

Torque wrench, order no. 10002597 (1/4 inch drive), 6-30 Nm

A torque wrench is a tool for tightening bolts and nuts to a torque specified by the manufacturer. These values guarantee that the particular bolt or nut is tightened up precisely to a torque that is ideally matched to the strength of its material and the material of the vehicle part that is to be attached. You will find the tightening torques in the servicing or installation instructions for your bike or product.

The torque wrench has a 1/4 inch ratchet head which can turn clockwise or anticlockwise. The adapter included with the wrench allows 1/2 inch and 3/8 inch sockets to be inserted. There is an adjustment scale with a rotary knob for fine setting, and a locking mechanism at the lower end. The torque values can be read from a Nm scale or a ft-lb scale. The display is accurate to about +/- 4 percent. The torque wrench is only suitable for right-hand threads.

Setting and tightening a screw connection:

Push the locking mechanism **(E)** at the bottom end of the handle into the „Unlock“ position. Now set the desired tightening torque on the scale using the rotary handle **(D)**.

Example: You want to set a value of 12 Nm. Turn the handle **(D)** until the reference edge **(B)**, when turned to the zero position, is exactly aligned with the mark for 12 on the scale **(A)** at precisely the place where it intersects with the horizontal line – see Figure 1.

Or: You want to set a value of 13.6 Nm. First turn the handle **(D)** until the reference edge **(B)**, when turned to the zero position, is exactly aligned with the mark for 12 on the scale **(A)**. Now keep turning until the 1.6 position on the rotary handle is in line with the horizontal line of the scale. Push the locking mechanism **(E)** at the bottom end of the handle into the „Lock“ position. A screwed connection, which should first be tightened by hand, can now be tightened with the torque wrench. Slowly and steadily turn the torque wrench. You will feel a jerk and hear a click at the same time when the set torque has been reached. The click becomes louder as the set value is higher, and quieter as the torque is set to a lower value. Pay close attention to the moment when the wrench triggers – never continue to tighten beyond this point.

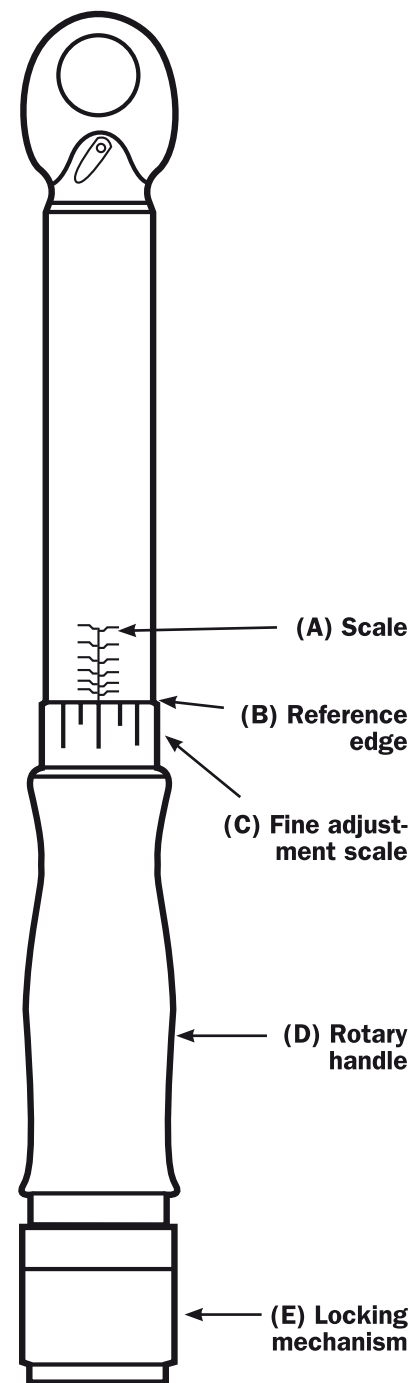
Important: Some screwed connections, such as those on cylinder heads, are tightened up in stages (low torque – medium torque – final value). If a component is attached by a number of screwed connections they may need to be tightened in a particular sequence, such as „crossover“ or from „inside to outside“ – always work in a technically correct manner and in accordance with the manufacturer's specifications.

- Before the torque wrench is put away, it must be unlocked, and the rotary handle must be turned back until the edge is in line with the lowest value on the scale. The torque wrench is then not under tension. Otherwise the spring will be stretched, and the accuracy of the indication will be permanently reduced.

Safety warnings:

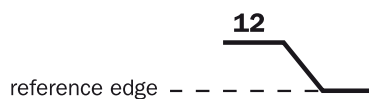
- Do not use any universal joints when working with the torque wrench, and if possible avoid using any rigid extension bars; these can falsify the torque. Do not use the torque wrench as a lever to undo screws that have been done up too tightly.
- If you are not yet used to using the tool you should first familiarise yourself with the way it triggers. Try the torque wrench out, set to a relatively low value, on a tight bolt, and pay attention to the slight jerk and the sound of the click.

Since this is a universal product and not intended just for one particular vehicle, it is important to make sure that it is suitable for your type of bike before you use the product for the first time. Always follow the instructions in your vehicle operator's manual and the directions of the vehicle manufacturer. This is essential, as improper use of this product or its unsuitability for a vehicle could impair the safety and/or condition of the vehicle.

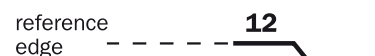


Please note when you make the adjustment that it is the lower stroke (**see Fig. 1**), which meets the vertical centre line, that is to be used. Otherwise the set value will be too high. 12 Nm has been set on our example.

Fig. 1 correct



wrong



If you have any questions about the product or these instructions, please contact our Technical Centre before installation or first use by fax on 00 49 (0)40 734 193-58, or by e-mail at technikcenter@louis.de. We will be pleased to provide prompt assistance. This is the best way to ensure that your product is installed properly and used correctly.