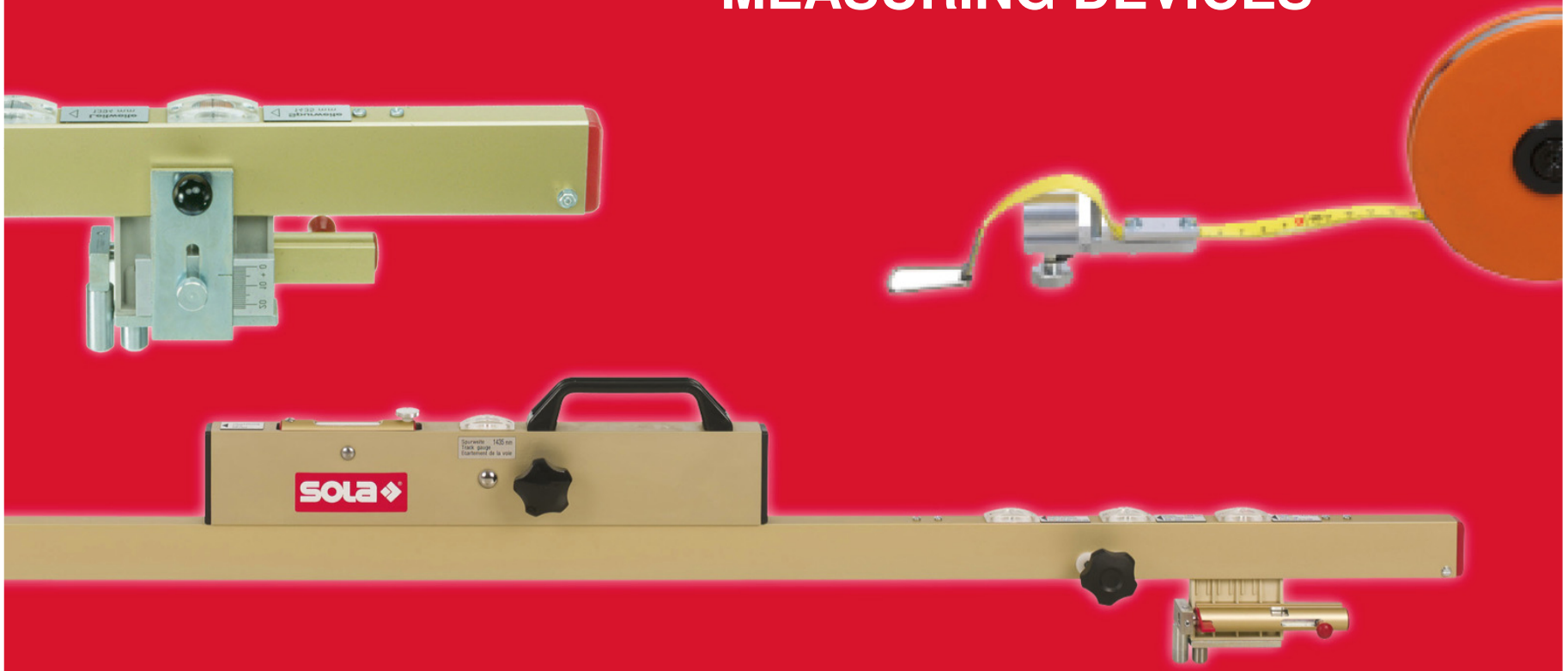
RAILWAY
MEASURING DEVICES



USE
RAILWAY DEVICES

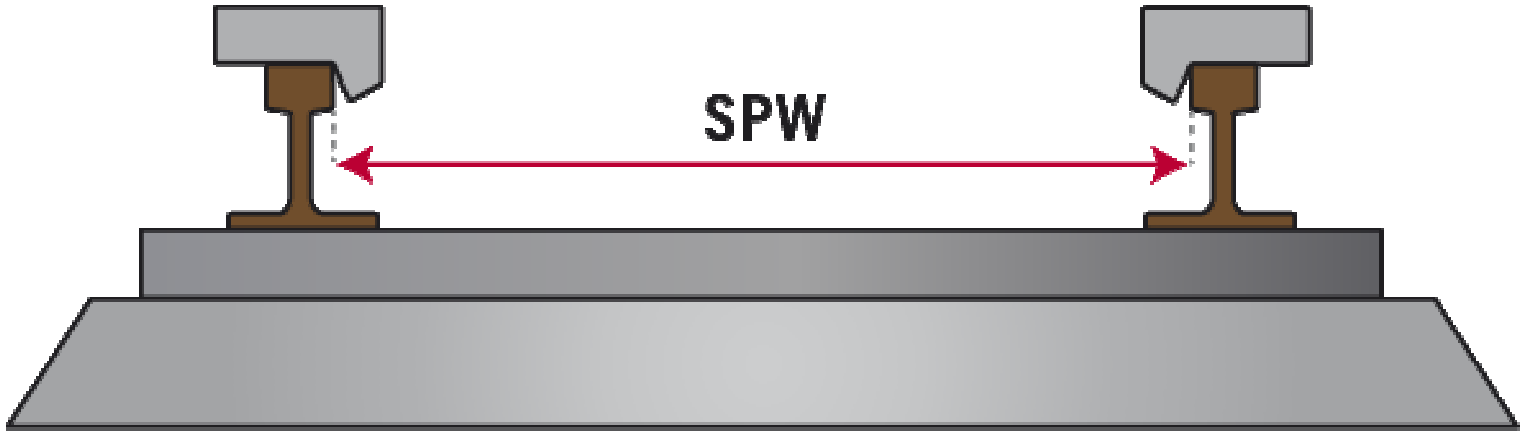
In the Superstructure

= rail inspection (do not mix up with Overhead lines!)

