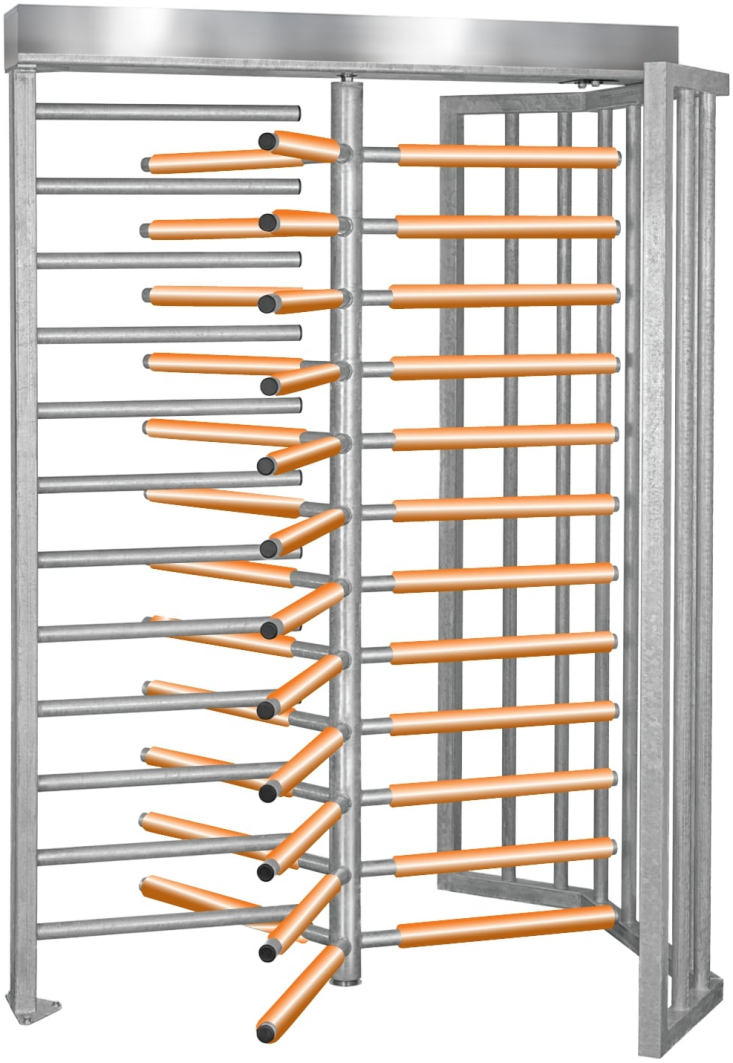
TURNSTILES.us HAYWARD TURNSTILES, INC.

JOINT VENTURE

SecureTurn HT431
Full Height Turnstile

Installation & Maintenance Manual



Important: Please save this manual after installation.

If installation is performed by an outside contractor, be sure to give this manual to the end user.

www.TURNSTILES.us | patrick.mcallister@TURNSTILES.us | 303-670-1099

IMPORTANT

Read and understand before beginning installation

These instructions are provided for your convenience. It is your responsibility to determine if you have the knowledge, skills and physical ability to properly perform an installation. Hayward Turnstiles, Inc. and www.TURNSTILES.us, Inc. shall have no liability for damage or injury resulting from the improper installation of our products. It is your responsibility to ensure that all products are installed in accordance with all local laws and regulations. Warranty does not cover installation. Our full warranty is attached to the end of this manual and can also be viewed online.

If you feel this installation is beyond the scope of your ability, please call us to obtain information about certified installers.

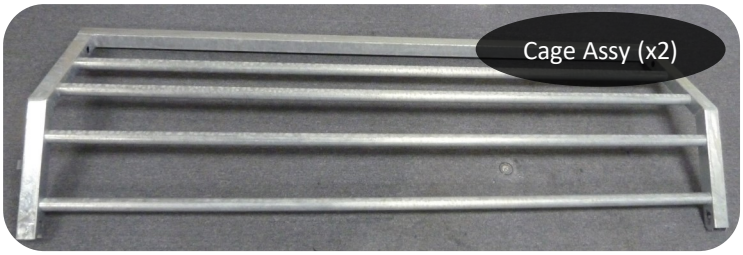
Every installation is different, be sure to mount your turnstile SECURELY to the floor! These instructions assume the turnstile will be mounted to a concrete floor. If you are installing on a different floor surface and are not sure how to go about it, please call us for recommendations.

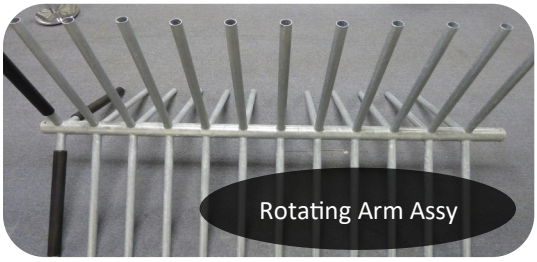
Questions?
TURNSTILES.us
303-670-10
Or visit:
www.TURNSTILES.us

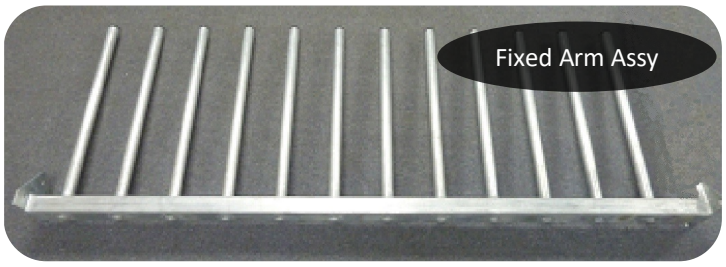
What's Included

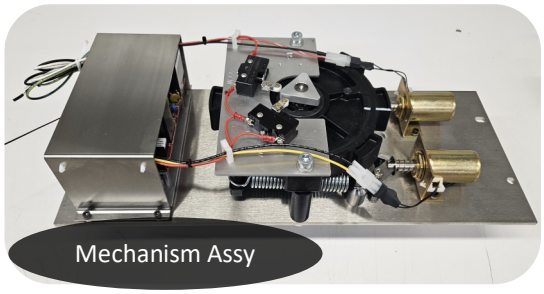
SecureTurn 431 Single includes:

(1) Top channel
(1) Top channel stainless steel cover
(2) Cage assemblies (1 left, 1 right)
(1) Rotating arm assembly
(1) Fixed arm assembly
(1) Pre-assembled turnstile mechanism (end user specified)
(48) Arm end caps (pre-installed)





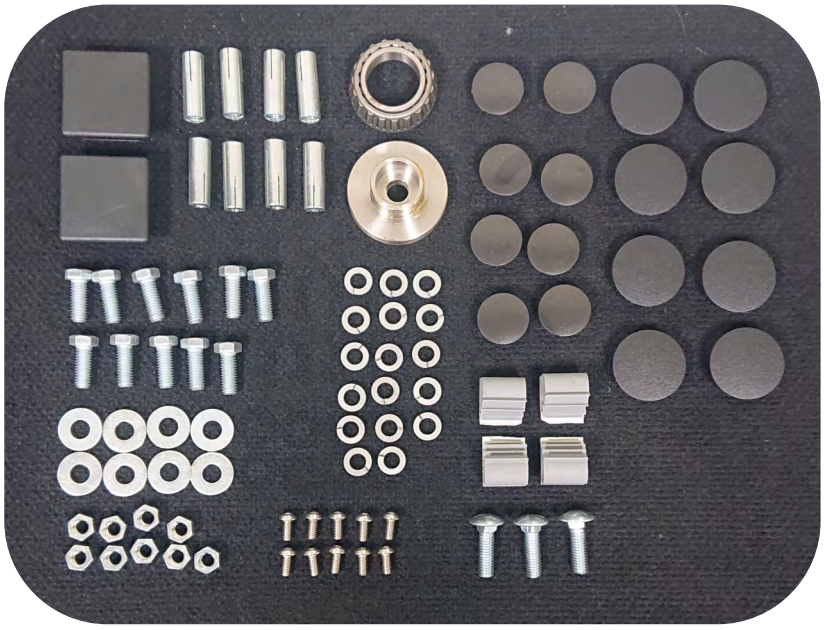




Options not pictured

SecureTurn HT431 Installation hardware kit:

(1) Floor bearing mount
(1) Floor bearing
(8) 1.500” concrete floor anchors
(11) 3/8-16 x 1.00” hex bolts
(3) 3/8-16 x 1.25” carriage bolts
(8) 3/8 flat washers
(17) 3/8 lock washers
(9) 3/8 hex nuts
(10) 1/4-20 x .50” Allen bolts
(8) black plastic hole plugs (small)
(8) black plastic hole plugs (large)
(2) black plastic square hole plugs
(4) stick on wire retaining clips (for electric units)



Tools needed for concrete floor installation:

Hammer drill
1/2” masonry drill bit
5/32” Allen wrench
9/16” deep socket
9/16” shallow socket
9/16” wrench
Philips screwdriver (for electric units)
Hammer
Rubber mallet

SAFETY NOTES

The turnstile components are somewhat heavy. The installation of this turnstile is a 2-person job. Be sure to follow safe lifting procedures. Also, during installation, some of the individual components may have sharp edges. Take care not to cut or pinch yourself. Once the unit is fully assembled, there will be no exposed edges. Common sense goes a long way. We have pre-assembled as much as possible before shipment.

