

SUPERIOR BOLTING SOLUTIONS



EIP *SERIES* ELECTRIC WRENCHES



TITAN
SUPERIOR BOLTING SOLUTIONS

Contents

A	Initial Control/Packaging	3
B	General Description	3
	Chapter 1: Safety Hints	5
1.1	Operators Responsibilities	5
1.2	Due Application	5
	Chapter 2: Service	5
2.1	Placing Tool in Service	6
	Chapter 3: Electrical Operation	8
3.1	EFC / EIP / EFC/L	8
3.2	EHS / EHRA / EFR / EF-SG	10
3.3	EHS <i>plus</i> / EHRA <i>plus</i>	11
3.3.1	Primary Operation Uni	11
3.4	EFC <i>plus</i> , EIP <i>plus</i>	11
3.5	Secondary Operation Unit: EHS <i>plus</i> , EFW <i>plus</i> , EFC <i>plus</i> , EIP <i>plus</i>	12
3.5.1	Bolting Programs -Standard	12
3.5.2	Adjustment of Programs: EHS <i>plus</i> , EHRA <i>plus</i> , EFC <i>plus</i> , EIP <i>plus</i>	13
3.5.3	LC-Display	17
	Chapter 4: Mechanical Operation	18
4.1	Tightening and Loosening: EHS, EHRA, EFC, EFC/L, EIP	18
4.2	Tightening and Loosening EFR / EHS-SG	19
4.3	Finishing/-interrupting Operation	20
	Chapter 5: Noise and Vibrations	21
	Chapter 6: Working Test	21
6.1	Visual- and Mechanical Check	21
6.2	Meeting the Deadline	21
	Chapter 7: Maintenance/Service	21
7.1	Replacement of Accessories	21
7.2	Maintenance Periods	22
7.3	Operational Hints	22
	Chapter 8: Technical Hints	
	Safety shut off upon high Temperature of Motor	22
	Chapter 9: Putting the Tool out of Operation	22
	Appendix	22
	Replacing the Power Supply Plug	23
	Explanations Warning Symbols/Notes	24



A. Initial Control and Packaging



IMPORTANT!

Visually inspect all components for shipping damage. If any damage is found, notify the carrier immediately. All returns must be in original packaging in order to avoid damage to the Titan-EF-Torque Wrench. Retain packaging.

B. General Description of the Electrical Titan® - Torque Wrenches

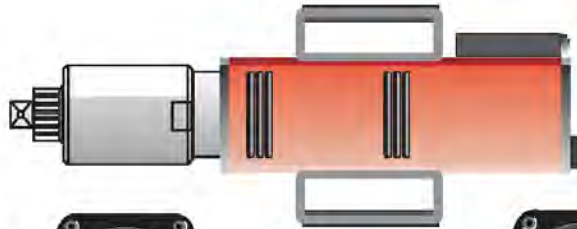
Operation via an electric- and frequency controlled brush-free synchronized motor. High mounting speed. Reduction of shut-off speed when reaching required torque. Exact shut-off and large torque range. Suitable for all international electric networks.



TYPE EFC/EIP/EFC/L



TYPE EIPplus/EFCplus



TYPE EHS



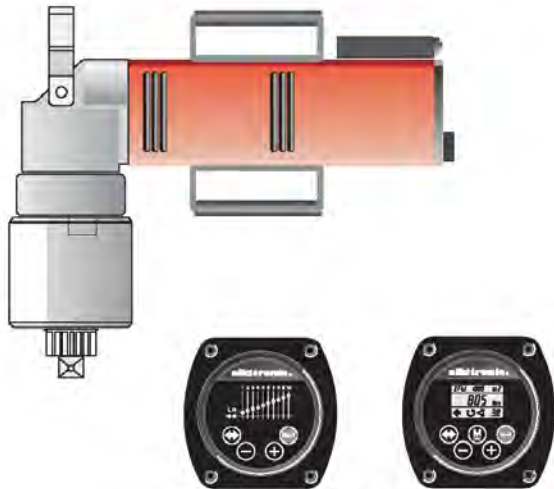
TYPE EHSplus

Titan® - EHSCompact Torque Wrench

Torques up to approx. 3,700 Ft-lb (Type EFC/L 1,700 Nm), CW/CCW-direction and tap operation. Required torque exactly obtainable within a wide torque range. Rigid or any positioning desired of the operation unit. TYPE **EFCplus** additionally with computer controlled, presetable bolting programs. Display: LC-Display.

Titan® - EF Torque Wrench

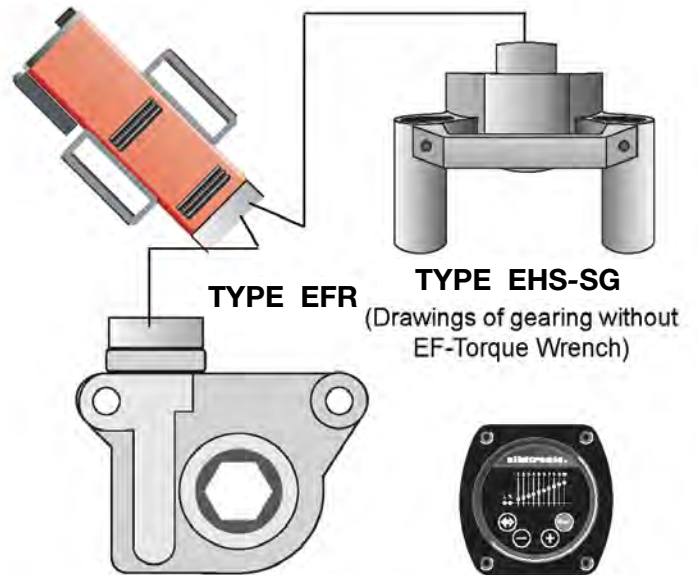
Torques up to approx. 31,000 Ft-lb, CW/CCW-direction and tap operation. Required torque exactly obtainable within a wide torque range. TYPE **EHSplus** though computer controlled, presetable bolting programs. Display: LCD.



TYPE EHRA and TYPE EHRAplus

Titan® - EHRA Angle Torque Wrench

... for applications in narrow spaces. Torques up to approx. 31.000 Ft-lb, CW/CCW-direction and tap operation, any positioning of service unit due to free joint execution; easy handling via carrying handle located in the centre of gravity. Also available as **EHSplus** version.



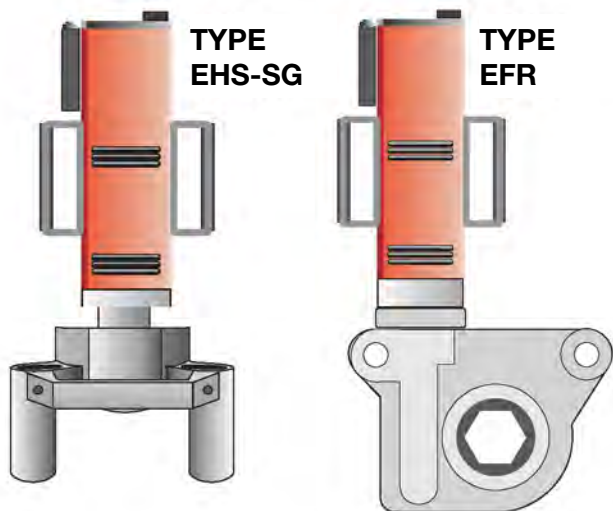
TYPE EFR

TYPE EHS-SG

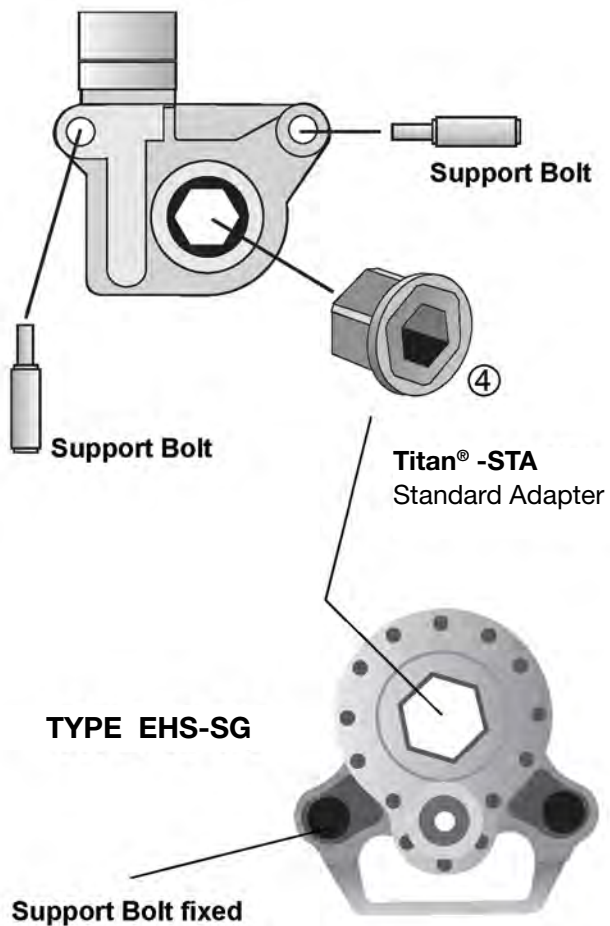
(Drawings of gearing without EF-Torque Wrench)

TYPE EEHRA and TYPE EHRAplus Titan® - EFR Radial Torque Wrench and EHS-SG,

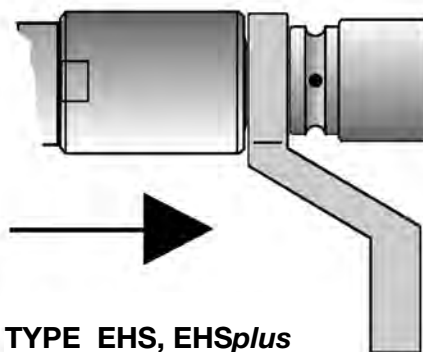
Torque Wrenches with lateral gearing ...for applications of protruding screw ends i.e. heat exchanger plates. EFR: Torques up to approx. 2.700 Ft-lb (higher torque ranges upon request) EHS-SG (80): Torques up to approx. 3.000 Ft-lb CW/CCW-direction and tap operation.



