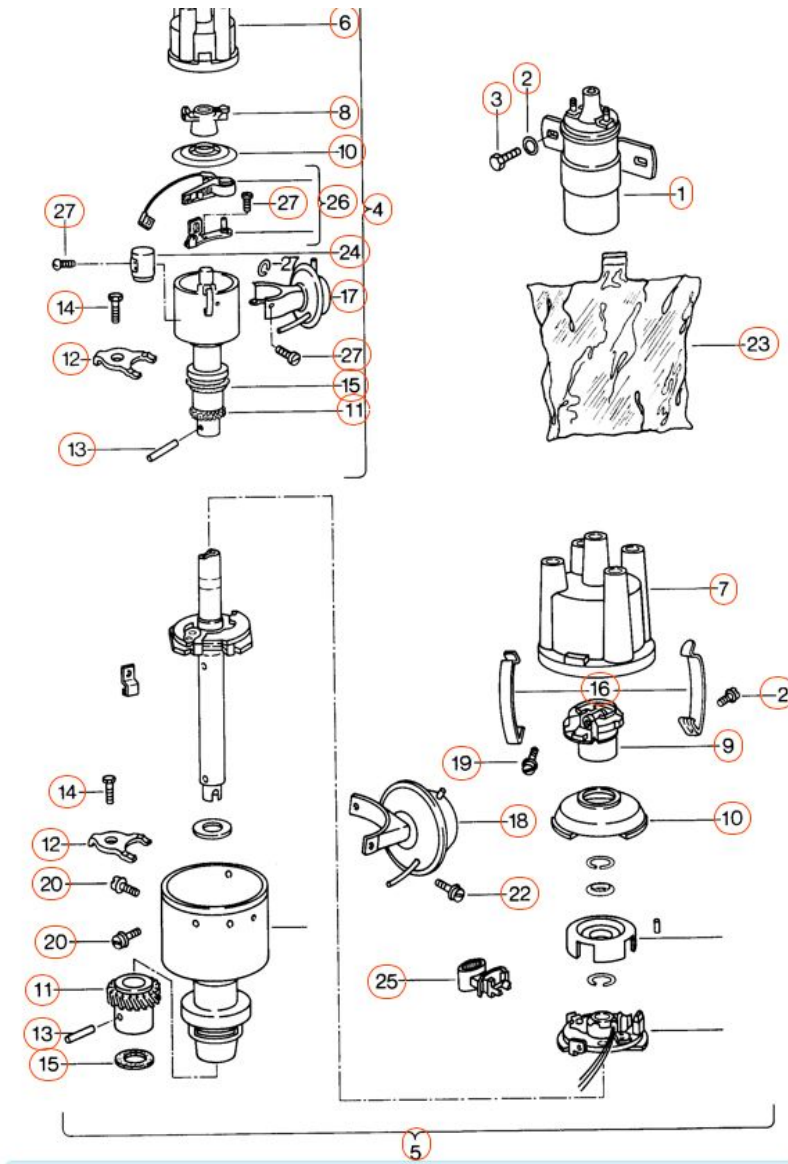


VW/Bombardier Iltis 12v Civilian Electronic Ignition Conversion (Revised June 30, 2020)

This is how I did my 12v ignition conversion. As always, use this information at your own risk.

