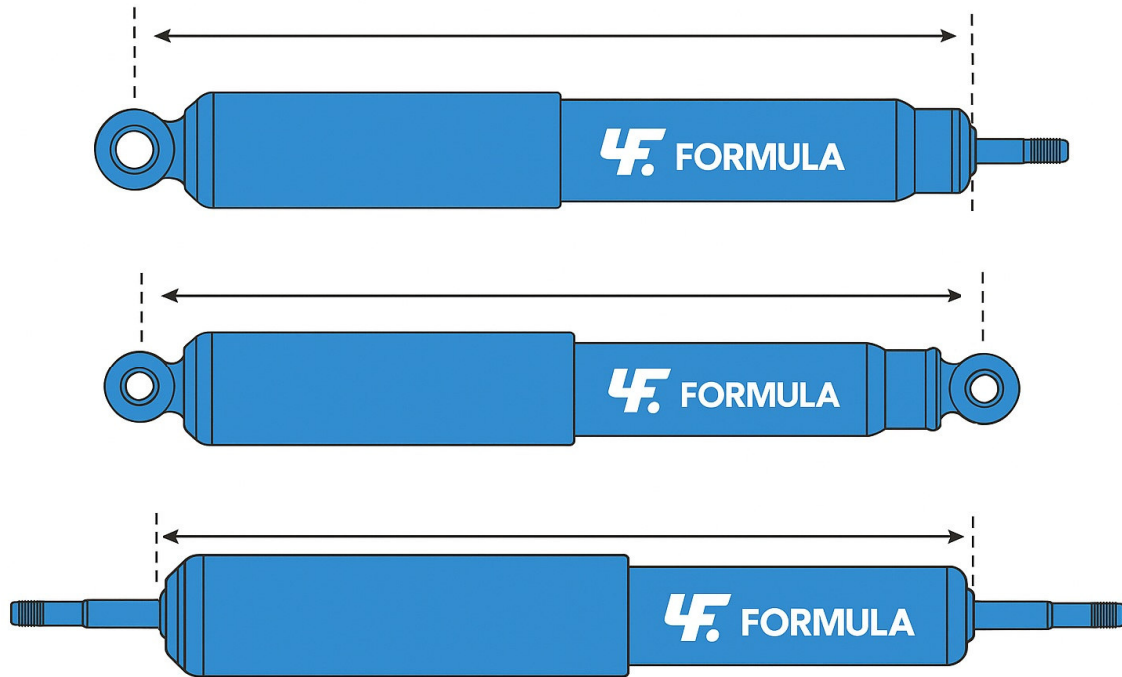


How to Measure Shocks



Step-by-Step Instructions

✔ Step 1: Identify Mount Type

Shocks can be mounted in several configurations:

- **Eye to Eye**
- **Eye to Stud**
- **Stud to Stud**

It is critical to identify both ends of the shock absorber to apply the correct measurement method.

✔ Step 2: Understand Measurement Points

Configuration Measurement Point(s)

Eye to Eye Centre of eye to centre of eye

Eye to Stud Centre of eye to shoulder of stud

Stud to Stud Shoulder of stud to shoulder of stud

Note: Measurements should be taken along the central axis of the shock.

How to Measure Shocks

✔ Step 3: Prepare the Shock Absorber

- Ensure the shock absorber is **fully extended** (for open length).
- Compress manually or hydraulically (if needed) to take the **closed length**.

Tools Recommended:

- Vernier caliper or measuring tape
 - Flat surface
 - Clamp or vice (if stabilisation is required)
-

✔ Step 4: Measure Open Length

- **Open Length** is the maximum distance between the specified measurement points.
 - Record the distance precisely, e.g.:
 - *Eye to Eye*: Centre of upper eye to centre of lower eye
 - *Eye to Stud*: Centre of eye to shoulder base of stud
 - *Stud to Stud*: Shoulder to shoulder
-

✔ Step 5: Measure Closed Length

- **Closed Length** is the minimum distance between the same points as above when the shock is fully compressed.
 - Again, measure from:
 - *Centre to Centre* (Eye to Eye)
 - *Centre to Shoulder* (Eye to Stud)
 - *Shoulder to Shoulder* (Stud to Stud)
-

Visual Reference

Attach the following image to visually illustrate the three common mount types and where measurements are taken:

- Top: Eye-to-Stud
- Middle: Eye-to-Eye
- Bottom: Stud-to-Stud

(Use the approved Formula-branded image titled "**Open and Closed Lengths Measurement**")

How to Measure Shocks

Final Notes

- Always double-check for wear, deformities, or damaged bushes before measuring.
- For accurate replacement or catalogue matching, ensure measurements align with OEM specifications.
- Use the Formula part number cross-reference table if needed.