

# INSTALLATION INSTRUCTIONS

Progress Technology Competition Series Coilover System 2001 – 2005 Acura RSX 78.0102.3565 / 78.0102.4285 4/20/21



### WHO SHOULD INSTALL THIS PRODUCT?

Progress Technology products should only be installed by a qualified licensed mechanic experienced in the installation and removal of suspension components. Please read instructions from start to finish and verify all parts are in kit before beginning installation.

**NOTE:** These components are designed for **competition use**, and allow for suspension height adjustment from approximately 1.00" to 3.00" lower than stock height. Please note that knowledge in race preparation is necessary in order to obtain maximum performance for your specific application, and certain modifications may be required to insure proper function. **Since these units have shorter compressed lengths than stock, tire clearance and suspension travel may need to be examined.** 

## **Important Installation Notes:**

- 1) **NEVER** grab the **chrome shock rod** with pliers or any tools. Clamping the shock rod with tools will put nicks in the chrome finish and this will ruin the oil seal. Any markings on the shock rod will VOID your warranty!
- 2) Do **NOT** use an **impact wrench**. This will damage the top threads and may snap off the shock top. **This will VOID your warranty!**
- 3) DO NOT install this kit with aftermarket **extended shock hats!** This will limit suspension travel and will NOT function correctly! This kit has shorter shock rods.
- 4) Any vehicles with metal upper strut bearings **REQUIRE** the plastic OEM upper strut bearing adapter kit. Honda P/N 51726-S5A-004
- 5) Wheel alignment must be set immediately after installation and after each change in ride height in order to maximize tire life and suspension performance

### **Parts List**

Description	Quantity	Description	Quantity
Front struts	2	Rear polyurethane sleeve	2
Front upper bearing adapter	2	Rear coil spring	2
Front bumpstop	2	Spring Perch	4
Front coil spring	2	1/4-20 SS SHCS	4
Rear shock	2	M12 x 1.50 Nut	2
Rear shock hardware kit	2	M12 x 1.50 Jam Nut	2
Rear upper bearing adapter	2	1/2" SAE Washer	2
Rear threaded sleeve	2	Coil-over adjusting wrench	2

# FRONT INSTALLATION

- Park vehicle on a smooth, level concrete or asphalt surface. Set the parking brake and block the rear
  wheels. Raise the front of the vehicle using a floor jack, and support the chassis with jackstands. If using
  a vehicle lift, refer to the owner's manual as to proper locations. Remove the front wheels and tires.
  Open the hood.
- 2. Remove the brake lines and ABS lines from the strut bodies. Loosen, <u>but do not remove at this time</u>, the two large spindle bolts and nuts that hold the strut to the spindle (steering knuckle). Remove the tierod end from the steering arm located on the strut housing. Remove the three nuts that hold the upper strut mount in the body (located under the hood). **Retain all hardware for re-installation.**
- WARNING: Be very careful not to damage the CV boot or allow the axle to travel out too far and separate from the inner joint. Properly support the knuckle, remove the two large spindle bolts, and remove the strut assembly.
- 4. Using a McPherson strut type coil spring compressor, compress the spring far enough to relieve the pressure on the upper strut mount. Carefully remove the center nut from the upper strut mount, and remove the upper strut bearing and spring hat (Figure A). Carefully release the spring tension and remove the strut and spring from the compressor.



Figure A

**NOTE:** Any vehicle with steel upper strut bearings will **REQUIRE the plastic OEM upper strut bearing**. Honda Part Number: 51726-S5A-004

- For vehicles with steel bearing only continue to Step 5. (Figures B E)
- Factory plastic bearing go to Step 6
- 5. If your vehicle has steel strut bearings, remove them. Pry the bearing off the hat with a screwdriver or pry bar. The plastic OEM bearing fits onto the OEM black strut top hat.