Parts List

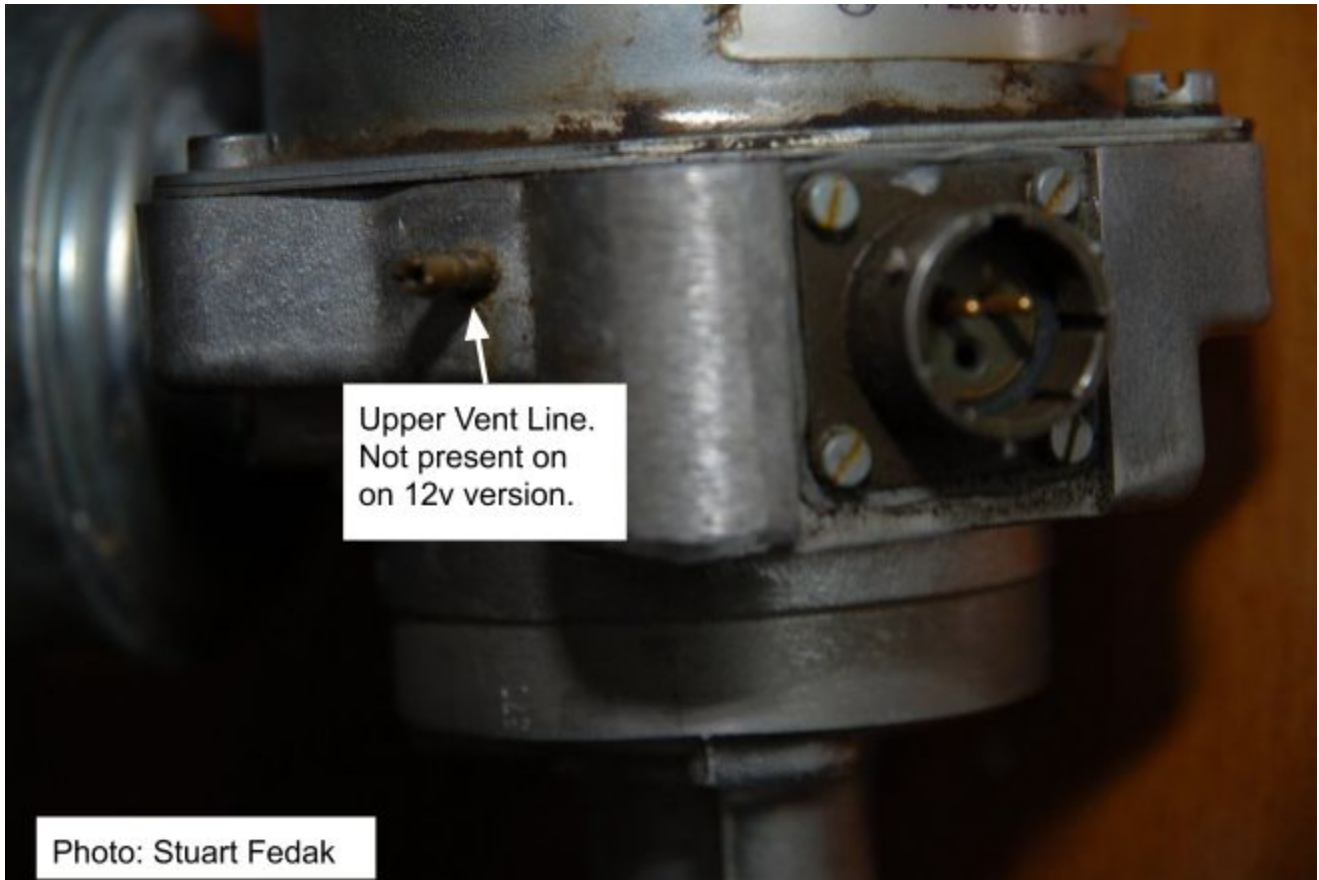
Distributor: The 12v Iltis Civilian model with electronic ignition used the 049905205T distributor, which is an Iltis specific part and is exceedingly rare. This is shown as part 5 in the parts illustration shown below.



5	049905205T	distributor F 18-B-000 053>>	Cancelled since 01.05.2003
6		discont. / replace:	113 905 207 C
7	113905207C	distributor cap	Cancelled since 01.08.2013
(7)	113905207C	distributor cap	Cancelled since 01.08.2013
	113905207C SBV	(self-service packaging)	Period: 0179 - 1288 Cancelled since 30.04.1996
8	049905225C	rotor for distributor F >> 18A 0903 380	Cancelled since 01.10.2005
9	055905225B	rotor for distributor F 18-B-000 053>>	
(9)	055905225B	rotor for distributor F 18-B-000 053>>	
	055905225B SBV	(self-service packaging)	Period: 0880 - 1288 Cancelled since 30.04.1996
10	039905241	dust cover	
11	056905247A	gear	
12	028905256	bracket	
12	035905251B	bracket	Cancelled since

