

# Rear Bumper Installation Instructions

P/N 210045: 2003-10 Chevy Express Van

## Before you begin:

- *Stainless steel hardware may bind together when tightening – apply an anti-seize assembly lubricant to the thread of each bolt before assembly*
- *This installation requires two or more people*
- *Unless otherwise specified, refer to the general torque value at the end of the instructions for specified torque values.*



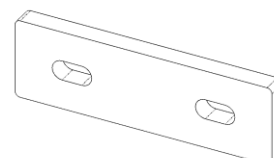
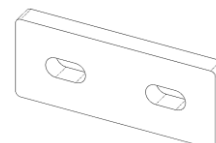
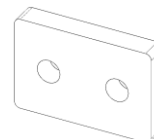
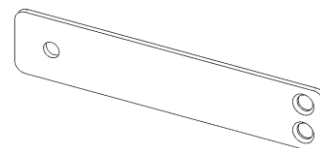
## Included Hardware:

| PN       | DESCRIPTION                  | QUANTITY |
|----------|------------------------------|----------|
| 70008    | HEX NUT, 1/4-20, SS          | 4        |
| 70009    | FW, 1/4 X 5/8, SS            | 4        |
| 70013    | FHSC, 1/4-20 X 1, SS         | 4        |
| 70028    | FW, 3/8 X 7/8, SS            | 4        |
| 70029    | HHCS, 3/8-16 X 1 1/4, SS     | 2        |
| 70033    | HEX LOCKNUT, 1/2-13, GRADE 8 | 12       |
| 70035    | FW, 1/2, STEEL               | 24       |
| 70080    | HHCS, 1/2-13 X 2, GRADE 8    | 12       |
| 70246    | ANTI-SEIZE                   | 1        |
| 400670.2 | LOCKING LATCH WITH KEYS      | 1        |

## Included Parts:

| PN     | DESCRIPTION               | QUANTITY |
|--------|---------------------------|----------|
| 350214 | SUPPORT STRAP             | 2        |
| 350299 | SMALL HITCH SPACER (3")   | 2        |
| 350300 | MEDIUM HITCH SPACER (5")  | 2        |
| 350301 | LARGE HITCH SPACER (6.5") | 2        |

## PICTURE



**Installation Instructions:**

1. Remove stock bumper.
2. Enlarge frame holes on the vehicle for 1/2" bolts with a file. They are slightly under size.
3. Remove the 8 bolts holding on the hitch.
4. Place the 1/2" spacers between the hitch and the frame and re-install using the 1/2-13 hardware provided. Depending on the year of the van and the make of the hitch (stock vs. aftermarket), use the size appropriate spacers that are provided. Not all spacers will be used.
5. Remove taillights on van – remove exposed 10 mm nuts from taillight and upper plastic panel.
  - a. Plastic panel must be removed to access taillight nut.
6. Mount the rear bumper:
  - a. Use four 1/2-13 X 2" bolts to bolt the Aluminess bumper to the frame (two bolts per side).
    - i. Each bolt should have a 1/2" Zinc washer on both sides.
    - ii. Each bolt should be held on with a 1/2" nylock nut.

NOTE: The swing arms must be closed and latched to properly install the bumper. The straps from the door hinge to the standing pivot pole must be installed with the swing arms latched. The straps keep the swing arms in alignment.

