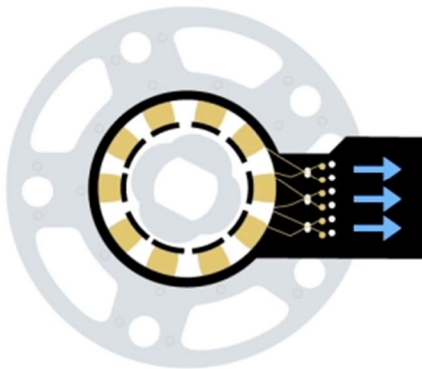


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Motor Angle Calibration Introduction

Function Introduction

A resolver is a type of rotation angle sensor for controlling the drive motor that is the power source of EVs. By efficiently controlling the motor, power consumption can be suppressed. To control the motor according to various driving conditions of a vehicle, it is necessary to detect the magnetic pole position of the motor and accurately grasp its rotational speed. The resolver serves as a sensor for these tasks.



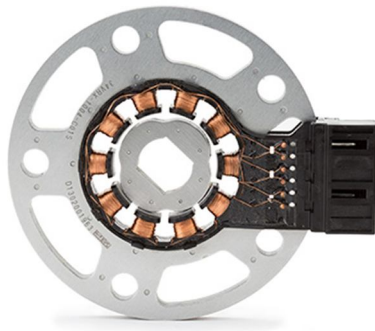
1. The rotor rotates with the motor.
2. The angle is detected by means of an electric signal generated due to a change in the reactance of the rotating rotor and fixed stator.
3. Speed is controlled by sending an electric signal to the motor.

Rotation angle sensor (resolver) for EV/HEV electric motor

The speed of the motor that is the heart of the electric vehicle, when the motor is working in a high temperature environment or in a humid, dusty and other environment for a long time, the

resolver (rotation angle sensor) is prone to failure. After the failure, the rotation angle sensor signal is faulty, resulting in the motor not working normally, reducing the system reliability, and affecting the normal driving of the vehicle.

At this time, it is necessary to calibrate the rotation angle sensor of the motor.



Device Requirement

PAD VII, European Euro Tab III, MM4.0

Other devices can buy “Motor Angle Calibration” function in Mall module.

Support Vehicles

BMW, MINI, Toyota, Lexus, Honda, Acura

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Operation Guide:

Take Toyota as an example:

1. Enter Motor Angle Calibration V10.00, Click "TOYOTA".

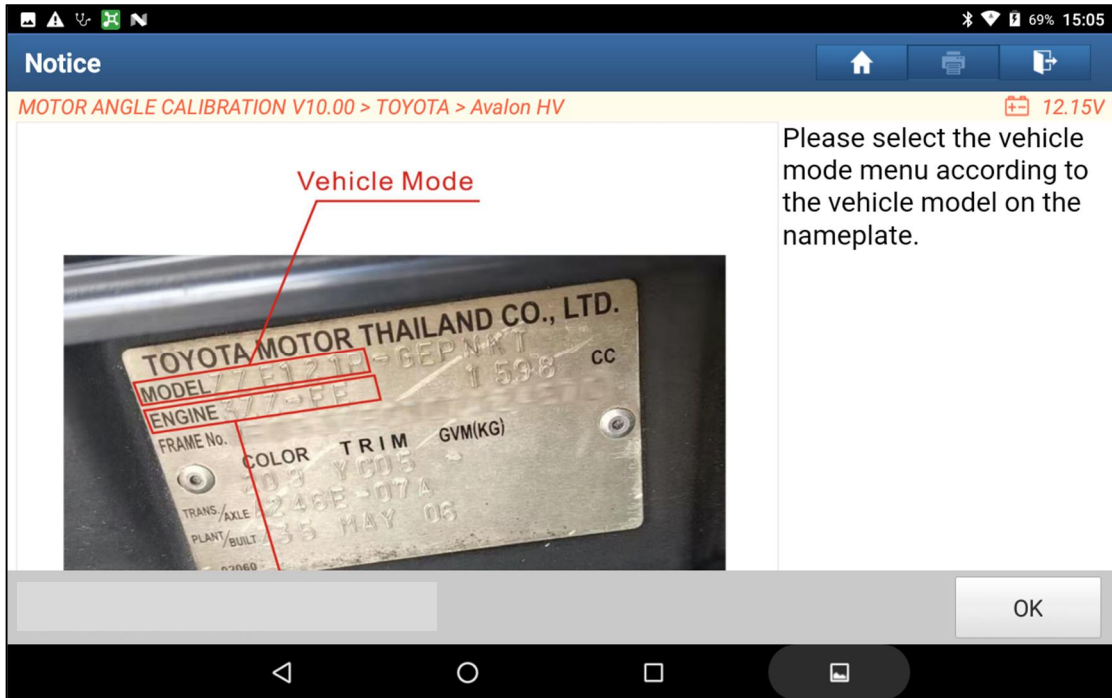


2. Click "Avalon HV".

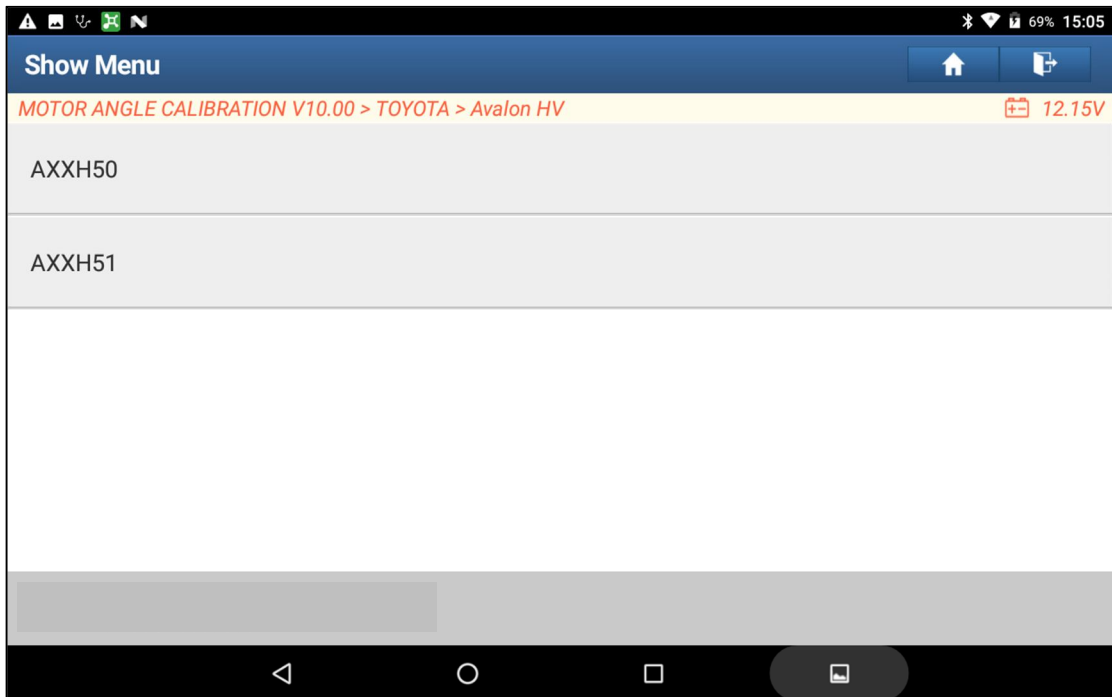


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- Note "select the vehicle mode menu according to the vehicle model on the nameplate", and click "OK" to continue.