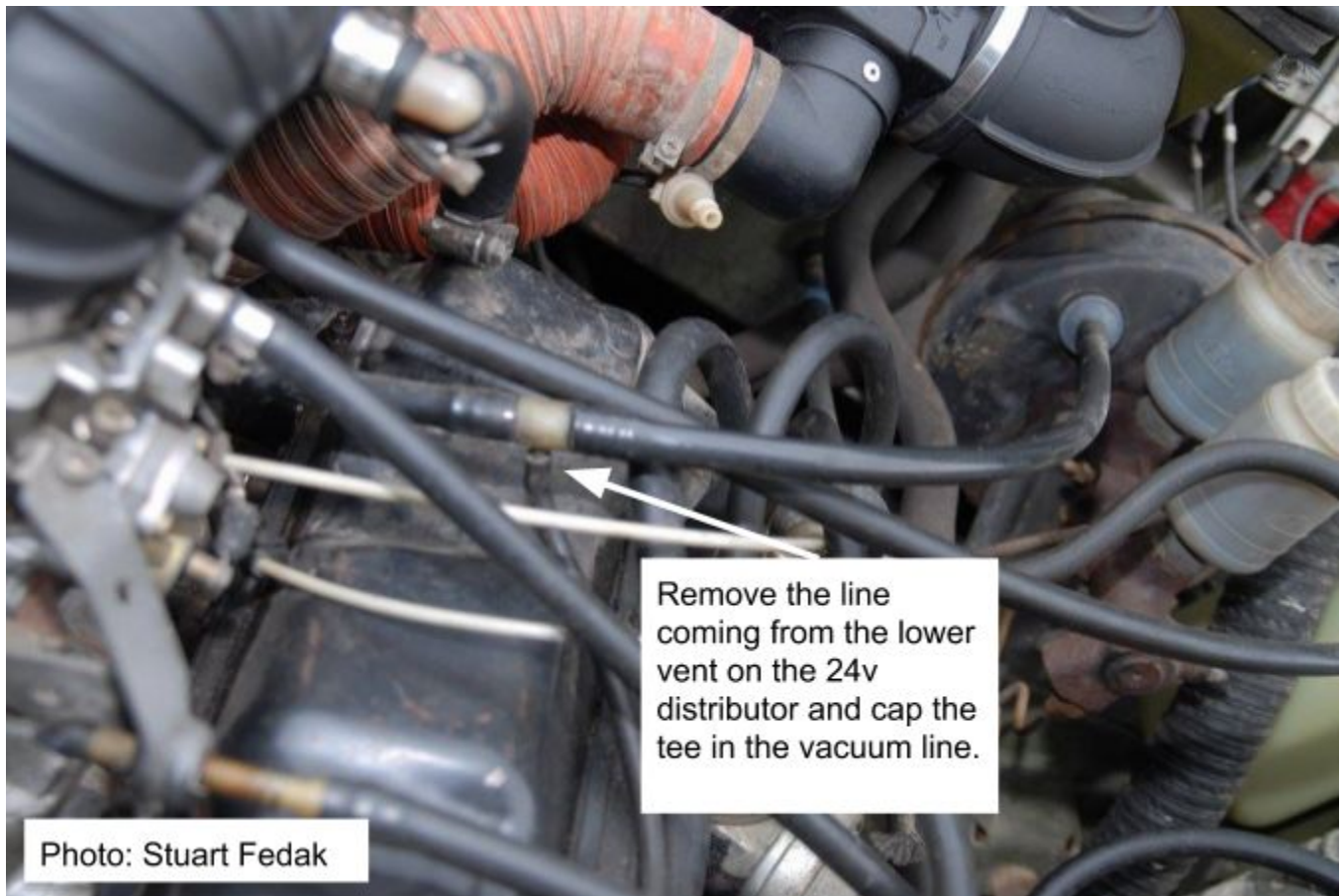
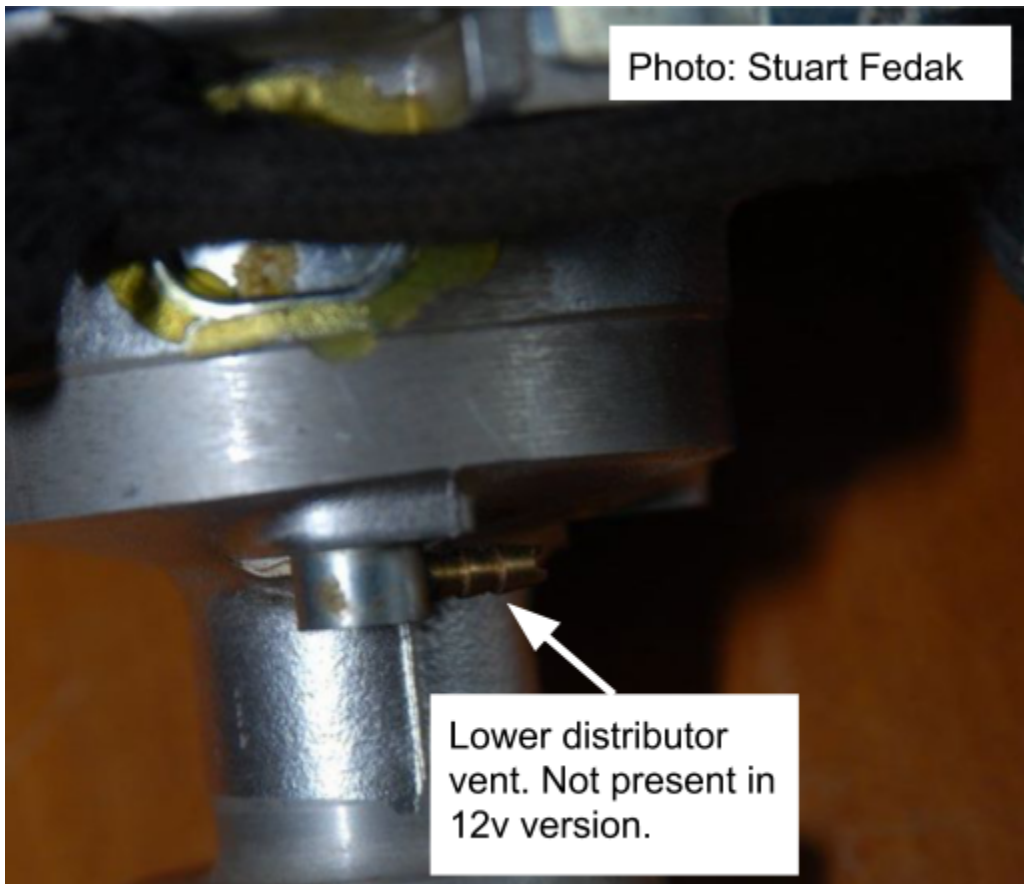
Substitute Distributor: VW Part Number 049905205Q, Bosch part number 0237022013. Distributor cap part number: 113905207C. Rotor part number: 055905225B.

