



**16+ Yamaha MT-10 / 17+ Yamaha FZ-10
Penske Shock Installations Instructions**

Recommended Tools/Supplies:

1. Jack stands or suitable method to suspend motorcycle
2. Rear Paddock Stand
3. Shop Towel
4. 32 mm socket
5. 4 mm hex driver
6. 5 mm hex driver
7. 12 mm combination wrench
8. 14 mm combination wrench
9. 17 mm combination wrench
10. QTY 2 14 mm socket
11. 17 mm socket
12. 6" extensions (3 preferred)
13. Knife or snips
14. Minimum of two ratchets (see instructions for details)
15. Dremel, utility knife, or other suitable plastic cutter
16. Torque wrench

Included Parts:

1. Pre-assembled shock
2. Pre-load adjustment tool
3. Penske Tuning Manual
4. Stoltec Moto decal



Expected Installation Time: 60 minutes

Installation Notes: Stoltec Moto thanks you for purchasing the 16+ MT-10 / 17+ FZ-10 Penske shock. Installation should only be performed by qualified motorcycle mechanics. If you do not possess the tools or ability to complete this installation, contact a qualified mechanic. Failure to properly install this part could result in loss of property, injury, or death. Stoltec Moto, LLC is not responsible for damages incurred from improper use or installation. This kit is designed for off-road use only. Please ensure legal compliance before altering your vehicle!

1. Full color version of this installation instruction is available at www.stoltecmoto.com/support
2. Allow motorcycle to cool fully! These instructions assume that the factory midpipe is installed; if the stock midpipe is not installed, the installation will be simplified. Proceed accordingly.
3. Using the 4 mm and 5 mm hex drivers, remove the fasteners securing the ABS pickup sensor from the right side of the swingarm.
4. Lift bike onto rear paddock stand.
5. Remove cotter pins from footpeg pivot pins. Remove pivot pins, springs, and footpegs. Set springs and cotter pins aside. Reinstall footpegs upside down and reinsert pivot pins. With the footpegs mounted upside down, the motorcycle's weight can be supported by the footpegs on jackstands. This step is crucial because you cannot remove the shock from the bike with weight on the rear tire; this includes a paddock

stand! Reference Figure 1. Alternatively, the motorcycle can be hung by the frame or subframe to relieve weight from the rear suspension. Failure to complete this step properly will result in injury and damage to the motorcycle!

6. Remove rear paddock stand, ensuring motorcycle is suitably supported.
7. Using 12 mm and 14 mm combination wrenches, remove rear caliper bolts.
8. Place shop towel on muffler. Remove rear caliper from rotor and rest on muffler. The rear brake line does NOT need to be removed.
9. Remove rear axle nut with 32 mm socket. Remove axle and rear wheel.
10. Remove rear-most dogbone fastener (A) using 17 mm combination wrench, 17 mm socket, 6" extension, and ratchet as indicated by Figure 2. Recommend using combination wrench on RH side, ratchet drive on LH.
11. Remove lower shock fastener (B) using 14 mm combination wrench, 14 mm socket, 6" extension, and ratchet as indicated by Figure 2. Recommend using combination wrench on RH, ratchet drive on LH.
12. Remove upper shock linkage fastener (C) using 14 mm combination wrench, 14 mm socket, and multiple 6" extensions. Access to the RH side is tight, so 2 stacked extensions will be required.



Figure 1: Jack stands



Figure 2: Shock Linkage Fasteners



13. From RH side of bike, use a long straight blade screw driver or drift to drive out upper shock linkage bushing. Take care during removal so as not to damage bearings.
14. Raise swingarm and remove shock linkage. This is easier said than done, but a counter-clockwise rotation and twist will get it out when the swingarm is raised and shock pivoted out of the way. Don't force it, but it'll come out without having to remove the exhaust. Lower swingarm.
15. Using 14 mm sockets and extensions, remove upper shock mount. There is an aluminum bushing on the LH side – do not lose it!
16. Lower shock out of upper mount. While standing on the LH side of the motorcycle, grasp shock reservoir and rotate toward you. It'll clear the swingarm and undertray without contact, but if in doubt, protect swingarm with shop towel or painters tape to prevent damage.
17. Take a deep breath. You're halfway done!
18. Trim plastic undertray in accordance with Figures 3 and 4. You're just removing the horizontal lip. Anything more is unnecessary.



Figure 3: Undertray Edge to be Trimmed



Figure 4: Undertray Post-Trimming

19. Use snips or knife to remove zip tie from both upper and lower mounts of Penske shock. Remove lower stainless steel bushings from eyelet and retain. **DO NOT LOSE THESE!**
20. Insert shock into swingarm in reverse of removal. Insert in upper mount; the upper bushing may be a tight fit. Replace fastener. Do not torque.
21. Replace shock linkage. It's easiest to insert linkage around lower shock mount while pivoting about the shock's central axis. It'll help to raise the front of the linkage as you pivot so the notch in the linkage can clear the frame. It's tight and may require a firm push, but it'll go. Replace stainless steel bushings in lower shock mount.
22. Install shock linkage bushing, and fastener. Do not torque.
23. Install lower shock fastener. Once complete, torque upper mount (25 lb-ft), lower mount (29 lb-ft), and front linkage mount (29 lb-ft).
24. Install rear dogbone fastener (Figure 2, A). Torque to 29 lb-ft.
25. Install rear wheel. Torque axle to 137 lb-ft.
26. Install rear caliper. Torque fasteners (rear bolt, 16 lb-ft.; front bolt/slide pin, 20 lb-ft).
27. Install ABS pickup. Torque screws to 5.1 lb-ft.
28. Raise rear of bike with paddock stand.
29. Remove jack stands from under foot pegs.
30. Reassemble footpegs in proper orientation.
31. Set rider sag to 40 mm. Adjust damping and ride height accordingly.
32. Bask in the glory of race-quality goodness in your garage. Ride safe!