

## MALFUNCTIONING, CAUSES, TROUBLE-SHOOTING

Display	Malfunctioning	CAUSES	TROUBLE-SHOOTING
Displays do not come on	The card is not powered up	<ol style="list-style-type: none"> <li>1. External supply off or phase not working.</li> <li>2. Fuse blown in the electrical plant.</li> <li>3. Control panel fuse blown.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check that positive/negative and neutral are connected up to balancer.</li> <li>2. Replace fuses in electrical plant (blown fuses indicate fault in electric plant).</li> <li>3. Replace fuses on control panel (blown fuses indicate fault in electronic part).</li> </ol>
Err 1	Err 1 appears on power-up	<ol style="list-style-type: none"> <li>1. The card has lost the calibration data and factory configuration setting.</li> <li>2. One or more calibration or setting phases have not been carried out</li> </ol>	<ol style="list-style-type: none"> <li>1. Repeat all calibration and balancer configuration stages.</li> <li>2. Perform missing programming or setting operations.</li> </ol>
Err 2	During the measuring cycle the Err 2 message appears	<ol style="list-style-type: none"> <li>1. The guard has been raised before completion of measurements.</li> </ol>	<ol style="list-style-type: none"> <li>1. Wait for end of measuring run before raising guard.</li> </ol>
Err 3	During the measuring cycle the Err 3 message appears.	<ol style="list-style-type: none"> <li>1. On start-up (using START key or lowering guard) the wheel was rotating backwards</li> <li>2. Motor winding inverted.</li> </ol>	<ol style="list-style-type: none"> <li>1. Ascertain that the wheel is still before start-up and in any case avoid rotating wheel backwards on START.</li> <li>2. Check for correct motor connection.</li> </ol>
Err 4	The motor does not turn (with START pressed) or after about 20 sec. the Err 4 message appears.	<ol style="list-style-type: none"> <li>1. The motor cannot reach the revolutions needed for effective balancing</li> <li>2. electronic card malfunctioning</li> <li>3. electrical plant malfunctioning</li> </ol>	<ol style="list-style-type: none"> <li>1. Check mains voltage (it is probably low).</li> <li>2. Replace electronic card.</li> <li>3. Replace electrical part.</li> </ol>
Err 5	At end of second calibrating run with the wheel Err 5 appears on the display.	<ol style="list-style-type: none"> <li>1. Calibration weight has not been applied on the wheel.</li> <li>2. The pick-ups have not been connected</li> </ol>	<ol style="list-style-type: none"> <li>1. Repeat calibration from beginning and apply the calibration weight when instructed in the calibration procedure (also see "Basic Machine Calibration").</li> <li>2. Check pick-up connections.</li> </ol>
Err 6	Message Err 6 appears when pressing the START key	<ol style="list-style-type: none"> <li>1. The guard has not been lowered</li> <li>2. Guard microswitch broken</li> </ol>	<ol style="list-style-type: none"> <li>1. Low the guard with wheel mounted.</li> <li>2. Replace microswitch.</li> </ol>
Err 7	At end of second calibrating run with the wheel Err 7 appears on the display	<ol style="list-style-type: none"> <li>1. Phase difference between the 2 pick-ups is too large</li> </ol>	<ol style="list-style-type: none"> <li>1. <ol style="list-style-type: none"> <li>a) check that the calibration weight has been correctly applied;</li> <li>b) also check machine location; it is probably not stable and is vibrating excessively;</li> <li>c) if the problem persists after having stabilized the machine correctly, check the sensor and electronic card connections (and replace if necessary);</li> <li>d) replace pick-ups;</li> <li>e) if after replacing pick-ups the problem is not solved, replace the card.</li> </ol> </li> </ol>
Err 8	At end of second	<ol style="list-style-type: none"> <li>1. The left pick-up has not</li> </ol>	<ol style="list-style-type: none"> <li>1. Check left pick-up connection (and replace if</li> </ol>

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	calibrating run with the wheel Err 8 appears on the display	been correctly connected or is defective or the cable is disconnected.	necessary).
Err 9	At end of second calibrating run with the wheel Err 9 appears on the display	1. The right pick-up has not been correctly connected or is defective or the cable is disconnected.	1. Check right pick-up connection (and replace if necessary).
Err 10	During launch Err 10 appears on the display	1. Position sensors in optoelectronics defective. 2. The motor will not turn	1. a) check optoelectronic card connection. b) check the optoelectronic card is protected from daylight and cover if necessary; c) if the defect persists check and if necessary replace the optoelectronic card. 2. Check electrical part.
Err 11	During launch Err 11 appears on the display	1. Passage through zero sensor defective in optoelectronics 2. The motor will not turn	1. a) check optoelectronic card connection. b) check the optoelectronic card is protected from daylight and cover if necessary; c) if the defect persists check and if necessary replace the optoelectronic card. 2. Check electrical part.
Err 17	At end of launch Err 17 appears on display	1. Weight out of regulation field (weight necessary for balancing the wheel is above 250 grams)	1. a) Check that the wheel is correctly fixed on the flange; b) find (in any case) the external position, apply a 100 gram weight and launch a run.
Err 18	Err 18 appears on display	1. Wheel data not set.	1. Set the wheel data before starting the measuring cycle.
Err 20	During measuring cycle Err 20 appears on display: the wheel speed has gone below the minimum for measurability.	1. 1 Brake pedal operated during the measurement 2. Motor rotation speed irregular.	1. Avoid pressing the brake pedal when the motor is operating. 2. beware of knocking the machine during the measuring cycle. check mains voltage (probably low).
Err 21	During measuring cycle Err 21 appears on display: possible electrical fault	1. The electronic card has found a condition of danger connected to a too-high wheel speed during an inactive machine phase (the shaft rotates at high speed without the operator having pressed the START command); the electric power is deactivated.	1. Switch off the machine, lower the guard and switch the machine back on without moving the wheel; if the error persists, check (and replace if necessary) the electric or electronic part (control panel or encoder card).
Err 22	During the launch Err 22 appears on display	1. Some fault in the optoelectronic signals.	1. a) check the optoelectronic card is protected from daylight and cover if necessary; b) if the defect persists check and if necessary

			replace the optoelectronic card. c) check and if necessary replace the control panel electronic card.
Err 23	When the START button is pressed the display reads Err 23	1. The gauge for measuring distance is not in the neutral position.	1. a) Check that the gauge is in the neutral position. b) Check the A5 analogue figure (approx. 200). c) Repeat the gauge calibration procedure.
Err 24	During the launch Err 24 appears on display	The calibration frequency is different from the run frequency. In particular the machine was calibrated with a mains frequency of 50Hz while the run was launched with a mains frequency of 60Hz or vice versa.	1. Repeat the full calibration using the frequency used in the balancing runs.
EEE EEE	EEE EEE appears on the display	1. Two keys pressed together. 2. Keyboard defective.	1. Press one key at a time. 2. Check and if necessary substitute the control panel electronic card.