TURNSTAR

RELIABLE ★ DURABLE ★ GUARANTEED

USER MANUAL

Special Needs Gate Automatic

CONTENTS

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Edition 0.0.2 (09-11-2021)

1. LAYOUT

1.1. Below is a typical layout for the gate. A plinth is required to be 250x250 wide and long, and 250mm deep. The concrete should be at least 15MPa strength, or to a civil engineers' specifications.

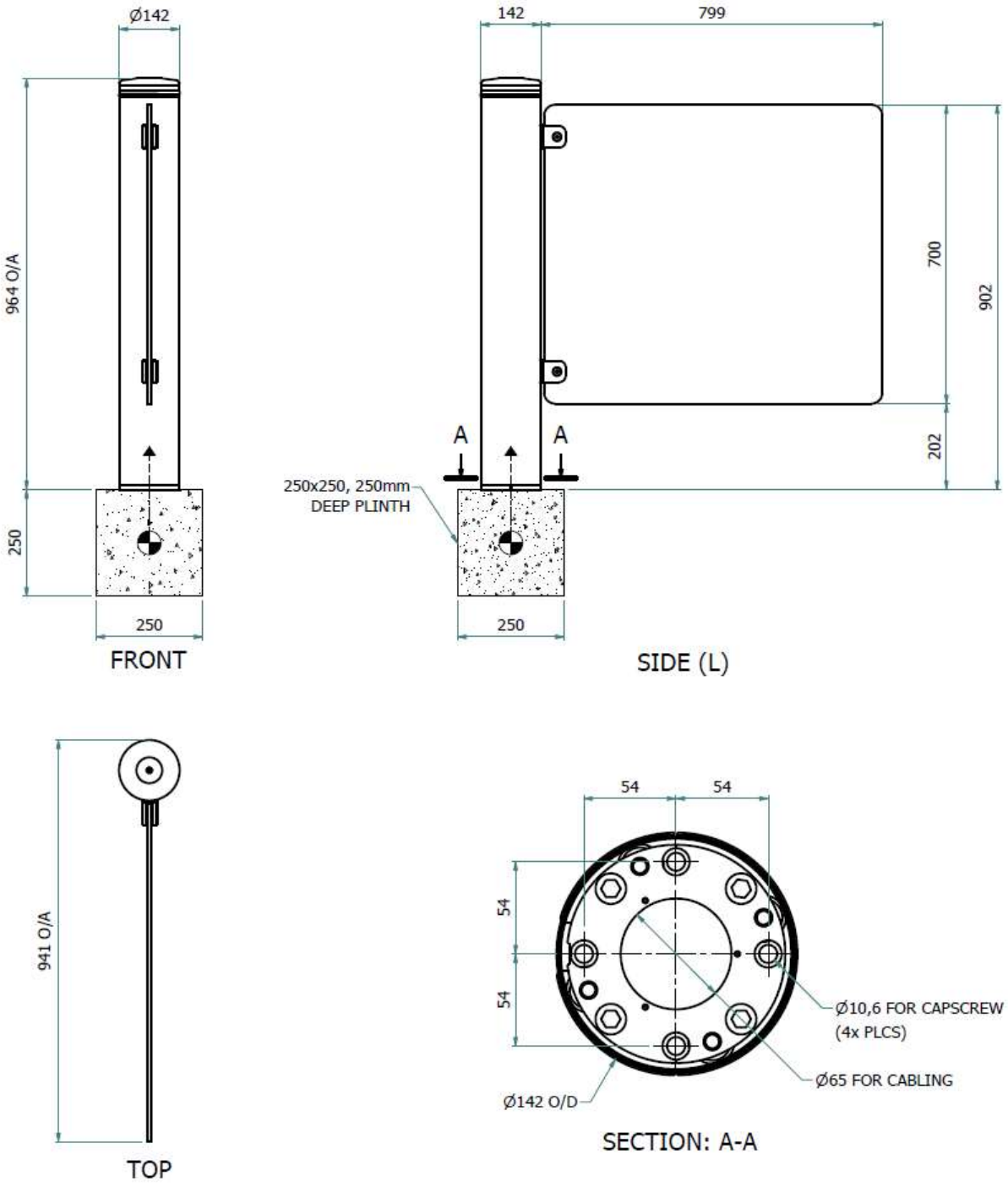

Figure 1: Typical layout of Pulse Special Needs Gate

1.2. The gate should be bolted down using 4 x RAWL sleeve anchors, M10 allen head cap screws at least 100mm deep.

1.3. There is a 65mm diameter hole in the centre of the base ring for power & control cable allowance.

1.4. The gate has a built-in controller and power supply and requires 220v AC 50Hz single phase power to be led to it.

1.5. The controller uses a common and a trigger for left opening and a trigger for right opening. These should be a dry contact pulse for 0,5 seconds.

