

Installation and Maintenance Manual

Commercial Drive Bolt

Model: GDS DB Ent
(BFT Thalia P controlled)

Made in Australia from Australian & quality imported components



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1. Product description:

The drive bolt controls were originally designed to be used in conjunction with the ATA CB-6 control board, and some others in the ATA range.

It can be adapted to be connected to other control boards as long as they have the following.

- A lock output with N/O dry contacts.
- An adjustable lock pre activation time before the motors start.
- Be able to hold the lock output on for the complete gate travel time.
- Have N/C limit inputs or other programmable logic output.
- Be able to adjust the delay between gate leafs on dual swing gates.

Operation of drive bolt with gate starting from closed position.

Upon a command to open the gate, the lock relay activate, driving the bolt up. After the pre-programmed time delay, motor 1 will start and in turn, motor 2 will start up in the case of a dual gate set up.

Upon reaching the full open position (**if the operators (n.c) close limit switch/s or another logic output has been wired through the drive bolt controls**) will remain up and will always stay up while that signal is held. Once the gate has returned to its full closed position again the drive bolt will delay for 2 seconds then drive down. If no connection has been made to terminals 3,4, the drive bolt will drive down in the open position as well as the closed position

2. Installation details

1. The drive bolt is controlled by relays and functions of the BFT Board.
2. It requires a minimum .75mm 2 core cable to be run between the din rail terminals marked brown and blue, corresponding to the brown and blue wires on the drive bolt assembly. If the cable run is over 15m use 1.5mm cable. Bolt status indicator switches are included in the Drive bolt in needed for control Room monitoring, or access control logic. Connect as required.
3. Connect between the drive bolt terminals and the BFT control as detailed in the connection diagram.
4. The drive bolt is protected by a 3A fuse located with the drive bolt controls.

3. Mechanical installation

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

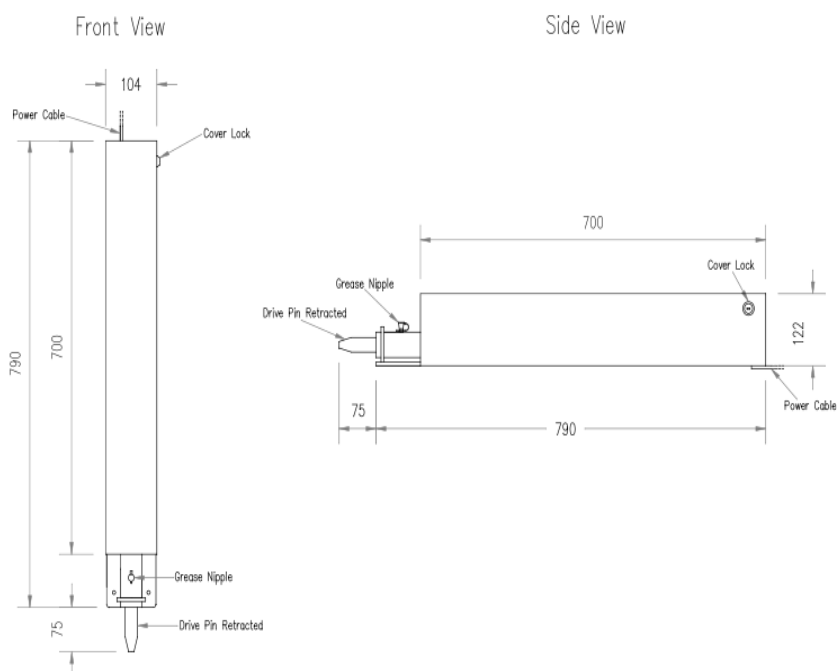
-The total travel of the bolt is 130mm in both directions and is not adjustable.

-It's designed to be installed vertically A suitable locating hole or catcher bracket has to be made with enough clearance as detailed on the next page and fitted to suit as every installation site is different.

- 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, and fix suitable gate stop in position.
- 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) 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.

