

Hot Rod

Wiring and Electrical

1. Need to Use a Stock Wiring Harness When Only Minor Functions are Needed? Chevy HP 5/2003 p. 137
2. Flashing Arcs Around Spark Plug Boots Chevy HP 5/2003 p. 139
3. Rewiring Your Ride R & C 10/2003 p. 102
4. Hi-RPM package of wiring & roller cam for Ford 5.0L Street Rodder 07/06 p. 48
5. Check Electronic Injectors are working properly Street Rodder 07/06 p. 162
6. Questions & Answers on Electrical Problems Street Rodder 07/06 p. 196
7. Pre-wired Fuse Block Kits (Ad) Rod & Custom 07/2006 p.27
8. Model A-style taillights with STOP (Ad) Street Rodder 08/2006 p. 40
9. Wiring Basics Street Rodder 08/2006 p. 178
10. Wiring questions/answers Rod & Custom 11/06 p. 88
11. Troubleshooting the dead battery blues Street Rodder 10/06 p. 134
12. Charging Tips Street Rodder 10/06 p. 142
13. Electrical tip: Prior to starting a wiring job, elevate the car on jack stands 10-12 inches. This gives easy access to the underdash areas and relieves strain in doing so. Street Rodder 11/06 p. 160
14. Ballast Resistor question Street Rodder 11/06 p. 180
15. To make original taillights brighter, line your housing with 3M reflective tape. Using # 2357 light bulb also helps. Street Rodder 12/06 p. 174
16. Use RTV to attach wires to the body in hard-to-route places. Street Rodder 12/06 p. 175
17. Headlight conduits easily shortened St Rod Builder 01/07 p. 78

18. Installing a third brake light/turn signal	St Rod Builder	02/07	p. 90
19. Installing a Sun tach	Drive	0707	p.28
20. Installing electric doors	Rod & Custom	0907	p. 68
21. Voltage drops	Street Rodder	0907	p. 232
22. Installing Electric Door Latches	Amer Rodder	03/93	p. 66
23. Combating Cloth Catastrophes in the original Wiring Harness	Cars & Parts	09/07	p. 60
24. Installing a new wiring harness	St Rod Builder	12/05	p. 74
25. Crimping open-barrel terminals	St Rod Builder	12/05	p.127
26. Ford ignition switch \$39 at www.americanautowire.com			
27. Question re: Wiring taillight and brake lights	Street Rodder	04/08	p. 208
28. Determining current draw and planning a Charging system to cope	Rod & Custom	04/08	p. 84
29. Battery keeps losing charge	Auto Restorer	02/08	p. 8
30. A battery kill switch	Rod & Custom	06/08	p. 56
31. Hiding a Battery in Plain Sight	Street Rodder	05/08	p. 118
32. Flickering Headlights	Hot Rod	06/08	p. 132
33. Mounting & Maintaining a battery Six gauge wire may be fine for carrying power a few feet from the battery to the The starter, but stretching it out from the trunk to the engine compartment will Increase resistance in the cable, causing a voltage drop. A minimum of four Gauge wire, and and even as large as two- or zero-gauge for remotely mounted Batteries. Also put a fuse near the rear-mounted battery. An adequate fuse, 250-300 Amp—should be sufficient insurance to keep it from blowing when starting the car.	Rod & Custom	07/08	p. 86
34. Installing a Wiring Harness	Auto Restorer	05/08	p. 12
35. Installing an Electrical Cutoff Switch	Street Rodder	07/08	p. 184
36. Quickly failing HEI modules	Auto Restorer	04/08	p. 8

37. Installing Lokar Stainless Steel Braid on a Model A Ford	St Rod Builder	06/08	p. 53
38. Absorbed Glass Mat (AGM) Batteries: Small, light, and Maybe Right for You	St Rod Builder	06/08	p. 84
39. Running a jumper cable from the metal part a gauge or dash to the battery ground terminal to see if lack of ground is problem.	Auto Restorer	08/08	p. 4
40. Replacing a generator with an alternator	Auto Restorer	08/08	p. 6
41. Understanding and Wiring GM Ammeters	Hot Rod	09/08	p. 132
42. Thoughts on Battery Cable Hookups	Street Rodder	11/08	p. 216
43. Using a stainless steel bolt to ground a a starter, reduced the turning of the starter	Auto Restorer	10/08	p. 4
44. Converting from 6 volts to 12 volts	Auto Restorer	10/08	p. 6
45. Checking a Fuel Guage	Auto Restorer	10/08	p. 7
46. Mounting taillights in a fiberglass roadster	Street Rodder	12/08	p. 156
47. Pull to Start Ignition Switches and the Relays to make them work	St Rod Builder	01/05	p. 126

48. Lights Be sure your turn signal indicator lights are powered off the front turn signal light wires; otherwise both your indicator lights (turn signal) will light up when you step on the brakes.

