



CCK743 INSTALLATION INSTRUCTIONS

Coil-Over Conversion Kit for 1979-2004 Mustang

RECOMMENDED TOOLS:

- Hydraulic jack and jack stands
- Wrenches and sockets: 15mm 18mm, 21mm, 3/4", 7/8"
- Pry-bar and rubber mallet
- Drill with various bits for starting and enlarging a hole up to and including 3/8", 1/2" and 3/4"
- Magnetic Angle Finder

- **Lower Coil-over Mount Installation:**

1. Open the trunk and remove interior panels to gain access to the upper shock studs.
2. Using a 15mm wrench or socket, remove the upper shock nuts inside the trunk.

IMAGE 1

3. Lift vehicle and support with jack stands under the frame rails. Remove wheels/tires.
4. Support the axle with a hydraulic jack then remove the lower shock bolts using a 21mm wrench or socket. Remove the shocks.
5. If vehicle is equipped with OE quad-shocks, remove them using a 15mm and 18mm wrench or socket as shown in **IMAGE 2**.
6. Lower the rear end and remove the factory coil springs.



(NOTE: You may need to make additional clearance for the routing of fuel lines, bump-stop brackets and other provisions. Carefully plan and ensure that the mounting locations of this kit will work for your setup. This coil-over kit will convert any 1979 to 2004 mustang to use an inboard, coil-over setup, although some modifications like drilling/cutting/grinding and re-routing of plumbing will be required.)

7. Remove the factory Lower Control Arm bolts an 18 and 21mm socket or wrench for a New Edge Mustang (1999-2004) or two 18mm's for a Fox or SN-95(1979-1998).



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8. Install the Lower Coil-over/Control Arm Bracket over the stock Control Arm Bracket. Insert one the large silver M14-2.0 x 120mm bolt through the stock control arm position holes using the large gold sleeve in between the place of the stock lower control arm as shown in **Image 3** and fasten with the appropriate flanged poly-lock nut.
9. Start the threads on one of the short $\frac{1}{2}$ " x $1\frac{1}{4}$ " bolts, using a gold washer and a poly-lock nut through the slot in the rear of the mount through the factory shock hole.
10. Using a magnetic angle finder on the bottom flat of the Control Arm Bracket, measure the angle and compare that angle relative to the angle of the pinion, rotate the control arm bracket in order to achieve the same angle. During our install, our pinion was level with the floor and measured 0 (zero) degrees. We rotated our Control Arm Bracket until it matched that angle of 0 (zero) degrees, shown in Image 4.

(Your angles can be different than this measurement depending on how your rear end is supported, the critical portion of this step is to have the same relative angle between the pinion and the flat on the control arm bracket.)

11. With your bracket in the proper orientation use the hole shown as a drill guide and drill a $\frac{1}{2}$ " hole through the inside ear of the factory control arm bracket as shown in **Image 4**.

(You can tighten the large bolt that uses the factory control arm hole in order to help support and clamp the bracket to the rear end of the car.)

12. Insert a $\frac{1}{2}$ " x $1\frac{1}{4}$ " long bolt into the newly drilled hole using a thin silver washer and gold poly-lock nut to fasten it.
13. You can use the remaining M14-2.0 x 120mm bolt and flanged poly-lock nut to reinstall the lower control arm in the Control Arm Relocation Bracket.

(With your vehicle at your normal, preferred ride height, you want the lower control arms to be parallel with the ground. It is highly recommended you start with the middle relocation hole. After you have installed your coil overs and set your preferred ride height, you can adjust the Lower Control Arm up or down in order to re-establish your rear suspensions geometry.)

14. Torque all bolts to the provided spec using the table at the end of the instructions.



IMAGE 3



IMAGE 4



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Upper Coil-over Mount Installation:

1. Visually inspect the both sides of the inner frame rail of your vehicle. You may have fuel lines, bump-stop brackets or various other obstructions. As part of this install you will need to either remove these or be able to reroute/ modify these in order to install the upper coil-over mounts. Our two test vehicles, a 1991 Mustang LX and a 2001 Mach 1 both feature different plumbing routes for their fuel systems. New Edge Mustangs required fairly little modification, while our Mustang LX required the relocation of a fuel line, removing a welded nut on the underside of the trunk pan and also the removal of a bump stop mount on the outside of the frame rail, all shown in **Images 5, 6 and 7.**



2. The front-rear position of your upper coil-over mount may vary slightly depending on the year of your vehicle, but it is **STRONGLY RECOMMENDED** that you use a C-clamp to hold the top mount to the frame rail where you plan to install it and test your coil-over to ensure that there is enough clearance between the shock and axle tubes. Both mounts need to be at equal distances from the front or rear of the vehicle and should not be staggered.

