



# MUSTANGSTEVE

MUSTANGSTEVE.COM

rev 160515

## COBRA-FT

## Disc Brake Conversion

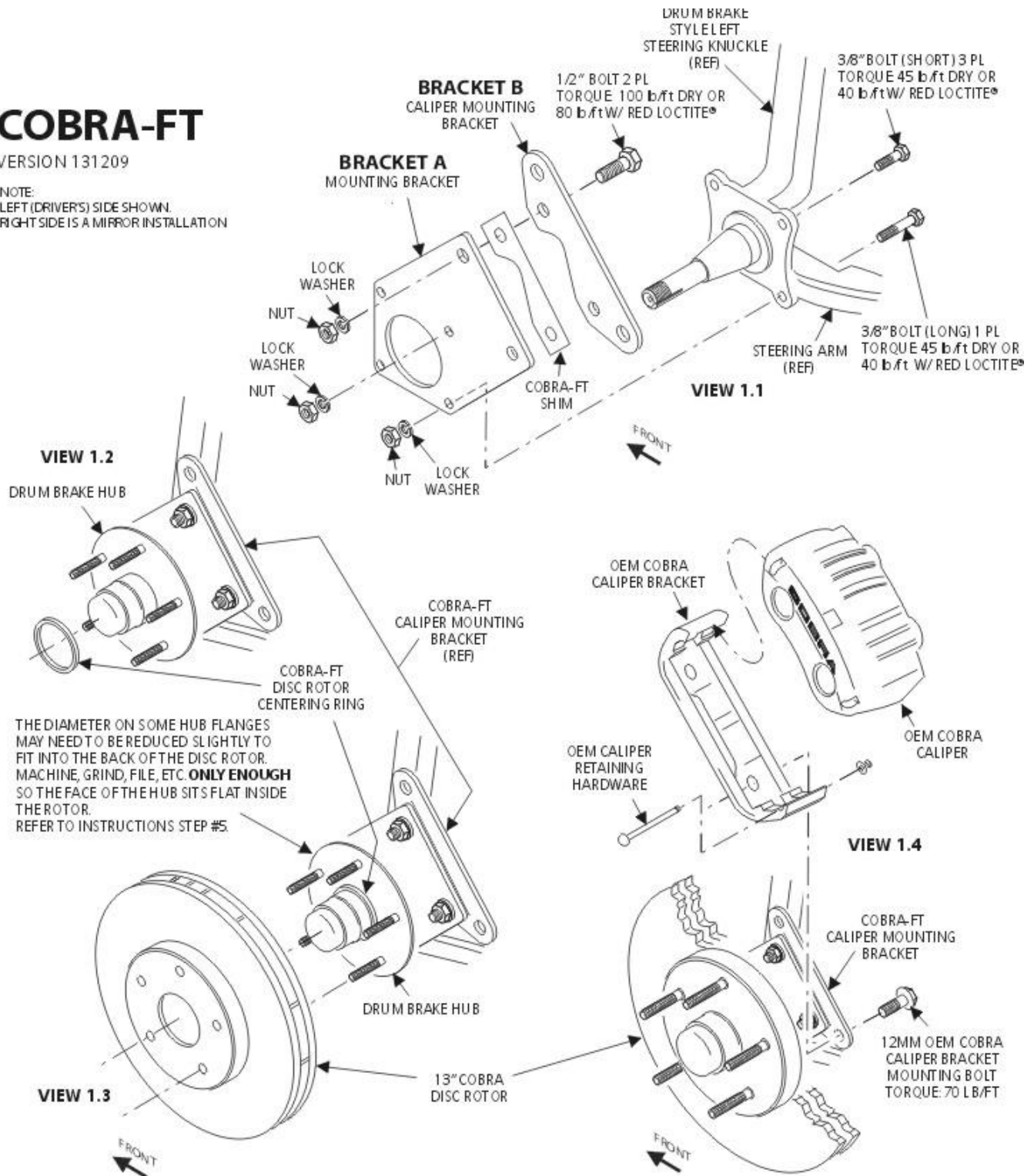
## Installation Instructions

1. Remove existing drum/hub as a unit from the spindle. Remove backing plate from spindle. Disconnect rubber brake hose from steel line and frame bracket. Remove backing plate and hose.
2. Place drum, open side down, in a press and place a plate across the outer bearing retainer part of the hub and press the hub out of the drum. Retain hub with studs intact.
3. Longer wheel studs are recommended due to the slight extra thickness of the rotor and use of alloy wheels. MustangSteve Part # 610-368 shoulderless studs are longer than stock and work perfectly. Available from MustangSteve as a set of ten. **IF USING ORIGINAL STUDS, DO NOT ATTEMPT TO INSTALL ROTOR WITHOUT CHECKING TO BE SURE THE ROTOR'S STUD HOLES WILL FIT OVER THE STUD SHOULDERS.**
4. **IMPORTANT:** Be sure the outer flange OD of the hub flange is smaller than the ID of the rear face of the rotor. Ref: VIEW 1.3. Different rotor and hub manufacturers use different dimensions. If this is not checked, and the hub is too large to fit flat against the back of the rotor, you will never get the rotor placed onto the studs properly. If the hub is too large, the OD must be reduced on a lathe or using a hand grinder so it fits into the rotor. Using a grinder is OK, and there will not be balance issues if not perfectly round. This does not usually require removal of more than 0.060" off the diameter of the hub flange. **This issue MUST BE ADDRESSED.** Whenever someone has a problem with an installation, the error usually comes back to this step.
5. Place the supplied rotor centering ring on the hub, and use a drift punch to push the ring, which is a press fit, onto the hub snout. There is a small radius on the hub face which will prevent the ring from seating flat against the hub face. That is OK as long as the ring is evenly installed. At this point, the rotor should be able to be installed on the hub without undue force. It should fit snug around the ring and slide easily over the wheel studs. Temporarily secure the rotor to the hub using two or three lug nuts. This will keep you from jarring the rotor loose from the studs while mounting it. Ref: VIEW 1.2
