# GENERAL INSTRUCTIONS FOR ASSEMBLY AND SETTING-UP OF www.TURNSTILES.us THT-100TC or THT-100TCP - FULL SECURITY 7 FOOT HIGH TURNSTILE

#### 1. **Assembly of Rotors**:

Attach lower flange with round pin to the rotor section. Arm is 1-3/4" from the bottom for right side assembly and 5" from bottom for left side assembly. Attach upper flanges with square bushing, to the other side of rotors, and fasten with stainless steel hex head bolts 3/8" x 3" long and lock washers and nuts.

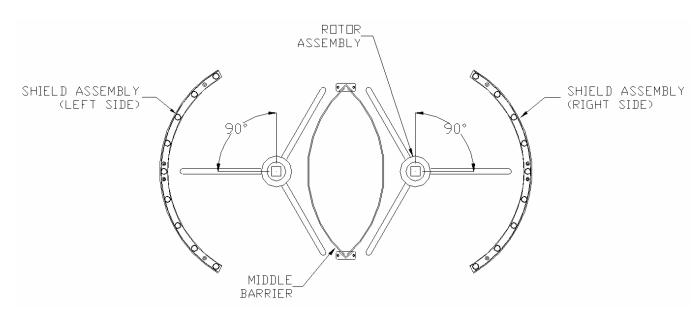
#### 2. Assembly of Shields: (For galvanized steel shields are pre-assembled)

#### 3. <u>High Turnstile Assembly (Overview)</u>:

Set ceiling plates and channel down into proper position. Align middle shield assembly mounting holes on ceiling plates, with holes in top channel. Ensure center support hole in channel and ceiling plates are also aligned. Transfer all holes along ceiling plates and all ends of channel onto the floor, as well as marking the center of the channel along length and width for bottom base plate location. Remove channel and ceiling plates. Locate base plate so that center hole is 29" from the center of the middle shield assembly mounting holes of the left side shield assembly. Transfer (3) holes from base plate to floor. Repeat process for right side base plate. Drill and set anchors (18) accordingly.

Fasten right and left shield assemblies and middle barrier onto floor. Mount bottom plates onto floor. Place rotor assembly onto base plates.

Mount channel over rotors, middle barrier and right and left shield assembly. Insert right and left ceiling plates between shield assembly and channel. Fasten middle of right and left side shield assemblies, and middle barrier posts to channel with 6 hex head screws 3/8" x 1" long. Fasten ends of right and left side shield assemblies to ceiling plate and to channel with hex head screws 3/8" x 1" long. Fasten center of ceiling plate (right and left side) to channel using 1 hex head screw 3/8" x 3/4". Plumb, and tighten all fasteners. Brace at top to adjacent surface as required.



#### **INSTALLATION**

## (Floor area location and preparation)

- 1. Ensure area is of adequate size and that it is designed (4 to 5 inches concrete) to accommodate turnstile; that the site is flat and level within <sup>1</sup>/<sub>4</sub>" to permit trouble free operation.
- 2. Mark a center line in the required location for reference in the layout of the anchor stud holes. § figure 1.

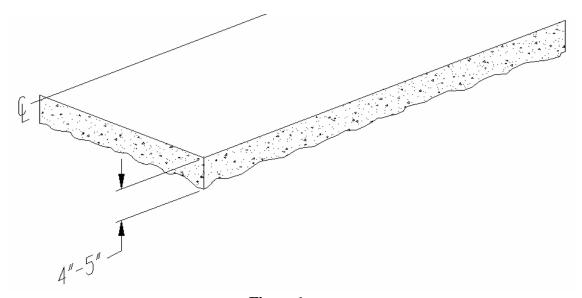


Figure 1

3. Attach ceiling plates (right and left side) to the channel with one screw, hex head 3/8" -  $16 \times 1$ "; washer, lock 3/8"; nut, hex head 3/8" -  $16 \times 1$ 0. See Figure 2.

