



# Technical Bulletin

**Subject:** Starter Motor Does Not Engage When Hot  
Supersedes Technical Bulletin Group 27, Number 91-01  
Cabriolet, Rabbit, Golf, Jetta with 010 Transmission  
**Model(s):** All Model Years

**Group:** 27  
**Number:** 92-02  
**Date:** Feb. 29, 1992

## Condition

Starter motor does not engage during restart when engine is hot.

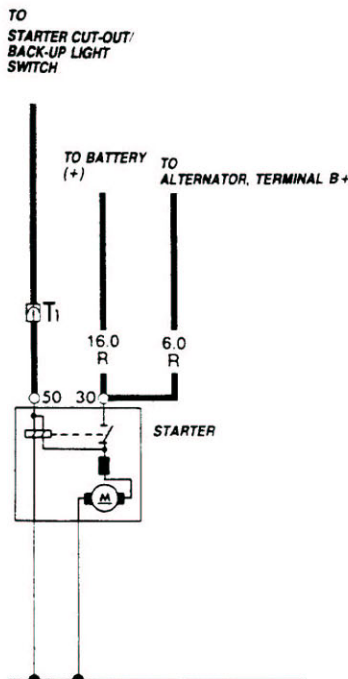
The starter motor is heated up by the engine. During cranking, the voltage at terminal 50 of the starter solenoid must be at least 10 Volts. This value will not be reached at times by older vehicles.

## Service

Check battery power and ground connections to engine / transmission and connection to starter motor for tightness and corrosion. Repair if necessary.

If all connections are in order, or if repair of connections does not correct the condition, install starter relay to activate the starter solenoid as follows:

- obtain radio security code (if applicable)



## CAUTION

**DO NOT** use memory saver on Cabriolets equipped with air bags.

On vehicles **NOT** equipped with air bags a memory saver may be plugged into the cigarette lighter socket.

- disconnect battery ground cable from battery
- locate and mark relay socket mounting location on fan shroud
- mark and drill pilot holes for mounting of relay socket
- locate and disconnect connector T1 of right engine harness from T1 connector of starter cable harness, which leads to starter solenoid circuit 50



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- route a 3.0 mm (12 AWG) wire from connector T1 of starter cable harness to relay socket cavity 8
- install terminal Part No. N 017 494.7 on both ends of wire
- insert wire/terminal into cavity 8 of relay socket and into connector housing, Part No. 111 971 921 B
- insert new connector housing, Part No. 111 971 921 B, into connector T1 of starter cable harness leading to starter solenoid terminal 50
- route a 3.0 mm (12 AWG) wire from battery positive cable to cavity 2 of relay socket
- strip wire and crimp on a 6 mm ring terminal at battery end
- strip other end of wire and crimp terminal, Part No. N 017 494.7, onto wire
- insert terminal into cavity 2 of relay socket and mount ring terminal to 6 mm bolt of positive battery connector
- route an 0.75 mm (18 AWG) wire from connector T1 of engine harness to cavity 4 of relay socket
- strip wire and crimp terminal, Part No. N 017 460.6, to wire end leading to connector T1 and insert into connector housing Part No. 161 971 976A
- insert new connector housing, Part No. 161 971 976A into connector T1 of engine harness
- strip wire and crimp terminal, Part No. N 017 490.7 and insert into cavity 4 of relay socket
- route 0.75 mm (18 AWG) wire from cavity 6 of relay socket to negative battery cable (Ground) connection



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- strip wire and crimp terminal, Part No. N 017 490.7 and insert into cavity 6 of relay socket
- strip wire and crimp 6 mm ring terminal and attach to negative battery cable (Ground) connection
- install relay into relay socket and secure wiring with tie wraps to existing wire harness
- mount relay socket on radiator shroud with sheet metal screws (procure locally)
- reconnect negative battery cable to battery
- disconnect memory saver from cigarette lighter socket (if used)
- re-code radio (if necessary)

Description	Part Number	Quantity
Relay	191 911 251	1
Relay socket	251 937 501	1
Terminal	N 017 494.7	3
Terminal	N 017 490.7	2
Terminal	N 017 460.6	1
Connector		
Housing	111 971 921 B	1
Connector		
Housing	161 971 976 A	1
Ring terminal	source locally	3

## CAUTION

Part numbers are for reference only. Always check with your Parts Department for latest parts information.

Install starter Relay Harness	Diag. Check	Repair	Quality Check
Labor operation 27 60 31 0	----	85 T.U.	5 T.U.