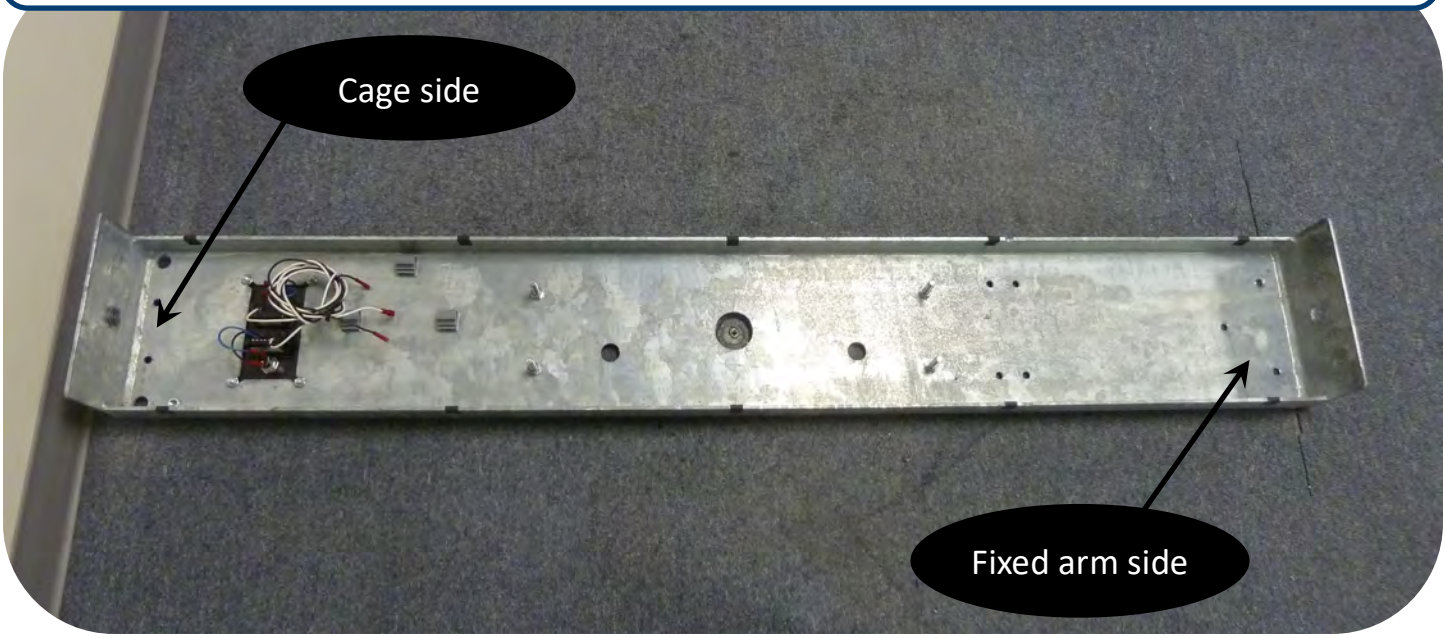
DO NOT CLIMB ON TURNSTILE!

This device is to be used for pedestrian traffic control only. It is not designed to support the weight of a person of any size. Misuse may cause serious injury and will void the manufacturers warranty.

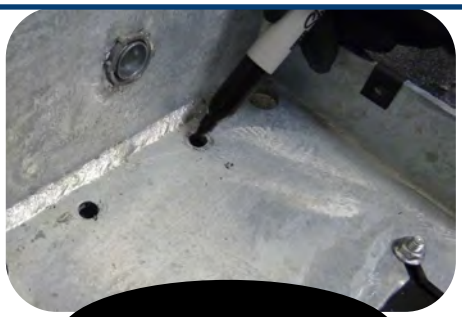
INSTALLATION INSTRUCTIONS
BE SURE TO COMPLETELY READ AND UNDERSTAND

A total of 8 holes will need to be drilled to mount the turnstile. A print with all the hole locations is included, but we have found it is much easier to locate the holes using the top channel and cage assemblies as templates.

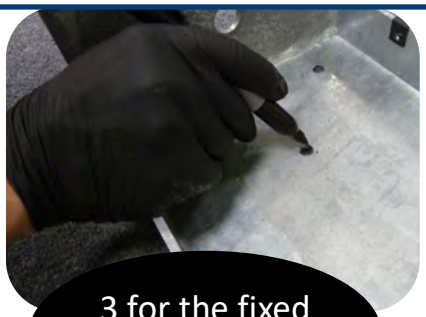
1. Carefully lay the top channel on the floor where the turnstile will be located. Be sure the orientation is correct.



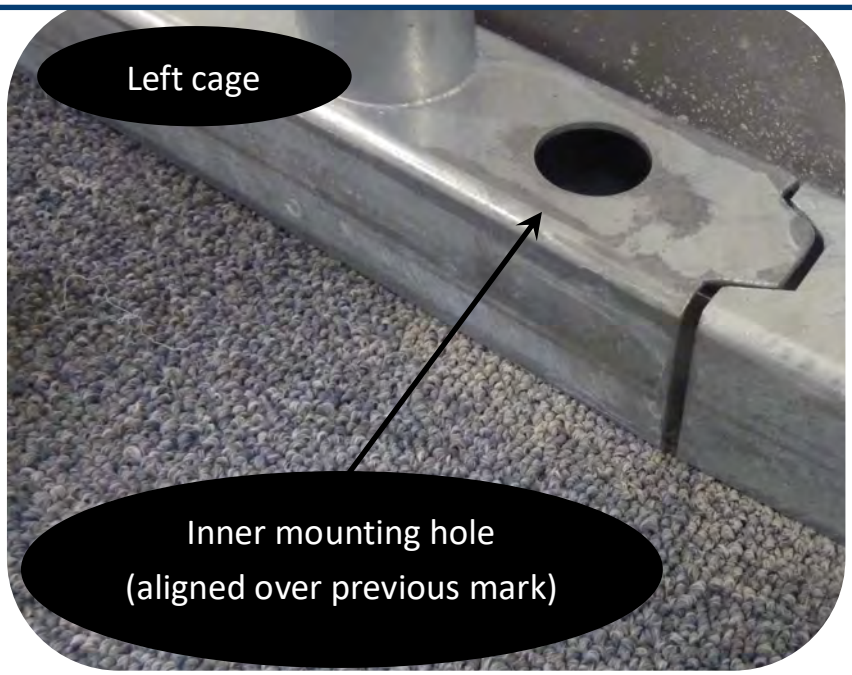
2. Mark the locations where the mounting holes will be drilled in the floor.


2 for the cages


1 for the center

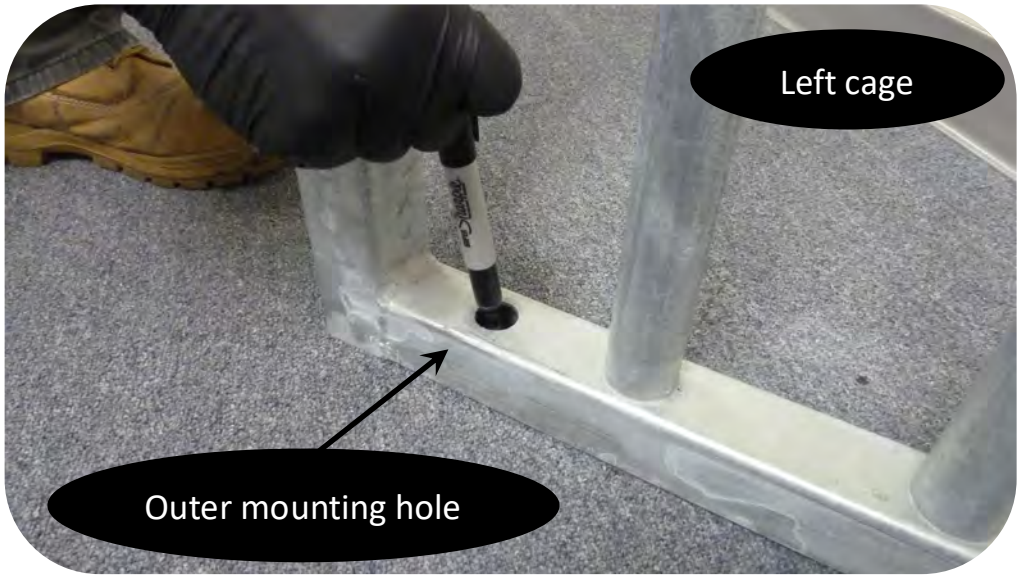

3 for the fixed arm support

3. The cages have 2 more holes that will need to be marked. Move the top channel out of the way. Stand up the left cage section and align the inner mounting hole over the mark you previously made .



4. Now mark the remaining outer cage hole.

(repeat the process for the right side cage)

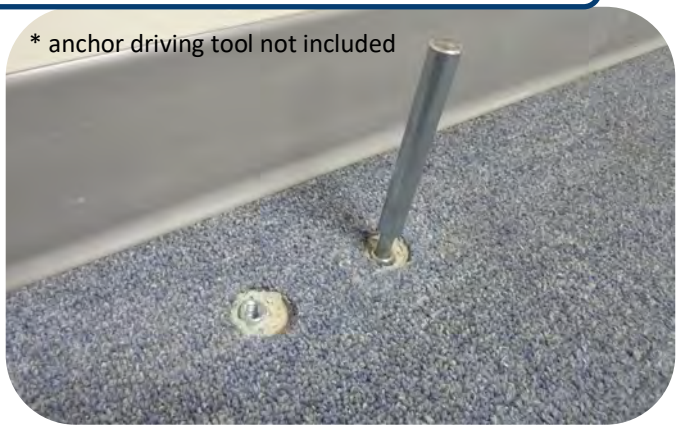


Again, every floor is different, so be sure to use proper mounting hardware for your application.

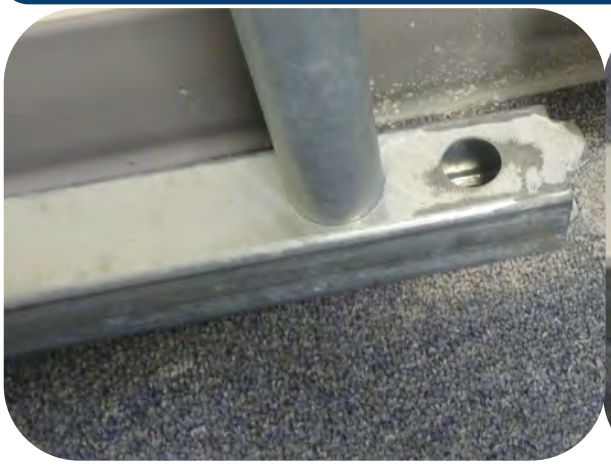
5. Now that all the hole locations are marked, drill all 8 of them out using a ½" masonry drill bit. Drill to a min depth of 1.500" and a max of 1.75". (We've found that 1.75" works well.)

