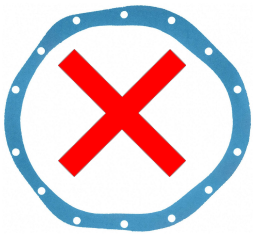
14 BOLT REAR DISC BRAKE CONVERSION KIT

CHEVROLET K20 TRUCKS/SUBURBANS 1971-1987 GMC K20 AND K2500 TRUCKS/SUBURBANS 1971-1987

EMERGENCY BRAKE CABLE KIT SHOWN

10.5" RING GEAR
FULL FLOAT



9.5" RING GEAR
SEMI FLOAT

DESIGNED EXCLUSIVELY FOR SINGLE-WHEEL (SRW) FULL-FLOAT AXLES
NOT SUITED FOR DUAL REAR-WHEEL OR SEMI-FLOAT CONFIGURATIONS

INSTALLATION INSTRUCTIONS

DBK14CT rear axle Disc Brake Conversion Kit – Single Rear Wheel (SRW)

(NOTE* This kit is not suited for dual rear-wheel or semi-float configurations.)

Upgrade from heavy, cumbersome drum brakes to a lighter, stronger, and more efficient disc brake system. This kit transforms the full-float 14Bolt SRW rear axles found in GM/Chevy ¾-ton and 1-ton trucks (1973–1987) into a disc braking setup. These kits are available with or without emergency brake calipers.

The kit includes everything you need: mounting brackets, rotors, calipers, pads, hoses, and hardware to replace drum brakes and improve stopping power often at a lower cost than rebuilding drum assemblies. By installing this kit, you will be removing or modifying the existing emergency brake cable system. If you are installing the calipers with emergency brakes, you will need to adjust the the levers per the instructions.

Features:

- Specifically designed for full-float 14Bolt SRW axles (1973–1987, drum mounted behind the hub; not compatible with slip-over drum setups).
- Lightens the rear axle and simplifies complexity by replacing drums with disc brakes.
- Requires 15" steel wheels with 4" backspacing, or larger aluminum wheels.
- Not compatible with dually hubs or semi-float axles.

In the Box:

- 2 Laser-cut disc brake mounting brackets in black with Grade 8 bolts
- 2 New brake calipers
- 2 Hydraulic hoses (3/8"-24 inverted flare) with banjo fittings
- 2 Weld-on brake line tabs
- 2 Brake line clips
- 4 Brake pads
- 2 Black Hat Rotors (looks great and stops the rust from building up on the rim)

Fitment & Installation Notes:

- Ensure rotor studs drop freely into place avoid press-fit assemblies. Oversized studs may necessitate drilling.
- Confirm there's a minimum of 5/8" lug nut engagement to ensure safety.
- Manual brakes require at least 1" bore master cylinder for proper volume of fluid.
- Power brakes require at least 1-1/8" bore master cylinder for proper volume of fluid.
- Installing an adjustable proportioning valve is highly recommended to achieve proper balance.
- Remove any residual valves to prevent brake drag.
- Designed exclusively for single-wheel (SRW) full-float axles—not suited for dual rear-wheel or semi-float configurations.

Vehicle Preparation:

**We recommend safety glasses, gloves, a drain pan & shop rags for the drum removal

1. Jack up the truck and support the truck axle safely.
2. If you are performing the conversion on the ground, chock the front wheels.
3. Because you are about to disassemble it, do not engage the emergency brake.

Removing the axle shafts to access the drum brake system:

4. On the rear, remove wheels and save the lug nuts.
5. Locate the center end plate on the axle end that has eight bolts.
6. Place a catch pan below the drum.
7. Remove the eight bolts holding the axle end and keep them for later.
8. Using a screw driver, gently pry between the end plate and the axle tube to separate it. Sometimes a large hammer strike on the center of the end plate can get things moving. It should come out by hand. You may get some resistance if silicone sealant is present.
9. Expect differential oil to come out of the axle tubes when you pull out the axle shafts.
10. Make sure to mark which side is passenger and driver if you pull them at the same time.
11. Place the axles aside to be cleaned for later use.
12. Inspect the splines and threaded holes in case a repair or replacement is necessary.




