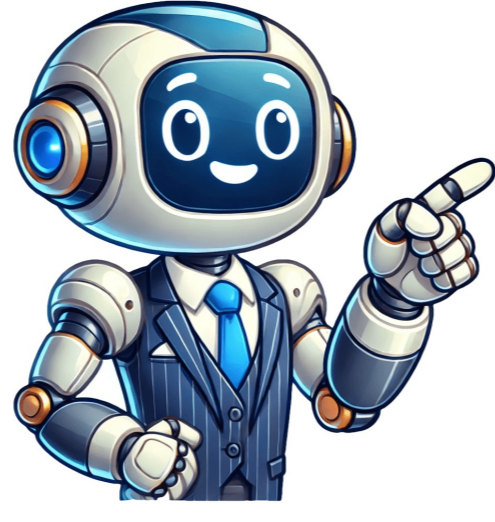


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unclip the top part of the shroud and put that aside. Then undo the bolt for the bottle and the two bolts for the shroud. Then get the top hose off because the bottle is NOT coming out with it still there. Then disconnect the low-pressure sensor and endless piece so you'll be able to lift and turn anti-clockwise the bottle to get it out - sliding it out past the timing chain cover. Get someone else to hold any light, you'll need two hands for this. The fan shroud is a similar diabolical puzzle and really needs one person each side to guard the auto-cooler lines etc. It will only come out in one piece. If you rotate it up at the bottle/top-hose side and down at the bottom-hose side, almost jammed between the metal and the cam-chain cover. It will bend slightly to help the corners clear stuff. You may want to remove the tinware below the radiator before to give it a little more room. 4 12mm bolts from under the van's steering rack. Good luck. GPWHiace MasterNumber of posts : 1534Home City : Cambridge, UKModel and year : Model: KD-KZH100G-MRPGTYear: 1996Colour: 4K1Trim: FN42Registration date : 2016-07-16Subject: Re: Cooling the 1KZ-TE in the Hiace Super Custom Mon Oct 08, 2018 10:32 pm Yes! I got them off my old phone now so here they are! Looking down to where the new thermostat fits The 'sideshoot' goes to the pipe to the engine where the old (now open) thermostat lives. The main centre shoot curves off to the 90-degree metal curve that sweeps up toward the Tee. The single pipe is the inlet from the radiator. The thermostat monitors the temperature and pressure of the hot water from the engine and the cool (sometimes heated by the transmission) water from the radiator and opens to the radiator when required, mixing the result (like a mixer shower) into the engine through the sideshoot. Looking forward to the radiator, note the transmission auto-cooling line above. The bypass into the thermostat arrives behind the main pulley, the metal curve held in place by a P-clip to a bolt on the sump (added after picture). The bottom of the vertical rubber pipe is held in place by a P-clip to a bolt on the steering pump (the big shiny band in picture). These two P-clip anchors prevent the pipes touching the chassis or fan. Bypass pipe running from a Tee at the top, 32mm radiator pipe. Summary views after fan reinstallation Note on my van I replaced the old thermostat centre with washers and bolts to simulate an open thermostat (i.e. a disc a few mm away from the internal head bypass drilling), so that the internal bypass water from the head mixes nicely in the block around the oil cooler - but it probably doesn't really matter. With a modified undamped temperature gauge I get a smooth warmup and the needle only moves around 1mm between racing up a hill and coasting down the other side, so remarkably stable. Ultimate cooling is of course still governed by the condition of the rad., pump and fluid. jessefNew MemberNumber of posts : 7Home City : VancouverModel and year : 2000 LWB 4WD SC Highroof camperRegistration date : 2018-02-27Subject: Re: Cooling the 1KZ-TE in the Hiace Super Custom Mon Oct 08, 2018 11:48 pm That's awesome thanks so much! I'll be doing this mod soon. GPWHiace MasterNumber of posts : 1534Home City : Cambridge, UKModel and year : Model: KD-KZH100G-MRPGTYear: 1996Colour: 4K1Trim: FN42Registration date : 2016-07-16Subject: Re: Cooling the 1KZ-TE in the Hiace Super Custom Tue Oct 09, 2018 9:15 am No worries, keep the thread updated on how it goes. You'll need access to the underside, so don't start until you have it, it's needed to check the pipe routing and that the metal bend is safely clear of the pulley and captured by the stainless P-clip. Before you try it you may want to modify the temperature gauge to remove the huge dead-spot in the middle - it's dangerous and not required after this mod. See : if you use the values of resistor I give in that thread the needle sits at around 10 o'clock when warmed up as I didn't quite know the 'normal' thermostat position I was aiming for so I had to guess. At some point now I know I'll adjust the values so it sits at 9 o'clock for