

12V DC ELECTRIC GATE LOCK (HORIZONTAL)



Please read the manual carefully before operating or servicing the equipment.

1 SAFETY GUIDELINES

- Read these instructions carefully and keep them for future reference.
- All data and declarations on this sheet annul and supersede previous information sheets.
- Install the electrical system in compliance with the national standards in force.
- Ensure that the electric lock power is only supplied by a safety transformer (in compliance with EN 60742/IEC 61558-1:2017) or other power source with an equivalent level of safety.
- Before connecting the electric lock make sure the transformer output voltage is equal to the rate electric lock voltage.
- Transformer power must be at least 15 VA.
- Ensure that the system is adequately protected against short circuits.
- The control unit (manual or electronic) must be sized for the current absorbed by the electric lock, must comply with the safety standards in force and must guarantee a level of safety equal to that provided by the safety transformer.
- The electrical system must be disconnected from the mains when carrying out cable connection or performing any other work on the electric lock.
- Use standard-approved wiring with a minimum cross-section of 1mm².

2 DOOR HAND POSITION

- Inward right hand (1)
- Inward left hand (2)
- Outward right hand (3)
- Outward left hand (4)

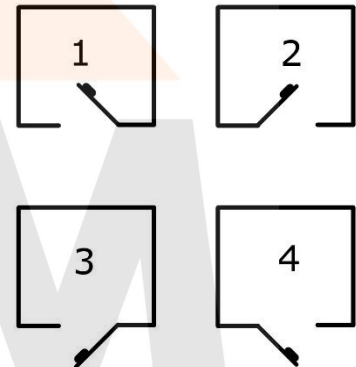


Fig 1: Door hand position

3 PRE-INSTALLATION

3.1 MECHANICAL

Before the locking can be installed, consider its location and orientation. The gate lock can be mounted horizontally or downwards vertically **but not vertically locking upwards**. Mounting it in this way can allow water to penetrate that lock and will void the warranty. Depending on the chosen mounting position, it may require spaces or packed to be made and used.

When positioning the strike, it is important to achieve a reasonable level of alignment with the bolt pin as to ensure correct locking and operation. The hole in the strike is of significantly larger diameter than that of the lock pin. However, installing the strike so the lock pin to go into the hole centrally is best method because it will allow for movement of the gate over time.

3.2 ELECTRICAL

Wires are pre-installed to the lock when arrived. The exposed wires can be using to attach to any intercom, gate motor, power supply and combinations thereof. The following table below is the wiring specification for possible wiring configuration. The currently installed wiring for the DC battery on the lock is using an American Wire Gauge (AWG) 22 wire following the standard ISO 60364 wires for general wiring purposes. The table below is for solid, solid, round conductor. The higher the number – the thinner the wire. Typical household wiring is AWG 12 or 14, telephone wire is typically AWG 22, 24 or 26 and the general wiring used for electronics is 18 or 19.

3.3 TABLE 1: AWG WIRE CHART

American Wire Gauge (AWG)	Diameter (Inches)	Diameter (mm)	Cross Sectional Area (mm ²)
0000 (4/0)	0.4600	11.7	107.0
000 (3/0)	0.4100	10.4	85.0
00 (2/0)	0.3650	9.27	67.4
0 (1/0)	0.3250	8.25	53.5
1	0.2890	7.35	42.4
2	0.2580	6.54	33.6
3	0.2290	5.83	26.7
4	0.2040	5.19	21.1
5	0.1820	4.62	16.8
6	0.1620	4.11	13.3
7	0.1440	3.67	10.6
8	0.1290	3.26	8.36
9	0.1140	2.91	6.63
10	0.1020	2.59	5.26
11	0.0907	2.30	4.17
12	0.0808	2.05	3.31
13	0.0720	1.83	2.63
14	0.0641	1.63	2.08
15	0.0571	1.45	1.65
16	0.0508	1.29	1.31
17	0.0453	1.15	1.04
18	0.0403	1.02	0.82
19	0.0359	0.91	0.65
20	0.0320	0.81	0.52
21	0.0285	0.72	0.41
22	0.0254	0.65	0.33
23	0.0226	0.57	0.26
24	0.0201	0.51	0.20
25	0.0179	0.45	0.16
26	0.0159	0.40	0.13

4 INSTALLATION

A typical vehicle gate lock installation is described. The lock is being mounted to the fence post while the strike will be mounted to the gate on the left of the lock. Bolts would be used to secure the lock and strike.

