

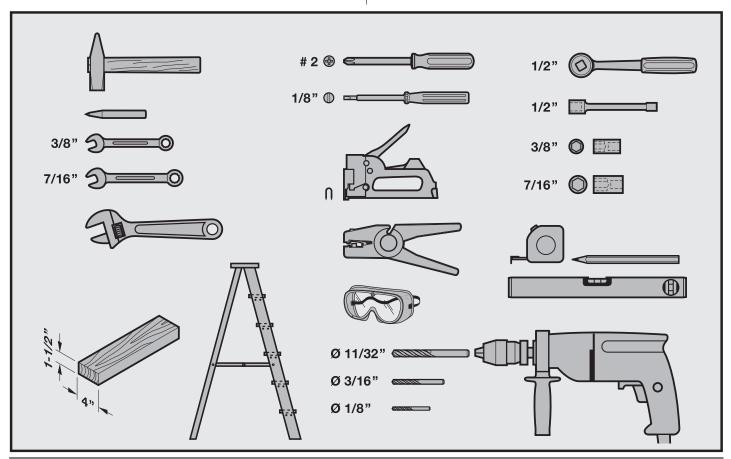


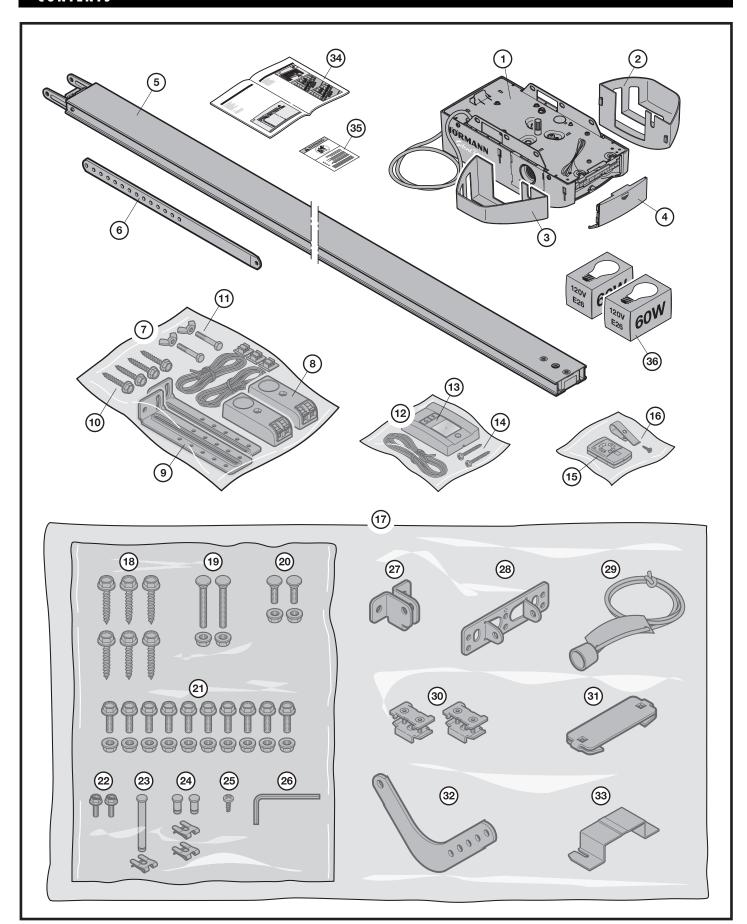
Installation Instructions & Owner's Manual Hörmann Garage Door Opener SilentDrive™ 5500/7500/8500 series

#### Dear Customer,

Congratulations on your purchase of a Hörmann SilentDrive™ garage door opener. It has been designed to provide years of trouble-free operation.

Please see the safety instructions on page 32 for the safe operation of your new garage door opener. Please keep this document for future reference. We kindly ask you to fill in the information required on page 45 and to have it available in case you need to call for assistance.





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IMPORTANT WARNINGS AND INSTRUCTIONS TO PREVENT INJURY OR DEATH APPEAR ON PAGES 5, 6 AND 32 OF THIS MANUAL, AND ELSEWHERE THROUGHOUT THIS MANUAL WHEN YOU SEE WARNING OR CAUTION!

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### **WARNING**

IMPORTANT SAFETY
NOTICE & INSTRUCTIONS
TO REDUCE THE RISK OF
DEATH OR SERIOUS INJURY

In recent years, death and injuries such as amputated fingers have been associated with the use of garage doors. Although enhanced safety design standards have been developed to reduce the risk of INJURY or DEATH, dangers still exist with the operation of garage doors, generally the largest piece of moving equipment in your house. TO REDUCE THE RISK OF DEATH OR SERIOUS INJURY, FOLLOW ALL INSTRUCTIONS IN THIS MANUAL AND ALWAYS DO THE FOLLOWING:

- Watch a moving door until it completely stops moving. Do
  not cross the path of a door in motion, and never let children
  play "beat the door". Do not let children play near a garage
  door when it is opening or closing.
- 2. Never put fingers between the sections of a garage door, and teach children to keep their hands and fingers clear of section joints, hinges, tracks, springs and other door parts.
- 3. Do not let children play with transmitters or remote controls, and place these items out of reach of children.
- 4. Never go under a stopped, partially open door.
- Keep garage doors properly balanced. Always have a professional service person make repairs to cables, spring assemblies and other hardware.
- 6. Test the automatic reversal monthly. The garage door MUST reverse on contact with a 1-1/2" high object (or a 2" by 4" board laid flat) on the floor. If the garage door does not reverse, adjust the reversal limit and retest the automatic reversal. Be careful when making adjustments because mis-adjustments can cause SERIOUS INJURY or DEATH.
- 7. Disconnect the electrical power/battery backup to the opener before making any repairs or removing the housing cover.
- 8. If possible, use the emergency release only when the door is closed. Be careful when using the release with the door open because weak or broken springs may allow the door to fall rapidly, which can cause SERIOUS INJURY or DEATH.
- Important safety and instruction labels are included in your opener package. The entrapment warning label should be applied very near to the wall control.

#### I INTRODUCTION

We kindly ask you and your installer to review and follow the enclosed instructions. They provide important information for installation, operation and maintenance of the garage door opener so that you will enjoy this product for many years.



#### **WARNING**

In order to reduce the risk of injury, this opener is to be used with residential sectional doors only.

#### **GENERAL**

The opener is **exclusively** intended for the electric operation of spring compensated sectional doors in residential applications. It is not designed or intended for commercial or industrial applications.

The opener is exclusively intended for professional installation. The warranty is void if the installer makes modifications to the opener without prior written approval from Hörmann.

Moreover, Hörmann assumes no liability for improper or negligent installation or operation, improper maintenance of the door, accessories or weight balancing of the door. Batteries and bulbs are excluded from warranty claims.

These instructions assume the installation of the opener to a standard steel sectional garage door.







This sign refers to a text paragraph like the following example:



= paragraph 2.1

#### INSTALLATION INSTRUCTIONS

#### IMPORTANT INSTALLATION INSTRUCTIONS



2.1

# WARNING

# In order to reduce the risk of SERIOUS INJURY or DEATH:

# - READ AND FOLLOW ALL INSTRUCTIONS PROVIDED!

- Install only on a properly balanced door. An improperly balanced door has the potential to inflict SEVERE INJURY or DEATH. Have a qualified service person make repairs to cables, spring assemblies, and other hardware before installing the opener!
- Remove all ropes and remove or make inoperative all locks connected to the garage door before installing opener!
- Where possible, install the opener 7 ft or more above the floor. For products having an emergency release, mount the emergency release approx. 6 ft above the floor!
- Do not connect the opener to source of power until instructed to do so!
- Locate the control button:
  - · within sight of door
  - at a minimum height of 5 ft out of reach of small children
  - · away from all moving parts of the door
- Install the entrapment warning label next to the control button in a prominent location. Use staple gun to secure label to surfaces to which the adhesive will not adhere.
  - Install the Emergency Release Marking. Attach the marking on or next to the emergency release!
- This opener is to be used with residential sectional doors only.
- To avoid damage to the garage door and opener, disable locks before installing and operating the opener.

- Prior to installation check for and avoid any damaging of covered electrical, gas or water lines in the walls or ceilings.
- The installation kit (part no. 17) contains small parts which could present a choking hazard to children younger than three years old. Parental supervision is strongly suggested.
- The plastic wrap surrounding the opener and opener head is not a toy and should not be placed on or over the head. Playing with the plastic wrap could result in SERIOUS INJURY or DEATH. Keep all plastic bags and wrap away from children.
- The garage ceiling must be designed so that a secure fastening of the opener is guaranteed.
   The installer must ensure that the opener is firmly attached to the garage structure. Do not attach to gypsum or plaster ceilings.
- The enclosed emergency release rope must be installed at an easy to reach height – Fig. 6. Check the emergency release to ensure operation with only moderate force required.
- Do not use the emergency release rope to open or close the door.
- Do not allow anyone to yank or suspend themselves on the emergency release rope. Serious bodily injury or unit damage may result.
- Check the function of all safety devices (safety beam, emergency release, automatic reversal) – (refer to 3.11).
- After installing the opener, the door must reverse upon contact with a 1-1/2" high object or a 2" by 4" board laid flat on the floor!

#### **WORK SAFELY.**

ALWAYS wear appropriate safety protection when using any tools.

For garages without a second access an additional emergency release is necessary to prevent a possible lock out.

#### 2.2 Prior to installation

#### Control of the door and the door assembly

Manually lift the garage door to waist level. The door should remain in this partially opened position. If the door moves in either direction there is a danger that the springs are worn or improperly balanced. This may lead to increased wear and malfunction of the door and opener equipment – **Fig. 1**.

#### Remark

The door must be in good working order prior to installing the opener. Contact a qualified service person to inspect or repair the door.



#### **WARNING**

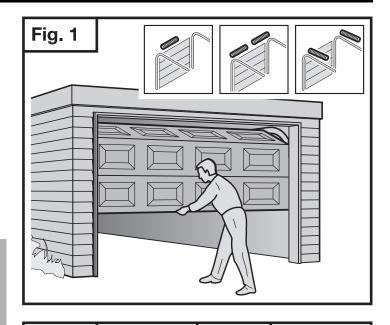
DANGER OF LIFE.

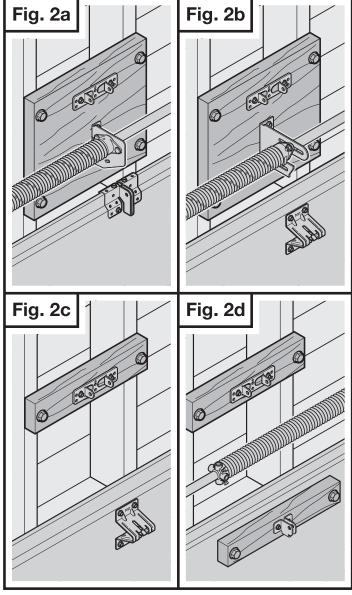
Do not try to change, adjust, repair or shift the balancing springs of the door. They are under high tension and can cause SERIOUS INJURY or DEATH.

In addition, check the door assembly (hinges, bearings, cables, springs and mounting hardware) for wear and possible damage. Please check, if there are rust, corrosion or cracks. Do not operate the door during repair or adjustment work.

#### 2.3 Special attention to the top section of the door

In order to avoid damage to the garage door by frequent operation, reinforcement may be necessary. Give special attention to the top section of the door where the door bracket is located – example **Fig. 2a, 2b, 2c and Fig. 2d**. If necessary, reinforcement brackets should brace both horizontally and vertically allowing the opener to be mounted in the middle of the door and in line with the top rollers.





#### 2.4 Installation of the garage door opener



#### **CAUTION!**

- The opener must not be directly exposed to the weather.
- Incorrect or improper installation could lead to serious damage to persons and objects.
- For heavy doors additional bracing of the opener rail may be necessary.
- During installation ensure that dust or dirt do not enter the opener.
- The installer of the garage door opener must adhere to all applicable current codes and follow the applicable electrical installation instruction.

Open the opener box and ensure that all pieces required are present – refer to contents (page 3 and page 4).

