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Hello! I'm a new member on the forum but I've had my 42kWh 500e since 05/2023 now. Last morning when finishing my night shift I went to get into my car but the drivers door opening button on the inside wasn't working
either. The manual door handle worked meaning that the problem must be electrical. Has anyone had similar issues? Any tips? It was -20C last night so next time tomorrow when going to work I'm gonna park the car in a warm garage for the duration of my work shift and see if it's a temperature related bug if the door would open after 12h of sitting
in a warm place. Could it just have been frozen? Hello! I'm a new member on the forum but I've had my 42kWh 500e since 05/2023 now. Last morning when finishing my night shift I went to get into my car but the drivers door didn't budge when trying to open from the outside. I luckily got in from the passenger side and also learned that the drivers
door opening button on the inside wasn't working either. The manual door handle worked meaning that the problem must be electrical. Has anyone had similar issues? Any tips? It was -20C last night so next time tomorrow when going to work I'm gonna park the car in a warm garage for the duration of my work shift and see if it's a temperature
related bug if the door would open after 12h of sitting in a warm place. Hi, I have a Panda Cross 4X4 2020 model and shortly after buying it new we had a week of very time I took it to the dealers the problem could not be found. I
eventually drove to the dealers with all the windows open and no heater so they could see the problem. Fiat replaced 3 of the doors opening mechanisms, all apart from the rear passengers door which I thought a bit strange. So you problem could be temperature related!! Hi, I have a Panda Cross 4X4 2020 model and shortly after buying it new we
had a week of very low temperatures. All the doors apart from the rear passengers door would not open, even from the inside, every time I took it to the dealers with all the windows open and no heater so they could see the problem. Fiat replaced 3 of the doors opening mechanisms, all
apart from the rear passengers door which I thought a bit strange. So you problem could be temperature related!! And indeed it was. I'm a bit disappointed in myself that I was so quick to judge the car in a warm-ish parking garage for the duration of lunch and it
indeed opened normally after around 1,5h. I was prepared for the worst since I've not had problems like this before and I live in Finland after all. Winters and very cold ones at that are normal here And indeed it was. I'm a bit disappointed in myself that I was so quick to judge the car to be broken but it seems its ok now. I went to lunch a few hours
ago and parked the car in a warm-ish parking garage for the duration of lunch and it indeed opened normally after around 1,5h. I was prepared for the worst since I've not had problems like this before and I live in Finland after all. Winters and very cold ones at that are normal here My Mini is terrible for door seals freezing during winter. I used
Gummi Pflege on the seals this winter and it seems to have improved the situation (It is expensive though, . This post contains affiliate links which may earn a commission at no additional cost to you. My Mini is terrible for door seals freezing during winter. I used Gummi Pflege on the seals this winter and it seems to have improved the situation (It is
expensive though, . I usually do use a similar product, but in my case the freezing wasn't because of the seals but something in the
mechanism That something is probably moisture. A possible cure would be to hang a cloth bag containing dessicant inside the door. You could even use uncooked rice! I've been lurking for the last 18 months, but this is my first post, so before you delve in, I'll say, "Hi". Vehicle: 2006 / FIAT Ducato 2.8 [TD X244 / manual (A Class motorhome) Problems
Intermittent starting failure Most of the time the vehicle starts as normal, however, sometimes it does not A single click can be heard from the engine bay (sounds like it's from the starter motor) Immobiliser light on the instrument panel goes out - as normal Can happen with either key When it does not start, selecting 4th gear and pushing the vehicle
until resistance is felt, has then enabled it to start - this may be a wild coincidence I know Action taken: New vehicle battery fitted Starter motor replaced twice (incorrectly thinking this was the problem) Earth straps tested on a handheld machine at the garage OBD scan shows no fault code Battery clamps replaced OEM immobiliser disconnected
Aftermarket immobiliser disconnected Trawled many websites / forums, but unable to find same problem It had an MOT yesterday - passed with no advisories - then failed to start on their ramp! Selected 4th gear, mechanic pushed it a few cm and it started immediately. It's a twin-axle and weighs 4500kg, so it's not something we want to be
attempting to push often. It's booked to return to the garage for further investigation work, but I thought I'd ask the community for any pointers that I can pass on to the garage is not FIAT specific, but they do have a contract with a large motorhome seller for maintenance / MOT work. Appreciate your time. Thanks. Model Ducato X244
Year 2006 Mileage 47500 I would replace the earth straps, the test won't replicate starter current trying to pass through them and it's cheap and easy. Alternatively use a jump lead to create a temporary one and see if that works. Sounds like an electrical problem to me and the bumping of the engine is sorting it. I would replace the earth straps, the
test won't replicate starter current trying to pass through them and it's cheap and easy. Alternatively use a jump lead to create a temporary one and see if that works. Sounds like an electrical problem to me and the bumping of the engine is sorting it. I am sorry, but the x244 does not have earth straps. My PVC is an x244 2,8jtd. On the x244 the
battery negative cable descends to a flag terminal below the front end of the battery forward of the RHS engine mounting, (chassis earth point). The same cable continues under the intercooler and radiator to terminate on an extended starter motor stud at the clutch housing. No specific earth strap. Corrosion can occur inside the flag terminal at the
chassis earth point, but it is rare. I do agree with the electrical diagnosis, as it sounds as though the starter motor contact. Possible causes include poor supply or bad connection at ignition switch, faulty interconnection at engine
bay fusebox. and damaged solenoid cable at starter motor. and as suggested a faulty earth cable. An alternative purely mechanical possibility is a damaged ring gear tooth on the flywheel, blocking the starter motor. and as suggested a faulty earth cable. An alternative purely mechanical possibility is a damaged ring gear tooth on the flywheel, blocking the starter motor.