Classic Measurements

- Rail gauge SPW
- Superelevation

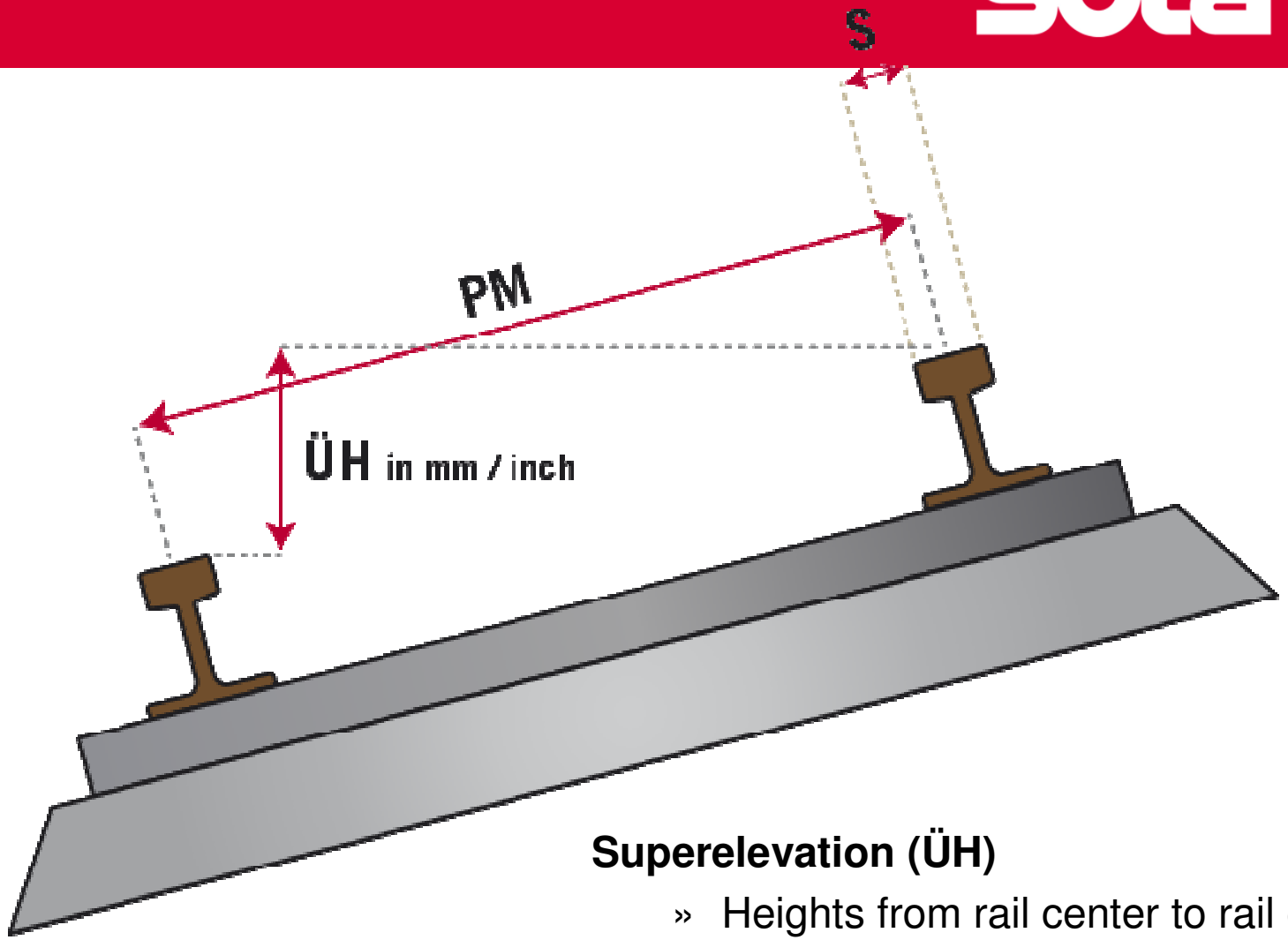
TERMS



Track gauge SW

- » Measurement from one inside rail edge to the other
- » Depending on the track gauge, its measurement is wider then the real track (therefore the Plus-area on the scale)

