

Torque testers

Electronic torque tester for torque wrenches **SENSOTORK® 7707 W** (For complete calibration systems, see p. 225, 229)

Compact torque tester for easy adaptation by replacement of the transducers.

High degree of accuracy thanks to flat transducer and conversion and digitalisation of readings within the transducer (see p. 223).

High degree of safety through display showing actual torque read-off where clicking torque wrenches are used.

7707 W Torque tester SENSOTORK®

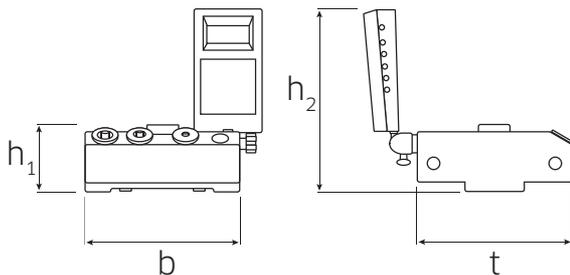
Electronic torque tester for torque wrenches, consisting of:

- transducer, patent
- holder
- display unit (registered design)
- tripod for display unit (with 1.5 m cable)
- spiral cable
- mains adaptor (110 V-230 V with interchangeable socket adaptors) or direct connection to 12 V in-car supply is possible
- square drive adaptor (No 7707-2W, No 7707-2-1W, No 7707-2-2W, No 7707-3W)
- kit for attaching the unit to a workbench or wall in a horizontal or vertical testing position for clockwise and anticlockwise use. Units of measurement: N·m, ft·lb, in·lb.

The easily interchangeable transducers are attached to the holder by means of a QuickRelease safety lock. Low lateral forces thanks to low-profile transducers, automatic detection of the transducer, flexible and user friendly because the unit can be used horizontally or vertically and the display unit can be placed in many positions, additional tripod with 1.5 m cable for mounting the display unit to facilitate visual monitoring when using longer torque wrenches, especially broad measuring range from approx. 2% to 100% of rated value.

The software No 7759-4, including USB hub and jack cable (see p. 232), enables readings to be transferred to the PC for documenting (no separate power supply needed, power comes from PC). While individual transducers are being recalibrated, the torque tester itself remains on-site for further use. Wide range of application (-20°C to +60°C). Complies with DIN 51309: 2005, Class 2 and DKD-R 3-8: 2003. With certificate. Supplied in sturdy plastic case.

5



QR

QuickRelease

Rapid change and firm locking of the transducers thanks to the QuickRelease safety lock.



Interchangeable square drive adapters:

A set of interchangeable square drive adapters are conveniently stored in the mounting block for a range of different drive sizes.



Code	No	Capacity N·m	Capacity ft·lb	Capacity in·lb	□ "	b mm	h ₁ mm	h ₂ mm	t mm	Δ g	Δ g with box
96 52 10 86	7707-1-3W ¹⁾	0.2-10	0.15-7.4	1.8-88.5	1/4	180	79	215	180	6255	9500
96 52 10 85	7707-1-2W	0.2-10	0.15-7.4	1.8-88.5	1/4	180	79	215	180	6255	9500
96 52 10 80	7707-1W	0.4-20	0.3-15	3.5-177	1/4	180	79	215	180	6255	9500
96 52 10 72	7707-2W ²⁾	2-100	1.5-74	18-885	3/8	180	79	215	180	7025	10300
96 52 10 83	7707-2-1W ³⁾	4-200	3-148	35-1770	1/2	180	79	215	180	7511	10975
96 52 10 84	7707-2-2W ⁴⁾	8-400	6-295	71-3540	3/4	180	79	215	180	7654	11100
96 52 10 82	7707-3W ⁴⁾	25-1100	18-812	221-9736	3/4	180	79	215	180	7495	11000

¹⁾ for calibrating torque screwdrivers

²⁾ with square drive adaptor No 409M (1/4" □ x 3/8" ■)

³⁾ with square drive adaptors No 7789-4 (1/4" □ x 1/2" ■), No 7789-5 (3/8" □ x 1/2" ■)

⁴⁾ with square drive adaptors No 7787 (1/4" □ x 3/4" ■), No 7788 (3/8" □ x 3/4" ■), No 7789 (1/2" □ x 3/4" ■)

Which transducer is for which torque wrench?