It is very important to drill the holes precisely. Drilling holes in concrete can be difficult., sometimes the drill will "walk" away from where you start. Take your time and get this step right . You really only get one chance at it.

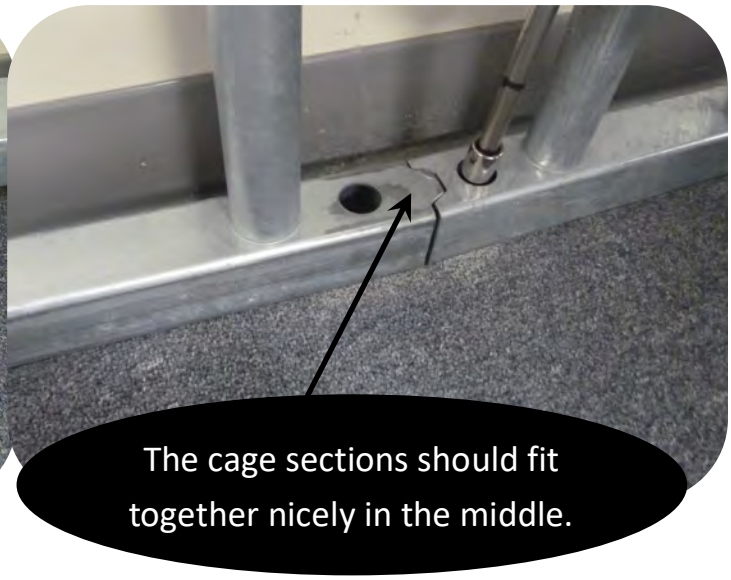
6. Once all the holes are drilled, drive the concrete anchors into the floor.



7. Lift the left cage section into place over it's respective holes and tighten down with 2 of the provided 3/8-16 x 1.0 hex bolts, flat washers & lock washers.



8. Repeat the process for the right cage section.



Remember, the cage sections are not secured at the top yet! Take care not to bump them or you may distort the metal around the floor mounting holes. Once the turnstile is completed, the cages will be secure.

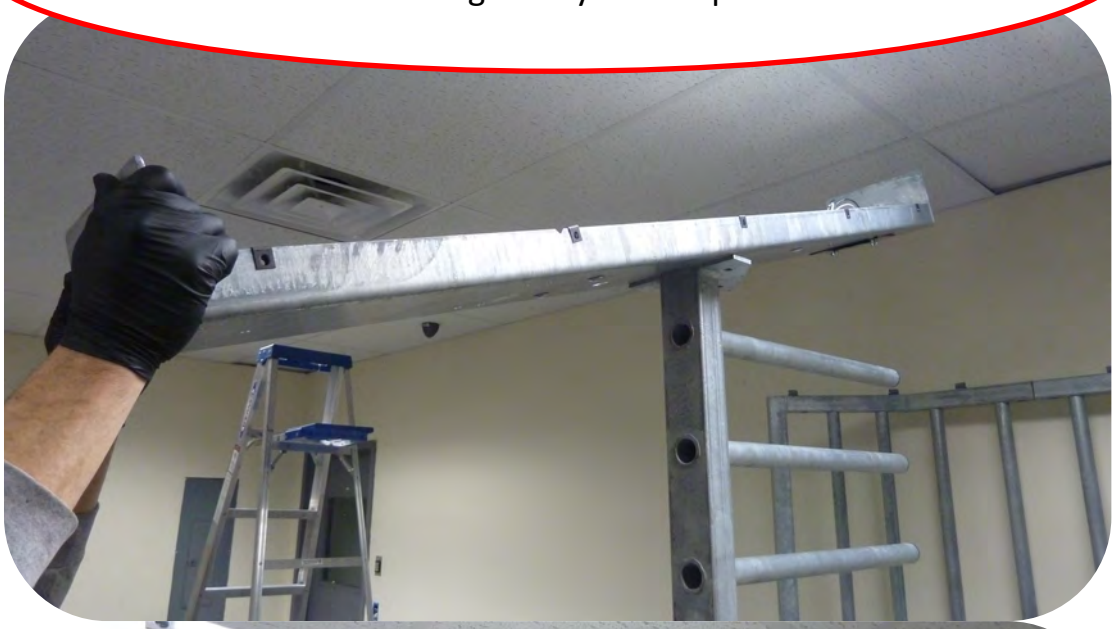
9. Install the fixed arm support using 3, 3/8-16 x 1.0 hex bolts, flat washers & lock washers

Same as the cages, the fixed arm support in not secured at the top yet! Take care not to bump it. Once the turnstile is completed, everything will be secure.

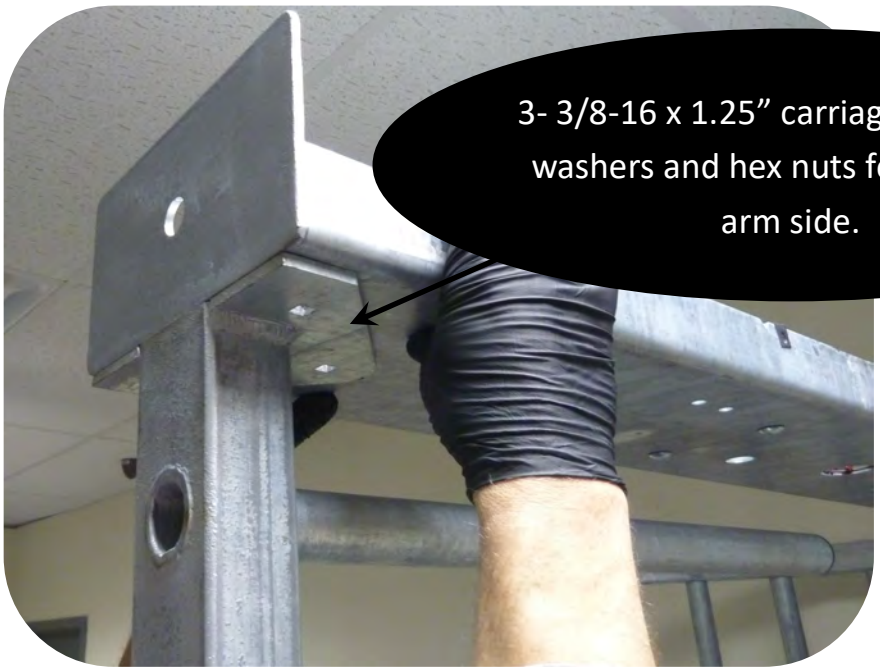
10. Install the center bearing floor mount with the provided 3/8-16 x 1.0 hex bolt & lock washer.

11. With 2 people, lift the top channel onto the cages and the fixed arm support .

BE CAREFUL, the top channel is heavy and awkward.
The edges may be sharp!



12. Align all the holes and bolt the top channel down securely using the provided hardware .



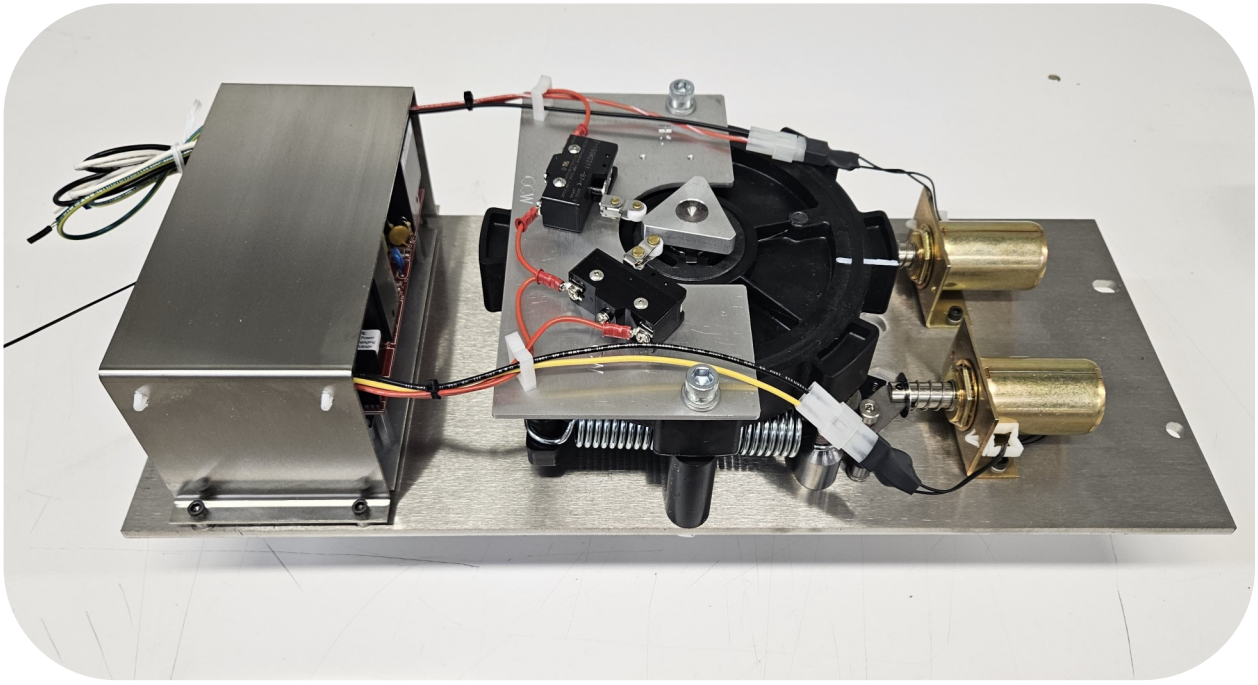
hint: a shallow 9/16” socket makes the cage bolts much easier to install

13. Install the floor bearing, be sure to grease it!

14. With 2 people, lift the rotating arm assembly up and place it on the bearing.

DON'T LET GO YET!

