ELSEMA INTELLIGENT SLIDER iS1500 High Speed Sliding Gate Opener User Manual

Contents

ELSEMA INTELLIGENT SLIDER iS1500 High-Speed Sliding Gate Opener

Elsema's Eclipse® Control Card USER MANUAL 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, persons/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 manually 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 strips, 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 manufacturer's control.
- Automated gates must comply with 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 it's being operated or could 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 the battery has been swallowed or inserted into any part of the body, SEEK MEDICAL HELP IMMEDIATELY.

Technical Features

	iS1500
Motor Voltage	240 Volts AC motor
Max Absorbed Power	250 Watts
Power Supply	240 Volts AC
Nominal Input Current	10 Amps
Motor Speed	450 mm/sec
Maximum Gate Weight	Up to 1,200kg on level ground
Duty Cycle	80% over 12 min
Operating Temperature	-20°c – +50°c
Motor Kit Weight	35Kg

Wiring Requirements

- Single phase 240 Volts 10 Amps non-earth leakage protected power supply to where the operator is mounted.
- This is required because inverter VSD drive units inherently allow an earth leakage current to flow. This current is minimal but a non-RCD protected circuit must be installed and the method of installation done so by AS/NZS 3000:2018 to comply.
- A connection made to an earth leakage-protected circuit may cause nuisance tripping.
- Extra Low Voltage cables from the operator for access control. (Shielded cable if over 8m runs).

Installation Details

After reading the previous sections in this manual, and having checked for suitable installation, proceed as follows:-

Electrical Cabling

- Ensure a properly rated isolator and a 240 Volts power supply are close to the gate operator’s mounting location. Refer to the following diagrams for guidance on conduit positioning and the optimal mounting spot for the operator.
- When routing power and control cables into the operator’s control enclosure, ensure enough slack for easy access to controls. To lift the enclosure:
- Loosen the wing nut on the right side.
- Lift the enclosure and retighten the nut to hold it up.
- After adjustments, loosen the nut, lower the enclosure, and then secure the wing nut again.

Mechanical Installation

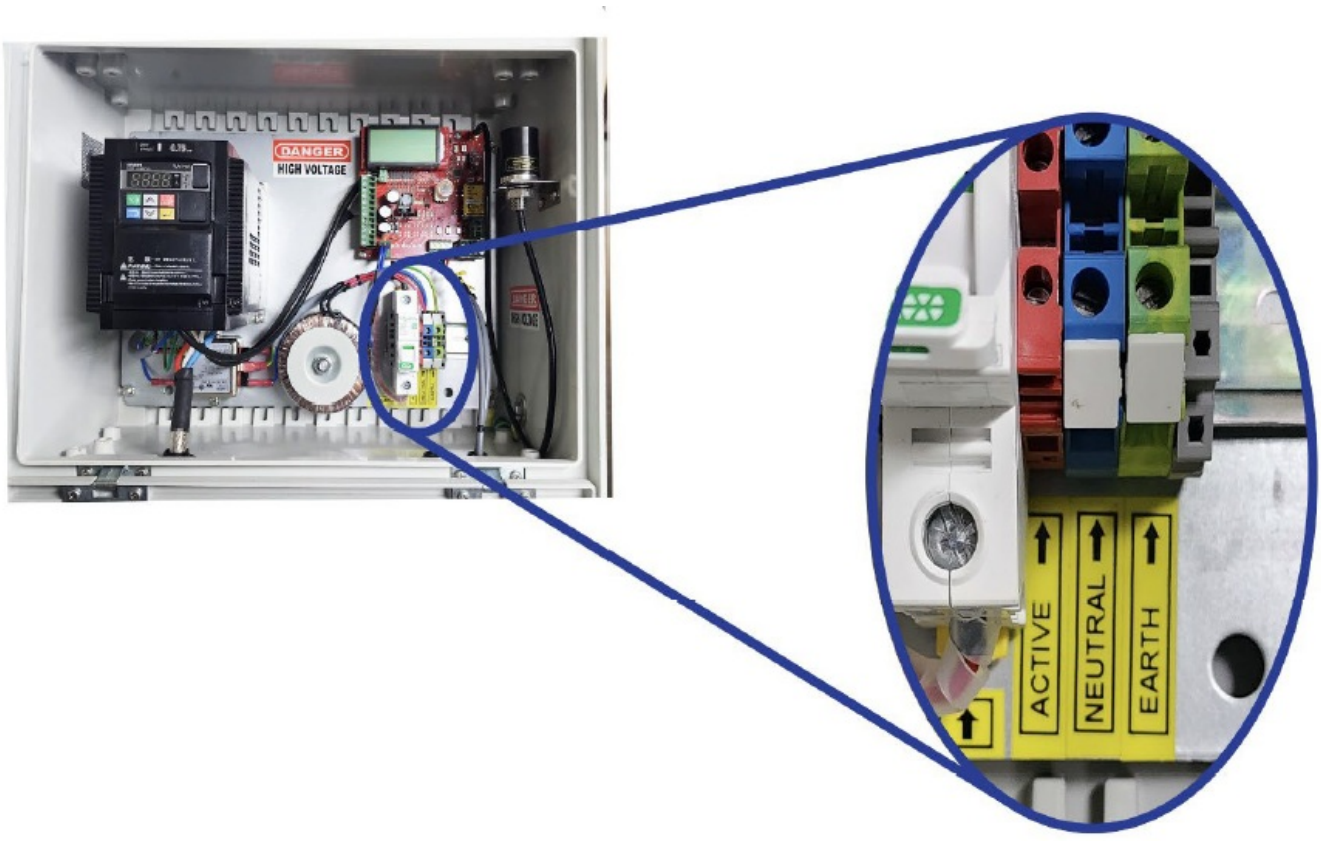
- Ensure the gate rolls easily and has been installed in a manner where no excessive friction or binding is occurring.
- A concrete base approximately 600mm long x 300 wide x 300mm deep should be laid where the gate operator

