



Steering Stabilizer



**Simply the best Steering Stabilizer
money can buy!**

**Mounting Guidelines
Owners Manual
Spare Parts Manual**

**Proudly made
in the USA!**



Congratulations! You have just purchased one of the finest products money can buy for your bike. To be sure you mount it correctly, so it works the way it is intended to, please read all the instructions before mounting anything.

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For Technical Questions, Installation help, or Service, Please contact Scotts

For Replacement Parts, please contact Scotts or your local dealer.

WARNING!!

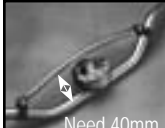
Failure to follow these instructions could result in serious or fatal injury to the user or bystanders. Be sure you fully understand how it functions or contact us before proceeding. Scotts cannot be held responsible for any personal injuries as a result of negligence.

THE SWEEP CONTROL VALVES

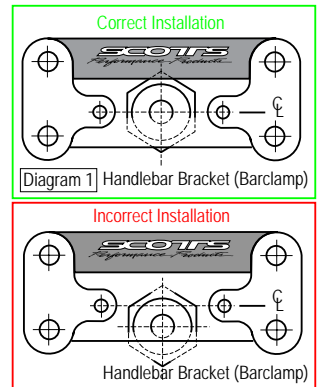
1 Each kit comes with a separate set of mounting instructions in addition to this manual. PLEASE READ ALL INSTRUCTIONS FIRST You'll want to pre-assemble everything first. This will insure proper alignment and fit, otherwise you may find some hidden problems you didn't anticipate.

2 Incorrect installation could mean the unit will not function as designed, or could even damage your new stabilizer.

3 Your handlebars require a minimum of 40mm between the crossbar and the main bar in order for the stabilizer to physically fit. For applications with less than this clearance use: oversize bars, such as Protapers, or special Scotts Renthals with a formed crossbar.

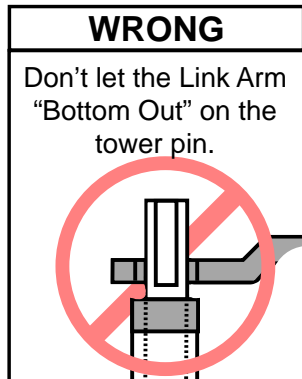
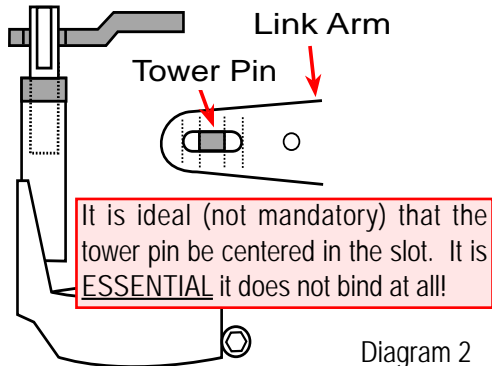
	<p>Renthal was nice enough to make special handlebars for SCOTTS, that incorporates a "bowed" crossbar for extra damper clearance. Unfortunately, Renthal will not sell the Crossbar by itself. These special bend bars are available from Scotts.</p> <p style="color: red; font-weight: bold;"><i>Never remove the crossbar completely!</i></p>
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4 A critical point is to insure that the center line of the stabilizer mounting bolt holes be centered over your bike's steering stem. Most off-road bikes have multiple bar mounting positions. Our provided barclamp fits only in the position you specified when ordering. VERIFY that it matches Diagram 1, or change your lower perches until it does match. Just because it bolts on, does NOT mean it's correct. The bolt holes MUST match Diagram 1.



- 5** Common Mistakes made during Mounting:
- a) NOT Having the main shaft of the stabilizer positioned over the center of the steer tube
 - b) Installing the tower pin without grease.
 - c) Not allowing the frame bracket to seat squarely and all the way down on the head tube as designed.
 - d) Adjusting the tower pin height incorrectly. Do not allow the Link Arm to "bottom out" on the flats of the Tower Pin. (see Diagram 2)
 - e) Not cutting the edge of the seal on the head tube bearing when it interferes.