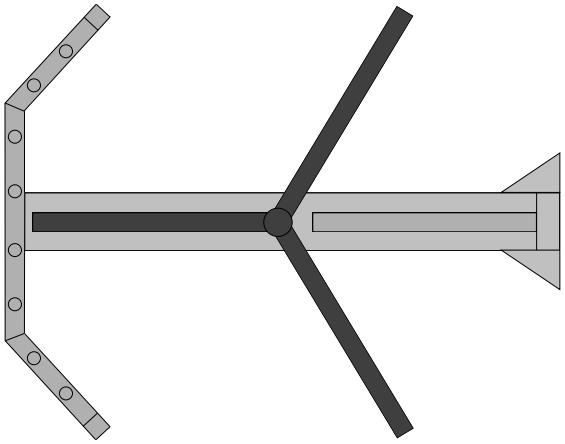
The mechanism assembly is heavy, be careful not to pinch your fingers while installing.



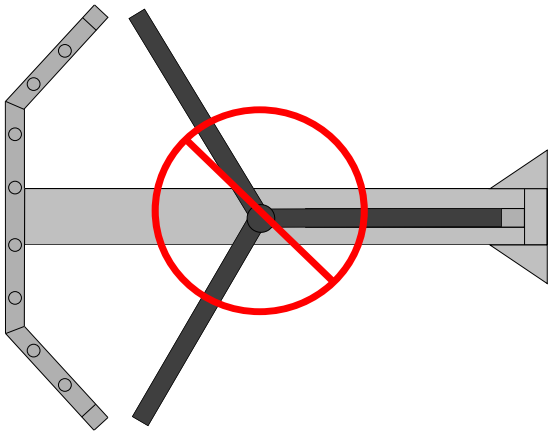
*electric 2-way mechanism

A ladder is required for the next step, no pun intended. ☺

CORRECT ARM POSITIONING

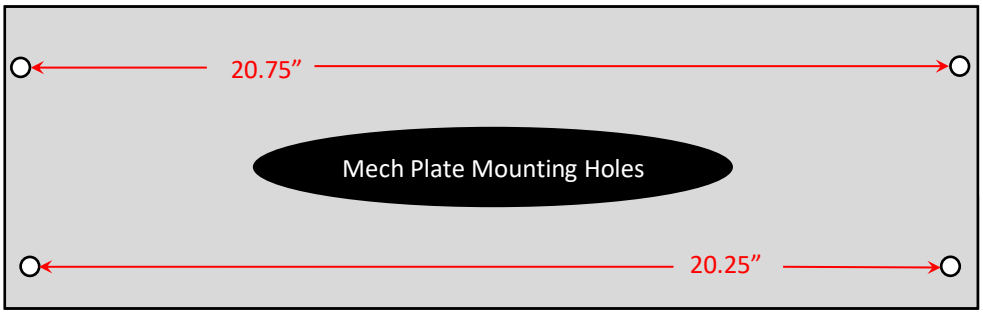


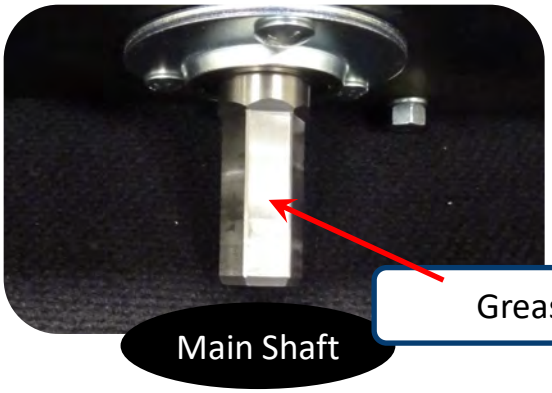
INCORRECT ARM POSITIONING



15. Align 1 section of arms on the rotating arm assembly so they point towards the center of the cage section. While one person holds the arms in place, another person can lift the mechanism up into the top channel.

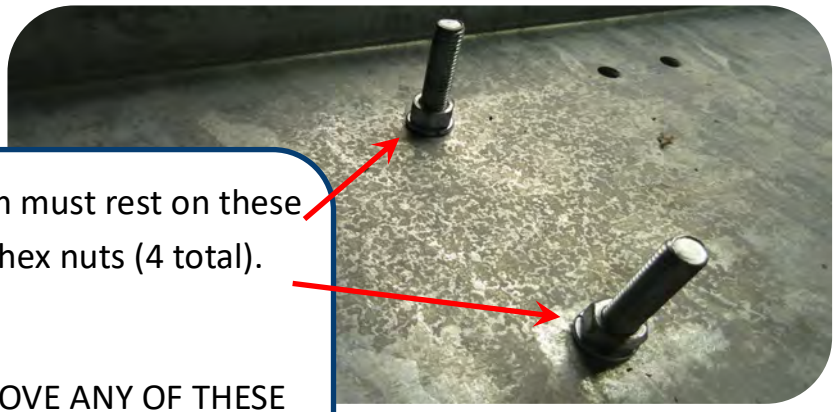
The mechanism assembly can only go in ONE way. Be sure you have it oriented correctly before starting to insert the main shaft into the rotating arms.





Grease

There is a tight tolerance between the main shaft and the hex in the rotating arms. It is a good idea to put a light coating of grease on the main shaft. You may have to wiggle the mechanism assembly to get it to fully seat in the rotating arms.



The mechanism must rest on these preinstalled hex nuts (4 total).

DO NOT REMOVE ANY OF THESE HEX NUTS.

16. Once the mechanism assembly has “dropped” into place, tighten it down with supplied 3/8 lock washers and hex nuts.

Be sure to tighten the mech down good.

17. You can let go of the rotating arms now. The turnstile can now be rotated safely. First, move the ladder out of the way, then spin the turnstile in both directions a couple of times to make sure there is no binding or any interference.

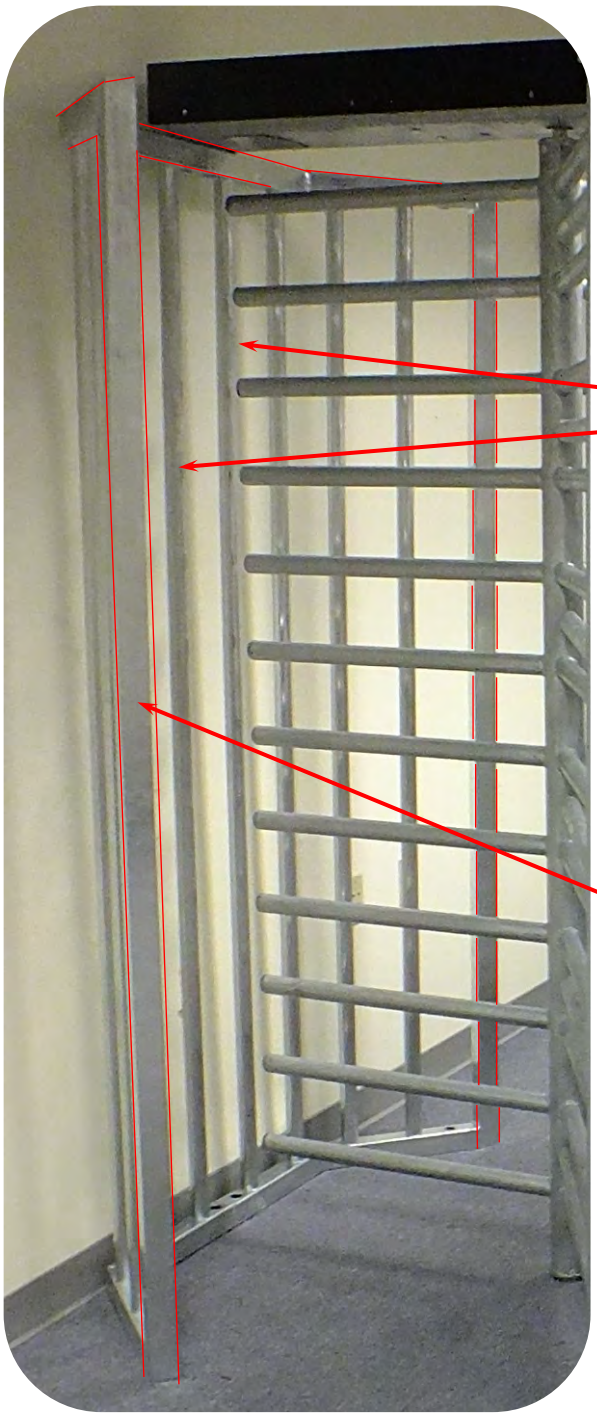
If your unit is manual (no electronics), proceed to step 20

Electric units continue on next page

POTENTIAL ELECTRICAL HAZARD

Be sure the power circuit is OFF while routing and connecting all wiring!

Every installation is different and there is no “required” way to route your wiring. Use common sense and make sure no wiring interferes with any moving parts or sharp edges.

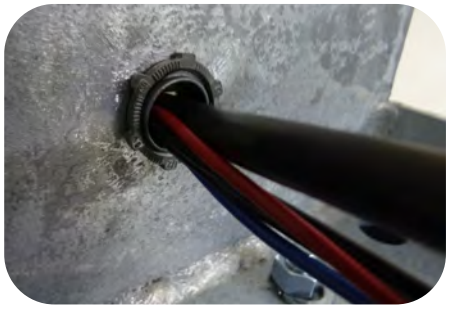


18. If your unit is electric, run all the power and integration wiring up to, and through the top channel.

Do not run low voltage and high voltage in the same conduit. Be sure to bond the turnstile according to local code. The HT431 was designed to accommodate many different wiring configurations. Wiring can be run from the floor up through any of the cage section uprights and into the top channel. A print with the conduit hole locations is on the next page.

