

Airing down. Its a ritual, part of the 4-wheeling experience. Its also a pain. Here's a cheap way to make it a bit easier, airing down all four tires at once, or airing them all back up at once, while ensuring they are all at the same pressure. There are products out there that do this, but they all cost pretty dearly. This one is cheap, and easy to build.



The key part for this cheap trick is a Schrader valve to nominal pipe thread (NPT) fitting. With this, you can use any ordinary tire chuck to pressurize a system, or an ordinary tire pressure gauge to check all 4 tires at once.



The rest of the system is just a valve to bleed air from all the tires at once, and 4 locking tire chucks which seal onto the tire's valve stem without you having to hold them there. And some hose, hose clamps and "T" fittings. There's a complete listing of necessary parts at the end of this article, and sources where you can order them over the 'net.

With this rig all put together, it takes me a wee bit less than 3 minutes to air all four of my 15X33 Dunlop Mud Rovers from 27 psi down to 10 psi. Airing back up all 4 tires takes somewhere around 3 to 3 1/2 minutes. This obviously is dependent on the pressure available.



You will need four locking type tire chucks, shown here. These lock onto your tire's valve stem so you dont have to hold them. If you have on-board air in your vehicle, you install one of these and stand back and watch all four tires air up at the end of the trail.

You will need a valve to vent the tire pressure. Just open the valve and let 'er rip. After doing it a few times, you can open it up and then use the time to check fluid levels or make sure everything is tied down. Close the valve and



make a quick check with the pressure gauge to see if you have reached the deflation you want. If you want to get real fancy, you can plumb a pressure gauge so all you have to do is close the valve, and it will show the correct pressure for all four tires. I didnt do that, because I seem to damage things like glass gauges in my equipment box when bouncing around on the trail. Here's my 10 year old operating the deflator and checking for proper pressure. I usually run somewhere around 10 or 12 psi on the trail.



Airing back up is just reconnecting the deflator and either holding a service station tire chuck onto the deflator (boring), or else connecting your locking chuck from your onboard air (cool). Here is a locking tire chuck from my compressor hooked up re-inflating all four tires.

The deflation valve is just a T connector with the valve on one side of the T, the Schrader valve on one side, and the hose leading to the other two Ts and the tires themselves. Its a very simple system, and it works very well.



Here is a parts listing, including the sources for purchase of the items and how much they cost.

qty	P/N	description	Each	total	Source
1	g64-002	1/8 inch air valve assy	\$2.37	\$2.37	www.plumbest.com
1	P10-012	1/8 inch brass pipe tee	\$1.41	\$1.41	www.plumbest.com
1	p11-202	1/8 inch close nipple	\$0.30	\$0.30	www.plumbest.com
1	n10-442	1/4 comp X 1/8 pipe angle compre	\$2.40	\$2.40	www.plumbest.com
4	G25-064	3/8 hose barb to 1/4 mpt adapter	\$0.76	\$3.04	www.plumbest.com
1	G25-062	3/8 hose barb to 1/8 mpt adapter	\$0.82	\$0.82	www.plumbest.com
2	N11-003	3/8 " x3/8 " x3/8 " nylon hose barb	\$0.93	\$1.86	www.plumbest.com
4	159142	Air Chuck with Chuck Clip	\$4.99	\$19.96	www.northerntool.com
0.5	15869	300 PSI Yellow Air Hose 3/8in. x €	\$12.99	\$6.50	www.northerntool.com
14		hose clamps	\$0.50	\$7.00	any hardware store
total				\$45.66	

Also, you will need some teflon tape to seal the threaded connections. I made my deflator much longer than necessary for my truck in case someone with a bigger vehicle wants to use it. There is one fellow in our local 4X4 club with a huge suburban. and I sized it for that. You can cut the hose lengths much closer to fit your vehicle, and the overall result will be easier to pack and use. I designed mine in an "H" pattern, with a tire chuck at each corner of the "H", and the vent/fill valve off once side of the "H". It might work out better to just run single long line



around all four tires in a sort of loop and fill from one end. The whole thing ends up taking up about 1 square foot by three inches thick when rolled up. I found an old cloth bag to keep it in.

Also, a lot of this stuff may already be lying around in your shop! The key, though, is the Schrader to NPT fitting, which Plumbest calls an "Air Valve Assembly". This is what allows you to fill the system with any ordinary tire chuck.

Good luck, and good wheeling!

