



Installation Manual

B700 Turnstile







CONTENTS

FOREWORD	4
1 TURNSTILE POSITIONING DETAILS	5
1.1 GUIDANCE NOTES FOR INSTALLATION OF A TURNSTILE.....	5
1.2 SITE PREPARATION	5
1.3 TURNSTILE FOUNDATION DETAILS B700 TURNSTILE	6
2 INSTALLING THE TURNSTILE	8
2.1 TOOL REQUIREMENTS	8
2.2 B700 TURNSTILE FOUNDATION MARKING OUT.....	8
2.3 TOP COVER REMOVAL.....	9
2.3.1 <i>B700 top cover removal.....</i>	<i>9</i>
2.4 LIFTING THE TURNSTILE FROM A PALLET	10
2.5 CABLE INSTALLATION.....	12
2.6 TURNSTILE FIXING.....	13
2.7 LIFTING THE TURNSTILE ON A PREFAB CONCRETE FOUNDATION.....	13
3 CABLE CONNECTIONS	15
3.1 GENERAL INFORMATION REGARDING CABLE CONNECTIONS	15
3.2 ENTRY/EXIT	16
4 PROXIMITY SWITCH AND EXPLANATION OF OPERATION	16
4.1 PROXIMITY SWITCH 1 SETTING	16
4.2 PROXIMITY SWITCH 2 SETTING	17
4.3 OPERATING SYSTEM.....	18
4.4 POWER FAIL MANUAL RELEASE (OPTIONAL)	18
4.5 FAULT DIAGNOSES.....	19
4.5.1 <i>Key switch position B700</i>	<i>19</i>



FOREWORD

The information presented in this instruction manual has been compiled to provide the installer with a thorough understanding of the capabilities and operation of the B700 turnstile.

It is strongly recommended that this manual be read carefully with all cautions noted and observed before placing the equipment in service.

Keep the installation manual so you can consult it if necessary. If anything is not clear, please don't hesitate to contact one of our experts for more information.

1 TURNSTILE POSITIONING DETAILS

1.1 GUIDANCE NOTES FOR INSTALLATION OF A TURNSTILE

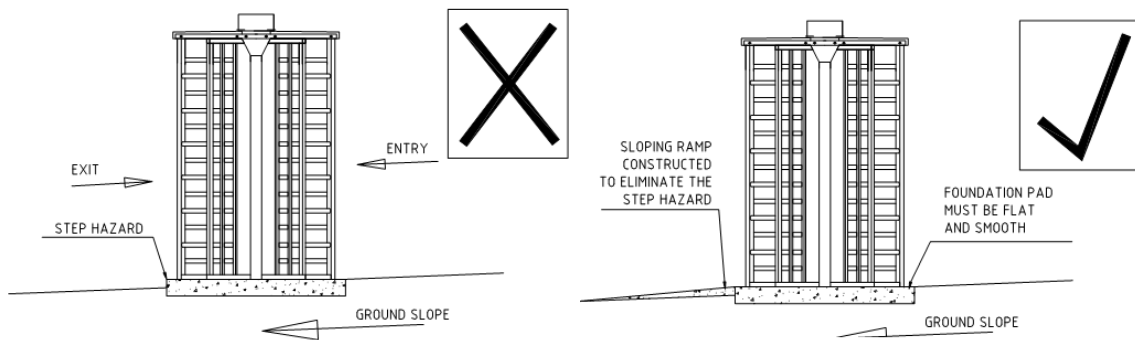
- The turnstile requires a 110-240 VAC 50/60Hz Single Phase rated at 4 Amps supply.
- The turnstile should be sited so that users are not exiting near obstacles i.e. bollards, lampposts etc.
- If the turnstile base is higher than the surrounding area, a slope must be incorporated into the base to prevent a trip hazard.
- A canopy should be considered if the turnstile is located in a high security area.
- When a canopy is required ensure that the existing buildings or trees will not obstruct this.

1.2 SITE PREPARATION



Note: All work listed on this page is the responsibility of the customer. A prepared site is which is ready to accept Heras turnstiles must comprise of a smooth square concrete base to specification. It is recommended that the work be carried out by two technicians.

