

TURNSTAR



RELIABLE ★ DURABLE ★ GUARANTEED

User Manual



STREAMLINE & TRIDENT Waist Height Turnstiles

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1. COPYRIGHT & LIABILITY

No part of this module may be reproduced in any form, photocopy or otherwise, without the written permission of the copyright holder.

All information, drawings and diagrams may not be made public or shared with a third party.

In the event of any breach of abovementioned copyright, the rights of the copyright holder will be strictly enforced.

This product may need to undergo a yearly service to assure optimum performance. This service may only be carried out by Turnstar Systems or an approved agent.

Any guarantee on this product will expire should an unapproved person attempt to carry out a service. This product guarantee is only valid if the assembly is to Turnstar specification, as described in this manual, and providing the product functions as is expected under standard operating conditions.

2. SAFETY

During Maintenance:

- Avoid contact with moving parts.
- Ensure power supply is off.

During Operation:

- Children and minors must be accompanied and supervised.

3. INTRODUCTION

The TRIDENT and STREAMLINE turnstiles are part of the group of waist height turnstiles. These types of products can also be referred to as a tripod turnstile.

The TRIDENT and STREAMLINE can be supplied with a Granite top or stainless-steel top cover. The Granite top is not suitable for out-door use. Instead, the stainless-steel top would be used.

The TRIDENT and STREAMLINE turnstiles are designed for interior installations and exterior installations which are covered by a roof.

The STREAMLINE is available only in single configuration, the TRIDENT is available in single and double configuration.

Applications: Office reception areas, health clubs, colleges, libraries, leisure parks and stadiums and any application requiring a medium level of security and high-volume access.

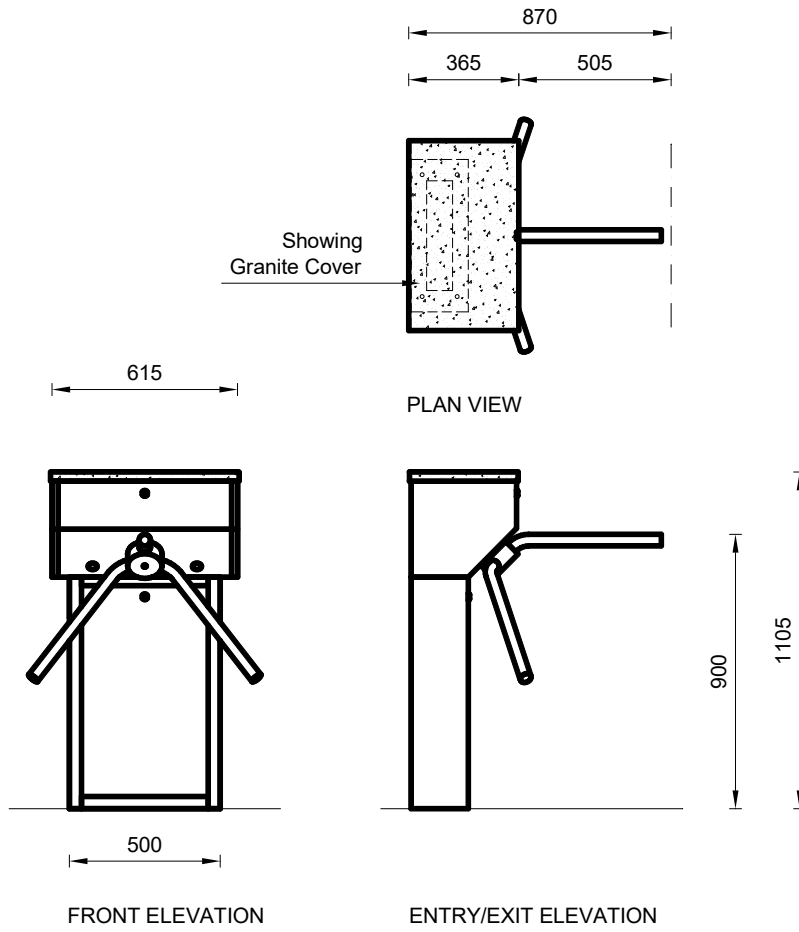
The turnstile is intended for indoor use. When the turnstile is used for outside installations, a roof cover must be allowed for over the turnstile.

The following finishes are available:

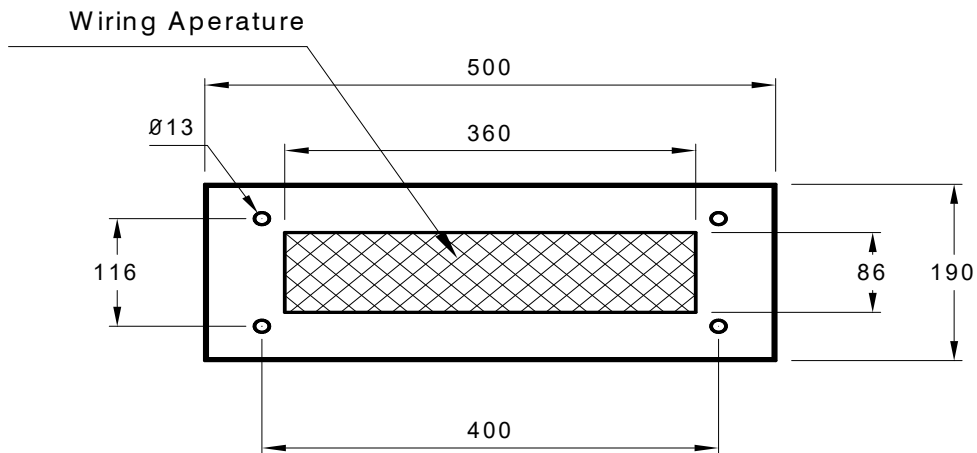
- Powder coated mild steel (standard colour – charcoal blue hammertone)
- 304 grade brushed stainless steel
- 316 grade brushed stainless steel *
- Powder coated 304/316 grade stainless steel (standard colour – charcoal blue hammertone) *