1.6. Emergency hold open can be triggered from the terminal panel *(see paragraph 3.6, page 11.)*. The trigger requires a latching contact to remain open (The emergency mode is active as long as the contact is closed.). Change the dipswitch on the control board to change the direction of opening when in emergency mode.

1.7. There is allowance for a reception trigger, which can be used with a remote or a pushbutton placed at the reception desk. The trigger has a push-to-open, push-to-close function.

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2. PREPARATION FOR INSTALLATION

2.1. Below is a typical view for clearance required by the gate. At least 25mm is required at the back and this should be no more than 75mm. At least 50mm is required from the glass edge to a wall and this should be no more than 100mm

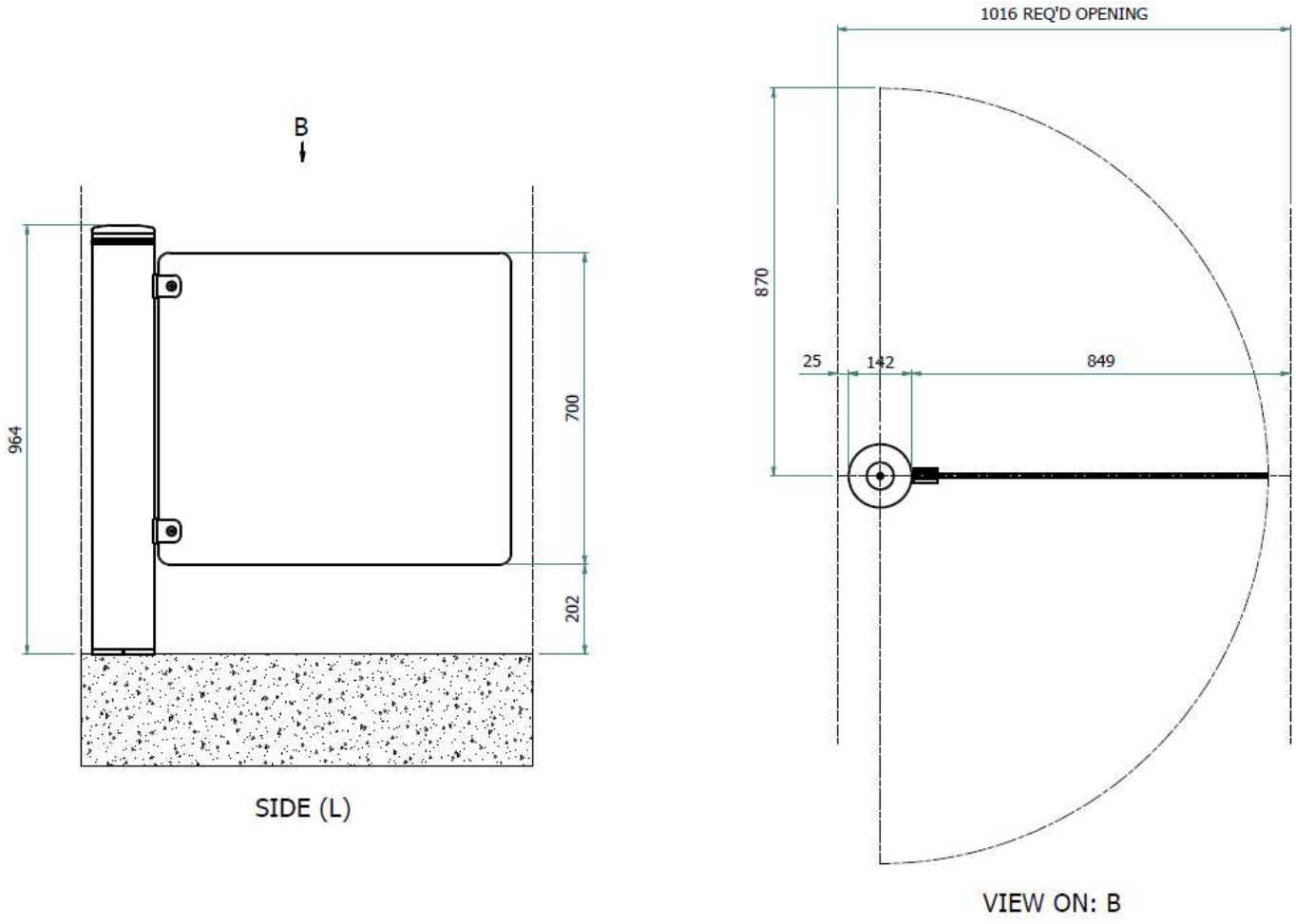

Figure 2: Installation clearance for the gate

2.2. Ensure the mounting area concrete strength is adequate and that a conduit is prepared for power & control cables. Also check that the floor is level and smooth.