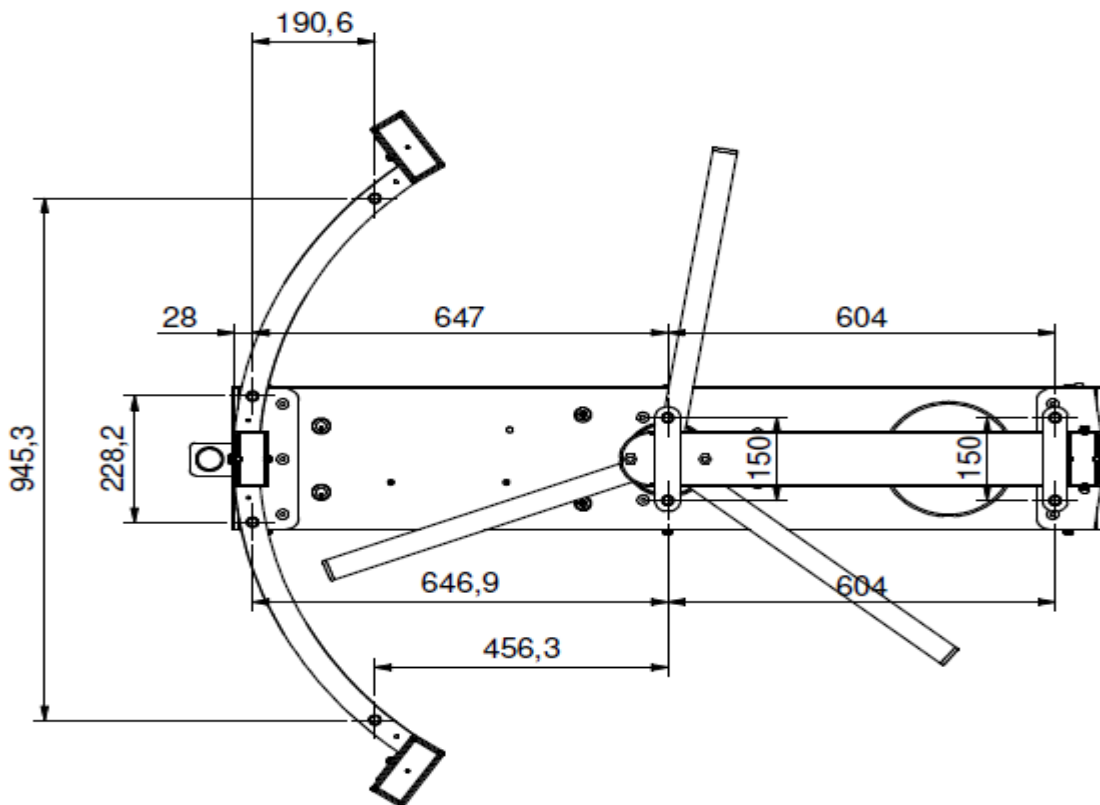
- Concrete mix to EN 206:2013+A1:2016 or similar standard.
- Concrete strength C30
- Aggregate to EN 12620:2002+A1:2008
- If the base is to be sited on an incline surface, the base must be cast flat and level in itself, but step hazards must be eliminated by extending the foundation to create a ramp.
- All ducts must rise as shown on reference drawings.
- Technical personnel will be glad to discuss specific requirements or other assistance in defining such details.



Example for the B700

1.3 TURNSTILE FOUNDATION DETAILS B700 TURNSTILE

A foundation drawing can be found at the back of this document.





2 INSTALLING THE TURNSTILE

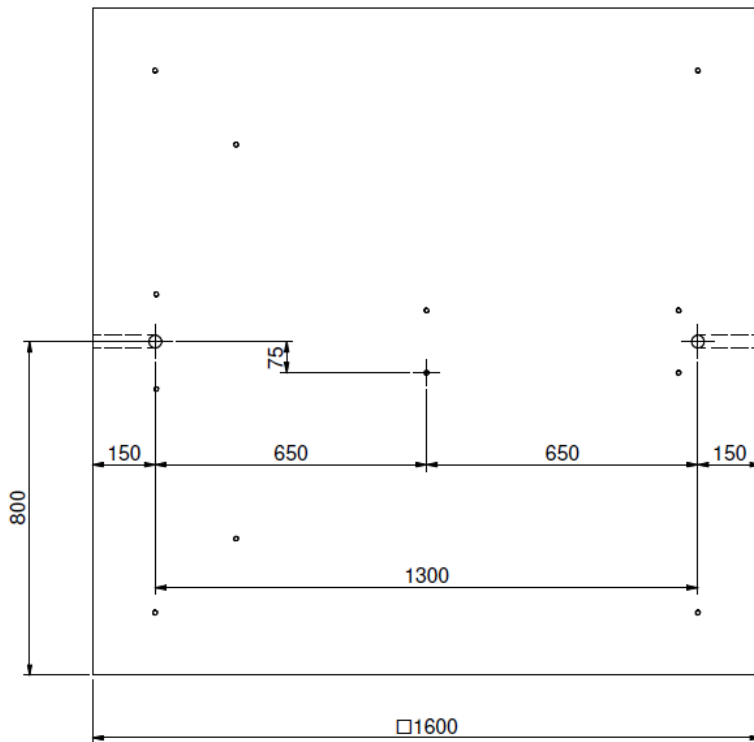
2.1 TOOL REQUIREMENTS

- Industrial duty hammer-action drill complete with 18 mm concrete drill bit.
- 19 mm A/F socket.
- 5 mm Allen socket key
- Tape measure
- Hammer, 2 kg weight.
- Chalk line and peg.
- Turnstile specification and installation drawings. (These will have been sent prior to delivery of your equipment)
- 4-off 100x100x1200 long wooden blocks.
- Bearing grease (general multi-purpose), for bottom bearing assembly
- Personal Protective Equipment
- Power drive bit (Security T40 and T30)

2.2 B700 TURNSTILE FOUNDATION MARKING OUT

When the foundations have cured, it will be necessary to mark the centres of the ducts, so the turnstile can be positioned securely.