6. Using the supplied (4) 3/8" bolts, mount bracket A to the spindle. Using the 1/2" bolts, mount bracket B to bracket A with the shim between the two brackets. Use the supplied lock washers and nuts. Bolts can go in from either direction. Use of Red Loctite is recommended. Ref: VIEW 1.1
7. Mount the hub/rotor to the spindle. Adjust bearings and check for rotor runout.
8. Install the caliper onto the steel bracket using (2) supplied 12mm hardened steel flange-head bolts. Blue Loctite or equivalent thread lock compound is recommended, but not required.
9. Use 3/16" steel tubing (not supplied with kit) to construct the new brake lines. Original caliper hoses should be discarded as the straight section of hard tubing they have at the caliper end does not fit well on classic Mustangs. A generic hose of appropriate length for your car should be used. 3/8" banjo fitting at the caliper (caliper has metric threads) and 3/8" threads at frame end. A 1/8" vacuum hose can be used as a mock-up hose to determine best length and routing for your car.
10. Mount hoses to frame of car so the hose routing will not interfere with any suspension or steering components throughout the entire range of their vertical travel as well as their entire range of steering motion. Typical bracket location is centered under the lower control arm along the frame rail.
11. You must use a master cylinder with at least 15/16" bore size, designed to work with disc brakes. Master cylinders with bore larger than 1" may not be capable of producing adequate line pressure for these brakes and should be avoided. (MustangSteve master cylinders PB-6.1 and PB-6.2 are compatible with these brakes. See Page 4 of instructions.
12. You must have a proportioning valve in the rear brake line when installing discs up front. (MustangSteve PV-100-CHR Proportioning valve is also available. See Page 4 of instructions.

# COBRA-FT

VERSION 131209

NOTE:  
LEFT (DRIVER'S) SIDE SHOWN.  
RIGHT SIDE IS A MIRROR INSTALLATION



**DRIVER SIDE SHOWN**

Mustang related questions can be posted on my FYIFORD FORUM for quick replies to ANY Mustang questions.

Go to  
[www.mustangsteve.com](http://www.mustangsteve.com)  
 and click on the FYIFORD link.

