

[www.sonicsprings.com](http://www.sonicsprings.com)[SVRider Board](#) > [Workshop](#) > [03 + SV650 Tech](#)[Reload this Page](#) **'07 ZX-10 Shock Swap - What do I need to know?****Welcome, wamanning.**You last visited: Today at 02:24 PM  
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11-14-2007, 11:10 PM

#1

**Poe**

Senior Member

Join Date: Feb 2004  
Posts: 523  
iTrader: (0)**'07 ZX-10 Shock Swap - What do I need to know?**

OK, I just scored an '07 ZX-10R shock on eBay for \$80 shipped to use on my '03 naked. Yeah, I know... that's more than some have paid, but I've been waiting for one to turn up for a while now, so when this one popped up today, I jumped on it.

Is there anything I need to know about installing it - or is it truly a direct replacement - unbolt the old & bolt in the new? From what I've read, there shouldn't be any interference issues between the shock reservoir and the battery box (and the '03 didn't have the tool kit down there), but there was something in another thread saying that the lower end of stock SV shock is threaded on one side, so the mounting bolt screws right into it without requiring a nut on the other side - whereas the ZX-10R shock was not threaded and needed a nut - which interfered with the dog bone on that side. Can anyone confirm or deny that?

Also, just in case someone screwed around with the compression & rebound adjusters on the shock, how should I set them before I install it?

'03 SV650 - '07 ZX-10R Shock - Motosiders - Hamicad F.E. - Michelin Pilot Powers  
'93 XR650L - Uncorked/de-smogged - IMS 4.2 Gal. Tank - XR's Only Exhaust

[QUOTE](#)

11-15-2007, 01:58 AM

#2

**DunnoMuch**

Member

Join Date: Sep 2007  
Location: Morro Bay, CA  
Bikes: '07 Blue SV650  
Miles Kms: 5000+  
Posts: 69  
iTrader: (2)**Re: '07 ZX-10 Shock Swap - What do I need to know?**

Did the swap on my 2nd gen and only had to mod the battery box by removing the worthless flap from the front of the box, there, now no clearance issues. My shock didn't come with any nuts/bolts so I headed for the local hardware store and retrieved a nut and bolt for the bottom mount. Once mounted the bolt did rub on the dogbone, so I whacked off about 3mm, and now it is all better. as far as settings, I have the comp. damp @ about 2 from tight and the reb damp about 2.5 from tight and the spring about 20mm from top. Works for my 215lb. lardass. get it done, you'll be stoked when ya do.

[QUOTE](#)

11-15-2007, 03:23 AM

#3

**MoeSkillzlac**

Member

**Re: '07 ZX-10 Shock Swap - What do I need to know?**

I just did it with an 07 ZX shock on my 04SV. I tried to avoid having to shave the battery box, and I read how you can by relocating it, but I grew anxious and



Join Date: Oct 2007  
Location: Seattle, WA  
Bikes: '04 Suzuki SV650  
Miles Kms: 3700  
Posts: 35  
iTrader: (0)

wanted it in there so I drilled a bit out.

The bolt you want is like an M10x60mm 1.25 pitch (I think that's right, can't remember for sure) with matching nut and lockwasher. Get some Blue Loctite too.

I didn't know enough about suspension settings, so I just left them how it arrived when I bought it. Can always adjust later. It is amazing how much it throws the front (stock) forks off kilter when riding on the new shock, it is almost a little scary to ride. Sonic Springs .90, 20wt oil, and RT emulators going in this weekend should balance it all out from what everyone seems to say. I'm 250 lbs w/ no gear.

*Last edited by MoeSkillzlac : 11-15-2007 at 03:25 AM.*



11-15-2007, 08:41 AM

#4

**NHSVnaked**

Senior Member



Join Date: Dec 2005  
Location: Medford, MA  
Bikes: 2002 SV 650 S/used to be naked  
Miles Kms: 20k+  
Posts: 2,424  
iTrader: (0)

Re: '07 ZX-10 Shock Swap - What do I need to know?

