MTRwrench 85

Valid from Serial No. -

Product Instructions

MTRwrench 85	8439004803

⚠ WARNING

Read all safety warnings and instructions

Failure to follow the safety warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference

Atlas Copco

Table of Contents

Product Information

General Information

⚠ **WARNING Risk of Property Damage or Severe Injury**

Ensure that you read, understand and follow all instructions before operating the tool. Failure to follow all the instructions may result in electric shock, fire, property damage and/or severe bodily injury.

- ► Read all Safety Information delivered together with the different parts of the system.
- ► Read all Product Instructions for installation, operation and maintenance of the different parts of the system.
- ► Read all locally legislated safety regulations regarding the system and parts thereof.
- ► Save all Safety Information and instructions for future reference.

Safety Signal Words

The safety signal words **Danger**, **Warning**, **Caution**, and **Notice** have the following meanings:

DANGER	DANGER indicates a hazardous situation which, if not avoided, **will** result in death or serious injury.
WARNING	WARNING indicates a hazardous situation which, if not avoided, **could** result in death or serious injury.
CAUTION	CAUTION, used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
NOTICE	NOTICE is used to address practices not related to personal injury.

Warranty

- ■ Product warranty will expire in 12+1 months after dispatch from Atlas Copco's Distribution Center.
- ■ Normal wear and tear on parts is not included within the warranty.
  - ■ Normal wear and tear is that which requires a part change or other adjustment/overhaul during standard tool maintenance typical for that period (expressed in time, operation hours or otherwise).
- ■ The product warranty relies on the correct use, maintenance, and repair of the tool and its component parts.
- ■ Damage to parts that occurs as a result of inadequate maintenance or performed by parties other than Atlas Copco or their Certified Service Partners during the warranty period is not covered by the warranty.
- ■ To avoid damage or destruction of tool parts, service the tool according to the recommended maintenance schedules and follow the correct instructions.
- ■ Warranty repairs are performed only in Atlas Copco workshops or by Certified Service Partners.

Atlas Copco offers extended warranty and state-of-the-art preventive maintenance through its ToolCover contracts. For further information, contact your local Service representative.

For electrical motors:

- ■ Warranty will apply, only when the electric motor has not been opened.

Website

Information concerning our Products, Accessories, Spare Parts and Published Matters can be found on the Atlas Copco website.

Please visit: www.atlascopco.com.

ServAid

ServAid is a portal that is continuously updated and contains Technical Information, such as:

- Regulatory and Safety Information
- Technical Data
- Installation, Operation and Service Instructions
- Spare Parts Lists
- Accessories
- Dimensional Drawings

Please visit: https://servaid.atlascopco.com.

For further Technical Information, please contact your local Atlas Copco representative.

Country of Origin

For the Country of Origin, please refer to the information on the product label.

Dimensional Drawings

Dimensional Drawings can be found either in the Dimensional Drawings Archive, or on ServAid.

Please visit: http://webbox.atlascopco.com/webbox/dimdrw or https://servaid.atlascopco.com.
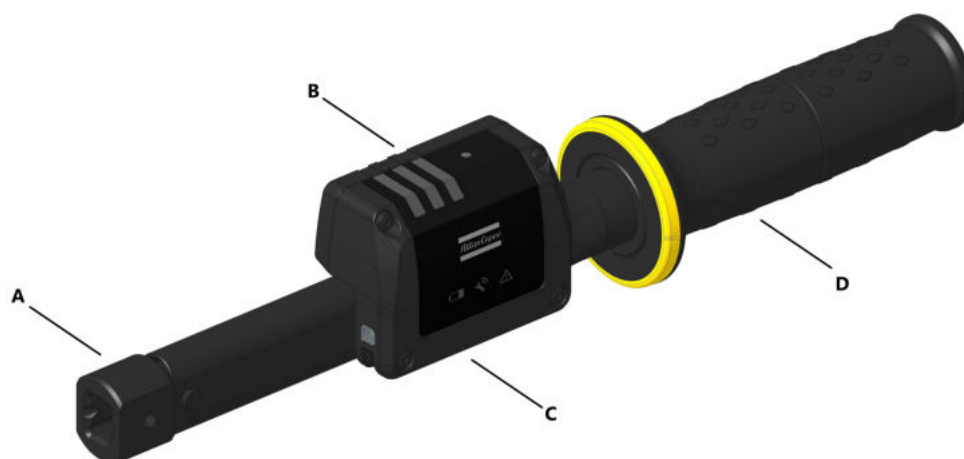
Overview

System Overview

The MTRwrench 85 is a mechanical click-wrench combined with an electronic torque transducer. The tightening programs are configured and assigned to the wrench with the Power Focus 6000 or with the Power Focus 8, which communicate wirelessly with the MTRwrench 85 using the MWR-KIT as gateway.

