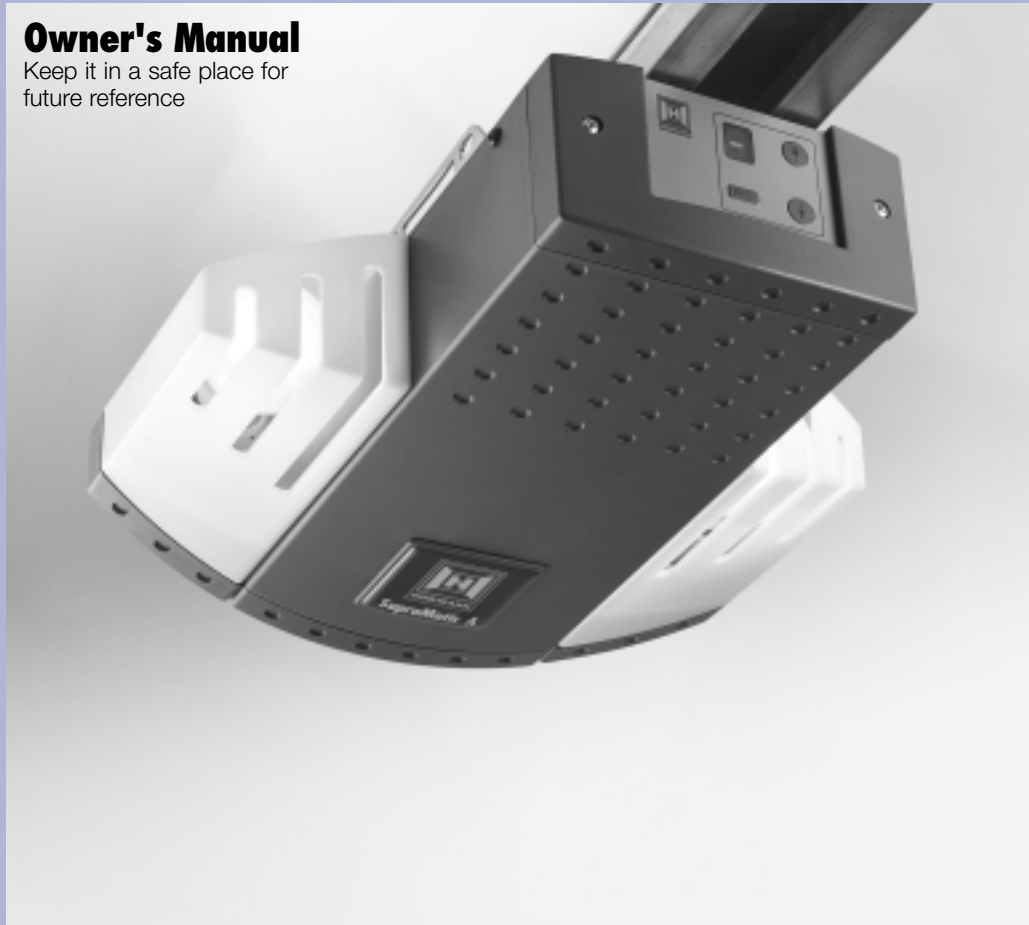


Owner's Manual

Keep it in a safe place for future reference



Instructions for installation and operation / warnings

SupraMatic A - Garage Door Operator (For residential use only!)

Hörmann garage door operators should be professionally installed.

Do-it-yourself installation can result in serious injury or death.

Do not throw this manual away.

Consumer-Hotline: 1-877-HOERMANN



Residential Garage Door Operator
LISTED 1LD2



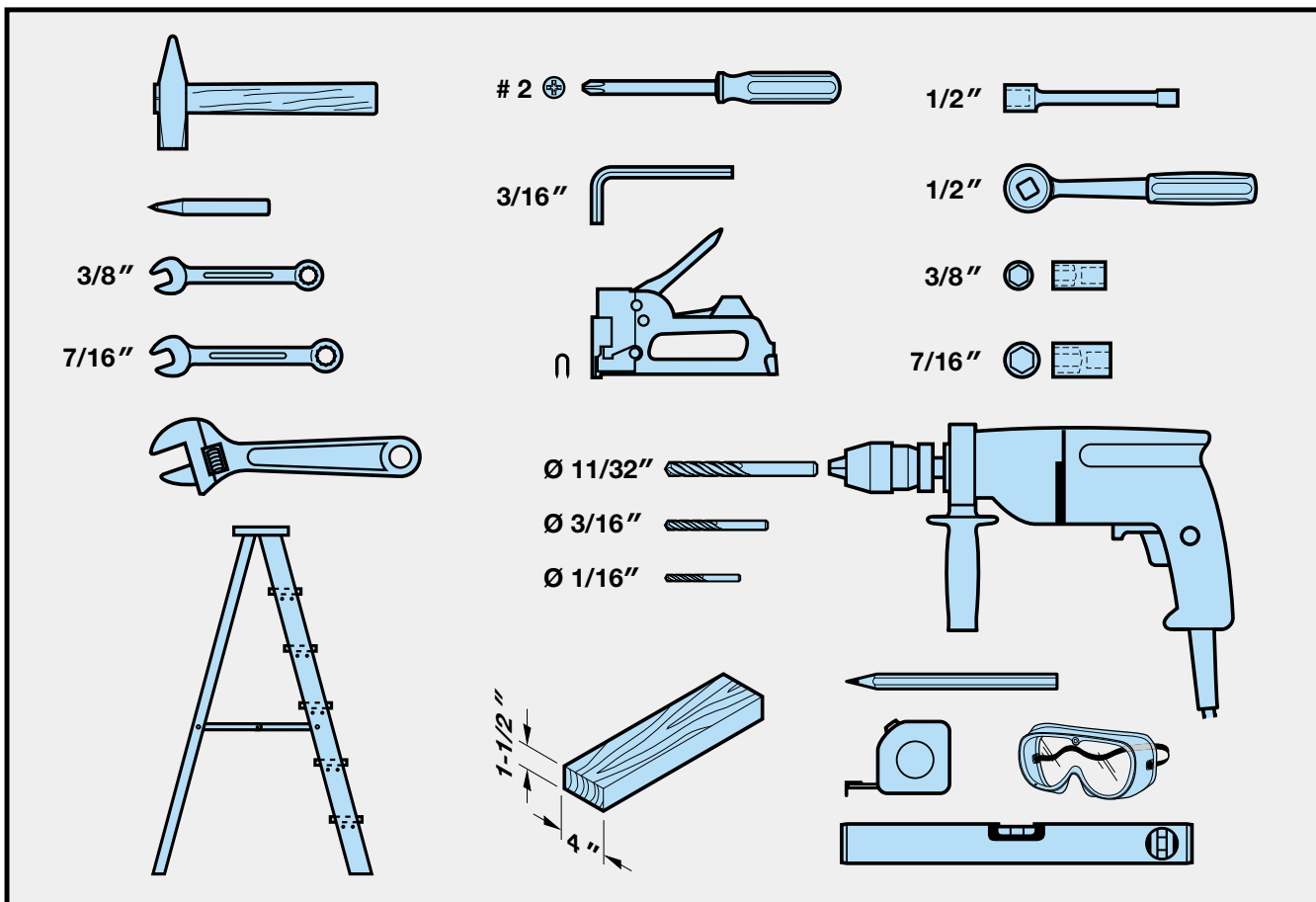
Dear Customer,

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

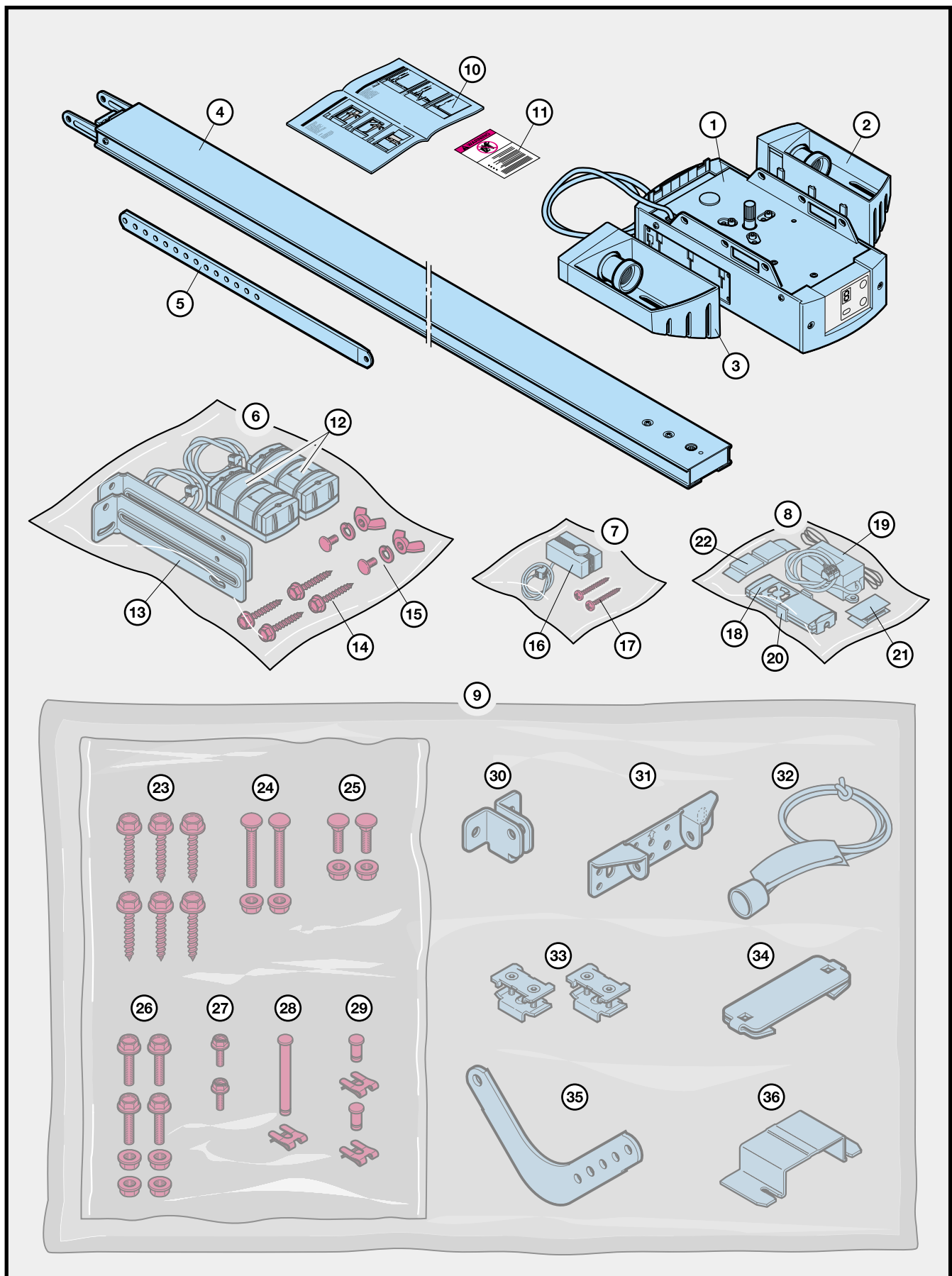
The advantages of this operator are:

- **Patented toothed belt – Supra Quiet**
- **DC Motor – Strong and Dependable**
- **Soft Start / Soft Stop – Smooth & Safe Operation**
- **Maintenance-free**
- **Audible signal indicating interrupted light beam**
- **Automatic drive belt tensioning**
- **Door security kit**

Please keep this manual for future reference.



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IMPORTANT WARNINGS AND INSTRUCTIONS TO PREVENT INJURY OR DEATH APPEAR ON PAGES 4, 6 AND 44 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, deaths and injuries such as amputated fingers have been associated with installation and use, often improper, of garage doors. Although enhanced safety and 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:**

1. 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. Keep garage doors properly balanced. Have a professional service person make repairs to cables, spring assemblies and other hardware.
5. 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 either the force or the limit of travel, then re-test the automatic reversal. Be careful when making adjustments because mis-adjustments can cause serious injury or death.
6. Disconnect the electrical power to the operator before making any repairs or removing the housing cover.
7. 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.
8. Important safety and instruction labels are included in your operator package. The entrapment warning label should be applied very near to the wall control.

1 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 operator so that you will enjoy this product for many years.



WARNING

In order to reduce personal injury, this operator should only be operated with sectional and one-piece doors in residential applications.

GENERAL

The operator is **exclusively** intended for the electric operation of spring compensated sectional doors and one-piece doors in residential applications. It is not designed or intended for commercial or industrial applications!

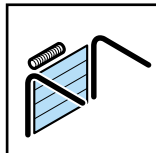
The operator is exclusively intended for professional installation. The warranty is void if the installer makes modifications to the operator without prior written approval from Hörmann.

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 also excluded from warranty claims.

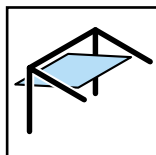
These instructions assume the installation of the operator to a standard steel sectional garage door. Parts of these instructions are intended for wooden or one-piece doors as indicated.

In this case, the letter...

(a) means sectional door



(b) means one-piece door



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



2.1

= paragraph 2.1

2.1 IMPORTANT INSTALLATION INSTRUCTIONS



WARNING

In order to reduce the risk of serious injuries 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. 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 so small children are not able to reach it, and
 - 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 operator is to be used only with residential sectional or one-piece doors!
- To avoid damage to the garage door and operator, disable locks before installing and operating the operator.
- Prior to installation check for and avoid any damaging of covered electrical, gas or water lines in the walls or ceilings!
- The garage ceiling must be designed so that a secure fastening of the operator is guaranteed! The installer must ensure that the operator 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!
- Check the function of all safety devices (light beam device, emergency release, automatic reversal) – (refer to 3.6)!
- After installing the opener, the door must reverse when it contacts 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, which prevents a possible lock out!

2.2 Prior to installation

Determine the type of garage door where the operator is to be installed – **Fig. 1a** and **Fig. 1b**.

In order to avoid damage to the garage door by frequent operation, reinforcement may be necessary depending on the type of the door. Give special attention to the top section of the door where the door bracket is located – example **Fig. 2**.

If necessary, reinforcement brackets should brace both horizontally and vertically allowing the operator to be mounted in the middle of the door and in line with the top rollers.

2.3 Control of the door and the door assembly

Manually lift the reinforced 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 operator equipment – **Fig. 1a** or **Fig. 1b**.



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 injuries 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.

Remark

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

2.4 Installation of the garage door operator



CAUTION!

- The operator 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 operator rail may be necessary.
- During installation ensure that dust or dirt do not enter the operator.
- The installer of the garage door operator must adhere to all applicable current codes, and follow the applicable electrical installation instruction.

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

Fig. 1a

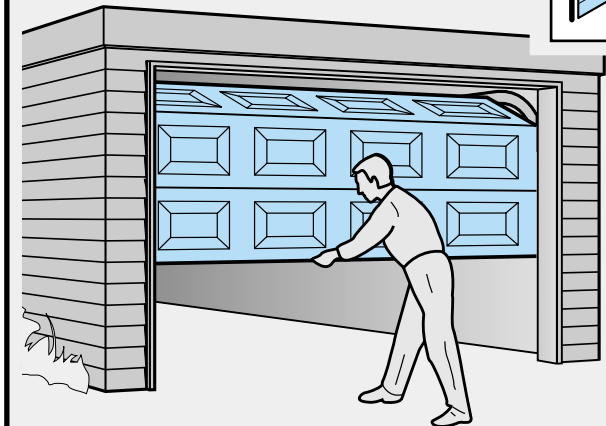


Fig. 1b

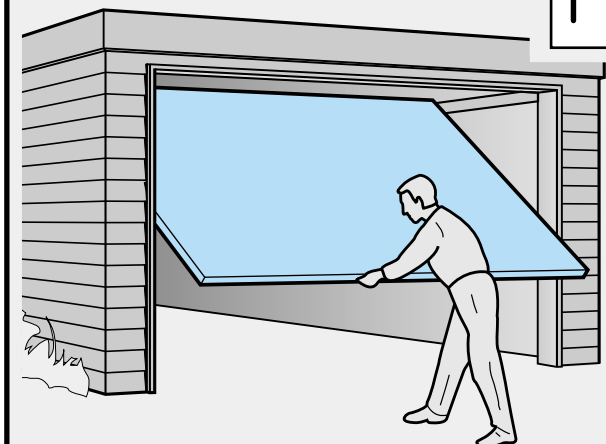
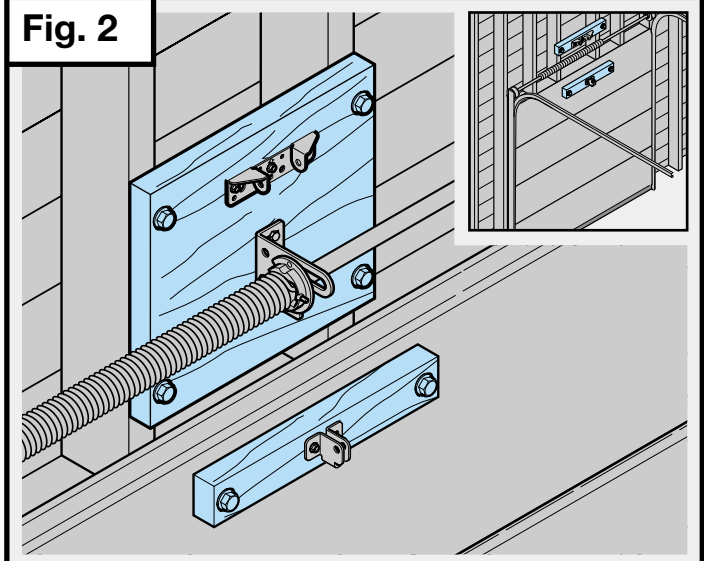


Fig. 2



2.4.1 Space requirements for the operator installation

In order to be able to install the operator, the space between the highest point of the door travel and the ceiling **must** be min. 1-1/4" – **Fig. 3a** or **Fig. 3b**.



CAUTION!

Ensure that you DO NOT place flammable or combustible materials in direct contact with the operator, or bulbs or lamp houses!

The guide rail must be installed a minimum of 6 ft from the floor of the garage.

To ensure optimum performance the operator must be installed as close as possible to the middle of the door in line with the top rollers.

Fig. 3a

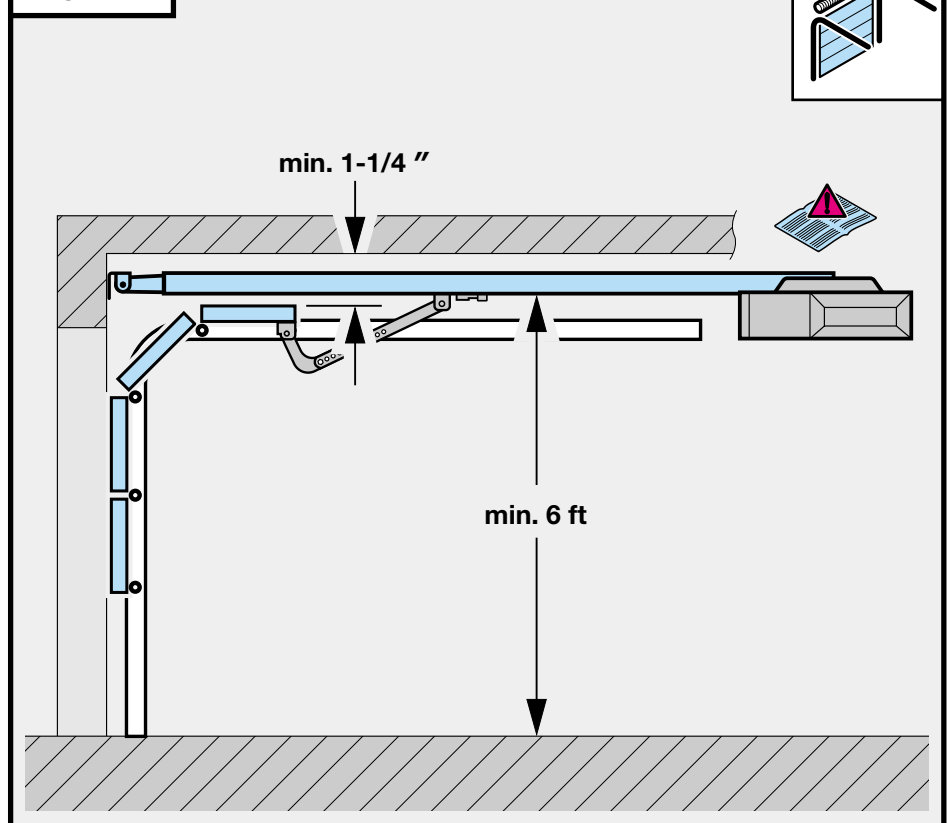
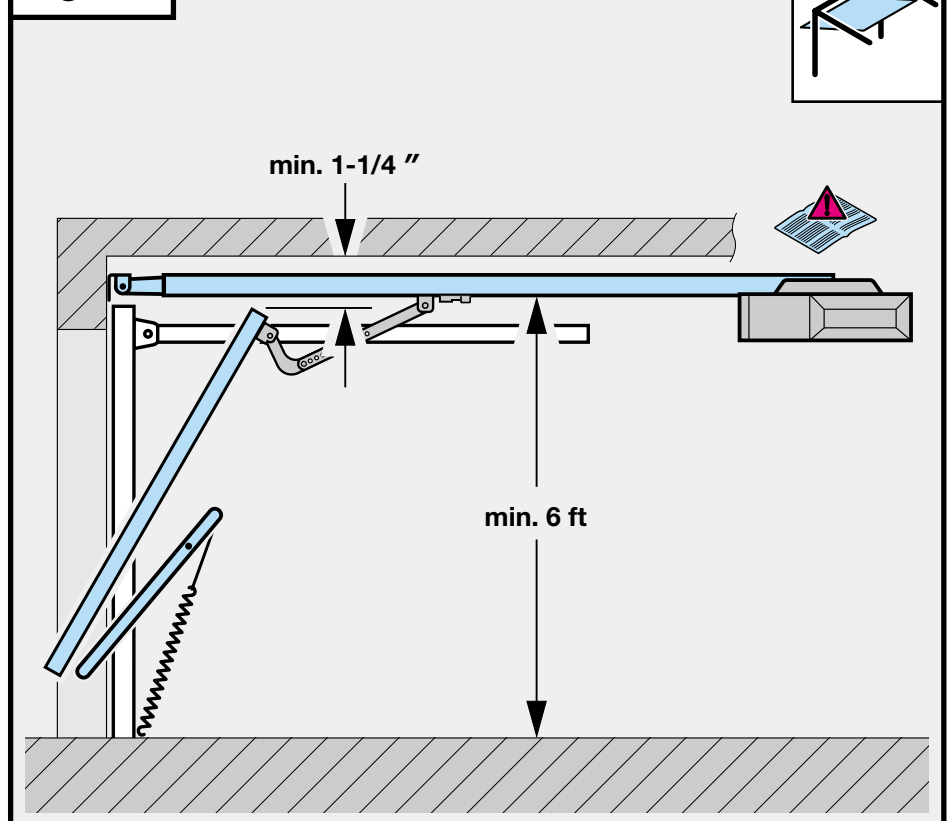
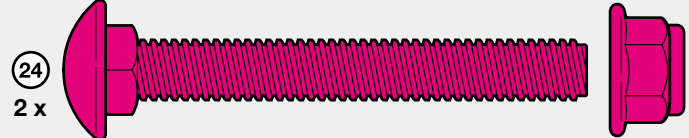
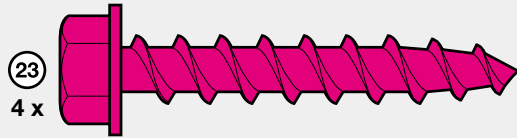


Fig. 3b





2.4.2 Mechanical Installation

Manually close the door. Install the door bracket (**part 30**) onto the door. The bracket should be located in the middle of the door and in line with the top set of door rollers for sectional door.

Fig. 4

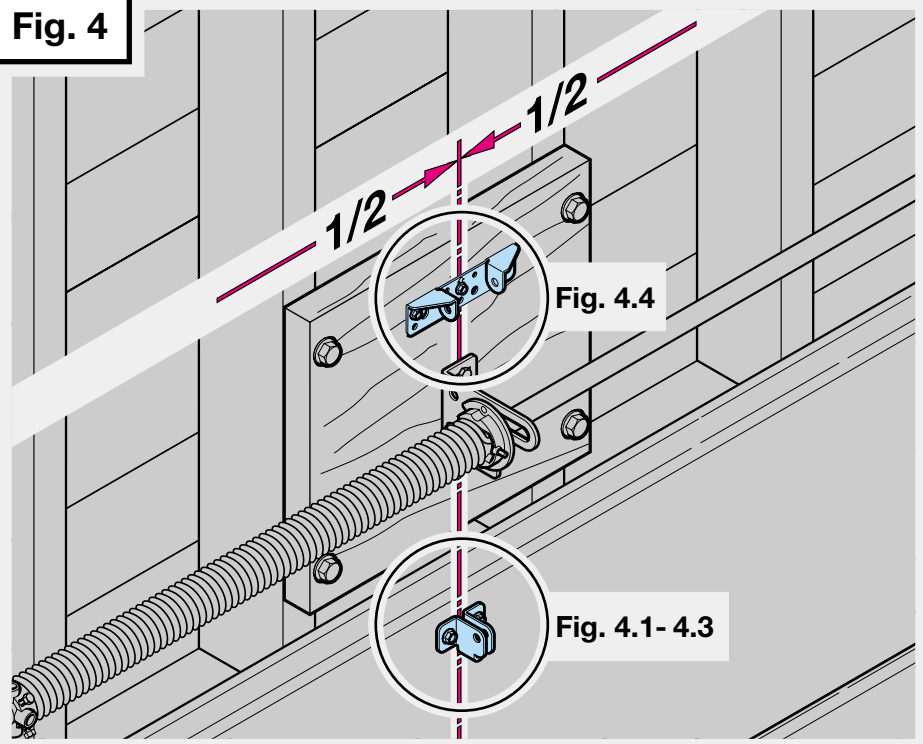


Fig. 4.1

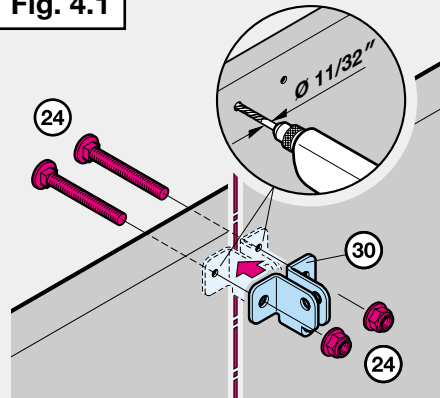
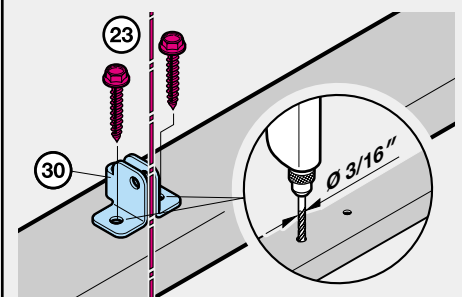
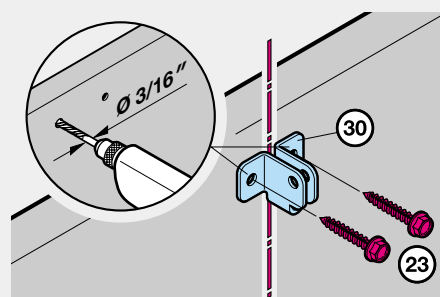
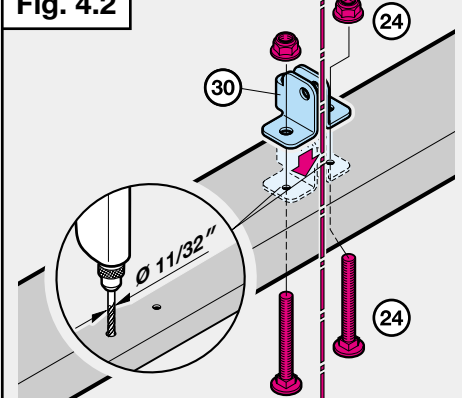


Fig. 4.2



2.4.2 Mechanical Installation (continued)

Fig. 4.3 for installation on Hörmann sectional doors. The door bracket **(B)** and the screws **(A)** are provided with Hörmann sectional doors and are **not included** in operator package.

