GT40 Service Bulletin: 0804GTB AMP Gauge Fix Early GT40

Some Early GT40 chassis may exhibit a problem with the AMP gauge needle pegging to the positive position while operating the vehicle. This problem could be associated with the load placement in the power distribution circuit.

Early chassis with this issue could be wired having the battery and loads on one side of the gauge and the charge on the other. The load is not being measured in balance with the charging in this case.

This bulletin will show how to test for this condition and will outline the easiest way to change the load placement to have the gauge read properly.

Testing For This Condition

Note: The use of an Ohmmeter or a continuity tester is required for this test. We do not recommend using a test light to perform this test. Doing this test with the battery connected can cause serious damage or injury.

1. Disconnect the battery before beginning this test.
2. Disconnect one wire from the AMP gauge. (See figures 16 & 17 for details on how to reach the gauge)

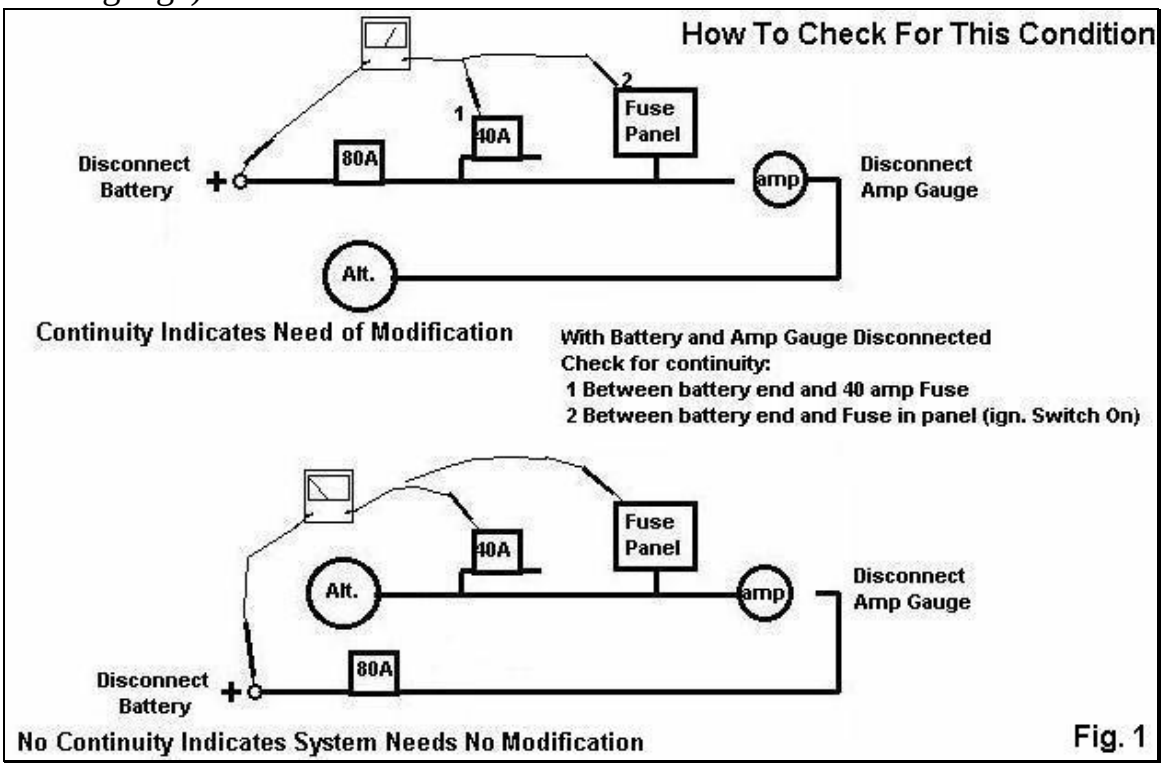

Fig. 1

3. Following the diagram in figure 1, check for continuity from the battery positive terminal to the 40-amp fuse and to fuses in the fuse box with the ignition switch on. **Note:** not all fuses with show continuity but if any do this indicates continuity to the fuse box from this leg of the circuit.
4. No continuity at either the 40-amp fuse or the fuse box indicates the circuit loads are on the proper side and no correction is needed.