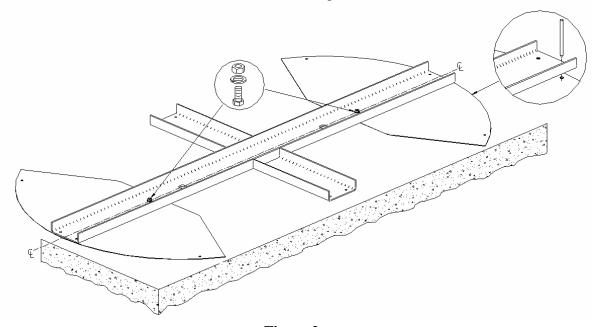


Figure 2

- 4. Next place this assembly (ceiling plate and channel) on the floor to mark anchor stud holes. Align the two ½" holes located at the shield assembly end of the ceiling plate with the proper two holes in the channel. Keep holes aligned and move the assembly into position on the previously marked center line. To assure good alignment, tighten the 3/8" nut and screw while keeping a ½" center punch in one of the two holes for both the ceiling plate, and channel at the shield assembly end. See Figure 2. Center of channel is to fall on the center line reference established in #2 above.
- 5. Making sure the assembly is held in place, mark location for twelve anchor stud holes using ½" center punch. Four holes for middle barrier posts, four holes for right side shield assembly and four holes for left side shield assembly. See Figure 3.

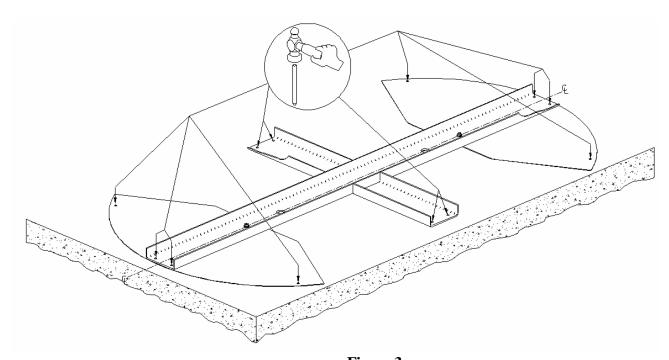


Figure 3

6. Mark center point for lower flanges to coincide with center of bottom plates. Using punch mark a point on the center line 29" from the center of the middle shield assembly mounting holes, (Right and Left hand sides). See Figure 4.

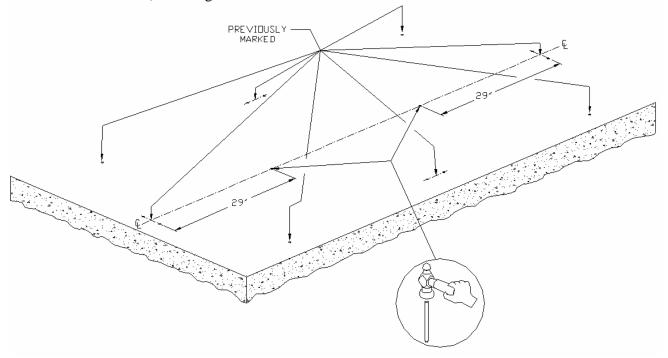


Figure 4

7. Locate the position for the bottom plates by centering the holes with the mark made in #6 above. Rotate the bottom plates so that one of the three mounting holes also aligns with the center line reference for the middle of the left side shield assembly. Firmly holding the bottom plate mark three ½" holes with the ½" center punch to the floor. See Figure 5.

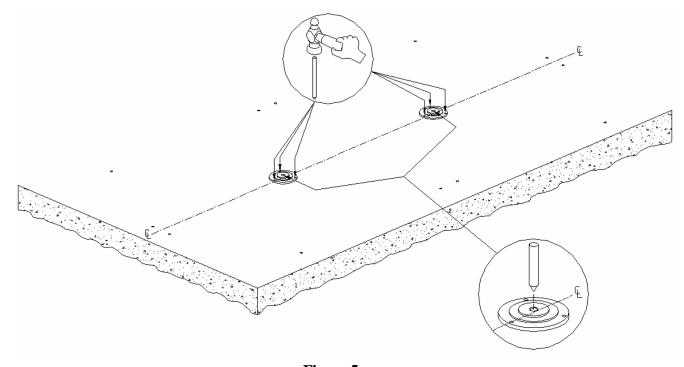


Figure 5

8. Remove bottom plate, tools and any other material and drill (18) 3/8" holes, 4 inches deep for anchor studs. Four holes for middle barrier posts, three holes for each bottom plate, four holes for right side shield assembly, and four holes for left side shield assembly.

