

Installation and Maintenance Manual

Commercial Drive Bolt

Model: GDS DB Ent
(Inbuilt Elsema MC controls)

Made in Australia from Australian & quality imported components



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1. Installation details

1. The drive bolt is controlled by relays and functions of the Elsema MC series Eclipse board.
2. It requires a minimum .75mm 2 core cable to be run between the din rail terminals (if controls have been wired in the factory, if not follow the wiring connection details further on in manual) and the Drive bolt. Connect the drive bolt brown wire to the + terminal, and the blue wire to the – terminal. If the cable run is over 15m use 1.5mm wire.
3. The motors and limit wiring connections made as per a standard installation.

2. Mechanical installation

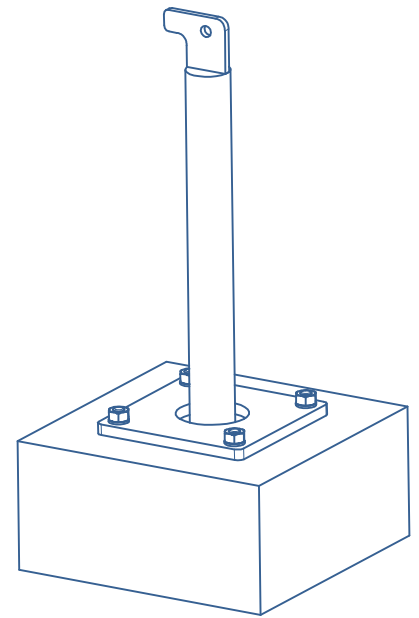
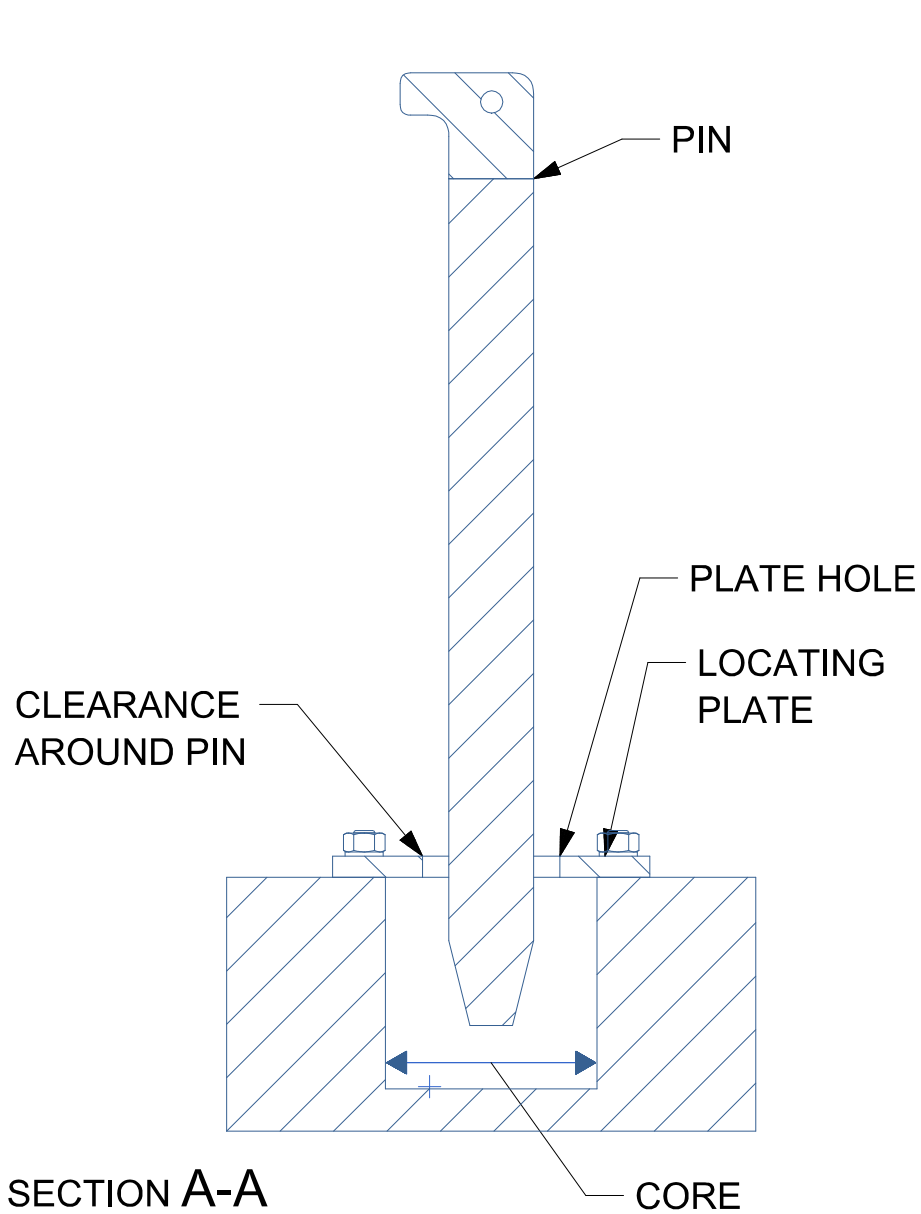
-This drive bolt has been designed to extend into its locating hole only when the gate has reached its closed limit switch position.

