

## AutoTune error codes

This document shows the error codes that are generated by the AutoTune/Carb Control unit. Provided that the product performs well, these codes can be ignored. See the table below for a description of the various codes and the recommended action.

### General information about AutoTune error codes:

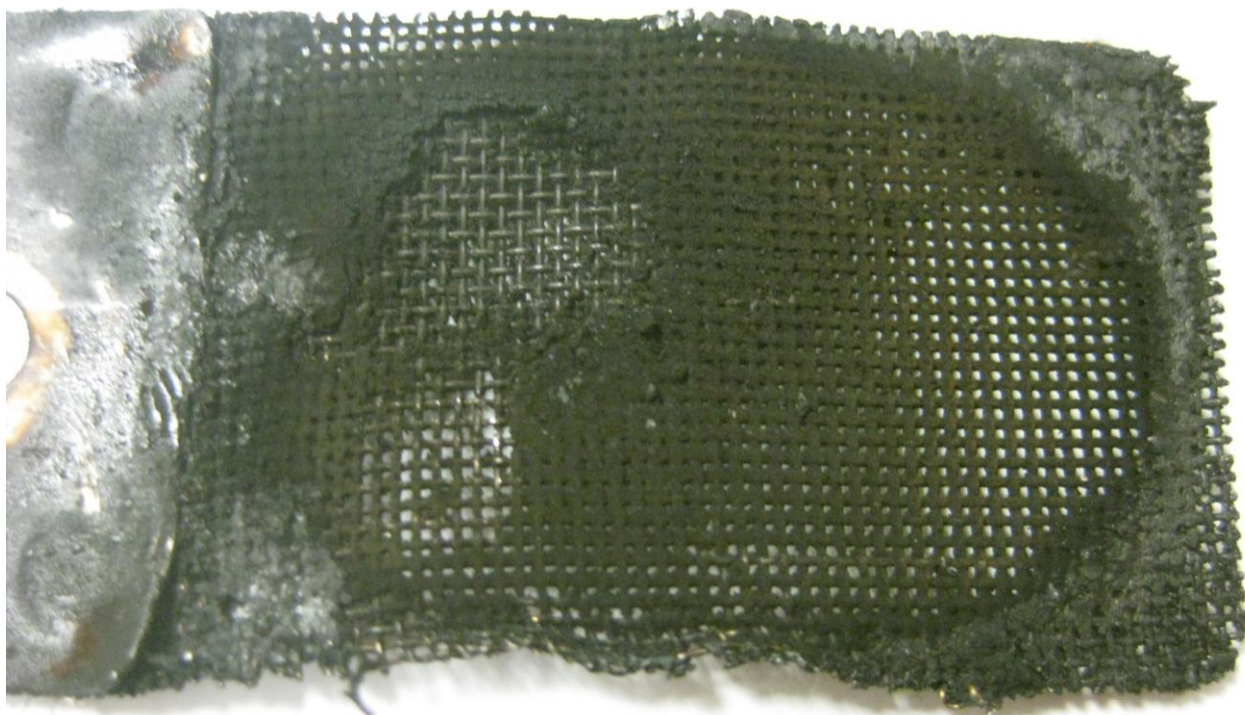
The error codes does not replace regular mechanical repairs and is only a suggestion of where to start looking for a functional problem.

Following any repairs mentioned below, clear the error codes and use the product for at least 90 seconds.

Error code	Symptom	Probable cause	Recommended action
2	Incorrect information discovered inside AutoTune. The product may misfire.	1: The product has no radio suppressed spark plug.	Check the spark plug and replace with a new radio suppressed spark plug. Important!
		2: Ignition cable or spark plug cap is damaged.	Replace the ignition module/cable if something is damaged.
4	Engine overspeed — above the maximum engine speed controlled by the ignition system.	1. Clogged spark arrestor (muffler). ( <a href="#">See photo 1</a> )	Check the spark arrestor/muffler outlet and remove any carbon if necessary.
		2. Carbon build up on cylinder/piston. ( <a href="#">See photo 2</a> )	Loosen the cylinder and piston and check for any abnormal carbon on the components. In this case, clean very carefully.
		3. Incorrect ignition module is used.	Check the ignition module for the part number.
5, 6, 7	Defective throttle sensor, throttle signal or throttle malfunction. Incorrect engine speed corresponding to the trigger movement and position.	1. Incorrect cutting equipment used (valid for trimmer/brush cutter)	Mount cutting equipment that has been approved in accordance with the product specification.
		2. Air throttle valve does not close correctly	Check that the air throttle valve is closed when the throttle is in idle position. If not, replace air head housing/carburettor
		3. Incorrectly functioning throttle.	Check the throttle sensor function by using the diagnostic tool. The throttle must be fully open (above 95%) when the throttle trigger is fully activated and be completely closed (below 3%) when idle.
		4. Deformed throttle sensor.	Check whether the sensor is damaged. Clean the sensor free from any metal