Accessing the spindle mounting nuts to remove the brake drum

13. Once the axle shafts are out you will be able to see inside the hub and see how it is attached. NOTE* There are two different types or retaining methods.
14. It will have either a **large snap ring** or a **spindle nut retainer with bent tabs.**
    In either case, the parts will have to be removed in order to remove the spindle mounting nuts that secure the hub to the spindle, which is part of the axle itself.

Snap ring type:

15. If your hub uses a snap ring, use a set of long handle needle nose pliers, or snap ring pliers, and a pick to pull the ring out once you relax the pressure. In this type, remove the woodruff key also. Save the parts for later. Access the spindle nut once the clip is out.

Spindle nut cage retainer type:

16. If your hub uses a spindle retainer nut with a tab locking, use a long handle screw driver to bend tabs away. Bend the tabs to access and remove the nut. Save the retainer.



17. Next you will be removing the large nut that holds the hub in.
    If you happen to have the appropriate specialty socket, use it here.
    But if not, you can use a hammer and large flat head screwdriver or dull punch, to remove the nut counterclockwise by placing the end of the screwdriver into the recesses in the nut and striking it with the hammer. Keep the nut for re-use.
18. Once removed, place the nut with the retainer parts from previous steps for re-use.



19. Look inside the hub and locate the **SECOND** spindle nut, use same method to remove it.

20. Keep both spindle nuts, and locking ring or keyway components that held in the hub.



<u>Removing the brake drum:</u>

21. Test pull the brake drum and hub from off the axle housing. If you can remove it, go ahead and remove it and safely place it on the floor or work bench, out of the way. NOTE* The next task is to remove the brake drum and hub combined unit. If the hub won't just pull away, you may need to relax the brake shoes.

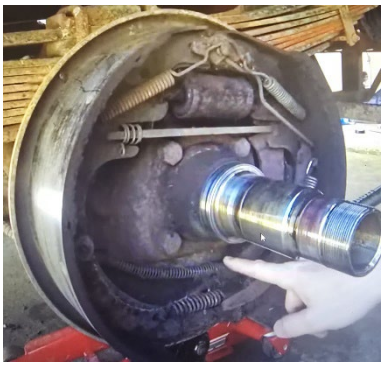
    (Be careful, it is very HEAVY, about 90 lbs.)

22. If you are unable to remove the drum and hub unit, check the rear of the backing plate for an access hole to the brake shoes star adjuster. Now use a screwdriver of brake spoon tool to relax the brake shoe adjusters.

    If all is seized, a final method might be to use a cutting torch on the backing plate to access the star adjuster.

    At this point, the drum and hub unit should be safely out of the way and what remains is the spindle with the drum shoes and backing plate mounted to the housing.





23. Disconnect the emergency brake cable by relaxing the expansion clip or by removing the mounting bolts holding it in place.
24. Push it through the plate.

At this point, the brake shoes and springs and backing plate are all that remain.

25. Remove the hard line from the wheel cylinder. You may need to simply cut the tubes and replace them.
26. Next, remove the 4 bolts that secure the drum backing plate to the axle flange.
27. Save the bolts in case you re-use them. However, the new kit should include them.
28. Remove the drum backing plate.

You should be looking at the end of the axle tube and flange.

