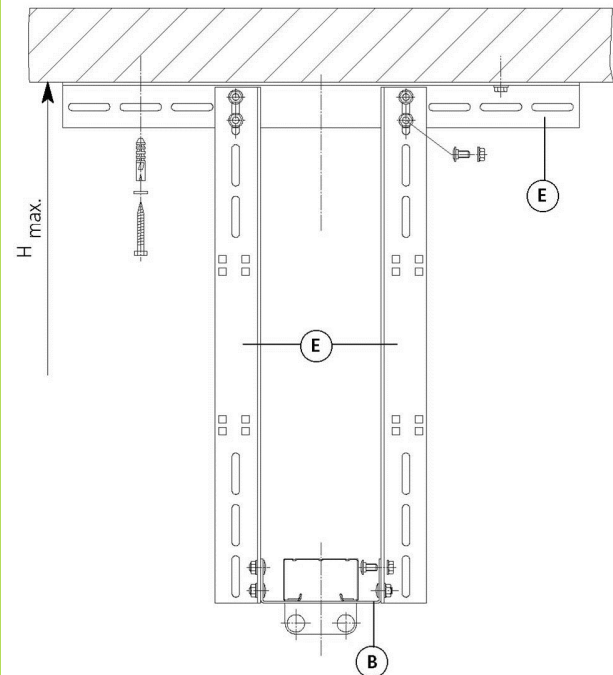


6.5 Drive unit suspension set 2,

Art. no. 1700002512

Lintel height $H_{max.} = 960mm$

- (B) Support plate (drive unit)
- (E) Support bracket 622mm long

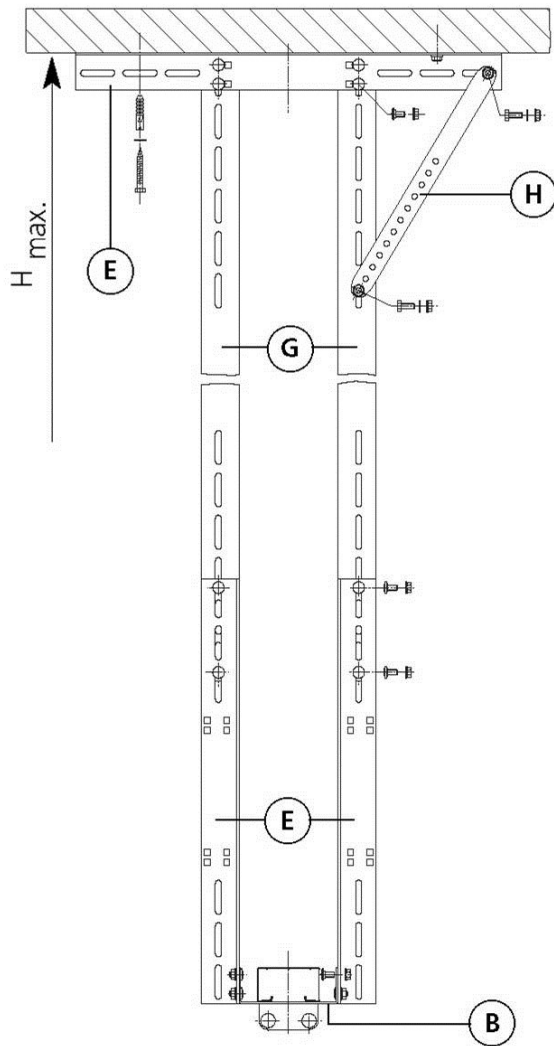


6.6 Drive unit suspension set 3,

Art. no. 1700002513

Lintel height Hmax. =1920mm

- (B) Support plate (drive unit)
- (E) Support bracket 622mm long
- (G) Support bracket 1118mm long
- (H) Strut 370mm long



