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Coffee Machine Parts & Service | B2B & B2C

JURA Coffee Machine

Service Manual

Error Code Diagnostics & Replacement Parts Guide

Document Type:	Technical Service Manual
Target Audience:	Service Technicians, B2B & B2C Customers
Machine Brand:	JURA Coffee Machines
Coverage:	General Models, GIGA Series, Non-Text Displays
Publisher:	brewive s.r.o. - Coffee Machine Parts Specialist
Publication Date:	October 2025
Website:	www.brewive.com

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1.0 Introduction and Essential Safety Protocols

This manual is a comprehensive reference for service technicians, repair professionals, and technically-minded JURA coffee machine owners. It provides a complete breakdown of error code systems for general JURA models, the GIGA series, and machines utilizing non-text fault displays. Whether you're a professional technician or a dedicated coffee enthusiast, adherence to the safety protocols outlined herein is essential for ensuring personal safety and preventing equipment damage.

Critical Safety Warnings

■ **Pre-Repair Inspection: Always read all relevant instructions and diagnostic procedures thoroughly before beginning any repair work. A complete understanding of the potential issue is critical to a successful resolution.**

■ **Electrical Hazard: Before opening the machine's housing, you must unplug the appliance from the mains power source. Ensure the machine is completely de-energized to prevent the risk of severe electrical shock.**

General Diagnostic Notes

• **Error Display Methods:** Depending on the specific model, fault conditions may be communicated via on-screen text messages or through a combination of flashing or illuminated symbols and LEDs.

• **Automatic Shutdown:** Be aware that machines manufactured since approximately 2012 are programmed to automatically shut down 5 or 10 seconds after an ERROR is triggered.

• **Communication Fault:** If a machine shuts down unexpectedly without displaying any error message, this typically indicates a communication problem between the logic board and the display module. This fault condition is analogous to Error 23.

• **Important Note on Replacement Parts:** The error codes indicate which process failed, not necessarily which specific part is defective. Multiple components may be involved in each process. Always inspect the machine before ordering parts.

2.0 Standard Error Codes (General JURA Models)

This section details the standard numerical error codes common across a wide range of JURA models equipped with text displays. Each entry provides a clear description of the fault as reported by the machine's internal diagnostics, an analysis of the most probable root causes, and the recommended corrective actions for resolution.

2.1 Error 0 - Encoder Failure

Description: The logic board is not receiving information from the encoder.

Analysis of Probable Causes: A defect exists in the encoder, the encoder cable, or the logic board.

Recommended Corrective Actions: Isolate the faulty component and proceed with replacement.

- **Replacement Parts to Consider: Brew Group Encoder, Encoder Cable, Logic Board**

2.2 Error 1 - Coffee Temperature Too Low

Description: The coffee temperature sensor reports 'tolerance value undershot'.

Analysis of Probable Causes: The required brewing temperature for coffee is not being reached. This may be caused by a defect in the temperature sensor, the power board, or the logic board. The thermoblock may also be defective or heavily calcified.

Recommended Corrective Actions: Test and replace the defective component. Descale the machine if necessary.

- **Replacement Parts to Consider: Coffee Thermoblock Temperature Sensor, Thermoblock, Power Board**

2.3 Error 2 - Coffee Temperature Too High

Description: The coffee temperature sensor reports 'tolerance value exceeded'.

Analysis of Probable Causes: The maximum permissible brewing temperature for coffee has been exceeded, and the brewing process was stopped as a safety precaution. The machine may be too cold (e.g., stored in a cold environment), or there is a defect in the temperature sensor, thermal fuse, heating element, power board, or logic board.

Recommended Corrective Actions: Allow the machine to acclimatize to normal room temperature. If the error persists, isolate and replace the faulty component.

- **Replacement Parts to Consider: Coffee Thermoblock Temperature Sensor, Thermal Fuse, Power Board**

2.4 Error 3 - Steam Temperature Too Low

Description: The steam temperature sensor reports 'tolerance value undershot'.