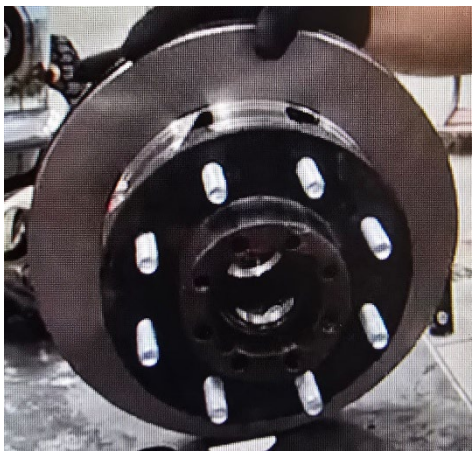
Preparing and inspecting parts that are re-used:

29. Use a wire brush, emery paper, and brake cleaner to clean all surfaces on the spindles.
30. Inspect the surfaces where the grease seal and wheel bearings are positioned on the spindles. Deburr any problem areas.
31. We recommend cleaning out the axle tubes and draining all old differential fluid.
32. If you want to paint your axle housing, degrease it and remove all dirt. Thoroughly clean it inside and out.
33. Remove any damaged drum hard brake lines or hoses that will be replaced.

34. If you want to paint the new caliper brackets, do that now.

Hub teardown and assembly:

35. Place the drum unit on a hard work surface like the floor or a work bench with studs up.
36. Decide how you will be driving the lug studs out of the assembly.
37. You can use a heavy hammer or a press to drive them out. We suggest installing the lug nuts on the stud ends and striking them. Avoid damaging the threads.
38. As you remove them, inspect the splines and threads, clean and replace as necessary.
39. Once all studs are out, spray WD-40 on the intersection between the hub and drum.
40. Separate the hubs and discard the drums.
41. Inspect the hub for damages.
42. Inspect the grease seals and wheel bearings in the hub. If these are acceptable, they can be re-used. However, we recommend replacements. National seal PN 710568
43. The process for replacing the inner and outer bearings with the races in the hub, is detailed in videos online and not covered here.
44. Wire brush and clean the hubs.
45. Repaint them now if desired and allow drying time.



Building the rotor and hub unit:

46. Next place the hub on the work bench with the axle end holes facing down.
47. Place the rotor on the interior back face.
48. Place the studs through the rotor and into the hub.

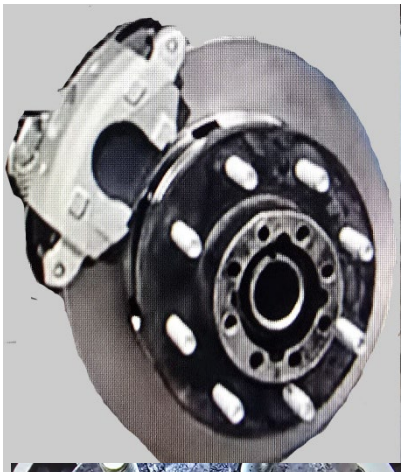
49. Use a punch and hammer or press to drive each into the hub.
50. Use an alternating pattern when driving in the studs to seat the new rotor evenly.
51. Whether you are re-using the bearings in the hub or new bearings...
    Lube the seals and the bearings, with clean gear oil.
52. Make sure the seal is good and lubricate it.
53. Be sure to clean and sand any imperfections where the seal rests on the spindle.

Caliper Bracket and Hub installation:

54. Locate the new caliper brackets and bolts.
55. Place the bracket on the flange face where the drum backing plate was.

Note that These brackets are not side specific, but they have an offset.

56. Place the bracket onto the flange so that the opening for the caliper is **trailing** the axle.
57. The offset is to be closest to the wheel, so the caliper will be centered over the rotor.
58. Install all 4 bolts that fasten the bracket in place.
59. The bolts install from the interior face of the flange ends, and screw into the brackets.
60. Question: did you inspect the axles, grease seals and the wheel bearings?
61. Coat the spindle with gear oil where the bearings and seals will be once the hub is on.
62. Install the hub and rotor unit onto the spindle.
63. Place the interior spindle nut (has a tooth on the face) onto it and tighten it clockwise using your finger and a long screwdriver.
64. Make sure to place it where the protruding pin is facing you.
65. You really need the 4wd socket to complete this installation.
66. Torque inner nut with pin on it (facing you) to 50 ft lbs., then back off ¼ turn, then torque to 30 ft lbs.
67. Test spin the rotor.
68. Add the keyed washer with all the holes. Be sure to rotate the rotor as needed to align the 4 keys machined into the spindle itself.
69. You may need to back off the first nut to align the pins and washer to just under 30 ft lbs.
70. Next install the last nut (the one with the cage if so equipped) and torque to 150 ft lbs.
71. If yours is the type with tabs that bend into the slot in the spindle nut, do so now.
72. If yours had the expansion snap ring and woodruff key, insert them now.