(On both of our test vehicles, the rear gusset of the upper shock mount was aligned to be centered with the factory hole in the frame rail. This was where we found the best fit, but it is up to you to ensure that there is enough clearance at the location you choose to mount your coil over.)



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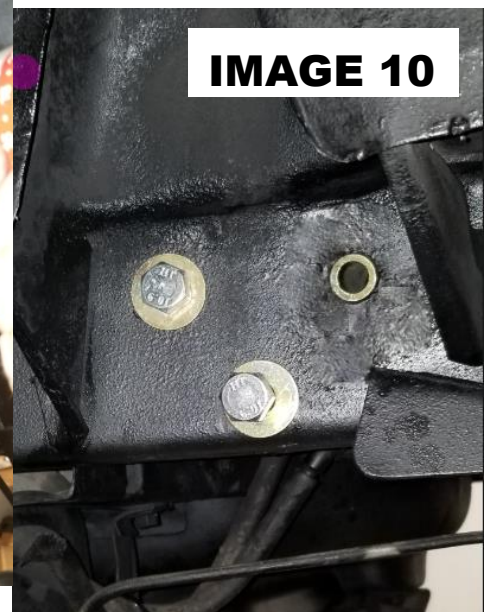
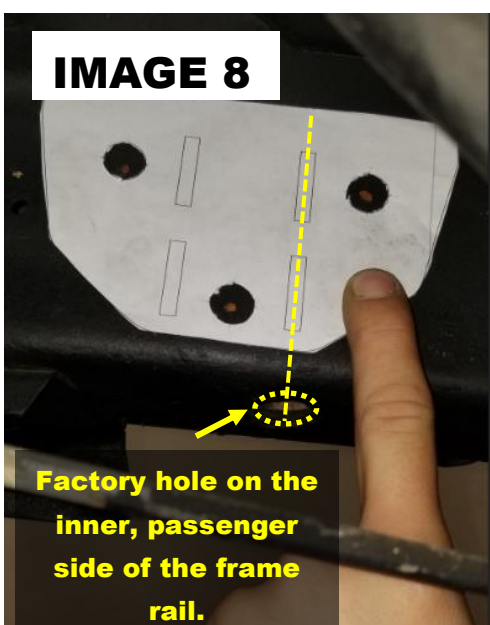
3. If you are satisfied with the position of the upper mount on the inside of the frame, mark the holes using the upper mount and verify using the supplied templates, shown in **Image 8**.
4. It is recommended that you use a 90-degree drill and that you start with a small drill bit to create a pilot hole and drill square into the frame rail through to the other side. Use the templates and ensure that the holes on the outside of the frame rail have the same spacing and pattern as the inside.

(If the spacing and the pattern of the holes on the outside of the frame rail are off from the template, use the small drill bit to correct the spacing and pattern on the outside before you move on to a larger bit. The critical step is that the hole pattern on the inside has the proper spacing to ensure that the bolts will line up with the bracket through the frame rail.)

5. Once you verify that the locations of the pilot drill holes are correct, it is recommended that you use increasing sizes of bits to enlarge holes on both the inside and outside of the frame rail to $\frac{1}{2}$ " in diameter.

(It is recommended that you check the spacing of the bolt holes frequently with the template and also with the bracket in order to make any corrections before you move up to a $\frac{1}{2}$ " drill bit. Take your time, ensuring that the spacing is correct. Use cutting oil or WD-40 to cool and lubricate the drill bit as needed.)

6. Test fit the bracket using the supplied bolts to ensure that your spacing is still correct and that the holes on the outside of the frame rail still have the same spacing as the inside.
7. Finally, use a $\frac{3}{4}$ " drill bit and enlarge the holes on the **outside** of the frame rail as in **Image 9**.
8. Carefully insert the provided sleeves into the frame rail and install the bracket using the supplied M12 bolt, gold washer and serrated flange nut as in **Image 10**. **Tighten to 75 lb-ft.**





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Optional Trunk Reinforcement:

9. Remove the carpet from inside the trunk. Using the upper shock mount as a guide, drill the four holes through into the trunk using a 3/8" drill bit as in **Image 11**.
10. From inside the trunk, install the Trunk Reinforcement Plates and insert the flanged bolts in through the trunk. Under the vehicle, install the matching flanged, poly-lock nuts.
11. Having an assistant hold the bolt head while you tighten each 3/8" bolt in a crisscross sequence. This will pull the floor down slightly in the trunk and help distribute the loads and increase the rigidity of the upper shock mount **Image 11**.