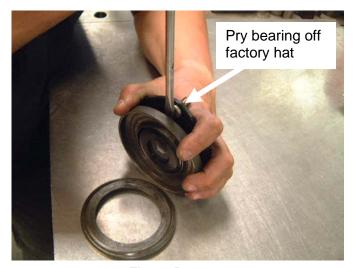




Figure B Figure C

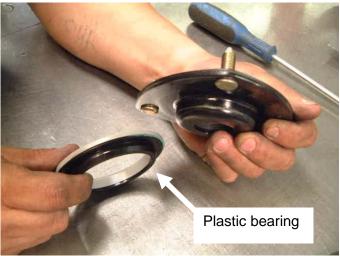




Figure D Figure E

- 6. Install the spring collar with the spring locator facing up (Figure F), over the top of the Progress front strut and thread it down the body near the middle of the threads. If the spring collar is tight, you may wedge a small screwdriver into the slot to ease assembly, being careful not to damage the threads on the shock body. Loosely install the socket head clamp bolt into the spring collar, but do not tighten at this time.
- 7. Install the bump stop onto the shock rod, tapered end down, by sliding it onto the strut rod (Figure F).
- 8. Next, assemble the front spring onto the front strut. Install the 12mm washer, coil spring and the adapter, OEM **plastic strut bearing**, OEM factory upper strut mount, and 12mm flange nuts as shown. (Figure G)

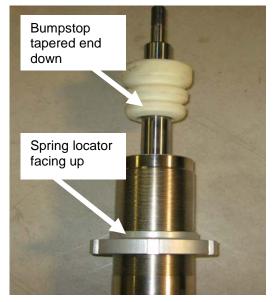




Figure F Figure G

9. With an 8mm wrench hold the flats on the shock rod and tighten the M12 flange nut (Figure H). Next, thread on the M12 jam nut. Hold the flange nut and tighten the jam nut against the flange nut (Figure I).

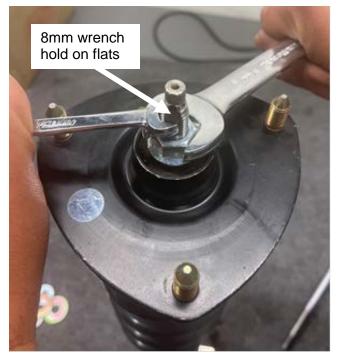




Figure H Figure I

- 10. Adjust the lower spring collar so that the coil spring maintains slight pressure (pre-load) on the perch/adapter/bearing assembly. Tighten socket head clamp screw.
- 11. Install the coilover assembly back into the vehicle. Replace the three OEM upper mounting nuts and the two spindle bolts at this time. Install the tie-rod nut. Torque all fasteners. Install the cotter pin into tie-rod hole as per OEM.

# **Torque**

Spindle bolts 116 ft/lbs	Top hat nuts 33 ft/lbs	Tie rod nut 38-42 ft/lbs

### 12. Re-fasten all brake lines and/or ABS lines.

13. Repeat installation on the other side. Replace the wheels and lower the vehicle to the ground.

### **REAR INSTALLIATION**

- 14. Place manual transmission in 1<sup>st</sup> gear, or auto transmission in park. Block front wheels. Raise rear of vehicle with a floor jack, and support the frame with jackstands. If using a vehicle lift, refer to the owner's manual as to the proper locations. Remove rear wheels.
- 15. Fold down the rear seats, and open the trunk to remove the inner panels from the trunk area to gain access to the upper rear shock mounting nuts. Remove the upper mounting nuts from the inside of the

- trunk area, then remove the mounting bolt from the lower eye of the shock, and remove the shock assembly from the vehicle.
- 16. Using a spring compressor, compress the rear shock assembly and remove the top hat from the rear assembly. Retain the factory dust shield and spring isolator. Remove OEM rubber bushings on the top and on the inside of the hat, discard factory sleeve. Carefully trim the tubular section from the dust shield as shown on diagram page, using heavy scissors or metal shears. Retain the upper part of the dust shield.
- 17. Install the spring collar, with spring locator facing up as shown (Figure J) on the threaded sleeve, and thread it down the sleeve. If the spring collar is tight, you may wedge a small screwdriver into the slot to ease assembly being careful not to damage the threads on the sleeve. Loosely install the socket head clamp bolt into the spring collar, but do not tighten at this time.
- 18. Next insert polyurethane sleeve into threaded body (Figure J).
- 19. Use silicone spray on the shock body and slide the threaded sleeve assembly until it bottoms on the welded ring. This is a tight fit will require some force to get the polyurethane sleeve into place.

