

Volkswagen Cabriolet DIY Guide

Auto Trans: Bypassing Interlock Relays

This guide is a PDF of the original post by Brian O. at the now-defunct Topless Rabbit forum:

<http://toplessrabbit.com/forums/viewtopic.php?f=27&t=1667> .



Perform this modification at your own risk!



I had an intermittent no-start condition on my cabby. I had already installed the hot soak fix for the auto, but the damn thing would intermittently refuse to start when cold, warm, or hot. I replaced the hot start relay, the starter, and finally the ignition switch which is a major pain in the ass, but nothing resolved the issue.

Going over and over the Bentley [Service Manual], I found the starter interlock relay might be the cause, and I would be damned if I could find it.

According to the Bentley, it was to be in position 15 on the fuse panel, and according to the ETKA it is to be in position 14. Well 15 is devoid of relay, and 14 goes to my radiator fan... so where in the hell is that relay?

I did find that the relay marked 92 – part number 191 927 181 – is only on late 1990 and up Digifants with Automatic trannies and it is on the back side of the knee bar kinda hidden. Who would've thunk?



After finding this relay it finally went out completely... well, half of it did.

To see how this relay works differently from the normal starter you have to turn to the Shift lock mechanism diagrams for the wiring in the Bentley.

From the Start switch 1/2 of the relay is powering the ECU. That part of the solenoid energizes the other half of the relay so that when all the other interlocks are met (i.e., the car in park, brake pressed), you throw the key switch to start, it energizes and engages

the starter. So if that half of the relay goes bad, you can't start your car; but if you jump the starter it will start. It doesn't matter if you have the hot start relay fix as on the 90-93 Cabby it uses the relay to engage the starter solenoid (or the hot fix solenoid).

Here is the fix as I had half a flaky relay: it was intermittent, then went out. I opened the relay and only saw the ECU side [energizing]; the other side for the starter didn't [energize] at all.

From the ignition switch harness, find the red/black wire coming out of the switch and cut it a long way from the harness.

From the 92 relay that is under the knee bar find the red and black wire and cut it [or remove it using an electronics removal tool].

Un-wind the red/black wire on the relay marked 92 (it is the only large red/black wire on it) from the loom then route it over the steering column and splice it in to the red and black wire that goes back to the switch. This is only energized at the start switch position, and will allow the key to then engage the hot start relay, and start your car.

Since you didn't bother the Digifant side of the relay, it will run the car.

This only applies to Automatics late 90-93, and you will have by-passed all the BS interlocks. Remember:

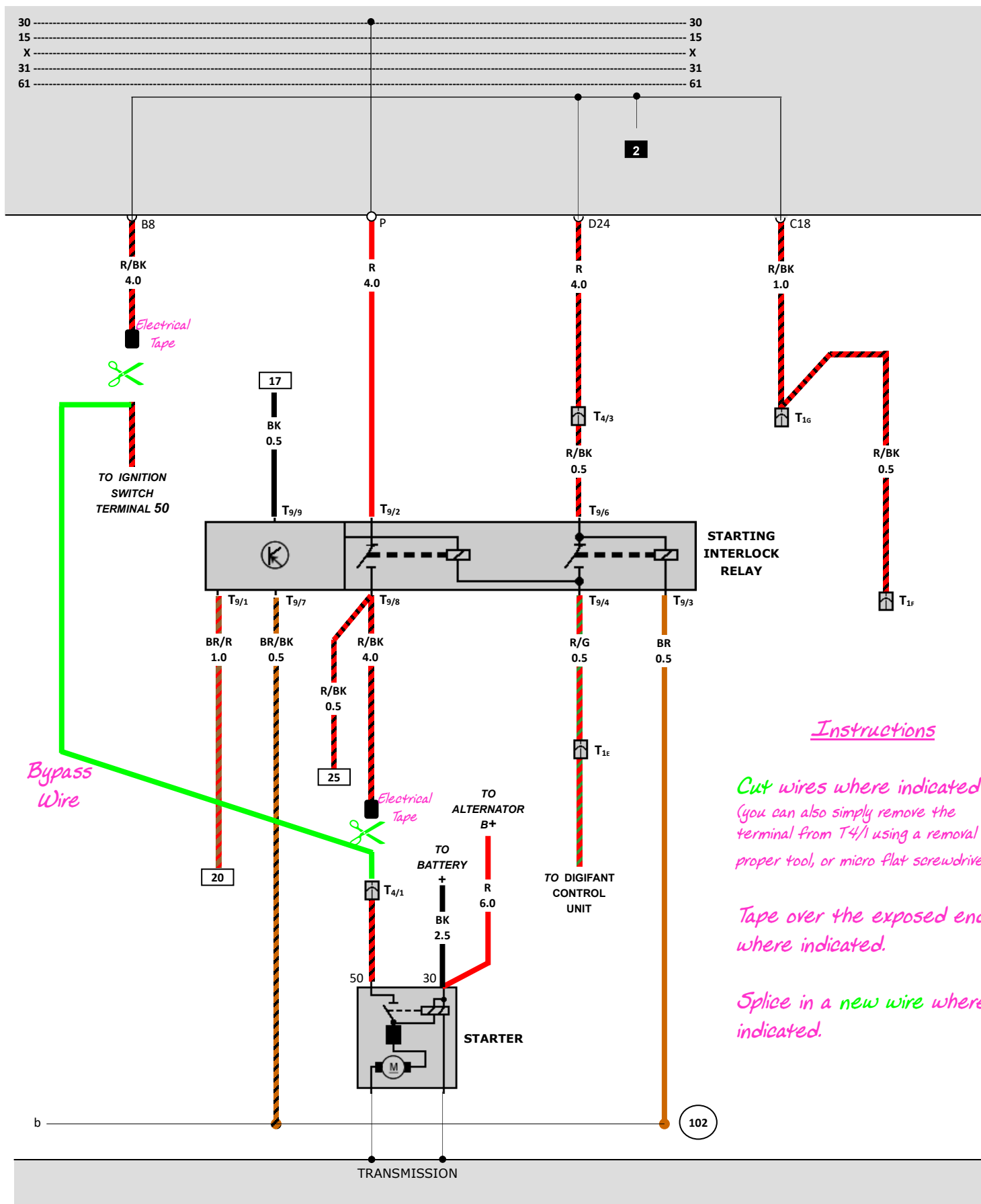
You can now start the car in any gear! [Be sure the transmission is in Park or Neutral before starting!]

fter about 8 hours replacing things and ripping apart the Dash and the Knee bar I have the fix for you.

Brian's fix 2 cuts and one yellow in-line splice.....

You can do this fix in about 10 minutes under the dash now that you know what to look for and where the parts are located.

Wiring diagram is shown on next page.



Instructions

*Cut wires where indicated
(you can also simply remove the
terminal from T_{4/1} using a removal
proper tool, or micro flat screwdriver).*

*Tape over the exposed ends
where indicated.*

*Splice in a new wire where
indicated.*