- Check the critical dimensions between the ducts is correct; 1300 mm.
- Use the chalk line to mark the centre line between the ducts
- Measure from the centre line of a duct, a distance of 650 mm towards the centre of the foundation for a single turnstile. Ensure the measurement is square and parallel to the first chalk line mark
- Mark between these positions with the chalk line
- Make holes with a drill bit 18 mm in diameter and 120 mm deep
- Glue the anchors into the holes

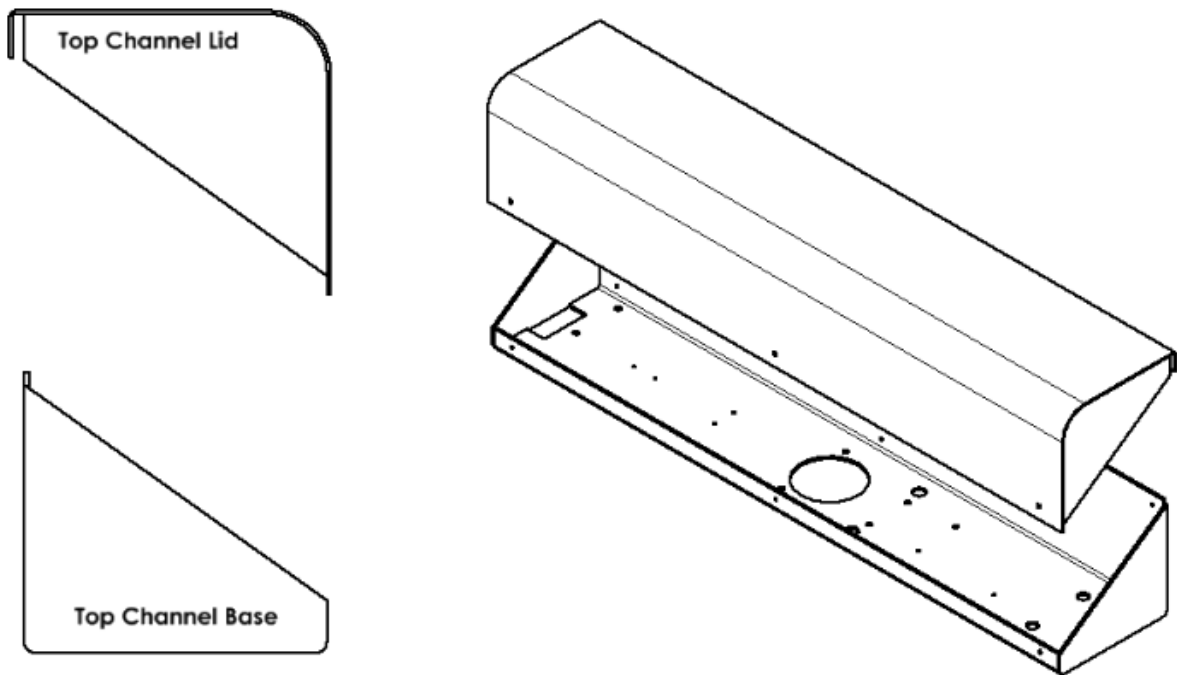


The foundation pad is now ready to accept the turnstile.

2.3 TOP COVER REMOVAL

2.3.1 B700 top cover removal

- Before installing the turnstile onto the prepared foundation base, it is necessary to remove the lid and canopy. This must be done by removing the bolts located on both sides of the lid of the turnstile.
- The cover can be removed completely by lifting it up carefully.
- Please note this should only be done if entirely necessary and great care should be taken when lifting the cover on and off.

