



METALCLOAK

INSTALLATION INSTRUCTIONS

PRODUCT: 24-1/2" BRAKE LINE KIT

REV: A | 12-02-11 | IISS-1100

**READ INSTRUCTIONS IN FULL BEFORE INSTALLATION.
QUESTIONS? CALL 916-631-8071 M-F 8:00 AM – 5:00 PM PST**

The MetalCloak experience includes the ease of installation of our products. We design for most contingencies, but installation may be different based on different Jeep condition, configuration and/or year.

We are continually trying to improve our products and instructions – please help us by providing feedback and pictures if you find any part of the instructions that do not match your particular Jeep or are not easily understandable.

If you have any difficulties at all, please give us a call. Thank you and enjoy your MetalCloak Products!

IMPORTANT NOTE: We use Stainless Steel Hardware where possible. Therefore, a tube of Silver Anti-seize is provided and should be used on all bolts—only a small amount is needed.

WARRANTY INFORMATION: This article is sold without warranty expressed or implied. No warranty or representation is made as to this products ability to protect the user from injury or death. The user assumes that risk. The effectiveness, warranty and longevity of this equipment are directly related to the manner in which it is INSTALLED, USED and/or MAINTAINED. THE USER ASSUMES ALL RISK. By purchasing this product and opening the packaging, purchasers expressly acknowledge, understand and agree that they take, select and purchase these MetalCloak products from Armored Works, LLC, its affiliates and distributors and agents as is and with all faults. The entire risk as to the quality and performance of these MetalCloak products is with the purchaser. Working on your vehicle can be a dangerous activity. If you are unsure of what you are doing, please leave mechanical or safety critical work to a skilled mechanic. We take no responsibility for the incorrect use and/or installation of MetalCloak products.

Section 1: Tools & Notes on Installation

Tools Required: This list is the recommended tools for ease of installation. Other versions of the same tool can be used. For example, Allen Wrenches instead of Allen Drive Sockets.



Socket & Ratchet Wrench

10mm Socket or Wrench
15mm Socket or Wrench
1/2" Socket or Wrench



Electric Drill

12mm Wrench
17mm Wrench



"1" [.272"] Drill
(9/32" [.281] can be used)

Center Punch



HOW TO USE THIS GUIDE: The installation guide contains ALL steps for installation. Please read and follow the instructions in order of each page top to bottom, and left to right.

Jeep Model: Instructions may apply to multiple Jeep models, but are labeled separately where appropriate (i.e. TJ vs. LJ).

Options: Because of the number of component options we offer, these instructions may contain steps that will not match your particular configuration. You can skip these steps.

Images: Pictures are provided and parts are labeled throughout the instructions. Each text box contains guidance based on the pictures next to it. The text will refer to alphabetical labels (A, B, etc) found in the images.

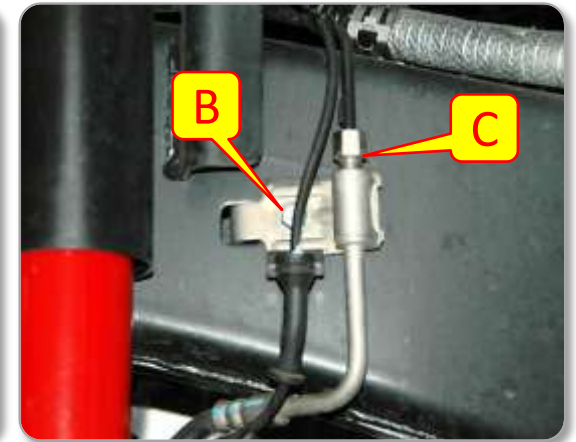
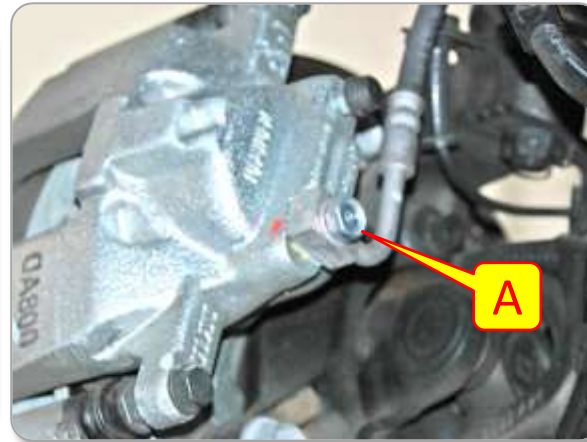
Installation Notes: Terms may be used in the body of the instructions that you may not be familiar with, if you have any questions feel free to contact us at the number below, or email techhelp@metalcloak.com

QUESTIONS: Any questions or comments about the instructions? Call us at 916-631-8071 M-F 8:00 AM – 5:00 PM PST.

Section 2: Installation Instructions

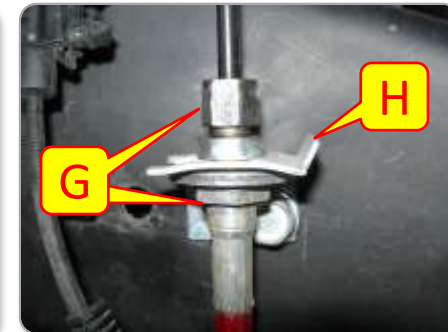
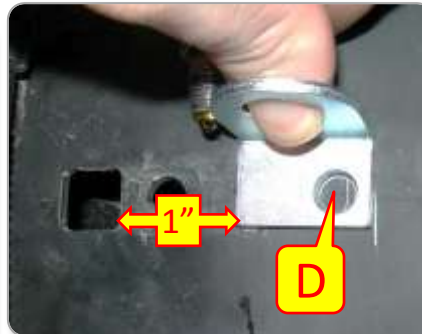
Step 1: Remove Stock Front Brake Lines

- A. Use a 15mm Socket to remove the 'banjo' bolt from the brake calipers. You will want an oil drain pan to catch the brake fluid.
- B. Unclip the ABS line from the brake line (all the way down), and use a 10mm Socket to remove the bolt holding the stock bracket. Remove the frame clip and discard.
- C. Use a 12mm Wrench to unscrew the stock brake line from the frame bracket.



