

STARTER

Article Text

1996 Volkswagen Golf
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ARTICLE BEGINNING

1995-96 STARTING & CHARGING SYSTEMS

Volkswagen Starters

Cabrio, Golf III, GTI, Jetta III

DESCRIPTION

Starter is a brush type, series-wound electric motor with an overrunning clutch. Field frame is enclosed by commutator end frame and drive bushing, and carries pole shoes and field coils. A splined armature shaft drive end carries drive assembly.

TROUBLE SHOOTING

NOTE: See TROUBLE SHOOTING article in GENERAL INFORMATION.

ON-VEHICLE TESTING

STARTER DOES NOT CRANK ENGINE

1) Ensure battery is fully charged. Ensure electrical and ground connections are clean and tight. With ignition switch in START position, measure voltage at spade terminal of starter solenoid. Reading should be at least 8 volts. If voltage is as specified, go to step 3). If voltage is not as specified, go to next step.

2) Measure voltage at ignition switch. If reading is at least 8 volts, check wiring between ignition switch and starter solenoid. If voltage is not as specified, replace ignition switch.

3) While operating starter, measure voltage at field (starter) terminal of starter solenoid. If reading is at least 8 volts, repair or replace starter. If reading is less than 8 volts, replace starter solenoid.

NOTE: On vehicles with automatic transmission, also check park/neutral switch.

STARTER CRANKS TOO SLOWLY TO START ENGINE

Ensure battery is fully charged. Ensure electrical and ground connections are clean and tight. If necessary, clean and tighten ground strap between transmission and body. DO NOT loosen ground strap on body. If starter still turns slowly, repair or replace starter.

REMOVAL & INSTALLATION

Removal & Installation

1) Disconnect negative battery cable. Support engine/transmission assembly with Support Beam (VW 10-222A) and Leg

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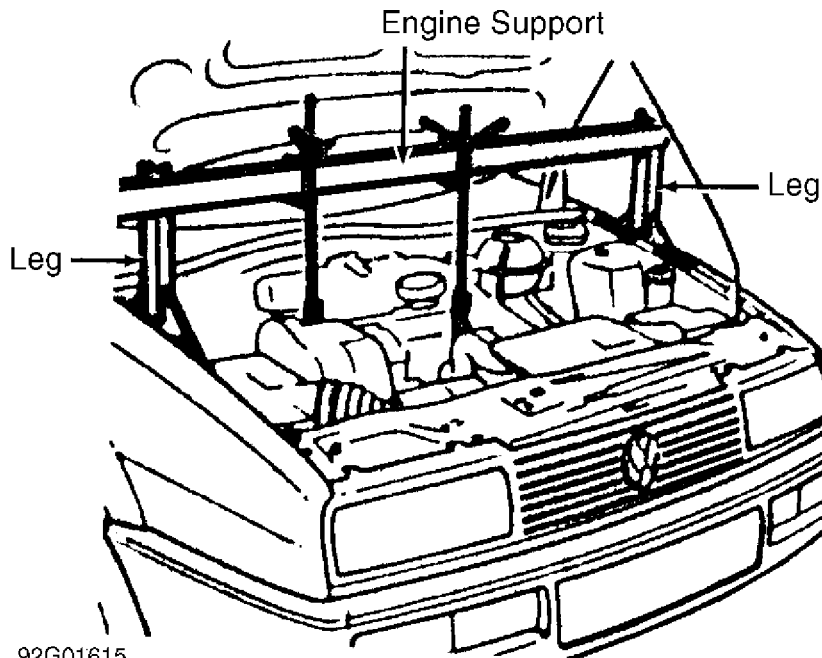
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Set (VW 10-222A/1). See Fig. 1.

2) Remove Black plastic cap and connector from solenoid. Disconnect connector from spade terminal on solenoid. Remove nuts and wiring from solenoid. Remove M8 nut from stud. On 2.0L engine, remove M12 x 60 bolt securing starter to front console.

3) On all models, remove M10 nuts securing starter. To install, reverse removal procedure. Tighten starter mounting bolt/nuts to specification. See TORQUE SPECIFICATIONS.