2.3. The conduit should be flush with the floor and the power & control cables must extend +-500mm from floor level to reach the connection terminals.

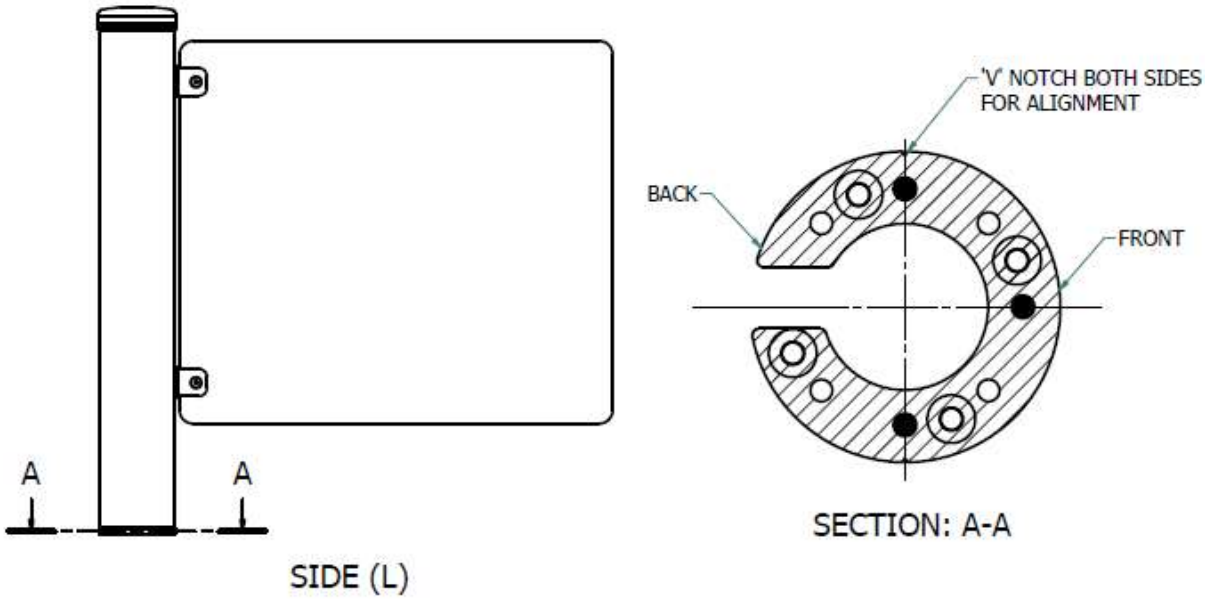

Figure 3: Base ring positioning

2.4. The base ring should be placed correctly positioned, with the 'V' notches aligning perpendicular to the centreline of the installation.