See Figure 6. Clean holes after drilling.

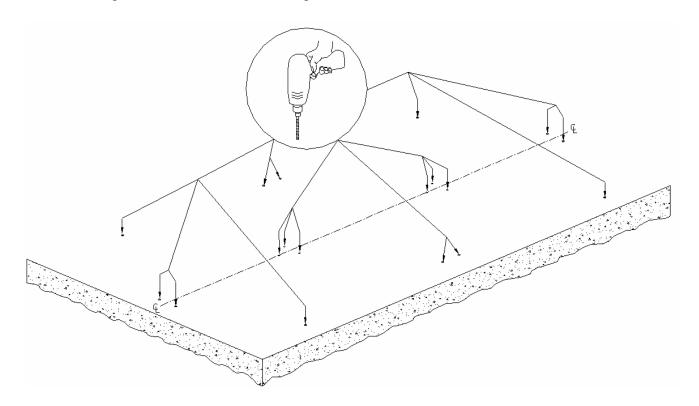


Figure 6

### **ASSEMBLY AND SET-UP**

1. Locate anchor stud holes for bottom plates and drive in stud bolts 3/8" –  $16 \times 4$ " min. See Figure 7. One inch of anchor stud should remain above floor surface (this allows for thickness of mount plus ½ inch of make-up for washer and nut). See Figure 8. Place the bottom plates over studs and secure with lock washers, and nuts. See Figure 9.

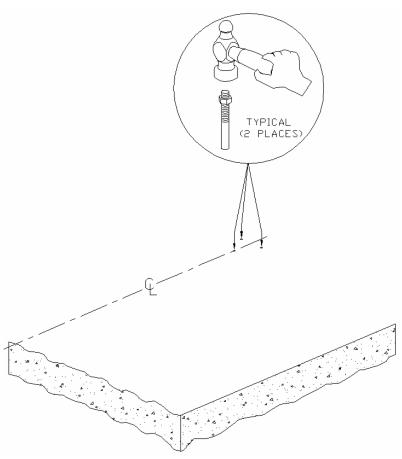
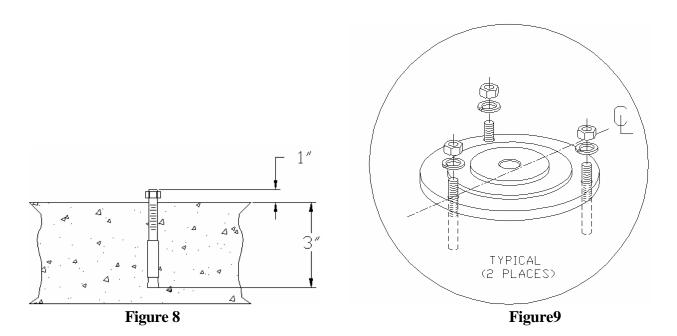


Figure 7



2. Attach lower flange to rotor assembly using three screws 3/8" - 16 X 3", three lock washers, and three nuts. Repeat for right and left side rotor assemblies. See Figure 10.

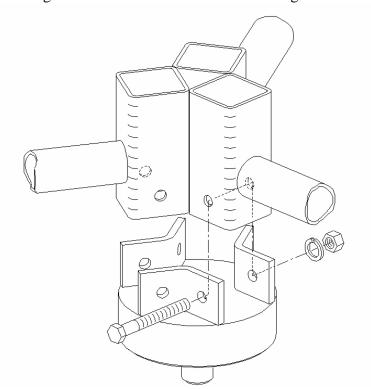


Figure 10

3. Attach upper flange to other end of rotor assembly using the same type hardware; three screws 3/8"  $-16 \times 3$ ", three lock washers, and three nuts. Repeat for right and left side rotor assemblies. See Figure 11.