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Fig. 1: Removing Starter (Typical)

OVERHAUL

Manufacturer recommends replacing starter as an assembly. Exploded view/overhaul procedures not available from manufacturer.

TORQUE SPECIFICATIONS

TORQUE SPECIFICATIONS TABLE

Application			Ft. Lbs. (N.m)		
M8 Nut	(1)	84	(10)	
M10 Nuts		44	(60)	
M12 x 60 Bolt		33	(45)	

(1) - INCH lbs.

AA

WIRING DIAGRAMS

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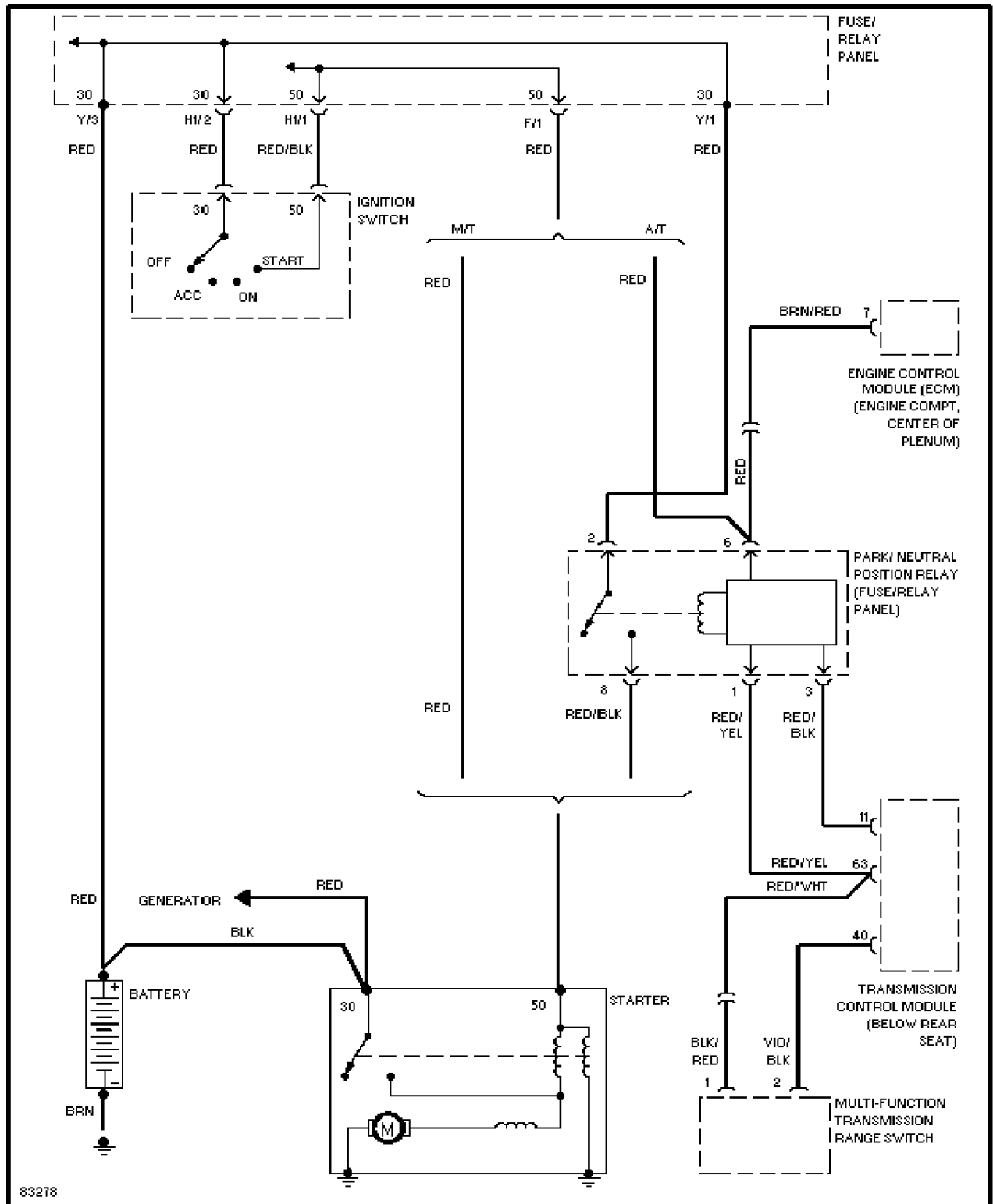


