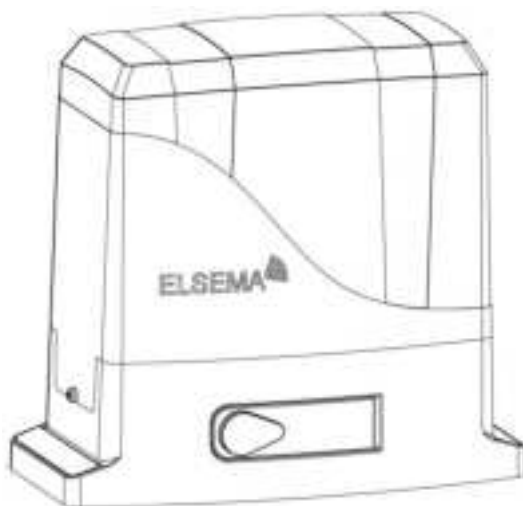




iS900Solar24

SLIDING GATE OPENER

USER MANUAL



Bluetooth charge monitoring app

Scan the QR code for more details





Safety Instructions

Save these instructions for future reference.

WARNING! FAILURE TO FOLLOW THESE SAFETY AND INSTALLATION INSTRUCTIONS COULD RESULT IN INJURY OR DEATH AND/OR DAMAGE TO PROPERTY AND EQUIPMENT.

- Appropriately licensed and competent personnel only should install the automation equipment.
- The operators are designed specifically to open and close sliding gates or doors and should not be used for any other purpose.
- The gate can operate unexpectedly, so ensure nothing remains in its path.
- **Do not** operate the gate unless the user has a full view of the gate and there are no objects, person/children in the gate operation area.
- **Do not** let children play with the transmitters or any other gate control system.
- **Do not disengage** the gate opener to manual when there are children, people, objects, or vehicles within the gate's operation area. Manual release may cause uncontrolled movement.

Always incorporate the appropriate **Photo Electric Beams, Safety Bump Strip, Induction Loops** and other **safety devices** to protect both equipment and personnel. **Monitored Photoelectric Beam** must be installed and operational.

- Display all necessary signs to indicate any danger areas and automatic operation of the gate or door.
- The operators are not designed to be used in any hazardous areas or areas subject to flooding etc.
- All electrical connections and wiring must be performed with AS/NZS 3000-2018 as the guidelines.
- The manufacturer of the automation equipment is not responsible for the damage which may be caused to either the operator, gate or door and any other person or equipment when: -
 - Wrong or poor installation practices were performed.
 - No or inadequate safety devices were used.
 - Poor maintenance on the equipment.
 - Any other circumstances beyond the manufacturers control.
 - Automated gates must comply to AS/NZS 60335.1 in conjunction with AS/NZS 60335.2.103.

WARNING! ELECTRICITY CAN KILL

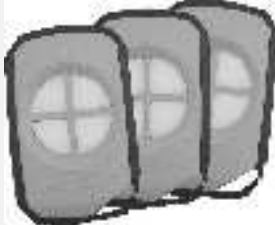
- **Isolate power** before attempting any maintenance.
- **Only qualified personnel** should carry out maintenance.
- **The installer** should provide all information concerning the use of the automation equipment as well as instructions regarding the manual override and maintenance procedures to the users of the system.
- Keep loose clothing and hands away from the gate whilst its being operated or could possibly be operated!
- Inspect the gate or door, along with its supporting posts and walls, to guard against potential shearing, compression, and other hazards that could lead to severe **injuries or fatalities**.
- Check the gateposts or mounting structure has the necessary strength and rigidity to support the operator and the load of the opening and closing gate motion.