-The total travel of the bolt is 130mm in both directions and is not adjustable.

-It has to be mounted vertically. A suitable locating hole or catcher bracket has to be made and fitted to suit as every installation site is different. A guide plate is supplied to fix down to the surface that the bolt is going to locate into. The cored/drilled hole for the drive bolt to locate into has to be larger than the hole in the locating plate provided. This is to guarantee that in no circumstance the pin could ever rub against the material that the hole has been cut out of which will cause excessive force on the actuator. A hole size guide is provided on the next page.

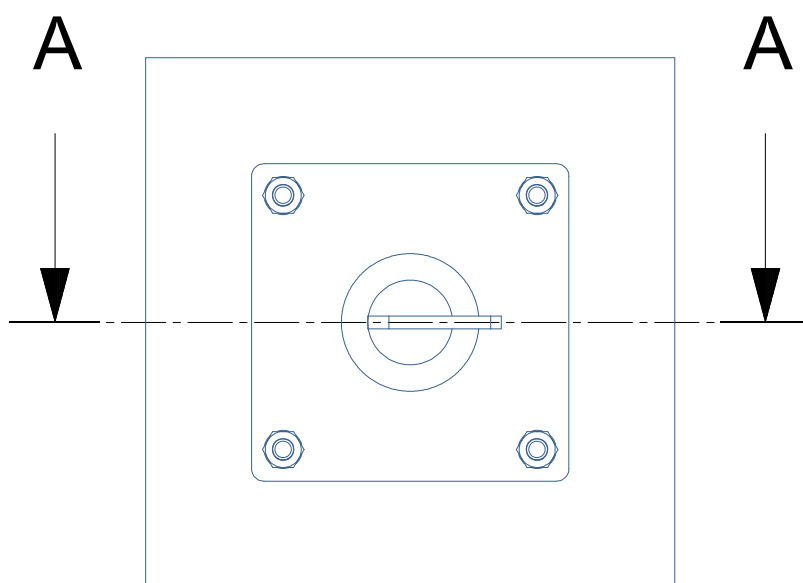
- A gate stop also has to be fitted to the ground for a dual swing gate set up, or on the receiving post if in the case of a single swing gate, so that the gate leaf can stop in the correct position before the bolt extends.

- a) Prepare a suitable mounting position on the gate frame to fix the drive bolt operator to.
- b) Determine the mounting height of the operator by ensuring that, with the bolt fully retracted, there is suitable clearance between the end of the bolt and the ground throughout the complete travel of the gate. Also keeping in mind, if the assembly has to be mounted higher, you still have enough of the bolt located into the hole when the bolt is extended.
- c) Using tech screws, or drill, tap and use bolts to mount the drive bolt assembly to the gate frame/mounting plate.
- d) Run the power cable between the controls and the drive bolt operator and connect the brown and blue wires correspond to the terminals marked brown (+) and blue (-) at the drive bolt controls.

