

# Preparation and Installation guide for Mikvah Entry Access System

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## Hardware

A Mikvah access control system will usually be comprised of 3 hardware components:

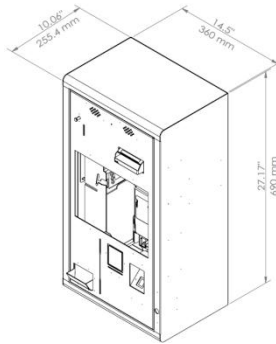
- A Turnstile
- The access control system
- A remote computer
- A quick lane (optional)

## Preparation for turnstile

The standard area necessary to install a single turnstile is 50" W x 110" D x 92" H. The client will need clearance for the turnstile where the floor is level for the entire width and depth of the turnstile and there is **no in floor heating in that area**. The clearance for the width is "tile to tile" – meaning that you need **at least 50" between the tile on one side and the tile on the other side**. The actual height of the turnstile is 86.8" – however, you need to have room to access the top channel in case the turnstile needs service and we therefore **recommend approximately 92" for the height**. The turnstile is installed after tiling. If you are installing a double turnstile, please refer to the drawings of the turnstile for dimensions.

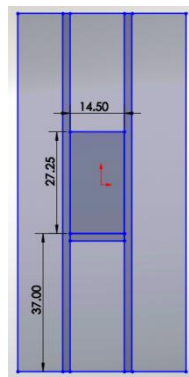
There are scenarios in which less room may be sufficient, but if the dimensions mentioned above are not available – please contact Mysoft systems to discuss available options and to ensure that the installation is plausible.

## Preparation for access control unit



The main system is a steel enclosure that houses the remainder of the electronics used by the system and also houses the money that is held in the system. The size of the enclosure is: **14.5\"W x 10\"D x 27.25\"H**. The unit is built to fit inside a frame in the wall, but may be mounted on a wall as well. We recommend that the unit should be installed approx. 36"-38" from the ground so that the average person will be at comfort using the system.

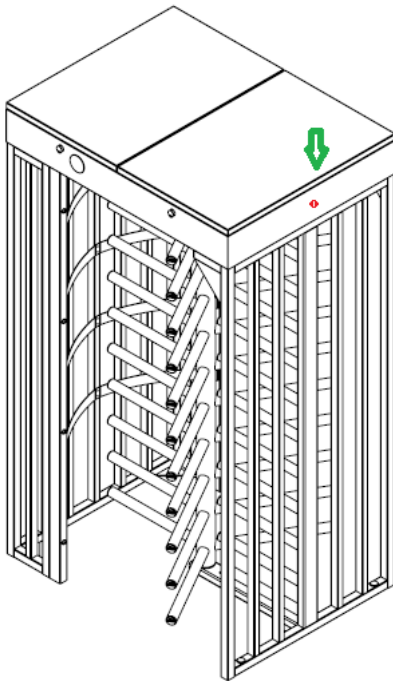
We recommend that the client builds a proper frame in the wall slightly larger than the size of the unit so that the unit can be properly seated in the wall. The bottom of the frame should be 37" from the floor (after tiling). It is recommended that the top of the frame should be a 3" higher than the access control unit so that when inserting the unit into the frame, you will have room to work with the wires if they are coming from the top. The tiles or sheetrock of the wall would come down until the unit however the top of the frame would be higher (as shown in the picture above). The structure/frame will need to be able to hold approx. 100lbs. (45Kg) of weight.