(Declaration of Conformance to DIN EN ISO 6789-1, calibration certificates to DIN EN ISO 6789-2)

STAHLWILLE's recommendation:

+++ very well suited ++ well suited + suitable

Nr.	7721-1	7722	7723-1	7723-2	7723-3
730D/10		+++			
730D/20			+++		
730D/40				+++	
730D/65					+++
730N/2	+++				
730N/5		+++			
730N/10		+++	++		
730N/12			+++		
730N/20			+++	++	
730N/40				+++	
730N/65					+++
730Na/2	+++				
730Na/5		+++			
730Na/10		+++	++		
730Na/20			+++	++	
730Na/40				+++	
730/2	+++	++	+		
730/4		+++	++	+	
730a/2	+++	++	+		
730a/4		+++	++	+	
730/5		+++	++		
730/10		+++	++	+	
730/12			+++	+++	
730/20			+++	++	+
730/40				+++	++
730/65					+++

Nr.	7721-1	7722	7723-1	7723-2	7723-3	7724-1
730a/5		+++	++			
730a/10		+++	++	+		
730a/12			+++	++	+	
730a/20			+++	++	+	
730/80					+++	+
720Nf/80					+++	+
721/5		+++	++			
721/15			+++	++	+	
721/30				+++	++	
721Nf/80					+++	+
721Nf/100					+++	+
755R/1	+++					
755/4		+++	++			
755/10		+++	++	+		
755/20			+++	++	+	
755/30				+++	++	
71/40				+++	++	
71/80					+++	+
71aR/80					+++	+
73Nm/15	+++	++				
712R/6		+++				
712R/20			+++			
712R/40				+++		
713R/6		+++				
713R/20			+++			
713R/40				+++		

7721-7724 Transducers



Patent, for calibration of torque wrenches and torque screwdrivers, high degree of accuracy thanks to conversion and digitization of readings within the transducer itself. Not susceptible to lateral forces due to low-profile construction. Can also be used as part of a calibration system (see p. 225, 229). With certificate. Supplied in sturdy plastic case.



		Measuring ranges by deviation of indication												
Code	No	Display deviation value ± 1 % of the reading			Display deviation value ± 0.5 % of the reading			Display deviation value ± 0.25 % of the reading			∅ mm	∅ "	ΔΔ _g g	ΔΔ _g g with box
		N-m	ft-lb	in-lb	N-m	ft-lb	in-lb	N-m	ft-lb	in-lb				
96 52 10 21	7721¹⁾	0.2-10	0.15-7.4	1.8-88.5	1-10	0.74-7.4	8.9-88.5	2-10	1.5-7.4	17.7-88.5	120	1/4	1735	2411
96 52 10 00	7721-0	0.2-10	0.15-7.4	1.8-88.5	1-10	0.74-7.4	8.9-88.5	2-10	1.5-7.4	17.7-88.5	120	1/4	1735	2411
96 52 10 26	7721-1	0.4-20	0.3-15	3.5-177	2-20	1.5-15	18-177	4-20	3-15	35-177	120	1/4	1735	2411
96 52 10 22	7722	2-100	1.5-74	18-885	10-100	7-74	89-885	12-100	9-74	106-885	120	3/8	2486	3223
96 52 10 23	7723-1	4-200	3-148	35-1770	20-200	15-148	177-1770	40-200	30-148	354-1770	120	1/2	2983	3605
96 52 20 23	7723-2	8-400	6-295	71-3540	40-400	30-295	354-3540	80-400	59-295	708-3540	120	3/4	3134	3745
96 52 10 28	7723-3	25-1100	18-812	221-9736	110-1100	81-812	974-9736	220-1100	162-812	1947-9736	120	3/4	2998	3761
96 52 10 29	7724-1²⁾	150-3000	111-2214	1328-26553	300-3000	221-2214	2655-26553	600-3000	443-2214	5311-26553	195	1 1/2	10500	12000

¹⁾ for calibrating torque screwdrivers

²⁾ for use with mechanical loader No 7792 and 7792-1 (see p. 225)

Note!

Torque testers are measuring instruments! They have to be regularly calibrated and, where necessary, adjusted. using suitable calibration equipment. We recommend recalibrating every 12 months.



Accurate. Reliable. Safe.

STAHLWILLE calibration

Calibration - Calibration is the regular examination of the accuracy and reliability of torque tools. This is done using special-purpose calibrating equipment which is subject to stringent monitoring. This is essential because torque tools are precision instruments which are very often in use in safety-relevant environments. They are expected to provide the same level of accuracy in their readings reliably over long periods of time. In order to ensure these standards are guaranteed, it is essential that examination by means of calibration takes place at regular intervals and is documented.

At the very least, a calibration system must include the following components:



1

Mechanical loader - The mechanical loader is required for rapid, accurate fixing and operation of the torque wrench. The mechanical loader also ensures that the DIN EN ISO 6789 requirement for clicking torque wrenches is fulfilled, i.e. that, above 80% of the final torque value, the force can be applied slowly and steadily within the required time.



2

Transducer - The torque applied using the torque wrench is digitalised within the transducer and transmitted via USB cable to the PC, which ensures error-free transmission.



3

USB-Adaptor - From here, the data are transferred to the PC.



4

Cable - for connecting laboratory transducers No 7728 to USB adaptor, with jack plug and self-locking precision plug.