(*) Suitable for exterior coastal installations (within 50km from the coast)

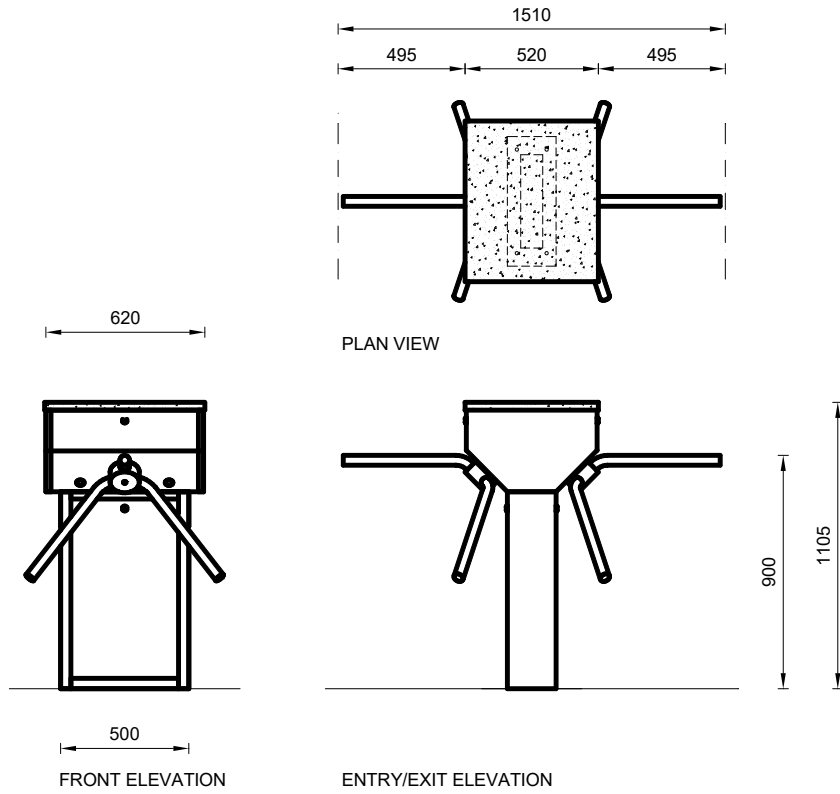
TRIDENT single Representation:



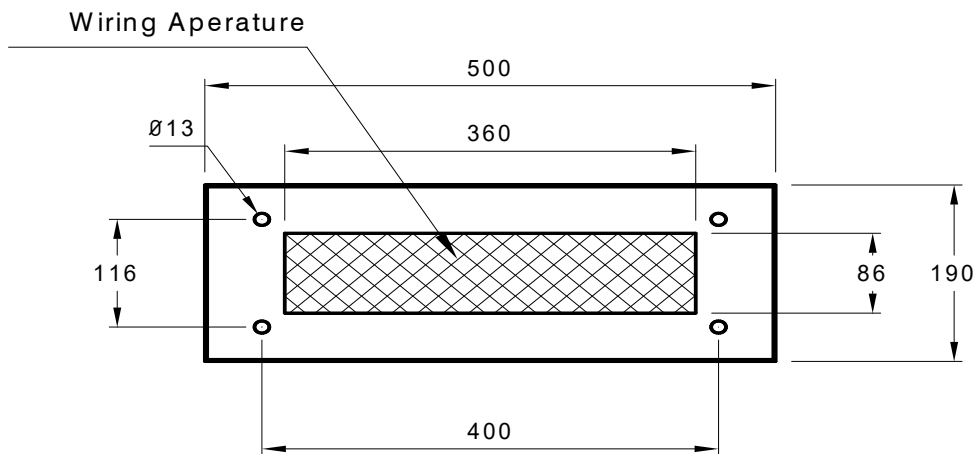
TRIDENT single Footprint:



