



ELSEMA iS900Solar24 Sliding Gate Opener User Manual

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SEMA iS900Solar24 Sliding Gate Opener



GENERAL PRECAUTION

WARNING:








This user manual is only for qualified technicians who are specialized in installations and automation.

- All installations, electrical connections, adjustments, and testing must be performed only after reading and understanding of all instructions carefully.
- Before carrying out any installation or maintenance operation, disconnect the electrical power supply by turning off the mains switch connected upstream and apply the hazard area notice required by applicable regulations.
- Make sure the existing structure is up to standard in terms of strength and stability.
- When necessary, connect the motorized gate to a reliable earth system during the electricity connection phase.
- Installation requires qualified personnel with mechanical and electrical skills.
- Keep the automatic controls (remote, pushbuttons, key selectors.etc) placed properly and way from children.
- For replacement or repair of the motorized system, only original parts must be used. Any damage caused by incorrect parts and methods cannot be claimed on the motor manufacturer.
- Never operate the drive if you suspect that it might be faulty or will cause damage to the system.
- The motors are exclusively designed for gate opening and closing applications, any other usage is deemed inappropriate. The manufacturer will not be liable for any damage resulting from improper use. Improper usage should void all warranties, and the user accepts sole responsibility for any risks thereby may accrue.
- The system may be operated in proper working order. Always follow the standard procedures by following the instructions in this installation and operating manual.
- Only operate the remote when you have a full view of the gate.
- The Smart solar charge controller has been already optimized for the Li-ion battery pack. No further adjustment is needed. Any changes to the solar controller will void the warranty.

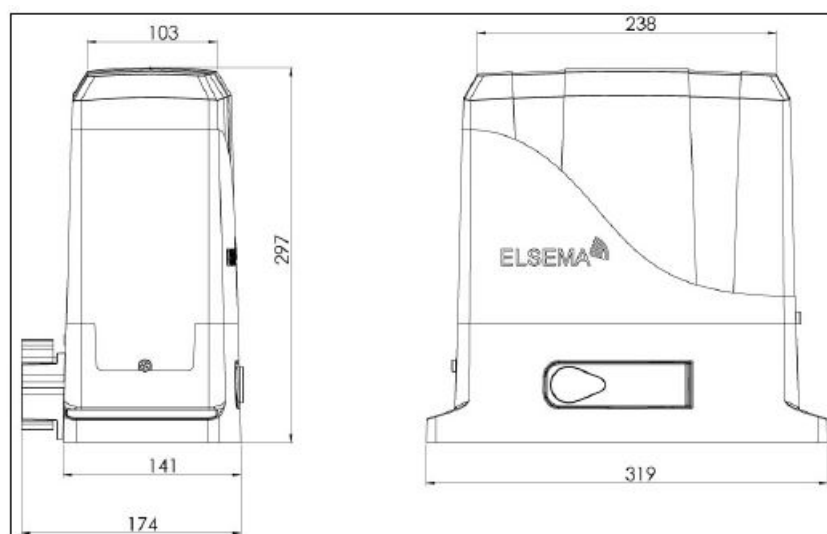
SEMA PTY LTD shall not be liable for any injury, damage, or any claim to any person or property which may result from improper use or installation of this system.

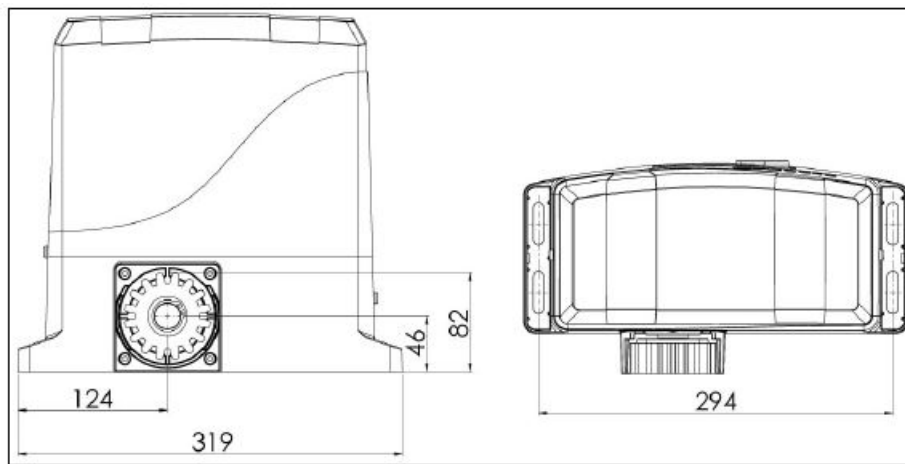
Please keep this installation manual for future reference.

