

Technical Note 143

Fault FF61 Aux Codes

What to do when an ID run fails

This document addresses the FF61 ID run fault that can occur when the motor ID run was not completed successfully. There has been some past confusion about the way to interpret the Auxiliary codes that are generated along with this fault. Here we will describe some reasons for the fault and how to correct it.


Some of the most common reasons for getting this fault are incorrect motor data, not making sure the shaft of the motor can spin freely, and that the drive has not come up against a limit while trying to do the ID run. It is generally best to do the ID run from the default parameter settings after setting up the group 99 Motor data if possible.

The table below shows the Aux Codes listed in the manual as an example from the ACS580 manual, but similar tables can be found in the manuals for ACS380 and ACS880 drives.

[ACS580 standard control program firmware manual](#) See page 548.

The confusion can be in knowing that the codes in the manual are listed in hexadecimal numbers and that some past guides had the numbers listed in decimal. So, if the number was listed as 11 in hexadecimal in the drive, a listing in decimal would have shown it as 17. The right side of the table has some advice on what to do for each value observed.

For the codes that say to Contact your ABB Representative, be sure that the drive is not hitting a limit or that the shaft cannot turn freely during the ID run.

FF61	ID run Hex Values 	Motor ID run was not completed successfully.	Check the nominal motor values in parameter group 99 Motor data . Check that no external control system is connected to the drive. Cycle the power to the drive (and its control unit, if powered separately). Check that no operation limits prevent the completion of the ID run. Restore parameters to default settings and try again. Check that the motor shaft is not locked. Check the auxiliary code. The second number of the code indicates the problem (see actions for each code below).
	0001	Maximum current limit too low.	Check settings of parameters 99.06 Motor nominal current and 30.17 Maximum current . Make sure that 30.17 > 99.06 . Check that the drive is dimensioned correctly according to the motor.

Code (hex)	Fault / Aux. code	Cause	What to do
	0002	Maximum speed limit or calculated field weakening point too low.	<p>Check settings of parameters</p> <ul style="list-style-type: none"> • 30.11 Minimum speed • 30.12 Maximum speed • 99.07 Motor nominal voltage • 99.08 Motor nominal frequency • 99.09 Motor nominal speed. <p>Make sure that</p> <ul style="list-style-type: none"> • $30.12 > (0.55 \times 99.09) > (0.50 \times \text{synchronous speed})$ • $30.11 \leq 0$, and • supply voltage $\geq (0.66 \times 99.07)$.
	0003	Maximum torque limit too low.	<p>Check settings of parameter 99.12 Motor nominal torque, and the torque limits in group 30 Limits.</p> <p>Make sure that the maximum torque limit in force is greater than 100%.</p>
	0004	Current measurement calibration did not finish within reasonable time	Contact your local ABB representative.
	0005	Motor not connected to the drive.	Check the motor connection.
	0006...0008	Internal error.	Contact your local ABB representative.
	0009	(Asynchronous motors only) Acceleration did not finish within reasonable time.	Contact your local ABB representative.
	000A	(Asynchronous motors only) Deceleration did not finish within reasonable time.	Contact your local ABB representative.
	000B	(Asynchronous motors only) Speed dropped to zero during ID run.	Contact your local ABB representative.
	000C	(Permanent magnet motors only) First acceleration did not finish within reasonable time.	Contact your local ABB representative.
	000D	(Permanent magnet motors only) Second acceleration did not finish within reasonable time.	Contact your local ABB representative.
	000E...0010	Internal error.	Contact your local ABB representative.
	0011	(Synchronous reluctance motors only) Pulse test error.	Contact your local ABB representative.
	0012	Motor too large for advanced standstill ID run.	<p>Check that the motor and drive sizes are compatible.</p> <p>Contact your local ABB representative.</p>
	0013	(Asynchronous motors only) Motor data error.	<p>Check that the motor nominal value settings in the drive are the same as in the motor nameplate.</p> <p>Contact your local ABB representative.</p>