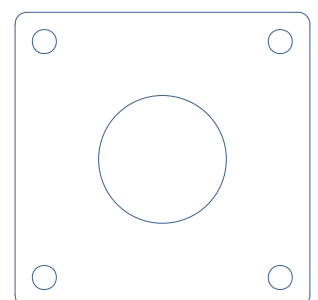
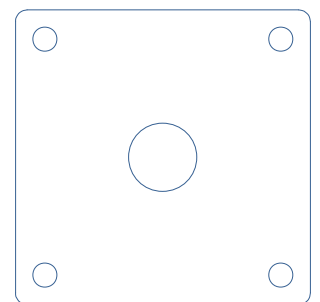


PIN	PLATE HOLE	CORE
Ø20	Ø30	Ø75
Ø25	Ø35	Ø75
Ø40	Ø65	Ø100

CROSS SECTION VIEW OF BOLT RECEIVING HOLE & PLATE

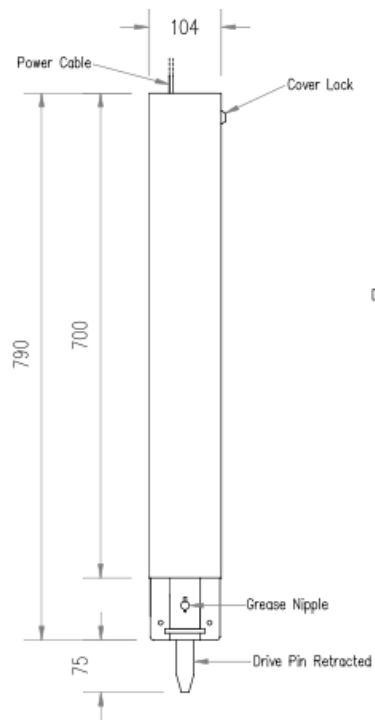


PLAN VIEW OF LOCATING PLATE POSITION

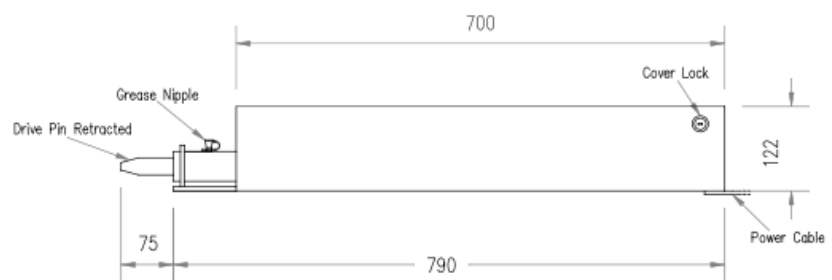


GDS DB ENT Dimensions

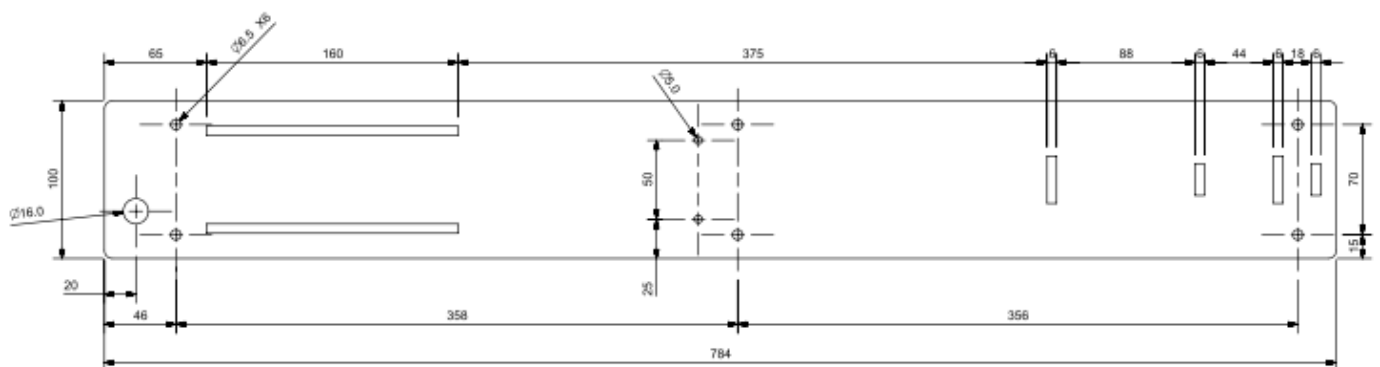
Front View



Side View



Chassis back plate



Specifications of drive bolt operator

Power Supply:	24v d.c 1.8 amp max	Weight:	11kg
Push Pull Force:	300N	Actuator:	Linak LA-12
Bolt size:	25mm diameter (45mm upon request)	Travel time:	5 sec (voltage and load will vary time)
IP Rating:	IP66		

3. Description of control logic

From closed to open the closed again