Modifying The Power Circuit

1. Disconnect the battery before beginning any electrical repair.

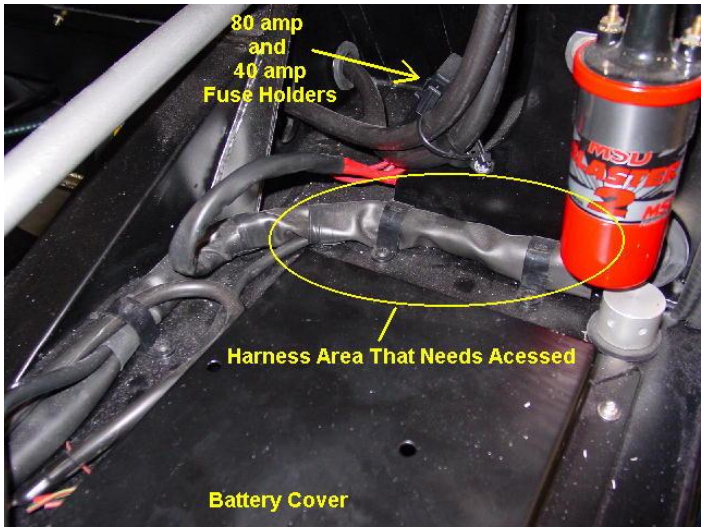

Fig.2 Area In Front Of Right Rear Wheel

Fig.3 Maxi Fuses 80 and 40 amps

2. Locate the 80-amp and 40-amp maxi fuse holders and the main harness that curves around the battery box. (See figure 2 and 3) Removing coil is helpful.