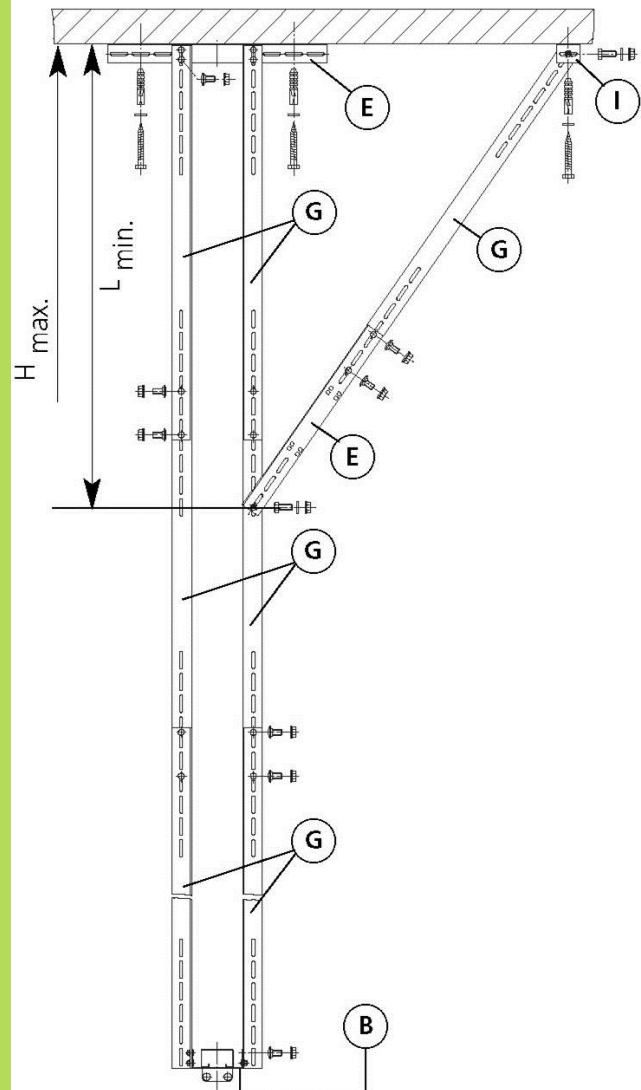
6.7 Drive unit suspension set 4,

Art. no. 1700002514

Lintel height Hmax. =3390mm

Distance Lmin. =1300mm

- (B) Support plate (drive unit)
- (E) Support bracket 622mm long
- (G) Support bracket 1118mm long
- (I) Support bracket 64mm long



