Motorised Gate Opener

User Manual

[Revision 5.0 May 2018]

READ THIS MANUAL CAREFULLY BEFORE USE – FAILURE TO DO SO MAY RESULT IN INJURY, PROPERTY DAMAGE AND MAY VOID WARRANTY. • KEEP THIS MANUAL FOR FUTURE REFERENCE. • Products covered by this manual may vary in appearance, assembly, inclusions, specifications, description and packaging.

Safety

Safety messages are designed to alert you to possible dangers or hazards that could cause death, injury or equipment or property damage if not understood or followed. Safety messages have the following symbols:

You WILL be KILLED or SERIOUSLY INJURED if you do not follow instructions.

You CAN be KILLED or SERIOUSLY INJURED if you do not follow instructions.

You CAN be INJURED if you do not follow instructions or equipment damage may occur.

It is important that you read and understand the instruction manual before use and keep the manual in a safe place for future reference. Safety information presented here is generic in nature – some advice may not be applicable to every piece of equipment.

All safety precautions must be observed to reduce the risk of personal injury when operating the equipment.

The term "equipment" refers to your product, be it electrical mains, battery or petrol engine powered.

IMPORTANT – Handle the equipment safely and carefully.

BEFORE USE - If you are not familiar with the safe operation/handling of this equipment, or are in any way unsure of any aspect of suitability or correct use it for your application, you should complete training conducted by a person or organization qualified in safe use and operation of this equipment, including fuel/electrical handling and safety.

WARNINGS

- Read all safety warnings and all instructions. Failure to follow warnings and instructions may result in electric shock, fire and/or serious injury.
- Never run a combustion engine in confined areas.
- Do not operate the equipment in flammable or explosive environments, such as in the presence of flammable liquids, gases or dust. Engine and equipment may create sparks or heat that may ignite vapours, dust etc
- Keep clear of moving parts.
- This equipment may be a potential source of electric shock if misused.
- Do not operate the equipment if it is damaged, malfunctioning or is in an excessively worn state.
- Do not allow others to use the equipment unless they have read this manual and are adequately trained.
- When using the equipment, basic safety precautions detailed here must always be followed to reduce the risk of fire, electric shock, personal injury and material damage.
- When wiring electrically powered equipment, follow all electrical and safety codes.
- Ensure all power sources conform to equipment voltage requirements and

General Work Area Safety

Work areas should be clean and well it.

Do not operate the equipment if bystanders, animals etc are within operating range of the equipment or the general work area.

Personal Safety

Keep packaging away from children - risk of suffocation! Operators must use the equipment correctly. When using the equipment, consider conditions and pay due care to persons and property.

Prevent unintentional starting of the equipment - ensure equipment and power source switches are in the OFF position before connecting or moving the equipment. Do not carry equipment with hands/fingers touching any controls. Remove any tools or other items that are not a part of the equipment from it before starting or switching on.

Stay alert and use common sense when operating equipment. Do not overreach. Keep proper footing and balance at all times. Do not use equipment when tired or under the influence of drugs, alcohol or medication. This equipment is not intended for use by persons with reduced physical, sensory or mental capabilities.

You must wear appropriate protective equipment when operating, servicing, or when in the operating area of the equipment to help protect from serious injury, including eye injury, inhalation of toxic fumes, burns, and hearing loss. Always wear eye protection. Protective equipment such as respirators, non-skid safety shoes, hard hat, hearing protection etc should be used for appropriate conditions. Other people nearby should also wear appropriate personal protective equipment. Do not wear loose clothing or jewellery, which can be caught in moving parts. Keep hair and clothing away from the equipment.

If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dust-related hazards.

General Equipment Use and Care

Do not force the equipment. Use the correct equipment for your application. The correct equipment will perform better and be safer within its design parameters. Do not use the equipment if the ON/OFF switch malfunctions – any equipment that cannot be controlled with the ON/OFF

Use the equipment and accessories etc. in accordance with these instructions, considering working conditions and the work to be performed. Using the equipment for operations different from those intended could result in hazardous situations.

Before use, inspect the equipment for misalignment or binding of moving parts, loose components, damage or any other condition that may affect its operation. If damaged, have the equipment repaired by an authorized service centre or technician before use.

Always keep the equipment and accessories (cutting tools, nozzles, bits etc) properly maintained. Keep the equipment, controls and handles dry and free from dirt, oil and grease.