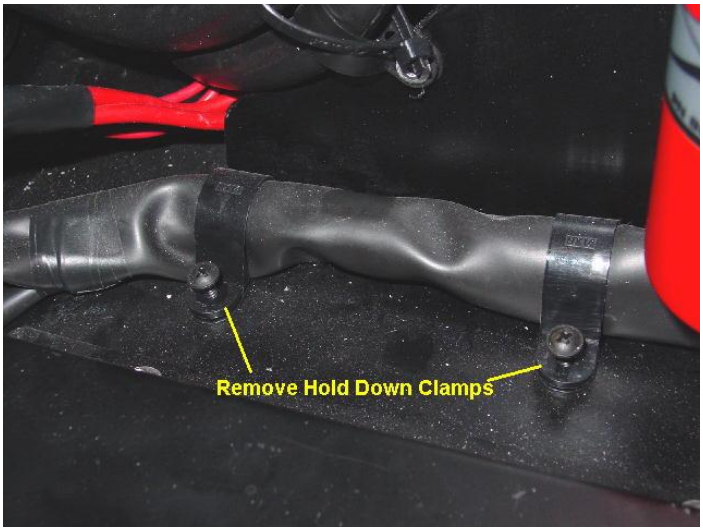

Fig.4 Hold Down Clamp to Be Removed

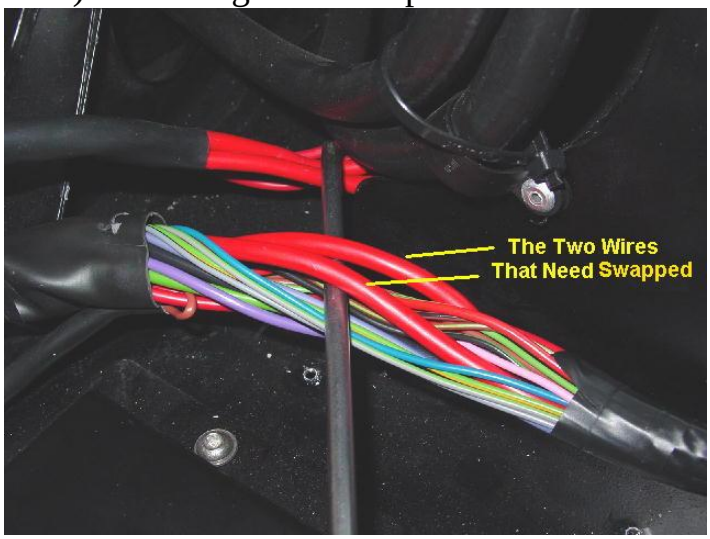

Fig.5 8.0 mm Wires to Be Swapped

3. Remove hold-downs from harness behind bulkhead. (Fig.4) Open up sheathing by carefully cutting with a razor blade or sharp knife. **Note:** Be very careful not to cut into any wires.
4. Locate the two heavy gauge (8.0mm) red wires in the harness. (Fig.5) You may find a looped red wire the same gauge. (See figure 6 for more details of this harness) One of these wires will be the alternator wire and one will be the battery wire from the 80 amp maxi fuse. The looped wire is from the battery to the 80-amp maxi fuse, you do not want this one.

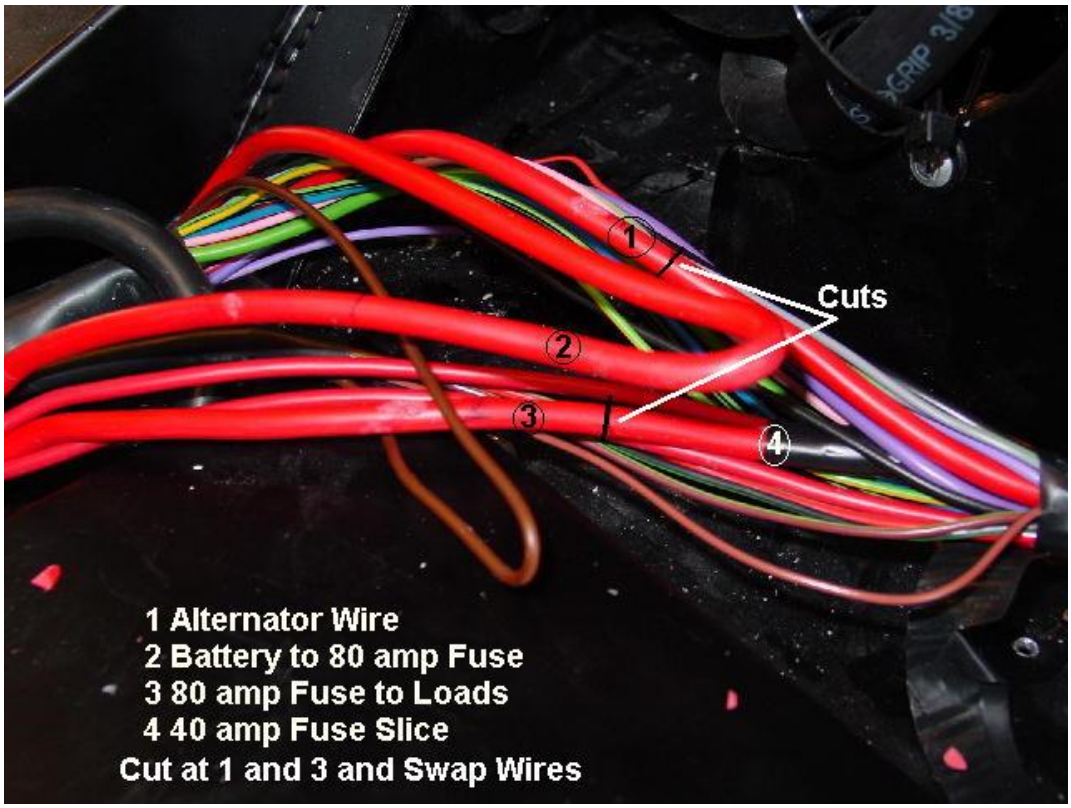

Fig. 6 Wire Identification

Figure 6 and 7 identifies each of the 8.0 mm wires and their function.