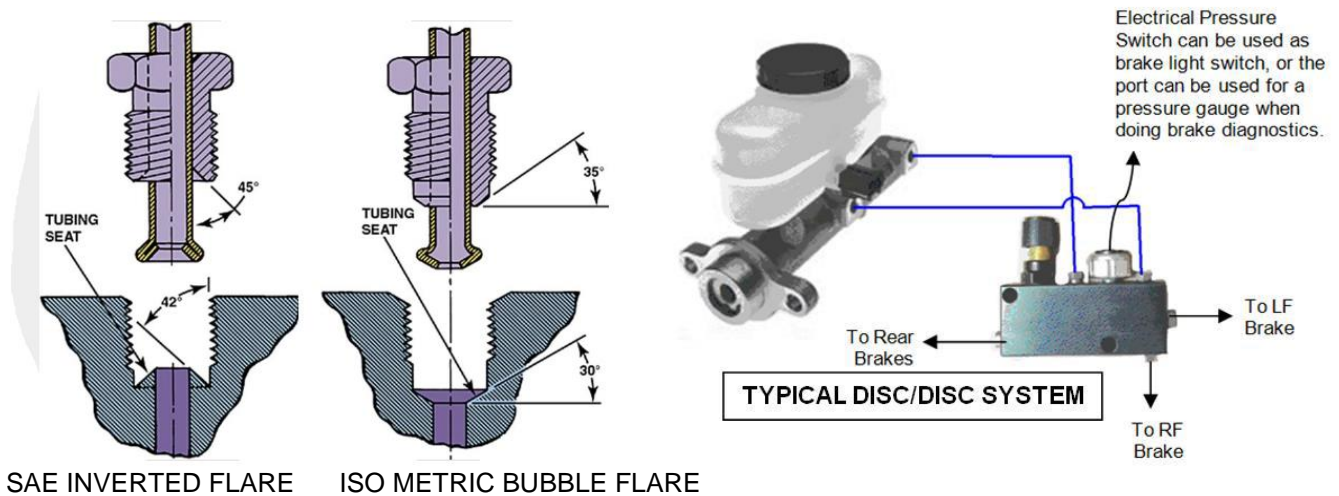
## REFERENCE INFORMATION

If installing brand new brake pads or shoes, DO NOT immediately go out and do a panic stop to see how well they work!!!

This will destroy new pad and shoe material.

New brake pads must be broken in and used in normal driving for 200 or so miles before a super panic stop.

Increasingly hotter brake applications as you are driving will help to bed the new pads. Do not come to a complete stop when doing hot deceleration so the pads do not transfer material to the rotors. Keep driving to let the parts cool down between decelerations.



You may call, email or post questions on my Q&A Forum <http://fyi.boardhost.com/>

(972) 345-5466 Mon-Sat 9AM-6PM central time Email [info@mustangsteve.com](mailto:info@mustangsteve.com)

## RECOMMENDED MASTER CYLINDERS

Purchase NEW only. Rebuilt master cylinders do not last very long

**Disc/Drum** 67-70 Mustang Power Disc Brake 1" Bore  
**MustangSteve Part # PB-6.1**

**Disc/Drum** 74 Maverick non-power disc/drum 15/16" Bore  
**MustangSteve Part # PB-6.4**

Note: Use of Maverick MC will result in a longer pedal stroke. Use with manual brakes only.

**Disc/Disc** 2000 Mustang V6 1.00" bore  
**MustangSteve Part # PB-6.2**

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## RECOMMENDED PROPORTIONING VALVES

**Disc/Drum or Disc/Disc** Adjustable valve with distribution block and electric brake light switch

**MustangSteve Part # PB-100-BLK** Black finish

**MustangSteve Part # PB-100-CHR** Matte chrome finish

Light switch port can also be used for pressure gauge port to use in diagnostics

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Master Cylinders and Proportioning Valves Available at [www.mustangsteve.com](http://www.mustangsteve.com)



