

COYOTE AUTOMATIC TIRE DEFLATOR USERS' MANUAL



WE MAKE YOUR TIRES PERFORM!

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QUICK ADJUST:

- 1) First, read and practice the **CAUTIONS** on pages 1-2.
 - 2) Set a tire to the destination pressure of your choice (p. 2).
 - 3) Screw the Lock Collar and Adjustment Cap completely down.
 - 4) Screw the deflator onto the “set” tire’s valve stem (p. 2).
 - 5) Start unscrewing the Adjustment Cap (see CAUTION below!) until you hear airflow, then immediately counter-turn until the airflow stops.
 - 6) Check the setting on an inflated tire (p.3).
 - 7) **HINT:** You can fine-tune your destination pressure knowing that the silver spring yields about 3 to 5 PSI per turn and the red spring is about 6 to 8 PSI per turn.
 - 8) Check and readjust the “set” tire as necessary (p.2).
 - 9) Repeat steps 3 through 8 for the remaining deflators.
- See **HOW TO ADJUST** on pages 2-4 for detailed instructions.

You may buy deflators preset to your desired air-down (destination) pressure directly from www.CoyoteEnts.com.

CAUTIONS: Low tire pressure makes for unfamiliar vehicle handling. Never deflate your tires unless you have a way to reinflate them to your vehicle or tire manufacturer’s recommended pressure.

Compressed air or gas of any sort presents several hazards, so always use protective eyewear when setting or using Coyote Automatic Tire Deflators. Be aware that unscrewing an Coyote Automatic Tire Deflator’s Adjustment Cap all the way off the Main Body while on an inflated tire may shoot parts into your or others’ eyes or other body parts. ***Never completely remove the Adjustment Cap*** from the Main Body while screwed on an inflated tire (see page 2). This may result in serious bodily injury.

Do not use “pinching” tools such as pliers, channel locks or vice grips on either the Adjustment Cap or Lock Collar. You may inadvertently distort the Main Body and void the warranty.

If your Coyote Automatic Tire Deflators come in contact with salt water or a sea shore environment, immediately follow the cleaning procedure described in the **MAINTENANCE** section on page 5. Corrosion is not covered by the warranty. Corrosion is a result of the use environment.

HOW TO ADJUST: First, deflate any tire to your desired “destination pressure.” This is your “set” tire. This can be any tire on your 4X or, for speed, you may use a smaller tire. If you use a small tire, be sure to check its pressure after setting each deflator because the “setting” air loss in a small tire will reduce the set pressure more than in a large tire.

Next, turn the Lock Collar and Adjustment Cap fully down (clockwise). This is the full pressure setting for that color spring. Now, screw that deflator onto the set tire and slowly unscrew the Adjustment Cap out (counterclockwise). Take care not to fully unscrew the Adjustment Cap fully off of the Main Body (that’s about 7 turns up from full down). This may result in serious bodily injury or lost parts. See CAUTION on the previous page. Immediately, as you hear airflow, counter-turn (clockwise) the Adjustment Cap to shut the airflow OFF. Finally, lock the Lock Collar against the Adjustment Cap noting the previous warning about **NOT** using pinching tool. Use only open end, box or Crescent® wrenches.

To check the setting, screw that deflator onto a tire inflated to 3 or 4 PSI over your destination pressure (see **HINT 2** below) and pull the manual start ring. Check the pressure after the deflator shuts OFF.

Depending on your reaction time and how much you counter-turn the Adjustment Cap to shut the deflator OFF, you may have to fine-tune the setting. **HINT:** Knowing that the silver spring gives 4 ± 1 PSI change per full turn of the Adjustment Cap, you can easily achieve one pound or less adjustments by using the Adjustment Reference Mark. The red spring is rated at 7 ± 1 PSI per full turn.

HINT 2: To save time, reinflate the test tire to only a couple of PSI more than the set pressure and pull the Manual Start Ring. This avoids fully airing up and down the tire for each test.

HOW TO USE: While stopped, remove the valve cap and fingertighten a Coyote Automatic Tire Deflator on by using the Quick Chuck knurl. You may lose your setting if you grip an insufficiently “locked” Adjustment Cap.

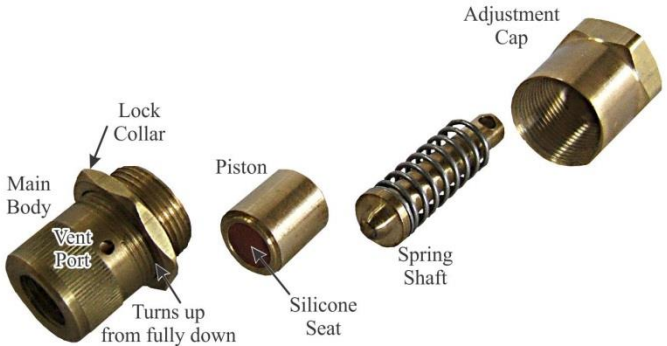
Do not over tighten the deflator. This can damage the Quick Chuck O-ring. About two turns are sufficient. Competitive units usually require four or more turns! If necessary, pull the Manual Start Ring to start deflating. The starting tire pressure does not matter.

