



# Technical Bulletin

| Model(s) | Year      | Eng. Code | Trans. Code | VIN Range From | VIN Range To |
|----------|-----------|-----------|-------------|----------------|--------------|
| e-Golf   | 2015-2016 | All       | All         | All            | All          |

## Condition

**93 16 01** January 8, 2016 **2041920** Supersedes Technical Bulletin V931506 dated November 25, 2015 to update the work procedure.

Update Programming, DTC(s) Stored in AW C6 High-Voltage Charger including B200000, P31EA00 (U.S. Only)

| Control Module (Diagnostic Address) | DTC     | DTC Description                          |
|-------------------------------------|---------|------------------------------------------|
| High-Voltage Charger (C6)           | B200000 | Ctrl. Module faulty                      |
| High-Voltage Charger (C6)           | P31EA00 | Battery charger Charging module 2 faulty |

### Note:

This technical bulletin must be read in its entirety before attempting the software update.

## Technical Background

False DTC due to incorrect sensor threshold in High-Voltage Charger software.

## Production Solution

Not applicable.



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## Service

### Step 1: Check DTC Symptom Number:

1. Before attempting software update, the symptom number of the DTC stored in the High-Voltage charger must be checked. The symptom number can be checked in ODIS or by viewing the ODIS diagnostic protocol.



#### Note:

**This software update will not resolve a customer concern and should not be attempted if the symptom number is not in the table below.**



#### Tip:

The example below is provided only to show the location of the symptom number, and uses a fault in address word 5F as a reference. For the purpose of this Technical Bulletin, only the symptom of faults in address word C6 (High-Voltage charger) should be checked.

a. After running ODIS, the symptom number is available in the DTC memory list section of the Control Modules tab.

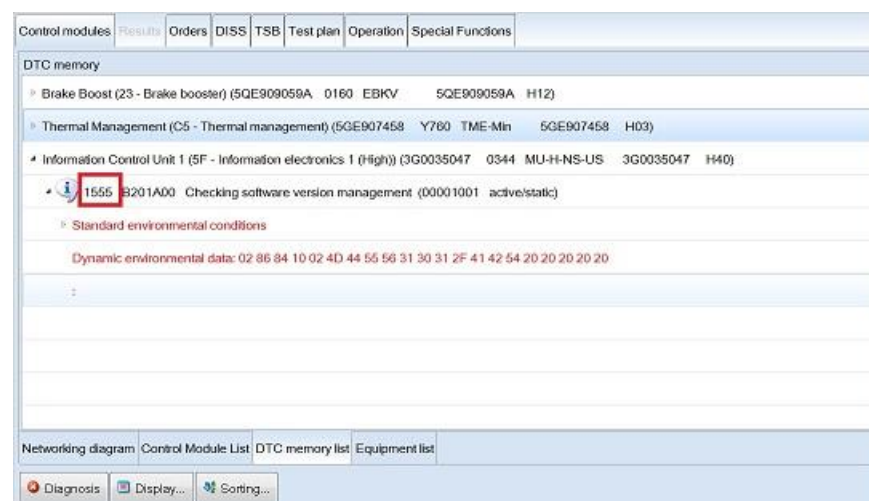


Figure 1

b. In Figure 1 (above), the symptom number shown inside the red box is 1555.

c. In the diagnostic protocol, the symptom number is viewable by expanding the DTC memory entries selection.



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Address : 5F System name : 5F - Information electronics 1 (High) Protocol versions : UDS/ISOTP (Ereignisse : 1)

☐ Identification:

☐ DTC memory entries:

DTC memory entry

Number : B201A00: Checking software version management

Error type 2 : active/static

Symptom : 1555

Status : 00001001

☐ Standard ambient conditions:

☐ Expanded ambient conditions:

Figure 2

d. In Figure 2 (above), the symptom number shown inside the red box is 1555.

2. If the symptom number associated with an AW C6 (High-Voltage charger) fault is in the table below, continue with the software update procedure.

| DTC symptom numbers for which the software update procedure should be performed: |
|----------------------------------------------------------------------------------|
| 14746149                                                                         |
| 14746197                                                                         |
| 14752269                                                                         |
| 16711696                                                                         |
| 16711727                                                                         |
| 16711736                                                                         |

**Note:**

A diagnostic log showing the DTC and symptom number must be uploaded to Volkswagen via GFF paperless or retained by the dealer (electronically or otherwise), as it may be subject to request.