Install the front mounting bracket **(part 31 – Fig. 4.4)** min. 1-1/4" above the highest travel point of the door – **Fig. 3a and Fig. 3b**. For Hörmann sectional doors (track type 'Normal' or 'Low headroom' application) take the corresponding measures out of **Fig. 4.4**.

Fig. 4.3

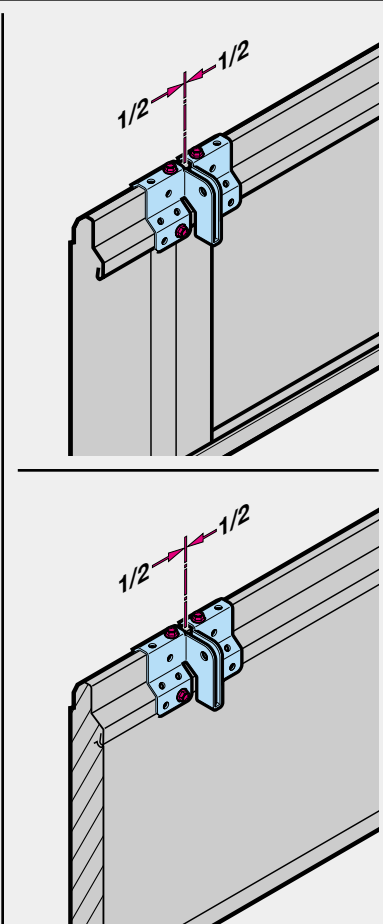
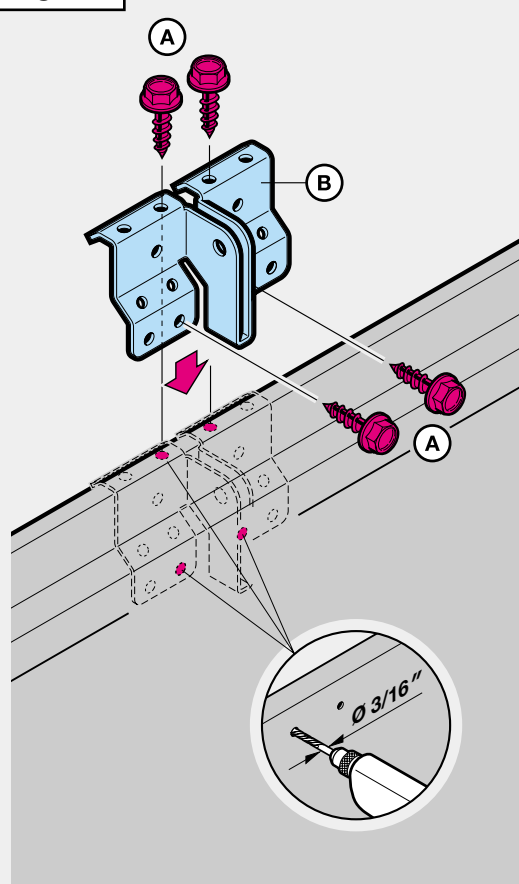
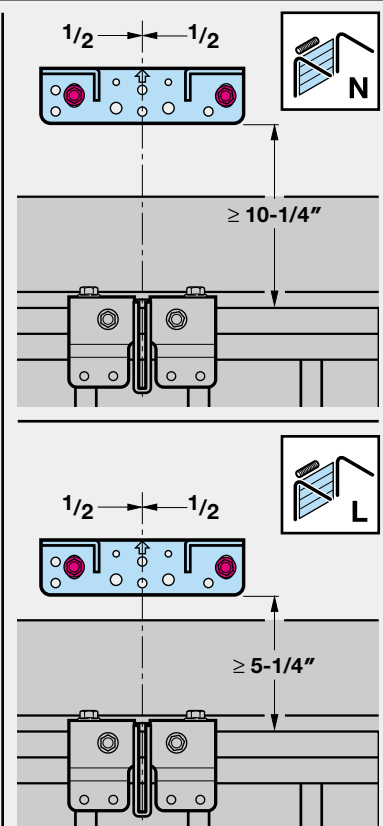
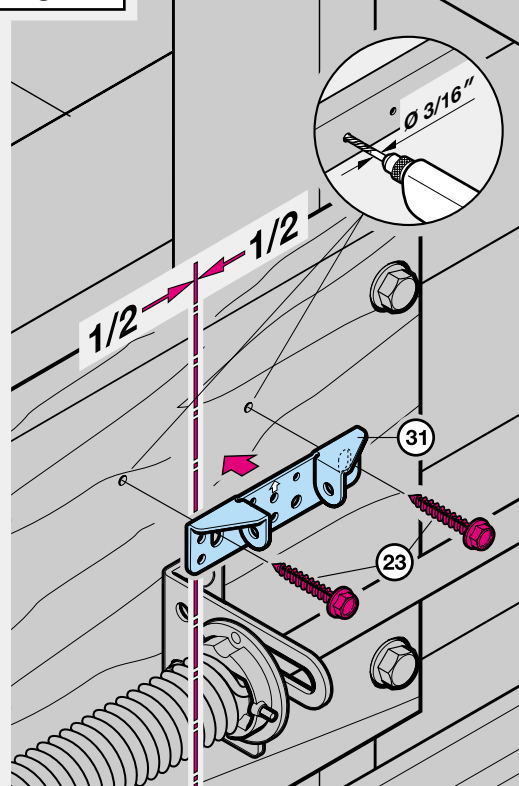


Fig. 4.4



2.4.2 Mechanical Installation (continued)
Unpack the guide rail (**part 4**) and connect the emergency release rope (**part 32**) to the trolley as shown – **Fig. 5.1**.

Loosely install the fixed stops (**part 33**) in the guide rail with one fixed stop in front of the trolley and one behind – **Fig. 5.2** and **Fig. 5.3**.

Fig. 5

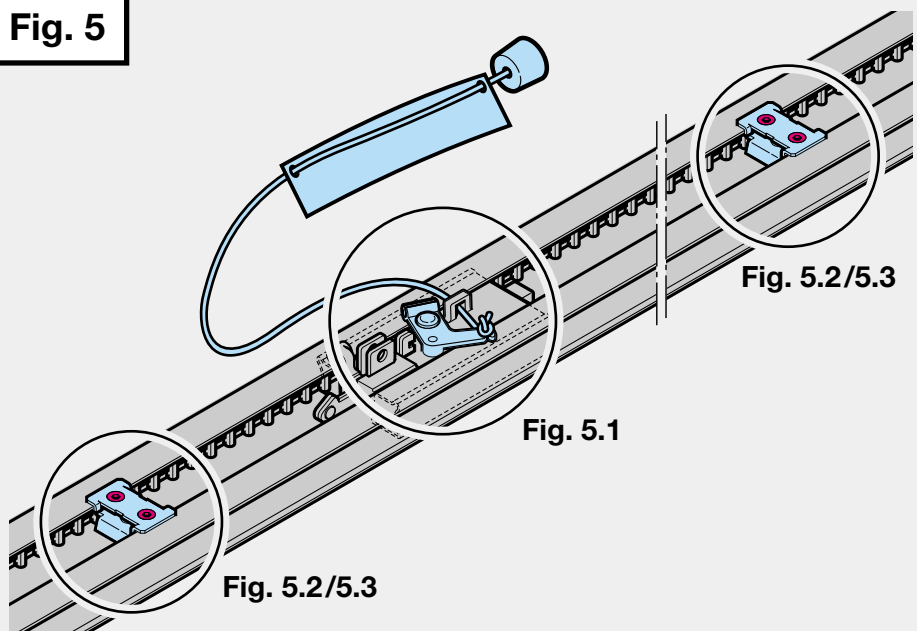


Fig. 5.1

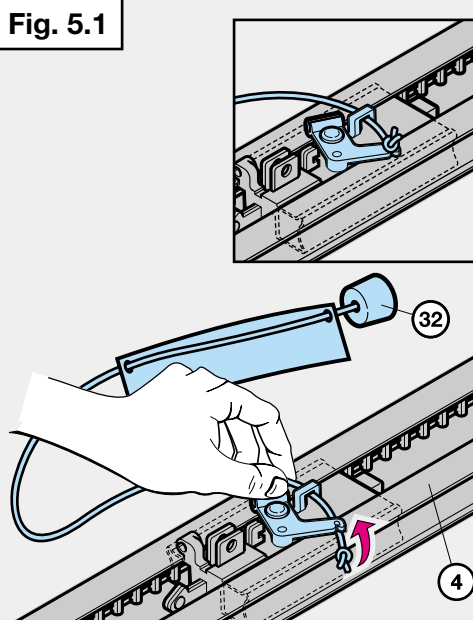


Fig. 5.2

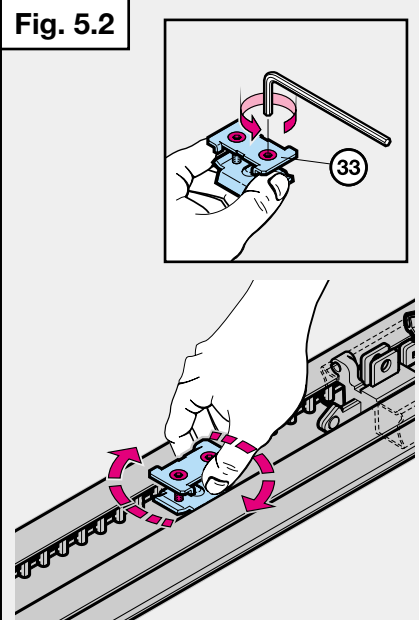
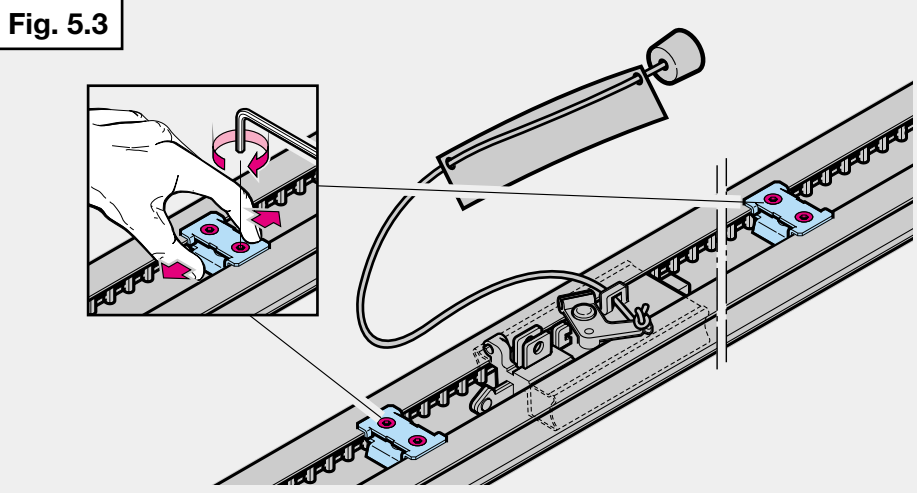


Fig. 5.3



2.4.2 Mechanical Installation (continued)

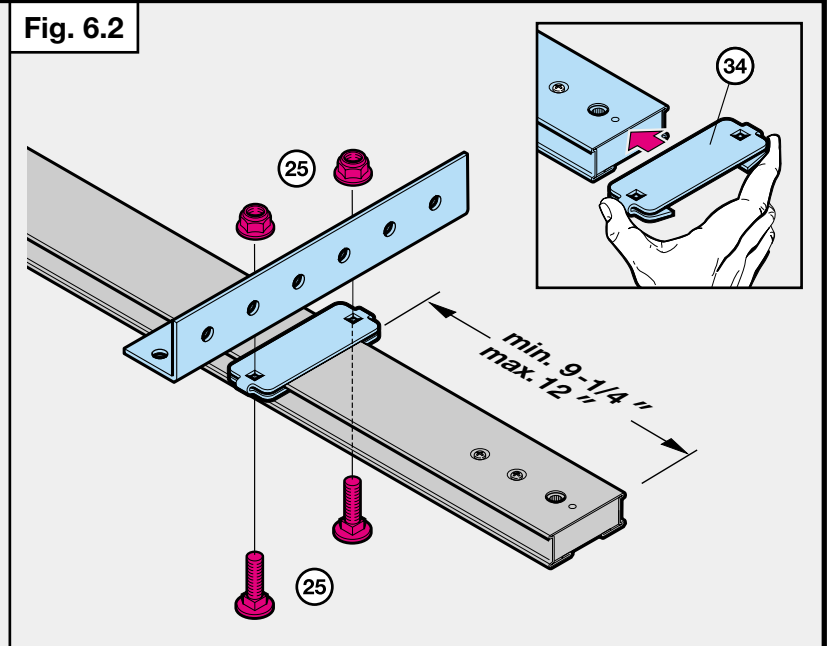
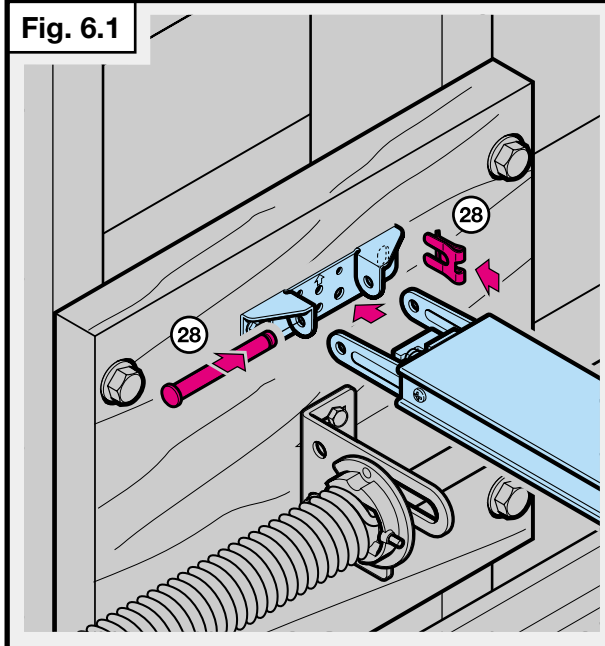
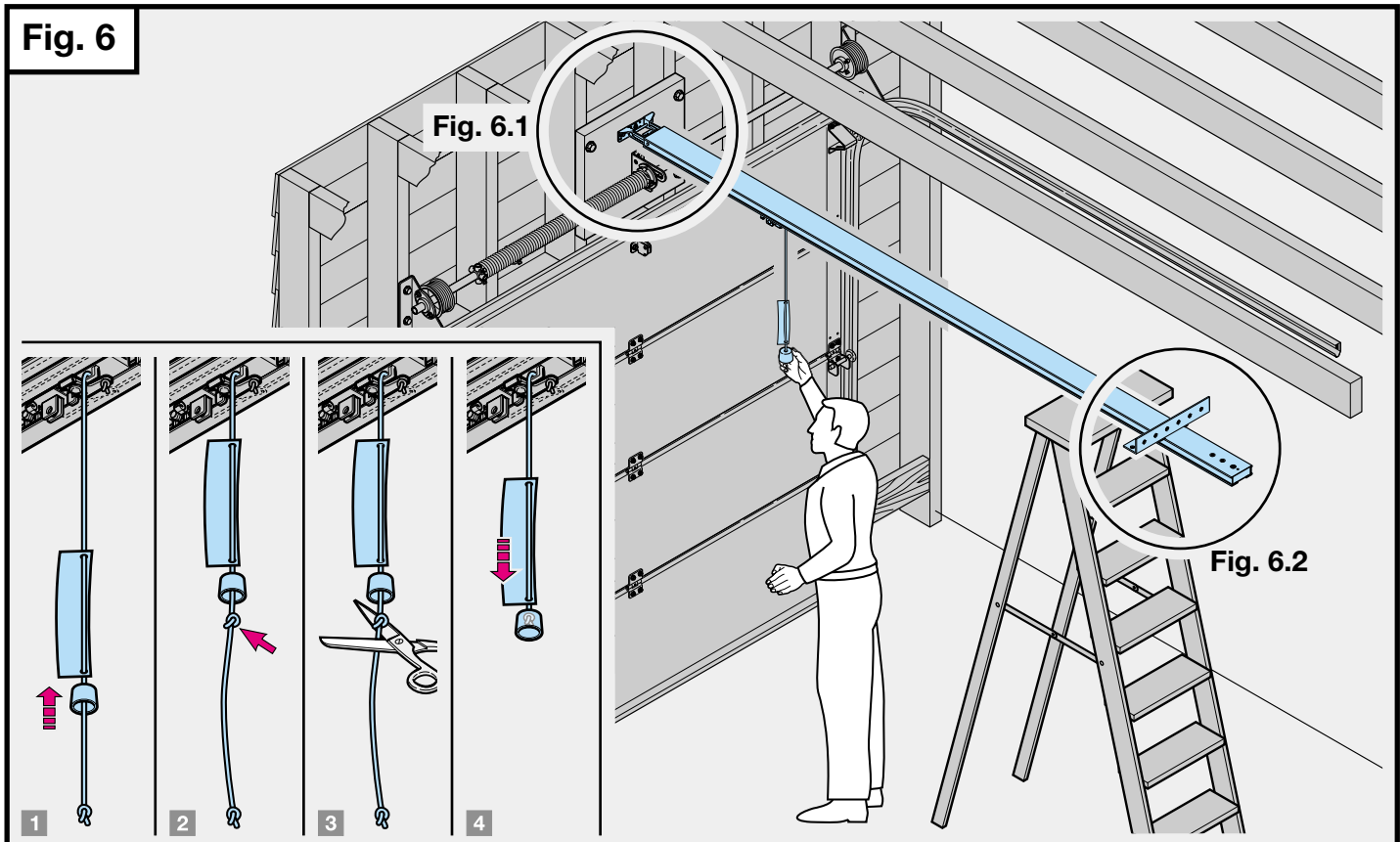
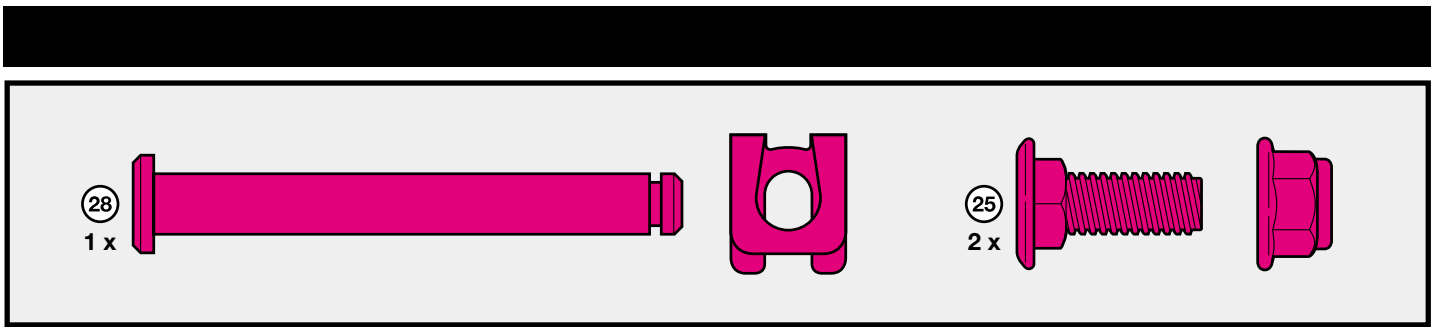
Support the rear of the guide rail with the opening of the rail facing down. Fix the front of the guide rail to the front mounting bracket with the pin and clip **(part 28)** – **Fig. 6.1**.

Slide the rear mounting bracket **(part 34)** 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 25)**.

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**.



2.4.2 Mechanical Installation (continued)

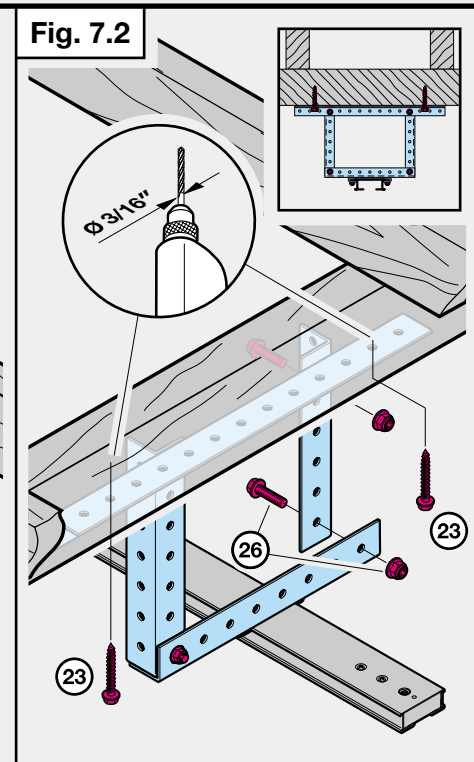
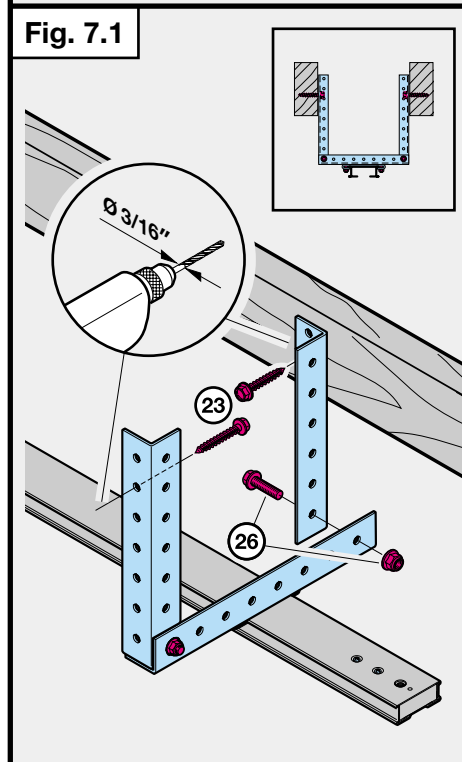
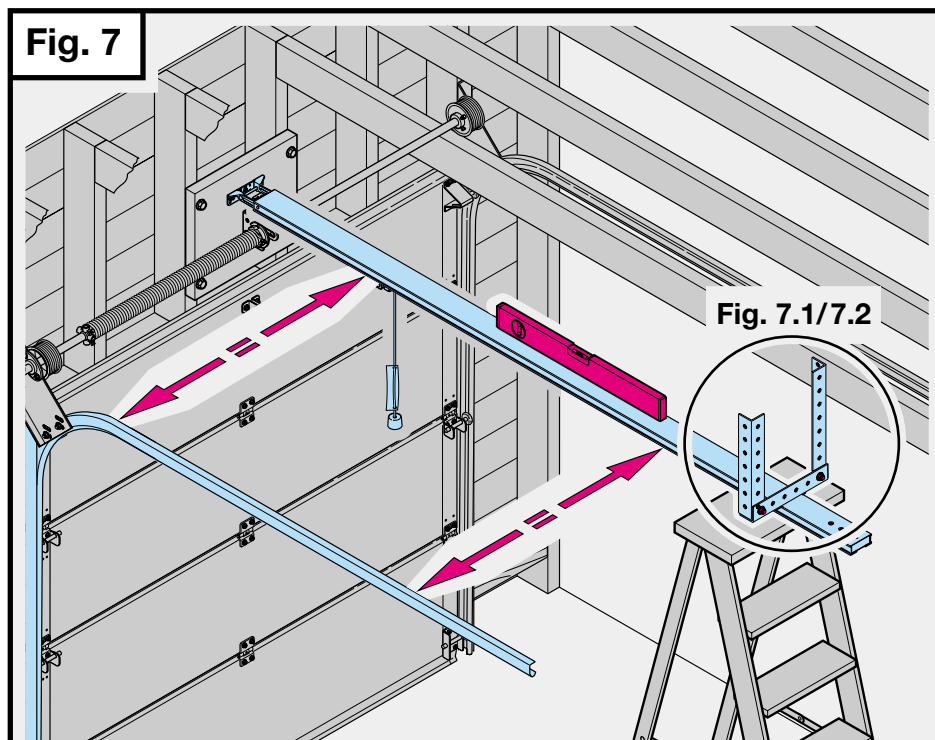
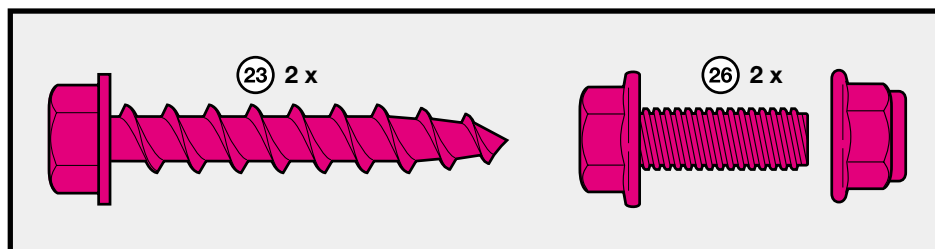
Mount the rear of the guide rail firmly to the garage structure.

