FULL HEIGHT TURNSTILE TECHNICAL DETAILS

TECHNICAL DATA SHEET

Before installing Full Height Turnstile, for assured strong grip of the anchors; make sure thickness of the hard surface is minimum of 8-15 cm.

Full Height Turnstile Installation Kit

- Full Height Single Turnstile includes 6 pieces of steel anchor, 6 pieces of screw & nut set
- Full Height Double Turnstile includes 20 pieces of steel anchor, 20 pieces of screw & nut set
- Full Height Glass Turnstile includes 11 pieces of steel anchor,11 pieces of screw & nut set

Method

1. Place the turnstile where you plan to install and mark the screw holes.

2. Using a drill with 15 mm bit, drill 8 cm-deep holes on previously marked points. While drilling screw holes, make sure the drill is in upright position.

3. Embed steel anchors in the drilled holes with the help of a hammer.

4. After final control, drive all screws in without leaving any space in between the base and the surface.

5. Connect power cable to 220 VAC with a 6A fuse.

HOW IT WORKS? HOW IT IS USED?

Control

Dry contact button or any one of the card reader's relay contact ends can be used as access triggering mechanism for A-B or B-A direction. Remote Control Receiver module isintegrated to the system for two-way free access.

Emergency Mode

Control option via connection to safety systems (e.g. in emergency situations such as fire alert an automated activation of free access mode) is available.

Display Panels

Illuminated three-level display provides access control for the system. If turnstile is ready for access, a green arrow flashes. When access is granted, the green arrow permanently lights up. At the moment of access, a red "X" sign appears for the reverse direction as an indication of blocked access.

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Time Control

Following turnstile activation, if no entrance proceeds, system will automatically deactivate according to preset deactivation timer (2-30 seconds).

Light and Sound Warning Signals

Sets of double 220V halogen lights are placed on top of both Full Height Single and Glass Turnstiles; so that these lights turn on only during access and upon completion of access, the lights will automatically turn off. Option for integration of audio warning signal to the system is also available.

Arm Movement Control

Forward thrust movement of the turnstile arm is controlled by a braking system. Therefore, low-stop action is achieved during quick entrances.

MAINTENANCE-REPAIR

Maintenance of turnstiles is performed by the authorized technical service unit according to the maintenance procedures. Standard quarterly (once in every 3 months) periodic control and maintenance will extend functional life of the turnstile as well as increase its efficiency.

Maintenance periods and frequencies may differ in reference to climate and operating conditions. In case of breakdown, immediately contact authorized technical service unit.

UNAUTHORIZED PERSONS MUST NEVER BE ALLOWED TO PERFORM ANY MAINTENANCE OR REPAIR WORK ON TURNSTILES.

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TRANSPORTATION AND STORAGE

When transporting, the products must be in their original packaging. Warnings and Instructions on packaging must be strictly followed during loading, transporting and stacking.

IMPORTANT NOTIFICATIONS

- Allow minimum of 1 meter safety clearance between the loading doors and the turnstile.
- Do not permit pets to play under the turnstile arm.
- Protect your equipment with a proper electrical grounding.
- Do not allow unauthorized persons to perform maintenance and repair work on the equipment.
- For connection of external peripheral units, seek assistance of authorized technical service.
- Do not try to pass thru the turnstile before access approval is granted.
- Do not try to jump over or pass by the turnstile arm.
- Do not apply water (or other liquid) directly on the turnstile by using hose or similar tools.
- When access approval is granted, keep in mind that failure to enter before the preset execution time expires will cause system to cancel access permission.
- Comply with the operating manual, as well as warnings and instructions on the equipment.

PHYSICAL SPECIFICATIONS

Electrical Specifications

Standard electrical requirement of Full Height Turnstile is 200240 VAC. Sudden power surge drawn from the system by the turnstile is approximately 250 W. Standard dry contact outlets are available for access approval. Emergency dry contact outlet is also available for allowing unrestricted two-way access during emergency situations.

Dimensions

Tripod arm length of the turnstile is 65 cm. Refer to technical drawing and diagram pages for more detailed information about the outer dimensions of the turnstile.