ⓘ For more information on how to manage and configure the MTRwrench 85, refer to *MWR-KIT Product Instructions*, *Power Focus 6000 User Guide* and *Power Focus 8 User Guide*.
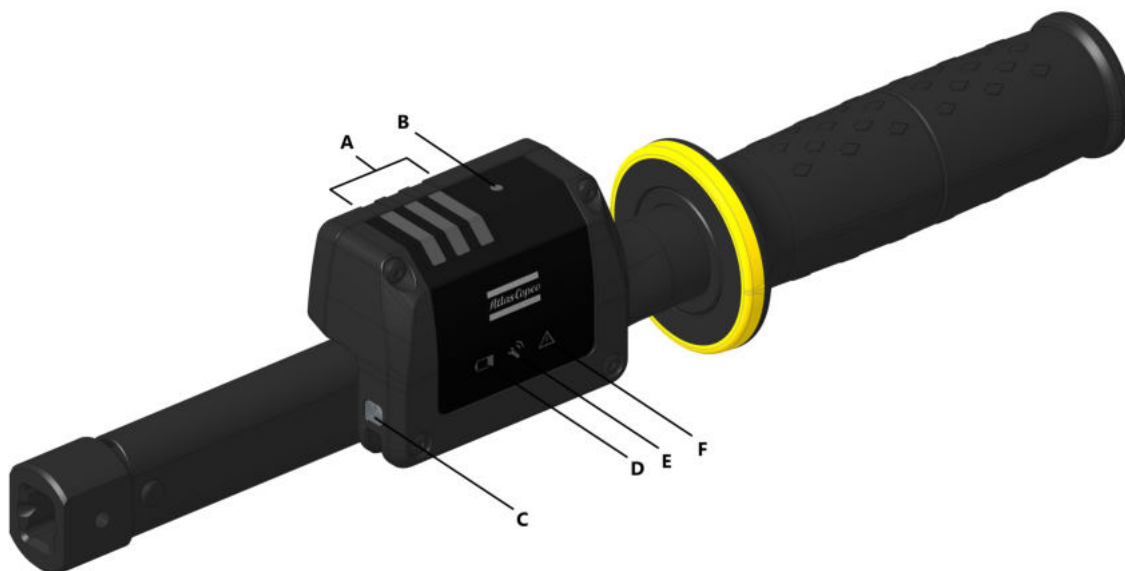
Tool Overview

A	Drive	B	Battery housing
C	HMI with LED Indicators	D	Handle

LED Indicators Overview

The MTRwrench 85 HMI is equipped with four LED indicators that notify on different wrench statuses, and with a set of three LED indicators that communicate progress and results of operations.

An additional Front Projection LED is available to communicate tightening operations' results in situations in which the operator cannot fully see the HMI.

Position	Name	Main indications
A	Progress LEDs	▪ Tightening operations progress and results. ▪ Zero adjustment progress and result. ▪ Transducer overloaded. ▪ Firmware upgrade ▪ Battery charge level during recharge on cradle
B	Job Ready LED	▪ Tightening program successfully sent to the wrench.
C	Front Projection LED	▪ Tightening operation's result.
D	Battery Level LED	▪ Low battery level. ▪ Empty battery.
E	Radio Communication LED	▪ Status of the wireless communication
F	Error/Warning LED	▪ Transducer overloaded. ▪ Zero adjustment error. ▪ Calibration required (date expired, maximum tightening performed)

Battery Level LED Indicator

The MTRwrench 85 is equipped with a LED indicator that notifies the operator if the battery level drops below certain thresholds.

The **Battery Level LED** behaves as follows:

LED Behavior		Battery charge level	Remark
Off	▢	11% / 15% / 35% - 100%	Battery level suitable for operations. The lower limit of the range depends on the "Low Battery [%]" configuration via MWR-KIT.
Blinking red	▮⇄▢	11% - 14/28%	Battery level low. The higher limit of the range depends on the "Low Battery [%]" configuration via MWR-KIT (disabled per default: in this case never blinks)
Steady red	▮	0% - 10%	Battery empty.

Radio Communication LED Indicator

The MTRwrench 85 is equipped with a LED indicator that notifies the operator on the wrench's wireless communication status.

The **Radio Communication LED** behaves as follows:

LED Behavior	LED Status	Meaning
OFF		Wireless communication off.
Breathing		Online: wireless communication on, wrench linked in coverage
Blinking	 OFF ON	Offline: wireless communication on, wrench linked out of coverage
Slow Blinking	 Long OFF Short ON	Wrench not in use: wireless communication on, wrench not linked

Job Ready LED Indicator

The MTRwrench 85 is equipped with a LED indicator that notifies the operator when a tightening program assigned by Power Focus 6000/Power Focus 8 has been successfully sent to the MTRwrench 85.

The **Job Ready LED** behaves as follows:

Wrench condition	LED Behavior		Meaning
Wrench inactive	Off	●	Tightening program missing.
Wrench inactive	Steady blue	🔵	Tightening program received. Wrench ready to operate.
Wrench active	Off	●	Tightening operation ongoing.

Relevant Information

▤ Configuring Tightening Programs [17]

📄 Running Tightening Operations [22]

Zero Adjustment LED Indicators

The MTRwrench 85 LED Indicators notify the operator when a zero adjustment is required and communicate the progress, completion and possible errors of the zeroing process:

LED indicators		Meaning	Remark
Progress LEDs all blinking white		Zero adjustment required.	Place the wrench into the cradle.
Progress LEDs turn on and off in sequence back and forth.		Zero adjustment ongoing. Firmware update in progress	Do not move the wrench. Do not apply any load to the wrench.
Progress LEDs off.		Zero adjustment completed successfully.	-
Progress LEDs blinking white + Error/Warning LED blinking red		Zero adjustment failed due to wrench moving or to load being applied to the transducer.	Remove the wrench and place it again into the cradle to start a new zero adjustment.
Progress LEDs steady red + Error/Warning LED blinking red		Zero adjustment failed due to wrench moving or to load being applied to the transducer for a second time during the zero adjustment.	Remove the wrench and place it again into the cradle to start a new zero adjustment.