6 Installing the frame bracket: There are several styles of frame brackets depending on the configuration of your frame. The supplemental instructions supplied with your kit will show the specifics for your bike. Road bike frame brackets normally utilize the forward gas tank mounts. Off-road bikes normally require removal of the upper triple clamp, then sliding the frame bracket around the head tube, making sure that the bracket seats tightly and squarely around as much of the head tube as possible. If there is a lip on the inside of the ring portion, it is intended to seat squarely on top of your bike's head tube all the way around. The frame bracket needs to be an integral part of your frame and securely fastened for your frame in order for it to function correctly. See any specific sheets supplied.

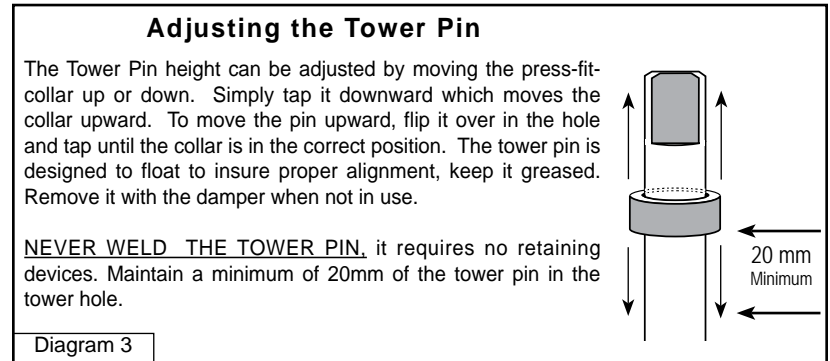


7 Replace your stock upper handlebar mounting clamps with the one piece aluminum barclamp provided in your kit. Deburr it first, no sharp edges should contact your handlebars. Tighten the bolts evenly, trying to keep the gap between front and back equal, so you will have room for adjustment later. Equally snug the four handlebar bolts.

8 Mount the damper to the NEW handlebar clamp and tighten two 6x20 Allens. In some cases the crossbar will not clear the damper unit, which can be cured by either "bowing" the crossbar slightly or changing the bars. Do not let the crossbar make contact with the damper. Protaper, Renthal and other large diameter handlebars are also available from SCOTT'S, which eliminates crossbar problems.

Never remove a crossbar!

9 Adjust the tower pin so it just sticks through the top of the damper link arm (See Diag. 2). Do not allow the link arm to "bottom-out" on the flats of the tower pin or the collar. Keep the hole greased, so the tower pin is free to float.



10 While sitting on the bike, the damper link arm should line up with the backbone when the bars are aimed straight. Turn the bars gently, left to right, lock to lock, and verify nothing hits or binds. Be sure the steering stops make contact on both sides and that the stabilizer has not become the steering stop. If the steering stops do not work you may damage the Stabilizer or mounting hardware. You must repair broken or damaged steering stops before installing our stabilizer.

11 Bikes with rubber mounted handlebar mounts need the linkarm positioned in the middle of the flats on the tower pin. Rubber mounts allow the link arm to flex downward during riding, this in turn may allow the link arm to bottom out on the frame tower, forcing the internal vane against the body, which causes premature non-warrantable wear!

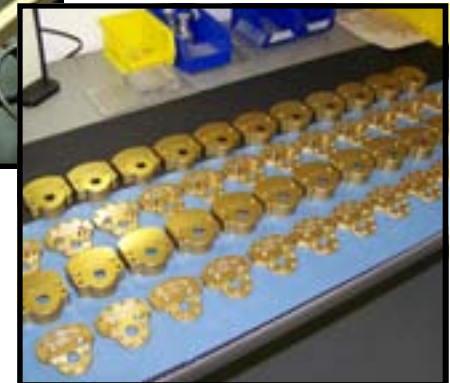
12 Some models will have interference between the underside triple clamp casting and our bracket ring where it fits over the steering head tube. You feel a binding between the Triple Clamp and the Frame Bracket. Simply file or grind the minimum amount off the casting nub to allow clearance for free movement. (This is rare, and should only require slight filing.)

13 Occasionally, due to frame variations, the frame may need filing or slight grinding to clear welds, ignition parts or tank parts. We try hard to make sure they will bolt right on. We do not recommend grinding or filing our mounting hardware.

14 WARNING: Double check all nuts, bolts, cable routing and wires to be sure they are correct! Do not allow cables to be routed where they might get pinched. Taller or extra wide bars normally require longer cables.

15 If you have any questions, concerns, something doesn't fit quite the way you think it should, please call!

16 Now go and enjoy your new toy. You'll be pleasantly surprised!



DAMPER CONTROLS

There are three valving circuits on your stabilizer which allows you infinite adjustability: The Base Control Valve, The High Speed Valve and the Sweep Controls.