- Open signal received by the control board.
- The bolt starts retracting up.
- After an adjustable delay time, M1 starts moving gate leaf 1, then after a leaf delay M2 if a dual gate.
- Once open, the bolt stays up, and stays up throughout the travel of the gates.
- Either signalled to close through a command, or auto-close, the gates start to close.
- Once closed, after a 2 second delay, the drive bolt starts to drive do.

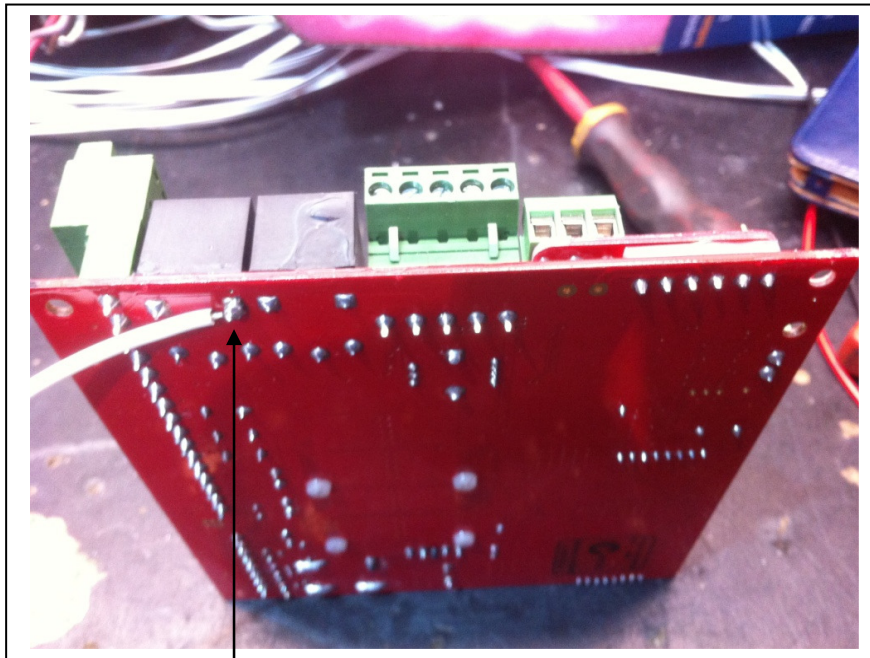
4. Manual release of drive bolt

1. Using the key provided, insert into lock and turn.
2. Once turned lift cover upwards and remove.
3. Pull drive bolt operator upwards against the spring pressure to withdraw drive bolt out of its locating hole.

