



TACOMA

MAGAZINE

DECEMBER 2012 : VOLUME 2 : ISSUE 3



Long Beach
Racers

SEMA 2012

Ironman 4x4
2" Lift Install

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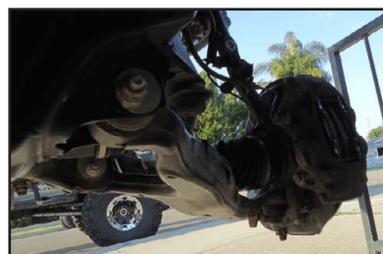
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tackle the
2012 Baja 1000.

Photo by Jim Ober
tracksidephoto.com



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FROM THE EDITOR

As we wrap up 2012, we look back to great memories. Taking on this Magazine has been so good for me. I love people, trucks, and the outdoors. I have had the privilege of meeting some really amazing people throughout the off-road and Overlanding industries. I have definitely seen some pretty stunning trucks. And the views around the country that I have seen will stay with me forever. I truly hope that yours was just as amazing!

With the help of some awesome advertisers, guest writers, and subject matters I think we have some great new content in this issue.

I still have the challenge out there for all interested. We are looking for the one thing this magazine is missing: YOU! We are always looking for photo's and articles about your Tacoma's, your gatherings, and your adventures. I still have a special challenge on the table; we still want to find someone to have their own section in the magazine to discuss, build, and review products for "X-Runners"

All being said we hope your 2013 will be filled with great adventures, spectacular views, new experiences, and the best of friends!

Until next time tread lightly, stay the trail, and get out there and enjoy our world!

-Jim Akers

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EDITORIAL

Publisher

Shane Williams

Managing Editor

Jim Akers

Associate Editor

Jeff Blackwell

Photography

Jim Akers

Robert Holliday

Shane Williams

Angie Williams

Associate Creative Director

Kimberly Proffitt

CONTRIBUTORS

Robert Holliday

Jonathan Hanson

OverlandExpo.com

Wyatt Scott

RockSolidToys.com

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By Jim Akers



The background on Long Beach Racers begins with the fact that the team was founded in 2001 by Ted and Nick Moncure, their father, and Matt Weal. The drivers are Andy Bell, Ted Moncure, Nick

Moncure, Doug Hood, Zach Zwillinger, Chris

Livingston, and Marco Dos Santos. Unbelievably many of the team members are Toyota engineers who VOLUNTEER their time and energy to design, build, and campaign this truck.

A little pat on their back, they now have 2 class championships under their belts including the 2012 Score Stock Mini. They finished first both days of the Laughlin Desert Challenge. They started the San Felipe 250 but had a u-bolt break causing a DNF, though they then upgraded to a 5/8" u-bolt. They placed first in class in this year's Baja 500 with a flawless run beating the stock full trucks along the way! The Baja 1000 was not nearly as easy on the team though. The trek through Mexico

caused a shock mount on the engine cage to fail after passing Rod Hall and all of the stock full trucks. The crew repaired it and 400 miles later it broke again in an area where they could not get the welder to the truck ending their battle at race mile 531.

Talk about building a truck from top to bottom, inside and out! There was some serious thought and engineering put into this truck. For the structural stability they built a TIG welded, SCORE approved roll cage. With LBR's trademarked "low profile" rear cage the rear view was free of obstructions (other than everyone they pass along the way). This high tech roll cage was integrated with custom Bilstein 60mm race shocks and a Defined Engineering Spring-Under kit. For protection under the truck LBR went

with CMI carbon fiber skid plates. They chose 35" BF Goodrich Project Tires on 16" TRD Baja Series wheels for getting that power to the dirt. When it comes to stopping power they picked the TRD Big Brake Kit. Performance further



improved with the installation of a MBRP Exhaust System. Endurance got boosted with a 50 gallon fuel cell. Hella HID lights on custom mounts will light their way to the finish line.

Even the interior got a make over! A PCI Race Radio and intercom system makes communication easy and reliable. Mastercraft race seats, harnesses, and window nets rounded out the safety inside the truck.

A custom wrap that incorporated the TX Baja Series graphic made this one complete package!

Next year the team will be repairing the stock mini truck as well as building a trophy truck chassis to campaign in the Super 8 Class using a Tundra V8 engine in 2014

Well done Long Beach Racers, well done! Now, keep those trucks rolling!!

For everyone wanting more details and contact, follow LBR on Facebook and Twitter!

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New & Noteworthy

Undercover Hidden Winch Mount System

Brian and Justin over at UndercoverHWMS just sent over their Undercover Hidden Winch Mount System for us to try out. This system is quite literally a sub-bumper built super strong to be a hidden winch mount system for 2005+ Toyota Tacoma, 2007+ Fj cruiser, & the 2010+Toyota 4Runner. With

this system you get to keep the stock bumper shell and look! If you prefer recovery points that will protrude through the lower valence of the plastic bumper cover, with one on each end, you can. Or, if you prefer the stealthier look, without them all you will see is the fairlead & hook or thimble showing on the front of your Tacoma. Stay tuned for the full install article in the March 2013 issue of Tacoma Magazine!

This system with D-ring option is priced around \$450

Source: Undercover Hidden Winch Mount System
<http://www.undercoverhwms.com>



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iPad Mini Install with Kicker & Otterbox

While at SEMA show this year we were very excited to find the Kicker booth and some of their new products that are a perfect match for our iPad Mini Project. Like the iPad install that FJC Magazine wrote about, our goal is to replace the stock head unit in the TM Taco with an iPad + interface + amplifier.

To mount the iPad to the dash, we're using an Otterbox Defender case that includes a snap on cover that conveniently serves as a mounting platform. While we'll lose the cover functionality, this setup will make the iPad easily removable for other uses (such as reading our favorite digital magazines).

Kicker sent over their PXi50.2 interface and a 600W amp to round out our installation. We'll have the full story in the March 2012 issue. Stay tuned!



Sources:

Kicker | <http://www.kicker.com>

Otterbox | <http://www.otterbox.com>

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A NEW TYPE OF OHV VOLUNTEER PROGRAM

By Matt Glass

For years, Colorado has had Stay The Trail promoting responsible trail etiquette. On weekends, their blue and yellow logo can be found on many vehicles in the constant stream of rigs, trailers, or toy-haulers heading to the trail. While those supporters head to the trails, the Stay The Trail folks are probably already there. Their dedicated staff can be found at trailheads and OHV (Off-Highway Vehicle) events across Colorado where they talk with enthusiasts about proper OHV use on public land, teach trail ethics, and discuss local trails.