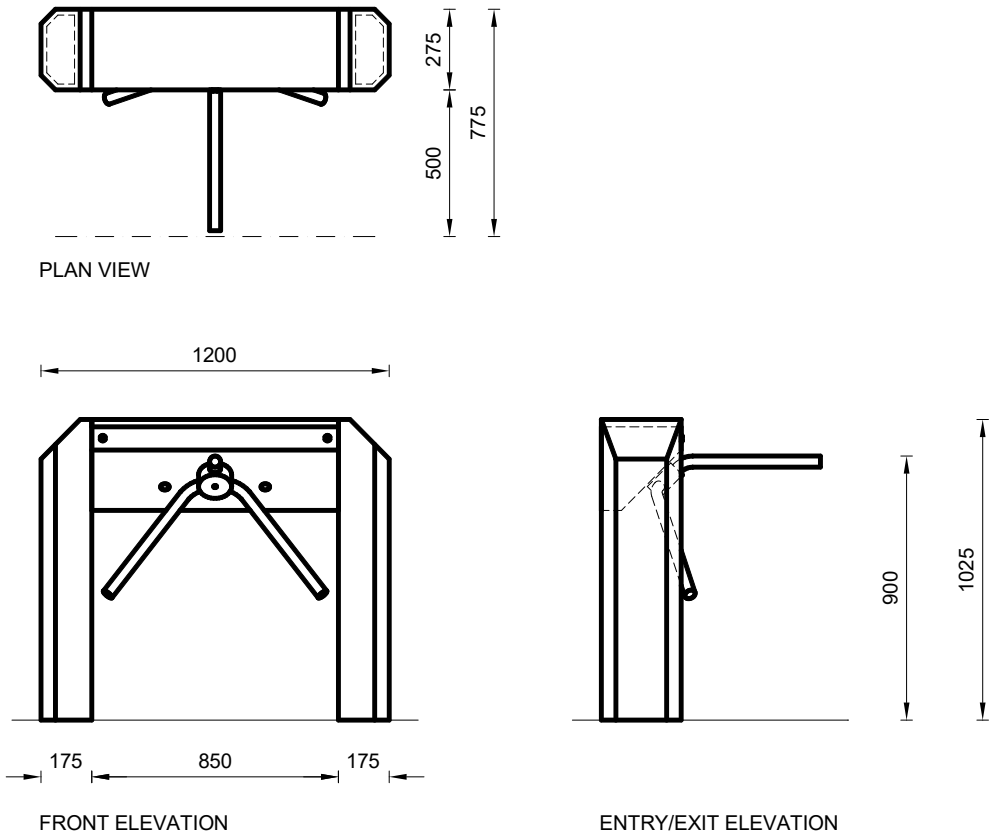
TRIDENT double Representation:



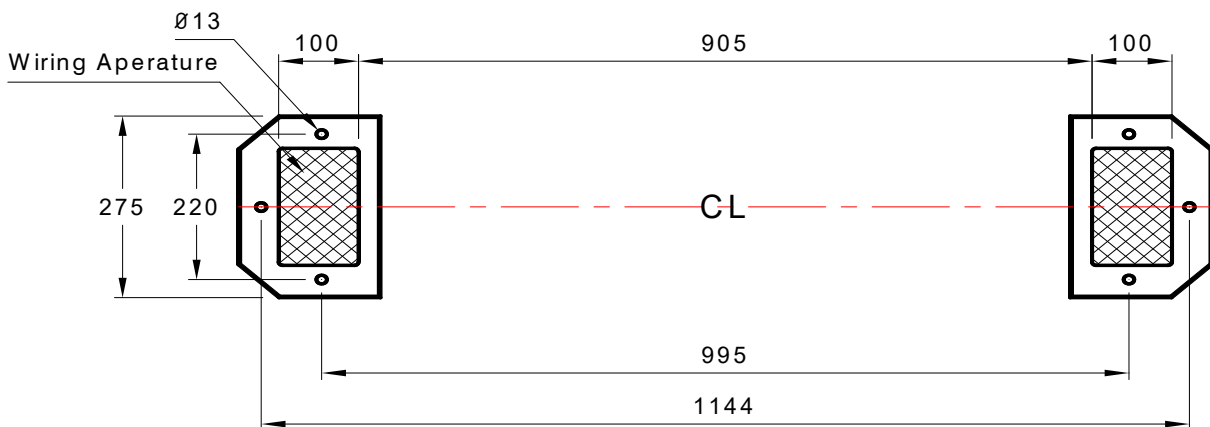
TRIDENT double Footprint:



STREAMLINE Representation:



STREAMLINE Footprint:



4. INSTALLATION

Provision for the power and data cabling for the turnstile must be in place prior to installation. The turnstile is designed to be bolted directly onto the finished floor surface, e.g. tiles.

The turnstile is bolted to the floor using m10x75 coach bolts with a nylon plug. If the turnstile is to be installed on a suspended floor/computer flooring, then a special steel base/foot must be manufactured. The base will then be installed directly on the concrete floor and will extend to the underside of the floor. The turnstile will then be bolted onto the base.

Wiring for control and power are led from the floor, through the wiring aperture, to the control panel mounted inside the cabinet cavity.

See section in this manual for wiring diagram and connections.

To access the bolting holes, remove the side panels located on the inside of the uprights with the key provided. The same key will also unlock the top lid to gain access to the control panel and mechanism.