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the jump lead bypass didn't work, I keep shying away from it. I am sorry, but the x244 does not have earth straps. My PVC is an x244 2,8jtd. On the x244 the battery negative cable descends to a flag terminal below the front end of the battery forward of the RHS engine mounting, (chassis earth point). The same cable continues under the intercooler
and radiator to terminate on an extended starter motor stud at the clutch housing. No specific earth strap. Corrosion can occur inside the flag terminal at the chassis earth point, but it is rare. I do agree with the electrical diagnosis, as it sounds as though the starter solenoid is not receiving sufficient power to drive the pinon into engagement, and
close the starter motor contact. Possible causes include poor supply or bad connection at ignition switch, faulty interconnection at engine bay fusebox. and damaged ring gear tooth on the flywheel,
blocking the starter pinion engagement, Thanks for the reply. The garage have actually suggested inspecting the flywheel for tooth damage, but said gearbox will need to be removed. Sounded expensive, which is fine if it fixes it. Appreciate your other suggestions. We keep throwing cash at it, in the hope that one of these fixes will resolve the issue
and make it reliable and the fun vehicle we want it to be. The pot of money is depleting! Thanks for the reply. The garage have actually suggested inspecting the flywheel for tooth damage, but said gearbox will need to be removed. Sounded expensive, which is fine if it fixes it. Appreciate your other suggestions. We keep throwing cash at it, in the
hope that one of these fixes will resolve the issue and make it reliable and the fun vehicle we want it to be. The pot of money is depleting! I was thinking of removing starter, and inspecting flywheel via opening. Engine can be turned via suitable socket on crankshaft pulley bolt. Taking box out. is time consuming, and hence expensive. I wonder
whether @bugsymike has any thoughts on this? If my thinking is correct, then engine will stop in any of four positions, corresponding to compression strokes. if damage is only at one position, then only 25% chance of failure. rocking engine past this point would allow starter to engage. Last edited: Nov 21, 2024 Thanks for the reply. Apologies, I did
not state that I've tried the jump lead to the chassis earth bolt. It made no difference. I have contemplated replacing the earth cables, but because the jump lead bypass didn't work, I keep shying away from it. In this case jump lead from battery negative to clean metal on engine/gearbox I was thinking of removing starter, and inspecting flywheel via
opening. Engine can be turned via suitable socket on crankshaft pulley bolt. Taking box out. is time consuming, and hence expensive. I wonder whether @bugsymike has any thoughts on this? If my thinking is correct, then engine will stop in any of four positions, corresponding to compression strokes. if damage is only at one position, then only 25%
chance of failure. rocking engine past this point would allow starter to engage. Crank turned slowly will enable all of starter ring gear to be examined, slow turning enables any compression to leak past piston / rings Though if ring gear to be examined, slow turning enables any compression to leak past piston / rings Though if ring gear to be examined, slow turning enables any compression to leak past piston / rings Though if ring gear to be examined, slow turning enables any compression to leak past piston / rings Though if ring gear to be examined allow starter ring gear to be examined allow s
but it might help you to know more about starter motors which for the last few decades have all been of the starter body is a cylindrical solenoid (= electromagnet ). When you turn the key to the starter body is a cylindrical solenoid (= electromagnet ).
thinner of the two cables. The resulting magnetic field attracts an internal piece which has two jobs. One job is to move the pinion into engagement with the ring gear. The other job is to close the main contacts, allowing a very heavy current flows through
the motor and makes it turn. If for some reason the pinion doesn't move far enough to fully engage, all you hear is a click from the solenoid but the main contacts won't touch and the motor therefore won't turn. Reasons for failure to fully engage are usually low battery and/or excessive resistance in the solenoid circuit, resulting in reduced solenoid
current and a feeble pull-in. A garage should be able to easily measure the solenoid current with a clamp-on DC ammeter. Less commonly, even with normal solenoid current any unusual mechanical resistance to the pinion movement could prevent its full engagement. Hence the advice above to check the state of the pinion and ring gear teeth. From
memory, 4 cylinder engines tend to come to rest in one of two positions 180 degrees apart, so the ring gear wear (if any) will be in two places and nudging the crankshaft round a little will give a less worn section. Having said this, one of the reasons for pre-engaged starters is to prevent this sort of wear, so maybe there has been a historic alignment
problem. I was thinking of removing starter, and inspecting flywheel via opening. Engine can be turned via suitable socket on crankshaft pulley bolt. Taking box out. is time consuming, and hence expensive. I wonder whether @bugsymike has any thoughts on this? If my thinking is correct, then engine will stop in any of four positions, corresponding to
compression strokes. if damage is only at one positions, as in two posit
check. Way back in the old days it was not unheard of for someone to remove the ring gear and move it to a different spot I have fitted many new ring gears in the past, however it was in the days of inertia starters rather than spining
and "smashing" it's way in to engagement. I see from OPs original comments it was mentioned putting vehicle into 4th gear and slightly moving had the affect of permitting engine to start, so although unusual it may be possible ring gear is damaged in one spot. The only time I have seen that was where a S/H engine that had been standing in a yard
rusting and was fitted without care re ring gear. The chassis earth point is not directly in the starter motor circuit. Jump lead should be directly between battery negative and engine, ok, i will try this when it happens again. anywhere on the engine block? with it being an a-class, access as you will guys will probably know, is very awkward! ok, i will
try this when it happens again. anywhere on the engine block? with it being an a-class, access as you will guys will probably know, is very awkward! Engine lifting lug is usually clean, and accessible. storm bertie is allowing me to to spend part of my day scrolling through this informative forum, reading the many threads about ducato's not starting.
your names appear often! it may be of no relevance, but i have something to add to my scenario; i have a noco booster pack and i have been able to try it at times when the vehicle has refused to start. most times it has made no impact, but on the odd occasion, it seems to have had. this might also deserve the, "wild coincidence" tag? Where do you put
the boost pack to? If it's a decent earth point on the engine and it starts, that might help identify a wiring issue with the earth. i have only ever put the clips on to the battery was a little low on juice, the noco may not have
enough umph to fire it up? Page 2 i have only ever put the clips on to the battery terminals, but, also worth noting, the noco is not a big one for a moho, ie. a large diesel engine, so perhaps if the vehicle battery was a little low on juice, the noco may not have enough umph to fire it up? If the battery is good, the Noco will help it along regardless. Not
sure if using the jump start points would help eliminate poor connections to the battery. Suppose you might need to connect the negative directly to the engine. You risk frying stuff though. I am sure others will know more to advise. I would replace the earth straps, the test won't replicate starter current trying to pass through them and it's cheap and
easy. Alternatively use a jump lead to create a temporary one and see if that works. Sounds like an electrical problem to me and the bumping of the engine is sorting it. the vehicle is currently at my home and before i put it back in to storage until the new year - when i agreed with the garage that they could keep it indefinitely - i am beginning to think
i may attempt to replace these. i am no mechanic, but i am a property handyman, so have a link to the suitable earth leads i would need please? all i seem to find are really short. thanks ah but, there's one link that is labelled 16 and it lists
