



Release date: 9/28/2023

93-23-05 – Front Electric Drive Power Electronics DTCs P30A000, P18F100, and P0A1B00 with Specific Symptom Codes

Condition

Applicable Vehicles						
Model(s)	Year	Eng. Code	Trans. Code	VIN Range From	VIN Range To	PR Code
ID.4	2021	All	All	All	All	1X1

Revision Table			
Instance Number	Published Date	Version Number	Reason For Update
2071539/1	9/28/23	93-23-05	Original publication

The customer reports an electric drive system error message has appeared.

Example 1: "Error: Drive system. Please service vehicle."

Example 2: "Electrical system not working correctly. Please service vehicle."

Or various warning lamps and symbols are illuminated in the instrument cluster.

One or more of the diagnostic trouble codes (DTCs) together with one or more of the specific symptom codes listed below is present in the fault memory of the Electric Drive Power and Control Electronics 2 - JX4- (diagnostic address 00CE) with software version 8315 (SW 8315).

P30A000: Intermediate circuit condenser not discharged

- With symptom codes: 42124 and/or 42146

P18F100: Function limitation due to deviating wheel speeds

- With symptom codes: 42204 and/or 42330

P0A1B00 - Drive Motor "A" Control Module

- With symptom codes: 42297 and/or 42175



If one or more of the DTCs in combination with the specific symptom codes listed above is not present at the start of diagnosis, then this technical bulletin does not apply!



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## Technical Background

Software related deviation in the Electric Drive Power and Control Electrics 2 -JX4-.

## Production Solution

Implementation of optimized software (SW 8351) and hardware (H12) in production CW50/21.

## Service

1. Check whether the recall 97ZZ has already been performed (all criteria closed).
  - If no (recall 97ZZ open) continue with step 2.
  - If yes (recall 97ZZ closed) continue with step 3.
2. Perform the 97ZZ recall ID.S 3.1.3 compound software update, which includes SW 8351 for the Electric Drive Power and Control Electronics 2 -JX4-. Then proceed to step 3.

**Tip:**

The control units in the ID family (MEB platform) vehicles may only be updated together and sequentially within the “ID. Software” (ID.S) compound update. Changes of individual control unit part numbers (if applicable) are generally reflected in the ETKA parts catalog after an ID.S compound update has been successfully completed.

3. Carry out the following steps in order:
  - Perform terminal 30 reset by disconnecting and reconnecting the 12V battery ground strap. See Repair Group 27 Battery, Disconnecting and Connecting in Elsa.
  - Erase DTC memory in diagnostic address 00CE.
  - Perform bus-sleep using GFF > 0019 – Establish bus sleep mode.
  - Proceed to step 4.
4. After completion of steps 1 through 3, if none of the above listed DTCs and symptom codes for which this bulletin was performed returns, then no further work is necessary. If one of the above listed DTCs and symptom codes has returned, then proceed to step 5.
5. Perform the relevant Guided Fault Finding (GFF) test plan for the DTC(s), and if necessary, replace the Electric Drive Power and Control Electronics 2 -JX4-.



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Note:

As of this writing, the Electric Drive Power and Control Electronics 2 -JX4- is only available as part of the complete front electric drive assembly. The associated procedures, tools, and required Single-use fasteners are completely described in the Elsa repair manual and are beyond the scope of this technical bulletin.



Tip:

If an order was previously made for the electric drive assembly with Electric Drive Power and Control Electronics 2 -JX4- having SW 8315 (i.e., part number 1ED.901.132 H/J) because of a diagnosis based on one of the specific DTC(s) or symptom code(s) listed above, then that order should be cancelled. Instead, perform the ID.S compound update according to the recall 97ZZ to install SW 8351. If replacement is necessary after SW 8351 has been installed, then a superseded part number corresponding to H12 and SW 8351 may be ordered (refer to ETKA parts catalog after the update is successfully performed).

