

BY JERROD JONES  
PHOTOGRAPHY: JERROD JONES

**B**eing that it is 2008, we're guessing that most of you have moved to automatic transmissions in your vehicles by now. Though we can already see the hate mail coming in from some old die-hard Jeepers, we're going to make the statement right now that you can't beat a well-built automatic transmission in the dirt, at least not in the type of stuff most of us play in. Don't get us wrong, we love stick-shifts on the street; they're a ton of fun, even if they are a pain in the butt in traffic. And yes, manual transmissions offer the reliability and a certain amount of fail safety that an automatic transmission cannot. You can even use the starter to move a dead-engine vehicle with the clutch engaged in a manual transmission vehicle, which can be very handy on trails and in rockcrawling. But with today's technology and experience in building the majority of auto trannies used in our off-road trucks, you really have very little to worry about if you have a really well-built transmission.

Auto trannies allow you to use the brake and throttle pedal without having to worry about a clutch (no third foot on most of us), they act as a dampener in your drivetrain that can keep other parts from failing during extreme shock loading, and you can even have manual valve bodies put into auto slushboxes if you want full control of the shifting.

Bulletproofing automatic transmissions isn't restricted to old TH350s, TH400s and C6's either. Newer transmissions in currently made trucks still have similar architecture to their predecessors, so many secrets and tricks of older automatic transmissions apply to the newer transmissions as well. Pat Barrett at Level 10 has been building bombproof transmissions since 1973, and he made a bold claim to us that he could make a tranny that could withstand OUR abuse!

Did he know who he was talking to?! The editor of this magazine has put seven trannies in one truck that has 90,000 miles on the odometer. Another truck has had



# BUILD THE BEST OFF-ROAD TRANNNY YOU CAN

## THE LAST TRANSMISSION WE'LL EVER PUT IN

two trannies, another truck four; another truck two; yet another truck three... you get

the idea. When Pat offered to build a tranny for us that would not break, we couldn't get



▲ Jeeps R Us in Laguna Beach, California, pulled our tranny out. As soon as they had it out, we had it on a pallet headed for New Jersey to Level 10. 46RE/47RE/518/618 transmissions came out of the previous era of Dodge trucks and sport utes. They were based off of the almost bulletproof 727 Torqueflite and used much of the same architecture. Even though they were similar, the newer electronic overdrive transmissions are prone to premature failure in stock form. Built, these trannies can become very strong like their predecessor, the 727.

Our tranny was still functioning (poorly) when we pulled it out, but the seals were blown and it would leak onto the ground when parked on a hill, and that's definitely unacceptable.



▲ A really nice billet PTS Heavy Duty HP torque converter is part of Level 10's complete Performance Tranny System. Specific stall speeds can be acquired, but it needs to be mentioned at the time of ordering.