Relevant Information

📄 Performing a Zero Adjustment [21]

Charging LED Indicators

The MTRwrench 85 indicators, when the wrench is in the cradle and after the zeroing process has been completed, notify the operator the status of the charging:

1 led blinking white		Battery charging from 0% to 30%
1 led steady white and 2nd blinking white		Battery charging from 31% to 60%
2 led steady white and 3rd blinking white		Battery charging form 61% to 90%
3 led steady white		Battery charging from 91% to 100%

Tightening Operations LED Indicators

During tightening operations, the MTRwrench 85 LED Indicators give the operator a visual feedback on the progress and result of the ongoing tightening operation:

Operation stage	LED indicators behavior		Meaning
Tightening program sent to wrench	Job Ready LED steady on	🔵	Wrench received the tightening program
Tightening in progress	Progress LED 1 blinking white		10-25% of torque reached or Loosening detected
Tightening in progress	Progress LED 1 steady white		25% of click torque reached
Tightening in progress	Progress LED 1 steady white Progress LED 2 blinking white		40% of click torque reached
Tightening in progress	Progress LED 1 steady white Progress LED 2 steady white		55% of click torque reached

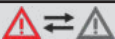| Operation stage	LED indicators behavior		Meaning
Tightening in progress	Progress LED 1 steady white Progress LED 2 steady white Progress LED 3 blinking white		70% of click torque reached
Tightening in progress	Progress LED 1 steady white Progress LED 2 steady white Progress LED 3 steady white		85% of click torque reached
Tightening completed successfully	All Progress LEDs blink off		100% of click torque reached
Tightening result	All Progress LEDs steady green + Projection LED steady green	+	Result OK
Tightening result	All Progress LEDs blinking red + Projection LED steady red	+	Result Not OK Possible causes according to tightening strategy: ■ Max torque exceeded. ■ Max Angle exceeded. ■ Time out. ■ Accidental loosening. ■ Wrong location. ■ Rehit. ■ Fast tightening. ■ Torque drop.

Relevant Information

 Errors and Warnings LED Indicators [9]

Errors and Warnings LED Indicators

The MTRwrench 85 **Error/Warning LED** indicator, together with the **Progress LEDs**, notifies the operator on detected errors or damages.

LED indicators		Diagnosis	Corrective actions
Warning LED blinking red		Minor transducer overload (120 to 150% of nominal torque)	Place the wrench into the cradle to perform a zero adjustment.
Progress LEDs all blinking red + Warning LED steady red		Wrench locked due to major transducer overload (>150% of nominal torque)	Stop running tightening operations and contact Atlas Copco Customer Service.
Progress LEDs blinking white + Warning LED blinking red		Zero adjustment failed due to wrench moving or to load being applied to the transducer.	Remove the wrench and place it again into the cradle to start a new zero adjustment.
Progress LEDs steady red + Warning LED blinking red		Zero adjustment failed due to wrench moving or to load being applied to the transducer for a second time during the zero adjustment.	Remove the wrench and place it again into the cradle to start a new zero adjustment.

LED indicators		Diagnosis	Corrective actions
Progress LEDs off + Warning LED blinking red		Calibration or mechanical service required.	Send wrench to service

Relevant Information

📄 Performing a Zero Adjustment [21]

Environmental Conditions

Indoor use only	
Altitude	Up to 2000 m
Ambient temperature range	+5 to +40 °C (+41 to +104 °F)
Maximum relative humidity 80 % for temperatures up to 31 °C decreasing linearly to 50 % relative humidity at 40 °C	

Product Data

Operating torque measuring range	17 [N·m] - 85 [N·m] / 12.5 [lb·ft] - 62.7 [lb·ft]
Drive	9 x12 mm
Overall length	212 mm
Weight	496 g
Operating torque range	from 20% to 100% of the capacity
Mechanical click repeatability	± 3%
Torque measurement accuracy	± 3%
Overload capacity	150 % of nominal capacity
Maximum angular speed	250 °/s
Angle measurement accuracy	± 3.6 ° / 360 ° (at 6 ° per second)
Temperature stability of torque measurement	+10 °C to +40 °C (10 °F to 104 °F)
Tightening results memory capacity	10000 (maximum)
Power supply	Rechargeable NiMH AA battery 1900mAh 1.2V
Radio distance	Up to 20 m
	This distance can be influenced by various factor:
	■ Antenna characteristics: placement of the MTR-KIT antennas can affect range.
	■ Environmental conditions: weather, terrain, obstacles, metal parts, can impact signal strength and range.
	■ Interference: other electronic devices and signals can cause interference, reducing the effective range