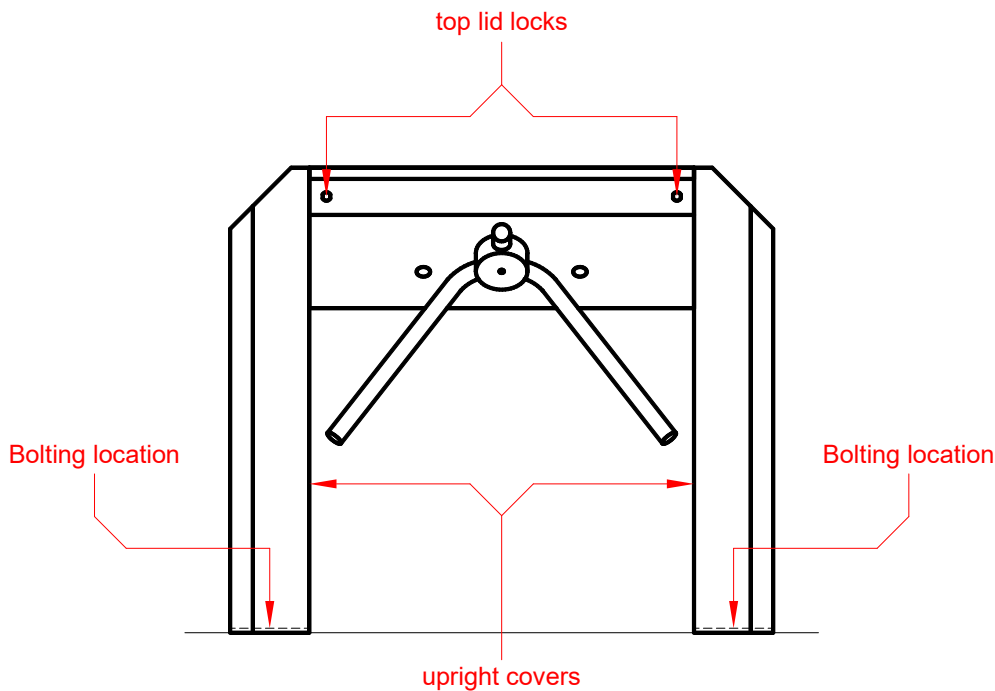


Figure 4a: Lock Locations of STREAMLINE

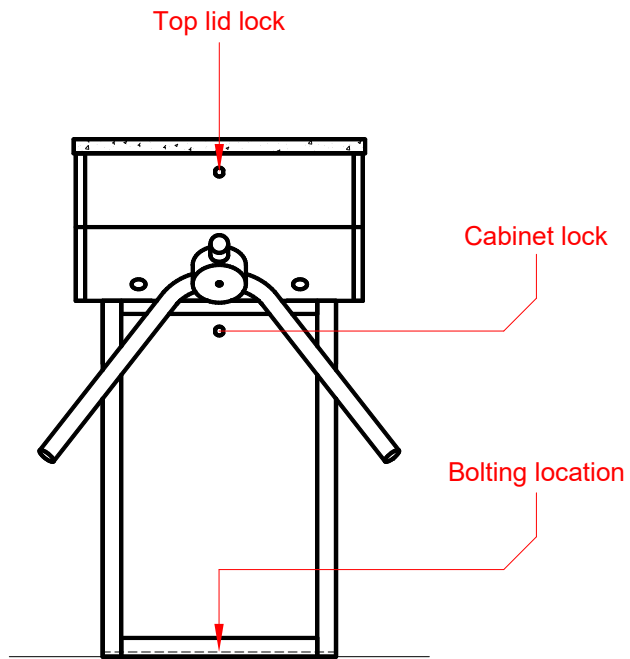


Figure 4b: Lock Locations of TRIDENT

5. TYPICAL ARRANGEMENTS

The TRIDENT and STREAMLINE turnstile requires a barrier or a wall / Turnstile to form a passage as shown.

If a TRIDENT is installed with a barrier, the barrier needs to be at least 600mm long.