Store the equipment out of reach of children or untrained persons. To avoid burns or fire hazards, let the equipment cool completely before transporting or storing. Never place the equipment in places where there are flammable materials, combustible gases or combustible liquids etc.

The equipment is not weatherproof, and should not be stored in direct sunlight, at high ambient temperatures or locations that are damp or very humid.

Motorised Gate Use and Care

- Do NOT operate the gate opener unless the gate is in full view and free from objects such as cars, and children/people. Ensure that the gate has finished moving before entering or leaving the driveway.
- Do NOT operate the gate opener when children/people are near the gate. Children must be supervised near the gate at all times when the gate opener is in use. Serious personal injury and/or property damage can result from failure to follow this warning.
- Do NOT allow children to operate the gate opener. Serious personal injury and/or property damage can result from failure to follow this warning.
- Ensure that the obstruction detection system is working correctly, and is tested monthly.
- Keep all gate opening devices, such as keys and remote control units out of the reach of children.
- If the electrical supply cord is damaged, it must be replaced by a suitably qualified person.

are disconnected before connecting equipment.

Motorised Gate Use and Care

- The motor unit should not be immersed in water, doused or sprayed.
- The gate(s) must be well balanced and in good working order. Faulty gates must be repaired by a qualified technician prior to gate opener installation.
- Connect the gate opener to a properly earthed general purpose 240VAC mains power outlet installed by a suitably qualified electrician.
- Disconnect the electrical supply before making any repairs or removing covers. Experienced service personnel only should remove covers from the gate opener.
- Keep hands and loose clothing clear of the gate and opener at all times. All safety instructions above must be followed.
- For the gate opener to sense an object obstructing the gateway, some force must be exerted on the object. As a result, the object, gate and/or person may suffer damage or injury.
- Frequently examine the installation and mountings for signs of wear, damage or imbalance. Do not use the equipment if repair or adjustment is needed since a fault in the installation or an incorrectly balanced gate may cause injury and/or property damage.
- For additional safety protection, it is recommended to have a photo-electric (safety) sensor fitted to the gate by a qualified person.

switch is dangerous and must be repaired.

General Service Information

- Have the equipment serviced or repaired at authorized service centres by qualified personnel only.
- Replacement parts must be original equipment manufacturer (OEM) to help ensure that equipment safety is maintained.
- Do not attempt any maintenance or repair work not described in this instruction manual.
- After use, the equipment and components may still be hot – allow the equipment to cool and disconnect spark plugs and/or electrical power sources and/or batteries from it before making adjustments, changing accessories or performing repair or maintenance.
- Do not make adjustments while the equipment is running.
- Perform all service related activities under suitable conditions, such as a workshop etc.
- Replace any worn, damaged or missing warning labels immediately.
- Do not clean equipment with solvents, flammable liquids or harsh abrasives.