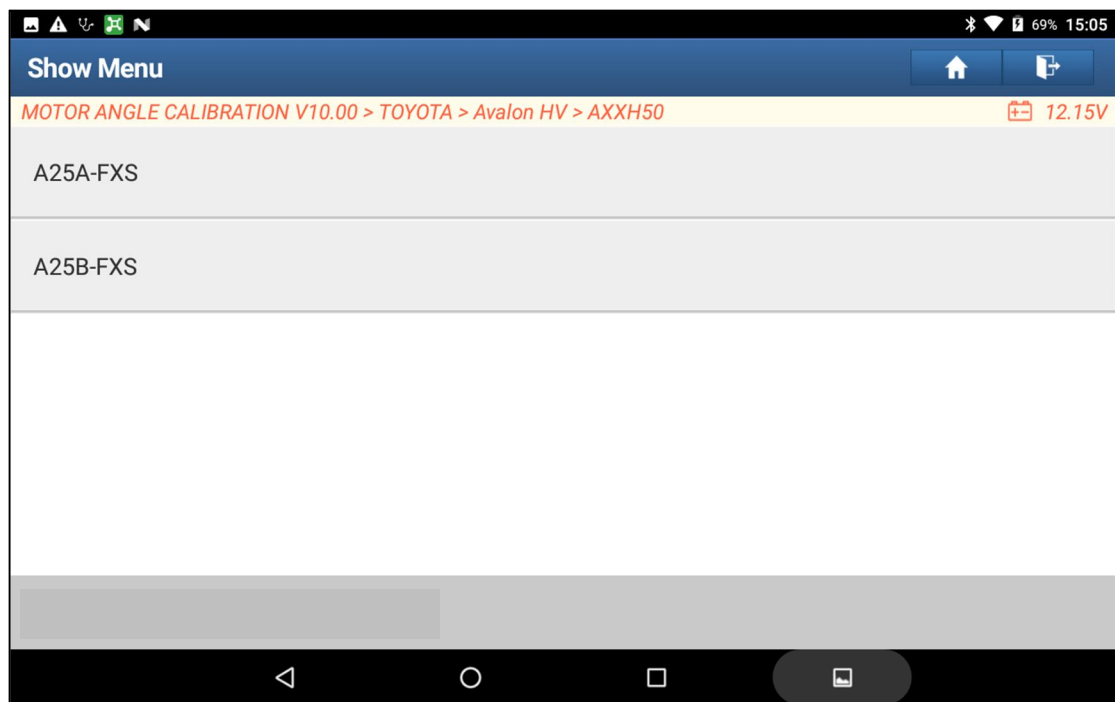


- Click "AXXH50".

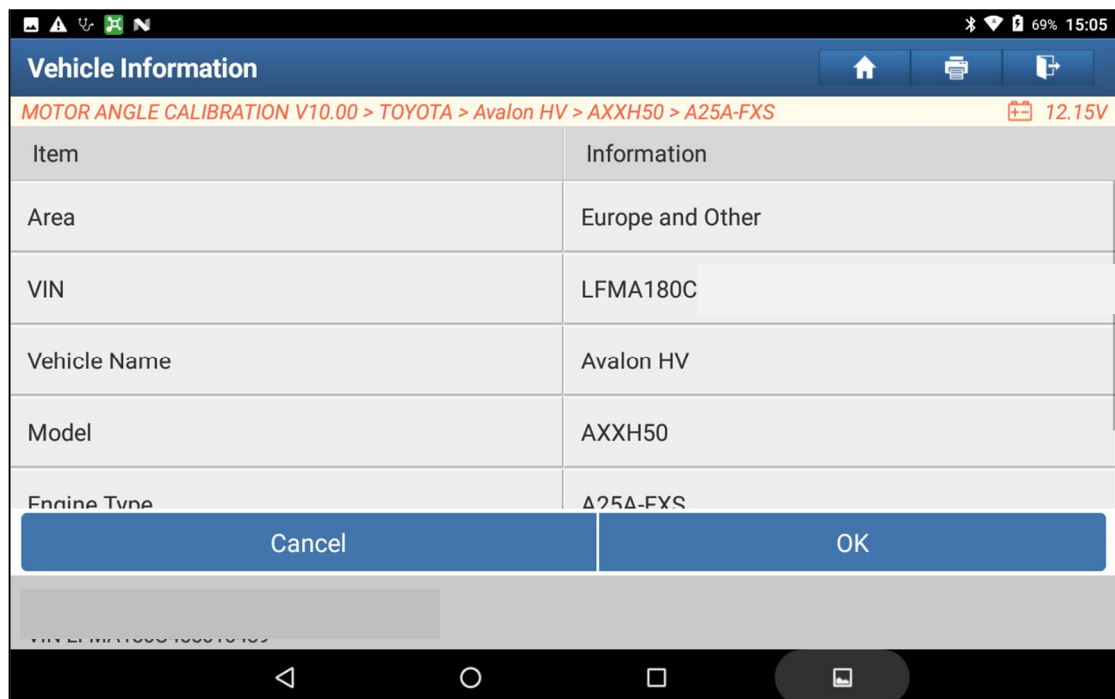


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5. Click "A25A-FXS".

