ENGLISH

WARNINGS

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For a correct functioning, please make sure that the battery has always a higher voltage than 9,5 Volt.

This marking on the product or on its packaging illustrates that this product may not be disposed of with normal household waste.
You are responsible for disposal of this equipment in a correct way and in according to local regulations.

If the equipment needs to be cleaned, use a soft, damp, lint-free cloth. Never use sprays, solvents, abrasives, or sharp or pointed objects that could damage the indicator.

Load Cells Service Manual

This manual contains the official procedures that Dinamica Generale suggests to Service Centers to troubleshoot load cells.

This manual deeply explain how to:

- Discover a bronken load cell in field
- Test a suspected load cell
- Replace and fix a load cell cable

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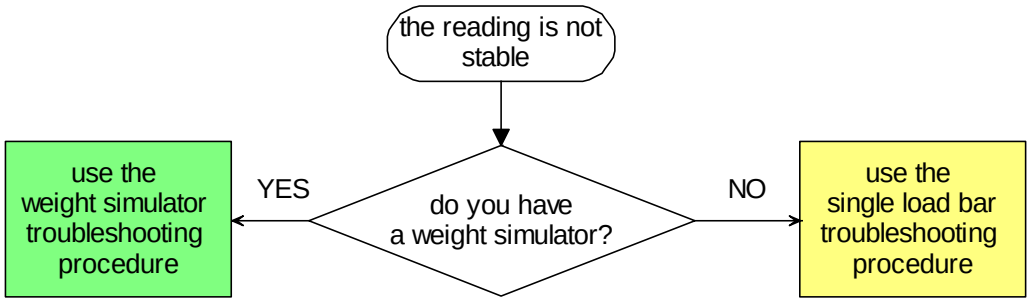
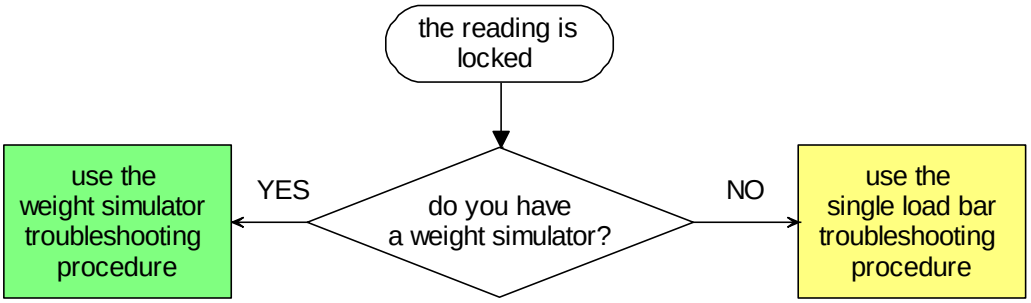
ENGLISH