2.5. Bolt down the base assembly using the 4x bolting holes and provided M10 Capscrew anchors.

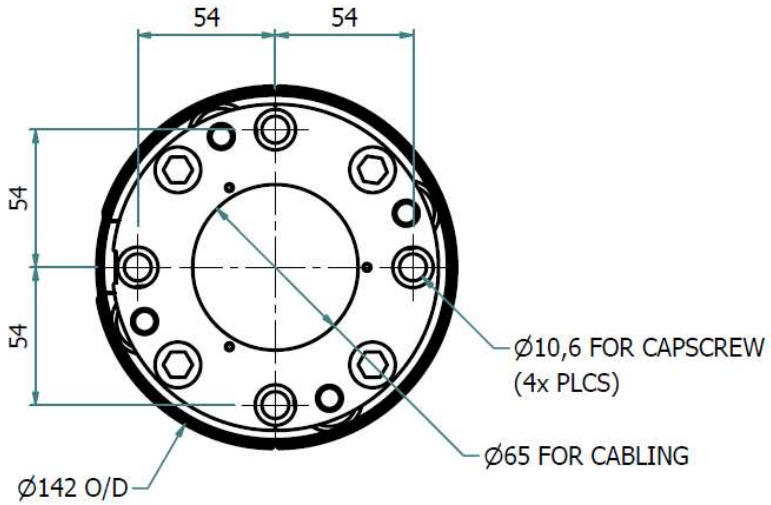

Figure 4: Bolting positions

1. PARTS

1.1. Below is an exploded view of the special needs gate and its main parts.

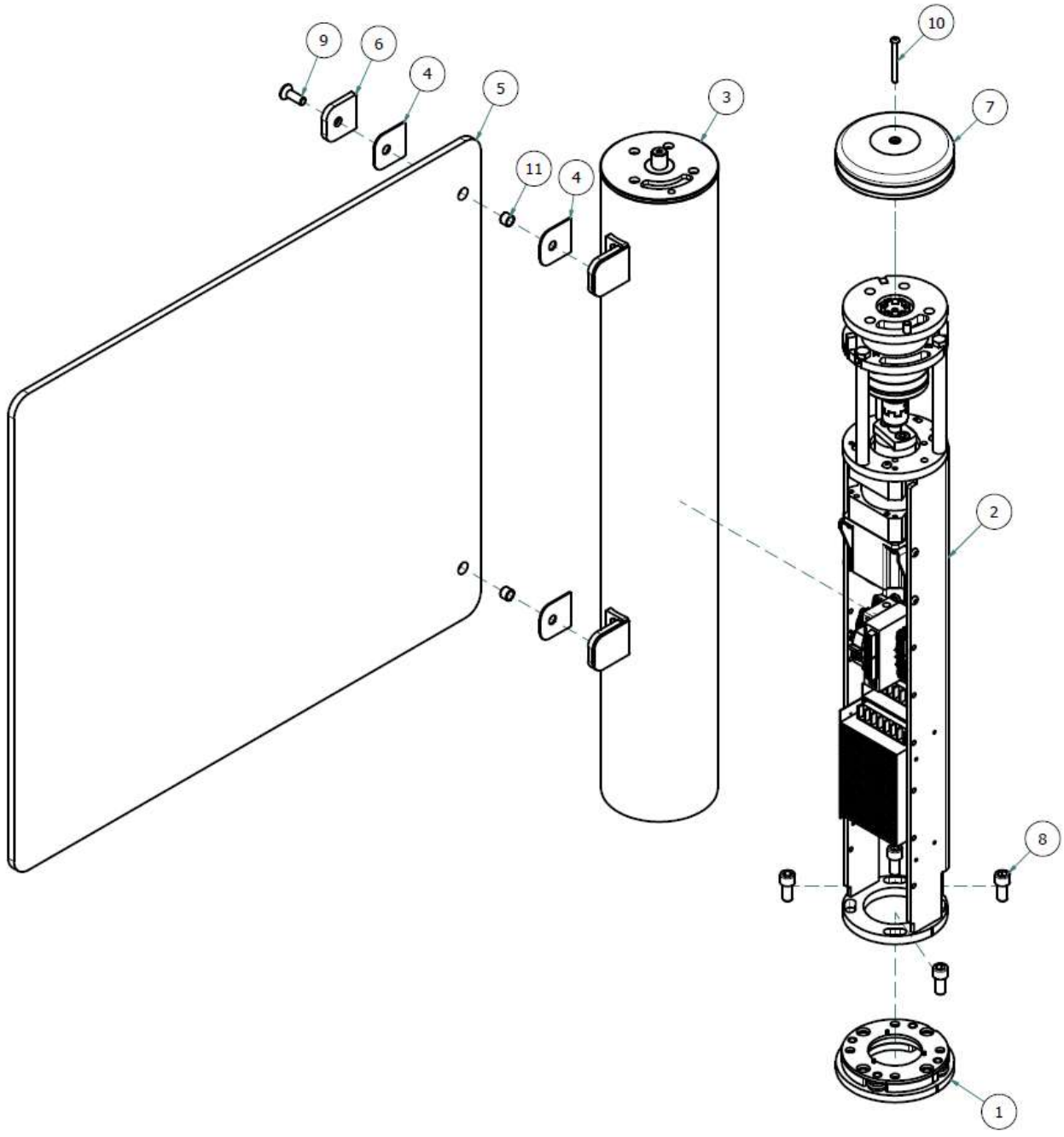

Figure 5: Gate frame Assembly

Item	Qty	Description	Part Number
1	1	Bottom Bracket Weldment	SNGA-WM-02
2	1	Main Structure Weldment	SNGA-WM-01
3	1	Body Weldment	SNGA-WM-05
4	4	Glass Clamp Rubber	SNGA-PT-02
5	1	Standard Gate Glass	SNGA-PT-01
6	2	Glass Mounting Tab	SNGA-LC-13
7	1	Top Cover with LED Assembly	SNGA-SA-04
8	4	M12 x 25 Sockethead Capscrew, ZP	M12x25-SHCS-ZP
9	2	M10 x 30 Countersunk Capscrew, SS	M10x30-CSK-A2
10	1	M6x60 Buttonhead Capscrew, ZP	M6x60-BHCS-ZP
11	2	14x12x10 Nylon Sleeve	14x12x10-NYSL

2. OPENING & INSTALLATION

2.1. To open the structure, remove the top M6 screw (10) using a 4mm allen hex key. Lift off the top cover (7) taking care to disconnect the LED wires before removing entirely.

