# **Fiero Electrical Evolution**

In this article, I will delve into how the Fiero electrical system evolved from model year to model year. I currently own an '88 GT and did a complete frame restoration, and that experience combined with my background in electrical engineering led me to believe I could whip this out in no time. When I started in on the '84 Service Manual, I quickly realized that the electrical schematics were not in the same order nor were the electrical diagnostics attached to each section like I was used to seeing in my '88 Service Manual. I put aside the '84 and tried the '85 Service Manual. I thought to myself, "This looks familiar, it's structured like my '88 Manual, I might have a chance with this". I also noticed that the '85 through '88 Service Manuals were all structured the same. Four out of five is pretty good, and confidence that I could whip this out in no time was again on the plate.

My process was to compare the '85 Manual to the '86, the '86 Manual to the '87 and then the '87 Manual to the '88. With these three comparisons I was able to come up with a way to compare the '84 to the '85, and while this comparison took the longest, I found it to be the most interesting.

I compared similar sections (for example, the power distribution section) from one year to the next. I was looking for any changes like wire size, wire color, ground points, power source, wire splice, fuse values, circuit labels, added/deleted circuits or circuits that were rerouted. I even noted the circuit numbers if they changed and recorded pin number changes on electrical components, like on the ECM module.

In my analysis, I did not note any changes in component locations, such as where a ground point has moved or where a splice is relocated. A circuit may take a slightly different route from one year to the next, but in general this will be minor compared to finding a splice or a ground point that has changed. I would recommend that any serious electrical troubleshooting be done with the appropriate factory Service Manual for that year Fiero.

I was going to incorporate the Haynes Manual in this comparison, but it quickly became apparent that all the changes I found could not properly be conveyed in the Haynes Manual. Therefore, I would only advise the use of a Haynes Manual as a general overall picture of the Fiero electrical system—and if you have an '84 Fiero, you will find that many circuits are inaccurate. For example, the power distribution section in the Haynes Manual shows eight fusible links and a battery junction block when in reality, the '84 Service Manual only shows five fusible links, and a battery junction block is not shown because this was added in '85. My suggestion is to get a factory Service Manual for your particular model year, which can be obtained at the Fiero Store (fierostore.com) either in printed form or digitally on a CD.

My analysis is being presented using two different formats. In this issue of Fiero Focus, the highlights of each electrical circuit are presented. For the full, in-depth analysis of each circuit, a complete version of this article can be found under the Tech Tips tab on fierofocus.com. The comparisons will be from year to year and will follow the Service Manual section outline that is common in the '85 through '88 Service Manuals. This is because the '84 Manual is unique in its order of sections and how it uses images to convey a circuit concept, but it's difficult to make an easy comparison with the later years in that format.

The following abbreviations are common in all the factory Service Manuals and will be used here. For example, S200 is splice number 200, G400 is ground number 400 and C100 is for connector number 100. Any connector with a suffix denotes a pin number, for example C500-A5. Wire is specified as [size-color] or [size-color/color], such as, 3-RED, or for wire with stripes, 3-RED/WHT. I will also use FL-B to refer to Fusible Link B.

### **Power Distribution**

Electrical power for the car is provided by the generator when the engine is running and the schematic diagram shows how each circuit gets its power. The Fiero's power distribution system consists of fusible links, fuses, circuit breakers, light switches and the ignition switch. If a circuit is not working, the first check that needs to be made is to verify power is getting to the circuit.

In this section, the '84 clearly stands alone with its power routing and limited number of fusible links. The fusible links increase from five in the '84 to eight in the '85. It appears most of these changes are to accommodate the optional V6. I find it interesting that in the '84, the generator has a terminal labeled "BAT" because it was connected directly to the battery, but in '85 and later, it still has this same label even though it's not a direct connection—that is, in the '85, a fusible link is added in the path. Image 1 shows an '84 power connection between battery and generator.

- Fusible Links, '84 has 5 and '85 increased to 8.
- '85 adds Battery Junction Block, which replaces S503 in '84.
- '84 S501 is moved in '85 where FL-B connects to S501 and then connects to both pins on the Generator.
- '84 circuit 2 connected to FL-B is 3-RED/WHT and connects to C500-A5. In '85 this section of wire was changed to 3-RED and C500-A5 was removed. Direct connection be FL-B to S202.

- '84 uses C500-E4 on circuit 2 between S501 and S206. C500-E4 is not used circuit 2, S206 now connects directly to FL-A.
- '84 FL-A is 1-RED, changed to 2-RED in '85.
- '84 FL-F is .5-RED, changed to 5-RED in '85.
- '85 adds FL-E to Generator.
- '85 adds FL-G for Cold Start (V6) or ECM (L4).
- '85 adds FL-H for Ignition Coil.

• '85 C-H FUSE 10 Amp changed to FAN "E" FUSE in '86.

#### 1986 to 1987

- '86 has Isolation Relay & Actuator Relays, replaced in '87 with Headlight Door Module.
- '87 L4 does not use FL-G & FL-H with its new Direct Ignition System. V6 still uses them.
- '86 has A/C Power Relay connected to S108, in '87 both relay and S108 removed.
- '86 circuit 2 between FL-B to S202 is 3-RED, changed to 3-RED/WHT in '87.
  - o Note, in '84 it's 3-RED/WHT.

### 1987 to 1988

- '87 FL-B 1-RED changed in '88 to 1-RUST.
- '87 FL-C .35-RED changed in '88 to .5-RUST.
- '87 FL-D .35-RED changed in '88 to .5-RUST.
- '87 circuit 1 between G501 to G505 is 19-BLK changed to 6-STRAP in '88.
- '88 added FL-X for EHPS.

### **Fuse Block**

Fusible links are designed to protect the Fiero's electrical system from electrical shorts where it is not protected by the circuit breakers or fuses. The fuse block section clearly shows what circuit is connected to a particular fuse or circuit breaker.

This section seems to have many changes from year to year. In the '84 Service Manual, the fuse block shows TBI INJ1 and TBI INJ2 fuse sockets as empty. Clearly these are fuses for the V6 that were never an option in '84. I interpret this as a sign the engineers knew a V6 option would be forthcoming.

### 1984 to 1985

- '84 does not have a Fuse Block circuit page; uses Power Distribution for circuit reference.
- '84 Fuse Block image has "STOP HAZ" and "TAIL" swapped in '85, which continues to '88.
- '84 Fuse Block image has "CTSY" replaced with "BAT" in '85.
- '84 Fuse Block image has "CRANK" 3A fuse replaced with "CTSY/LID" 20A fuse in '85.
- '84 Fuse Block image shows "TBI INJ1" & "TBI INJ2" with no fuse installed, '85 shows fuse installed.
- '84 "TURN B/U" fuse is 15A changed to 20A in '85.
- '84 "C/H" fuse is 20A changed to 10A in '85.
- '84 "HTR/A/C" & "WIPER" fuse is 20A changed to 25A in '85.
- '84 FL-B supplies "CTSY" fuse changed to FL-A supplies "BAT" in '85.
- '85 added "TBI INJ1" & "TBI INJ2", both 5amp fuses.

