

Bulwark DB series

240 vac boom gate



Installation Instructions

WARNING

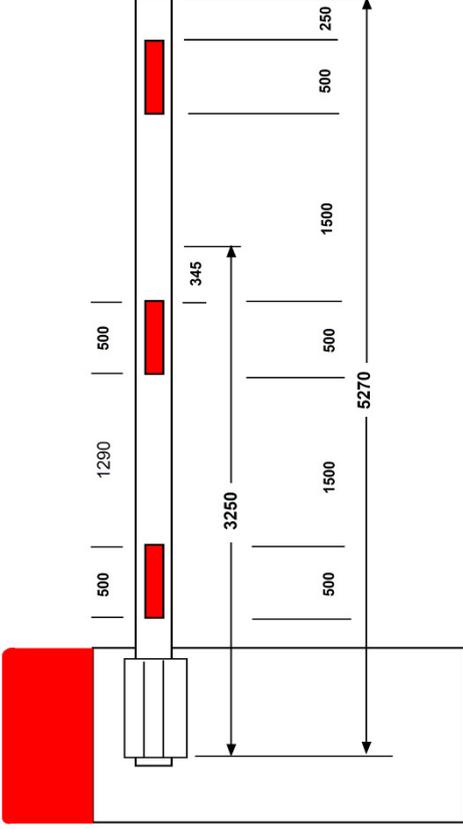
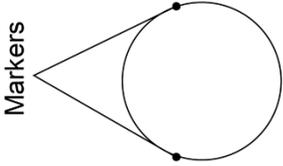
BOOMGATE OPERATES AUTOMATICALLY. ISOLATE POWER BEFORE SERVICING.

Warning: Do not operate the manual raise handle with power applied!
Do not install a boom pole longer than designed for the gate – damage to the mechanism will result.

1. Bolt the gate cabinet to a solid foundation and anchor with suitable fixings designed for the purpose.
2. A dedicated 240vac power circuit with earth leakage protection should be supplied by an authorised electrical contractor.
3. Check with your local power supply authority or electrical contractor as requirements may change from state to state.
4. Have the electrical contractor connect the power into a GPO inside the cabinet and test.
5. Connect all field wiring e.g. Induction loops, PE beams, and card readers as per the wiring diagram.
6. Fit the boom pole in the boom pole clamp by gentle squeezing the pole oval and pushing down till it is flush with the other end of the pole clamp.
7. Tighten the clamp bolts – note liquid soap on the pole helps it slide easily in the pole clamp.
8. Adjust the balance spring. The spring should be tensioned with the pole in the raised position such that the spring is firm in the re tension brackets. The spring and pole combination should be balanced when the arm is at 45 degrees. Ensure the lock nuts are tightened before placing the gate into operation.
9. Operate the gate by using the test buttons in the control box. Note – do not touch any components within the high voltage section of the board! These buttons are for testing by the installer only!
10. Toggle the boom pole to the closed position and fit decals as per instructions overleaf.

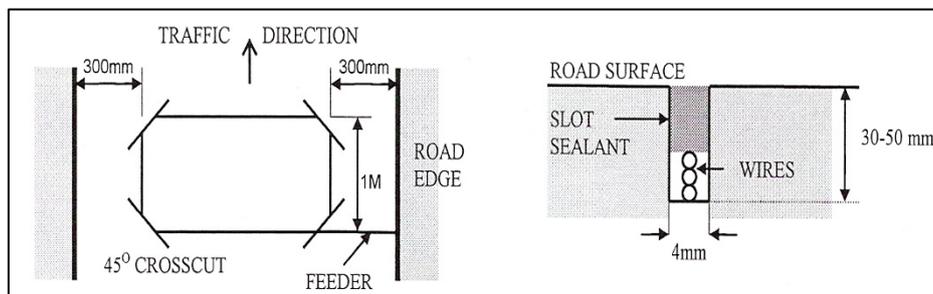
REFLECTIVE DECAL FIXING INSTRUCTIONS

- 1 Apply 50 mm masking tape to the RED side of the decal to prevent the decal stretching
- 2 Remove backing from decal
- 3 Align the edge of decal with the raised marker on the pole
- 4 From one edge press firmly and slowly move along the length of the decal to remove air pockets.
- 5 Then remove masking tape.