5

Square drive adaptor - The set includes the square drive adaptors necessary to make full use of the measuring range of the transducers; e.g. for transducer No 7723-3 (internal square drive 3/4"), square drive adapter No 7787 (1/4" female to 3/4" male), No 7788 (3/8" female to 3/4" male) and No 7789 (1/2" female to 3/4" male).



6

Software - The data received in this way can then be used to issue a calibration certificate in accordance with DIN/ISO 6789.



Complete calibration systems with matched components



Mechanical base unit



Transducer laboratory



Cable
No 7751-1



USB adaptor No 7757-1



USB adaptor



PC/Printer - not included
in the delivery



Calibration systems No	7706-8 PC	7706-9 PC	7706-10 PC	7706-11 PC
Code	96 52 10 68	96 52 10 69	96 52 10 70	96 52 10 74
Weight/kg	14,2	67,6	70,6	108,4
Range/N-m	1-10	2-100	2-1000	20-3000
Mechanical loader	-	No 7791	No 7791	No 7792
Stand alone test attachment for torque screwdrivers	No 7790	-	-	-
Extension unit	-	-	No 7791-1	No 7792-1
Transducer laboratory	No 7728-1S (1-10 N-m)	No 7728-2 (2-20 N-m) No 7728-10 (10-100 N-m)	No 7728-2 (2-20 N-m) No 7728-10 (10-100 N-m) No 7728-40 (40-400 N-m) No 7728-100 (100-1000 N-m)	No 7728-20 (20-200 N-m) No 7728-100 (100-1000 N-m) No 7728-300 (300-3000 N-m)
USB adaptor	No 7757-1	No 7757-1	No 7757-1	No 7757-1
Jack cable	No 7751	No 7751	No 7751	No 7751
Cable for No 7728 (connection between transducer and USB adaptor)	No 7751-1	No 7751-1	No 7751-1	No 7751-1
Square drive adaptor	No 431 (3/8" \square x 1/4" \blacksquare)	No 431 (3/8" \square x 1/4" \blacksquare) No 409M (1/4" \square x 3/8" \blacksquare)	No 7787 (1/4" \square x 3/4" \blacksquare) No 7788 (3/8" \square x 3/4" \blacksquare) No 7789 (1/2" \square x 3/4" \blacksquare) No 409M (1/4" \square x 3/8" \blacksquare)	No 7787 (1/4" \square x 3/4" \blacksquare) No 7788 (3/8" \square x 3/4" \blacksquare) No 7789 (1/2" \square x 3/4" \blacksquare) No 7789-2 (3/4" \square x 1 1/2" \blacksquare) No 7789-3 (1" \square x 1 1/2" \blacksquare) No 7789-4 (1/4" \square x 1/2" \blacksquare) No 7789-5 (3/8" \square x 1/2" \blacksquare)
Calibrating square drive insert tools	-	No 734K/4 (1/4" \blacksquare) No 734K/5 (3/8" \blacksquare)	No 734K/4 (1/4" \blacksquare) No 734K/5 (3/8" \blacksquare) No 734K/20 (1/2" \blacksquare) No 734K/40 (3/4" \blacksquare)	No 734K/4 (1/4" \blacksquare) No 734K/5 (3/8" \blacksquare) No 734K/20 (1/2" \blacksquare) No 734K/40 (3/4" \blacksquare)
Adaptors	No 3115 (1/4" \blacksquare x 1/4" \bullet E 6,3) - No 3115/1 (1/4" \blacksquare x 1/4" \bullet C 6,3) -	-	-	-
Calibration software	TORKMASTER	TORKMASTER	TORKMASTER	TORKMASTER
DAkkS calibration certificates	1	2	4	3

ManuTork®

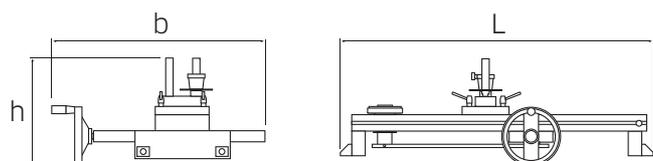
Mechanical loaders for torque wrenches and torque screwdrivers

Thanks to the modular design, end users can put together their own mechanical loader according to their specific requirements. Extensions with additional components are possible any time. All the components are carefully matched to ensure compatibility and can be easily fitted. This slot-in system is easy to use and has a very accurate fit. The components can be quickly and easily locked together using the integrated screw joints. The display unit can be attached at various points of the system via a holder. In this way, every user can organise his or her work to suit themselves.

7791 Mechanical loaders up to 400 N·m

Measurement possible without moving the point of application of force.