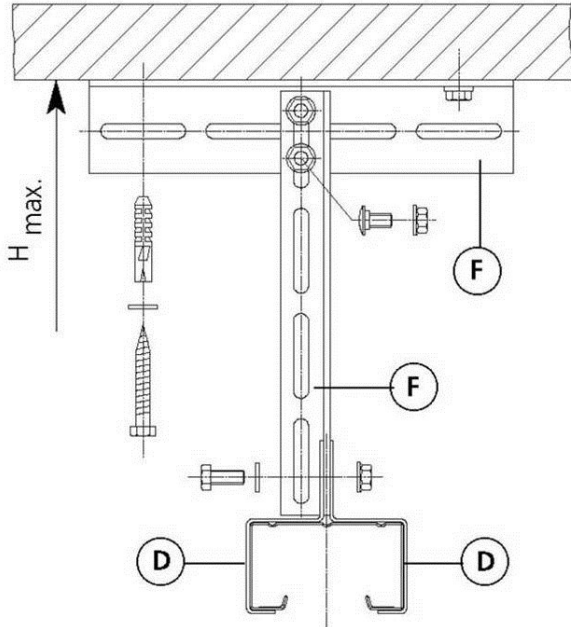
6.8 Rail suspension set 1,

Art. no. 400111

Lintel height Hmax. =640mm

(D) Suspension clamp

(F) Support bracket 250mm long



6.9 Rail suspension set 2,

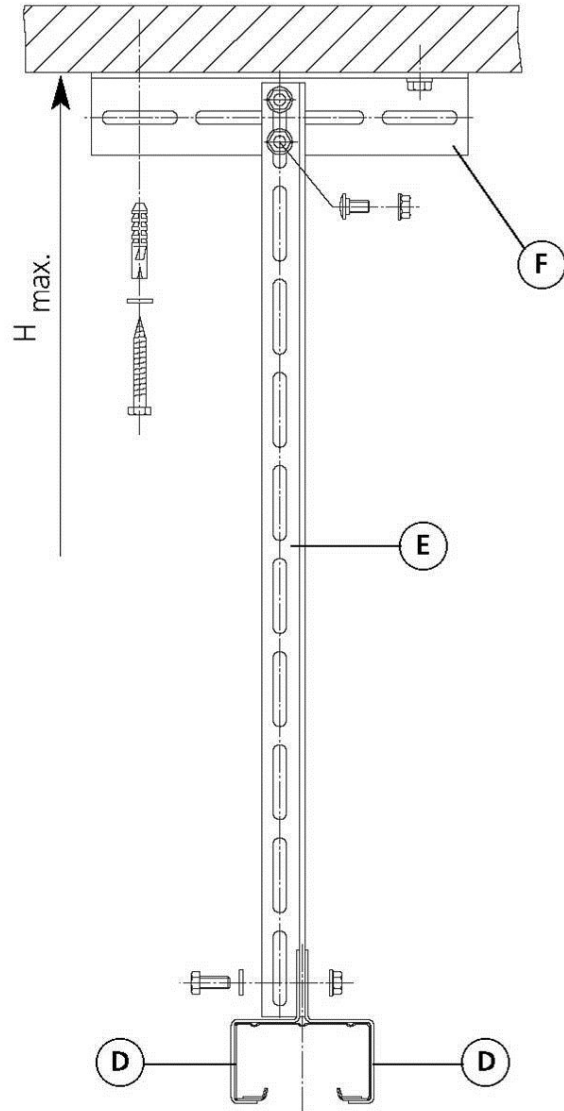
Art. no. 400112

Lintel height Hmax. =1015mm

(D) Suspension clamp

(E) Support bracket 622mm long

(F) Support bracket 250mm long

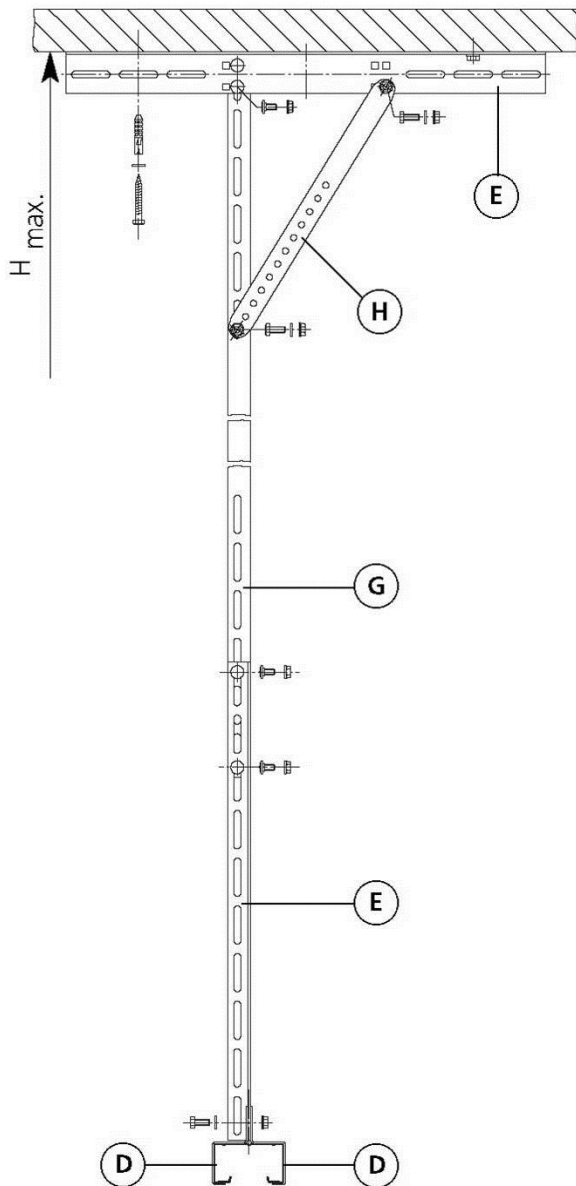


6.10 Rail suspension set 3,