Step 2: Install Front Brake Line

- D. Space the provided L-Bracket 1" rearward from the frame opening, and center-punch or mark the hole location.
- E. Drill the hole with an 'I' [.272"] Drill.
- F. Use a 1/2" Socket to install the 5/16"-18 Hex Head Self-Tapping Screw. Do not fully tighten.
- G. Install the 24-1/2" Brake Line through the bracket. Screw the stock line into the new Brake Line, and tighten using a 12mm and 17mm Wrench.
- H. Install the provided Spring Clip to retain the Brake Line in the Bracket. You may need a hammer to lightly tap this clip into place. Fully tighten the 5/16" Screw.



Section 2: Installation Instructions

Step 2: Install Front Brake Line

- I. Feed the banjo screw through the square end of the Brake Line. Use the provided Brass Washers on both sides of the Brake Line as shown.
- J. Re-install the banjo screw into the brake caliper.
- K. Zip-tie the ABS line to the new Brake Line.



Step 3: Install Rear Brake Lines

- K. The steps to replace the rear brake lines are essentially identical to the front. The only difference is that in the upper rear you will re-use the stock screw and frame clip. Use the M6 screw to install the L-Bracket in the stock location, and then install the Brake Line following the same steps as the front.

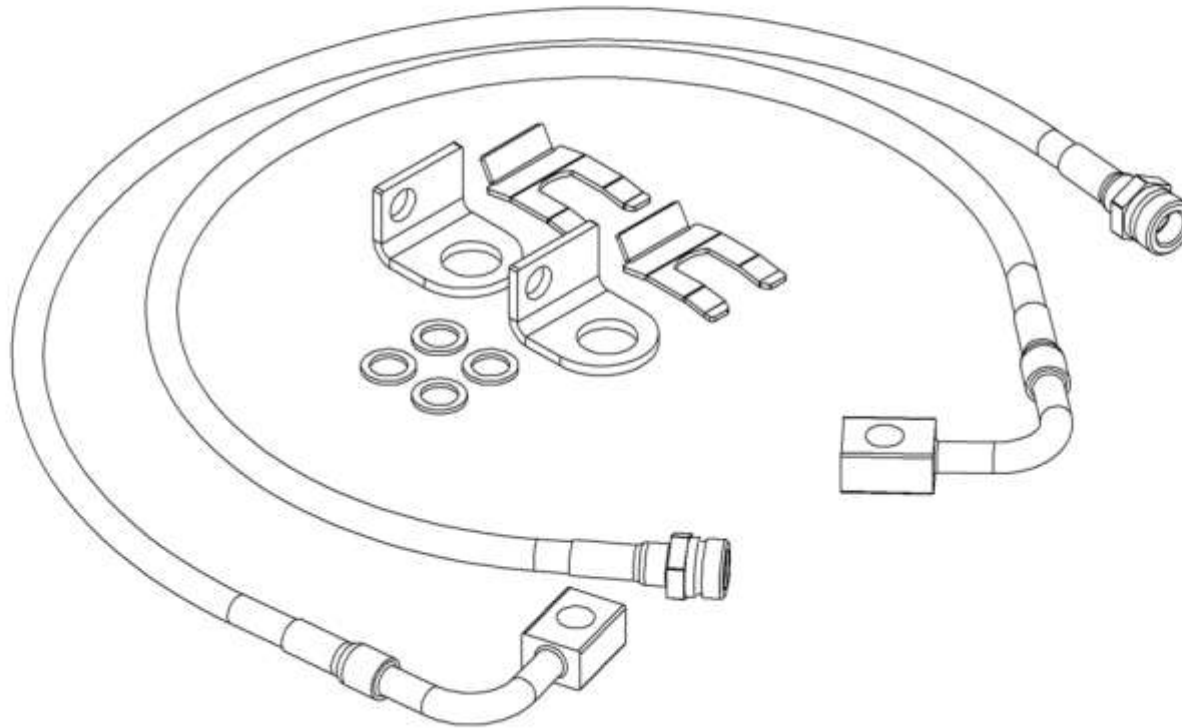


Step 4: Bleed Brakes

CAUTION!! FAILURE TO PROPERLY BLEED THE BRAKE LINES WILL CAUSE YOUR BRAKES TO BE INEFFECTIVE. Before your vehicle is ready to drive you will need to refill the brake reservoir and bleed the air out of the brake lines. If you are not experienced with this process, or have any reservations, consult a professional. For a full write-up of the brake bleeding process for your JEEP Wrangler JK, you can also refer to <http://project-jk.com/jeep-jk-write-ups/jeep-jk-wrangler-maintenance-bleeding-your-brakes>.

Section 3: Product Components

SS-1100 BRAKE LINE KIT, JK BOM		
ITEM	PART NUMBER/DESCRIPTION	QTY.
1	SS-1100 BRAKE LINE, 24.5L	1
2	SS-1100 BRAKE LINE, 24.5L	1
3	SS-1100 BRAKE LINE BRACKET	2
4	SS-1100 BRAKE LINE CLIP	2
5	SS-1100 BRAKE LINE COPPER WASHER	4



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