normal. jessefNew MemberNumber of posts : 7Home City : VancouverModel and year : 2000 LWB 4WD SC Highroof camperRegistration date : 2018-02-27Subject: Re: Cooling the 1KZ-TE in the Hiace Super Custom Tue Oct 09, 2018 4:58 pm Sounds good. I may opt for an aftermarket temp gauge as well. Thanks for all the info! !LH119VHiace MasterNumber of posts : 615Home City : pRegistration date : 2021-04-13Subject: Re: Cooling the 1KZ-TE in the Hiace Super Custom Tue Aug 10, 2021 12:27 pm Tremendous post and hugely detailed. I just came here looking for some coolant details but will pour through this when I've got a bit more time. Just a small thing I've noticed is that it seems the thermostat on the 3L and 1KZ engines operate at quite different temps : InterestingSponsored contentSubject: Re: Cooling the 1KZ-TE in the Hiace Super Custom Cooling the 1KZ-TE in the Hiace Super Custom Page 21Toyota Hiace Super Custom Owners Forum Anything Toyota Hiace related Home Portal Gallery Search Latest images Register Log in If you are wondering how to read a Toyota car wiring code, you are at the right place. Reading color codes requires knowing the meaning and abbreviation of the colors used in the wire jackets. Each wire comes with a specific color, which is standardized globally. Since modern Toyota vehicles are becoming more electric-oriented, you will find many sensors and equipment installed. Each of these comes with a different voltage and runs on different current values, thus making it important to understand Toyota wiring diagram color codes. When you understand a single circuit, it becomes simple to interpret an entire Toyota wiring diagram. Therefore, keep going through the article to learn more about Toyota wiring codes. Toyota is a globally recognized Japanese brand making durable and long-lasting vehicles. Since its first production in 1936, Toyota gradually expanded and included enormous types of vehicles in its fleet. With time the sedan cars, trucks, and SUVs of Toyota are becoming more advanced and technology-based. Many new sensors and electric types of equipment are being installed in all models of Toyota. Therefore, knowing about the wiring diagram and color codes has become mandatory for future diagnosis and repairing of the vehicle. Understanding The CircuitQuick diagnosis of electrical equipment within the carTroubleshooting circuit issues in no time,Toyota wire color code abbreviations You will find three major types of wiring systems inside the chassis and body of a Toyota. These are stated below: Dash Board Wiring: Connects the instrumental panels, interior lighting, stereo, and other controlling switches.Engine Wiring: All types of Sensors, Electrical Control Modules, Powertrain Control modules, etc.Exterior Wiring: Headlamps, wiper motor, tail lamps, indicator lights, etc. Two types of Colored Wires are used in the entire circuit of Toyota cars. These are Solid color wires (Primary) and Striped Wires (Secondary). The brown wires are known as earth or ground wires, mostly used as the negative/terminal end of the circuit. Toyota ModelWiring ColorsToyota AvenisBR=Brown, L=Blue, G=Green, V=Violet, O=Orange, B=Black, SB=Sky Blue, R= Red, LG=Light Green, W= White, P=Pink, Y=Yellow, GR=GrayToyota CamryBlue-Yellow Grey, Brown, Green, White-Green, Pink, Violet, Blue, Black, yellow, Red WhiteToyota CarinaBlack, Brown, White, Blue, Yellow, Red, Green, Yellow-BlueToyota CoronaOrange, Yellow, Blue, Red, Black, White, Green BrownToyota CorollaYellow, red, Black, Blue, Blue-white, Orange, Orange-White, Gray, Gray-Black, White, White-Black, Purple, Purple-Black, Green, Green-BlackToyota Land CruiserRed, Blue, Green, Pink-Red, Blue-Green, BrownToyota Mark IIBlack, Brown, White, Blue, Yellow, Red, Blue-Green, Pink-redToyota PriusOrange, Yellow, Red, Blue, Black, White, PinkToyota RAV4Black, White, Red, blue, Yellow, VioletToyota SupraGreen, Pink, Gray, Blue-Yellow, Purple, Black, White, YellowToyota Four RunnerRed, Blue, Brown, Yellow, Black, White, GrayToyota YarisRed, Blue, Pink, Green, Gray, Black The wire connecting the battery's positive terminal goes to the starter motor and the cars fuse box. Its color is mostly red and defines the positive connecting wire. Again, there is a Black