Examples: **Fig. 7.1** and **Fig. 7.2**.

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

Note:

Fasteners (**part 23** and **part 26**) are **included** but punched angle brackets or mounting straps are **not included**.



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 5**) with the trolley using the pin and clip (**part 29**). Slide the trolley forward and connect the curved bar (**part 35**) to the door bracket (**part 30**) using the pin and clip (**part 29**). Connect the two sections of the bar assembly using the shoulder bolts and hex nuts (**part 26**) – **Fig. 8.2**. Ensure that the bar assembly is mounted as shown in **Fig. 8**.

Note:

The straight bar (**part 5**) can be shortened if necessary. Put protection against corrosion on the shortened end.

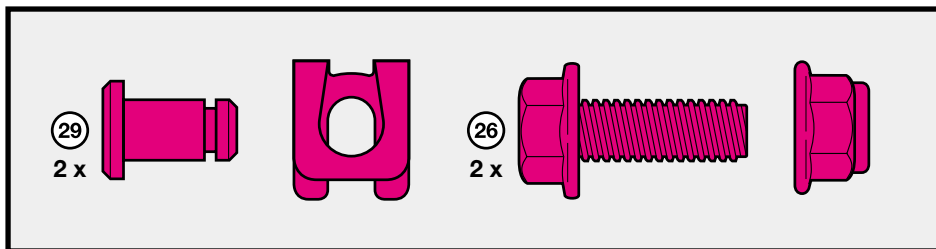


Fig. 8

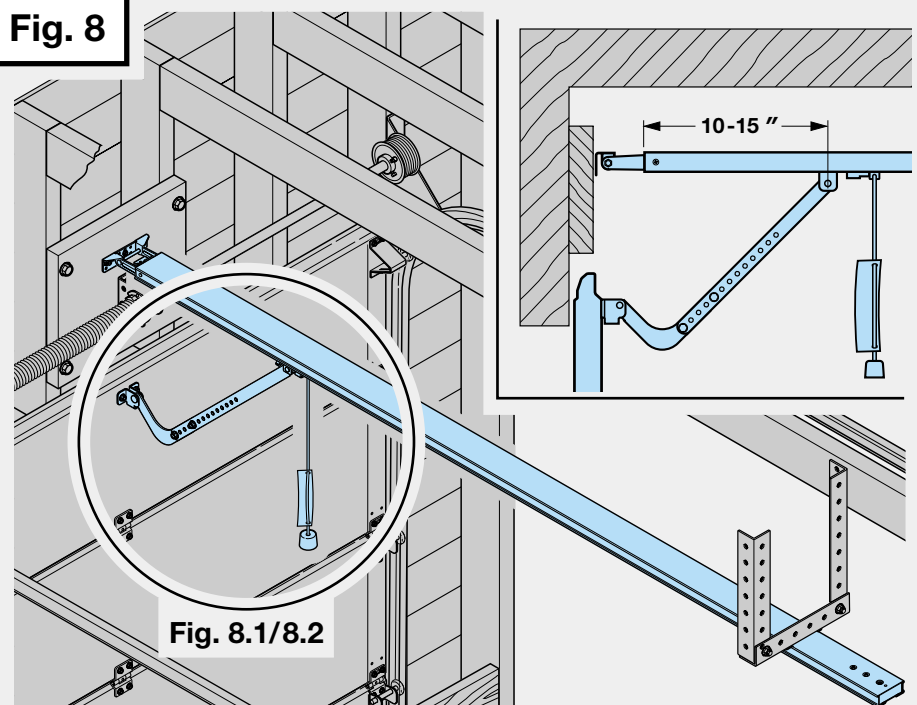


Fig. 8.1

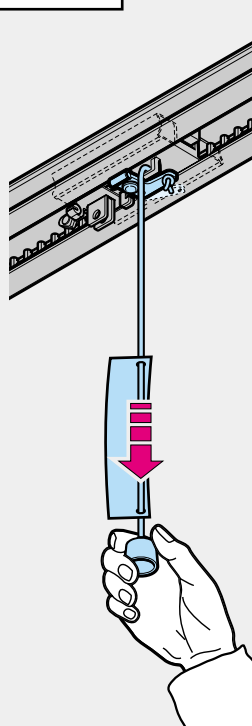
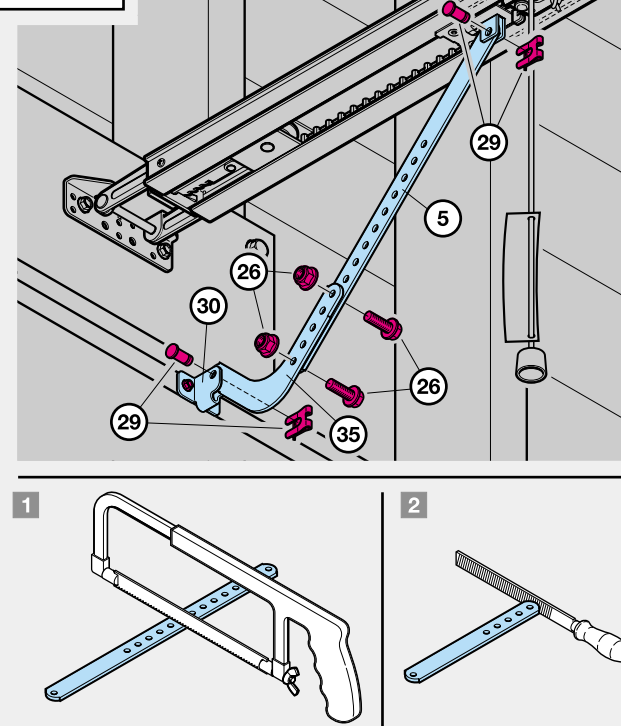


Fig. 8.2



2.4.2 Mechanical Installation (continued)

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. 9.**

Open the door to the fully open position. Slide the rear fixed stop directly behind the trolley and securely tighten the screws – **Fig. 10.**

Fig. 9

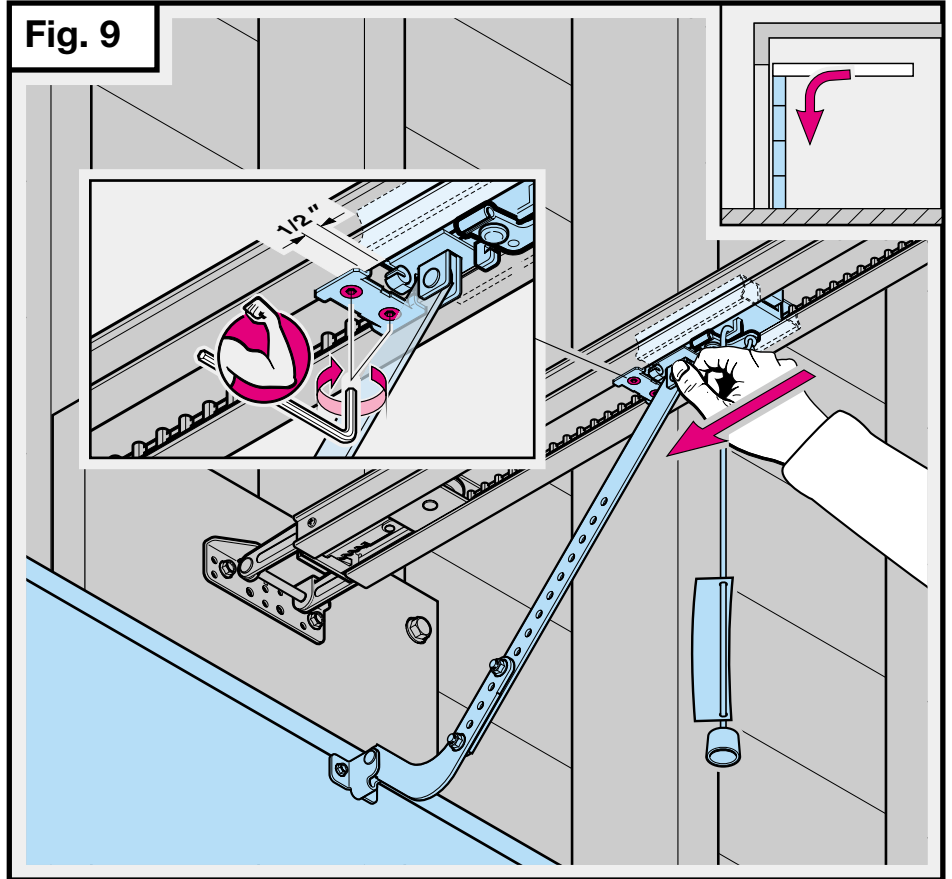
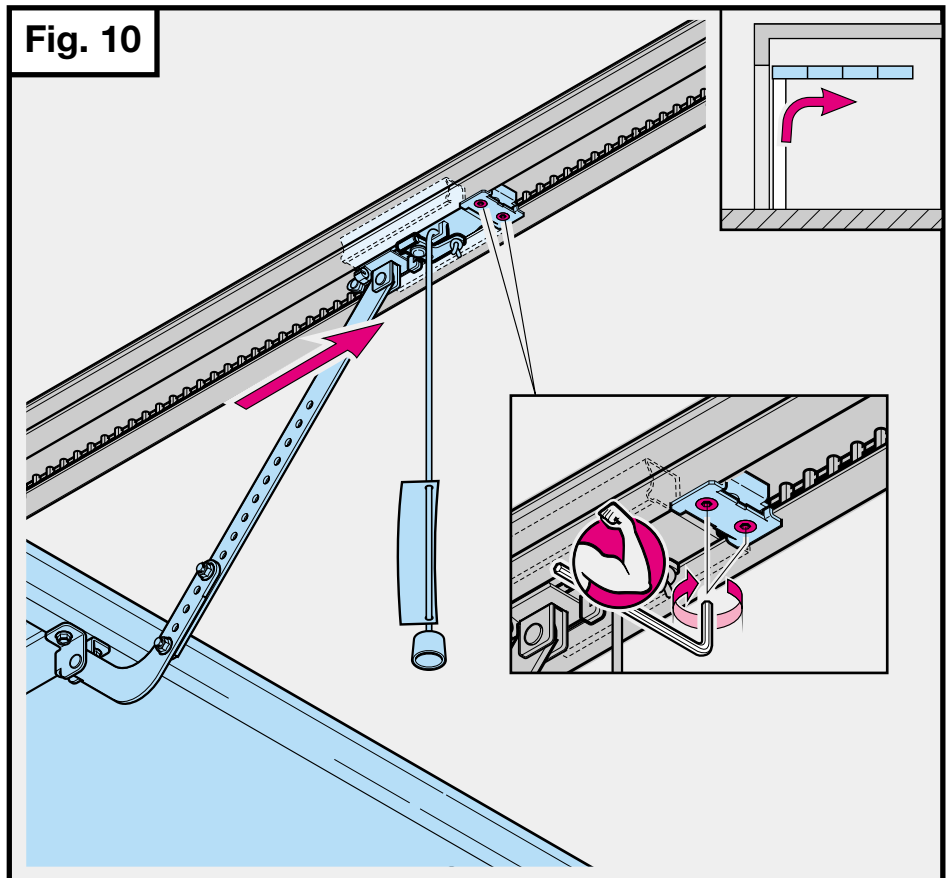


Fig. 10



2.4.2 Mechanical Installation (continued)

Loosely insert shoulder bolts with slot (part 27) for the half length into the operator chassis – Fig. 11.1.

Slide the spline shaft of the operator head into the guide rail – Fig. 11.2.

Place the operator mounting bracket (part 36) on top of the guide rail.

Slide the operator mounting bracket under the shoulder bolts and tighten them – Fig. 11.2.

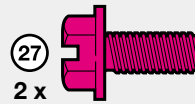


Fig. 11

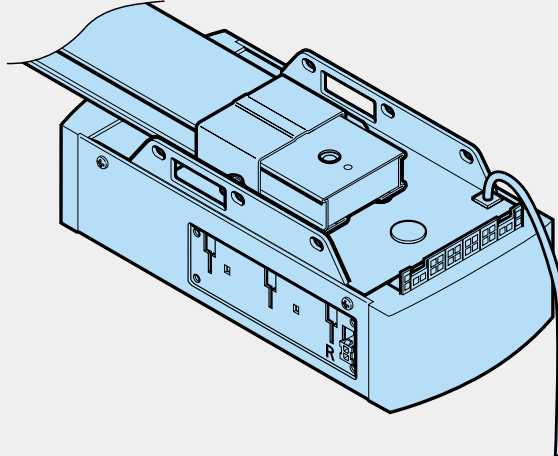


Fig. 11.1

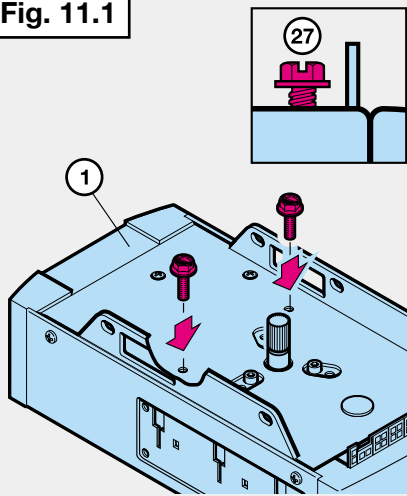
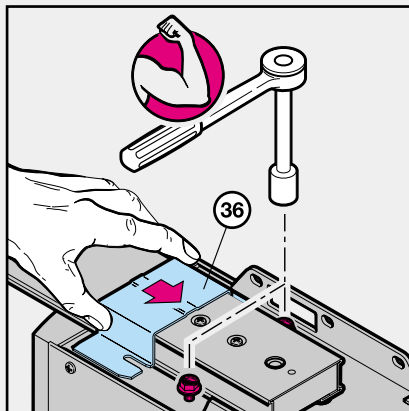
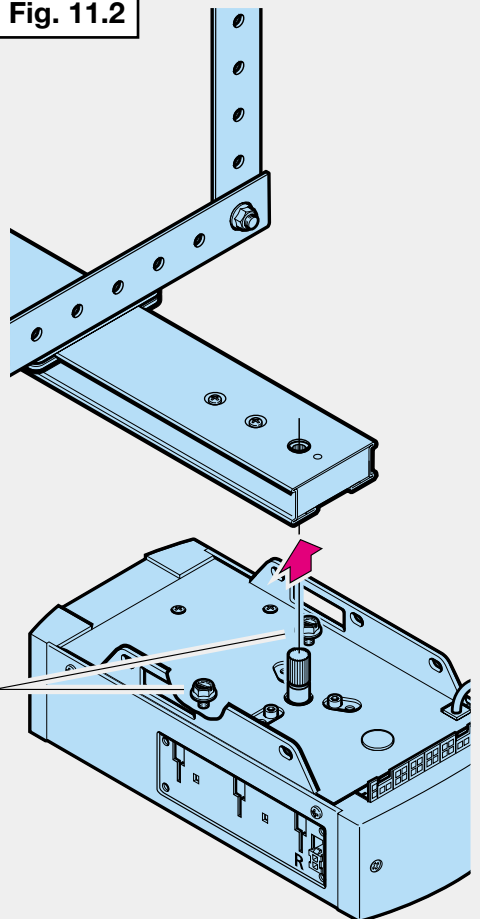


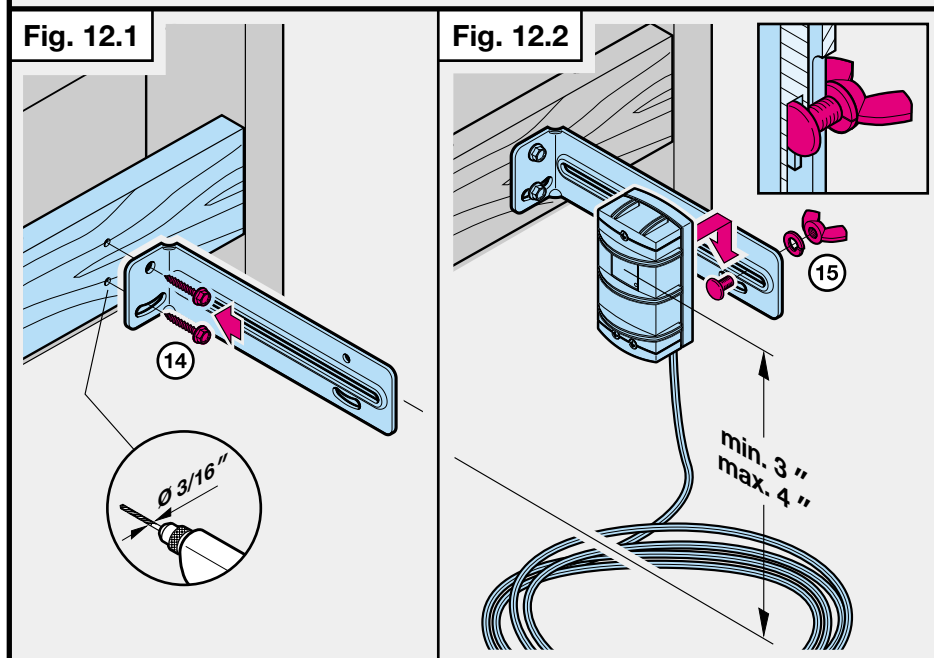
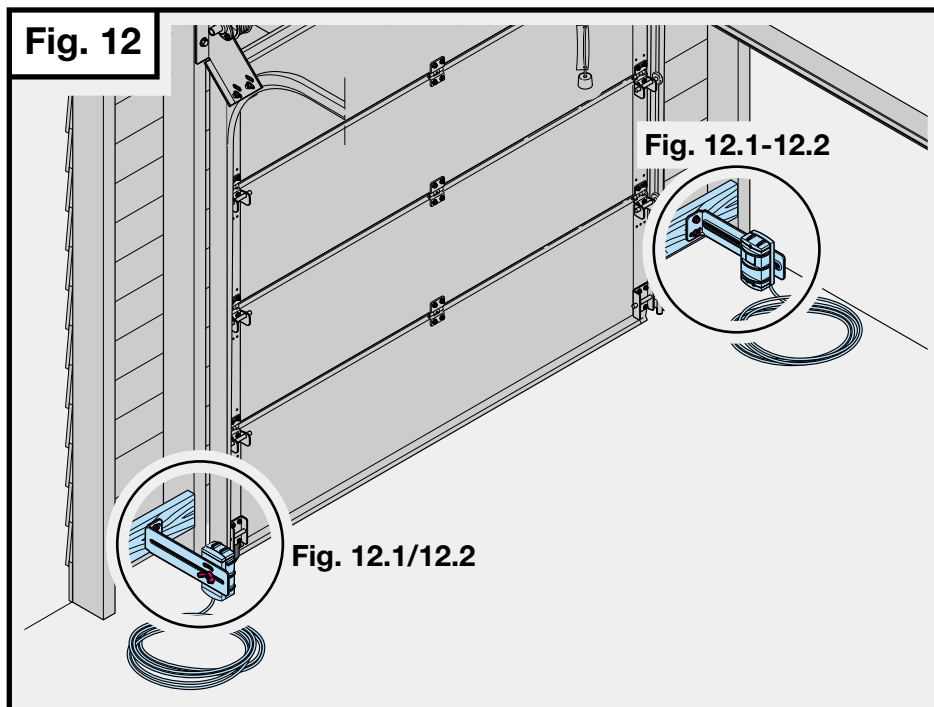
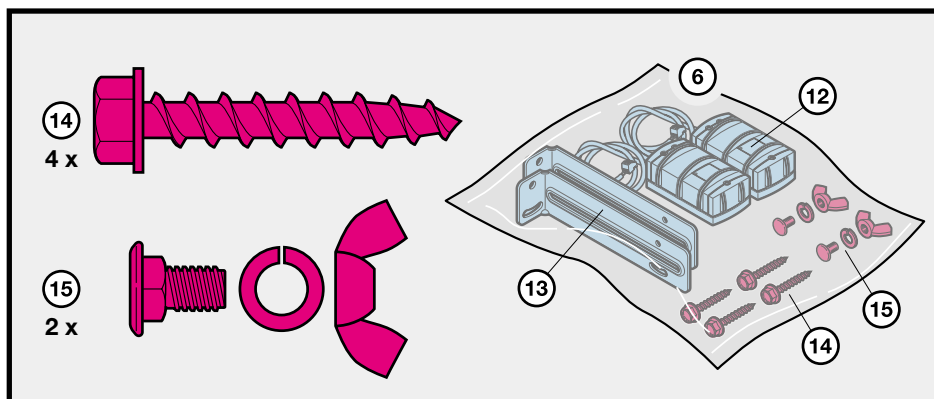
Fig. 11.2



2.5 Installation and connection of the light beam device, the wall control and the radio receiver

2.5.1 Installation and connection of light beam device

The light beam device is to be installed either to the floor or to the walls of the garage using the enclosed brackets (**part 13**). They are to be securely mounted **min. 3" and max. 4"** from the garage floor. They have to be mounted as shown in **Fig. 12**. Mount the transmitter and receiver (**parts 12**) of the light beam device vertically - with the cable outlet downwards.



2.5.1 Installation and connection of light beam device (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:

Remove the end cap if there is not enough space to plug the connectors – **Fig 13.2.2**.

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

Fig. 13

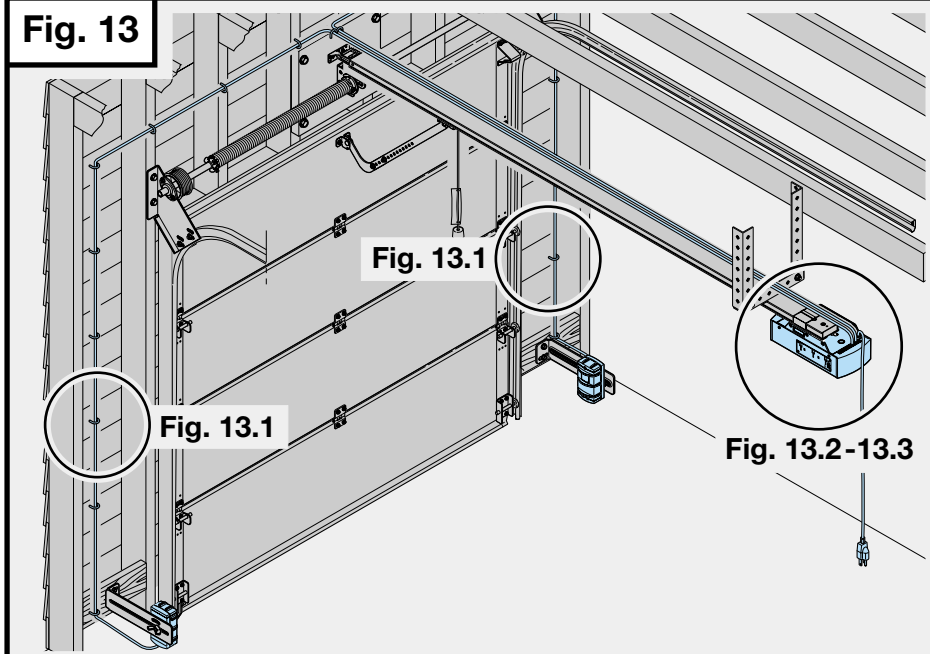


Fig. 13.1

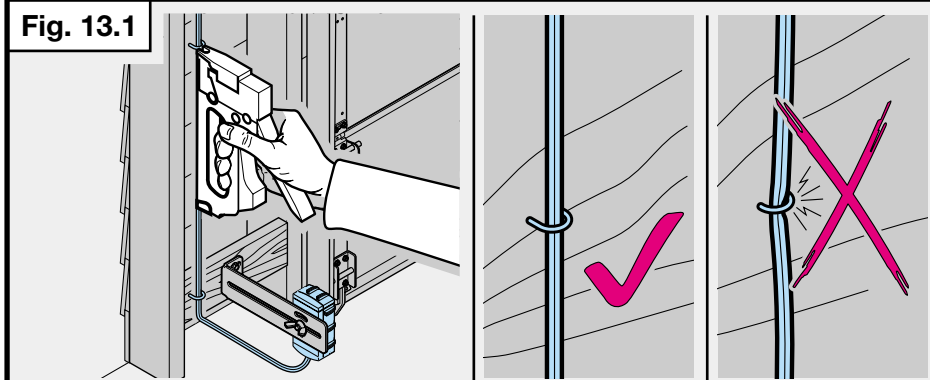


Fig. 13.2.1

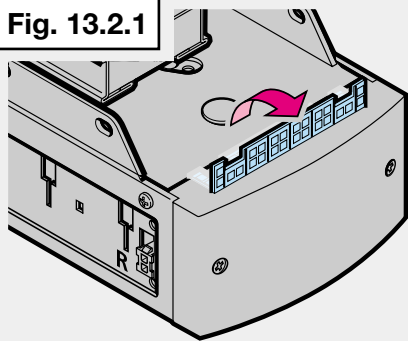


Fig. 13.2.2

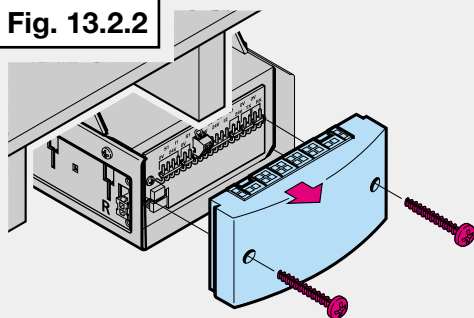
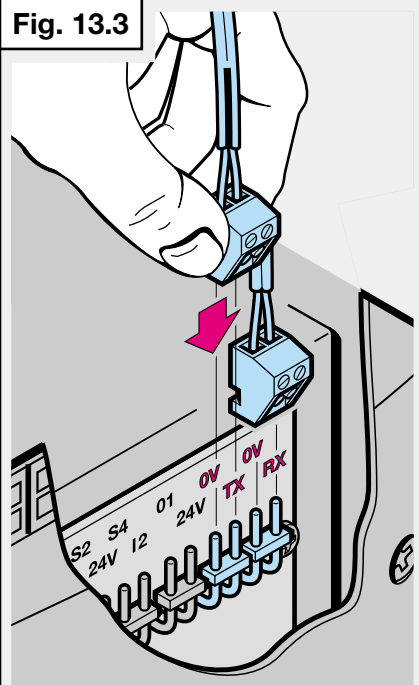