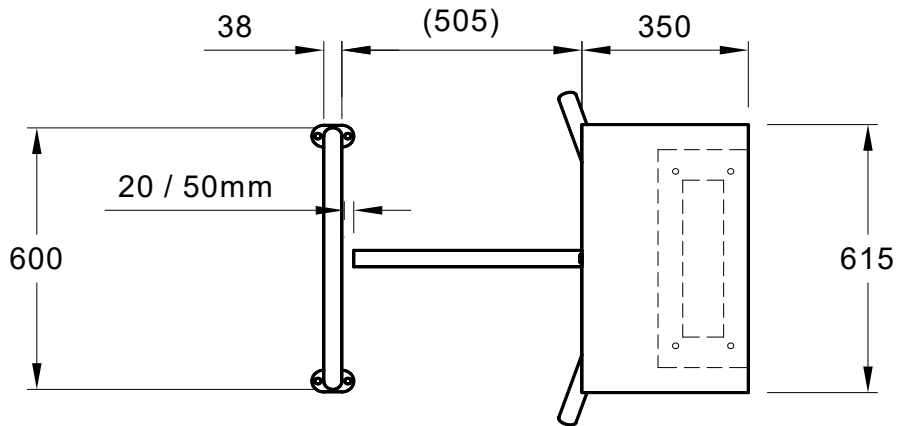


Figure 5a: Typical Barrier installation for TRIDENT

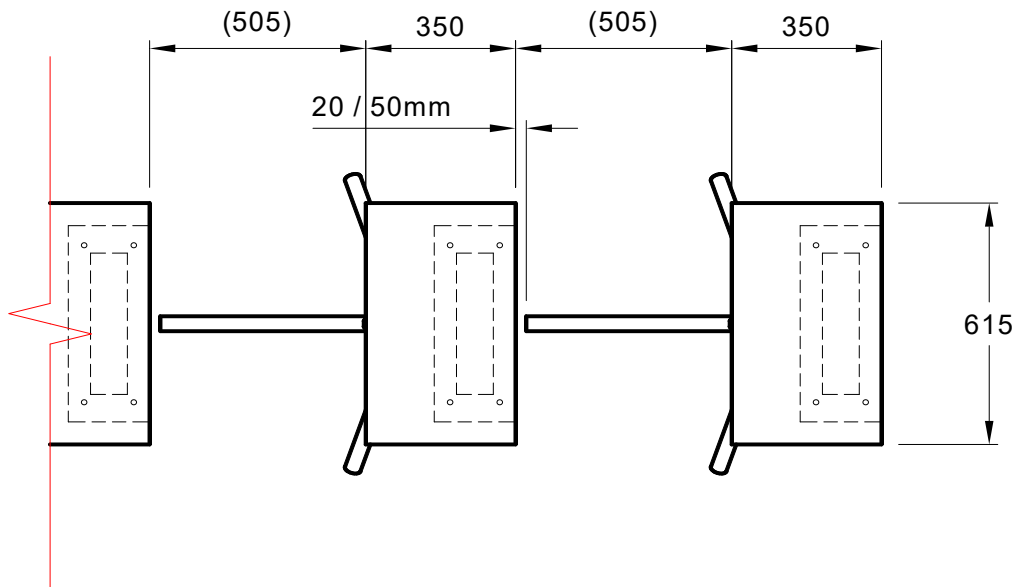


Figure 5b: Typical Multi-installation of TRIDENTS

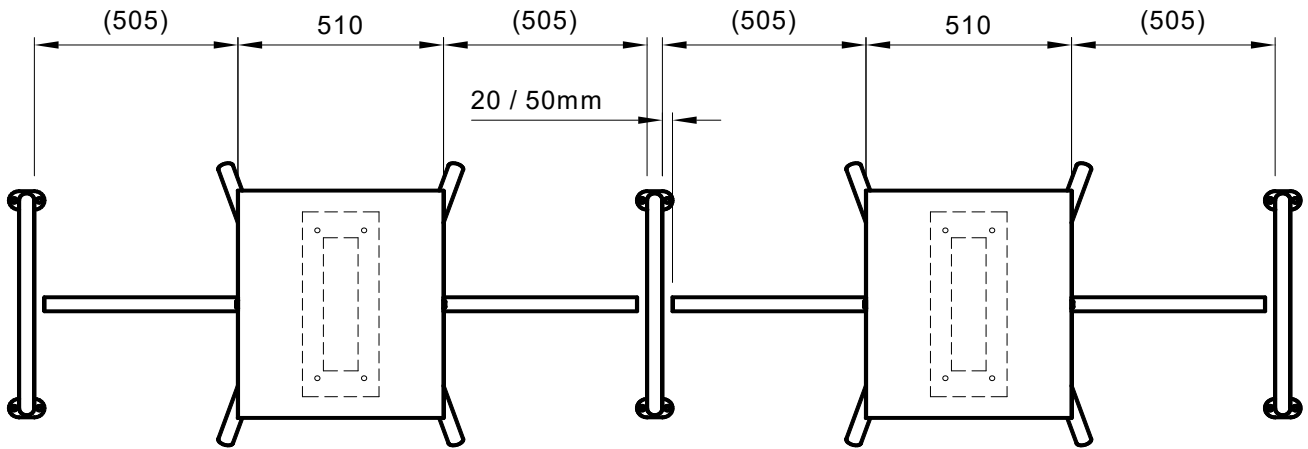


Figure 5c: Typical Multi-installation of double TRIDENTS

If a STREAMLINE is installed with a barrier, the barrier needs to be 1000mm long.