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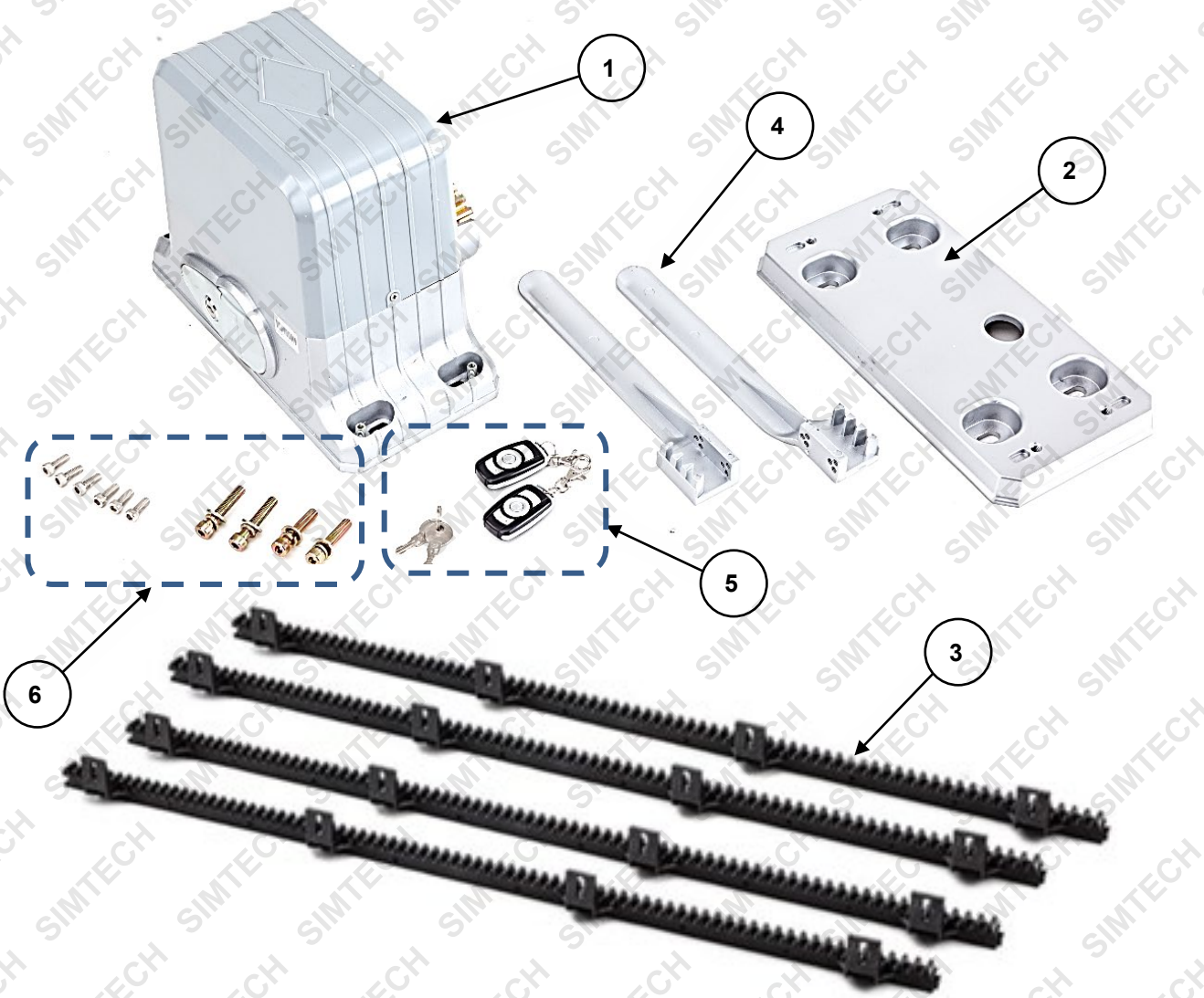
Parts Identification



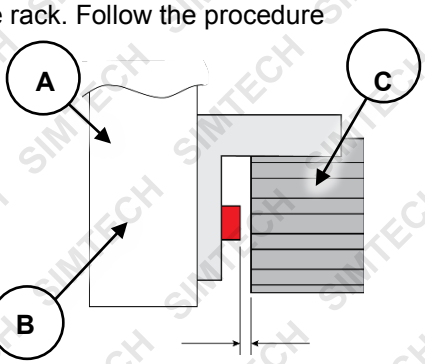
No.	Name	No.	Name
1	Motor Unit	6	Fasteners: M8 Cap Screw (4) M6 cap Screw (6)
2	Mounting Base		
3	Gate Rack 1m lengths (the number supplied depends on model)		
4	Stop Arm (left and right)		
5	Clutch Release Key / Remote Control (if applicable)		

Installation

Before commencing installation, check the following:

- The gate moves freely and easily by hand for the full opening and closing travel.
- The mounting point must be of solid construction; for example, concrete, brick or steel, and must be able to withstand the full force applied to the gate.
- Select a suitable location for mounting the drive unit. This position is usually established by fully opening the gate and mounting the drive unit within a suitable distance of the gate edge.
- A weather-proof 240VAC 10A power outlet is located within one (1) metre of the motor mounting point.

The base mounting holes are slotted for alignment of the drive gear and gate rack. Follow the procedure below to ensure final adjustments can be made later.