1. Mark the lock position. Locate the lock in the desired position and using a pen / pencil mark the mounting hole locations through the lock base.
2. Drill the lock mounting holes. Use a M4 drill bit to drill the mounting holes in the fence post.
3. Secure the lock in position. Push the bolts through the fence post and position the lock over the protruding bolts ends.
4. Mark the strike position. Locate the strike in the correct position and using a pen / pencil mark the three (3) mounting hole locations through the strike. The strike should have about 5mm minimum of clearance from the lock.
5. Drill the strikes mounting holes. Use a M4 drill bit to drill the three (3) mounting holes in the gate.
6. The strike plate should be mounted on the door frame with the bolt passing centrally. The roller, which helps release the bolt, passes directly over the bump at the top (or bottom if mounted on the left) on the striker plate
7. A 2-core wire is required to be fitted from the intercom unit to the lock. Depending on the intercom used, which can be interchanged, 12V DC or pulse, you may require an additional transformer.
8. Five (5) keys are provided, which allow the lock to be opened from the outside at all times.

5 OPERATION

- Without power being applied, the lock operates as a standard mechanical lock. It can be opened from the outside using the key, or from the inside by pressing the Release Button.
- When 12V DC is applied briefly, the Release Button is pressed, or the external key is turned, a small catch is released inside the lock.
- Releasing the internal catch allows the Release Roller to push open the Door Latch. To test this mechanism, it is necessary to push the Release Roller until the Release Button triggers the mechanism and opens the lock as shown in Figure 4.
- The locking system automatically locks in under 1 second once the lock hits the strike. The lock will also automatically lock in 8 second once the lock has been unlocked.
- The spring tension can also be adjustable by turn the nut to