49. Wire Routing A clean neat instillation doesn't take much time. A little careful planning will yield a neat professional installation. Wires you don't use may be cut close to the fuse panel or neatly coiled and tie rapped for future use. (Remember extra ignition and accessory wires can be used to power remote fuse blocks with the use of relays) Unused wires should be capped (end wrapped to prevent shorts) and secured to the wire bundle. Wires are best routed on the inside of the vehicle (especially going to the rear of the vehicle). For a battery mounted in the trunk: * Route the cable inside if possible to protect the cable be extra careful of the main battery cable (Battery to starter) to avoid any sharp edges or contact by seats or moving items. Use a sealed (vented to the out side) battery box or a sealed battery (optima or odyssey) * Secure the main battery cable (tie wraps Adel clamps etc) so it stays were you want it * Use Grommets or bulk head (pass through studs) Junctions. (part# 110-20 or 110-30). Even if the bulk head is wood or fiberglass

50. Switches * Make sure your switches are rated for your current (amp) draw * Use a relay to take the load off the switches Types of Switches: *Single Pole Single Throw (S.P.S.T.) On/Off* Single pole single throw switches control a single wire circuit (Two terminals on the switch) /Example circuit: a light switch - On/Off/

Single Pole Double Throw (S.P.D.T.) On/Off/On Single pole double throw switches control two (double) single wire circuits permitted only one circuit to be energized at a time (Three terminals on the switch) /Example circuit: Dual fuel tank this circuit or that (not both)/ *Double Pole Single Throw (D.P.S.T.) On/Off* Double pole single throw switches control two circuits simultaneously. Circuits are ON at the same time, OFF at the same time. Like two separate single switches together. Voltage can be from two separate sources. (Four terminals on the switch) *Double Pole Double Throw (D.P.D.T.) On/Off/On* Double pole double throw switches control four circuits, permitting only two circuits to be energized at a time (Six terminals on the switch) /Example circuit: Dual fuel tanks and dual fuel pumps (left tank gauge and left pump, etc) input voltage can be from two separate sources (fuses) 1 from fuel gauge and one from fuel pump (L and R)/

51. Grounds * Grounds you need then so lets use them * Ground the battery to the frame and the frame to the body * You can't have too many or too big of grounds * On glass cars with out steel inner structure use a 10 gauge wire from frame (bung) to under dash area (ground pad or bung) * Plan ahead for your ground locations * Every electrical component needs a good ground * Ground engine block to frame: use a weld bung on frame, on right side on most projects, use a engine boss to bolt the ground to (be sure the grounds are to bare metal only) * Always clean off all paint, powder coat, etc off all ground bungs and engine grounds * Use silicone spray (or similar) on bare metal ground locations to prevent rust and corrosion * It's best not to use engine mount or Trans mount bolts (the ground path can't easily be verified) * Use black wires for grounds only: it will save confusion later

52. Info on how gauges work	Street Rodder	06/07	p. 238
53. How to Properly Crimp Closed-Barrel Terminals	Rod & Custom	08/07	p. 70
54. 1. Erratic Temperature Gauge	Auto Restorer	12/02	p. 6
55. One-Wire Alternators	Auto Restorer	06/02	p. 4
56. Determining TDC	Auto Restorer	06/02	p. 5
57. Turn Signal problem	Auto Restorer	06/02	p. 6
58. No spark on a small-block Ford	Street Rodder	01/09	p. 204
59. Dim Dash Lights (check grounds)	Auto Restorer	12/08	p. 5
60. Adding a Mechanical Advance Distributor to Our Hi-Po Y-Block	St. Rod Builder	12/08	p. 50
61. Ignition Coil Polarity	Hot Rod	01/09	p. 75
62. Dash lights Fluctuating	Auto Restorer	01/09	p. 7
63. Parking lights intermittent?	Street Rodder	02/09	p. 208