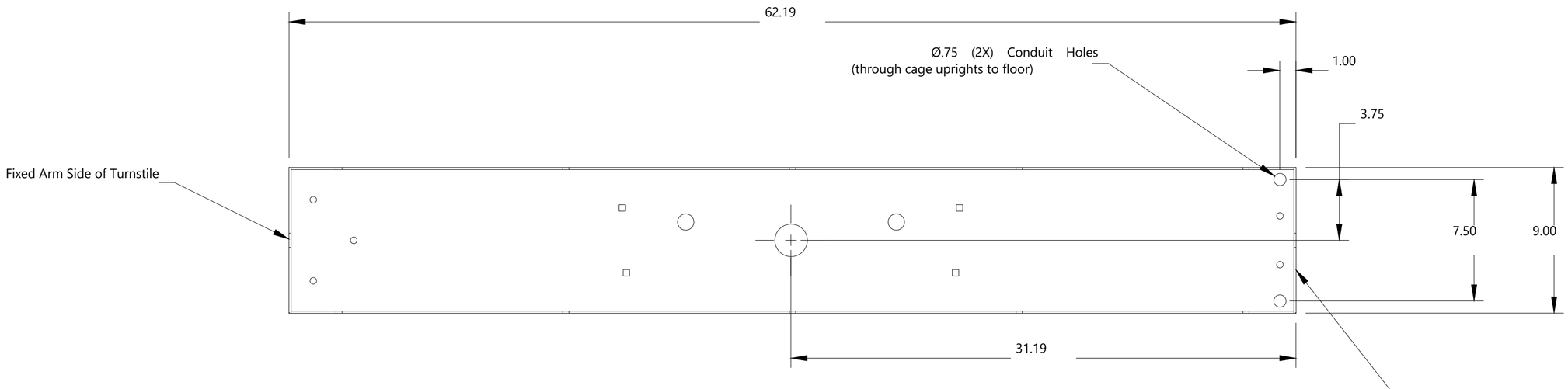
Reader plates mount to the outside square tube of the cage. Wiring can be run through the upper square tubing.

Alternately, wiring can be run from a wall directly into either end of the top channel.



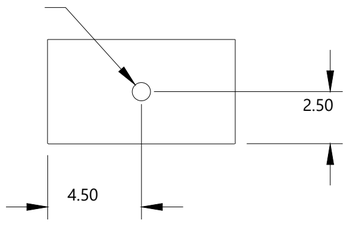
FIRST DRAWN	BY
07-16-24	THJV
REVISED	BY

WIRING NOTES: Do not run low voltage and high voltage in the same conduit. Be sure to bond the turnstile according to local code. Every installation is different so the HT431 was designed to accommodate many different wiring configurations. Wiring can be run from the floor up through any of the cage section uprights and into the top channel. Additionally, wiring can be run from a wall directly into the top channel at either end.



Optional Side Conduit Holes

(each end of channel) Ø.88



Unless otherwise specified, all dimensions are in inches.

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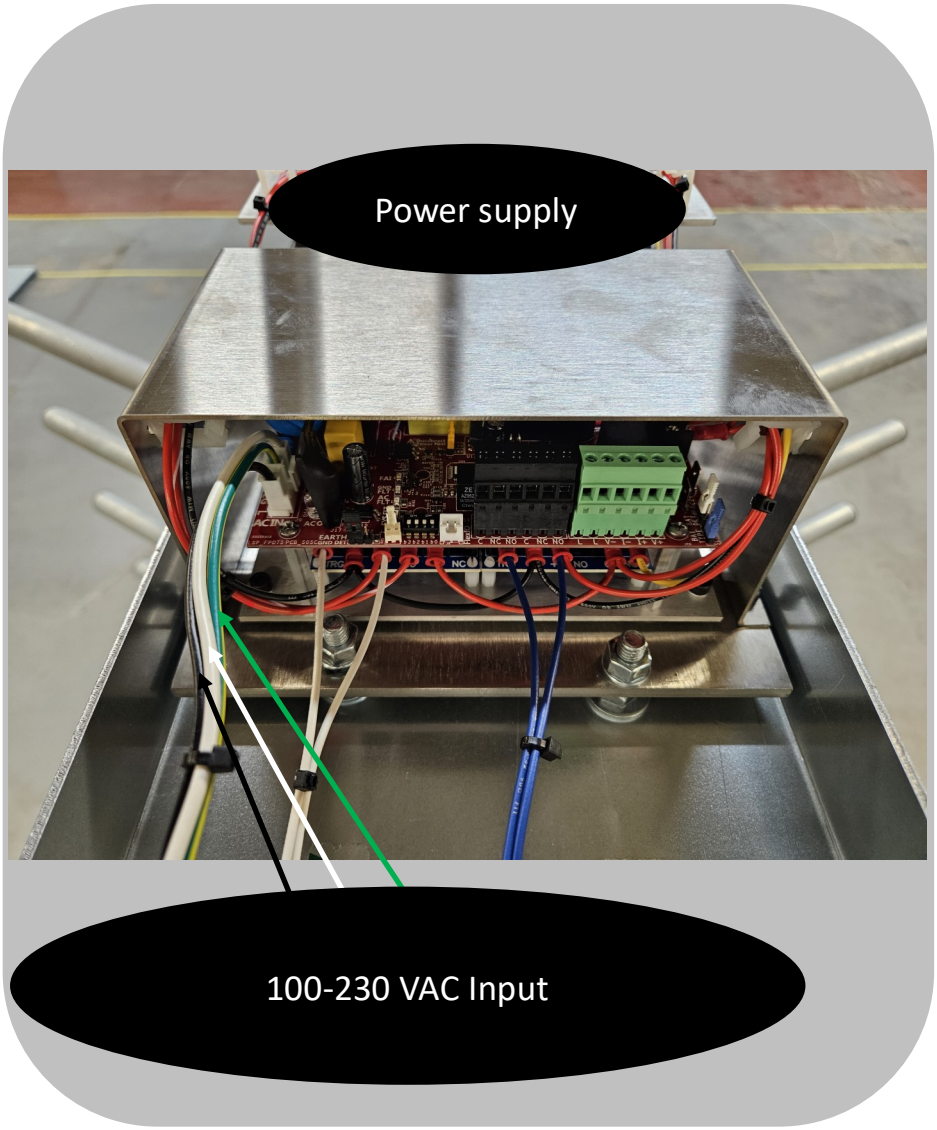
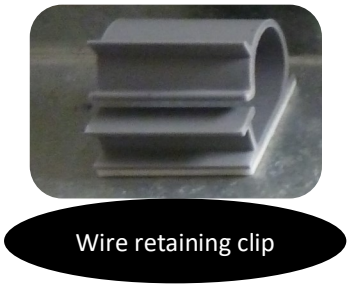
Equipment Location Detail
HT431 Series Single Turrnstile - Conduit Location Detail - Mounting Hole Dimensions
DRAWING:
HT431 Series Single Turrnstile - Conduit Hole Detail - Dimensions
DATE: 07-16-24
PAGE: 1 OF 1

POTENTIAL ELECTRICAL HAZARD

Be sure the power circuit is OFF while routing and connecting all wiring!

Connect 100-230 VAC to the supplied DC power supply mounted to the mechanism plate. We have included some stick-on wire retaining clips to help secure your wiring.

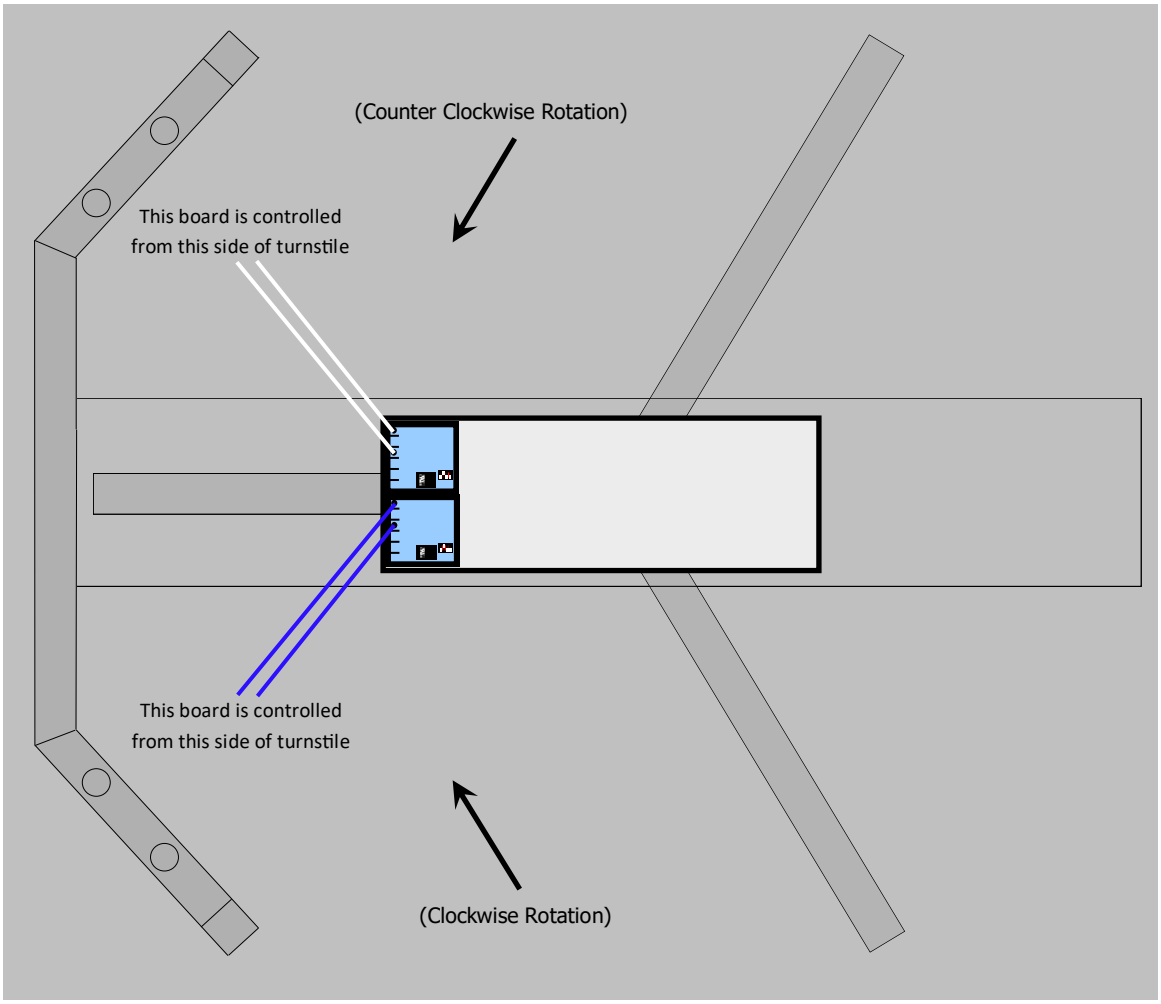




Access Control Connections

Our turnstile is designed to operate with a dry contact relay closure of no more than one second. Depending on the requested configuration, the turnstile is supplied with 2 blue wires that control the clockwise rotation and/or 2 white wires that control the counter-clockwise rotation (see diagram below). These are the wires that connect to the access control relay(s) (not supplied). Each turnstile has its own 24VDC power supply, so it is very important that the access control signal is "dry".