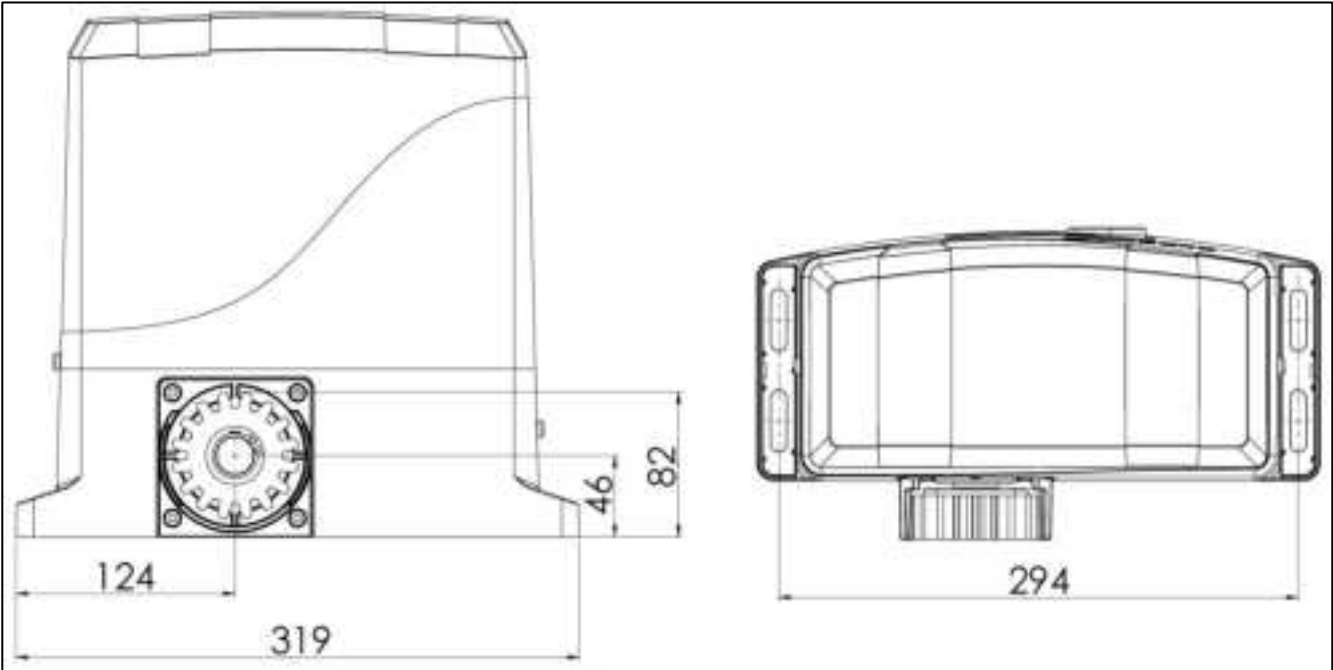
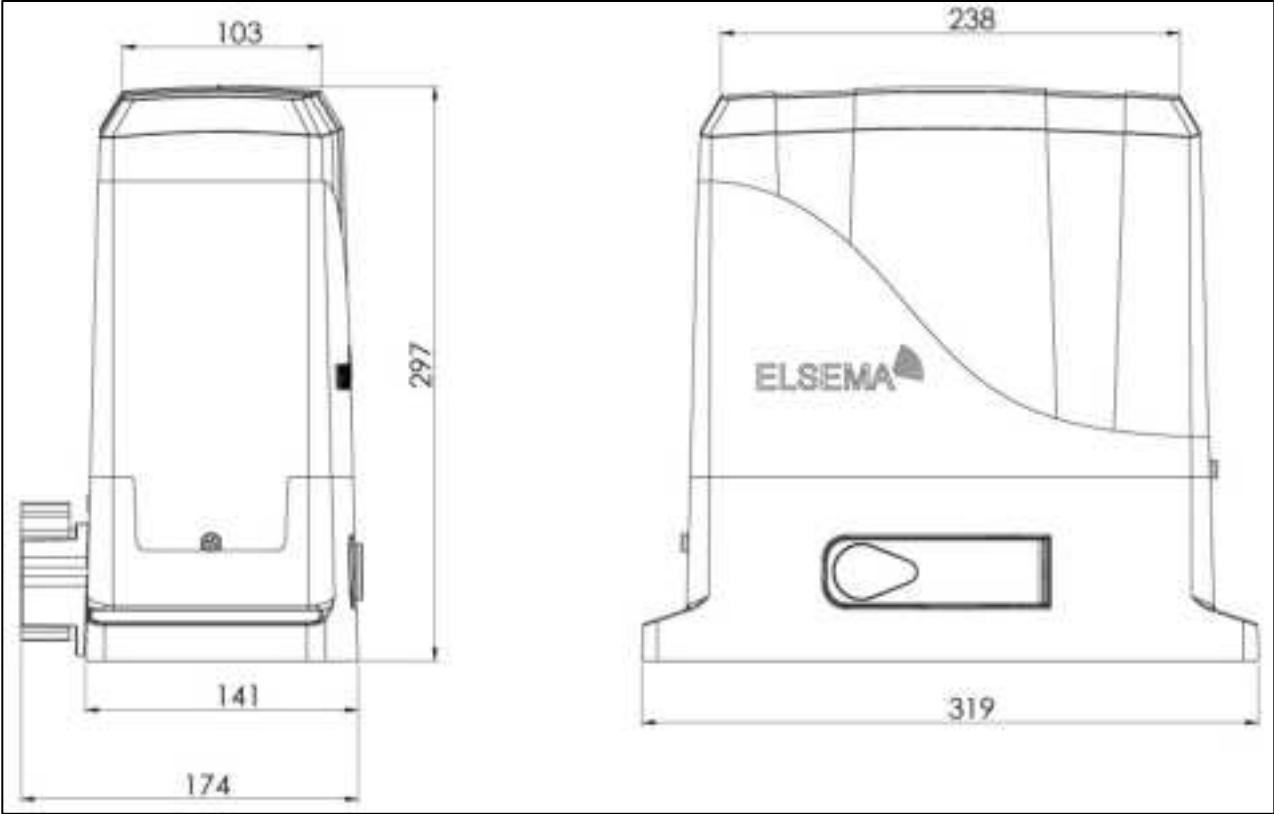
Battery warning!