#### 2.4.1 Space requirements for the opener installation

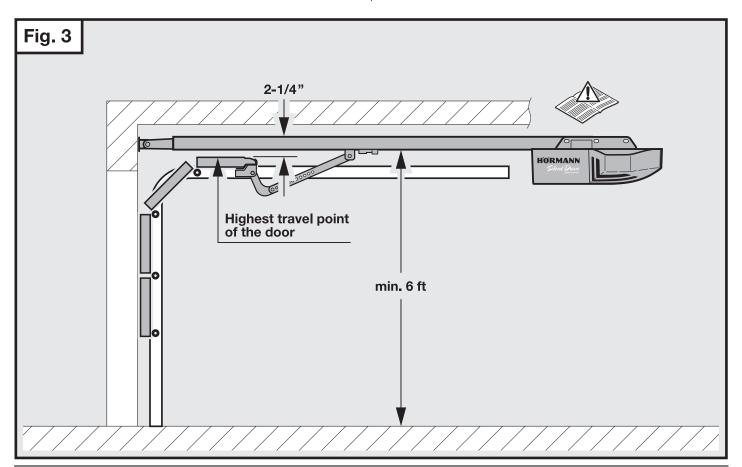
In order to be able to install the opener, the space between the highest point of the door travel and the ceiling  $\mathbf{must}$  be 2-1/4" –  $\mathbf{Fig. 3}$ .



#### **CAUTION!**

Ensure that you DO NOT place flammable or combustible materials near or in direct contact with the opener, or bulbs or lamp houses.

The guide rail must be installed at a minimum height of 6 ft from the floor of the garage. To ensure optimum performance, the opener must be installed as close as possible to the middle of the door in line with the top rollers.

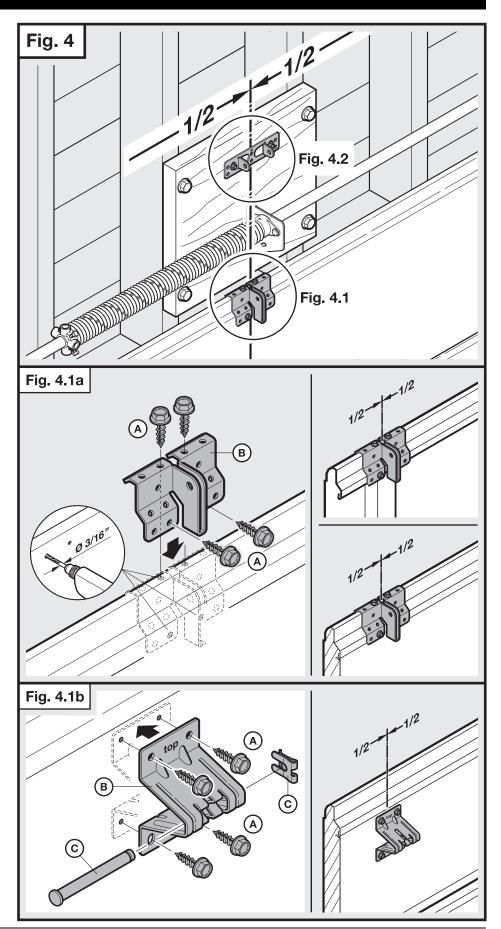


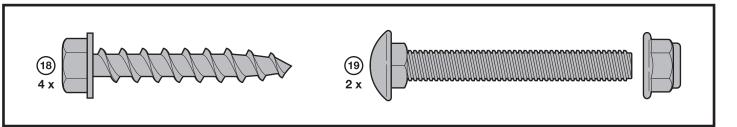
#### 2.4.2 Mechanical Installation

Manually close the door. Install the door bracket onto the door. The bracket should be located in the middle of the door and in line with the top rollers.

Fig. 4.1a and Fig. 4.1b for installation on Hörmann sectional doors.

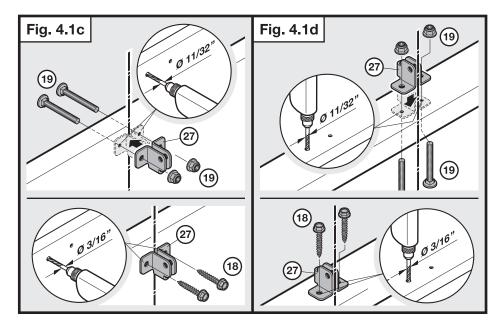
The pin and clip ②, the door bracket ③ and the screws ④ are provided with Hörmann sectional doors and are not included in opener package.





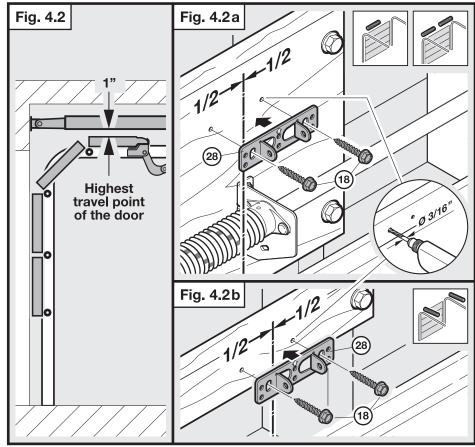
# 2.4.2 Mechanical Installation (continued) With a garage door other than a Hörmann door, install the door bracket (part 27) provided with the opener.

Contact your garage door manufacturer about reinforcement requirements of your door.



Install the front mounting bracket (part 28 – Fig. 4.2a and Fig. 4.2b)

1" above the highest travel point of the door – Fig. 4.2.



2.4.2 Mechanical Installation (continued)
Unpack the guide rail (part 5) and connect the emergency release rope (part 29) to the trolley as shown
- Fig. 5.3.

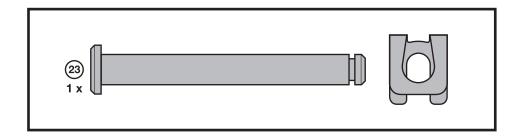
#### Before fitting the rail

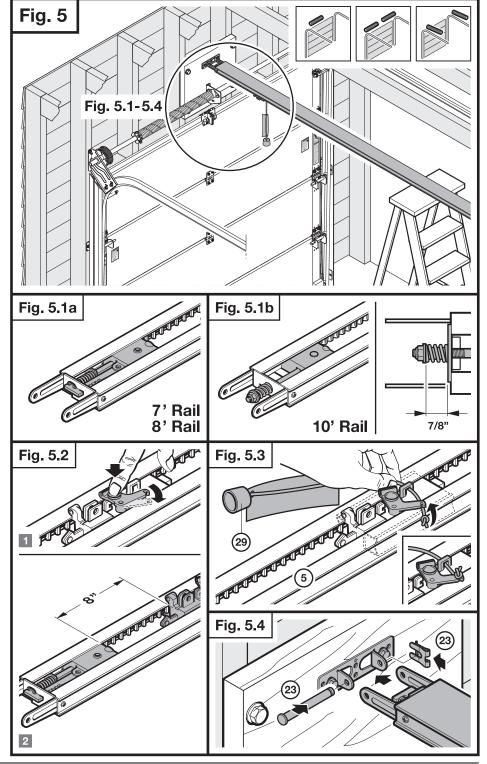
#### Note:

Before fitting the rail: push the clutched trolley in the rail approx. 8" toward the 'door open' position. The clutched trolley can only be moved manually as long as the fixed stops and opener head have not been mounted.

The trolley can be disengaged by pulling the emergency release rope. To engage the trolley to the belt, push the green button.

Fix the front of the guide rail to the front mounting bracket with the pin and clip (part 23) – Fig. 5.4.





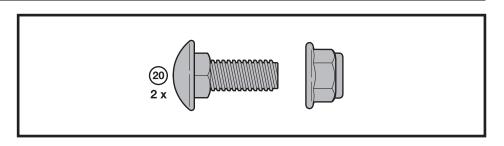
# **2.4.2 Mechanical Installation** (continued) Support the rear of the guide rail with the opening of the rail facing down.

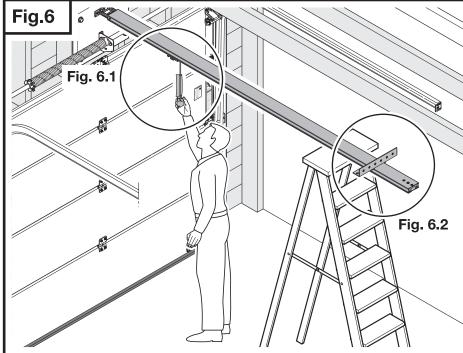
Slide the rear mounting bracket (part 31) onto the guide rail. Securely fix the rear mounting bracket to the guide rail and horizontal punched angle with carriage bolts and hex nuts (part 20).

#### Note:

Punched angle brackets are **not included**.

The rear mounting bracket should be located min. 9-1/4" and max. 12" from the end of the guide rail – **Fig. 6.2**.





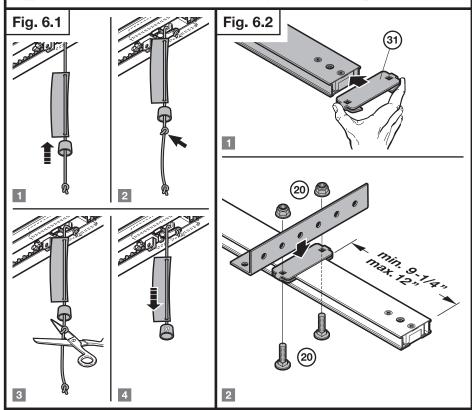


### **WARNING**

Where possible, install the opener 7 ft or more above the floor. For products having an emergency release, mount the emergency release approx. 6 ft above the floor!

The enclosed emergency release rope must be installed at an easy to reach height – Fig. 6. Check the emergency release to ensure operation with only moderate force required.

Do not use the emergency release rope to open or close the door.



# **2.4.2 Mechanical Installation** (continued) Mount the rear of the guide rail firmly to the garage structure.

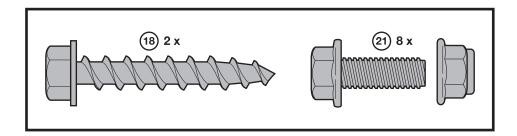
Examples: **Fig. 7a-7d**.

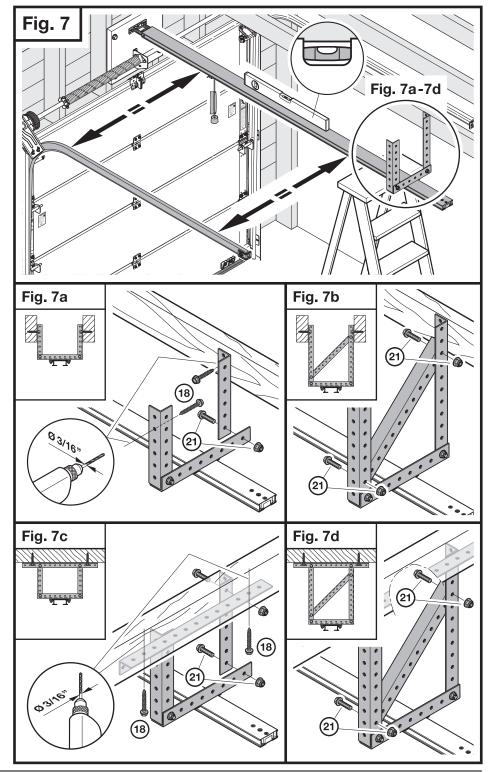
Ensure that the guide rail is perpendicular to the front of the garage and parallel to the floor – **Fig. 7**.

#### Note:

Fasteners (part 18 and part 21) are included but punched angle brackets or mounting straps are not included.