Fig. 2: Starting System Wiring Diagram (1995-96 Cabrio)

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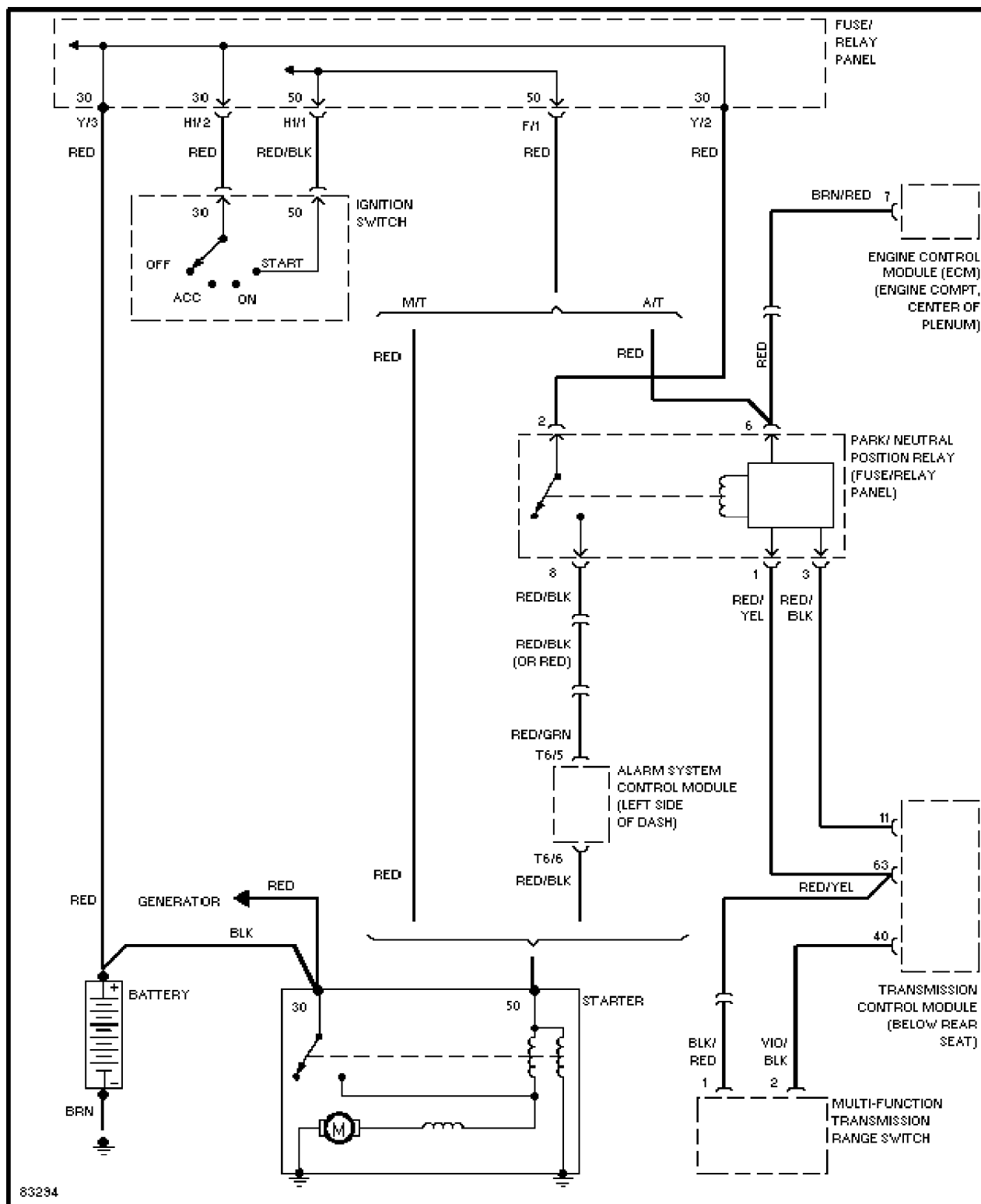