			particles. There shall be two magnets in the sensor.
8	Bad performance during first minutes with a cold or warm ambient temperature.	Faulty temperature sensor in the AutoTune.	Check the temperature sensor using the diagnostic function.
11	Engine may misfire or shut off.	Faulty connection or loose contact in red and/or blue and/or black conductor between ignition module and AutoTune unit.	Visual inspection of cables and connectors between ignition module and AutoTune. Control the distance between flywheel and ignition module.
13	Lean come down — the engine speed decrease slowly when the throttle is released.	1. The throttle or air throttle valve is not completely closed when idle.	Check the throttle/air throttle valve if it sheaves or does not close completely. Change carburettor/air head housing if malfunctioning.
		2. Incorrect cutting equipment used (valid for trimmer/brush cutter)	Mount cutting equipment that has been approved in accordance with the product specification.
		3. Leakage in the engine	Perform a pressure test for the engine.
		4. The fuel contains more than 25% alcohol.	If the fuel contains more than 25% alcohol, this error code may occur.
14	The carburettor attempts to provide more fuel than is possible at high speed. (AutoTune has reached the maximum rich setting). The product may have bad acceleration or other lean setting problems.	1. Leakage in the engine.	Perform a pressure test for the engine. Repair possible leaks.
		2. Leakage in the fuel hose or the short purge hose/suction side.	Replace the hose.
		3. Faulty carburettor/pump diaphragm.	Replace the carburettor/pump diaphragm. Also check the metering lever in the carburettor.
		4. Incorrect fuel quality, e.g. alcohol mix too high. <a href="#">(See photo 3)</a>	If the fuel contains more than 25% alcohol, this error code may occur.

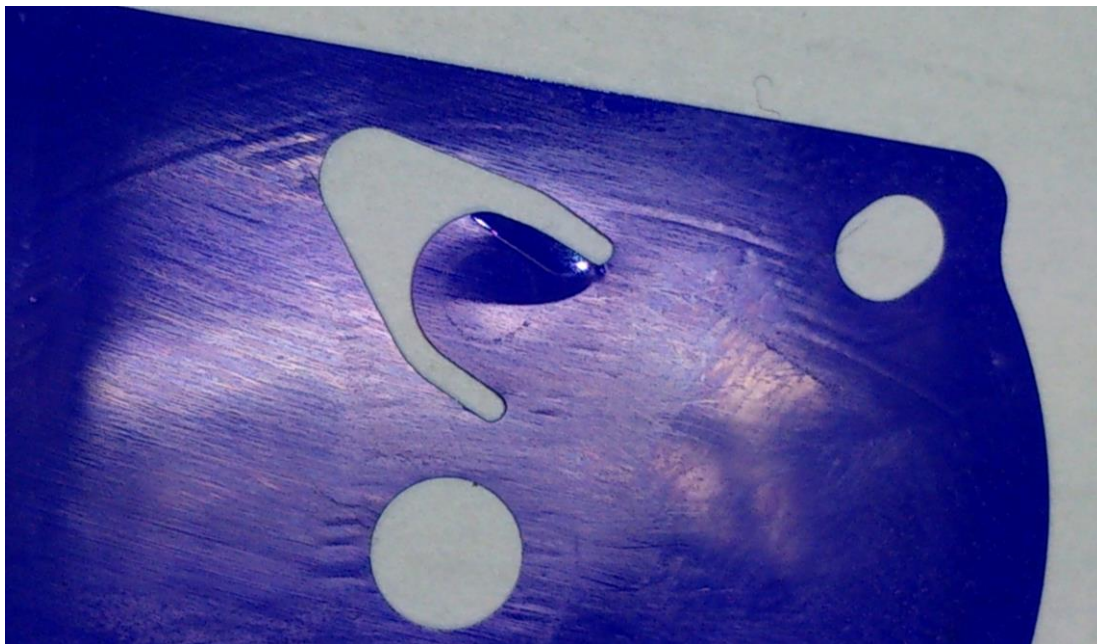
15	The carburettor attempts to provide less fuel than is possible at high speed. (AutoTune has reached the maximum lean setting). Engine may 4 stroke	1. Air filter is clogged.	Clean/replace air filter.
		2. Air throttle does not open fully.	Check the throttle linkage. Replace the carburettor or air throttle if damaged.
		3: Deformation/metering lever mounted incorrectly in the carburettor.	Check the metering lever in the metering chamber.
		4. Carbon build up on cylinder/piston. (See photo 2)	Loosen the cylinder and piston and check for any abnormal carbon on the components. In this case, clean very carefully.
16	High idling speed or maximum fuel level for idling fuel control is reached. AutoTune has reached the maximum rich setting.	1. Leakage in the engine.	Perform a pressure test for the engine. Repair possible leaks.
		2. Leakage in the fuel hose or the short purge hose/suction side.	Replace the hose.
		3. Faulty carburettor/pump diaphragm.	Replace the carburettor/pump diaphragm. Also check the metering lever in the carburettor.
		4. Incorrect fuel quality, e.g. alcohol mix too high.	Check/change the fuel.
		5. High friction in throttle shafts.	Check whether the valves close fully — if not, replace carb or air throttle.
17	Low idling speed or minimum fuel level for idling. The product may have bad acceleration or other lean setting problems. AutoTune has reached the maximum lean setting.	1. Seized cylinder/piston.	Check the cylinder bore and piston. Replace if there are seizures or scratches
		2. Piston ring stuck.	Replace the piston if piston ring is stuck.
		3. High friction on main bearing.	Check the main bearing.
		4. Faulty carburettor	Replace the carburettor
18, 19	Incorrect information regarding running time or number of starts in AutoTune. Displayed time is zero or zero starts.	Incorrect information regarding operation internally in AutoTune.	If the product function is disturbed, replace AutoTune — including the carburettor.



*Photo 1 — Clogged spark arrestor (muffler)*



*Photo 2 — Carbon build up on cylinder*



*Photo 3 — Deformed pump diaphragm*