

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SYNERGY MFG. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF SYNERGY MFG IS PROHIBITED.

Revisions			
Rev.	Description	Date	Approved
A	Initial Release Per ECO 17-010	1/31/17	AS



## Jeep JK Rear Axle Truss Installation Instructions

Applications:  
2007-2017 Jeep Wrangler (JK)



TITLE:

**JEEP JK REAR AXLE TRUSS  
INSTALLATION INSTRUCTIONS**

SIZE	DWG NO:	REV
<b>A</b>	<b>8072-06-INST</b>	<b>A</b>
SCALE: N/A		PAGE 1 OF 7



Thank you for purchasing the best aftermarket products available for your vehicle. We strongly feel that the parts you are about to install should meet or exceed your expectations for performance. Proper assembly is critical to the performance of these components and the vehicle as a whole. Please take the time to carefully read these instructions and familiarize yourself with the installation procedure before working on your vehicle. If you have any questions PLEASE contact Synergy Manufacturing BEFORE beginning installation. Thanks again for supporting Synergy – enjoy the performance benefits of the best aftermarket products available for your vehicle!

**Synergy Manufacturing**  
**Phone: (805) 242-0397**  
**Email: [support@synergymfg.com](mailto:support@synergymfg.com)**

Modifying or otherwise altering vehicle components may cause the vehicle to handle differently than originally designed. It is the driver's responsibility to familiarize themselves with the performance and handling characteristics of the modified vehicle. Vehicles with larger diameter than stock tires must be driven carefully and cannot be expected to perform as stock or meet OEM performance with regard to handling, braking or crash performance. Ensure all replacement components are compatible with vehicle capacities so as not to overload components, especially tires. It is up to the individual to ensure that the vehicle and all components are compatible with the intended vehicle use, including load ratings, road conditions, and driver abilities. Thorough and frequent vehicle inspections are recommended to ensure a safe and reliable state of readiness, especially after off-highway use.



## Parts List

8072-06 JK REAR AXLE TRUSS		
QTY	Part Number	Description
1	8072-06	JEEP JK WELD ON REAR AXLE TRUSS – FORMED AND WELDED

## General Notes

- These instructions are also available on our website; [www.synergymfg.com](http://www.synergymfg.com). Check the website before you begin for any updated instructions and additional photos for your reference.
- This truss is designed to fit with both the Synergy weld on and bolt on rear track bar brackets. Other manufactures rear track bar brackets may or may not fit with the truss.
- It is highly recommended that this Truss be installed by an experienced welder/fabricator. Incorrect installation can result in a warped or otherwise damaged front axle housing.

## Tools Needed

- Metal cleaning tool (sandpaper, die grinder, angle grinder, etc.)
- Welder with capability of welding 3/16” steel
- Spray paint

## Estimated Installation Time

**3 Hours**

## **Installation**

**The rear axle truss may be installed with the axle still under the vehicle. Removing the axle from under the vehicle would potentially make the installation easier, but add time to the install. The choice of removing the axle or not is up to the installer.**

1. When working under a vehicle, always make sure the vehicle is on level ground and the transmission is in gear or in park and the emergency brake is set.
2. Set the truss on top of the axle in the correct position. Make sure the reliefs cut into the truss line up with the ribs on the axle housing. Ensure the E-Locker harness has adequate clearance. Once the truss has been correctly positioned, mark the areas of the axle where the truss is to be welded.



**Figure 1. Truss Placed on Axle**

3. Once the axle has been marked, remove the truss and use an abrasive sander or a grinder to remove the paint from the axle to clean, shiny bare metal. **See Figures 2 and 3.** Note: These figures show the axle removed from the vehicle for clarity.



**Figure 2. Axle Before Cleaning**



**Figure 2. Axle after Cleaning**

4. After cleaning the axle, also make sure the areas of the truss to be welded are clean and free of oils or rust. Place the truss back on the axle and carefully verify that it is sitting in the correct position on the axle. **See Figures 5 and 6.** Note: These figures show the axle removed from the vehicle for clarity.



**Figure 5. Truss Correctly Placed On Axle Housing**



**Figure 6. Truss Correctly Placed On Axle Housing**

5. Weld the truss to the axle. It is important to do small sections of weld at a time, not long passes. Alternate from side to side and do short welds (approx. 1 inch long) and wait in between passes for the axle to cool. Welding the axle all at once can result in a warped housing. It is not necessary to weld the truss to the center cast section of the axle, but if it is desired Synergy recommends using a high-nickel filler wire. This is best performed by experienced welders.
6. Once welded and cool, paint the axle to prevent rust. Multiple coats is best, and it is important to cover all bare metal. **Figure 7 shows completed, painted installation.**



**Figure 7. Completed and Painted Rear Truss**

## Post-Installation Checklist

- Did you remember to torque all the hardware you removed for the installation?
- Now is a good time to change your differential fluid and check brake pad and rotor wear.
- Grease any u-joints or other lube points.