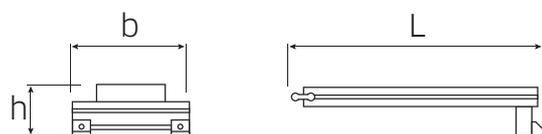
Thanks to a specially designed force transmission system, mechanical loader No 7791 avoids the risk of the point of force application shifting during the calibration process. The lever below the test rail is actuated in a linear direction by the handwheel acting on a spindle. The linear motion is translated into a rotary movement which acts on the transducer. The torque wrench to be calibrated remains in the same position throughout the calibration process. This prevents measuring errors caused by the point of force application being moved. Thanks to a low-friction linear ball bearing, the torque wrench is automatically levelled as it is placed in the unit. A further linear ball bearing ensures the contact with the torque wrench is friction-free. The reduction in lateral forces acting on the transducer and in the friction on the point of contact with the torque wrench results in a corresponding reduction in mismeasurement. Patents applied for.



Code	Capacity N·m	for transducer	for torque wrenches with functional length (L _F) max. mm	Profile width mm	b mm	h mm	L mm	⊕ kg
52 11 0091	-400	sizes 1-100	815	180	704	323	1069	26.5

7791-1 Extension unit for No 7791, 7794-1 and 7794-2 up to 1000 N·m

with one pair of adapter plates No 7770-3 for height compensation between extension unit No 7791-1 and perfectControl calibrating units No 7794-1 and No 7794-2.



Code	Capacity N·m	for torque wrenches with functional length (L _F) max. mm	Profile width mm	b mm	h mm	L mm	⊕ kg
52 11 0191	-1000	1390 (7791 + 7791-1)	180	308	135	673	5.4

7792 Mechanical loaders unit to 1000 N-m

Patents applied for.



Code	Capacity N·m		for torque wrenches with functional length (L _F) max. mm	Profile width mm	b mm	h mm	L mm	Δ± kg
52 11 0092	-1000	size 20; 100; 300	1390	270	722	323	1668.5	57

7792-1 Extension unit for No 7792 up to 3000 N-m

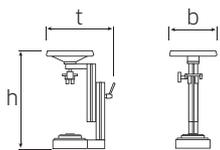


Code	Capacity N·m		for torque wrenches with functional length (L _F) max. mm	Profile width mm	b mm	h mm	L mm	Δ± kg
52 11 0192	-3000		2390 (7792 + 7792-1)	270	558	135	1073	23.9

Test attachments for torque screwdrivers

7790 Mechanical loaders for torque screwdrivers

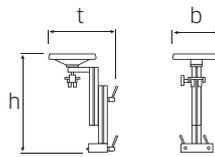
Can be bolted to mechanical loader No 7792. The torque screwdriver to be calibrated is inserted in the square mount of the transducer and fixed using the universal central clamp. The handwheel ensures that the required force is applied in a controlled manner to the torque screwdriver. Supplied without transducer or torque screwdriver.



Code	Capacity N·m	for transducer	b mm	h mm	t mm	Δ± kg
58 52 1090	-10	7721; 7728-1S	250	442-593	351	7.9

7791-2 Test attachment for torque screwdrivers

Can be bolted onto mechanical loader No 7791. The torque screwdriver to be calibrated is inserted in the square mount of the transducer and fixed using the universal central clamp. The handwheel ensures that the required force is applied in a controlled manner to the torque screwdriver.



Code	Capacity N·m	b mm	h mm	t mm	Δ± kg
52 11 0291	-10	250	442-593	351	3.9

Accessory

7750-1 Holder

for display unit No 7750.
Can be bolted to test attachments.



Code	Δ± g
52 10 1050	165



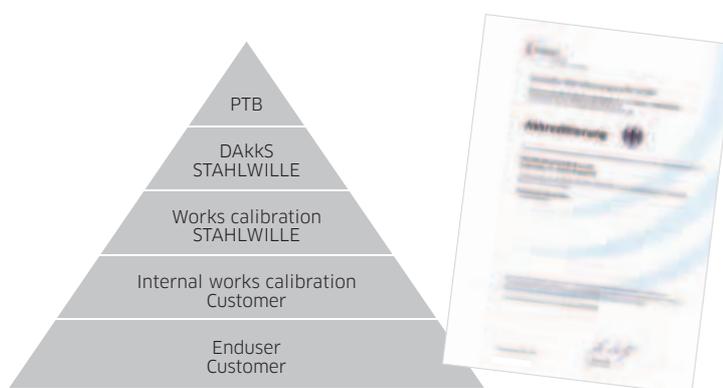
Audited. Documented. Certified.

STAHLWILLE DAKkS calibration laboratory

You can ensure controlled tightening, record the results of tightening processes, monitor torque tools.

STAHLWILLE's DAKkS calibration laboratory for torque is accredited by the German Accreditation Body (DAKkS) in accordance with DIN EN ISO/IEC 17025: 2005. Which means the specific requirements listed in Technical Specification ISO/TS 16949 relating to testing laboratories are met. Absolutely essential: This is absolutely essential to all suppliers in the automotive sector!

