



MAKING YOUR DREAMS A REALITY

## FITTING INSTRUCTIONS

TPER-7049 Fork Shortening Kit, RC36-2, RC30 Style



The front forks of the RC36-2 are a little too long for the RC30 tribute build, and we found that the look was not exactly what we wanted. So, we have produced this simple fork shortening kit that is fitted internally.

The overall length of the forks and effective stroke are shortened by 20mm. with this kit fitted. This also reduces the front fork stroke from 130mm. to 110mm.

The standard air gap in the forks is 177mm. Feel free to play with this setting as the air gap can have quite an effect towards the end of full stroke as the compressed air acts much like a progressive spring.

In this guide we will disassemble the forks completely to allow for thorough cleaning and checking of all components, however, it is not strictly necessary to disassemble completely as we just need to gain access to the cartridge to perform the necessary modifications. If you don't want to fully disassemble then please skip steps 8 and 9.

If you also intend the change the fork oil seals and dust seals, then you can find them here:

51490-MN8-305

## Let's get started.

**1)** The first job is to loosen the fork cap. For this you need a 24mm. socket or wrench. If using a wrench then wind the preload out fully. This will make the job a little easier in later steps. If using a socket then wind out the preload a little but make sure that the inside of the socket is not bashing on the top of the preload adjuster.

Loosening the fork caps is perhaps easiest when the forks are still fitted to the triple clamps on the bike. Just slacken the pinch bolts on the top triple clamp and then loosen the fork caps.

If the forks are not fitted to the bike, then you will need to carefully clamp the fork tube in a vice using soft jaws, just tight enough to allow you to loosen the cap. We have a tool available for gripping the 41mm fork tube and then mounting in a vice.

See TYTO-0018 Holder, Fork, 41mm.





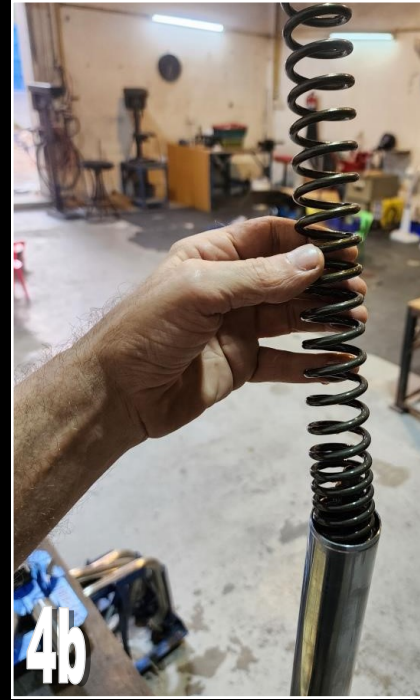


2) Now clamp the forks in the vice vertically and undo the caps completely from the fork tube.

3) Remove the top cap from the damper rod using two 14mm wrenches.



**4)** Remove the locking piece, washer, spacer, washer and finally the spring from the forks.



**5)** Remove the fork from the vice and drain all the fluid into a suitable container. You'll need to pump the fork tube and damper rod a few times to help get the fluid out, but there will always be a little fluid left which we can drain once the cartridge is removed.

**6)** Set the fork in the vice as shown. We need to remove the M8 socket bolt from the bottom of the fork. This bolt holds the cartridge. These bolts have locking compound and can sometimes be difficult to loosen, so it is a good idea to bring out the heat gun and play the heat around the bottom of the fork to melt the locking compound.





Use a good fitting 6mm hex tool for removal.



If you get it loose but the cartridge is now turning inside the fork and you can't remove the bolt then try pulling up the damper rod at the top of the fork and keep pulling while turning the M8 bolt. This usually works.

Once the M8 bolt is out then the cartridge will just lift out of the top of the fork tube.

Note that any fluid that was left in the fork after initial draining may now drain out of the bottom hole and all over your feet while you are lifting the cartridge out, so be prepared for this.

**7)** On the very bottom of the cartridge there is an oil lock piece. Very often this gets stuck in the bottom of the fork, especially if the fork has not been overhauled in a long time. If that's the case, invert the fork and give it a shake. This is usually enough to get it free and it should fall out.

Here's what you should end up with:



This is as far as you need to go to fit the TPER-7049 kit and you can jump to step 10, but if you are also changing fork seals, bushings or just want to give everything a good clean then please continue.

**8)** To remove the fork seals, first we need to remove the dust seals. These are a friction fit and can be popped out with a screwdriver or similar, taking care not to damage the aluminium of the fork lower in the process.

Then there is an oil seal stopper clip. This can be easily hooked out of the groove with a small screwdriver or a pick.



And now we must get a bit aggressive to remove the seal, back up ring and fork bushing. Lock the fork lower in the vice with soft jaws, and use the inner tube as a slide hammer, pulling it abruptly to full extension. This will remove the seal, back up ring and bushing.







**11)** Now we can fit the top out spring to the fork shortening piece. This is easily achieved by squashing the two parts together in the vice as shown. Make sure that the top out spring is completely seated and not at an angle.



**12)** Now fit this assembly onto the cartridge. Make sure that it is fully seated and tighten the grub screw. We advise using some Loctite 263 high strength threadlocker compound on the grub screw so that it cannot come loose.





**13)** Assembly of the fork is basically a reversal of the disassembly. Fitting fork bushings and oil seal requires a seal driver to do the job properly. See the service manual for specific details as we will not cover that here.