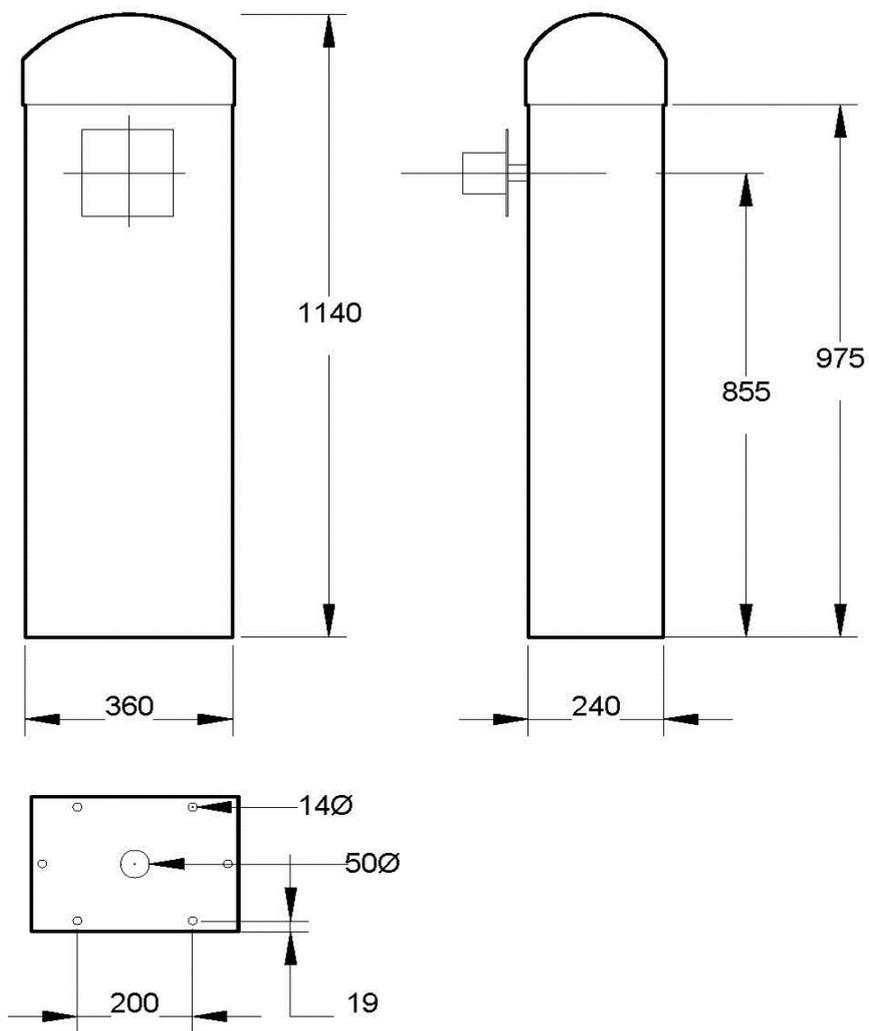


Loop Installation

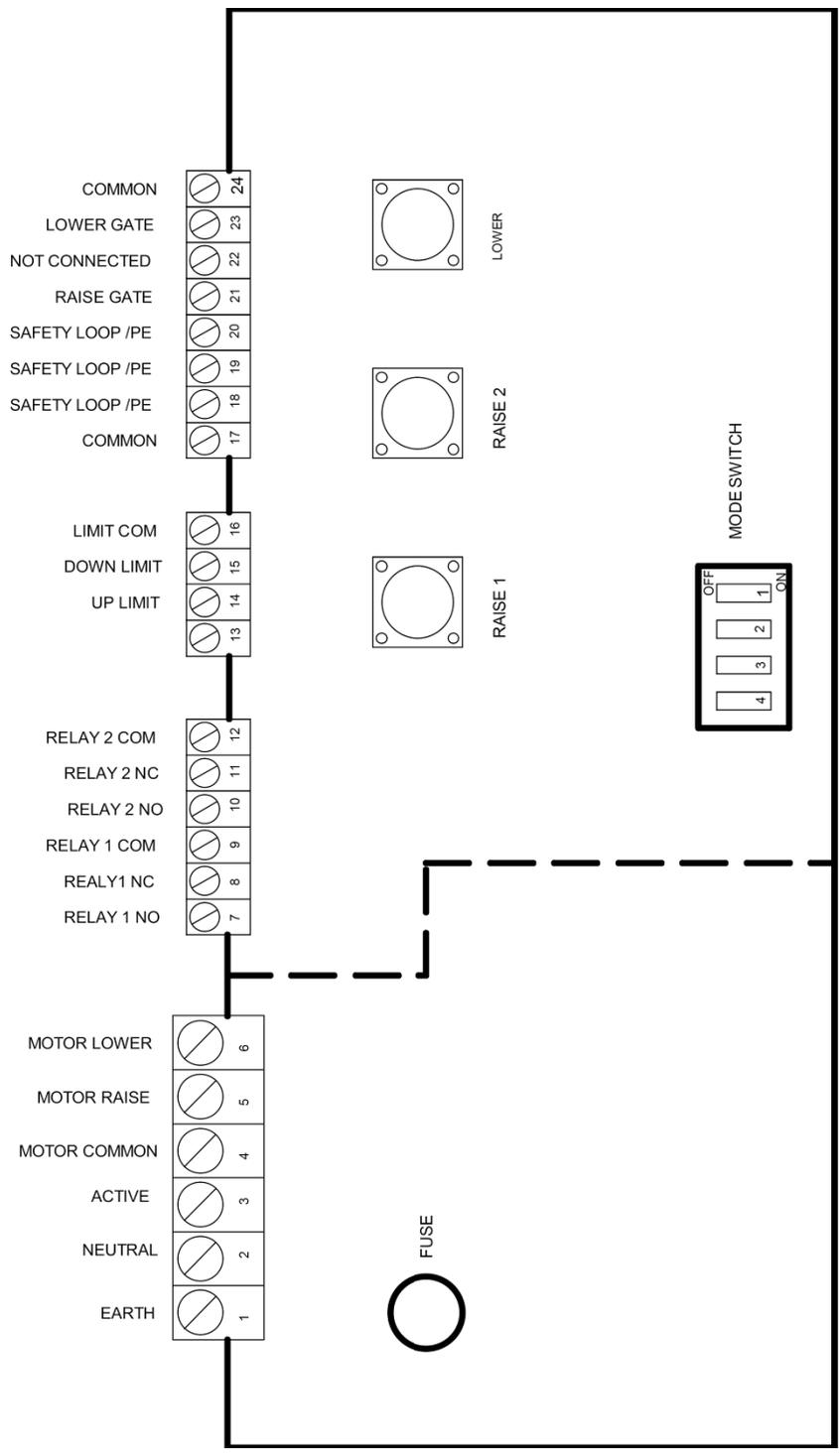
1. The loop and feeder should be made from 1.5mm sq. insulated Copper wire. The leader should be twisted tightly with at least 20 turns per metre. Feeders that may pick up electrical noise should use a screened cable with the earth shield connected to the loop detector at pin 9.
2. The loop should be either square or rectangular with a minimum distance of 1 metre between opposite sides. Large loops with a circumference greater than 10 meters should use 2 turns of cable, while smaller loops with a circumference less than 6 metres should use 4 turns of cable. When two loops are in close proximity to each other it is recommended to use 3 turns in one loop and 4 turns of cable in the other.
3. Cross talk is a term used to describe the interference between two adjacent loops. To avoid this, loops should be at least 1 metre apart and on different frequency settings.
4. For loop installation, slots should be cut in the roadway or concrete 4mm wide and 30- 50 mm deep. Corners should be cut at 45° to prevent damage to the cable.
5. For best results the loop and feeder should not have any joins. run the cable from the loop detector around the loop the desired amount of turns then back to the loop detector, remember that when you twist the leader that the cable will shorten so allow enough cable to run back to the loop detector.
6. After the loop cable has been placed into the slot, fill the slot with epoxy compound or bitumen filler.