25mm cables, so it looks like they have a problem! Crank turned slowly will enable all of starter ring gear to be examined, slow turning enables any compression to leak past piston / rings Though if ring gear to be examined and counters to make the problem of the starter ring gear to be examined and counters to make the problem of the
with pre-engaged starters the pinion has to engage, to allow the solenoid to complete its travel, and close the contacts. This is what I interpret pre-engaged to mean. The motor should not just spin. I am ready to defer to greater experience, but in my own encounters with pre-engaged starters the pinion has to engage, to allow the solenoid to complete
its travel, and close the contacts. This is what I interpret pre-engaged to mean. The motor should not just spin. I totally agree with you, but if the pinion will have nothing to push against and so soon freely Perhaps the ring gear is damaged so the
pinion will not travel out fully? No one currently knows. Last edited: Nov 24, 2024 10mm i assume, or is this just a personal preference? i'll obviously need to measure the length quite precisely if i am to purchase with the lug pre-fitted. Fiat eLearn gives 35 sq mm for the positive lead to the starter motor, and 50 sq mm for the battery negative
connection, though from inspection of my own 2006 2,8jtd, i think that the negative could be 35 sq mm. Handling such large cables is not a simple task. If the cables not a simple task. If the cables have been examined and there is no visible damage or corrosion, I would not rush headlong into changing the cables. I totally agree with you, but if the ring gear is damaged/missing
tooth the pinion will travel fully out engaging the motor contacts but the pinion will have nothing to push against Perhaps the ring gear is damaged so the pinion will not travel out fully? No one currently knows. That was my thinking. Another possibility to eliminate is a broken, or otherwise faulty battery positive clamp. There are a few reported
instances of cracked positive clamps, which are integral with the battery fuseboard. Or there could be a problem with the positive wire connection at the starter motor end, or under the insulation Or marginal high resistance connection to
solenoid. I had something similar years ago. Would just click when engine hot, no problem when cold. Eventually decided it was due to increased resistance of solenoid when hot, coupled with other suggestions Last edited: Nov 24,
2024 Interesting thought that it could be dodgy trigger wire / connection allowing some current flow to cause click but insufficient to operate the high current switch built in to starter I think all this talk about main starter connections, earth straps and booster packs may be barking up the wrong tree. If I have understood the situation correctly, the
starter solenoid clicks but the starter motor doesn't turn. If this is the case, there is no heavy starter current flowing, so the state of the main starter feed wire and the earth return is not of great importance. If the engine turns over fine on at least some occasions it suggests there isn't much wrong with this circuit. As I suggested earlier, Step 1 is to
test the solenoid initial current to see if it is normal, i.e. 20 to 30 Amps. If it's low there is an electrical problem in the solenoid or its feed circuit which needs to be investigated. If it's normal it suggests a mechanical problem in the solenoid or its feed circuit which needs to be investigated. If it's normal it suggests a mechanical problem in the solenoid or its feed circuit which needs to be investigated. If it's normal it suggests a mechanical problem in the solenoid or its feed circuit which needs to be investigated. If it's normal it suggests a mechanical problem in the solenoid or its feed circuit which needs to be investigated. If it's normal it suggests a mechanical problem in the solenoid or its feed circuit which needs to be investigated. If it's normal it suggests a mechanical problem in the solenoid or its feed circuit which needs to be investigated. If it's normal it suggests a mechanical problem in the solenoid or its feed circuit which needs to be investigated. If it's normal it suggests a mechanical problem in the solenoid or its feed circuit which needs to be investigated. If it's normal it suggests a mechanical problem in the solenoid or its feed circuit which needs to be investigated. If it's normal it suggests a mechanical problem in the solenoid or its feed circuit which needs to be investigated. If it's normal it is 
multimeters only handle up to 10 Amps on their highest DC current range, but if you can find one with a high enough rating you need to connect it in series with the solenoid feed cable. This needs removal of the feed cable at the solenoid and connecting the meter "across the gap". A garage would use a "clamp-on" type current meter, as their jaws
just go around the cable without undoing anything which is a lot less hassle. The alternative is a partial test of the wiring to the solenoid by checking the voltage at the solenoid terminal. This is not a conclusive test as it doesn't test the solenoid terminal. This is not a conclusive test as it doesn't test the solenoid terminal. This is not a conclusive test as it doesn't test the solenoid terminal.
suitable DC voltage range between the solenoid feed terminal (right at the solenoid body) and the engine block. You should see something near battery voltage when the key is turned to the start position. If you see too low a voltage when the key is turned to the start position. If you see too low a voltage when the key is turned to the start position. If you see too low a voltage when the key is turned to the start position.
Generally they stop in one of two positions, as in two pistons up and two down. So to prove if starter ring gear worn in either of those positions you may need only move the crank a small amount to check. Way back in the old days it was not unheard of for someone to remove the ring gear and move it to a different spot I have fitted many new ring
gears in the past, however it was in the days of inertia starters rather than spining and "smashing" it's way in to engagement. I see from OPs original comments it was mentioned putting vehicle into 4th gear and slightly moving had the
affect of permitting engine to start, so although unusual it may be possible ring gear is damaged in one spot. The only time I have seen that was where a S/H engine to start, so although unusual it may be possible ring gear is damaged in one spot. The only time I have seen that was where a S/H engine to start, so although unusual it may be possible ring gear is damaged in one spot. The only time I have seen that was where a S/H engine to start, so although unusual it may be possible ring gear is damaged in one spot. The only time I have seen that was where a S/H engine to start, so although unusual it may be possible ring gear is damaged in one spot. The only time I have seen that was where a S/H engine to start, so although unusual it may be possible ring gear is damaged in one spot. The only time I have seen that was where a S/H engine to start, so although unusual it may be possible ring gear is damaged in one spot. The only time I have seen that was where a S/H engine to start, so although unusual it may be possible ring gear. I will say that back on 1990 we had a similar issue with our Uno. It was only when I went and bought a start of the only time I have seen that was where a S/H engine to start of the only time I have seen that was where a S/H engine to start of the only time I have seen that was where a S/H engine to start of the only time I have seen that was where a S/H engine to start of the only time I have seen that was where a S/H engine to start of the only time I have seen that was where a S/H engine to start of the only time I have seen that was where a S/H engine to start of the only time I have seen that was where a S/H engine to start of the only time I have seen that was where a S/H engine to start of the only time I have seen that was where a S/H engine to start of the only time I have seen that was when I have seen the only time I have seen that was where the only time I have seen the 
genuine Fiat starter motor it stopped. I was never aware of why it did this. I never entirely trust new bits until they prove themselves and if I get a faulty part or battery now, I go somewhere else for a 2nd replacement so I dont get caught by bad batches. I like your suggestion of turning the ring gear. A bit outside my range of ability digging the
flywheel out now and back then I didnt have the time. Page 3 I will say that back on 1990 we had a similar issue with our Uno. It was never aware of why it did this. I never entirely trust new bits until they prove themselves and if I get a faulty part or battery now, I go
somewhere else for a 2nd replacement so I dont get caught by bad batches. I like your suggestion of turning the ring gear. A bit outside my range of ability digging the flywheel out now and back then I didnt have the time. Not my suggestion, though I had heard of it done I am not that mean with my money. I liked the story about a well established