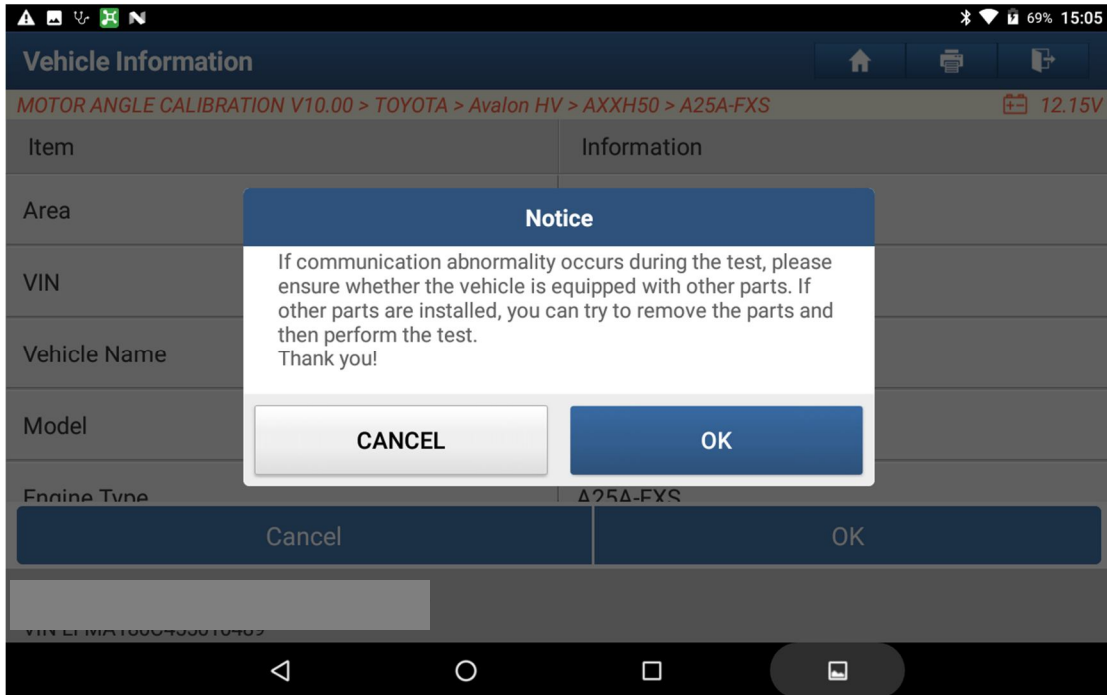


6. Confirm the info and click "OK".

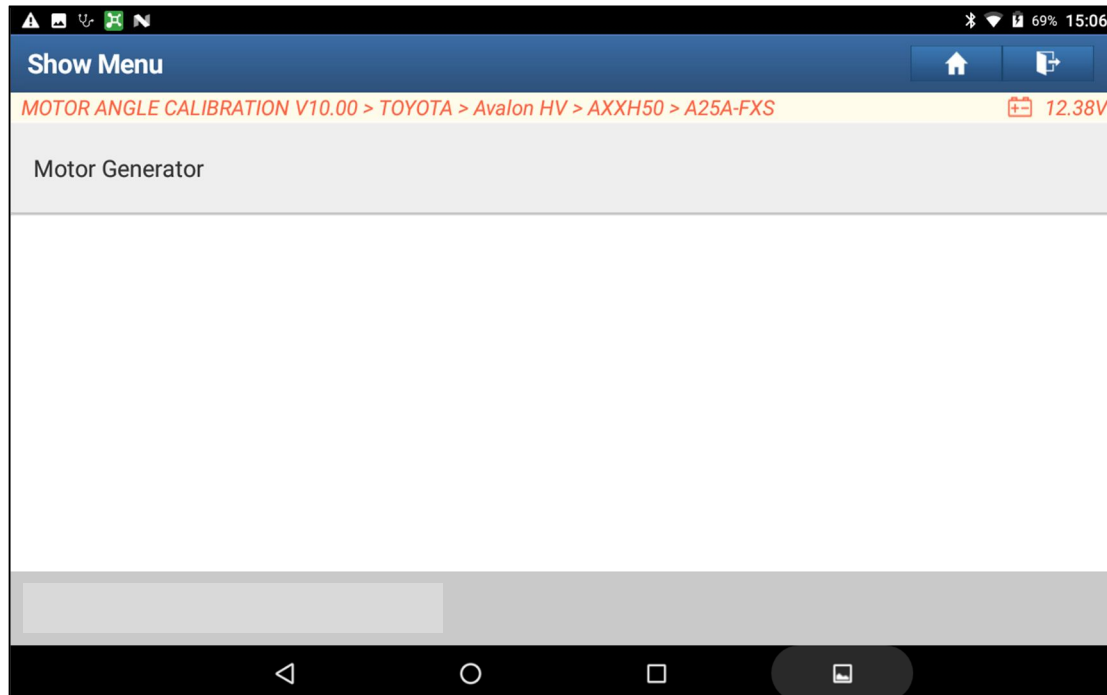


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7. If communication abnormality occurs during the test, please ensure whether the vehicle is equipped with other parts. If other parts are installed, you can try to remove the parts and then perform the test. Click "OK" to continue.