GDS DB ENT Dimensions



Specifications

Power Supply : 24v dc

Push Pull Force : 300N

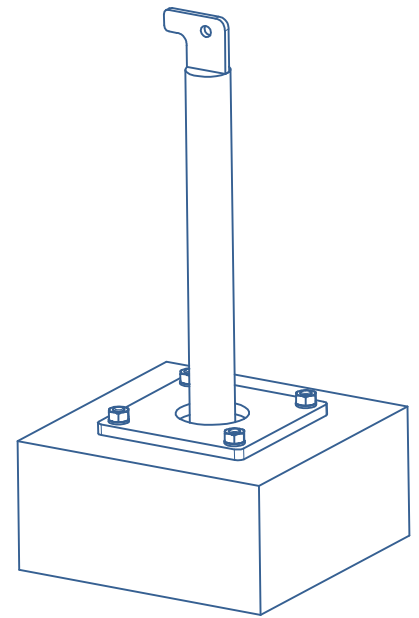
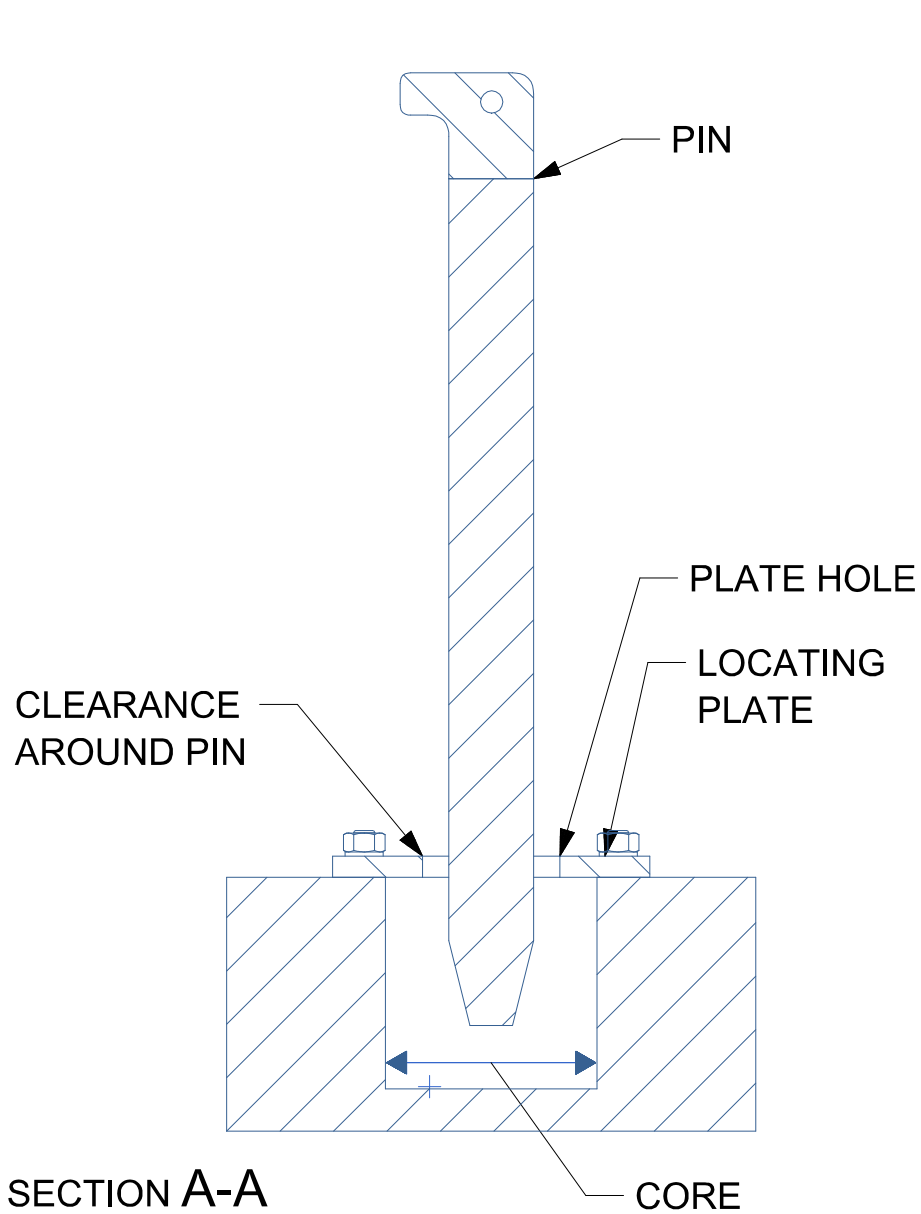
Bolt Size : 25mm (*40mm)