is to be located.

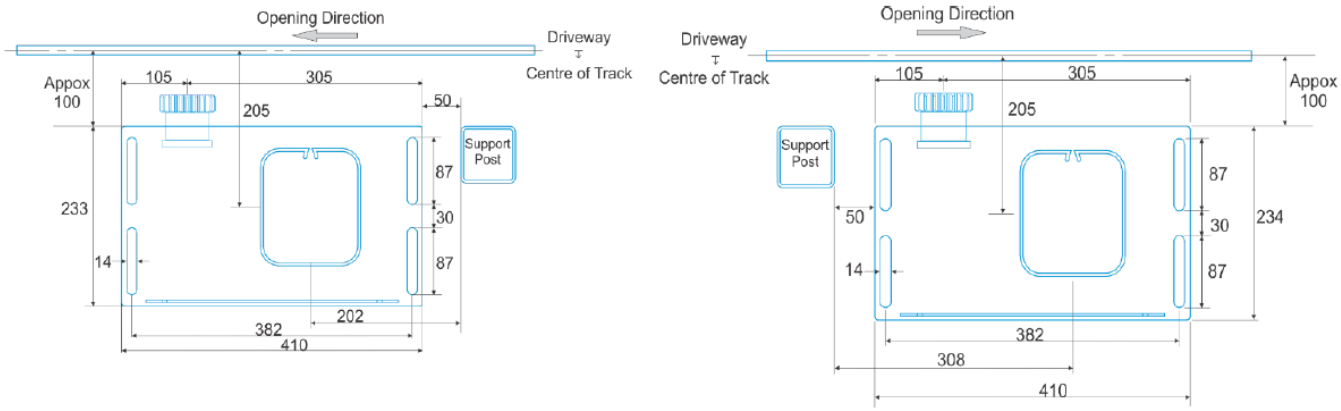
- IMPORTANT ensure there are gate stops firmly installed in the fully open and closed positions. These stops need to be engineered and installed such that they will be strong enough to stop the gate should the limits fail at any time.
- Remove the gate operator cover and position the mounting plate and operator in the approximate mounting location.
- Use the rack to locate the operator the correct distance away from the gate rail (finer adjustments can be made after).
- Dynabolt or chemical anchor the bottom mounting plate to the concrete mounting pad using 12 x 100mm fixings.
- Unscrew anticlockwise the manual release knob so the drive gear free wheels.
- Fix the rack to the gate rail ensuring there is approximately 1mm – 2mm gap between the meshing of the teeth of the rack and the drive gear (no more). Move the gate by hand from one end to the other while checking that the rack is meshing correctly with the drive gear on the operator.
- Check also that the rack is centered around the middle of the teeth on the drive cog – tighten the mounting plate nuts.