Stay The Trail has expanded this season and now is training volunteers to be Stay The Trail Ambassadors. This new, flexible volunteer program is a way for Colorado trail users to give back to the trails they enjoy through planned trail projects or spontaneously addressing trail needs, all in an effort to maintain Colorado's trails.

This program is also unique because it is not a club, but a statewide effort made up of enthusiasts from across Colorado.

The Ambassadors organize stewardship work on heavily used trails and assist land management agencies in performing needed trail maintenance or improvements. They do everything from rebuilding fences, installing new signage, and creating water bars so trails can handle the Colorado downpours and seasonal runoff. Many stewardship projects are open for anyone interested in lending a hand.



The Ambassador volunteers also allow Stay The Trail and their message of responsible trail use to have a presence on any trail that the volunteers choose to head out on. These Ambassadors are able to take note of any trail or signage conditions that need attention,

while also ensuring that other enthusiasts that they meet are familiar with the common etiquette guidelines that make trails enjoyable for everyone. This allows the trained Ambassadors to turn wheeling into volunteering!

Expect to see the new Ambassador green and black version of the familiar Stay The Trail emblem on more and more on trails around Colorado.



To find out more about Stay The Trail and the Ambassadors program visit: StayTheTrailAmbassadors.com AND StayTheTrail.com

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CONTACT INFO
Matt Glass – Program Coordinator
720-454-0481
Ambassadors@StayTheTrail.org



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ALONE AT THE TOP OF THE MOUNTAIN.

TRD



2" Suspension Lift Install

By Jim Akers

The Aussie's are coming! One of the newer names in off-road gear, at least here in the USA, is Ironman 4x4. When you think about off-roading around the world there is one and one place only that is at the front of everyone's mind. Australia as a whole seems to be on a level of its own when you discuss rugged places to live, much less explore. So when manufacturers like Ironman 4x4 bring their products to market here, it's definitely something to take note of.

At the FJ Summit this year we caught up with Eli to chat about their products. When he found out that I didn't drive an FJ but instead, a Tacoma, his eyes lit up. Ironman is just starting to go after the Tacoma market with their suspension and they wanted someone to try it out. Not long after the Summit, a 2" Ironman Kit arrived.



If you're going to lift your Tacoma why use spacers and lose suspension travel when Ironman 4x4 gives you the option for a full lift without reduction in travel. If rock crawling and stretching your truck's legs aren't your style of wheeling, then preloaded coils won't bother you. Living in the Rockies we seem to be surrounded by "rocks" so every bit of travel we can get helps.

Another question to decide upon before lifting your truck: are you going to do the install or are you going to have the pros do it for you? This will not be the easiest install you have done for sure if you do it yourself. If you have a shop install it, you will have to either have to find a dealer of Ironman 4x4 or find a shop that will let you buy the kit yourself. You can do it yourself if you have specific tools such as a coil compressor and a pneumatic impact wrench. And of course a few mechanically inclined friends.

Before you get started there are a few questions to answer to make sure you get the parts that you need. Here's what Ironman sent over for us:

Front Suspension

- Nitro gas or Foam Cell shocks
- Performance or Constant Load coils
- 5-10-15 mm trim packers

Rear Suspension

- Nitro Gas or Foam Cell shocks
- Rear Leaf Springs



Once you make these choices you order them online. One thing to note is when you order leaf springs they will show up palletized. So make sure you give them a delivery address where they can be unloaded by a fork lift.

Continued on page 10

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Photos: Exploring Four Corners (Barry Andrews, Four Wheel Campers) and aerial shot of Overland Expo 2012 (Rob Martinson).

Continued from page 12
Now, for the install!

We were very fortunate to have friends that have a shop for us to use for this install. Pete from Bach Crawlers here in Monument (near Colorado Springs) walked us through the install to make sure we didn't forget anything. We decided Shane (from FJC Magazine and our publisher) and Matt (from FunTreks Guidebooks) would take on the challenge of the front suspension while I took on the leaf springs and shocks in the rear.

The first place to start with any lift install is disassembly. It's important to remember what comes off (and in what order), so that the new parts go on in the right order. I do have to say at this point - If you don't have a spring compressor have a professional shop do the install! Shane and Matt worked well as a team!

The front install went pretty well, but did take quite a bit of time, not to mention elbow grease. It's necessary to remove the front sway bar before working on the three bolts that hold the coilover assembly in. If you remove the lower ball joint bolts

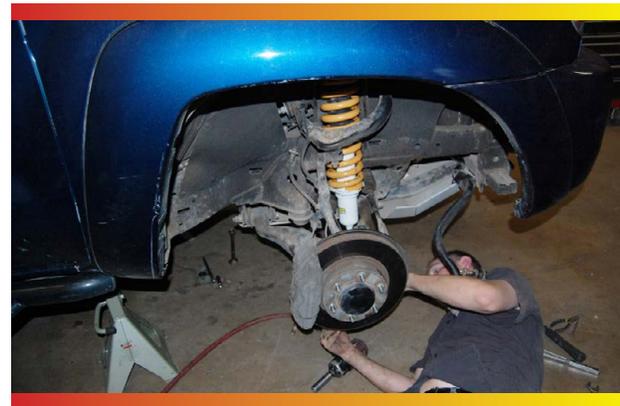
things will be a little easier, but the truck will require an alignment after the install. Once everything is unbolted (including the lower shock bolt) the coilover should come out pretty easily.



This is where a spring compressor comes in very handy. A wall mounted compressor is best (and safest), but a bolt-down type is what we used. It's important to take your time and work safely when compressing the spring, even though the compressor is high-strength steel, there is a ton of pressure on the components and we have heard of accidents happening.



After you get the original coilover apart, replace the shock and coil with the new components, reassemble, and gently loosen the coil compressor to allow the new spring to properly seat. Be careful to make sure your shock is aligned with the top three bolts the same way it was when you removed the assembly, otherwise you'll have to re-compress and adjust it before you can re-install the coilover. Reverse removal steps to re-install the coils, and bolt everything back into place. The front lift will take 2-3 hours with a table-top compressor, or 1-2 hours with a wall mounted version.



I will admit changing out the rear suspension is a lot easier than the front. In the rear, once the rims are off you unbolt the shocks and the leaf springs. Make sure you have support stands for the axle or it will drop on the floor. The most difficult part is getting the old bushings out. The bolts are just long

enough to make life difficult. Using a floor jack and stands will make your life a lot easier when installing the new kit.

Six bolts and the new leaf is in. Repeat the process for the other side, then on to the shocks. There is



an update on how the components perform both on and off road in a future issue.

SOURCE: Camel 4x4 / Iron Man 4x4

a great trick for getting the old shocks off . . . Saws all!!!! Cut the top bolt off and out they come.