**14)** To fit the cartridge back into the fork, I advise to clamp the fork into the vice horizontally, and then fit the oil lock piece onto the end of the cartridge (don't forget this part!) and then slide the assembly all the way into the fork. It pays to give the cartridge a bit of a wriggle to make sure that it's located correctly at the bottom of the fork, and you can verify this by looking up the M8 hole at the bottom of the fork.

**15)** Secure the cartridge with the M8 socket bolt. Add a drop of thread locking compound and tighten to 20Nm.

**16)** Now clamp the fork vertically again in the vice. And fill with fluid to the recommended level. 177mm is the recommend level in the service manual. Note that this level is with the fork inner tube and damper rod compressed, with no spring fitted.

Honda recommend Pro Honda Suspension Fluid SS-7. This is a 5W fluid. This will be fine for most cases, but for more spirited riding increasing to 7.5W may have benefits.

Testing required!

The fluid level is measured from the top of the fluid to the top of the inner fork tube with the tube fully compressed. Pump the inner tube and also the damper rod several times to make sure that there are no air bubbles as this will affect the measurement.

**17)** Next, fit the spring. One end of the spring has tightly wound coils. This end faces down.

Now pull the damper rod up to full extension and fit the washer, the (TYGA) spacer, washer and locking piece.



**18)** Wind the lock nut on the damper rod fully down, and then screw on the top cap as far as it goes by hand. Then wind up the lock nut against the top cap and tighten to 20Nm.

**19)** Finally, Fit the top cap back into the fork tube, taking care not to cross thread.

**Tighten to 23Nm.**

Final tightening of the top cap can be done when the forks are reinstalled into the triple clamps. This may be the easiest option, but don't forget to do it!

**20)** We have our forks set at 33mm. projection from the top clamp as shown.



**21)** Be sure to tighten everything up again. Some torque figures are at the bottom of the manual for your reference.

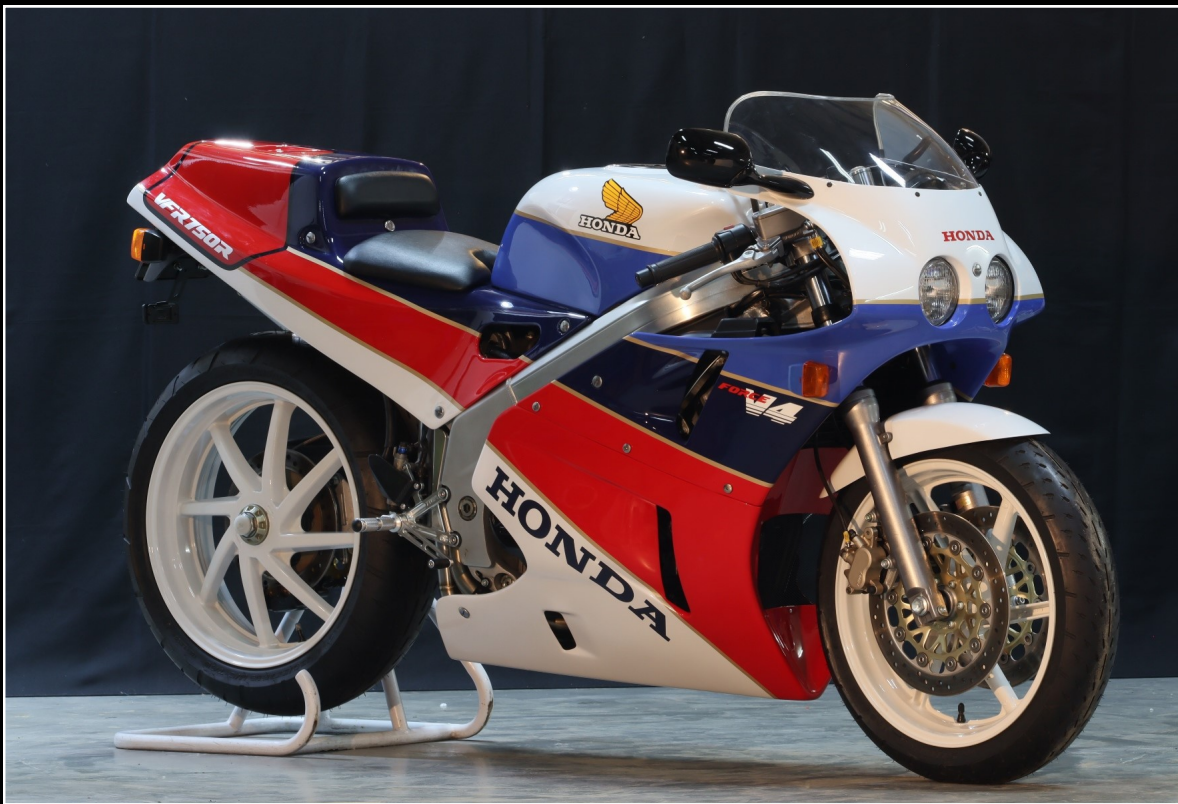
**22)** And that's it. Job done!





For your reference, here are some useful tightening torque figures taken from the service manual:

<b>Part</b>	<b>Torque</b>
Fork Pinch Bolt (Upper)	23Nm
Fork Pinch Bolt (Lower)	50Nm
Handlebar Pinch Bolt	23Nm
Front Axle Bolt	60Nm
Front Axle Pinch Bolt	22Nm
Front Brake Caliper Mount Bolt	27Nm
Fork Top Cap	23Nm
Socket Bolt, M8. Secures the cartridge (use locking compound)	20Nm



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