

# TORSION ROD ASSEMBLY KIT FOR A SWING GATE

DoorKing Part Number

**1203-084**

The torsion rod assembly is used on un-level swinging gates that open on an uphill slope. It allows up to 6 "Twisting" torsion rods that will counter-balance the gate to keep it from opening or closing too quickly (gate runaway) when not connected to the gate operator. It also relieves the pressure on the gate operator when the gate is in the downhill position.

**The torsion brackets MUST BE SECURELY MOUNTED and the lower bracket MUST align with the angle of the gate hinges.**

## Determining the number of torsion rods required:

**1.** A gate scale can be used to determine the number of torsion rods that will be required. Measure the lbs. of force with a gate scale to move the gate **uphill**. Multiply this measurement by 5, divide by 35 and round to the nearest whole number. This will give an approximate number of torsion rods required.

**Sample calculation:** Gate scale indicates 30 lbs., then  $30 \times 5 = 150$ , 150 divided by 35 = 4.28, round to 4, so use 4 torsion rods.

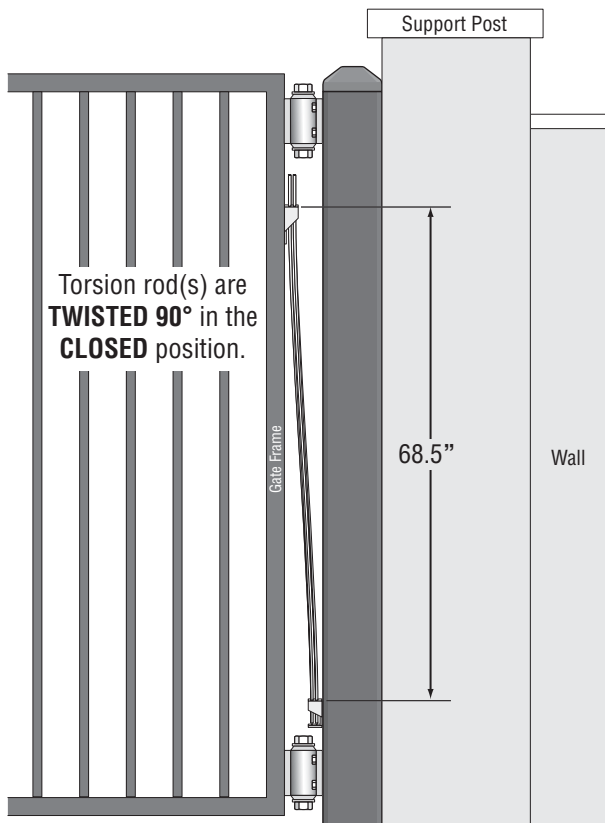
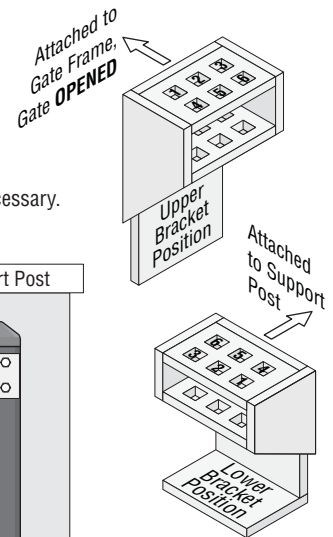
Note: The number of torsion rods required will vary depending on the angle of the roadway slope and the weight of the gate.

**2.** Another way to determine the number of torsion rods that will be required is to keep adding torsion rods to the brackets (Up to 6) and test until the gate finally moves **slowly downhill** when **NOT** connected to the gate operator (Extra torsion rod P/N 2600-299).

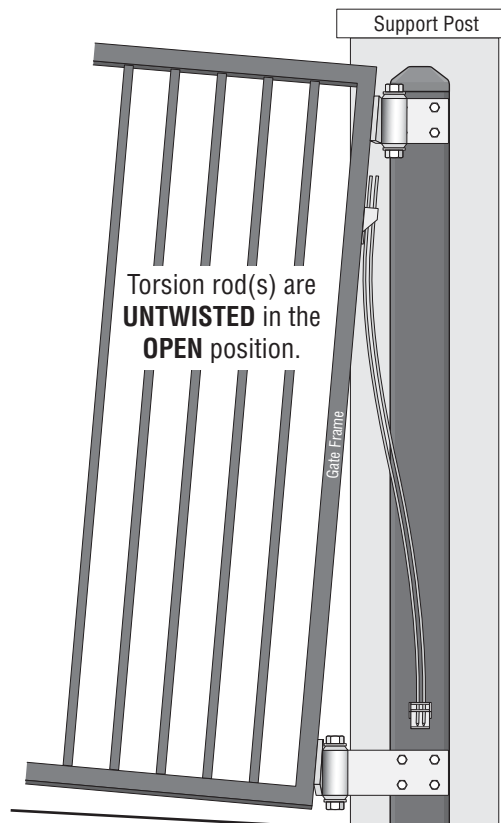
## Uphill Installation

An un-level swinging gate on an uphill slope **MUST** be restrained from closing too quickly when not connected to the gate operator.

1. Attach lower bracket to support post.
2. Attach upper bracket to gate frame 68.5" above lower bracket.  
Note: It is OK to position the brackets less than 68.5" and cut the torsion bar(s) a little to fit between the gate hinges if necessary.
3. Slide torsion rod(s) (Up to 6) into brackets **while gate is OPEN**.



**Gate CLOSED - Front View**



**Gate OPENED Uphill - Side View**

## Matching Up Bracket Holes for Torsion Rod Installation when Gate is OPEN

Open gate uphill to install the torsion rod(s). Slide torsion rod(s) into upper bracket first, pointed end facing down. When sliding rod(s) into lower bracket, make sure the lower bracket hole numbers match the upper bracket hole numbers for proper alignment of torsion rods when gate is closed. Any hole can be used when using less than 6 rods, as long as the hole numbers match up.



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