2 TROUBLESHOOTING IN FIELD

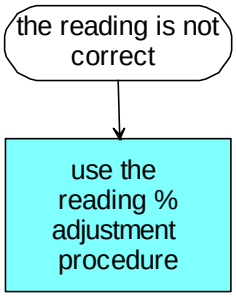
2.1 The reading is not stable



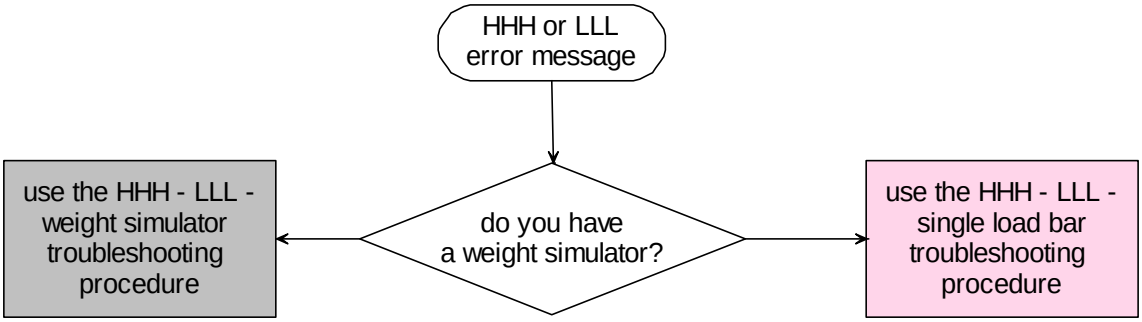
2.2 The reading is locked



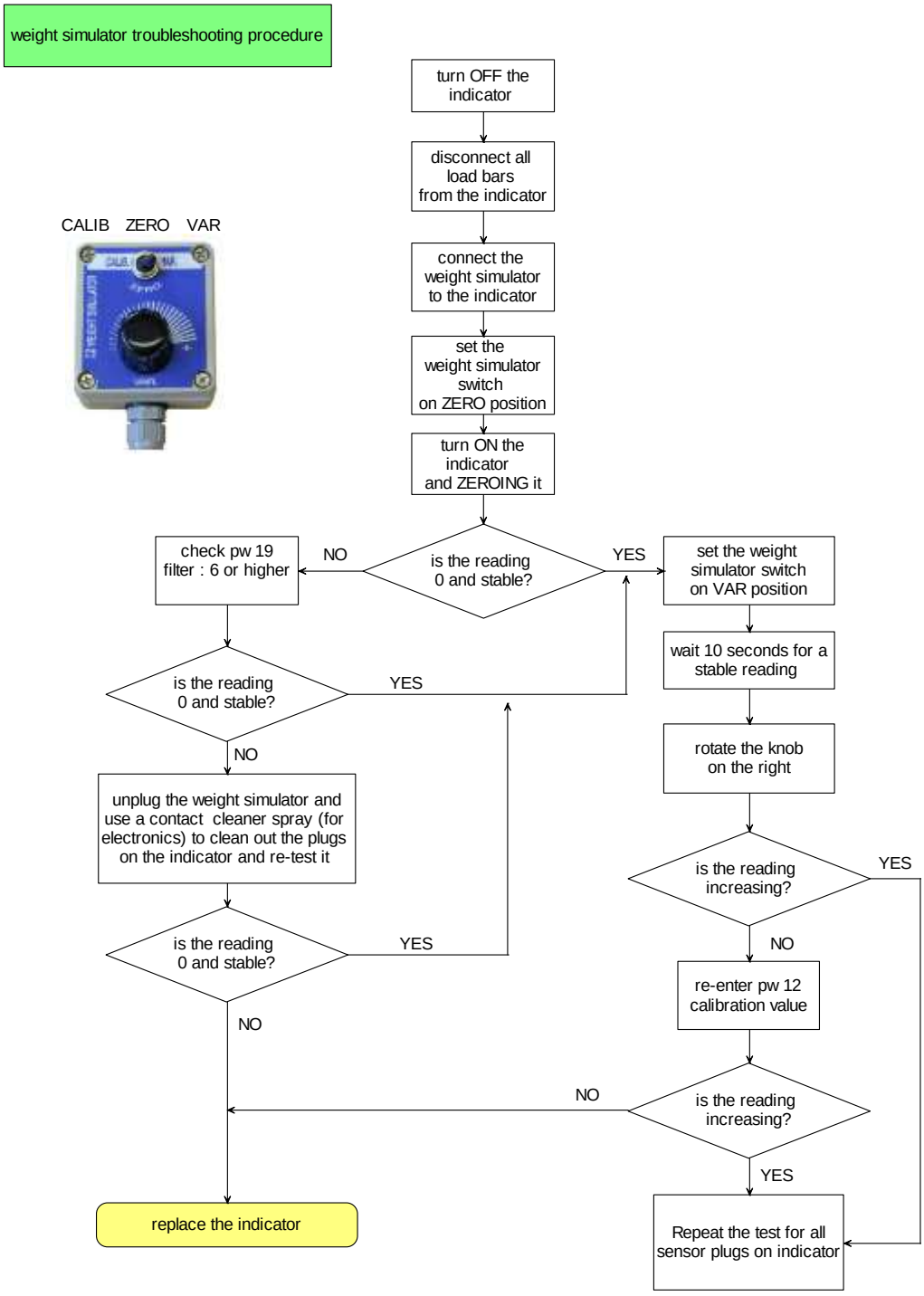
2.3 The reading is not correct



2.4 HHH – LLL – OVER RANGE error message

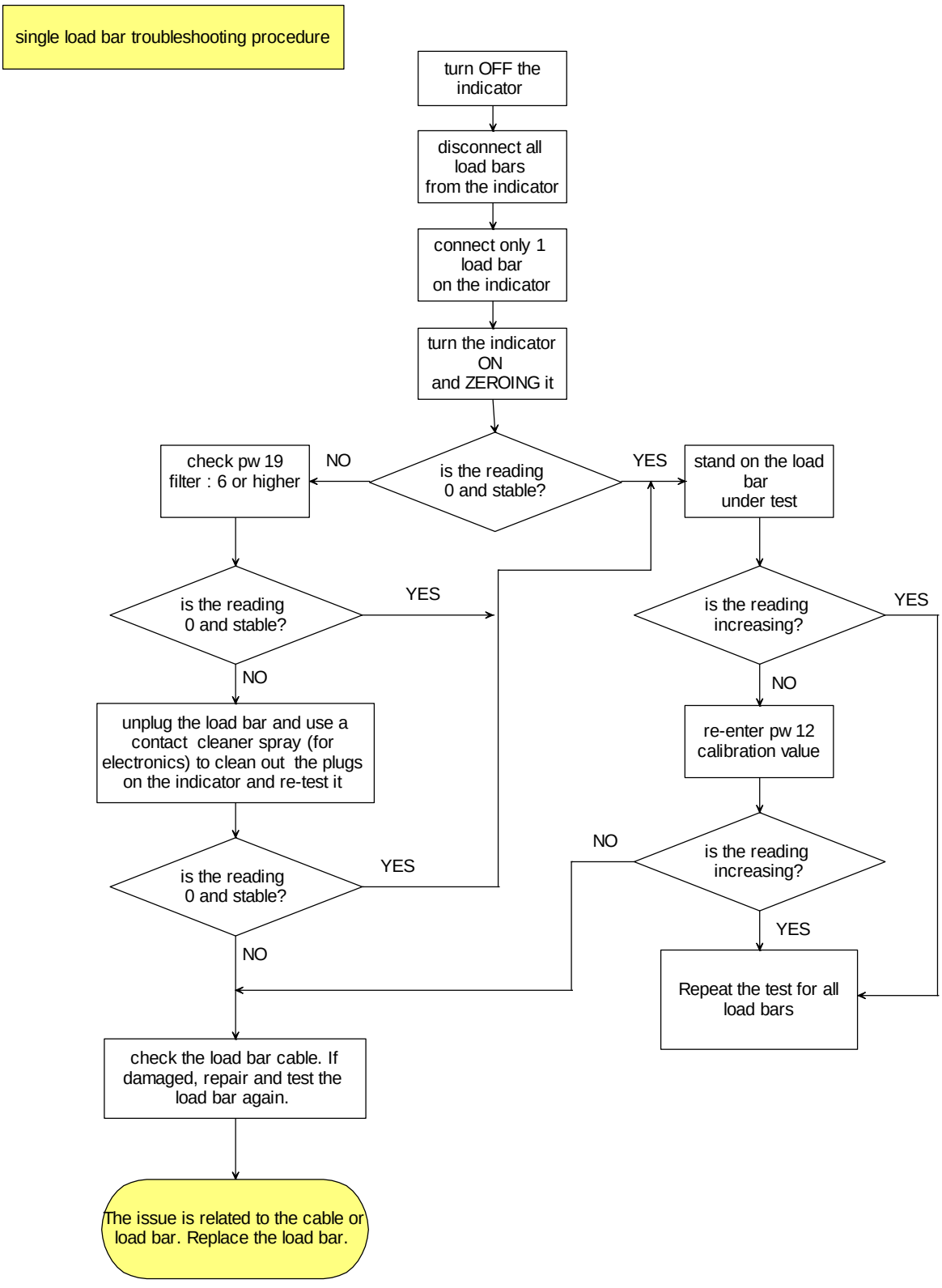


2.5 Weight simulator troubleshooting procedure



Estimated Time: 15 minutes

2.6 Single load bar troubleshooting procedure



Estimated Time: 15 minutes

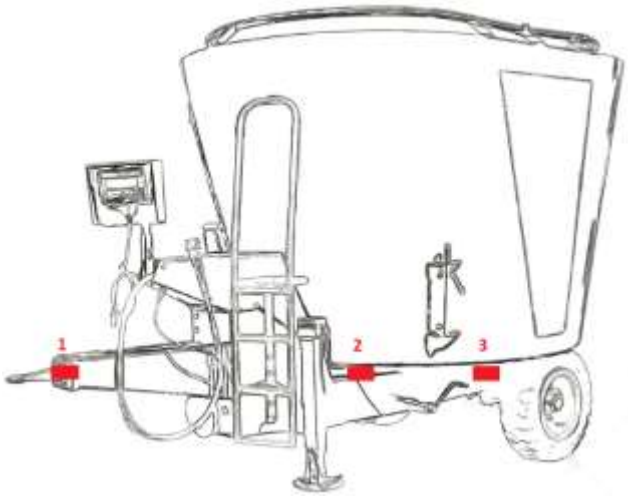
2.7 The weight is moving when the mixer is moving

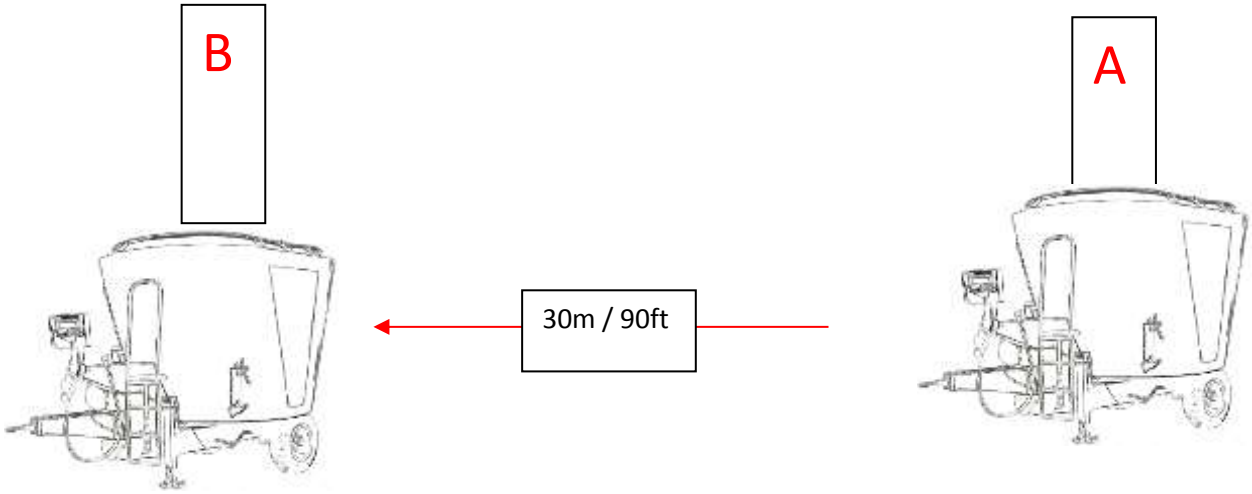
- Leave all load cells connected. Stop the mixer on a position (A), do the zeroing.
- Make sure the weight is 0 and it's stable
- Move the mixer from the point A to the point B
- Record the weight value on point B
- Come back to the point A
- Leave connected only load cell 1 and do the zeroing
- Make sure the weight is 0 and it's stable
- Move the mixer from the point A to the point B
- Record the weight value on point B
- Come back to the point A
- Leave connected only load cell 2 and do the zeroing
- Make sure the weight is 0 and it's stable
- Move the mixer from the point A to the point B
- Record the weight value on point B
- Come back to the point A
- Leave connected only load cell 3 and do the zeroing
- Make sure the weight is 0 and it's stable
- Move the mixer from the point A to the point B
- Record the weight value on point B
- Come back to the point A

Example:

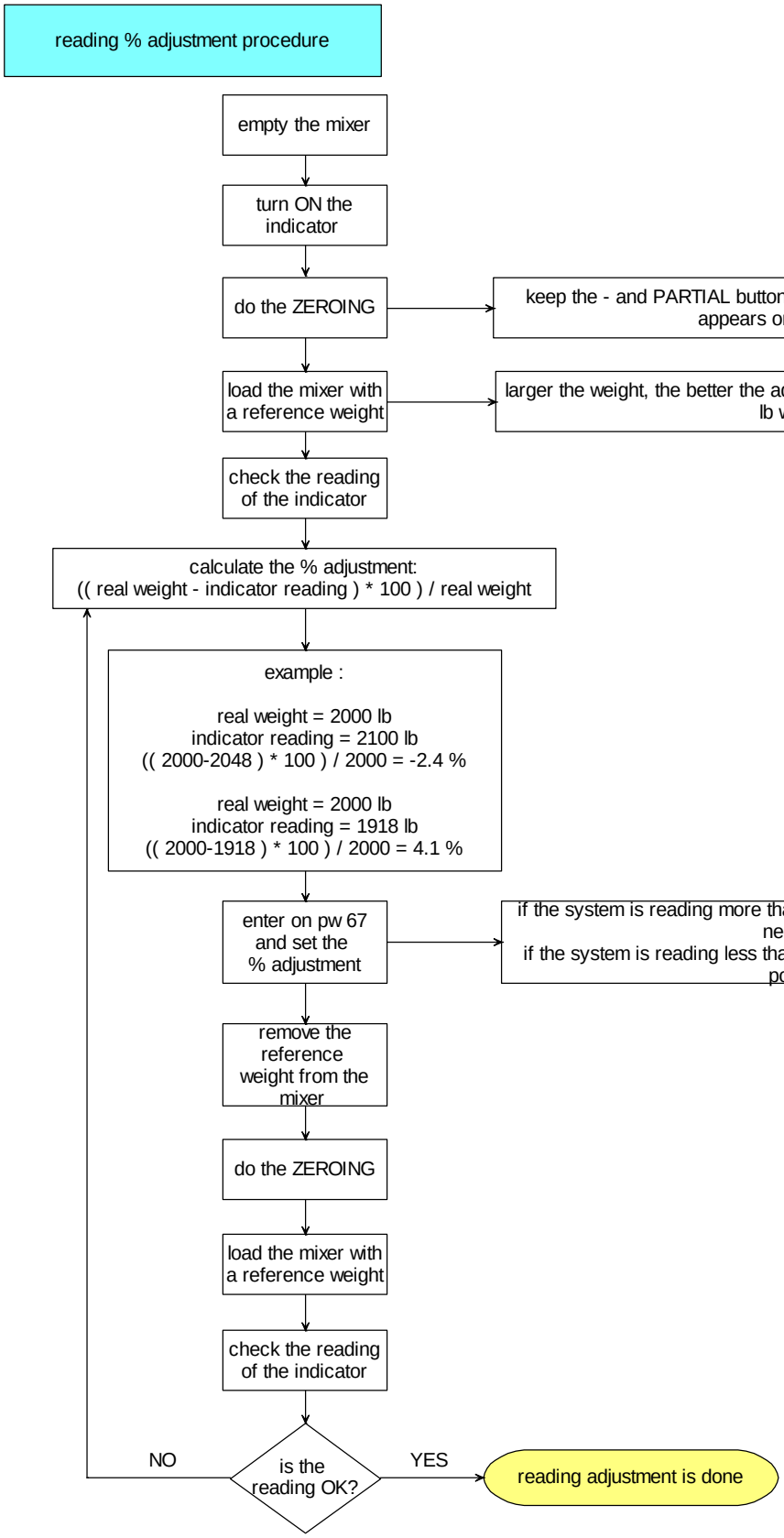
Load cells connected			Reading	
1	2	3	Point A	Point B
X	X	X	0	150
X	-	-	0	150
-	X	-	0	200
-	-	X	0	450

The issue is on the load cell 3. Before replacing it, check the cord of the load cell and check if the mechanical installation is fine