family firm of solicitors that had been trading for several 100 years on same site and the current owner, when presented with an estimate for replacing a well worn front door step suggested to the builder that he simply turn it upside down, only to be informed that his grandfather had done that many years before. i have only ever put the clips on to
the battery terminals, but, also worth noting, the noco is not a big one for a moho, ie. a large diesel engine, so perhaps if the vehicle battery was a little low on juice, the noco may not have enough umph to fire it up? You would be surprised, as was I being sceptical about the efficacy of such small boost packs. My battery had died in storage in March,
problems, sometimes with other systems on the van, as happened to my ABS/ASR, due to low volts. I must agree with the ring gear opinions, and also the removal of the starter to visually inspect same. Starting on the 2.8JTD in normal circumstances is usually instantaneous and vigorous. If you are not doing the work, ask your garage to do this before
removing the gearbox. Fortunately, it does not sound like a huge problem. Apart from having to shove a heavy vehicle to make it good to start! Not been back to update the thread, as vehicle still in storage, with vehicle battery disconnected. I know there were mixed opinions on replacing / adding additional earth leads, but it was a cheap and easy
task that I was able to do myself, so I have added one from the negative terminal on the battery, down to the engine casing by the flywheel casing. We are due to go away for a couple of nights over the festive period, so we will see how it behaves. If we experience a repeat of the problem, I will get it booked in to the garage and go armed with the
suggestions in the thread, for which I'm grateful for. Hi again all. Well, the short getaway over Xmas was inconclusive, as we had use of another vehicle, so the moho sat on its pitch and literally didn't get started until we departed.... and it behaved. A couple of weeks ago, I visited it at its storage site. I found the vehicle battery flat. Bear in mind, it
was not very old, however, the little bubble on the top of it said, "replace". I bought a new Yuasa battery again and fitted it. That's now 2 new starter motors and both times the moho has failed to start. Without doing anything other than sitting
and waiting for a few mins and trying to start it every 30 secs, it has started on both occasions after a few mins. I think therefore we can rule out the earth strap, as you'll recall I fitted an additional cable. I'd also say the same for the fly wheel, as we did not rock/push the moho. I know there are plenty of suggestions you guys have offered, but I
thought I'd give you an update. Moho clearly needs to go to the workshop. It can't continue like this for our sanity! One breakdown was in a petrol station, where we were glared at several times for causing an obstruction! Hi again all. Well, the short getaway over Xmas was inconclusive, as we had use of another vehicle, so the moho sat on its pitch
and literally didn't get started until we departed.... and it behaved. A couple of weeks ago, I visited it at its storage site. I found the vehicle battery flat. Bear in mind, it was not very old, however, the little bubble on the top of it said, "replace". I bought a new Yuasa battery again and fitted it. That's now 2 new batteries, 2 new starter motors and an
additional earth cable. We have come away today and have stopped en-route twice and both times the moho has failed to start. Without doing anything other than sitting and waiting for a few mins. I think therefore we can rule out the earth strap, as you'll recall I
fitted an additional cable. I'd also say the same for the fly wheel, as we did not rock/push the moho. I know there are plenty of suggestions you guys have offered, but I thought I'd give you an update. Moho clearly needs to go to the workshop. It can't continue like this for our sanity! One breakdown was in a petrol station, where we were glared at
several times for causing an obstruction! Does sound like a good auto electrician needs to be there when fault occurs, although like the dentist, the pain goes away on visit. Sat mulling this over and have just ordered a new ignition switch. Cash really has to be thrown at this! We are hopping around the Scottish Western Isles during the summer - we
don't want to be stuck on a ferry, or a slipway! Hopefully I can fit it myself. For safety reasons, I'll assume I should disconnect the battery? Having had what seemed to be a failure to energise the starter solenoid on three occasions during four days last October, I decided to eliminate the ignition switch by substitution. I made the mistake of
purchasing the cheaper one type fits all version switch module, which cost about £8. Perhaps I inadvertantly moved the rotor slightly, when trying to install in the lock mechanisms, but I did not manage to successfully install the part, despite carefully noting the position of physical coupling on lock
approach avoids any wrestling with shear bolts, and the need to move lock inserts. As I was only dealing with the ignition switch, and being safety conscious, I elected to remove only the 30A, supply fuse F3, in the engine bay fusebox, bu I have not convinced myself that this was necessary as the connectors are well shrouded. Removing and replacing
the lower column cover can be fiddlesome. I have found that a short piece of plastic hose slipped over the screws I folded two squares of electrical tape into triangles and poked small pilot holes into the centre. The
indicates a connection across the switch. Thanks guys - all noted. FYI, I have ordered a genuine part, so should make life a bit easier. quick update..... it was a relatively easy job replacing the ignition switch, so that's now completed. i ordered a new (fiat) positive battery clamp / fuse board. i will fit this tomorrow, but it will be a pain to fit, as i'll have
to go in from the top - thus removing the dashboard top cover and insulation panel. we have booked to go away this weekend to try it! quick update..... it was a relatively easy job replacing the ignition switch, so that's now completed. i ordered a new (fiat) positive battery clamp / fuse board. i will fit this tomorrow, but it will be a pain to fit, as i'll have
to go in from the top - thus removing the dashboard top cover and insulation panel. we have booked to go away this weekend to try it! I assume that its due to the confined access created by the "A" class conversion, but is it not possible to change the battery fuseboard from under the bonnet? The board would have to be separated from the battery, to
allow battery changing, which I would expect to have been done at least twice. Generally, the access through the vertically-lifting bonnet is awful and it's a height which hurts your lower back even after just a few mins. The battery is right at the back of the engine bay, or behind the steering wheel. It takes a few mins to dismantle the dashboard
panels, but it's considerably less painful on my body. Entering all. Well, the weekend away in the Cotswolds has been troublesome, but may be helpful. You'll know that I recently fitted the new ignition switch and also positive battery clamp. They haven't cured the starting problem. We were a little hopeful at times, as when it didn't start on the first
turn off the key, it did the second, however, after more stops, there were times it didn't start for perhaps 20 attempts. Journey home then illuminated the engine warning light and I noticed a considerable amount of black smoke under acceleration, and a lack of power even on the smallest of inclines. Got home and plugged in the OBD scanner to get
code(s). See pic. Clutching at straws..... Could this be causing the non starting and maybe the sensor has been on its way out? Entering all. Well, the weekend away in the Cotswolds has been troublesome, but may be helpful. You'll know that I recently fitted the new ignition switch and also positive battery clamp. They haven't cured the starting
problem. We were a little hopeful at times, as when it didn't start on the first turn off the key, it did the second, however, after more stops, there were times it didn't start for perhaps 20 attempts. Journey home then illuminated the engine warning light and I noticed a considerable amount of black smoke under acceleration, and a lack of power even
on the smallest of inclines. Got home and plugged in the OBD scanner to get code(s). See pic. Clutching at straws..... Could this be causing the non starting and maybe the sensor has been on its way out? Certainly worth looking at the Crankshaft Position Sensor (CPS) then. Generally I have found CPS to fail when hot and cause instant engine cut out of the causing the non starting and maybe the sensor has been on its way out?
