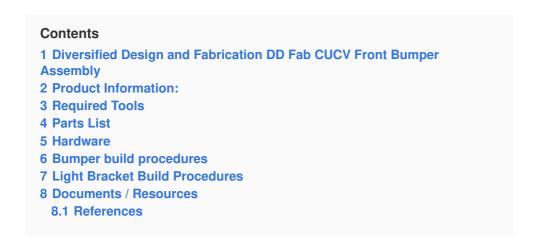


# Diversified Design and Fabrication DD Fab CUCV Front Bumper Assembly Instruction Manual

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# Diversified Design & Fabrication

Diversified Design and Fabrication DD Fab CUCV Front Bumper Assembly



**Product Information:** 

Part	Qty	Description
Bumper (Center)	1	3/16 mild steel (7 gauge)
Gussets	2	3/16 mild steel (7 gauge)
Bumper (Driver)	1	10 gauge mild steel
Bumper (Driver Corner)	1	10 gauge mild steel
Bumper (Driver End Cap)	1	10 gauge mild steel
Bumper (Passenger)	1	10 gauge mild steel
Bumper (Passenger Corner)	1	10 gauge mild steel
Bumper (Passenger End Cap)	1	10 gauge mild steel
Light Mount x2	2	11 gauge mild steel
Light Bracket x2 (Optional)	2	11 gauge mild steel and tab

#### **Required Tools:**

- Welder capable of welding up to 3/16 mild steel
- · Angle Grinder
- Flap Disc
- · Cut-off wheel
- 19mm wrench/socket
- 12mm wrench/socket
- 3/8 Ratchet
- 1/4 Ratchet

#### **Torque Specs:**

• 1/2-13 x 1-1/4: 80 lb/ft

• 1/4-20 x 7/8: 9 lb/ft

#### **Product Usage Instructions:**

#### **Bumper build procedures:**

- 1. Inspection: Ensure all parts are present and in good condition.
- 2. Welding Prep: Prepare all surfaces to be welded by removing mill scale for proper weld penetration. Areas to prep include:
  - Bottom and top wings of 2x bumper gussets.
  - Areas where bumper gussets will be welded to the bumper center.
  - Areas where nuts are welded to the bumper center (x6). This step is optional but recommended.
  - All bumper bend relief lines front and rear. Cut the supplied 1/4 round bar to length and stitch weld it to the back of the bend lines to prevent warping and make welding the bend lines easier.
  - Bumper end caps for driver and passenger side.

- Bumper light mounts and area on bumper where they will be welded.
- 3. Weld: Follow normal welding procedures, ensuring not to apply too much heat. Take special care to align the outer pieces of the bumper with the top of the bumper. It is recommended to weld around 25% of the bumper at a time and allow the bumper to cool for approximately 15 minutes. Total welding time is approximately 175.
- Finish: Smooth the bumper using a regular flap wheel.
   Optionally, apply bondo and sand to achieve a smooth finish.

#### **Light Bracket Build Procedures:**

- 1. Weld: Weld the light bracket at a 90-degree angle using a tab-and-slot design. A 1-inch stitch weld on the end of the tab is sufficient.
- Finish: Apply your choice of finish to protect from rust.
   Recommended options include 2 coats of grey primer, 2 coats of CARC tan (686) substitute, or powder coating.

#### **Contact Information:**

Marcus Woodard, Owner

Fort Worth, TX

Website: ddandfab.com

Email: info@diversifieddesignandfabrication.com

#### **Required Tools**

- Welder capable of welding up to 3/16" mild steel
- Angle Grinder
- Flap Disc
- · Cut-off wheel
- 19mm wrench/socket
- 12mm wrench/socket
- 3/8" Ratchet
- 1/4" Ratchet

#### **Parts List**

Part	25181-811	Qty	Description
	Bumper (Center)	1	3/16" mild steel (7 gauge)
	Bumper Gussets	2	3/16" mild steel (7 gauge)
	Bumper (Driver)	1	10 gauge mild steel
	Bumper (Driver Corner)	1	10 gauge mild steel
	Bumper (Driver End Cap)	1	10 gauge mild steel
	Bumper (Passenger)	1	10 gauge mild steel
	Bumper (Passenger Corner)	1	10 gauge mild steel