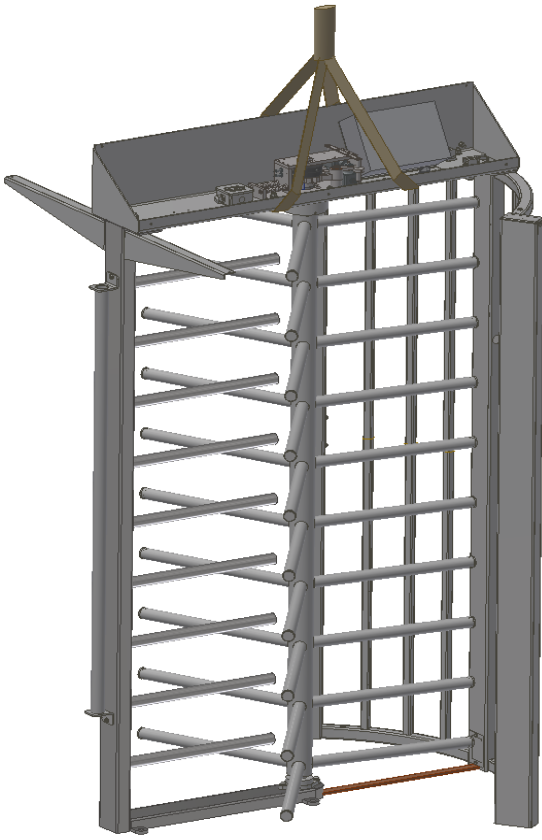


Top cover B700

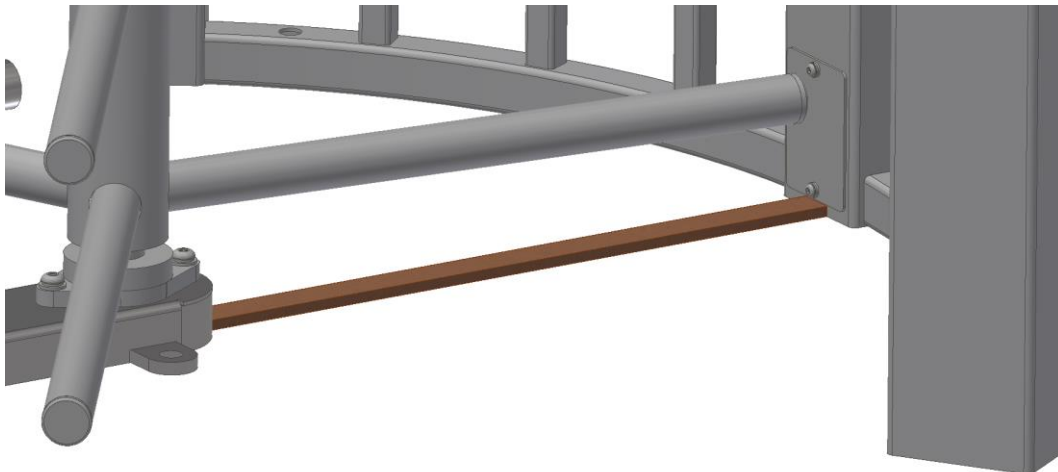
2.4 LIFTING THE TURNSTILE FROM A PALLET

If the turnstile is being delivered on a wooden pallet, follow the next steps.

- Make sure the roof parts and top channel lid have been removed
- Use two approved lifting straps and position them as shown below (be careful with the lamp if present)
- Make sure the wooden block is still there before lifting
- Release the transport bolts and move the turnstile onto the foundation
- Once in position, follow the next steps
- Make sure that the side where the controls are visible is placed towards the inside of the terrain (view on the picture is the inside of the turnstile)



Lifting straps position



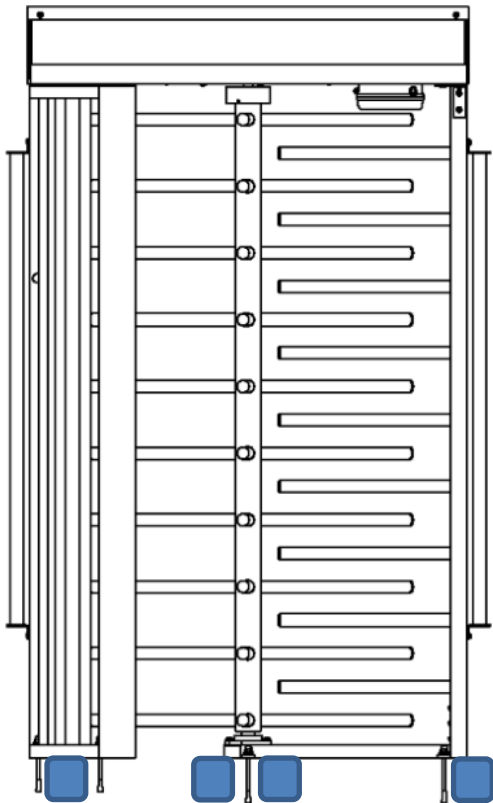
Wooden block to support both legs while lifting

2.5 CABLE INSTALLATION



Ensure all cables have no electrical power present!

- Position the 100 x 100 wooden blocks as shown below.
- Lower the turnstile onto the blocks ensuring that it is steady.
- Pull the cables through each duct and feet them up the appropriate leg allowing at least 3 meters of cable protruding through the top of the leg.
- Remove the blocks from under the turnstile and ensure the cables are not stuck.





2.6 TURNSTILE FIXING

You can now place the turnstile over the anchors, level and secure.

2.7 LIFTING THE TURNSTILE ON A PREFAB CONCRETE FOUNDATION

If the turnstile is being delivered on a concrete foundation, follow the next steps.