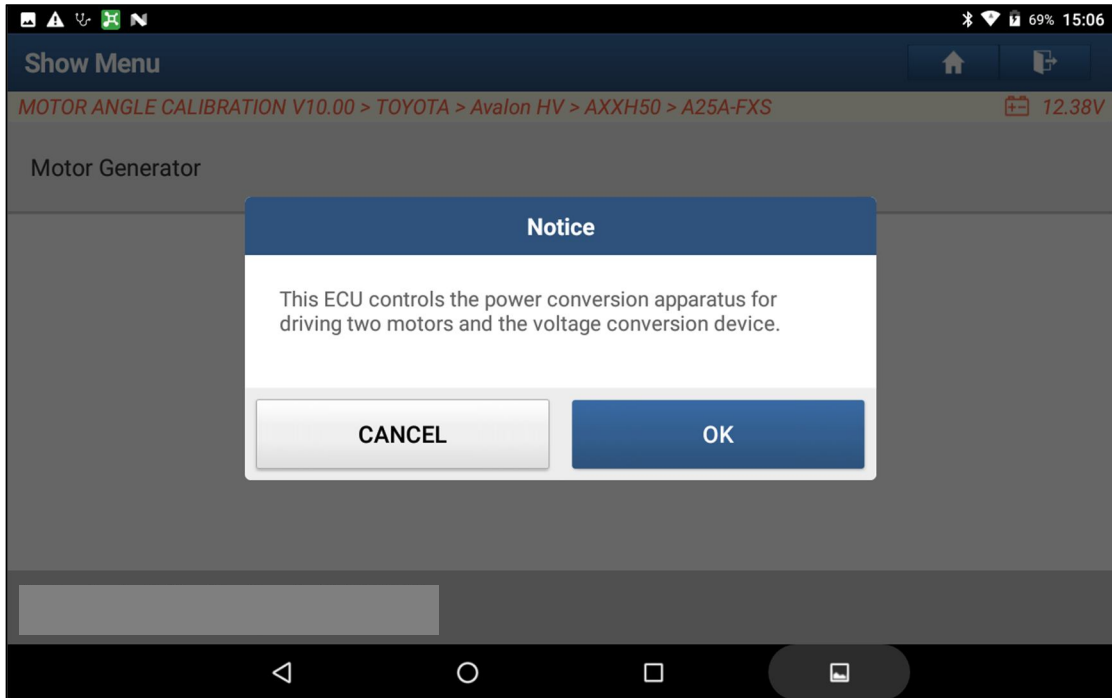


8. Click "Motor generator".

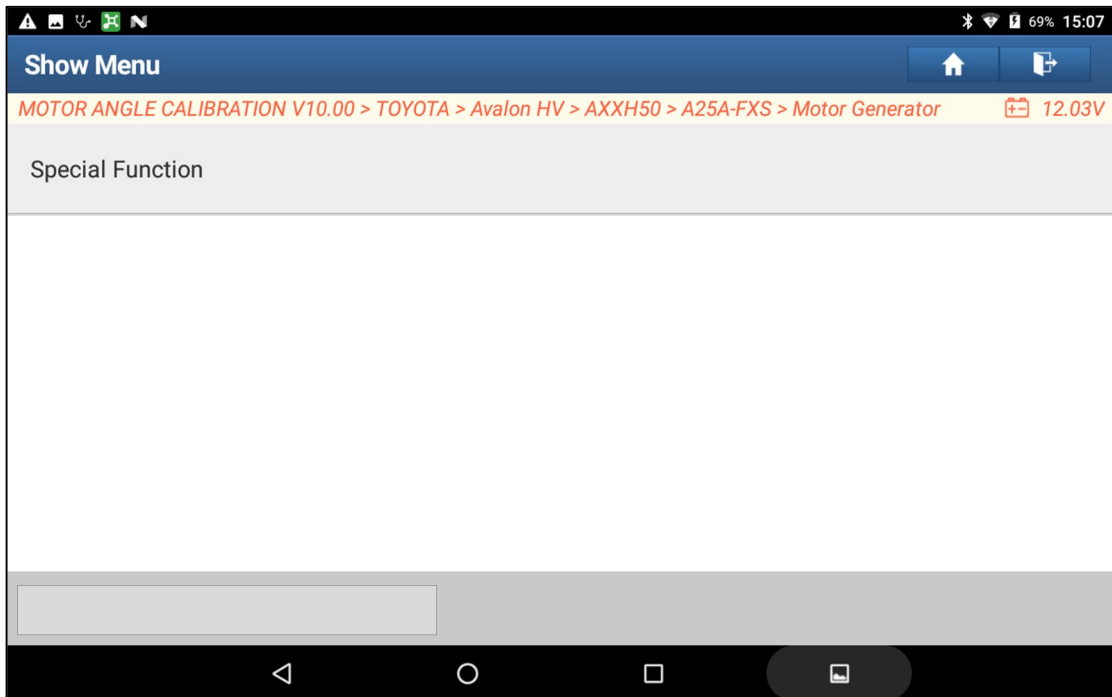


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9. Notice “this ECU controls the power conversion apparatus for driving two motors and the voltage conversion device”, click “OK” to continue.