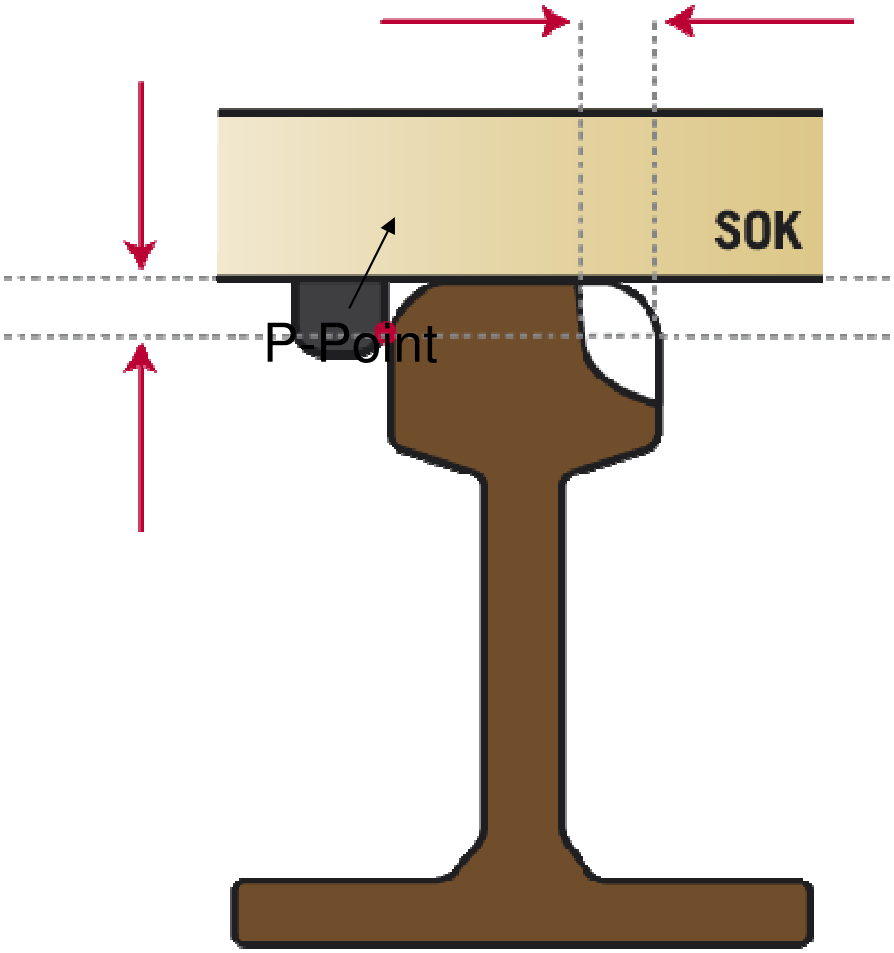
TERMS



Superelevation (ÜH)