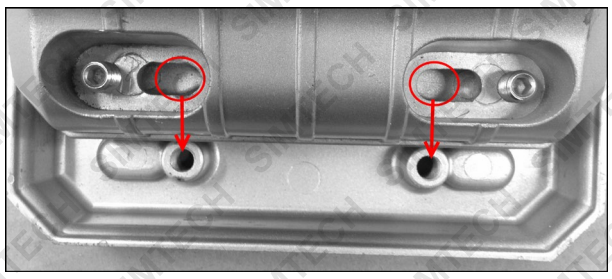
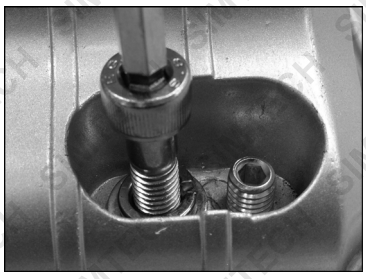


Ensure there is reasonable clearance (approximately 5mm) between the gate rack (**A**) fixing bolts (**B**) and the motor unit drive gear (**C**) so there is no contact between them when the gate is moving. Take into consideration possible movement in the gate etc when setting the clearance. • It is recommended to use 8mm (5/16”) or 10mm (3/8”) fasteners to secure the motor unit. The fasteners must be suitable for the mounting surface, such as masonry anchors etc. • Always use 4 bolts to secure the mounting base. • Ensure that the gate structure can be used to properly support the gate racks before installing.

1. Install the mounting base into position, ensuring that there will be sufficient clearance between the rack bolts and drive gear as described above.
2. Remove the cover from the motor unit (2 screws) to access the mounting holes.
3. Place the motor unit onto the mounting base and line up the mounting holes.
4. Secure the motor unit to the mounting base using the 4 M8 cap screws and tighten firmly with a suitable Allen key.
5. Connect the motor unit wiring according to the electrical diagram in this manual.

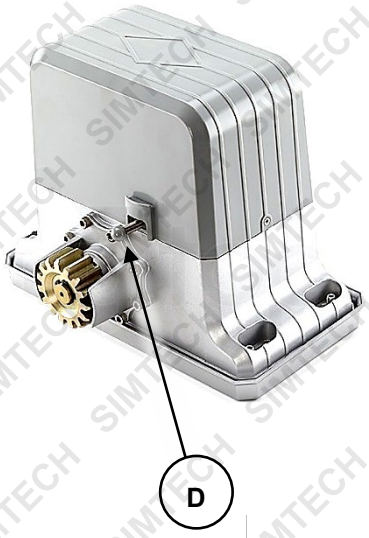
A qualified electrician must perform the electrical installation.

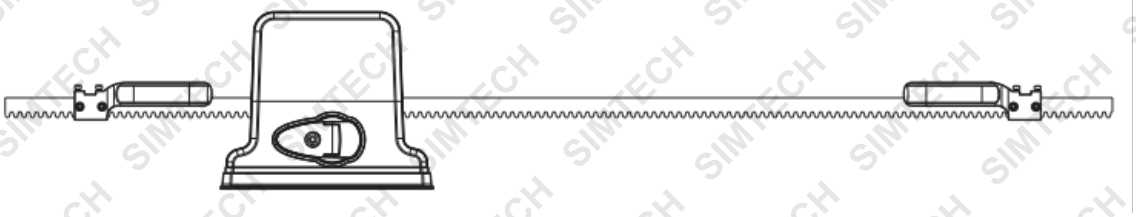
6. Re-install the motor unit cover and secure it with the 2 screws.

7. Manually open the gate and place a section of gate rack in position so it meshes with the motor unit drive gear. Mark the top of the gate rack along the length of the gate.
8. Position the top edge of the gate rack against the marked line and mark the centres of the gate rack mounting slots. The first section of rack should start approximately 20mm from the edge of the gate.
9. Secure the first section of gate rack to the gate using suitable fasteners. Check that it meshes with the motor unit drive gear.
10. Secure the remaining sections of gate rack to the gate. Ensure that each section aligns correctly with the previous in terms of height and rack teeth.

11. Manually close the gate, then place the stop arm into position so that the end of the arm is fully contacting the stop switch (**D**) on the motor unit.
12. Mesh the teeth of the stop arm with the gate rack teeth and secure the stop arm to the gate rack using 2 M6 cap screws and tighten firmly with a suitable Allen key.
13. Manually open the gate, then place the stop arm into position so that the end of the arm is fully contacting the stop switch (**D**) on the motor unit
14. Mesh the teeth of the stop arm with the gate rack teeth and secure the stop arm to the gate rack using 2 M6 cap screws and tighten firmly with a suitable Allen key.
15. Check the stop arm positions by manually opening and closing the gate, ensuring that the stop switch is activated at the desired open and close positions. If necessary, change the stop arm position.