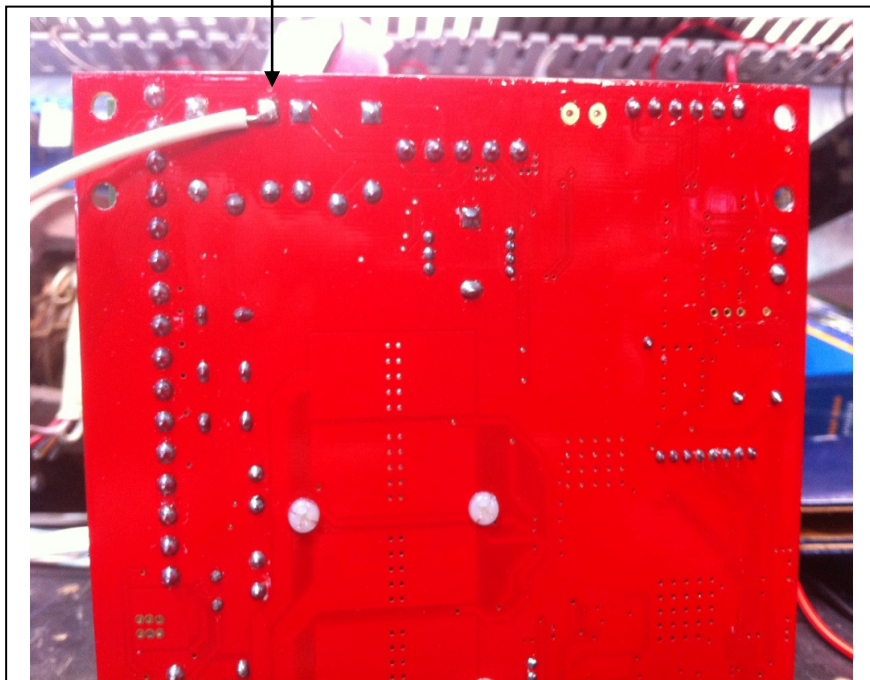
5. Maintenance

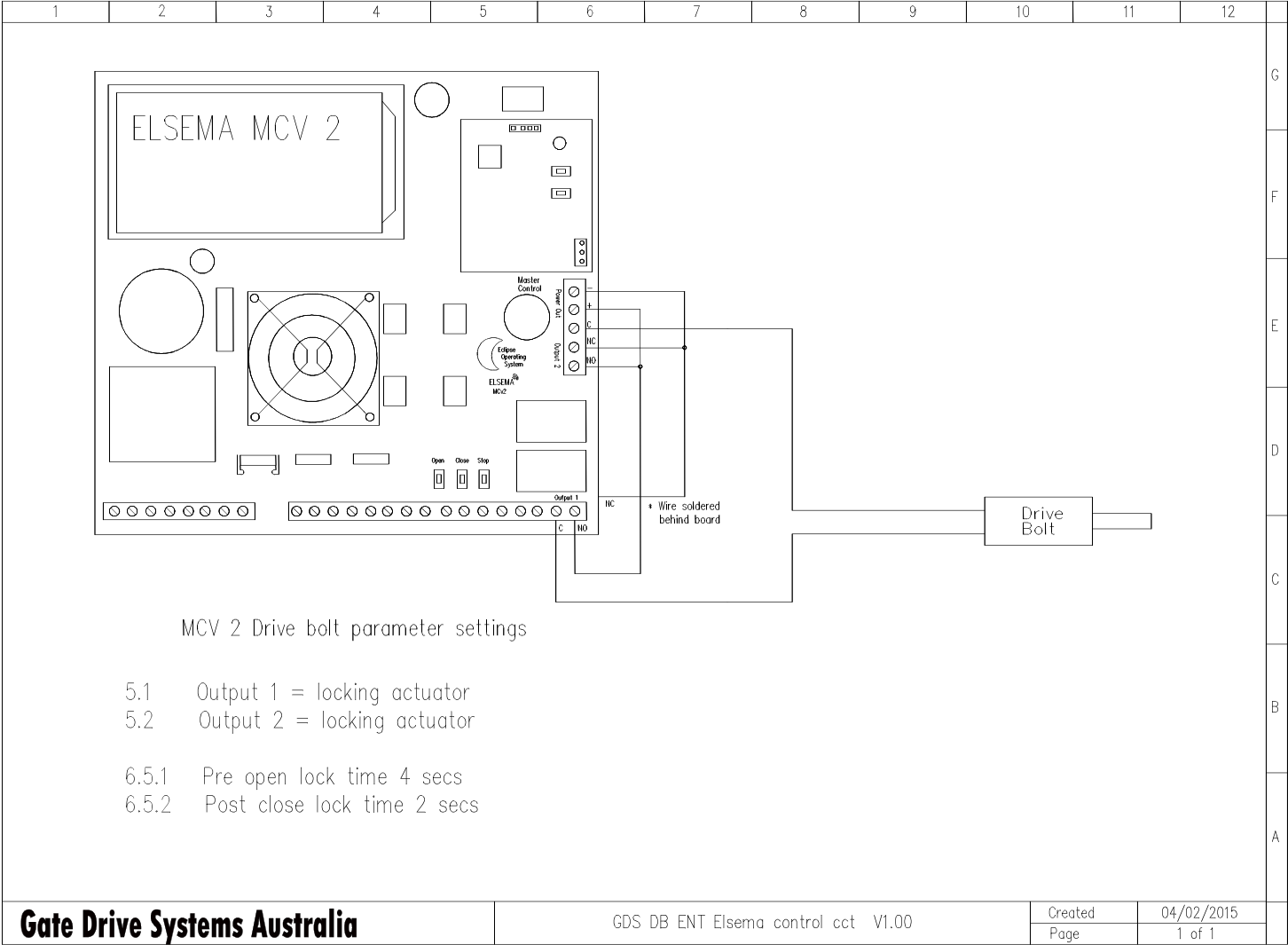
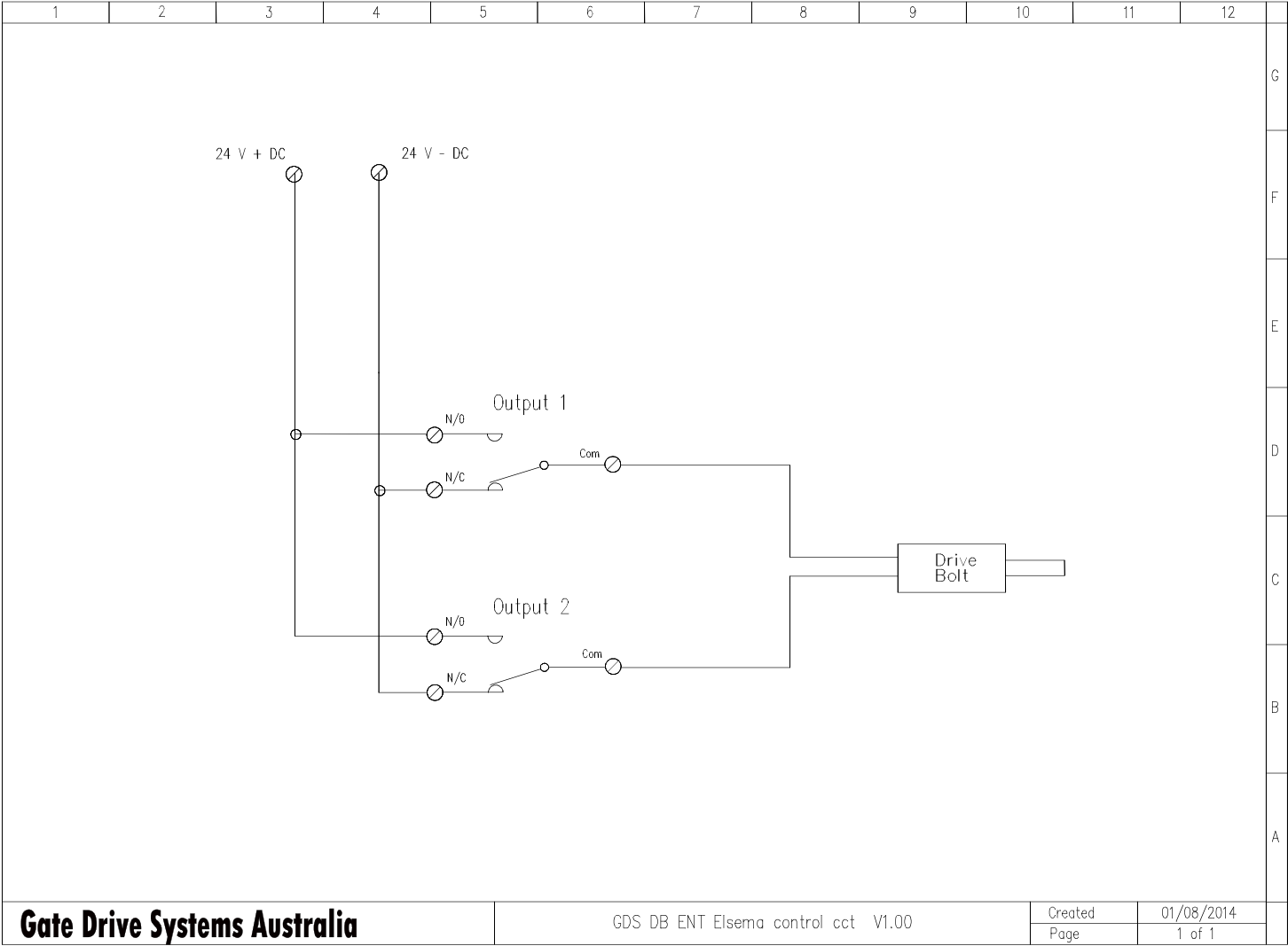
1. Check that locating hole is clear and clean out as necessary.
2. Make sure the bolt does not rub on the edge of the hole in the bolt locating plate, the gate stop should be adjusted to suit.
3. When pulling the drive bolt upwards manually against the springs, there should be free movement of the drive bolt, if it is restricted in any way, investigate further and rectify before putting back into service. Old grease and dirt built up around the bush should be cleaned off before applying fresh grease via the grease nipple.
4. Make sure gate limits are set correctly and gate stop isn't loose and make adjustments as necessary.
5. Make sure drive bolt is greased regularly, a grease nipple is provided.
6. The inside of the operator is as clean as possible

