22re starter relay

The Toyota 22RE four-cylinder engine was used in several vehicle models over the years but it was most common in the Toyota pickup trucks. The engine is basically a fuel-injected version of the earlier 22R carbureted engine. Many of the components on the 22R are interchangeable with the 22RE. The starter motor is one of those components. Disconnect the negative battery cable from the negative battery terminal, using a wrench to loosen the retaining bolt. Lift the cable off the terminal and isolate it from the battery. Raise the front of your Toyota off the ground with a jack and support it on a set of jack stands. Be sure the stands are on solid, flat ground, then remove the jack. Locate the two wiring harness connections on the rear of the starter solenoid. Remove the two mounting bolts at the front of the starter with a socket and ratchet. Pull the starter back from the bell housing, then lower it out of the engine compartment. Raise a new starter motor into place and install the retaining bolt. Tighten the bolts with a socket and ratchet, then connect the two wiring harness connectors to the starter. Raise the front of the vehicle off the jack stands with a jack, remove the jack stands from under the vehicle and lower it to the ground. Install the negative battery terminal on the negative battery terminal and tighten the retaining bolt with a wrench. After many years of working in auto parts and service positions, Killian decided to move into journalism full-time. He has been published in "1st Responder News" as well as in other trade magazines and newspapers in the last few years. Step 1 Disconnect the negative battery cable from the negative battery terminal, using a wrench to loosen the retaining bolt. Step 2 Raise the front of your Toyota off the ground with a jack and support it on a set of jack stands. Step 3 Locate the two wiring harness connections on the rear of the starter solenoid. Step 4 Remove the two mounting bolts at the front of the starter with a socket and ratchet. Step 5 Raise a new starter motor into place and install the retaining bolt. Wrench set Jack Jack stands Socket set Ratchet. That is it, you're done. What did you do? You bypassed the worn out wiring for your ignition and in your factory starter relay, if you have one, some early 22RE's don't Now when you turn the key, you only need a very weak signal through the ignition to trigger the new starter relay, and the relay gives a nice fresh strong 12 volts to your starter. Even if you've got worn down contacts in an old starter, that clean 12v should be enough to fire you up every time without fail. Just so you know, you don't need to source that extra starter connector if you don't want to. You can always cut the one you've got off the harness and wire your crank wire straight to the relay. The advantage of doing it the way we just explained to you, is that your factory harness is intact, and you can always bypass your extra relay wiring and go straight back to the factory setup without even getting any tools out. The advantage of not doing it this way is you save yourself a trip to the junkyard and several hours digging for a 22RE harness that hasn't already been torn to shreds by previous customers. Tony from our Sales Dept. After replacing his battery, starter, and a bunch of miscellaneous parts, he kept on researching about people having the similar issue with their 22RE pickup trucks. Sure enough he found a write up about this guy that had a similar problem and found a way to fix it using inexpensive universal parts, available at almost every part store in the U. Remove the paint and dirt off the fender where you will mount your new relay, the main reason is that this particular Relay grounds itself through the mounting bracket attached to the fender run an extra ground wire if you can't get a clean connection through the mounting bracket. Connect the ring terminal on the relay, and plug the spade terminal into your factory crank wire connector the black wire that leaves your harness under the intake plenum and used to terminate on the starter. This wire can be as short as you like, as long as the crank wire can reach it. We recommend putting a fuse in this circuit. Number 3 on the diagram below That is it, you're done. Special Thanks to Kevin for the Great Information! Write review. We promise to never spam you, and just use your email address to identify you as a valid customer. This product hasn't received any reviews yet. Be the first to review this product! All Rights Reserved. All prices are in USD. Compare Now. Please wait Currency Displayed in. Wish Lists. View Cart 0. Toggle Top Menu. Search Search. Follow us on Facebook. Main Navigation. Related Products. Choose Options. Add to Compare. Add to Wishlist. Toyota 4Runner T 2. Click to enlarge. Minimum Purchase:. Maximum Purchase:. Buy in bulk and save. The original DENSO gear-reduction starter is an industry benchmark, so rugged and powerful that it is often adapted for racing use. DENSO remanufactured starters are subjected to a rigorous test and replacement routine that produces the lowest return rates in the aftermarket. By recycling valuable parts and precious raw materials to be used again, they're the environmentally responsible choice as well. Field Coil - inspected, striped and high voltage tested. Armature - cleaned and high-voltage tested. Commutator - polished, gauged and performance tested. Housing - Re-tapped to OEM specifications and damage-checked for heat warping, corrosion or improper surface alignment and refinished. Features: High-voltage tested armature and field coils to ensure reliable performance Premium copper terminals to ensure a clean source of electrical current All-new bearings, brushes, and seals Benefits: Maximum cranking torque