The transfer torque wrenches and torque transducers in use at STAHLWILLE's DAKkS calibration laboratory are subject to regular examination by the German Federal Physics Institute (PTB) in Braunschweig. The accuracy of the torque wrenches must be proved in a series of steps and these must be traceable. Only in this way can the reliability of the readings be guaranteed. During the first stage, the end-user checks the accuracy of the torque tools in-house using suitable calibrated testing equipment. At the next stage, this test equipment is checked in STAHLWILLE's DAKkS calibrating laboratory. This accreditation by the German Accreditation Body (DAKkS) in accordance with DIN EN ISO/IEC 17025: 2005 guarantees the direct link between the measuring equipment and the national standard as laid down in DIN EN ISO 9001: 2008.



Relationship between the national standard and the equipment





Complete calibration systems perfectControl with matched components



**Motorised calibrating tool
No 7794-2**



**Manual calibrating unit
No 7794-1**



Transducer laboratory



USB adaptor No 7757-1



**PC/Printer - not included
in the delivery**

Calibration systems No	7794-2/400	7794-2/1000	7794-1/400	7794-1/1000
Code	96 52 10 78	96 52 10 79	96 52 10 76	96 52 10 77
Weight/kg	62,1	69,8	53,2	60,9
Range/N-m	1-400	1-1000	1-400	1-1000
Motorised calibrating unit	No 7794-2	No 7794-2	-	-
Manual calibrating unit	-	-	No 7794-1	No 7794-1
Extension unit	-	No 7791-1	-	No 7791-1
Transducer laboratory	No 7728-1 (1-10 N-m) No 7728-6 (6-60 N-m) No 7728-40 (40-400 N-m)	No 7728-1 (1-10 N-m) No 7728-6 (6-60 N-m) No 7728-40 (40-400 N-m) No 7728-100 (100-1000 N-m)	No 7728-1 (1-10 N-m) No 7728-6 (6-60 N-m) No 7728-40 (40-400 N-m)	No 7728-1 (1-10 N-m) No 7728-6 (6-60 N-m) No 7728-40 (40-400 N-m) No 7728-100 (100-1000 N-m)
USB Adaptor	No 7757-1	No 7757-1	No 7757-1	No 7757-1
Jack cable	No 7751	No 7751	No 7751	No 7751
Spiral cable	No 7752	No 7752	No 7752	No 7752
Cable for No 7728	No 7751-2	No 7751-2	No 7751-2	No 7751-2
Square drive adaptor	No 409M (1/4" \circ x 3/8" \blacksquare) No 7787 (1/4" \circ x 3/4" \blacksquare) No 7788 (3/8" \circ x 3/4" \blacksquare) No 7789 (1/2" \circ x 3/4" \blacksquare) No 7789-4 (1/4" \circ x 1/2" \blacksquare) No 7789-5 (3/8" \circ x 1/2" \blacksquare)	No 409M (1/4" \circ x 3/8" \blacksquare) No 7787 (1/4" \circ x 3/4" \blacksquare) No 7788 (3/8" \circ x 3/4" \blacksquare) No 7789 (1/2" \circ x 3/4" \blacksquare) No 7789-4 (1/4" \circ x 1/2" \blacksquare) No 7789-5 (3/8" \circ x 1/2" \blacksquare)	No 409M (1/4" \circ x 3/8" \blacksquare) No 7787 (1/4" \circ x 3/4" \blacksquare) No 7788 (3/8" \circ x 3/4" \blacksquare) No 7789 (1/2" \circ x 3/4" \blacksquare) No 7789-4 (1/4" \circ x 1/2" \blacksquare) No 7789-5 (3/8" \circ x 1/2" \blacksquare)	No 409M (1/4" \circ x 3/8" \blacksquare) No 7787 (1/4" \circ x 3/4" \blacksquare) No 7788 (3/8" \circ x 3/4" \blacksquare) No 7789 (1/2" \circ x 3/4" \blacksquare) No 7789-4 (1/4" \circ x 1/2" \blacksquare) No 7789-5 (3/8" \circ x 1/2" \blacksquare)
Calibrating square drive insert tools	No 734K/4 (1/4" \blacksquare) No 734K/5 (3/8" \blacksquare) No 734K/12 (3/8" \blacksquare) No 734K/20 (1/2" \blacksquare) No 734K/40 (3/4" \blacksquare) No 734K/100 (3/4" \blacksquare)	No 734K/4 (1/4" \blacksquare) No 734K/5 (3/8" \blacksquare) No 734K/12 (3/8" \blacksquare) No 734K/20 (1/2" \blacksquare) No 734K/40 (3/4" \blacksquare) No 734K/100 (3/4" \blacksquare)	No 734K/4 (1/4" \blacksquare) No 734K/5 (3/8" \blacksquare) No 734K/12 (3/8" \blacksquare) No 734K/20 (1/2" \blacksquare) No 734K/40 (3/4" \blacksquare) No 734K/100 (3/4" \blacksquare)	No 734K/4 (1/4" \blacksquare) No 734K/5 (3/8" \blacksquare) No 734K/12 (3/8" \blacksquare) No 734K/20 (1/2" \blacksquare) No 734K/40 (3/4" \blacksquare) No 734K/100 (3/4" \blacksquare)
Calibration software	TORKMASTER	TORKMASTER	TORKMASTER	TORKMASTER
DAkks calibration certificates	3	4	3	4