73. Prepare the axle shafts to be placed back into the housing.
74. So, you are either reusing the axle gaskets seals or adding new ones with RTV silicone.
75. If you had gaskets, place them on the shafts before inserting the shafts.
76. Next reinstall the axle shafts into the sides each originally came from.
77. Raise the end of the shaft up and down and twist to get the splines inserted.
78. Push the axles all way in and add the end bolts.
79. Torque the end bolts to 115 ft. lbs.

Caliper installation and Final Assembly:

You may have decided to use calipers with the integrated Emergency brake or without.
This will describe both procedures.

80. Remove the pads from the calipers and the slide bolts.
81. Place the calipers into the brackets. The bracket or caliper may have a slight burr.
82. If needed, clean any burrs or snags on the bracket with a file.
83. Move the slides as needed and install the mounting bolts.
84. Are the calipers centered over the rotors evenly? If not remove the brackets and add flat washers to center them.
85. Once the calipers are centered, remove them from brackets.
86. Next test fit the outboard brake pads into the calipers. They have two tabs that can be bent over, hit with a hammer or pliers. Make sure the pads snap securely on to the casting.
87. Once the outer pad tabs are correct, remove the pads, and add DISC BRAKE QUIET to the backing plate to adhere them to the calipers.
88. Let the glue get tacky and put them into calipers.

89. The inboard pad may have a mounting clip that holds it to the piston. Adjust it if necessary to keep the pad secured to the groove on the piston. Make sure to align the dowel on the pad face to the pockets milled in the piston.
90. You can used DISC BRAKE QUIET ADHESIVE here also.
91. Apply CALIPER SLIDE GREASE to the bolts and sleeves.
92. Install the calipers into the brackets with the brake bleeder screws facing UPWARDS.
93. Put the slide bolts into position and tighten them with an Allen wrench key or socket.
94. If you have the integrated Emergency brake, insert the cable housing end into the mounting hole for the cable stop bracket.
95. You may need to weld a bracket on to the axle housing to reposition the cable securely.
96. Insert the cable core through the center of the spring and maneuver the end stop into the lever arm.
97. Test pull the Emergency brake lever and adjust as needed at any adjustment points in the cable system.

Installing the Calipers

Note* YOU MUST TO ADJUST THE CALIPER TO SET THE EMERGENCY BRAKE PROPERLY.