Any stray voltage will overload our turnstile control board.



Again, Our turnstile requires a momentary "unlock signal" of no more than 1 second. Once it receives the signal, the turnstile unlocks. When a person goes through the turnstile, a rotation switch is triggered, and everything is reset and relocked. If that "unlock signal" is too long , the rotation switch cannot reset the unit because it is still being told to unlock.

Our units also have what is called an "inactivity timer". This timer is used in the event that someone swipes a card but doesn't walk through the turnstile. It will relock the unit after a fixed time. This timer is started when the turnstile receives an unlock signal. When the turnstile is rotated, this timer is automatically reset by the rotation switch. This timer is NOT adjustable. Any attempts to change this will cause the turnstile to behave erratically.

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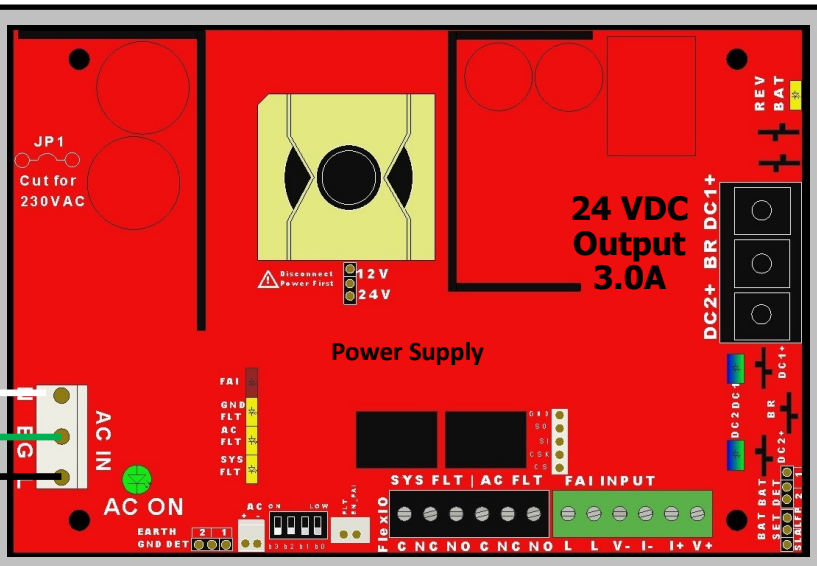
Full Height Turnstile Electrical Connections

****
This diagram is meant as a guideline. All installations are different and should be performed by a qualified electrician.
Hayward Turnstiles, Inc. does not assume responsibility and disclaims liability for damage, loss or expense arising from improper use, operation or installation of this product.



120-230 VAC Input 1.6A 50/60Hz

WARNING
ELECTRIC SHOCK HAZARD.
This equipment is to be serviced by trained personnel only.

Turnstile Control Board (counter-clockwise)

This board is controlled from this side of turnstile

TRG - + NO C NC

Turnstile Control Board (clockwise)

This board is controlled from this side of turnstile

TRG - + NO C NC

Dry Contacts

Dry Contacts

Important integration note:
This must be a momentary contact (1 second maximum)

Customer supplied access control unit
(i.e. computer, card reader, etc.)

CAGE SIDE OF TURNSTILE

19. Once all the connections are made, turn the power on and verify the power supply is energized.

Test the access control “triggers” to make sure the turnstile unlocks when it receives a signal.

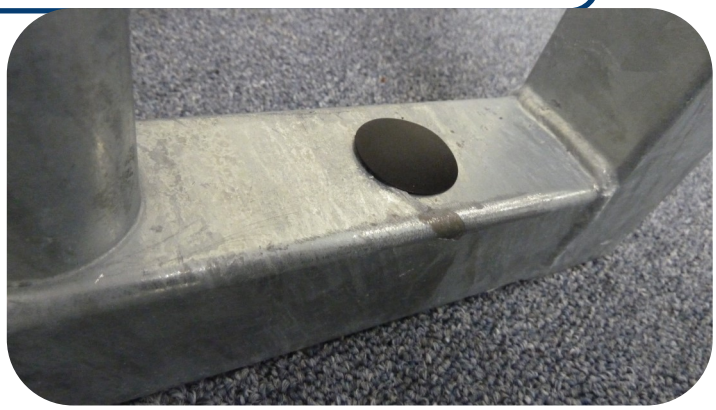
(if your unit has canopies, refer to the next page before you put the top cover on)

20. Install the top cover with the provided ¼-20 bolts Allen bolts. (10 total)

Make sure you didn’t leave any tools in the top channel!

21. Using the supplied black plastic plugs, plug all exposed holes.

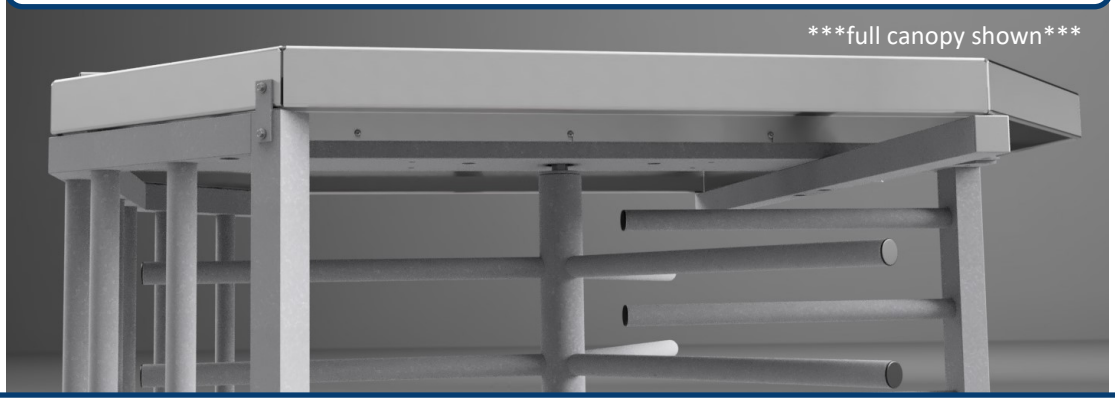
(Don’t want any fingers getting stuck ☺)



22. Clean up the area and test the operation a few times to make sure everything is functioning as it should.

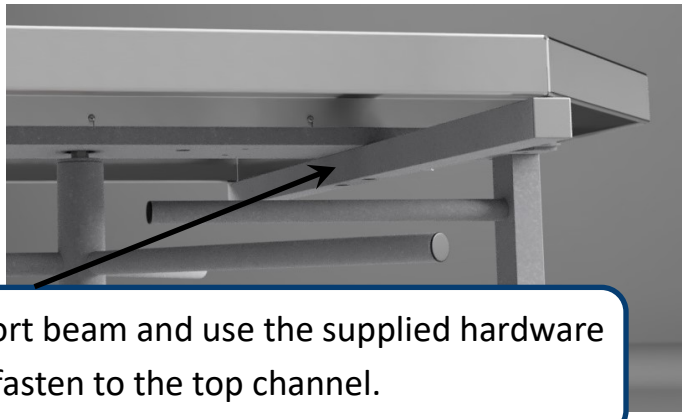
You’re Done!

OPTIONAL CANOPY INSTALLATION



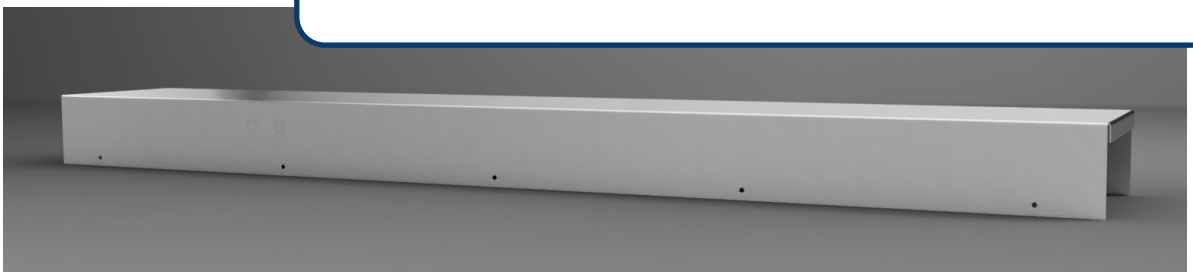
Each canopy mounts using the existing overhead lid fasteners. Full canopies use all the top cover screws & half canopies will only use 3 screws on each side.

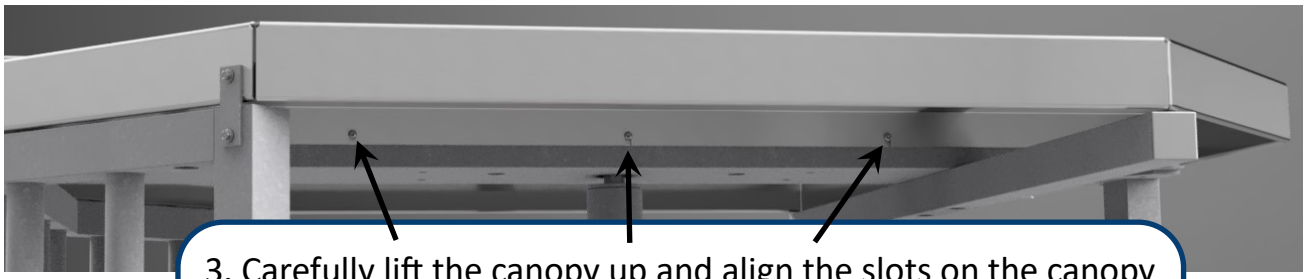
Full canopies will also use a support beam that is partially installed at the factory. Half canopies do not need a support, skip to step 2 below.