- '85 "C/H" 10A fuse changed to "FAN E" 20A in '86.
- '85 V6 ECM C509-A6 changed to C2-A6 in '86.
- '85 L4 ECM 504-16 changed to C2-16 in '86.
- '85 Instrument Panel has 3 power connections C205-9, C206-5 & C206-9. In '86 connector label changed and added a 4<sup>th</sup> pin, C1-9, C2-5, C2-9 & C3-9.
- '85 Hazard Flasher connected to S204 in '86 Hazard Flasher connects to Audio Alarm Assembly both in the Convenience Center.

• '86 "TURN B/U" fuse mislabeled. The "Front View of Fuse Block" shows 20A while the circuit diagram shows 10A. Not sure which is correct, maybe Owner's Manual has corrected info.

### 1986 to 1987

- '86 Has power to two Back Up Light switches, one goes through C500 connector. I suspect one switch was on the gear shifter while the other was on the transmission. Difference between L4 & V6? In '87 reduced to one switch that goes through the C500 suggesting transmission switch.
- '86 Instrument Panel has 4 power connections C1-9, C2-5, C2-9 & C3-9. In '87 changed back to 3 power connections as in '85, they are C2-9, C3-5 & C3-9.
- '86 Circuit 250 is BRN in '87 the color changed to BRN/WHT after C500.
- '87 added a wire on circuit 250 at S215 to C500-B1. Connects to L4 generator.
- '86 "TURN B/U" fuse mislabeled. The "Front View of Fuse Block" shows 20A while the circuit diagram shows 10A. Not sure which is correct, maybe Owner's Manual has corrected info. In '87 both reflect 20A.

### 1987 to 1988

- '87 "CTSY/LID" fuse mislabeled. The "Front View of Fuse Block" shows 20A while the circuit diagram shows 25A. Not sure which is correct, maybe Owner's Manual has corrected info. In '88 both reflect 25A.
- '87 "TURN B/U" fuse mislabeled. The "Front View of Fuse Block" shows 20A while the circuit diagram shows 10A. Not sure which is correct, maybe Owner's Manual has corrected info. In '88 both reflect 20A.
- '88 added Lumbar power circuit.
- '87 has a type-o, Circuit 35 between S203 to IP C2-9 should be circuit 39.
- '87 has Engine Blower Relay, removed in '88.
- '88 adds EHPS Controller/Motor.

#### **Light Switch**

This is a single switch, yet it controls both interior and exterior lights on the Fiero. The light switch has two power sources, one from a fusible link and the other from the fuse block. Not much changed in this section, but I found it interesting that the '84 had three taillights on each side which was reduced to two on each side in the '85.

#### 1984 to 1985

• '84 does not have a Light Switch Details page.

### 1985 to 1986

- '85 has a 3<sup>rd</sup> LH/RH TAIL LIGHT removed in '86.
- '86 adds Illumination Gauge
- '85 IP C206 changed to C3 in '86.
- '85 IP C205 changed to C2 in '86.

### 1986 to 1987

• '87 has two additional Rear Tail Lights for SE model.

### 1987 to 1988

- '87 Circuit 2 from FL-B is 3 RED/WHT changed to 3 RED in '88.
- '88 has an error on circuit 8 to Rally Gauge Illuminator. Connector C211-F is shown twice on the same wire.
- '88 removes C401-A for GT rear LT light.

# **Ground Distribution**

Electrical power always needs a return path to ground and the Fiero uses the metal chassis to accomplish this. A bad connection to ground will either keep a circuit from working, or in some cases the current from the circuit will find another path through a different circuit, causing more issues.

As I was comparing the model year differences, I found myself wondering why many of the ground connections were relocated to other points. Knowing the location of the ground connection in each year may have helped me in

understanding the "why", but that would have taken a lot of extra time. I can only guess that a change may have helped during the assembly, a wiring harness had a connector change requiring a location change, or a circuit was redesigned or added.

### 1984 to 1985

- '85 adds Coolant Fan circuit 151 to G101.
- '84 has LH/RH TURN/STOP Relays; removed on '85.
- '84 circuit 150 connecting between C500-F0 to S401 changed in '85 to C500-FO to S403.

### 1985 to 1986

- '86 new G401 for the new Radio Static Shield (on the engine lid) replacing ground strap in '85
- '85 Rear Lights grounded through S403 -> C500-F0 -> S213 -> G202, in '86 S403 connects directly to a new ground G400.
- '86 adds Trunk Ajar Switch to the ground circuit.
- '86 moves one License Plate light from S403 (in '85) to S401.
- '86 moves Vacuum Release Solenoid from S403 (in '85) to S401.
- '86 SE Cruise Control Servo from S403 (in '85) to S401.
- '86 GT Cruise Control Servo from S403 (in '85) to Vacuum Release Solenoid for ground.
- '85 Blower Motor connects to S106, '86 SE Engine Blower Motor connects to S403.
- '85 Blower Motor connects to S106, '86 GT Engine Blower Motor connects to G400.

#### 1986 to 1987

- '86 has Actuator Relay (2) and Isolation Relay changed in '87 to Headlight Door Module.
- '87 adds Cruise Control Module to S213 though C242-B.
- '86 Radio connects directly to S212 in '87 C247-G is added between Radio and S212.
- '87 adds Subwoofer Amp and connects to Radio via C247-G.
- '86 has G503 for L4 and G504 for V6 circuit 152, in '87 circuit 152 ties to G504 for SE/GT.
- '87 circuit 413 & 450 connect to G503.
- Rear Light Grounds:
  - o '87 SE swaps S401 with S403 compared to '86.
  - o '87 GT adds S407 between S401 and S403 and removes C401 used in '86 circuit.

### 1987 to 1988

- '88 EHPS is added.
- '88 Removes Engine Blower Motor.
- '88 Adds Lumbar circuit.
- '87 Rear Lights S403 grounded at G400, in '88 S403 connects to C500-F10 which then connects to S213 and then to G202.
- '88 L4 circuit 152 connects C500-A2 to G503 instead of G504 in '87.
- '87 GND STRAP (5 BLK) changed in '88 to (6 BLK).