- Make sure the roof parts have been removed
- Use four approved lifting straps and position them as shown below
- Place the 4 M12 lifting eyes in the appropriate holes
- Place the turnstile in the correct position and make sure it is level
- The cables can be fed in from both sides
- Make sure that the side where the controls are visible is placed towards the inside of the terrain (view on the picture is the inside of the turnstile)



3 CABLE CONNECTIONS

3.1 GENERAL INFORMATION REGARDING CABLE CONNECTIONS

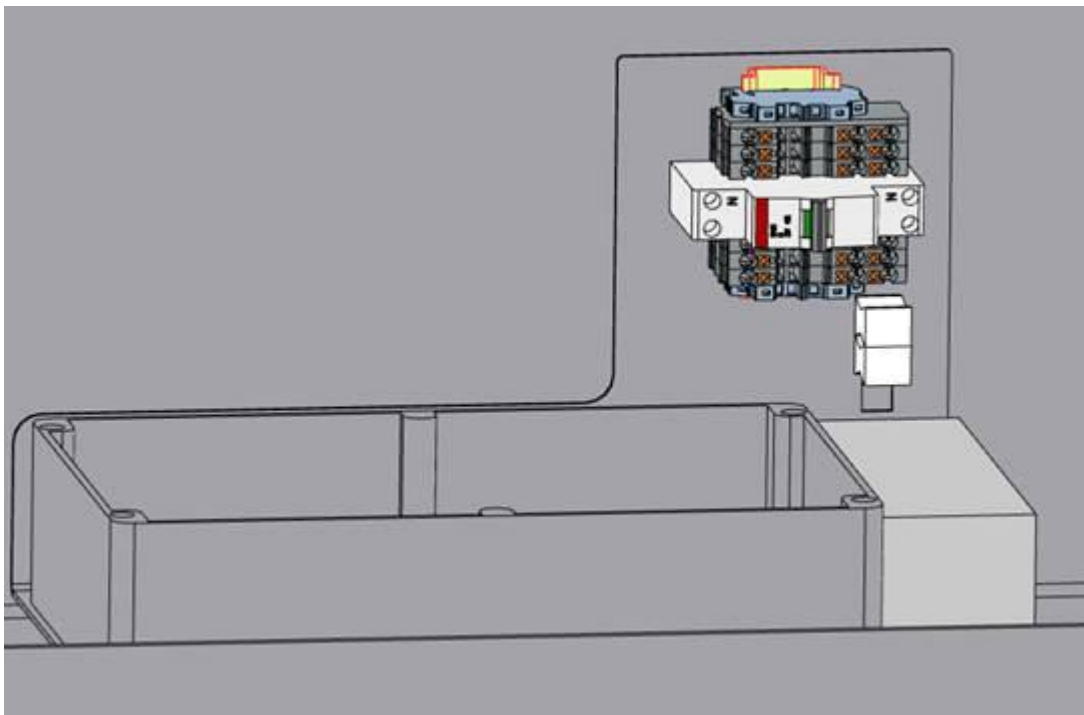


Note: Control and power cables can be taken through either leg.



Ensure all cables have no electrical power present!

- Connect the power cable to the main switch.
- Connect the control cable into the control panel.



B700

3.2 ENTRY/EXIT

An open signal connected via the key switch override will allow the operation of one turn of the rotor gate in entry or exit direction.

This signal must be volt free!



Important note: If the turnstile is not operated after the open signal has been given, the control panel will automatically lock up after 30 seconds.

