

Also includes: Accuturn / Bosch models 310, 410, 520, 720 and 820.

GRP / Sicam models SBM50, 55s, 55nw, 125, 130, 135, 150, 240, 250, 260 and 850.

## Problems and error codes

During the working of the balancing machine, there can be several problems. If the microprocessor detects them, they appear on the display through the notice „Er“ followed by a number which stands for the meaning. Here is a list of the general malfunctions and the error codes with their respective and possible solutions:

Error code	Problems	Causes and possible solutions
	The machine does not turn on.	<ul style="list-style-type: none"> <li>Absence of power supply from the outside or absence of a phase. Check that the phase and the neutral are connected to the balancing machine.</li> <li>Breaking of the fuses in the electric circuit (see the wiring diagram N. 654636). Substitute the fuses with other identical fuses having the same characteristics. A new break of the fuses involves a malfunction in the electrical part.</li> <li>Breaking of the fuses in the electric circuit (see the wiring diagram N. 654636). Substitute the fuses with other identical fuses having the same characteristics. A new break of the fuses involves a malfunction in the electrical part.</li> <li>Substitute the board (Chapter Substitution of the board). Check the electric circuit with a tester (See diagram n.654636).</li> </ul>
	The machine does not turn on although you are closing the carter or pressing START.	<ul style="list-style-type: none"> <li>Check the micro switch of the carter (see chapter 6.5).</li> <li>Check the engine and the condensers. (Chapter 6.3). Substitute the board. (Read the paragraph of the Substitution of the board).</li> </ul>
	After the launch, the machine does not brake.	Check/substitute the inverter plant. Check/substitute (Chapter Substitution of the board).
	After the engine starts, it does not stop (even if you turn the machine on and off, the engine starts immediately).	Check the inverter plant, disconnect the machine from the electrical system for about 30 sec in order to discharge the condensers and restart. Substitute the board. (Read the paragraph of the Substitution of the board). N.B.: to understand if the problem is in the inverter or on the board, you only need to take off the board connector from the inverter.
	Unbalance values are not steady when you make several consecutive launches on the same wheel (variations higher than 5 gr.).	Recalibrate (chapter.2.5). Check the tension and the phase of the pick-ups (chapter 6.1 and chapter 6.4.1). Check the correct locking of the wheel on the flange. Check that the cone-flange is properly assembled. Make other tests with another wheel or be sure that there are no movable part inside (ex. Water, sand, etc.).
Err 0	Generic problem	Disconnect the power supply for about 30 sec and restart. Substitute the board. (Read the paragraph of the Substitution of the board).
Err 1	The board has lost the calibration and configuration data set up in factory.	Recalibrate and reconfigure the balancing machine (Chapter 2.5).
Err 1	One or more calibration or configuration steps have not been made.	<ul style="list-style-type: none"> <li>Make the missing calibrations steps. (Chapter 4 and chapter 5).</li> <li>If the error persists, substitute the board.</li> </ul>
Err 2	The protecting carter has been lifted up before the end of the measure.	<ul style="list-style-type: none"> <li>Before lifting up the protecting carter, wait until the launch of the measure has been completed.</li> </ul> Check the micro switch. (Chapter 6.5).
Err 3	During the spin (when you pressed START or lowered the carter) the wheel was turning backwards	Be sure that the wheel is not moving during the start. Anyway, do not turn it backwards during the start.
Err 3	Inverted windings of the engine	Verify the correct connection of the engine. (Chapter 6.3). Check that the condenser plant works properly.
Err 4	The engine does not reach the necessary turns for a good balancing.	Check the net tension and the wiring diagram N. 654636).
Err 4	Malfunctioning of the electronic board.	Substitute the electronic board. (Chapter Substitution of the board).
Err 4	Malfunctioning of the electric circuit.	Substitute the engine. (Chapter 6.3). Check and if necessary substitute the inverter plant. Check the driving belt.
Err 5	The calibration weight has not been applied to the wheel.	Repeat the calibration procedure from the beginning and apply the calibration weight when the calibration requires to. (Chapter 2.5).
Err 5	The pick-ups have not been connected.	Check the connection of the pick-ups. (Chapter 6.1 and chapter 6.4.1).
Err 6	The protecting carter is not down.	Check that the automatic closing time of the carter is not too high.