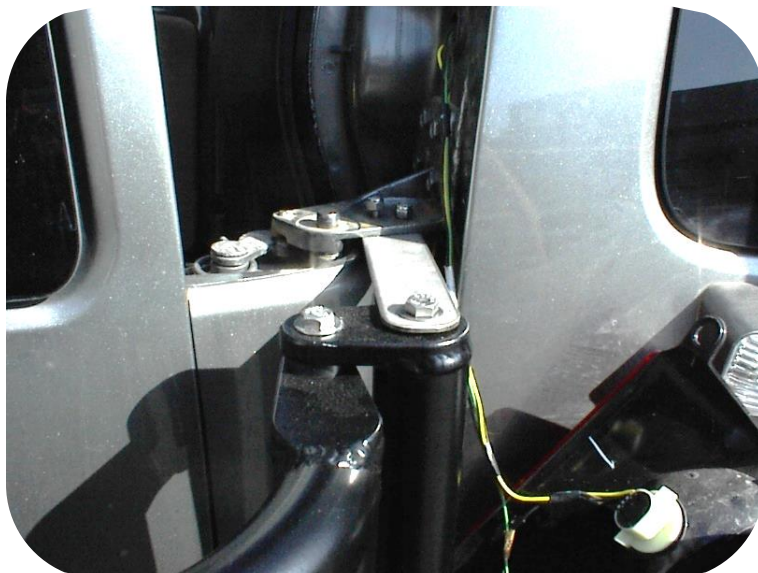
7. Strap Installation
  - a. With the rear bumper bolted to the frame and the tail light removed place the straps on top of the standing pivot pole and on top of the door hinge.
  - b. Install the 3/8-16 X 1 1/4" bolts through the strap and into the pole. (See picture below)
    - i. 3/8" flat washers should be between the head of the bolt and the strap, and the strap and the bumper pole.
  - c. Provide some outward pressure to the pole when marking the door hinge holes.
    - i. This preloads the swing arm for the weight of the spare tire & box.
  - d. Drill two 1/4" holes through the door hinge and the already existing holes in the strap.
  - e. Mount the strap to the bottom side of the hinge so it will not interfere with the taillight.
  - f. Install the 1/4-20 X 1" bolts from the bottom up i.e. upside down so the nuts are on the top.
    - i. The head of the bolts should have no washers on them.
    - ii. The nut side should have a 1/4" flat washer in addition to the 1/4" nylock nut.
  - g. Replace the taillight.
  - h. This process is required for both sides.

NOTE:

The swing arms must be closed and latched to properly install the bumper.

The straps from the door hinge to the standing pivot pole must be installed with the swing arms latched.

The straps keep the swing arms in alignment.



| TORQUE SPECIFICATIONS |         |                          |                           |
|-----------------------|---------|--------------------------|---------------------------|
| SIZE (SAE)            | 18-8 SS | GRADE 5<br>ZINC PLATED   | GRADE 8<br>ZINC PLATED    |
| 6-32 (IN-LBS)         | 9.6     | 15.3                     | 21.5                      |
| 8-32 (IN-LBS)         | 19.8    | 29.5                     | 41.7                      |
| 10-24 (IN-LBS)        | 22.8    | 47.0                     | 62.9                      |
| 10-32 (IN-LBS)        | 31.7    | 48.0                     | 68.0                      |
| 1/4-20 (IN-LBS)       | 75.2    | 91                       | 129                       |
| 5/16-18 (IN-LBS)      | 132     | 188                      | 265                       |
| 3/8-16 (FT-LBS)       | 20      | 28                       | 39                        |
| 7/16-14 (FT-LBS)      | 31      | 44                       | 63                        |
| 1/2-13 (FT-LBS)       | 43      | 68                       | 96                        |
| 9/16-12 (FT-LBS)      | 57      | 109                      | 226                       |
| SIZE (Metric)         | 18-8 SS | CLASS 8.8<br>ZINC PLATED | CLASS 10.9<br>ZINC PLATED |
| M5 X 0.8 (IN-LBS)     | 38.4    | 46.8                     | 66.0                      |
| M6 X 1.0 (IN-LBS)     | 57.6    | 79.2                     | 112.8                     |
| M8 X 1.25 (IN-LBS)    | 99.6    | 192.0                    | 274.8                     |
| M10 X 1.5 (FT-LBS)    | 13.8    | 31.6                     | 45.2                      |
| M12 X 1.75 (FT-LBS)   | 21.0    | 55.1                     | 78.9                      |
| M14 X 2.0 (FT-LBS)    | 29.4    | 88.1                     | 126.1                     |

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