Analysis of Probable Causes: The required temperature for steam generation is not being reached. This points to a defect in the steam temperature sensor, the power board, or the logic board. The thermoblock may also be defective or heavily calcified.

Recommended Corrective Actions: Identify and replace the defective part. Descale thoroughly.

- **Replacement Parts to Consider: Steam Temperature Sensor, Steam Thermoblock, Power Board**

2.5 Error 4 - Steam Temperature Too High

Description: The steam temperature sensor reports 'tolerance value exceeded'.

Analysis of Probable Causes: The maximum permissible temperature for steam generation has been exceeded, and the process was stopped as a safety precaution. The machine may be too cold, or there is a defect in the steam temperature sensor, thermal fuse, heating element, power board, or logic board.

Recommended Corrective Actions: Allow the machine to acclimatize to normal room temperature. Should the error persist, identify and replace the defective component.

■ **Replacement Parts to Consider: Steam Temperature Sensor, Thermal Fuse, Heating Element**

2.6 Error 5 - Unable to Heat Up

Description: Unable to heat up.

Analysis of Probable Causes: The required coffee brewing temperature is not reached. Potential causes include a defective temperature sensor, thermal fuse, power board, or logic board. The thermoblock may also be defective or heavily calcified.

Recommended Corrective Actions: Allow the machine to acclimatize to normal room temperature. If the error persists, test and replace the defective component.

Note for Impressa 500 & Ultra: On these specific models, Error 5 indicates that the internal descaling temperature measurement has failed due to a defective water sensor. The corrective action is to replace the water sensor.

■ **Replacement Parts to Consider: Temperature Sensor, Thermoblock, Thermal Fuse, Over-Temp Fuse, Power Board**

2.7 Error 6 - Ceramic Valve Failure

Description: Positioning or initialization of the multi-way valve (ceramic valve) is not possible.

Analysis of Probable Causes: The ceramic valve is failing to move or is in an incorrect position. This indicates a defect in the valve itself, the power board, or the logic board. The valve may be clogged with scale, or the microswitches inside the valve may be worn out.

Recommended Corrective Actions: Descale the machine thoroughly. If the error persists, inspect the ceramic valve for scale buildup. Replace the microswitches or the entire ceramic valve assembly. On some older models, this error can be caused by poor contact on the calcification monitoring sensor; cleaning the contacts may resolve the issue.

Note for Impressa 500 & Ultra: On these models, Error 6 indicates the water sensor reports 'tolerance value exceeded.' This is caused by a failure in the internal descaling temperature measurement, pointing to a faulty water sensor or a poor connection at the calcification monitoring sensor. Replace the water sensor or clean the contacts.

■ Replacement Parts to Consider: Ceramic Valve (Multi-way Valve), Valve Microswitches, Power Board, Reactive Cable Contacts

2.8 Error 7 - Second Ceramic Valve Failure

Description: Positioning or initialization of multi-way valve 2 (ceramic valve 2) is not possible.

Analysis of Probable Causes: The second ceramic valve is not moving or is in an incorrect position. This indicates a defect in the second valve, the power board, or the logic board.

Recommended Corrective Actions: Replace the identified faulty part.

Note for Impressa 500, Ultra, and X7: On these specific models, a displayed Error 7 actually corresponds to the fault conditions described under Error 8.

■ Replacement Parts to Consider: Second Ceramic Valve, Power Board

2.9 Error 8 - Brew Unit Positioning Failure

Description: Positioning or initialization of the brew unit is not possible.

Analysis of Probable Causes: The brew unit is moving with difficulty, is not moving at all, or is in an incorrect position.

- *Difficult Movement:* Swollen or torn O-rings are the most common cause.
- *No Movement:* This suggests a defect in the transformer, gear motor, cable contacts, power board, or logic board.
- *Incorrect Position:* This points to a defect in the drainage valve, encoder, encoder cable, motor, guide roller, power board, or logic board.