3. If the symptom number associated with the fault(s) stored in AW C6 (High-Voltage charger) is not in the table above, **do not** perform the software update. Follow the applicable Guided Fault Finding (GFF) test plan to resolve fault(s).



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## Step 2: Update-Programming Procedure:

### **Note:**

**A special test plan must be performed after completing SVM update. See step 3 below.**

### **Tip:**

To Update-Programming using SVM, **review and follow** instructions in **Technical Bulletin Instance 2014603** “Software Version Management”. The SVM Process must be completed in its entirety so the database receives the update confirmation response. A warranty claim may not be reimbursed if there is no confirmation response to support the claim.

### **Note:**

Prior to launching the ODIS service diagnostic applications and starting control module update process, confirm tester screen saver and power settings in accordance with Special Tools and Equipment - Service Information Circular # VVT-12-02. Failure to do so may result in the tester entering power save mode during data transfer, and subsequent control module failure.

When using a VAS 6150/X or 6160/X tester in conjunction with a VAS 5054A wireless transmitter head for a flash procedure, please connect a USB cable between the transmitter head and the tester. Failure to do so may lead to errors during the flash procedure.

VAS tools must only be used with their power adapters plugged in. Under no circumstances should they be used on battery power alone during the programming procedure.



**Critical Warning:** The Midtronics Battery Charger **must** be connected to the vehicle battery for the duration of the programming, to ensure the battery state of charge remains above 12.5 volts during the update process. If the battery drops below 12.5 volts, the programming could fail which may result in damage to the control module. Control modules damaged by inadequate voltage will not be covered under the warranty policy. The technician should verify the vehicle voltage prior to starting the update process, and should monitor the voltage for the duration of the update.



### **WARNING:**

Radiator Fan(s) may cycle ON high speed during the Update Process! There is a risk that personal injury may result if contact is made with spinning fan blades.

Keep hands and all objects away from Radiator Fan(s) during Update Process!



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- Update the High-Voltage Charger using the SVM Unit code as listed in the table below:

| Old Software Part No. | Old Software Version | New Software Part No. | New Software Version (or higher) | SVM Unit Code |
|-----------------------|----------------------|-----------------------|----------------------------------|---------------|
| 5QE 915 681B          | 1550                 | 5QE 915 681B          | 1560                             | 3D13          |

The procedure can be found in GFF under Special Functions, Software version management, Adapting software.



**Tip:**

The SVM Process must be completed in its entirety so the database receives the update confirmation response. A warranty claim may not be reimbursed if there is no confirmation response to support the claim or action is carried out that is not explicitly stated in the Technical Bulletin.

## **Step 3: Complete GFF Test Plan to Erase Event Memory of the High-Voltage Battery Charger Control Module:**

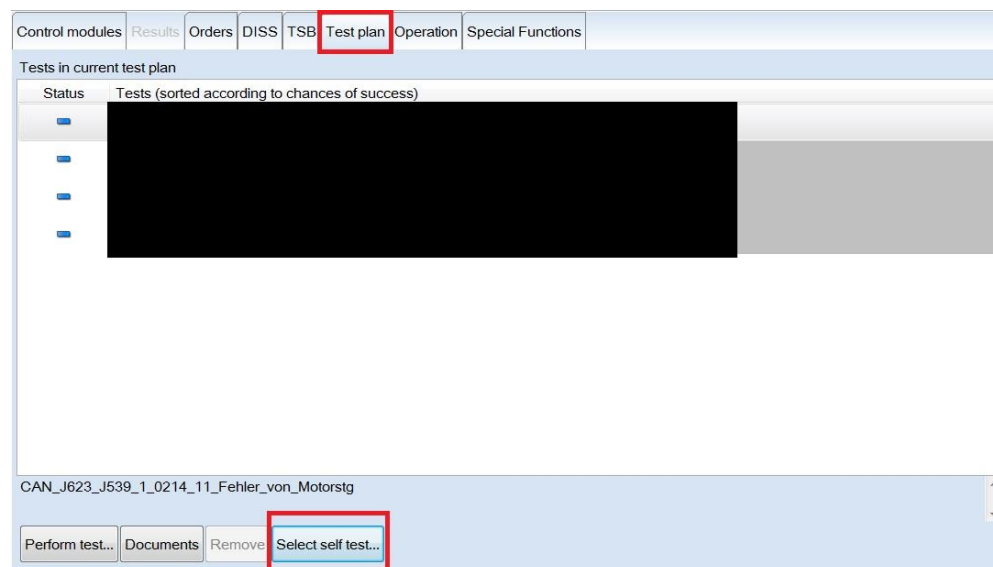
After successful completion of the SVM update, the test plan “Erase event memory of the high-voltage battery charger control module – J1050 after SW update” must be performed. Follow the procedure below to complete the test plan.