For reduction of the spanner widths
Titan® -STA (4)

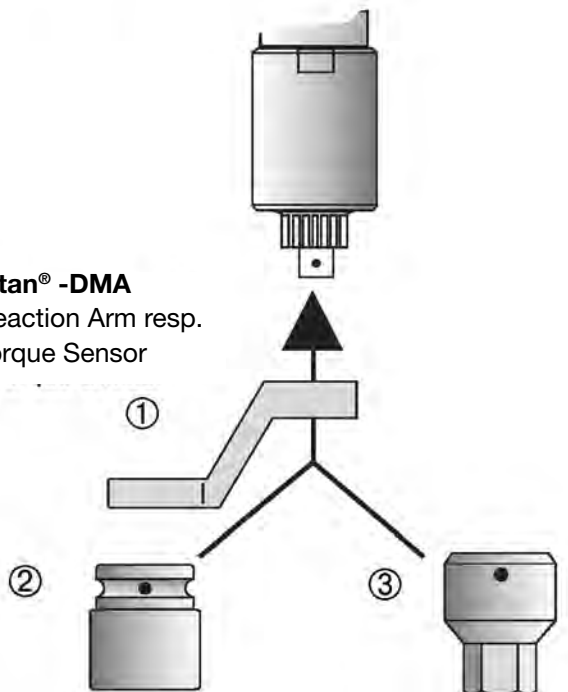


Original accessories for your special joint:
**Titan® -DMA (1), Titan® -STACO (2),
Titan® -STABI (3)**



**TYPE EHS, EHSplus
EHRA, EHRAplus
EFC, EFC/L, EFCplus**

Titan® -DMA
Reaction Arm resp.
Torque Sensor



Titan® -STACO
Standard Nut

Titan® -STABI
Standard Connector

Titan® - EHS -Torque Wrench

EHS / EHSplus / EHRA / EHRAplus / EFC/L / EFC / EFCplus / EIP / EIPplus / EFR / EHS-SG

1. Safety Hints

1.1 Operators Responsibilities

The Titan® -Torque Wrench must not be operated or serviced unless the operator has read the Operation Manual and fully understands it. The equipment must not be operated or serviced unless the operator fully understands the purpose, consequences and procedures of each step.

1.2 Due Application



Titan® -Torque Wrenches are designed for continuously tightening and loosening of heavy duty screw connections. It is not suited for operations with mixing or drilling machines. This can damage the tool and/or injure the operator. External mechanical forces -like the use as a crowbar- must not be exerted on the equipment (risk of deformation). For other applications not mentioned herein please consult the manufacturer.

2. Service

IMPORTANT

The Titan® -Torque Wrenches are rated for a voltage from 100 to 253 Volt with a frequency from 45 to 66 Hz. Nominal sensitivity is max. 2 kW.

WARNING!



Please observe local laws and regulations when using the tool – the Titan® -EHS-Torque Wrench is not for use in explosive environments or in the presence of combustible materials (gas, varnish, fertilizer, gas stations etc.) Compare motor nameplate against power availability to prevent motor burnout or dangerous electrical overloading. Make sure that the plugs and cords are secure before operating. When using the tool outdoors be sure to use the properly gauged exterior power cord. The Titan® -EHS-Torque Wrench must not be used in wet areas. Depending on the working area and how the tool is used, local health and safety regulations may require you to wear protective gear (e.g. ear protection, safety shoes, protective glasses, protective helmet etc.). In case external forces are exerted on the equipment non-compliance with these regulations may result in major injuries (e.g. electric shocks, bruises, head injuries due to moving parts). Titan® - EHS-Torque Wrench

IMPORTANT!



Should the Titan® -EHS-Torque Wrenches be often used in rain or/and in damp areas, we recommend to use our Titan® -EHS-Torque Wrench with Protection Class "IP 54".





Operating Instructions

2.1 Placing Tool in Service

Titan-EHS, EFC, EFC/L, EHRA, EHSplus, EHRAplus and EFCplus.

WARNING!

Beware of high hydraulic pressure components.



Prepare your Titan® -Torque Wrench for your specific bolting application, before you connect the plug! Double check that the standard sockets or any adapter are correctly fitted and undamaged. Never use damaged parts under any circumstances. Use original Titan® - spare parts and accessories only. Replacement of the power supply plug due to nationally different power supplies resp. plug connections, must be performed according to the Technical Order "Power/Power Supply Plug" (see Appendix).

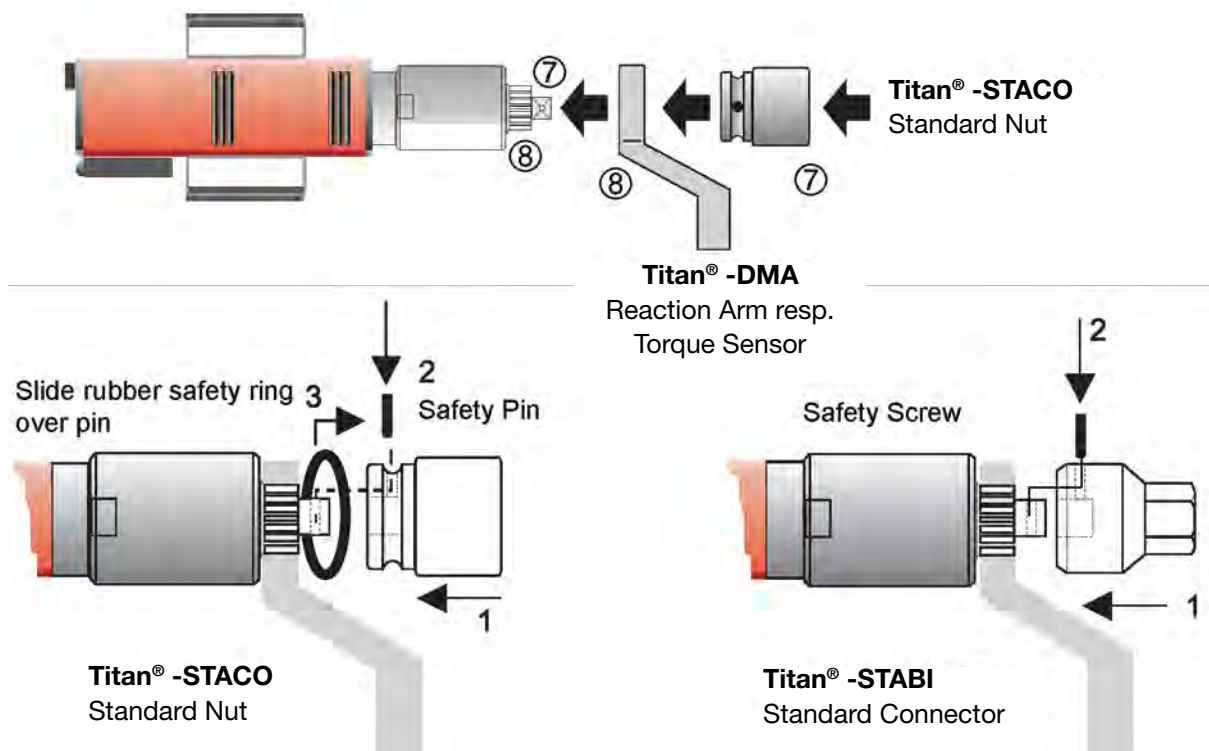
IMPORTANT!



To tighten or loosen hard/soft joints, specific torque take ups or adapters are needed in accordance with a specific bolting application (available as accessories, see Appendix). Standard nuts/-adapters are placed on the square drive and secured. Replacement also see Chapter Service, Paragraph 6.1.