Fig. 3: Starting System Wiring Diagram (1995 Golf III, GTI & Jetta III - Early Production)

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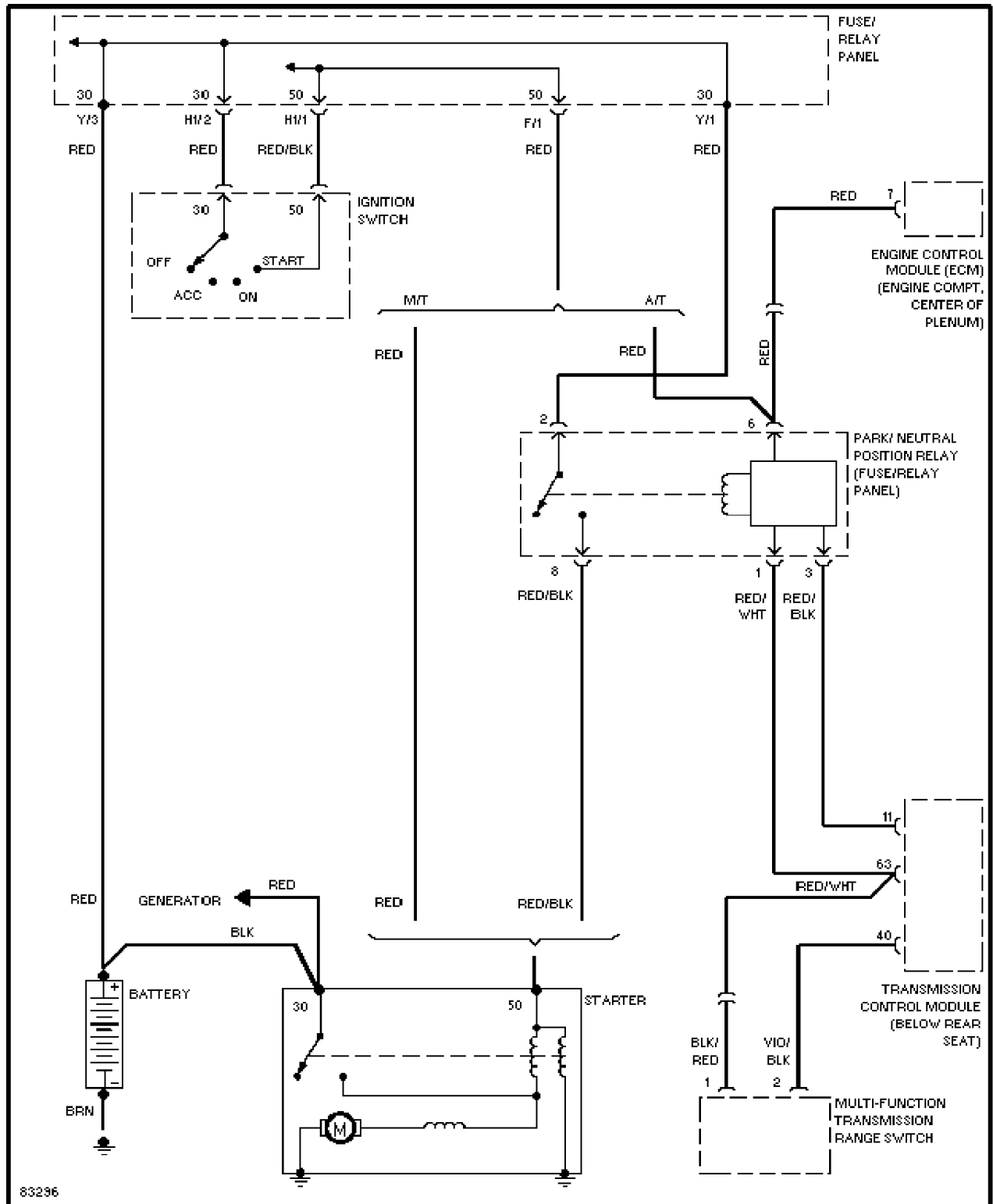