Travel : 130mm (*50mm)

Weight : 11kg with 25mm bolt

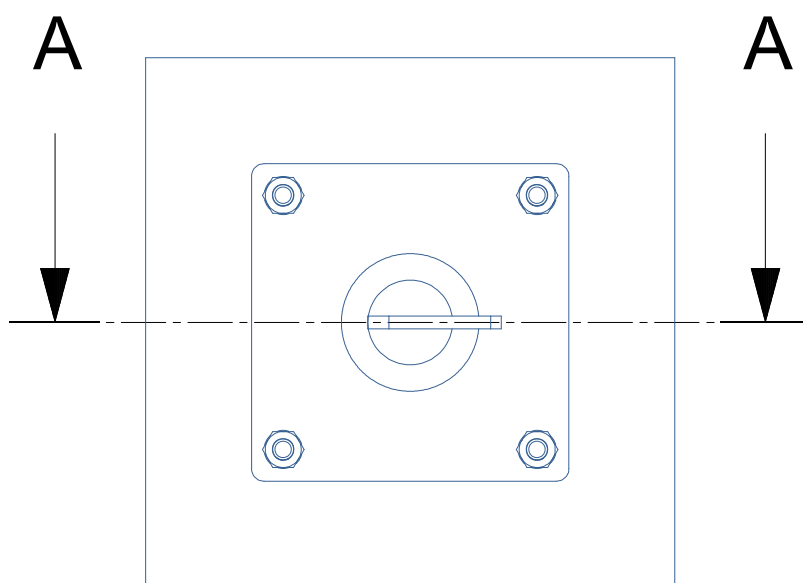
*Options

*Status switches for open/close monitoring can be fitted added option.

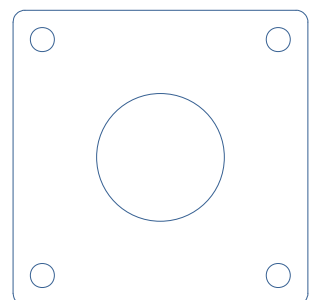
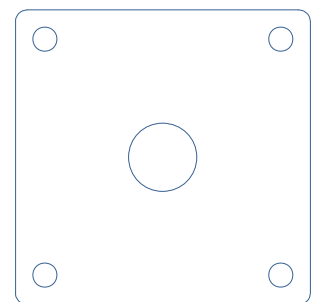