1.2 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:

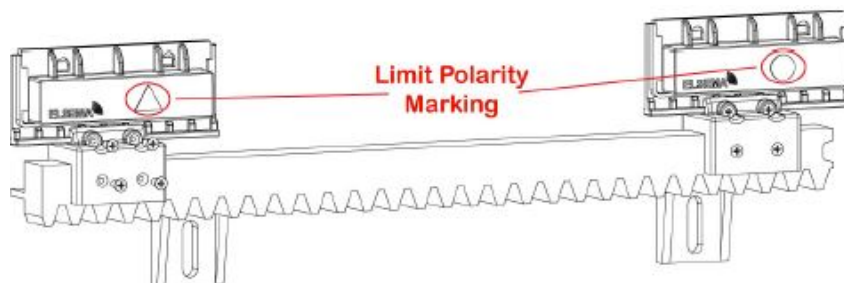
	iS900Solar24
Motor Voltage	24Volts DC motor
Max Absorbed Power	120 Watts
Nominal Thrust	330N
Power Supply	240 Volts AC
Nominal Input Current	3 Amps
Motor Speed	15 m/min
Maximum Gate Weight	900 kg
Duty Cycle	60% over 12 min
Operating Temperature	-20°C – +50°C
Solar Panel	670 x 570 x 35 mm
Gate Weight	Up to 900Kg on level ground

Installation

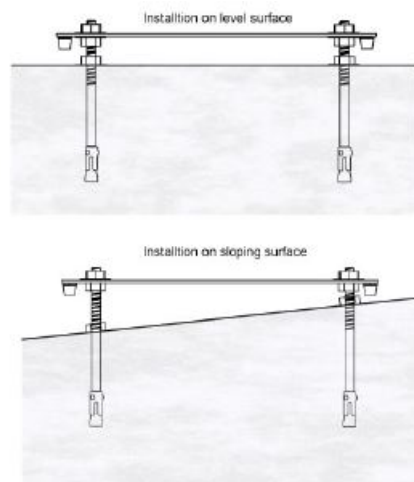
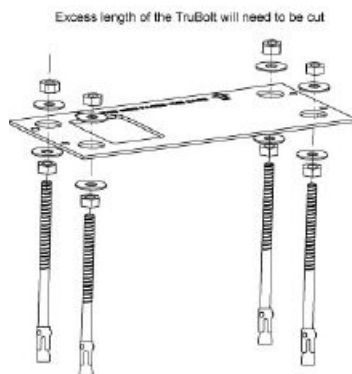
CHECKS BEFORE INSTALLATION

Before proceeding with the installation check the following:

- The structure of the gate should be suitable for automation.
- The gate should be supported by upper guides.
- Mechanical end stoppers must be provided to prevent the gate from running off the track.
- The foundation should be strong enough to support the operator.
- There are no cables or pipes in the path of the operator and the gate.
- Be sure that gate moves freely.
- There are no obstacles in the moving gate area.
- The operator is not in a position where it can be easily or accidentally damaged by passing vehicles.
- The 2 x limit magnets should have different marking on them. One should have a triangle and the other should have a circle. 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.

