



Sometimes the Process is the Journey

By Jim Weed

February 3, 2026

I don't normally work on any "Modern" cars. I specialize in the analog type. If it has carburetors and points, then I'm game to take it in and repair.

Rolls Royce, Citroen, Studebaker, Packard, even a 1941 Cadillac. I've fixed them all. Even though my experience has been mainly in the Ferrari and Honda cars (yeah, I know it is a weird combination) I am not afraid to take on something different.

It is the challenge to determine what is wrong and how to get to the offending problem and then to either find the parts or manufacture what I need.

But then a "Modern" Ferrari comes along, and I just can't help myself. Modern, may be a little misleading as it was nearly a forty-year-old Testarossa. At least it is a Ferrari I understand and know well.

I was service manager when these cars were new. I've seen just about every failure mode one of these cars can have. This particular one had a small electrical problem; the headlights would not come up.

It came to me from someone else who had tried to diagnose the problem and fortunately realized they did not have the knowledge to diagnose, trace the problem and effect a repair.

Back when I was Dr. Hondaa, we got the reputation around Atlanta as the only ones who could repair and tune the Honda three-barrel carburetor. The mass of vacuum hoses was intimidating, and nobody understood how the auxiliary barrel worked.

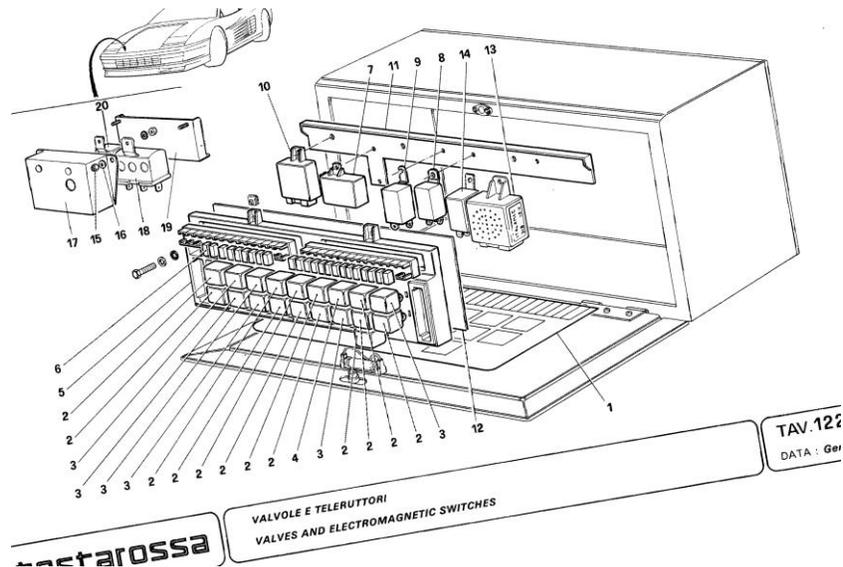
We charged extra if someone else tried to repair it before bringing it to us. Pretty soon, other shops would get to the point where it was a carburetor problem and would recommend it come to Dr. Hondaa.

So, the Testarossa shows up on my doorstep. Turn the headlight switch and the lights come on but the doors do not come up. Out comes the wiring diagram.

Basics first. Check the fuses, remove the relays and test for operation. All good there, move onto the next steps.

Check each hole in the relay panel for power and continuity for each pin of the relay. On the Testarossa there is a relay for each headlight motor. One relay operates the right motor, and one operates the left motor. That part is pretty straight forward, but there is another relay that controls the other two relays.

What? A relay for the relays!

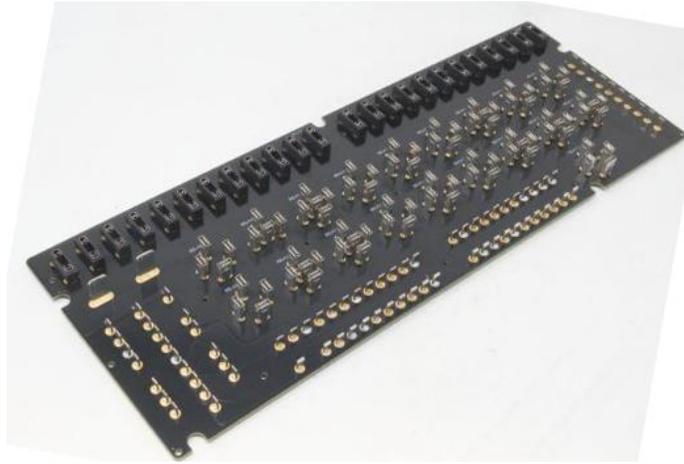


Test each pin out to verify the electrons are going to the right place. The main relay is perfect but there is no power going to the headlight motor relays. The fuse panel appears to be bad.