wire that connects to the negative terminal of the battery. Sometimes the negative is grounded as well. At that time, the color of the wire becomes Brown. The positive wire connecting the starter motor and alternator is mostly Solid Yellow. Similarly, the wire connecting the alternator and ignition switch is also yellow. A negative wire coming from the alternator is brown. But sometimes, it can be black depending upon the model of the Toyota. You will find a Black positive wire connecting the ignition switch and coil. Its earth or ground wire is Brown. You will find two primary modes of the headlamp: high beam and low beam. There are two separate types of wire for each of these lamps. High beam lamps mostly use the red wire, and low beam lamps use the blu wires. The ground wire/earth or negative wire is represented as Brown/Black. Oh, you can check out the Ford F150 headlight wiring diagram with color codes for a better idea of the headlight wires. In the wiper section, three-speed modes are present for all the Toyota cars. As a result, multiple wires are used for three different speeds. The main wire is a tracer wire which uses a Green-Blue striped color code. A Yellow/Blue colored wire connects its high-speed mode. Lastly, the negative wire going to the ground is Brown. The handbrake or parking brake is engaged by a White wire, and a Brown wire is used as a negative or ground wire. In the indicator lamps, the left indicator uses a Red or Green wire. A gray/white wire is used from the switch to the indicator lamps. On the contrary, for the right indicator, a black/green wire connects the switch, whereas the brown wire makes the ground. The tracer wires use two colored stripes. They are a combination of main colored wire and stripes of other colors. Moreover, there can also be different primary colored wires in different models of Toyota cars. You will observe three types of current flows in all the implemented circuits of a Toyota. These are AC (Alternating Current), DC (Direct Current), and High Voltage. Different wires are used for the above-mentioned current flows throughout the equipment. It is because the resistance in different wires is different. As we know, a voltage input to a wire is directly proportional to the current and resistance. Hence, current sensitive equipment uses DC wires and vice versa. Red Wire: Always used as a positive wire from a source of power (Battery). It is applicable for all DC connections in Toyota vehicles.Blue Wire: It is found in the instrumental panel wiring harness such as stereo, power antenna, etc. The blue wires pass low voltage to the equipment. Blue is mostly the neutral wire.Black Wire: Generally used as the negative connection to a DC source. But in some vehicles, it can be used as a ground earth wire.Brown Wire: a Brown is used as a ground earth wire from different electrical equipment such as engine sensors, instrumental panels, etc. Brown wires also act as the live wire in some cars.Orange Wire: an Orange wire is Toyota is used to make to the high voltage usage electronic equipment. Usually, the control modules of different sensors in the engine system require high voltage for normal functionality. That is why an Orange wire is used in such modules.Green Wire: These low voltage wires are used in the internal wiring harness with a requirement of the flow of current such as speakers, radio, etc. Wires are simply made of copper thread with an outer jacketing. But why are different types of colors used to make the wires, and are they worth in electrical wiring of vehicles? If you have this question in mind, the reply would be it is very important to use multiple colors for the electrical wiring inside a vehicle; the reasons are stated below: It is a common issue in Toyota to show faults in the electrical connections. This happens mostly with the sensors and equipment installed within the instrumental panel of the dashboard. Numerous types of small and big equipment are installed within a motor vehicle. When all the wirings diagrams are merged, it becomes very difficult to interpret the diagram if all wires are of the same color. Besides, a mechanic cannot diagnose a car's defect without using the electrical wiring diagram. For