Fig. 13.3



2.5.2 Installation and connection of the wall control



WARNING

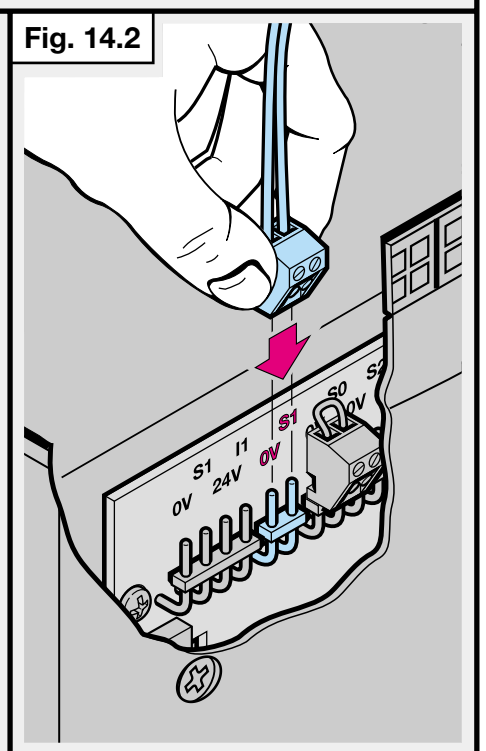
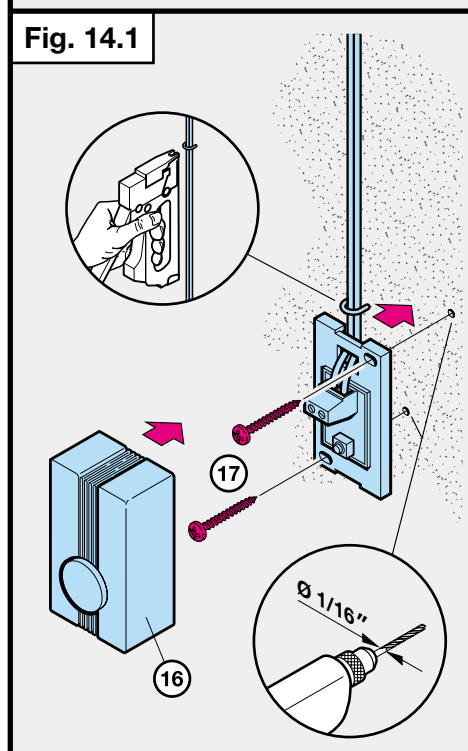
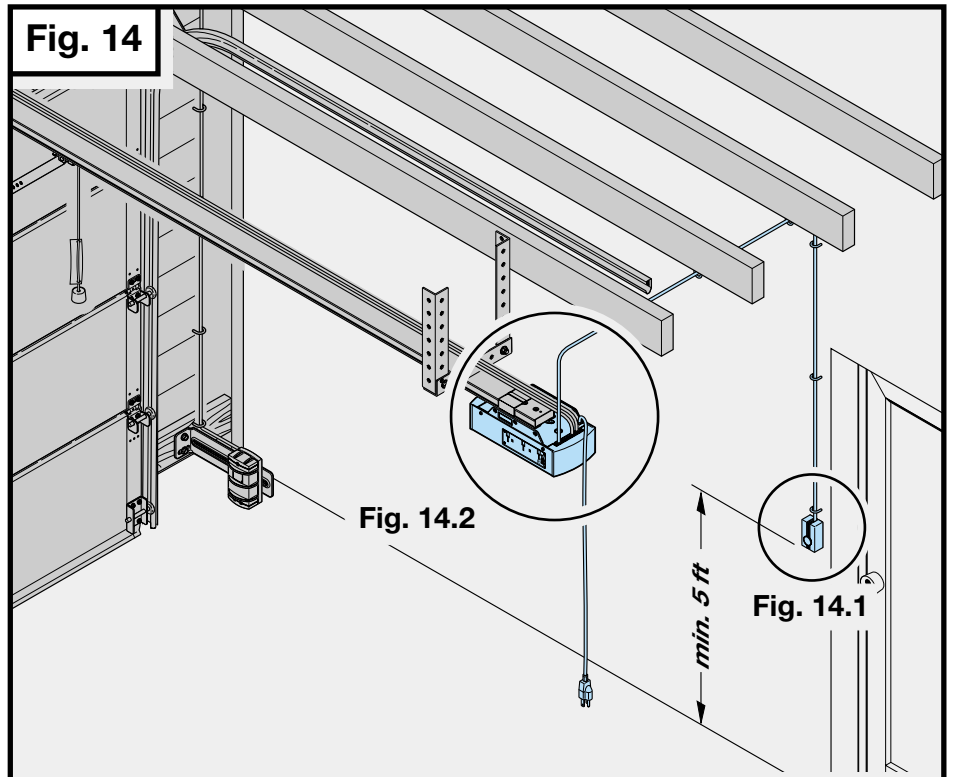
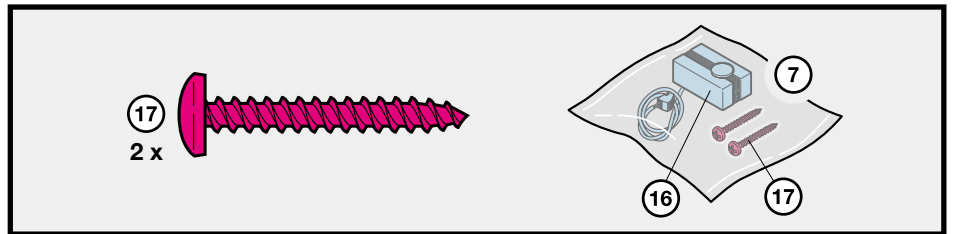
- All wall controls are to be firmly mounted in sight of the door but away from any moving parts!
- All wall controls are to be mounted out of reach of children (minimum 5 ft height)!

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:

Remove the end cap if there is not enough space to plug the connectors – **Fig 13.2.2**.
All connection terminals can be occupied several times, but not more than 1 x AWG 15 (1 x 1.5 mm²)!



2.5.3 Installation and connection of the radio receiver

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 radio receiver. 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:

Remove the end cap if there is not enough space to plug the connectors – Fig 13.2.2.

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

Fig. 15

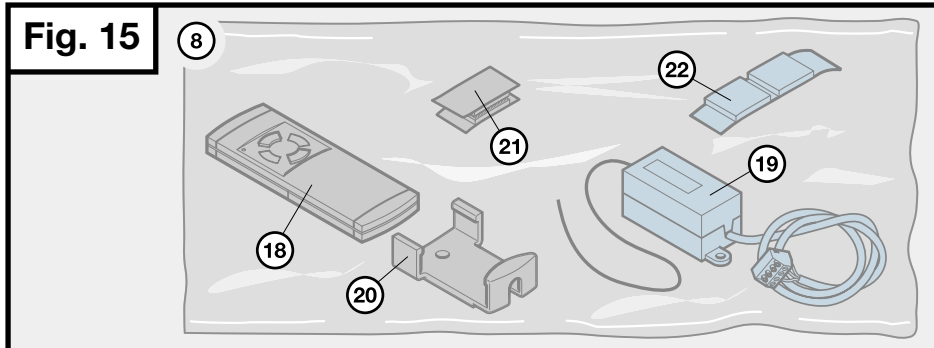


Fig. 16

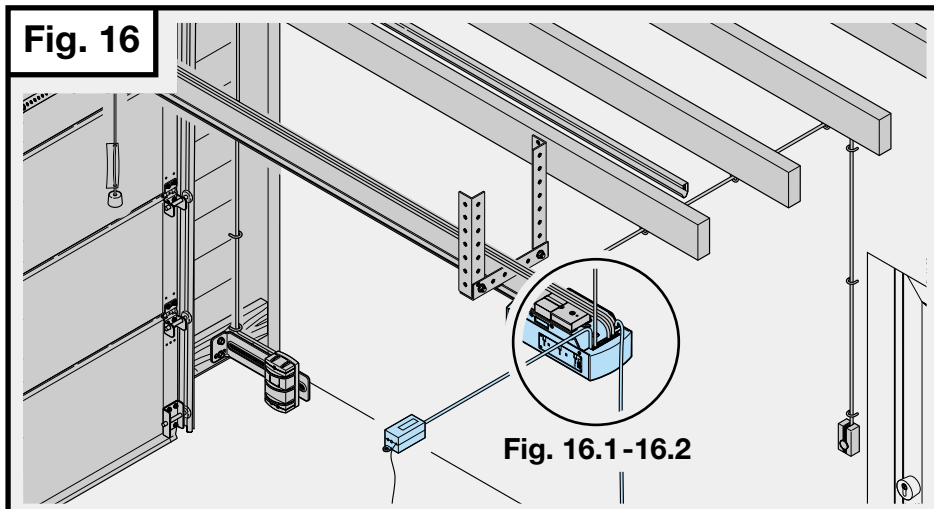


Fig. 16.1

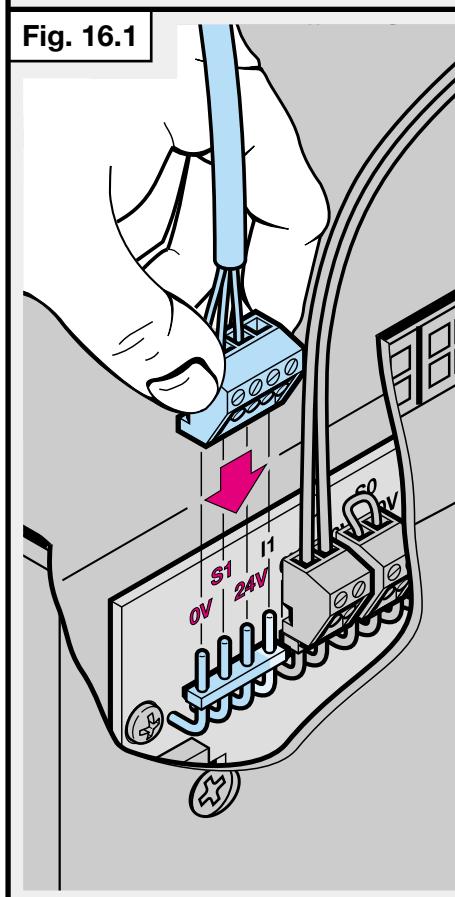


Fig. 16.2.1

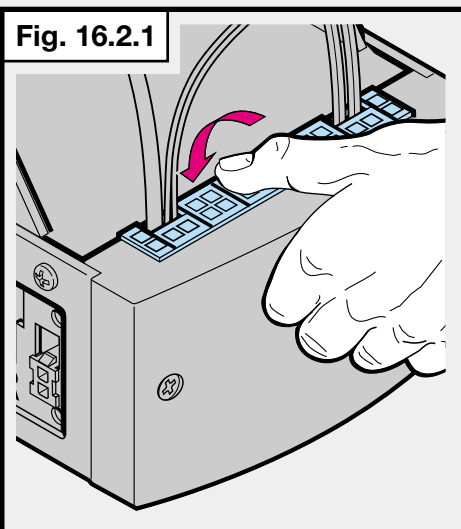
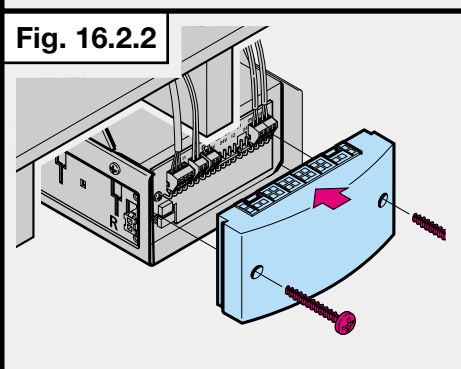


Fig. 16.2.2



2.6 Installation of the lamp houses and bulbs

Install the lamp houses (part 2 and part 3) and bulbs – Fig. 17.

Note:

Light bulbs are **not** included.



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 operator 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**

Refer to 2.4.1 **CAUTION!**

Fig. 17

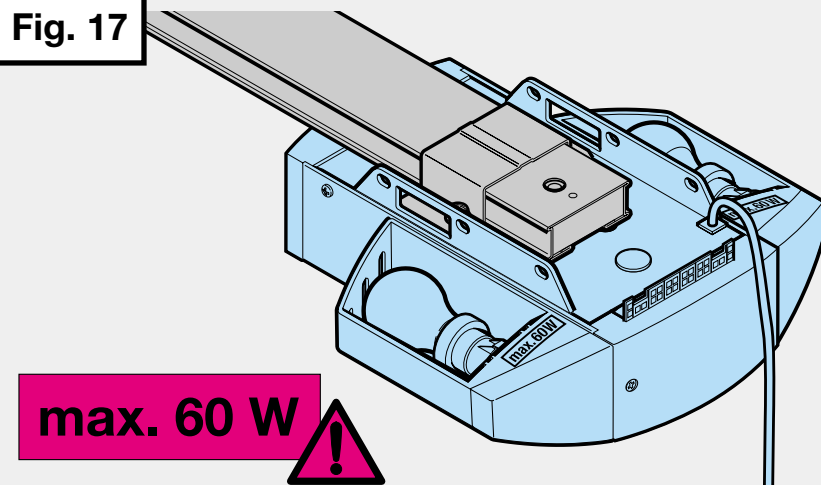


Fig. 17.1

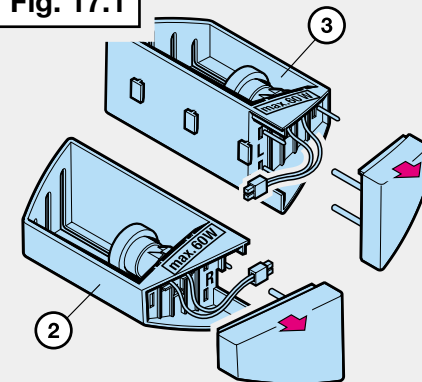


Fig. 17.2

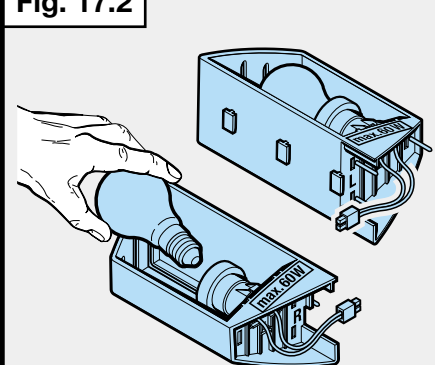


Fig. 17.3

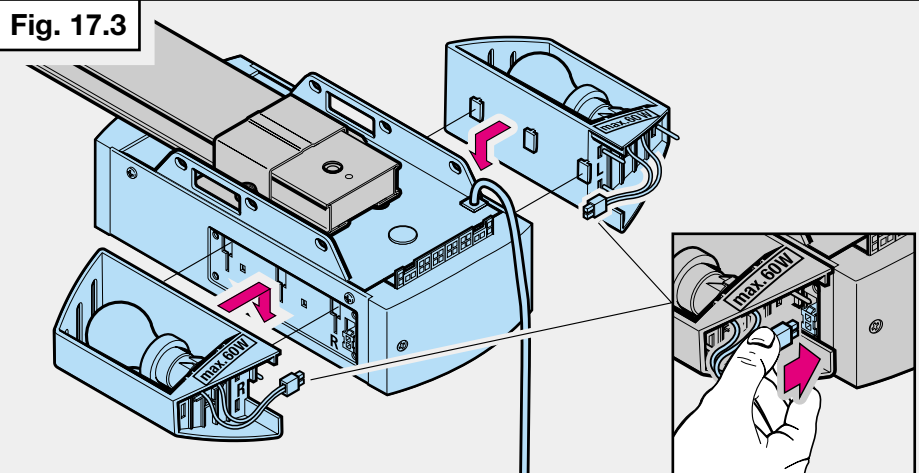
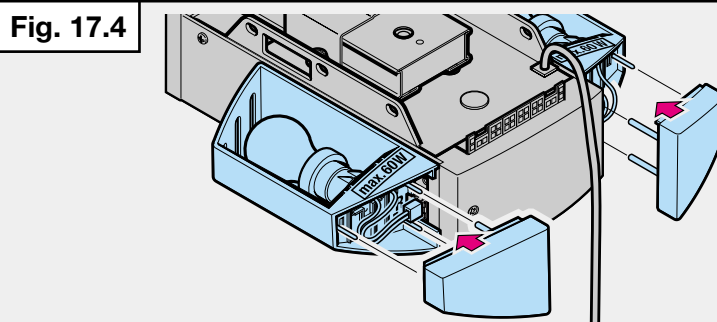


Fig. 17.4



2.7 Application of warning signs



WARNING

The enclosed warning signs are to be mounted in an eye-catching location as shown on Fig. 18. Use staple gun to secure label to surfaces to which the adhesive will not adhere – Fig. 18.2.

Fig. 18

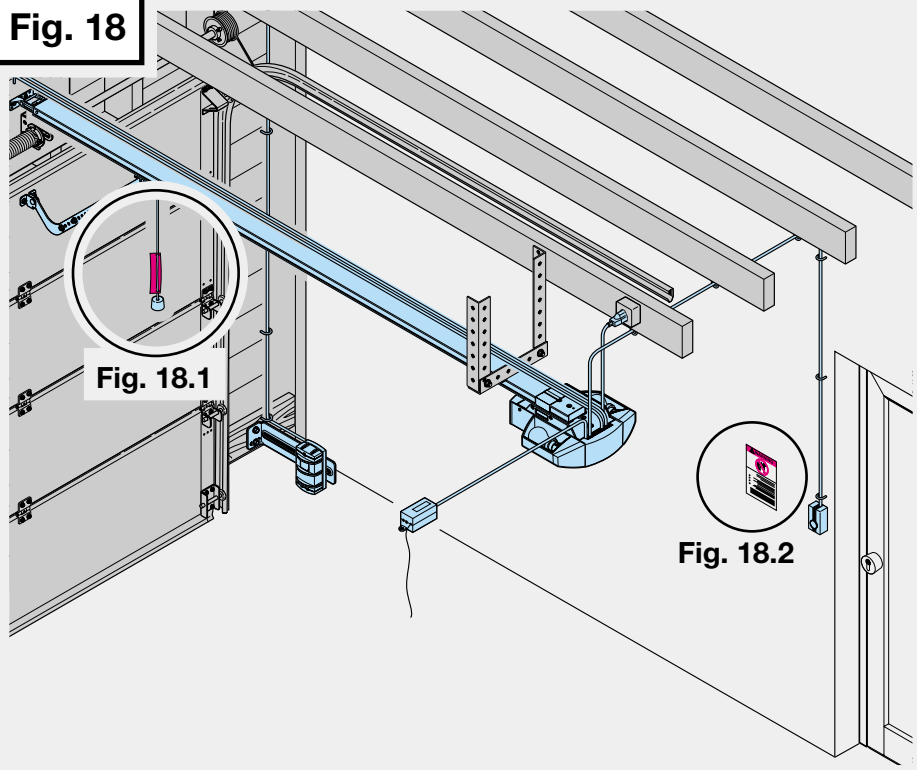


Fig. 18.1

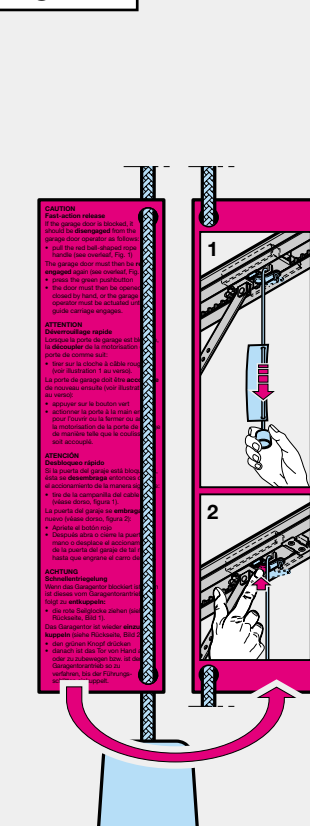


Fig. 18.2

WARNING

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).
- If door fails to reverse within 2 seconds of contact, door opener defective.
- If opener still fails to reverse door, repair or replace opener.

DO NOT REPAIR OR REPLACE YOURSELF. Always use proper tools and safety. (Always use proper tools and safety.)

AVISO

Los NIÑOS pueden ser atrapados por la puerta de garaje automática, cuya consecuencia son **LESIONES GRAVES O MUERTE.**

- No permita nunca que los niños pasen o se queden quietos debajo de la puerta en movimiento.
- No deje nunca a los niños manejar los elementos de mando del accionamiento de la puerta del garaje.
- Mantenga siempre a la vista la puerta en movimiento.
- En el caso de que una persona sea atrapada por la puerta, apriete el botón de la pared interior o active el dispositivo de emergencia.
- Pruebe un disparo de 1-2 segundos de altura de una mano de 2 x 4 en el punto de cierre de la puerta que se cierra.
- Si la puerta no se levanta después de 2 segundos después de tocar el botón, el dispositivo de emergencia debe ser activado.
- Si aun así el accionamiento no levanta la marcha, entonces mande al accionamiento a reparar o reemplazarlo.

ESTA ETIQUETA NO DEBE QUITARSE NI TENSARSE CON MANO. Siempre use herramientas y seguridad adecuadas. (Siempre use herramientas y seguridad adecuadas.)

AVERTISSEMENT

Les ENFANTS peuvent rester coincés sous les portes de garage à mandœuvre automatique, ce qui peut entraîner des **BLESSURES GRAVES OU MÊME LA MORT.**

- Né jamais les enfants passer ou rester sous la porte en mouvement.
- Né jamais les enfants à manipuler les éléments de commande de la motorisation de la porte de garage.
- Né jamais les enfants à la porte des yeux lorsqu'elle est en mouvement.
- En cas où une personne restait coincée sous la porte, appuyez sur le bouton-poussoir intérieur ou actionnez le déverrouillage de secours.
- Contrôlez la motorisation de la porte une fois par mois (voir notice de service).
- Si la porte ne se lève pas après 2 secondes après avoir appuyé sur le bouton, le dispositif de secours doit être activé.
- Si après 2 secondes après avoir appuyé sur le bouton, la porte ne remonte toujours pas à marche, alors mandez à réparer ou à remplacer le dispositif.

NE PAS RÉPARER NI REMPLACER L'APPAREIL SOUS LA PENTE D'UN OUVRIER QUALIFIÉ. Utilisez toujours des outils et des équipements de sécurité appropriés. (Utilisez toujours des outils et des équipements de sécurité appropriés.)

2.8 Connection of the operator to the source of power



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 prior to working on the operator!
- Improper electrical supply can damage the operator!

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

- Plug the operator into a grounded socket – **Fig. 19.1.**
or
- Activate the automatic circuit breaker in case of hard-wired units – **Fig. 19.2** (refer to 2.9).

Note:

In case of **PROBLEMS** → refer to 3.4 (factory reset).

Fig. 19.1

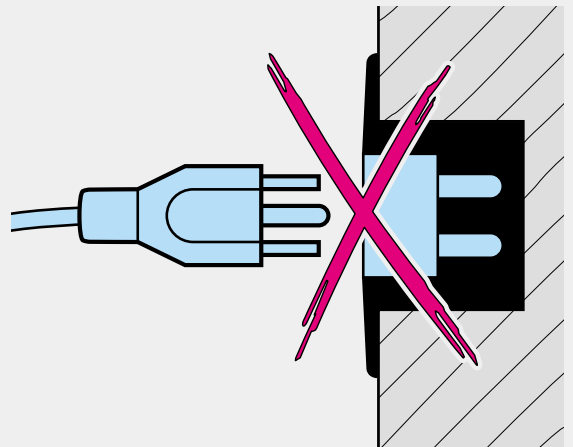
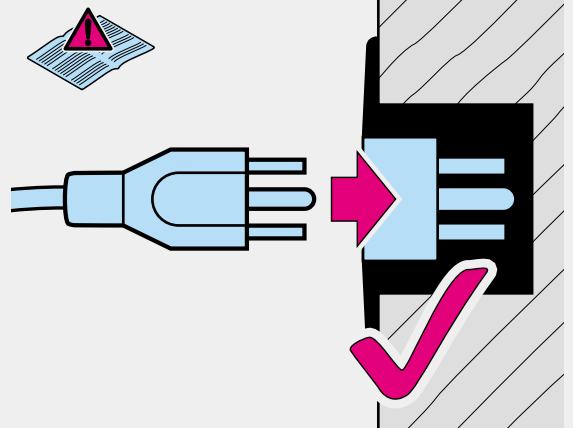
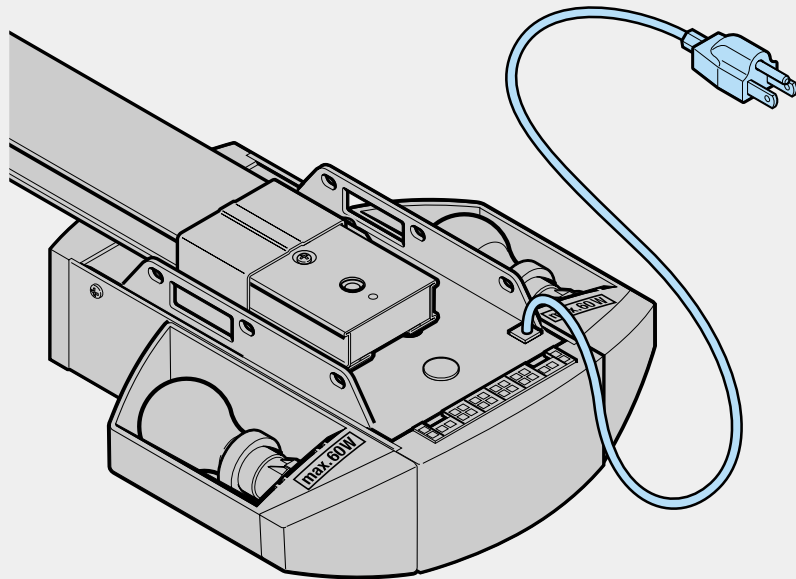
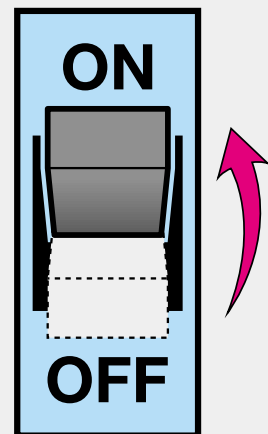
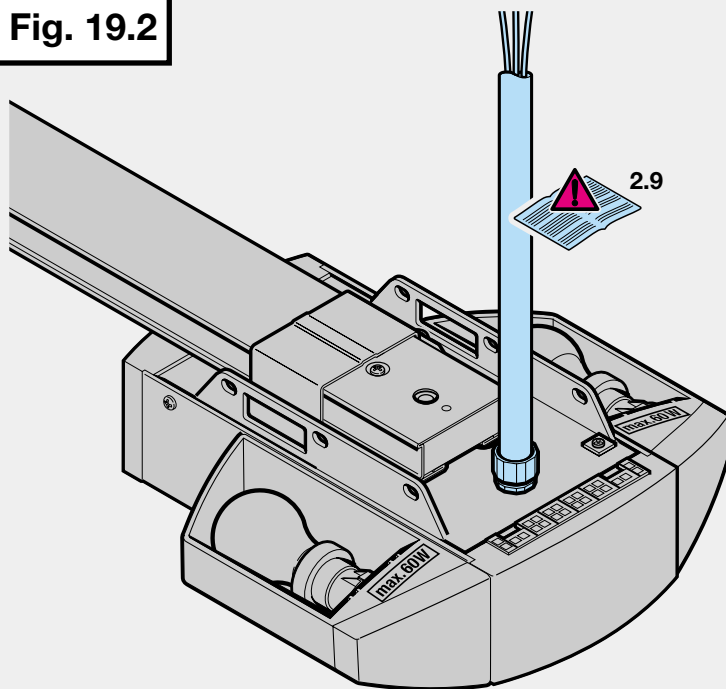


Fig. 19.2



2.9 Hard-wiring



CAUTION!