You don't need to feel damping in order for it to be working. Start conservatively and slowly dial in your personal requirements.

NOT SURE ABOUT SOMETHING? CALL US!

THE BASE CONTROL VALVE



The Base Valve adjusts the amount of resistance you feel as you turn the bars left to right.. As you turn this knob clockwise (to the Right) you will increase the "stiffness" of the stabilizer. Counter clockwise would be less stiff, a softer feeling.

As you turn the Base Valve knob, you will feel a "Click." There are 8 clicks to one full turn of the knob.

Starting position for the Base Valve is eight clicks (one full turn) back OUT from full CLOCKWISE. We recommend starting there and adjusting it only after riding for a while.

There is a Positive Stop at three full turns out. Do not force the Base Valve into the positive stop. As you become accustomed to your stabilizer, try adjusting one click at a time until you find the settings you like.

It is not necessary to turn the Base Valve up (stiffer) for the stabilizer to be working, the high speed valve will still function.

You do not have to feel drag for the stabilizer to be working.

More than twenty (20) clicks counter-clockwise is basically OFF for the Base Valve, however the High Speed Valve will still absorb impact, according to where you have it set.

This key feature is to be able to adjust the base valve while riding to compensate for changes in terrain.

Once you find a setting you like, you may reposition the pointer. Simply place your thumbs on the brass knob and lift the pointer off with your fingers. Reposition the pointer straight ahead and press it back on. Now, at a quick glance you know if you're stiffer or softer than your preferred setting.

WARNING: Check settings before EACH Ride!

THE HIGH SPEED VALVE

(Located under the Black Cap which is just pushed on tight.)



We have pre-set the High Speed Valve before shipping. Before changing this, ride with the stabilizer for some time to get the feel of it. Then, adjust in 1/8th turn increments, until you find a setting you like.

This valving circuit is designed to help absorb large, unexpected hits, such as hidden tree roots or a pot hole. It reacts to spikes that exceed your current base valve setting.

By turning the High Speed Valve **CLOCKWISE** (to the right) you will increase its sensitivity. This means that the High Speed Valve will require less force to respond. **Warning:** Do not set this valve too "stiff", as it can limit your steering response time.

Unlike the Base Valve, there is no "Click". Each position is a new setting. Adjustment is best made in 1/8th turn increments.

The High Speed Valve has less effect as you turn the Base Valve setting clockwise (to the right). Conversely, it has more effect as you turn the Base Valve to the left.

This is the most functional High Speed Valve found on any stabilizer!

Do not test the High Speed Valve while the bike is on a stand.

THE SWEEP CONTROL VALVES

LOCATED ON BOTH SIDES, these are what control the distance of damping force (or sweep), from the center line out to either side until it releases. The stabilizer is then free to move to the steering stop. This allows for easy steering in tight turns.

Key Feature: This prevents arm pump commonly created in other stabilizers. Road bikes: Allows for no damping resistance, if wanted, when making tight turns

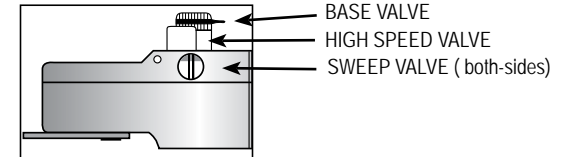
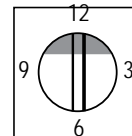
In order to determine where your sweep control is set you'll notice a machined bevel on one side of the slot head groove, that is the pointer end. Don't confuse the threaded hole on some as the pointer, it's the beveled side of the head of the sweep control.

Always look at each sweep control as the face of a clock.

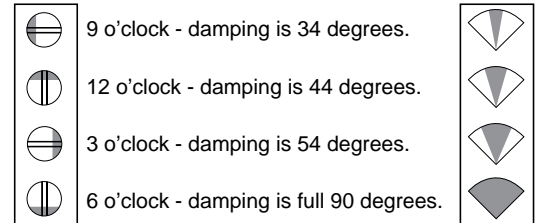
If setting is at 3 o'clock, the right-side valve would face toward the **FRONT** of the bike and the left-side valve would be facing towards the **BACK** of the bike.

At the 12 o'clock setting both would be facing **UP**.

At the 6 o'clock setting both would be facing **DOWN**.