### **Electronic Fuel Injection L4**

This section encompasses the Electronic Control Module (ECM) for the 4-cylinder engine and how it connects to the various sensors, such as the oxygen sensor, used to regulate fuel through the fuel injector. A distributor paired with an ignition module is used in the '86 and older models, while the '87 and '88 models use a Direct Ignition System (DIS) in place of a distributor. Both systems are controlled by the ECM and basically perform the same function, though a significant advantage of the DIS is the absence of a distributor cap and rotor, which are additional maintenance items. If a problem is detected by the ECM, the ECM will turn on the Service Engine Soon indicator located on the dash. Trouble codes are stored in the ECM and can be accessed via the ALDL connector next to the cigarette lighter, to assist with diagnosis.

I found two main changes in this section. The first is that the ECM connector label changes from the '85 to the '86. Starting with the '86, there is both an ECM connector labeled C1 and an Instrument Panel (IP) connector labeled C1. I am not sure the reasoning for this but I could certainly see it as a cause of confusion. The second big change is the DIS being introduced in the '87 model year.

- '84 BRN wire between Ignition Coil and EST, changed in '85 to WHT.
- '84 Tachometer Filter has circuit 151 to ground filter. '85 does not have a ground wire.
- '85 adds C511 to Tachometer Filter.

- '85 ECM Connector C504 changed to C1 in '86.
- '85 ECM Connector C505 changed to C2 in '86.
- '85 Instrument Panel connector C204 changed to C1 in '86.
- '85 Instrument Panel connector C205 changed to C2 in '86.
- '85 Instrument Panel connector C206 changed to C3 in '86.
- '85 missing S216 on circuit 437 between IP and ECM. This circuit has the vehicle speed signal. The S216 carries this signal to the cruise control module.

### 1986 to 1987

- '86 has a distributor changed in '87 to Direct Ignition System (DIS).
- ECM pin numbers change from '86 to '87, assume different ECM due to the DIS for '87.
- '87 adds a Manifold Air Temperature Sensor with the new ECM.

### 1987 to 1988

- The '87 Manual has a mislabel on page 8A-20-1, AC ON input on ECM with C1-4, which is Cruise Control circuit 87. In the '88 Manual it chows C2-2 with circuit 67 from A/C Compressor Controls.
- The '88 Manual has a mislabel on page 8A-20-2, C1-7 on the ECM should be C2-7.

## **Electronic Fuel Injection V6**

Like the L4, this section shows the Electronic Control Module (ECM) connected to various sensors like the oxygen sensor, used here to regulate fuel through six fuel injectors. A distributor paired with an ignition module was used in all model years since the DIS was never an option. The ignition module—or its technical name, Electronic Spark Timing (EST)—is controlled by the ECM for timing adjustments. Just as with the L4, if a problem is detected by the ECM, the ECM will turn on the Service Engine Soon indicator located on the dash. Trouble codes are stored in the ECM which can be accessed via the ALDL connector as previously described.

The ECM and IP connector labels are also both named C1 on the V6. In the '88, the up-shift indicator light on the IP was disabled. I enabled this on my '88 by adding circuit 456 to ECM C2-A7; the wiring was already in place up to C203-P and I believe the bulb was in the socket. No programing changes to the ECM are needed, it just works! Image 2 shows the '88 schematic with the up-shift indicator circuit penciled in.

#### 1984 to 1985

• No V6 option for '84.

### 1985 to 1986

- '85 ECM Connector C510 changed to C1 in '86.
- '85 ECM Connector C509 changed to C2 in '86.
- '85 Instrument Panel connector C204 changed to C1 in '86.
- '85 Instrument Panel connector C205 changed to C2 in '86.
- '85 Instrument Panel connector C206 changed to C3 in '86.
- '85 missing S216 on circuit 437 between IP and ECM. This circuit has the vehicle speed signal. The S216 carries this signal to the cruise control module.

- '86 circuit 450 wire color is BLK from Fuel Pump Relay to S504, changed to YEL/BLK in '87.
- '86 circuit 43 between S201 to IP wire color is YEL, changed in '87 to YEL/BLK.
- '86 circuit 437 wire color is BRN on both sides of C203 and at S216. In '87 circuit 437 changes to circuit 389 from C203 to IP and also to the cruise control. Circuit 389 color is CRN/WHT and has S216.

- '87 circuit 121 (.35 WHT) changed in '88 to (.8 WHT).
- '88 removes Up-shift Indicator.
- '87 circuit 240 (2 ORN) changed in '88 to (1 ORN).

# **Starter & Charging System**

Who *hasn't* had issues with starting their car and then discovered an issue with their starter, alternator or battery? If these three components happen in good shape, though, this section will help you diagnose the problem from a simple schematic.

The '84 model year has a resistance wire connected to the generator, and in the following years it was replaced with a diode and charge indicator dummy light. For some reason, this diode is removed from the circuit. Image 3 shows the resistive wire only on an '84.

### 1984 to 1985

- '84 has a Resistive Wire on circuit 130. This is replaced with a diode and a Charge Indicator Lamp.
- '84 C500-A4 changed in '85 to C500-E2.
- '84 has a CRANK FUSE 3 Amps, 85 does not have this fuse.
- '85 adds a Ground (6 BRAID) from G501 to G505.

### 1985 to 1986

- '85 combines both L4 & V6 onto one schematic page.
- '86 has a separate schematic page for L4 & V6.
- FL-E is labeled 5 LT GRN/BLK & 3 RUST on both the L4 page and the V6 page. The 5 LT GRN/BLK is for L4 and the 3 RUST is for V6.
- '86 shows a Rally Gauge Panel (not used).

# 1986 to 1987 V6

- '86 FL-A is 2 RED changed to 1 RED for '87.
- '86 L4 FL-E is 5 LT GRN/BLK changed in '87 to 3 RUST.
- '86 V6 FL-E is 3 RUST changed in '87 to 1 RED.
- '86 L4 has FL-G, removed in '87.

# 1987 to 1988

- '87 circuit 2 (8 RED) changed in '88 to (8 RED/BLK).
- '87 has a GENERATOR DIODE on circuit 25, removed in '88.

#### **Coolant Fan**

One of the most common mods I have seen is adding a toggle switch on the driver's side dash to manually turn on the coolant fan. This is usually installed because one of the coolant pipes running along the bottom sides have been crushed, restricting the coolant flow. A two-speed coolant fan was only available for the L4 and was not an option for the '88., and the single speed coolant fan appears to be common for both L4 and the V6. There are several switches that can turn on the fan, such as the coolant temperature switch, the A/C controls and A/C pressure switches, or the ECM on the L4 models.

Note: V08 is the RPO code for Heavy Duty Cooling available with the 4-cylinder engine. I am not sure what this option includes from an electrical standpoint because the circuit does not appear to be different. Maybe thicker wiring is used to handle higher current but is not identified on the V08 circuit options? Maybe the coolant fan motor and relay are heavy duty? Perhaps a reader can provide more details about this option.