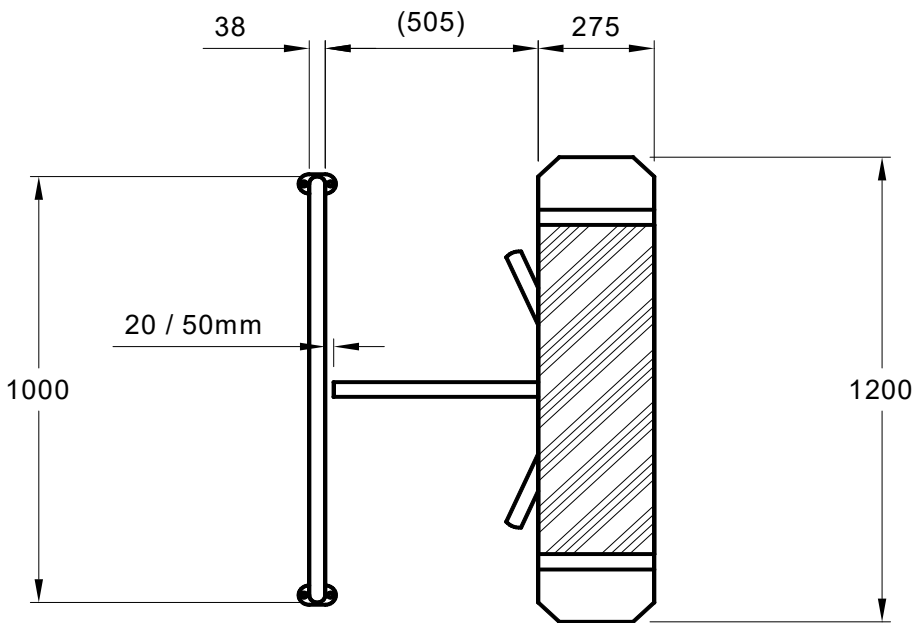


Figure 5d: Typical Barrier installation for STREAMLINE

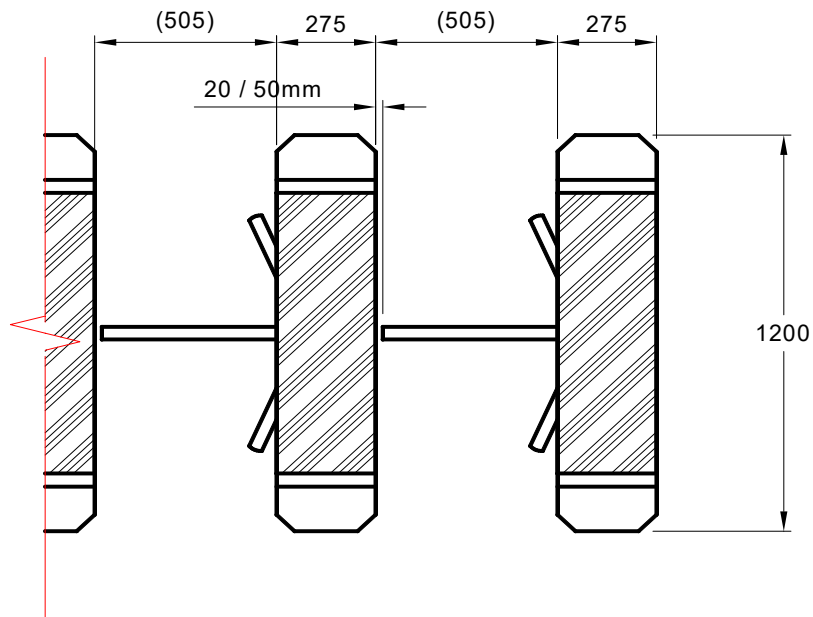


Figure 5c: Typical Multi installation of STREAMLINE

The turnstile can be installed in tandem with more turnstiles as shown.

The Turnstile should not be installed with the arm and a barrier/wall being co-linear. The arms can be held open during a trigger and multiple pedestrians can pass.

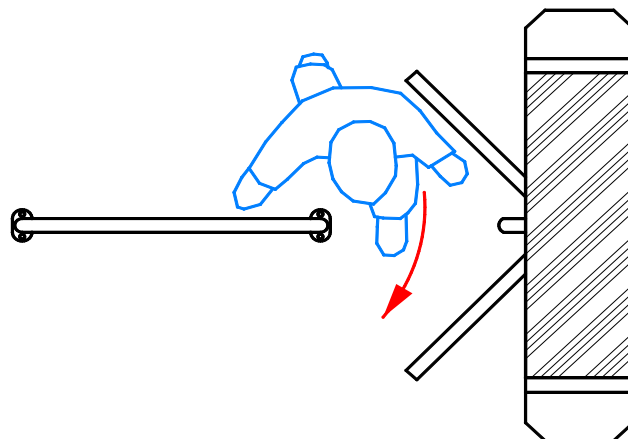


Figure 5d: Incorrect installation

6. READERS

The following Figure shows an example of readers mounted to the Turnstile and the direction of trigger. The mounting face can be drilled to place and bolt the reader unit.

Note: Turnstar does not supply readers with Turnstiles. An access control system with readers must be supplied by a third party.