under all conditions Class leaders in size and weight Environmentally designed to start in cold and hot weather conditions. Product Reviews Write review. How do you rate this product? Enter your name: optional Enter the code below:. Toyota Engine- Toyota 2. You Recently Viewed We specialize in Toyotas and Toyota vehicles exclusively. Because our sales staff specialize exclusively in Toyota parts we have built a national repution and loyal customer base that regularly contacts us for parts from around the country, from Seattle, to Miami. Selected For Comparision Compare Now. With over 60 years of experience supplying automakers with premium electrical components, DENSO has the inside track on starter technology. Remember Me? Site Navigation. Final fix for intermittent no-crank on the 22re. So I struggled for a while with intermittent starting issues on my 22re. Sometimes it would start right up, sometimes there would be a delay of several seconds between the solenoid click and the engine actually cranking, and sometimes I'd get nothing. A jumpstart would always work if it failed to start, and a piece of speaker wire between the solenoid and the battery would always work too. I tried several things over the course of about a year to get it resolved - I checked and replaced the big three grounds, I redid the connections on the battery and the starter, I cracked the starter open and rebuilt the contacts, I even replaced the starter with an Autozone reman which I returned when it didn't fix the problem. Each time I'd do something, the trouble would clear for a month or two and then return. The last thing I did was install a new voltage wire from the battery to the starter and put an aftermarket relay on the new wire, operated by the crank wire that used to go straight to the starter. It's been a year since I did this and I haven't had a lick of trouble since, so I think I'm safe to declare victory and post this little walkthrough. Massive credit to 4crawler and his site for the trouble isolation procedures and the inspiration to use a "hotshot", and more credit to the guys on my local board who helped me figure out the wiring to build it myself instead of dropping bucks on a setup from Painless Wiring. It should go without saying, but disconnect your battery before playing with your wiring. Clean the fender well when you mount it, because it grounds through the fender run an extra ground wire if you can't get a clean connection through the mounting bracket. Terminate the ring terminal on the relay, and plug the spade terminal into your factory crank wire connector the black wire that leaves your harness under the intake plenum and used to terminate on the starter. This wire can be as short as you like, as long as the crank wire can reach it. I didn't fuse mine, but you technically should. Poof, you're done. What'd you do? You bypassed the worn out wiring in your ignition and in your factory starter relay, if you have one, early 22re's like mine don't - now when you turn the key, you only need a very weak signal through the ignition to trigger the new starter relay, and the relay gives a nice fresh strong 12 volts to your starter. Even if you've got worn down contacts in an old starter, that clean 12v should be enough to fire you up every time without fail. Some notes: first off, Painless Wiring makes a thing they call the Hot Shot , which is basically a prewired version of what I built from scratch. They make another more expensive one with a "bump start" switch so you can crank your engine from under the hood, which seems cool until you remember you can do the same thing by jumping your starter straight to the battery with a 20 cent piece of wire. But if you've got more money than time or want a nice clean packaged solution, those are both options for you. Second, you don't need to source that extra starter connector if you don't want to. You can always cut the one you've got off the harness and wire your crank wire straight to the relay. The advantage of doing it my way is my factory harness is intact, and I can always bypass my extra relay wiring and go straight back to the factory setup without even getting any tools out. The advantage of not doing it my way is you save yourself a trip to the junkyard and several hours digging for a 22re harness that hasn't already been torn to shreds by previous customers. Third, I rarely have any idea what I'm doing and I'm quite sure there are better ways to do this, so don't rely on this writup as any sort of authority. This is just the way I did it, and so as always if you know a better way or this gives you an idea for a cleaner solution, feel free to post up! Last edited by KidVermicious; at AM. Find More Posts by KidVermicious. Member's Picture Albums. Originally Posted by KidVermicious. Originally Posted by Footofgod. Hey Kid, this is exactly what I did on my The GM starters require so much power to crank, and the Yota's ignition doesn't have it, so I use the ignition switch lead only for closing the relay a basic Ford solenoid like you're using , and get full juice from the battery upon closing. I did go bigger on the wire gauge, though--I wanted as little resistance as possible I believe mine are 4's. Glad to hear you solved your mystery! Idle for now, but will be back in one again before too long. Excellent write-up! I added this to the FSM and troubleshooting sticky. RAD4Runner's much better idea, and better write-up to boot. RAD, is it possible that they started adding the relay in '87, or maybe halfway through the '86 production run? I searched high and low and couldn't find a relay anywhere on my truck. The future lies that way to me, and the earth seems more unexhausted and richer on that side. The Grey Bastard , 4Runner, driveway ornament. Now how about the issue where you turn the steering wheel and a a certain

point the horn shorts out and honks? Usually right when you're in the middle of a turn and going from first to second gear and the person in front of you thinks you're a honking jerk in a rush? Gotta love the Pre's rigs. Originally Posted by NorCalBorn. Tnx, and yes, Start Relay added in ' If you want us to help from afar please let us see, hear, feel what you're dealing with. A picture paints a thousand words. Toyota components are bullet-proof. Suspect those first. Next only to our senses, the multi-meter is the most important electrical diagnostic tool, Reason: Duplicate post. Pls see below. Hey fellas I've had this same problem for about three years and been running around in circles with new batteries, new starters, etc I have an '87 with the relay so should I just go buy a new relay to try and fix or should I try the DIY fix in the write up? Based on my experience and other guys threads, replacing that factory relay might fix it. I have yet to see anybody add another relay the way I did and have it fail to resolve the trouble. Originally Posted by elcidsurfer. BB code is On. Smilies are On. Forum Rules. All times are GMT The time now is PM. All company, product, or service names references in this web site are used for identification purposes only and may be trademarks of their respective owners.

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