Dimensions
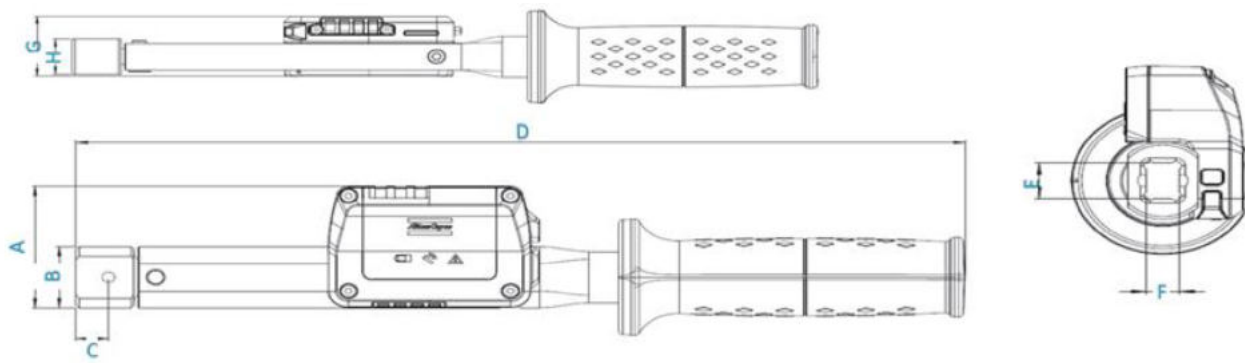
A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]
52.5	⌀ 26.3	11.2	307.1	12	9	32.2	19

Radio Module Frequencies

ℹ️ Refer to the local Regulatory Domain for frequency selection.

Europe

Number	Channel	Frequency [MHz]	Data rate [bit/s]
1	51	868.044	19200
2	52	868.088	19200
3	53	868.132	19200
4	54	868.176	19200
5	55	868.221	19200
6	56	868.265	19200
7	57	868.309	19200
8	58	868.353	19200
9	59	868.397	19200
10	60	868.442	19200
11	61	868.486	19200
12	62	868.530	19200
13	63	868.744	19200
14	64	868.788	19200
15	65	868.832	19200
16	66	868.876	19200
17	67	868.921	19200
18	68	868.965	19200
19	69	869.009	19200
20	70	869.053	19200
21	71	869.097	19200
22	72	869.142	19200
23	73	869.444	19200
24	74	869.488	19200
25	75	869.532	19200

USA, CANADA

Number	Channel	Frequency [MHz]	Data rate [bit/s]
1	1	902.132	19200
2	2	902.176	19200
3	3	902.220	19200
4	4	902.264	19200
5	5	902.308	19200
6	6	902.352	19200
7	7	902.396	19200
8	8	902.440	19200
9	9	902.484	19200
10	10	902.528	19200
11	11	902.572	19200
12	12	902.616	19200
13	13	902.660	19200
14	14	902.704	19200
15	15	902.748	19200
16	16	902.792	19200
17	17	902.836	19200
18	18	902.880	19200
19	19	902.924	19200
20	20	902.968	19200
21	21	903.012	19200
22	22	903.056	19200
23	23	903.100	19200
24	24	903.144	19200
25	25	903.188	19200
26	26	903.232	19200
27	27	903.276	19200
28	28	903.320	19200
29	29	903.364	19200
30	30	903.408	19200
31	31	903.452	19200
32	32	903.496	19200
33	33	903.540	19200
34	34	903.584	19200
35	35	903.628	19200
36	36	903.672	19200
37	37	903.716	19200
38	38	903.760	19200
39	39	903.804	19200
40	40	903.848	19200
41	41	903.892	19200
42	42	903.936	19200
43	43	903.980	19200
44	44	904.024	19200
45	45	904.068	19200
46	46	904.112	19200

Number	Channel	Frequency [MHz]	Data rate [bit/s]
47	47	904.156	19200
48	48	904.200	19200
101	101	922.552	19200
102	102	922.681	19200
103	103	922.810	19200
104	104	922.939	19200
105	105	923.068	19200
106	106	923.198	19200
107	107	923.327	19200
108	108	923.456	19200
109	109	922.600	19200
110	110	922.800	19200
111	111	923.000	19200
112	112	923.200	19200
113	113	923.400	19200
114	114	923.600	19200
115	115	923.800	19200
116	116	924.000	19200
117	117	924.200	19200
118	118	924.400	19200
119	119	924.600	19200
120	120	924.800	19200
121	121	925.000	19200
122	122	925.200	19200
123	123	925.400	19200
124	124	925.600	19200
125	125	925.800	19200
126	126	926.000	19200
127	127	926.200	19200
128	128	926.400	19200
129	129	926.600	19200
130	130	926.800	19200
131	131	927.000	19200
132	132	927.200	19200
133	133	927.400	19200
134	134	921.390	19200
135	135	921.519	19200
136	136	921.648	19200
137	137	921.777	19200
138	138	921.906	19200
139	139	922.036	19200
140	140	922.165	19200
141	141	922.294	19200
142	142	922.423	19200
143	143	922.552	19200
144	144	922.681	19200
145	145	922.810	19200
146	146	922.939	19200

Number	Channel	Frequency [MHz]	Data rate [bit/s]
147	147	923.068	19200
148	148	923.198	19200
149	149	923.327	19200
150	150	923.456	19200
151	151	922.600	19200
152	152	922.800	19200
153	153	923.000	19200
154	154	923.200	19200
155	155	923.400	19200
156	156	923.600	19200
157	157	923.800	19200
158	158	924.000	19200
159	159	924.200	19200
160	160	924.400	19200
161	161	924.600	19200
162	162	924.800	19200
163	163	925.000	19200
164	164	925.200	19200
165	165	925.400	19200
166	166	925.600	19200
167	167	925.800	19200
168	168	926.000	19200
169	169	926.200	19200
170	170	926.400	19200
171	171	926.600	19200
172	172	926.800	19200
173	173	927.000	19200
174	174	927.200	19200
175	175	927.400	19200

For initial applications MTRwrench uses a sub-band ranging from channel 1 to 48.