If you buy a nut and bolt be sure to use a hardened steel bolts schedule 60 I think!

2002 Fully Faired with Custom Undertail, old style suburban machinery bars, 636 rear shock with custom spacers to keep the battery box, progressive springs, 100 mm dog bones, SS brake lines, BLACK.



11-15-2007, 07:16 PM

#5

**Poe**

Senior Member



Join Date: Feb 2004  
Posts: 523  
iTrader: (0)

Re: '07 ZX-10 Shock Swap - What do I need to know?

Cool... thanks for the replies. The shock I bought is coming with all of the mounting parts... linkage dogbones, pivot & all (hopefully) the nuts & bolts, so maybe I'll be able to use one of those bolts/nuts.

I'm planning to do heavier springs & oil and emulators in the forks too - but probably after Christmas. I was thinking that I should probably wait and do the shock at the same time - but I don't know if I'll be able to wait that long.

'03 SV650 - '07 ZX-10R Shock - Motosiders - Hamcad F.E. - Michelin Pilot Powers  
'93 XR650L - Uncorked/de-smogged - IMS 4.2 Gal. Tank - XR's Only Exhaust

*Last edited by Poe : 11-15-2007 at 07:18 PM.*



11-15-2007, 07:17 PM

#6

**NHSVnaked**

Senior Member



Join Date: Dec 2005  
Location: Medford, MA  
Bikes: 2002 SV 650 S/used to be naked  
Miles Kms: 20k+  
Posts: 2,424  
iTrader: (0)

Re: '07 ZX-10 Shock Swap - What do I need to know?

If its got the linkage it will have the correct bolt I am sure. no worries then

2002 Fully Faired with Custom Undertail, old style suburban machinery bars, 636 rear shock with custom spacers to keep the battery box, progressive springs, 100 mm dog bones, SS brake lines, BLACK.



11-17-2007, 07:24 PM

#7

**Motophoria**

Site Supporter



Join Date: May 2007  
 Location: Texas Hill Country  
 Bikes: 040506SV650s  
 Posts: 132  
 iTrader: (19)



Re: '07 ZX-10 Shock Swap - What do I need to know?

Use the ZX bolts and you'll be fine.  
 No clearance issues on the 03, I did mine and it bolted right in.  
 You may want to adjust the settings before installation as it'll be easier, especially the top screw.  
 Check out Sport Rider recommended suspension settings for the ZX and go from there.

QUOTE  

11-23-2007, 07:11 PM

#8

**Poe**

Senior Member



Join Date: Feb 2004  
 Posts: 523  
 iTrader: (0)

Re: '07 ZX-10 Shock Swap - What do I need to know?

Well, the shock is in ('07 ZX-10R shock in my '03 SV naked)! I weigh about 190 in gear and the ZX-10R and the SV650 are actually pretty close in weight when wet (429 lbs for the SV naked (436 for the 'S') vs. 451 lbs for the ZX-10R according to [Motorcyclist Magazine](#) test data), so I set the shock up per the [SportRider.com](#) suggested settings for the '06 ZX-10R (identical to the '07):

Preload: 17MM of threads showing  
 Rebound: 2.5 turns out from full stiff  
 Compression: 2 turns out from full stiff