All in all the suspension installation is pretty straight forward and I think the truck looks pretty darn good! A huge thank you to Eli (Ironman 4X4), Matt (FunTreds Guidebooks), Shane (our publisher and photographer), and Bach Crawlers! We'll have



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Tacos in VEGAS



This year's SEMA was the best yet, especially for the Tacoma Magazine crew—from the new manufacturers to the same faces with their new products and so much in between. Some of the new companies and products for us this year included:

This year's SEMA was the best yet!

ARE and their Overland Truck Cap, man they make a great truck cap; Firestone and their new Air Ride System might just be one of the most interesting products for me at the show; Bolt and their Vehicle Matching Lock Systems might just take the worrying out of losing the keys to your locks; Pro-lift is a new name (but they have been around for many years under someone

else's name) and makes some amazing lift kits. Looxcie "The little connected camera with a lot to share" might be a lot of fun for us in the future. Finally ComeUp, a winch

Looxcie might be a lot of fun for us in the future!

company with their gorgeous red Tacoma in the booth makes some pretty awesome looking gear with great options to choose from.

Of course there were several companies that we're already familiar with as well, so it was really great to chat with their staff this year. Toytec had a good showing with all of their wares and a steady



We love the look of the Pro Lift Taco.



ComeUp, a winch company with their gorgeous red Tacoma.

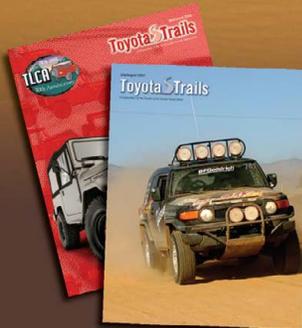
stream of traffic through the booth. Asfir4x4 had a lot to say with their under body armor, though LCA skids would be a nice addition. Trail Gear always makes their presence known and they were talking up their new crawl box for the Taco. Baja Designs had their equipment lighting up the

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The great Outback Proven Taco.

space for sure. Between the brand new Tacoma and the MaxTrax Rally

Outback Proven had me spell bound for over an hour.

fighter (along with all of their other manufacturers) Outback Proven had me spell bound for over an hour. Last but so far from least was the Toyota booth. They had so

I only wished they had a Tacoma on the floor, but not this year with the Dream Toyota Project Competition.

many amazing cars and trucks they had everyone's attention. The TRD



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trailer was outside for all to tour with a dragster sitting next to it. I only wished they had a Tacoma on the floor, but not this year with the Dream Toyota Project Competition. NHRA Top Fuel points leader Antron Brown created a Sequoia Family Dragster that seats four. Alexis DeJoria built a sweet Pre-Runner Tundra. Nascar's Clint Bowyer built a Prius with as much tech as an Apple store. Also from Nascar, Kyle Busch designed the Rowdy Edition Camry that won the design competition in the name of his Kyle Busch Foundation. Of course we can't leave out the Bassmasters Elite Pro Series Ultimate Fishing Tundra.

The afterhours were just as fun as the show this year!

The afterhours were just as fun as the show this year! We were privileged to be invited to the Overland Journal Party again this year along with a few others. There were plenty of familiar faces in attendance as usual at the "OJ House" (no, not THAT OJ). The

As usual our hosts were wonderful and recounted some of their favorite details from their most recent journeys from around the world.

Expedition Overland crew was giving us the breaking news on their new project Tacoma they are going building up in 2013 (See A Wisit with Clay Croft, page 18). I finally got to meet up with Kurt from Cruiser Outfitters and he has some



Alexis DeJoria's Pre-Runner Tundra.

stories for us as well. Outback Proven was there telling us about the build-up on their first Tacoma. It's an all Australian build that we'll be featuring as well. The ladies from Team X-Elles were there talking about their upcoming race in Morocco that sounds like an amazing adventure. Del Albright from the Blue Ribbon Coalition was sharing what is going on with the Friends of the Rubicon. As usual our hosts were wonderful and recounted some of their favorite details from their most recent journeys from around the world. My final night in Sin City was spent checking out the strip and having an adult beverage with Slee Offroad and one of our friends at Long Beach Racers (see page 4).



Quite the ultimate Tundra.

With all that we got to see and enjoy in Vegas this year, we are already planning our trip for next year. Not

to mention all of the builds that we will be sharing with you as we move forward over the next few months.

Hope to see you there next year! ■



By Bob Holliday

Product Highlight

Looking for a snorkel specifically designed for your second generation Toyota Tacoma? Look no further! Airflow America, the North and South America distributor for Airflow Vector Pty Ltd from Australia is set to release their latest creation, a snorkel molded directly from the second generation Toyota Tacoma. Airflow has leveraged 20+ years of experience in designing and making snorkels to create a snorkel that fits the Tacoma's contours and engine specifications, supplying the right amount of airflow needed throughout the power band. The snorkel has been put through several computer simulations to improve results and field tested throughout the United States for close to two year before their official release at the end of December 2012.

In the February 2011 Tacoma Magazine article Safari Snorkel Tech From The Pro's, Kurt Williams discussed many benefits of a snorkel installation with off-road vehicles. Between keeping water and dust out of your engine and bringing in fresh cool air from outside into your engine (in most cases, intake temperatures can range from zero and 15 degrees higher than the ambient temperatures versus 5 and 30+ degrees as seen with the factory intake), off-road vehicles can benefit greatly from this modification. A vehicle can also see gains in both fuel economy as well as some performance gains from the forced air designs of snorkels. In some cases, fuel economy has been seen to improve by two or more miles per gallon. For most situations snorkels are not a necessity, however, for those who like to spend time crossing through water, or traveling across dusty terrain, snorkels are a great option.

Although the concept of a snorkel is similar with all manufactures, their methods to obtaining the air can vary. These differences can be seen between Safari and the new contender, Airflow. The most notable difference being the air ram styling between the two manufacturers. Safari's air ram measures 5.5"x3.75" while the Airflow air ram measures a massive 6.75"x6.5". Additionally, the Airflow kit extends



Airflow (left) and Safari (right) air ram designs

the air ram slightly higher compared to the Safari with a goal of pulling in air at the roof level where it is least disturbed. Airflow chose to increase the plumbing size from the air ram to the intake as well compared to the Safari system using

3.5" and 4" tubing, similar size to that of the factory Tacoma intake system. With years of research and development, the Airflow America has been working hard to maximize the volume of air your engine receives. This is good news for those with forced air induction systems looking for a snorkel but worried about starving your engine. However, without proper testing between the different methods, we cannot say whether one system performs better than the other.