Art. no. 400113

Lintel height Hmax. =1985mm

- (D) Suspension clamp
- (E) Support bracket 622mm long
- (G) Support bracket 1118mm long
- (H) Strut 370mm long



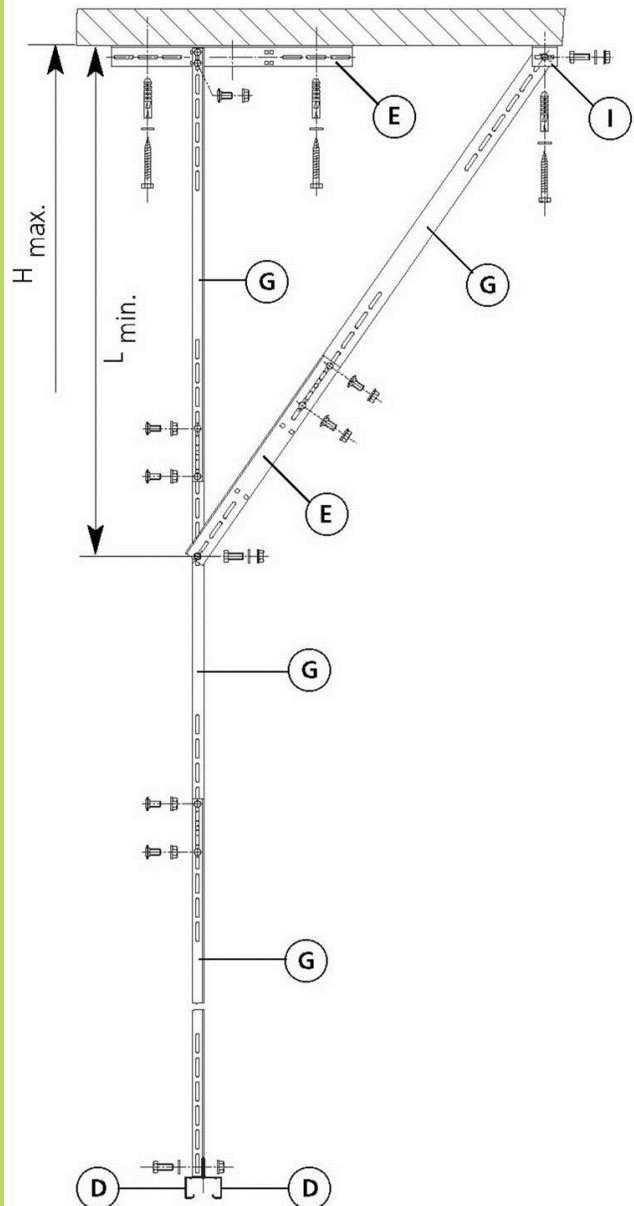
6.11 Rail suspension set 4,

Art. no. 170002510

Lintel height Hmax. =3450mm

Distance Lmin. =1300mm

- (D) Suspension clamp
- (E) Support bracket 622mm long
- (G) Support bracket 1118mm long
- (I) Support bracket 64mm long