The product comes with wireless transmitters equipped with coin/button cell batteries, which are hazardous. Ensure these devices and their batteries are kept out of reach of children. If the battery is swallowed, it can cause severe internal burns and can lead to death in as little as 2 hours. Always secure the battery compartment. If you suspect that battery has been swallowed or inserted into any part of the body, **SEEK MEDICAL HELP IMMEDIATELY.**

Kit Contents

1		Sliding gate motor with Smart solar controller and Li-ion Battery pack
2		3 x PentaFOB® Remotes
3		Fastener Pack
4		Motor base plate
5		4 x Gear rack kit with mounting screws GR-4
6		Long range reflector type photo electric beam. PE-1500
7		1 x 24 Volt, 40W Solar panel 670 x 570 x 35 mm

Dimensions



TECHNICAL FEATURES:

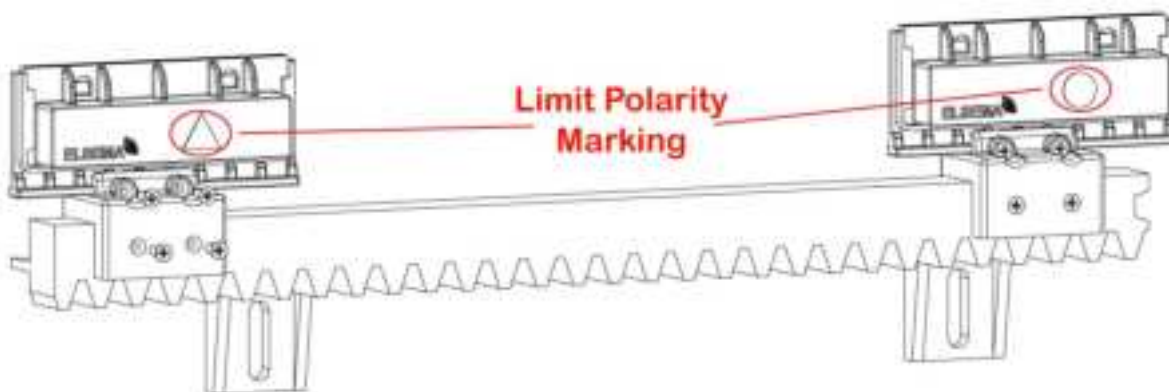
	iS900Solar24
Motor Voltage	24Volts DC motor
Max Absorbed Power	120 Watts
Nominal Thrust	330N
Power Supply	240 Volts AC
Nominal Input Current	3 Amps
Motor Speed	250 mm/sec
Maximum Gate Weight	900 kg
Duty Cycle	60% over 12 min
Operating Temperature	-20°C - +50°C
Solar Panel	670 x 570 x 35 mm
Gate Weight	Up to 900Kg on level ground

Installation

A. CHECKS BEFORE INSTALLATION

Before proceeding with the installation check the following:

1. The structure of the gate should be suitable for automation.
2. The gate should be supported by upper guides.
3. Mechanical end stoppers must be provided to prevent the gate from running off the track.
4. The foundation should be strong enough to support the operator.
5. There are no cables or pipes in the path of the operator and the gate.
6. Be sure that gate moves freely.
7. There are no obstacles in the moving gate area.
8. The operator is not in a position where it can be easily or accidentally damaged by passing vehicles.
9. The 2 x limit magnets should have different marking on them. One should have a  and the other should have a . You cannot use the limit magnets if they have the same marking. The magnets can be installed on either side (open or close). Please see the diagram below to locate the marking on the magnets.



B. INSTALLATION WITH CONCRETE

Assemble the base plate bracket as shown in fig 1.