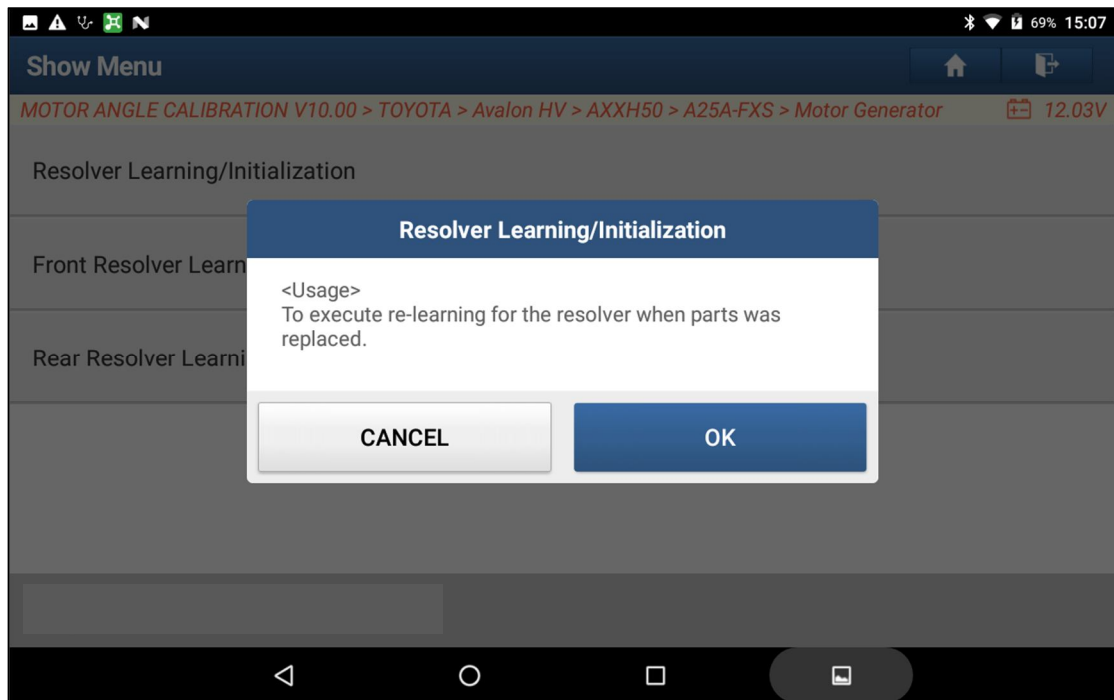
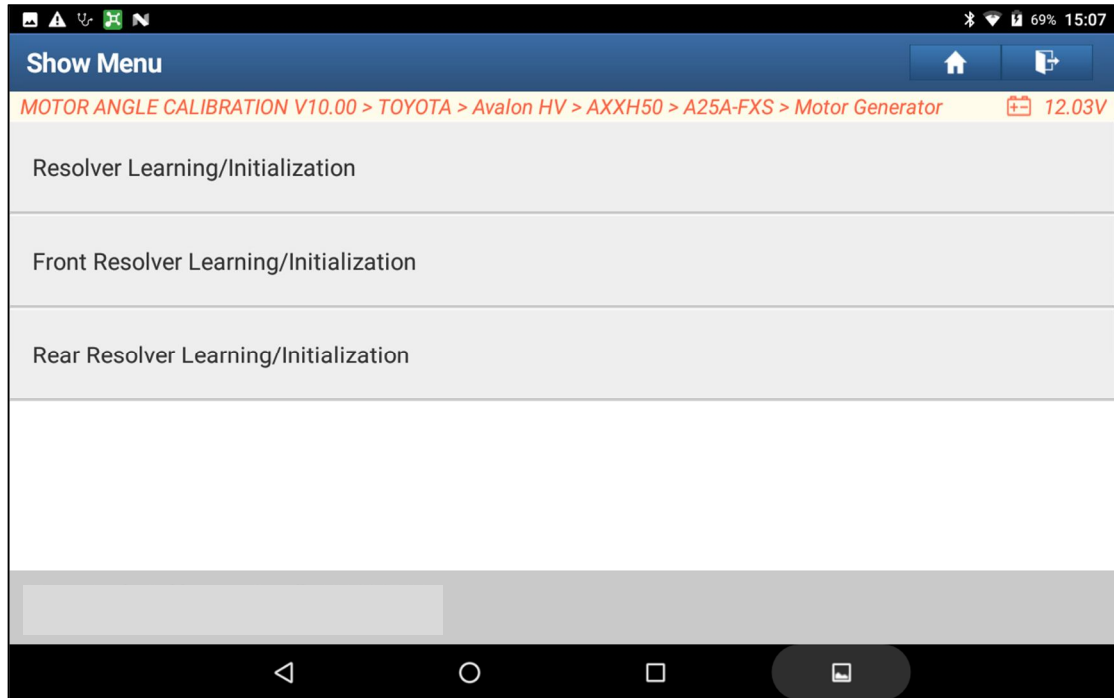