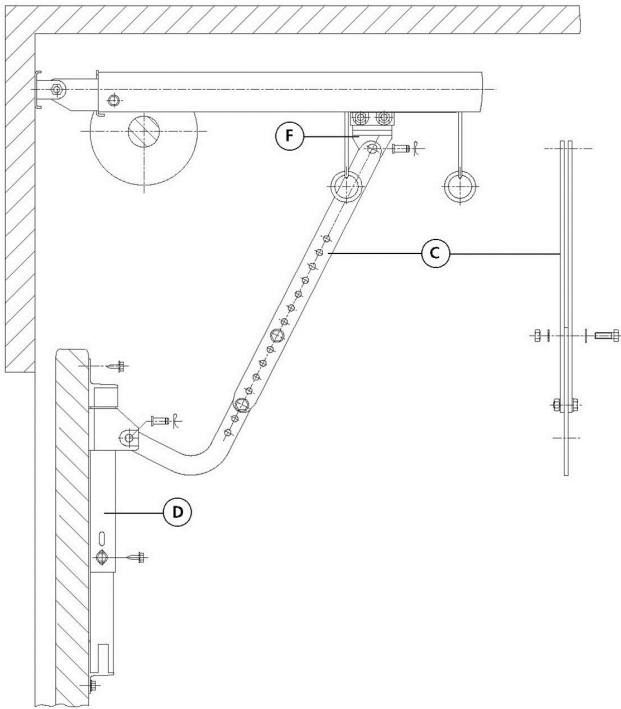
7. Connect door to drive



Disassemble the existing door latches or render them inoperable.

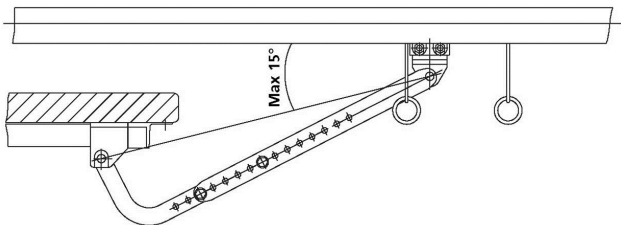
7.1

Set the adjustable door connector attachment (D) to the uppermost door section height and screw on with four self-tapping screws A 6.5x16 (bore \varnothing 5mm). Connect the three-part door link (C) with the connector piece (F).



7.2

To ensure fault-free, power-operated door travel, the angle of the door link must not exceed 15° when the door is open.



8. Quick release

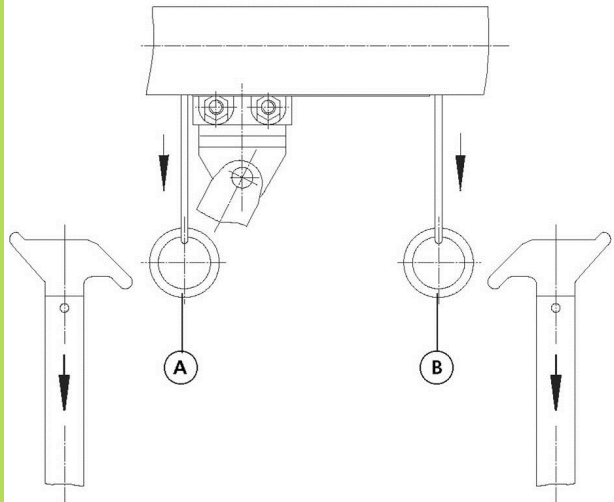
Pull cable (A) downwards and the door can be moved without the drive unit.



Attention:

If the sectional door is not balanced, the door link system is blocked and quick release is not possible.

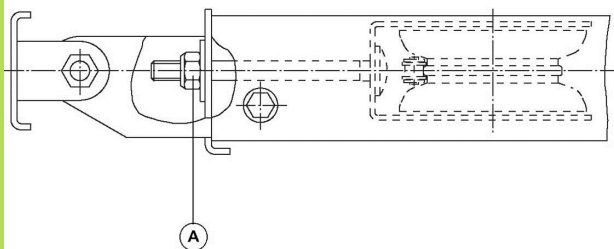
Pull cable (B) downwards and, once it has engaged, the door can be moved again with the drive.



9. Tension the drive chain

(whenever necessary)

The chain can be tensioned by rotating the hexagon head screw (A) in a clockwise direction.



10. Control

To connect the control, please refer to the appropriate separate instructions.