Although there are differences in the size and shape of the air ram, both "hats" contain water separation systems that allow water and heavier particles to be ejected by centrifugal forces out the side of the air ram through vertical ribs in the hat. The finer particles that continue through the snorkel intake



Out testing the new Airflow system up grizzly gulch, Colorado

will need to be filtered out through pre-filters and/or normal engine air filters.

As far as the installation process between the two systems, there are many similarities and few differences. Both require some confidence to make some

drastic alterations to the truck's body (drilling and cutting to fit the snorkel) and both utilize all or some of the main factory intake system. The Airflow system, however, has been able to utilize all of the factory intake system making the connection between the snorkel and the intake a breeze. Meanwhile, the Safari system requires a bit more creativity to connect the two systems seamlessly.

As mentioned in Safari Snorkel Tech From The Pro's, installing a snorkel will not protect your vehicle completely in the instances of water crossing and further work is necessary to fully protect other critical areas of your vehicle. Refer to the February 2011 Tacoma Magazine for more information on useful tips to protect your vehicle.

Visit <http://www.airflowamerica.com/> to discover more about the Airflow America line of snorkels and to find information for your local authorized Airflow dealer.

Special thanks to Expeditioneers for their help with the installation and testing opportunity.

**Source: Expeditioneers | <http://expeditioneers.com>
Airflow America | <http://airflowamerica.com/>**

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OVERLAND EXPO'S Tacoma Build (JATAC): Introduction

By Jonathan Hanson, www.overlandexpo.com

“Oh—just a Tacoma.”

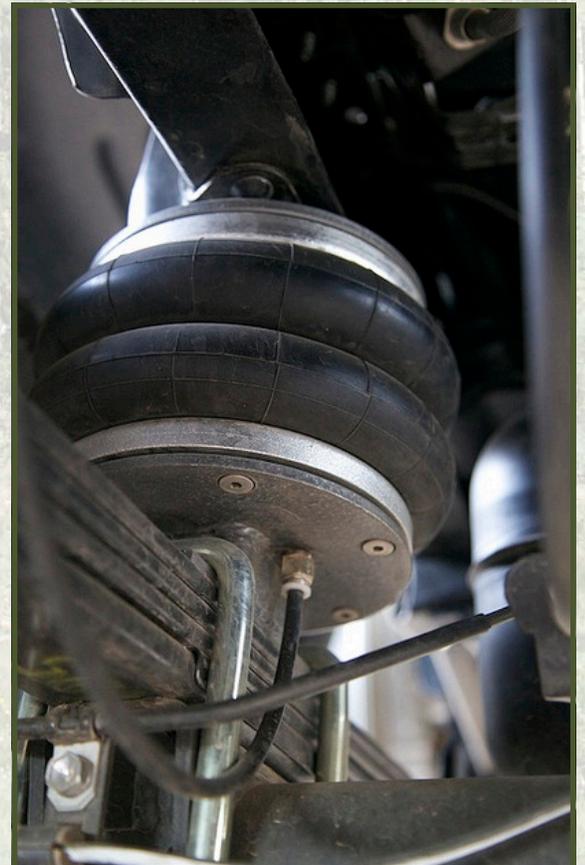
That’s what a forum member posted after Roseann and I announced that the replacement for our classic, turbodiesel-powered 1984 Land Cruiser was to be “just” a U.S. market Toyota pickup. That post inspired the nickname for our new vehicle: the JATAC, for Just A Tacoma And Camper.

To be sure, we had considered other options, chief among them a 79-Series Land Cruiser pickup. Our conservation work in East Africa has afforded us thousands of miles of experience using Toyota’s world-market Land Cruiser workhorse Troopie and pickup, and our admiration for the breed has few limits. The 79 has of course never been officially imported to the U.S., but a contact in California had an opportunity to bring in, through Florida, a used but recent example from the Middle East, with left-hand drive and the brilliant 1HZ diesel engine, for right around what an average new 4X4 would cost. Very tempting.

Two things dissuaded us. First, while our contact had accomplished the importing trick before, and we knew the vehicles left Florida with a valid title (and registering them in rural Arizona where we live would be a simple mail-in procedure), we would nevertheless be circumventing U.S. laws and emissions regulations. More importantly, whatever vehicle we chose would be expected to be a centerpiece at the annual Overland Expo show

in Arizona, which we run. And the more we thought about it, the more we realized a 79-Series pickup, however spectacular as a display, would project a “look what we have that you can’t get” attitude we found objectionable.

In the meantime, both of us have always agreed that the very best combination we ever owned for long-distance travel and back-road exploration was our 2000 Tacoma and the lightweight pop-up camper from Four Wheel Campers we mounted on it. The camper had already traveled over 100K miles on our 1992 Toyota pickup equipped with the durable but overmatched 22RE four-cylinder engine, and the move to the Tacoma with its 3.4-liter six, even with an automatic transmission, resulted in significantly better power and exactly the same fuel economy (18 mpg) that the struggling 22RE had managed. However, we eventually sold both Tacoma and camper to pay off our land—and ever after missed the pairing of comfortable and reliable truck with an instantly deployable home-away-from-home.





In the succeeding years, the Tacoma has grown in size and power, and the Four Wheel Camper has benefitted from many upgrades too. The combination might lack the exotic flair of a 70-Series pickup or even a turbodiesel-powered FJ60, but as an affordable—and attainable—rig, suitable for remote exploration anywhere in the world, we could think of nothing better.

Something else has changed in the past decade: information technology. The work Roseann and I do on a day-to-day basis, in electronic media and digital imagery, is essentially free from the need for a fixed office. Given sufficient power and satellite connectivity, we can work anywhere we park. That fact, and the experience we've gained driving, owning, and reviewing vehicles here and abroad, helped us decide on the priorities for the JATAC:

- Complete self-sufficiency in terms of 12V DC and 120V AC power, via photovoltaic generation, an AGM battery bank, and inverter. We want to be able to park in one spot for a week or more and run the camper's fridge, water pump, and lights, power our two laptop computers, and recharge camera batteries, without having to run the engine to recharge the batteries (a very inefficient approach).
- The ability to remain connected via the Internet and telephone anywhere we travel, including Africa.

- The camper must be functional as a living and working space for extended periods. Frequently our work might involve camping outside a city for several days, then visiting a business or interviewing someone in town for an article. We want to be able to show up not looking (or smelling) like we'd been camping for days.
- Since we frequently travel as a solo vehicle to remote areas, we want the truck to have adequate off-pavement ability and excellent self-recovery potential. This will involve upgrades to the tires and suspension, a rear locker, recovery points, an aftermarket front bumper with winch, and several accessories we're in the process of reviewing now.