- » Heights from rail center to rail center
- » is measured in curves

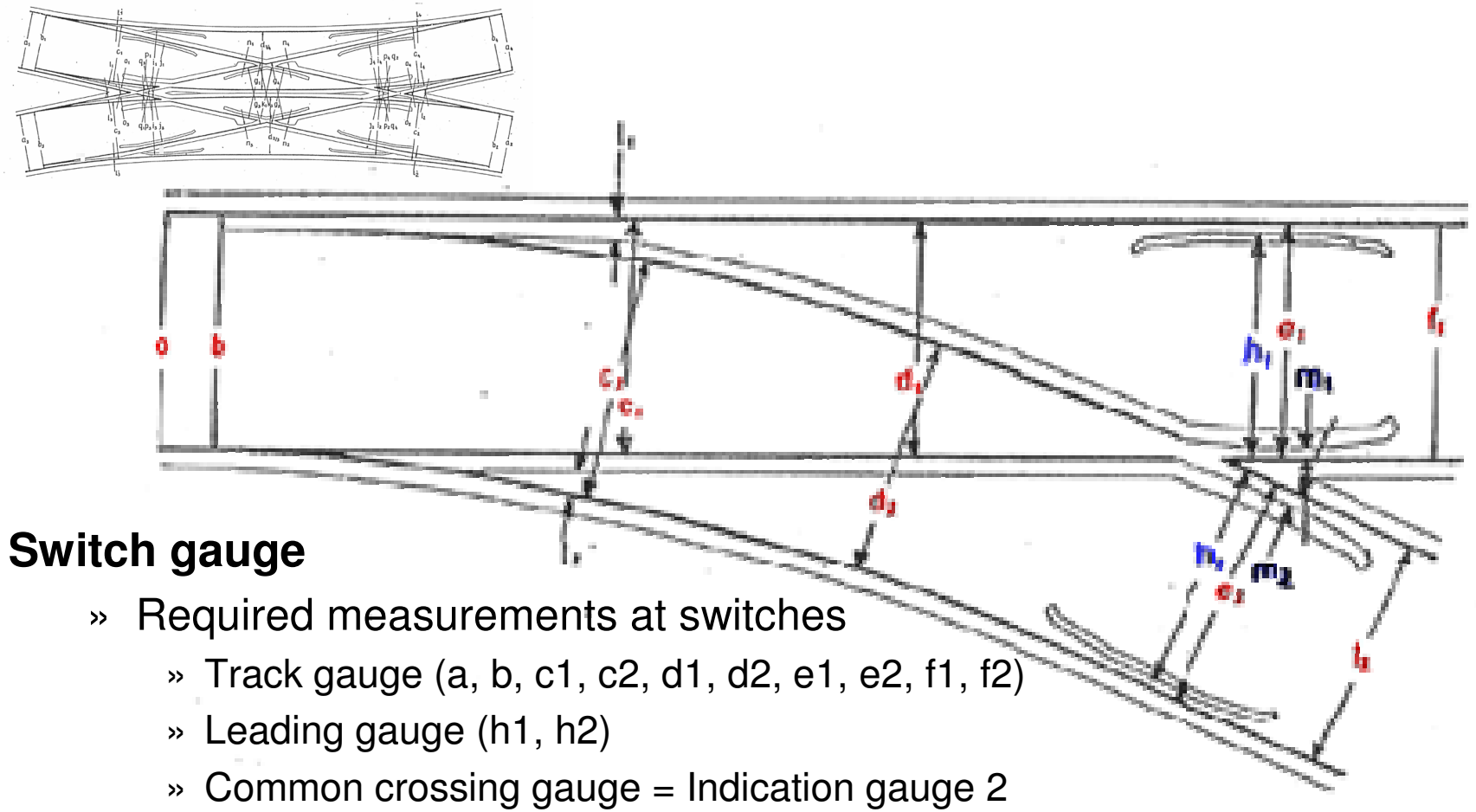
SUPERELEVATION
MEASUREMENTS OF RAIL



Measuring kick

» P-Point Indicated from the top of rail (SOK or SK)

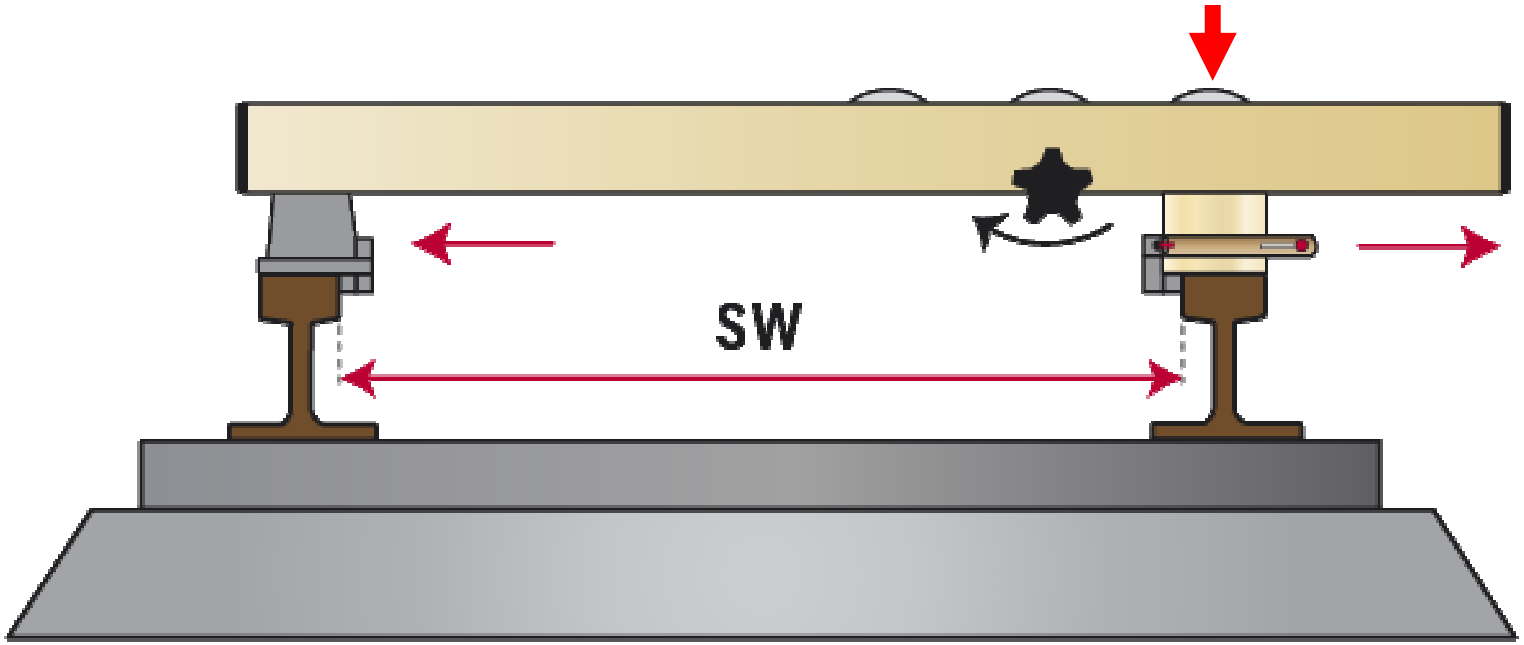
TERMS
SWITCH GAUGE MEASURE



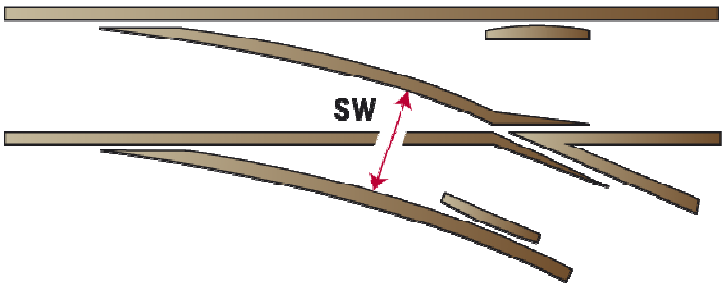
Switch gauge

- Required measurements at switches
  - Track gauge (a, b, c1, c2, d1, d2, e1, e2, f1, f2)
  - Leading gauge (h1, h2)
  - Common crossing gauge = Indication gauge 2
  - Groove width (l1, l2, m1, m2)