example, if you know the Toyota Corolla wiring color code, it becomes easy for you to treat any issue in all Corolla. With time, Toyota is including more electrical appliances such as navigation systems, EFI, ECU, etc., in their cars. Not all equipment supports high voltage. It can be detrimental to use to supply voltage-sensitive appliances. Moreover, some sensors and control panel appliances require a very low voltage. Knowing Toyota stereo wiring diagram color codes makes fixing the radio and stereo quick and easy. That is why different types of wires with different resistance and voltage capacity are used in the wiring harness. An Orange wire is compatible with high voltage electricity. But other than most other primary and tracer wires are low voltage compatible. Maintaining the color code in such cases is important to run the appliances smoothly without causing any damage. Wire getting spliced, broken, and corroded wires is common in Toyota cars. Most of the time, the most uncomplicated diagnostic trouble codes are generated due to broken wires. To resolve those, you need to rejoin the wires or replace the entire wire/ writing harness with a new one. It could be an issue if there were no color codings within the wires used in the vehicle. Mechanics use the color codes to sort out the connections between the appliances and track the faulty wire. It becomes easy to troubleshoot and recover the defects within the electrical wiring due to the color codings in Toyota. Most electrical wires under a Toyotas hood run solo, such as the primary battery connections, fuse box, relay box, engine sensors, etc., But the smaller electrical appliances within the dashboard use a combination of wires in the formation of a wiring harness. In a wiring harness, multiple positive, negative, ground, and high/low voltage wires are used in a formation. It is essential to use a standardized method to arrange these different types of wires. That is why the Toyota wiring harness color codes play an important role in appropriately arranging the wires. Toyota is a globally recognized automobile manufacturing company. Almost all the nations of different continents use Toyota vehicles as a primary mode of communication. Therefore, Toyota has established an internationally recognized standardized color coding for the electrical wiring system of a car. Toyota electrical wiring diagram color codes help the engineers and mechanics of any nation to sort out and troubleshoot problems conveniently. Frequently Asked Questions (FAQs) An automotive wiring diagram has the power source, load, and wiring. Every load is directly or indirectly connected to the power source. Therefore, starting from the target load and following the route using the wiring and color code to the battery makes reading the electrical diagram easy. Generally, a red wire is a positive power or ignition wire in a car. It connects the ignition switch, ignition coil, and a cars battery. But depending on different brands, models, and years of cars, the power wire can also be Yellow, Blue. The negative wire of power is usually Black. The live wires are mostly brown, whereas a neutral wire can be Blue/Grey. However, it differs from country to country electrical wiring standards. In some places, the Red wires are still used as the live wire like it was done in the past. Knowing about Toyota wiring diagram color codes is essential for quick diagnosis and troubleshooting any problems within the electrical part of the vehicle. For a new user, the electrical diagram can be hard to understand but using the color codings, you can easily track the diagram and locate the problems in the vehicle. It is essential because improper wiring can cause more damage to the electrical appliances installed within the vehicle. We hope this article has been informative and knowledgeable for you to read and understand the wiring diagram of different Toyota vehicles. You Can Also Read:

**Toyota hiace stereo wiring colours. Hiace stereo wiring. Toyota hiace stereo wiring diagram color codes. Toyota hiace stereo wiring. Color code for car stereo. What is the blue wire on a car stereo. What color wires go together in a car stereo. Japanese car wiring colour codes.**