64.A Tester to locate something draining the battery.	Street Rodder	03/09	p. 192
65.Switch from a generator to an Alternator	Auto Restorer	03/02	p. 8
66.Info on Batteries, incl AGM Batteries	Street Rodder	04/09	p. 180
67.Fluctuating Dash Lights	Auto Restorer	03/09	p. 4
68.Using an 8-Volt Battery	Auto Restorer	03/09	p. 7
69.Battery & Starter Troubleshooting I	Auto Restorer	03/09	p. 22
70. Ignition Basics	Hot Rod	05/09	p. 120
71.Limeworks' new Pulse Jet Wiring system (one wire)	Rod & Custom	06/09	p. 16
72. "Retro-Tech"-Style Digital Gauges	Rod & Custom	11/03	p. 48
73. Installing a traditional spotlight on a '50s Merc	Rod & Custom	11/03	p. 104
74.Some 6-volt Concerns:	Auto Restorer	08/02	p. 6
75.Locating a Short	Auto Restorer	04/02	p. 7
76.No Electricity or Fuses	Auto Restorer	04/09	p. 7
77.Battery & Starter Troubleshooting II	Auto Restorer	04/09	p. 21
78.Installing a Painless Performance Electrical Circuit Kit	Chevy	07/03	p.108
79.Phasing a distributor	Street Rodder	09/05	p. 210
80.Adjusting a Voltage Regulator for an 8-Volt Battery	Auto Restorer	06/09	p. 32
81.Daylight Running Lights and Automatic Headlights in One Simple Package	St Rod Builder	05/04	p. 128
82.Installing LED Taillights and	St Rod Builder	05/04	p. 152

Backup Lights

83. Increase Performance and Reduce Maintenance with High Performance Ignition System	Rod & Custom	12/04	p. 73
84. Installing an EZ Wiring harness	Rod & Custom	08/09	p. 28
85. Giving new light in old buckets to a '37 Plymouth	Rod & Custom	08/09	p. 64
86. Some pointers about LED lights and Signal flashers	Rod & Custom	11/04	p. 48
87. Wiring up a late-model (90s) CS-series GM alternator	Car Craft	12/02	p. 96
88. How to Remove Door Handles and Install a Trilogy Remote Entry System	St Rod Builder	09/04	p. 52
89. Wiring a Harness 101	Pop Hot Rod.	12/02	p. 38
90. Adding power to your Cowl Vent	Rod & Custom	10/02	p. 47
91. About generators	Street Rodder	09/09	p. 186
92. Eliminating cross firing ignitions (miss-firing engine) due to moisture and crud accumulating in the distributor cap	Street Rodder	09/09	p. 188
93. Installing remote control on doors	Rod & Custom	10/04	p. 26
94. Improving Spark Without Altering Appearance. Electronic Ignition in Disguise	Rod & Custom	02/02	p. 72
95. The Digital Street Rod	St Rod Builder	02/06	p. 26
96. Fixing British Brake & Signal Lights	Auto Restorer	10/09	p. 26
97. A New Way to Wire Your Ride using computerized system	Auto Restorer	11/09	p. 12
98. Setting Ignition Timing Curves the	Chevy Hi Perf	01/03	p. 48

Right Way

99. Don't use a digital timing light with solid-core plug wires.	Hot Rod	12/09	p. 110
100. American Autowire's Highway 15 Nostalgia (insulated, cloth-wrapped) Wiring Kit	Rod & Custom	01/10	p. 76
101. The Jet Power Control Module (PCM) accelerates the ignition advance curve	Rod & Custom	03/03	p. 26
102. Analyzing and Preventing Bearing Failures	Rod & Custom	03/03	p. 74
103. Overheating of the Starter Motor	Chevy Hi Perf	12/02	p. 124
104. Working with a Positive Ground	Auto Restorer	12/09	p. 19
105. Steering Column Bypass turn signals	Rod & Custom	02/10	p. 66
106. Getting Inside Your OBD II PCM	Chevy Hi Perf	02/03	p. 50
107. Installing a Ball's Rod & Kustom Power Trunk Opener	St Rod Builder	03/06	p. 54
108. Brighter Taillights	St Rod Builder	03/06	p. 94
109. Sporadic spark after swapping a HEI-style distributor for a breaker-point distributor	Rod & Custom	01/02	p. 147
110. How to Install a Battery Cutoff Switch	Car Craft	09/02	p. 70
111. Polarizing a generator	Auto Restorer	09/10	p. 8
112. If Your Ammeter Won't Respond	Auto Restorer	09/10	p. 32
113. Installing Ron Francis' New Access 24/7 Wiring Harness	Rod & Custom	12/10	p. 28