Recommended Corrective Actions: Error 8 is the most common error in JURA machines. Start by rebuilding the brew group with new O-rings and proper lubrication. If this doesn't resolve the issue, check the gear motor for worn teeth, inspect the encoder and encoder cable, and test the gear motor operation. The encoder should be replaced only after all other components have been checked, as it rarely fails.

■ Replacement Parts to Consider: Brew Group O-Ring Kit, Complete Brew Group Assembly, Brew Group Gear Motor, Encoder (rarely needed), Transformer

2.10 Error 9 - Logic Relay Defective

Description: The logic relay is defective.

Analysis of Probable Causes: The relay on the logic board has failed.

Recommended Corrective Actions: Replace the entire logic board.

■ **Replacement Parts to Consider: Logic Board (CPU Board)**

2.11 Error 10 - Heating System Overheated

Description: The heating system became too hot (received mains power interference).

Analysis of Probable Causes: The machine received power surges or interference from the mains supply. This may have caused a defect in a temperature sensor, the noise suppression filter, the power board, or the logic board.

Recommended Corrective Actions: Isolate the faulty component and proceed with replacement.

■ **Replacement Parts to Consider: Temperature Sensor, Power Board, Logic Board, Noise Suppression Filter**

2.12 Error 13 - Left Grinder Failure

Description: Initialization of the left grinder is not possible.

Analysis of Probable Causes: The left grinder cannot be activated. This indicates a potential defect in the grinder's microswitch, cabling, the power board, the logic board, or the grinder motor itself.

Recommended Corrective Actions: Isolate the defective component and proceed with replacement.

■ **Replacement Parts to Consider: Left Grinder Motor, Grinder Microswitch, Power Board, Wiring Harness**

2.13 Error 14 - Right Grinder Failure

Description: Initialization of the right grinder is not possible.

Analysis of Probable Causes: The right-hand grinder cannot be activated. This indicates a potential defect in the grinder's microswitch, cabling, the power board, the logic board, or the grinder motor itself.

Recommended Corrective Actions: Identify and replace the defective part.

■ **Replacement Parts to Consider: Right Grinder Motor, Grinder Microswitch, Power Board, Wiring Harness**

2.14 Error 15 - CAPPU Motor Failure

Description: Initialization of the CAPPU stepper motor is not possible.

Analysis of Probable Causes: The cappuccino system's stepper motor cannot be activated. This suggests a defect in the cable, the stepper motor, the power board, or the logic board.

Recommended Corrective Actions: Test and replace the defective component.

■ **Replacement Parts to Consider: CAPPU Stepper Motor, Power Board, Motor Cable**

2.15 Error 22 - CLARIS Smart Problem

Description: CLARIS Smart communication problem.

Analysis of Probable Causes: Information could not be written to the RFID chip. This points to a defect in the CLARIS Smart filter itself, the CLARIS Smart module, or the CLARIS Smart antenna.

Recommended Corrective Actions: Isolate and replace the defective part.

■ **Replacement Parts to Consider: CLARIS Smart Filter, CLARIS Smart Module, CLARIS Smart Antenna**

2.16 Error 23 - Display Communication Failure

Description: Controller Timeout (Logic ↔ Display).

Analysis of Probable Causes: A communication failure has occurred between the display and the logic board. This indicates a defect in a component cable, the display module, or the logic board.

Recommended Corrective Actions: Check all cable connections first. If cables are secure, replace the display or logic board.

■ **Replacement Parts to Consider: Display Module, Logic Board, Display Cable, Wiring Harness**

3.0 JURA GIGA Series-Specific Error Codes

The JURA GIGA series utilizes a unique and expanded set of error codes that correspond to its advanced features, dual components, and complex internal systems. This section provides a diagnostic guide specifically for these high-performance JURA models. The GIGA series includes additional sensors and components, resulting in more specific error codes.

3.1 to 3.9 - Temperature-Related Errors

Errors 1-9 in GIGA machines correspond to temperature sensor issues similar to general models, but with additional sensors for the speed temperature sensor (hot water bypass) and steam lance. Refer to Section 2.0 for general guidance on temperature-related errors. Replacement parts typically include temperature sensors, thermoblocks, and power boards.