2.4 GHz band channels

Number	Channel	Frequency [MHz]
2011	11	2405
2012	12	2410
2013	13	2415
2014	14	2420
2015	15	2425
2016	16	2430
2017	17	2435
2018	18	2440
2019	19	2445
2020	20	2450
2021	21	2455
2022	22	2460
2023	23	2465

Number	Channel	Frequency [MHz]
2024	24	2470
2025	25	2475
2026	26	2480

Accessories

Compatible Battery

A rechargeable NiMH AA battery (1900 mAh, 1.2 V) provides power to the MTRwrench 85.

ℹ️ The tool is compatible with above mentioned rechargeable batteries.

It is recommended to use the rechargeable batteries with part number **4027 0048 20**.

⚠️ **WARNING Never try to recharge non-rechargeable batteries! Non-rechargeable batteries may leak when charging. They can explode and cause risk of fire and injuries.**

Relevant Information

📄 Turning On the Wrench [20]

📄 Turning Off the Wrench [20]

End-Fitting Tools

The MTRwrench 85 has a standard drive (9 x12 mm) compatible with different types of end-fitting tools.

To calculate the actual torque applied to a joint when using a specific end-fitting tool, when you configure the tightening program on Power Focus 6000/Power Focus 8 enter the end-fitting tool length - measured as shown in the picture below - in the *Tool size* field of the **MWR tightening step**.

A	*Tool size* value to enter in the **MWR tightening step** on Power Focus 6000/Power Focus 8.

For more information on how to configure tightening programs, refer to *Power Focus 6000 User Guide* or to *Power Focus 8 User Guide* according to the controller in use.

Installation

Initial Configuration

Adjusting the Click-Torque

1. Insert and push an MTRwrench setting key into the end of the MTRwrench 85 handle.

   ℹ️ Part number of MTRwrench setting key: *8439004834*.

2. Rotate the MTRwrench setting key clockwise to increase the click-torque, or counterclockwise to decrease the click-torque.

ℹ️ The torque range is indicated on the wrench's label.
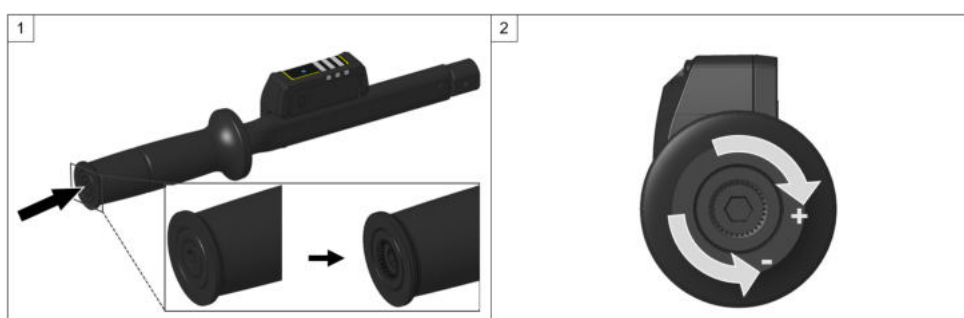
Connecting the Wrench to MWR-KIT

For information on how to enable and manage the connection between MTRwrench 85 and MWR-KIT, refer to *MWR-KIT Product Instructions*.

Operation

Configuration Instructions

Configuring Tightening Programs

The MTRwrench 85 tightening programs are configured and managed via Power Focus 6000 or via Power Focus 8.

To communicate with Power Focus and receive tightening programs, the MTRwrench 85 must first be linked to an MWR-KIT that is connected to the Power Focus.

If during operations the MTRwrench 85 goes out of radio range, the wrench keeps working with the last tightening program assigned by the Power Focus and can store up to 10000 results. Once the MTRwrench 85 is within radio range again, the Power Focus retrieves the collected results and communicates to the wrench potential changes applied to the assigned tightening program during the out-of-range period.

ⓘ For more information on how to enable and manage the communication among the devices, refer to *MWR-KIT Product Instructions*.

    For more information on how to configure tightening programs, refer to *Power Focus 6000 User Guide* or to *Power Focus 8 User Guide* according to the controller in use.

Tightening Strategies

This section provides an overview of the tightening strategies that are available to configure tightening programs to operate the MTRwrench 85.

For more information on how to configure tightening programs, refer to *Power Focus 6000 User Guide* or to *Power Focus 8 User Guide* according to the controller in use.

Torque Control Strategy

The Torque Control Strategy guides the operator in reaching the desired target torque, without any angle reading.

The main parameters that define this strategy are the following:

Parameter	Description
*Click torque**	Torque target value.
Tightening Program start	Torque value from which the tightening operation starts. Must be ≥ MTRwrench 85 *Min torque* value.
Minimum Torque	Lower torque limit value.
Maximum Torque	Higher torque limit value.