# 1984 to 1985

# Heater Only & No V08 for L4 & V6

- '84 circuit 2 goes through C500-J9 but in '85 C500-E4 and S501 removed from circuit 2.
- '85 addC500-H8 and C500-J9 for Engine Blower Assembly.

# Single Speed, A/C & V08

- Not an option for '84
- '85 option for both L4 & V6.

# Two Speed, A/C, V08 for L4 only

- '84 circuit 2 goes through C500-J9 but in '85 C500-E4 and S501 removed from circuit 2.
- '84 Highspeed is turned ON by A/C Pressure Switch and Coolant Temp Switch set to 119° but '85 only uses the 119° Coolant Temp Sw.
- '84 Low Speed is turned ON by Coolant Temp Sw (105°) and A/C Control Head, '85 adds A/C Pressure Switch and another Coolant Temp Sw (113°).

#### 1985 to 1986

- '85 C/H FUSE changed in '86 to FAN "E" FUSE.
- '85 circuit 250 branches off from C/F FUSE to C500-H8, '86 replaced C500-H8 with S215.

# Single Speed, L4 or V6, Heater Only, No V08

• No circuit changes.

# Single Speed, V6, A/C

- No circuit changes.
- '85 with V08, '86 without V08.

# Single Speed, L4, A/C, V08 (Also Two Speed)

- '85 the A/C Control Head turns on the Coolant Fan Relay via S217.
- '86 adds A/C Coolant Fan Relay, which is turned on with A/C Control head and power by "HTR/AC FUSE". This relay is used to turn on the Coolant Fan Relay.

# Engine Blower V6 Only

- '85 fan is grounded at G201 through S403-> C500-F10 -> S213 -> S212 -> Fan.
- '86 GT fan is grounded at G400 -> fan.
- '86 SE fan is grounded at G400 -> S403 -> fan.

#### 1986 to 1987

- '86 has issue with incorrect pin labels on Engine Blower Assembly (V6) (page 31-13).
  - o C500-H9 should be C500-F10.
  - o C100-H9 should be C100-F9.
- No change for V6 circuits.
- '86 L4 uses switches to turn on fan, '87 uses the ECM to turn on the fan.

#### 1987 to 1988

### V6

- '88 removes Engine Blower Circuit.
- '87 has S217 on circuit 335 which connects to A/C Control Head, '88 removes S217 and branches circuit 335 off at the A/C Control Head if A/C is installed.
- '88 removes A/C control head when A/C is not installed.

#### T 4

• Two Speed option not available in '88.

### **Vehicle Speed Sensor**

This circuit is simple as there are only two components involved, the instrument cluster and the vehicle speed sensor. However, the ECM gets its speed information from the instrument cluster, which I suspect is used to adjust the fuel injectors accordingly. This speed information is also used by the cruise control module and the Electro-Hydraulic Power Steering (EHPS) on the '88 models.

The '87 Service Manual introduced this in section 33, "Vehicle Speed Sensor", and the '88 Service Manual followed suit. In the '86 Manual, this information was in section 80, "Instrument Panel". In the '85 Manual under L4 section 20 it is called "Electronic Control Module", whereas in the '85 Manual under V6 section 21 it is called "Multiport Fuel Injection". In the '84 Manual, this information can be found on page 108, "Idle Air Control, Vehicle Data Sensors and Fuel Control".

#### 1984 to 1985

• No Change.

• '86 shows Cruise Control Module tapped into speed signal via S216 on circuit 437.

#### 1986 to 1987

• '86 speed signal is on circuit 437 but in '87 this was changed to circuit 389 for L4. For '87 V6 circuit 437 was retained only from the ECM to C203-H but after C203-H is circuit 389.

### 1987 to 1988

• '88 adds EHPS.

#### **Cruise Control**

Several versions of the cruise control system have been used on the Fiero with the '84 being the most unique. The L4 in the '87 and '88 models integrated the cruise control into the ECM. The third option, being the most common, is the cruise control module that can be found on the driver's side of the console below the radio. This module has a step-by-step troubleshooting procedure in the Service Manual that anyone can troubleshoot using a basic multimeter.

I found it interesting as I had no idea that the cruise control was built into the IP on the '84, making this IP unique to all the other model years. I am not sure if you could do a plug-and-play upgrade to an '84 from a later year. If not, I'm sure it wouldn't take much to patch it in. Image 4 shows that the '84 cruise control circuit is integrated into the IP

### 1984 to 1985

- Major difference here, according to the schematics, is that the '84 Cruise Control is part of the Instrument Panel whereas in '85 the Cruise Control became a separate module with code K34.
- '84 circuit 397, 84 & 87 is size (.35), changed in '85 to (.5).
- '85 Circuit 437 is extended to Cruise Control Module (CCM).

# Cruise Control Vacuum

- '84 has Cruise Clutch Switch on circuit 43, removed in '85.
- '85 adds C245 between CCM and C500.
- '84 S401 changed in '85 to S403.

## 1985 to 1986

- '85 Vacuum Release Solenoid & Cruise Control Servo connects to ground through S403 -> C500 -> S213 -> G202.
- '86 SE Vacuum Release Solenoid & Cruise Control Servo connects to ground through S401 -> C401 -> S403 -> G400.
- '86 GT Same as SE except Cruise Control Servo pin-C connects to Vacuum Release Solenoid pin-B instead of S401.
- '85 CCM connector is designated as C246, no designation in '86. Assuming C246 for '86.

# 1986 to 1987

Note: '86 uses the same CCM for both L4 & V6, in '87 the L4 CCM is integrated into the ECM.

### V6

- '86 circuit 86 is (.35 BRN/WHT) changed to (.5 BRN) in '87.
- '86 circuit 401 (PPL) changed to (PPL/WHT) in '87.
- '86 circuit 450 (BLK/WHT) changed to (BLK) in '87.
- '86 circuit 437 with two color wires (BRN/WHT) & (BRN) changed in '87 to circuit 389 color (DK GRN/WHT). First case of a circuit number change.

### V6 Vacuum

- '86 circuit 402 size .35 changed to size .5 in '87.
- '86 circuit 403 (.35 DK BLU) changed to (.5 DK BLU/WHT) in '87.
- '86 circuit 399 size .8 changed to size .5 in '87.
- '86 circuit 398 size .8 changed to size .5 in '87.
- '86 circuit 399 C245-H changed to C245-G in '87.
- '86 circuit 398 C245-J changed to C245-H in '87.
- '87 circuit 150 adds C245-B.

- '86 servo is grounded through S401 -> C401 -> S403 -> G400.
- '87 servo is grounded through S401 -> G400.

# <u>L4</u>

• Same as V6 plus the following: '87 adds C255 to circuit 397, 84 and 87.

### L4 Vacuum

- '87 adds C255 to circuit 402 & 403.
- '87 circuit 398 & 399 not used.
- '87 adds gear selector switch.