This distributor has the oval shaped Hall sensor connector that is on the wiring harness that is used in this plan. This distributor was used in other water cooled VWs in the era of the Iltis. Later VW distributors use a square shaped Hall sensor connector and will not work with the harness used here. The replacement distributor used here also has vacuum advance and retard connections on the vacuum canister that accomodate the existing Iltis vacuum lines. The additional vacuum lines on the Canadian Iltis are for ventilation of the waterproof distributor and are not used in this 12v, non-waterproof conversion. See the photos below for instructions on their removal.



Remove the line that connects the upper vent on the 24v distributor with the air filter and cap the opening.

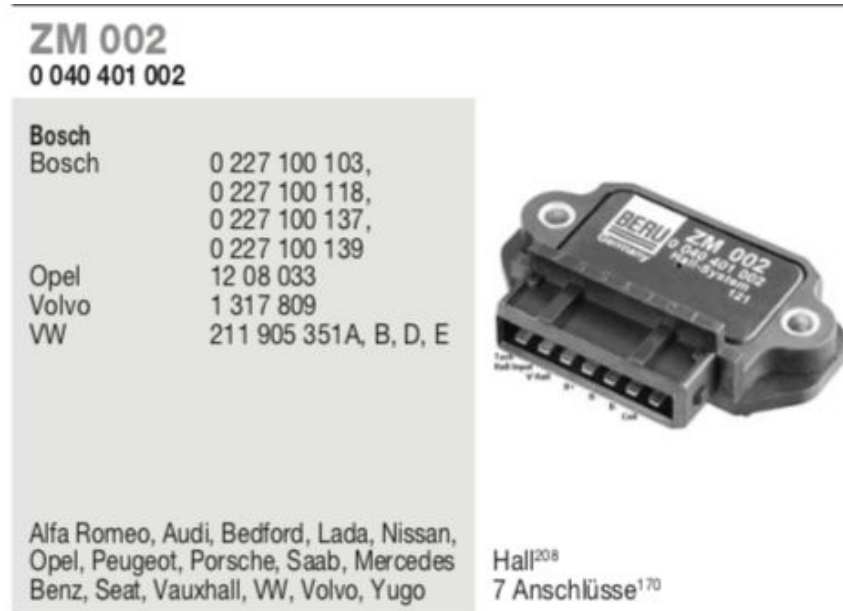




Remove the line connecting the lower vent on the 24v distributor with the tee in the line that goes from the intake manifold to the brake booster. The tee then **must** be capped to maintain the vacuum in this line.

Coil: The 12v coil that pairs up with this distributor is Bosch part number 0221122023. The existing bracket on the Iltis is too big for this coil, so be sure that yours comes with a new bracket.

Ignition Control Module: This is the 12V equivalent of the TCI box used on the 24V version of the Iltis. This is a common part and has several equivalent part numbers. The Bosch part number is 0227100137 and the Beru part number is ZM002, There is a mounting plate/heat dissipator that the module mounts on. The VW part number for that is 035905357A. You can probably make your own mounting plate.