Sweep controls are preset to twelve o'clock for off-road units and 6 o'clock for road bike units.



TOUBLESHOOTING

Binding or Squeaking:

1. Usually indicates a mounting problem. Review the mounting procedure & guidelines.
2. Tower Pin should be greased and float freely in the tower.
3. Check for interference between bottom of triple clamp and top of frame bracket.
4. Be sure you haven't overtightened your steering tube bearings.

Dampens more to one side than the other:

1. Check the Sweep Control positions.
2. The oil may be dirty and in need of servicing.
3. If It's new, give it a short break in time to seat the valving.
4. Too much damping? Check where the knobs are set (see manual).

Little or no damping:

1. Check the Base Valve Settings.
2. Debris in valving or worn parts internally; could need servicing.
3. Shear pin on bottom has broken due to a crash or over stressing. This can be replaced easily by removing the link-arm with a link-arm puller (available from Scotts) and installing a new shear pin. This feature is designed to prevent expensive repairs from crashes.

Crossbar Clearance:

- 1) Steel crossbars can be bowed slightly for additional clearance if needed. Scotts recommends handlebars with more clearance to the cross bar (or bars that come with no crossbar) for correct installation.

Never remove a crossbar.

MAINTENANCE

Your Scotts Steering Stabilizer is a precision hydraulic damper with tight tolerances. You should give it the same good care you would give your motorcycle engine or suspension.

Oil change frequency is relative to how much the stabilizer gets used.

Examine and tighten ALL Bracketry Bolts periodically.

Scotts recommends oil changes on the stabilizer every 2 years under normal riding conditions.

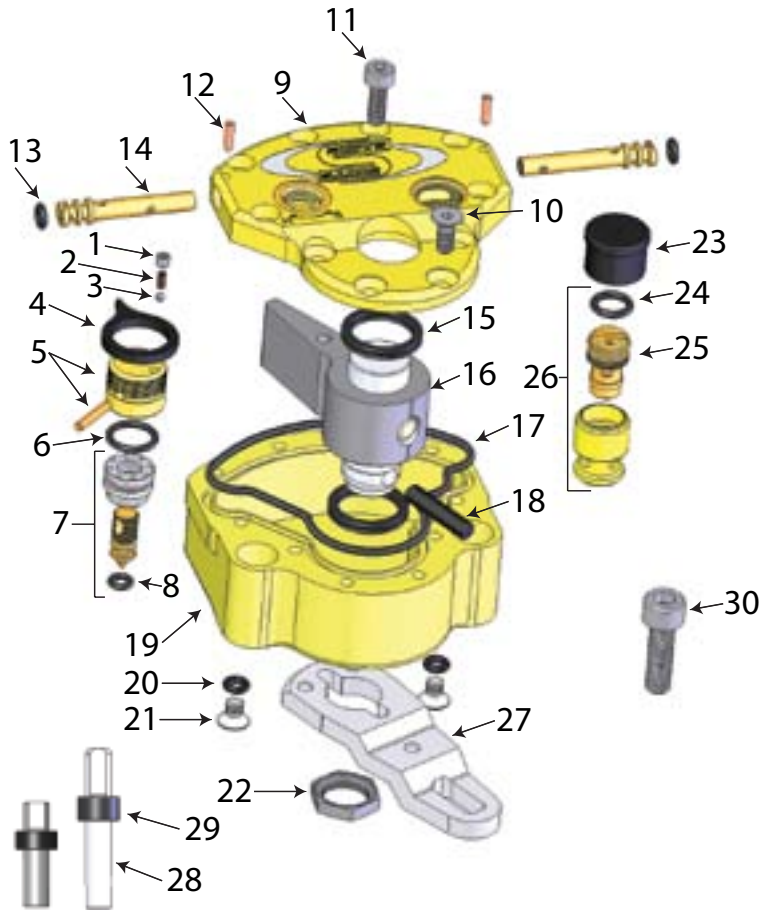
We recommend Scotts Damper Fluid (2.5 wt oil). Other oils can be used but could affect damping characteristics.

Normal washing will not hurt the stabilizer. However, avoid high pressure washing directly aimed at the stabilizer.

Do not try to remove the linkarm without a Linkarm Puller (Part Number 9007-03) or damage to the seal area could occur.

Scotts Performance uses only the highest quality materials, and if properly mounted the stabilizer needs very little attention. Should you require parts or maintenance, we offer fast, reliable, technical service.