2.2. Lift off the body (3) with glass in place. The top of the body is engaged into a toothed bush and may require some force. Two people should lift the body, holding the glass and structure.

2.3. Unbolt the main structure (2) from the base bracket (1) by removing the 4 off M12 x 25 screws (8) using a 8mm allen hex key.

2.4. Place the base bracket on the floor over the conduit point as shown in *Figure 6: Detail of Bottom Bracket on floor*. Mark the hole positions for the holding down bolts as shown.

2.5. Drill the holes for the bolts and ensure that these line up with the base bracket holes.

2.6. Pull the cabling through the centre hole of the base bracket, mount the base bracket down securely, pull the cabling through the bottom of the main structure and replace the structure onto the bracket using the bolts.

2.7. Connect the power and controls before replacing the body (see section **Error! Reference source not found.**). The body must be placed with the controls facing toward the area

where the gate will in the closed position. If required, adjust the structure by loosening the screws (8) slightly and rotating the structure in the slots at the base.

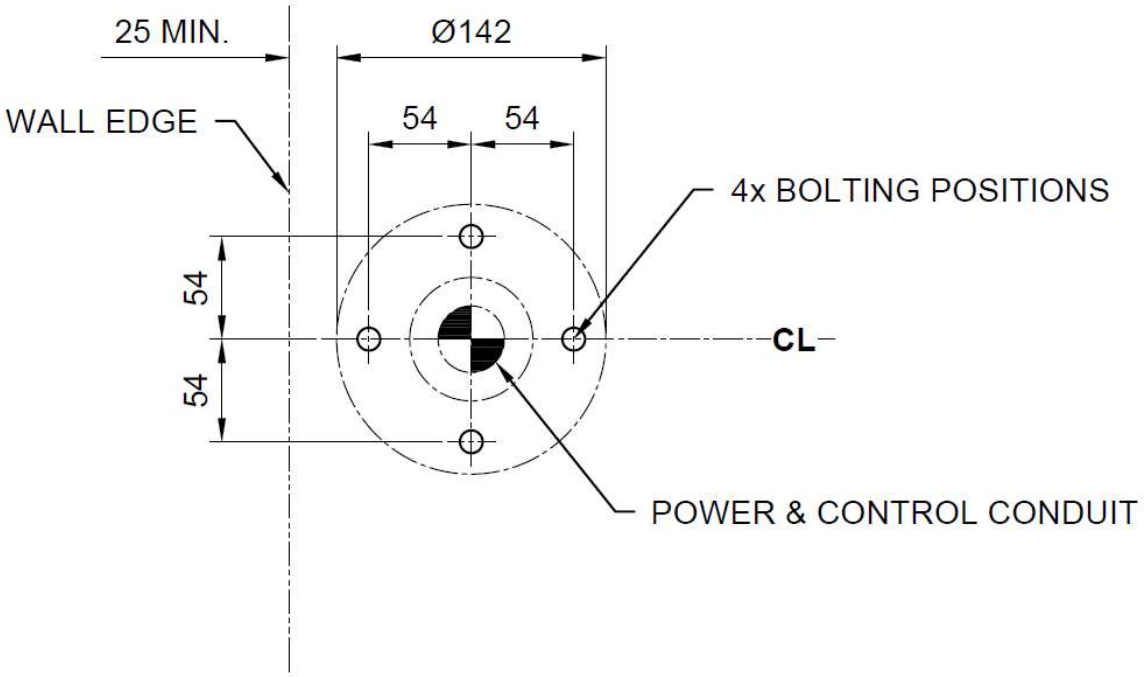

Figure 6: Detail of Bottom Bracket on floor

3. CONNECTIONS AND SETUP

3.1. In the PAG700V02 controller, the most used triggers are wired to the terminal rail located above the power supply.

3.2. The power connections for mains power are also located at the terminal rail, with live wire connected to the circuit breaker.