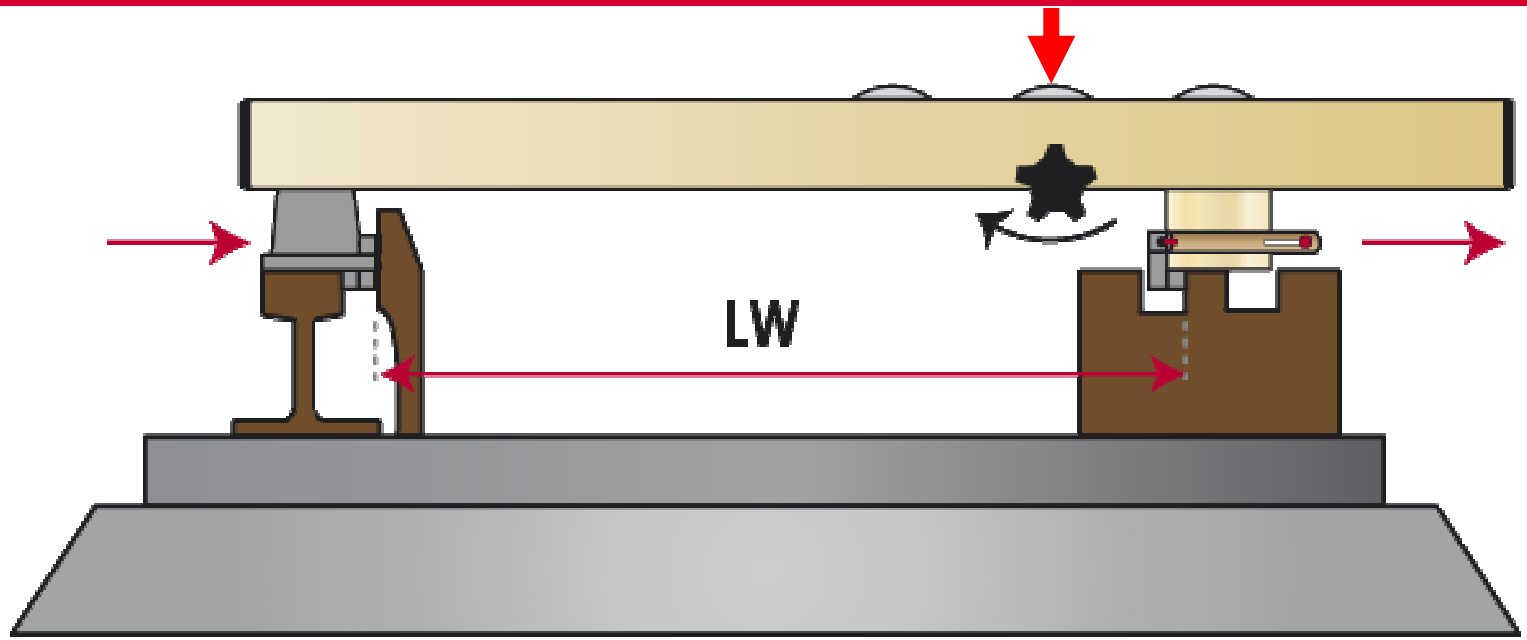
INSTRUCTION
TRACK GAUGE (SW)



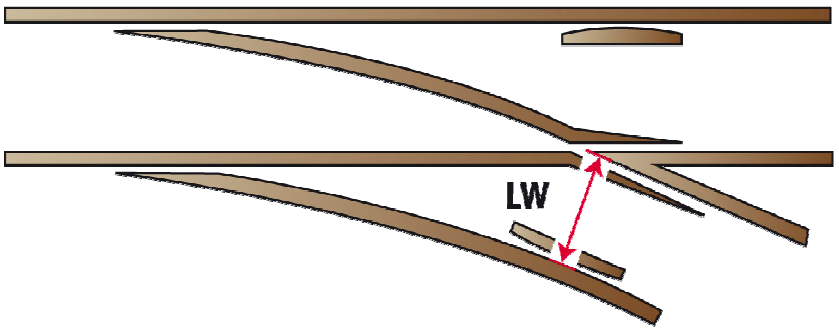
1. Position measuring kick of casted foot at the inner side of the rail
2. Press Measuring kick of isolated leg against the rail by the rotary knob
3. Read track gauge (SW) at the right window