1
2
3

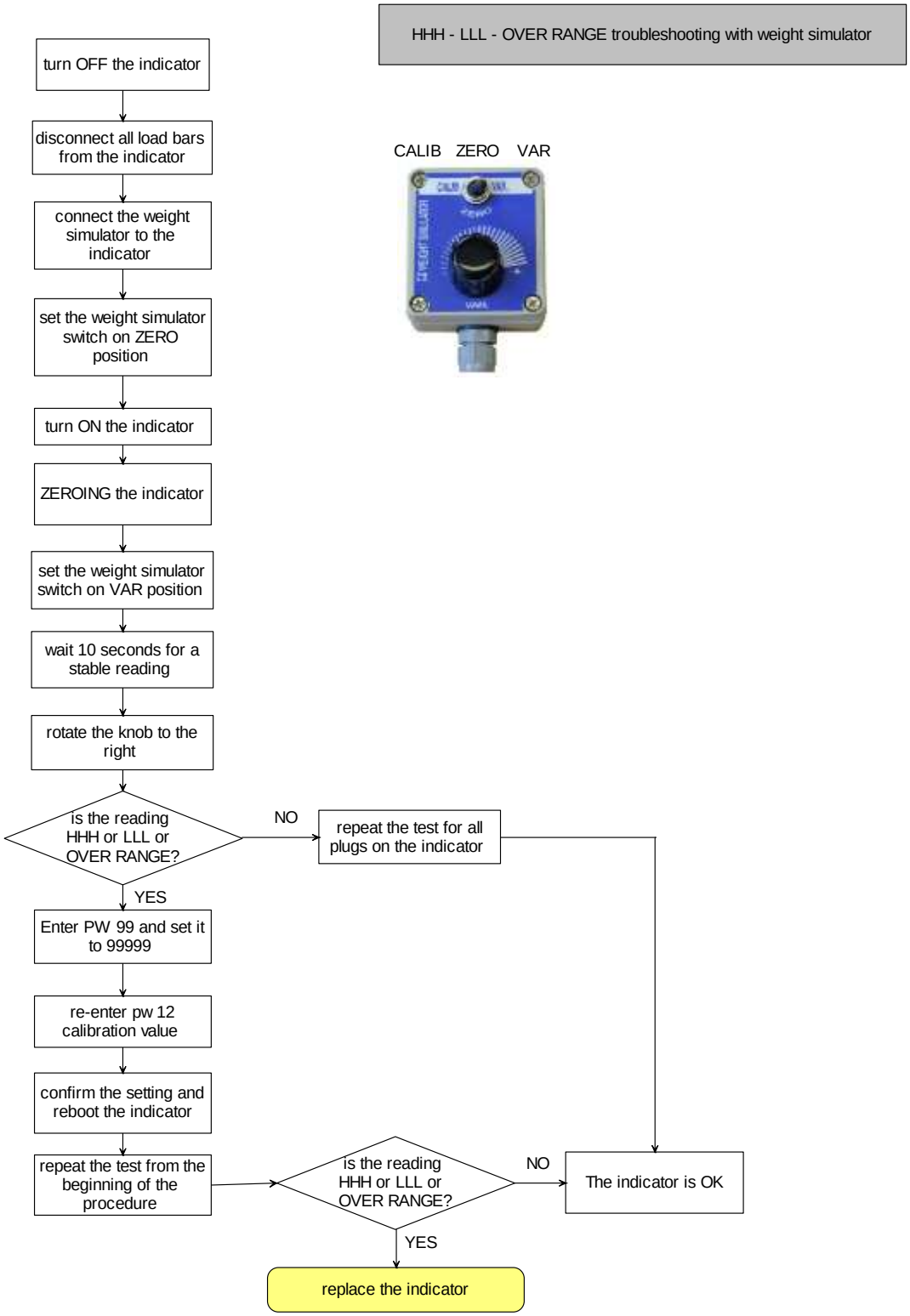

B
A
30m / 90ft

2.8 Reading % adjustment procedure



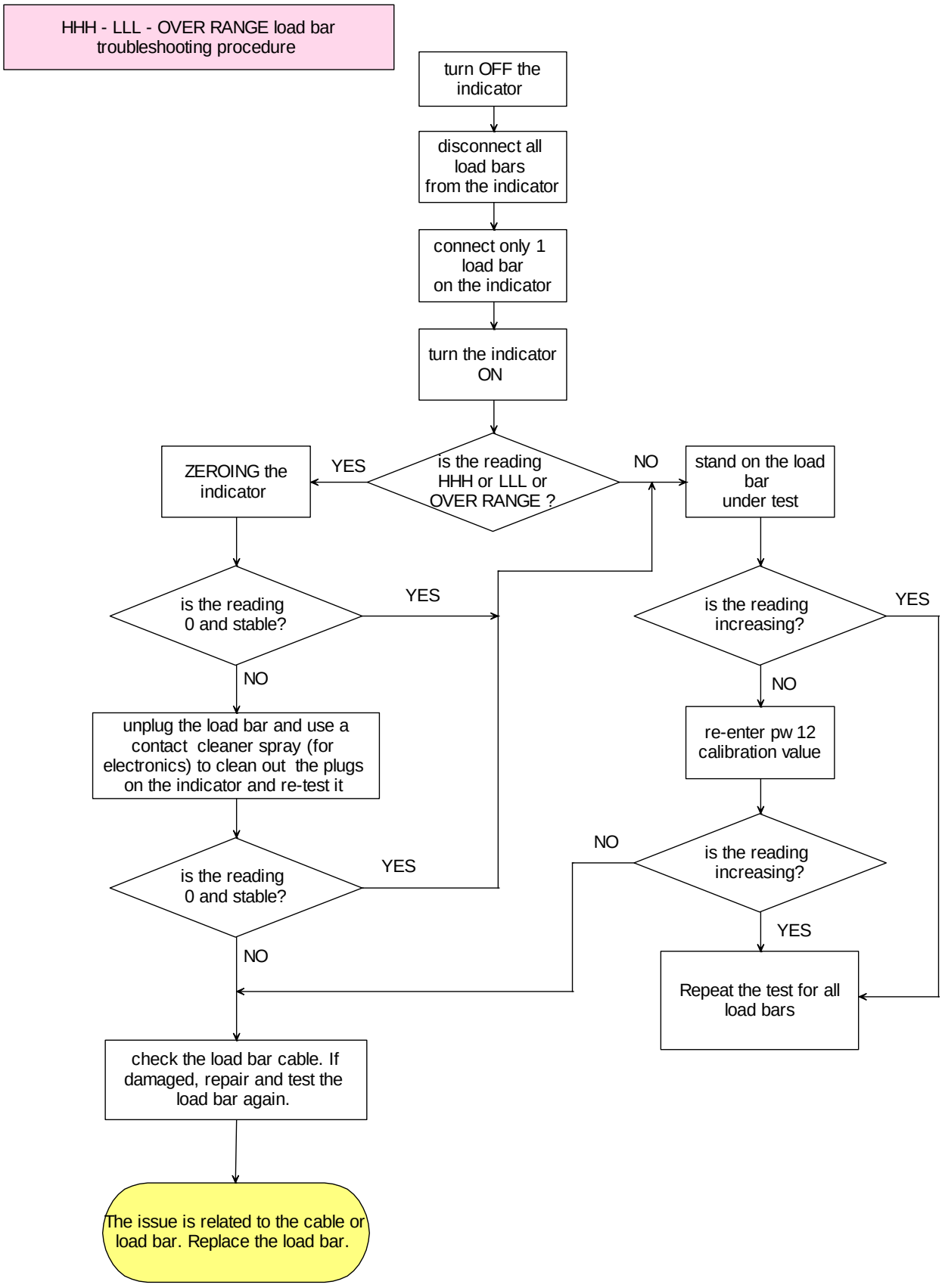
Estimated Time: 15 minutes

2.9 HHH – LLL – OVER RANGE troubleshooting procedure with weight simulator



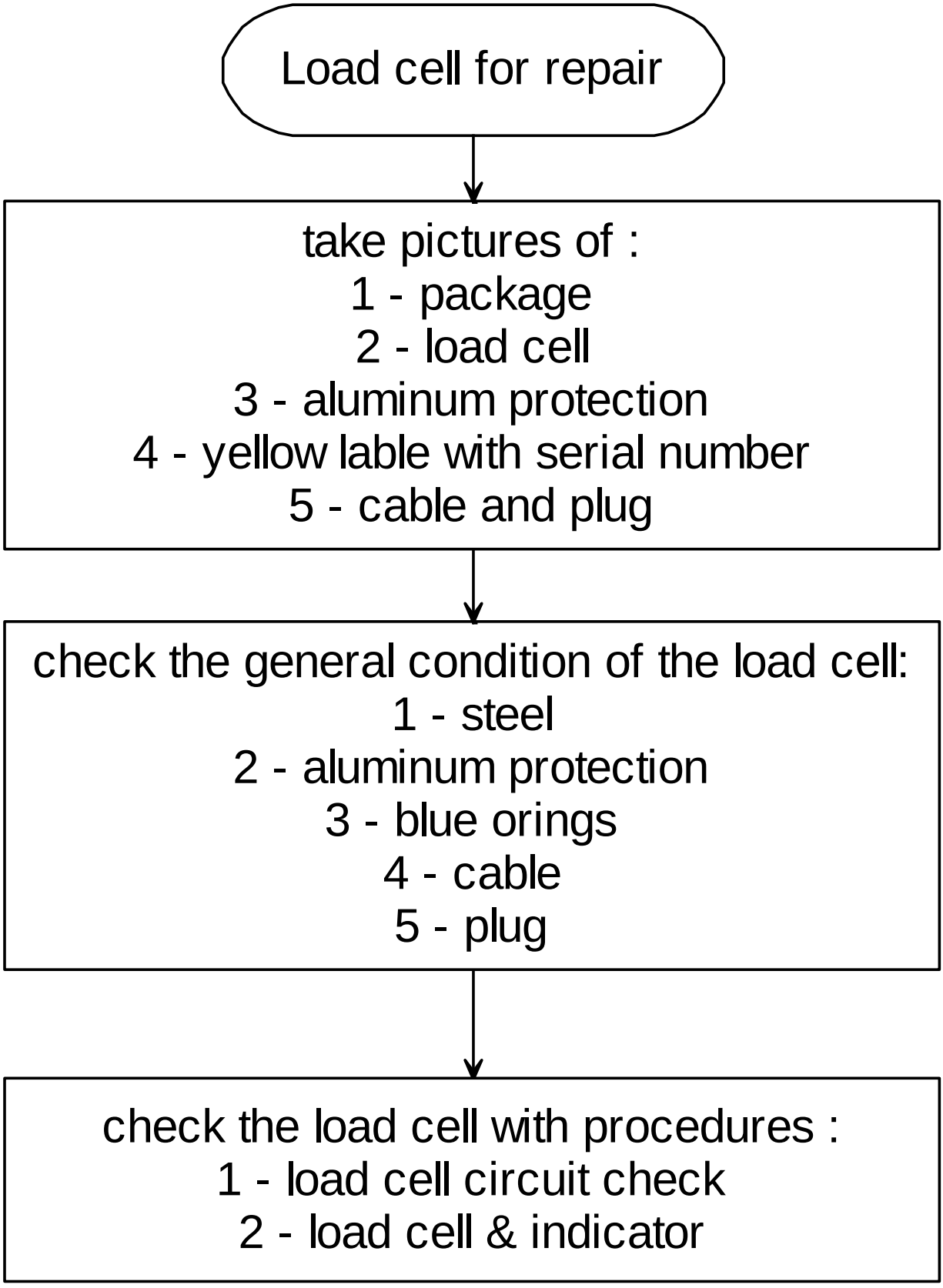
Estimated Time: 15 minutes

2.10 HHH – LLL – OVER RANGE load bar troubleshooting procedure



Estimated Time: **15 minutes**

3 LOAD CELL TROUBLESHOOTING IN LAB



3.1 LOAD CELL CIRCUIT CHECK PROCEDURE

LOAD CELL CIRCUIT CHECK

check the resistance of the load cell using a multimeter

in case of 5 poles military plug end: check the resistance between pins

in case of 4 poles plug end: check the resistance between pins

in case of free wires: check the resistance between wires

pins	ohm	tolerance
A - C	350	10
B - D	350	50
A - E	infinite	
B - E	infinite	
C - E	infinite	
D - E	infinite	

pins	ohm	tolerance
1-2	350	50
3-4	350	10
compression load cell		
1-2	350 - 410 max	
3-4	350	10

pins	ohm	tolerance
red-black	350	50
green-white	350	10
red-blue	infinite	
black-blue	infinite	
green-blue	infinite	
white-blue	infinite	

are resistance values ok?

NO

cut the cable 10 inch far from the aluminum protection, streep the wires and test the load cell

YES

proceed testing the load cell together with the indicator

are resistance values ok?