The install went fairly smooth. I did it without removing the seat or tail section or anything and had no problem getting the old shock out and the new one in. It was easy to get to the top bolt/nut by using extensions and all of the bottom bolts/nuts are right out in the open. I cracked the bolts I could get to (all but the bottom shock bolt - due to the dog bones) loose while the bike was still on the side stand and then I suspended it on jack stands using the threaded rod through the swingarm pivot hole method. I give that method a C- because the the 3/8" diameter rod isn't really stiff enough (a 1/2" won't fit) and flexed too much on the jack stands. It worked... but I don't think I'll do it that way again. Once suspended, I removed the top shock bolt and pried the top of the shock out away from the mount to relieve any pressure on the rest of the system (and there was still a little - even though the rear tire was off the ground). Then I removed the bolt that connects the dogbones to the linkage/pivot (using a breaker bar - it was TIGHT) and let them fall out of the way giving me access to the lower shock bolt. I removed that and then pulled the old shock out the bottom. Then I stuck the new one up in there the same way the old one came out. There were no clearance issues whatsoever between the shock reservoir and the battery box (or anything else). Keep in mind that my bike is an '03, so I don't have the plastic toolbox down in the from like the later bikes had (my tool kit are under the seat). Don't know if that would matter. I attached the top bolt first, then the bottom, and then the bolt for the dog bones. I had to put a little pressure on the bottom of the pivot/linkage with a floor jack to get the hole in the linkage/pivot to line up just right with the one in the dog bones. It only lacked about 1/8" from lining up perfectly without the jack, so I probably could have forced the bolt through by hammering it on in, but didn't want to risk screwing up the threads. I had the jack right there anyway, so it was no big deal to use it. As for clearance issues between nut on the lower shock bolt and the dogbone on that side... it's REAL close (like maybe two millimeters), but I don't think it will hit. I have the nut on the right side of the bike (close to exhaust). I measured the clearance between the dogbones and the side of the shock on both sides afterward - and I think there's a little more room for the nut on the OTHER side (left). I'm gong to keep an eye on it... if I see any scrape marks on the dogbone, I'll take it back apart and reverse the bottom shock bolt/nut and try that - but I really think it's going to be fine.

By the way... torque values are 36 lb-ft for the top and bottom shock bolts and 56.5 lb-ft for the dogbone bolt (where it connects to the linkage/pivot).

End result: I immediately noticed a BIG difference as soon as I sat on the bike. When I bounced on the seat, it felt significantly firmer/more damped and I could actually HEAR the shock making damping sounds on compression and rebound. The stock unit was nothing but a spring by comparison. I took a real short ride and it's definitely stiffer - but certainly not harsh. I'm hoping to have time for a longer test ride tomorrow, but I already know it was money well spent. That red spring looks good up in there too.

Can't wait to do the forks now!

'03 SV650 - '07 ZX-10R Shock - Motosiders - Hamicad F.E. - Michelin Pilot Powers  
'93 XR650L - Uncorked/de-smogged - IMS 4.2 Gal. Tank - XR's Only Exhaust



11-26-2007, 11:26 PM

#9

**Suciwill**

Supporting Member



Join Date: Oct 2006  
Location: Conyers, GA  
Bikes: K6 SV650N, 1974  
KZ400  
Miles Kms: ~9000  
Posts: 233  
iTrader: (0)

**Re: '07 ZX-10 Shock Swap - What do I need to know?**

anyone know if the 07 zx 10 shocks come in any color other than gold? just trying to verify if someone is lying about a black shock with a silver spring they are saying came from an '07 zx-10 shock. TIA.

When emotions are high, logic is low!  
Conyers, GA

11-27-2007, 07:19 AM

#10

**Motophoria**

Site Supporter



Join Date: May 2007  
Location: Texas Hill Country  
Bikes: 040506SV650s  
Posts: 132  
iTrader: (19)

**Re: '07 ZX-10 Shock Swap - do it!**

Here's a pic of an 06 ZX10 shock. It looks reeeal purdy on a silver 04 frame ;-)

Installation on my 03 track bike was no hassle with no clearance problems.

For installation on my 04 street bike, I had to trim the plastic outside of the battery case just a bit. With the old shock removed, I used a dremel and sanding wheel to grind a bit of plastic away for clearance to fit the upper shock reservoir.

I used the OEM SV shock bolts with no clearance problems.