## Wiring for turnstile

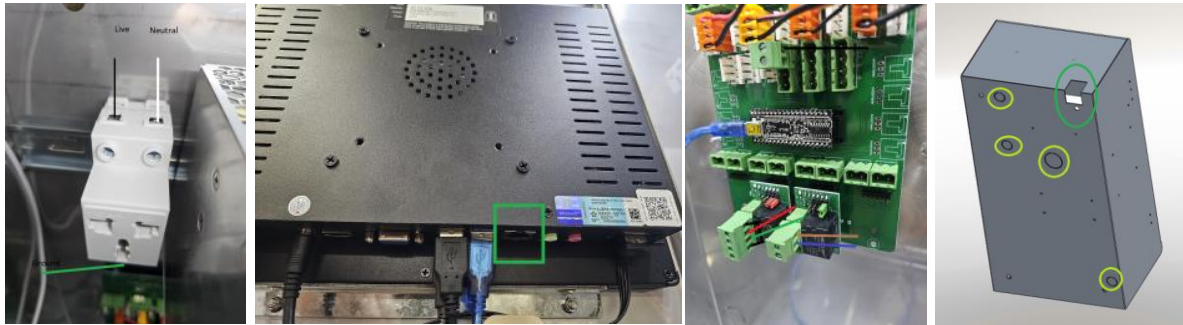
The turnstile will be receiving power from the access control unit, so as for the wiring; the turnstile will need an 18/6 (18 gauge 6 conductor wire) capable of handling 24vdc at 2A peak 500mA continuous. The system only uses 5 of these wires, and we keep a spare for redundancy. The side that gets connected to the turnstile should be coming out of the wall on either side of the turnstile at 83" from the floor or anywhere alongside the top channel.

If there will be space between the wall and the top of the turnstile, the client should prepare a conduit that will run from the turnstile into the wall, this will ensure that the wire is in a safe housing and the general public does not have access to tamper with the wires.



## Wiring for Access control unit

The system requires a 110-240 volt power line to power the access control unit and turnstile. 5 amps@120v (2.5@220) should be sufficient for the system, but we recommend using a separate 10-15 amp breaker for the system. **We also require that the power line at the unit is properly grounded.** The access control unit has a DIN rail mounted receptacle – so there is no need for an electrical box in the unit. You just need to connect the Live, neutral and ground wires into the receptacle. (Left Image)



An Ethernet cable (Cat6 or Cat5e) with internet access is required for credit card processing and remote support. This cable should be run from the access control unit to the buildings network. (2nd Image)

The 18/6 coming from the turnstile should be connected as shown in the 3<sup>rd</sup> picture.

The brown and blue wires to the 2 position connector in the right relay board with the green jumper pin. For the 4 position connector, there should be a wire connecting pin 1 to pin 4.

The red wire should be in position 2.

The green wire should be in position 3.

The black wire should be put into the top position of the 2 piece connector higher on the board.

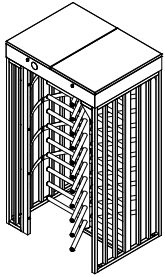
There are metal knockouts on the back of the unit (light green) which may be used to insert the wires into the access control unit. If you prefer not to use the knockouts on the back (in order not to lose available depth in the wall), we recommend having the wires come into the unit from the top left side of the enclosure. You would need to use a grinder to cut out the hole (dark green) so that the wires can be inserted from that location. Cutting the hole on the top and back of the unit will allow you to slide the machine into the cavity in the wall while leaving room to move the wires around.

Mysoft can make this cutout before delivering the machine – provided that the client notifies us where the wires will be coming into the machine.

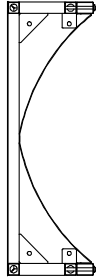
*Please take caution when cutting this hole to temporarily move any wires that are in that area so that they are not cut by mistake. You should also cover components in that area with plastic before making the cut so that metal shavings don't get into the electronic devices.*

## Installation of turnstile

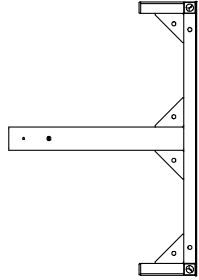
Complete Turnstile



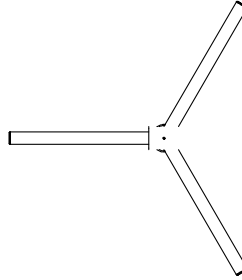
Passing Side



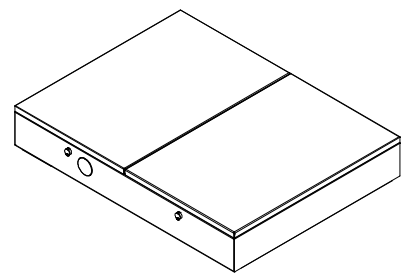
Blocking Side



Rotor



Top Channel



A turnstile is usually comprised of 4 parts:

1. Passing Side
2. Blocking Side
3. Rotor
4. Top Channel

The following steps should be taken to install the turnstile:

1. Place the "Passing side" at the location where you want the turnstile installed and move it up against the wall. Ensure that the top side is on top and the bottom side is at the bottom. You can identify the top by looking for the side that has holes for 4 screws. In the rectangular turnstile, you can look for an extra "notch" (see image below) and in the round turnstile you will see a "plate" that has 4 holes. The bottom side will not have this.

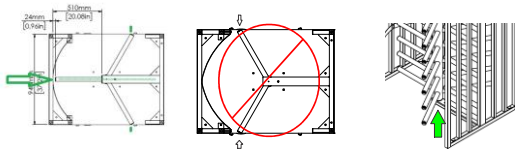


2. Place the "blocking side" at the opposite wall (the side where people will not be going through). Ensure that the bottom side is on the floor. The bottom side can be identified by looking for the side that has a piece with a knob in the middle protruding toward the center of the turnstile. The rotor will be placed upon this knob.



- The rotor also has a top and bottom. The top has a “Gear” and the bottom has a indent with ball bearings. Place the bottom side on the knob (from step 2). You will need to hold the rotor in the correct position before moving to step 4.

One set of arms need to be blocking the passing side mid way through the turnstile.



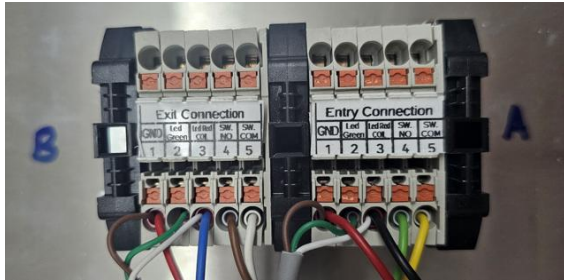
- Before placing the top channel on top, ensure that the passing indicator (a brown circle that has lights in it) is on the passing side. If it is positioned at the blocked side, you need to turn the top channel 180 degrees until the indicator is by the passing side. Once the indicator is in the correct position, place the top channel on top of the two sides - having the gear from the bottom side of the top channel fit into the gear of the rotor. If the arms are not positioned in the center as shown in the image above, lift the top channel until the gear disengages, adjust the rotor and lower the top channel into the gear. If the arm is off center by 1-2” this may be adjusted later, but the arm should generally be at the center of the passing side.
- Once the top channel is in place, put in the nuts and bolts to secure the top channel to the sides. At first, do not tighten the nuts and bolts. Once all nuts and bolts are inserted and the turnstile is in place, you can then check that everything is level and then tighten the nuts and bolts on top of the turnstile.
- Anchor the turnstile to the floor by drilling 3/8” holes 2”-3” deep and using either concrete anchors or bolts and epoxy – and then tightening the nut on top.

A properly installed rectangular turnstile should look like the image below (by default you would not have the red LED light glowing on top):



## Wire connections in turnstile

In the top channel there are 2 sets of connectors, 1 for side “A” and 1 for side “B” (they are not necessarily “entry” or “exit” as this depends if the turnstile is being installed as a “right handed” entry or “left handed” entry – in other words, if the passing side is on the right or on the left)



You need to identify if you are using side “A” or “B” – the letter that will be closer to you when you are standing at the entry side near the indicator light, is the side you need to use. Once you identify the side you need to use, you will connect your 5 wires only to that side.