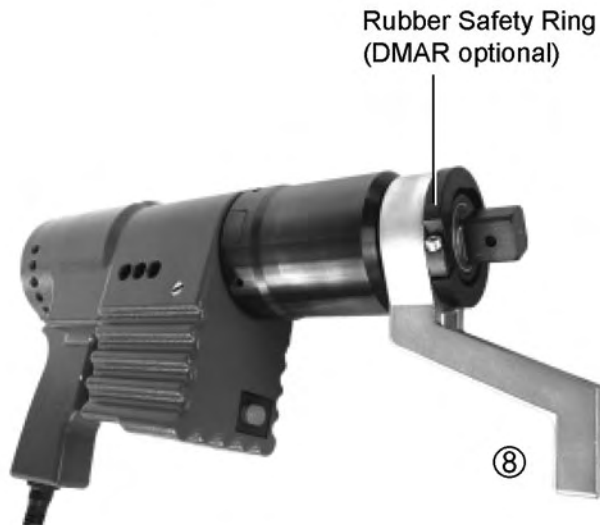
Preparation for the Bolting:

- Place the Titan® - Torque Wrench on a flat surface
- Insert support arm/reaction arm onto toothing (8) Either secure with optional Rubber Safety Ring or with a special DMA (Safety screw is integrated), see Drwg. DMA-Examples with Titan® -EFC
- Place standard nut/-connector on square drive (7)



EF.... -Torque Wrenches

DMA-Examples



Preparation for the Screwing (3)

Two principles of construction within one tool:

A - free joint tool-/service unit independent of position of torque pick-up DMA.

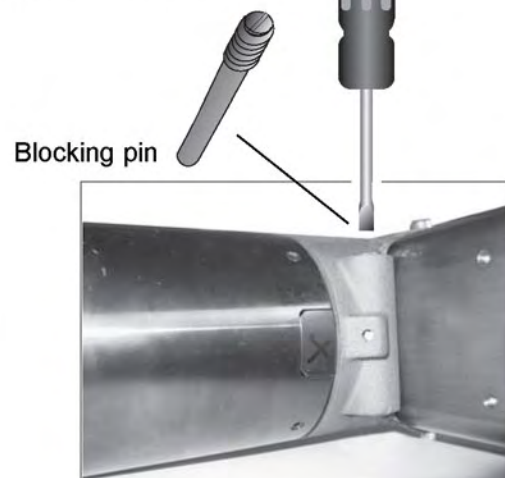
B - fixed joint between motor-/service unit and power gear - mechanically reversible (rigid connection).



screw in blocking pin ----->
remove blocking pin ----->
Example: alkitronic-EHRA

power gear is fixed (rigid)
power gear is turnable

Locking with blocking pin
(rigid connection)

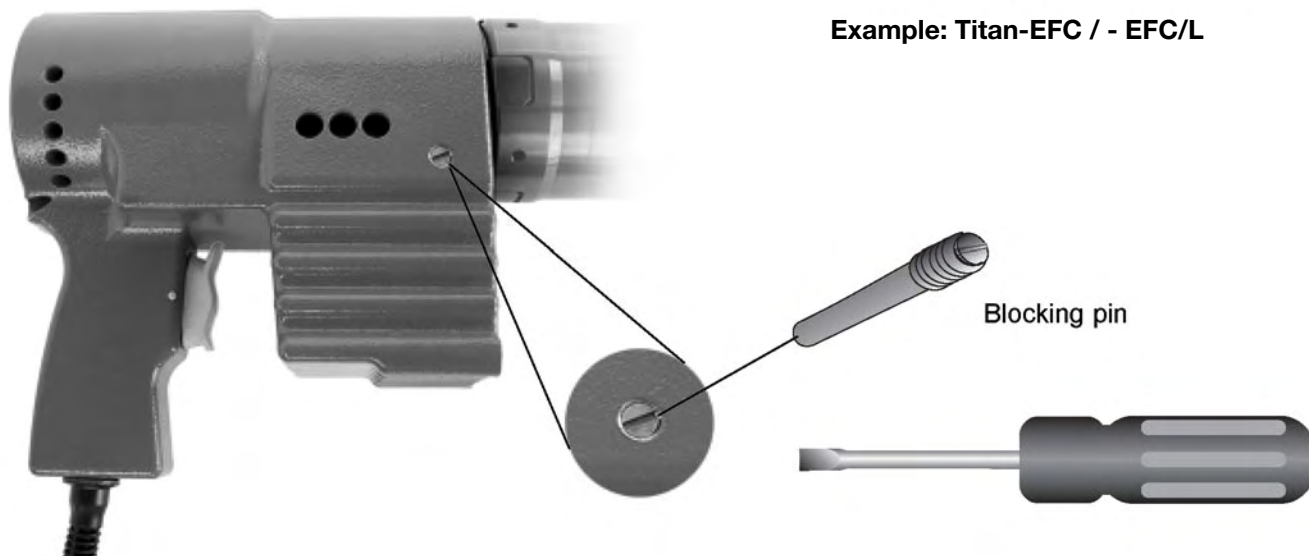




Operating Instructions

Adjustment of Operation Unit "swivelling or rigid"

Example: Titan-EFC / - EFC/L



Two principles of construction within one tool:

- A - free joint tool-/service unit due to loosening (and removal) of locking screw, independent of position of torque pick-up DMA.
- B - fixed joint between motor-/service unit and power gear due to tightening of the locking screw.

3. Electrical Operation

3.1 Electrical Operation of the Titan-EFC / EIP / EFC/L

Primary Operation Unit



Primary Operation Unit

Light-emitting button (1) - Switching On/Off of tool, which means Connection/Separation with/from power supply
Operation of tool with four-edge operation button (2)

Action point below:

CW-direction - tap operation In case the rocker button is pressed down continuously the torque wrench changes over to standard operation (when releasing the rocker button the tool stops)

Action point above:

CCW-direction - tap operation In case the rocker button is pressed down continuously the torque wrench changes over to standard operation (when releasing the rocker button the tool stops)

Tool shuts off precisely when reaching the required torque.

ATTENTION!

Before starting trigger lock for continuous operation.



The electronics of the tool store rotation which has been carried out last. e.g. key for CW-direction is activated - sense of rotation is automatically pre-set to right direction when starting trigger lock for continuous operation etc.. Corresponding LED (3) is flashing in Secondary Operation Unit (B) and displays sense of rotation. If you wish to change sense of rotation press key CW/CCW pre-set (4) or briefly press corresponding key (tap for CW/CCW-operation). Then start trigger lock for continuous operation.

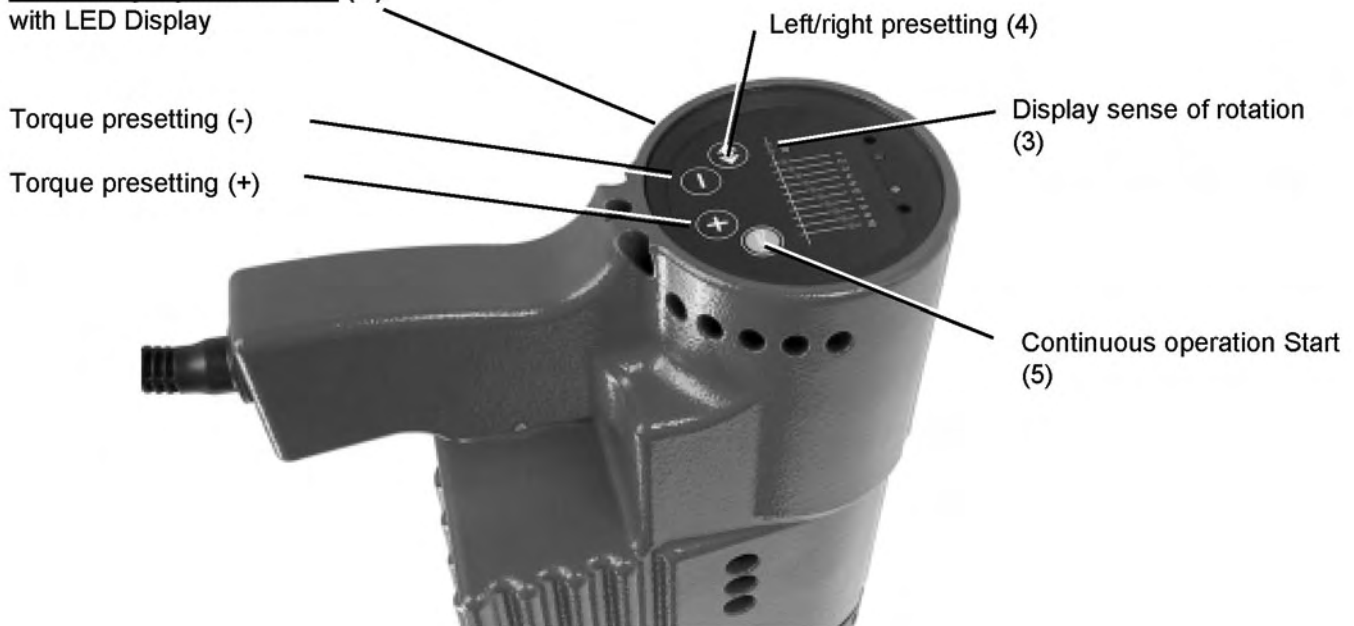
Information: Pressing any button during trigger lock for continuous operation, will stop bolting process.