- **1** is the alternator wire. This wire will run straight through the harness with no splices.
- **2** runs from battery to the 80-amp maxi fuse. This wire loops up into the harness and may not even be visible.
- **3** runs from 80-amp fuse to loads in car
- **4** This is the splice to the 40-amp fuse

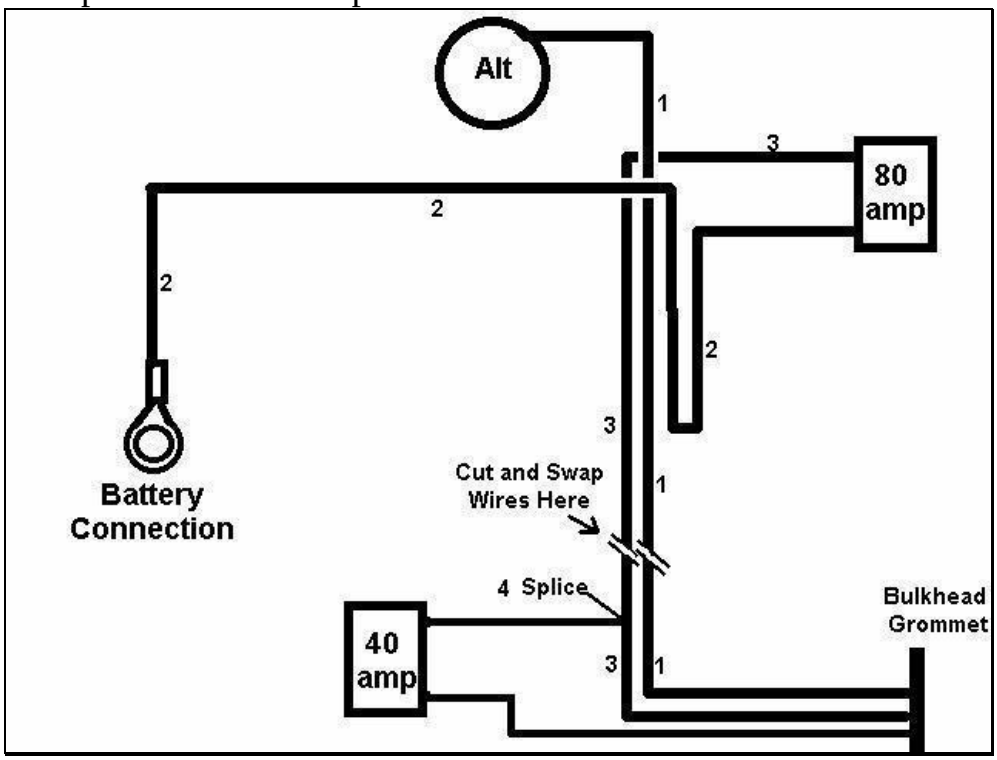

Fig. 7 Wire Identification Drawing

7. Using the identification in figure 6 and 7 locate wire number 1 and 3 and mark them to be cut close to each other. On wire 3 make sure you are on the side of the #4 splice as indicated.

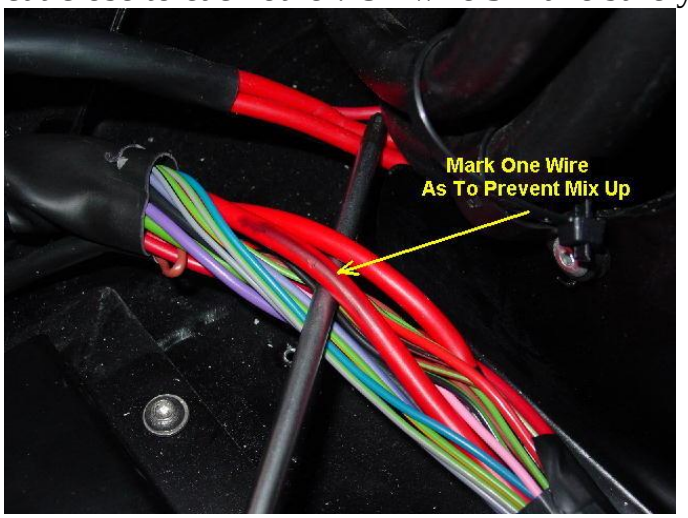

Fig. 8 Marking One Wire

Fig. 9 Cutting Wires

8. Mark one wire as shown in figure 8 to identify, as not to mix up the wires once cut.
9. Cut the wires as shown in figure 9.

