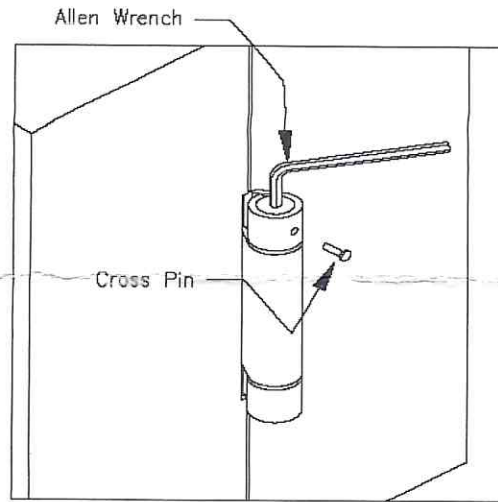


- (A) AS ESTABLISHED IN THE NATIONAL FIRE PROTECTION CODE 80(NFPA#80). A MINIMUM OF TWO SPRING HINGES ARE REQUIRED FOR LABELED FIRE DOOR INSTALLATIONS. HOWEVER, THREE SPRING HINGES MAY BE REQUIRED, DEPENDING ON HINGE SIZE, AND THE TYPE, SIZE AND WEIGHT OF THE DOOR.
- (B) FOR A THICKNESS OF 1-3/8" DOORS, MAXIMUM UP TO 32" WIDE X 84" HIGH, USE 3-1/2" SPRING HINGE. FOR A DOOR UP TO 60" HIGH REQUIRE THREE HINGES, AT LEAST TWO OF THE THREE MUST BE SPRING HINGES

MAXIMUM DOOR WEIGHT (LBS)		NO. OF SPRING HINGES
4-1/2" x 4"	70	1
4-1/2" x 4-1/2"	90	2
	120	3



INSTALLATION

- FIRST MOUNT THE HINGES BY MATCHING THE HINGE LEAF HOLE PATTERN TO THE DOOR, THEN, MATCH THE OTHER LEAF (WITH THE "UL" LOGO) TO THE JAMB. DOING THIS WAY MAY REQUIRE HAVING THE ADJUSTMENT END DOWN.
- PLACE DOOR IN CLOSED POSITION. INSERT ALLEN WRENCH IN HEX ADJUSTMENT HOLE AS SHOW IN ABOVE RIGHT DIAGRAM.
- IF ADJUSTMENT END IS UP, TURN ALLEN WRENCH LEFT (CLOCKWISE) TO DESIRED SPRING TENSION. IF ADJUSTMENT END IS DOWN, TURN ALLEN WRENCH RIGHT (COUNTERCLOCKWISE) TO DESIRED SPRING TENSION.

CAUTION: DO NOT EXCEED THREE HOLES OF TENSION FOR DOORS OPENING TO 180 DEGREES. DO NOT EXCEED FIVE HOLES (SEVEN HOLES FOR 4.5") OF TENSION FOR DOORS OPENING TO 90 DEGREES.

- INSERT CROSS PIN WHEN HOLES IN CENTER STUD AND HINGE KNUCKLE LINE UP. SLOWLY RELEASE PRESSURE ON THE ALLEN WRENCH
- REMOVE ALLEN WRENCH AND TEST CLOSING ACTION OF DOOR.
- REPEAT STEPS 1 ~ 4, IF NECESSARY, TO INCREASE SPRING TENSION.

TO MAKE TENSION ADJUSTMENT TAMPERPROOF, SNIP OFF CROSS PIN AT BREAK-AWAY HEAD. HOWEVER, IF FUTURE, ADJUSTMENT MAY BE NEEDED, DO NOT REMOVE HEAD.

NOTE:

ADJUST SPRING HINGE TO MINIMUM TENSION REQUIRED TO CLOSE THE DOOR. OVER-TENSIONING WILL REDUCE THE SPRING LIFE.

HINGE MODEL NO.	HINGE	MARKS
<input type="checkbox"/> 454034	4-1/2" X 4" X 3.4 mm	40 : SQUARE CORNER
<input type="checkbox"/> 454534	4-1/2" X 4-1/2" X 3.4 mm	41 : 1/4" RADIUS CORNER
		58 : 5/8" RADIUS CORNER
		R : RESIDENTIAL HOLE PATTERN
		T : TEMPLATE HOLE PATTERN