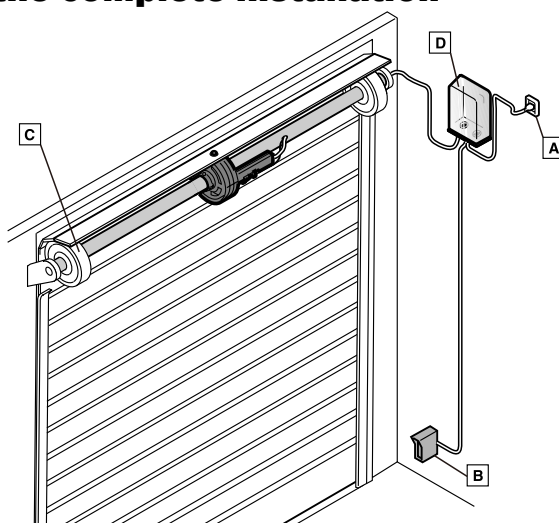
**WARNING**

1. Read And Follow All Installation Warnings And Instructions.
2. Disconnect electric power BEFORE installing or servicing the motor. A disconnecting device MUST be provided in the permanently-wired installation to guarantee all-pole disconnection by means of a switch (at least 3 mm contact gap) or by a separate fused line of adequate capacity. Operator MUST be properly grounded and connected in accordance with national and local electrical codes.

Elements of the complete installation

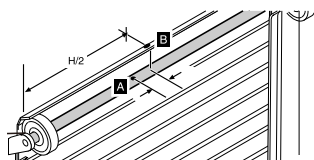
- A: Main power supply
B: Photocells (mirror)
C: Pulley
D: Operator

TECHNICAL SPECIFICATIONS

Model Number	ROLLING120	ROLLING150	ROLLING180	ROLLING280	ROLLING360	ROLLING420
Power Supply Voltage/Hz	230Vac-50Hz 110Vac-60Hz	230Vac-50Hz 110Vac-60Hz	230Vac-50Hz 110Vac-60Hz	230Vac-50Hz 110Vac-60Hz	230Vac-50Hz 110Vac-60Hz	230Vac-50Hz 110Vac-60Hz
Rated Current & Power	2.0 A 460 W (230V) 4.3 A 530 W (110V)	2.3 A 520 W (230V) 5.0 A 590 W (110V)	2.6 A 580 W (230V) 5.5 A 635 W (110V)	3.1 A 910 W (230V) 5.5 A 635 W (110V)	3.9 A 880 W (230V) 8.5 A 1100 W (110V)	4.5 A 1000 W (230V) 9.6 A 1140 W (110V)
Winding Flange Speed	10RPM (230V) 12RPM (110V)	10RPM (230V) 12RPM (110V)	10RPM (230V) 12RPM (110V)	10RPM (230V) 12RPM (110V)	8RPM (230V) 10RPM (110V)	8RPM (230V) 10RPM (110V)
Drive Torque	120N.m	150N.m	180N.m	280N.m	360N.m	420N.m
Lifting Capacity	150kg	160kg	200kg	200kg	300kg	360kg
Maximum Height	3.5m	3.5m	3.5m	3.5m	3.5m	3.5m
Shutter Shaft Diameter (Insert)	60mm (48mm)	60mm (48mm)	60mm (48mm)	60mm (48mm)	76mm (60mm)	76mm (60mm)
Flange/Drum Diameter	200mm/220mm	200mm/220mm	200mm/220mm	200mm/220mm	240mm/260mm	240mm/260mm
Operator Weight	8.5kg	9.0kg	10.5kg	10.5kg	14.6kg	15.1kg
Limit Switches	Electro-Mechanical	Electro-Mechanical	Electro-Mechanical	Electro-Mechanical	Electro-Mechanical	Electro-Mechanical
Runing Time	4 Minutes	4 Minutes	4 Minutes	4 Minutes	4 Minutes	4 Minutes

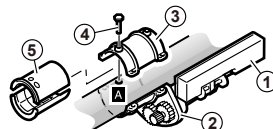
Assembly

1. Make the orifice (A), 10.5 mm in diameter, 5 cm from the centre of the shutter. Remember that the cover (1) of the limit switches must be accessible for connections and subsequent adjustments.

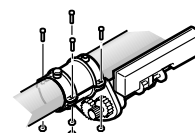


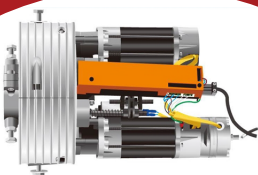
2. Place the two halves (2) and (3) of the operator on the shaft, ensuring that the screw (4) is inserted in the orifice (A).