3.10 Error 10 - No Pulses from Left Grinder Hall Sensor

Analysis of Probable Causes: The left grinder is not rotating, or the left hall sensor is defective.

- **Replacement Parts: Left Grinder Assembly, Hall Sensor**

3.11 Error 11 - No Pulses from Right Grinder Hall Sensor

Analysis of Probable Causes: The right grinder is not rotating, or the right hall sensor is defective.

- **Replacement Parts: Right Grinder Assembly, Hall Sensor**

3.15 Error 15 - Ventilation Motor Failure

Description: Initialization of the ventilation stepper motor is not possible.

Analysis of Probable Causes: The ventilation stepper motor cannot be activated.

- **Replacement Parts: Ventilation Stepper Motor, Power Board**

3.17 Error 17 - GIGA Brew Unit Positioning

Analysis: Similar to Error 8 in general models. Most commonly caused by worn O-rings in the brew group.

- **Replacement Parts: GIGA Brew Group O-Ring Kit, GIGA Brew Group Assembly, Gear Motor, Encoder**

3.22 Ventilator (Fan) Symbol

Description: The fan symbol is displayed when the cooling fan is not functioning.

- **Replacement Parts: Cooling Fan, Logic Board**

4.0 Diagnostics for JURA Models with Non-Text Displays

This section is a vital guide for diagnosing errors on JURA models that communicate faults through blinking symbols, LED combinations, or unique text messages rather than standard numerical codes. The indications described below should be cross-referenced with the detailed analyses in Section 2.0 for full diagnostic information and replacement part recommendations.

4.1 Impressa 300

Indication: The "Error" symbol illuminates.

Potential Faults: This general warning indicates a potential issue corresponding to Error 0, Error 1, Error 2, Error 5, or Error 8. Refer to Section 2.0 for detailed diagnostics and replacement parts.

4.2 Impressa E10 & E25

This model uses combinations of blinking symbols to indicate specific errors:

- **Cup + Spout + Drawer + Cleaning + Descaling + Filter blinking:** Error 1 (Temperature sensor)
- **Powder + Spout + Drawer + Cleaning + Descaling + Filter blinking:** Error 2 (Temperature too high)
- **Rinsing + Spout + Drawer + Cleaning + Descaling + Filter blinking:** Error 5 (Heating failure)
- **Steam + Spout + Drawer + Cleaning + Descaling + Filter blinking:** Error 8 (Brew unit issue)

4.5 ENA Micro 1 & Micro 5

Note: Machine shuts down 5 seconds after symbol begins blinking.

- **Descaling symbol blinking:** Error 1 or 2 (Temperature sensor)
- **Cleaning symbol blinking:** Error 5 (Heating failure)
- **Water tank symbol blinking:** Error 8 (Brew group)
- **Ground coffee symbol blinking:** Error 9 (Logic relay)
- **All symbols blinking:** Error 23 (Communication failure)

4.6 Nespresso N9 & N90

"SERVICE 7" displayed: Defective contact in brew head. Replace or repair brew head.

4.7 Nespresso N70 & N75

"Störung" (Fault): Corresponds to Error 1, 2, 5, or 8.

"Check up": System is blocked. Perform full cleaning cycle.

Need JURA Replacement Parts?

brewive s.r.o. specializes in high-quality replacement parts for JURA coffee machines throughout the EU region. We serve both B2B partners and B2C customers with comprehensive technical support and fast delivery of genuine and compatible components. Our technical team can help you identify the right parts for your repair.

Company:	brewive s.r.o.
Website:	www.brewive.com
Region:	European Union
Specialization:	JURA Coffee Machine Parts & Service
Target Market:	B2B & B2C
Services:	Original & Compatible Parts, Technical Support

This technical documentation has been compiled to support service technicians, repair professionals, and JURA coffee machine owners in the diagnosis and repair of their equipment. For part inquiries, technical support, or to order replacement components, please visit our website at www.brewive.com.