An additional suspension might be required if the opener is fitted in a position substantially lower than ceiling height – **Fig. 7b and Fig. 7d.** 



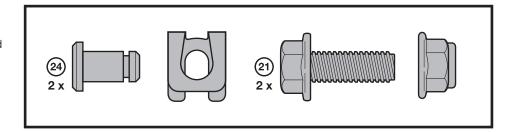


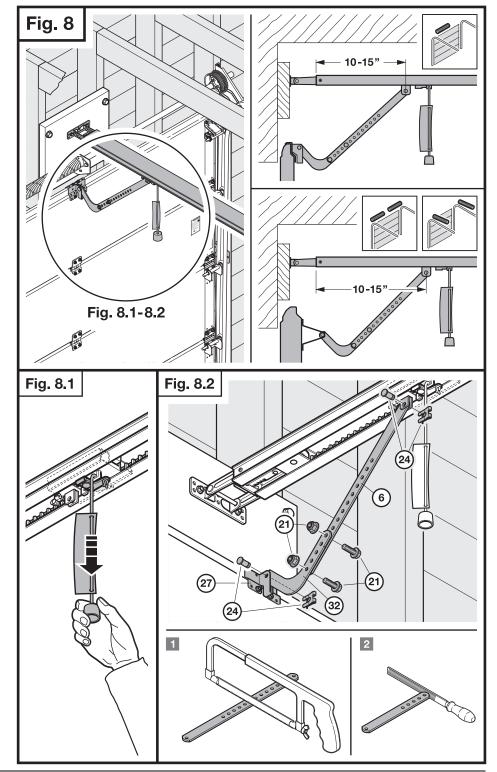
# 2.4.2 Mechanical Installation (continued) Pull the emergency release rope and disconnect the trolley from the toothed belt in the guide rail – Fig. 8.1.

Connect the straight bar (part 6) with the trolley using the pin and clip (part 24). Slide the trolley forward and connect the curved bar (part 32) to the door bracket (part 27) using the pin and clip (part 24). Connect the two sections of the bar assembly using the shoulder bolts and hex nuts (part 21) – Fig. 8.2. Ensure that the bar assembly is mounted as shown in Fig. 8.

#### Note:

The straight bar **(part 6)** can be shortened if necessary.
Apply protection against corrosion on the shortened end.

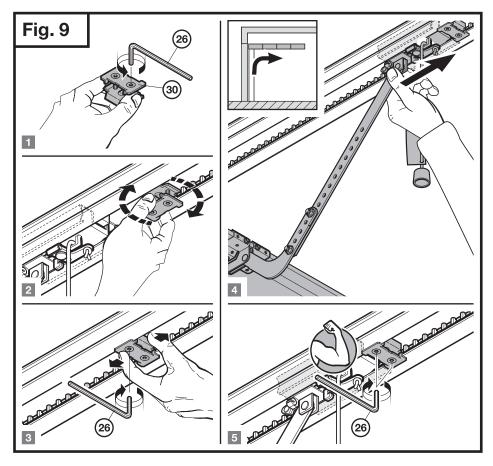


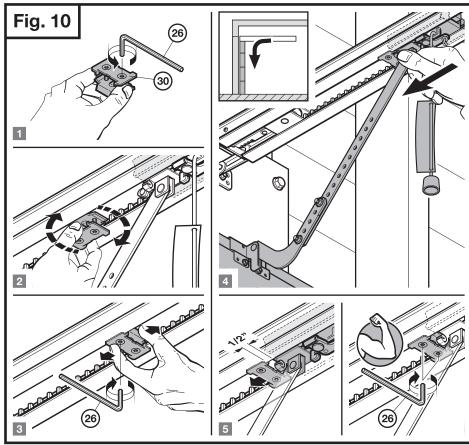


# 2.4.2 Mechanical Installation (continued) Loosely install the fixed stops (part 30) in the guide rail with one fixed stop in front of the trolley and one behind Fig. 9 and Fig. 10.

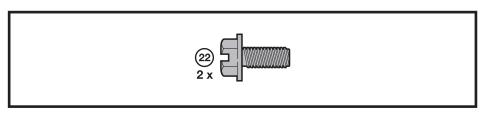
Open the door to the fully open position. Slide the rear fixed stop directly behind the trolley and securely tighten the screws – **Fig. 9**.

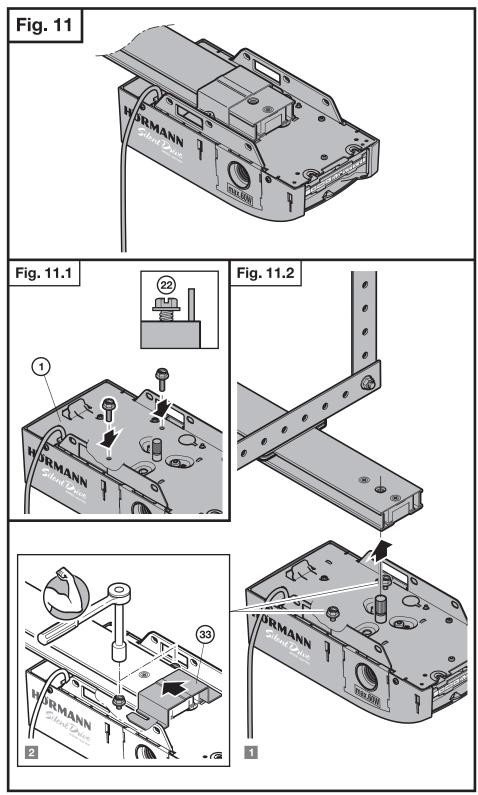
Close the door and slide the forward fixed stop in front of the trolley. Move the trolley by hand to the fully closed position of the door. Slide the fixed stop 1/2" from the trolley away and securely tighten the screws – **Fig. 10**.





# 2.4.2 Mechanical Installation (continued) Loosely insert shoulder bolts with slot (part 22) for the half length into the opener chassis – Fig. 11.1. Slide the spline shaft of the opener head into the guide rail – Fig. 11.2. Place the opener mounting bracket (part 33) on top of the guide rail. Slide the opener mounting bracket under the shoulder bolts and tighten them – Fig. 11.2.



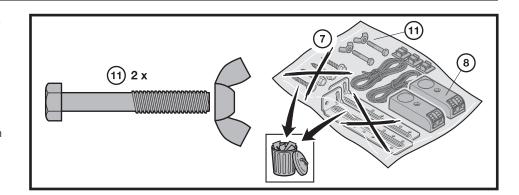


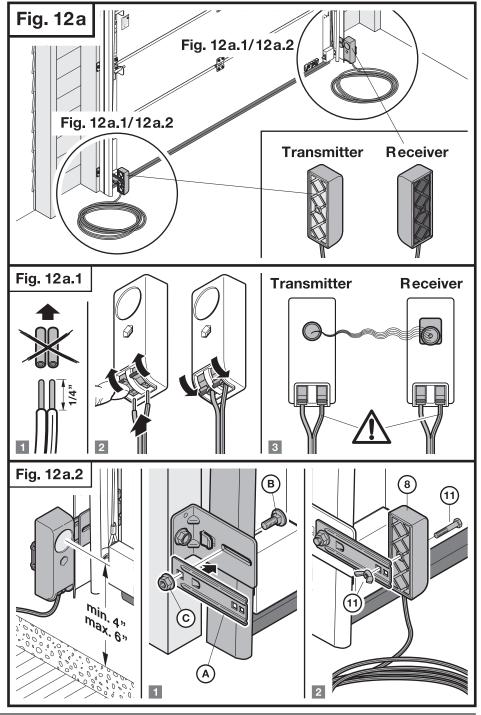
# 2.5 Installation and connection of the safety beam and the wall control

## 2.5.1 Installation and connection of safety beam EL 101

On a Hörmann sectional door the safety beam should be fixed to the side tracks of the door. Position them at least 4" and max. 6" above the garage floor – Fig. 12a.2. Install the transmitter and receiver (parts 8) of the safety beam vertically – with the cable outlet facing downwards.

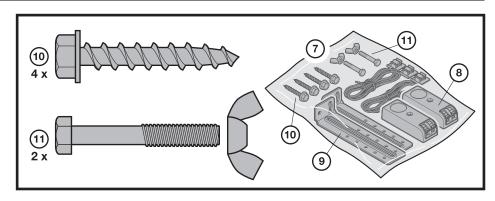
The brackets (A), screws (B) and nuts (C) are provided with Hörmann sectional doors and are not included in opener package.

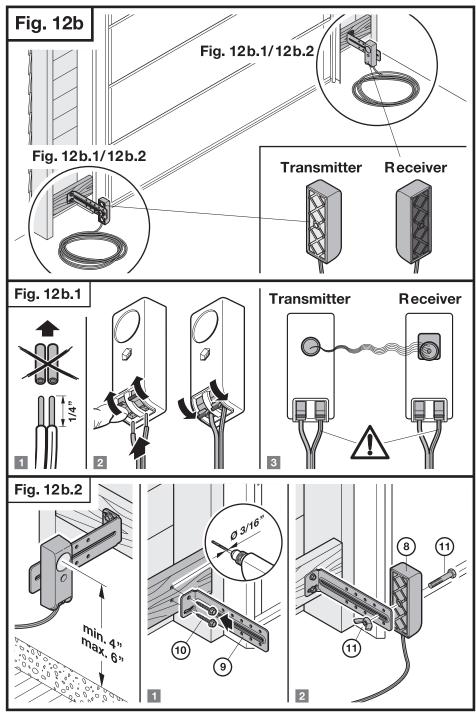




# 2.5.1 Installation and connection of safety beam EL 101 (continued) With a garage door other than a Hörmann door, fix the safety beam to the walls of the garage using the enclosed brackets (part 9). They have to be securely installed as shown in Fig. 12b.2, in a height of min. 4" and max. 6" from the garage floor. Install the transmitter and receiver (parts 8) of the safety beam vertically – with the cable

outlet downwards.





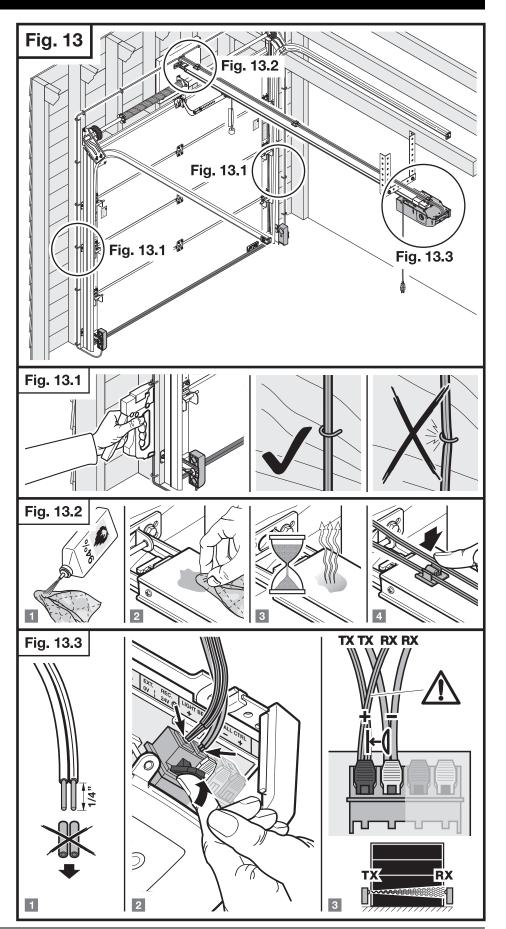
# 2.5.1 Installation and connection of safety beam EL 101 (continued)

#### Remark

Route the cables away from any line voltage components, wires and cables that may exist on site. Use a staple gun to attach the cables of the transmitter and the receiver – **Fig. 13.1**. Do not use the staple gun for power cords and antennas. Make sure that the staples leave sufficient space for the cable in order to prevent cable damage.

#### Note:

All connection terminals can be occupied several times, but not more than 1 x 15 AWG (1 x 1.5 mm²).



# 2.5.2 Installation and connection of the wall control PB 3



#### **WARNING**

- All wall controls are to be firmly mounted in sight of the door but away from any moving parts!
- All wall controls are to be mounted out of reach of children (minimum 5 ft height)!

#### Remark

Route the cable away from any line voltage components, wires and cables that may exist on site. Use a staple gun to attach the cable of the wall control – **Fig. 14.1**. Do not use the staple gun for power cords and antennas. Make sure that the staples leave sufficient space for the cable in order to prevent cable damage.