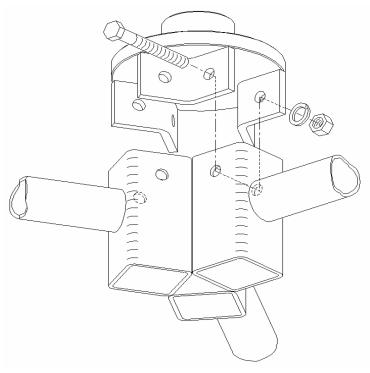


Figure 11

4. Place thrust bearing on bottom plate which has been positioned on the floor. Repeat for right and left side bottom plates. See Figure 12

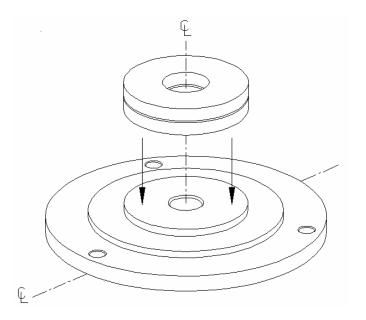


Figure 12

5. Locate anchor holes for shield assemblies. Four holes for right side shield assembly and four holes for left side shield assembly. Drive anchor studs into these holes. Eight studs required. See Figure 13. Allow ½" of anchor stud to remain above floor surface (allows 1/8" for wall thickness of shield assembly tubing plus 3/8" make-up for washer and nut).

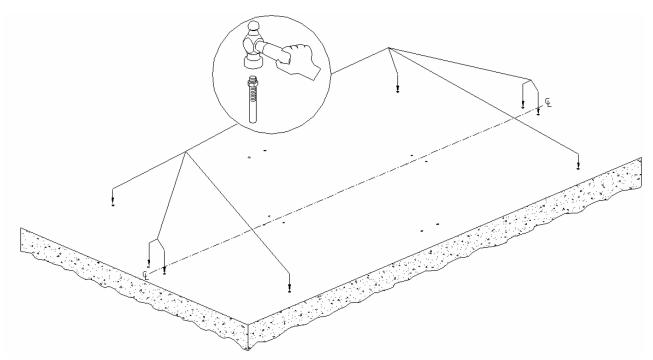


Figure 13

6. Install the shield assemblies on anchor studs and secure with washer and nut. See Figure 14. Do not fully tighten nuts at this time.

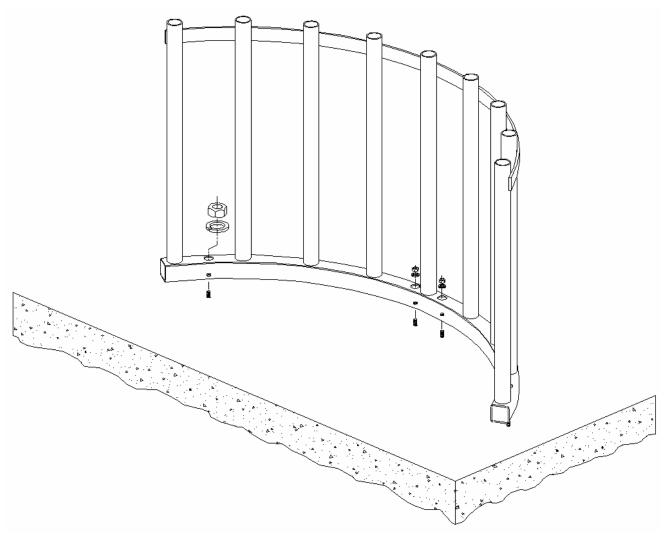


Figure 14

inch of anchor stud to remain above floor surface. Secure posts with washers and nuts. Bottom shield bar on left side of the barrier should measure 3-1/8" inches from floor. See Figure 16. Do not fully tighten nuts at this time.