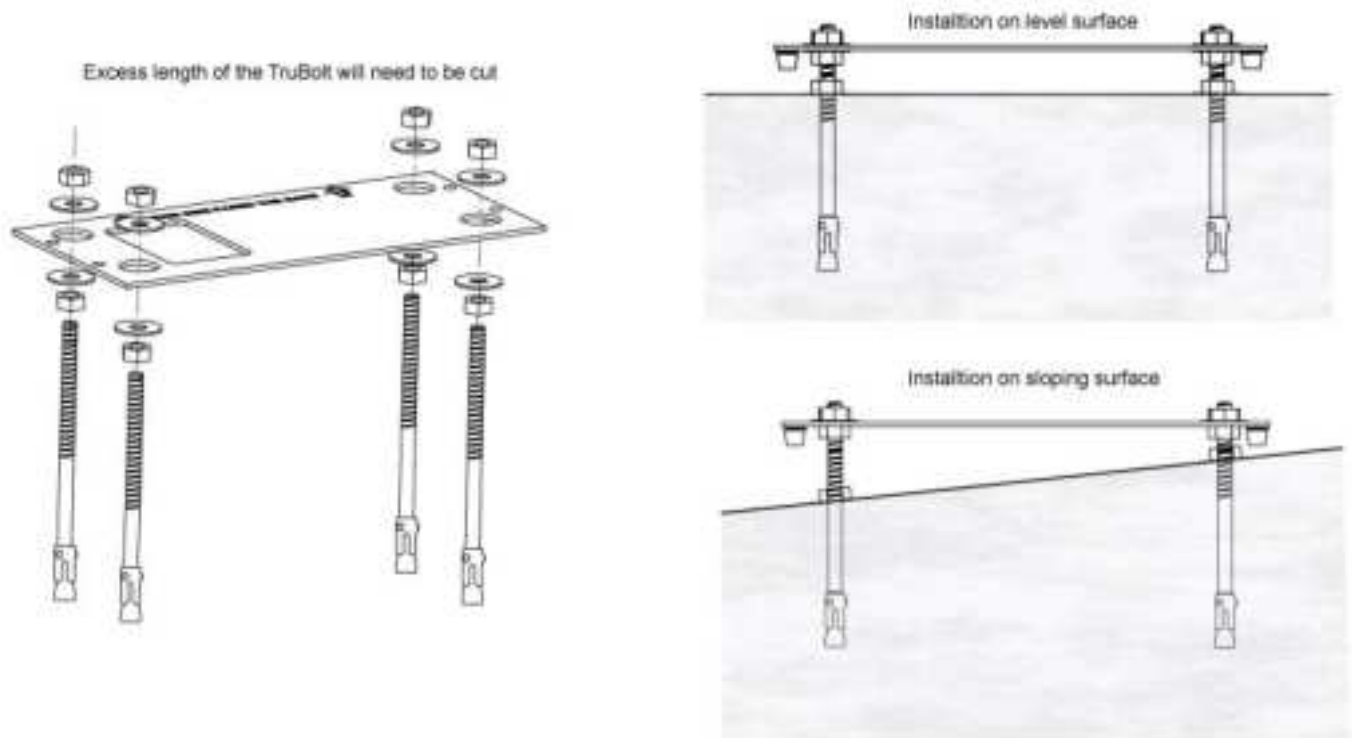


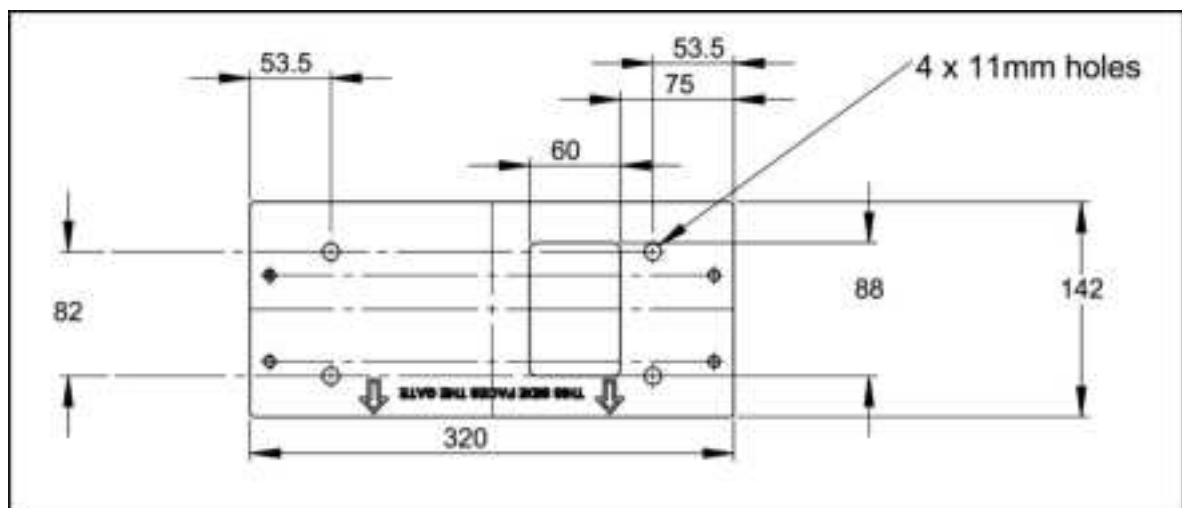
Fig 1

Run Conduit and power cables, accessories and sensor cables through the slot in the base plate before pouring concrete. Make sure you have enough length on the cable to wire into the control card.