Over the next few months we'll be tackling these goals, and reviewing the products we decide on (and against). We plan to have the truck and camper essentially completed (although is any such thing ever really completed?) by the next Overland Expo in May.

* * *

Jonathan Hanson has been a freelance writer and photographer for 25 years. He was the founding editor of Overland Journal magazine, and now owns the Overland Expo with his wife, Roseann, and manages the Overland Tech and Travel website. The Hansons also run a small non-profit, ConserVentures, which assists community-based wildlife conservation projects on several continents. The JATAC will be the latest in a series of expedition vehicles built to support their research and development efforts. It will be featured at the next Overland Expo, May 17-19. Find out more here. ■



A Visit with Clay Croft, Creator of Expedition Overland

By Shane Williams

There are firsts in every industry and genre, and the overland niche of the off-road world is no different. Adventure riders know of Horizons Unlimited and ADV Rider while in the overland world, Turtle Expedition is usually at the top of any list of 'pioneers.' Scott Brady with Expedition Portal and Overland Journal is also considered a pioneer in this space, and after a couple of cold days in Bozeman, Montana, I believe the term pioneer should be bestowed upon Clay Croft.



Land Cruiser towing an overland trailer.

At a young 30 years old, Clay has done something many of us dream of: he's made Overland adventure his way of life. Clay combined his skill as a cinematographer and artist with his love of the outdoors to create what most agree is the most compelling professional series in the overland community. Clay not only lives the overland dream, he's launched himself and his series to the forefront of this niche of off road enthusiasts. Within 12 months of launching his first episode, Clay has served as cinematographer on the illustrious Expeditions 7 project and has rubbed elbows with the who's who of Overlanding in general.



Clay Croft, a pioneer in the overland world.

After meeting Clay at SEMA 2011 (literally hours after watching the premier webisode of Expedition Overland), I offered to help the 'new guy' by placing promotions in our magazines and helping their new Facebook page get going. A little over a year later, and I'm in Bozeman wondering how I can convince Clay to introduce me to some of the influential people he's gotten to know. Expedition Overland (XO) is truly a phenomenon, so when the invitation came and we had the opportunity to visit Bozeman for the premier, Angie and I packed Brenden up and headed for the airport.

My first question when Clay and I started talking about XO was how the heck he became a world-class cinematographer and how that turned into such an inspiring show. Well, about eight years ago (just after he married his high school sweetheart Rachele in 2004), Clay founded Hiline Productions, the company that produces Expedition Overland. Thanks to thousands of 'learning experiences' along the way, and amazing support from his wife, Clay was able to build Hiline into a successful freelance production company. He and his company have worked in Uganda, Croatia, Canada, Alaska for three years, and throughout the US. This experience was vital in forming the ideas that have gone into XO.



<http://www.hilineproductions.com/>

In 2009 upon returning from working in Africa, Clay was excited to have several months of solid work lined up, which would support his growing family very well for a while. As the economy was still in shambles at the time, all of that work fell through. Like many during the recession, Clay found himself out of work for five months and struggled with the best way to pay the bills.

One day he walked into his garage and it hit him. He loved the outdoors and exploring Montana in his built up 2001 Tacoma, and he had a stock 2000 100 Series Land Cruiser in the driveway (the family truckster). Why not combine his production company with his love of exploration into a hit web show?

Luckily Clay had a group of friends that were very interested in the project, so building a team was relatively easy. He'd also worked with several off road companies previously, so he had connections to the 'industry' for partnerships and possible sponsors. Like many amazing projects, the first meeting for Expedition Overland took place in Clay's garage. Jordan, Jeff, Scott, and Ryan were on board from the beginning. Jeff Gazy joined after the first trip, and the rest of the gang got on board by the end of the first season. Expedition Overland was born!



Expedition Overland patch on a seat.



Expedition Overland crew.

Many of us that have fancy smartphones, Contour and GoPro video recorders may be under the impression that composing, shooting, editing, and distributing an amazing web series would be a dream job. While it may be a dream job, it's still a job, and it's definitely not as easy as 1-2-3. There are literally thousands of moving parts that all have to work properly (and in the correct sequence) before an episode of Expedition Overland can even be filmed, much less produced and distributed.



The XO shop in Belgrade, MT.

A quick tour around the XO shop in Belgrade, MT (just outside of Bozeman) was all I needed to know what a complex operation this is. The shelves are labeled with—roughly—what belongs there for relatively easy loading for the next trip (the Land Cruiser is the daily-driver and lead kid-hauler and serves as a 'star' of the

show). There are more tripods, lights, and production accessories than your local Best Buy or Fry's would even know what to do with. The chalk boards and meeting areas contain dozens of notes, lists, and ideas that must be dealt with sooner rather than later. And finally, there's a brand new 2013 Tacoma in very stock form that must be completely built up before the next adventure starts.



Shelves of gear in the XO shop.

So what does it take to produce a world class web series? I'll do my best to give you a taste of what is involved. Unlike Top Gear, American Chopper, and other high-dollar productions, XO doesn't come with dozens of crew members to fix, tweak, light, and shoot scenes. This series is produced by those that are in it, everyone has a job not only on the trail, but in the shop before a mile is added to the odometer. The team includes two cinematographers, Clay and Scott Cahill, and the other members work on trucks, plan meals, help decide on routes and areas that will be covered on the show, and shoot a little footage from time to time.



One of the cameras used by XO.

Imagine organizing six men with full-time jobs, family, and personal commitments. Just getting the schedule for a trip figured out takes days of effort. Once a trip is planned, weeks of preparation work has everyone at the shop working on trucks, planning, and deciding what the next step should be. Now take those people to hundreds (or thousands) of miles from home, film them doing cool things, and get them back to Montana in one piece—and not burned out—just so you can plan another trip in a month or two. And that's the easy part.

The EASY part?

Believe it or not, the adventure/overland/expedition is the easiest part of creating a web series. Clay and Scott (and the team) film about 1-2 hours of footage every day of the trip, all of which is

backed up to a Macbook Pro and an external hard drive to the tune of about 120GB per day. Out of that footage, only about 10 minutes or so will ever make it into the episode. Also keep in mind that each minute of footage can take hours to setup depending on the type of shot.

Great, we have footage—so let's publish an episode!

When Clay first told me that he usually spends 2-3 weeks editing each episode, I had no idea of everything that is involved. Once the trip is over and the trucks are cleaned, Clay retreats to his editing suite (which also doubles as XO's world HQ and a storage room) to prepare the footage for editing. The two Canon 7D DSLR cameras that Clay and Scott use output giant video files that can only be handled by the Hiline Productions heavy duty Mac Pro desktop, so all the data has to be moved over (and backed up yet again) before editing can begin.