Electrical Connections

- Connect anonearthh leakage protected 10 Amps 240 Volts supply to Din Rail terminals labeled Active, Neutral & Earth. See the diagram below.
- Conduits for power & control need to preferably come up through the base plate ‘knockout’



Plan View Layout / Conduit Position

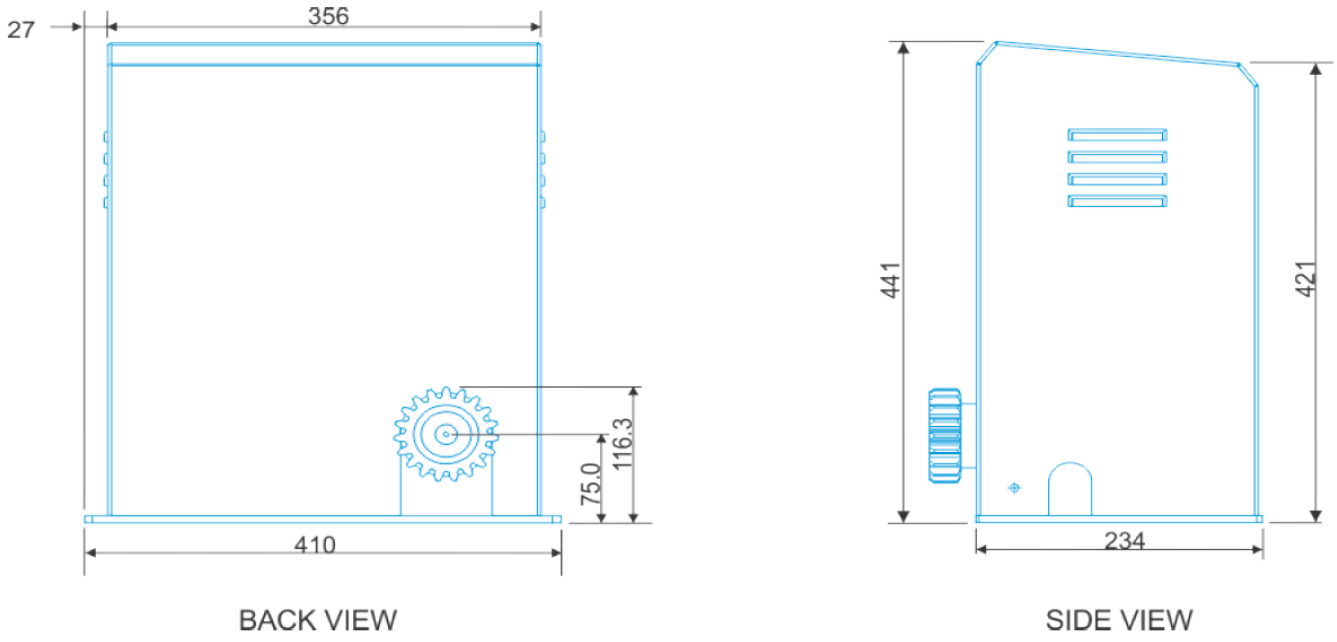


Note:

- These measurements are only applicable when using a 100×100 Gate frame.
- This drawing is for a gate that opens to the Right when looking from the road into the property.
- With this gate opening scenario, the center position of the conduit entry is 202mm from the support post and 205mm from the center of the track.

Note:

- These measurements are only applicable when using a 100×100 Gate frame.
- This drawing is for a gate that opens to the Left when looking from the road into the property.
- With this gate opening scenario, the center position of the conduit entry is 308mm from the support post and 205mm from the center of the track.