Testarossa fuse panels are notoriously known for failure. In fact, several models of Ferrari have had fuse panel problems.

I make some jumper wires so I can test the relays and circuits using the good pinouts from the panel. I rig up the right headlight relay and operate the switch. Viola! The right headlight door goes up and down as designed.

I ordered a new fuse panel from GT Car Parts, in Phoenix, Arizona. They have remanufactured new panels using superior materials and processes and they fit within the original housing.



A few days later the new panel arrives. I carefully remove the old panel and disconnect the connectors. Removing forty-year-old connectors requires a bit of care to not break off any of the hold down tabs.

Working on old cars is not fast, everything must be done methodically and carefully to not create more problems. When working on Ferraris, school is out. You must a. keep track of everything you remove, b. don't force or break anything, c. protect everything you might lean on or touch.

The customer always asks, "Why does it cost so much?" Because if it was easy, there would be a Ferrari mechanic at every corner gas station. Ok, as I write that line I realize most haven't seen a corner gas station that would do any maintenance. Seems the QuikTrip and Wawa of the world have all taken over the corners.

The fuse panel is stripped of all its relays and fuses, taken apart and the panel inside is replaced. Fuses go back in along with the relays in the correct order.

Once installed with all the connectors securely in place it is time to test to see if all is good. Turn the headlight switch and the right headlight door dutifully goes up and down. There is no movement on the left door. Dang! What now!

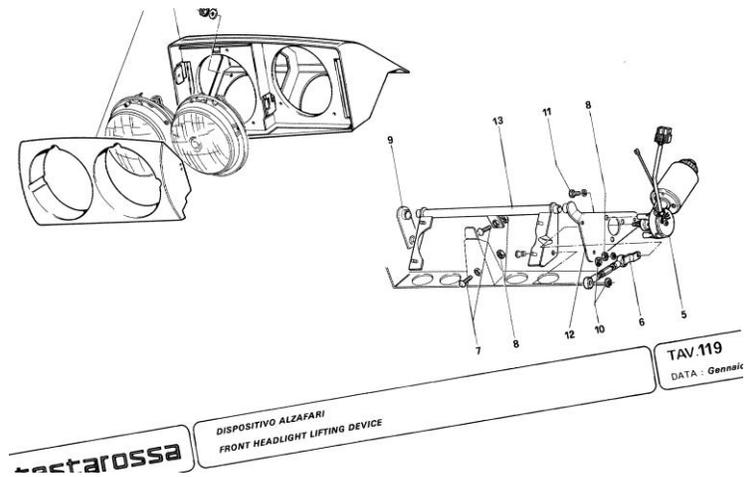
Back to basics. Test the pinouts of the new panel to verify I have power where it should be. Perfect. Start to trace wires from the panel to the left motor.

Tracing electrical problems is like following a subway train through the various stations. A circuit starts somewhere, like at the main station and then travels through the tunnel until it arrives at the next station.

I verify I have continuity on each circuit in the fuse panel out to the end of the line. At the left headlight motor, I can prove the motor will park itself in the down position. If I manually raise up the door, at a point it will operate up and then down to park. Well, the motor itself is good but the switch inside signals the motor stop when up is not working. Maybe I can fix it?

I removed the motor, it is coated with sealer, and the cover is riveted on. Getting to the inside is not going to be easy. Maybe it is time for a new motor.

Yes, a new motor is available, but it will come from England and with tariff and shipping it will be \$1,000 plus, and another week away. But wait. It is the same motor used in several different Ferrari models.



One of those is a 400i, of which I happen to own as a parts car. Off to the warehouse to strip the motor out. If it is good I can save the customer some money, and I can send this Testarossa home soon.

Back in the shop I hook the new motor up and turn the headlight switch. Hold breath and there it is running and stopping exactly as designed. I installed the motor and adjusted it to make the headlight door flush. DONE!

So, here was a simple repair that required a lot of testing. In addition, there were two separate problems with the same system. It is possible the bad motor caused the fuse panel to burn out, but the way the motor failed it shouldn't have put any stress on the panel.

If I had tested the left relay first, the motor would not have run and would have caused much more testing. As it was, I dumb lucked into testing the working right side motor to verify the bad fuse panel.

Diagnosis is often a step-by-step process. Test, verify, test again. It's been said about life, "It's not the destination, it's the journey.". When fixing problems, it IS the journey to the destination that requires a process. Aren't Ferraris fun?