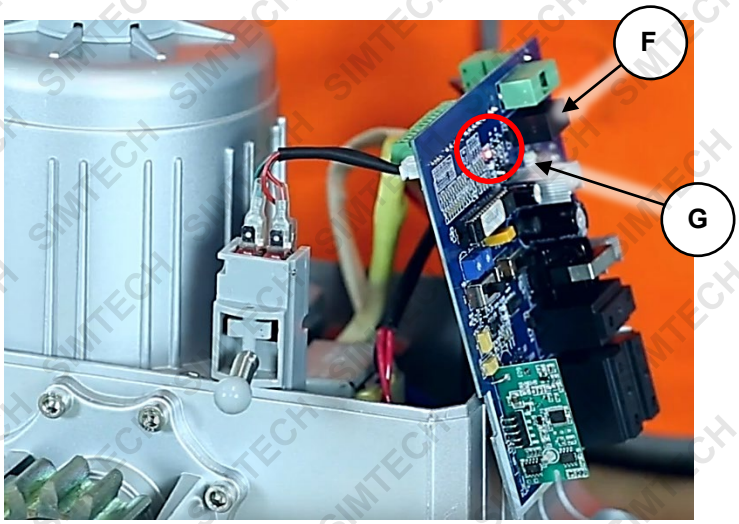


It is possible to adjust the height of the motor unit drive gear, if necessary, to ensure that there is no binding between the drive gear and gate rack teeth. To adjust the height, remove the motor unit cover, then loosen the motor unit mounting bolts. Use a suitable Allen key to adjust the motor unit "jacking screws" (**E**) as required – screw them in (right / clockwise) to raise the drive gear height, screw them out (left / anti-clockwise) to lower the drive gear height. When adjusting height, ensure that clearance between the drive gear teeth and gate rack teeth is minimal, but not binding. After adjustment, re-tighten the motor unit mounting bolts.

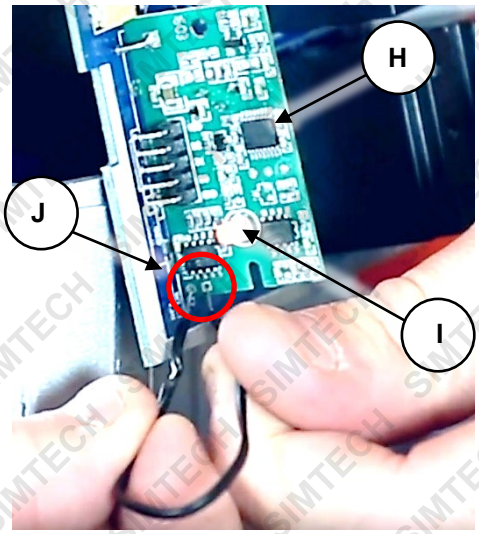
Pairing Remote Controls

240VAC mains electrical parts may be exposed during the pairing process. A qualified electrician or gate installer must perform the pairing process. • Before pairing, ensure that the remote control transmitters have batteries installed and that the batteries (battery type 3V CR2026) are in good condition.

For models that can be remotely controlled, the remote control transmitters must be "paired" with the motor unit. Pairing must be performed before first use of the system and whenever the remote control unit batteries are replaced.



1. Disconnect the motor unit from the electrical supply.
2. Remove the motor unit cover.
3. Remove the 2 screws securing the motor unit PCB (**F**) to the motor unit body, then lift the PCB out. It may be necessary to disconnect one or more connectors from the PCB to do this – once the PCB is out of the motor unit body, reconnect any connectors.
4. Ensure that the PCB is not touching the motor unit housing, then reconnect the electrical supply. A LED (**G**) will illuminate on the PCB when the electrical supply is connected.
5. At the bottom of the PCB is the transceiver PCB (**H**). On the transceiver PCB is an LED pairing indicator (**I**).



6. To place the transceiver in "pairing mode", short / bridge the two PCB holes (**J**) using a suitable piece of wire and hold for 1 to 2 seconds only, then remove the wire. The pairing indicator should illuminate and remain on. If the pairing indicator is not "on", attempt the short / bridging process again and remove the bridging wire as soon as the indicator illuminates.
7. For each remote control unit, press and hold the centre button until the pairing indicator on the transceiver PCB flashes, then release the button – the remote control unit is now paired with the motor unit. Repeat this procedure for each remote control unit.
8. After pairing all remote control units, wait until the pairing indicator is no longer illuminated – this means the unit is no longer in pairing mode. Test the operation of each remote control. ***If going on to set up the Automatic Reverse Function on the following page, disregard steps 9 to 11.***
9. Disconnect the motor unit from the electrical supply.
10. Re-install the motor unit PCB and cover.
11. Connect the motor unit to the electrical supply.