Clay's editing suite which also doubles as XO's world HQ and a storage room.

The editing process takes by far the most time of the entire production. Clay is hesitant to keep exact track of the time he spends in the editing chair (no doubt from fear of depression), but estimates that cutting footage down to a 30(ish) minute episode takes him 80 hours or more. I did ask Clay if he's considered hiring an intern editor from nearby Montana State University, the reply to which was "I've already burned out three of them." During that 80+ hours of editing, Clay is 'roughing' in music that matches the feel he's going for with each scene. In the last phases of the editing process, the entire film is sent to *woodrowgerber* in Los Angeles for scoring. That's right, EACH episode of XO is published with custom music. On average, there are about 13 custom songs per episode, which means Season 1 of Expedition Overland includes over 60 custom songs. Once the music is done, Clay adds it back into the film in the appropriate places, adding another 10 or so hours to the workload.



Clay in his shop with the gear and a Tacoma.

You may think that finally, after all this cutting, editing, and scoring the film would be ready to go, right? Almost ;) There are still sponsor shots to deal with, film releases for anyone that's not part of the XO team to secure, and exporting to deal with. Wow, exporting! When we arrived Thursday night for the Saturday night premier, Clay was preparing once again for the 10 minute drive to his shop to start another export/upload process that takes 6-10 hours. High quality HD video that's 30+ minutes long takes more than a few hours to export from the editing suite (Clay uses Final Cut 7) before it can be uploaded to the web. Once the export is complete, the entire movie (which is well over 1GB in size) is then uploaded to the Vimeo servers, which then encode it to meet their specifications, and that takes another 4-6 hours.

Finally, the time has arrived: the Season Finale Premier. Angie, Brenden, and I arrive at the venue (the Croft's Church), a little early so I could grab a few shots of the new Tacoma all lit up. Even in its virtually stock form, this truck is a beauty. There is no doubt it will turn out gorgeous—and we can't wait to cover it. About 80-90 people came out on a cold, snowy Bozeman Saturday to see the Season Finale first hand. Expedition Overland's sponsors were very generous for this premier so almost everyone went home with a gift.



Grand Prize Maxtrax Winner.

At about 38 minutes this episode is longer than most of the others, but for good reason. In addition to the team's journey through Idaho sand dunes and fly fishing adventure, Clay included footage he filmed for Expeditions 7 while in Russia, as well as a bit of their Tread Lightly training with the infamous Justin Lilly. The final episode of Season 1 was full of the things we love most about XO: outdoor adventure, great friends, having fun with Toyota Trucks.



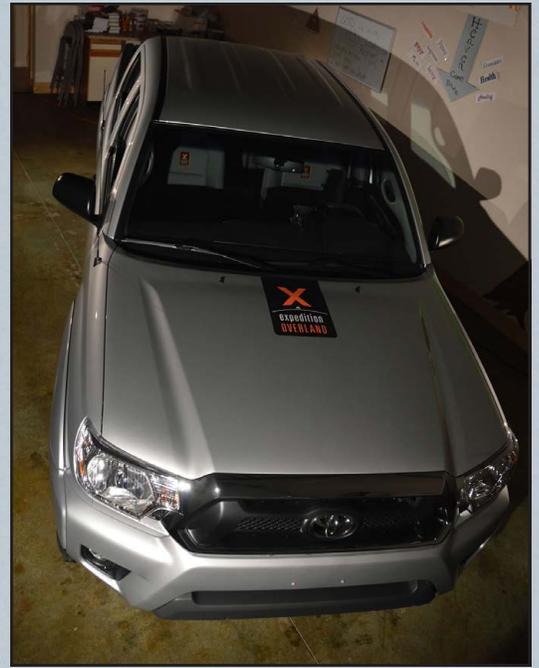
Episode 6 maps.



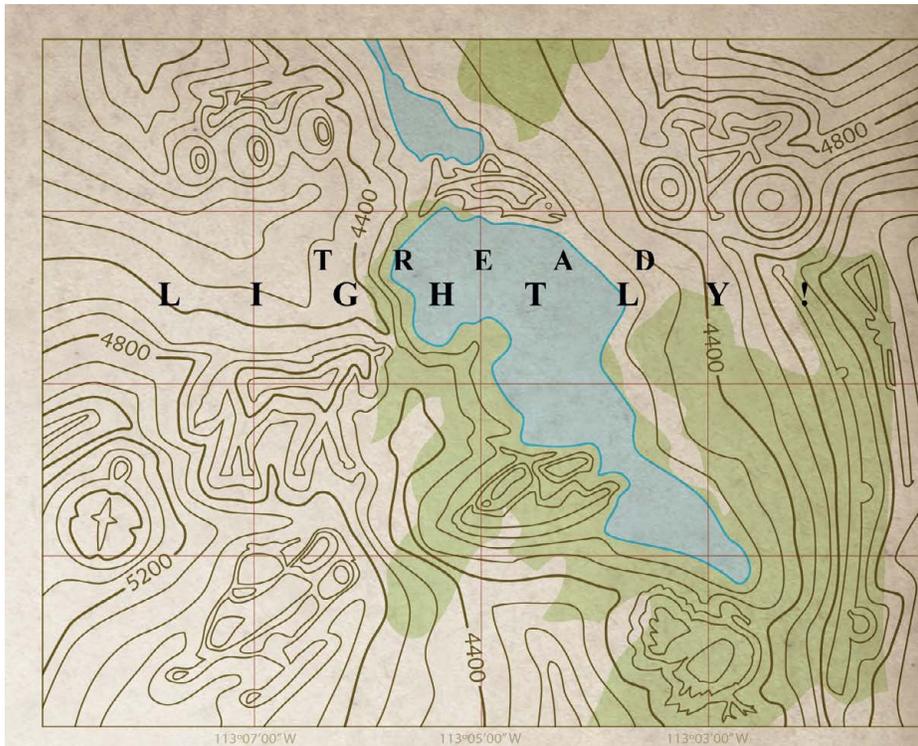
Clay chatting with friends.

2013 is going to be another epic year for Expedition Overland. Instead of short trips around Montana and the southwest, the team is planning a full expedition to Alaska. Their goal? To reach the Arctic Circle and explore as much as possible. While Season 2 will not air for a while (they'll produce the entire season before releasing the first episode), we will see plenty of great footage during the Tacoma build up. Also, Clay is going to focus more on the friendships that make XO possible, as well as the amazing people encountered along the journey in 2013. We know it's going to be amazing!