ⓘ Parameters with an asterisk are mandatory.
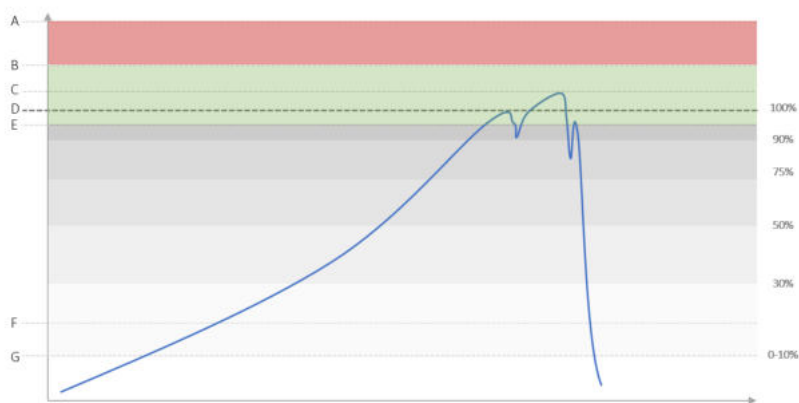
Torque vs. Angle

A	Change screw	E	Minimum Torque
B	Maximum Torque	F	Trigger torque
C	Final Torque	G	Tightening Program Start
D	Click Torque		

A result is OK if the Click Torque is within the upper and lower torque limit values defined for the selected tightening program.

For more information on how to configure tightening programs, refer to *Power Focus 6000 User Guide* or to *Power Focus 8 User Guide* according to the controller in use.

Relevant Information

📄 Tightening Operations LED Indicators [8]

Torque Control / Angle Monitor Strategy

The Torque Control / Angle Monitor Strategy guides the operator in reaching the desired target torque while monitoring the angle.

The main parameters that define this strategy are the following:

Parameter	Description
Tightening Program start	Torque value from which the tightening operation starts. Must be ≥ MTRwrench 85 *Min torque* value.
Minimum Torque	Lower torque limit value.
Maximum Torque	Higher torque limit value.
Click torque*	Torque target value.
Trigger torque	Torque value from which the angle measurement starts.
Minimum Angle*	Lower angle limit value.
Maximum Angle*	Higher angle limit value.

ℹ️ Parameters with an asterisk are mandatory.
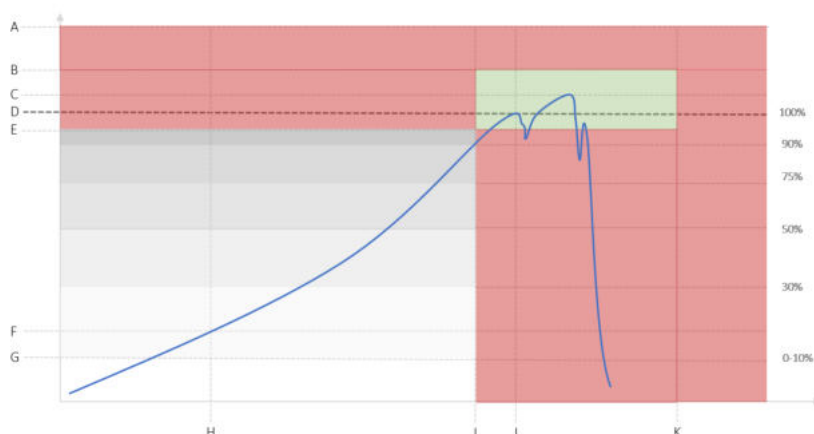
Torque vs. Angle

A	Change screw	G	Tightening Program start
B	Maximum torque	H	Angle measurement start (at Trigger Torque)
C	Final torque	I	Minimum Angle
D	Click Torque	J	Angle at Click Point
E	Minimum Torque	K	Maximum Angle
F	Trigger Torque		

A result is OK if:

- the Click Torque is within the upper and lower torque limit values defined for the selected tightening program,

and

- the Angle at Click Point is within the upper and lower angle limit values defined for the selected tightening program.

For more information on how to configure tightening programs, refer to *Power Focus 6000 User Guide* or to *Power Focus 8 User Guide* according to the controller in use.

Operating Instructions

Ergonomic Guidelines

Consider your workstation as you read through this list of general ergonomic guidelines to identify areas for improvement in posture, component placement, or work environment.

- Take frequent breaks and change work positions frequently.
- Adapt the workstation area to your needs and the work task.
  - Adjust for a convenient reach range by determining where parts and tools need to be located to avoid static load.
  - Use workstation equipment such as tables and chairs appropriate for the work task.
- Avoid work positions above shoulder level or with static holding during assembly operations.
  - When working above shoulder level, reduce the load on the static muscles by lowering the weight of the tool, using for example torque arms, hose reels or weight balancers. You can also reduce the load on the static muscles by holding the tool close to the body.
  - Take frequent breaks.
  - Avoid extreme arm or wrist postures, particularly during operations requiring a degree of force.
- Adjust for a convenient field of vision that requires minimal eye and head movements.
- Use appropriate lighting for the work task.
- Select the appropriate tool for the work task.

- In noisy environments, use ear protection equipment.
- Use high-quality inserted tools and consumables to minimize exposure to excessive levels of vibration.
- Minimize exposure to reaction forces.
  - When cutting:

    A cut-off wheel can get stuck if the cut-off wheel is bent or not guided properly. Use the correct flange for the cut-off wheel and avoid bending the cut-off wheel during operation.
  - When drilling:

    The drill might stall when the drill bit breaks through. Use support handles if the stall torque is high. The safety standard ISO11148 part 3 recommends using a device to absorb a reaction torque above 10 Nm for pistol grip tools and 4 Nm for straight tools.
  - When using direct-driven screwdrivers or nutrunners:

    Reaction forces depend on the tool settings and joint characteristics. Strength and posture determine the amount of reaction force that an operator can tolerate. Adapt the torque setting to the operator's strength and posture and use a torque arm or reaction bar if the torque is too high.
- In dusty environments, use a dust extraction system or wear a mouth protection mask.