but after ten minutes cooling down has restarted and journey continued. As another guide when engine not starting if CPS, it usually means you get no reading from the rev counter on cranking, trying to start engine. However if wiring to CPS plug faulty that may give those symptoms, so worth checking that area also. Unless giving intermittent
connection to sensor, not sure why the black smoke? I will to locate it this week and get a replacement ordered. Hopefully it's a job I can do. Will have a search to find a tutorial or at least a pic of
where it is. I may have missed it, but you do not seem to mention whether your recent failures to start were either failure to crank, or failure to crank indicated the Crankshaft Poaition Sensor (CPS) is central to the operation of the engine. I can
speculate that is the CPS is electromagnetic in operation, a faulty unit may well give an inadequate output at cranking speed, but suffice once engine has started. On the otherhand the Camshaft Sensor is only used to determine the stroke when starting, and is not used subsequently. For CPS location see attached photo. With a 2.8jtd, you do need to
 work from under the vehicle. @Communicator thanks for the pic . is that looking upwards if i were lying on the ground? a refresh to describe the fail to start.......i can hear one click from the engine bay. @bugsymike thanks. i noticed yesterday shortly after the "check engine" illuminated, i lost cruise control too. we stopped for fuel and although it
didn't start for a few turns of the key, where previously when it has started (let's say eventually or with the first turn), it has fired up without hesitation, this time it had a delay in firing up - perhaps only a second, but it was noticeable. it also sounded different - difficult to explain and perhaps strange to even try! i did get cruise control back after the
fuel stop. engine warning light remained lit, and as said, the black smoke under acceleration was very prevalent. @Communicator thanks for the pic . is that looking upwards if i were lying on the ground? a refresh to describe the fail to start.......i can hear one click from the engine bay. @bugsymike thanks. i noticed yesterday shortly after the "check
engine" illuminated, i lost cruise control too. we stopped for fuel and although it didn't start for a few turns of the key, where previously when it has fired up without hesitation, this time it had a delay in firing up - perhaps only a second, but it was noticeable. it also sounded different - difficult to
explain and perhaps strange to even try! i did get cruise control back after the fuel stop. engine warning light remained lit, and as said, the black smoke under acceleration was very prevalent. No. Picture was taken from a pit, horizontally over chassis subframe, which may be an obstruction. I suggest taking a look before committing to the task.
However if all you get from the engine bay when trying to start is a click, and no cranking of the engine, then that is not a symptom of a faulty CPS, but indicates a problem with the starter circuit. That is why I changed my ignition switch and positive battery clamp, before the
 weekend away - sadly they've made no difference. I've already replaced the starter motor and battery twice within the last 12 months. Frustrating it sure is. Ok, thanks. You'll have seen I've already replaced the starter motor and battery twice within the last 12 months. Frustrating it sure is. Ok, thanks. You'll have seen I've already replaced the ignition switch and positive battery clamp, before the weekend away - sadly they've made no difference. I've already replaced the ignition switch and positive battery twice within the last 12 months. Frustrating it sure is.
and battery twice within the last 12 months. Frustrating it sure is. I can fully appreciate that. My vehicle, a PVC, is also a manual 2006 2,8jtd. Many years ago I had cranking problems on an earlier vehicle, and got only a click when the engine was hot, I eventually diagnosed too low a solenoid current due to deteriorating contact resistances, and fitted
a starter solenoid relay. I did subsequently read reports of similar problems in MMM. Anthony489, has advised having the solenoid current checked with a clip on ammeter. The x244 does not suffer from the main starter motor circuit is at the flag
terminal. Corrosion of the cable has been reported to the inside this terminal, which is located below the battery, and forward of the RHS engine mounting see attached photo. Thanks again. I'm going to have a clamber underneath to see if I can get to the CPS. The fault code indicates this as faulty and whether that be an unrelated issue or not, it
needs attention. You suggest that this won't influence the starter, so I'll need to give this some more thought and review the other posts that suggest workshop assistance. Thanks again. I'm going to have a clamber underneath to see if I can get to the CPS. The fault code indicates this as faulty and whether that be an unrelated issue or not, it needs
attention. You suggest that this won't influence the starter, so I'll need to give this some more thought and review the other posts that suggest workshop assistance. See attached diagram for starter operation. No connection to ECU, except for interlock with park "P" selection on automatics, which needs different diagram. Good luck with the crawling
investigation. Had a chat with a friend this afternoon who has similar vehicle. May I ask, does the x244 have a starter relay, as he suggested that it sounds like the starter motor isn't getting enough power and could be getting starved by a faulty relay? Plausible???? Thanks Had a chat with a friend this afternoon who has similar vehicle. May I ask,
does the x244 have a starter relay, as he suggested that it sounds like the starter solenoid, but does use they. Connection is from ignition switch to starter solenoid, but does use they.
engine bay fusebox as a link point. That does raise the possibility of a problem inside that fusebox. Similar boxes have been known to cause problems after water ingress. (A relay is used with automatic transmission, to prevent starting when not in "P" or park selection.)
the CPS! I did test for continuity from negative battery terminal to the earth flag. I removed the bolt - which I've done in the past - and shone a light in to the workshop, even if just for the CPS for now. I might treat myself to a better electrical tester
with a clamp. Clambering complete and can declare that I am unable to see, let alone access, the CPS! I did test for continuity from negative battery terminal to the earth flag. I removed the bolt - which I've done in the past - and shone a light in to the thread and no signs of corrosion evident. The bolt is in good condition too. Time to book it in to the
workshop, even if just for the CPS for now. I might treat myself to a better electrical tester with a clamp. 1. Corrosion has been reported as occurring inside the flag terminal. You will not be able to measure the increase in resistance with a multimeter. Bettewr to view the bolt as a clamping device. Faces of both flag terminal, and chassis must be
clean. Athin smear of vaseline will help to keep any moisture out. 2. Examine any advertisements very carefully, as a clamp on for AC only current, multimeter is often
portrayed as an AC/DC multimeter, as it has both AC, and DC voltage ranges. is anyone "in the know" able to suggest / post a link or 2 please? the price range appears huge and the advertising blurb is confusing. i don't mind the spend, especially if it gives me more info to eliminate possible causes, but it won't get a lot of use otherwise. screwfix
would be my usual "go to", and i do have a gift voucher for them, but happy to buy elsewhere. thanks is anyone "in the know" able to suggest / post a link or 2 please? the price range appears huge and the advertising blurb is confusing. i don't mind the spend, especially if it gives me more info to eliminate possible causes, but it won't get a lot of use
otherwise. screwfix would be my usual "go to", and i do have a gift voucher for them, but happy to buy elsewhere. thanks I am not sure about making recommendations, but the sort of thing to look out for are statements like the following extract from Ebay. "Measures AC to DC voltage, AC current, resistance and also offers diode and continuity
testing." Such a meter would be unsuitable because it cannot measure DC current. Also the higher the number of the counts, and digits, the higher the potential accuracy, which can be useful when checking battery voltages. As far as I remember looking for a multimeter some five years ago (to replace a very old one I've used for more than 20 years)
like the following extract from Ebay. "Measures AC to DC voltage, AC current, resistance and also offers diode and continuity testing." Such a meter would be unsuitable because it cannot measure DC current, resistance and also offers diode and continuity testing." Such a meter would be unsuitable because it cannot measure DC current, resistance and also offers diode and continuity testing."