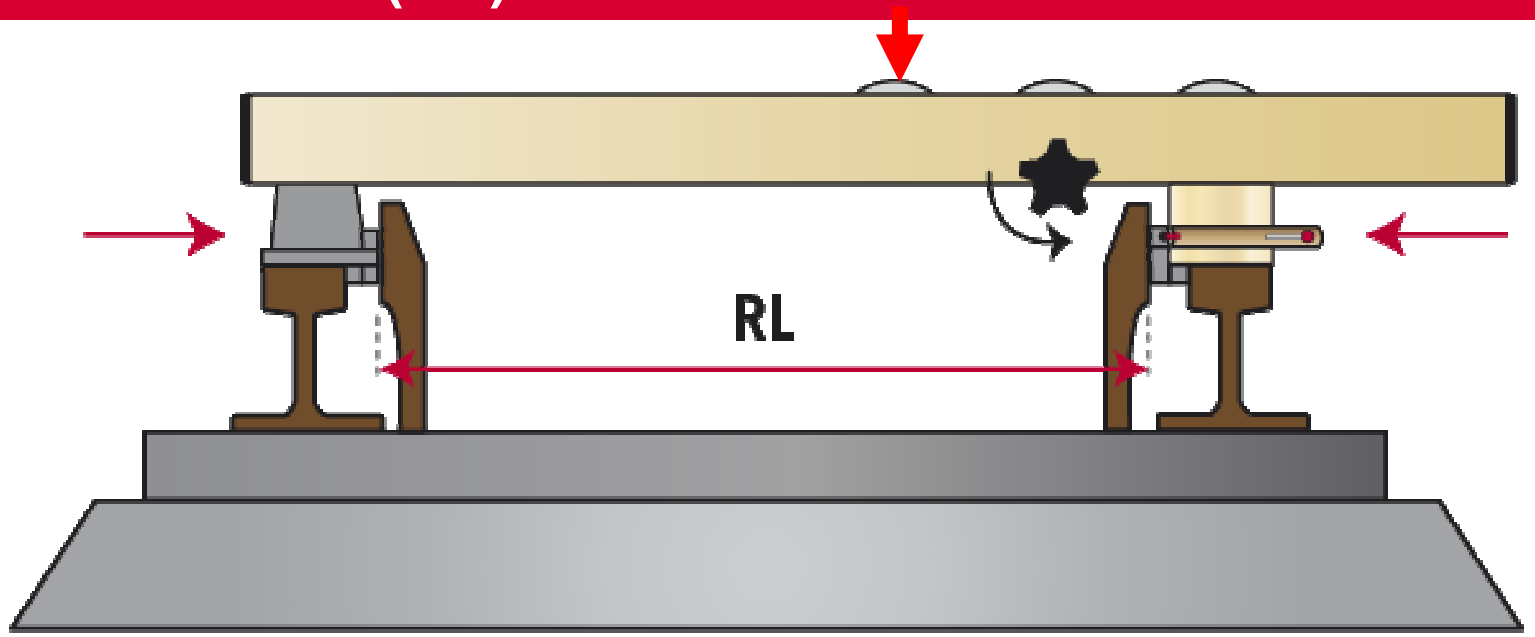
INSTRUCTION
INDICATION WIDTH (LW)



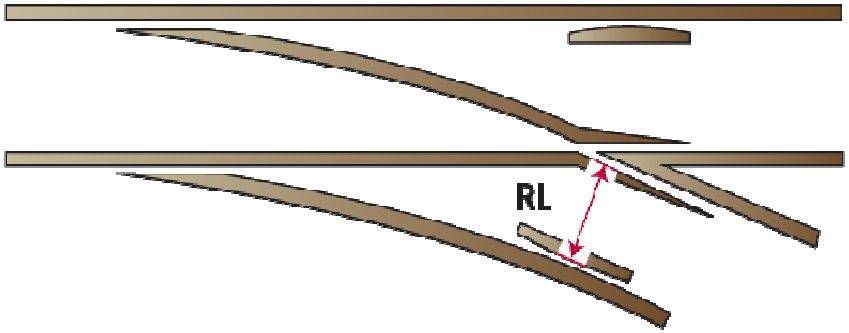
1. Position the measuring kick of casted foot at the check-rail outer edge
2. Press Measuring kick of isolated foot against the common crossing by the rotary knob
3. Read Indication width (LW) at the middle window