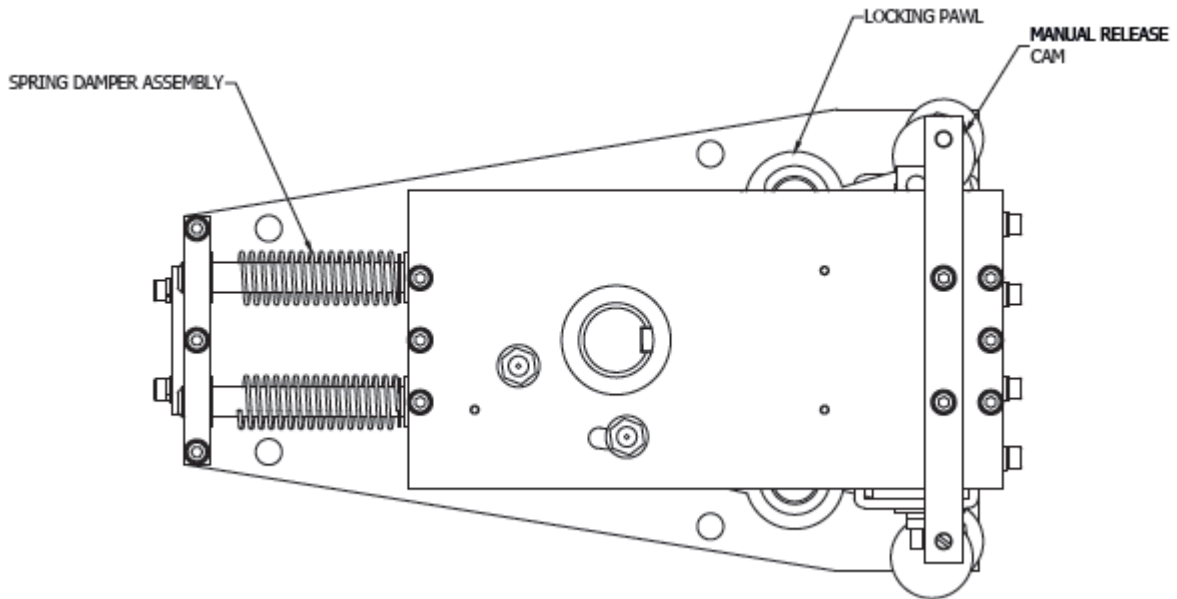
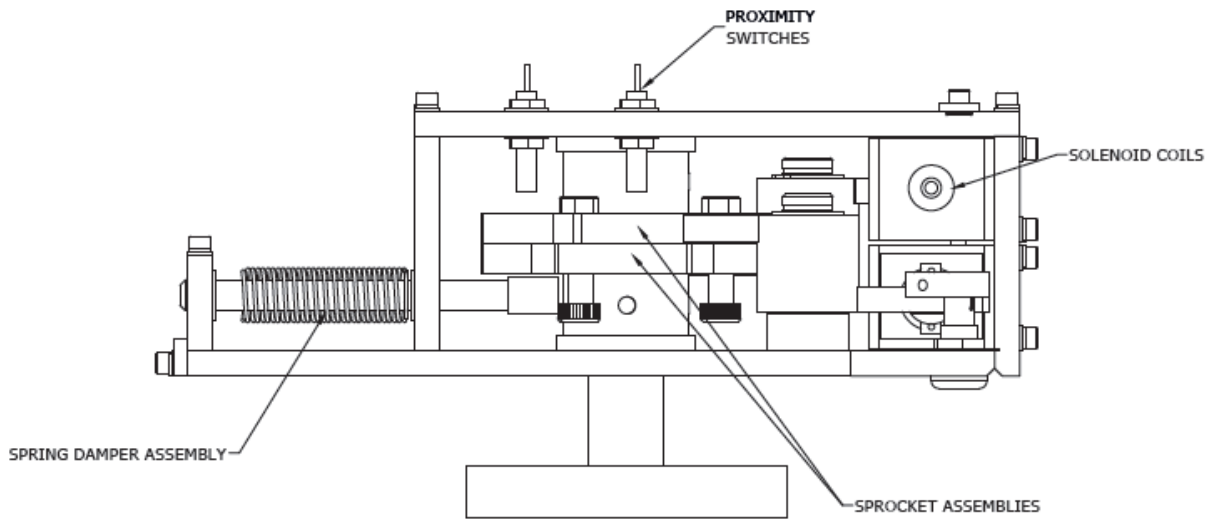
4 PROXIMITY SWITCH AND EXPLANATION OF OPERATION

There are 2 proximity switches located on the turnstile head mechanism. These are used to detect the position of the rotor during operation.

When a signal is given to the turnstile i.e. through a pushbutton or card reader, solenoid 1 or 2 will operate to unlock the mechanism and allow 1 rotation through the turnstile in a clockwise or anti-clockwise direction.

4.1 PROXIMITY SWITCH 1 SETTING

- Check the gap between the bolts and the proximity switch and adjust if necessary by adjusting the height of the proximity switch with the nuts until an opening of 1 mm is achieved for all proximity switches.
- Operate the turnstile in the clockwise direction using a signal from the control equipment i.e. pushbutton, card reader etc.
- Solenoid 1 will operate to unlock the mechanism allowing the turnstile to rotate in a clockwise direction only.
- As the mechanism rotates the next sensing screw position will come into range of proximity switch 1, the proximity switch LED will switch off and will cause solenoid 1 to de-energize locking the mechanism at the next rest position.



4.2 PROXIMITY SWITCH 2 SETTING

To adjust proximity switch 2, follow the steps as written in chapter 4.1 taken into account adjustments will be made on proximity switch 2 and testing will be relative to solenoid 2.

4.3 OPERATING SYSTEM

The turnstile operating mechanism is of an electro-magnetic solenoid release type, with bi-directional non-return tooth sprocket assembly to select the position of the rotor and the pawl-locking feature.

The ratchet system ensures that the rotor returns to the locked position after each movement. Intermediate movement is restricted preventing unauthorized access.

4.4 POWER FAIL MANUAL RELEASE (OPTIONAL)

In the case of power failure, depending on the used solenoids, the turnstile will remain locked. Free rotation in any direction can be obtained by means of an override key switch mounted in the overhead section as detailed below.

The key switches are located in the top channel section of the turnstiles. There are two key switch positions one for each direction of rotation.