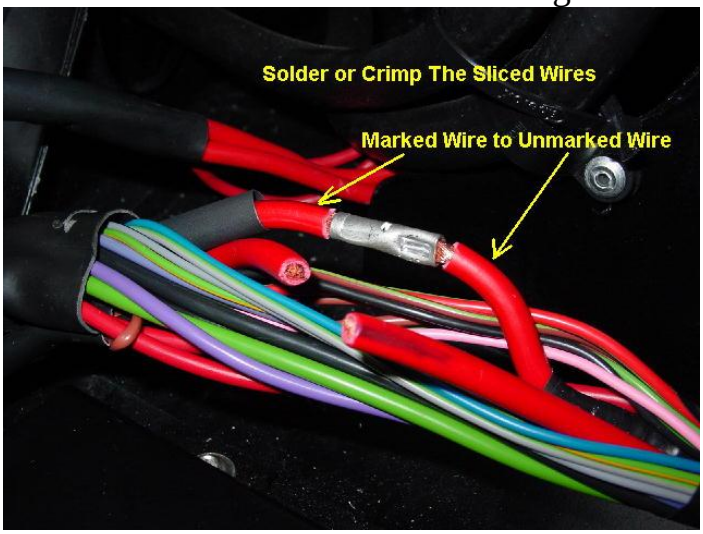

Fig. 10 Connecting Wires

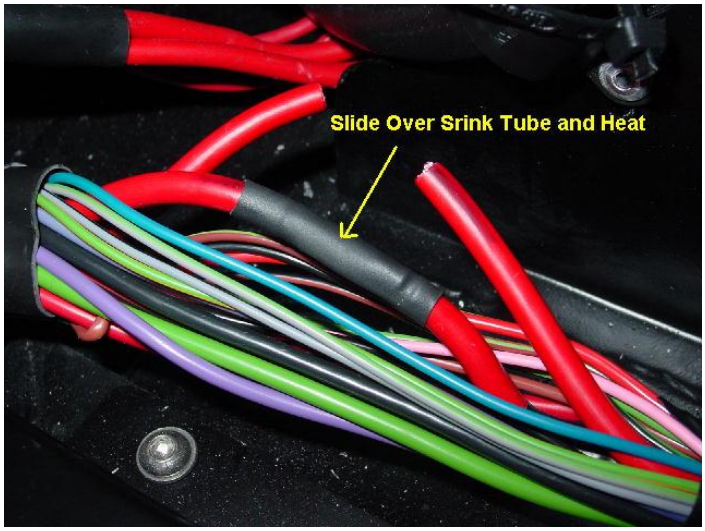

Fig. 11 Shrink Tube

10. Connect one marked wire to one unmarked wire. Crimp or solder the connection and apply shrink tube as shown in figure 11
11. Repeat connection with the remaining wires.