5.1 MECHANISM DIAGRAM

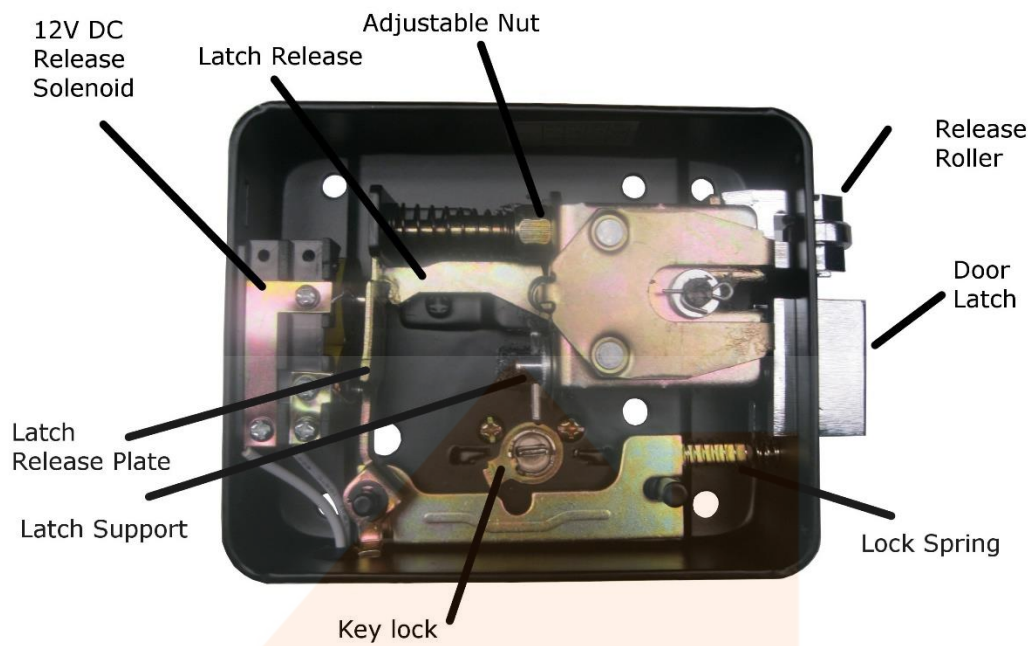


Fig 2: Mechanism inside the housing

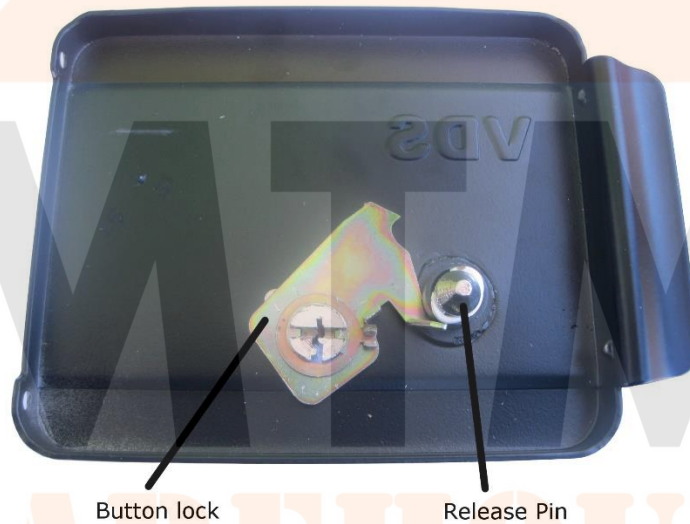


Fig 3: Mechanism on the front plate

6 PUSH AND ROLLER RELEASE

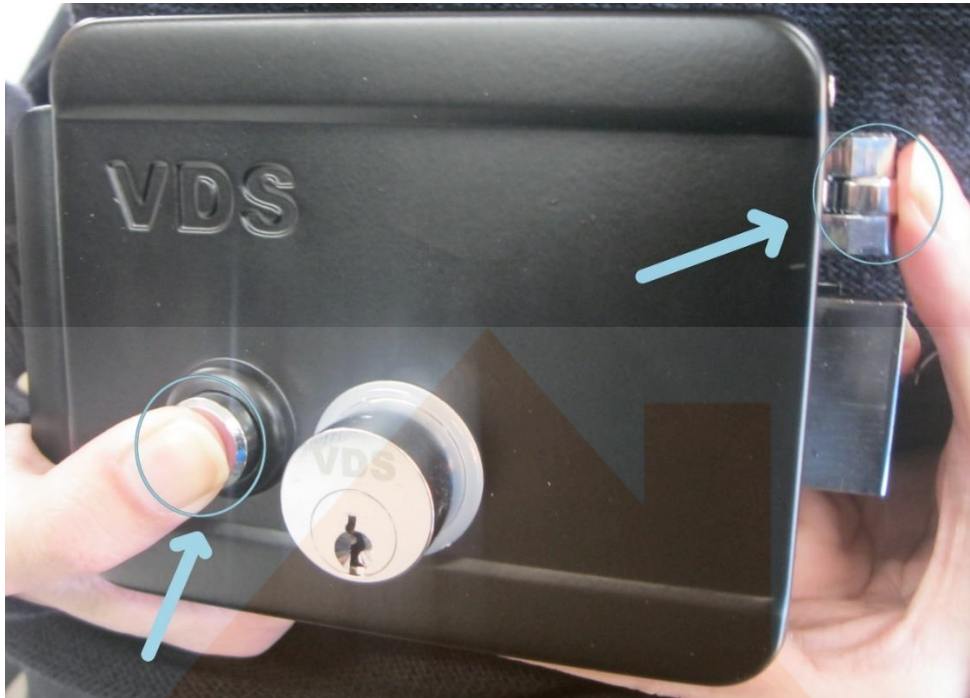


Fig 4: Manual release demonstration

7 SPECIFICATION

7.1 TABLE 2: SPECIFICATIONS OF ELECTRIC LOCK

Operating voltage	12V DC
Electronically controlled lock voltage	9 – 15V DC
Wire voltage rating	600V
AWG	22
Unlock current	1.5 – 3A
Working Temperature	-40 ~ +50°C
Operating Humidity	10 – 90 % RH
Lock Mode	Collision Lock
Unlock Mode	Electric control, keys, knobs
No. of Operations	~5,000,000 operations
Bolt Length	13mm
Door Weight Limit	300 Kg
Lock Time	<1 Second
Opening Angle	90°
Appropriate Doors	Wooden Doors, Steel Doors, Stainless steel Doors
Product Weight	1.55 Kg

8 MAINTENANCE

The gate lock has been treated with grease and applying any other type of lubricant may void warranty. With the cover removed, it is important to take care when replacing the batteries, selecting the configuration or manually overriding the mechanism.