- **Disconnect the power prior to working on the operator!**
- **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 operator!**

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

Procedure for the installation:

1. Disconnect the main power at the source (automatic circuit-breaker or fuse)
2. Remove the cover and cut the power cord flush at both sides of the strain relief bushing. The strain relief shall remain in the operator chassis – **Fig. 20.2** and **Fig. 20.3**.

Fig. 20

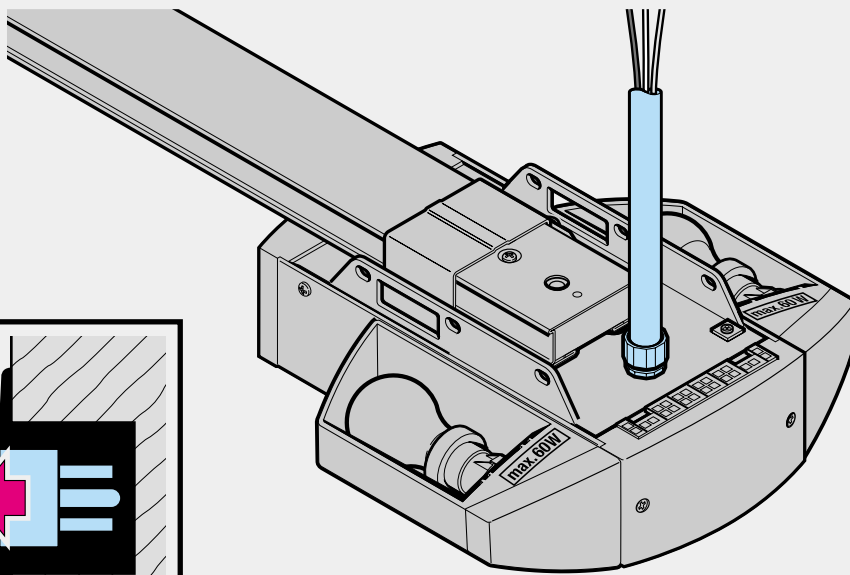


Fig. 20.1

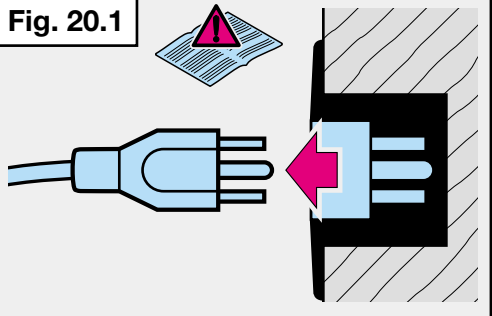


Fig. 20.2

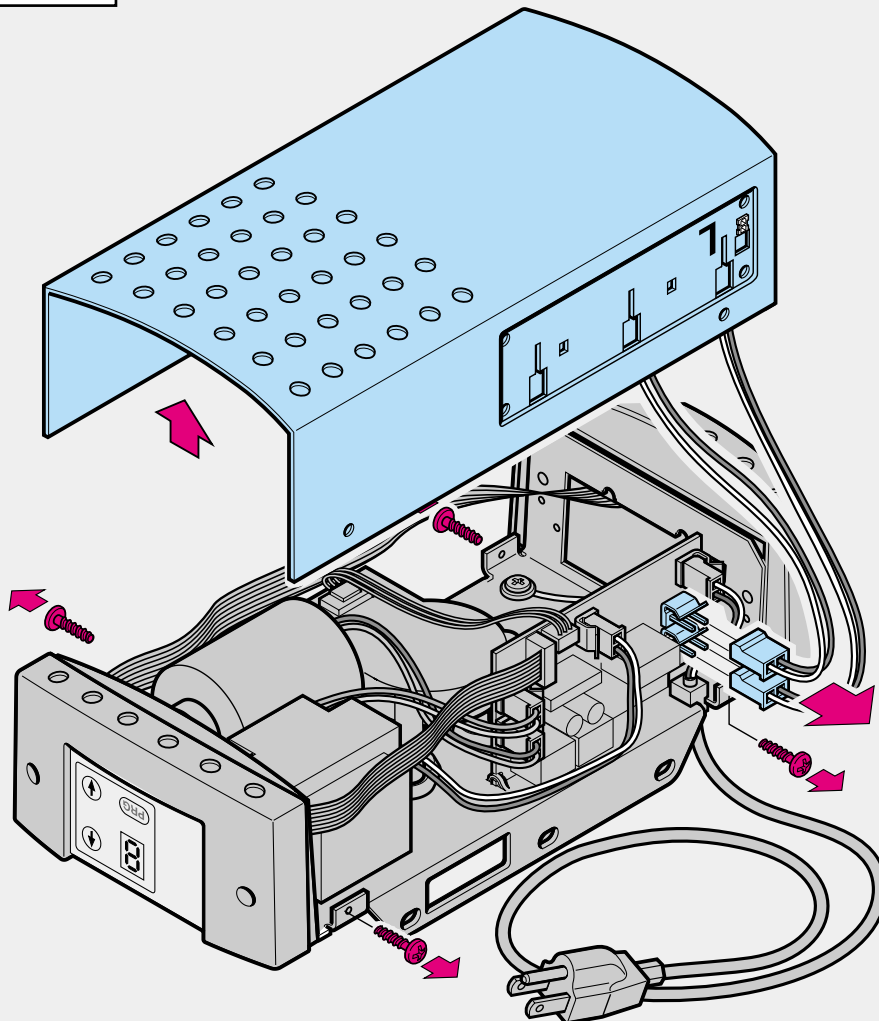
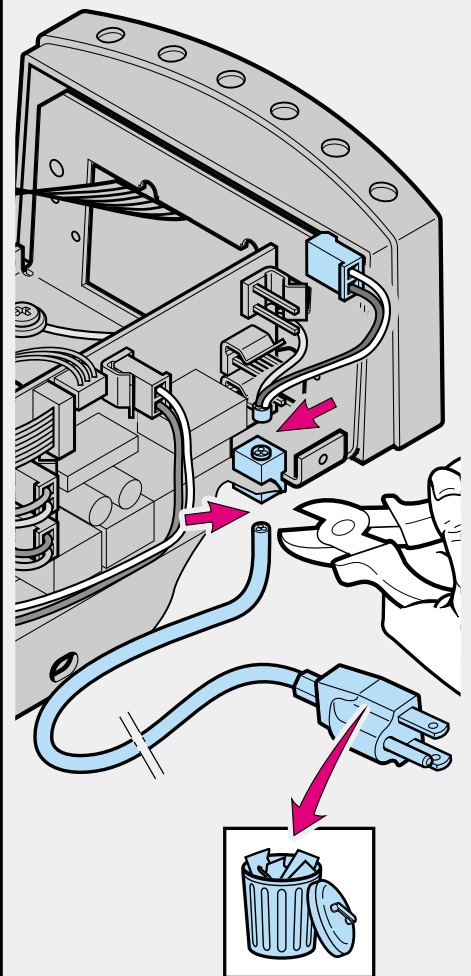


Fig. 20.3



2.9 Hard-wiring (continued)

3. Remove the prepunched knock-out from inside the operator
– **Fig. 20.4.**

Put protection against corrosion on the broken edges.



CAUTION!

It must not be used electrically conductive protection against corrosion (e.g. zinc spray out of an aerosol can). Danger for electric parts!

4. Feed the mains conductors through the hole using a suitable UL listed strain relief bushing – **Fig. 20.5.**
Connect the mains conductors directly to the operator connections using UL listed wire-nuts® – **Fig. 20.6.**

Note:

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

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

Fig. 20.4

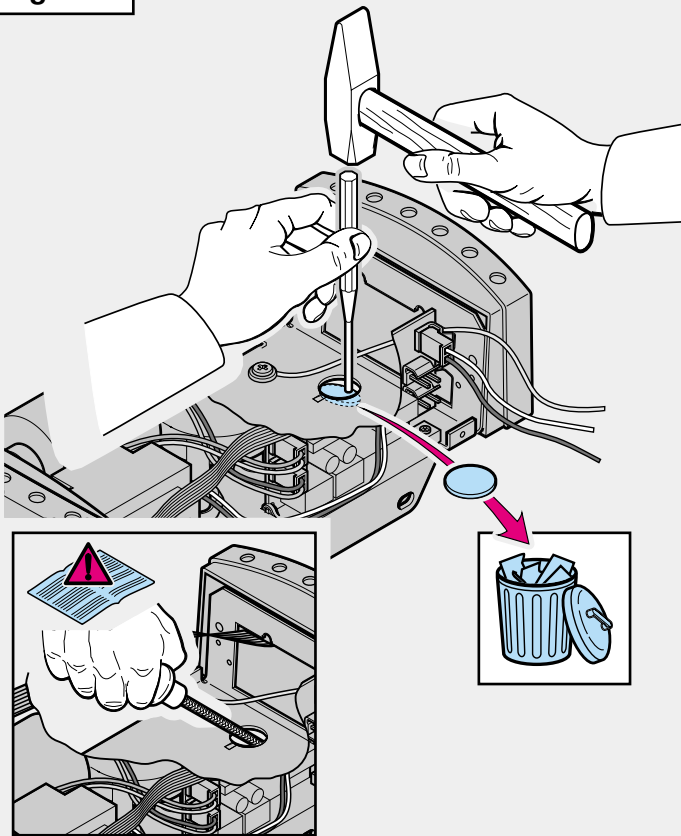


Fig. 20.5

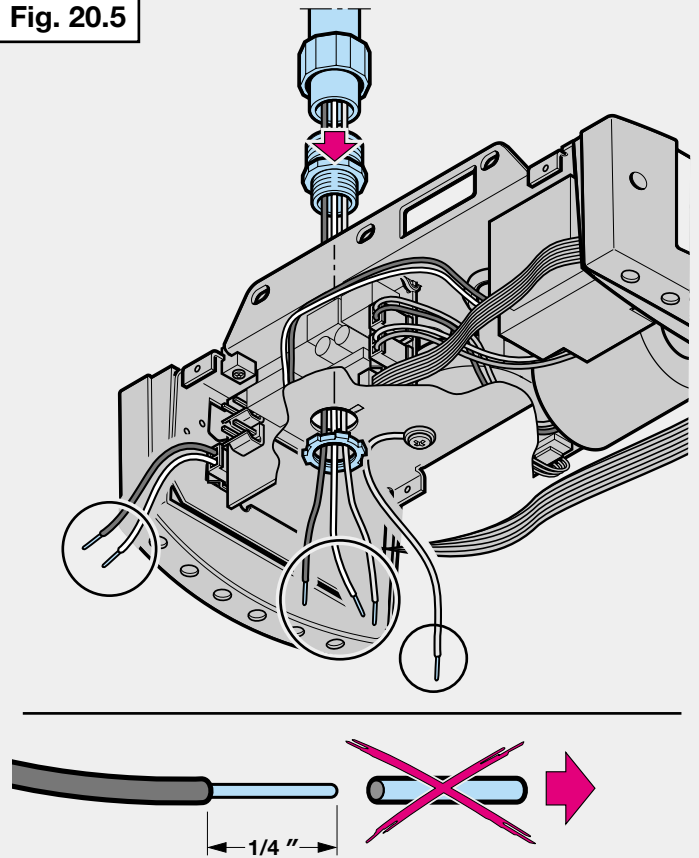


Fig. 20.6

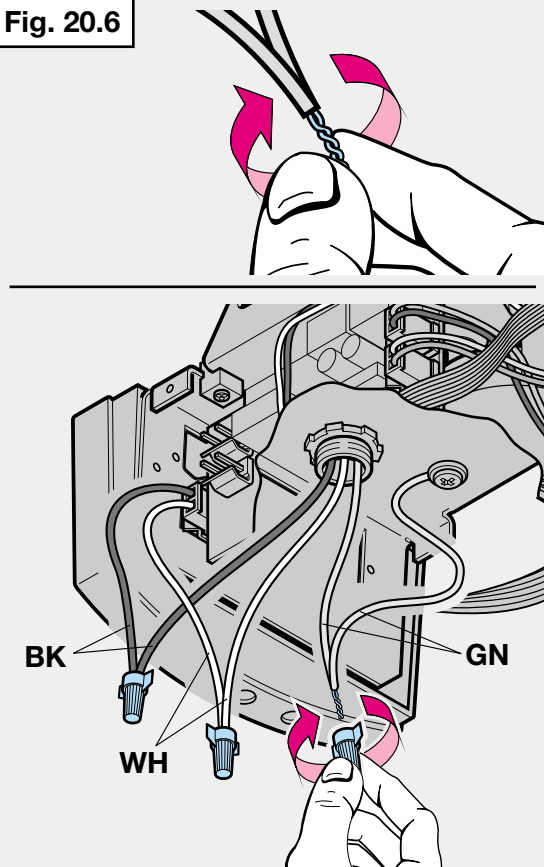
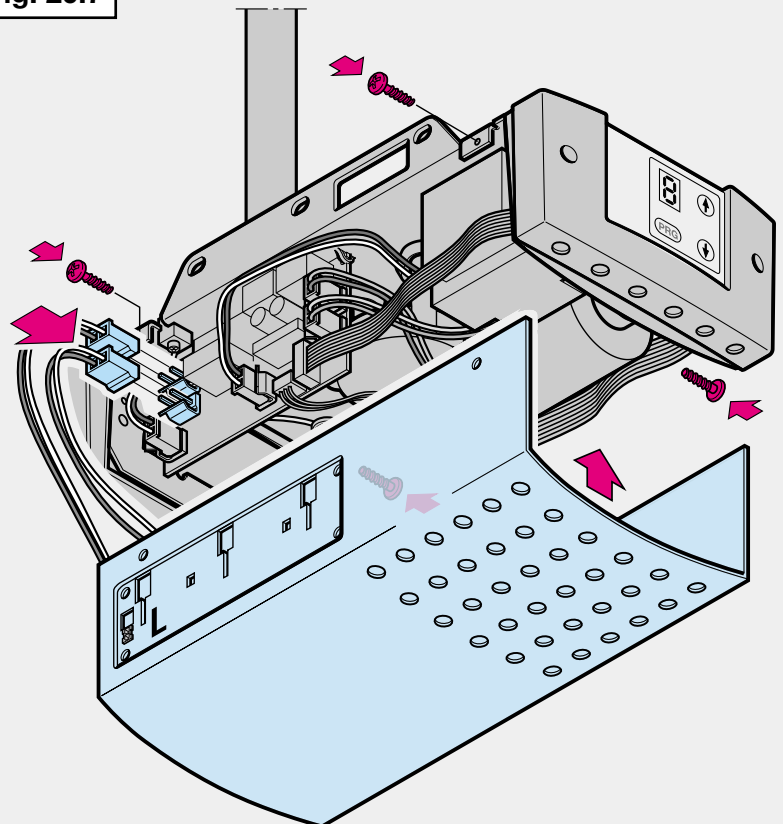


Fig. 20.7



2.10 Alignment of light beam device

Once the operator is connected to the power supply check and align the safety beam device. When properly aligned the red LED will turn off – **Fig. 21.2**. The green LED will remain lit – **Fig. 21.1**.

Fig. 21

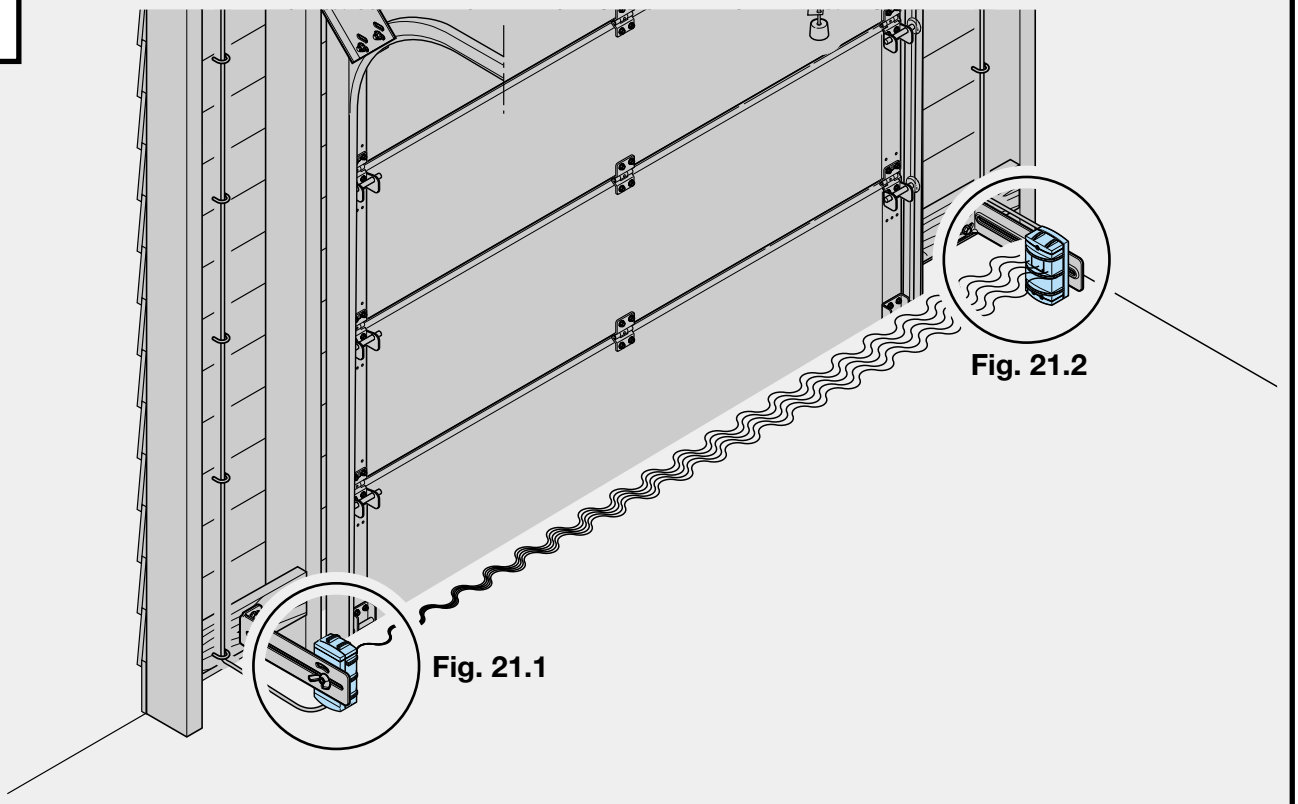


Fig. 21.1

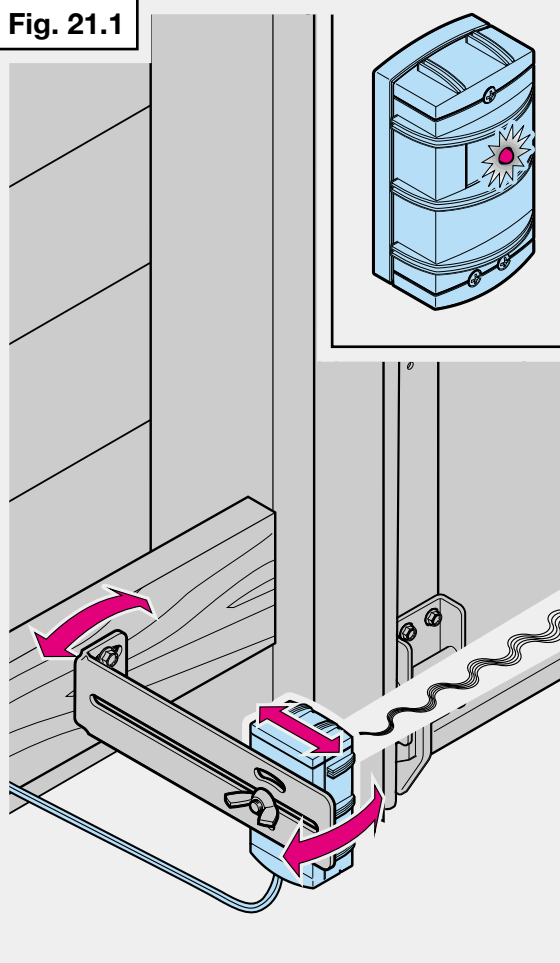
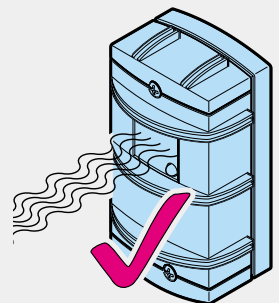
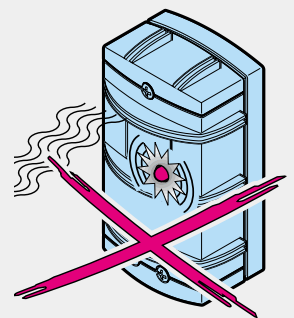
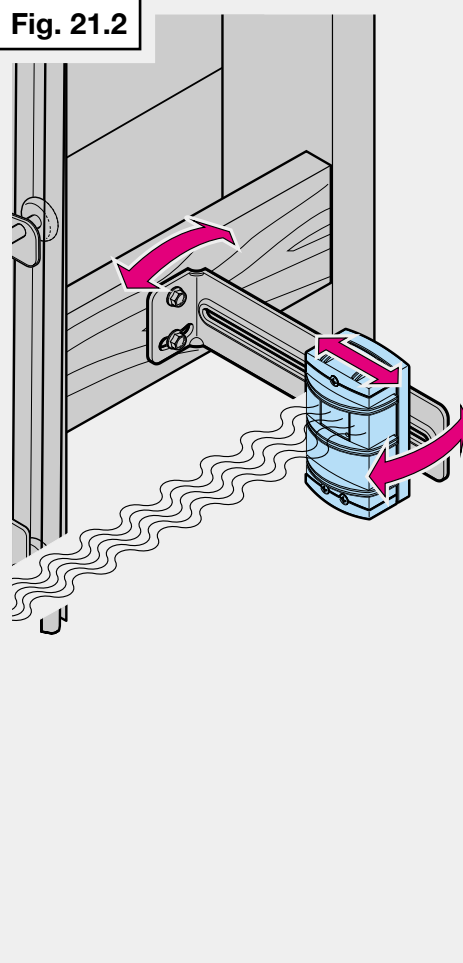


Fig. 21.2



2.11 Adjustment and learning process of the operator

Push the green button on the trolley. Manually lift the door until the trolley engages the toothed belt – **Fig. 22.**



CAUTION!

- **Make sure the trolley is engaged prior to proceeding (you should not be able to move the door manually).**
- **Interrupt the light beam by passing an object through the beam with the door travelling in the close direction. The door should reverse to the "fully open" position.**

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

Once power is supplied the operator automatically enters a programming mode (**menu 1**), shown by a flashing "L" (learning mode) in the display – **Fig. 23.**

With the door connected to the operator and the trolley engaged:

Press the UP key once.

Fig. 23 / 1 – The door will move to the "fully open" travel limit. During this step the operator learns the position of the "fully open" travel limit.

Once the door has stopped, press the DOWN key once.

Fig. 23 / 2 – The door will move to the "fully closed" travel limit and will **automatically** reverse to the open position. During this step the operator learns the position of the "fully closed" travel limit.

Again press the DOWN key once to learn the closing force.

Fig. 23 / 3 – The door will travel to the "fully closed" travel limit. During this step the operator learns the closing force required.

Again press the UP key once to learn the open force.

Fig. 23 / 4 – The door will travel to the "fully open" travel limit. During this step the operator learns the open force required.

Fig. 23 / 5 – Again press the DOWN key once to finalize the learning process. A successful learning process will return the operator to the normal operation mode shown by a solid bar at the bottom of the operator display.

Note:

If the learning process is interrupted the operator has to be programmed from the beginning.

The installer should complete three uninterrupted open/close cycles to fine tune the operator settings and ensure proper performance.

Display notes:



- Bar in the top position indicates door open.



- Bar in the bottom position indicates door closed.



- Bar in the middle position indicates door partially open.



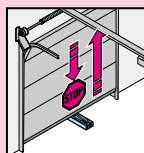
- Bar flashing indicates door is moving

- If unusually high force requirements are detected during the learning cycles the display of the operator will show the error message "1". This requires an adjustment of the force settings (menu 4 close direction, menu 6 open direction) or adjustment of the door springs.
- If other messages occur – refer to 5.2.