System Specifications

Full Height Turnstile is designed to operate with a microprocessor control. Works two-ways. Allows only one access per permission. Standard TTL data output is provided in the direction of access. Digital entry-log output can be displayed on the display screen or sent directly to the PC of a PC-controlled system. In case of power outage, system automatically switches to the two-way free access mode. LED displays available on both directions clearly indicate access status and whether the turnstile is ready for access or not. Flashing “green arrow” in the direction of entry means turnstile is ready for entry. When access permission (via card reading, operator authorization etc) is granted, the “green arrow” permanently lights up. Entry must be completed within the limits of preset access execution time. Accompanying audio warning signal denotes that access permission is granted. Upon

completion of entry, turnstile returns to “ready” mode. If turnstile is programmed for two-way access capability, red “X” sign indicating blocked access is displayed in the opposite direction of entry. Upon completion of entry, flashing “green arrow” appears once again as indication of readiness for access. If turnstile is specifically designed for one-way entry, then the opposite direction continuously displays red “X” sign.

MECHANICAL PARTS

Mechanical unit which controls the arms, center focusing mechanism, pneumatic motion damper, electromagnetic brake and solenoids are located within the trunk.

Trunk

Trunk of the turnstile is made of 1.25 mm 304-quality stainless steel or sheet iron. If trunk is made of sheet iron, then it can be electro-statically painted according to the customer’s choice of color.

Base and Arms of Tripod

A tripod base and 65 cm-long cylindrical stainless aluminum arms are skillfully engineered for achieving high precision access control and entry permission. Base and arms of the tripod are specifically designed to provide easy access while only allowing single entry per authorization. Base of the tripod is mounted on the main shaft in order to revolve it with the tripod arms.

Motion Control Cogwheel / Center Focusing Mechanism

The motion control mechanism and locking cogwheel are located on the main shaft where the arms are also attached. The motion control mechanism and the locking cogwheel are controlled in both directions (clockwise and anticlockwise) by a ratchet. Ratchet blocks potential reverse rotation of the arm during forward revolving motion is in progress. As a result, safe and uninterrupted passage is achieved. The system which insures fluent and full rotation of the arms is called Center Focusing Mechanism. The Center Focusing Mechanism assures arms of the tripod stay always focused in the center even during slow/soft or fast/hard passages.

Solenoid Control

Locking and unlocking motions in both directions are provided by the solenoids. Guided by the electronic board, the solenoids manage ratchets by triggering lock and unlock motions before and after each entry.

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ELECTRONIC CONTROL

Main Control Card

By design, microcontroller based main control board is managed by 16F627 processor by Microchip. All decision and control processes are managed by the processor. Control of right and left ratchet solenoids is achieved by the main control card. Proximity sensors are used for detection of the end point of the rotational arm motion. Proximity sensors are also guided by the main control card. Incoming external dry contact information in both directions is also collected by the main control card for processing. Upon entry, two separate “access info” output is produced for each direction on TTL level. Feedback for access control displays and regulation in both directions are also realized via main control card. Access authorizations are initiated thru external dry contact.

Access Displays

Access displays are installed under protective plexiglass on both sides of the turnstile cover. Colored and transparent LEDs mounted on the electronic board makes up the displays. The preference of LEDs in displays is to provide easy detection of signs under all possible conditions. Illuminated three-level display governs access control and order of the system. If the turnstile is ready for entry, a green arrow flashes. Upon permission of entry, green arrow lights up permanently. While entry is in progress in one direction, red “X” sign indicating blocked entry appears on the opposite direction.

Time Setting

Once the turnstile is activated, entry must be completed before the preset access execution time expires. If preset time expires before entry, the turnstile will automatically lock itself and block access. Entry timer can be reset by adjusting the VR1 trimpot on the main card. By turning VR1 unit to the right with the help of a screwdriver will allow entry time to be compressed, to the left it will be prolonged. Adjustable entry timer can be set between 2 and 30 seconds. Standard entry time for Full Height Turnstiles is 10 seconds which is set during production.

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For any clarification please feel free to consult with us anytime you require in

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