YES

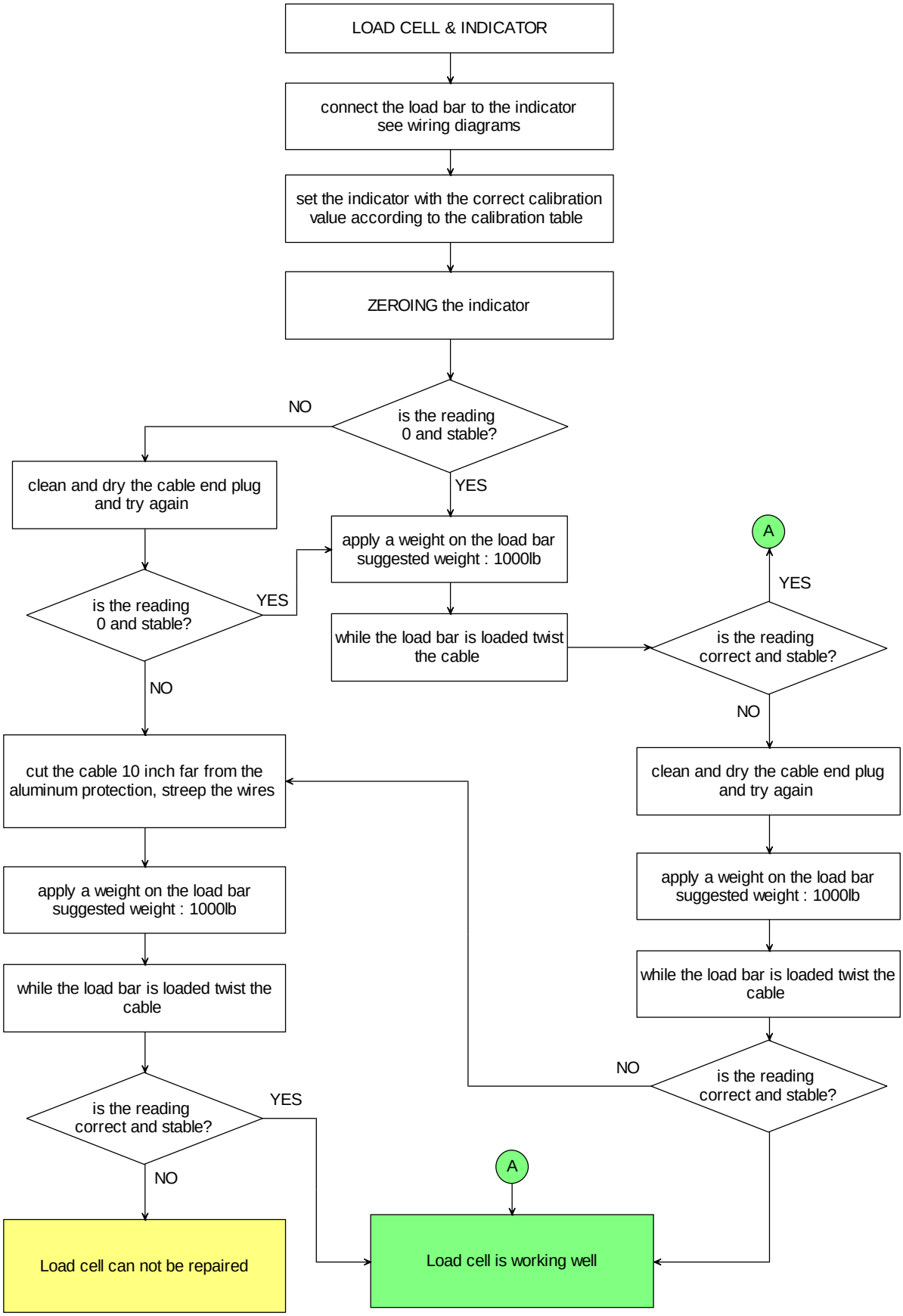
extend the cable with a splice kit and re-test the resistance

NO

load cell can not be repaired

Estimated Time: **15 minutes**

3.2 LOAD CELL & INDICATOR CHECK

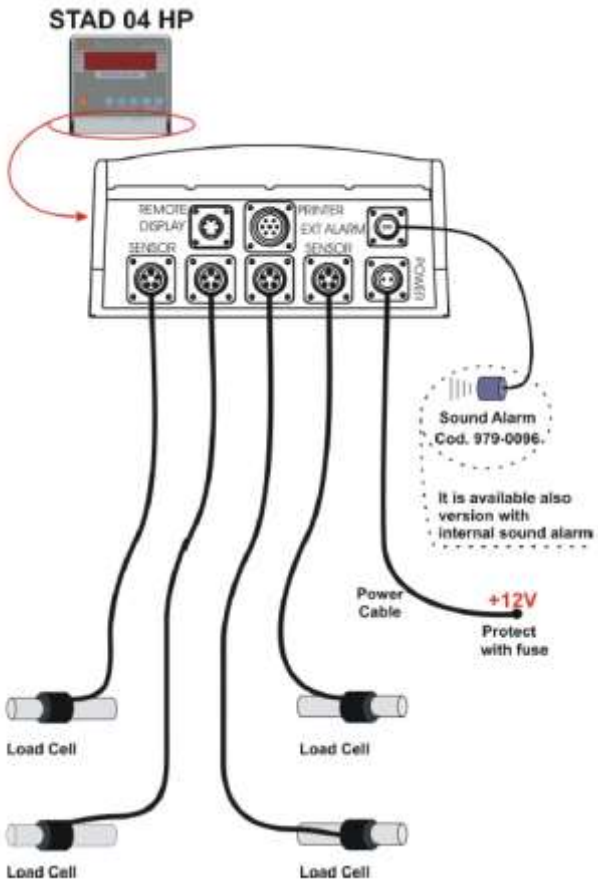


Estimated Time: 15 minutes

3.3 5 POLES MILITARY CABLE-END PLUG LOAD CELLS

5 poles MILITARY PLUG connection diagram

indicator setting	
passwors 12	
calibration value	ref table
passowrd 19	
division	5
password 454	
unit of measure	lb