However you could check out the following links to Ebay. Link 1, Link 2 This post contains affiliate links which may earn a commission at no additional cost to you. Afternoon. I bought a suitable clamp meter and am now at the vehicle with me under the vehicle with meter in hand and on the right setting (to measure DC current),
with clamp around the thin red wire connected to the starter motor, wifey turns key and I get a reading of 27.82V but engine doesn't crank. We repeated this about 5 times over a period of 10 mins. Without doing anything, the next key turn fired it up immediately. When it wouldn't start, whilst trying to watch the reading on the meter, the click I could
hear is much higher up in the engine bay and I would guess at saying from the fuse box. Welcome your thoughts again guys. Thanks Afternoon. I bought a suitable clamp meter and am now at the vehicle with me under the vehicle with the vehicle with
wire connected to the starter motor, wifey turns key and I get a reading of 27.82V but engine doesn't crank. We repeated this about 5 times over a period of 10 mins. Without doing anything, the next key turn fired it up immediately. When it wouldn't start, whilst trying to watch the reading on the meter, the click I could hear is much higher up in the
engine bay and I would guess at saying from the fuse box. Welcome your thoughts again guys. Thanks If we substitute a value of 27.82A for the above reading, then it is entirely plausible. At that current level, I would have expected the solenoid to engage the starter pinion and close its contact to energise the motor. Presumably your head would be
quite close to the starter assembly, And clunk from the solenoid should have been very noticeable. My thoughts are that either 27.8A is insufficient, or something is physically preventing the starter pinion from engaging. You have mentioned a click from higher in the engine bay, possibly in the fusebox. This is possible as it could be the main injection
relay operating, which it must do for the engine to start. Your apprentice may not have waited for the lights to extinguish.. The click should then be audible before power is applied to the starter solenoid. I am wondering whether it is
time for the mechanic's pliers test, or perhaps a variation. With battery negative disconnected, securely attach a length of the conductor at the remote end of the wire. Remove cover from engine bay fusbox to expose the M6 input connection. Restore
battery negative. Ensure neutral selected, and handbrake on. With ignition off, dab exposed wire end onto fusebox feed cable lug. Starter should operate reliably, and no need to start the engine. This is probably easier than lying underneath for several attempts, and does not drag apprentice away from domestic duties. If starter operates reliably, then
perhaps there is a problem in the engine bay fusebox. Other faults have occured in similar fuse boxes. For info see here. Maybe go back to basics and put a wire directly to the starter should engage or try to. Note if
wire thin or held on too long it will burn your fingers. Assuming that makes no difference in the starting then if you are 100% sure all main battery leads are well connected and indeed you have even put an auxiliary earth lead on as well then to me I would question the quality of replacement starters fitted. I believe @Communicator mentioned
replacing a starter solenoid and I have done similar on a Peugeot where whilst the solenoid appears to click in it doesn't actually hold the heavy main contacts together enough for the 500 amp approx required to turn the starter motor over. This can be with a poorly "remanufactured "starter or in my case a Peugeot with 175k miles on the clock. In my
case I was able to clean the two contact areas and turned the "buzz bar" over to it's unused clean side so it was able to continue further towards 200k at zero cost as the bar was held in place with a nut and washer unlike this photo.. This video may indicate the parts inside the solenoid that I think are not transmitting the load to turn the starter motor
it's self. Sorry guys.... I meant 27.82 amps. I'm pretty sure I could here the fuel pump priming, after she punched in the key code for the sigma immobiliser. Maybe go back to basics and put a wire directly to the starter solenoid small wire that comes from ignition switch, the other end of the wire just brush across the battery positive terminal, starter
should engage or try to. Note if wire thin or held on too long it will burn your fingers. Assuming that makes no difference in the starting then if you are 100% sure all main battery leads are well connected and indeed you have even put an auxiliary earth lead on as well then to me I would question the quality of replacement starters fitted. I believe
 @Communicator mentioned replacing a starter solenoid and I have done similar on a Peugeot where whilst the solenoid appears to click in it doesn't actually hold the heavy main contacts together enough for the 500 amp approx required to turn the starter motor over. This can be with a poorly "remanufactured "starter or in my case a Peugeot with
175k miles on the clock. In my case I was able to clean the two contact areas and turned the "buzz bar" over to it's unused clean side so it was able to continue further towards 200k at zero cost as the bar was held in place with a nut and washer unlike this photo.. This video may indicate the parts inside the solenoid that I think are not transmitting
the load to turn the starter motor it's self. Sorry Mike, but is that not I was suggesting, but avoiding creating sparks close to battery that may have been gassing? If yes then we are in basic agreement. I have repaired on or two starter motors. In the older Lucas models you could order all the compnents separately. Sorry guys....I meant 27.82 amps
I'm pretty sure I could here the fuel pump priming, after she punched in the key code for the sigma immobiliser. Doh! I do not remember previous mention of an immobiliser, but this could well be the cause of the problem, as some alarm systems used to interrupt the solenoid circuit. If you have to key a code into the alarm, in order to allow the engine
to crank, then the alarm has contacts in the solenoid circuit. Page 5 I mentioned it in my first post. At that point I had disconnected them. Doh! I do not remember previous mention of an immobiliser, but this could well be the cause of the problem, as some alarm systems
used to interrupt the solenoid circuit. If you have to key a code into the alarm, in order to allow the engine to crank, then the alarm has contacts in the solenoid circuit. I agree with @Communicator re "Sigma", over the years I have had loads of aftermarket alarm systems cause problems, they seem to fail even more than genuine factory versions
followed by the fuel pump prime. Hi again I have been pondering this, and apologies if this conjecture is wrong. The current you have measured into the starter solenoid (about 30 Amps) is at first sight reasonably high. However, should the immobiliser have been connected somewhere in series with this circuit, it's possible that the extra wiring and apologies if this conjecture is wrong.
