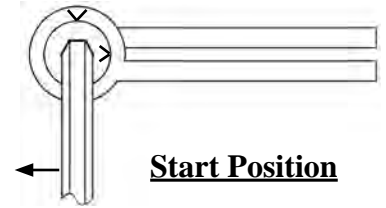




# MUST READ BEFORE INSTALLATION!!!

## SP81 Spring Hinge Installation Instructions



\* Parts provided: 1 roll pin per spring hinge and 1 hex wrench per unit carton.

\* Application for 4.5" x 4.5", 4.5" x 4.0" spring hinges:

Max door size: 3' x 7' x 1 3/4". Max door weight: 150 lbs.

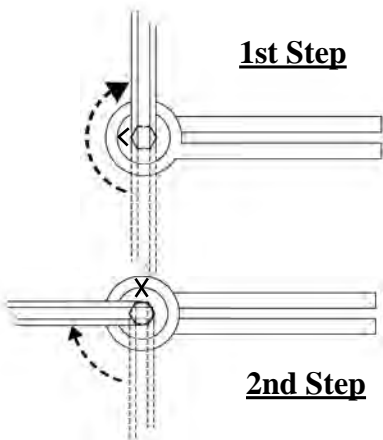
For doors up to 100 lbs, use 2 spring hinges at center and bottom position with 1 ball bearing hinge at top position. For 100 to 150 lb doors, use 3 spring hinges:

\* Application for 4.0" x 4.0" spring hinges:

Max door size: 3' x 7' x 1 3/4". Max door weight: 110 lbs.

For doors up to 85 lbs, use 2 spring hinges at center and bottom position with 1 ball bearing hinge at top position. For 85 to 110 lb doors, use 3 spring hinges.

- 1) Install hinges on the door and the frame with the tension adjustment pin in up position. Arrows on tension adjustment pin and hinge barrel should be in positions shown in diagram above.
- 2) Make sure the jamb side of the frame and the door are plumb and square and the pivot points of all hinges on the door are in line. Check by using a plumb bob over the top hinge. If hinges are hung out of alignment, it will cause binding and affect the performance of the hinges. Once everything is square and plumb, swing the door back and forth and make sure the door swings freely and smoothly between closed and fully open position with no drag or resistance from carpets, latches, automatic door bottoms or other devices.
- 3) With the door closed, turn tension adjustment pin clockwise about 270° until the two arrows line up with the hex wrench provided by following the 2 steps below. This is the maximum spring tension allowed. Load all spring hinges equally.



1st step: Turn hex wrench 180° clockwise and line up the hole on hinge barrel with hole in tension adjustment pin. Insert roll pin provided halfway into the hole to hold tension adjustment in place temporarily. Move the hex wrench back to the start position and proceed to 2nd step. If hex wrench can turn only 90°, do 1st step two times by turning 90° each time for a total of 180° before proceeding to 2nd step.

2nd step: Turn hex wrench clockwise slightly to loosen roll pin. Remove roll pin. Turn hex wrench 90° more and line up hole on hinge barrel with hole on tension adjustment pin. Insert the roll pin all the way into the hole to lock tension adjustment pin in place.

**DO NOT TURN ARROW ON TENSION ADJUSTMENT PIN PAST ARROW ON HINGE BARREL OR WARRANTY WILL BECOME VOID.**

- 4) After tension adjustment pin is locked in place for all spring hinges at maximum tension, test door closing force. If force is more than required, unwind the tension adjustment pin 90°, one spring hinge at a time until desired force is reached.

**USE OF GASKETS FOR SMOKE OR SOUND PROTECTION, WIND CONDITION OR UNBALANCED AIR PRESSURE MAY PREVENT DOOR FROM LATCHING. ADDITIONAL CLOSING POWER WILL THEN BE REQUIRED.**