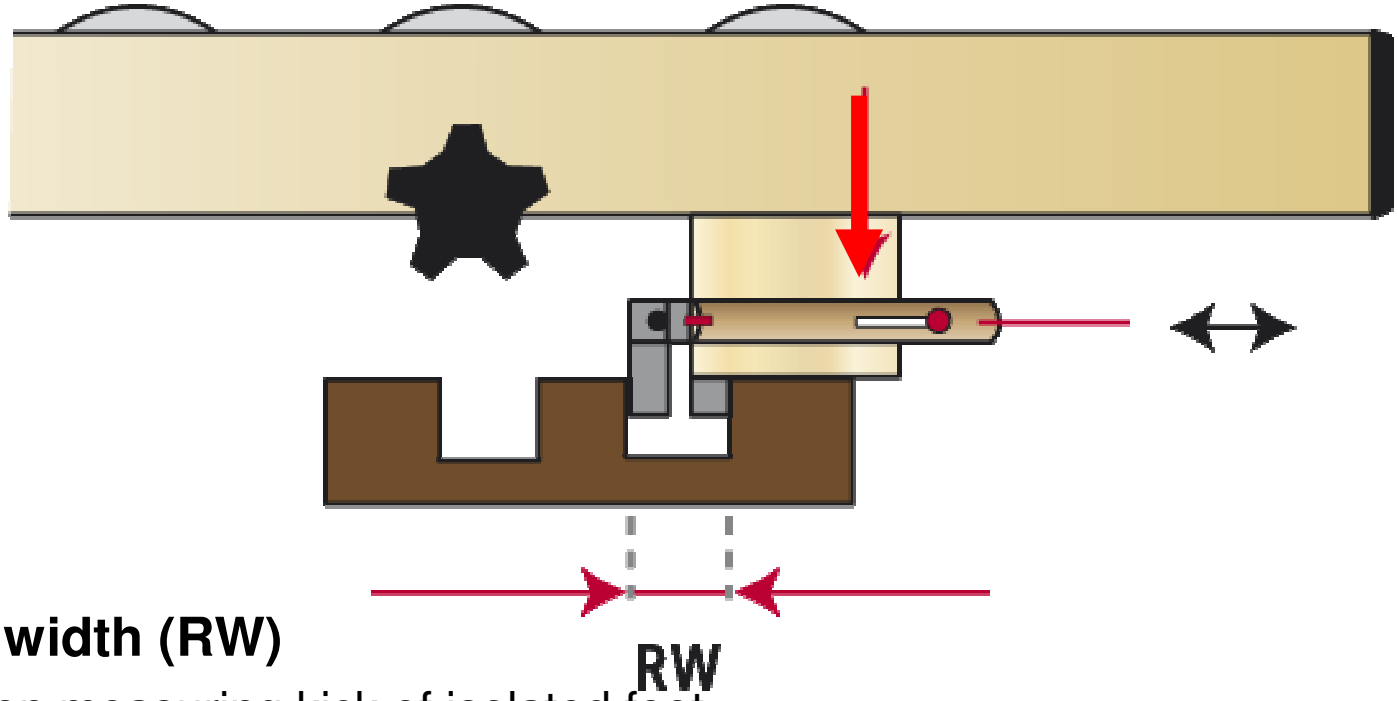
INSTRUCTION
CHECK RAIL (RL)



1. Position measuring kick of casted foot at the check-rail outer edge
2. Press Measuring kick at isolated foot against check-rail outer edge
3. Read check rail (RL) at the left window