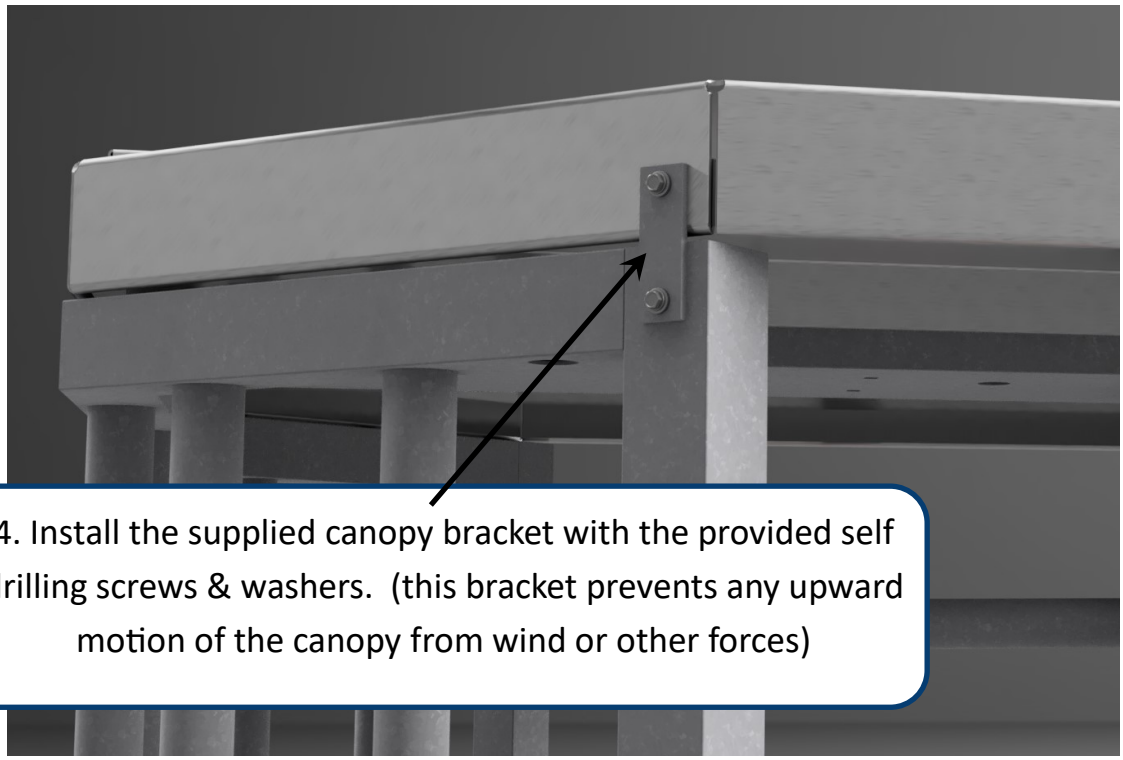
1. Rotate the canopy support beam and use the supplied hardware to securely fasten to the top channel.

2. Install the turnstile top cover with the provided ¼-20 Allen screws, but don't tighten them all the way.





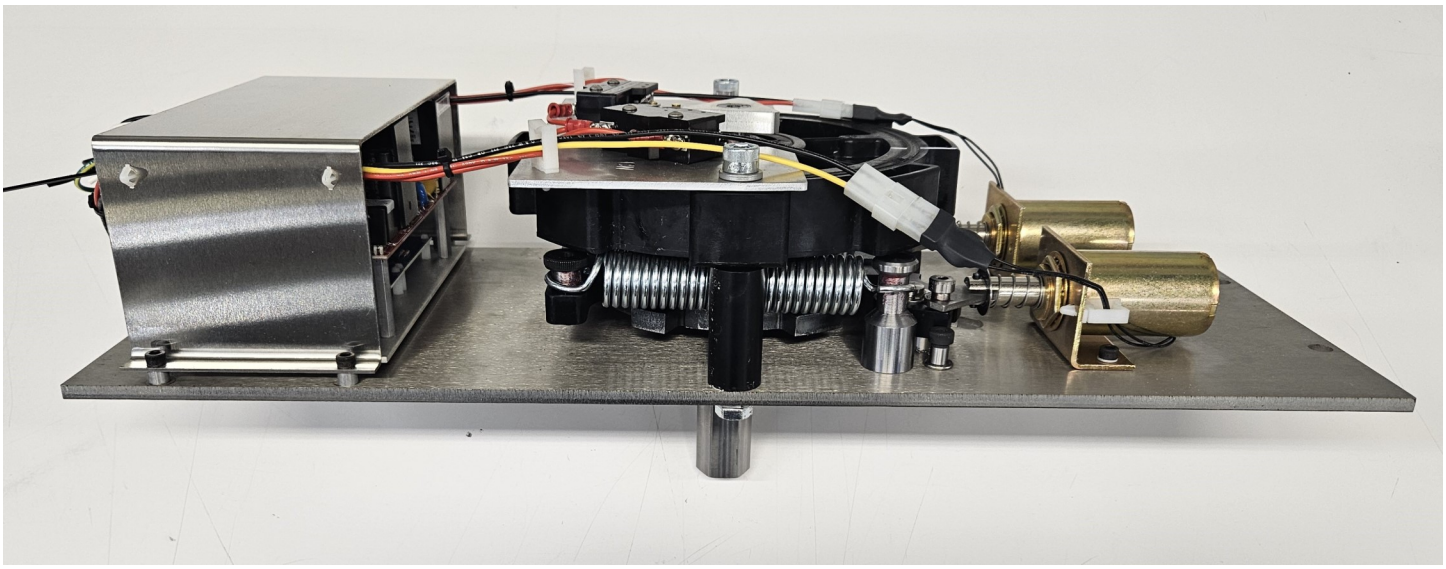
3. Carefully lift the canopy up and align the slots on the canopy with the top cover screws. The canopy will rest on the cage section and the support beam. Once the canopy is in position, all the screws can be tightened.



4. Install the supplied canopy bracket with the provided self drilling screws & washers. (this bracket prevents any upward motion of the canopy from wind or other forces)

Be sure to plug any exposed holes with the supplied plastic plugs. Clean up the area and test the operation a few times to make sure everything is functioning as it should.

Maintenance



The Hayward mechanism was designed to be virtually maintenance free; however we do recommend simple periodic preventative maintenance.

Mechanism service:

- **Remove the top cover.**
- **Remove any debris, compressed air works well.**
- **Inspect main spring for any wear or damage.**
- **Inspect all pivot points for excessive wear.**
- **Make sure all pivots, nuts, and bolts are properly secured.**
- **If necessary, grease outer diameter surface of the main cog.**
- **If necessary, grease all 3 cog bearings.**
- **ON ELECTRIC MODELS, DO NOT LUBRICATE SOLENOID!!**

If turnstile is electric:

- **Make sure all wiring is secure and there are no signs of damage.**
- **Make sure switches are properly fastened.**
- **Check switches for damage.**

***models may vary**

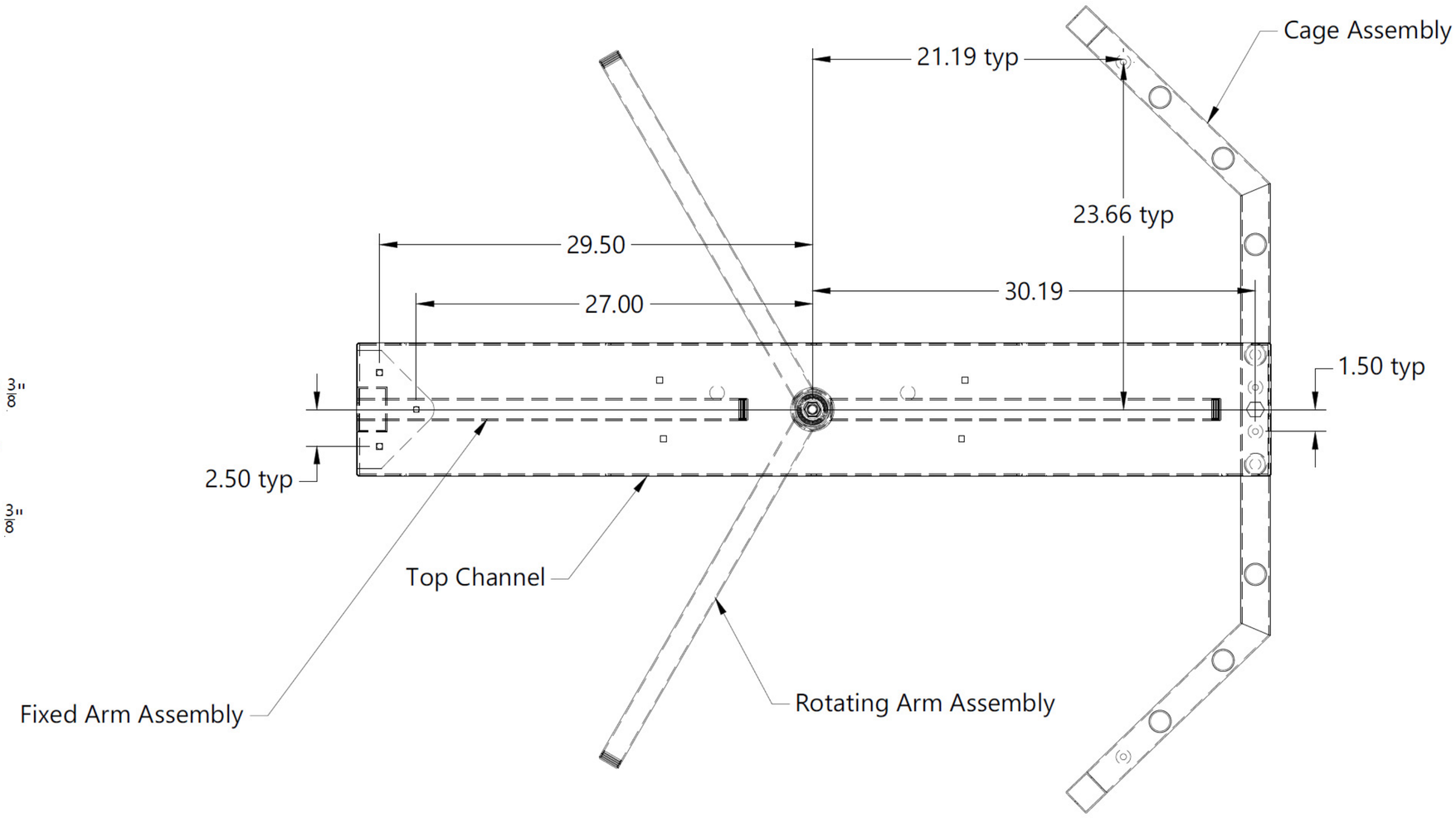
Questions?
TURNSTILES.us
303-670-1099
Or visit:
www.TURNSTILES.us

Thank you and remember to save this manual for future reference.