Quick Start Instructions

1. 1. Place the operator in the correct position (Pinion wheel to be parallel to the gate and stepped out to allow for the width of the rack once it is mounted onto the gate frame). Mark out fixings and fix the operator to the

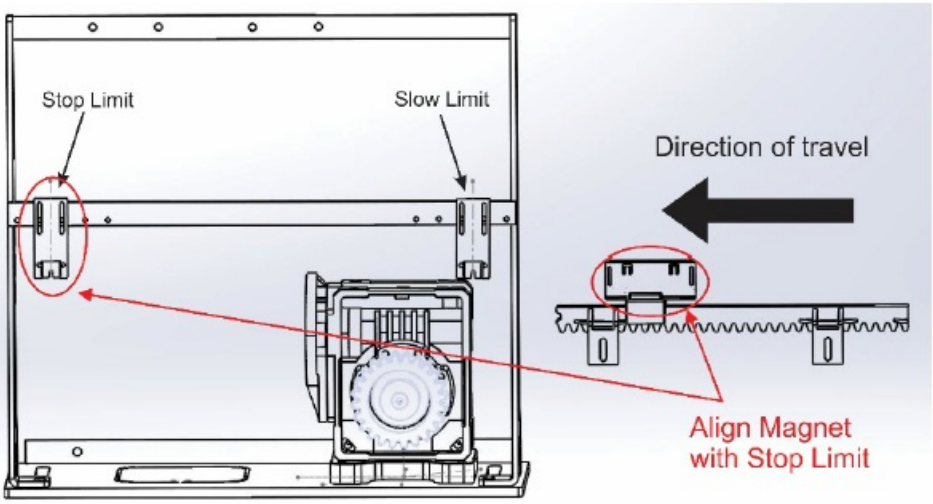
concrete pad. Fix the rack to the gate frame keeping 1mm-2mm clearance between the rack teeth and Pinion wheel.

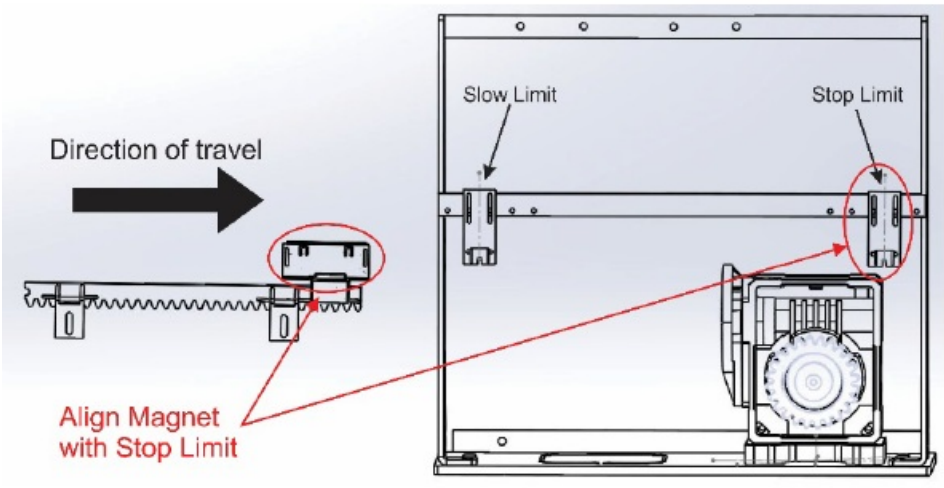
2. Once the rack is fixed move the gate and sight the rack moving over the pinion wheel, check that most of the pinion wheel meshes with the rack. Make sure the rack runs freely over the pinion wheel, any tight spots should be corrected by adjusting the rack height. Check the operator is firmly bolted down to the concrete pad.
3. Ensure stops are installed on the gate for the fully closed and fully open positions.

Connect Photo Electric Beams, Safety Bump strips an,d all other safety devices as required.