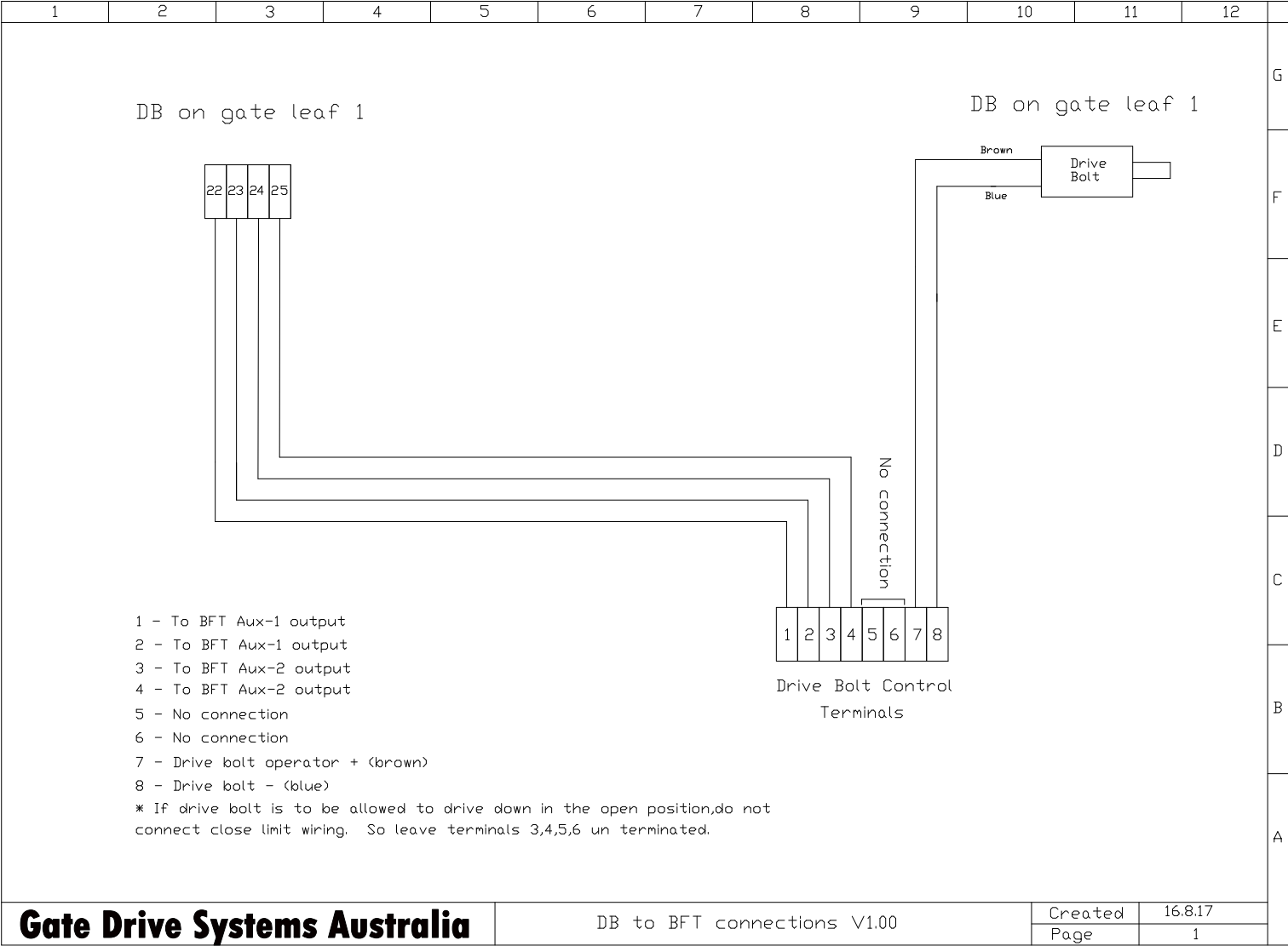
PIN	PLATE HOLE	CORE
Ø20	Ø30	Ø75
Ø25	Ø35	Ø75
Ø40	Ø65	Ø100

CROSS SECTION VIEW OF BOLT RECEIVING HOLE & PLATE



PLAN VIEW OF LOCATING PLATE POSITION





5. Description of control logic

From closed to open position

- Open signal received by BFT board.
- Aux-1 output activates.
- R1 energises opening R1-1 contact.
- R3 energises switching reverse voltage to drive to drive the bolt up.
- After a programmed delay time the BFT board drives the gate motors.
- As the gates open the AUX -2 output changes from open to close.
- R2 energises opening R2-1 contact and closing R2-2 contact.
- Once the gate is fully open, the BFT Aux-1 de energises R1, but because R2-1 contact is open, R3 remains de energised and the bolt stays up as long as R2-1 contact is held open via the close limit switch. (or BFT AUX-2 output).

From open to closed position

- BFT board receives a signal to close, or has timed out through its auto close setting.
- Aux-1 output activates.
- R1 energises opening R1-1 contact.
- After a programmed delay time the BFT board drives the gate motors.
- As the gates reach the closed position, the close limit switch opens.
- R2 de energises closing R2-1 and opening R2-2.
- The BFT Aux-1 output de activates turning R1 off.
- Capacitor C1 discharges through R1 causing a delay time before R1 de energises closing the R1-1 contact.
- R3 energises, switching forward voltage to drive the bolt down.

7. Manual release of drive bolt

- a) Using the key provided, insert in lock, and turn. If padlock facility provided, unlock pad lock and remove.
- b) Once turned lift cover upwards and remove.
- c) Pull drive bolt operator upwards against the spring pressure to withdraw drive bolt out of its locating hole.

Maintenance

- 1. Check that locating hole is clear and clean out as necessary.
- 2. Make sure gate limits are set correctly and gate stop isn't loose and make adjustments as necessary.
- 3. Make sure drive bolt is greased regularly, a grease nipple is provided.

8. 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.