set of closed relay contacts (immobiliser net powered, immobiliser relay not energised) could be introducing a bit of unwanted extra resistance. If so, the 30 Amps might be borderline for operating the solenoid. Some of the examples of so-called professional immobiliser installation we have seen on this forum over the years have been a bit eyebrow
raising. I suggest you trace the solenoid to determine once and for all if the wiring is standard or modified as above. Alternatively, take a heavy gauge wire direct from the battery positive and carefully apply it to the solenoid terminal with the ammeter clamped round it. You may find that the current is more than 30
Amps in that instance. Hi again I have been pondering this, and apologies if this conjecture is wrong. The current you have measured into the starter solenoid (about 30 Amps) is at first sight reasonably high. However, should the immobiliser have been connected somewhere in series with this circuit, it's possible that the extra wiring and a set of
 closed relay contacts (immobiliser not powered, immobiliser relay not energised) could be introducing a bit of unwanted extra resistance. If so, the 30 Amps might be borderline for operating the solenoid. Some of the examples of so-called professional immobiliser installation we have seen on this forum over the years have been a bit eyebrow raising
I suggest you trace the solenoid wiring back from the solenoid to determine once and for all if the wiring is standard or modified as above. Alternatively, take a heavy gauge wire direct from the battery positive and carefully apply it to the solenoid terminal with the ammeter clamped round it. You may find that the current is more than 30 Amps in that
instance. I can relate that statement to the alarm installation on my own 2.8 td. The second paragraph above is again similar to my modified "pliers" method proposed in #76, excepting that I was careful to suggest a method that did not include any possibility of creating sparks close to the battery, which may have been gassing. I am also considering
how to confirm the presence or abscence an alarm relay contact in the solenoid circuit on my own similar vehicle, which I believe had 3 failures to crank. On my vehicle the alarm links into the central locking, so it is always unset when trying to activate the starter via the key, Perhaps if I run a test wire via the door seal, I could test the connection
from the ignition switch connector to the starter solenoid terminal, with alarm set. For me this may be easier than wire tracing. May I also repeat my experience with a Talbot Express many years ago. I added an alarm system, and a hidden switch into the solenoid circuit. All functioned OK until I started getting just a clunk from the starter but only
when the engine was hot. I reasoned that increase of the solenoid relay, which was easy to fit. I subsequently read of others experiencing identical problems. That's a very specific problem you have there and you
were left with it after you replaced all those parts. None of them was the fix, putting those new parts just masked the problem, but it is still there and it's the same. So... what could it be?! The starter works by having 3 lines connected. One is the (-) connection made through the casing and that is definitely ok at yours, by what you said, and there are
2 (+) 12 V connections. One is that little wire that is fed when you turn te key on and with your new ignition and measured amps that sounds to be ok and the other one is that little wire that is fed when you turn te key on and with your new ignition and measured amps that sounds to be ok and the other one is that little wire that is fed when you turn te key on and with your new ignition and measured amps that sounds to be ok and the other one is that little wire that is fed when you turn te key on and with your new ignition and measured amps that sounds to be ok and the other one is that little wire that is fed when you turn te key on and with your new ignition and measured amps that sounds to be ok and the other one is that little wire that is fed when you turn te key on and with your new ignition and measured amps that sounds to be obtained as a supplied to the other one is the other one is the other one is the permanently connected 12 V, the line that also connected 12 V, the l
contacts. When it wouldn't start, whilst trying to watch the reading on the meter, the click I could hear is much higher up in the engine bay and I would guess at saving from the fuse box. So it's possible there might be a starting relay. If there is, there's where it sits, in that fuse box and they do click when activated. I should say, the click we hear from
the sigma unit is much less severe / loud than the click we hear from the engine bay, when it won't start. It's a very much a gentler click, then immediately we hear the fuel pump. The click from the Sigma unit can always be heard - after entering the code correctly - whether the vehicle starts or not. The, "none starting problem" is not temperature
related. It happens both when stone cold and when warm. We do not have central locking - the vehicle has only one entrance door. I clearly need to do it correctly....... Alternatively, take a heavy gauge wire direct from the battery positive and
carefully apply it to the solenoid terminal with the ammeter clamped round it. You may find that the current is more than 30 Amps in that instance. 1) Disconnect to thin wire on starter motor 3) Reconnect the neg battery terminal Question: Will it attempt to start after doing 2,
or does sigma immobiliser code need entering and the key need to be turned? Depending on the answer, for me to clamp around the wire, I will require wifey. Thanks guys Worth also informing you............. Yesterday I checked the voltage of: 1) battery - across pos and neg terminals 2) pos battery to earth flag Engine was off. I got the same voltage
reading. If my test leads are long enough to get to the starter motor, I will do this with wifey next weekend. With engine on, battery voltage was 14+V, so alternator appears good. I also tested resistance: 1) neg battery terminal to earth flag No difference. Again, if leads long enough, I will try to get to the starter motor next weekend. That's a very
specific problem you have there and you were left with it after you replaced all those parts. None of them was the fix, putting those new parts just masked the problem, but it is still there and it's the same. So... what could it be?! The starter works by having 3 lines connected. One is the (-) connection made through the casing and that is definitely ok
at yours, by what you said, and there are 2 (+) 12 V connections. One is that little wire that is fed when you turn te key on and with your new ignition and measured amps that sounds to be ok and the other one is the permanently connected 12 V, the line that also connects the alternator with the battery. So you have to check that line, the wiring
inside cable migh be broken or oxidized contacts. So it's possible there might be a starting relay is not shown in the standard wiring diagram. The only spare location in the engine bay fusebox is allocated to the starter interlock for automatic
transmission. The solenoid connection is routed via the engine bay, when it won't start. It's a very much a gentler click, then immediately we hear the fuel pump. The click from the Sigma unit
can always be heard - after entering the code correctly - whether the vehicle starts or not. The, "none starting problem" is not temperature related. It happens both when stone cold and when warm. We do not have central locking - the vehicle has only one entrance door. I clearly need to do the, "pliers / similar" test. I'll use @Anthony489 quote for
reference, but I would like to clarify so to do it correctly....... 1) Disconnect neg battery terminal 2) Attach wire from pos battery terminal and connect to thin wire on starter motor 3) Reconnect the neg battery terminal and connect to thin wire on starter motor 3) Reconnect to thin wire a starter motor 3) Reconnect to th
Depending on the answer, for me to clamp around the wire, I will require wifey. Thanks guys To answer the question, the starter motor should operate as soon as the connection is made at the battery negative terminal. The only way to sop the starter would then be by disconnecting the battery negative. Thanks guys To answer the question, the starter motor should operate as soon as the connection is made at the battery negative.