STABILIZER REPAIR PARTS

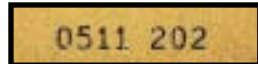


WHICH STABILIZER DO I HAVE?

If the Serial Number on the back of the stabilizer starts with "SD" you will need to order the "SD" parts when there is a choice.



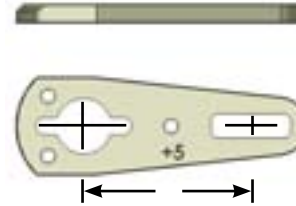
If the Serial Number on the back of the stabilizer does not start with "SD" you will not order the "SD" parts when there is a choice.



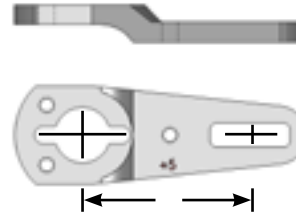
Number	Part #	Qty	Description
1 ...	1502-04	1 ...	Set screw
2 ...	4017-01	1 ...	Spring
3 ...	0884-04	1 ...	Steel ball
4 ...	4030-01	1 ...	Pointer
5 ...	4016-01	1 ...	Brass Knob with pin
6 ...	0338-57	1 ...	O-ring (Knob to Base Valve)
7 ...	4003-01	1 ...	Base valve Dirt (needle, seat & O-ring)
	4003-02	1 ...	Base valve Road (needle, seat & O-ring)
8 ...	0338-14	1 ...	O-ring (needle to base valve)
9 ...	4001-01	1 ...	Top housing cover (Bare - Off-Road)
	4001-02	1 ...	Top housing cover (Bare - Road Bike)
			"SD" Units - Call
10 ...	0382-04	4 ...	Screw (Countersunk head)
11 ...	1046-10	6 ...	Screw (Cap head)
12 ...	4006-01	2 ...	Retainer Pin for Sweep Controls
	4006-01-SD		Retainer Pin for Sweep Controls
13 ...	0338-58	2 ...	O-ring for Sweep Controls
	0338-58-SD		O-ring for Sweep Controls
14 ...	4035-01	2 ...	Sweep Control Assembly (Off-road)
	4035-01-SD		Sweep Control Assembly (Off-road)
	4035-02	1 ...	Sweep Control Assembly (Road Bike)
	4035-02-SD		Sweep Control Assembly (Road Bike)
15 ...	1027-02	2 ...	Main Seals
16 ...	4028-01	1 ...	Main Wing Assembly
17 ...	0338-55	1 ...	O-ring (Top cap to body)
18 ...	4009-01	1 ...	Shear pin
19 ...	4002-01	1 ...	Main Body
			"SD" Units - Call
20 ...	0338-56	2 ...	O-ring (Bottom bleed hole)
21 ...	0382-05	2 ...	Screw (Bottom bleed hole)
22 ...	4010-01	1 ...	Nut
23 ...	4024-01	1 ...	Black Cap (for High Speed Valve)
24 ...	0338-59	1 ...	O-ring for High Speed Valve
25 ...	4005-01	1 ...	High Speed Valve (No outer housing)
26 ...	4005-02	1 ...	High Speed Valve Assembly (Complete)

Number	Part #	Qty	Description
27			Link Arms
...	LKM-4031-35	...	Link Arm - Flat (-5mm Open End)
...	LKM-4031-40	...	Link Arm - Flat (40mm Standard)
...	LKM-4031-45	...	Link Arm - Flat (+5mm Standard)
...	LKM-4031-55	...	Link Arm - Flat (+15mm Open End)
...	LKM-4031-586	...	Link Arm - Flat (6mm Threaded Hole)
...	LKM-4032-35	...	Link Arm - Stepped (-5mm Open End)
...	LKM-4032-396	...	Link Arm - Stepped (6mm Threaded Hole)
...	LKM-4032-40	...	Link Arm - Stepped (40mm Standard)
...	LKM-4032-45	...	Link Arm - Stepped (+5mm Standard)
...	LKM-4032-48	...	Link Arm - Stepped (+8mm Standard)
...	LKM-4032-50	...	Link Arm - Stepped (+10mm Standard)
...	LKM-4032-55	...	Link Arm - Stepped (+15mm Standard)
...	LKM-4032-74	...	Link Arm - Stepped (+34mm Standard)
28			Tower Pin and Collar
...	4033-07	1	Tower Pin and Collar (50mm standard)
...	4033-08	1	Tower Pin and Collar (63mm extra tall)
...	4033-11	1	Tower Pin and Collar (43mm)
...	4033-13	1	Tower Pin and Collar (34mm)
...	4033-14	1	Tower Pin and Collar (24mm threaded)
29	4033-09	1	Tower Pin Collar Only (7.4mm thick)
...	4033-15	1	Tower Pin Collar Only (5.8mm thick)
...	4033-16	1	Tower Pin No Collar (32.5 mm)
30	0620AB-400	...	Screw (6x20 Socket Cap - Off-Road)
...	0620AB-400-S	..	Screw (6x20 Socket Cap - Road Bike Stainless Steel)