Secondary Operation Unit (B)

1. Presetting of desired torque limit-value via keys (+ / -)
Steps 1-10 (one LED is flashing) and 9 intermediate stages (two LEDs are flashing) are selected.
The figures 1-10 correspond with the Ft-lb values according to the torque chart. Intermediate values are to be taken from the flow chart.
2. Display of sense of rotation (3) and CCW-/CW presetting (Change Over Button 4)
3. Trigger lock for continuous operation starts via the "Start" Button (5).

Secondary Operation Unit (B) with LED Display



3.2 Electric Operation of the Titan-EHS / EHRA / EFR / EHS-SG

Primary Operation Unit (A)

Generally comprises:

1. Switching On/Off of tool, i.e. Connection/Separation with/from power supply (1)
2. Operation of tool during Mounting/Dismounting
 - Tap for CW operation (tool stops when releasing the button)
 - Tap for CCW operation (tool stops when releasing the button)
 - Start/Stop (when pressing the button the tool changes to trigger lock for continuous operation, pressing the button anew the tool stops - continuous operation is being stopped)

When reaching pre-set torque tool shuts off precisely.

ATTENTION!

Before starting trigger lock for continuous operation.



The electronic of the tool stores rotation which has been carried out last. e.g. key for CW-direction is activated - sense of rotation is automatically pre-set to right direction when starting trigger lock for continuous operation etc.. Corresponding LED (3) is flashing in Secondary Operation Unit (B) and displays sense of rotation. If you wish to change sense of rotation press key CW/CCW pre-set (4) or briefly press corresponding key (tap for CW/CCW-operation).

Then start trigger lock for continuous operation.

Information: Pressing any button during trigger lock for continuous operation, will stop bolting process.

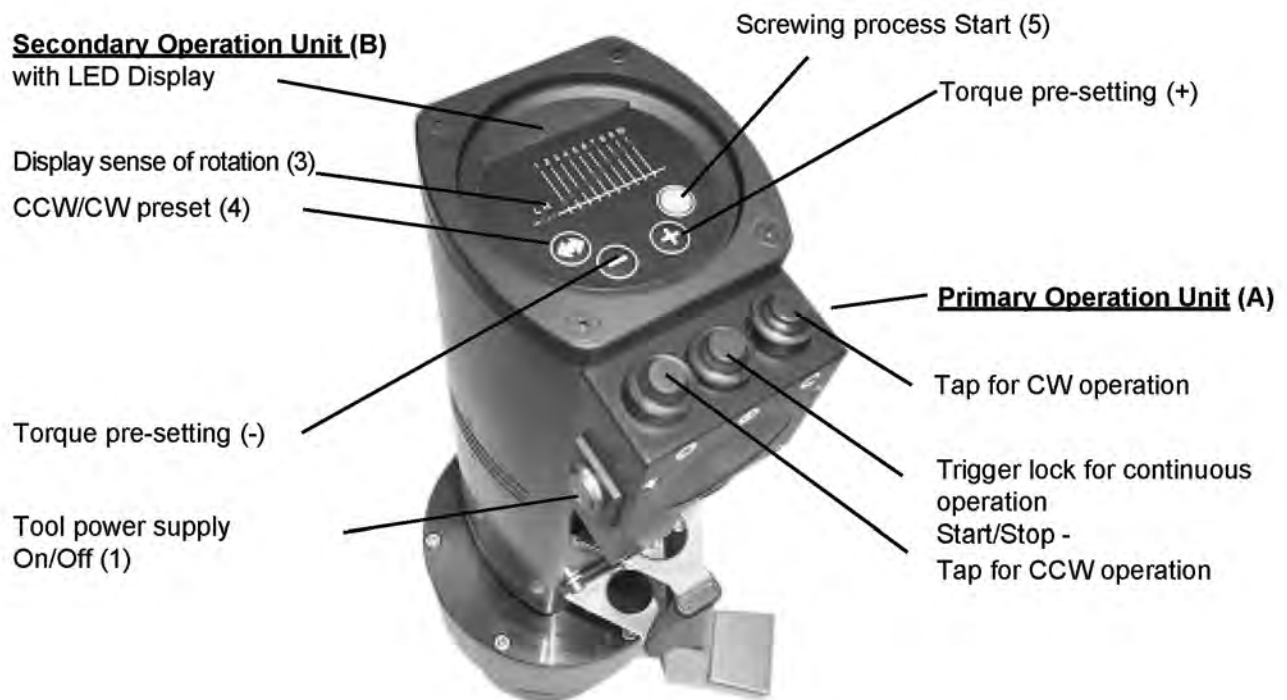


Secondary Operation Unit (B)

1. Presetting of desired torque limit-value via keys (+ / -)
Steps 1-10 (one LED is flashing) and 9 intermediate stages (two LEDs are flashing) are selected.
The figures 1-10 correspond with the Ft-lb values according to the torque chart. Intermediate values are to be taken from the flow chart.
2. Display of sense of rotation (3) and CCW-/CW presetting (Change Over Button 4)
3. Trigger lock for continuous operation starts via the "Start" Button (5)**



****NOTE! We recommend to use the Start Button of the Primary Operation Unit (A) when Mounting- or Dismounting.**



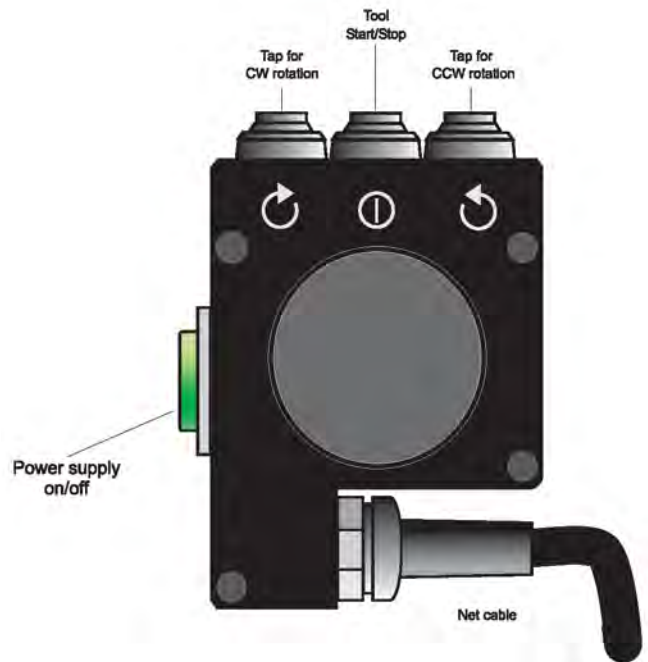
Secondary Operation Unit (B)

3.3. Electric Operation of the Titan-EHSplus and EHRAplus

3.3.1 Primary Operation Unit

Generally comprises:

1. 1. Switching On/Off of tool, i.e. connection/separation with/from power supply (1)
2. 2. Operation of tool while mounting/dismounting:
 - Tap for CW-rotation (tool stops when releasing the button)
 - Tool Start (pressing the button tool changes to trigger lock for continuous operation according to pre-set mode - Previously check sense of rotation in Secondary Operation Unit!).
 When reaching pre-set torque or finishing-angle tortion, tool shuts off precisely.
3. 3. Bolting process is being stopped by pressing any button during trigger lock for continuo operation.





Primary Operation Unit

Light-emitting button (1) - Switching On/Off of tool, which means Connection/Separation with/from power supply
Operation of tool with four-edge operation button (2)

Action point below:

CW-direction - tap operation

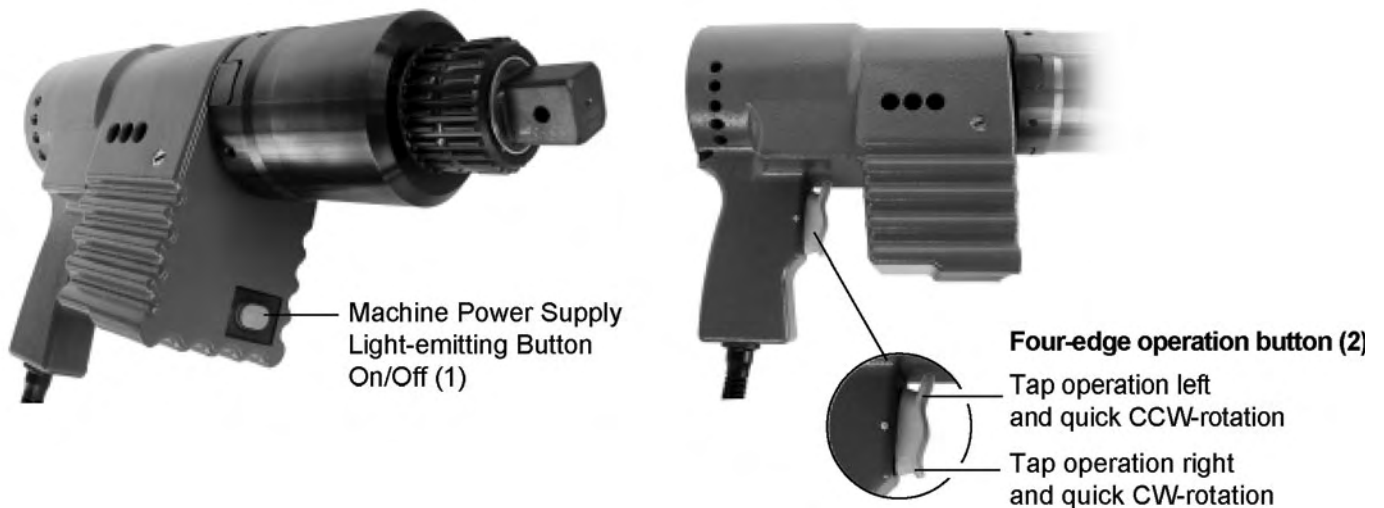
In case the rocker button is pressed down continuously the torque wrench changes over to standard operation (when releasing the rocker button the tool stops)