Dimensions



1	GROUND	GROUND
2	NEUTRAL	240VAC NEUTRAL
3	ACTIVE	240VAC ACTIVE
4	COMMON	MOTOR COMMON
5	RAISE	GATE RAISE MOTOR WINDING
6	LOWER	GATE LOWER MOTOR WINDING
7	N/O 1	RELAY 1 NORMALLY OPEN
8	N/C 1	RELAY 1 NORMALLY CLOSED
9	COMMON 1	RELAY 1 COMMON
10	N/O 2	RELAY 2 NORMALLY OPEN
11	N/C 2	RELAY 2 NORMALLY CLOSED
12	COMMON 2	RELAY 2 COMMON
13	5V	5V OUT
14	LIMIT UP	LIMIT UP INPUT
15	LIMIT DOWN	LIMIT DOWN INPUT
16	0V	LIMIT COMMON 0V
17	0V	COMMOND 0V
18		
19		
20	SAFETY LOOP/PE	CONNECT TO SAFETY DEVICE
21	RAISE	RAISE GATE INPUT
22		
23	LOWER	LOWER GATE IN GUARD MODE.
24		



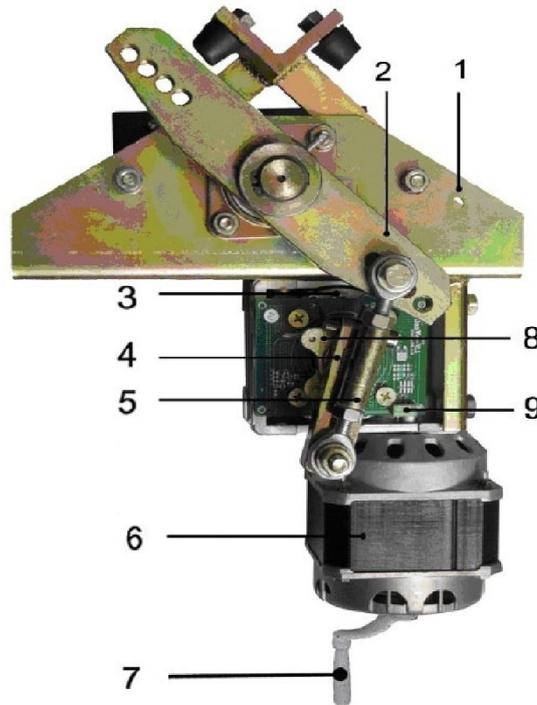
Servicing

WARNING

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ISOLATE POWER BEFORE SERVICING.**

1. The boom gates need to be serviced every 6 months in high volume installations and every 12 months in low volume installations.
2. Inspect the cabinet for any signs of damage; clean with a mineral clean and repair any paint damage with a zinc based paint.
3. Operate the boom gate and observe the motion of the boom pole.
4. Test spring tension.
5. Check the position of the boom pole. if it is not level adjust the adjustable arm until it is level. After adjustment, check that the adjustable arm is in line with the motor arm when the boom pole is in the down position.
6. Check stop rubbers for cracks or wear and replace if necessary.
7. Check the cabinet hold down bolts are secure and that the concrete surface is in good repair.
8. Check and tighten all bolts, grub screws and mechanical fixings.
9. Check and tighten all electrical connections. Inspect leads and cables for damage. Replace as required.
10. Check that the loop cables are twisted tightly together.
11. Check and clean any lubricant from around motor output shaft.
12. Check condition of roadway and loop sealing.

1. CHASSIS
2. COUPLER ARM
3. GEARBOX
4. MOTOR ARM
5. ADJUSTABLE ARM
6. MOTOR
7. HANDLE
8. LIMIT SWITCH
9. LIMIT CONNECTIONS

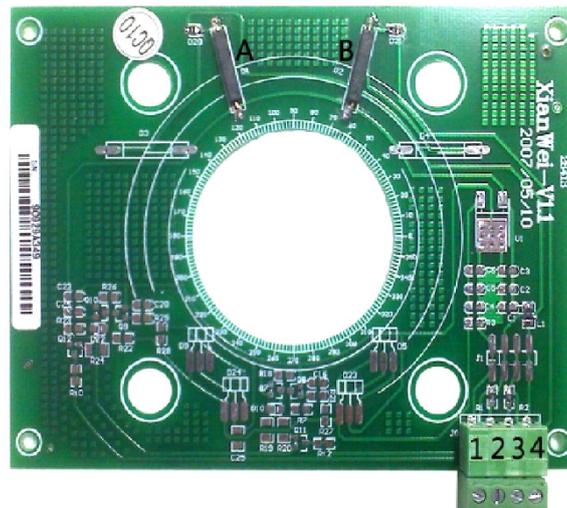


Limit Switch Adjustment

To adjust the limit position -

slacken the grub screw on the cams and adjust slightly.

Note: Do not move the cams by more than a few degrees at a time.



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