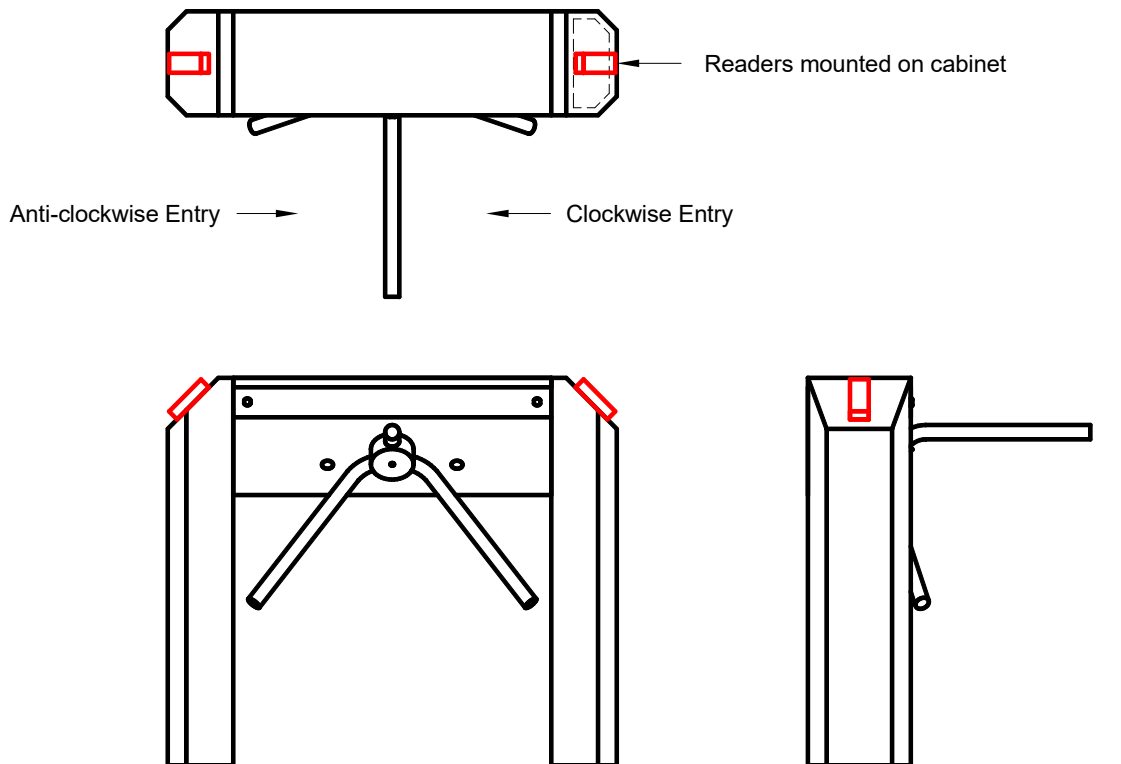


Figure 6a: Reader Mounting on STREAMLINE

7. MECHANISM FUNCTIONS

The mechanism is supplied by default in fail-safe condition. This means that on power failure, the rotor arms can be turned freely without locking.

Depending on the client's needs, the mechanism can be supplied or converted to a fail-secure, which will lock under power failure. It is always recommended to have a fail-safe unit, however, since in case of emergency, pedestrians need to pass through the turnstile under hindered.

For further detail and maintenance on the mechanism, a user manual can be requested from Turnstar.

The connections to the limit switches and solenoids control the operational direction of the tri-pod arms. See the below figure for details.

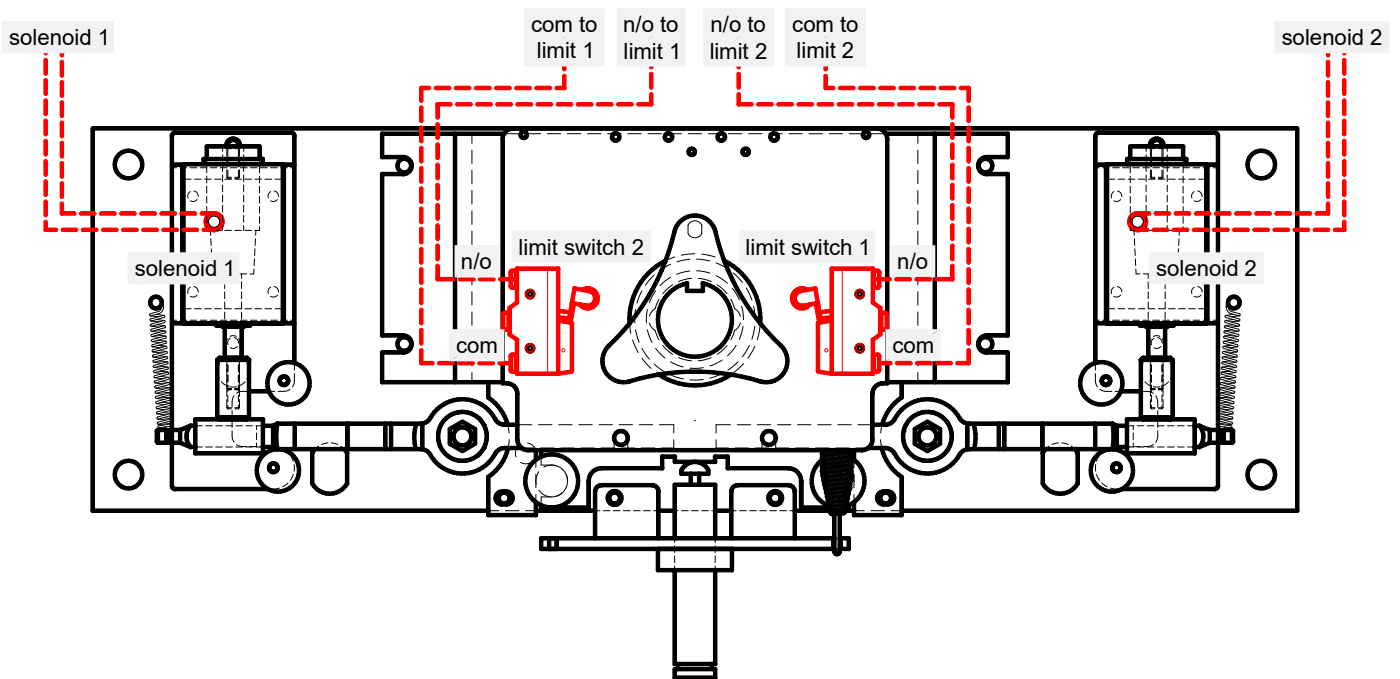


Figure 7a: Mechanism connections to Panel

For example, solenoid 1 will trigger to unlock and turnstile arms will turn to trigger limit switch 2 first. The opposite is true for solenoid 2.

8. WIRING CONNECTIONS

The following diagram shows the connections to be made before testing.

