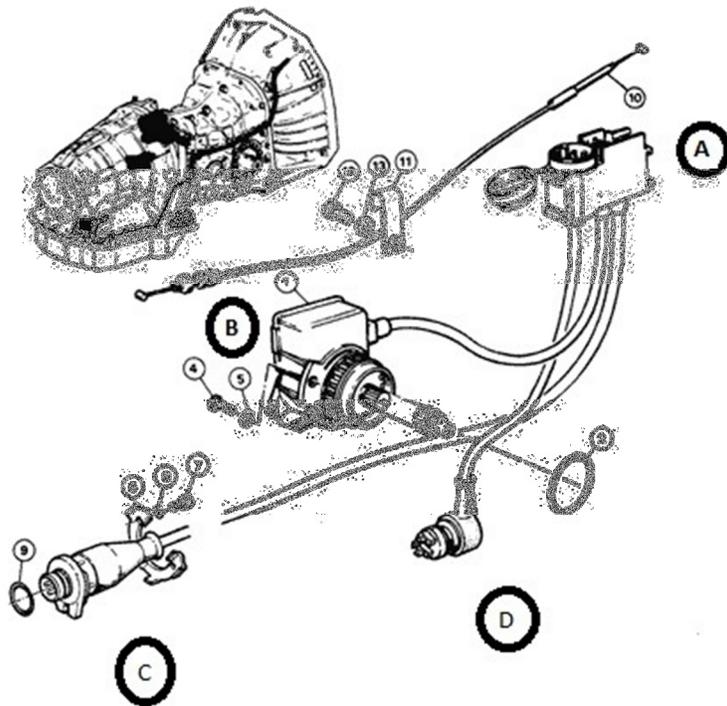


How To: Remove the Automatic Transmission Governor Computer

The Automatic Transmission Governor is an interlinked set of components used to select the appropriate gear in the transmission. It is comprised of a (A) Connector Box , (B) Governor Circuit (GC), (C) Switch Connector and (D) Solenoid Connector (thanks to DMC for the drawing used below). One frequent reason for removal is to repair the electronic circuit boards that are within the Governor and are typically known as the Governor Circuit (or Governor Computer or GC)



There are several methods of removing the GC from the car, depending on the reasons for doing so.

Basic Method – Partial removal of components. This is used when the owner wishes to inspect and test the assembly but not drain the transmission.

This is similar to the method used in this [dmctalk.org](http://dmctalk.org/showthread.php?7244-Auto-Trans-GC-removal-and-rebuild-video) post, <http://dmctalk.org/showthread.php?7244-Auto-Trans-GC-removal-and-rebuild-video> but gives better access to the componentry

Optional Method – Complete removal of all four components. These are the extra steps required if the Governor is being sent out for repair to a vendor or other repair facility. Or when the owner wishes to inspect and test the complete assembly

Basic Method – Partial removal of components. This is used when the owner wishes to inspect and test the complete assembly

Pros: No need to drain transmission.

Cons: Some soldering is necessary at the car

Parts needed:

Repair parts for GC

Tools needed:

11 mm socket

6mm socket

Step 1: Safely Raising the Car

Place your car on ramps/jackstands/lift in such a manner that is safe. Only access to the rear of the car is necessary.

Step 2: Removing Connection Box Cables

Move to the engine compartment and locate the Connection Box on the driver's side firewall.



The Connection Box has 5 sets of cables installed on it – two on the top and three on the bottom.



Remove the two L-shaped rubber connectors (to the wiring harness) on top of the Connection Box..

There are two multi-conductor cables permanently connected to the bottom (shown on the right in the below photo). You cannot remove these. One is the wiring to the GC and the other is the wiring to the Switch Connector on the passenger side of the transmission.



There is one additional 3-conductor cable that enters the Connection Box from the bottom (shown on the left in the above photo), but physically passes through and is connected, via ring-terminals, to three of the brass connectors in the top circle. This is the connection to the solenoids. There is no need to disconnect this cable.