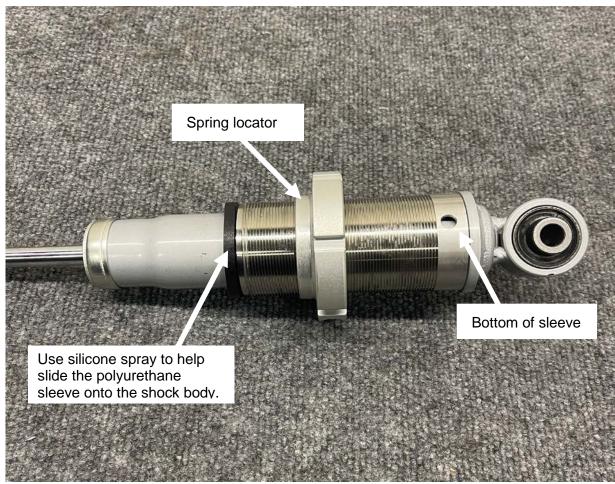


Figure J

20. Assemble the rear shock according to the diagram using the burnstop kit provided and OEM parts retained (Figure K).



Figure K

21. With an 8mm wrench hold the flats on the rod while you tighten the M10 nut tight (Figure L). Next, thread on the M10 jam nut and use the coil over wrench provided to hold the lower nut and tighten the jam nut tight (Figure M). Tighten socket head cap screw.







- 22. Install the shocks back into the vehicle. The assembled unit will have free play between the spring and the upper mount, and will need to be compressed by installing the upper mount first, and then raising the lower mount into position.
- 23. Place the 7/16 flatwashers on both sides of the lower mount as shown in the diagram. **Note:** Some applications will not use these washers. Torque all fasteners:

# **Torque**

Rear top hat nuts 33ft/lbs	Rear lower shock bolt 45ft/lb
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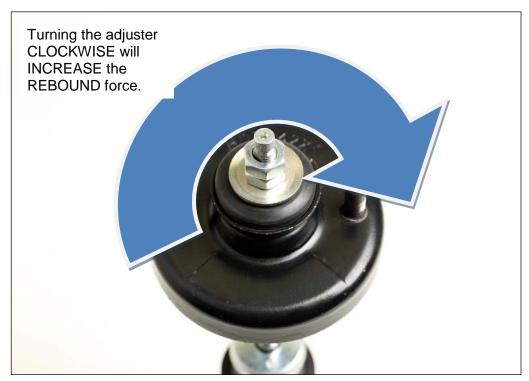
- 24. Re-fasten all brake lines and/or ABS lines.
- 25. Repeat on the other side. Install wheels and tires, and lower vehicle to the ground.
- 26. Roll the vehicle back and forth several times to settle the suspension. Measure from the center of each wheel straight up to the fender lip at all four corners. You are now ready to set your ride heights.
- 27. Determine the desired ride heights. Note that each full turn of the lower spring collar will result in approximately 1/16" of ride height change. Ride height may be changed at each corner by raising the vehicle, removing the wheel, loosening the clamp bolt, and turning the spring collar with the wrench included in the kit. After achieving the desired ride height at each corner, tighten the clamp bolt snugly by hand. Be sure all four socket head clamp bolts on the spring collars are tight before driving.
- 28. Wheel alignment must be checked and adjusted after each change in ride height in order to maximize tire life and suspension performance.

# **Torque Check**

Front Spindle bolts 116 ft/lbs	Front Top hat nuts 33 ft/lbs	Front Tie rod nut 38-42 ft/lbs
Rear top hat nuts 33ft/lbs	Rear lower shock bolt 45ft/lb	

# **Safety Check**

- Re-fasten all brake lines and/or ABS lines, front and rear.
- Tighten all four socket head clamp bolts on the spring collars before driving.
- Torque lug nuts to wheel specifications
- Wheel alignment



29. **Adjusting the shock damping force**: Turn the knurled metal knob counter-clockwise (left) until it stops. This is FULL SOFT on the REBOUND (extension) setting. **Do not force the adjuster. Use only your fingers. No tools are needed**. There are 24 clicks going clockwise (to the right). See arrow above. Each 'click' adds more rebound damping. The adjustment knob will not change the compression setting.

# RA adjustment and tuning suggestions:

### For daily drivers, suggested settings are 4 to 10 clicks.

1 to 4 clicks is the softest ride. Add rebound for more ride control. You will likely prefer more front rebound than rear, as the front end has more mass and does more work: the acceleration, braking & turning. We suggest you try "split settings" like 6F/3R or 8F/4R.