In case of an uneven floor it is possible to carry out the test cycles without the mechanical fixed stop in the guide rail. However, after the test cycles have been completed the fixed stops should 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 operator.



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



THE INSTALLATION IS NOW COMPLETE.

Fig. 22

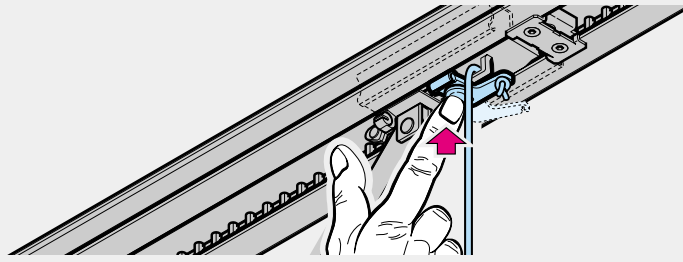
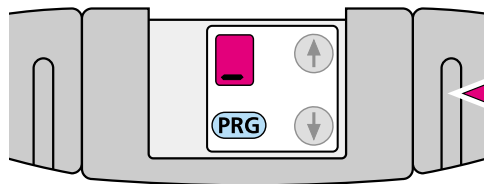
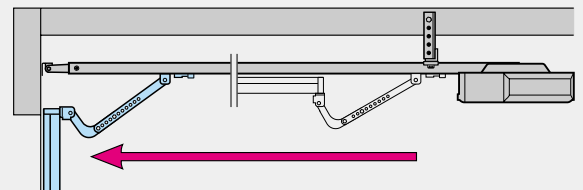
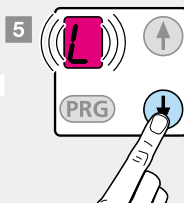
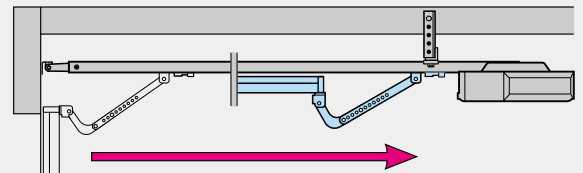
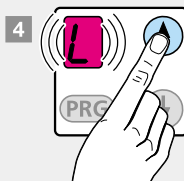
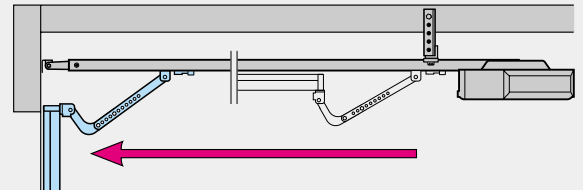
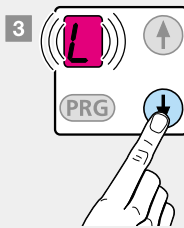
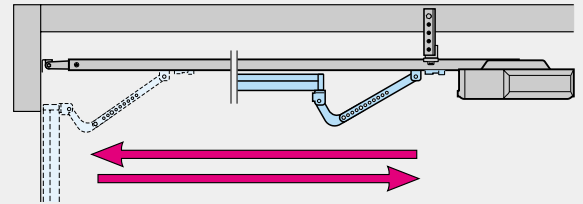
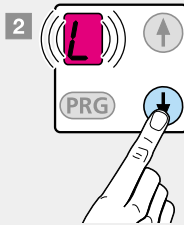
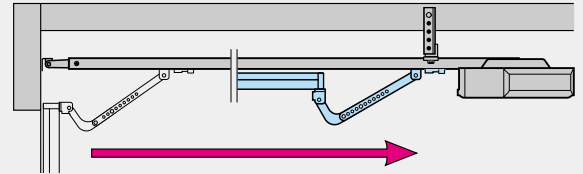
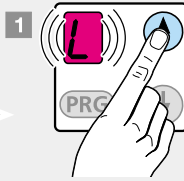
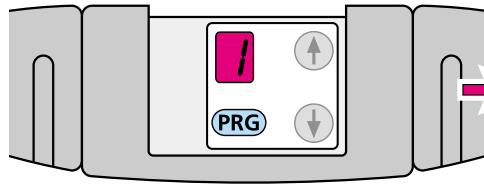


Fig. 23



2.12 Service menus - Settings for the installer or service personnel

After having selected a service menu using the PRG key, the menu number stays in the display for one second. The corresponding menu parameter will then flash. **In order to change this parameter, press and hold the PRG key for three seconds.** As a result, the number of the menu appears again in the display. After three seconds, the current parameter flashes again in the display. You can change the settings using the UP and DOWN keys. **If you release the PRG key too early, the display changes to the next menu. If you do not press any key within 60 seconds in the adjusting state, the control automatically changes to normal mode (menu 0).**

If the operator does not work properly it is possible to reset it to factory setting (refer to 3.4).

2.12.1 Menu 4 - Force sensitivity setting in the close direction

After a test run in close direction the control automatically determines the proper amount of force necessary to safely operate the door. Normally this setting guarantees optimal performance and safety. The setting of menu 4 allows the sensitivity adjustment of the forces required to operate the door. A setting of **0** makes the operator very sensitive to changes in the required forces and a setting of **9** makes the operator less sensitive to the required forces. The lowest sensitivity setting that allows the door to operate without reversing on its own should be chosen.

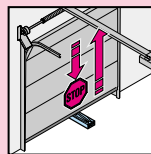


WARNING

The “reversal upon obstacle” function shall still operate in any case, please check it after adjustment is done. Contact service person if the “reversal upon obstacle” function does not work any more, as something may be wrong in the door hardware or spring mechanism.

To adjust the force sensitivity: Press and release the PRG key until the number 4 appears in the display. The display will then flash the current parameter of menu 4. **Press and hold** the PRG key for three seconds. The current parameter will flash in the display again. Press the UP or DOWN keys to adjust the setting. Finally, press and release the PRG key to return to normal mode (menu 0).

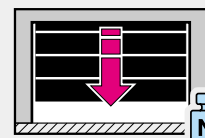
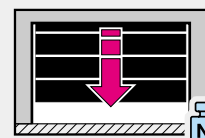
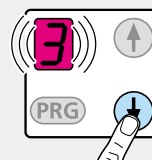
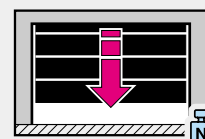
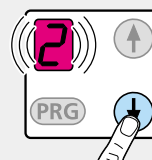
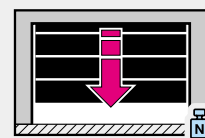
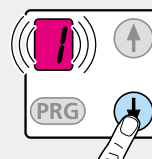
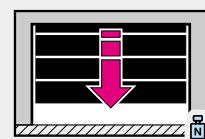
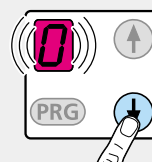
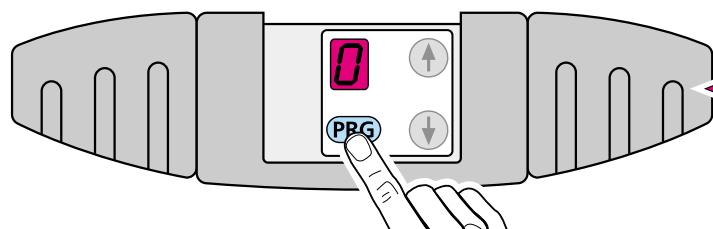
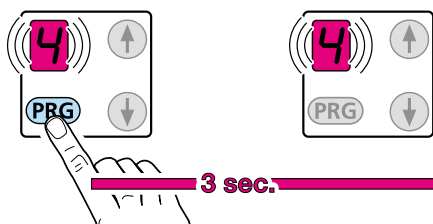
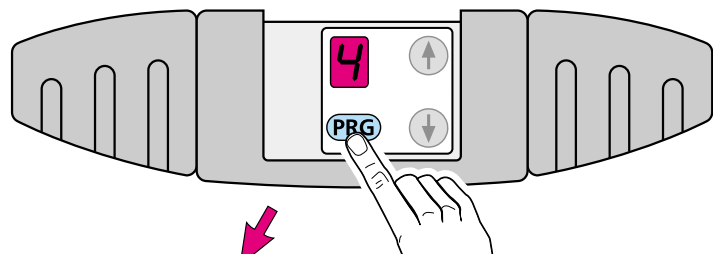
Factory setting: 4



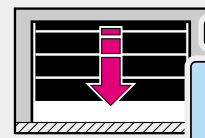
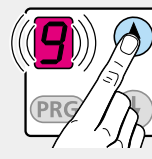
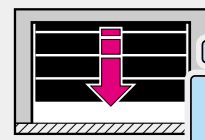
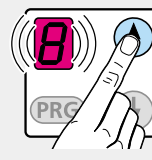
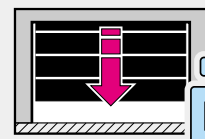
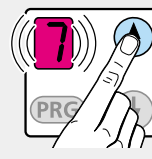
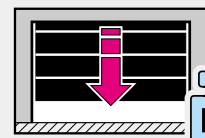
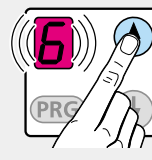
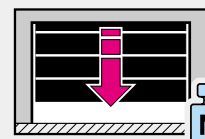
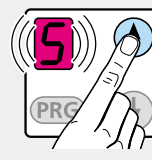
WARNING

After adjusting either the force or the travel limit, retest the operator. Failure to adjust the operator 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.

Fig. 24



factory setting



2.12.2 Menu 5 - Soft stop and drive belt tension relief in the close direction.

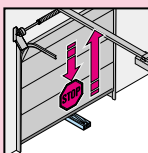
We recommend changes in this menu in the case of one-piece doors. In menu 5 the automatic drive belt tension relief and the brake reaction in the final position "Door closed" can be adjusted.

Display	Soft stop	Belt relief
0 factory setting	Short	Automatic
1	Short	Without
2	Short	Short
3	Without	Automatic
4	Without	Without
5	Without	Short

To adjust the drive belt tension relief in the close direction:

Press and release the PRG key until the number 5 appears in the display. The display will then flash the current setting for menu 5.

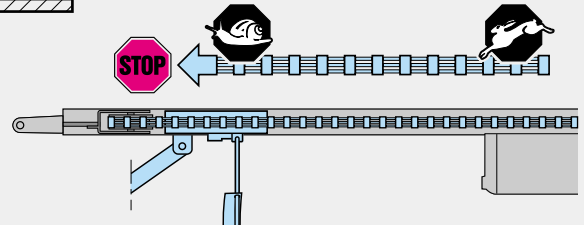
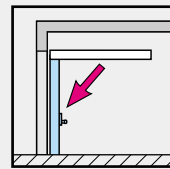
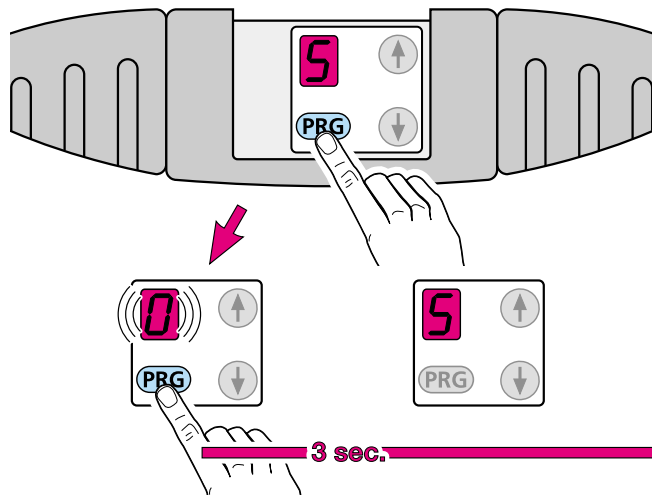
Press and hold the PRG key for three seconds. The current parameter will flash again in the display. Press the UP or DOWN keys to adjust the setting. Finally, press and release the PRG key to return to normal mode (menu 0).



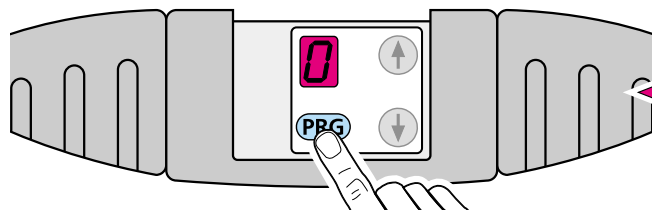
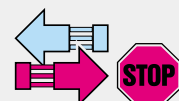
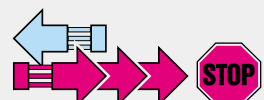
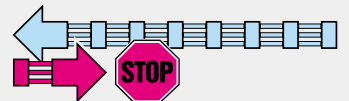
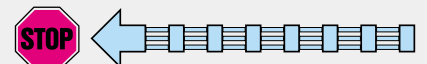
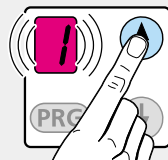
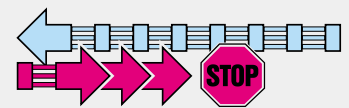
WARNING

After adjusting either the force or the travel limit, retest the operator. Failure to adjust the operator 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.

Fig. 25



factory setting

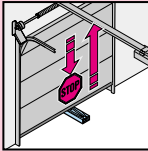


2.13 Menu 6 - Force sensitivity setting in the open direction

After a test run in the open direction the control automatically determines the proper amount of force necessary to safely operate the door. Normally this setting guarantees optimal performance and safety. The setting of menu 6 allows the sensitivity adjustment of the forces required to operate the door. A setting of **0** makes the operator very sensitive to changes in the required forces and a setting of **9** makes the operator less sensitive to the required forces. The lowest sensitivity setting that allows the door to operate without stopping on its own before end of travel should be chosen.

To adjust the force sensitivity setting in the open direction:
Press and release the PRG key until the number 6 appears in the display. The display will then flash the current parameter for menu 6. **Press and hold** the PRG key for three seconds. The current parameter will flash again in the display. Press the UP or DOWN key to adjust the setting. Finally, press and release the PRG key to return to normal mode (menu 0).

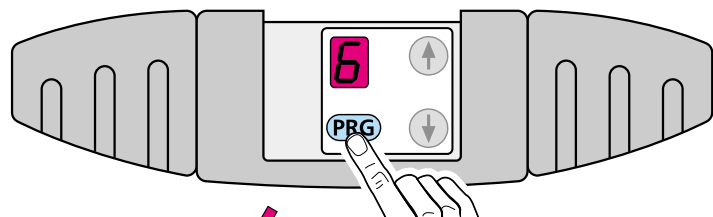
Factory setting: 4



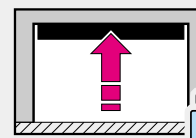
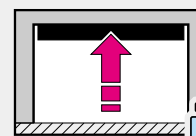
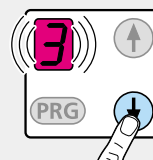
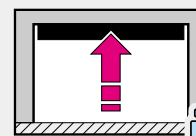
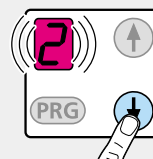
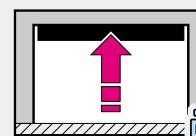
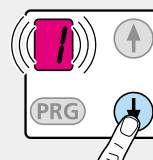
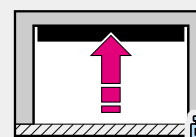
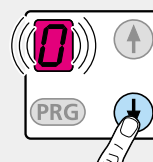
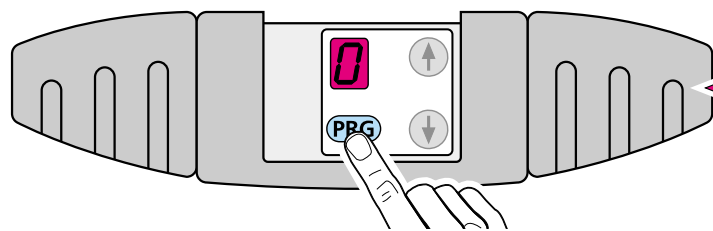
WARNING

After adjusting either the force or the travel limit, retest the operator. Failure to adjust the operator 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.

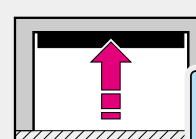
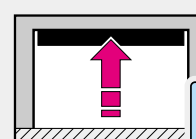
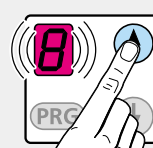
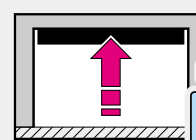
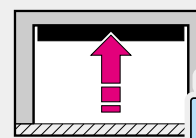
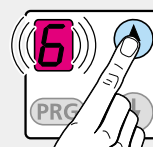
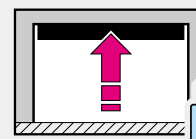
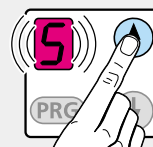
Fig. 26



3 sec.



factory setting



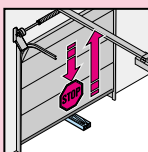
2.14 Menu 7 - Soft stop and drive belt tension relief in the open direction

We recommend changes in this menu in the case of one-piece doors. Menu 7 allows the installer to adjust the "soft stop" and the drive belt tension relief in the open direction.

Display	Soft stop	Belt relief
0 factory setting	Short	Automatic
1	Short	Without
2	Short	Short
3	Without	Automatic
4	Without	Without
5	Without	Short

To adjust the soft stop and the drive belt tension relief in the open direction:

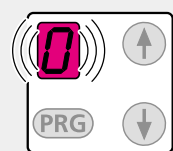
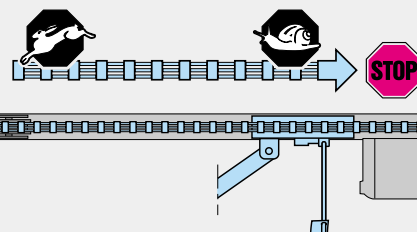
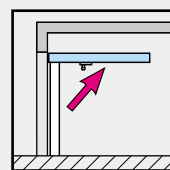
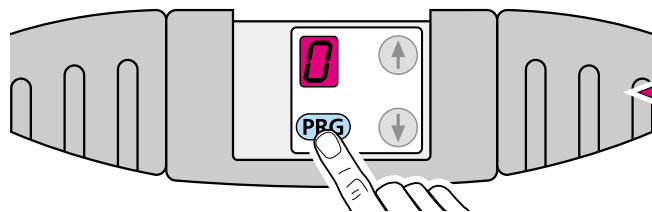
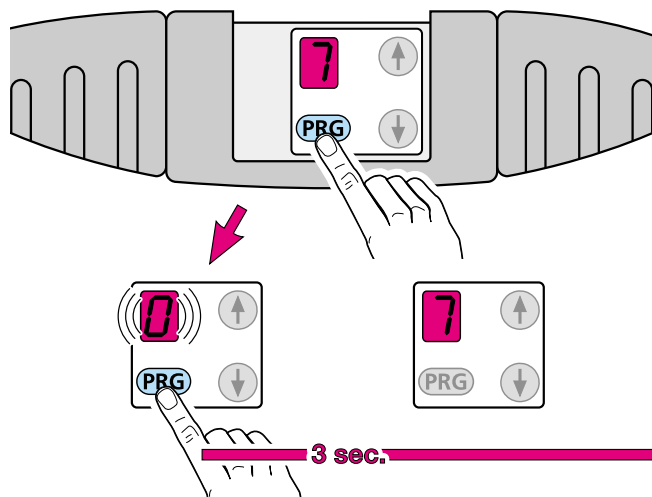
Press and release the PRG key until the number 7 appears in the display. The display will then flash the current parameter for menu 7. **Press and hold** the PRG key for three seconds. The current parameter will flash again in the display. Press the UP or DOWN key to adjust the setting. Finally, press and release the PRG key to return to normal mode (menu 0).



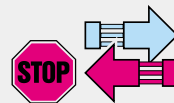
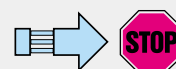
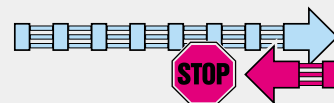
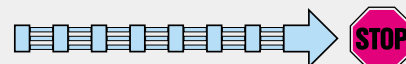
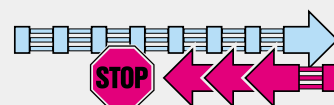
WARNING

After adjusting either the force or the travel limit, retest the operator. Failure to adjust the operator 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.

Fig. 27



factory setting



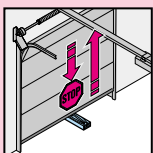
2.15 Menu 8 - Setting of reversing limit on contact with an obstacle

We recommend changes in this menu in the case of one-piece doors. In menu 8, the reversing limit can be adjusted and reset.

Display	Soft stop
0	20 mm
1	22 mm
2 factory setting	24 mm
3	26 mm
4	28 mm
5	30 mm
6	32 mm
7	34 mm
8	36 mm
9	38 mm
2 mm $\hat{=}$ 0,078 inch	

To adjust the reversing limit:

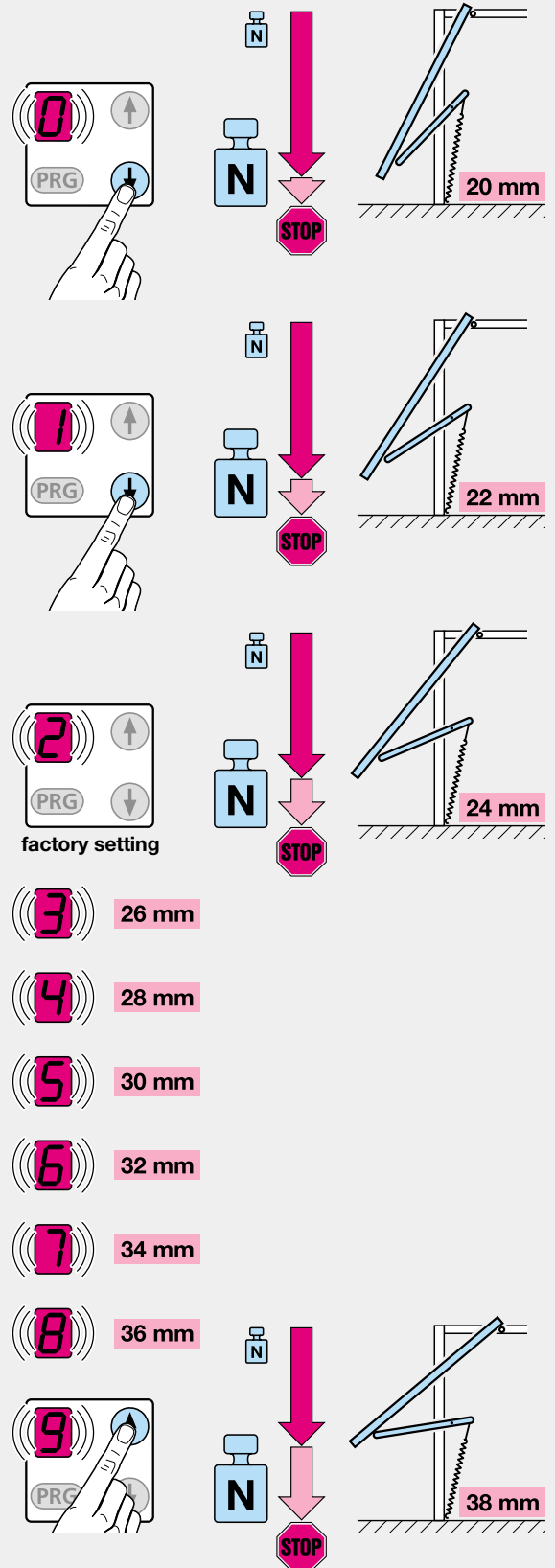
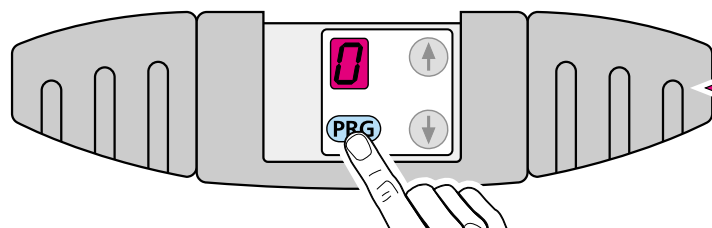
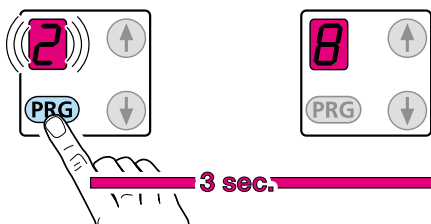
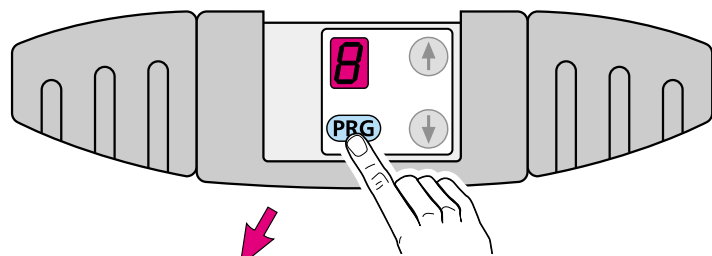
Press and release the PRG key until the number 8 appears in the display. The display will then flash the current parameter for menu 8. **Press and hold** the PRG key for three seconds. The current parameter will flash again in the display. Press the UP or DOWN key to adjust the setting. Finally, press and release the PRG key to return to normal mode (menu 0).



WARNING

After adjusting either the force or the travel limit, retest the operator. Failure to adjust the operator 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.

Fig. 28



3.1 IMPORTANT SAFETY INSTRUCTIONS



WARNING

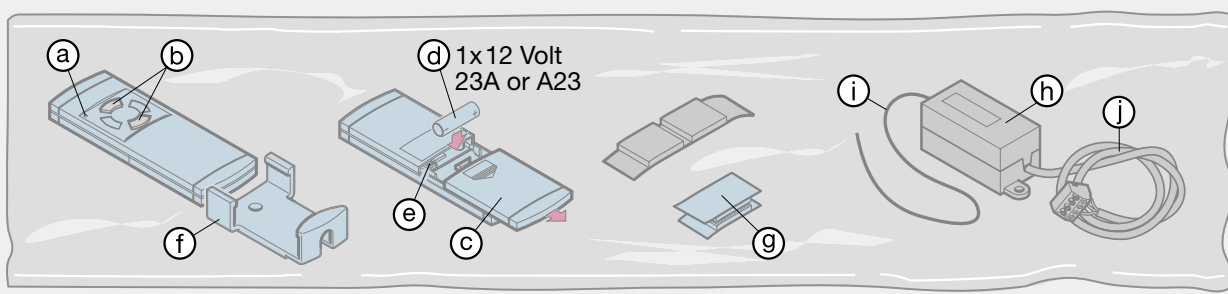
In order to reduce the risk of serious injuries or death:

- READ AND FOLLOW ALL INSTRUCTIONS PROVIDED!