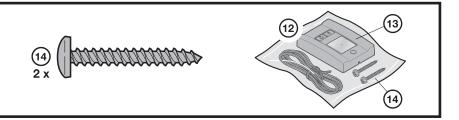
#### Note:

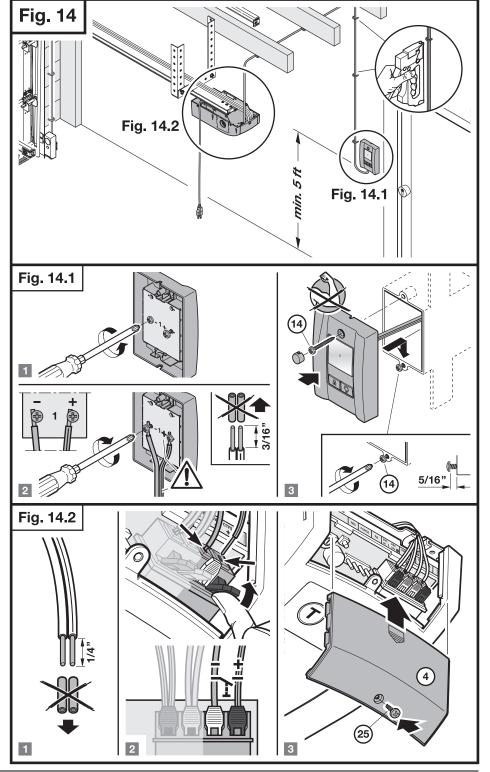
All connection terminals can be occupied several times, but not more than 1 x 15 AWG (1 x 1.5 mm²).

Mount the face plate (part 4) on the opener using fillister head screw (part 25).

#### Note:

Up to three wall controls PB 3 can be connected.





# 2.6 Installation of the lamp houses and bulbs

Install the lamp houses (part 2 and part 3) and bulbs as shown in Fig. 15.



#### CAUTION!

Do not use any bulbs with more than 60 W and do not use any other type of bulb as the one we have recommended. If stronger or larger bulbs are used, the opener might be damaged or catch fire.

#### Technical data of bulbs

Type of bulb: **standard** 

household bulb

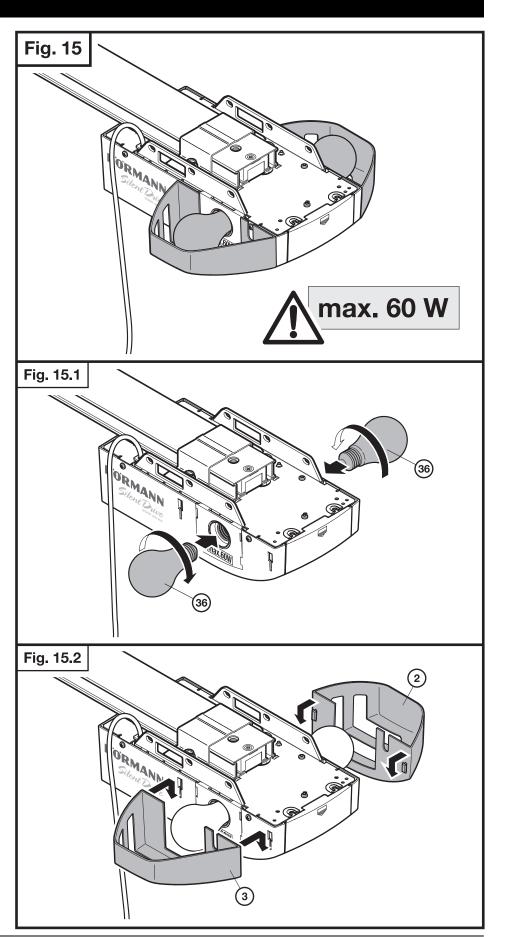
Bulb base: **E26**Voltage: **120 V**Max. wattage: **60 W** 



#### **CAUTION!**

Do not use any energy-saving lamps, specially no CFL.

Refer to 2.4.1 **A** CAUTION!



#### 2.7 Application of warning signs



#### **WARNING**

The enclosed warning signs are to be mounted in an eye-catching location (near wall control) as shown on Fig. 16. Use staple gun to secure label to surfaces to which the adhesive will not adhere - Fig. 16.2.

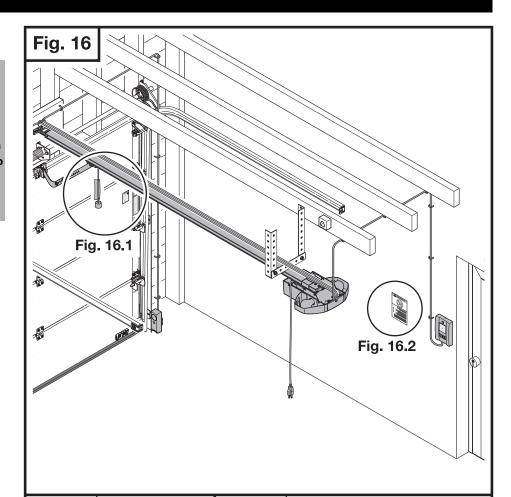


Fig. 16.1

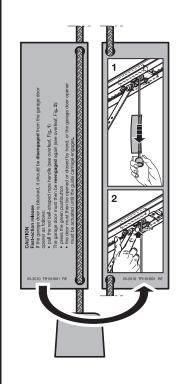


Fig. 16.2

# **AWARNING**



CHILD may become trapped under automatic garage door resulting in **SERIOUS INJURY OR DEATH.** 

- Never allow children to walk or run under moving door.
- Never allow children to use door opener controls.
- Always keep moving door within sight.
- If person is trapped under door, push wall control button or use emergency release.
- Test door opener monthly (Refer to your Owner's Manual).
   Place 1-1/2 inch object for 2" x 4" laid flat) on floor under the closing door.
   If door falls to reverse within 2 seconds of contact, have opener adjusted.
   If opener still falls to reverse door, repair or replace opener.

DO NOT REMOVE, COVER OR PAINT OVER THIS LABEL. Place This Label Next to Wall Control. Mount Wall Control out of Child's Reach (at least 5 ft above floor).

#### 2.8 Power connection of the opener



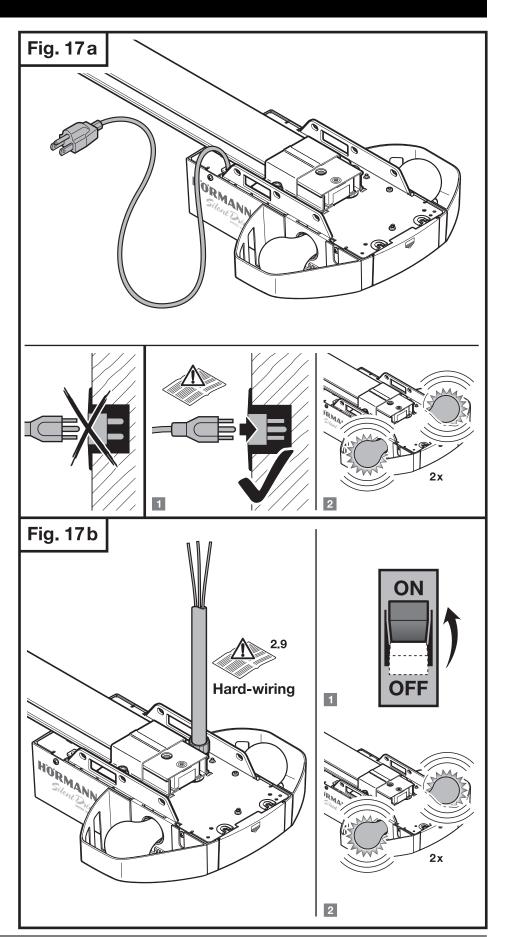
#### **CAUTION!**

- Electrical connection must be made by qualified personnel only!
- Only connect to 120 V AC 60 Hz grounded source of power!
- Disconnect the power/battery backup prior to working on the opener!
- Improper electrical supply can damage the opener!

Once all of the above instructions have been completed the opener can be connected to the source of power:

- Plug the opener into a grounded socket – Fig. 17a.
   or
- Activate the automatic circuit breaker in case of hard-wired units
   Fig. 17b (refer to 2.9).

If the opener is not learned, the opener light flashes twice when the opener is powered on.



#### 2.9 Hard-wiring



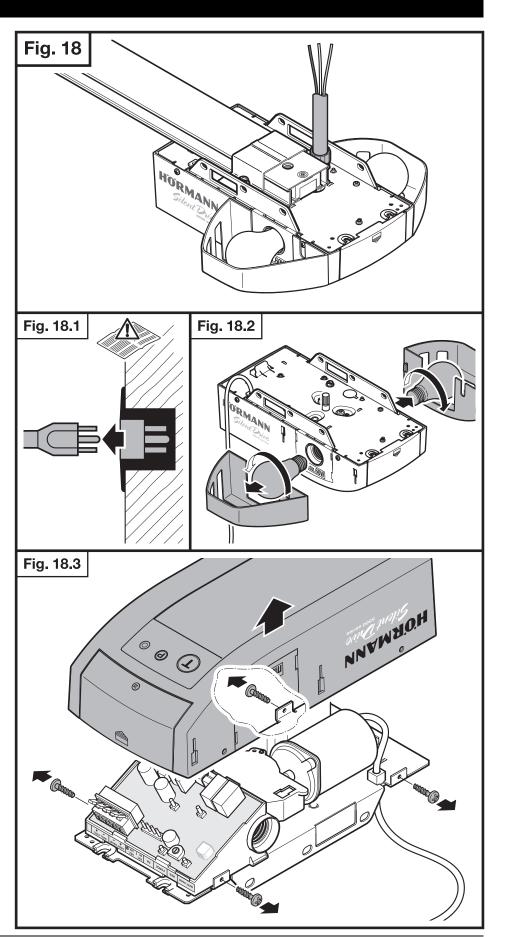
#### **CAUTION!**

- Disconnect the power/battery backup prior to working on the opener!
- Electrical connections must be made by qualified personnel only!
- Only connect to 120 V AC 60Hz grounded source of power!
- Improper electrical supply can damage the opener!

The opener can be hard-wired to an existing electrical circuit.

Procedure for the installation:

- Disconnect the main power at the source (automatic circuit breaker or fuse)/battery backup
- 2. Remove the bulbs Fig. 18.2.
- 3. Remove the cover **Fig. 18.3**.



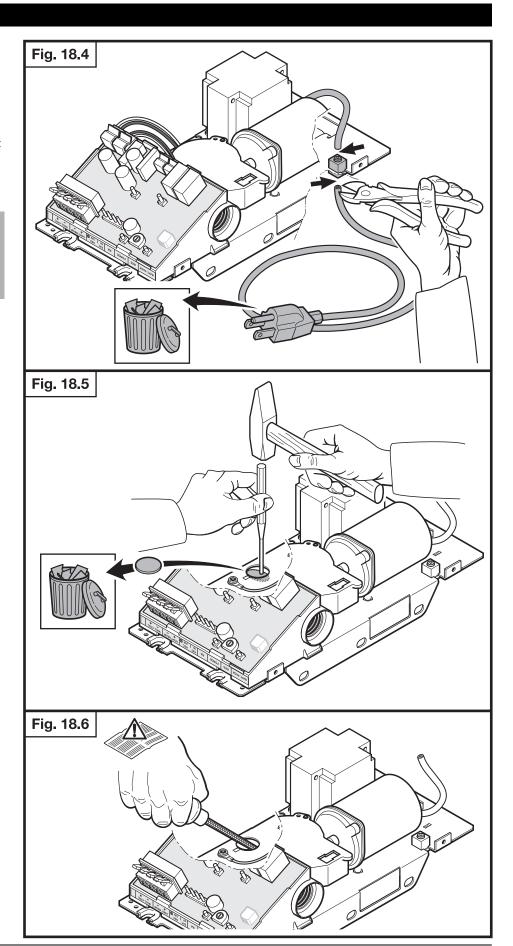
#### **2.9** Hard-wiring (continued)

- Cut the power cord flush at both sides of the strain relief bushing.
   The strain relief shall remain in the opener chassis – Fig. 18.4.
- Remove the prepunched knock-out from inside the opener – Fig. 18.5.
   Put protection against corrosion on the broken edges.