**Note:**

The ODIS Content Version must be 2.30.0 (released October 29, 2015) or higher to perform this test plan.

1. Select the ODIS Test Plan tab and click “Select self test...”



**Figure 3**



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2. In the Test overview pop-up, select Body>Electrical System>01-Systems capable of self-diagnosis>C6/BD – HV Charging Concept>C6/BD – High-voltage battery charging, functions>C6 – Erase event memory of the High-voltage battery charger control module – J1050 after SW update and click “Attach to the test plan”.

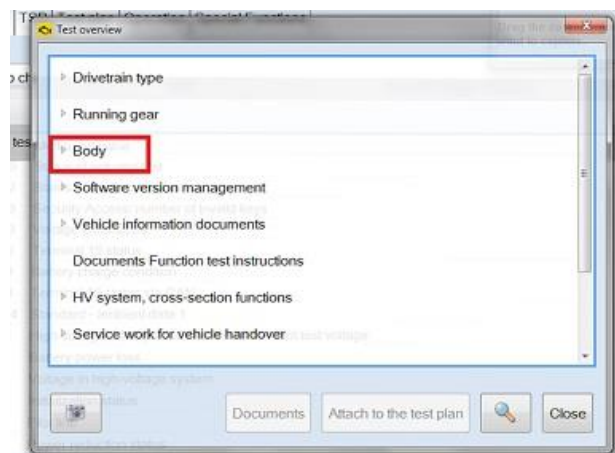


Figure 4

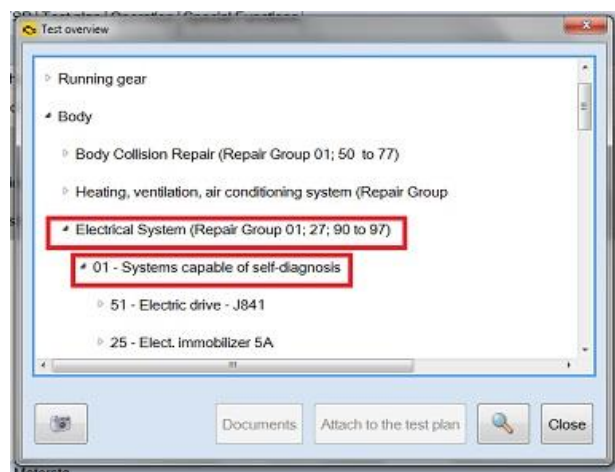


Figure 5



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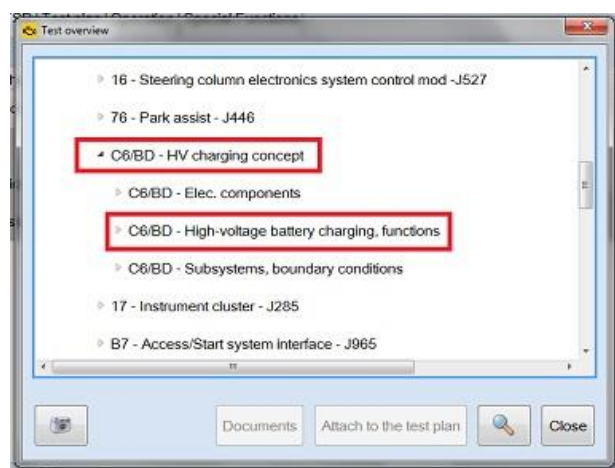