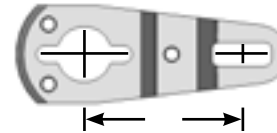
Flat Link Arms:



Stepped Link Arms:



How to Measure Your Link Arms: The LinkArm length is measured from the center of the Main Shaft Pivot Hole to the Center of the Tower Pin Slot (as shown.)



Some Link Arms have a marking on them designating a length. (Notice the "+5") marking on the top 2 LinkArms on this page.)

If you have any questions on measuring or need to know which Link Arm to order, please call us!

HOW TO DETERMINE WHAT HANDLEBAR CLAMP YOU NEED:

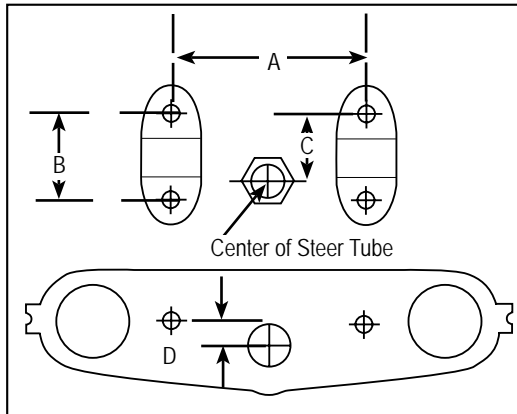
Helping Hint: measurements are made more accurate by using a straight edge to lay across the center line of the bolt holes and the center line of the steer tube. Sight over the top when lining up over the steer tube, with the handlebars off & out of the way.

A= The distance in “mm” from the center of the left bolt hole to the center of the right bolt hole that hold your handlebars tight.

B= The distance in “mm” from the center of the front bolt hole to the center of the rear bolt hole that hold your handlebar tight.

C= The distance in “mm” from the center line of the front bolt holes to the center of the steering tube. Be accurate! On some models the lower handlebar perches can be rotated 180° which would change dimension “C”. Be sure they are in the position you are going to use before you measure. If you are not sure which position you want, send measurements from both “C” positions, we may only have one choice available.

D= After removing the lower handlebar perches from the crown, measure the distance from the center of the lower perch mounting hole to the center of the steering tube hole.



Some applications require the Stabilizer to be mounted in the “Reverse” position in order to clear crossbars, computers, or other items. This position can be achieved by reversing the stepped link arm. A link arm puller (Scotts Part Number 9007-03) is recommended for this operation. (Flat link arms cannot be reversed.) Reversed mounting does not

affect the bracketry or function of the stabilizer. It is simply an option to accommodate mounting differences.

SUB Mount (Stabilizer Under Bars)

The “SUB Mount” moves the stabilizer mounting position to underneath the handlebars, allowing more room for GPS or computer equipment to be mounted above the bars. This mounting position raises the stock handlebars approximately 11 mm to 25 mm, depending on the bike. Lower bend bars are available from Scotts upon request. SUB mounts are designed for oversize bars. Reducer bushings are available to use Standard bars. Each kit comes complete with all necessary hardware for mounting. Rubber Mounts available for KTM.



Scotts offers high quality replacement Bar Mount Cones for Kawasaki’s and Honda’s that have rubber mounted handlebars. The Scotts cones have less flex than the stock cones to avoid that bent handlebar feeling. Scotts cones also provide more

clearance for the frame bracket and in most cases improve stabilizer mounting ease.

We offer Universal mounting kits that provide the ability to adapt our stabilizer to those “Hard to fit” bikes. There are some limitations with the Universal kits, but we’ve had great success so far. If you have an application that is unusual, this kit might be the answer.