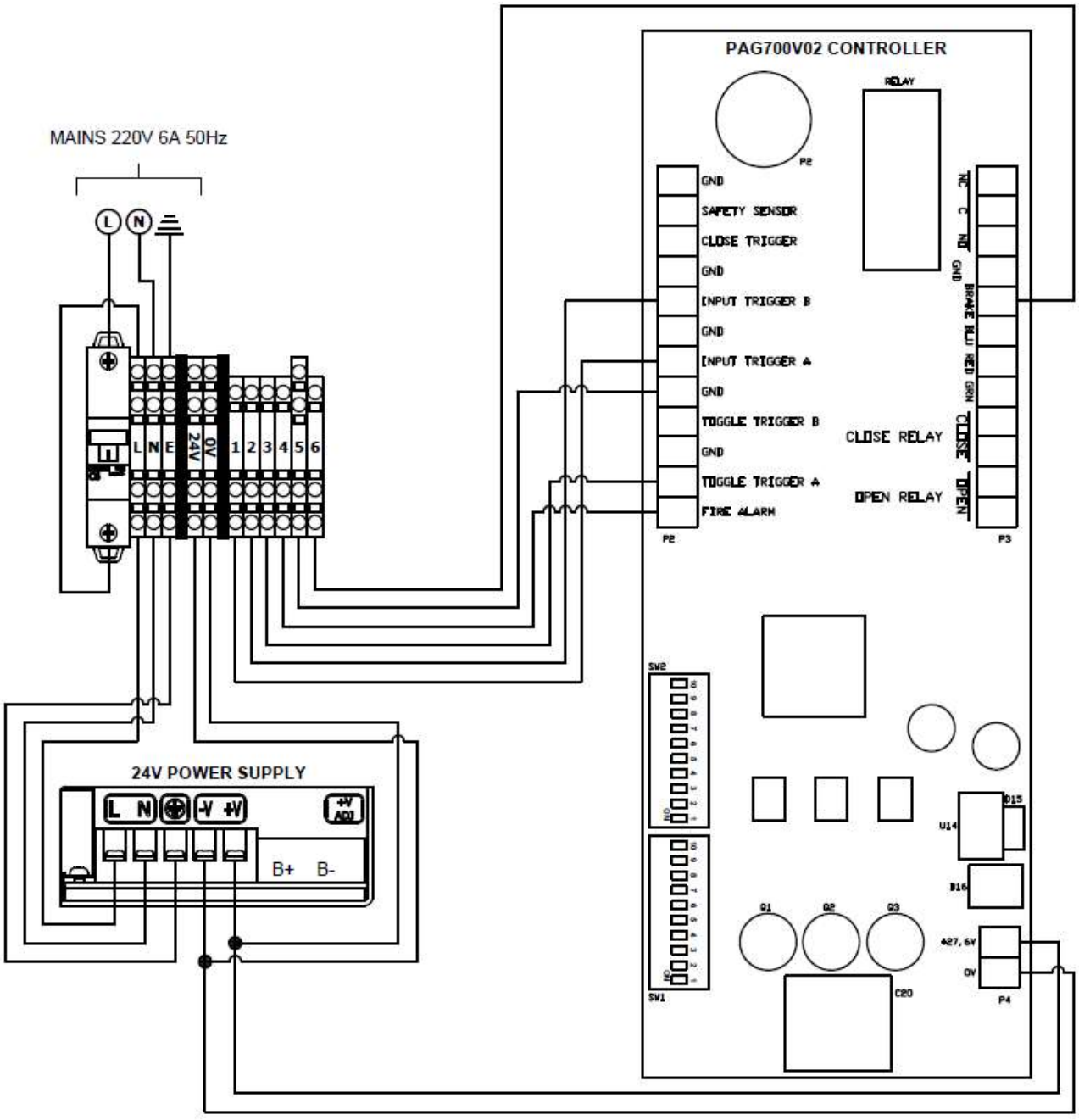

Figure 7: PAG700V02 Controller & Connections

3.3. Connect 220v AC live power as shown in the diagram *Figure 8:* .

3.4. Connect the terminals 1 and 5 (trigger A and ground), and the terminals 2 and 5 (trigger B and ground) to control direction 1 and 2. These are dry contacts and require a pulse of 0,5 seconds.

3.5. Connect the terminals 4 and 5 (emergency trigger and ground) (GND) to control the emergency opening (latch).

3.6. Connect the terminals 3 and 5 (toggle trigger A and ground) to use as an opening latch for a remote control or push button at the reception desk.