#### 1987 to 1988

- No change for V6.
- '88 L4 adds Throttle Position Sensor circuit, which is connected to ECM.

#### Horn

While the '88 schematic did not change, only the driver's side horn was installed. The wire to the passenger side horn was also deleted. On my '88, I added the horn on the passenger side, which also required me to add the wire. Now I can toot my horn in both high and low tones.

#### 1984 to 1988

- No change.
- Note: while the '88 schematic did not change, only the driver's side horn was installed. The wire to the passenger side horn was also deleted.

### **Brake Warning System**

This is a simple circuit. If you do not see the "BRAKE" warning light come on when starting the car, then I would diagnose the problem as soon as possible, though it's most likely only a bad light bulb. Remember, your brakes are the most important system on your Fiero; do not ignore this indicator! There is very little change in this section though the model years.

### 1984 to 1985

• '85 Manual trans extends circuit 33 from S205 to Trunk Release Relay. Must have Parking Brake on for trunk release to function.

# 1985 to 1986

- '85 Instrument Panel connector C205-9 changed to C2-9 in '86.
- '85 Instrument Panel connector C206-14 changed to C3-14 in '86.

# 1986 to 1987

No change.

### 1987 to 1988

No change.

# **Electric Steering Assist**

This is an option new to the '88 schematic, though it wasn't installed in production Fieros. The '88 speed sensor circuit has an extra output to regulate the hydraulic pump pressure. I added this circuit to my '88.

### 1984 to 1988

• '88 Service Manual shows this as an option; however, it was not installed in production Fieros.

#### Heater

This is for Fieros without the A/C option which make this circuit simple to troubleshoot. There are few changes through the model years.

#### 1984 to 1985

• '84 HTR A/C FUSE 20Amps changed in '85 to 25Amps.

- '84 FL-A (1 RED) changed in '85 to (2 RED).
- '84 circuit 2 goes through S501 and C500-E, both removed in '85.

• No change.

#### 1986 to 1987

• '86 FL-A (2 RED) changed in '87 to (1 RED). Note: Back to '84.

### 1987 to 1988

• No change.

### **Rear Defogger**

This was a proven circuit that nobody really used. But if it did get used, would it have changed? I have often repurposed this circuit to control the coolant fan to help some V8 engine swap owners when an electric water pump is not pumping enough water during idle time.

### 1984 to 1988

• No change.

### **Air Conditioning Controls**

In the '84 and '85, the A/C controls schematic is on one sheet (two pages). However, the later years separated the A/C controls into three sections, which is how it will be presented here.

### A/C Blower Controls

The A/C control head (the push buttons that select various ventilation modes) provides power to the blower motor circuit and to the A/C circuit through a A/C power relay.

### 1984 to 1985

See notes in Heater section.

### 1985 to 1986

- '85 A/C Power Relay supplies power to the Blower Switch via FL-A.
- '86 A/C Power Relay supplies power to the Blower Switch via HTR-A/C FUSE.

# 1986 to 1987

- '86 Circuit 52 between High Speed Blower Relay and C100-E1 is wire size 2 ORN.
- '86 Circuit 52 between C100-E1 and Blower Switch is wire size 3 ORN.
- '87 changed circuit 52 wire size to (.8 ORN). Good correction.
- '86 has S218 in circuit 922.
  - o 3 PNK on circuit 922 between C100-A5 and A/C Power Relay. Why?
  - o 1 BLK on the remaining circuit of 922.
- '87 removed S218, circuit 922 branches off Blower Switch.
  - Changed to 1 PNK on circuit 922 between C100-A5 and A/C Power Relay. Correct.
  - o Changed wire color to 1 BLK/WHT on the remaining circuit of 922.

# 1987 to 1988

• No change.

### A/C Compressor Controls

The A/C compressor controls is a combination of A/C pressure switches and the ECM turning the A/C compressor on or off. The L4 has a different set of pressure switches than the V6 system. This circuit has extensive changes over the Fiero's model years.

- '84 circuit 59 between A/C Compressor Control Relay and A/C Compressor Clutch has C203-k and C500-A1, in '85 C203-K and C500-A1 removed from circuit 59.
- '85 adds ECM circuit option for V6.

- '85 A/C CUT-OUT SWITCH is used for both L4 and V6. In '86 only V6 is it. The L4 in '86 replaced the switch with a ground via G507.
- '85 PRESSURE CYCLYING SWITCH is used for both L4 and V6. In '86 only V6 is it. The L4 in '86 replaced this switch with two new switches, A/C LOW PRESSURE SWITCH and HIGH PRESSURE SWITCH.

#### 1986 to 1987

• '86 circuit 951 (.8 ORN) between C100-B2 and A/C Power Relay changed in '87 to (.8 BRN).

### <u>L4</u>

- '86 circuit 67 between C100-A2 to C100-A3 is (.8 LT BLU) changed in '87 to circuit 66 (.8 LT GRN).
  - o Note: between A/C Control Head and A/C Low Pressure Switch.
- \* '86 circuit 901(.8 GRY/RED) changed to circuit 67 (.8 LT BLU).
- '86 has S531 on circuit 153 to G507 changed in '87 by removing S531 and connecting circuit 153 directly to G504. Also, circuit 152 was added and connects to G504.

# <u>V6</u>

- '86 circuit 67 (1 LT BLU) from C203-D to A/C Compressor Control Relay and ECM changed to (.8 LT BLU).
- '86 circuit 458 changed in '87 to circuit 459.

### 1987 to 1988

• '87 L4 circuit 66 (.8 LT GRN) between C100-A3 to C203-D changed in '88 to circuit 67 (.8 LT BLU). (Note: This makes no sense to me!)

### A/C Air Delivery

I think it's neat that the Fiero was ahead of its time as an early GM application of motorized vent controls for the HVAC system. There were minimal changes taking place model year to model year.

### 1984 to 1985

• No Change.

### 1985 to 1986

• '85 Circuit 50 (.8 BRN) from HTR-A/C FUSE to A/C CONTROL HEAD changed in '86 to (1 BRN).

#### 1986 to 1987

• '86 Circuit 50 (.8 BRN) from HTR-A/C FUSE to BLOWER CONTROLS changed in '87 to (1 BRN).

### 1987 to 1988

• No Change.

#### **Warnings and Alarms: Chime**

You either hate the chime circuit to the point you disable it, or you put up with it because you know your Fiero is trying to tell you something. If you ignore it, you may lock your doors with the keys still in the ignition switch!

Note: The '84 and '85 Manuals label this section as "Audio Alarm System".

#### 1984 to 1985

• '84 GAUGES FUSE 20Amps changed in '85 to 10Amps.