Limit Switch Adjustment

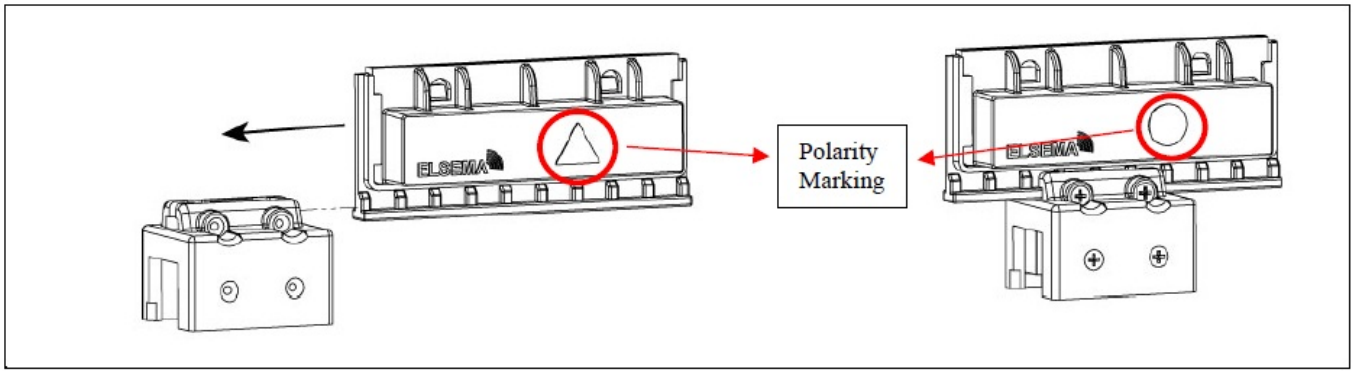
- Elsema's iS1500 motor kits are equipped with dual limit sensors. The 1st limit slows the gate and the 2nd limit stops the gate. The stop limit in one direction becomes the slow limit in the opposite direction automatically.
- Move the gate into a full close position and adjust the magnet on the gate so it aligns with the Stop limit in the closing direction.
- Move the gate into the fully open position and adjust the magnet on the gate so it aligns with the Stop limit in the opening direction.

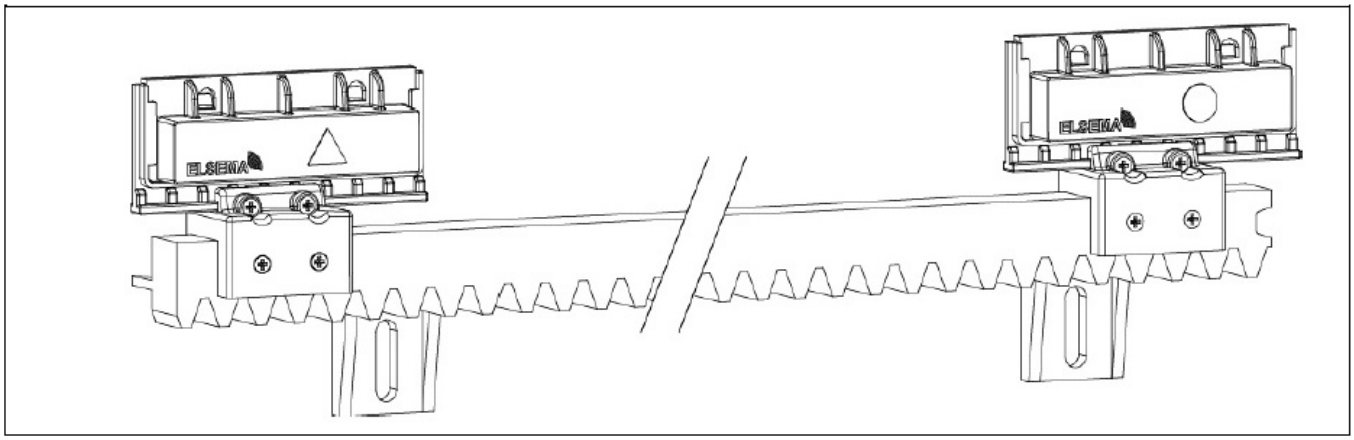




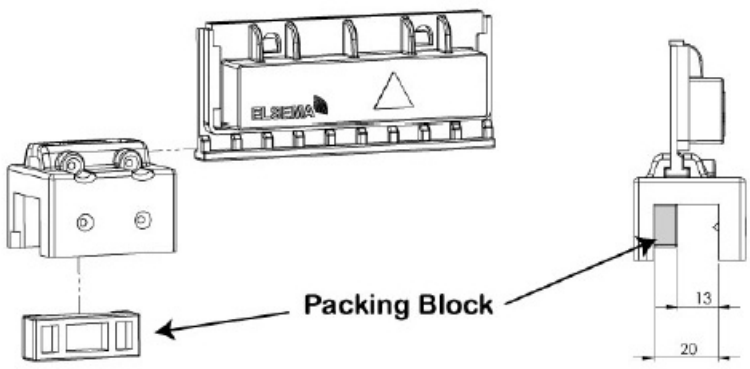
- The limit sensor has a + marking indicating the center of the sensor. Adjust the sensor so that the + marking is the center of the magnet on the gear rack.

