

# INSTALLATION INSTRUCTIONS JEEP JK COOLER KIT - PART # 20565



# Please read these instructions completely before beginning installation

# KIT CONTENTS

#### QTY. DESCRIPTION

- 1 Aluminum Heat Sink Cooler
- 2 Cooler brackets
- 2 1/2" NPT x 6AN Male Adapter
- 2 90° 6AN x 3/8" Hose Barb Fitting
- 2 3/8" Compression Fitting
- 2 3/8" NPT x 3/8" Hose Barb Fitting
- 4 FT Hi-temp Hose

## QTY. DESCRIPTION

- 4 Stainless Hose Clamps
  - 1/4" x 1/2" Stainless Thread Forming Bolt
- 1 10-24 x 5/16" Stainless Button Head Bolt
- 3 Plastic Spacer
- 6 7" Zip Tie

# **TOOLS NEEDED**

18mm Deep Socket 3/8" Drive Ratchet & Extensions Standard 3/8" Drive Socket Set Standard Open-End

Wrench Set Standard & Phillips Screw Drivers

Allen Wrenches
Panel Removal Tool
Dyke Pliers
Drill Motor
7/32" Drill Bit
Tubing Cutter
Masking Tape

Marker

Power Steering Fluid

# REMOVE THE FACTORY GRILLE ASSEMBLY

- 1. Release and open the hood.
- 2. Identify the 6 plastic clips on the top edge of the Grille. Using a Flat Head Screwdriver and Panel Removal Tool, first pop the center pin of each clip, then remove the entire pin. Repeat for all six clips.
- 2. Unclip the turn signal light wire connector from both lights by pulling the slide tab and then squeezing the plastic clip while gently pulling the connector (see image).
- 3. The Grille assembly has 3 bottom clips holding it into the bottom core support, holding the grille securely, lean the top of the grille away from the core support and clips should release. Remove grille.

Note: Removing the front bumper and lower and upper air dams is recommended for ease of installation.

# REMOVE THE FACTORY LOWER AIR DAM

There are 4 plastic clips underneath the bumper holding the plastic air dam onto the vehicle (See image). Using a panel removing tool, pry between the clip head the air dam to remove each clip (see image).

Additionally, there are 2 plastic clips inside/behind the air dam attaching it to the steel bumper reinforcement, repeat steps above and remove the remaining clips (see image). Remove air dam and discard, these clips will not be used to install new bumper.

#### REMOVE FACTORY BUMPER

- 1. Unclip the fog light wire connector from each fog light by squeezing the plastic clip and gently pulling the connector (see image).
- 2. The full wiring harness runs the width of the bumper support, unclip the wiring harness from the bumper by removing the 4 plastic push clips under the bumper (see image).
- 3. There are 8 bolts/nuts holding the factory bumper to the frame. Behind the steel bumper supports, you will find 4 bolts on each side. Using a 15mm deep socket and 3/8" Ratchet, remove the 8 nuts.

Note: If available, using a 3/8 drive pivot head ratchet will make it easier to get into the inside nuts.

- 4. Once all bolts are removed, fog light wiring disconnected and wiring harness unclipped, the bumper will easily slide forward and off the bumper supports. The factory hardware will not be used to install the new bumper.
- 5. Remove the fog lights from the factory bumper. Using a Phillips screwdriver, remove the four screws attaching each fog light. Do not discard these screws as they will be used to attach the fog lights to the new SJK Bumper.

# REMOVE THE FACTORY UPPER AIR DAM

There are 2 plastic clips located on top, just in front of the grille (See image). Using a phillips screwdriver and panel removal tool, unscrew each clip and pry the plastic retainers upwards to remove. It is very common that these clips will just spin and will not come out. If this happens, use a 1/4" drill bit and drill motor to drill directly in the center of the clip. After drilling the hole, use the panel removal tool to unseat the clip.

Once clips are removed, slide the upper air dam to the right and out the front drivers side wheel opening and discard.

Note: New clips can be purchased at your local auto parts store, the Mopar part number is 6503598 (M8x24.3).

