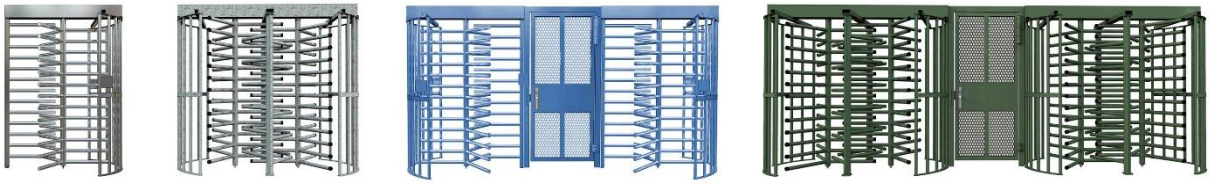
Full Height Turnstile Troubleshooting Guide

If Your Turnstile Is Not Operating Properly



Purpose

This guide is intended to help isolate common access control communication issues from the turnstile hardware itself.

Many turnstile operation problems are ultimately caused by:

- access control timing settings,
- incorrect relay configuration,
- or voltage being applied to dry-contact inputs.

Following the steps below can help determine whether the issue originates from:

- the turnstile,
- the access control system,
- or the software/controller configuration.

Important Safety Notice:
Disconnect power before servicing wiring or control boards.
Troubleshooting should only be performed by qualified personnel.

STEP 1: Isolate the Turnstile

Open the Header Cover

Carefully open the turnstile header/top cover to access the control board.

Remove External Wiring

Disconnect:

- access control wiring,
- card reader trigger wiring,
- and any external control inputs.

This isolates the turnstile from the access control system.

Power Cycle the Turnstile

Power the turnstile OFF and back ON.

Verify Rotor Position

Ensure the sensor rotor/home position is properly aligned and locked.

STEP 2: Test Turnstile Operation Directly

This test bypasses the access control system and verifies direct turnstile functionality. Using a small jumper wire:

Entry Test

Briefly touch/jump the Entry trigger points together for approximately 1 second.

(These are the dry-contact trigger terminals normally activated by the access control system.)

Then rotate the turnstile rotor.

Successful Result

If the turnstile unlocks and rotates properly:

- the turnstile hardware is functioning correctly.

Repeat the same process for:

- the Exit trigger points.

If both directions operate correctly:

- the issue likely originates from the access control system or software configuration.

STEP 3: Verify Access Control Timing

The access control relay output should be configured as:

- Dry Contact Only
- No Voltage Applied
- 1 Second Unlock Duration

Important

Unlock timing should be:

- approximately 1 second,
- not significantly longer.

Improper timing can cause:

- locking issues, delayed resets, sensor confusion, or improper operation.

STEP 4: Verify Relay Timing with Meter

If software settings appear correct but issues continue:

Use a Volt Meter / Multimeter

Disconnect the access control wiring from the turnstile input terminals.

Connect the wiring to a volt meter or continuity meter.

Test the Relay

Swipe a credential/card and observe the relay timing.

Example

In one troubleshooting case:

- software displayed a 1-second unlock setting,
- but actual relay closure measured approximately 7 seconds.

The issue was caused by:

- software/driver malfunction,
- not the turnstile hardware.

After updating the access control driver/software:

- the system operated correctly.

Common Causes of Turnstile Communication Issues

- Incorrect unlock timing
- Voltage applied to dry-contact inputs
- Faulty relay drivers
- Access control software configuration errors
- Improper wiring
- Sensor alignment issues

If the turnstile operates properly during direct jumper testing, but fails during normal credential operation, the issue is likely external to the turnstile hardware itself.

Need Assistance?

TURNSTILES.us
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Technical Support / Engineering Assistance Available