Video Tutorial:
Pairing Remote Control Units

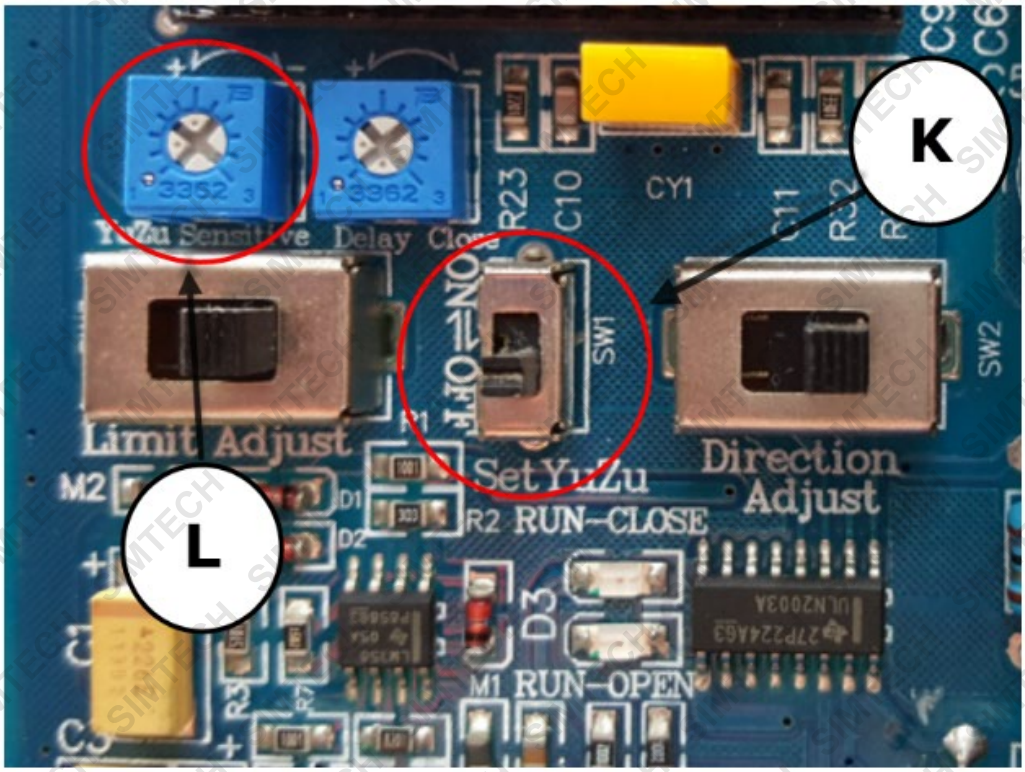
Automatic Reverse Function

240VAC mains electrical parts may be exposed during the Automatic Reverse Function set-up process. A qualified electrician or gate installer must perform the set-up process.

Some SIMTECH Sliding Gate Openers have an Automatic Reverse Function. This function has the gate automatically stop and reverse/return to the open position if it comes in contact with an object. To confirm your model has this function, please refer to the product marketing.

If following on from Pairing Remote Controls process, skip to step 5.

1. Disconnect the motor unit from the electrical supply.
2. Remove the motor unit cover
3. Remove the 2 screws securing the motor unit PCB (**F**) to the motor unit body, then lift the PCB out. It may be necessary to disconnect one or more connectors from the PCB to do this - once the PCB is out of the motor unit body, reconnect any connectors.
4. Ensure that the PCB is not touching the motor unit housing, then reconnect the electrical supply. A LED (**G**) will illuminate on the PCB when the electrical supply is connected.
5. Find the Automatic Reverse Function on/off switch (**K**) and switch to ON
6. The Resistance Sensitivity Dial (**L**) adjusts the level of resistance the gate will be responsive to before stopping and reversing. With a suitable tool, rotate the dial anticlockwise to increase the sensitivity, this will adjust the door to auto-reverse with minimal resistance. Rotate the dial clockwise to decrease the sensitivity, this will adjust the door to auto-reverse with greater resistance.
7. Disconnect the motor unit from the electrical supply.
8. Re-install the motor unit PCB and cover.
9. Connect the motor unit to the electrical supply.