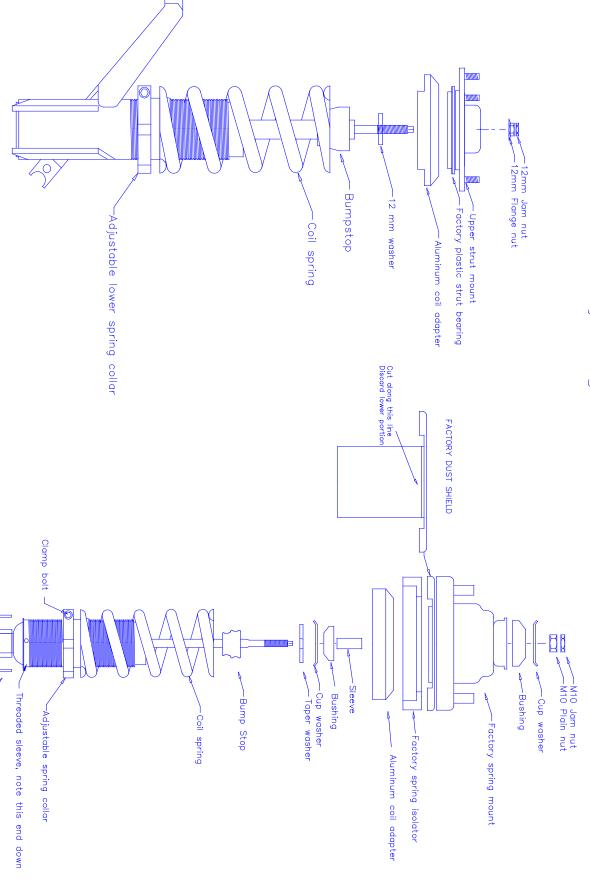
With more aggressive driving and higher spring rates, you may want more rebound control. This will depend on your vehicle usage and road quality. Insufficient rebound (too soft) will feel floaty, and may bob around too much on bumpy and uneven pavement. If this is the case, add more damping until you are satisfied with the ride quality and vehicle control.

**Auto-crossers and track-day drivers** will want to use the rebound settings to tune the balance and vehicle transition speed. More rebound control will speed up the chassis response. For a looser setup you can induce some rotation by adding more REAR rebound.

If you are working on a drag-launch setup, run the front end at or near FULL rebound (clockwise). This will help control the power transition through the front wheel during the launch. The tight rebound setting will manage the wheel hop and minimize the tire chatter. The rear does NOT require a lot of rebound, so set it lighter so the car is manageable and compliant (safe). This will make it easier to drive, and more stable on the big end.

Enjoy tuning your new RA system and Thank You for choosing Progress Tech!

# Assembly Diagram



—Flat washers (Some applications do not need these)

# **Maintaining Your Coilovers**

In order to simplify height adjustment and extend the life of the coil-over finishes, we suggest the following maintenance procedures for your PROGRESS Coil-over system.

- A) Occasionally, RINSE the coil-over units with FRESH WATER using the garden hose and a spray nozzle. Spray off the springs and suspension links as well. This will remove caked-on mud, grimy accumulation and salt. It's simple to do during a car wash, after an oil change, or a vehicle service at home.
- B) If you are having difficulty ADJUSTING the vehicle HEIGHT, review the use of the two spanners (included) as shown in Figure 6. Also SPRAY a light application of Boeshield T-9 © to lubricate the threaded sleeves and perch nuts. We suggest the use of this excellent dry lubricant/protectant product.
- C) PROTECT the coil-over bodies with regular applications of Boeshield T-9 ©. First RINSE OFF any caked-on grime and let the suspension DRY if possible per (A) above. Then apply a liberal coating of Boeshield T-9 © to the strut housings, threaded sleeves and perch nuts. Allow it to DRY without wiping. The fluid will evaporate, leaving a protective layer of paraffin wax coating.

### D) More about BOESHIELD T-9 ©

Boeshield T-9 is a lubricant/protectant developed and licensed by BOEING for aircraft, marine, and automotive use. It is readily available at select retail stores and online. Visit www.Boeshield.com to learn more and find a dealer. We suggest the purchase of the 12 oz. aerosol spray can for ease of use and the best value.

NOTE: We do NOT suggest the use of Rust-free © as it is ACIDIC and will affect anodized coatings, paint, plastics and other automotive materials.



Thank you for choosing Progress products.

For additional product and technical information, visit our website.