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>Applicable Vehicles</b>						
Model(s)	Year	Eng. Code	Trans. Code	VIN Range From	VIN Range To	PR Code
ID.4	2021	All	All	All	All	1X1
<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 (Depends on Service No.)</b>		
9340	Steps 1 – 4 performed	0039	--	--		
	Steps 1 – 5 performed	0040	--	--		



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<b>Parts Manufacturer:</b>	ID.4	Z2G
<b>Labor Operation <sup>3)</sup></b> : Steps 1-2	Not applicable – Labor is accounted for within the campaign 97ZZ	
<b>Labor Operation <sup>3)</sup></b> : Charge battery	27 06 89 50 = 10 TU	
<b>Labor Operation <sup>3)</sup></b> : <b>Steps</b> 3-4 (terminal 30 reset)	97 85 09 50 = 10 TU	
<b>The additional operations below are applicable <u>only</u> if step 5 has led to a necessary replacement of the front e-drive.</b>		
<b>Labor Operation <sup>3)</sup></b> : Coolant drain and fill	19 38 17 50 = see Elsa for latest time units	
<b>Labor Operation <sup>3)</sup></b> : Subframe remove + reinstall	40 07 19 60 = see Elsa for latest time units	
<b>Labor Operation <sup>3)</sup></b> : 2 Wheels remove + reinstall	44 05 20 52 = see Elsa for latest time units	
<b>Labor Operation <sup>3)</sup></b> : Rear cover plate remove + reinstall	51 94 19 03 = see Elsa for latest time units	
<b>Labor Operation <sup>3)</sup></b> : Disable HV system voltage deactivate and reactivate	93 10 83 50 = see Elsa for latest time units	
<b>Labor Operation <sup>3)</sup></b> : Electric Drive Motor remove + reinstall	93 40 19 60 = see Elsa for latest time units.	
<b>Labor Operation <sup>3)</sup></b> : Electric drive motor replace	93 40 55 60 = see Elsa for latest time units	
<b>Labor Operation <sup>3)</sup></b> : Vehicle front + rear measured (only if required)	44 95 03 00 = see Elsa for latest time units	
<b>Labor Operation <sup>3)</sup></b> : Front wheel track adjusted (only if required)	44 88 15 50 = see Elsa for latest time units	
<b>Causal Part:</b>	Steps 1 – 4 performed	Select labor operation 97 85 09 50
	Steps 1 – 5 performed	Use replacement front electric drive part number according to ETKA catalog <u>after</u> current software update has been applied
<b>Diagnostic Time <sup>4)</sup></b>		



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<b>GFF Time expenditure</b>	01500000 = Actual GFF print out – 100 TU max.	YES
<b>Road Test</b>	01210002 = see Elsa for latest time units 01210004 = see Elsa for latest time units	YES
<b>Technical Diagnosis</b>	01320000 = 00 TU max.	NO
<b>Claim Comment:</b> Input "As per Technical Bulletin 2071539/1 in comment section of Warranty Claim.		
<p>1) Vehicle may be outside any Warranty in which case this Technical Bulletin is informational only.</p> <p>2) Code per warranty vendor code policy.</p> <p>3) Labor Time Units (TUs) are subject to change with ELSA updates.</p> <p>4) Documentation required per Warranty Policies and Procedures Manual.</p>		

**Required Parts and Tools**

Part No.	Part Description	Quantity
Use replacement front electric drive part number according to ETKA catalog after current software update has been applied	Front electric drive assembly	1
12E407298	Lock ring, inner axle end	2
N 10240305	Nut, connecting link	4
N 10469402	Bolt, transmission mount	1
N 10866001	Bolt, motor / transmission support	9
N 91284901	Bolt, motor mount	2
N 10785401	Bolt, subframe	6
N 10518405	Bolt, steering shaft	2
WHT005538	Nut, tie rod end	2



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WHT005437A	Bolt, outer axle end	2
N 91233201	Nut, lower ball joint	6
N 0385494	Rivet, underbody panel (if required)	4
N 91039802	Bolt, subframe	4
N 91260401	Bolt, subframe	4
G 12E100S1	G12 EVO Coolant Concentrate	12.7 Quarts



**Note:**

For special tools associated with electric drive assembly removal and replacement, see repair manual.

Tool Description	Tool No:
VAS Diagnostic Tool	VAS 6150/X & VAS 6160/X with ODIS Service with current online updates
VAS Battery Tester / Charger	VAS 5908

**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.