Operation

This product is fitted with a safety system that stops the gate motor if an obstruction to gate movement is detected. For the gate opener to sense an obstruction, some force must be exerted on the object. As a result, the object, gate and/or person may suffer damage or injury. This feature should be tested monthly to ensure it working properly (see Maintenance).

- To activate the gate, press a direction button on the remote control when within range (approximately 30m).
- When opening or closing the gate, you can stop it at any time by pressing the centre button.

Manual Over-Ride

To override the gate opener and allow the gate to be opened or closed manually, you must disengage the drive gear clutch. To do so:

Use the clutch release key to unlock the clutch release flap on the rear of the motor unit.

Pull the clutch release flap all the way out.

Maintenance, Troubleshooting and Frequently Asked Questions

Some activities described may be beyond the scope of some users. For procedures that you are not comfortable with or have the tools or experience for, or if problems persist after following all suggested actions, contact a service centre or qualified technician.

- After the 1st month of use and every 6 months, check if any parts are loose and tighten them if needed.
- Every month make sure that the obstruction detection system is working correctly. Place a block of wood in the path of the gate and against the closing post. Close the gate using the remote control so it bumps into the obstruction. The gate should stop. Maintain a safe distance when performing the test.

The following information may assist in identifying a problem and rectifying it.

Problem	Method
Gate does not open or close	Check that electrical power to the motor unit is available. Check that motor unit is connected to the electrical power supply. Check that the drive gear clutch is not in the manual over-ride position.
Gate reverses while closing or stops while opening	Obstruction detection sensitivity requires adjustment. Gate obstructed. Gate problem - disengage the drive gear clutch and check the gate operates smoothly and easily. If a photo-electric sensor is fitted, ensure it is clear of obstructions or dirt on the lens.
Transmitter not functioning	Transmitter not in range (30m) or obstructed. Transmitter battery low or no longer serviceable (LED flashes to indicate low battery). Transmitter not "paired" to the motor unit. Interference from external/outside sources such as baby monitors, or other radio transmitters etc. Remove the source of interference.

Frequently Asked Questions

Q) Does this gate have a sensor?

A) The gate does not have a sensor. Should there be an obstruction (person or car in the way), the gate will contact the obstruction and then reverse back to the open position.

Q) Does this item have a runner that is attached separately?

A) No. The gate racks attach to the existing gate.

Q) Is the gate opener suitable for gates larger than 3m?

A) The gate opener can support gates up to 4m in length and up to 1000 kg as long as the gate is balanced and slides easily / smoothly.

Q) What are the dimensions of the mounting plate?

