

MOTOR MUST BE COMPLETELY ISOLATED FROM THE METAL CHASSIS, [SEE DIAGRAM PAGE # 1]. THE TOP MOTOR CLIP MUST BE CUT IN THE TWO PLACES SHOWN IN THE DIAGRAM, [PAGE # 1], AS NOT TO MAKE ELECTRICAL CONTACT WITH ANY OTHER PARTS OF THE CHASSIS, SOLDER THE ORANGE DECODER WIRE TO THE SHORTENED CLIP AND REPLACE ON THE TOP OF THE MOTOR. USE INSULATING TAPE UNDER THE BOTTOM MOTOR CLIP AFTER REMOVING THE CONTACT TOOTH. THE GRAY DECODER WIRE IS THEN SOLDERED TO THE BOTTOM CLIP, THEN THE CLIP IS RE-ATTACHED TO THE BOTTOM OF THE MOTOR. BE SURE THAT THE GRAY DECODER WIRE AND BOTTOM CLIP DO NOT TOUCH THE METAL FRAME.

IF YOU ARE GOING TO RE-USE THE ATHEARN SINGLE BULB, THE BULB MOUNTING BRACKET MUST ALSO BE COMPLETELY ISOLATED FROM THE CHASSIS. YOU CAN FASION A NEW BULB BRACKET BY USING A POP SICKLE STICK OR STYRENE, DISCARD THE METAL BRACKET.

FOR THE BULB TO REMAIN LIT IN BOTH DIRECTIONS, USE THE BLUE LIGHT COMMON WIRE, SOLDERED TO THE SIDE OF THE BULB, USE THE WHITE AND YELLOW LIGHT WIRES FROM THE DECODER SOLDERED TO THE BULB NIPPLE ON THE BOTTOM OF THE BULB.

IF YOU ARE GOING TO USE FRONT AND REAR DCC RATED BULBS, [12 VOLTS OR HIGHER], OR L.E.D.'S, HOLDERS MUST BE FABRICATED BY THE INSTALLER. FOR L.E.D.'S THE BLUE WIRE IS POSITIVE VOLTAGE [+] THE WHITE AND YELLOW WIRES ARE THE COMMON [-]. WHEN USING L.E.D.'S OR 1.5 VOLT BULBS USE THE PROPER CURRENT DROPPING RESISTOR.

TO ATTACH THE BLACK LEFT SIDE PICK-UP WIRE TO THE CHASSIS IT IS ADVISABLE TO DRILL AND TAP A HOLE SOMEWHERE ON THE DIE-CAST CHASSIS FOR A SMALL BRASS SCREW. THEN THE BLACK WIRE CAN BE SOLDERED TO THE SCREW HEAD.

SOLDER FLEXIBLE [RED] WIRE TO CONNECT BOTH THE FRONT AND REAR TRUCKS ON THE CONTACT TAB ABOVE THE GEAR TOWERS, THEN THE RED RIGHT SIDE PICK-UP WIRE FROM THE DECODER CAN BE SOLDERED TO THE WIRE CONNECTING THE TWO TRUCKS.

TEST THE INSTALLED DECODER ON A DCC DECODER TEST TRACK BEFORE RUNNING IT UNDER FULL POWER.