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#### **INSTALLATION**

#### PRE-ASSEMBLY - COOLER

- Locate the Aluminum Heat Sink Cooler, two Cooler Brackets and six 10-24 x 5/16" Stainless Button Head Bolts.
- 2. Using a XX Allen Wrench, assemble the two cooler brackets on both sides of the Aluminum Heat Sink Cooler, making sure the 90° bent tab is facing away from the cooler. (See Diagram X)
- 3. Locate the two 1/2" NPT x 6AN Male Adapter fittings.
- 4. Using Thread Sealant tape or suitable sealant, apply to the NPT threads on the fittings.
- Using AN Line Wrenches, install both fittings onto the cooler until tight.

## **PRE-ASSEMBLY - HOSE**

- 1. Locate the Hi-temp Hose and two 90° 6AN x 3/8" Hose Barb Fittings.
- 2. Using a lubricant such as oil, lube the inside of the hose end and barb fitting.
- 3. Install 90° 6AN x 3/8" Hose Barb Fitting onto hose end making sure the hose is all the way to the end cap. For best results clock both hoses inwards towards each other. (See Diagram X)

**Important:** Even though these fittings are Push-lock fittings, it is recommended to install supplied hose clamps to both 90° fittings, just for extra insurance.

Install the AN hose ends onto both male fittings on the cooler forming a loop. Hand Tighten only!

## **INSTALLATION**

# **COOLER INSTALLATION**

- 1. Take the cooler and hose assembly and install onto the square core support tube, pushing the looped hose down between the radiator and square core support tube, centering the cooler. (See Diagram X)
- 2. Using a marker, mark the holes on the 90° bracket.
- 3. Remove cooler temporarily.
- 4. Using a 7/32" Drill bit and Drill motor, drill two holes and deburr.
- 5. Re-install cooler
- 6. Using a 7/16" socket, ratchet and short extension, install the two 1/4" x 1/2" Stainless Thread Forming Bolts.

#### **HOSE CONNECTIONS**

- 1. Locate the two 3/8" Compression Fittings and two 3/8" NPT x 3/8" Hose Barb Fittings.
- 2. Using Teflon tape or suitable sealant, apply to the NPT threads on both compression fittings.
- 3. Install the two 3/8" Hose Barb Fittings onto the 3/8" Compression Fittings.
- 4. Set those aside temporarily.
- Locate the 3/8" OD steel power steering return line underneath the square core support tube. (See Diagram X)

**Note:** 2007-2011 – Tube will be just under the square core support tube.

2012-2018 – Tube will be straight from frame to frame and about 6 inches below the square core support tube.

- Using a tape measure, locate the center of the tube and mark it.
- 7. There are two christmas tree clips, one on each side attaching the return line to the vehicles frame, it may be necessary to unclip one or both to give you enough access to cut the lines.
- 8. Using a tubing cutter, cut the steel power steering return line at the mark and deburr.

Note: Fluid will drain out!

- 9. Install the Compression fittings on each end of the cut tube. (See Diagram X)
- 10. Take the looped hose and route towards the two hose barb fittings now attached to the return line. nough to attach in three places.

Note: The cooler does not have a direction, therefore the hoses can be connected to either side.

11. Mark and cut the hoses to length.

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- 12. Slide a hose clamp onto both hoses and then install onto the Hose Barb Fittings and tighten clamps.
- 13. IMPORTANT: Using an AN Line Wrench, tighten the two 90° AN fittings previously installed on both sides of the cooler.
- 14. Using the supplied zip ties and plastic spacers, use the method shown in Diagram X thru X to secure hoses. There are enough to attach in three places.

# **VEHICLE TESTING**

- 1. Start vehicle and turn steering wheel all the way to the left and then all the way to the right, repeat several times.
- 2. Check fluid level and add as needed. Please refer to the owner's manual for correct fluid type.
- Check for leaks

IMPORTANT: DO NOT DRIVE VEHICLE UNTIL YOU HAVE ADDED FLUID AND HAVE CHECKED FOR LEAKS.

# **REINSTALL GRILLE, BUMPER and AIR DAM'S**

1.	Reinstall the	grille assemb	ly, front bum	per and both	air dam's in	reverse order o	of disassembly.
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Warning: Installation of accessories should only be undertaken by those with mechanical knowledge and are familiar with working on vehicles. Always use eye protection (goggles, safety glasses or shield). Park the vehicle in a well lit area, on level ground and apply the parking brake. Only work on a cold vehicle that has been sitting overnight, failure to do so will result in severe burns and injury. Before starting the vehicle, make sure no tools or any other items are left under hood that could interfere with or be drawn into moving parts of the engine. Failure to follow instructions can lead to severe damage and personal injury.