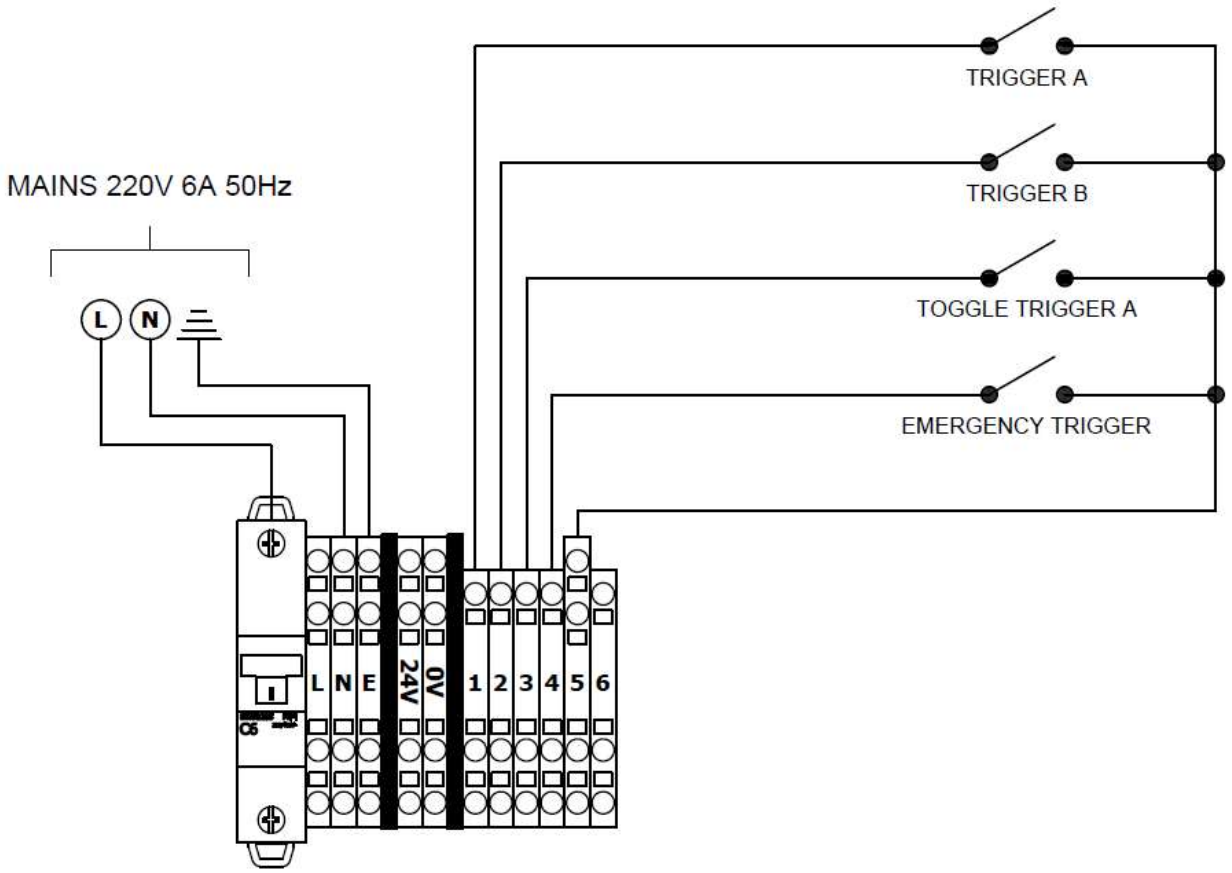

Figure 8: Trigger connections

4. POWER SUPPLY AND VOLTAGE SELECTION

4.1. The power supply has a switch that should be set for either 220V or 110V (for USA installations). Remove the front screw, slide the perforated top back and up to remove, to access the switch.