You can drive with the Coyote Automatic Tire Deflators on, but we recommend that you remove them at the first opportunity. This reduces the chances of damaging them or your valve stems. And be assured that no amount of wheel spin or bounce will turn them back ON, contrary to other brands! Under all circumstances, replace the valve caps. Dirt may get into the valve stem and contaminate the deflator upon the next use. Keep your valve stems clean.

TEMPERATURE INCREASE COMPENSATION: As tires warm up, the pressure increases. To pick up that increase from a cold morning air down, just screw the Coyote Automatic Tire Deflator back on the tire valve stem, pull and gently release the Manual Start Ring and wait

for it to shut OFF. Expect only a few seconds of airflow since this is typically only a pound or two of increased tire pressure.

MAINTENANCE: Your Coyote Automatic Tire Deflators require no maintenance other than an occasional cleaning. Our dirty off road environment demands this. Sand and dirt may groove the Piston and Main Body and void the warranty. Before disassembly, count the number of threads the Lock Collar is up from fully down to make



resetting easier.

Once removed from the tire valve stem, disassemble over a clean, dry surface like a shop rag to prevent part loss. Use the open end of the Manual Pull Ring (not shown) to easily get it out of the Spring Shaft hole. Note the part order. Rinse all parts in alcohol, but water will do since the springs are stainless steel and fresh water does not affect the brass parts. Avoid more aggressive solvents for they may damage the red Silicone Seat at the bottom of the Piston.

With your breath, blow the Vent Port clean. Clean the bore of the Main Body. Also clean the Quick Chuck threads and O-ring. Completely dry all parts and reassemble. When drying, make sure that there is no rag or cotton swab residue left anywhere inside the Coyote Automatic Tire Deflator.

Lubrication attracts dirt, so we do not recommend lubricating them. But if you must, only use a dry film lubricant like RZ-50 distributed by EZ-GLIDE. Not recommended are WD-40, 3 IN ONE OIL, silicone and other similar products. Besides contributing to dirt collection, these lubricants may freeze in cold weather and cause the deflators to malfunction. This is particularly true if you inflate with CO₂.



THEORY OF OPERATION: The Coyote Automatic Tire Deflator is a spring loaded check valve with the ability to vary the spring pressure on the check valve via the Adjustment Cap. More spring pressure means a higher shut OFF (destination) pressure. Less spring pressure means a lower shut OFF pressure. A choice of two springs for each deflator allows the Coyote Automatic Tire Deflator to achieve a total destination pressure range from 4 to 56 PSI. They come assembled with the lower pressure silver spring. It has an adjustment range of about 4 to 20 PSI, is preset to about 12 PSI and has an adjustment rate of about 4 ± 1 PSI per Adjustment Cap turn. It is recommended for destination pressure settings up to 15 PSI. The red spring has an adjustment range of about 10 to 56 PSI and an adjustment rate of about 7 ± 1 PSI per turn.

ABOUT GAUGES: Don't blame your Coyote Automatic Tire Deflators for all apparent destination pressure variations. Mechanical analog gauges, regardless of advertised precision and quality, suffer from internal gear train "stickiness." To overcome this, always give the gauge light finger taps as you are taking a reading. To achieve the best measurements possible, you must continually tap the gauge during every reading.

Digital gauges suffer from a similar condition, only it is due to the microprocessor "rounding off" the pressure transducer input. If your gauge displays in 0.5 PSI increments, what does it display for 10.25 PSI, 10 or 10.5 PSI? It rounds off all readings. The general rule for all digital readouts is to neglect the last digit.

Further, all gauges suffer from what CE calls gauge ambiguity. That is due to the influence of altitude and barometric pressure on the gauge mechanism. To be assured of exactly the same readings, you must have exactly the same measurement conditions every time. That includes both elevation and the current barometric pressure. See our website for information on this (www.CoyoteEnts.com/technical).

THANK YOU for purchasing Coyote Automatic Tire Deflators. If you have questions, please contact us using the information on the cover, below, or our telephone number stamped on each Coyote Automatic Tire Deflators. Also take a look at our Coyote Dual, Internal, Pneumatic, Boltless Beadlocks for no more "popped" tire beads regardless of tire pressure! They fit inside your existing 15, 16 and 17 inch rims!

WARRANTY: The Coyote Enterprises LLC (CE) Automatic Tire Deflator's lifetime warranty covers flaws in material and workmanship for the original purchaser. Proof of original purchase is required. This excludes: 1) misuse, 2) abuse, 3) lost parts, 4) use of pinching tools to tighten the Lock Collar to the Adjustment Cap, 5) lack of maintenance and 6) corrosion. Corrosion is a function of the environment, so ensure that your Coyote Automatic Tire Deflators are stored in a dry, contamination-free environment. CE will repair or replace faulty deflators at its discretion, provided the faulty deflators are returned to CE at the owner's expense. Call first for a Return Material Authorization number. Return to the customer is covered by CE.

CE is not liable for any special, indirect, incidental, consequential damage, loss, injury or death which may result from the use or misuse of its automatic tire deflators or when driving with lower than recommended tire pressure. This warranty gives you specific rights which may vary from state to state or country to country.

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