- Never let children operate or play with door controls. Keep the remote control away from children!
- 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!**
- Test door opener 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. After adjusting either the force or the limit of travel, retest the door opener. Failure to adjust the opener properly increases the risk of severe 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 operator equipment!
- Do not block the normal 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!
- Check the function of the operator on a monthly basis!
- Check the function of all safety devices (light beam device, emergency release, automatic reversal) on a monthly basis (refer to 3.6)!
- Contact a qualified service person if your operator fails to perform any of the safety checks!
- Do not make any changes to the operator settings!
- 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!

Fig. 29



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 use the door and operator. Only use the hand transmitter when the door is within your line of vision.

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

- 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!

HS2 hand transmitter – Fig. 29

- (a) LED
- (b) Control buttons
- (c) Battery compartment cover
- (d) Battery
- (e) Reset button
- (f) Hand transmitter holder
- (g) Sticking-Velcro®-Pad

velcro® is a registered trademark of **Velcro USA Inc.**

HE1 1-channel radio receiver – Fig. 29

(suitable for dry premises only)

- (h) Radio receiver
- (i) Aerial
- (j) Connection cable, approx. 20" long
(3-core with female connector)

The HE1 1-channel radio receiver supplied with the HF1 radio set and the top button of the HS2 hand transmitter are preprogrammed at the factory.



THE HAND TRANSMITTER IS NOW READY TO USE.

Programming the 1-channel radio receiver

HE1 1-channel radio receiver – Fig. 30

- (k) Programming button "P"
- (l) LED
- (m) Side view of the radio receiver

If you wish to program another hand transmitter or another button to work with the radio receiver, please proceed as follows:

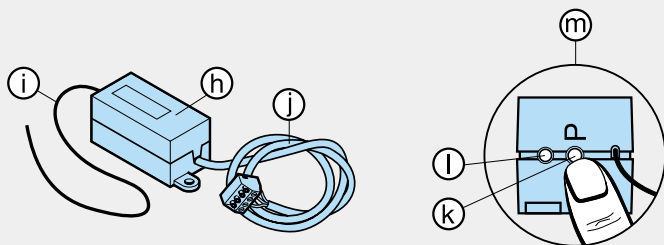
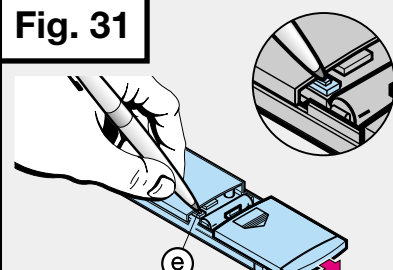
1. Briefly press the red button "P" (programming button) on the radio receiver, the red LED starts flashing slowly.
2. Press the button you wish to program on the hand transmitter for at least 1 second. The distance between the transmitter and the radio receiver should be at least 3 ft.
3. Once the programming has been completed, the red LED on the radio receiver starts flashing rapidly.
4. Release the button on the hand transmitter.

Once the flashing stops, the radio receiver is ready for operation.

Test the function!

Note:

If programming is not carried out within 30 seconds of pressing the "P" button, the red LED on the radio receiver will extinguish.

Fig. 30**Fig. 31**

Restoring the original unique code preprogrammed at the factory – Fig 31.

ATTENTION!

The following steps are only necessary in the event of erroneous extension or learning procedures.

Note:

If the garage does not have a separate entrance, any programming changes or extensions should be carried out inside the garage! When programming and extending the remote control, make sure that no persons or objects are within the door's range of travel. The code of each button on the hand transmitter can be reset to the original factory code or programmed with a new code.

Restoring the original code.

1. Open the battery compartment cover - a small button on the circuit board can be accessed.
2. Take a **blunt** object and **gently** press and hold button (e).

Note:

Do not use any sharp objects. Excessive pressure can damage the button.

3. Press and hold the control button you wish to code – the LED on the transmitter flashes slowly for max. 4 seconds.
4. If the small button is held down **until** the slow flashing phase ends, the control button will then be reset to the original factory code and the LED starts flashing rapidly.
5. Close the battery compartment cover.
6. Re-program the radio receiver.

Re-coding with another unique code not preprogrammed at the factory.

1. Open the battery compartment cover - a small button on the circuit board can be accessed.
2. Take a **blunt** object and **gently** press and hold button (e).
3. Press and hold the control button you wish to code – the LED on the transmitter flashes slowly for max. 4 seconds.
4. If the small button is released **before** the slow flashing phase ends, the control button you wish to code will be re-coded with another code and the LED immediately starts flashing rapidly.
5. Close the battery compartment cover.
6. Re-program the radio receiver.

USA: FCC ID: PZI-40HSHE, PZI-390HSHE

Canada: IC: 4205A-40HSHE, 4205A-390HSHE

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 radio set HF1 with operating frequency 390 MHz is far below the FCC radio frequency exposure limits. Nevertheless, the radio set HF1 operating frequency 390 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.

3.3 Menu of operator

Note:

Current operator settings are permanently stored in case of a power failure.

The control of the operator includes 8 menus (three user menus and five service menus).

If the operator has not been successfully programmed the control automatically changes to the learning menu (menu 1) during the installation. Otherwise the control stays in normal mode (menu 0). If no keys are pressed for 60 seconds the operator automatically returns to menu 0.

3.3.1 Menu selection

The menu selection is carried out with the PRG key. Starting with menu 0, each pressing of the PRG key advances you to the next menu. Menu 8 is followed by the return to menu 0.

3.3.2 Menu 0 – Normal mode

The control is in normal mode. Door movement is activated by pressing the UP and DOWN keys on the operator or the hand transmitter button or the wall control button.

3.3.3 Menu 1 – Learning operation

In menu 1 the "fully open" and "fully closed" travel limits are learned and the force settings are adjusted (refer to 2.11). If high forces are required, the error message "1" appears in the display.

After successful test runs, the control automatically changes to normal mode (menu 0).

If the operator does not work properly it is possible to reset it to factory setting (refer to 3.4).

3.3.4 Operator light

The operator light can be activated in three different ways:

- The door starts to move (adjustable duration time set in menu 2)
- The light is activated via remote control or separate wall control light button (adjustable duration time set in menu 3) - **not included.**
- The light is activated using wall control: On/Off - **not included.**

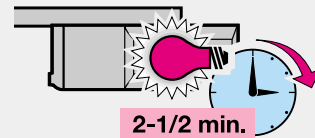
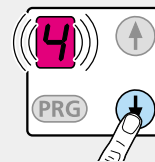
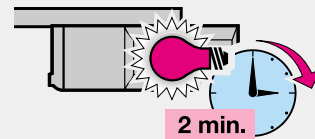
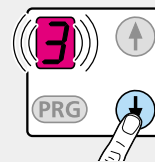
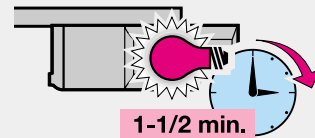
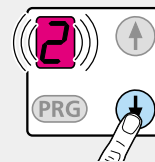
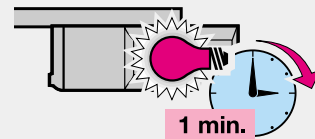
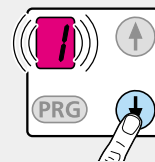
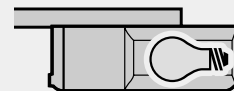
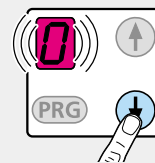
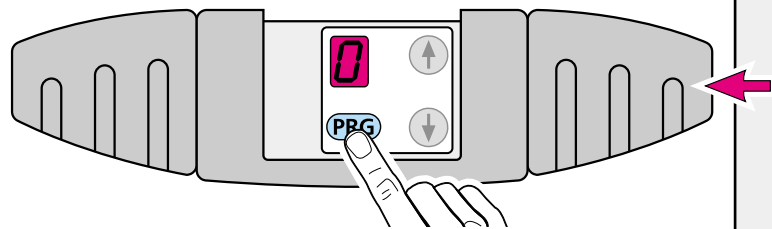
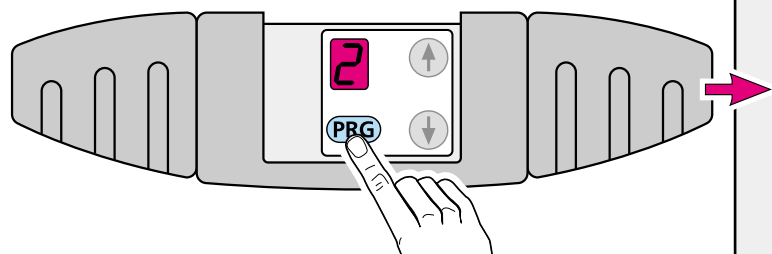
3.3.5 Menu 2 – Duration of light activated by door movement

As soon as the door starts to move, the operator light is switched on (current parameter larger than 0). Once the door has stopped moving the corresponding light duration is activated.

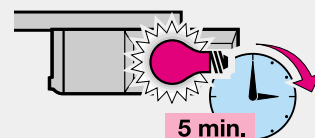
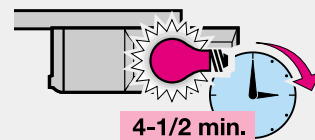
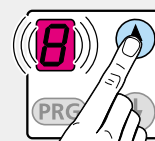
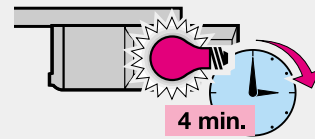
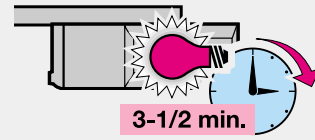
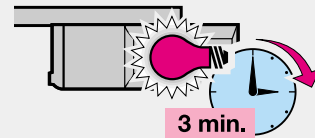
Display	Operator light during door movement
0	Off
1	1 min.
2	1-1/2 min.
3	2 min.
4	2-1/2 min.
5 factory setting	3 min.
6	3-1/2 min.
7	4 min.
8	4-1/2 min.
9	5 min.

To adjust the light duration: Press and release the PRG key until the number 2 appears in the display. The display will flash the current parameter (0-9). Press the UP or DOWN keys to adjust to the desired duration. Press and release the PRG key to store this new setting. Press and release the PRG key until the number 0 appears in the display or wait 60 seconds for the operator to automatically return to menu 0 – **Fig. 32.**

Fig. 32



factory setting



3.3.6 Menu 3 – Duration of light activated by user

Note:

This function requires an additional external radio receiver or an additional wall control **not included** with the operator.

When a remote control or a separate wall control button is activated the operator light is switched on for the corresponding duration listed below.

Display	Operator light at customer requirement
0	Off
1	30 min.
2	60 min.
3	90 min.
4 factory setting	120 min.
5	180 min.
6	240 min.
7	300 min.
8	360 min.
9	Permanent light

To adjust the light duration: Press and release the PRG key until the number 3 appears in the display. The display will flash the current parameter (0-9). Press the UP or DOWN key to adjust to the desired duration. Press and release the PRG key to store this new setting. Press and release the PRG key until the number 0 appears in the display or wait 60 seconds for the operator to automatically return to menu 0 – **Fig. 33.**

Connection of the additional accessories

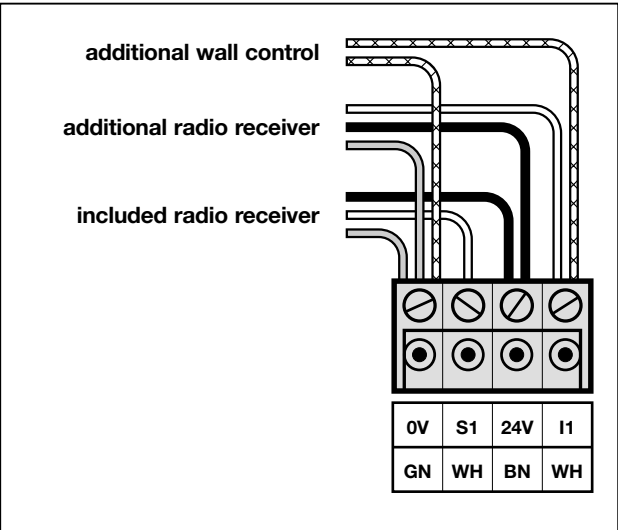
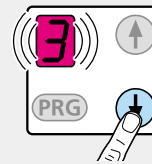
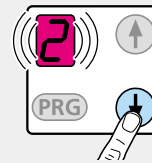
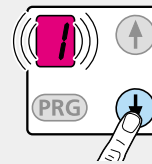
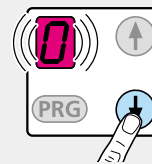
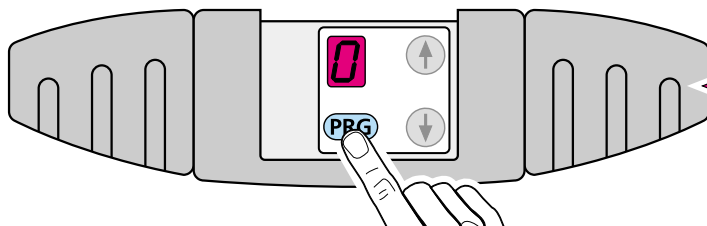
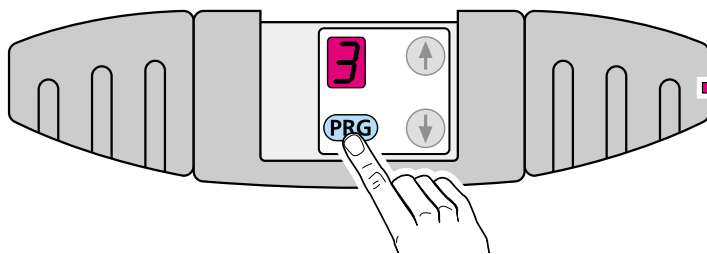
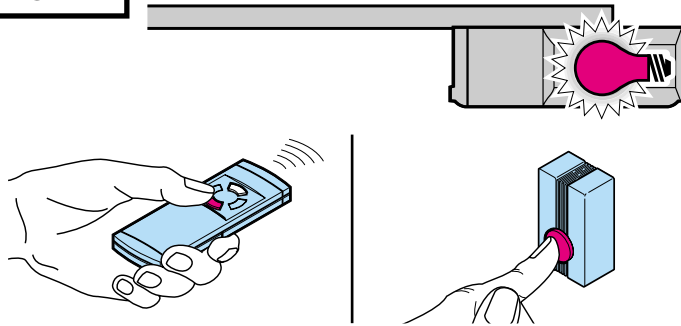
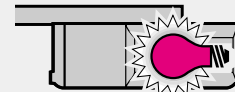
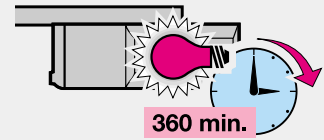
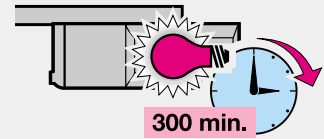
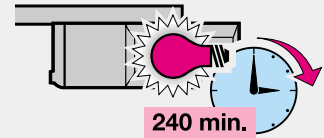
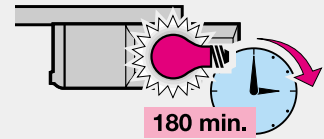
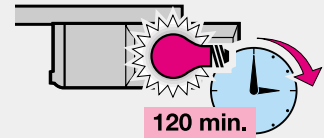
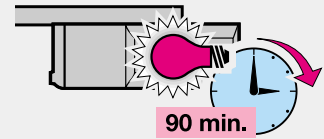
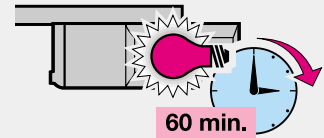
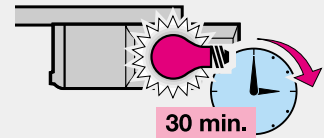
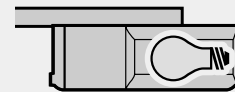
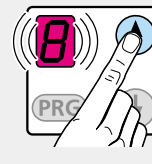


Fig. 33



factory setting



3.4 Reset operator to factory setting

In order to reset the operator to original factory settings:

- 1 Disconnect power supply.
- 2 **Press and hold** the PRG key.
- 3 Reconnect the power supply.
- 4 As soon as "C" is indicated in the display, release the PRG key.

The original factory settings are active and the operator is in learning mode (menu 1). Relearn the operator (refer to 2.11).

Note:

You need a **second person** in order to reset the hard-wired operator to factory settings – **Fig. 35**.

Fig. 34

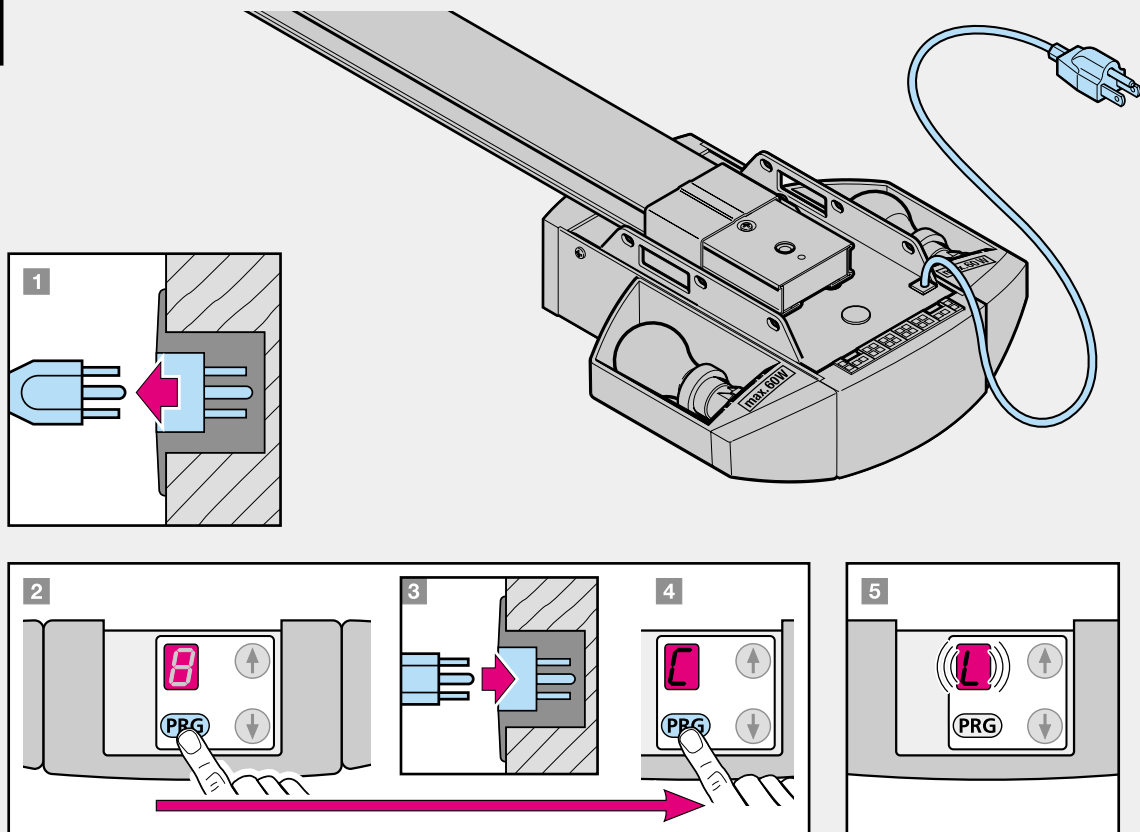
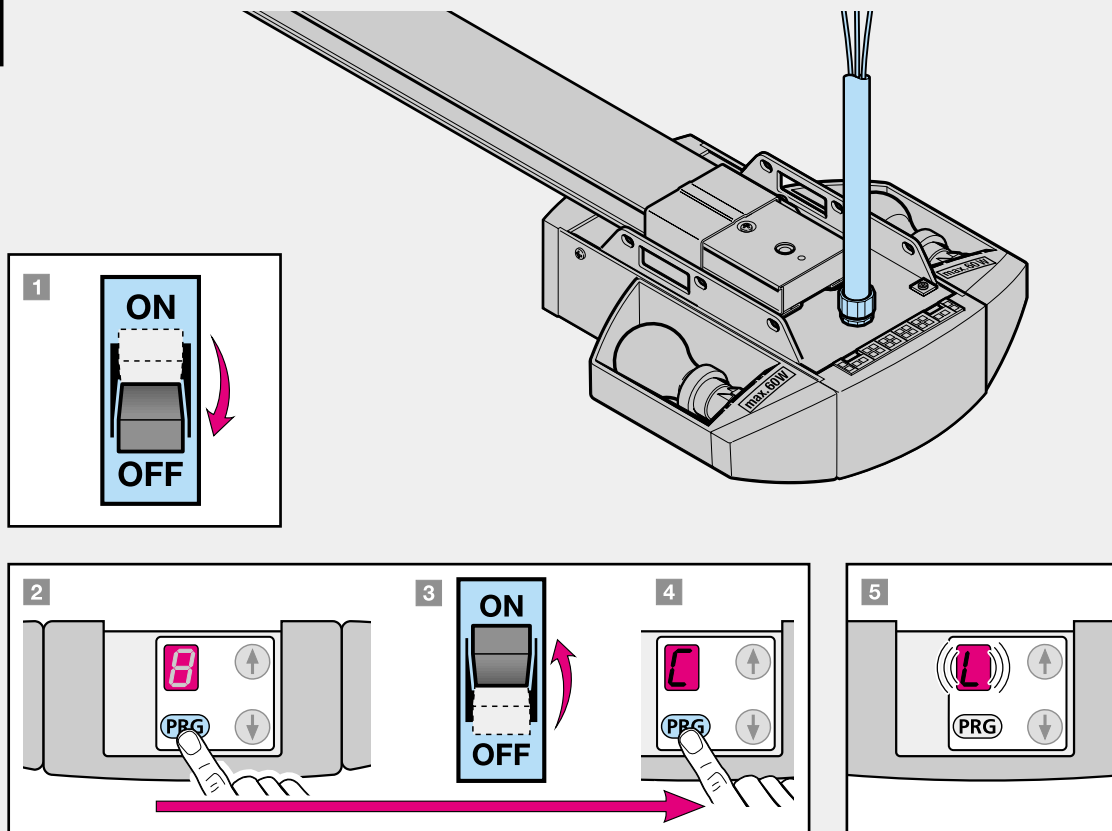


Fig. 35



3.5 Connection of additional components / accessories



CAUTION!

Disconnect the power supply prior to working on the operator.

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 AWG 15 (1 x 1.5 mm²)!