Generally an 18/6 will have the following colors: Black, Red, Green, White, Brown or Yellow, Blue. If the colors in your 18/6 are different, you can substitute with the colors you have – but for demonstration purposes we will use the standard colors for connections so that it will be easier to diagnose if it should be necessary:

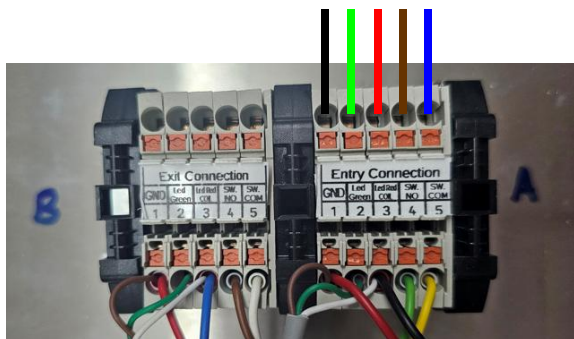
Black = GND

Green = Led Green

Red = Led Red/Coil

Brown = SW NO (micro switch normally open)

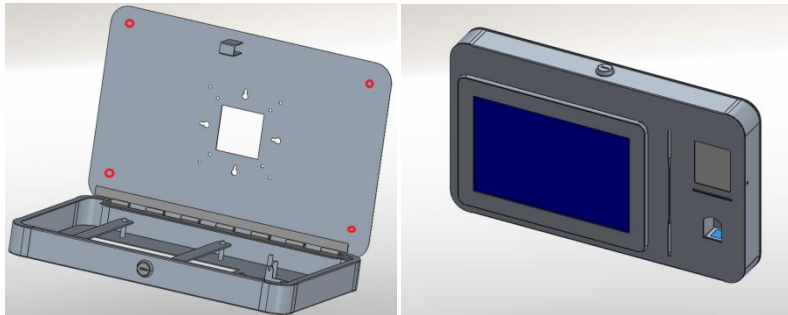
Blue = SW COM (micro switch common)



## Quick Lane (optional)

Optionally if the client would like to add the “Quick Lane” feature, you will need to run a network wire as well as a power receptacle in the wall to the place where the unit will be mounted. Alternatively for the power supply, you may run a 16/2 from the access control unit to the back of the quick lane and Mysoft can supply connectors so that the quick lane can get power directly from the access control unit.

The power and Ethernet needs to enter the unit from the square hole on the back on the unit. The unit is mounted to the wall via the predrilled holes on the back of the unit. It is recommended to use anchors for the screws in areas where you will not be drilling into a stud. For added security, you may optionally add more holes to the 4 corners of the back plate.



## Administration Computer

The Administration computer should be in an office where the administrator would be most comfortable changing settings and viewing reports. This is any Windows PC based computer that the client will provide – it may be a system that is used for other purposes as well. The purpose of this computer is to allow the administration to change settings and view reports for the system. We recommend an Intel i5 processor with minimum 4GB ram and a screen resolution of at least 1440x900.

A local network is required between the system and the Administration computer so that the administration computer can retrieve the data from the Main system unit. We therefore require a Cat5e or Cat6 cable between the Main system and the administration computer (through a router that will connect both). Optionally the computer may be connected to a wireless router, and the administration computer (or laptop) can connect to the router with a wireless connection - however the machine should use a wired connection.

## Initial Setup

Once the access control unit is powered up and connected to the internet, Mysoft will be able to remotely verify that the turnstile is connected correctly and that all components of the system are working and set up correctly.

Once the administration computer is connected to the same local network, you can download our remote support software by going to: [Http://mysoftsystems.com:8040](http://mysoftsystems.com:8040), click on “Build installer”, where it says “Use Machine Name”, click on the dropdown and choose “Use Specific Value”. To the right of the dropdown, enter the name of your Mikvah. Scroll down and click on “download”. Run the downloaded file.

Contact Mysoft and we will install the administration software on your administration computer, and we will also send a 20 minute training video that shows how to use the administration software. After the client watches the video, Mysoft will have an online session with the client to review the software and the settings.

If there are any questions or uncertainties at any point in the installation process, please do not hesitate to contact Mysoft systems at 914-372-9446 or by sending an email to support@mysoftsystems.com