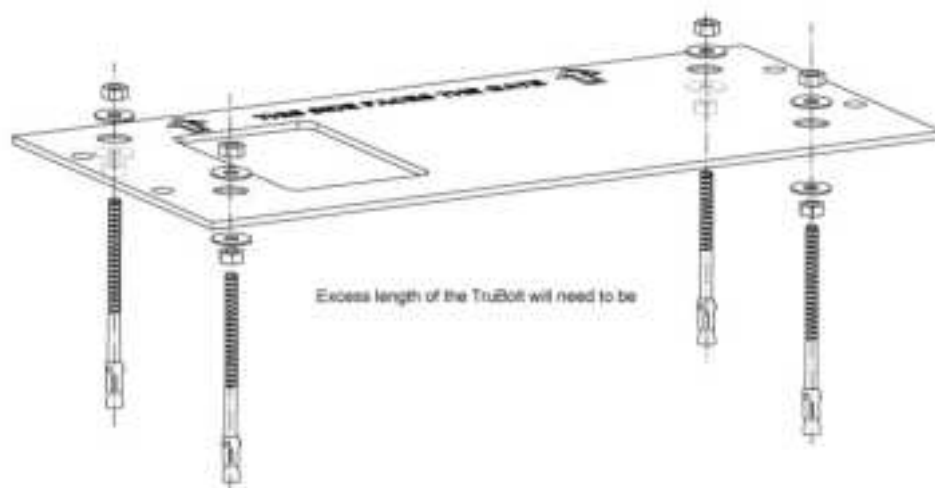
While pouring the concrete, make sure that the base plate is level horizontally and straight with respect to the gate.

After pouring concrete, make sure that the threaded part of the anchor TruBolts are clean. Do not work on it until the concrete is hard.