Figure 6

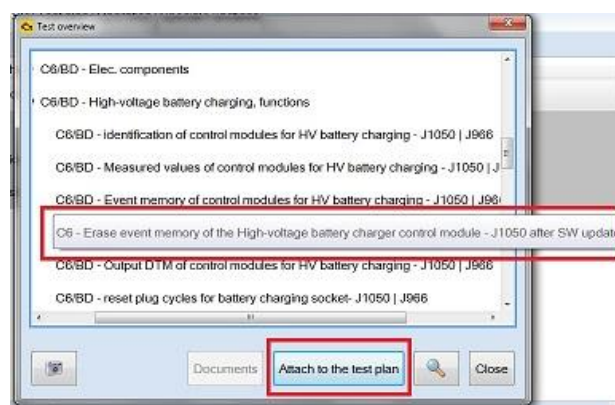
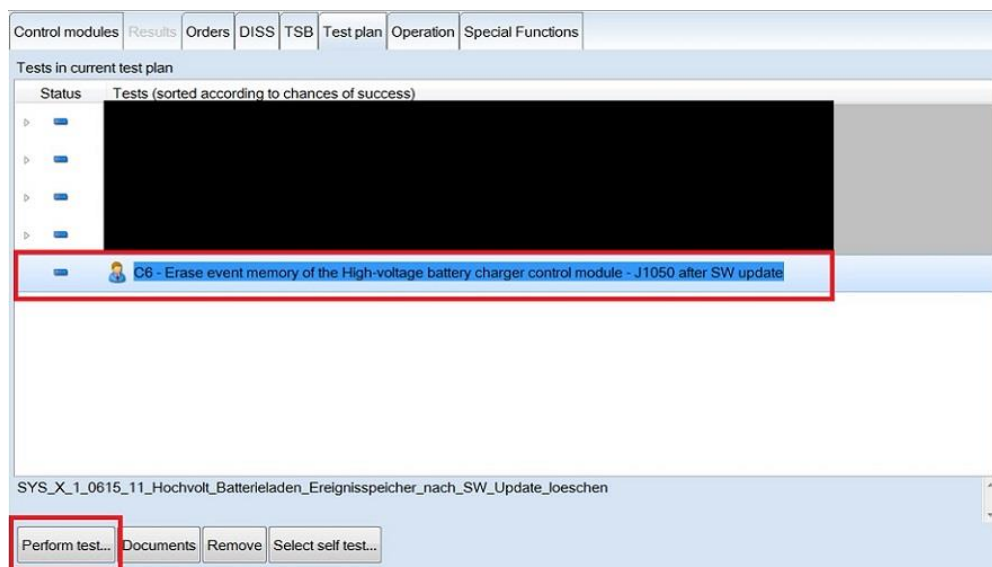


Figure 7



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3. In the Test Plan tab, highlight the added test plan and click “Perform test...”