solenoid terminal. The original wire does not need to be connected to the terminal for the test. I would not crawl under the vehicle with a live 12V wire. My method outlined in post #76 was designed to be as safe as possible, and does not require assistance, provided that a secure connection can be made to the small terminal on the solenoid. Worth
also informing you
                            .... Yesterday I checked the voltage of: 1) battery - across pos and neg terminals 2) pos battery to earth flag Engine was off. I got the same voltage reading. If my test leads are long enough to get to the starter motor, I will do this with wifey next weekend. With engine on, battery voltage was 14+V, so alternator appears good. I
also tested resistance: 1) neg battery terminal to earth flag No difference. Again, if leads long enough, I will try to get to the starter motor next weekend. It is not possible to measure this resistance with a standard multimeter. The reistance is too low, and any residual current will affect the reading. To answer the question, the starter motor should
operate as soon as the connection is made at the battery negative terminal. The only way to sop the starter would then be by discnnecting the battery negative. The test wire needs to secured to the small (M5) solenoid terminal. The original wire does not need to be connected. to the terminal for the test. I would not crawl under the vehicle with a live
12V wire. My method outlined in post #76 was designed to be as safe as possible, and does not require assistance, provided that a secure connection can be made to the small terminal on the solenoid. I will try this method this week then. A suitable wire would be mains 240V socket wire? Question: Will it attempt to start after doing 2 If you
disconnect the negative terminal it won't try to start. This is the test you should do Unlike in the video, probably the tension dropping is not up there on the nut, but somewhere down the line of that constant 12 V line. A starting relay, but what @Blueywr1 described he heard
sounds definitely like a relay in the fuse box and it's probably the fuel pump relay. That means the starter solenoid did nothing although the key line 12 V was fed, meaning the cause of it is the constant 12 V line. I will try this method this week then. A suitable wire would be mains 240V socket wire? If the means the cable that connects to the rear of a
13A socket, then that is about the minimum. Expect it to get warm with repeated use. If you leave the ignition off, engine will not start. All that you are looking for is for the engine, you will of course discharge the battery. Not a good thing to do. If the
means the cable that connects to the rear of a 13A socket, then that is about the minimum. Expect it to get warm with repeated use. If you leave the ignition off, engine will not start. All that you are looking for is for the starter to engage and start cranking the engine. If you do it too many times without starting the engine, you will of course discharge
the battery. Not a good thing to do. Ok, perhaps cooker wire is a better suggestion Afternoon With battery negative disconnected, securely attach a length of the conductor at the remote end of the wire. Remove cover from engine bay fusbox to expose
the M6 input connection. Restore battery negative. Ensure neutral selected, and handbrake on. With ignition off, dab exposed wire end onto fusebox feed cable lug. Starter should operate reliably, and no need to start the engine @Communicator Great instructions - thanks. Indeed, this does start the vehicle. Where does this leave me? Before doing
the above procedure, I tried starting it normally with the key and it wouldn't start; I just got the loud, single click. Appreciate your help/guidance. Afternoon @Communicator Great instructions - thanks. Indeed, this does start the vehicle. Where does this leave me? Before doing the above procedure, I tried starting it normally with the key and it
wouldn't start; I just got the loud, single click. Appreciate your help/guidance. Please check/confirm that it starts, or at least sthe starter every time, to your satisfaction. Given recent history, perhaps three times in succession would eliminate any chance event. I am suspicious that the Sigma alarm has a relay contact in the solenoid connection from
the ignition switch. The presence of this hypothetical contact can be proved either by physical wire tracing, or continuity testing. If present connections are most likely to be behind the RHS lower dashboard, eLearn diagram does not show any connections are most likely to be behind the RHS lower dashboard, eLearn diagram does not show any connections are most likely to be behind the RHS lower dashboard, eLearn diagram does not show any connections are most likely to be behind the RHS lower dashboard, eLearn diagram does not show any connections are most likely to be behind the RHS lower dashboard, eLearn diagram does not show any connections are most likely to be behind the RHS lower dashboard, eLearn diagram does not show any connections are most likely to be behind the RHS lower dashboard, eLearn diagram does not show any connections are most likely to be behind the RHS lower dashboard, eLearn diagram does not show any connections are most likely to be behind the RHS lower dashboard, eLearn diagram does not show any connections are most likely to be behind the RHS lower dashboard.
straight through connection to the solenoid. This means that if relay contact exists, the wire will most probably been physically cut. An alternative would have been to extract the wire tracing method has previously suggested by @Anthony489.
The alternative method that I am considering, is to carry out continuity tests between solenoid wire, and ignition switch connector. It does need at least one long test lead run out of cab via door seal, and perhaps a second lead to extend from the starter terminal. Test with alarm powered down, alarm off, alarm set, and alarm triggered. However
having proved presence of contact, the point of insertion would still have to be located. For convenience I am attaching my annoted copy of Fiat eLearn diagram E5010. Starter motor is at LHS of drawing, and ignition switch, and eventually
arrives at the M5 starter stud (B1). Access to the wiring is facilitated by removing the lower dash. Thanks again. Perhaps with my excitement of the test started immediately on every occasion. 2) To get it it to start though, I had to turn the key
to stage 2 and then enter the code in to the sigma keypad. It would not start without doing this. 3) I had disconnected the thin (red/black) wire at the starter motor (and replaced it with my "made-up wire"). 4) I reconnected the thin wire and the neg battery terminal and attempted to start with the key - no joy. 5) I have now put the vehicle battery on
charge overnight and plan to return tomorrow AM to repeat the test a few more times. 6) Whilst I was there and before I did this procedure, I tried the jump lead from neg battery to engine lifting bracket - it didn't start and just heard the single click. Last edited: Mar 10, 2025 Thanks again. Perhaps with my excitement of the test starting the vehicle
I failed to add the following, which may / may not be relevant: 1) I tested it 4 times & it started immediately on every occasion. 2) To get it it to start though, I had disconnected the thin (red/black) wire at the starter motor (and
replaced it with my "made-up wire"). 4) I reconnected the thin wire and the neg battery terminal and attempted to start with the key - no joy. 5) I have now put the vehicle battery on charge overnight and plan to return tomorrow AM to repeat the test a few more times. 6) Whilst I was there and before I did this procedure, I tried the jump lead from
neg battery to engine lifting bracket - it didn't start and just heard the single click. 1. That sounds OK. No electrical or mechanical problems with starter motor assembly. 2. Suggests that Sigma unit is also interrupting the ignition services (A2), orange wire output of the ignition switch, but is not causing problems. 3. Yes that would make connection
easier. Wire is only live with key in start position. 4. Thin wire is for solenoid. This confirms connection problem somewhere. 5. I expect it to be OK. I think that you could now start wire tracing. 6. As no improvement with jump lead, suggests no problem inside flag terminal. You are using an out of date browser. It may not display this or other
websites correctly. You should upgrade or use an alternative browser, 2003 - 2012 FIAT Panda Mk3 Forum
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