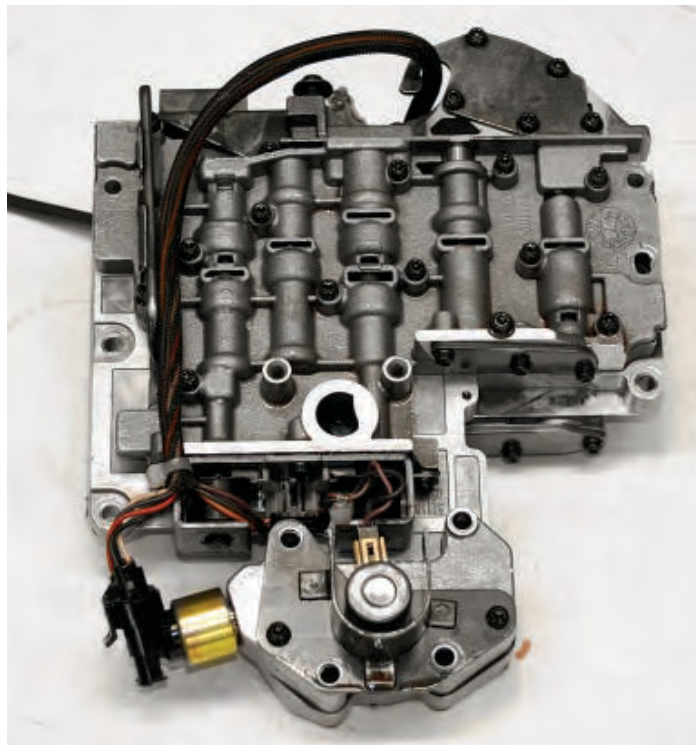


▲ The old clutches, seals, and bands in our tranny were burned and scarred. The tranny had lasted 115,000 miles before its first rebuild, which makes us believe the previous owner drove this truck very, very gingerly. The most our editor has ever gotten out of this model of tranny (stock) was 40,000 miles.



▲ The original fluid pump for the converter was leaking down when the truck would sit. You can see on the shiny spot towards the inside of the pump near the shaft.

Part of Level 10's build is adding a high-volume Superpump that helps keep transmission temperature down, and is integral when using the billet torque converter



◀ Level 10 also uses modified hydro system valvebodies. The new valvebodies produce stronger shifts and change the regulated line pressure. This also adds to keeping the transmission cooler. And if we forgot to mention this earlier: heat is the number one killer of automatic transmissions.


# Build The Best Off-Road Tranny You Can

it strapped to a pallet and shipped to 'Jersey fast enough . . .

A couple weeks later, our transmission arrived back at Jeeps R Us (where we had removed it) with its new 'Animal' build. The Animal build is a Level 10 exclusive system available for most popular off-road transmissions.

Level 10 builds every transmission to spec for each particular application. There are no off-the-shelf transmissions waiting for someone to pick them up. Each one is built factoring in the vehicle use, performance modifications, the weight of the vehicle, any future mods, and what type of power the engine puts out.

Since we had sent our old tranny as the core to rebuild, we knew it was the correct one, but we had a little trouble fitting the new torque converter to the flexplate.

Jeeps R Us finally figured out for us that it was such a tight fit that the paint on the billet torque converter was making it not fit. After relieving it of some paint, Level 10's new billet torque converter met up smoothly to our stock flexplate. 

## How Do We Like It?

To date, it is still alive! We've been running on it for the last few months and have put about 15,000 miles on it. When we originally left the shop in our vehicle, we did not have the shift pressure cable attached, so we had some very weird shifts until we figured it out. But once it was all adjusted correctly, everything worked smoothly. And we do mean smoothly! Though the shifts were still fast and without slip, there were not the violent kicks we felt with other performance-transmission shifts.

Level 10 had definitely built a transmission very specific to our application of truck that sees some hard driving and abuse, but still a lot of daily driving. And since we've killed lesser-built transmissions of this same model, we'll definitely attest to its impressive build.

## Sources

JEEPS R US  
949.497.9183  
www.jeepsrus.com

LEVEL TEN  
973.827.1000  
www.levelten.com

ROYAL PURPLE  
www.royalpurple.com



▲ Level 10's Master Kit for transmissions is dubbed 'The Animal' build kit. It includes the Superpump, high-energy clutches and bands, new seals, gaskets, and the modified valvebody.

Level 10 also has stand-alone programmers which can be used to set custom controls and shifts to your transmission.



▲ With the transmission back in our hands, Abel Estrada of Jeeps R Us lifted the transmission onto the tranny jack and pumped the tranny up into place.

Once in place, we filled it with Royal Purple synthetic transmission fluid. While it is understandable why you would not buy high-quality fluid for every engine oil change, we cannot imagine not spending a few extra bucks for some Royal Purple, considering that tranny fluid is normally only flushed every 50,000 miles.

► Upon first fitment, we got a little worried because Estrada was not able to fit the new torque converter to the flexplate. And with this particular Chrysler transmission there are the choice of either a straight or 90-degree torque converter. They will actually both bolt up to the same flexplate, but it is definitely wrong to put one in the other's location (we know- we've had experience with the wrong one before) and will result in violent shifts.

The problem with our torque converter fitment? Just paint. We had to scrape the paint off because the fit was so tight.