#### CAUTION!

Never use electrically conductive protection against corrosion (e.g. zinc spray out of an aerosol can). Danger for electric parts.



#### **2.9** Hard-wiring (continued)

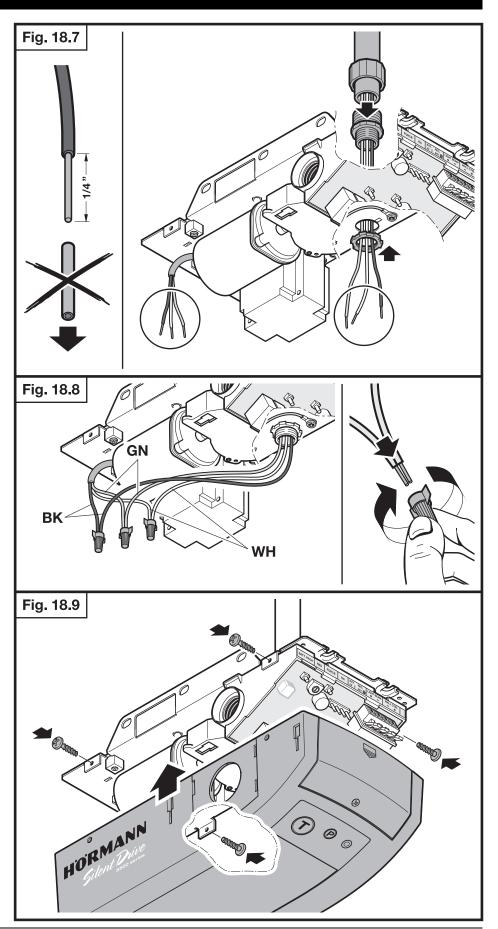
 Feed the mains conductors through the hole using a suitable UL listed strain relief bushing – Fig. 18.7.
 Connect the mains conductors directly to the opener connections using UL listed wire-nuts®
 Fig. 18.8.

#### Note:

The strain relief, bushing and wire-nuts® are **not included** in the pack.

wire-nut® is a registered trademark of **Ideal Industries, Inc.** 

7. Reinstall the cover - Fig. 18.9.



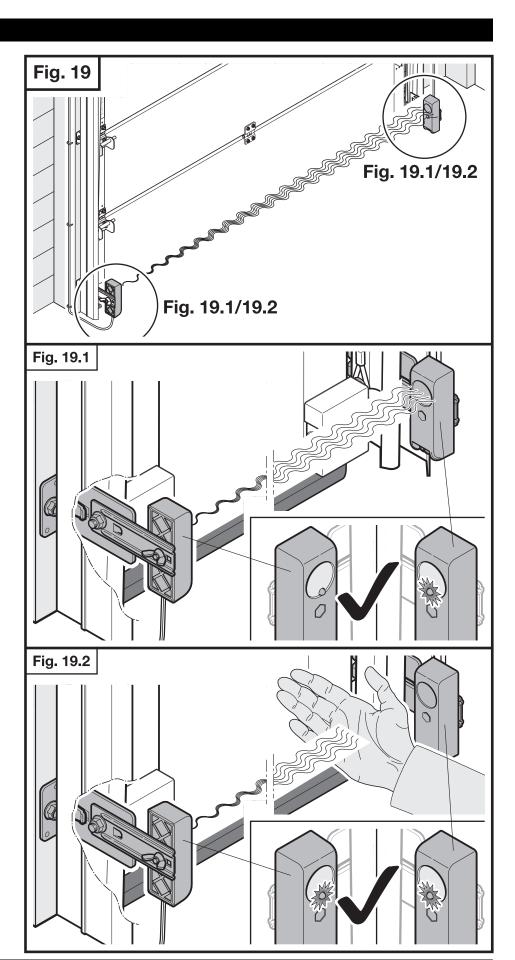
#### 2.10 Alignment of safety beam

Once the opener is connected to the power supply check and align the safety beam. When properly aligned the red LED will turn off – **Fig. 19.2**. The orange LED will remain lit

- Fig. 19.1.

The safety beam is properly aligned when the orange LED lits and the red LED turns off.

In case the safety beam does not reach the receiver, the orange LED remains lit and the red LED will turn on.



# 2.11 Adjustment and learning process of the opener

Push the green button on the trolley. Manually lift the door until the trolley engages the toothed belt – **Fig. 20**.



#### **CAUTION!**

Make sure the trolley is engaged prior to proceeding (you should not be able to move the door manually).

The opener is now ready for learning. To ensure proper operation several cycles are required. During these cycles the opener automatically learns and adjusts the travel and force limits for optimal performance.

#### Note:

During the learning process the safety beam is operating.

Be careful not to break the path of the safety beam.

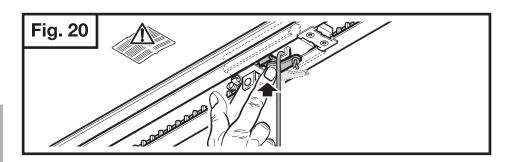
- 1 Press the large T-button Fig. 21. This actuates the following door cycles:
- 2 The door opens completely, then closes completely. This cycle learns the end-of-travel limits.
- The door opens completely, then closes completely. This cycle learns the forces limits.
- 4 The door opens completely.

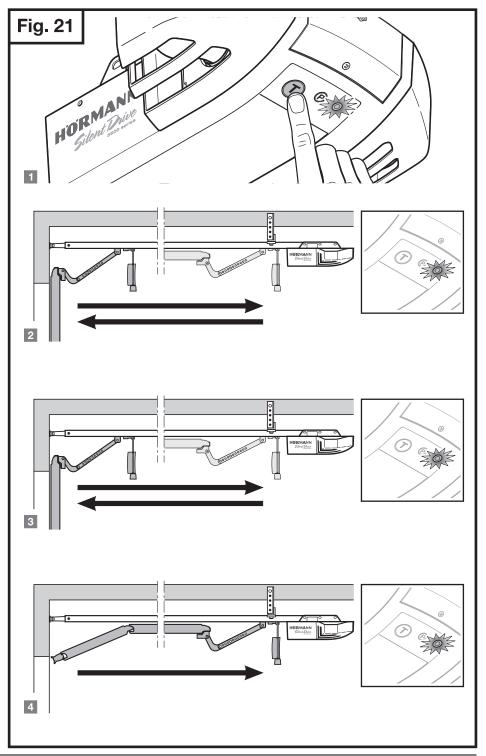
#### Note:

This learning process can always be interrupted by pressing the T- or the wall button. Pressing one of these buttons again will reset the opener and you can restart the learning process as described above.

The opener constantly checks the forces required for the door operation and adjusts them if necessary.

Proceed with 2.12.





#### 2.12 Adjustment of reversal limit

#### Note:

The reversal limit can only be adjusted after the opener has finished the learning cycles.

After the opener has finished the learning cycles the reversing limit is set to a medium setting. To adjust the reversing limit you have to open the door.

Place a suitable object on the floor in the middle of the door which has the height at which you want the door to reverse. Start the process by pressing the RA button for approx. 3 seconds. The LED switches off while you hold the button.

#### Remark

If no object is used the lowest reversal limit is set.

The door opens to the fully open position. Afterwards the door closes and reverses when touching the object placed on the floor. Then the door opens again. The opener has now stored the new reversal limit and is ready for normal use.

#### Note:

Should this process be interrupted by pressing a button the opener will return to normal operation immediately.

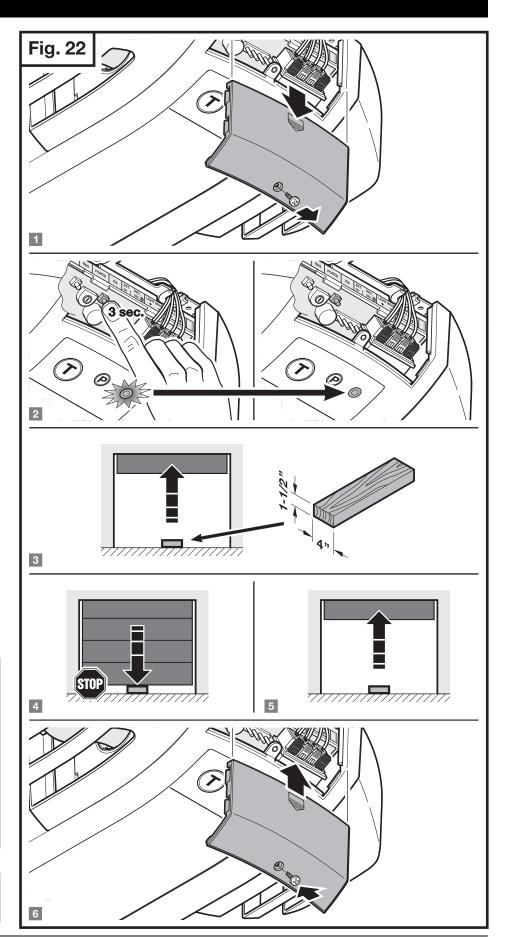


#### **WARNING**



Always test the opener after any adjusting.
Failure to adjust the opener properly increases the risk of SEVERE INJURY or DEATH. The garage door MUST reverse on contact with a 1-1/2" high object (or a 2" by 4" board laid flat) on the floor.

THE OPENER IS NOW READY FOR USE.



After the test cycles have been completed the fixed stops have to be securely fastened. The toothed drive belt in the guide rail has been preset at the factory to the optimal tension. During operation (in the accelerating or braking phase) it is possible that the belt will hang out of the guide rail for a short moment. This might happen on very heavy doors and does not affect the normal function or service life of the opener.



## **WARNING**



- No person or obstacle should disturb the door's range of travel. SERIOUS INJURY can result!
- DO NOT place your fingers into the guide rail while the door is moving. SERIOUS INJURY can result!
- After any adjustment, you shall check proper function of the "reversal upon obstacle" function. The garage door MUST reverse on contact with a 1-1/2" high object (or a 2" by 4" board laid flat) on the floor.

The opener works with factory settings. Usually no changes of the settings are necessary.



THE INSTALLATION IS NOW COMPLETE.

#### 2.13 Adjustment of closing-force

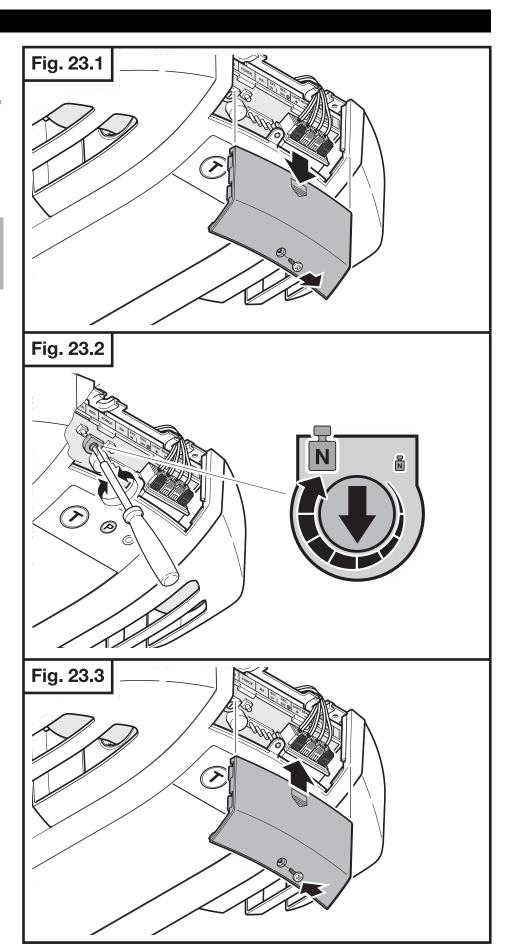
The closing-force is in effect after the reversal limit in direction door closed. In case of an uneven floor it is possible to adjust the closing-force by the **FORCE** potentiometer – **Fig. 23.2**.

The opener constantly checks the forces required for the door operation and adjusts them if necessary.



#### **CAUTION: Danger of life!**

Setting the forces to an unneeded high limit may cause severe damage to persons or property.