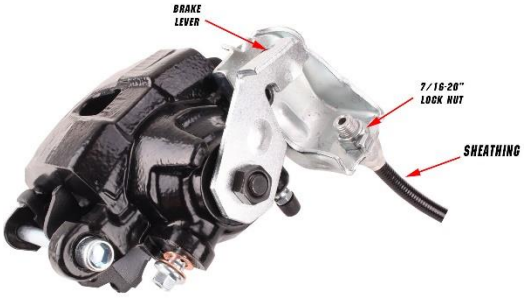
1. Ready the caliper by removing the mounting bolts.
2. Add slide grease to the pins and slide sleeves.
3. Test fit the caliper into the bracket and over the rotor.
4. You may need to adjust the lever to retract the pads to allow clearance.
5. Remove the pads and clip.
6. Install a disc pad spreader and adjust to contact the face of the piston. Do NOT push it in. It is on a worm gear and rotates.
7. Remove the spring.
8. Remove the nut on the lever arm.
9. Remove the lever itself.
10. Observe the hex shoulder on the bolt in the caliper and rotate it inward. (Do not lose the nylon washer).
11. Once you have screwed the bolt in, you can use the disc pad spreader tool to put the piston assembly inward further. This only works if you rotated the central bolt in the previous steps.
12. Install the lever back on to the central bolt and install the nut.
13. Make sure the lever contacts the bump stop on the casting of the caliper body.
14. Install the spring.
15. Remove disc spreader tool.
16. Install the pads again.
17. Test fit the caliper with the spring riding on top closest to the body of the truck.
18. Tighten the caliper mounting bolts to spec.
19. By hand, pull the lever to make sure the pads do cinch down on the rotor.
20. Adjust as necessary.
21. Install the emergency brake cables into the calipers.
22. Route the cables to the body or chassis and connect to the main cable system.
23. Connect the rubber flex hoses to the caliper and make sure to use copper washers on both sides of the banjo bolt end.
24. The brake hose will underneath the axle tube and connect to the hose bracket.
25. Tighten the hose to the bracket with the hose clip.
26. Connect to the hard lines to the brake hose.
27. YOU MAY BE ABLE TO BEND YOUR ORIGINAL LINES OVER TO THE HOSE BUT…
28. You may need to cut and flare, or install new hard lines here.
29. Add brake fluid to master cylinder.
30. Bleed system RR, LR, RF, LF…working furthest to closest to the master cylinder.
31. Test brake pedal action.
32. Mount the wheels.
33. Install and tighten all lug nuts.
34. Remove jack stands.
35. Torque the lugs to factory specs.

Emergency Brake Cable Kit (If included) Some kits may not include cable kit.

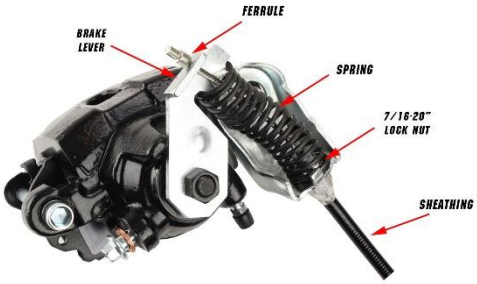
This kit is intended to be installed <u>ONLY</u> after the emergency brake adjustment has been performed on the calipers.

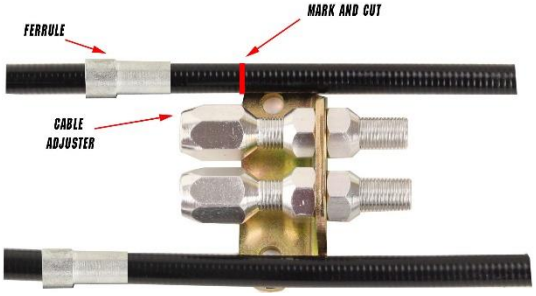
Before proceeding, verify that the pads cinch down on to the rotor and hold it still when you engage the brake cable lever(s) on the caliper(s). If further caliper adjustment is still needed, complete that before proceeding.

1. Remove the **brake lever springs** from both calipers.
2. Remove the **cable cores** from the black **cable housing** or sheathing.
3. Remove the lock nuts from the black **cable housings.**
4. Install the cables though the **cable mounting bracket** on each caliper and secure the lock nuts.
5. Replace the **brake lever springs** for both calipers from step 1.



6. Choose the cable routing paths most suitable for your suspension and exhaust components. Keep in mind that the factory routing is the most preferable. Avoid bending or binding in the cables. Do not keep a cable path that uses bends less than 7” diameter.
7. Feed both cables to the location of the original **cable stay bracket**. The location of your original bracket may be ideal and the bracket re-usable, but if not, use the **cable stay bracket** provided.
8. If your old bracket is missing or damaged, mount the **new bracket** in this location.
9. Mount the silver colored **cable adjusters** into the bracket as shown. The end that accepts the cable support sleeves must face towards the rear cables. Tighten the nuts on both sides of the guides to secure it into the bracket.
10. Once the **cable stay bracket** is secure, pull the cables into the preferred length. Be sure to allow the wheels to hang so you can see the full range of travel before modifying the overall cable length.