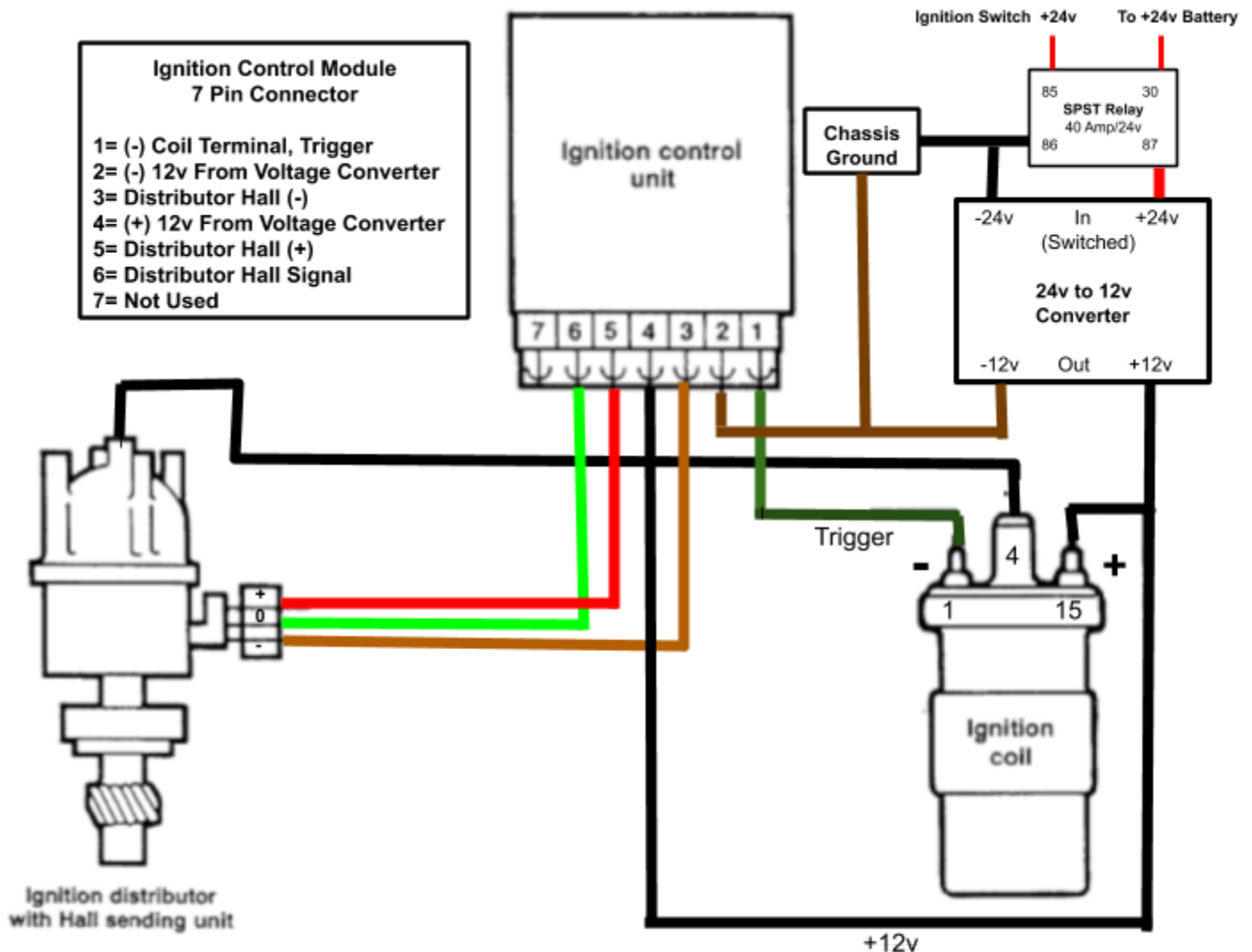


Spark Plugs: Beru Z11, NGK 7727, Bosch +1 and Champion N8Y are examples, but there are many equivalent plugs out there. Pick your own favorite brand. www.sparkplug-crossreference.com

Ignition Wiring Harness: The harness used is from a VW Vanagon (North America), Type 2 (Europe), from 1980-1992, 1.9L "DG" engine code without the DIS (shift mechanism) module. The VW part number is 025971131C. 025971131A can also be used, just connect the round connectors together.



12v Power: The current required for the ignition system is about 4 amps. I used a 20 amp 24v to 12v converter. Use a 40 amp, 24v SPST (or SPDT if that's what you have) relay to connect this to the power from the ignition switch in your Iltis. Use appropriately sized inline fuses to protect the new circuits. I used 14 ga wire from the wiper breaker (50A) to terminal 85 of the relay and from the 24v to 12v converter to the coil. I used 12 ga wire from the master power shutoff to terminal 30 of the relay. I used 12 ga wire for all grounds.



Parts Summary:

Distributor: VW Part Number 049905205Q, Bosch part number 0237022013

Distributor cap: VW part number 113905207C

Rotor part number: VW part number 055905225B

Spark Plug: Beru Z11, NGK 7727, Bosch +1 or Champion N8Y (and many others)

Spark Plug Wires: Example is 171998031B. Others will work, but make sure your coil to distributor cable is long enough. I had trouble with this.

Coil: Bosch part number 0221122023

Ignition Control Module: Bosch 0227100137 (see part photo above for alternate numbers)

Mounting Plate for Control Module: VW part number 035905357A

Ignition Wiring Harness: VW part number 025971131C (first choice) or 025971131A (connect the unused circular connectors together)