Like the legendary Warren Miller (the father of modern Ski Films), I have no doubt that Clay Croft is a pioneer in the overland film genre. I expect great things from Expedition Overland in the years ahead, and can't wait to see how the 2013 Alaskan Expedition turns out. We'll be covering aspects of the new XO Tacoma Build in the months ahead. We may even *have* to take another trip or two to Bozeman, you know, for the articles. ;) ■



Brand new 2013 Tacoma in very stock form that must be completely built up before the next adventure starts.



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2nd Gen Tacoma 2WD to 4WD Conversion



By Wyatt Scott, Rocksolidtoys.com

Toyota has made a number of variations of the Tacoma, from the venerable five lug standard cab to the unmistakable double cab long bed 4WD and everything in between. Some have purchased the awesome Prerunner version of the Tacoma, have built it to the exact specifications wanted, then taken it out on the trails and have loved it. But, some have been left wanting more when the trail got tough; you got left behind, even with the addition of the factory rear locker. You just didn't have the extra benefit of power going to those front wheels.

So what do you do when you want a 4WD version of your truck? First, you can sell it and then go purchase the 4WD version of your truck. Only problem, you've already spent a fortune on all the upgrades you wanted and you're not going to get that money back. Not to mention the 4WD version is quite a bit more than your Prerunner.

So what do you do? Convert yours to 4WD! Yes that's right. Use all Toyota factory parts and convert your Prerunner to a 4WD variant of the Prerunner.

Is it easy? No! Is it worth it? For some, yes.

So lets get started.

This truck was a 2WD extra cab Prerunner with the 4.0 motor and the automatic transmission.

First we need to get the list of parts. The Prerunner and the 4WD trucks are not the same truck. The frames are just a small bit different; they have transmissions that are not the same at the rear. The transmission mounts, and the drive shafts are

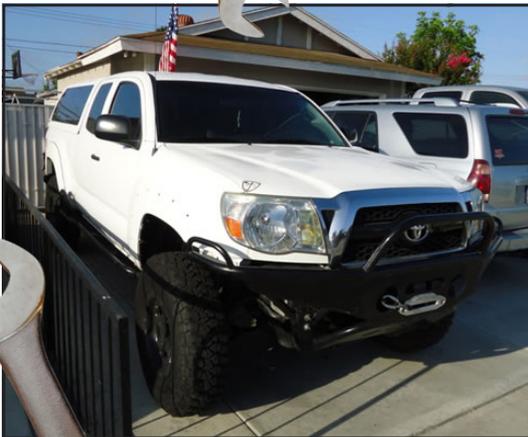
also different. Not to mention, the front drive system that is in the 4WD version is not currently present.

You will either need to find a donor truck to get all the parts needed, or go to Toyota and buy all the parts, but that gets very expensive. In the past we have just found wrecked 4WD trucks and gotten the parts we needed from them and then purchased the rest of the parts we needed from Toyota. This way is more cost effective.

You're going to need all the front drive components such as the front differential and ADD stuff, the front drive hubs, front drive shaft, CV axles and the breather tube for the front diff. You'll also need to figure out the wiring if you don't use the kit that RockSolidToys.com has for the electronics within the conversion. You will need the A750F version of the automatic transmission if you have the automatic. We haven't done a conversion on a manual transmission truck yet, so, I don't have the info on its transmission but it will have a different rear end like the A750F auto has. You will need a transfer case. Since this is a swap, why not use the best transfer case that Toyota has ever built? Use the transfer case from the FJ Cruiser. It is fully manual and bolts right up. This transfer case has been in service long before the FJ Cruiser came along. It has been used in a number of trucks around the world from the Hilux and Prados, to some of the FJ series trucks that we don't get here. They have even been used in non-Toyota vehicles as well. Finally, you're going to need the cross member from the 4WD Tacoma as well as the front drive shaft and rear drive shaft.

So let's stop wasting time and get into this swap.

First, as many of you know, the Prerunner and the 4WD version of the second generation Tacoma



uses the automatic A750F or A750E transmission behind the 4.0 motor. The difference between the two is the rear extension housings. This one is for the 2WD version and has no way to accommodate a transfer case.

Notice that the end of the transfer case comes to a cone shape in the rear where the drive shaft connects. This is far different than the rear of the 4WD version of the same transmission. Below is the 4WD drive transmission. Here you can see that it has a rear adapter that can accept the transfer case instead of the driveshaft.

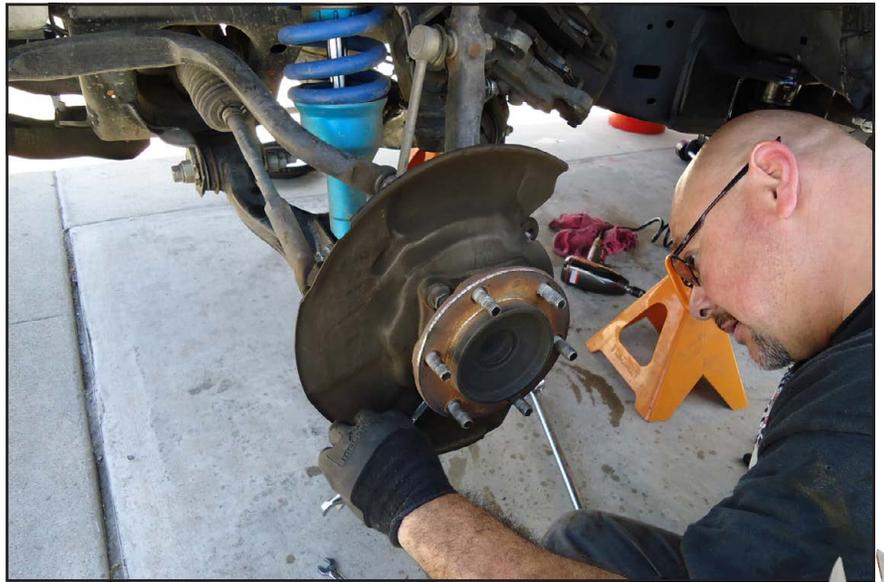


Internally these two transmissions are identical. It's just the rear portions of each transmission that are different.

Now that we have all the parts, it's time to start tearing down the truck to start the transformation. With this truck the owner added a Marlin Crawler "Taco Box" for the ultimate in 4WD fun. Everything else is the same if you don't use the crawler so we'll share that info with you as well.

First we had to take off all the skid plates. Jack up the truck and use jack stands for safety. I can't tell how many times I hear of someone using cinder blocks to hold up a 5,000 + lb truck. Nuts! Anyway, once you have the skid plates off it's time to move to the transmission.