• '85 Seatbelt Switch is grounded through C309-A to G302. In '86 changed the ground path through S313 -> C305-D -> S311 -> C201-H -> S212 -> G201. What could possibly go wrong here?

### 1986 to 1987

No Change.

### 1987 to 1988

No Change.

### **Instrument Panel**

Besides the all-important chimes previously mentioned, the IP is your main source of information on the status of your Fiero. From warning indicators to engine performance meters like volt, temp and oil, to a tachometer and speedometer, along with other convenience indicators such as door ajar, turn signals and the up-shift indicator are all integrated on the IP.

The '84 has two ajar indicators, one that shows the doors are open and the other that states "DECK AJAR" if the hood or trunk is open. From '85 on, the "Charge" (battery symbol) indicator is labeled "LOW COOLANT" in section 8C-3. In the '86 to '88 models, the optional V6 gauge cluster shows "LOW COOLANT", but no circuit for this low coolant can be found. Image 5 shows the '84 having two separate ajar indicators.

### 1984 to 1985

- '84 has two Ajar Indicators. One for Doors and the other for Hood/Trunk. In '85 they are combined into one indicator.
- '84 circuit 35 (.35 DK GRN) changed to circuit 135 (.35 LT GRN) in '85.
  - Note: this is the circuit that has the infamous "bulb test" on the Temperature Gauge. Instead of fixing the circuit they just changed the circuit number. This may be due to the '84 not having a dedicated Coolant Temperature Warning Indicator.
- '85 now adds a dedicated Coolant Temperature Warning Indicator circuit and is assigned circuit number 35.
  - Note: Could it be possible that the intent was to move the whole circuit #35 instead of just renaming the old circuit number to 135.
- '84 has a single indicator for Coolant Temp and Oil Pressure with a label on the schematic "COOLANT TEMPERATURE/OIL PRESSURE WARNING INDICATOR", in '85 this indicator was changed to only have the Oil Pressure sensor on circuit 31.
  - Oil Pressure even though the Coolant Temp sensor is no longer on circuit 31.
  - O Note that bulb test was not use on this indicator in '84.
- '85 adds a new CHARGE INDICATOR on circuit 25.

### 1985 to 1986

- '85 no difference between L4 and V6.
- '86 adds oil pressure gauge for L4.
- '86 adds Rally Gauge Panel for V6.

# 1986 to 1987

Note: Created sub-sections based on the schematic page number due to so many changes that spanned five pages of schematics.

# Section 80-0

- '86 circuit 135 between IP to C500-C2 is (.35 LT GRN) changed to (.5 LT GRN) in '87.
- '86 circuit 135 between C500-C2 to Temp Sender is 1) V6 (.8 DK GRN/WHT) or 2) L4 (.8 TAN) change to (.8 Dk GRN/YEL) for both V6 & L4.

# Section 80-1

• No change.

# Section 80-2

• '86 circuit 156 (.8 WHT/ORN) changed to (.5 WHT/ORN) in '87.

- '86 circuit 340 has one section (1 ORN) and another section (.8 ORN), both changed to (1 ORN/DK BLU) in '87.
- '86 circuit 146 (.8 DK GRN/WHT) changed to (.8 Dk GRN) in '87.

# Section 80-3

- '87 adds C211 for RALLY GAUGE PANEL.
- '87 adds GENERATOR DIODE between C500-B3 to IP C3-6 for L4.
- '87 adds GENERATOR DIODE between C500-B3 to C211-D for V6. Schematic shows it (NOT USED).

# Section 80-4

- Note: It's amazing that this schematic with only five circuits has the most changes that is being documented in this paper.
- '86 circuit 401 is PPL changed to PPL/WHT in '87.
- '86 C207 changed in '87 to C203.
- '86 circuit 43 (.35 YEL) changed to (.5 YEL/BLK) in '87.
- '86 circuit 437 between IP C1-U to S216 to C203-H and to C245-C is (.5 BRN) changed in '87 to circuit 389 (.5 DK GRN/WHT).
- '86 circuit 437 (.5 BRN/WHT) between CCM and C245-C changed in '87 to circuit 389 (.5 Dk GRN/WHT). This is for V6 only.
- '86 circuit 437 (.8 BRN) between ECM C2-2 to C203-H changed in '87, 1) V6: ECM C2-A10 to C203-H, 2) L4: to circuit 389 (.8 DK GRN) between ECM C1-23 to C203-H.
- '86 has INSTRUMENT PANEL changed in '87 to INSTRUMENT CLUSTER.
  - Note: Might explain the confusion for some '87 and '88 Fiero owners when everyone uses the term "IP". Wonder what would happen if "IC" was used instead; sounds like fun.

### 1987 to 1988

# Section 80-0

• '87 L4 circuit 121 (.5 WHT) changed in '88 to (.5 BLK/WHT).

# Section 80-1 & 80-2

• No change.

# Section 80-3

• '88 removed GENERATOR DIODE.

### Section 80-4

- '88 adds EHPS circuit 437 from IC C1-M to C100-G7 to EHPS C1-D.
  - o Note: Circuit 437 is already being used (V6) between ECM C2-A10 to C203-H and does not connect to EHPS circuit. Not a problem since this was not a production option.
- '87 circuit 450 (1 BLK/WHT) changed in '88 to (1 BLK).

### Wiper/Washer

This is yet another simple circuit system that should be easy to troubleshoot if need be. It remains pretty much the same for all years except for wire size changes.

#### 1984 to 1985

• '84 circuit 91, 92 & 98 wire size (.8) changed in '85 to (1).

#### 1985 to 1986

• No change.

### 1986 to 1987

- '86 circuit 94 between C100-C3 to C207-B is (.8 PNK) changed in '87 to (1 PNK).
- '86 circuit 93 (.8 WHT) connected to WIPER FUSE changed in '87 to (1 WHT).

# 1987 to 1988

No change.

#### Wiper/Washer: Pulse

This is a nice option to have if you do not have the "phantom wipe" issue. Many owners have complained that their wiper will just come on without touching the wiper switch. Fixes include replacing the wiper switch, replacing the capacitors and/or diodes on the delay circuit boards, or replacing the grease in the wiper motor.

Another thing I was not aware of is that the '84 had a separate timer module that was mounted on the RH side of the steering column. From '85 to '88, this timer module was integrated onto the wiper motor. Image 6 shows the '84 wiper delay control board is separate from the wiper motor.

#### 1984 to 1985

- '84 has a separate Wiper Pulse Module changed in '85 by integrating this circuit onto the wiper motor.
  - Note: '84 Wiper Pulse Module is mounted on the RH Steering Column support.

### 1985 to 1986

No change.

#### 1986 to 1987

• '86 circuit 91, 92, 94 & 98 is size (.8) changed in '87 to size (1).

### 1987 to 1988

No change.