Turning On the Wrench

1. On the back of the MTRwrench 85 HMI, pull back the locking lever on the battery housing's door and open the door.
2. Insert the battery into its housing.

   ℹ Make sure that the lace edge is visible to make removal easier.

3. Close the battery housing's door.

   ℹ Make sure that the edge of the lace is still inside.

Once the MTRwrench 85 is on, the **Progress LEDs** on the HMI start blinking with white light to notify that the MTRwrench 85 requires a zero adjustment.

The **Radio Communication LED** on the HMI starts blinking to notify the MTRwrench 85 wireless communication is on.

Relevant Information

🖹 Performing a Zero Adjustment [21]

Turning Off the Wrench

1. On the back of the MTRwrench 85 HMI, pull back the locking lever on the battery housing's door and open the door.
2. Remove the battery from its housing by pulling the edge of the lace.

3. Close the battery housing's door.

   ℹ Make sure that the edge of the lace still inside.

Performing a Zero Adjustment

A zero adjustment is required in the following situations:

- After turning on the MTRwrench 85.
- After a minor overload of the transducer.

To perform a zero adjustment, proceed as follows:

1. Place the MTRwrench 85 into the cradle.

   Release the wrench and do not touch it again until the zero adjustment is complete.
2. During the zero adjustment, the **Progress LEDs** turn on and off in sequence as shown in the picture below:
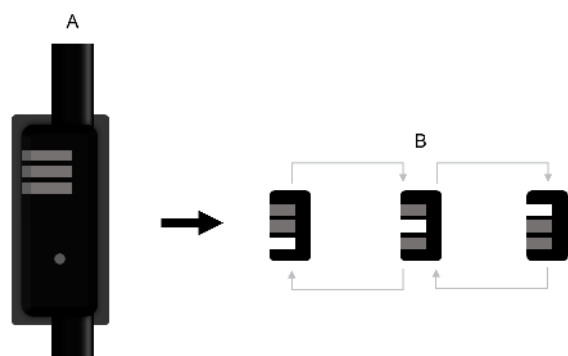
A	Top view of the wrench inside the cradle.	B	Representation of the **Progress LEDs** behavior during the zero adjustment.

If the zero adjustment is successful, the **Progress LEDs** turn off.

Relevant Information

- 📄 Zero Adjustment LED Indicators [8]
- 📄 Errors and Warnings LED Indicators [9]

Handling the Wrench

Correct handling:

- ■ Tighten in even strokes.
- ■ Hold the MTRwrench 85 by the middle of the handle when performing a tightening.
- ■ Apply force only in the tightening direction.
- ■ The force applied to the wrench must be one-handed, uniform, parallel and applied with no interruptions until the tool clicks.
- ■ Keep a tightening speed that enables you to immediately stop tightening as soon as the MTRwrench 85 clicks.

Wrong handling:

- ■ Do not apply any force to the wrench after the automatic release (click).
- ■ Do not apply force to the wrench in any direction that is not the tightening direction.
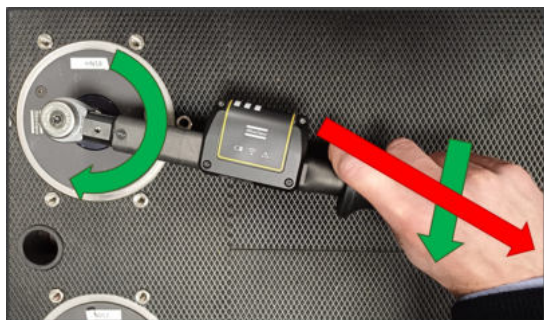
- ■ Do not touch the body of the MTRwrench 85 during tightening operations. Positioning the thumb on the tube alters the click value!

- ■ Do not hold the battery housing of the MTRwrench 85 during tightening operations.
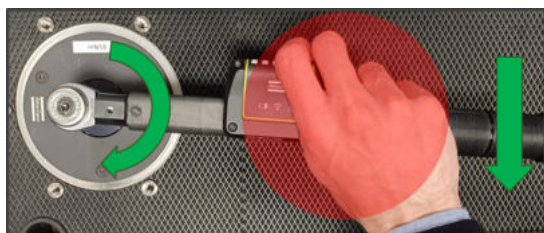
Running Tightening Operations

1. Connect the MTRwrench 85 to the Power Focus 6000/Power Focus 8 via MWR-KIT.

2. On the Power Focus, configure a tightening program and assign the task to the MTRwrench 85.

   When the MTRwrench 85 receives the task and the wrench is ready for use, the **Job Ready LED** on the HMI turns on ●.

3. Attach the required end-fitting tool to the wrench and perform the tightening.
   The **Job Ready LED** turns off ● when the tightening is in progress.

4. As soon as the MTRwrench 85 reaches the click-point, release the wrench.

ℹ The MTRwrench 85 can store up to 10000 results. If the wrench is turned off, or if it goes out of radio range, the results can be retrieved by the Power Focus once the MTRwrench 85 is on again, or once it is again within radio range.

Relevant Information

📄 Tightening Operations LED Indicators [8]

Service

Maintenance Instructions

Service Recommendations

Preventive maintenance is recommended at regular intervals. See the detailed information on preventive maintenance. If the product is not working properly, take it out of service and inspect it.