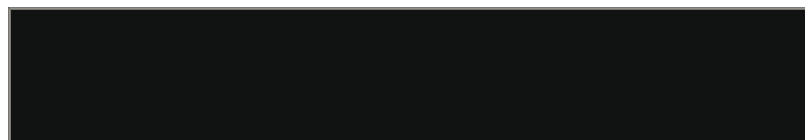
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11-27-2007, 04:00 PM

#11

**jmar**

Junior Member

Join Date: Nov 2006  
Posts: 3  
iTrader: (0)

Re: '07 ZX-10 Shock Swap - What do I need to know?

The '07 ZX-10r 'Special Edition' bikes came with the black shock/grey spring combo. That's what I got.

[QUOTE](#)

11-29-2007, 11:24 AM

#12

**Suciowill**

Supporting Member

Join Date: Oct 2006  
Location: Conyers, GA  
Bikes: K6 SV650N, 1974 KZ400  
Miles Kms: ~9000  
Posts: 233  
iTrader: (0)

Re: '07 ZX-10 Shock Swap - What do I need to know?

Quote:

Originally Posted by **jmar** ▾

*The '07 ZX-10r 'Special Edition' bikes came with the black shock/grey spring combo. That's what I got.*

Thanks man!

When emotions are high, logic is low!  
Conyers, GA

[QUOTE](#)

12-24-2007, 02:40 PM

#13

**pearsonm**

Junior Member

Join Date: Feb 2003  
Location: Springfield, MO  
Bikes: '06 SV650S  
Posts: 23  
iTrader: (1)

Re: '07 ZX-10 Shock Swap - What do I need to know?

So what's the final word on the lower mounting nut and bolt? Is it the stock SV, stock ZX, stock ZX bolt with shaved nut or a nut and bolt from a machine shop?

I weigh 200 lbs and don't want to spend the bucks for an aftermarket shock, so if I can find a good, used ZX10 shock (none on ebay at the moment) and can mount it without it grinding into the dogbones or chewing up the battery box it may be the way for me to go.

Bikeology: Bandit 1200 (RIP); ZR-7S (Sold); YZF600R (Sold); R6 (Traded-in); CBR600F4i (RIP); SV650S

[QUOTE](#)

12-25-2007, 06:38 PM

#14

**30x26**

Junior Member

Join Date: Jun 2007  
Location: Italy  
Bikes: sv650N k3

Re: '07 ZX-10 Shock Swap - What do I need to know?

Quote:

Originally Posted by **Poe** ▾



Posts: 24  
iTrader: (0)

*Well, the shock is in ('07 ZX-10R shock in my '03 SV naked)! I weigh about 190 in gear and the ZX-10R and the SV650 are actually pretty close in weight when wet (429 lbs for the SV naked (436 for the 'S') vs. 451 lbs for the ZX-10R according to [Motorcyclist Magazine](#) test data), so I set the shock up per the [SportRider.com](#) suggested settings for the '06 ZX-10R (identical to the '07):*

*Preload: 17MM of threads showing*

*Rebound: 2.5 turns out from full stiff*

*Compression: 2 turns out from full stiff*

imho you should consider these numbers a starting point only. preload can be quite different because of a possible different shape (and leverage) of the compression curve. rider's weight is variable too  
zx-10 is much more powerfull and raceable than sv, imho stock setup could be more damped than necessary for standard street riding  
zx's shock has less travel (i suppose 67 instead of 74mm), you should verify your max travel usage.

assuming that your spring is correct if you never hit bumper you can try less compression damping, if you hit it quite often you can try more damping  
if it was mine i would start with rebound as stock , preload to get 30mm rear sag, compression slightly softer than stock.

i suppose that above suggested setups are for intended usage of a zx-10r: fast track laps.



QUOTE

12-30-2007, 05:52 PM

#15

**pearsonm**

Junior Member

Join Date: Feb 2003  
Location: Springfield, MO  
Bikes: '06 SV650S  
Posts: 23  
iTrader: (1)

Re: '07 ZX-10 Shock Swap - What do I need to know?

Quote:

Originally Posted by **Poe**  
*Preload: 17MM of threads showing*

Would that be the top threads down to the collar or the bottom threads up to the collar? I'm assuming it's the top threads otherwise the spring's obstructing the view.