7794-2 Motorised calibrating and adjusting tool from 1 to 400 N·m

The electronic perfectControl calibrating unit with its electric drive considerably reduces the amount of effort and time required for calibration and adjustment tasks on torque wrenches.



- measurement possible without moving the point of application of force.
 - prevents faulty readings thanks to precision-mounted spindle and finely regulated motor.
 - extremely accurate calibration thanks to optimised bearings and square drives for the transducers.
 - rapid, easy change of transducers thanks to quick-release latching system.
 - convenient pushbutton controls for clockwise and anticlockwise measurements with automatic speed compensation.
 - saves time because the bridge support is locked in place using a single-handed eccentric lever.
 - transmission of readings to a PC via USB interface for further processing, analysis and archiving.
 - calibration certificates can be printed or saved as a PDF file after calibration.
 - as found / as left calibrations can be documented.
 - during calibration, DIN EN ISO 6789 in numerous languages is supported. Additional standards and works standards are available on request.
 - can be upgraded to perfectControl calibrating unit No 7794-3 for angle-controlled wrenches.
 - **calibration up to 1000 N·m is possible using the easily attached extension unit No 7791-1** (see p. 226).
 - design patent, other patents applied for
- Both clicking and indicating torque wrenches can be calibrated. Calibration of transducers is possible using reference torque wrenches No 7770-100 and 7770-1000, available on request.
- 6 calibrating square drive insert tools No 734K (sizes 4, 5, 12, 20, 40, 100), 6 square drive adaptors (No 409M, No 7787, No 7788, No 7789, No 7789-4, No 7789-5), 1 USB adaptor No 7757-1, 1 software Torkmaster 7731-1, 1 jack cable No 7751, 1 spiral cable No 7752, 1 spiral cable No 7751-2 with jack plug and self-locking precision plug, 1 low-temperature cable connector, 1 hexagon key wrench No 10760CV size 2 mm are included.
- The unit is supplied without the torque wrench, transducers or notebook.
- Transducers laboratory No 7728** (see p. 231).

5



7794-2

Code	Capacity N·m	for transducer	for torque wrenches with functional length (L _F) max. mm	Profile width mm	b mm	h mm	L mm	⚖ kg
96 52 1093	1-400	7728 (size 1-100)	815	180	640	328	1060	57

7794-1 Manual calibrating unit from 1 to 400 N·m

As for perfectControl No 7794-2, but the drive is via an ergonomically designed handwheel.

Calibration up to 1000 N·m is possible using the easily attached extension unit No 7791-1 (see p. 228). Patents applied for. 6 calibrating square drive insert tools No 734K (sizes 4, 5, 12, 20, 40, 100), 6 square drive adaptors (No 409M, No 7787, No 7788, No 7789, No 7789-4, No 7789-5), 1 USB adaptor No 7757-1, 1 software Torkmaster 7731-1, 1 jack cable No 7751, 1 spiral cable No 7752, 1 spiral cable No 7751-2 with jack plug and self-locking precision plug, 1 low-temperature cable connector, 1 hexagon key wrench No 10760CV size 2 mm are included.

Supplied without torque wrench, transducer or notebook.

Transducers laboratory No 7728 (see p. 231).



7794-1

Code	Capacity N·m	for transducer	for torque wrenches with functional length (L _F) max. mm	Profile width mm	b mm	h mm	L mm	⚖ kg
96 52 1092	1-400	7728 (size 1-100)	815	180	705	355	1060	47

7794-3 Automated calibrating and adjusting unit from 1 to 400 N·m

Automatically calibrates electronic torque and angle-controlled wrenches made by STAHLWILLE

Design patent, other patents applied for.

Model is the same as perfectControl No 7794-2, except it is additionally suited to calibrating angle-controlled wrenches.

Optimum adaptation to working height with motorised height adjustment.