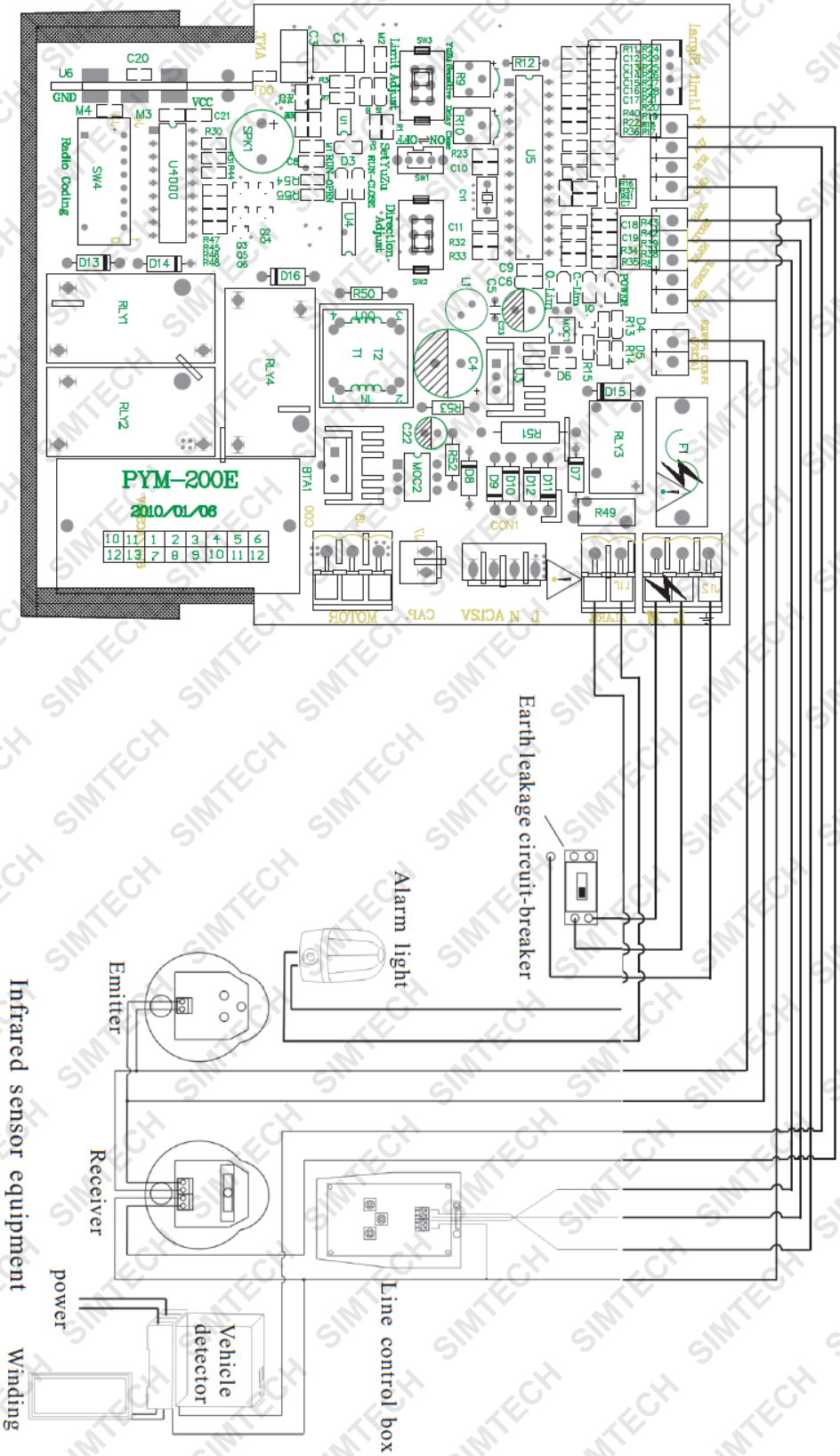
A) 309mm x 151.5mm.

Q) Does this the gate opener open to the left or right?

A) The gate opener can be installed to open either sliding left or sliding right

Wiring Diagram

NOTE: Also shows connection points for optional equipment available from gate automation specialists



Specifications

Electrical Requirements	240VAC / 50Hz
Power Consumption	350W
Maximum Gate Size	1m per Gate Rack (up to approximately 1800kg drag weight)
Maximum Remote Control Transmitters	47

Some experts believe the incorrect or prolonged use of almost any product could cause serious injury or death. For information that may reduce your risk of serious injury or death, consult the points below and additionally, the information available at www.datastreamserver.com/safety

- Consult all documentation, packaging and product labelling before use. Note that some products feature online documentation which should be printed and kept with the product.
- Check product for loose / broken / damaged / missing parts, wear or leaks (if applicable) before each use. Never use a product with loose / broken / damaged / missing parts, wear or leaks (if applicable).
- Products must be inspected and serviced (if applicable) by a qualified specialist every 6 months assuming average residential use by a person of average weight and strength, above average technical aptitude, on a property matching average metropolitan specification. Intended use outside these guidelines could indicate the product is not suitable for intended use or may require more regular inspection or servicing.
- Ensure all possible users of the product have completed an industry recognized training course before being given access to the product.
- The product has been supplied by a general merchandise retailer that may not be familiar with your specific application or your description of the application. Be sure to attain third-party approval for your application from a qualified specialist before use regardless of prior assurances by the retailer or its representatives.
- This product is not intended for use where fail-safe operation is required. As with any product (take an automobile, aircraft, computer or ball point pen for example), there is always a small chance of technical issues that needs to be repaired or may require replacement of the product or a part. If the possibility of such failure and the associated time it takes to rectify could in any situation inconvenience the user, business or employee then the product is not suitable for your requirements. This product is not for use where incorrect operation or a failure of any kind, including but not limited to a condition requiring product return, replacement, service by a technician or replacement of parts could cause a financial loss, loss of employee time or an inconvenience requiring compensation.
- If this item has been purchased in error after considering the points above, simply contact the retailer directly for details of their returns policy, if required.