Action point above:

CCW-direction - tap operation

In case the rocker button is pressed down continuously the torque wrench changes over to standard operation (when releasing the rocker button the tool stops)

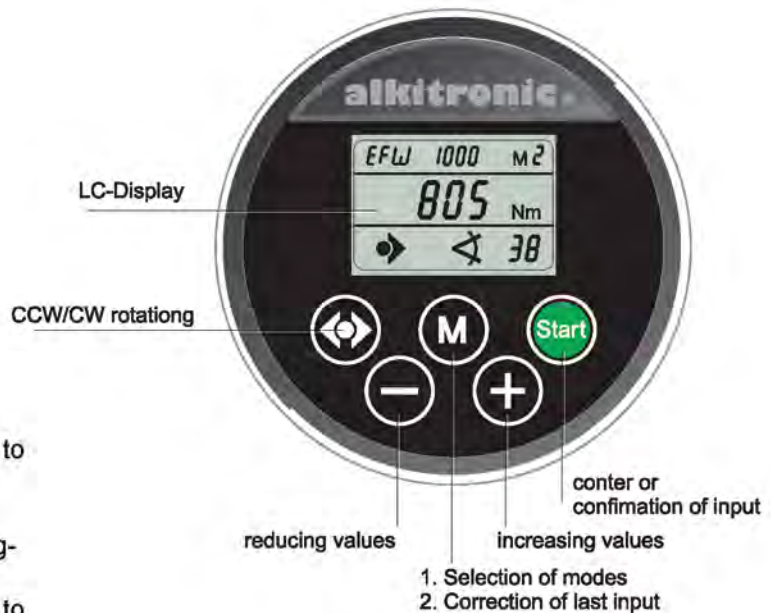
Tool shuts off precisely when reaching the required torque.



Operating Instructions

3.5 Secondary Operation Unit of the Titan-EHSplus, EHRAplus, EFCplus, EIPplus

For adjustment of operation data resp. programs



3.5.1 Bolting - Programs - Standard

Mode	Description
M 1	Tightening with torque Option: automatic loosening according to pre-settable angle degrees*
M 2	Tightening with pre-torque and finishing-angle tortion Option: automatic loosening according to pre-settable angle degrees*

Mode	Important operational steps
M 1	Enter sense of rotation, nominal torque, Enter released angle
M 2	Enter sense of rotation, pre-torque and finishing-angle tortion Enter released angle

* Attention: Releasing only serves to "run free" the DMA (Torque Sensor) not for loosening the screw or nut

Optional Programs

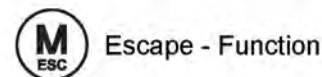
Mode	Description
M 3	Tightening with angle degrees
M 4	Tightening with rotations

Mode	Important operational steps
M 3	Enter sense of rotation and angle degrees
M 4	Enter sense of rotation and rotations

Selection of mode by pressing:



Cancellation of last input by pressing:



Important:
Each operational step has to be confirmed by pressing:



Values or functional symbols are flashing continuously until confirmation is carried out



EF.... -Torque Wrenches

3.5.2 Adjustment of Programs Titan-EHSplus, EHRAplus, EFCplus, EIPplus

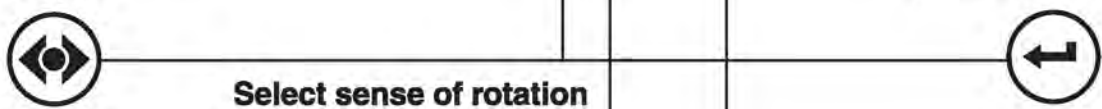
Adjustment Mode 1

Tightening with torque. With/without automatic release

Step 1



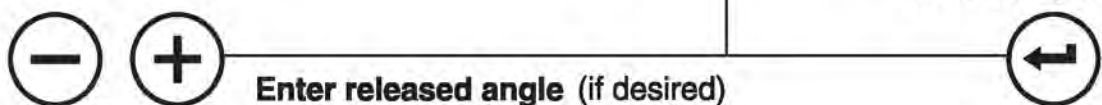
Step 2



Step 3



Step 4



IMPORTANT!IMPORTANT!

No automatic release:
Set angle to zero

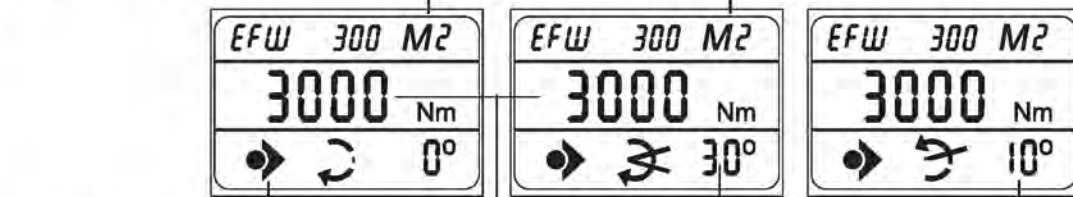


Tool ready to start

Adjustment Mode 2

Tightening with pre-set torque and finishing-angle tortion. With/without automatic release

Step 1



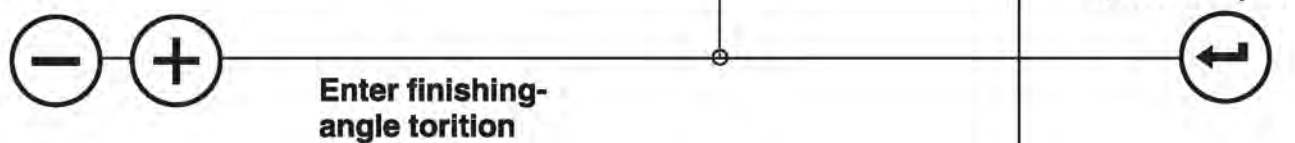
Step 2



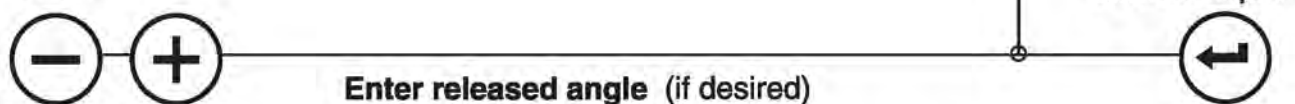
Step 3



Step 4



Step 5



**No automatic release:
Set angle to zero**



IMPORTANT!

When entering pre torque the torque range is restricted (approx. 50 %) of the torque due to tightening with finishing-angle tortion

Tool ready to start

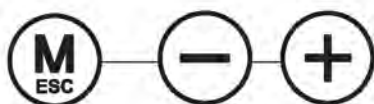


Adjustment Mode 3

Tightening with pre-set angle degrees.

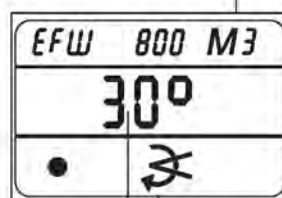
☐ **Optional**

Step 1



Selection M 3

Confirm input



Step 2



Select sense of rotation

Confirm input



Step 3



Enter angle degrees

Confirm input



Tool ready to start

IMPORTANT!

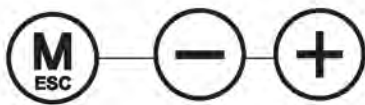
Tightening with max. torque - low speed

Adjustment Mode 4

Tightening with pre-set rotations

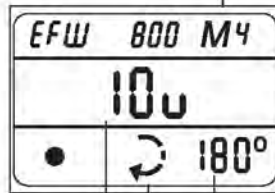
☐ **Optional**

Step 1



Selection M 4

Confirm input



Example shows
10 1/2 rotations

(10 Rotations + 180 ° Degrees Celcius)

Step 2



Select sense of rotation

Confirm input



Step 3

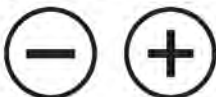


Enter incomplete
rotations in degrees
Celcius

Confirm input



Step 4



Enter complete rotations

Confirm input



Tool ready to start

IMPORTANT!

Tool operates with max. torque, manual regulation is not provided.
An internal electronic motor protection is standard.

Recommendation!

With the remote control FBE you may read the display up to a distance of 16 ft.