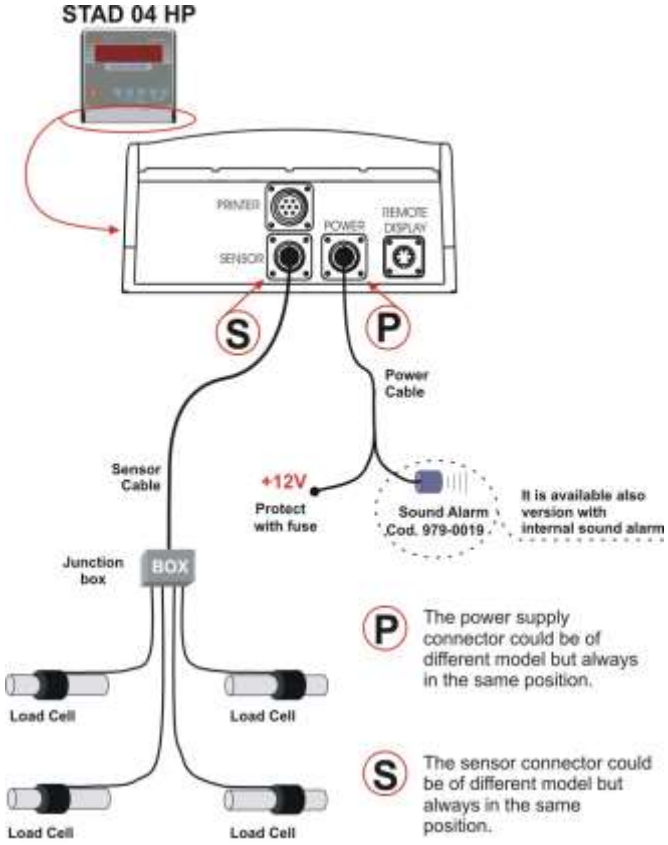


p/n	calibration value	reading tollerance %
969-0120	1920	2
969-0121	1920	2
969-0122	1920	2
969-0145	1920	2
969-0146	1920	2
969-0147	1920	2
969-0214	1340	2
969-0217	1340	2
969-0218	1340	2
969-0219	1920	2
969-0220	1920	2
969-0228	782	2
969-0230	782	2
969-0231	782	2
969-0233	782	2
969-0239	1920	2
969-0240	1920	2
969-0243	782	2
969-0244	1920	2
969-0245	1920	2
969-0252	1340	2
969-0276	782	2
969-0278	1920	2

* the calibration value must be multiplied by the number of cells
* for cells do not indicated on the table, please contact dg

3.4 4 POLES CABLE-END PLUG & FREE WIRES LOAD CELLS

4 poles cable-end plug and free wires connection diagram

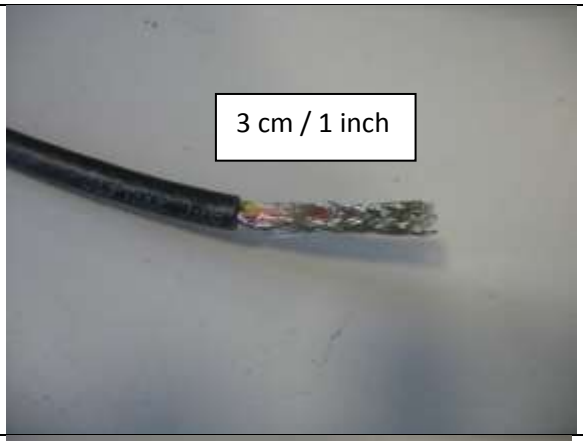
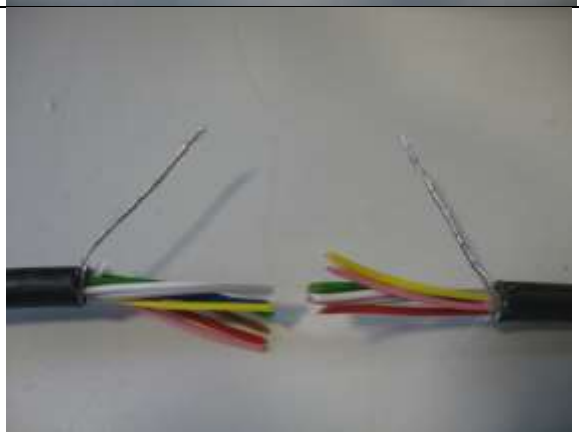


indicator setting	
passord 12	
calibration value	ref table
password 19	
division	5
password 454	
unit of measure	kg

p/n	calibration value	reading tollerance %
969-0092	1668	2
969-0093	1668	2
969-0094	1310	2
969-0100	824	2
969-0125	1668	2
969-0137	1668	2
969-0184	1668	2
969-0205	834	2
969-0256	782	2
969-0257	1920	2
969-0258	1920	2
969-0259	1920	2
969-0260	1920	2
969-0261	1920	2
969-0188	1191	2
969-0211	1191	2
969-0221	782	2
969-0141	2023	2
969-0083	1191	2
969-0082	2023	2
969-0202	2253	2
969-0235	2253	2

* the calibration value must be multiplied by the number of cells
* for cells do not indicated on the table, please contact dg

3.5 HOW TO SPLICE A CABLE

1		
2		
3	Cut out damaged area of the cable	 Strip away approximately 3 cm (1 inches) of the outer jacket (rubber) on both ends of the cable.