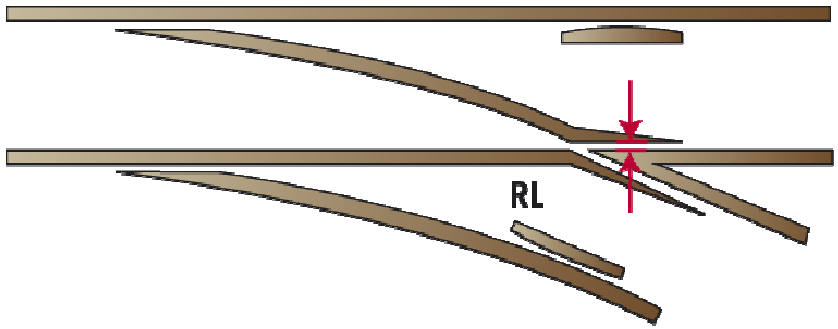


INSTRUCTION
SWITCH GAUGE MEASURE

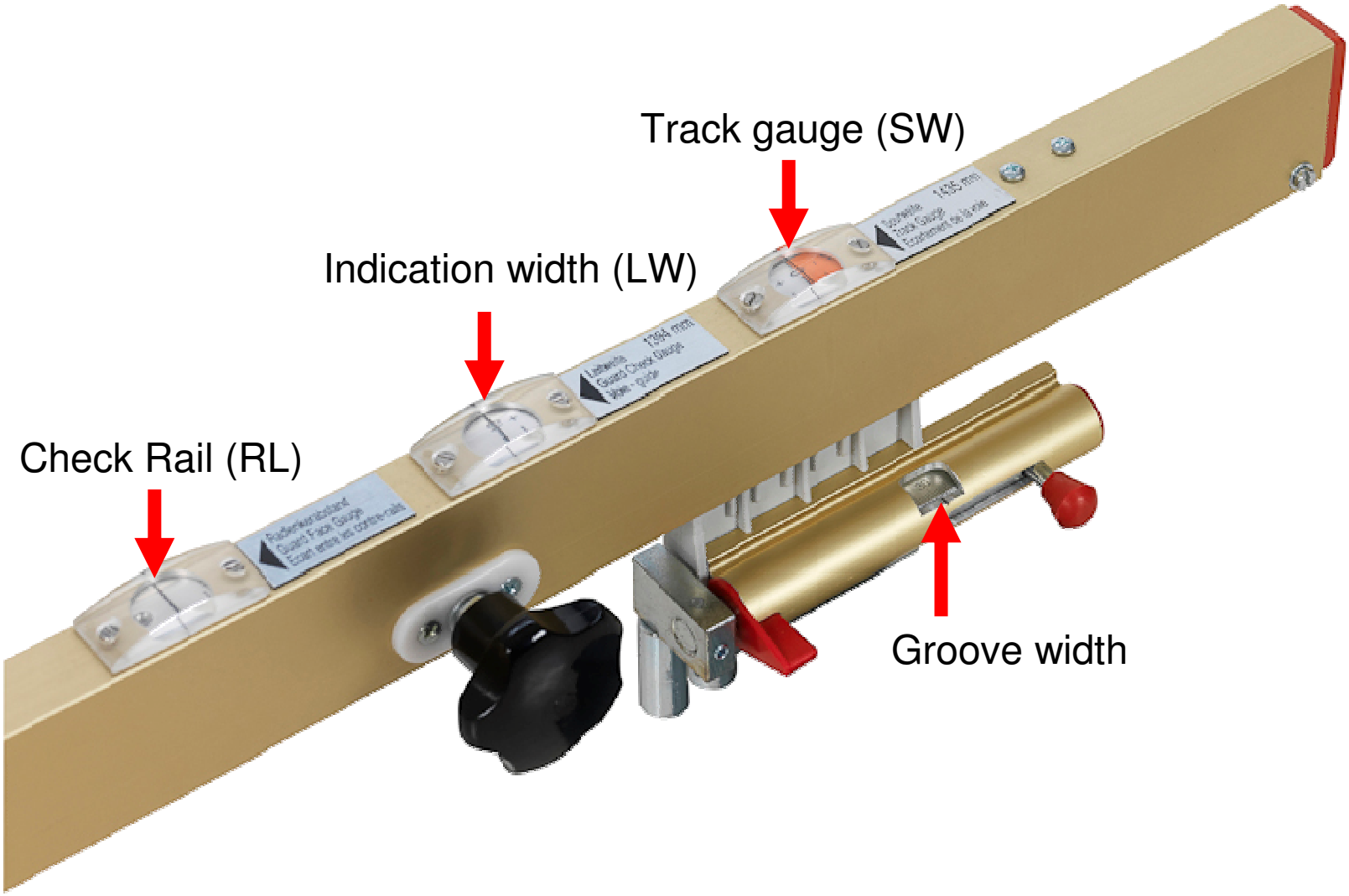


Groove width (RW)

1. Position measuring kick of isolated foot at the rail
2. Press measuring kick of groove width shuffle against the other rail
3. Read groove width at the shuffle



MEASURING OPTIONS
BASE PART - SUMMARY

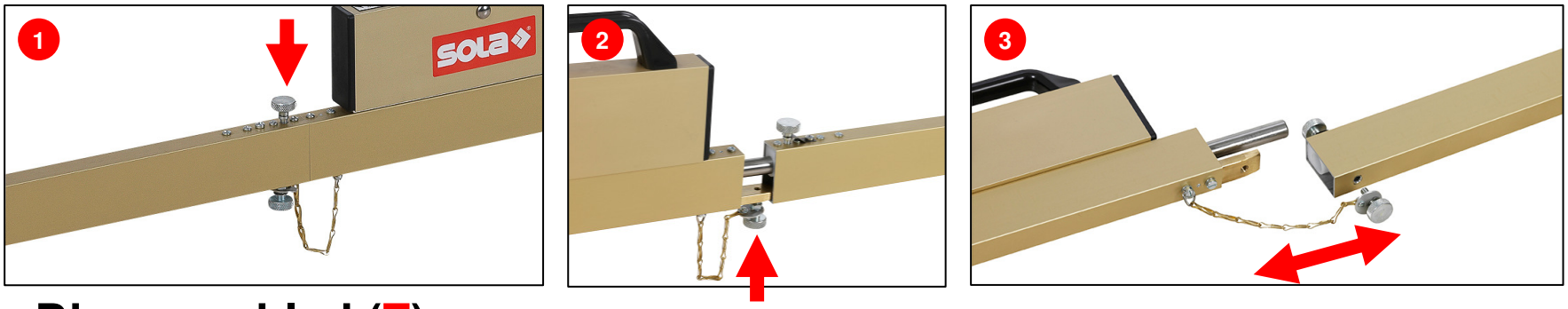


INSTRUCTION
SUPERELEVATION

Superelevation measurer has to be adjusted before using!

1. In a straight track section the superelevation is measured twice in the same spot, the gauge having to be turned by 180° between both measurements
2. The average value from these two measurements is set on the circular scale
3. Thereafter, by turning the adjusting screw, the air bubble must be regulated to appear exactly in the centre of the horizontal vial.
   The adjustment of the horizontal vial has to be carried out by clock-wise rotation; therefore, in this case the adjusting screw must be released previously by anti-clockwise rotation.
4. The adjustment has to be checked once again by turning the device on the track

OPTIONS
DISASSEMBLY



Disassembled (Z)

1. Loosen the upper screw at the base part
2. Screw away the lower screw at the base part
3. Tear the two parts apart