10. Click “Special Function”.



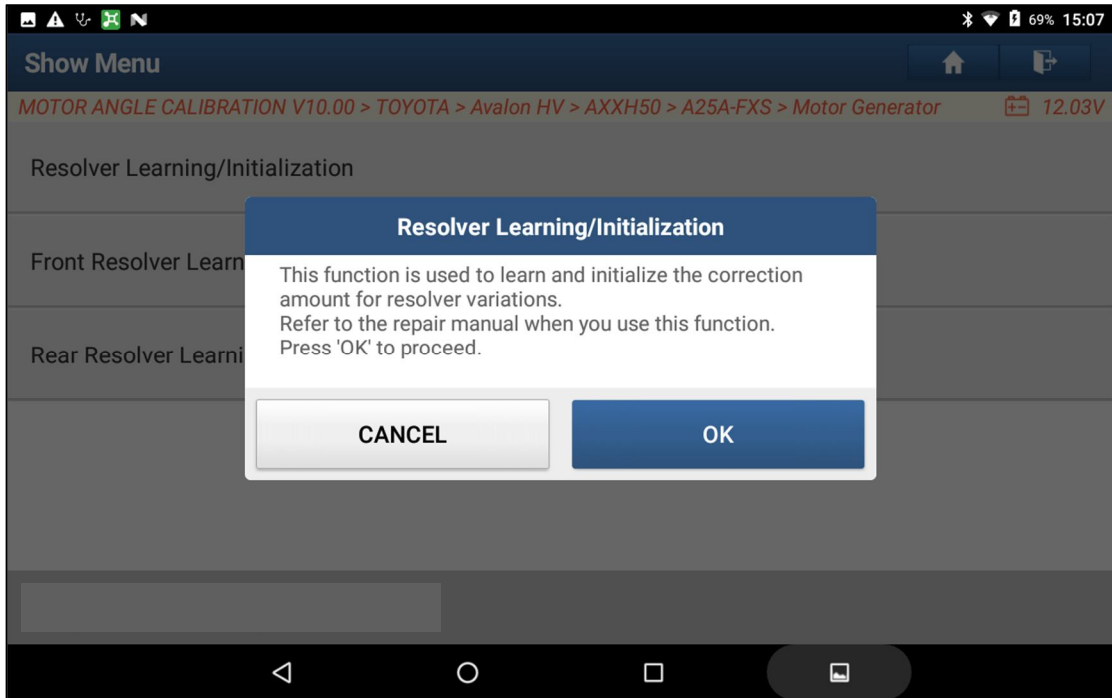
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11. Select the resolver you want to relearn or initialization; here we select "Resolver Learning/Initialization".

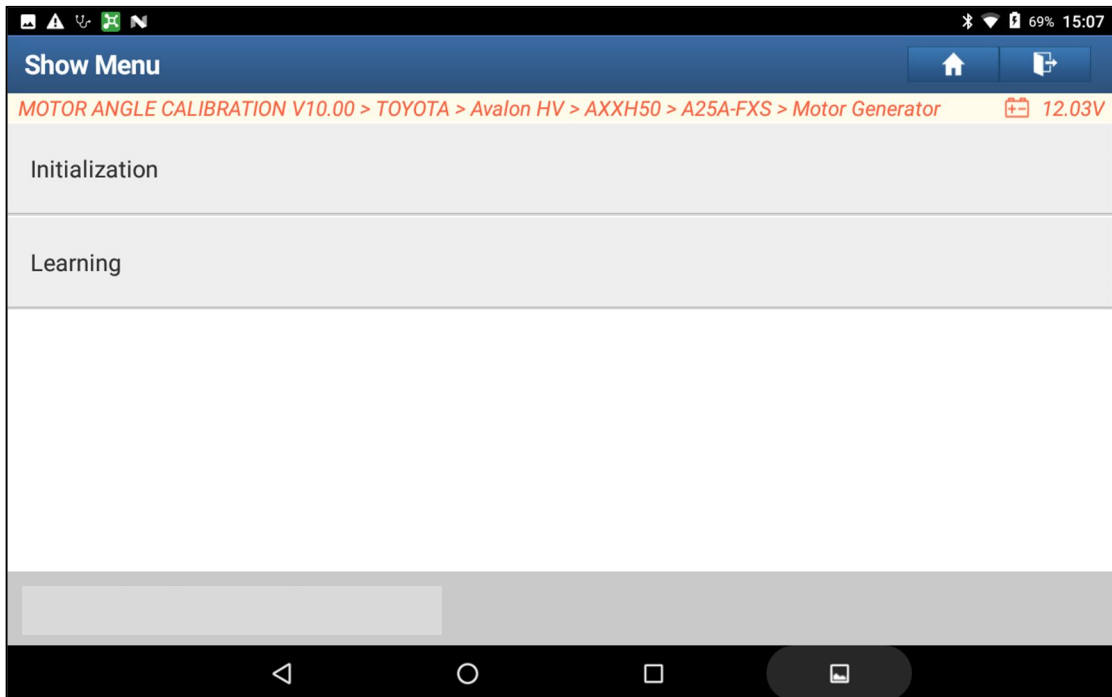


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12. This function is used to learn and initialize the correction amount for resolver variations. Refer to the repair manual when you use this function. Press "OK" to proceed.



13. Select "Initialization".



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14. The initialization is ready, turn the IG off; after the IG is OFF, follow the instructions in the repair manual.