All measurements are referenced from the center of the rotating arm assembly.

A total of 8 holes need to be drilled in the floor to mount the turnstile (3 for the fixed arm assembly, 1 for the rotating arm bearing & 4 for the cage assembly).

Hint: you can lay the top channel on the ground where you want the turnstile (be sure the orientation is correct). Use a magic marker to trace 6 of the 8 hole locations. The last 2 can either be measured or each cage can be used as a template.



Overall Length 62 3/8"

Overall Width 55"

Overall Height 89 3/8"

FIRST DRAWN	BY
07-16-24	THJV
REVISED	BY

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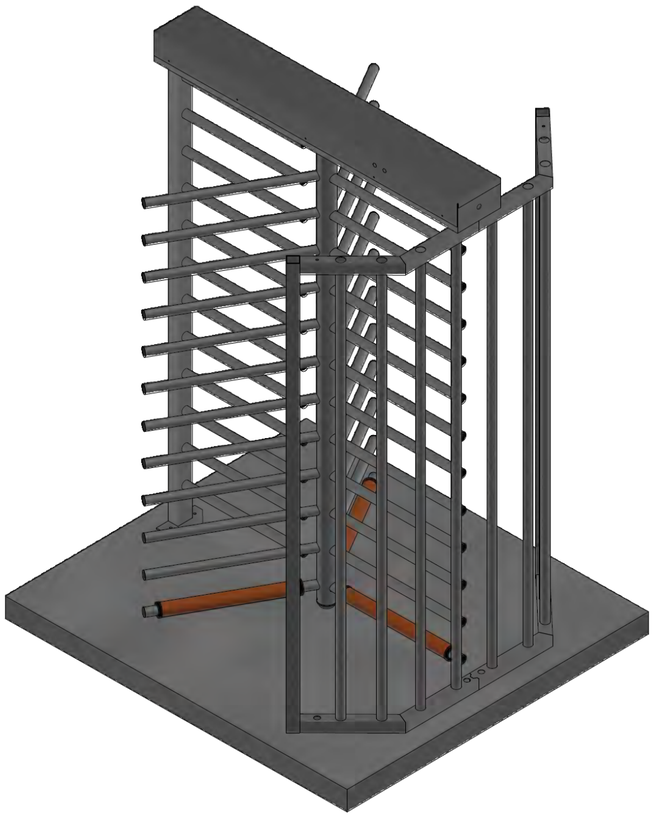
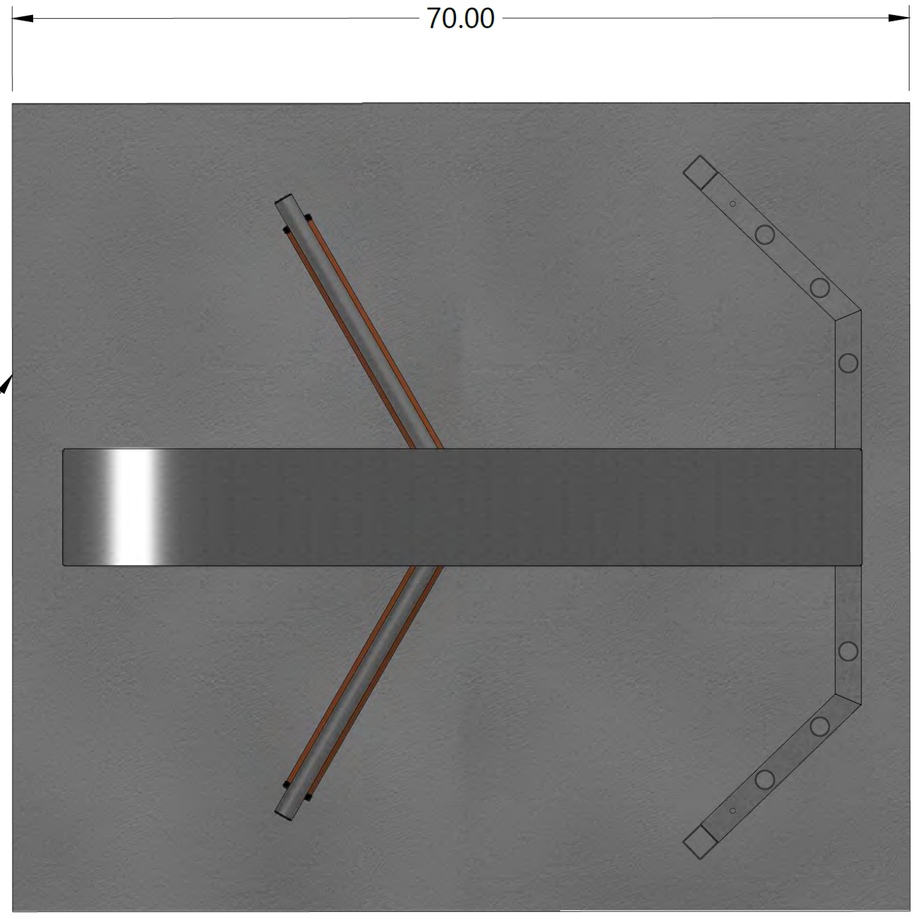
HAYWARD TURNSTILES, INC.

JOINT VENTURE

Equipment Location Detail
HT431 Series Single Turnstile Mounting Hole Locations
DRAWING:
HT431 Series Single Turnstile Mounting Hole Locations
DATE: 07-16-24
PAGE: 1 OF 1

FIRST DRAWN	BY
07-16-24	THJV
REVISED	BY





4.0 min thick
concrete pad

Concrete pad must be level

TURNSTILES.us

HAYWARD TURNSTILES, INC.

JOINT VENTURE

Equipment Location Detail
HT431 Series Single Turnstile Concrete Pad
DRAWING:
HT431 Series Single Turnstile Concrete Pad
DATE: 07-16-24
PAGE: 1 OF 1

TURNSTILES.us HAYWARD TURNSTILES, INC.

JOINT VENTURE

LIMITED WARRANTY

Hayward Turnstiles, Inc. warrants its products to be free of defects in material and workmanship for a period of (1) year from the date of shipment. This warranty applies only to the original product which was shipped to the original customer. Any damaged sustained to the product during shipping shall not be covered under this warranty. All orders must be inspected, in their entirety, for visible and concealed shipping damage within (5) business days of receipt. Hayward Turnstiles, Inc. is not responsible for shipping damage after this time. Hayward Turnstiles, Inc. must be notified immediately upon discovery of damage. Unreported damage may also void the manufacturer warranty.

Hayward Turnstiles has no control over the installation, attachment and/or the connections made to electrical and electronic part(s) within the turnstile, therefore no warranty or implied warranty on electrical part(s) or components shall be deemed as part of the original warranty herein. This warranty does not cover the repair or replacement of any part(s) or materials which are damaged or altered due to customer misuse or abuse. Alterations, additions, or modifications to the mechanical components, electrical systems, or cabinet will, void the warranty.

The purchaser shall contact the Customer Service and request a Return Authorization Number prior to the return of any items, as the company may waive the requirement of return.

Hayward Turnstiles, Inc. will repair or replace, at its option, part(s) covered under warranty that have been preauthorized and returned to our factory at 39 N. Plains Industrial Rd, Wallingford, CT 06492. Hayward Turnstiles will inspect the returned product and reserves the right to determine whether a defect exists for which it is responsible under this warranty. If part is determined to be defective or faulty due to our workmanship or material, it will be repaired, or at our option, replaced at no cost for such part. The purchaser shall bear the cost of returning the part(s) to the factory and/or any labor cost incurred for removal and/or installation. Subsequent warrants to replaced or repaired part(s) shall extend no longer than ninety (90) days after such replacement or repair.

This warranty does not cover labor costs to install or reinstall the replaced part(s) or other costs or expenses that might be incurred as a result of such defective part(s). Nor does it cover loss of time, inconvenience, loss of use, incidental or consequential damages arising from defective parts, or delays of construction costs for late or damaged delivery, or other matters not specifically included.

Implied Warranties:

There are no implied warranties, including warranties of merchantability and fitness for a particular purpose. There are no other warranties or responsibilities, expressed or implied, due to the wide variety of conditions for which the product may be purchased, installed, or used. No individual, integrator, or contractor is sanctioned to create any liabilities or obligations on the part of Hayward Turnstiles, Inc. not mentioned herein or implied or imposed by law. To the extent permitted by law, and subject to the specification warranty, this warranty is exclusive, in lieu of and excludes all other warranties, expressed or implied, including merchantability and fitness for a particular purpose. To the extent permitted by law, Hayward Turnstiles, Inc. liability is limited solely and exclusively to repair or replacement as set forth herein and does not include any liability whatsoever for any incidental or other damages of any kind whatsoever, whether a claim is based upon a theory of contract, negligence or tort.

Governing Law:

The Hayward Turnstiles one (1) year limited warranty shall be governed by the laws of the State of Connecticut. Any claim or conflict arising out of this warranty or the purchase of goods from Hayward Turnstiles, Inc. shall be submitted for settlement to the American Arbitration Association. Failure to submit any claim or conflict arising out of this warranty to arbitration, shall be a complete defense to the institution or further prosecution of any other legal proceeding.