Before we install any transmission we always flush them out. While the transmission was getting flushed we turned our attention to removing all the 2WD hub stuff. First we removed the wheels to get to the hubs. On the 2WD version there is a



just a dust shield that needs to be removed on the spindle.



Once the 2WD hub is removed from the spindle you can now remove the rear dust shield as well.

Now that the dust shield is gone we can start to install the front drive system. The neat thing about this is Toyota has all the bolt holes and cradle stuff already set in the frame so that all we had to do is lift it all up and bolt it in.

Here is the front drive assembly with the ADD actuator. You can get this from any of the 4WD second generation Tacos, the V6 fourth gen 4Runner, or the automatic FJ



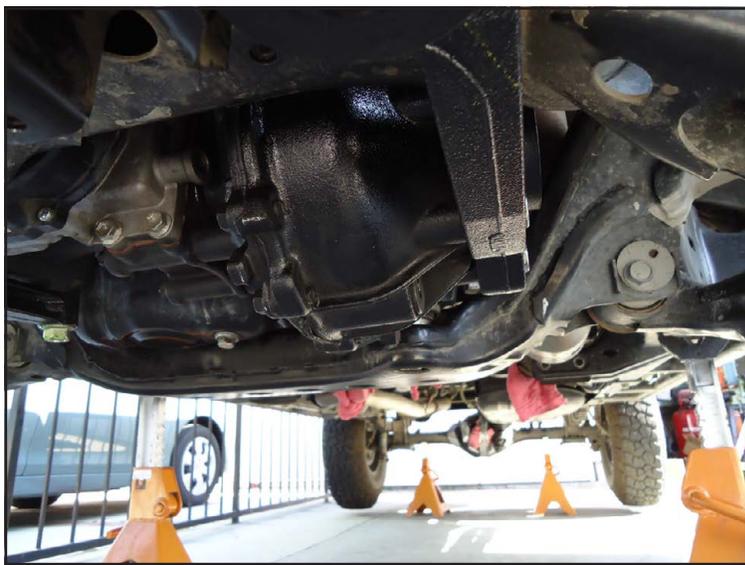
Cruiser. If you use the one from the V8 4Runner or the six speed FJ Cruiser they don't have the ADD diff and your Tacoma will be a faux full time four-wheel drive truck. In other words, the front diff and all its components will spin as you drive, cutting down your gas mileage and adding wear and tear. Make sure the front diff you get is the ADD version.



Make sure you get all the bolts and washers if your getting this from a donor truck or you'll be at Toyota getting parts. It's best to get the parts manual from Toyota to make sure you have everything

because there are some special bolts and stuff that you will need.

Here you can see that the front diff is all tucked up



in it's new home. Nice!!!



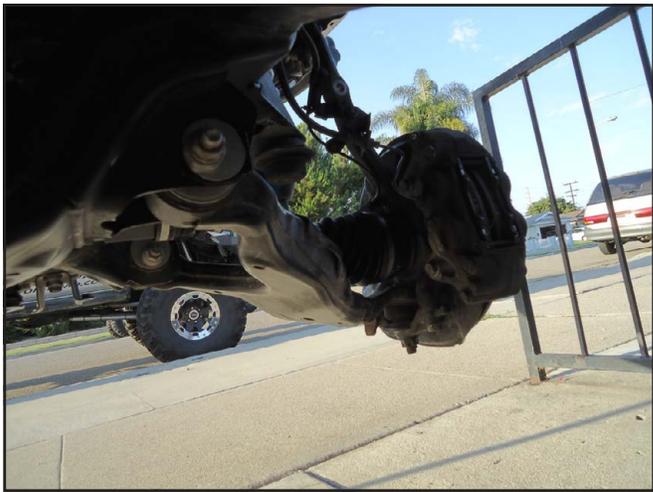
Here is the ADD actuator.

With the front diff installed it is now time to install the front CV axles and front drive hubs. If you have parts from the donor truck it's just a matter of bolting in the front hubs and away you go. Make sure you use new seals, front and back when you install these.



The front 4WD hub is installed now. Notice the splines where the CV axle will end up in.





Front CV axles are installed. Always use new cotter pins and castle nuts when installing CV axles.

Don't forget the cap for the front hub. Just makes for a really clean install.

So now that you have the front drive system installed, you have to get the ADD to work with your transmission and transfer case without a 4WD computer and we're going to do it with a kit that ATO and RockSolidToys.com created. It is nearly plug and play!



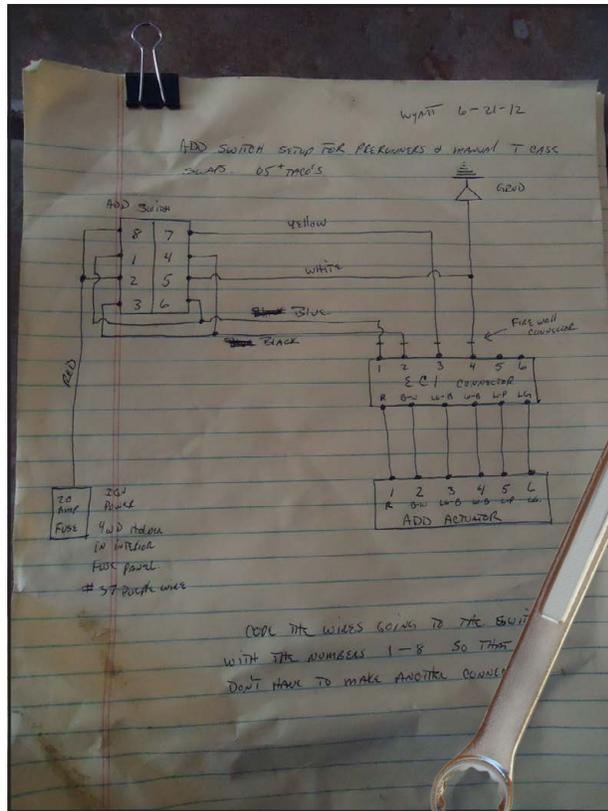
This kit comes complete with everything you need to plug directly into your ADD actuator, a switch to control it, and instructions to install everything.



Once the kit is installed you can install the switch that activates the ADD. We decided to put it in one of the blanks on the left of the steering wheel.

When you turn the switch on and the ADD engages, the light will come on to let you know it's engaged and then you hit the switch again to turn it off and the lights goes out to let you know it's now disengaged. With the front done it was time to do the transmission, crawler, and transfer case.

We'll wrap up this install in part two in the next issue. ■



GREAT SHOTS



Joe B - 2011 Double Cab



Nico F - First Gen Taco



Brady T - 2nd Gen Taco



Coby M - 2006 TRD Sport



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