IMAGE 11



IMAGE 12

Passenger Side Reinforcement



IMAGE 13

(For the MAXIMUM strength, the upper and lower mounts can be welded to the frame rail and to the ears on the axle tube, in addition to using the supplied bolts)



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Torque Specs:

M14 Bolts (22mm Hex Head): 100lb-ft

M12 Bolts (19mm Hex Head): 75 lb-ft

3/8" Bolt (9/16" Hex Head): 40 lb-ft

1/2" Bolt (3/4" Hex Head): 80 lb-ft

COIL-OVER RECOMMENDATIONS:

For a 1"-3" lowering, we recommend the following Viking coil-over or a coil-over with specs similar to these below:

Viking Part #C209-W

- Bearing style ends suggested, bushing style ends not recommended
- Most coil-overs are available in two different mounting widths, 1" and 1.25". BMR brackets are designed to accommodate a 1.25" width. The **W** in the part number above dictates the wider bearing.

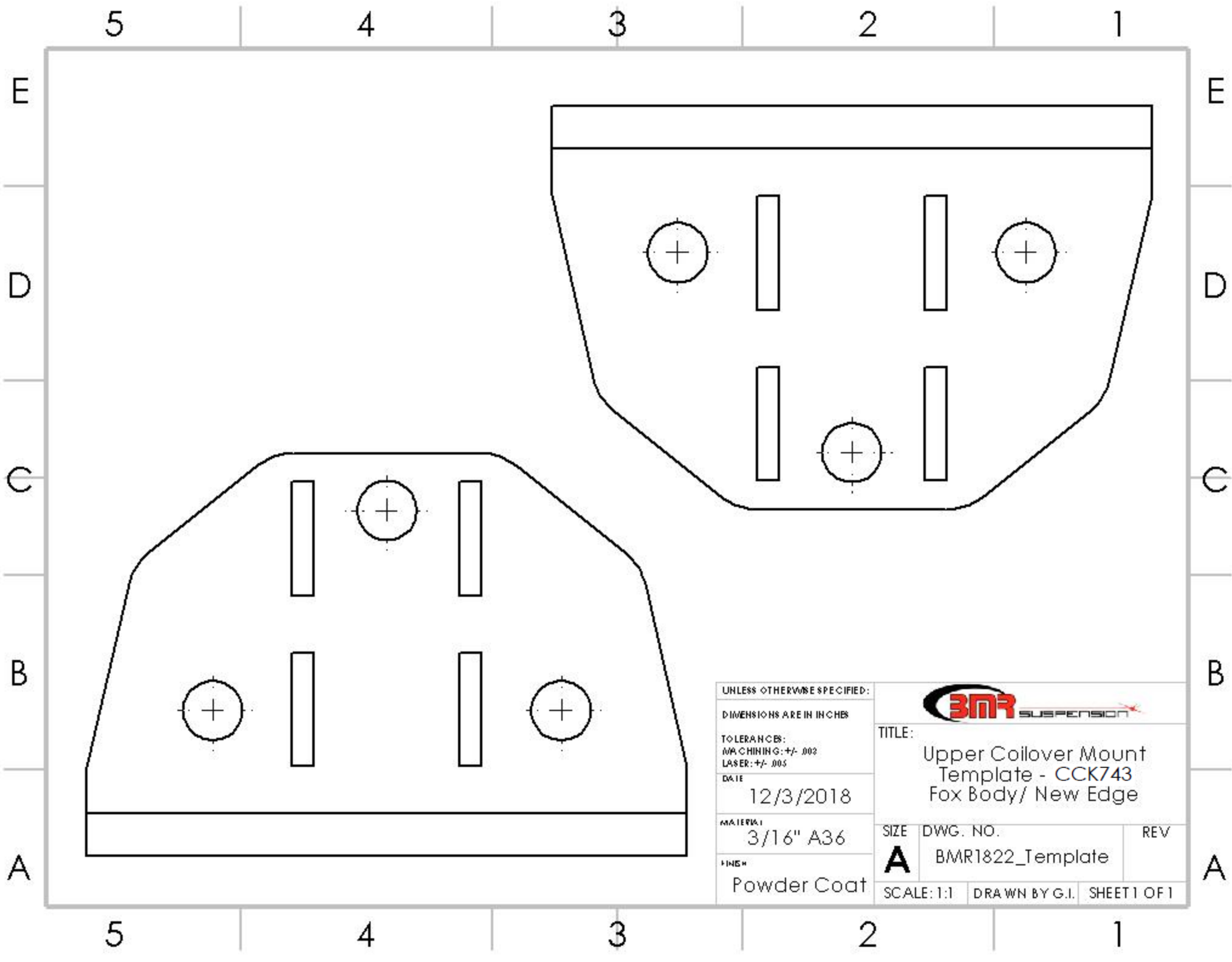