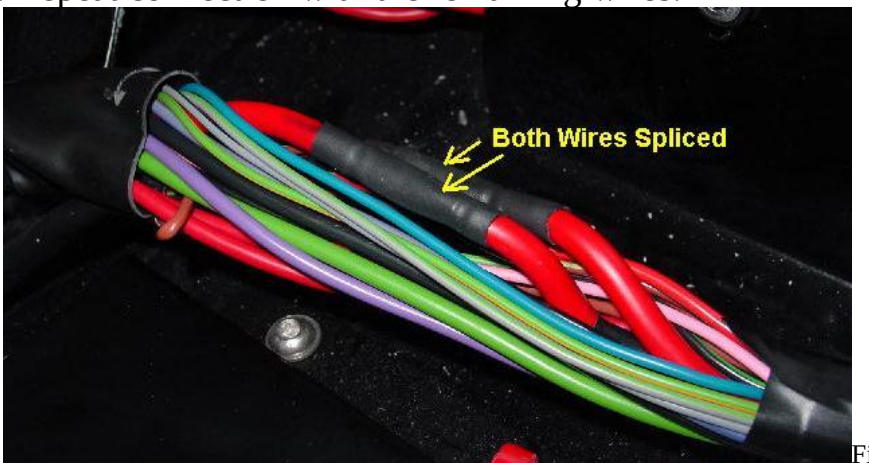

Fig. 12 Wire Swap Complete

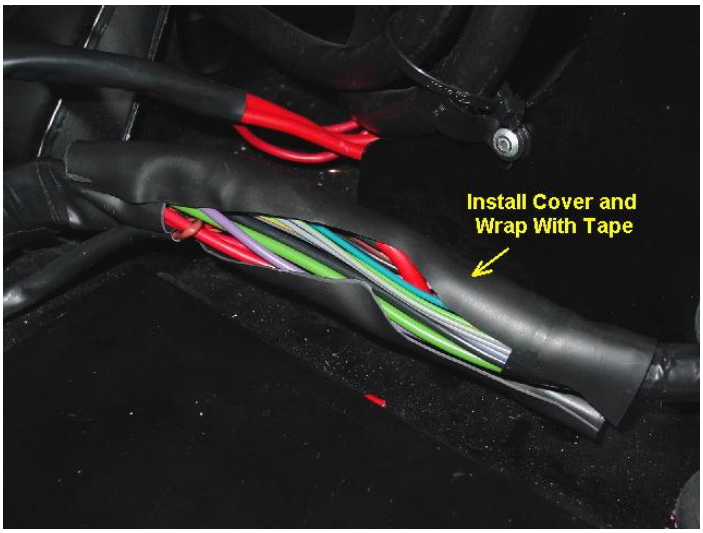

Fig. 13 Re-wrap with Cover and Wrap Tape

Fig. 14 Reinstall Clamps

12. Wrap the covering back around the wire bundle. Wrap with vinyl electrical tape, and clamp the harness back in place.

Amp Gauge

1. Once completed the Amp gauge polarity will likely be reversed and the connections will need to be swapped. This can be checked by temporarily reconnecting the battery and turning on the fan override. If the gauge needle swings towards positive, the gauge connection must be swapped.

Fig.15 Amp Gauge Connected Backwards

Fig. 16 Screws Location For Panel Removal

2. Disconnect the battery and remove the center switch panel. Figure 16 indicates the screw locations.
3. With the switch panel out, it is possible to reach up behind the amp gauge and pull off the connections. These connections are spade type and therefore will slip off without any tools.
4. If these connections seem loose, crimp them tighter with pliers.
5. Swap the connections from one terminal to the other.
6. Connect the battery and check gauge operation.

Fig. 17 Access to Amp Gauge

Fig. 18 Checking Proper Gauge Function

7. Reinstall switch panel; make sure battery is connected properly.

This completes the modification

A Word On AMP Gauges Versus Volt Gauges

An AMP gauge was chosen for use in the GT40 for authenticity sake. If authenticity is not that important to you, you may want to switch to a volt gauge. Most electrical experts agree a volt gauge is a much better gauge to have. A volt gauge gives a much truer reading of what's going on with the electrical system. Where an amp gauge shows what's going in or out of a battery, the volt gauge can tell you what's there at any giving time. Think of it as a bank account the amp gauge may show the deposits and withdraws, if you happen to look at the gauge when it's happening. But the volt gauge show how much is in the bank any time you look at it.

If you would like to switch to a volt gauge this modification to the electrical system will not be necessary for proper gauge operation. Skip the modification out lined here completely and splice the two AMP gauge wires together. The volt gauge can be connected to any 12-volt switched source (example the Ign. lead at ignition switch) and a good ground.