9 DIMENSIONS



Fig 5. Front section

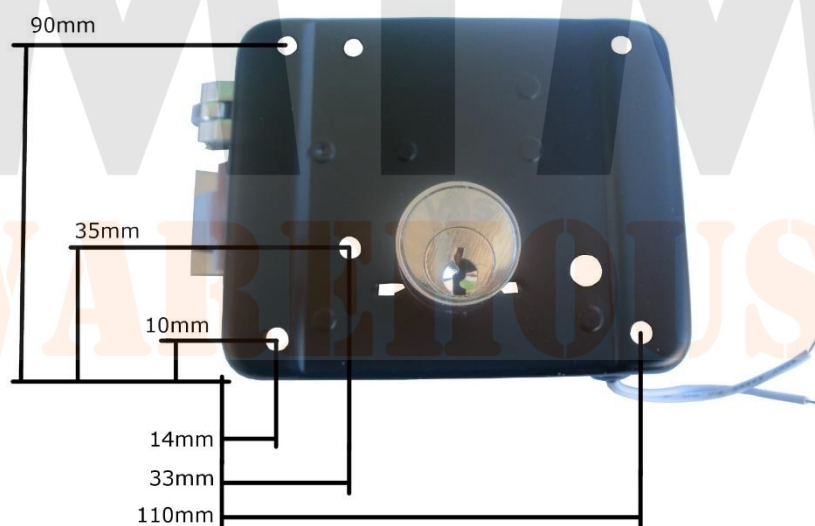


Fig 6. Rear section with mounting holes

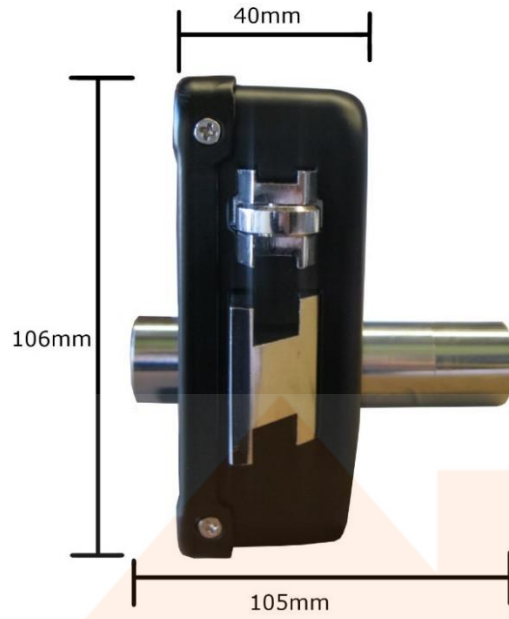


Fig 7. Side section

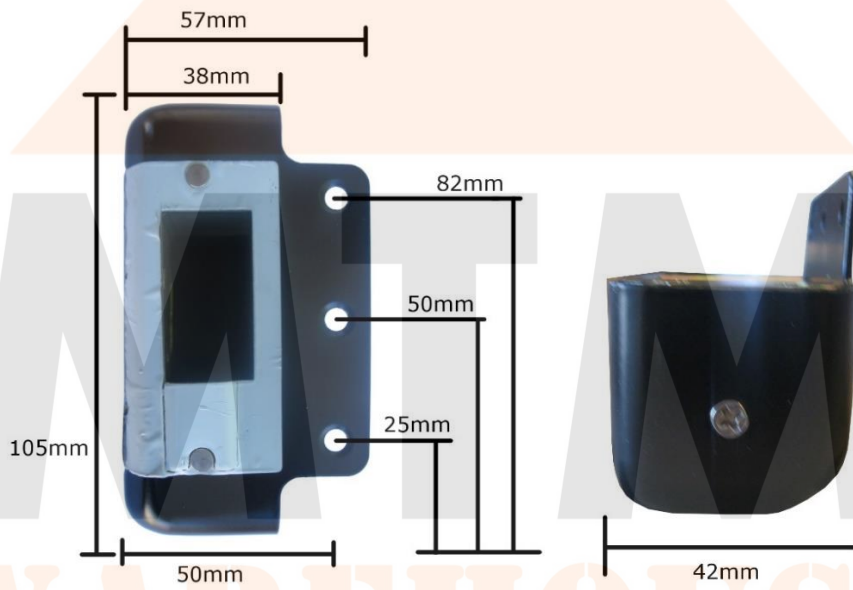


Fig 8. Strike plate front and side section

Address: 5 Lyn Parade, PRESTONS, NSW 2170

E-mail: sales@mtmwarehouse.com.au

Telephone: (02) 9607 4300