Regarding the nut and bolt, I believe it's a flanged 10x55 with a 1.25 pitch. There's a nice write-up at SV650.org which gives the Suzuki part numbers as 09103-10143 for the bolt and 08319-31107 for the nut. My local dealer didn't have any in stock and my local ACE Hardware store only had a 10x50 and 10x60. I'll try a fastener specialty shop tomorrow. It looks like the clearance between the two dogbones is 67 mm.

I got my shock at ZX-10R.net. They're on to us after all the WTB ads so the price has gone up.

Bikeology: Bandit 1200 (RIP); ZR-7S (Sold); YZF600R (Sold); R6 (Traded-in); CBR600F4i (RIP); SV650S



QUOTE

01-01-2008, 10:19 PM

#16

**Poe**

Senior Member



Join Date: Feb 2004  
Posts: 523

Re: '07 ZX-10 Shock Swap - What do I need to know?

Quote:

Originally Posted by **pearsonm**  
*Would that be the top threads down to the collar or the bottom threads up to the collar? I'm assuming it's the top threads otherwise the spring's obstructing the view.*

iTrader: (0)

Correct

'03 SV650 - '07 ZX-10R Shock - Motosiders - Hamicad F.E. - Michelin Pilot Powers  
'93 XR650L - Uncorked/de-smogged - IMS 4.2 Gal. Tank - XR's Only Exhaust



QUOTE



01-07-2008, 10:25 PM

#17

phanatic

Member

Join Date: Apr 2007

Location: AZ

Bikes: '06 SV650s

Posts: 45

iTrader: (0)

Re: '07 ZX-10 Shock Swap - What do I need to know?

Quote:

Originally Posted by **pearsonm**

*So what's the final word on the lower mounting nut and bolt? Is it the stock SV, stock ZX, stock ZX bolt with shaved nut or a nut and bolt from a machine shop?*

+1....



QUOTE



01-08-2008, 08:50 PM

#18

pearsonm

Junior Member

Join Date: Feb 2003

Location: Springfield, MO

Bikes: '06 SV650S

Posts: 23

iTrader: (1)

Re: '07 ZX-10 Shock Swap - What do I need to know?

phanatic, follow the thread below for a nice write-up on the ZX10 shock swap. Supposedly, a nut and bolt from a GSX-R 1000 (part numbers 09103-10143 and 08319-31107) will clear the dogbones as long as you install the bolt from the right rather than left. It's just a flanged, 10x55 bolt with 1.25 pitch but the only ones I could find were 10x50 and 10x60. I assumed Ron Ayers could get them to me fast but the ones I ordered last Monday haven't even been shipped (I'm not too impressed with Ron Ayers).

A couple tips - put a block of wood on a floor jack and put it underneath the motor if you use the 3/8" rod method of supporting the rear because the rod flexes like a wet noodle. Also, the lower dogbone nut and bolt are on tight. I had to remove the rear wheel to get into a position with enough leverage break them loose. Finally, on the '06 you will have to cut a hole in the cover that surrounds the tool kit holder under the battery. It's attached with two phillips screws on the bottom and one at the top. You might even be able to just leave it off.

This project is more work than I expected but I'll save a ton of money if it works.

<http://forums.sv650.org/showpost.php...64&postcount=1>

Bikeology: Bandit 1200 (RIP); ZR-7S (Sold); YZF600R (Sold); R6 (Traded-in); CBR600F4i (RIP); SV650S



QUOTE



Yesterday, 10:29 PM

#19

phanatic

Member

Join Date: Apr 2007

Location: AZ

Bikes: '06 SV650s

Posts: 45

iTrader: (0)

Re: '07 ZX-10 Shock Swap - What do I need to know?

Awesome, thanks for the useful info. 😊

PS: My zx10r rear shock (only 3k mi on it) is ON THE WAY! Wooh!



QUOTE



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