Error code	Problems	Causes and possible solutions
Err 6	Breaking of the carter micro switch.	Substitute or reposition the electromagnet-ic micro switch. (Chapter 6.5).
Err 7	The gap of phases of the two pick-ups is too wide.	<ul style="list-style-type: none"> <li>• Verify that the weight for each calibration has been applied in a correct way.</li> <li>• Verify the position of the machine: maybe it is not stable and it vibrates too much.</li> <li>• If the problem persists even after fixing the machine correctly, check the connection of the detectors and of the electronic board.</li> <li>• Substitute the pick-ups. (Chapter 6.1 and chapter 6.4.1).</li> </ul> If the problem persists after changing the pick-ups, substitute the board. (Read the charter of the Substitution of the board).
Err 8	The internal pick-up is not connected or defective.	Check and substitute the internal pick-up. (Chapter 6.1 and chapter 6.4.1).
Err 9	The external pick-up is not connected or defective.	Check and substitute the external pick-up. (Chapter 6.1 and chapter 6.4.1).
Err 10	Defect of the position detectors in the optoelectronic system.	<ul style="list-style-type: none"> <li>• Verify the connection of the optoelectronic device.</li> <li>• Verify that the optoelectronic device is protected by the environment light and cover it if necessary.</li> </ul> If the imperfection persists, check and, if necessary, substitute the optoelectronic device. (Chapter 6.2).
Err 10	The engine does not turn in the optoelectronic system.	Check the electrical part, see the wiring diagram N. 654144.
Err 11	Defect of the detector of the zero passage in the optoelectronic system.	<ul style="list-style-type: none"> <li>• Verify the connection of the optoelectronic device.</li> <li>• Verify that the optoelectronic device is protected by the environment light and cover it if necessary.</li> </ul> If the imperfection persists, check and, if necessary, substitute the optoelectronic device. (Chapter 6.2).
Err 11	The engine does not turn in the optoelectronic system.	Check the electrical part, (see the wiring diagram N.654636).
Err 17	The weight is out of adjustment field (the suitable weight to balance the wheel is higher than 250 grams).	<ul style="list-style-type: none"> <li>• Check that the wheel has been fixed correctly on the flange.</li> <li>• Search for the external position (anyway), apply a 100 gram weight and launch again.</li> </ul> If the problem persists, do the calibration again. (Chapter 5).
Err 18	The wheel data have not been set up.	Set up the wheel data before making the measure launch
Err 19	The signal at the entry of the right pick-up is less intense than the one of the left pick-up.	<ul style="list-style-type: none"> <li>• Maybe you inverted the connection of the two pick-ups: Check (and change if necessary) the connection of the two pick-ups. Substitute the pick-ups. (Chapter 6.1 and chapter 6.4.1).</li> </ul>
Err 20	The brake pedal has been pressed during the measuring.	Do not press the brake pedal when the engine is on.
Err 20	The rotation speed of the engine is irregular.	<ul style="list-style-type: none"> <li>• Be careful not to hit the machine during the measuring.</li> <li>• Check the net tension. See the wiring diagram N. 654636. Check the engine. (Chapter 6.3).</li> </ul>
Err 22	Irregular signals of the optoelectronic device.	<ul style="list-style-type: none"> <li>• Verify that the optoelectronic device is protected by the environment light and cover it if necessary.</li> <li>• If the imperfection persists, check and, if necessary, substitute the optoelectronic device. (Chapter 6.2).</li> </ul> Check and, if necessary, substitute the electronic board of the control panel (Chapter Substitution of the board).
Err 29	Bring the gauge at rest.	Check that the gauge is really at rest.
Err 29	The gauge for the measure of the distance is not in rest position.	Check that the gauge is really at rest.
Err 29	The balancing machine could deactivate the gauges automatically	Reactivate the gauges.
Err 30	You need to recalibrate the gauges	Recalibrate the gauges
Err 31	The brake pedal is pressed and will be deactivated	Do not press the pedal during the launch. Check the micro switch of the pedal. Check the electrical connections.
Err 32	The brake pedal has been pressed	
Err 33	Different machine code	Reset the board through the suitable code. Restart. If the problem persists, contact the assistance to have the correct code