The 2 x limit magnets should have different markings 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 orclosede). Please see the diagram below to locate thmarkingsng on the magnets.





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



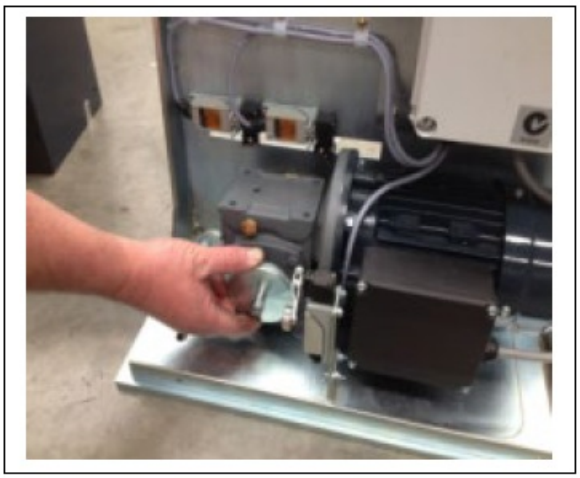
Control card instructions

Once the limit switches are adjusted turn the power on to the MCiS control card and follow onon-screennstructions to profile the gate. The MCiS control card has been specially configured to be used with the iS1500 kit. For replacements please contact Elsema.
Scan the below QR code for control card instructions.

Manual Release Instructions

- Place the key in the door lock, turn clockwise till released, and pull the door open.

- Turn the knob anticlockwise approx. ½ a turn to release



- The gate can now be opened by hand.
- To re-engage the clutch, move the gate by hand into approx. The halfway position and turn the knob clockwise until it is very tight.

- If, when turning the knob clockwise and it just spins, either, try spinning it clockwise with more force to release it off the hexagonal retaining nut or hold the nut with one hand and turn the knob clockwise.

Maintenance Details

WARNING!

- Failure to maintain equipment may result in injury or death and/or damage to property and equipment.
- If the product is not used and maintained by the instructions or recommendations listed in this User Manual, the warranty is negated.

Recommended maintenance to be performed on the operator and gate are as follows:-

- Operator performs over 150 cycles a day every 2 month
- The operator performs between 20-150 cycles a day every 6 months
- The operator performs under 20 cycles a day every 12 months
- Date:
- Site Name:
- Site Address:

Before commencing maintenance on the operator, isolate the electrical supply to ensure the operator will not run inadvertently.

- The gate rolls freely when in the manual.
- Gate wheels and guide rollers in good condition
- Gate stops are installed and in good condition, not loose Thegatee rack is tight & correct clearances between the pinion wheel & rack
- The gate track is not damaged
- Gate operator mounting bolts tight
- No oil leaks from gearboxes
- Gearbox mounting bolts/nuts tight
- Inside operator and control box clean
- Outdoor insect Surface Spray around the operator and control box (not on electronics)
- All electrical connections tight

- Limit Switches operate in appropriate positions
- External safety devices work effectively / cleaned
- Electromagnetic lock, if fitted, operates correctly and is clean
- Wash down of control box and cover (particularly near corrosive/sea environments)
- General operation i.e. speed, auto close etc normal
- Comments

Service performed by:

Frequently Asked Questions

Q: What should I do if the gate operator is not functioning properly?
A: Check the electrical connections, ensure proper mechanical installation, and refer to the troubleshooting section in the user manual for guidance.

Q: Can I install the gate opener without professional help?
A: It is recommended to seek professional assistance for safe and proper installation to avoid any hazards or malfunctions.

Documents / Resources

	**ELSEMA INTELLIGENT SLIDER iS1500 High Speed Sliding Gate Opener** [pdf] User Manual iS1500 High Speed Sliding Gate Opener, iS1500, High Speed Sliding Gate Opener, Speed Sliding Gate Opener, Sliding Gate Opener, Gate Opener, Opener

References

- **User Manual**