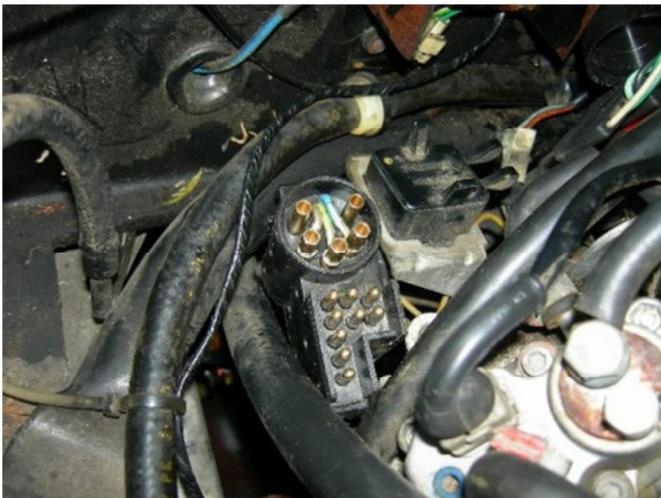


If you are testing the integrity of the solenoids – disconnect the three conductors (by loosening and removing the three 6mm brass nuts (having first noted the colors and locations of the wires) and measure the resistance between the two pairs (Green/Yellow & Blue and Green/Yellow & Brown, the Green/Yellow wire being the common). Each should be around 25ohms.

Step 3: Removing the Connection Box from the bulk head

The connection box is attached to a bracket on the firewall. There are no screws or bolts, it is just a friction fit. Slide the box towards the rear of the car.

Once the box is loose, find a gap between the firewall and the engine to push the connection box downwards to below the car



Step 4: Removing the Governor

Locate the Governor on the passenger side of the transmission.



First remove the connection for the kick-down cable.

The Governor is attached by two 11mm bolts. Undo these and the Governor should just pull off.





Step 5: Cabling (again)

Pull the Connection Box through from above, and feed it over the transmission from driver's side to passenger's side. There may be cable ties, or similar, holding the cables off the exhaust.

You should now have the GC and Connection Box on the ground. There is sufficient cable length to maneuver the GC to the back of the car, while the Connection Box stays underneath.

The Switch Connector and Solenoid Connector remain installed on the transmission.

Step 8: Repair Unit

With the entire system off the car, it can be sent off for professional repair, or the GC can be opened up on a workbench. There are 11 connections to de-solder while you are beside the car, before the two boards can be taken to your repair location.

There are several guides that deal with this in depth.

Optional Method – Complete removal of all four components. These are the extra steps necessary if the Governor is being sent out for repair to a vendor or other repair facility. Or when the owner wishes to inspect and test the complete assembly

Pros: Once removed, components can be disassembled and tested in a convenient location

All components can be shipped together to a vendor

Cons: Transmission fluid must be drained, and transmission pan must be removed

Extra Parts needed:

103516 Transmission pan gasket (only if pan is removed)

102101 Transmission drain plug washer

103732 Switch Connector O-ring

103698 Solenoid Connection O-Ring (only if removed)

Transmission Fluid – 5 qts Dextron III (probably need 4qts)

Extra Tools needed:

4mm Allen key/wrench

After raising the car in Step 1:

Step 1a: Drain Transmission Fluid

Remove the 8mm square-holed plug and drain the transmission fluid into a suitable container.

Step 1b: Remove Transmission fittings

1b.1: Switch Connector: Remove the switch connector on the passenger side of the transmission. It is attached by two 4mm Allen bolts.



1b.2: Solenoid Connector: This is a further optional step.

It may or may not be necessary/desirable to remove the Solenoid Connector. The vendors do not require it be sent to them to repair the GC.

If not desired: The cable connection at the Connection Box must be removed, - see the last part of Step 2 above.

If desired: No need to disconnect the cable at the Connection Box. The Solenoid Connector (item D in the drawing on Page 1) is attached to the transmission by means of a nut accessible by removing the transmission pan.



Remove the transmission pan. It is attached by 11mm bolts. Remove pan and gasket (use a new gasket for reassembly). At this point it is worth inspecting the pan for debris which may be indicative of a transmission problem. The filter can also be inspected.

Remove the nut attaching the Solenoid Connector to the transmission and remove the Solenoid Connector

▲ CAUTION

Disclaimer: The above outlines one method that I found useful to perform this task on my vehicle. Use it at your own risk on your own vehicle. Always work safely.