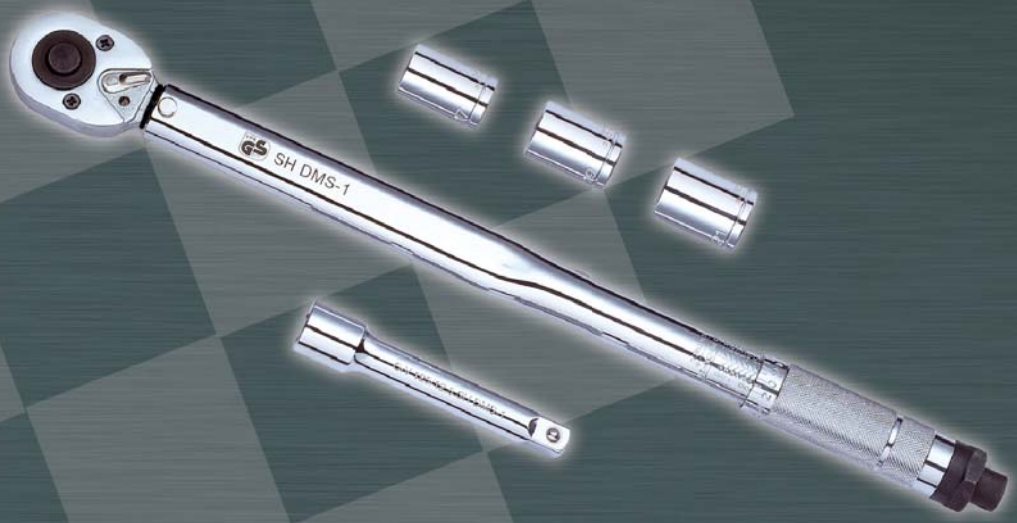
AUTO XS®



TORQUE WRENCH SET

USER MANUAL

VPA GS geprüfte Sicherheit

AFTER SALES SUPPORT

GB 0800 / 328 6020
IRL 00800 / 4467 5888
info@saphirsupport.com

MODEL: SH-DMS-1, 90720, 10/2013, E53004

Contents

Introduction 1

Dear Customer, thank you for purchasing this product. You have acquired a high-quality precision tool that will provide you with years of reliable service if used properly.

Please read and follow this user manual and especially the safety notes before using your torque wrench set. Keep this manual in a safe place, and if you pass this tool on to another user, provide them with this manual as well.

Explanation of symbols used

In the user manual, the following symbols are used:

Before use, fully read instructions and follow them.

Caution! Indicates a potential hazard that if not observed could result in injuries or property damage.

Note: Identifies important and useful information. Failure to comply can lead to incorrect use with low levels of risk.

Safety and warnings 2

- This torque wrench set is a precision tool and may only be used in accordance with its intended purpose and as described in this manual. Do not use the torque wrench for other purposes, as a striking tool or as a normal ratchet, as this can cause damage and reduce its accuracy.
- Refer to the maintenance, operation and repair manuals of your vehicle, machinery or equipment (or to the respective manufacturer) for information about the adjusted torque values of the bolted connections. These values guarantee that the screw connection is sufficiently tightened while preventing damage to the parts by overloading.
- If the torque wrench is overloaded by more than 125% of the highest torque values, or if it is subject to improper treatment, the torque wrench should be re-calibrated. This can be done by the manufacturer for a fee. By no means attempt to repair the torque wrench or calibrate it yourself.
- The accessories contained in the set are matched to this torque wrench. Use these or only standard components which correspond in shape and size to the included accessories. Using non-standard accessories may lead to incorrect settings and void the warranty and warranty claims.
- Do not use worn or defective components, as these may influence the release accuracy.
- Do not use a hinge or ball joints, as this may lead to incorrect torque settings.
- Before each use, check correct settings of the torque value and proper fitting of the accessories used.
- Do not move the torque wrench in sudden jerks. Always use even pressure when tightening the screw connections until the click sound is triggered. Do not load the torque wrench any further after being triggered to prevent damage to the mechanics.
- To clean, use only a dry cloth and never dip the torque wrench into liquid. The lubrication of internal parts may otherwise be impaired.
- Do not expose the torque wrench to extreme temperatures and store it only at room temperature (15 - 25 °C) in a dry place protected from access by children. Make sure that children do not play with the product.
- Always set the lowest torque value before storage. Do not turn the adjustment grip below this marking to avoid damage.

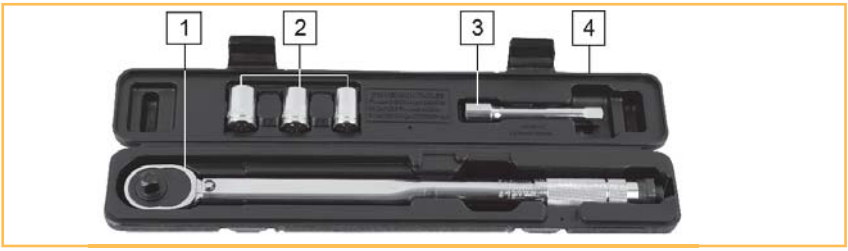
Intended Usage 3

This torque wrench set is intended for the controlled tightening of screws and nuts with right-hand threads on vehicles, other machinery and equipment, according to manufacturer's specifications, in the torque range from 28 to 210 Nm. It is for private use.