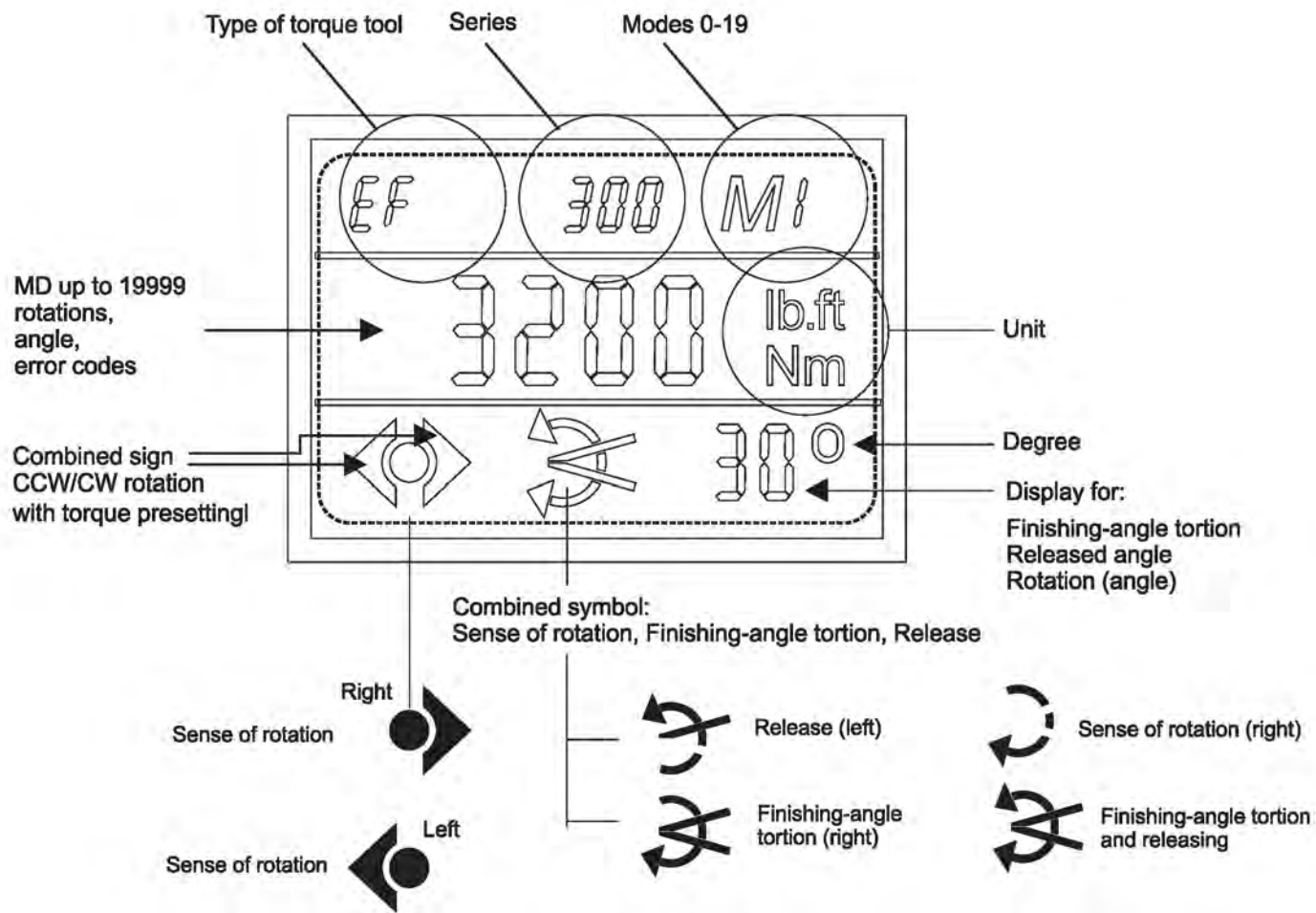
IMPORTANT for operation as a Spindle Torque range!

Display of rotations during operation:
Generally rotations are counted counter "0", which means always the remaining rotations are being displayed.
When operation is interrupted remaining rotations are also displayed.





3.5.3 LC-Display



4. Mechanical Operation

4.1 Tightening and Loosening (Titan-EHS, EHRA, EFC, EIP, EFC/L and “plus” Versions)



WARNING!

Be aware of rotating support arms or impact sockets. Keep clothing, hair or any loose objects clear of moving parts. Always wear proper protective clothing such as glasses, ear protection and gloves during tool operation.

Do not leave the Torque Wrench unattended while in operation. A safe distance of operation is approx. one arms length from the tool while in operation. Never place hand on support arm (DMA) while in operation.

Serious bodily injury can occur! Always place standard nut/-connector completely on screw/nut.

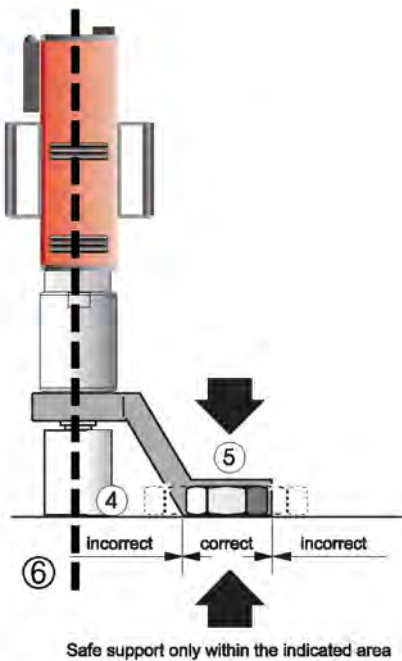
Faulty screw connections may lead to materials overload. Moving parts may cause bruises or serious bodily injury.



CAUTION!

Keep the Torque Wrench in a vertical position (6) to the wrench axis while bolting in order to avoid damage to socket and/or the application due to side loading (5).

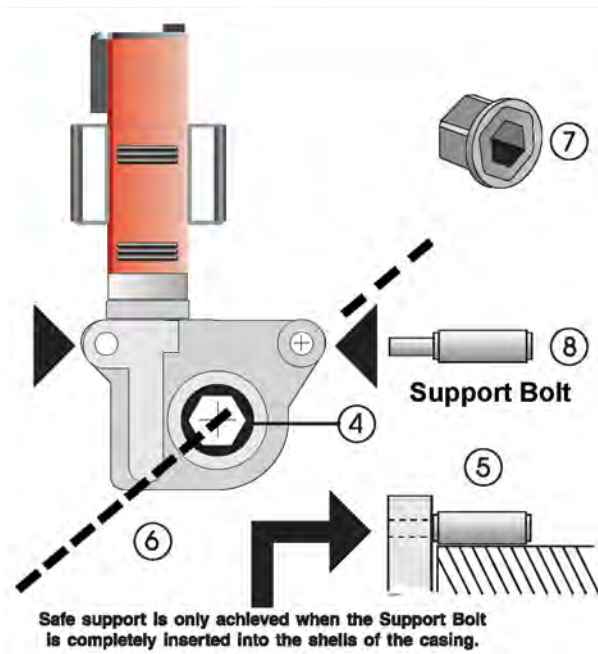
Tightening and loosening screw connection
procedures are as follows:



- place the Titan®- Torque Wrench with Standard nut/-connector completely on screw/nut
- support arm of the Titan® - EF-Torque Wrench must be placed on the same level as standard nut/-connector (4). Make sure a safe and stable counter mounting (5) is provided.
- keep the Titan®- Torque Wrench in a vertical position while bolting.
- the motor will stop upon reaching the preset torque
 - a) Counter Force = Motor Force!
 - b) Torque Reaction = Motor Torque
 - c) the pre-set torque has been reached
- torque direction can now be changed - switch on tool shortly until support arm is free - switch off motor. (This procedure is not necessary with the “AUTOMATIC Function” of the Titan® -EFplus / EFCplus)
- Remove tool, place it on next screw/nut - repeat bolting procedure.



4.2 Tightening and Loosening Titan® -EFR and Titan® -EHS-SG



Titan® - EFR (Drawing left side)

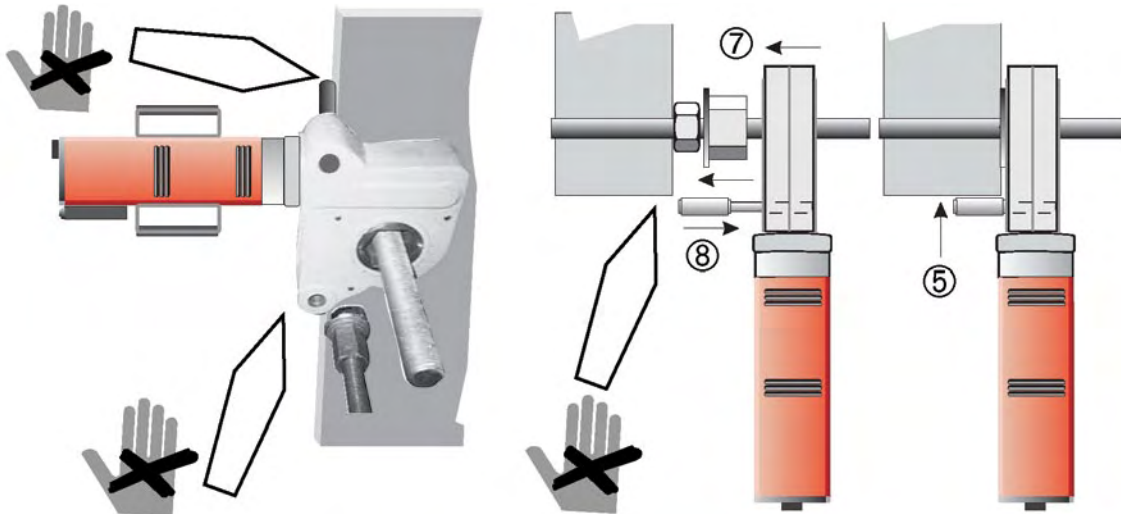


CAUTION!