3.1

#### IMPORTANT SAFETY INSTRUCTIONS



## WARNING

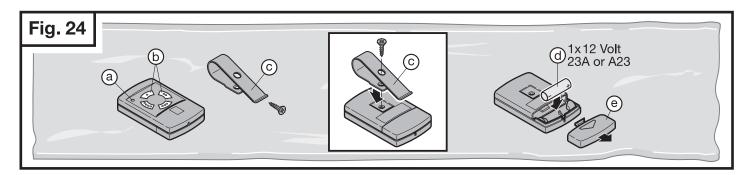
# In order to reduce the risk of SERIOUS INJURY or DEATH:

# - READ AND FOLLOW ALL INSTRUCTIONS PROVIDED!

- NEVER let children operate or play with door controls.
   Keep the remote control away from children!
- Never operate the garage door if there are persons or obstructions in the way of door travel.
- Always keep the moving door in sight and away from people and objects until it is completely closed. NO ONE SHOULD CROSS THE PATH OF THE MOVING DOOR!
- NEVER GO UNDER A STOPPED, PARTIALLY OPEN DOOR!
- Test the automatic reversal monthly. The garage door MUST reverse on contact with a 1-1/2" high object (or a 2" by 4" board laid flat) on the floor. If the garage door does not reverse, adjust the reversal limit and retest the automatic reversal. Be careful when making adjustments because mis-adjustments can cause SERIOUS INJURY or DEATH.
- For products having an emergency release, when possible, use the emergency release only when the door is closed. Use caution when using this release with the door open. Weak or broken springs are capable of increasing the rate of door closure and increasing the risk of SEVERE INJURY or DEATH!
- KEEP GARAGE DOORS PROPERLY BALANCED.
   See owner's manual. An improperly balanced door increases the risk of SEVERE INJURY or DEATH.
   Have a qualified service person make repairs to cables, spring assemblies, and other hardware!
- Do not let children operate or play with or near the opener equipment.

- Do not block the path of the door.
- Ensure that the emergency release rope is within easy reach.
- Ensure that the emergency release rope does not become entangled with car roof racks or other projections.
- Do not use the emergency release rope to open or close the door.
- Do not allow anyone to yank or suspend themselves on the emergency release rope. SERIOUS INJURY or unit damage may result.
- Check the function of the opener on a monthly basis.
- Check the function of all safety devices (safety beam, emergency release, automatic reversal) on a monthly basis (refer to 3.11).
- Contact a qualified service person if your opener fails to perform any of the safety checks.
- The complete door assembly (hinges, rollers, bearings, springs and hardware) must be checked routinely for wear.
- Do not touch the bulbs or the lamp housing during the lighting and even after the lighting, when the bulbs are cooling down – there is a risk of INJURY.
- Do not put anything onto the bulbs or the lamp housings there is a risk of fire.
- For repairs or adjustments please contact a qualified service person.

#### - SAVE THESE INSTRUCTIONS!



USA: FCC ID: PZI-315HSHE Canada: IC: 4205A-315HSHE

This device complies with Part 15 of the FCC Rules and with RSS-210 of Industry Canada.

Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.



#### **CAUTION!**

Changes or modifications made to this equipment not expressly approved by Hörmann may void the FCC authorization to operate this equipment.

The radiated output power of hand transmitter HSM 4 with operating frequency 315 MHz is far below the FCC radio frequency exposure limits. Nevertheless, the operating frequency 315 MHz shall be used in such a manner that the potential for human contact during normal operation is minimized.

IC: before the equipment certification number signifies that the Industry Canada technical specifications were met. It does not guarantee that the certified product will operate to the user's satisfaction.

#### 3.2 Usage of remote control



#### **WARNING**

Keep hand transmitters well out of the reach of children.

Hand transmitters should only be used by persons who know how to operate the remote-controlled door. Only use the hand transmitter when the door is within your sight.



#### **WARNING**

Please note that unintended door cycles may occur if a hand transmitter button is accidentally pressed (e.g. if stored in a pocket/handbag).

Always program the remote control inside the garage and near the door opener.

- Make sure equipment is not exposed to direct sunlight.
- Protect the hand transmitter from damp and dust.

Negligence, in particular exposure to moisture, may impair functions.

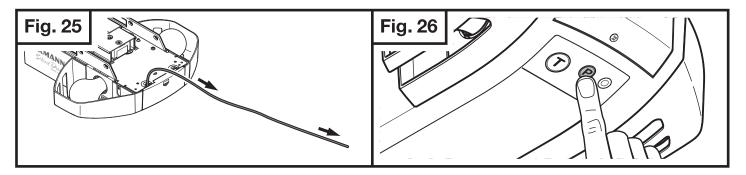
Temperature tolerance: -4 °F to +140 °F

#### Note

Local conditions can affect the range of the remote control.

#### HSM 4 hand transmitter - Fig. 24

- (a) LED
- (b) Control buttons
- (c) Visor clip
- (d) Battery
- (e) Battery compartment cover



#### 3.3 Integrated radio receiver

The integrated 2-channel radio receiver enables you to control 2 different functions separately. Channel 1 is for impulse operation: Open-Stop-Close-Stop. Channel 2 is for the opener light.

The integrated 2-channel radio receiver can store up to 12 different radio codes per channel. These radio codes are stored " $\mathbf{F}$ irst  $\mathbf{In} - \mathbf{F}$ irst  $\mathbf{Out}$ ": if all storage spaces have been used and an additional code is programmed, the first code will be deleted.

#### Note:

For transmitting the codes from the hand transmitter to the integrated receiver keep a distance of at least 3 ft between the two devices.

#### 3.4 Installation of the antenna - Optional

If an antenna is available, route it for a better reception as shown in **Fig. 25**.

#### 3.5 Programming the radio code - Fig. 26

#### 3.5.1 Programming for channel 1 (door control):

- 1. Briefly press and release the "P" button (programming button) on the opener once the LED starts to flash slowly.
- 2. Press the button you wish to use on the hand transmitter for at least 1 second.

#### Note:

The distance between the transmitter and the radio receiver should be at least 3 ft.

- 3. Once the programming has been completed, the LED on the opener starts flashing rapidly.
- 4. Release the button on the hand transmitter. Once the flashing stops, the integrated radio receiver is ready for operation. Test the function.

#### Note:

If programming is not carried out within 20 seconds of pressing the "P" button, the LED on the opener will stop flashing.

#### 3.5.2 Programming for channel 2 (opener light):

- 1. Press and release the "P" button (programming button) on the opener twice the LED starts to flash (double flash).
- Press the button you wish to use on the hand transmitter for at least 1 second.

#### Note:

The distance between the transmitter and the radio receiver should be at least 3 ft.

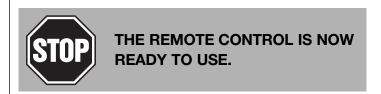
- Once the programming has been completed, the LED on the opener starts flashing rapidly.
- 4. Release the button on the hand transmitter. Once the flashing stops, the integrated radio receiver is ready for operation. Test the function.

#### Note:

If programming is not carried out within 20 seconds of pressing the "P" button, the LED on the opener will stop flashing.

#### Note

Always check the function and programming of hand transmitters from inside the garage.



#### 3.6 Deleting radio codes

You cannot delete individual radio codes. If you have to delete a radio code you will have to delete all codes.

Press and hold the "P" button.

The LED starts flashing slowly. Continue to hold the button until the LED flashes rapidly and then stops flashing and an audible signal sounds. All radio codes are now deleted.

#### Note:

If you release the "P" button before the audible signal sounds, the deleting procedure will be interrupted.

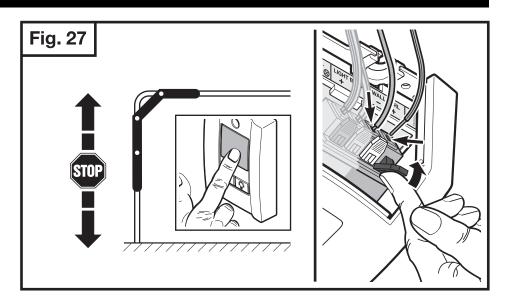
#### 3.7 Wall control PB 3

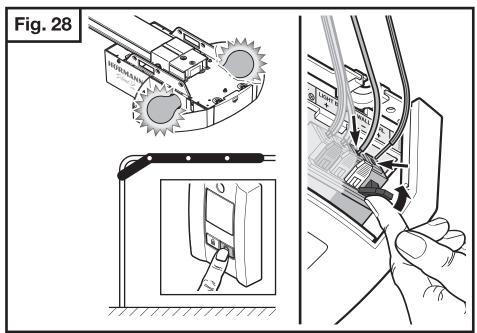
The wall control PB 3 allows control of door control (Fig. 27), opener light (Fig. 28) and vacation function (Fig. 29).

#### Note:

Up to three wall controls PB 3 can be connected.

After correct installation and wiring, the button on the wall control will be light up.



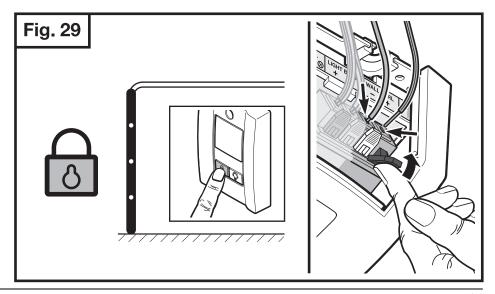


#### Note:

To enable the vacation function press and hold the lock button (Fig. 29) for about 3 seconds until the light of the wall button starts flashing.

To dissable the vacation function press and hold the lock button **(Fig. 29)** until the light of the wall button stops flashing.

The reception of radio codes is disabled when the vacation function is active and the light of the wall button is flashing,



#### 3.8 Opener light

The opener light can be activated in two different ways:

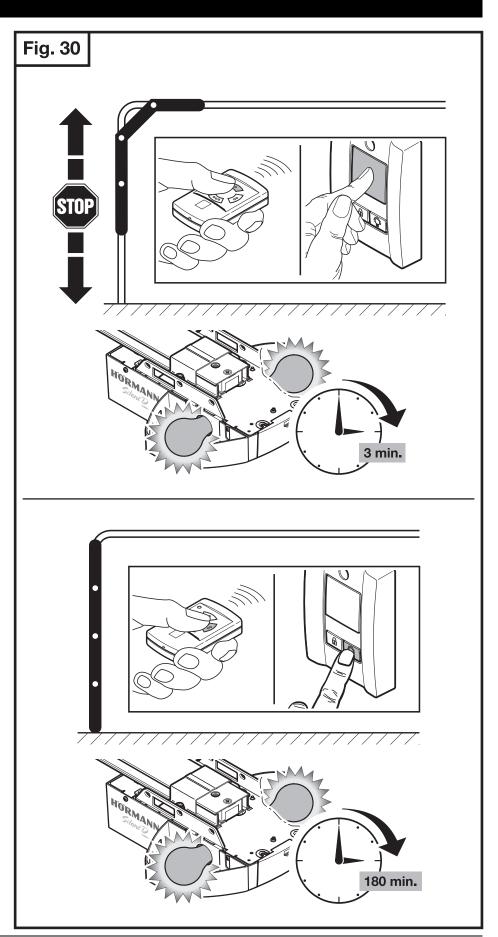
- The door starts to move
- The light is activated using the second button of the hand transmitter or the light button of the wall control PB 3.

#### Note:

An additional impulse starts the duration of light again.

#### **Duration of opener light**

When the opener is used and the opener light is on, then pressing on light button within 3 minutes the opener light stays on for 180 minutes. Additional pressing on light button within 180 minutes switches the opener light off.