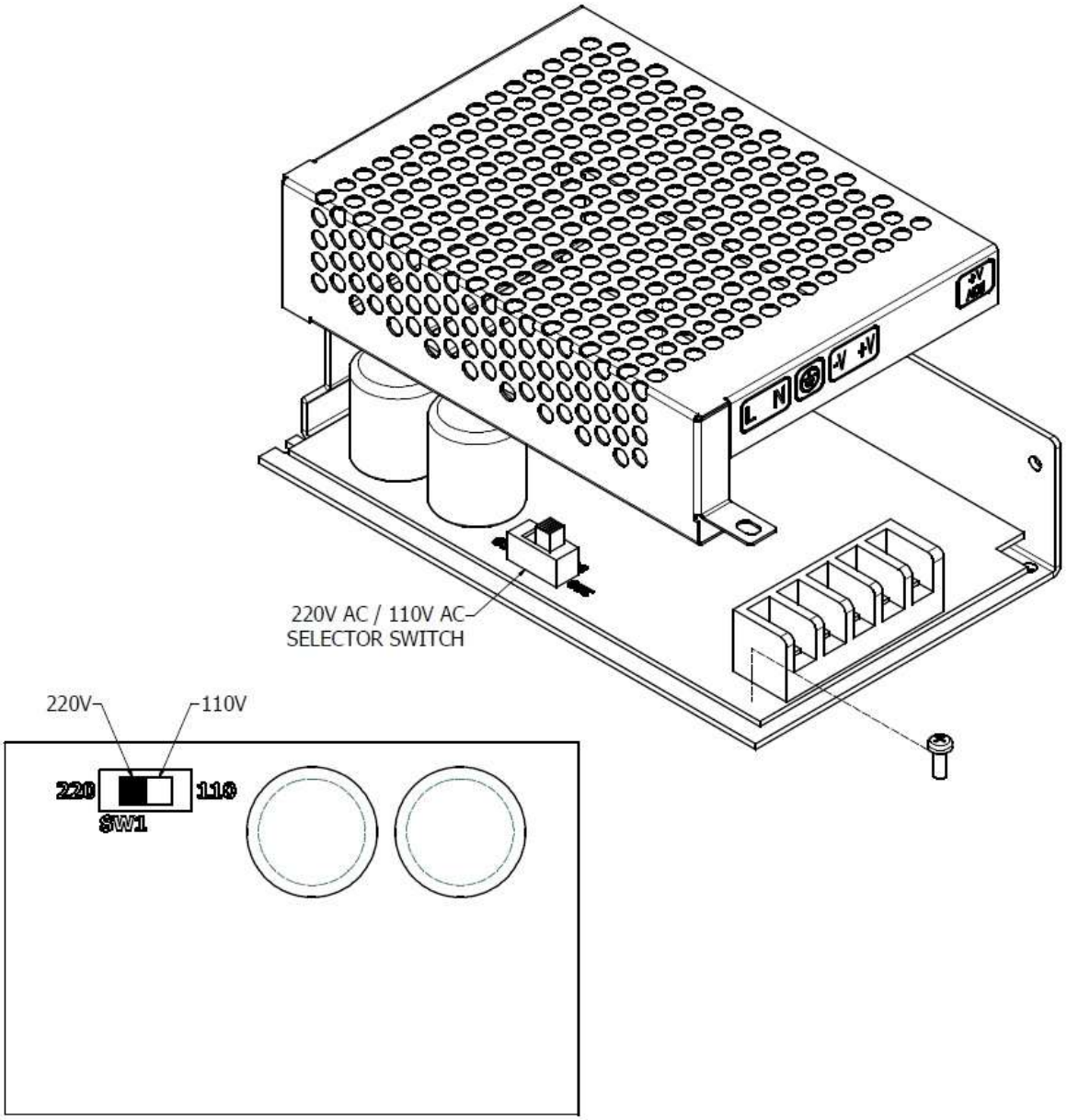

Figure 9: Power supply mains change 220v - 110v

5. CONTROLLER SWITCH SETTINGS

Switch	Function	On	Off	
1,2	Gate Open Speed - Slow	-	S1, S2	Controls the **opening** speed of the gate. The options are slow, medium slow, medium fast and fast.
1,2	Gate Open Speed - Med. Slow	S1	S2	
1,2	Gate Open Speed - Med. Fast	S2	S1	
1,2	Gate Open Speed - Fast	S1, S2	-	
3,4	Gate Close Speed - Slow	-	S3, S4	Controls the **closing** speed of the gate. The options are slow, medium slow, medium fast and fast.
3,4	Gate Close Speed - Med. Slow	S3	S4	
3,4	Gate Close Speed - Med. Fast	S4	S3	
3,4	Gate Close Speed - Fast	S3, S4	-	
5	Gate Motor Direction	CCW	CW	Controls the gate motor direction which is normally clockwise.
6	Input Test Enable	ON	OFF	Factory set.
7	Motor Type	HOGAN	Velocity	
8	Brake Mode in Open Position	ON	OFF	
9	Brake Mode in Closed Position	ON	OFF	
10	Fire Alarm Direction	B	A	
11	Open Trigger Memory	ON	OFF	Trigger memory and is by default off.
12,13	Auto Close Timer – 8 Sec	-	S12, S13	Controls the time the gate pauses after fully opening
12,13	Auto Close Timer – 10 Sec	S12	S13	

12,13	Auto Close Timer – 15 Sec	S13	S12	before closing again. The options are 8, 10, 15 and 30 seconds.
12,13	Auto Close Timer – 30 Sec	S12, S13	-	
14,15	Close Delay – 0 Sec	-	S14, S15	Delay before closing after the closing signal from a toggle trigger is received. The options are 0, 2, 4 and 6 seconds.
14,15	Close Delay – 2 Sec	S14	S15	
14,15	Close Delay – 4 Sec	S15	S14	
14,15	Close Delay – 6 Sec	S14, S15	-	
16	Operation Buzzer	ON	OFF	Buzzer sound on operation.
17	Spare	-	-	
18	Trigger Hold Open	ON	OFF	Hold open function for trigger if contact is closed indefinitely.
19	LEARN MODE – Switch ON for 5 seconds	ON	OFF	For factory settings.
20	Test Mode – 2 Second Auto Cycle	ON	OFF	