Base plate Template

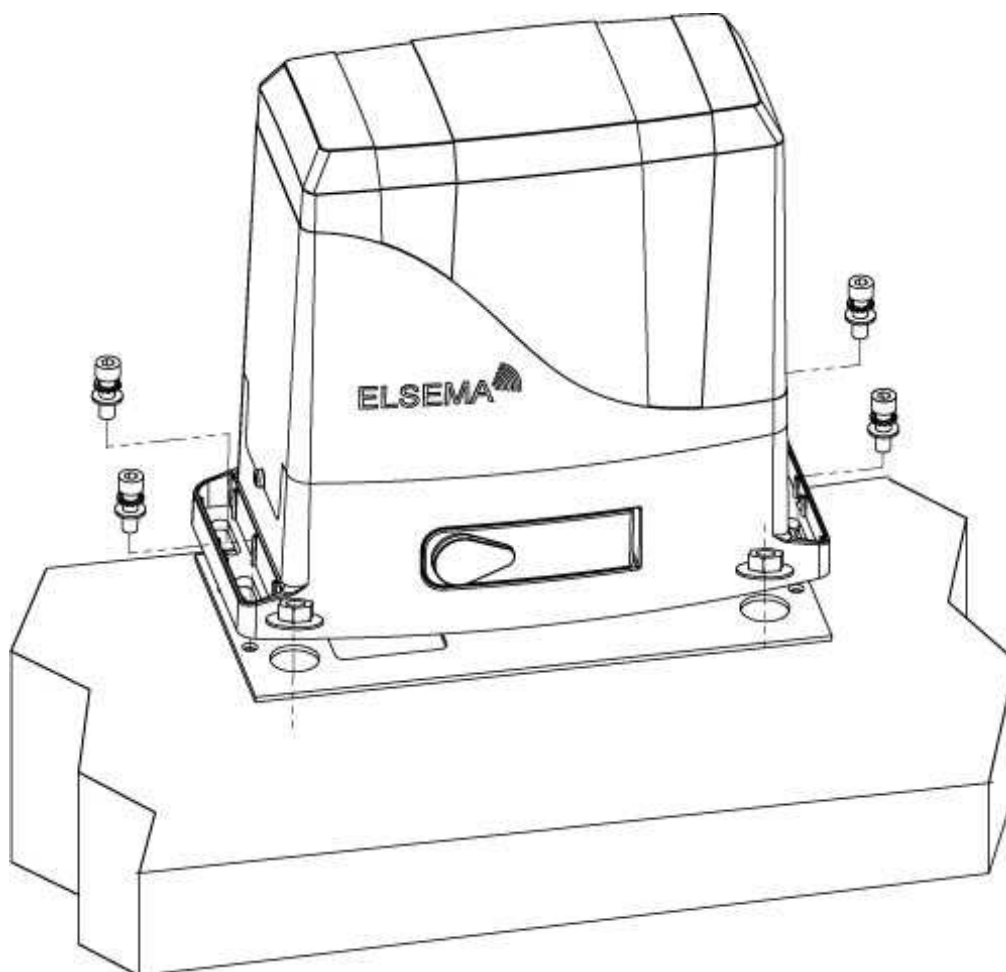


C. INSTALLATION ON EXISTING FOUNDATION



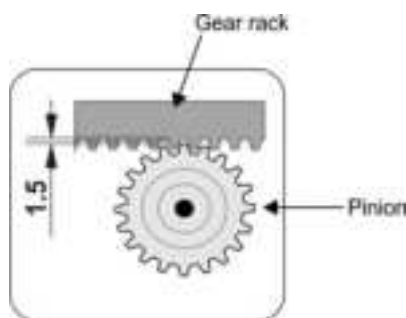
Use TruBolts included in the kit to secure the base plate on solid concrete surface. Making sure that the distance from both edges of the base plate to the gate should be the same. Excess length of the TruBolt will need to be cut.

D. Mount the operator on to the base plate with the screws provided as shown below.



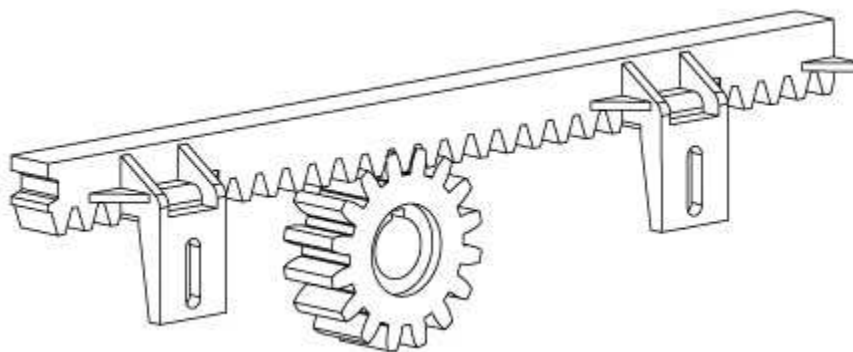
E. GEAR RACK INSTALLATION

1. Move the Gate leaf to fully closed position.
2. Place the first piece of the rack over the pinion leaving about 1.5mm gap and mark the drilling point on the gate, drill a pilot hole and screw the rack using the self-tapping screw with the reinforcing plate.
3. Move the gate manually, making sure that the rack is resting on the pinion and fix all other screws.
4. Bring the next rack and join it to the previous one by slotting it into inter-connecting slots.
5. Repeat this process until the gate is fully covered from fully open to fully close positions.



F. CHECK GEAR RACK INSTALLATION

- Make sure that the rack is constantly in full contact with the pinion for the full open and close travel cycle.
- Manually check if the gate reaches the mechanical stop limits and make sure there is no friction during gate travel.
- Do not use grease or other lubricants between rack and pinion



G. LIMIT SWITCH ADJUSTMENT

- Install the limit switch magnets as shown in fig 6.
- The limit switch magnets should be initially installed at least 50mm before the end of travel on both sides. Final adjustment should be done after successful travel learning with the control card.
- Adjustments of the limit switch should be done after all other components are installed securely.