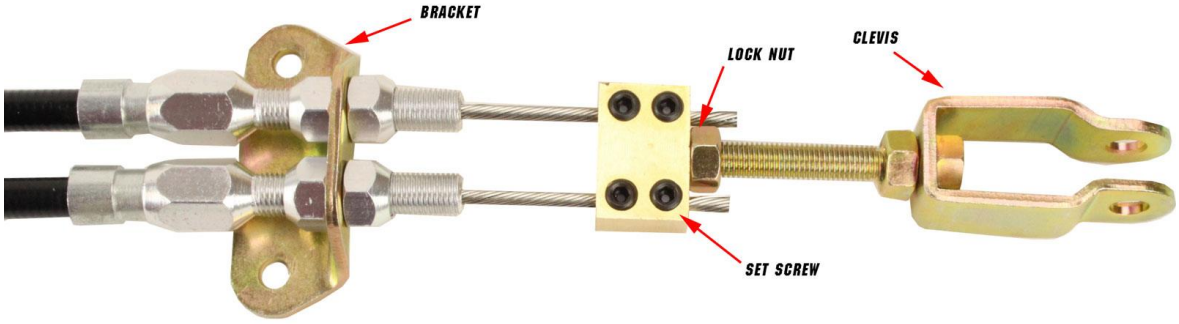
11. Using the **cable mounting tabs** provided, secure the cable to the chassis. Mark the **black cable sheathing** on the location you intend to cut them at.

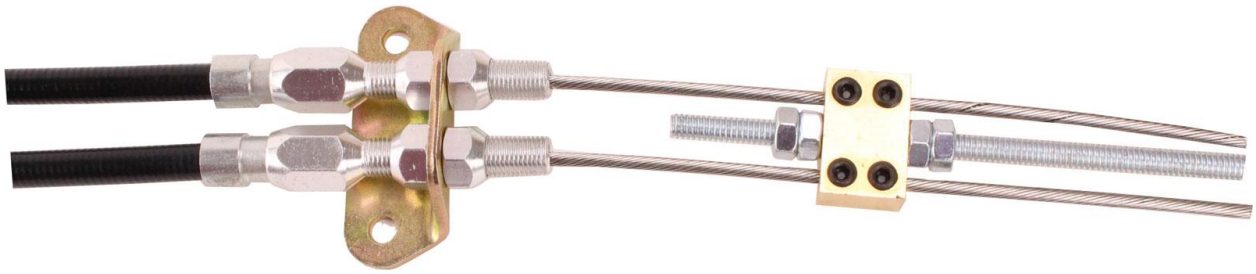
Using an appropriate saw, cut the **black cable sheathing**.

12. Place the **silver cable housing ends** on to the newly cut ends and feed into the cable adjusters.

13. Feed the **cable cores** through the openings in the levers, though the brake lever springs, and back into the black cable housings.
    <u>Do not cut</u> the cable cores at this time.

14. Locate the **brass block** used to secure the cables.
15. Determine how you will connect the brass block to **your pre-existing system or intermediate cable.** You may or may not use the clevis or rod provided, which is used when connecting directly to the handle pull system. Some applications will not use these parts, but will drill through the threaded block instead. If this is the case, secure the original threaded cable end through the block and secure lock nuts to either side of the block.
16. Feed the cable cores through the brass block.
17. In the brass block, tighten the socket nuts on to the cables. Mark the cables on either side of the block with paint. **<u>Do not cut</u>** the cable cores.





At this point the emergency cable system should be completely connected.

18. Test the emergency brake system by depressing the foot pedal or using the pull handle.
19. Make sure the cables are not slipping in the set nuts in the block. Tighten as necessary.
20. Now cut off the excess cable cores that are in the brass block.
21. At this point, you can make any final tension adjustment in the system.
22. In a safe location, test engaging and dis-engaging the emergency brake system.