**PB-6.1**  
**PB-6.4**



**PB-6.2**



**PB-100-BLK**  
**PB-100-CHR**

<b>Parts required for COBRA FRONT DISC BRAKE RETROFIT</b>		
<b>65-66 Mustang</b>	Specify Parts From	Notes
Spindles	65-66 Mustang	V8 disc or drum
Hubs	65-69 Mustang	V8 drum brake only
Bearings	65-69 Mustang	#2 and #6 Bearing
Seals	65-69 Mustang	V8 drum brake
Caliper Brackets	MustangSteve # Cobra-FT	
Caliper Mounting Bolt kit	m12-7.5 x 35mm long ( 4 req'd)	included with Cobra-FT kit
Calipers	94-2004 COBRA	
Brake Pads	94-2004 COBRA	Pads are usually included when new calipers are purchased
Rotors	94-2004 13" COBRA	
Hoses	94-98 COBRA	Red 2003 calipers use unique coarse thread banjo bolts (metric threads) Bolts come with hoses in most cases.
Banjo bolts	94-2004 V6, GT, or COBRA	Red 2003 calipers require coarse thread bolt
7/16" thread 3/16" tube size brake tube flare nut (fits Cobra hose)	Available @ MustangSteve's	One required. Other hose uses standard 3/8" threads.
Frame mounts for hoses	Use original ones on car. May require relocating. Will require filing I.D. to fit hose hex fitting	Suggested location to remount is directly under center of upper control arm, on frame rail.
Steel lines	Replace with custom made 3/16" tubing diameter. SAE Inverted Flare req'd for end fittings	Buy two sticks of 3/16" brake line steel tubing 60" long and make your own lines. SAE Inverted flare tool is \$20 at Sears
<b>67-73 Mustang</b>	Using 67-69 spindle / using 70-73 spindle	
Spindles	67-69 Mustang / 70-73 Mustang	67 V8 disc or drum, 68-69 drum only / 70-73 drum only
Hubs	65-69 Mustang / 70-73 Mustang	65-69 V8 drum brake only / 70-73 drum brake only
Bearings	65-69 Mustang / 70-73 Mustang	65-69 #2 and #6 Bearing / 70-73 Mustang bearings
Seals	65-69 Mustang / 70-73 Mustang	65-69 V8 drum brake / 70-73 drum brake
Caliper Brackets	MustangSteve # Cobra-FT	
Caliper Mounting Bolt kit	m12-7.5 x 35mm long ( 4 req'd)	included with Cobra-RSM or RLG bracket set
Calipers	94-2004 COBRA	
Brake Pads	94-2004 COBRA	Pads are usually included when new calipers are purchased
Rotors	94-2004 13" COBRA	
Hoses	94-98 COBRA	
Banjo bolts	94-2004 V6, GT, or COBRA	(metric threads) Bolts come with hoses in most cases. Red 2003 calipers require coarse thread bolt
7/16" thread 3/16" tube size brake tube flare nut (fits Cobra hose)	Available @ MustangSteve's	One required. Other hose uses standard 3/8" threads.
Frame mounts for hoses	Use original ones on car. May require relocating. Will require filing I.D. to fit hose hex fitting	
Steel lines	Replace with custom made 3/16" tubing diameter. SAE Inverted Flare req'd for end fittings	Buy two sticks of 3/16" brake line steel tubing 60" long and make your own lines. SAE Inverted flare tool required.
<b>Parts required for COBRA REAR DISC BRAKE RETROFIT</b>		
Bearings	MUST replace axle bearings	Brackets fit between bearing and axle flange. DO NOT reinstall old bearings. Press fit will be compromised if you do
Seals	Axle seal replacement optional	Recommended to replace seals
Caliper Brackets for all 8" and small bearing 9"	MustangSteve # Cobra-RSM	3/8" bolt holes
Caliper Brackets for large bearing 9" (bearing diameter 3.150")	MustangSteve # Cobra-RLG	1/2" bolt holes - also fits Torino style & Versailles rear
Caliper Mounting Bolt kit	Caliper bolts included with brackets	Uses original backing plate T-head bolts to attach brackets to axle housing flange.
Calipers	94-2004 COBRA	
Brake Pads	94-2004 COBRA	GT or V6 pads appear same but are slightly thicker and will not fit over the cobra rotors.
Rotors	94-2004 COBRA 11.65"	
Hoses	77-80 Lincoln Versailles	Can also use 94-98 COBRA or generic
Banjo bolts	94-2004 V6, GT, or COBRA	Must use with either hose type (metric threads)
Emergency brake cables	94-2004 V6, GT, or COBRA	Must cut housing to fit, cable to overlap existing cable 6" and clamp with 2 1/8" cable clamps each side
		Version 131210