If the diameter of the shutter shaft is less than 60 mm, position the adapter bushing (5).

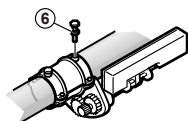


3. Fasten the two halves of the operator using the corresponding M8 screws. Use a 6 mm Allen key.

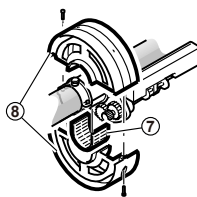




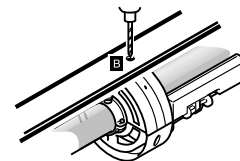
4. Adjust the operator to the shaft, locking it using the screw with nut (6).



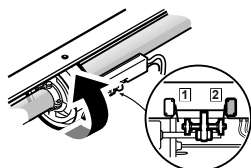
5. Position the roller bands (7) and the two semi-crowns (8) and secure them using the corresponding M8 screws.



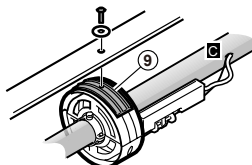
6. Position the final shutter slat and make the fastening orifice (B), 10.5 mm in diameter.



7. Move the cam by hand, bringing it up to the limit switch [2] (down). If the operator has been installed in opposite direction, the "down" limit switch is [1].

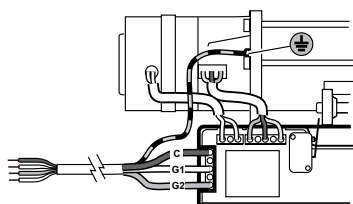


8. Fasten the slat on the crown using the screw and corresponding washer. Use the diameter adapter (9) if necessary.

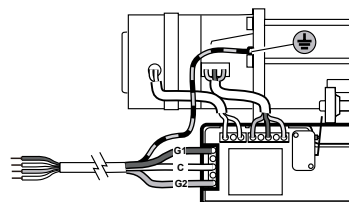


9. Make an orifice (C) in the shutter shaft in order to introduce the electrical cable, ensuring it does not come into contact with the moving parts.

Electrical connections



1. FOR: ROLL120 (230Vac)



2. FOR: ROLL120 (110Vac) ROLL150 (230/110Vac)
ROLL180 (230/110Vac) ROLL360 (230/110Vac)
ROLL420 (230/110Vac)

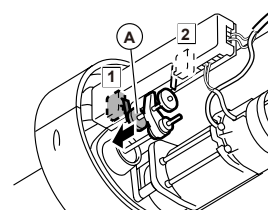
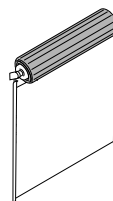
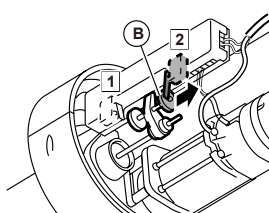
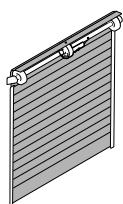
Limit switch adjustment

The limit switches are adjusted after assembling and completing the electrical connections.

The limit switch adjustment process is described below, taking into account that the operator has been installed in the same direction as described above. If it has been installed in the opposite direction, the procedure is the same but taking into account that the limit switch [2] is for opening and [1] for closing.

1. With the door in closed position, slide the adjustment knob (B) until the closing limit switch [2] runs.

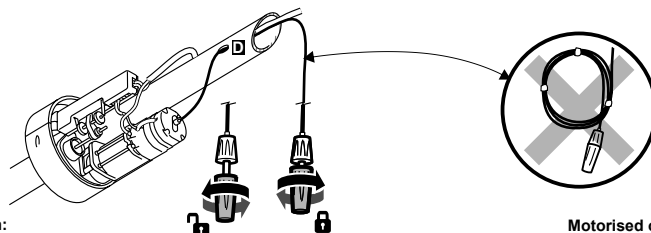
2. Using the electrical controls installed previously, open the door to its opening position. In this position, slide the adjustment knob (A) until the opening limit switch [1] runs.



Unlocking

1. If your operator is fitted with an unlocking mechanism, make an orifice (D) in the shutter shaft in order to pass through the unlocking cable.

2. Install the unlocking knob in an accessible place, ensuring the cable is taut.



Unlocking for manual operation:

Release the knob until the shutter can be moved manually.

Motorised operation locking:

Turn the knob until the operator becomes locked.