

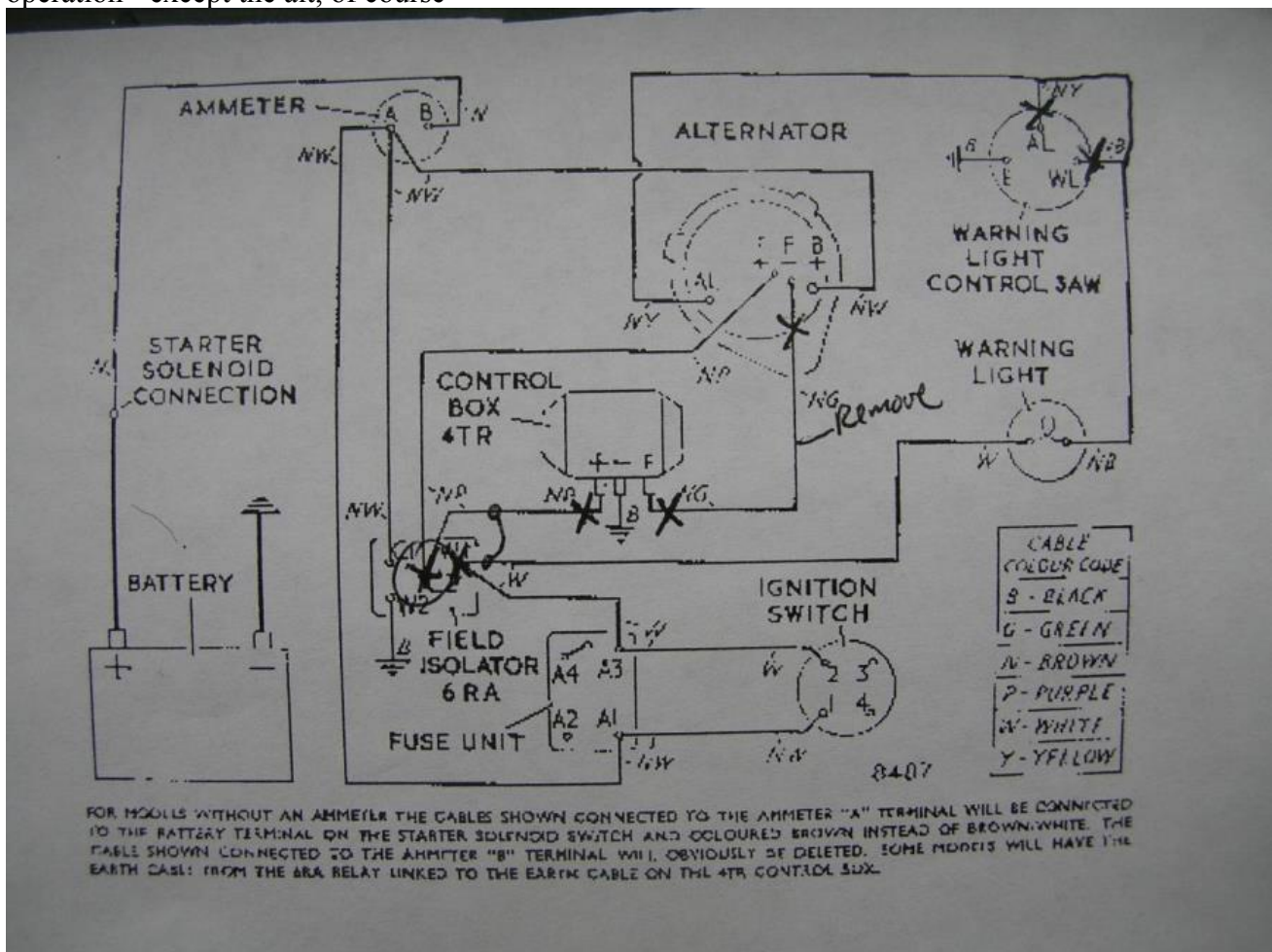
Step-by-step wiring instructions for converting a Sunbeam Alpine SV to use a Hitachi 14231 Alternator. (as used on a 1980 Nissan 720 pickup L4 2.0 liter 2BBL)

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Note that there are 4 items under the hood that we are referring to, plus the fuse holder.

- A) The alternator itself
- B) The 4TR Control box. That's the black plastic squarish box near the fuseholder
- C) The Field Isolator Relay, that's the metal squarish can in the same area (6RA type)
- D) The Warning Light Control relay (3AW), round can, looks like a turn signal flasher

When I did my conversion I kept all these (except the old Alt, of course) in place to give an original look, but disconnected any wires that mattered, as noted here. None of the items referred to are needed for proper operation - except the alt, of course



Look at the new 14231 Alt and verify that it has 3 connection points. They should be labeled somehow as:
B+ (that's the big post)
L (one of the "spade" connectors)
R (the other "spade" connector, may be unlabeled)

Step 1: For the Main connection to the Alt - heavy cable. In my case I chose to remove the large male "spade" style connector that is on the original alt and bolt it on to the new Alt, thus maintaining "quick

disconnect” capability. Or you could replace the large female connector on the cable with an eyelet style connector for direct attachment to the B+ post. In either case be sure to use some means of anchoring the large cable to the back of the alt with a U-clamp or something as a strain relief for the large cable. I used a cable clamp about 4 inches away from the connection point. Before I did this, the engine vibration shook the unsupported cable and broke the wire right at the crimped-on connector.

Step 2: Disconnect the NG (Brown Green) wire from old alt (i.e. remove it from the dual connector housing that was attached to the old alt) and also disconnect the other end of this Brown Green wire from the F term of the 4TR. You can discard the wire or leave it in place, unused, whatever is convenient. If left in place, be sure to tape the ends down somewhere and cover the ends so they do not short to any metal.

Step 3: Disconnect the NP (Brown Purple) wire from the + term of the 4TR. Tape it down so as to not short to anything. We will not use this end.

Step 4: Pull the 2 White wires off the 6RA Field Isolator Relay - I think the 2 wires are crimped into the same connector. Then pull the two NP (Brown Purple) wires off the same relay. Again, I think they are crimped into the same connector. Then connect these two connectors (White pair and Brown Purple pair) together. You can buy adapters that will connect two females together. You can leave the other wires connected to the Field Isolator Relay. If you remove the relay, be sure to tape the ends of the wires left.

Step 5: Remove the NP (Brown Purple) wire from the dual connector housing for the old alt and install a new insulated spade connector on that end of the wire.

Step 6: Disconnect the NY (Brown Yellow) wire from the old alt and replace the eyelet connector with an insulated spade connector

Step 7: At the Warning Light Control relay, Disconnect the NY (Brown Yellow) wire from terminal AL, and the NB (Brown Black) wire from the WL terminal. You can leave the Black wire that goes to ground in place or remove the wire and remove the relay if you wish. Connect the two wires together (NY and NB); again using an adapter is the easiest way. Be sure you do NOT connect the Black wire to anything - except the relay if you leave it in place.

Step 8: Install the new 14231 Alt.

Connect the heavy cable (see step 1) to B+.

Connect the NP wire (see step 5) to the R terminal of the new Alt.

Connect the NY wire (see step 6) to the L terminal of the new Alt

Done!