6 calibrating square drive insert tools No 734K (sizes 4, 5, 12, 20, 40, 100), 6 square drive adaptors (No 409M, No 7787, No 7788, No 7789, No 7789-4, No 7789-5), 1 USB adaptor No 7757-1, 1 software Torkmaster 7731-1, 1 jack cable No 7751, 1 spiral cable No 7752, 1 spiral cable No 7751-2 with jack plug and self-locking precision plug, 1 low-temperature cable connector, 1 hexagon key wrench No 10760CV size 2 mm are included. Calibration up to 1000 N·m is possible using the easily attached expansion unit No 7791-1 (see p. 226) and set of adapter plates No 7791-4, Code 52110491.

Supplied without torque wrench, transducer or notebook.



Code	Capacity N·m	for transducer	for torque wrenches with functional length (L _F) max. mm	Profile width mm	b mm	h mm	L mm	Δ _∅ kg
96 52 1094	1-400	7728 (sizes 1-100)	815	180	640	884-1134	1060	230

7728 Transducers laboratory



patented, for laboratory environments, with optimised measuring range, for calibrating torque wrenches and torque screwdrivers, for use together with perfectControl calibrating unit No 7794 or calibration system No 7706.

High degree of accuracy thanks to conversion and digitization of readings within the transducer itself. With high-grade self-locking precision plug. Not susceptible to lateral forces due to low-profile construction.

With DAKKS calibration certificate. Max. display deviation value ± 0.5% of the reading.

Further details on request. Supplied in sturdy plastic case.



		Measuring ranges by deviation of indication									
Code	size	Display deviation value ± 0.5 % of the reading			Display deviation value ± 0.25 % of the reading			∅ mm	∅" "	Δ _∅ g	Δ _∅ g with box
		N·m	ft·lb	in·lb	N·m	ft·lb	in·lb				
96 52 40 11	15 ¹⁾	1-10	0.74-7.4	8.9-88.5	2-10	1.5-7.4	18-88.5	120	1/4	1735	2415
96 52 40 01	1	1-10	0.74-7.4	8.9-88.5	2-10	1.5-7.4	18-88.5	120	1/4	1735	2415
96 52 40 02	2	2-20	1.5-15	18-177	4-20	3-15	35-177	120	1/4	1735	2415
96 52 40 04	4	4-40	3-30	35-354	8-40	6-30	71-354	120	3/8	2486	3136
96 52 40 06	6	6-60	4.5-45	53-531	12-60	9-45	106-531	120	3/8	2486	3136
96 52 40 10	10	10-100	7-74	89-885	20-100	14-74	177-885	120	3/8	2486	3136
96 52 40 20	20	20-200	15-148	177-1770	40-200	30-148	354-1770	120	1/2	2983	3170
96 52 40 40	40	40-400	30-295	354-3540	80-400	60-295	708-3540	156	3/4	4846	5507
96 52 40 65	65	65-650	48-479	575-5753	130-650	96-479	1151-5753	156	3/4	4846	5507
96 52 40 80	80	80-800	59-590	708-7081	160-800	118-590	1416-7081	156	3/4	4846	5507
96 52 41 00	100	100-1000	74-738	885-8851	200-1000	148-738	1770-8851	156	3/4	4846	5507
96 52 43 00	300 ²⁾	300-3000	221-2214	2655-26553	600-3000	443-2214	5310-26553	195	1 1/2	10500	12000

¹⁾ for calibrating torque screwdrivers

²⁾ for use with mechanical loader No 7792 and 7792-1 (see p. 227)

Accessories for workshop torque tester and calibration systems

7750 Display unit

registered design, for displaying the actual torque as measured.

Units of measurement: N·m, ft·lb, in·lb.
Modes of operation: track, peak hold, first peak (only with manual operation), additional display of actual torque applied with clicking torque wrenches. Swivels to any desired position thanks to universal ball-joint.



Code	L m	Δ g
52 10 00 50	1.5	182

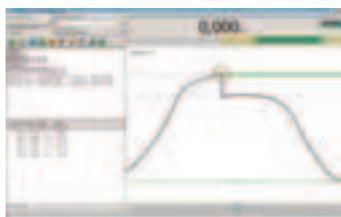
7759-4 USB adaptor, jack cable and software Torkmaster

Link between perfectControl or transducer and PC. For adjusting and calibrating torque wrenches and torque screwdrivers. Produces calibration certificates in accordance with DIN EN ISO 6789, which can be printed out or saved as PDF files.

- as found / as left calibrations can be documented.
- graphical representation of the torque progression
- user management
- 17 languages
- equipment testing system

System requirements:

- PC
- Microsoft Windows XP SP3 or later operating system
- USB connection



Code	L m	Δ g
96 58 36 29	1.5	137

7751 Jack cable

Connection between transducers 7721-7724 and USB adaptor or display unit, with jacks at both ends, 90° angled.



Code	L m	Δ g
52 11 00 51	1.5	50

7752 Spiral cable

Connection between transducer and display unit or USB adaptor, with jacks at both ends, 90° angled.