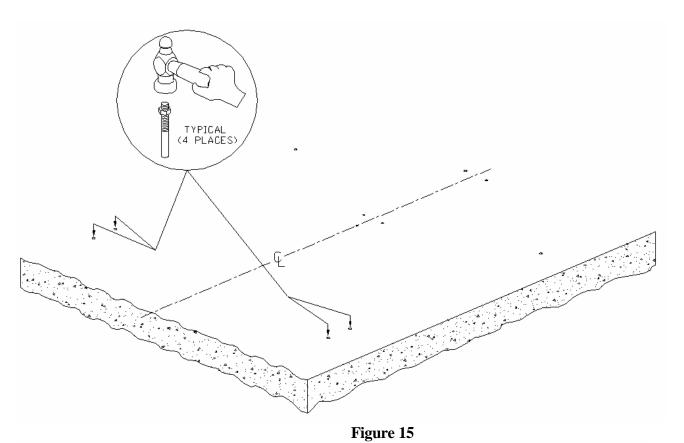


Figure 16

8. Remove cover from channel. Place channel on top of left side shield assembly, upper flanges and right side shield assembly. Align mechanism shaft (extends from channel) and work down easily into the upper flanges. See Figure 17. When seated, channel will rest on shield assemblies (right and left side), rotor assemblies, and middle barrier posts. Insert two screws 3/8" – 16 X 1" through the channel to middle holes of shield tubing for right side and left side shield assemblies. Do not secure.

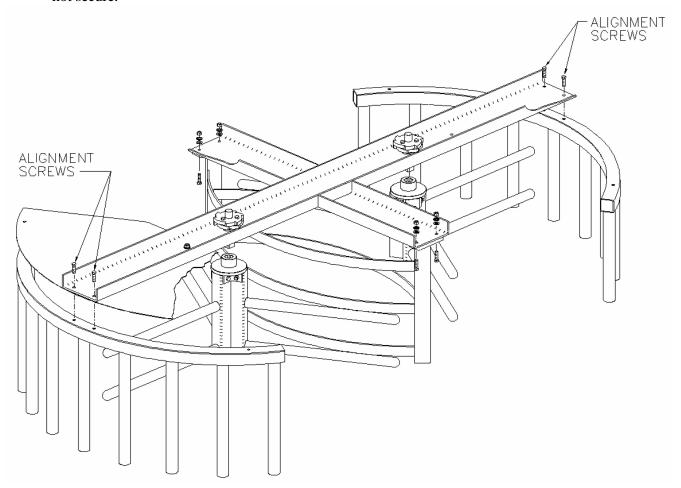


Figure 17

9. Fasten middle barrier posts to channel with four screws 3/8" –  $16 \times 1$ ", four flat washers, four lock washers, and four nuts.

10. Insert right and left side ceiling plates between shield assembly tubing and channel, and secure with one screw 3/8"  $-16 \times 1$ ", one flat washer, one lock washer, and one nut. Take out the four screws not secured in the channel, and shield assemblies. Re-insert these screws going through the shield assembly tubing, ceiling plate, and channel. Add flat washers, lock washers, and nuts. Do not tighten at this time.

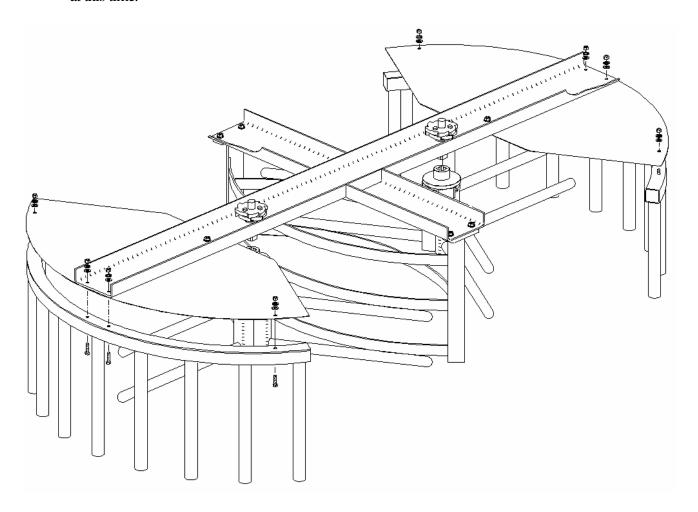


Figure 18

- 11. Fasten ends of the right and left side shield assembly, to ceiling plate with screws 3/8" 16 X 1", flat washers, lock washers and nuts. Four of each screw, washer, and nut are required for each shield assembly. Do not fully tighten nuts at this time.
- 12. Plumb turnstiles and tighten all screws and nuts. First tighten floor and channel fasteners then tighten all shield bar nuts.