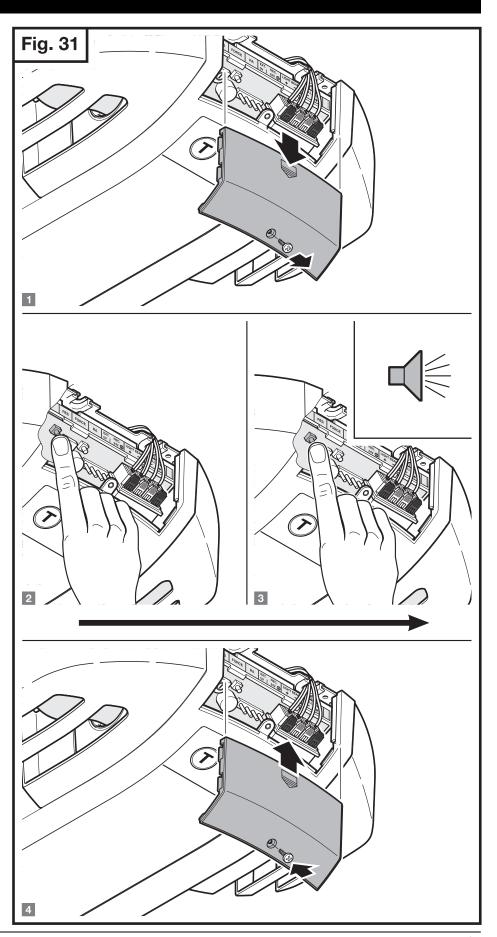
# 3.9 Reset opener to factory setting In order to reset the opener to original factory settings:

To reset the opener back to factory settings press and hold the RES-button until an audible signal sounds – **Fig. 31**. The LED switches off while you hold the button.

The original factory settings are active and the opener is in learning mode. **Relearn the opener** (refer to 2.11).

#### Note:

The reset to factory settings does not delete the radio codes.



# 3.10 Connection of additional components / accessories

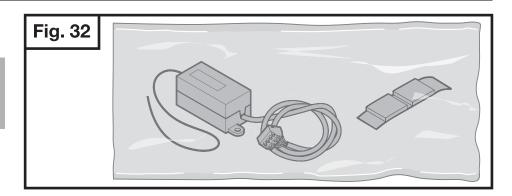


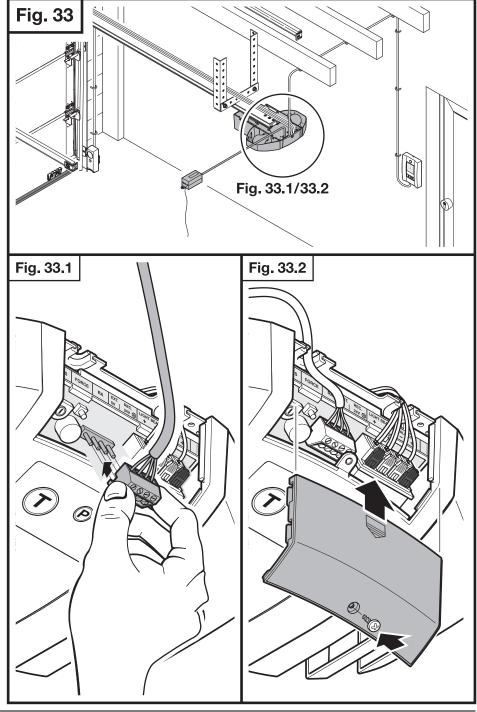
### **CAUTION!**

Disconnect the power supply/ battery backup prior to working on the opener.

# 3.10.1 Connection of an external radio receiver HE 2\*

If you wish to use an external receiver for the impulse and opener light function instead of the integrated receiver you can connect it to the opener using the corresponding socket in the opener head – Fig. **33.1**. Should you use receivers with the same frequency it is essential to delete the data stored in the integrated receiver (see section 3.5).





<sup>\*</sup>Accessory, not included!

# 3.10 Connection of additional components / accessories



### **CAUTION!**

Disconnect the power supply/ battery backup prior to working on the opener.

# 3.10.2 Connection of a separate wall control\*

#### Note:

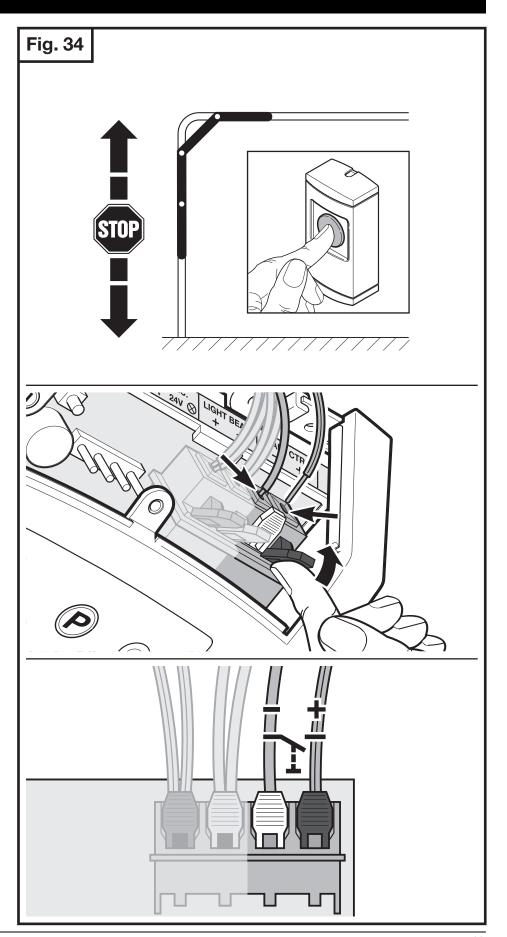
Up to three wall controls PB 3 can be connected – **Fig. 34**.

#### Remark

Route the cables away from any line voltage components, wires and cables that may exist on site.

Use a staple gun to attach the cables. Do not use the staple gun for power cords and antennas. Make sure that the staples leave sufficient space for the cable in order to prevent cable damage. All connection terminals can be occupied several times, but not more than 1 x 15 AWG (1 x 1.5 mm²).

After correct installation of the wall control the button will light up.



\*Accessory, not included!

# 3.10 Connection of additional components / accessories



#### **CAUTION!**

Disconnect the power supply/ battery backup prior to working on the opener.

# **3.10.3 Connection of a battery backup\***(SilentDrive™ 7500/8500 series)



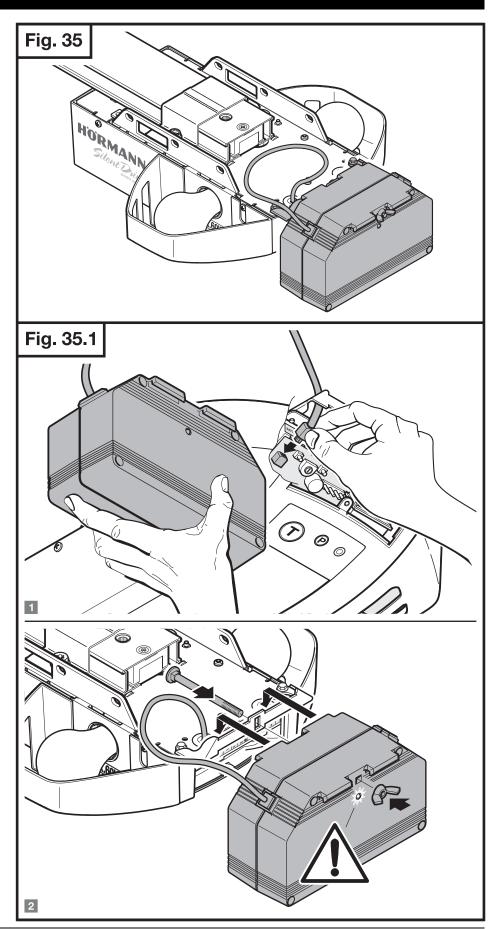
#### **CAUTION!**

- The battery used in this device may present a risk of fire or chemical burn if mistreated.
- Do not disassemble, heat above +113°F, or incinerate.
- Replace battery with HÖRMANN battery backup only. Use of another battery may present a risk of fire or explosion.
- Dispose of used battery promptly.
- Keep away from children.
- Do not disassemble.
- Do not dispose of in fire.

The battery backup allows you to use the garage door opener for a certain period of time in the event of a power failure. During battery-powered operation the opener light is switched off. Once the mains power is restored, the battery backup automatically recharges via an integral charging circuit.

#### Remark

Check the instructions for installation and operation delivered with the battery backup. Route the cables away from any line voltage components, wires and cables that may exist on site. Use a staple gun to attach the cables. Do not use the staple gun for power cords and antennas. Make sure that the staples leave sufficient space for the cable in order to prevent cable damage. The opener will not work if the voltage of the battery backup is too low. This will be shown by the LED of the opener. If the voltage of the battery backup decreases and the opener needs more than 30 seconds to move the door to the closed position, the opener reverses up to the "fully open" position and can only moved downwards by pressing the wall control continuously. In both cases charge or change the battery backup. While charging the yellow LED of the battery backup will light. \* Accessory, not included!



### 3.11 General advice for the operation of the opener

Do not activate the opener unless you have a clear view of the door and surrounding area. Do not walk under a moving door. The door should not be operated by anyone who is not familiar with the safety and operating instructions.

# SAFETY TESTING TO BE CONDUCTED MONTHLY.

#### Safety beam

With the door travelling in the close direction interrupt the safety beam at the bottom of the door by passing an object through the beam. Be careful not to enter the path of the moving door. The door should reverse and go up to the "fully open" position and an audible signal sounds 10 times.

#### Automatic reversal during the cycle

With the door travelling in the down direction, "catch" the door at waist level using both hands (be careful not to break the path of the safety beam). The door should stop and reverse up to the "fully open" position.

#### Automatic reversal at the "fully closed" travel limit



Always test the opener after any adjusting. Failure to adjust the opener properly increases the risk of SEVERE INJURY or DEATH. The garage door MUST reverse on contact with a 1-1/2" high object (or a 2" by 4" board laid flat) on the floor.

### Door check

Visually inspect the door assembly (hinges, rollers, bearings, springs and hardware) for signs of wear or damage.

Check easy motion of the door manually after pulling the emergency release rope. If any of the safety checks cannot be completed contact a qualified service person to inspect the door and do any necessary repair. Do not continue to operate a door that is not performing properly.

### 3.12 Emergency release rope



With the door in the "fully closed" position pull the emergency release rope to **disengage the trolley** from the drive belt. This should require only moderate force.



**Reconnect the traveller** by pushing the green button on the trolley and manually move the door until the trolley engages the drive belt.

#### 3.13 Reception indication of the remote control

The hand transmitter features a LED. Every time the transmitter button is pushed the LED will light. If the LED on the transmitter does not light, check to ensure the battery is installed correctly. If necessary, replace the battery.

The opener also has a LED. Every time a signal from a transmitter is received the LED in the opener shortly lights off. The LED will also lights off when the wall control button for door control is pressed.

#### 3.14 Press-and-hold operation

If the safety beam is damaged or not operating: the opener can still be operated by press-and-hold operation.

The garage door can be moved in the open direction as in normal use: Press the transmitter button or press the wall control button or press the opener "T" key.

The door can only be moved in the close direction by **pressing** and **holding** the wall control button or the opener "T" key until the door reaches the "fully closed" position.

If you release the wall control button or the opener "T" key prior to reaching the "fully closed" position, the door will reverse to the "fully open" position.

### 4 MAINTENANCE

The opener is **maintenance-free**. For your own safety, we recommend that you have the door and opener equipment inspected once a year by a qualified service person.



# WARNING

- Disconnect the power supply/battery backup prior to working on the opener. Safeguard the door system against being switched on again without authorization.
- Check the function of all safety devices (safety beam, emergency release, automatic reversal) on a monthly basis (refer to 3.11).
- Contact a qualified service person if your opener fails to perform any of the safety checks.

# 5 TROUBLESHOOTING

If a malfunction occurs, it will be shown in the opener LED. The opener will work, provided the cause has been solved.