Code	L M mm	Δ g
52 11 00 52	500	35

7751-1 Cable for No 7728

for connecting laboratory transducers 7728 to a USB hub or display unit, with jack plug, 90° angled, and self-locking precision plug..



Code	L m	Δ g
52 11 00 54	1.5	50

7751-2 Spiral cable for No 7728

for connecting laboratory transducers 7728 to a USB hub or display unit, with jack plug, 90° angled, and self-locking precision plug.



Code	L M mm	Δ g
52 11 00 57	500	50

7760 Mains adaptor

Input: 110 V-230 V AC ,
Output: 9 V DC,
with interchangeable socket adaptors.



Code	Volt	Δ g
52 11 00 56	110-230	385

7761 Interface adaptor

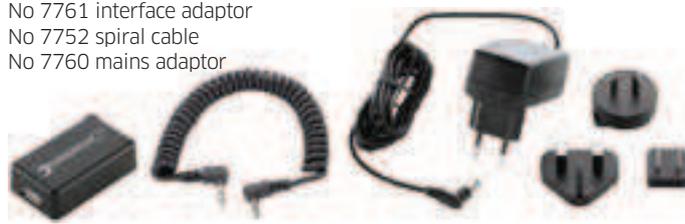
Input: 110 V-230 V AC ,
Output: 9 V DC,
with interchangeable socket adaptors.



Code	Δ g
52 11 00 61	26

7761/3 Interface adaptor set

Contents
No 7761 interface adaptor
No 7752 spiral cable
No 7760 mains adaptor



Code	Δ g
96 52 11 61	446

7311/7312 Plastic case, empty

for safe storage and transport of transducers (please order inlays separately).



Code	No	for transducer	Δ g
81 50 0003	7311	7721; 7722; 7723; 7728 1-20	554
81 50 0004	7312	7724-1; 7728 40-100	1346

7313/7314 Inlays for plastic case

Code	No	for transducer	Δ g
83 07 1030	7313	7721; 7722; 7723; 7728 1-20	77
83 07 1031	7314	7724-1; 7728 40-100	242

409M Mains adaptor

1/4" socket x 3/8" plug (6.3 x 10).

Code	L mm	ϕ mm	Δ g
11 03 00 10	13	28	14



7787 Square drive adaptor

1/4" socket x 3/4" plug (6.3 x 20).

Code	L mm	ϕ mm	Δ g
58 52 1087	15.5	29	41



7788 Square drive adaptor

3/8" socket x 3/4" plug (10 x 20).

Code	L mm	ϕ mm	Δ g
58 52 1088	23.5	29	52



7789 Square drive adaptor

1/2" socket x 3/4" plug (12.5 x 20).

Code	L mm	ϕ mm	Δ g
58 52 1089	23.5	29	42



7789-2 Square drive adaptor

3/4" socket x 1 1/2" plug (20 x 40).

Code	L mm	ϕ mm	Δ g
58 52 3089	44	60	383



7789-3 Square drive adaptor

1" socket x 1 1/2" plug (25 x 40).

Code	L mm	ϕ mm	Δ g
58 52 4089	44	60	291



7789-4 Square drive adaptor

1/4" socket x 1/2" plug (6.3 x 12.5).

Code	L mm	ϕ mm	Δ g
58 52 4090	15.5	29	25



7789-5 Square drive adaptor

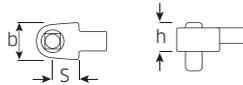
3/8" socket x 1/2" plug (10 x 12.5).

Code	L mm	ϕ mm	Δ g
58 52 4091	15.5	29	28



734K Calibrating square drive insert tools

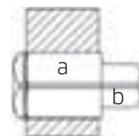
Without a ball or pin (so not suitable for bolt tightening). Optimum measuring results during calibration thanks to reduced lateral forces.



Code	size	"	mm	b mm	h mm	S mm	Δ g
58 24 3004	4	1/4	9x12	20	17.2	17.5	76
58 24 3005	5	3/8	9x12	20	16.7	17.5	80
58 24 3012	12	3/8	14x18	27	21.5	25	199
58 24 3020	20	1/2	14x18	27	21.5	25	218
58 24 3040	40	3/4	14x18	40	29.3	25	410
58 24 1100	100	3/4	22x28	43	29.3	55	895

70VK Calibrating square drive insert tools

Without a ball or pin (so not suitable for bolt tightening). Optimum measuring results during calibration thanks to reduced lateral forces.



Code	size	for No	a "	b "	L mm	Δ g	
5901 1014	11	734/4	3/8	1/4	24.7	15	5
5901 1003	3	734/5	3/8	3/8	27.6	20	5
5901 1012	12	734/10, 734/20	1/2	3/8	32.5	34	5
5901 1011	502 1/2	734/20	1/2	1/2	36.9	60	5
5901 1008	8	734/40, 734/80, 734/100	3/4	3/4	52.2	147	5