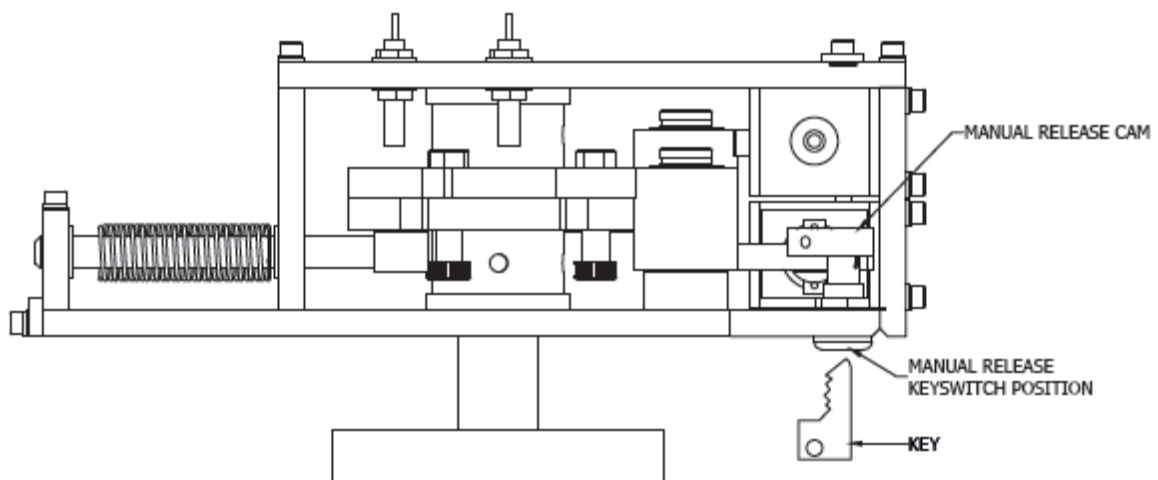


Please note if the manual override key switches for both entry and exit are operated at the same time the turnstile will free wheel in both directions. This is not recommended.

To release the turnstile into the manual mode, the key should be inserted into the key switch and turned through 90-degrees. This will allow the rotor to freely rotate. To re-engage, simply turn the key to its original position.



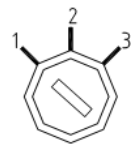
Only authorized personnel should keep the override keys.



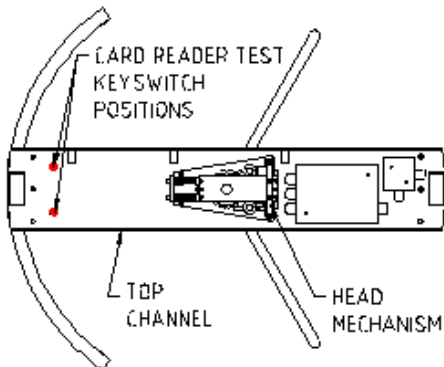
4.5 FAULT DIAGNOSES

In the event that the turnstile will not rotate, it is possible to test the system via the card reader test key switch as follows:

- Change the key switch position from Normal operation (position 1) to Card reader isolate (position 2). This will isolate either the entry or exit card readers depending on which key switch is being operated.
- Change the key switch position to Turnstile rotate (position 3), and the turnstile should rotate.
- If the turnstile rotates, the fault is with the card system. If however the turnstile does not rotate, the fault may be with Heras equipment.



