

Troubleshooting OJ's Belt Weigher Systems

1. Check the connectors and connections in the junction box and on the belt weigher indicator as a first step.
2. Can there be a cable damage? If that is plausible, measure cables using references in the table below.
3. Can there be a fault in tachometer or load cell? Measure to confirm their condition, see reference in the table below.

Tachometer

Is the asterisk symbol light off (OJ436) or is the belt symbol (OJ1436) on when the belt is moving?

- **No** – There might be a fault on the encoder or its cable. Check that the wheel is spinning and distance to proximity switch is approx. 2mm. Start measuring at the back of the belt weigher indicator, unplug the green plug and measure directly on the terminal pins. Between + V and 0V there should be 12V all the way to the proximity switch, between + V and SG there should be 12V when the pulse is closed.
- **No** - if there is not 12V, the tachometer board can be defect (which is very unusual).
- **Yes** - put the plug back in the belt weigher indicator and find the last measuring point with 12V to confirm or rule out cable damage / fault in the 10-pin plug.

If there is 12V all the way to the intended terminal in the junction box, replace the tachometers proximity switch. *

Load cell

To measure resistance (in Ohms) the green plug needs to be unplugged from the belt weighing unit, mV and V shall be plugged. The belt weighing unit outputs 10V to the load cell via VE + / VE- and the same voltage is returned back via the load cell to SE + / SE-. The load cell cables V and mV can be checked all the way, same as for the 12V to the tachometer. If everything is OK to the junction box, release the load cell's cables from the junction box terminals 3 and 4 and measure mV directly from the load cell. Re-connect to the terminals and then measure IN + / IN- at the back of the belt weigher indicator, they should be equal.

Contact us when this is done, and we will help interpreting the results.

Belt Weigher Indicator

Faults on the belt weigher indicator are unusual, when they occur voltage failure are mainly the reason. Internal fuses or converters need to be replaced which is to be done by the producer only.

References for measuring

Weigher unit	Terminal	J-box	Volt DC	mV
VE+	1	1	10	-
VE-	8	6	-	-
SE+	4	2	10	-
SE-	10	5	-	-
IN+	2	3	-	0-20
IN-	3	4	-	-
+V	5	+V	12	-
	7	0V	-	-
SG* / 0V (yellow)	6/7	SG/+V	10,5-12	-
SG* / 0V	6/7	SG/+V	0-1	-

Load cell 1250 / 1330	Load cell 355 / 3510
415 (+/-15) Ω	380 (+/-10) Ω
415 (+/-15) Ω	380 (+/-10) Ω
350 (+/-3) Ω	355 (+/-5) Ω

*When the tachometers proximity switch is lit yellow (against the tachometer wheel), the pulse is closed and there is 10,5-12V between

SG and +V. When the proximity switch is not lit yellow, at an open pulse, there should be 0-1V between SG and +V, otherwise a cable break or a bad connection of the SG cable is cause of the fault.