Shock Specs: Compressed height - 11.57

Extended height - 17.32

Shock stroke - 5.75

Recommended shock height (eye-to-eye) - 13.875-15.125

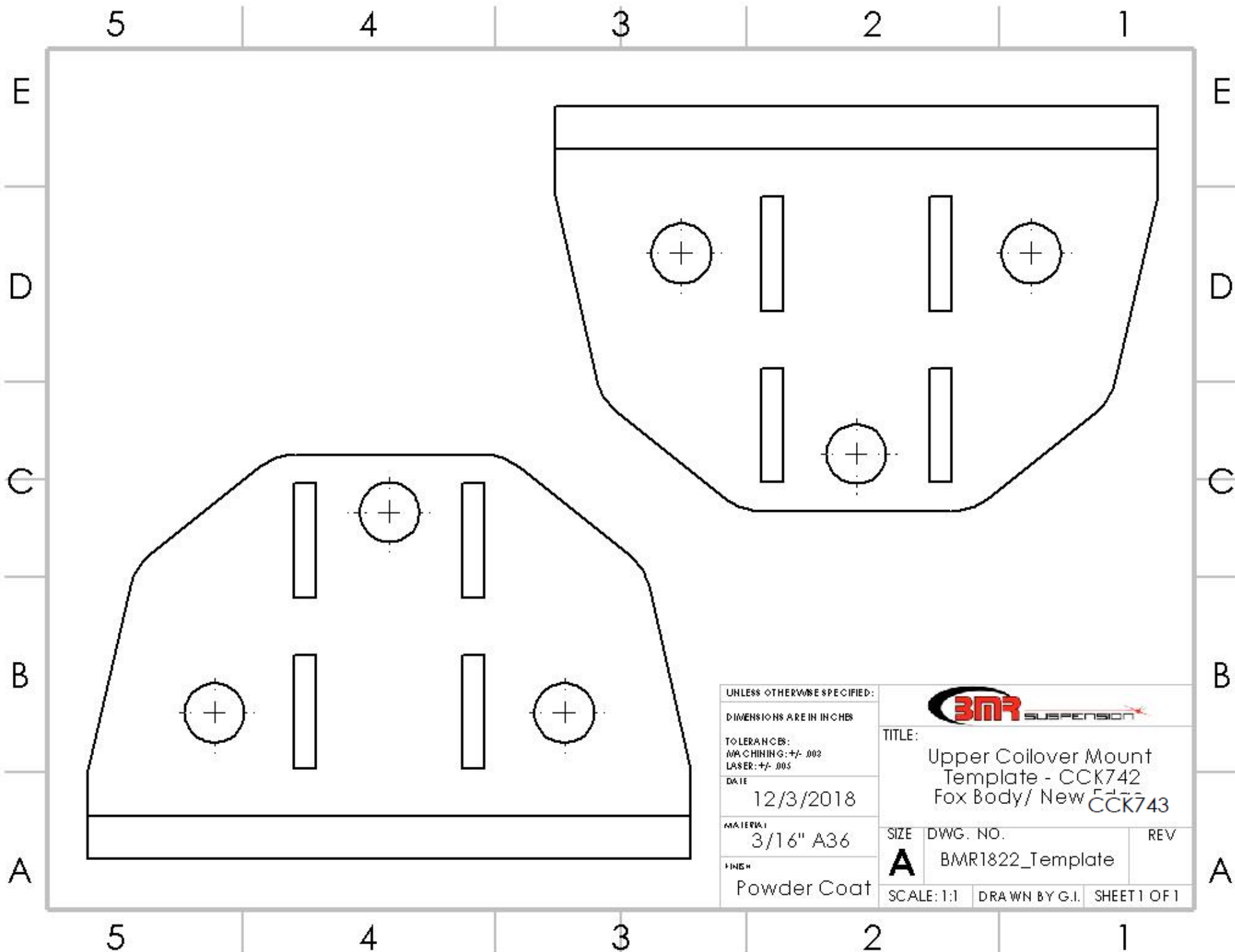
Spring Specs: This coil-over and most with similar specifications as listed above will accommodate either a 10" or 12" long spring. As a general rule of thumb, for spring rates 150 lbs/in and lower we recommend a 12" spring. Spring rates 175 lbs/in and higher should use a 10" long spring.




UNLESS OTHERWISE SPECIFIED:
 DIMENSIONS ARE IN INCHES
 TOLERANCES:
 MACHINING: $\pm .002$
 LASER: $\pm .005$
 DATE
 12/3/2018
 MATERIAL
 3/16" A36
 FINISH
 Powder Coat



TITLE:
 Upper Coilover Mount
 Template - CCK743
 Fox Body/ New Edge
 SIZE DWG. NO. REV
A BMR1822_Template
 SCALE: 1:1 DRAWN BY G.I. SHEET 1 OF 1



UNLESS OTHERWISE SPECIFIED:					
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