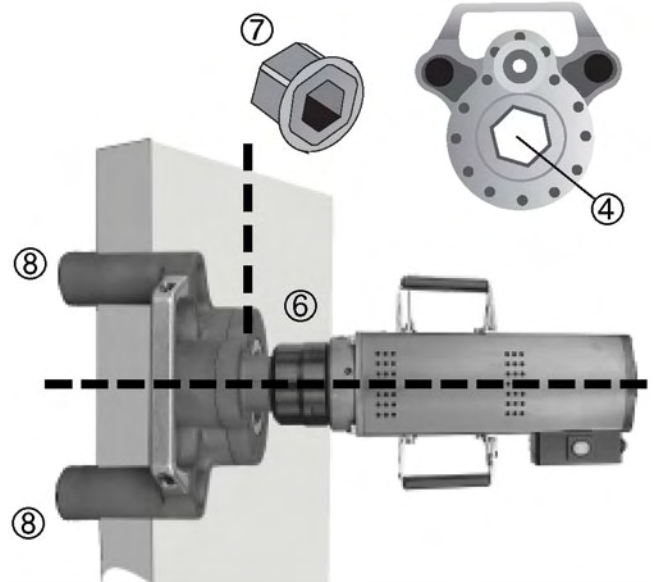
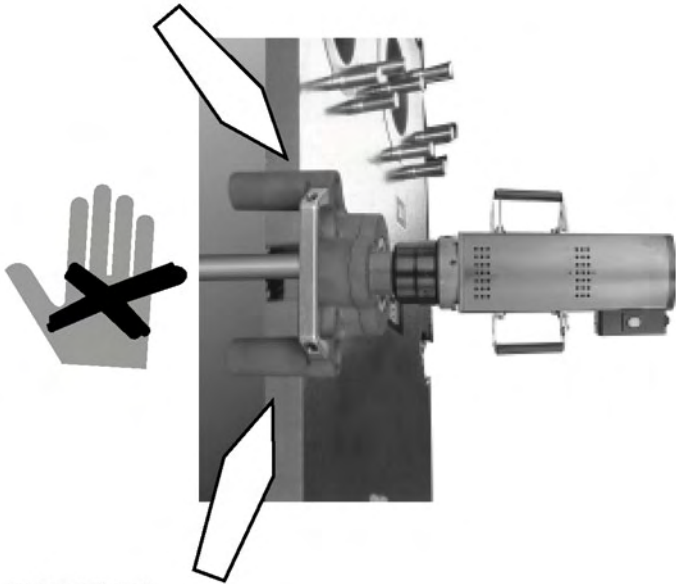
Insert the support bolt (8) completely in the housing bolts of the Titan® - EFR Torque Wrench in order to avoid damage.

For tightening and loosening screw connections follow the same instructions as stated with the Titan® - EHS Torque Tools. On the radial drive of the Titan® - EFR the torque wrench can be operated in a 90-degree angle due to the drive direction (6). The drive is carried out by a fixed socket size (4). The Titan® - STA is used to reduce the socket size (7). Torque support is done by a support bolt (8). Make sure to have a safe and stable support (5). (Also see Drawing below.)

Application Titan® - EFR

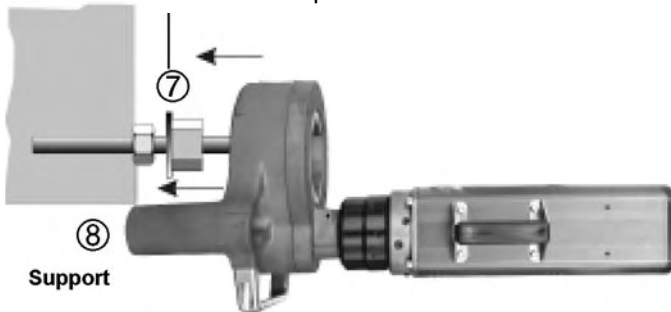


Titan® - EHS-SG

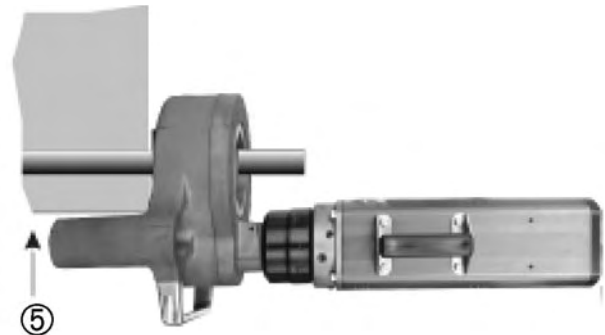


For tightening and loosening screw connections follow the same instructions as stated with the Titan® - Torque Tools. Place the Titan® - EHS-SG completely on nut and operate the tool perpendicular to screw axis (6). The drive is carried out by a fixed socket size (4). The Titan® - STA is used to reduce the socket size (7). Torque support is done by a support bolt (8). Make sure to have a safe and stable support (5). (Also see Drawing below.)

Titan® -STA
Standard Adapter



Application Titan® -EF-SG



4.3 Finishing or Interrupting Operation (also with Replacements)

When not in use, before maintenance and when replacing tools always disconnect the Titan® - EHS Torque Wrench from power supply.



WARNING!

Never carry the tool by the power cord. Always disconnect the cord by pulling at the plug. Protect cord from heat, oil and sharp edges to avoid accidental shock.



5. Noise and Vibration

Sound pressure level: measured in accordance with German Machinery-Noise-Information-Leaflet - 3.GSGV dated 18. January 1991, §1, paragraph 1e, at maximum equipment performance is just over 85 dB(A).

Please use ear protection in this case! In accordance with §1, paragraph 2 of the same leaflet, sound pressure levels were measured for different working cycles, with the sensor positioned at a distance of 1m to the geometric centre of the machine. Vibrations become moderate just prior reaching the pre-set torque.

6. Working Test6.1

Visual- and Mechanical Check



Check grounded cords and plugs, operational- and elements of display, housing and accessories, i.e. Support Arm (DMA) etc. regularly. Faulty parts must be replaced by authorized personnel only or return the tool in original packaging to your nearest Titan® - Partner or manufacturer. Particles of dirt within the hydraulic system may result in disturbances, faulty functions and break down of motor.

6.2 Meeting The Deadline

The following operational- and service requirements must strictly be adhered to.

7. Maintenance/Serviceing

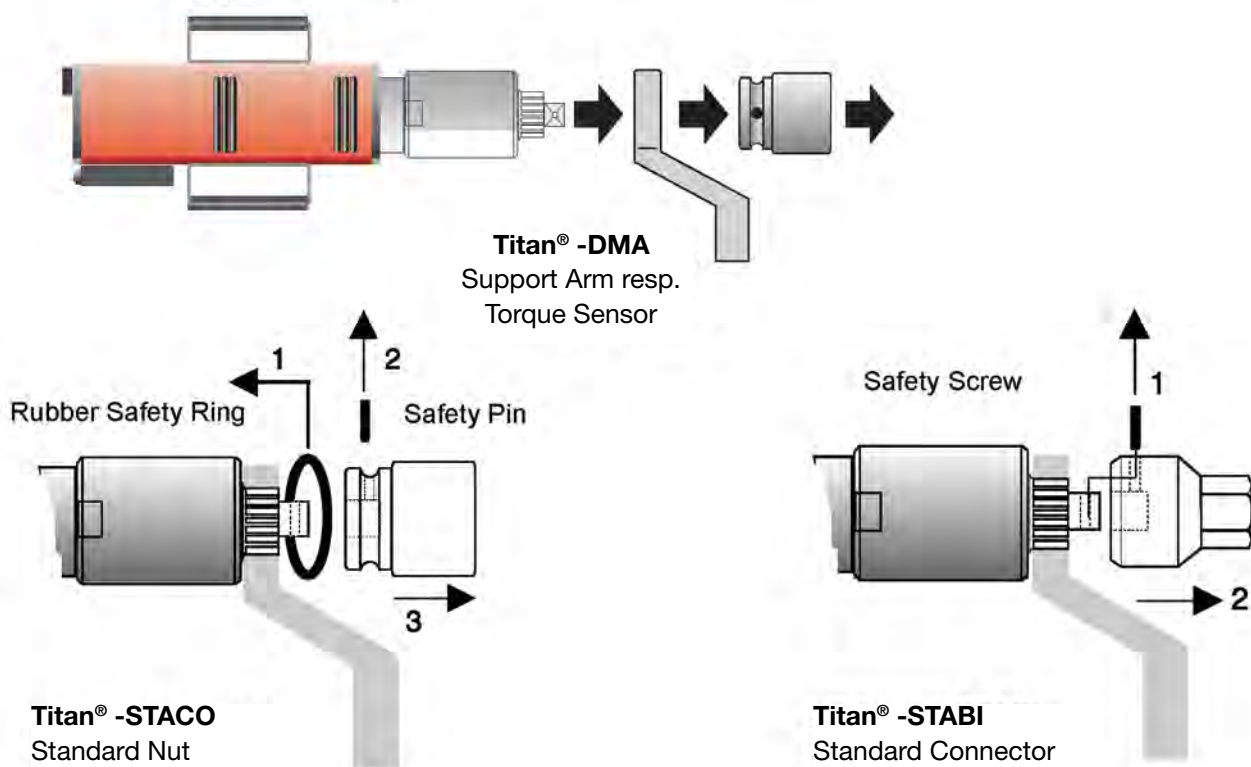
7.1 Replacement of Standard Nut/-Connector and Support Arm



CAUTION!

