

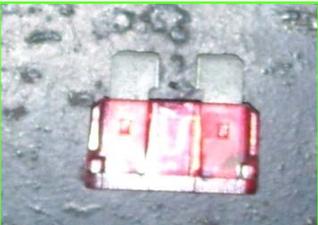
TATA MOTORS

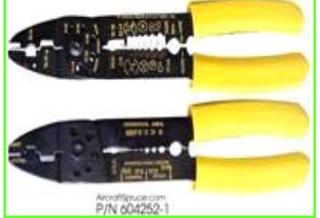
SC/ 2013/ 03	Model : ALL	Group: 00	Jan'13
--------------	-------------	-----------	--------

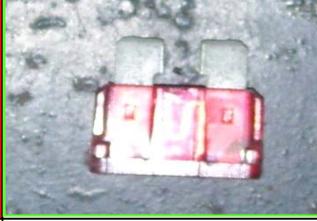
ALL DEALERS / TASSs

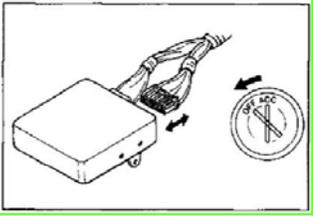
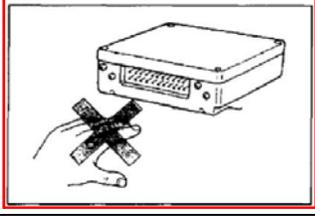
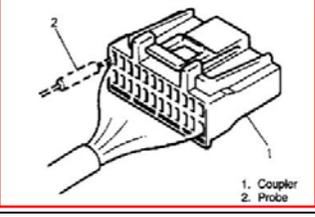
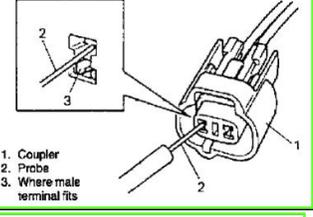
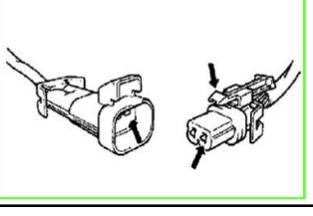
SUBJECT: Do's and Don'ts in Electrical system

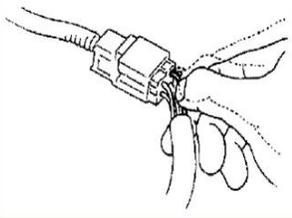
We have introduced products with BS III and BS IV emission norms having advanced electrical systems. To take adequate precautions on electrical systems and prevent unauthorized modifications, some of the major Do's and Don'ts in electrical system are recommended.

S.N	Check Point	Don'ts	Do's
			
1	Tapping in electrical Wiring harness is not permitted. All the extra connections to be taken only from provided extra couplers in the wiring harness.		
2	Use extra care and attention while routing of battery positive cable. Make sure that it is properly tied and is not rubbing. This may cause a major thermal incident.		
3	Use of non OE fuse links, bypassing of fuses with wire strands should be completely avoided. These leads to burning of Wiring harness and is a major contributor in rejection of Wiring harness under Warranty.		
4	During Electrical Welding remove both positive and negative terminals of battery with ECU connections.		

			
S.N	Check Point	Don't's	Do's
5	All the rubber boots to be checked for proper fitment during service. If required replace with a new one(Alternator, Battery terminals, Self Starter terminals).		
6	Routing and Clamping of Wiring Harness should be checked as per service schedule.		
7	Use of Special tools during repair of Wiring Harness like - Crimping Tool for all wire guages.		
8	Ensure Wiring Harness is away from moving parts/sharp objects/high temperature areas and properly tied.		
9	In CNG vehicles check for High Tension Cables for proper fitment and replacement as per service schedule.		
10	Jump starting the vehicle only with specified voltage for ex. 12 V system jump started with only 12V system.		
11	Prevention of water splashing on ECU/alternator/starter motor during washing. Close the windows of the vehicle before cleaning to avoid any water spalshing.		

			
S.N	Check Point	Don't's	Do's
12	Ensure tightening of allternator/self starter terminals at regular service intervals. Loose connection leads to sparking and melting of terminals.		
13	Ensure tightening of all earth/ground points as per service schedule.	Do not leave any loose earthing points.	
14	Fuel Leakages/Oil Leakages should be arrested immediately and surface to be cleaned thereafter.		Cleaning of oil/fuel before delivery. Arresting all leakages.
15	Stocking of appropriate OE fuses in workshops and dealerships.	Local make/Chinese (Make Kon Shai etc.) to be avoided completely.	
16	Cleaning of all battery terminals and application of petroelum jelly on the terminals.		
17	In 24V system vehicles, customers normally take direct connection from 1 battery without proper fuse system thus leading to improper charge balance and sometimes thermal incident.		Educate customers to avoid this practice as it will hamper the battery charge balance and lead to starting trouble/other vehicle problems.
18	We should encourage fitment of accessories at dealer points for avoiding tempering of wiring harness by the customer from roadside workshops.		

			
S.N	Check Point	Don't's	Do's
19	Don't replace blindly a blown off fuse. The fuse blowing off need not be due to a defect in the fuse itself. The Fuse Blowing off could be due to short circuiting of any one of the connected electrical loads.	If fuse replaced without investigation it will lead to major thermal incident.	
20	Before replacing the blown off fuse, do rule out short circuiting of each and every load connected to a particular fuse. Identify/Isolate the load from the circuit.		Rectify the short circuiting and then proceed for replacing the blown off fuse
21	When disconnecting and connecting couplers in the wiring harness especially ECU make sure that ignition switch is in OFF condition		
22	Be careful while dealing with electrical terminals of parts which uses microcomputers and have very sensitive pins which get damaged easily. (ECU/ABS ECU/CBCU/MUX etc)		
23	While taking the measurement at electrical connectors using a tester probe, make sure that tester/meter probes are inserted thru' the backside of the coupler.		
24	If the above task cannot be performed from the backside then use extra care not to bend the terminal while checking from the male connector side or female connector side.		
25	Check for coupler connection. Poor mating of connector halves leading to sparking/intermittent voltages. Ensure dust free environment for connector terminals. Cleaning the terminals from the sand paper is prohibited.		

			
S.N	Check Point	Don't's	Do's
26	Poor terminal to wire connection. Checking the wiring harness by shaking it by hand lightly. If found loose repair or replace with proper crimping tools.		
27	If a fuse is loose in its holder, spark can happen. If we change fuses very frequently, the fuse can become loose in the fuse holder. Please Do change the fuse box or the holder in case the fuse becomes loose in its holder.		
28	During electrical check up, please check for tell-tale signs/ melting/over heating marks/blackish marks/green colour marks on fuse holder/fuse cover, terminals etc. In case nothing is found please do carry out further investigation and escalate further.		
29	Kindly use only OE supplied electrical switches. Do not by pass switches if found not working. Kindly replace with an OE switch.		
30	Do not keep any extra substances near fuse box like waste material/tools/cotton waste/paper material etc.		
31	Ensure fuse box cover is fitted on vehicles and educate customers on the importance of the same. This is very helpful for proper diagnosis and replacing fuses with correct rating.		

Please bring this in the notice of all concerned.