It is not intended or appropriate for commercial, trade or industrial use.

The manufacturer assumes no responsibility if the product is used in such operations or equivalent activities.

Product Description / Contents 4



1 1/2“ Torque wrench with quick release / DIN EN ISO 6789
2 1/2“ Socket set 17 mm, 19 mm and 21 mm / DIN 3124
3 1/2“ Extension 125 mm / DIN 3123
4 Storage box
5 User manual and warranty card (not pictured)

Technical data 5

Model:	SH-DMS-1
Setting:	28 – 210 Nm
Tool:	1/2“ square
Resolution:	1 Nm / graduated ring scale 14 Nm / 1 handle turn
Accuracy:	+/- 4% of setting
Lever length:	about 385 mm
Weight:	approx. 1.3 kg without accessories

Our products are constantly being developed and improved. Therefore design modifications and technical changes are possible.

Application 6

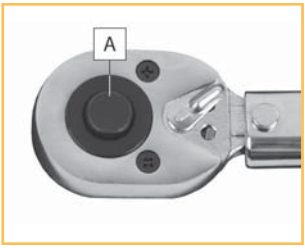
Commissioning

Loosen several times at a low torque setting before first use and after storage of the torque wrench, to ensure proper lubrication and operation of the triggering device.

Attaching the sockets

This torque wrench is equipped with a locking device for the accessories, to prevent accidental loosening of the sockets while removing the wrench. Mount the sockets as follows:

- Press locking button (A) on the wrench head and insert the accessory (socket, extension) on the 1/2" square of the torque wrench. Once the button is released, the socket is locked.
- Press the locking button again and remove the accessory after use.

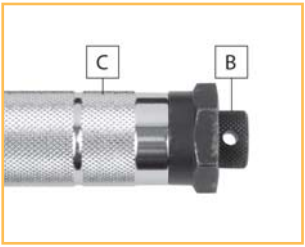


Setting the torque

The torque wrench has 2 scales with torque figures in Newton meters (Nm) and kilopound meters (kpm). Settings are described below based on the Newton-meter scale, a conversion table of values can be found on page 10 of this manual.

- Loosen the knurled locking screw (B) on the handle of the wrench by a few turns counter-clockwise.

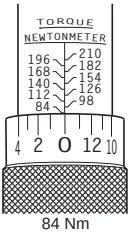
Caution: Do not unscrew completely!



- Take the torque wrench in your hand so that you can see the Newton-meter scale (see figure below).

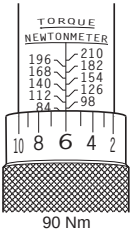
Note: For reasons of space, scale values are alternately indicated left and right of the longitudinal marking.

- To set a torque value printed on the scale, turn the knurled handle (C) in clockwise direction until the front edge of the handle matches the line which corresponds to the value, and the "0" of the ring scale of the handle matches the longitudinal marking of the scale on the wrench shaft.
- This example shows the set value of 84 Nm.



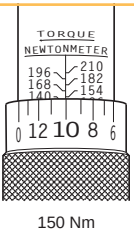
84 Nm

- To adjust intermediate values, first turn the handle to the next lower value on the scale. Starting from the "0" position on the ring scale, rotate the handle clockwise as many ticks (each tick corresponds to 1 Nm) as required to attain the desired setting.
- This example shows the adjusted value of 90 Nm (84 Nm + 6 Nm = 6 ticks on the ring scale).



90 Nm

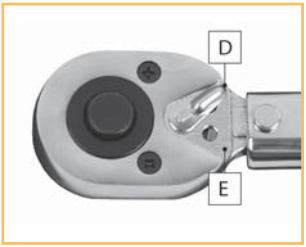
- Tighten the lock screw (B) in order to fix the set torque value.
- Example 3 shows the setting of a torque value of 150 Nm (next lower value 140 Nm + 10 Nm = 10 ticks on the ring scale).



150 Nm

Selection of working direction

This torque wrench is suitable only for the defined tightening of bolts and nuts with right hand thread.



- To tighten bolts and nuts, set the change lever in position (D).
- To loosen bolts and nuts, set the change lever on the wrench head to the position (E).

Caution: To avoid damage to the mechanics, do not use the torque wrench to loosen fixed screws and nuts. For this you should use a ratchet or a conventional wrench.

Tips for proper use

Before you use the wrench make sure that the correct torque value is set in accordance with manufacturer's instructions specified in the maintenance, operation or service manuals of your car, machine or device. If in doubt, contact the vehicle/machine manufacturer or an authorized service centre.