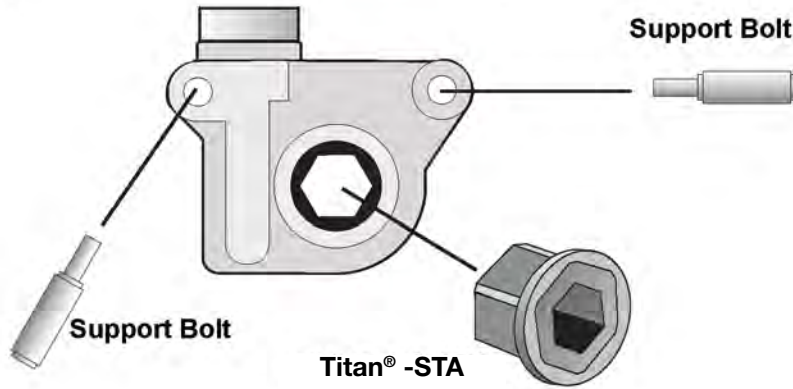
Never use a tool that has been damaged. Use original Titan® - parts only.

- Disconnect power cord from power source
- Place the Titan® -Torque Wrench on a flat surface
- Remove rubber ring and safety pin/bolt - standard nut
- Remove DMA, loosen securings if necessary
- Reverse operation for replacement





Replacement of the Titan® -STA (Standard Adapter) and the Support Bolt Type EFR



CAUTION!

Properly insert support bolt and/or standard adapter to avoid damage.

7.2 Maintenance Periods



NOTE!

To guarantee long life and proper power output of your Titan® -Torque Wrench have the tool inspected and maintained regularly (Power-Check, Motor-Check, Safety-Check).

Maintenance Periods:

Have the tool inspected once a year or after a maximum of 1.000 operational hours.

Always send the tool in the original packaging to your nearest Titan® -Partner or manufacturer.

Maintenance Periods

Have the tool inspected once a year or after a maximum of 1.000 operational hours.

Always send the tool in the original packaging to your nearest Titan® -Partner or manufacturer.

7.3 Operational Hints



Note!

We recommend you to send in the machine within the very first hours of operation (approx. 25) for a single recalibration.

IMPORTANT!



Please note that accuracy of the tool is +/- 5% when used at the correct operating time, corresponding voltage (100-253 V / 45-66 Hz) and nominal sensitivity (2 kW).

In case of degrading performance or other apparent damage immediately send the Titan® -Torque Wrench back to your Titan® - Partner or manufacturer in original packaging.

8. Technical Hints

IMPORTANT!



For safety reasons and in order to avoid a rise in temperature an automatic switch off of temperature is integrated in all types of the Titan® - EHS / EFC / EFC/L-Torque Wrenches. In case the tool has turned off due to high temperature (all light-emitting diodes on operation desk are flashing), do not switch off power supply otherwise the cooling ventilation is out of operation! The tool is ready for use again after a short period of cooling (LEDs have stopped flashing).

9. Putting the Tool out of Operation

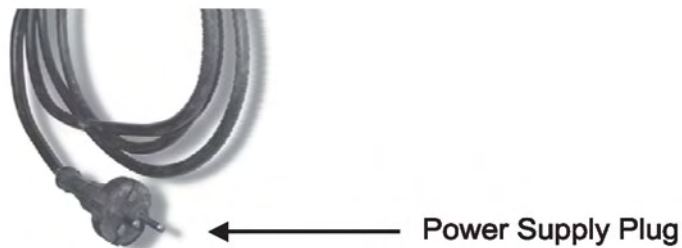
When not in use keep your Titan® - Torque Wrench in a dry, secure place out of reach of children. Swivelling parts have to be conserved against oxidation

10. Appendix

- Technical Details (Flow Chart)
- Technical Order (Replacement of Power Supply Plug) - Page 23
- Accessories: e. g.: Standard Adapter STA, Standard Connector STABl, Torque Sensor DMA, Standard Nut STACO etc.
- Explanations of Conformity, EU-Standards, CE etc.



Replacing the power supply plug of the Titan-torque tools



ATTENTION

Replacement of plug must be performed by authorized, factory trained personnel



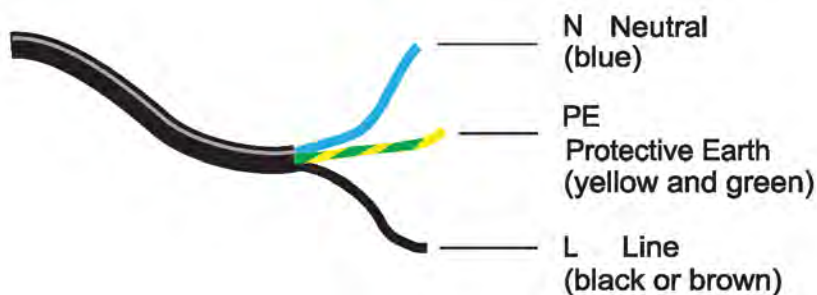
Proceed as follows:

1. Disconnect tool from power supply
2. Cut off plug from cable



ATTENTION - Important Informations

All Titan torque tools are equipped with a 3-wired grounded cord
Please mind that the newly connection of the plug is carried out expertly
The Titan EF Torque Tools are equipped with a metallic housing which has to be earthed



ATTENTION

After connecting the plug please check electrical safety of the tool.
Incorrect connection may lead to deadly injuries due to electric shock.

TECHNICAL ORDER

Technical details are subject to be changed

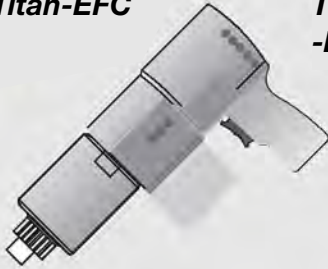
Titan-EFCip



**Titan-EFC
-EIP / -EFC/L**



Titan-EFC



**Titan-EFCplus
-EIPplus**



EHS-Torque Wrenches Types: EHS... to EHS-SG

Adresse - Kunde/Customer address
Adresse du client/Dirección del cliente

Type:

Series:

Delivery Date:

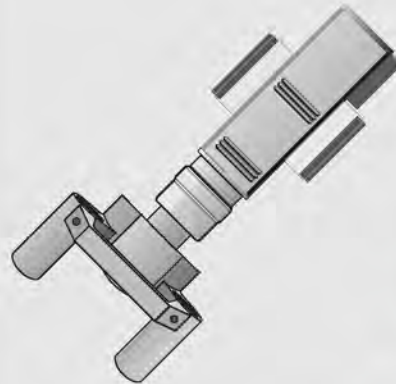
Titan-EHS



Titan-EHSplus



Titan-EHS-SG



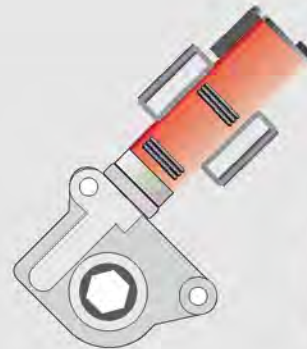
Titan-EHRA



Titan-EHRAplus



Titan-EFR





Read this manual carefully before putting your Titan-Torque Wrench into operation. The Warning Hints (See Page 24) must strictly be adhered to.

**Titan® -EIP
degree of protection IP 54.**



Titan® -EIP / EIP...plus -
Compact shut off Torque Tool Series for torques from approx. 52 to 4600 Ft-lb.
High profitability due to problem-free operation upon any kind of weather - dampness or rain - no problem! The construction of the tool is rated for Protection Art IP 54!

Suitable for all international electric networks and electric generators (100-253V / 45-66Hz).

Integrated motor protection:
Titan®-EIP, -EIP...plus with automatic safety monitoring. Permanent operation at the upper limit of the tool is prevented by means of a temperature controlled safety function. Thus the motor is sustainably protected against damages in case of a possible overload.

9001 Jameel Rd. Suite 180 | Houston, TX 77040
Toll-Free + 1.866.345.8484 **Phone** + 1.281.449.9994 **Fax** + 1.281.449.9996

www. **TITAN**ti.com
1.866.345.8484



TITAN DEALER