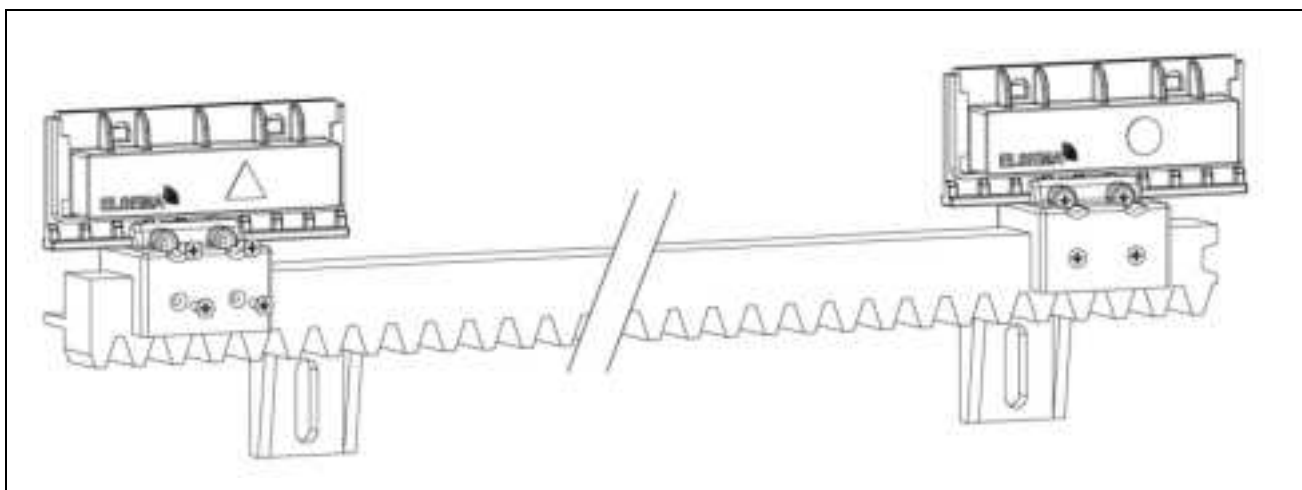
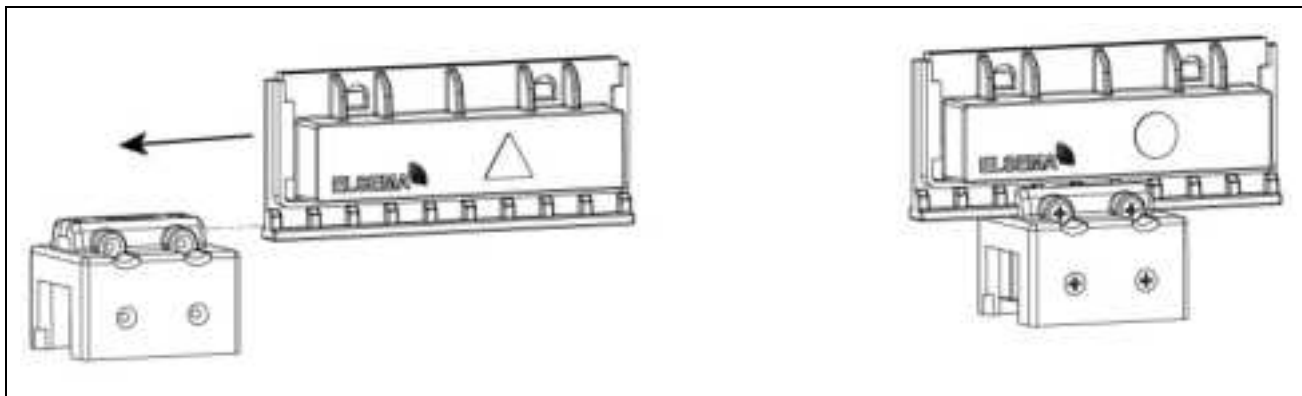
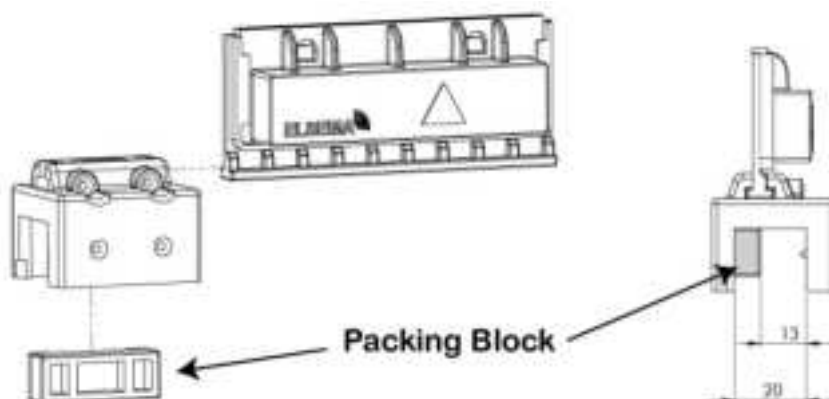