Data for alloy wheels is also available in the product documentation, such as in the general operating permit (ABE) that accompanies these products.

- Tightening torque values depend on type, size and material properties of the screws, nuts and pieces to be fastened. If not specified, you may also follow tightening torque values for standard screws. These are fixed in tables and standards, depending on the material used.
- Fit the tool on to the bolt or nut and tighten the bolt connection with even pressure until you hear and feel a click. By clicking, the wrench indicates the reaching of the preset torque value.

Note: At low torque settings the click sound can be quieter than at higher settings.

- Do not move the torque wrench with jerky movements. This will lead to incorrect results. Do not load the torque wrench any further after it has triggered, in order to avoid damage to the mechanics and to the bolted joint.
- Set the torque wrench always at right angles to the bolt or nut to prevent slippage.
- After you have completed your work, always set the wrench to the lowest torque value. Do not turn the adjustment grip below this marking as the wrench will incur damage.

Conversion table

Newton meters [Nm]	Kilopound meters [kpm]
28	2.855
42	4.283
56	5.710
70	7.138
84	8.566
98	9.993
112	11.421
126	12.848
140	14.276
154	15.704
168	17.131
182	18.559
196	19.986
210	21.414

Maintenance 7

The internal mechanism of the torque wrench was lubricated during manufacture and requires no special maintenance if used as intended.

Cleaning

- Clean the torque wrench and accessories with a dry cloth.

Caution: Do not use chemical or abrasive cleaning agents. Do not dip the torque wrench into liquids, as the accuracy of the torque wrench mechanism could be adversely affected.

Recalibration

This torque wrench is a high-quality measuring equipment. It has been calibrated before delivery with an accuracy of +/- 4%. Even if used correctly, it is necessary, depending on use, to regularly monitor the proper function (recalibration) for your own safety.

According to product standard EN ISO 6789, for users who do not perform procedures for the monitoring of measuring instruments, a service life of 12 months or approximately 5000 loads is considered an appropriate reference interval for recalibration. The period for the first recalibration begins with the first use of the tool.

But also note that after overload of more than 125% of the highest torque values, or after improper treatment or repairs, immediate recalibration is necessary to ensure proper operation.

Caution: By no means attempt to repair the torque wrench or calibrate it yourself.

A fee is required for recalibration.

Customer Service

Let your torque wrench be repaired only by qualified personnel and using identical replacement parts in order not to endanger the safety of the tool and your own safety.

If in case of need, contact our service address:

Saphir Service Center
c/o Bridges Logistics
PO Box 1125
Bromley
BR1 9TW
UK

Hotline - UK: 0800 / 328 6020
Hotline - Ireland: 00800 / 4467 5888

Mail: info@saphirsupport.com

Storage 8

- Always set the torque wrench to the lowest torque value before storage. Do not turn the adjustment grip below this marking to avoid damage.
- Protect the torque wrench from impact, shock, moisture and contamination from dust, sand and other particles, and store it together with the accessories in the corresponding storage box.
- Store the torque wrench only at room temperature (15 – 25 °C) in a dry place protected from access by children. Make sure that children do not play with the product.

Environment-friendly disposal 9

Packaging

This product packaging is made from recyclable materials and can be recycled. When no longer required, dispose of packaging in the appropriate recycling bin.

Product

This product is made from high quality raw materials. After the end of the product life, do not dispose of it in the household waste, but check with your local authority about environment-friendly and resource-friendly disposal.

Warranty and Service 10

NOTE: Please see the warranty card for information about warranty and service.

The warranty period is three years and starts with the day of the purchase.

Please retain the sales receipt as proof of purchase.

During the warranty period, defective torque wrench set, can be sent to the service address stated below after advance telephone notification.

You will then receive a new or repaired torque wrench set, free of charge in return.

After expiry of the warranty period you also have the option of sending the defective torque wrench set for repair to the address stated below.

Any repairs necessary after expiry of the warranty period are subject to a charge.

Your statutory rights are not affected by this warranty.

Saphir Service Center
c/o Bridges Logistics
PO Box 1125
Bromley
BR1 9TW
UK

Hotline - UK: 0800 / 328 6020
Hotline - Ireland: 00800 / 4467 5888

Mail: info@saphirsupport.com

TORQUE WRENCH SET

Your details:

Name _____

Address _____

_____

_____

☎ _____ **E mail** _____

Date of purchase* _____

*** We recommend you keep the receipt with this warranty card**

Location of purchase _____

Description of malfunction:

Return your completed warranty card to:

Saphir Service Center
c/o Bridges Logistics
PO Box 1125
Bromley
BR1 9TW
UK

Mail: info@saphirsupport.com

AFTER SALES SUPPORT

☎ GB **0800 / 328 6020**
IRL **00800 / 4467 5888**
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YEAR WARRANTY