### **Headlights**

A proven circuit that was used all the time. No changes are made throughout the model years.

### 1984 to 1988

• No change.

#### **Headlight: Doors**

The first three model years, '84 to '86, used mechanical switches and several relays to control the position of the doors. Over time, the switches would wear out and could cause your battery to drain, resulting in being unable to start your Fiero. In '87, the mechanical version was replaced with one solid state module, simplifying the wiring. This is a more reliable improvement that is easy to upgrade on earlier model years; just swap out the whole wiring harness along with the motors and no more dead batteries.

#### 1984 to 1985

• No change.

### 1985 to 1986

• No change.

#### 1986 to 1987

• '87 changed to Solid State Control Module.

### 1987 to 1988

• '87 circuit 2 (.8 RED) changed in '88 to (1 RED).

### **Exterior Lights**

Yet another unique feature with the '84 model year is that there are three tail/stop/turn rear lights on each side. The government-mandated third brake light bulb added in the '86 is powered through a relay in the circuit. From '85 to '88, the stop lights were reduced to two per side, eliminating the need for brake relays. Image 7 show the STOP light relay on the '84.

Note: Sub-sections will be used, when needed, due to the various options.

## 1984 to 1985

### Turn/Hazard/Park/Front Marker/Stop

• '84 circuit 18 is mislabeled with two colors (DK BLU) and (YEL) corrected in '85 to just (YEL).

- '84 has six rear TAIL/STOP/TURN LIGHTs changed in '85 to only four.
- '84 uses a LH & RH relays to power a LH & RH TAIL/STOP-TURN LIGHT respectfully. The relays are used to handle the extra current of the 5<sup>th</sup> and 6<sup>th</sup> light bulb. This relay circuit was removed in '85 reducing the light count to four.

### Tail/Rear Marker/License

- '84 C500-F7 connects to S402 changed in '85 to S404.
- '84 C500-F0 connects to S401 changed in '85 to S403.
- '84 has six STOP-TURN/TAIL lamps, in '85 two were changed to just TAIL lamps.

### 1985 to 1986

- '85 is same for all models.
- '86 adds High Level Stop Light.
- '86 SE same as '85 with added High-Level Stop Light.
- '86 adds GT option, separate rear brake and turn indicator. Rear brakes use the same circuit as the High-Level Stop Light.
- '86 GT also adds rear "PONTIAC" emblem, which connects to FAN E FUSE.

#### 1986 to 1987

# Turn/Hazard/Park/Front Marker/Stop/High Level Stop

- '86 SE circuit 17 (1 WHT), a jumper wire at C500 from C7 to H8 changed to (.8 WHT) in '87.
  - O Note: bad change, circuit 17 was all (1 WHT) in '86, '87 is still (1 WHT) except for this short jumper.
- '86 branches circuit 20 at the BRAKE SWITCH, in '87 S218 is added on circuit 20 to replace this branch at the BRAKE SWITCH.
- '86 circuit 20 (.8 LT BLU) between BRAKE SWITCH to C500-J9 changed in '87 to (1 LT BLU) between S218 to C500-J9.

### Tail/Turn/Stop: SE

- '86 circuit 18 mislabeled as circuit 19, corrected in '87.
- '87 circuit 18 & 19 now go through C500.

### Tail/Turn/Stop: GT

- '87 circuit 18 & 19 now go through C500.
- '86 circuit 19 (GRN) changed to (DK GRN) in '87.
- '86 C401 changed to S407 in '87.
- '86 circuit 150 between S403 to G400 is (3 BLK) changed in '87 to (2 BLK).

### Tail/Stop/Turn/Rear Marker/License: SE

- '87 adds extra LH & RH TAIL LIGHT.
- '86 G400 connects to S403 changed to S401 in '87.

# Tail/Stop/Turn/Rear Marker/License: GT

- '86 has C401 removed in '87.
- '87 adds S407 to circuit 150.
- '86 LICENSE LIGHTS connect to S403 moved in '87 to S407.

# 1987 to 1988

# Turn/Hazard/Park/Front Marker/Stop/High Level Stop

- '87 GT rear brake lights connected to S218, which is the High-Level Stop circuit 20, in '88 the rear brake lights connect to circuit 17 at C500-G7.
- '87 SE circuit 17 (.8 WHT), a jumper wire at C500 from C7 to H8 changed to (1 WHT) in '88 from G7 to H8.
  - o Note: good change, circuit 17 is restored back to all (1 WHT) in '88.

# Tail/Turn/Stop: SE

- '87 shows circuit 20 to C500-J9, removed in '88.
- '87 has S401 to G400, in '88 change to S401 -> C500-F10 -> S213 -> G202.

# Tail/Turn/Stop: GT

• '87 circuit 20 (.8 LT BLU) changed in '88 to circuit 17 (.8 WHT).

• '87 circuit 150 has S403 to G400, in '88 change to S403 -> C500-F10 -> S213 -> G202.

# Tail/Stop/Turn/Rear Marker/License: SE

• '87 has S401 to G400, in '88 change to S401 -> C500-F10 -> S213 -> G202.

# Tail/Stop/Turn/Rear Marker/License: GT

• '87 circuit 150 has S403 to G400, in '88 change to S403 -> C500-F10 -> S213 -> G202.

### Rear Pontiac Emblem

- '88 removes ENGINE BLOWER RELAY.
- '87 circuit 150 has S403 to G400, in '88 change to S403 -> C500-F10 -> S213 -> G202.

# **Back Up Lights**

Depending on the year and engine type, a manual transmission could have the back-up light switch located either at the shifter or on the transmission.

### 1984 to 1985

- '84 Automatic Trans has C500-E2 changed to C500-C1 in '85.
- '85 Manual Trans shows two options for Back Up Switch, one for L4 the other for V6.
  - o V6 switch is mounted by the shifter while L4 is mounted on the transmission.

#### 1985 to 1986

• '85 grounded through S401 -> C500-F10 -> S213 -> G202 changed to S403 -> G400 in '86.

### 1986 to 1987

- '86 has two Back Up Switches in '87 reduced to one on the transmission.
- '86 S219 was used to connect to both Back Up Switches, removed in '87 due to only one switch.

### 1987 to 1988

- '87 SE has S401 to G400, in '88 change to S401 -> C500-F10 -> S213 -> G202.
- '87 GT S407 -> S403 -> G400, in '88 changed to S407 -> S403 -> C500-F10 -> S213 -> G202.

# **Interior Lights**

A few changes take place here across the model years. A nice upgrade is changing the bulbs to LEDs, which make the lighting brighter.

### 1984 to 1985

- '84 CTSY FUSE powers S210 in '85 BAT FUSE powers S210.
- '84 C210 connects S210 to S303, in '85 adds S125 between CTSY FUSE and C210 which connects to S303.
- '85 new circuit 340 connects to S125.