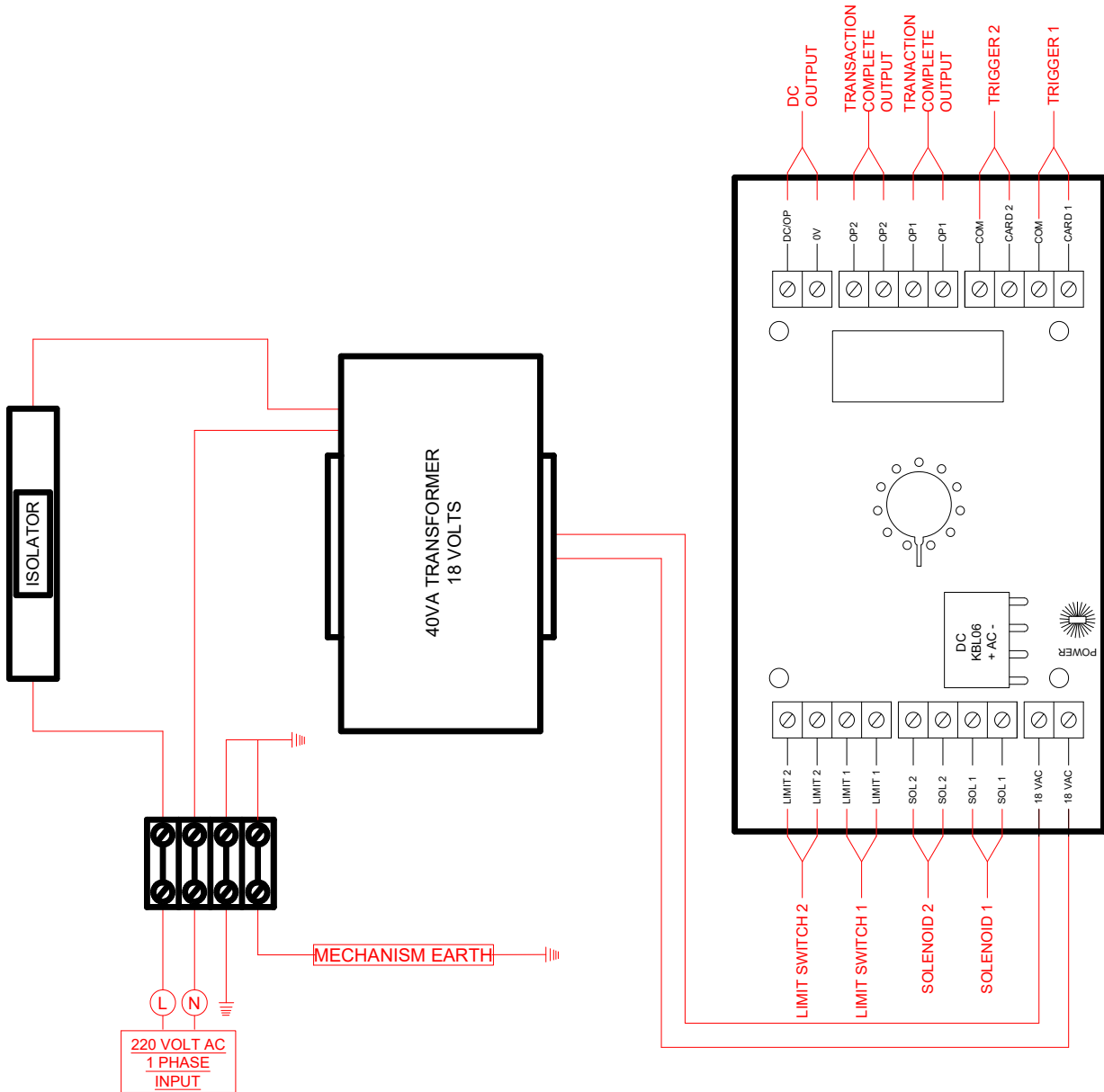


Figure 8a: Wiring Connections

- 1) Trigger 1 will unlock solenoid 1. The arms will turn in a clockwise direction.
 - 2) Trigger 2 will unlock solenoid 2. The arms will turn in an anti-clockwise direction.
- (Triggers and commons require a voltage free contact)

Live power (Live/Neutral/earth, 220V AC 50Hz) needs to be connected as shown.

9. CHECKLIST

The following checklist needs to be adhered to during and after installation for commissioning of the unit.

Action	Requirement	Pass
Anchor Bolts Tightened	Check that bolts are tight and that cabinet is fixed securely	
Rotor Turn	With power off, in fail-safe condition, the arms rotate easily and stops smoothly in the locked position (This only applies to a fail-safe mechanism. For a fail secure, test under power when triggering). The mechanism locking sound is barely audible.	
Cabinet Check	The cabinet is free from scratches and blemishes. Any damage needs to be reported immediately.	
Cable check	All cables are correctly wired to the control panel. Power is connected and isolated. Cables are tied and running neatly in the cabinet upright, free from possible snagging and cutting.	

10. MAINTENANCE

For corrosive environments, Turnstiles with a brushed stainless steel finish should be cleaned once every two weeks as per the stainless steel maintenance manual.

Maintenance on the mechanism must be performed by a Turnstar trained technician or an appointed representative. This unit is under warranty and it will expire should unauthorised persons attempt maintenance.