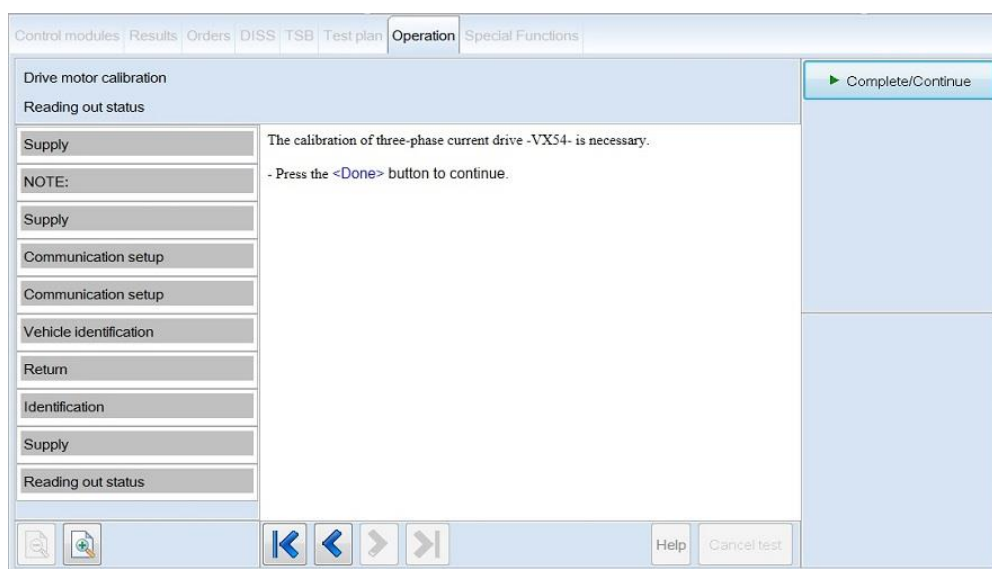


**Figure 8**

4. Follow instructions on screen to complete test plan.

5. Exit GFF.

6. During GFF exit, follow instructions to complete calibration of three-phase current drive -VX54-, if necessary.



**Figure 9**

7. Connect the vehicle to a charging station and confirm proper charging function.



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## Warranty

|                                                                                                                                                                                                                                                                                                                                            |                                              |                                                |                         |                                                     |                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|------------------------------------------------|-------------------------|-----------------------------------------------------|---------------------|
| <b>To determine if this procedure is covered under Warranty, always refer to the Warranty Policies and Procedures Manual <sup>1)</sup></b>                                                                                                                                                                                                 |                                              |                                                |                         |                                                     |                     |
| <b>Model(s)</b>                                                                                                                                                                                                                                                                                                                            | <b>Year(s)</b>                               | <b>Eng. Code(s)</b>                            | <b>Trans. Code(s)</b>   | <b>VIN Range From</b>                               | <b>VIN Range To</b> |
| e-Golf                                                                                                                                                                                                                                                                                                                                     | 2015-2016                                    | All                                            | All                     | All                                                 | All                 |
| <b>SAGA Coding</b>                                                                                                                                                                                                                                                                                                                         |                                              |                                                |                         |                                                     |                     |
| <b>Claim Type:</b>                                                                                                                                                                                                                                                                                                                         |                                              | <b>Use applicable Claim Type <sup>1)</sup></b> |                         |                                                     |                     |
| <b>Service Number:</b>                                                                                                                                                                                                                                                                                                                     | <b>Damage Code</b>                           | <b>HST</b>                                     |                         | <b>Damage Location<br/>(Depends on Service No.)</b> |                     |
| 9352                                                                                                                                                                                                                                                                                                                                       | 0039                                         | -                                              |                         | Use applicable when indicated in Elsa (L/R)         |                     |
| <b>Parts Manufacturer</b>                                                                                                                                                                                                                                                                                                                  |                                              | <b>e-Golf</b>                                  |                         | <b>DT2 <sup>2)</sup></b>                            |                     |
| <b>Labor Operation <sup>3)</sup> : Charge Battery</b>                                                                                                                                                                                                                                                                                      |                                              |                                                | <b>27068950 = 10 TU</b> |                                                     |                     |
| <b>Causal Part: Select labor operation</b>                                                                                                                                                                                                                                                                                                 |                                              |                                                | <b>01500000</b>         |                                                     |                     |
| <b>Diagnostic Time <sup>4)</sup></b>                                                                                                                                                                                                                                                                                                       |                                              |                                                |                         |                                                     |                     |
| <b>GFF Time expenditure (includes Updating Software)</b>                                                                                                                                                                                                                                                                                   | <b>01500000 = 75 TU max.</b>                 |                                                |                         | <b>YES</b>                                          |                     |
| <b>Road Test</b>                                                                                                                                                                                                                                                                                                                           | <b>01210002 = 00 TU<br/>01210004 = 00 TU</b> |                                                |                         | <b>NO</b>                                           |                     |
| <b>Technical Diagnosis</b>                                                                                                                                                                                                                                                                                                                 | <b>01320000 = 00 TU max.</b>                 |                                                |                         | <b>NO</b>                                           |                     |
| <b>Claim Comment: Input "As per Technical Bulletin 2041920" in comment section of Warranty Claim.</b>                                                                                                                                                                                                                                      |                                              |                                                |                         |                                                     |                     |
| <sup>1)</sup> Vehicle may be outside any Warranty in which case this Technical Bulletin is informational only<br><sup>2)</sup> Code per warranty vendor code policy.<br><sup>3)</sup> Labor Time Units (TUs) are subject to change with ELSA updates.<br><sup>4)</sup> Documentation required per Warranty Policies and Procedures Manual. |                                              |                                                |                         |                                                     |                     |



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## Required Parts and Tools

No special parts required.

| Tool Description                  | Tool No:                                                                 |
|-----------------------------------|--------------------------------------------------------------------------|
| Midtronics Battery Tester/Charger | InCharge 940 (INC-940)<br>or<br>GRX3000VAS                               |
| VAS Diagnostic Tool               | VAS 6150/X & VAS 6160/X and<br>ODIS Service with: current online updates |

## Additional Information

All part and service references provided in this Technical Bulletin are subject to change and/or removal. Always check with your Parts Dept. and Repair Manuals for the latest information.