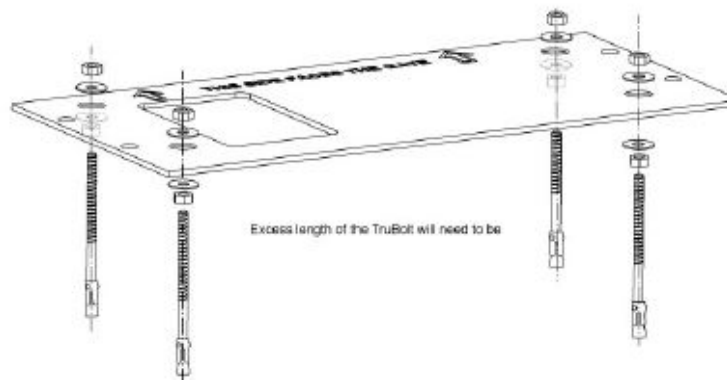


INSTALLATION WITH CONCRETE



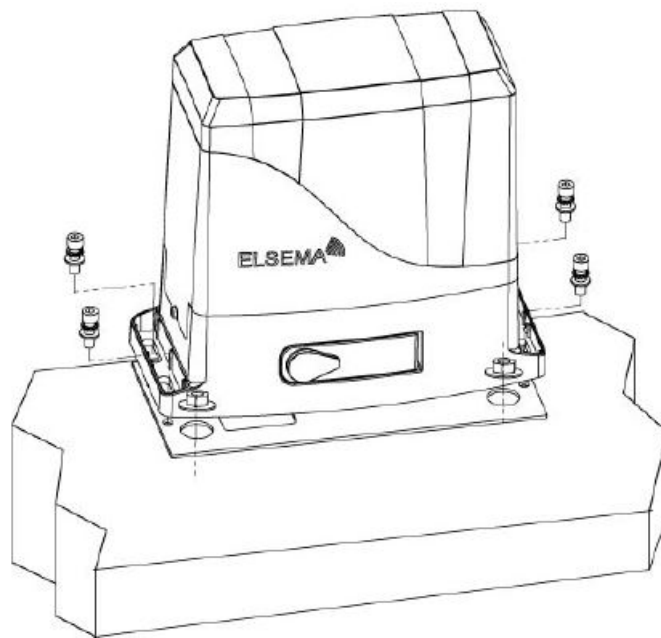
- Run Conduit and power cables, accessories, and sensor cables through the slot in the base plate before pouring concrete. Make sure you have enough length on the cable to wire into the control card.
- While pouring the concrete, make sure that the base plate is level horizontally and straight with respect to the gate.
- After pouring concrete, make sure that the threaded part of the anchor TruBolts is clean.
- Do not work on it until the concrete is hard.

INSTALLATION ON EXISTING FOUNDATION



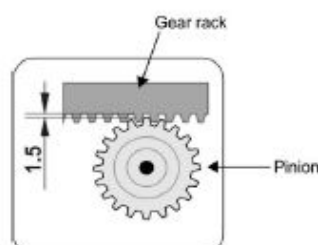
Use TruBolts included in the kit to secure the base plate on the solid concrete surface. Make sure that the distance from both edges of the base plate to the gate should be the same. The excess length of the TruBolt will need to be cut.

Mount the operator onto the base plate with the screws provided as shown below.



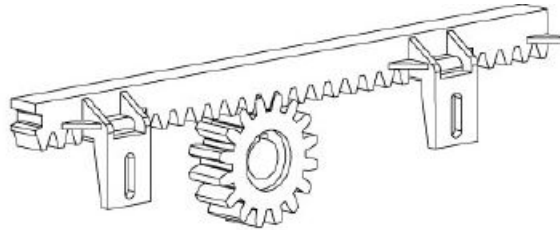
GEAR RACK INSTALLATION

- Move the Gate leaf to a fully closed position.
- Place the first piece of the rack over the pinion leaving about a 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.
- Move the gate manually, making sure that the rack is resting on the pinion, and fix all other screws.
- Bring the next rack and join it to the previous one by slotting it into inter-connecting slots.
- Repeat this process until the gate is fully covered from fully open to fully closed positions.