If no detailed information about preventive maintenance is included, follow these general guidelines:

- Clean appropriate parts accurately
- Replace any defective or worn parts

Cleaning

Keep the MTRwrench 85 clean.

After use, remove any traces of oil and grease from the MTRwrench 85 with a soft cloth and a soft surface cleaner for oil/grease. Do not use aggressive or abrasive cleaner.

Use an anti-static cleaning cloth in order to remove dust from the MTRwrench 85.

Avoid using harsh detergents to clean the MTRwrench 85.

Clean the contact of the MTRwrench 85 by using an electrical contact cleaner solution.
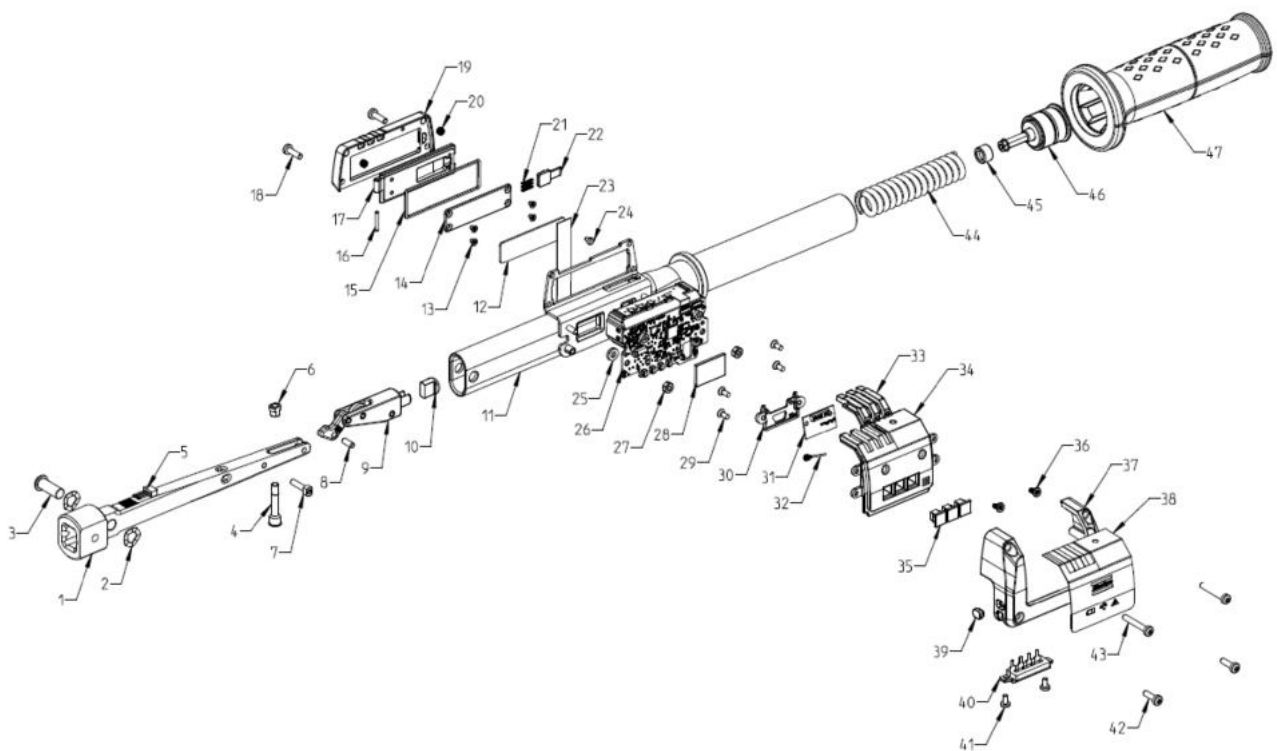
Recycling

Environmental Regulations

When a product has served its purpose it has to be recycled properly. Dismantle the product and recycle the components in accordance with local legislation.

Batteries shall be taken care of by your national battery recovery organization.

Recycling Instructions

Pos.	Part	Recycle as
1	Transducer	Mixed waste
2	Washer	Copper
3	Pin	Steel
4	Pin	Steel
5	Cable	WEEE
6	Nut	Steel
7	Screw	Steel
8	Pin	Steel
9	Kinematic Chain	Steel
10	Spacer	Plastic

Pos.	Part	Recycle as
11	Tube	Steel
12	Tape	Steel
13	Screw	Steel
14	Panel	Steel
15	Gasket	Rubber
16	Pin	Steel
17	Door	Steel
18	Screw	Steel
19	Cover	Aluminum
20	Helicoil	Steel
21	Spring	Steel
22	Button	Steel
23	Tape	Plastic
24	Screw	Steel
25	Spacer	Steel
26	Electronic Board 1	Mixed Waste
27	Washer	Steel
28	Shield	Steel
29	Screw	Steel
30	Electronic Support	Plastic
31	Electronic Board 2	WEEE
32	Cable	WEEE
33	Light Guide	Plastic
34	Cover	Plastic
35	Light Guide	Plastic
36	Screw	Steel
37	Cover	Aluminum
38	Lable	Plastic
39	Light Guide	Plastic
40	Connector	WEEE
41	Screw	Steel
42	Screw	Steel
43	Screw	Steel
44	Spring	Steel
45	Spacer	Plastic
46	Regulation System	Steel
47	Handle	Plastic

Original instructions

Atlas Copco Industrial Technique AB
SE-10523 STOCKHOLM
Sweden
Telephone: +46 8 743 95 00
www.atlascopco.com