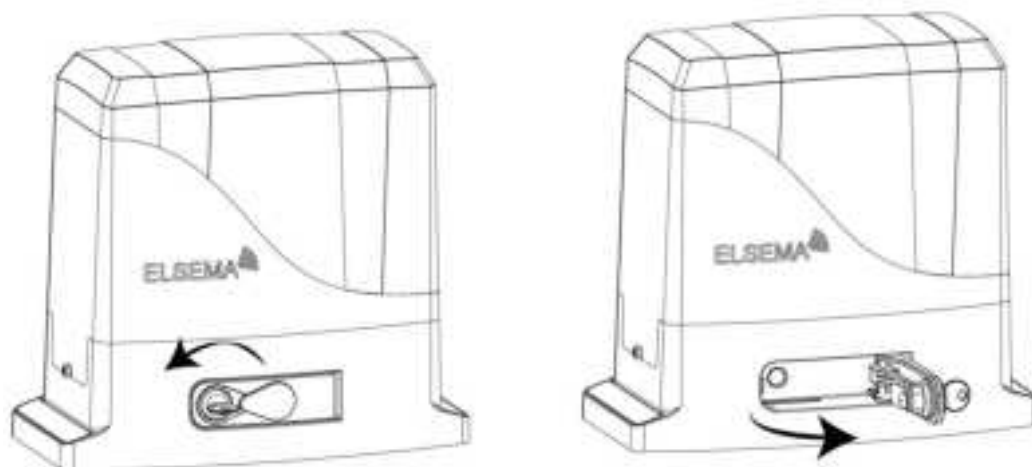
Fig 6

When steel gear rack is used (or gear rack which are much slimmer), you will have to use the packing block which comes with the limit switches. Please see the diagram below



H. Manual Release

The operator has an unlocking mechanism. Once it's unlocked, the gate can be operated manually in both directions. The unlocking key is needed to unlock the motor. Please keep the key in a safe place for later use. The manual release lever is located towards the bottom of the operator. (See pictures below). Use the key to unlock the manual release lever. Once unlocked pull the lever so that it's perpendicular to the motor. The gate can now be used manually.



I. ELECTRICAL CONNECTION

After successful motor installation, refer to the user manual of the control card for automatic operation setup.

Scan the below QR code for control card instructions



J. SOLAR CHARGE MONITORING APP*

Once the gate is fully commissioned and operational, the solar charging monitoring app can be downloaded from the app store. This app will show the user the battery status in real time, charging current, battery voltage and the output of the solar panel. To download the app, go to the app store and search for VictronConnect.

***Do not change any setting of the solar controller. It has already been optimised for the Li-ion battery. Any changes will void the warranty and can cause damage to the battery and the solar charger.**

MAINTENANCE:

Maintenance should be performed at least every six months. If it is used in high traffic area, a more regular maintenance should be performed.

Disconnect the power supply:

- (1) Clean and lubricate the screws, the wheels of the gate with grease.
- (2) Check limit magnets position and fixture.
- (3) Check the fastening points are properly tightened.
- (4) Check and make sure that the wire connections are in good condition.

Connect the power supply:

- (1) Check the power adjustments.
- (2) Check the function of the manual release.
- (3) Check the photocells or other safety device.

Battery Disposal:

When the batteries have reached its end of life, please dispose of the batteries in accordance to your local council regulations. Elsema encourages all batteries to be recycled in accordance with The Australian Battery Recycling Initiative (ABRI). Please visit <https://batteryrecycling.org.au/> to find a battery recycler near you.

Most batteries contain hazardous materials and can pollute the environment when disposed of in landfills or when thrown out elsewhere. Materials like lead, cadmium and mercury can poison people and animals and contaminate soils and water, and they stay in the environment for a long time

By recycling your batteries, you can protect the environment.

Prior to collection, recycle, disposal insulate all battery terminals.



DO NOT throw the batteries in municipal waste. This symbol of the crossed out wheeled bin indicates that the battery should not be placed in the municipal waste.

Notes

[illegible]

Service History

Date	Maintenance	Installer

- **Swing Gate Kits**
- **Solar Kits**
- **Solar panels**
- **Backup batteries**
- **Vehicle Loop Detectors**
- **Photo electric beams**
- **Magnetic locks**
- **Wireless keypads**
- **Pre formed loop**



Visit www.elsema.com to see our full range
of Gate and Door Automation products