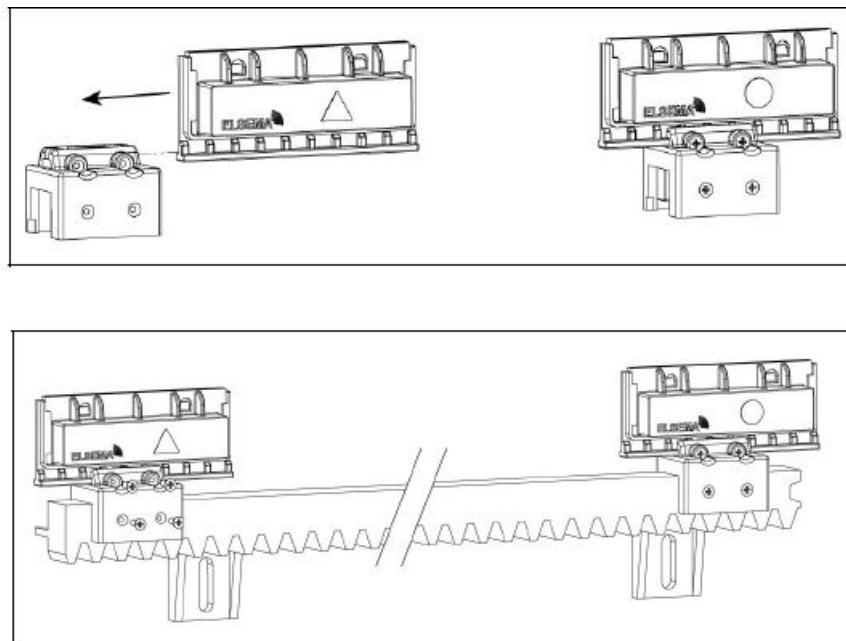
CHECK GEAR RACK INSTALLATION

- 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

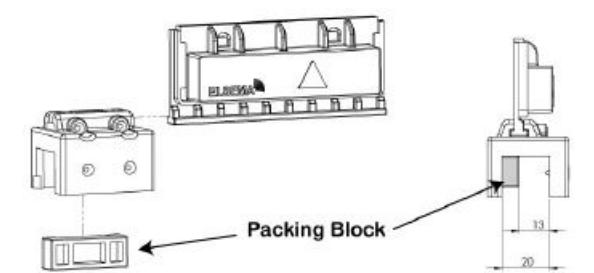


LIMIT SWITCH ADJUSTMENT

- 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.

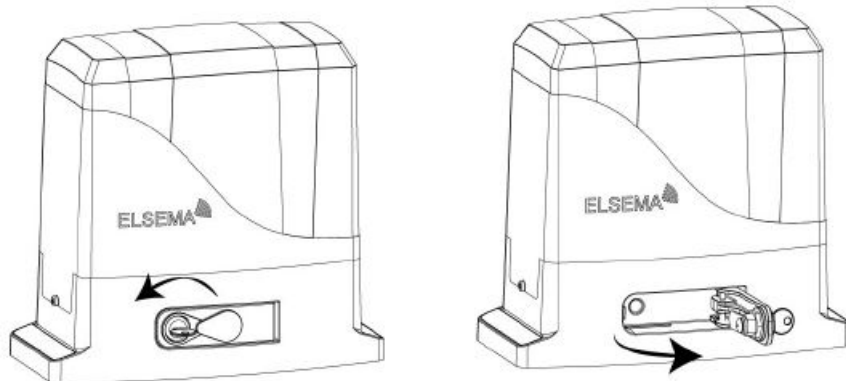


When a steel gear rack is used (or a gear rack that is much slimmer), you will have to use the packing block which comes with the limit switches. Please see the diagram below



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.

. 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 optimized 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 the high traffic areas, more regular maintenance should be performed.

Disconnect the power supply:

- Clean and lubricate the screws, the wheels of the gate with grease.
- Check to limit magnets' position and fixture.
- Check the fastening points are properly tightened.
- Check and make sure that the wire connections are in good condition.
- **Connect the power supply:**
- Check the power adjustments.
- Check the function of the manual release.
- Check the photocells or other safety devices.


Battery Disposal:

When the batteries have reached its end of life, please dispose of the batteries in accordance to your local council regulations. Elsa 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, recycling, 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.

Documents / Resources

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