4.5.1 Key switch position B700

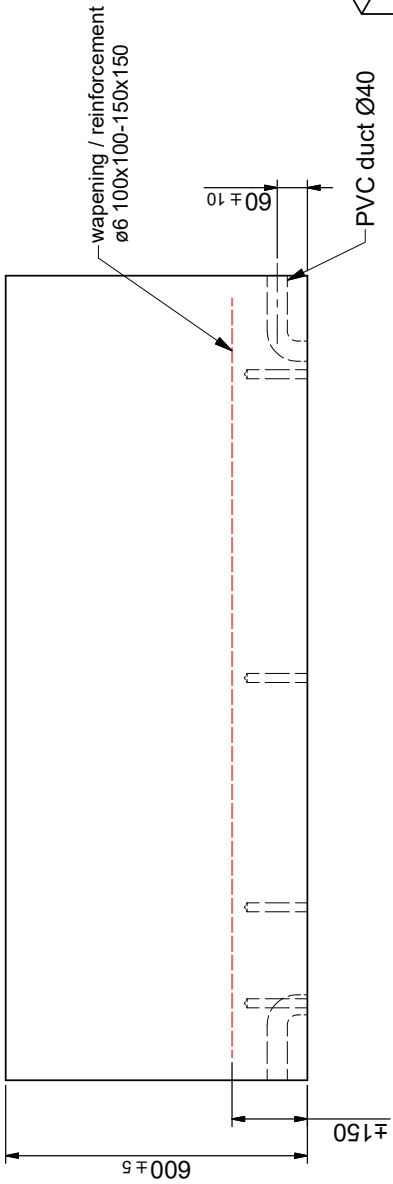




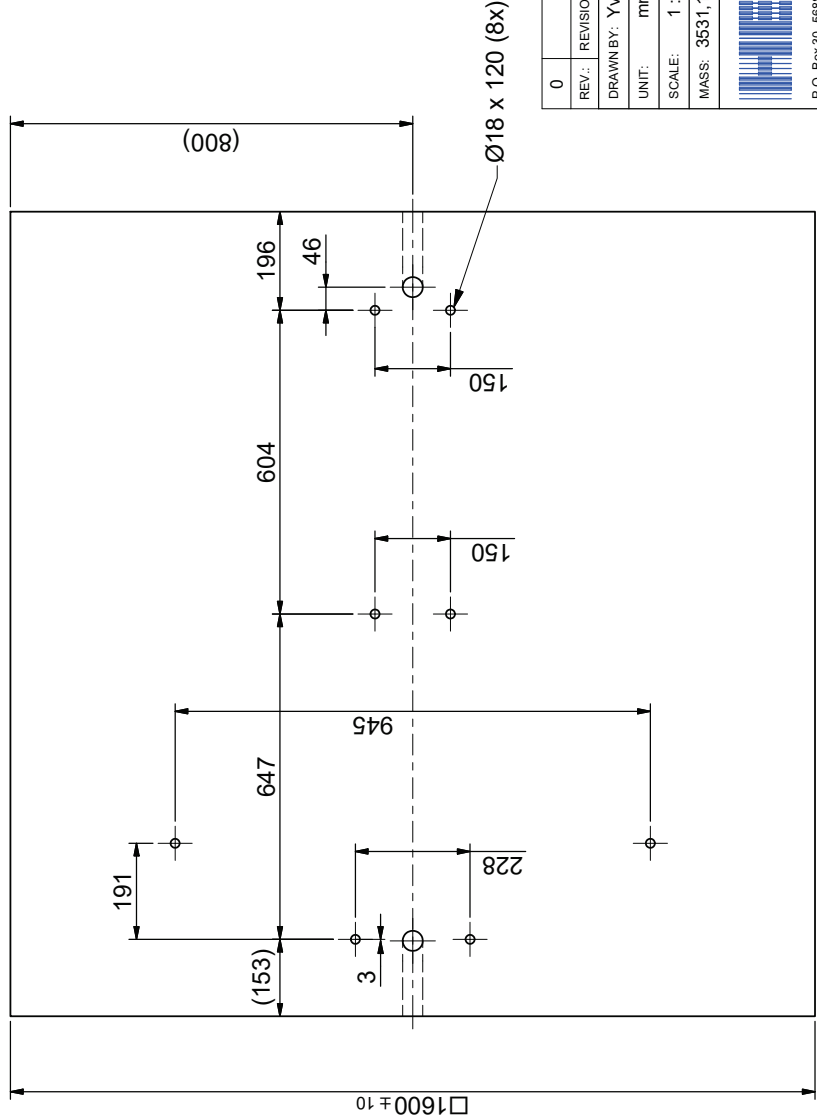
**Heras B.V.
Hekdam 1
P.O. box 30
5688 ZG Oirschot**

**Tel: +31 499 55 12 55
E-mail: infoNL@heras.nl**

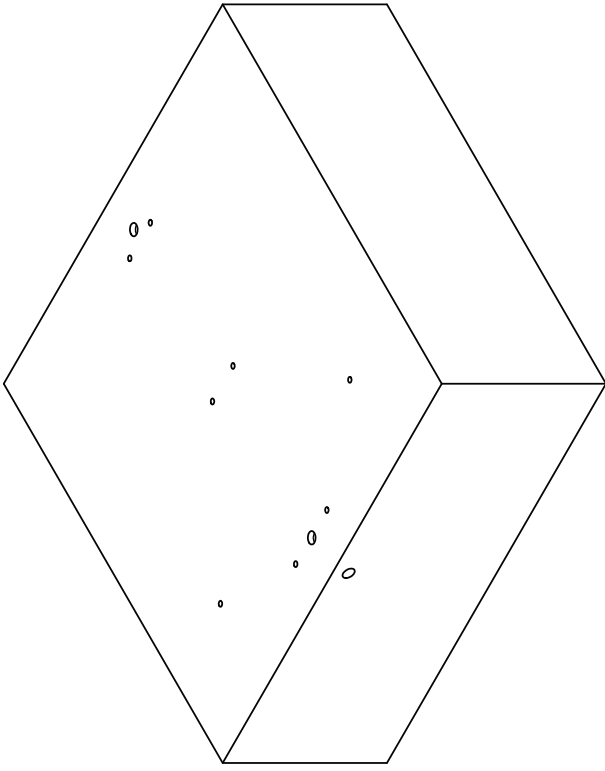
Local supplier stamp:




INSIDE



OUTSIDE



Material: Concrete C30

0	REVISION DESCRIPTION:	NAME:	DATE:	CHK. BY:
	DRAWN BY: Y.vdB	SAP NO:		
	DATE: 19-12-2022	ARTICLE CODE: FNDPL16001600600		
	UNIT: mm	TOL: ±0.5; ±1°		
	SCALE: 1 : 10	PROJ.: PROJECT NAME:		
	PROJ.: PROJECT NO:	PROJECT NO:		
	MASS: 3531,12 kg	PROJECT NO:		
		DESCRIPTION: fnd plate 1600x1600x600 ts cc		
P.O. Box 30, 5888 ZG Oristrot, The Netherlands T +31 (0)499-551735 www.heras.com F +31 (0)499-551799 E infoNL@heras.nl		DRAWING NO:	REV. NO:	SHEET:
		p09265	0	1 v 1
This drawing is property of HERAS. Reproduction or disclosure to third parties in any form whatsoever is not allowed without explicit written consent of HERAS.				