Fig. 4: Starting System Wiring Diagram (1995 Golf III, GTI & Jetta III - Late Production)

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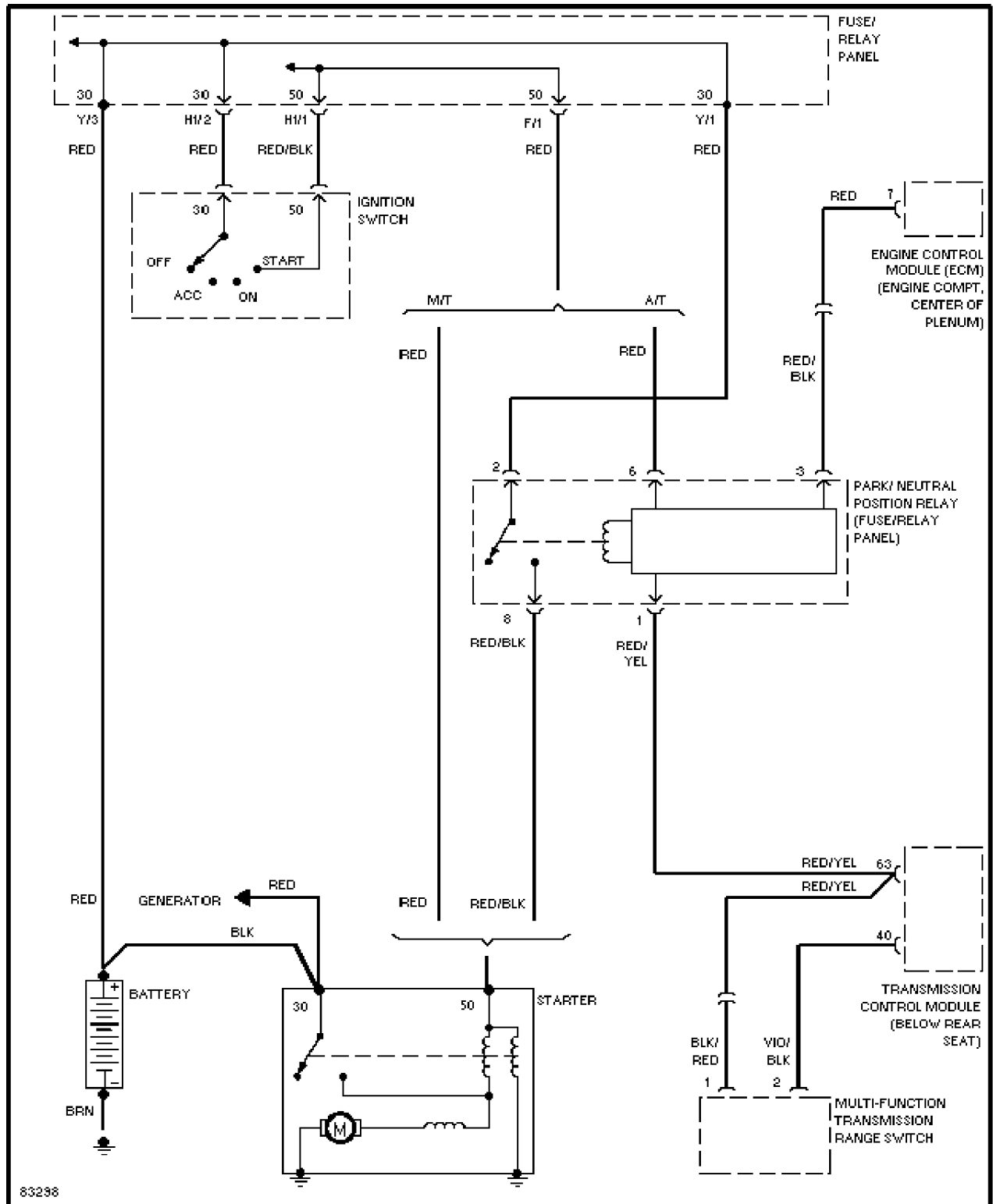


Fig. 5: Starting System Wiring Diagram (1996 Golf, GTI & Jetta III)

END OF ARTICLE