	Bumper (Passenger End Cap)	1	10 gauge mild steel
0 0	Light Mount	x2	11 gauge mild steel
	Light Bracket and tab	x2 (Optional)	11 gauge mild steel

#### Hardware

Hardware		
Part	Qty	
1/2"-13 x 1-1/4" grade 8 hex bolt	6	
1/2"-13 grade 8 weld nut	6	
1/4"-20 x 7/8" grade 8 hex bolt	4	
1/4" washer	4	
1/4" lock washer	4	

Torque Specs	
1/2"-13 x 1-1/4"	80 lb/ft
1/4"-20 x 7/8"	9 lb/ft

## **Bumper build procedures**

## Inspection

The bumper bolts to the truck in 8 spots. 2 on each inner bumper bracket, and 2 on each outer bumper bracket. The mounting holes are designed as slots to allow for some side-to-side adjustment to allow for easy fitment. Before welding your bumper, assemble the outer wings to the center section using the supplied 1/2" bolts and nuts. Then bolt the bumper to the truck. At this point there should be not fitment issues if you have original bumper brackets. Aftermarket outer bumper brackets might require you to drill new holes on the bottom of the bumper.



Now it is time to prep all surfaces to weld. Remove mill scale to allow for proper weld penetration. Areas to prep are listed below:

- 1. Bottom and top wings of 2x bumper gussets.
- 2. Areas where bumper gussets will be welded to the bumper center.
- 3. Areas where nuts are welded to the bumper center (x6). This step is optional but recommended.
- 4. All bumper bend relief lines front and rear. The supplied 1/4" round bar should be cut to length in order to be stitch welded to the back of the bend lines. This helps prevent warping and makes welding the bend lines easier.
- 5. Bumper end caps for driver and passenger side.
- 6. Bumper light mounts and area on bumper where they will be welded.

Normal weld procedures apply. Take special care to ensure not to apply too much heat. The outer wings have an approximate 4 degree bend from center to outer and have the potential to change if too much heat is applied. Make sure that the outer pieces to the bumper are lined up with the top of the bumper. I recommend welding around 25% of the bumper at a time and give the bumper about 15 minutes to cool. There is approximately 175" of welding.

After welding is complete it is time to smooth the bumper. I used a regular flap wheel. You can also take it a step further and apply bondo and sand to a smooth finish.

#### **Finish**

Now it is time to apply your finish of choice to protect from rust. In this photo, I used 2 coats of grey primer, and two coats of CARC tan (686) substitute. Powder Coating would also be a great option.



#### **Light Bracket Build Procedures**

#### Weld

The light bracket is very simple to weld. It has a tab-and-slot design and should be welded at 90 degrees. An inch stitch weld on the end of the tab is sufficient.

#### **Finish**

Now it is time to apply your finish of choice to protect from rust. I used 2 coats of grey primer, and two coats of

CARC tan (686) substitute. Powder Coating would also be a great option.

#### **Feedback**

I look forward to hearing your feedback. Please send your pictures, video, testimonials, comment, or suggestions to <a href="info@diversifieddesignandfabrication.com">info@diversifieddesignandfabrication.com</a>. I would love to feature your pictures on the website and social media. I also welcome any feedback to make product improvements. Thank you for your business!

-Marcus Woodard

Marcus Woodard, Owner Fort Worth, TX ddandfab.com info@diversifieddesignandfabrication.com

#### **Documents / Resources**



<u>Diversified Design and Fabrication DD Fab CUCV Front Bumper Assembly</u> [pdf] Instruction Manual

DD Fab CUCV Front Bumper Assembly, DD Fab CUCV, Front Bumper Assembly, Bumper Assembly

#### References

- O <u>Diversified Design and Fabrication</u>
- User Manual

Manuals+,