Soldering wire to MCV 2 board for Drive Bolt control



Solder wire to this pcb track to connect to the
N/C contact of output relay 1





6. WARRANTY

- a. Gate Drive Systems Australia warrants that the goods manufactured by it shall be free from defect in manufacture for a period of 12 months from the date of invoice. Should any fault occur within that period as a result of faulty workmanship or materials, Gate Drive Systems Australia will at its discretion, replace the product at no charge to the Customer except for installation & freight. The appropriate Serial Number must be quoted for all warranty claims.
- b. For the goods not manufactured by Gate Drive Systems Australia, we shall pass on the manufacturer's warranty to the Customer from the date of invoice. It is the manufacturer's discretion to repair or replace goods deemed to be defective as a result of faulty workmanship or materials.
- c. All goods must be returned to Gate Drive Systems Australia or its representative for inspection or testing to assess if a claim is justified. It is the responsibility and at the cost of the Customer, to remove & return the goods for inspection and freight costs are the responsibility of the Customer.
- d. The warranty is negated and will not apply in the following circumstances:-
 - i. If no proof of date of purchase can be produced.
 - ii. If the product has been used in a manner beyond its design parameters.
 - iii. If the product is tampered with or repaired by personnel not authorised to do so.
 - iv. In respect of loss or damage caused by rough treatment.
 - v. If the product is not used and maintained in accordance with instructions or recommendations listed in this Installation and Maintenance Manual.
 - vi. In respect of loss or damage caused by an Act of God or any other cause not within the manufacturers control.
- e. Goods returned under warranty for repair or testing will incur a charge to be fixed by the manufacturer if no fault is found.
- f. The Customer shall bear freight charges for removing & returning the goods for inspection and for the delivery & installation of any replacement or repaired product from a justified warranty claim.
- g. Save for the express conditions and warranties herein contained all other conditions or warranties (whether as the quality, fitness for purpose or any other matter) expressed or implied by statute, common law, equity, trade custom, usage or otherwise are hereby expressly excluded provided that nothing in these terms and conditions shall exclude or limit any breach or condition implied by law, the exclusion or limitation of which is not permitted by law.