### 1985 to 1986

• '85 Trunk Light Switch grounded directly to chassis, in '86 switch is connected to circuit 150 which is ground through S213 to G202.

## 1986 to 1987

- '86 circuit 150 (.5 BLK) changed in '87 to (.8 BLK).
- '86 circuit 156 (.5 WHT) changed in '87 to (.8 WHT).
- '87 adds C250 to circuit 150 and changes to (.8 BLK from (.5 BLK).
- '86 circuit 340 (.8 ORN) changed in '87 to (1 ORN/DK BLU).
- '86 circuit 340 between C500-H9 and Trunk Light changed in '87 to circuit 40.

### 1987 to 1988

• '88 adds C247-G between Radio/Digital Clock and S212.

### **Interior Lights: Console and Underhood**

Note: The '87 and '88 Manuals have this as a sub-section and other years have these circuits integrated on other

pages. Overall, there are no changes to this circuit throughout the model years.

#### 1984 to 1988

• No change.

### **Interior Lights: Dimming**

Surprisingly, several changes are made in this circuit model year to model year.

### 1984 to 1985

• No change.

### 1985 to 1986

- '86 adds RALLY GAUGE light.
- '86 adds C247-M between Radio and S209.

### 1986 to 1987

- '86 circuit 8 (.35 GRY) between C247 and Radio Panel Light changed in '87 to (.5 GRY).
- '86 circuit 8 (.35 GRY) to Heater Control Head light changed in '87 to (.8 GRY).
- '87 adds C211 to RALLY GAUGE on circuit 8 & 150. Wire size from RALLY GAUGE to C211 is (.35).

### 1987 to 1988

• '88 adds C247-G between Radio and S212.

### **Power Windows**

This is a popular and easy upgrade—that is, adding the electrical circuit to include power windows if your Fiero has manual windows. This circuit just plugs into the existing electrical system. Removing the hand crank and adding the power motor is another matter.

#### 1984 to 1985

No change.

# 1985 to 1986

• '85 circuit 150 has S302 changed in '86 to S314.

### 1986 to 1987

No Change.

### 1987 to 1988

• No change.

### **Power Door Locks**

Another easy upgrade is to go from manually operated door locks to power locks. This upgrade is usually done alongside a power window upgrade.

### 1984 to 1985

• No Change.

### 1985 to 1986

No change.

### 1986 to 1987

• '86 circuit 340 has (1 ORN) & (.8 ORN) changed in '87 to be all (1 ORN/DK BLU).

# 1987 to 1988

• No change.

### **Trunk Release**

Unable to open the trunk because the battery is dead and the key lock does not work? Try plugging 12 volts into the cigarette lighter! This should provide enough power for the trunk release. Remember though, the automatic transmission has to be in "park", or for the manual transmission, the parking brake has to be engaged to enable the trunk release circuit.

#### 1984 to 1985

- '85 Automatic Trans adds Trunk Release Relay controlled by Gear Selector Switch, enabled when in Park or Neutral.
- '85 Manual Trans add Trunk Release Relay controlled by Parking Brake Switch, enabled when brake is engaged.

### 1985 to 1986

• '85 circuit 142 between Trunk Release Relay to Solenoid has C500-A1 and C402 both replaced with C250-D in '86.

#### 1986 to 1987

- '86 circuit 340 has (1 ORN) & (.8 ORN) changed in '87 to be all (1 ORN/DK BLU).
- '86 circuit 942 (.8 YEL/BLK) changed in '87 to (.8 GRY/BLK).
- '86 Auto Trans circuit 5 (.8 YEL) between Trunk Release Relay and S207 changed in '87 to (5 YEL).

### 1987 to 1988

• No change.

### **Power Remote Mirrors**

Yet another easy upgrade is to change from manually operated to power operated mirrors. This sure makes adjusting the passenger's side mirror much easier, plus it's handy to use when backing up into a tight parking space; you simply angle the mirror downward.

# 1984 to 1985

• No change.

### 1985 to 1986

No change.

# 1986 to 1987

• '86 circuit 340 has (1 ORN) & (.8 ORN) changed in '87 to be all (1 ORN/DK BLU).

#### 1987 to 1988

No change.

# **Lumbar and Bolster Support**

This is an option introduced in '88 for the GT model. The only bad thing about this option is the location of the lumbar controls, which is on the seat bottom where your right thigh rests. The schematic shows the option for both seats with lumbar, but there are no known Fieros with a passenger lumbar seat option from the factory.

#### 1984 to 1988

• New option in '88.

### Radio

The Fiero has a nice subwoofer upgrade that was available in the '86 to '88 Fieros, and it requires little extra work to retrofit for '84 and '85 models. A radio upgrade with a CD player that looks factory can be installed with a simple adapter. To see some CD radio upgrade options that look like factory options, check out replacement radios.com. Unfortunately, at the time of this writing they do not have stock available on these radio options.

• '85 adds option for Sail Panel Speakers.

### 1985 to 1986

- '86 removes speaker seat option, only Sail Panel.
- '86 adds option for Sub-Woofer.

### 1986 to 1987

- '86 circuit 40 (.8 ORN) changed in '87 to (1 ORN).
- '86 circuit 116 (.5 YEL) changed in '87 to (.5 YEL/BLK).
- '86 circuit 115 (.5 BLU) changed in '87 to (.5 LT BLU).
- '86 circuit 46 (.5 BLU) changed in '87 to (.5 DK BLU).
- '86 circuit 118 (.8 GRY) changed in '87 to (.5 BRY/BLK).
- '86 circuit 117 (.8 DK GRN) changed in '87 to (.5 DK GRN).
- '86 circuit 200 (.8 LT GRN) changed in '87 to (.5 LT GRN).
- '86 C209 changed in '87 to C247.

### 1987 to 1988

- '87 circuit 201 between LH I/P SPEAKER and C247-B is (.5 TAN) changed in '88 to (.5 GRY).
  - Note: Why make the change?

Well, if you got to this point, you either skipped most of it or you downed a lot of coffee! Either way, you can see that the Haynes Manual would not be your first choice to do any serious electrical trouble shooting. I found it interesting to try and understand the mind of the engineer during the development of each year, and what forced them to choose a certain wire size or color, or why a ground was changed or moved to another location. What was the thought process in determining a circuit to go through a connector like C500, or to route it a different way? In the process of analyzing these circuit changes, I noticed that I would label some of these changes as an oversight because they logically didn't make sense.

I do not claim my listing to be 100% accurate. Creating the list was a six-month project working late into the night on my free nights. If you find something that needs to corrected, please let me know so this list can be updated.

Nicholas DiMonte, NIFE Club Member

Image Source(s): Nick DiMonte