# 5.1 Troubleshooting and control instructions

Audible signal	Concern	Possible cause	Solution		
	Safety beam	- The safety beam is interrupted - The safety beam is damaged	- Remove the obstacle out of the safety beam - The safety beam has to be checked or aligned – see page 27 - The safety beam has to be replaced		
LED	Concern	Possible cause	Solution		
Ø ⊚ 2x	Safety beam	- The safety beam is interrupted - The safety beam is damaged	- Remove the obstacle out of the safety beam - The safety beam has to be checked or aligned – see page 27 - The safety beam has to be replaced		
		+++ operating with batterie backup +++ operating with batterie backup +++			
		- Battery backup voltage is too low	- Charge or change the battery backup		
Ø Ø Ø 3x	Force limit while the door is closing	- The door is too sluggish - There is an obstacle in the path of the door	- Correct the door travel - Remove the obstacle; see page 7 and pages 14-15		
Ø	Force limit while the door is opening	- The door is too sluggish - There is an obstacle in the path of the door	- Correct the door travel - Remove the obstacle; see page 7 and pages 14-15		
Ø 6x	Self-monitoring	- Malfunction	Check and test the opener again, if necessary replace it		
		+++ operating with batterie backup +++ operating with batterie backup +++			
		- Battery backup voltage is too low	- Charge or change the battery backup		
(A) (13x)	+++ operating with batterie backup +++ operating with batterie backup +++				
	Opener does not start	- Battery backup voltage is too low	- Charge or change the battery backup		
	Radio functions	- Vacation function is activated	- Deactivate the vacation function  – see page 35		

#### **TECHNICAL DATA OF THE GARAGE DOOR OPENER**

Power supply: 120 V AC, 60 Hz

Stand by power approx. 6.5 watt

- lamps off.

Connecting lead: Three prong grounded plug

Use: Residential applications, indoor use

Door movement control: The opener **reverses** the garage door

> on contact with an obstacle during movement of the door in the closing

direction.

The operner **stops** the garage door on contact with an obstacle during movement of the door in the opening

direction.

DC-motor, hall effect sensor and Motor:

> electronically controlled "soft start" and "soft stop" with self-locking worm gear.

**Emergency release:** In case of a power failure, to be operated

from inside by an emergency release rope.

Remote control: With 4-button hand transmitter HSM 4

> (315 MHz) and integrated radio receiver. Fail-safe 315 MHz-system with safety encoding from more than 4 billion possibilities. Simple transmission of hand transmitter encoding at the touch of a button by teaching function.

HomeLink®-compatible. HomeLink® is a registered trademark of **Johnson Controls. Inc.** 

**Applications:** For residential sectional doors

- max. door weight (517 lbs)

SilentDrive<sup>™</sup> 5500 series Speed of door travel:

> approx. 5-1/2" per sec. SilentDrive<sup>™</sup> 7500/8500 series - approx. 7-1/2" per sec.

Airborne noise emitted

of opener:

The equivalent continuous sound pressure level of 70 dB (A-weighted) is not exceeded in a distance of 9 ft.

Guide rail: 1-1/4" high, with integrated door

> security kit (Patent 6,557,301) and maintenance-free patented toothed belt

(Patent 5,868,639)

#### WARRANTY

# Limited Warranty for Silent Drive™ Garage Door Openers **General Information**

**Warranty Coverage:** Any defect in material or workmanship for the times specified below.

**Warranty Period:** Lifetime\* on motor, opener rail and drive belt, two (2) years from day of purchase on parts (excluding batteries and light bulbs) and remote radio controls.

> \* Lifetime - For as long as first residential user, purchaser of the Hörmann product, owns or rents home where Hörmann product is first installed.

Warranty Holder: This warranty is limited to the first residential user of the Hörmann product.

Geographic Scope: This warranty applies only to Hörmann products purchased and used in the Continental United States of America,

Canada, Puerto Rico and Virgin Islands.

What we will do: If product or parts appear to Hörmann to have defects in materials or workmanship, Hörmann will, at its option, provide you with refurbished or replacement parts or product at no charge or refund the purchase price. The refurbished or replaced parts or product may then be installed by your professional installer at your cost.

If Hörmann repairs or replaces defective parts or defective product it may use new or reconditioned replacement

parts of the same or similar design.

Limitations: EXCEPT FOR THIS LIMITED WARRANTY, HÖRMANN MAKES NO OTHER EXPRESS WARRANTIES, DOES NOT

> GUARANTEE THE PERFORMANCE OF THIS PRODUCT, AND SPECIFICALLY DISCLAIMS ALL IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANT ABILITY OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR USE. NO REPRESENTATIVE OF HÖRMANN MAY CHANGE OR ALTER THIS LIMITED WARRANTY OR EXTEND THIS LIMITED WARRANTY TO SOMEONE OTHER THAN THE ORIGINAL RESIDENTIAL USER. HÖRMANN'S EXCLUSIVE OBLIGATIONS UNDER THIS LIMITED WARRANTY WILL BE LIMITED TO REPAIRING OR REPLACING ANY COMPONENTS THAT, UPON INSPECTION, APPEAR TO HAVE DEFECTS IN MATERIALS AND/OR WORKMANSHIP. WHETHER REPAIR OR REPLACEMENT IS APPROPRIATE IS A DECISION HÖRMANN SHALL MAKE IN ITS SOLE DISCRETION. REPLACED PARTS BECOME THE PROPERTY OF HÖRMANN. REPLACEMENT PARTS MAY BE NEW OR RECONDITIONED PARTS OF THE SAME OR SIMILAR DESIGN. HÖRMANN SHALL HAVE NO LIABILITY FOR DAMAGES OR LOSSES OF ANY KIND OR NATURE DIRECTLY OR INDIRECTLY CAUSED BY ANY BREACH OF THIS LIMITED WARRANTY OR THE USE OR INABILITY TO USE THIS PRODUCT, INCLUDING BUT NOT LIMITED TO DAMAGES TO PROPERTY, DAMAGES FOR INCONVENIENCE OR DELAY, DAMAGES FOR LOST PROFITS OR BUSINESS INTERRUPTION, OR DIRECT, INDIRECT, INCIDENTAL, CONSEQUENTIAL, SPECIAL, EXEMPLARY, OR PUNITIVE DAMAGES, EVEN IF HÖRMANN SHALL HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH POTENTIAL LOSSES OR DAMAGES. IN NO EVENT SHALL HÖRMANN'S LIABILITY EXCEED THE RETAIL COST OF THE PRODUCT COVERED BY THIS

WARRANTY.

**Warranty Service:** To get warranty service, proof of date and place of purchase of the Hörmann product must be provided. Applications

for warranty service or breach of warranty must be made in writing within 90 days of knowledge of the apparent

defect to Hörmann LLC, 5050 Baseline Road, Montgomery, Illinois 60538.

**What This Warranty** This Limited Warranty does not cover batteries or light bulbs, removal of defective parts or product or installation Does not cover:

of repaired or replacement parts or product, damage while in transit to our service location, commercial use or residential use other than in single family installation, or damages that result from improper installation or operation, lack of proper maintenance, unauthorized repair, product modification, fire, flood, weather, accidents, normal wear

or delays in notice to Hörmann.

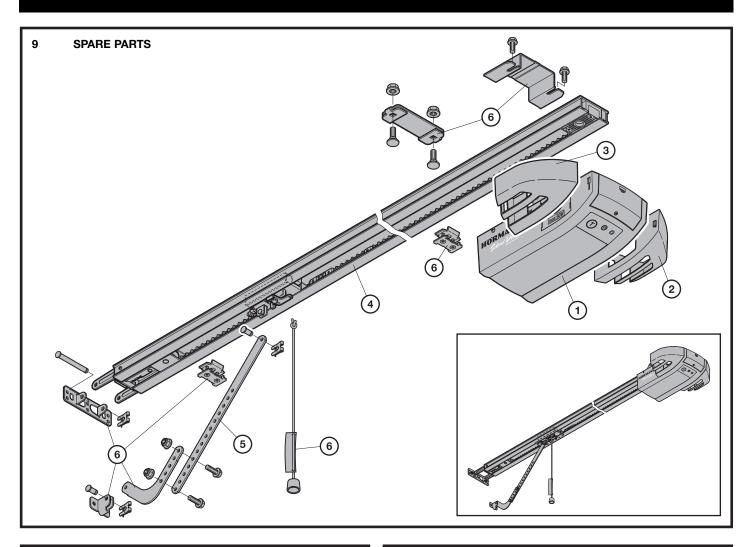
# 8 SERVICE

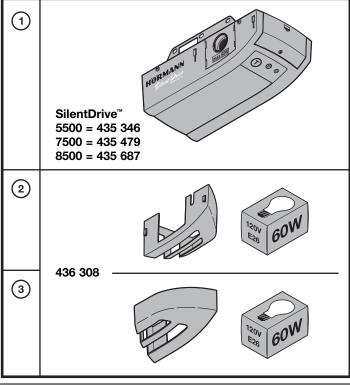
Prior to using our service, please read and check the troubleshooting and control instructions (refer to 5) as well as the spare parts list (refer to 9).

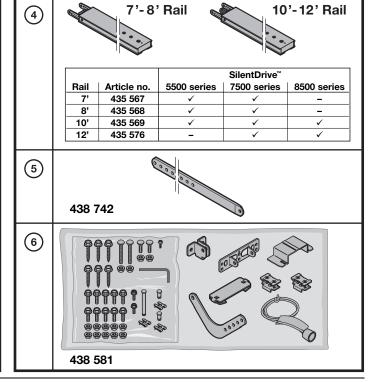
Please have the following data ready.

FOR YOUR RECORDS:			
Date purchased:			
Purchased at:			
Model Number:			
Serial Number:			
Date installed:			
Date installed:			

**CONSUMER-HOTLINE: 1 877 OK HORMANN (1-877-654-6762)** 



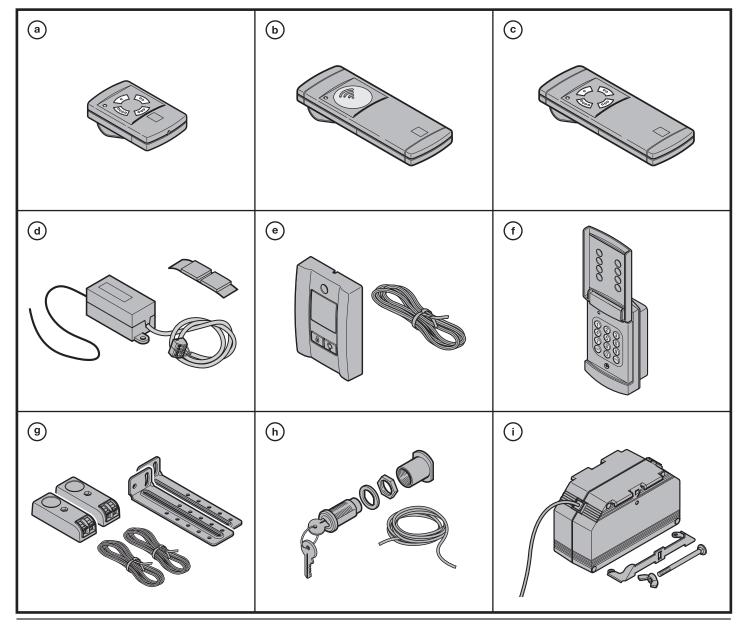




# 10 ACCESSORIES

Note: When installing one of these accessories refer to the installation instructions included there.

Item	Article	Article no.	Description	
а	HSM 4	437 337	4-button mini hand transmitter – 315 MHz	
b	HS 1	437 652	1-button hand transmitter – 315 MHz	
С	HS 4	437 336	<b>4-button hand transmitter</b> – 315 MHz	
d	HE 2	437 236	2-channel radio receiver – 315 MHz	
е	PB 3	437 146	Deluxe wall console station – 3 button (impulse / opener light / vacation switch),	
			illuminated impulse button	
f	FCT 3b	436 301	Wireless keypad - open or close up to 3 different doors, illuminated keys	
g	EL 101	436 309	Safety beam	
h	NE 1	437 173	Additional emergency release – for garages without a second entrance an additional emergency	
			release is required to prevent anyone from getting locked out of the garage.	
i	HNA 18	437 536	Battery backup - for operation during a power failure (SilentDrive™ 7500/8500 series)	





# FIVE PRODUCTION PLANTS, ONE FAMILY



Puyallup, WA - Sectional Doors



Montgomery, IL - Sectional Doors



Barrie, ON (CAN) - High Performance Doors



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