3.5.1 Connection of an external impulse button "sequencing control": (Open-stop-close-stop-...)

One or several buttons can be connected in parallel to the remote control to the terminals 0V and S1 – **Fig. 36.**

3.5.2 Connection of external buttons "door open" and "door closed"

An external button "Door open" can be connected to the terminals 0V and S2. An external button "Door closed" can be connected to the terminals 0V and S4 – **Fig. 37.**

Fig. 36

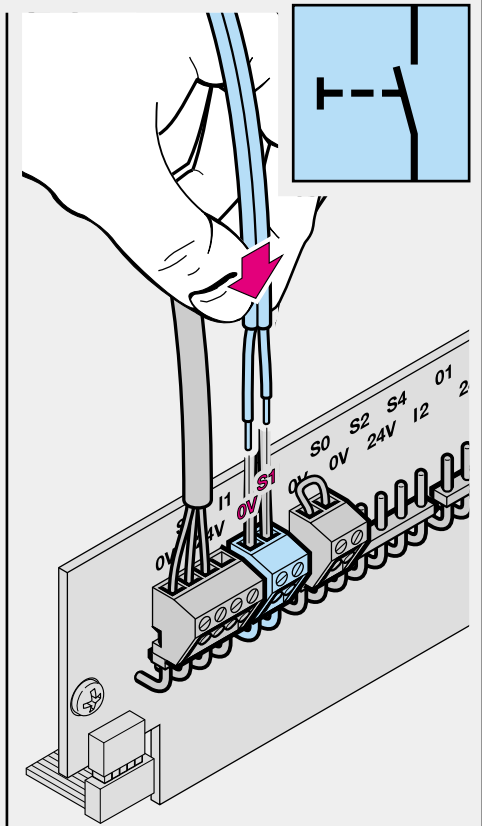
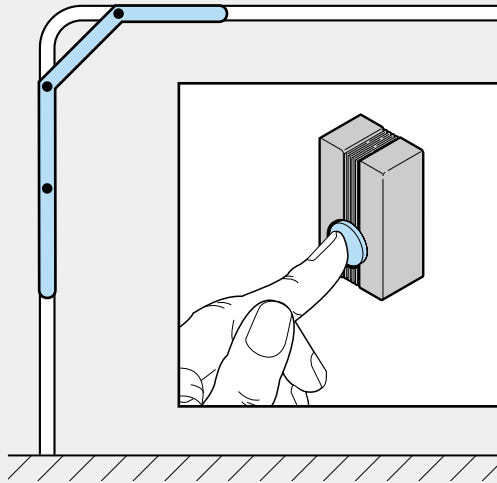
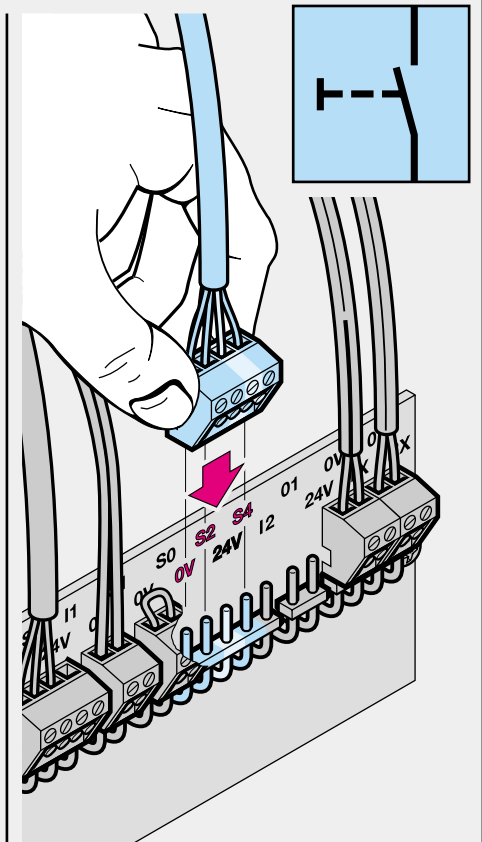
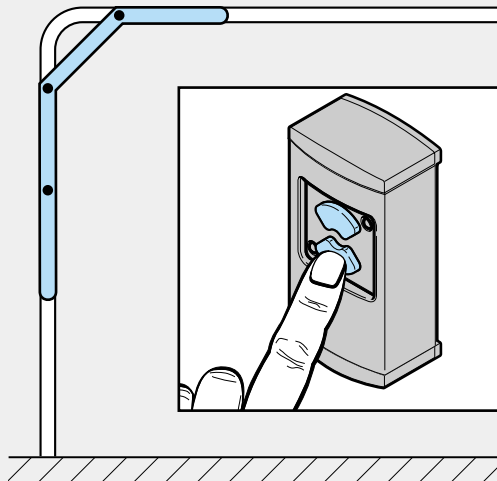
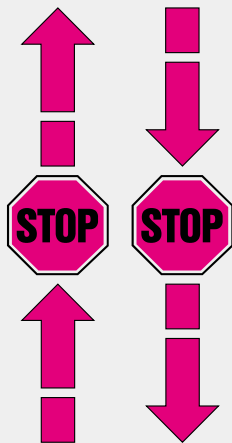


Fig. 37



3.5.3 Connection of an on-/off-switch for the operator light

A switch can be connected to the terminals 0V and I2 to activate the operator light. This allows the light to be turned on and off independent of door movement or time settings – **Fig. 38.**

3.5.4 Connection of a button for the operator light

An external button "Operator light" can be connected to the terminals 0V and I1. The light duration is controlled in menu 3 – **Fig. 39.**

3.5.5 Connection of an on-/off-switch / Vacation-switch

The terminals S0 and 0V allow a separate switch to control the On/Off function of the operator. Remove the factory bridge in terminals 0V and S0 and install a switch – **Fig. 40.**

Fig. 38

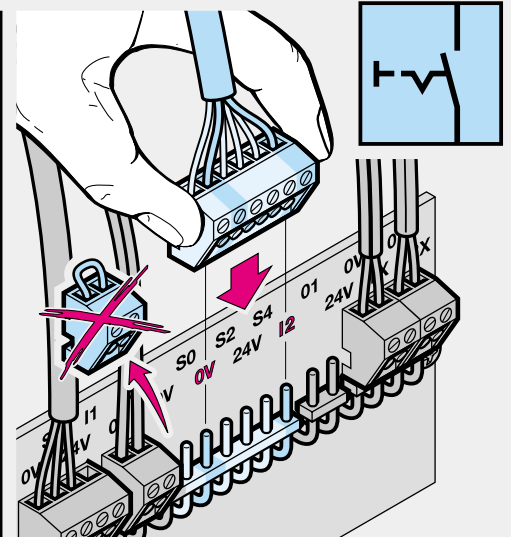
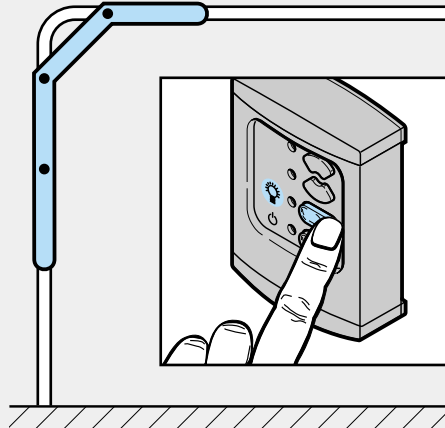
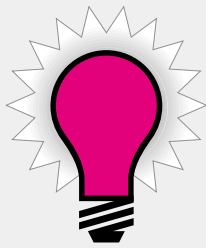


Fig. 39

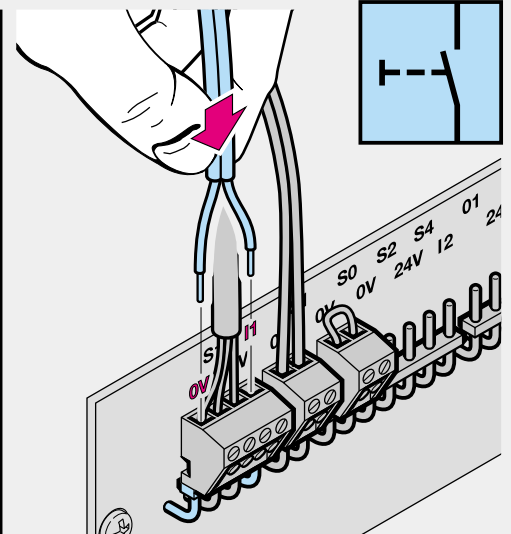
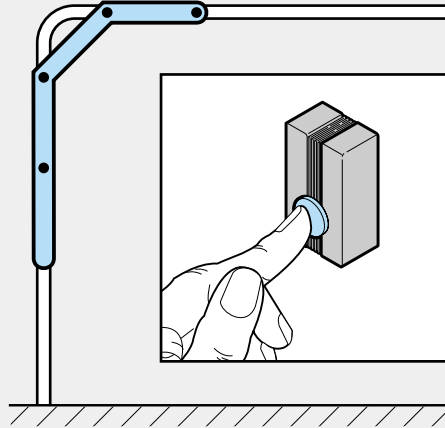
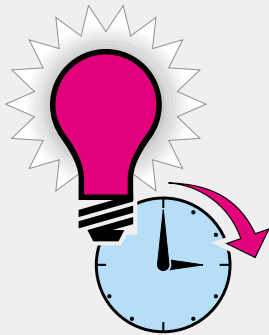
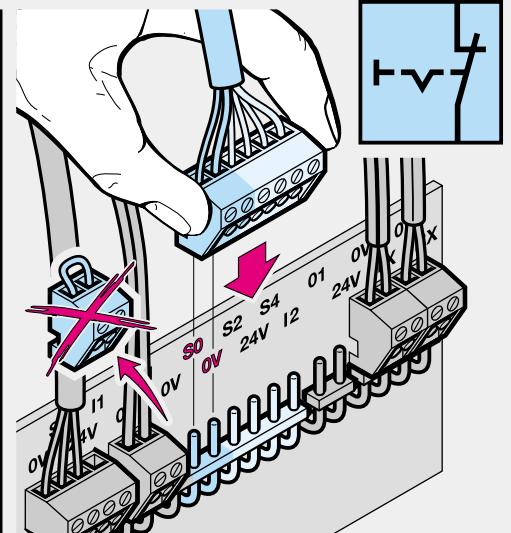
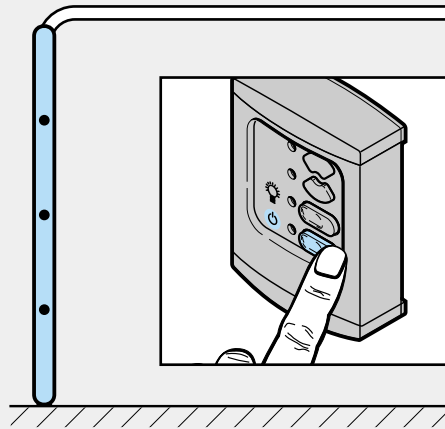


Fig. 40



3.6 General advice for the operation of the operator

Do not activate the operator 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!

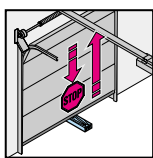
Light beam device

With the door travelling in the close direction interrupt the light 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.

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 light beam). The door should stop and reverse up to the "fully open" position.

Automatic reversal at the "fully closed" travel limit



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. Operate the door in the close direction. Upon contact with the board the door should stop and reverse up to the "fully open" travel limit.

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.

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.

3.7 Operation after power failure

In case of a power failure, (indicated by flashing top and bottom bars in the operator display) the stored settings are maintained. However, to ensure proper functioning the door needs to reach the "fully open" travel limit as a reference point.

To reset the operator: Ensure that the trolley is engaged to the drive belt (you should not be able to move the door manually).

Press the hand transmitter button **or** press the wall control button **or** press the operator UP key. The door should travel to the "fully open" position. The top bar in the operator display will remain lit. The operator is now ready for use.

3.8 Reception indication of the remote control

The hand transmitter features a LED (red dot). 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 operator also has an LED (red dot) in the lower right hand corner of the operator display. Every time the transmitter button is pressed the LED in the operator display should light. This indicates that the operator is receiving the signal from the transmitter. If the LED on the operator display does not light check to ensure the battery in the transmitter is installed correctly. If necessary, replace the battery.

3.9 Press-and-hold operation

If the light beam device is damaged or not operating: the operator 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 operator UP key.

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

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

4 MAINTENANCE

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














WARNING

- **Check the function of all safety devices (light beam device, emergency release, automatic reversal) on a monthly basis (refer to 3.6).**
- **Contact a qualified service person if your operator fails to perform any of the safety checks.**

5 ERROR MESSAGES

If an error occurs, it will be shown in the operator display.
The operator will work provided the error has been corrected.

The next uninterrupted cycle of the door removes the error message from the display.

5.1 Error and control instructions			
Audible signal	Error	Possible reason	Remedy
	Light beam device	<ul style="list-style-type: none"> - The light beam is interrupted - The light beam device is damaged 	<ul style="list-style-type: none"> - Remove the obstacle out of the light beam - The light beam device has to be checked or aligned - The light beam device has to be replaced
Display	Error	Possible reason	Remedy
	The adjusted and tested force is too high	<ul style="list-style-type: none"> - The required force during the adjustment was > 350 N - The door is too sluggish 	<ul style="list-style-type: none"> - Check the door travel - Pull the emergency release rope, to enable you to control the door manually - Have the door adjusted/balanced/repared
	Travel time limit	<ul style="list-style-type: none"> - The belt is torn - The operator is damaged - Duration of soft stop too long 	<ul style="list-style-type: none"> - Replace the belt - Replace the operator - Adjust duration of soft stop (menu 5 or 7) to be shorter
	System error	<ul style="list-style-type: none"> - Internal error - External error 	<ul style="list-style-type: none"> - Adjust and test the operator again, if necessary replace it - Check connected accessories
	Force limit	<ul style="list-style-type: none"> - The door is too sluggish - There is an obstacle in the path of the door 	<ul style="list-style-type: none"> - Correct the door travel - Remove the obstacle; if necessary adjust and test the operator again
	Closed circuit	<ul style="list-style-type: none"> - The connection between clamps 0V and S0 is opened - The on/off-switch is opened 	<ul style="list-style-type: none"> - Bridge the clamps 0V and S0 or install an operator on/off-switch - Close the on/off-switch
	Rotational speed	<ul style="list-style-type: none"> - The spring tension is not okay - The springs are broken 	<ul style="list-style-type: none"> - Have the spring tension corrected (CAUTION!) - Have the springs changed by a qualified service engineer
	Light beam device	<ul style="list-style-type: none"> - The light beam is interrupted - The light beam device is damaged 	<ul style="list-style-type: none"> - Remove the obstacle out of the light beam - The light beam device has to be checked or aligned - The light beam device has to be replaced
	No defined final position	<ul style="list-style-type: none"> - Power failure 	<ul style="list-style-type: none"> - Follow instructions 3.7
	The operator is not adjusted/tested or factory reset	<ul style="list-style-type: none"> - The operator is not yet adjusted/tested 	<ul style="list-style-type: none"> - Adjust and test the operator
			

6 TECHNICAL DATA OF THE GARAGE DOOR OPERATOR

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 operator reverses the garage door on contact with an obstacle during movement of the door in the closing direction. The operator stops the garage door on contact with an obstacle during move- ment of the door in the opening direction.
Motor:	DC-motor, hall effect sensor and 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 2-button hand transmitter HS2 (390 MHz) and separate radio receiver. Fail-safe 390 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. <small>HomeLink® is a registered trademark of Johnson Controls, Inc.</small>
Applications:	For residential sectional and one-piece doors – max. height 8 ft, max. width 18 ft.
Speed of door travel:	approx. 5-1/2"/sec.
Airborne noise emitted of operator:	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 pending) and main- tenance-free patented toothed belt (Patent 5,868,639)
Connectable relays:	Relays for final position signal

HÖRMANN LIMITED LIFETIME WARRANTY

SupraMatic A Garage Door Operator

- Warranty Coverage:** Any defect in material or workmanship for the times specified below.
- Warranty Period:** Lifetime* on motor, 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 of 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 United States, Canada or Mexico.
- What we will do:** If product or parts appears to Hörmann to have defects in materials or workmanship, Hörmann will, at its option, provide you with repaired or replacement parts or product at no charge or refund the purchase price. The repaired 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 MERCHANTABILITY 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 Hoermann Inc., 23 Excellence Way, Vonore, Tennessee 37885.
- What This Warranty Does Not Cover:** This Limited Warranty does not cover batteries or light bulbs, removal of defective parts or product or installation 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.

For purposes of this warranty Hörmann shall mean Hoermann Inc. and any affiliate of Hoermann Inc.



8 SERVICE

Prior to using our service, please read and check the error 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: _____

Where purchased: _____

Model Number: _____

Serial Number: _____

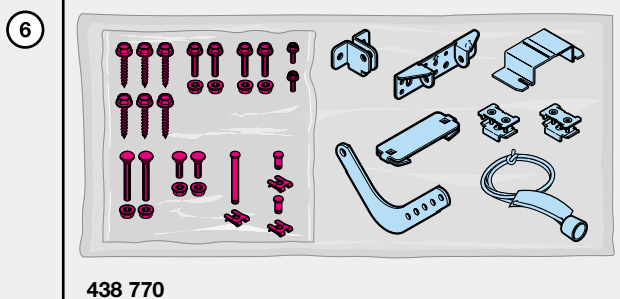
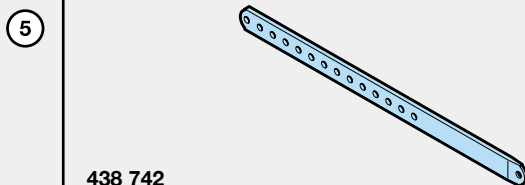
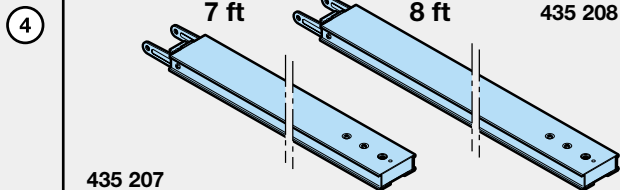
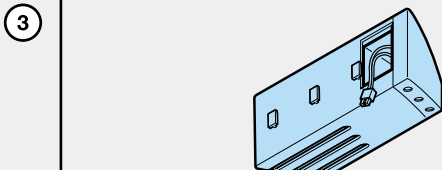
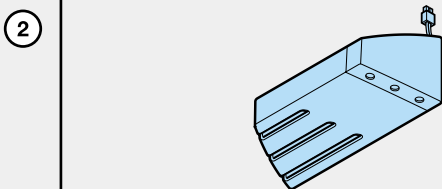
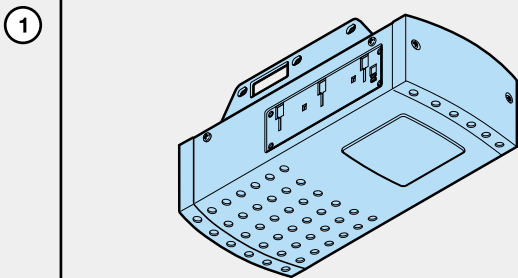
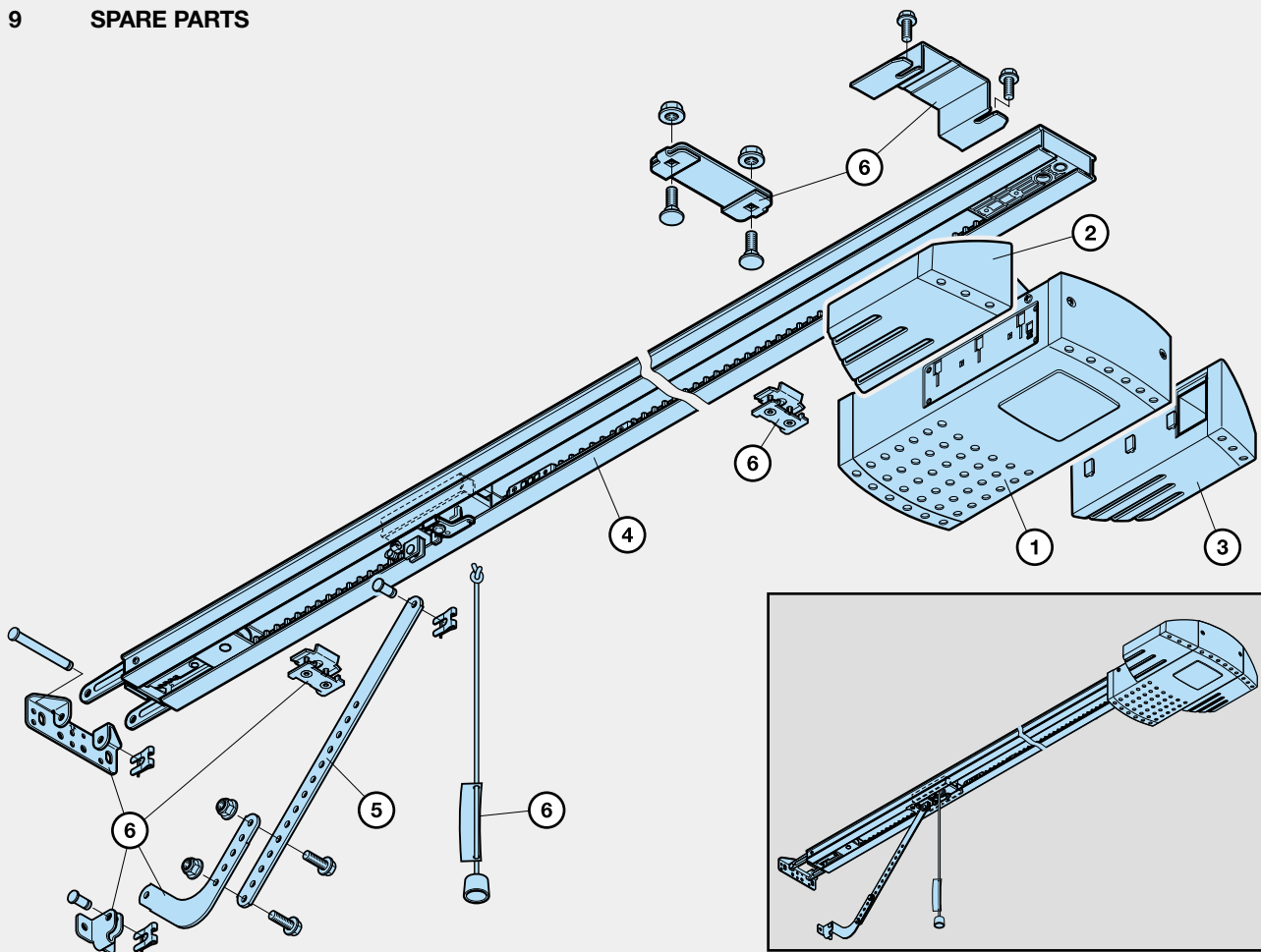
Date installed: _____

CONSUMER-HOTLINE: 1-877-HOERMANN

10 ACCESSORIES

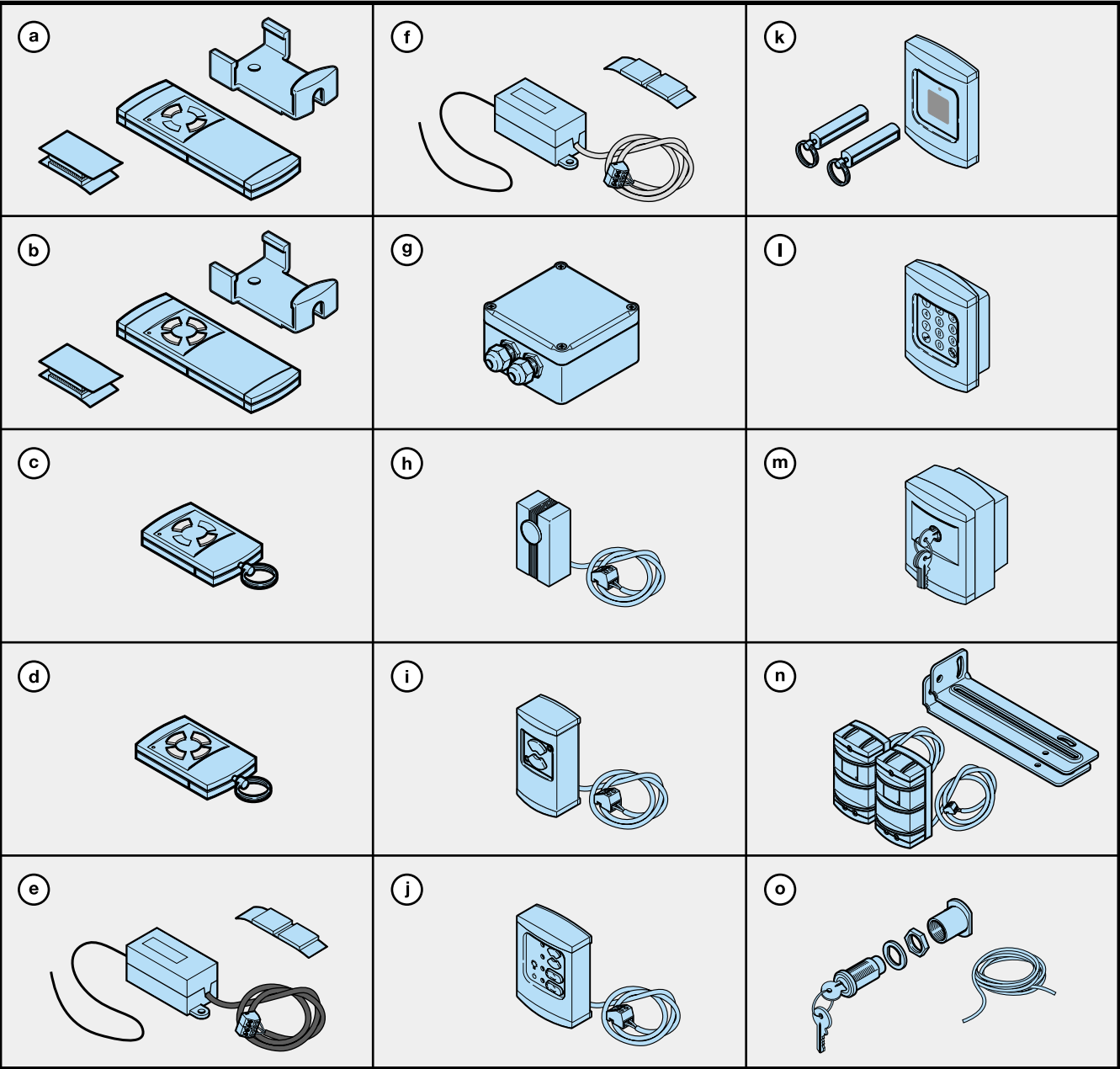
Item	Article	Article no.	Description
a	HS2	437 502	2-button hand transmitter – 390 MHz; teachable / recodeable / resetable code (internal)
b	HS4	437 503	4-button hand transmitter – 390 MHz; teachable / recodeable / resetable code (internal)
c	HSM2	437 504	2-button mini hand transmitter – 390 MHz; teachable / recodeable / resetable code (internal)
d	HSM4	437 505	4-button mini hand transmitter – 390 MHz; teachable / recodeable / resetable code (internal)
e	HE1	437 510	1-channel radio receiver – 390 MHz
f	HE2	437 511	2-channel radio receiver – 390 MHz
g	HER1	437 514	1-channel radio receiver – 390 MHz; volt-free relay contacts with 4 selectable functions: impulse, on/off, prolonged 3-minute light, interrupted 3-minute light; suitable for outdoor use
h	IT1	436 102	Wall control – 1 button
i	IT2	436 064	Wall control – 2 buttons (Door open / Door closed) with LEDs
j	IT4	436 059	Wall control – 2 buttons (Door open / Door closed); 1 switch (operator light on/off); 1 switch (operator on/off) with LEDs
k	TTR1	437 048	Transponder keypad – sensor technique, impulse, up to 100 keys can be registered / canceled (2 keys included)
l	FCT10	436 133	Radio keypad – 390 MHz; 10 radio code locations, impulse, battery powered
m	STAP	436 094	Key switch – two contacts (impulse, Door open / Door closed) (3 keys included)
n	EL31	436 211	Light beam device
o	NE1	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.

9 SPARE PARTS



10 ACCESSORIES

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





Hörmann KG Amshausen
One-piece garage doors in steel and with wood infill.



Hörmann KG Antriebstechnik
Garage door operators and controls.



Hörmann KG Brandis
Multi-purpose hinged doors and fire resistant doors in steel.



Hörmann KG Brockhagen
Sectional doors in steel, aluminium and wood for residential and industrial applications.



Hörmann KG Dissen
Rolling shutters and roller grills in steel and aluminium.



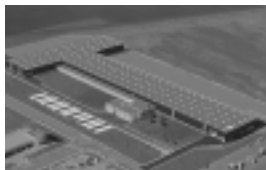
Hörmann KG Eckelhausen
Entrance doors, canopies, windows and multi-purpose doors in aluminium, smoke-tight and fire resistant doors in steel and aluminium.



Hörmann KG Freisen
Smoke, fire and security doors, also apartment, internal and multi-purpose doors in steel.



Hörmann Genk NV
Folding doors, sportshall doors, one-piece garage doors, steel doors, fire resistant hinged doors and sliding doors.



Hörmann KG Ichtershausen
Residential sectional doors.



Hörmann KG Werne
Door frames in galvanized steel or stainless steel.

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Hörmann: quality without compromise

Hörmann is the only manufacturer in Europe who supplies all major types from one organization.

Each of the ten factories is directly responsible for its own research and development - using the latest in production technology.

Sizes and standards meet current requirements of each market and allow for individual needs.

Hörmann has a network of marketing companies and branches throughout Europe offering a flexible and customer-oriented service for the demand of quality products.

